

CAR BUILDER

SOLUTIONS

ISSUE 36



CARBUILDER.COM

TABLE OF CONTENTS QUICK LOOK

FOR DETAILED PRODUCT LOCATION SEE THE INDEX AT THE BACK

| | |
|-----|------------------------------|
| 3 | Brakes & Clutch |
| 22 | Rod Ends |
| 24 | Steering and UJs |
| 27 | Pillow Blocks |
| 28 | Boots & Gaiters |
| 29 | Steering Wheels |
| 37 | Oil Catch Tanks |
| 40 | Wash / Wipe |
| 47 | Fuel Hose & Clips |
| 52 | Fuel Pumps & Filters |
| 59 | Swirl Pots |
| 60 | Fuel Filler Hose |
| 61 | Fuel Caps |
| 70 | Exhaust & Silencers |
| 76 | Engine Cooling |
| 78 | Electric Water Pumps |
| 81 | Header Tanks |
| 82 | Expansion Tanks |
| 84 | Radiator Caps |
| 86 | Radiators |
| 87 | Cooling Fans and Thermostats |
| 92 | Coolant, Oil, Vacuum Hoses |
| 95 | Silicone Hose |
| 96 | Fuel Hose |
| 99 | Firesleeve Insulation |
| 103 | Aluminium Bends & Joiners |
| 105 | Hose Take-offs |
| 106 | Adapters, Joiners & Unions |
| 115 | Air Conditioning |
| 125 | Heating |
| 133 | Vents |
| 140 | Ducting & Air Flow |
| 147 | Air Filters |
| 148 | Warning Lights |
| 156 | Switches |
| 175 | Relays |
| 181 | Plugs & Sockets |
| 184 | High Tension |
| 185 | Battery Stuff |
| 190 | Modular Wiring System |
| 192 | Fuse Boxes |
| 198 | Busbars |
| 202 | Terminals |
| 208 | Wiring Tools |
| 211 | Wire & Cable |
| 216 | Sleeving |
| 219 | Wiring Module |
| 222 | Charging |
| 223 | Alternators |
| 224 | Dynamos |
| 224 | Horns |
| 227 | Dashcam, Parking Sensors |
| 229 | In Car Entertainment |
| 231 | Instruments and Senders |
| 238 | Headlamps & Driving Lamps |
| 255 | Indicators |
| 261 | Rear Lights |
| 288 | Rear Fog & Reverse |
| 291 | Rain Lights |
| 291 | Number Plate Lights |
| 294 | Interior Lights |
| 297 | Reflectors |
| 298 | Bulbs and Holders |

| | |
|-----|--------------------------------|
| 300 | Mirrors |
| 315 | Seat Belts |
| 319 | Seat Runners |
| 321 | Interior Parts |
| 323 | Gear Knobs |
| 324 | Accessories |
| 328 | Badge Bars |
| 329 | Number Plate Holders |
| 330 | Badges & Emblems |
| 333 | Tools - Drilling & Hole Making |
| 335 | Helicoil Kits |
| 336 | Taps & Dies |
| 338 | Measuring |
| 341 | Rivnut Tools |
| 343 | Riveting |
| 345 | Hand Tools |
| 351 | Brake Tools |
| 354 | Electrical Tools |
| 358 | Power Tools |
| 359 | Air Tools |
| 361 | Tyre pumps & Compressors |
| 362 | Painting Equipment |
| 363 | Charging |
| 364 | Diagnostics |
| 366 | Inspection Lamps |
| 367 | Paint |
| 372 | Underbody Protection |
| 374 | Lubricants |
| 376 | Adhesives, Sealants, Fillers |
| 380 | Car Care |
| 381 | Liqui Moly Products |
| 383 | E-Tech Products |
| 384 | Renovo Products |
| 385 | Flooring |
| £86 | Dynamat Products |
| 386 | Soundproofing & Insulation |
| 389 | Heatmat |
| 390 | Vinyl |
| 392 | Catches & Latches |
| 401 | Tube, Sheet, Mesh & Materials |
| 403 | Tapes |
| 405 | Cable Ties |
| 407 | Grommets |
| 408 | Hood & Trim Fixings |
| 410 | Hose Clips |
| 413 | P Clips |
| 415 | Hose Finishers |
| 416 | Nuts, Bolts & Washers |
| 420 | Rivets |
| 421 | Rivnuts |
| 423 | Quarter Turn Fasteners |
| 424 | DZUS Fasteners |
| 425 | Rubber Mounts |
| 427 | Control Cables |
| 430 | Workshop Packs |
| 439 | Trim |
| 446 | Bike Builder Solutions |
| 449 | Hints & Tips |
| 461 | Charts |
| 463 | Index |

- BRAKES
- STEERING & SUSPENSION
- OIL CATCH TANKS
- WASH - WIPE
- FUEL & CAPS
- EXHAUST
- COOLING & PLUMBING
- ADAPTERS & UNIONS
- AIR-CON & HEATING
- VENTS - AIRFLOW - FILTERS
- ELECTRICAL
- LIGHTING
- MIRRORS
- SEAT BELTS & RUNNERS
- INTERIOR - ACCESSORIES
- TOOLS
- PAINT - GLUE - CAR-CARE
- FLOORING & INSULATION
- CATCHES & LATCHES
- TUBE - SHEET - MESH
- TAPES - HARDWARE
- TRIM

MAIL ORDER POSTAGE & SHIPPING CONDITIONS PLEASE READ CAREFULLY

Orders received before 16:00 Monday to Friday are usually shipped the same day. Shipping options and costs are calculated mostly on size and weight, but some items cannot be sent via Royal Mail and/or may be subject to a courier surcharge. Standard Royal Mail services are uninsured and are not trackable while in transit. If you require trackable and insured shipping, please select either a Tracked Royal Mail or courier service. UK Mainland courier delivery is normally next working day, but some post codes are excluded from this. Large or heavy items may take longer. International orders may be subject to additional charges upon delivery. Please see the 'Delivery & Returns' section on our website for more information.

DELIVERY, DAMAGED GOODS and SHORTAGE CLAIMS

When you sign for a parcel, please inspect it carefully. If it has suffered damage in transit, you must mark the delivery note 'Parcel Damaged' before signing, or even refuse delivery in serious cases. We do of course pack our products carefully to help avoid any problems. Some deliveries involve more than one parcel - please check that all parcels have been received when signing for the delivery. **IMPORTANT NOTE:** If you need to make a claim for 'Shortages or Damaged Goods' CBS Online MUST be advised of your claim within the first 48 hours after delivery for your claim to be processed. Email info@carbuidler.com or call (+44) 01580 891309

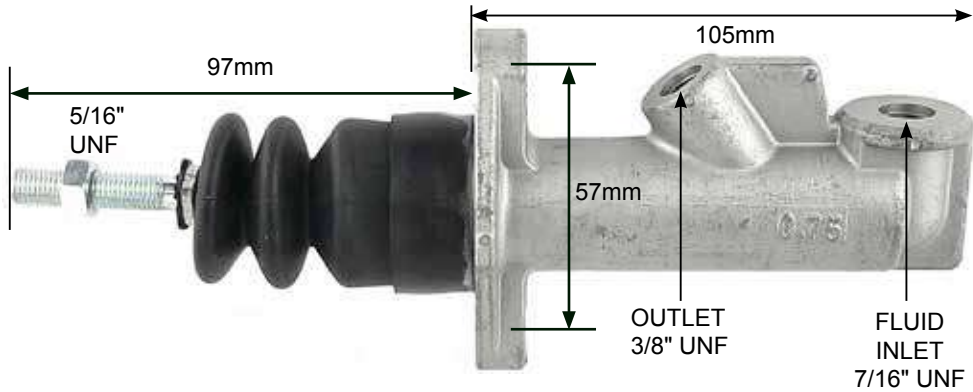
RETURNS

We must be notified of your intent to return an item within 14 days of receipt. The item must be received by us, in as new condition, including the retail packaging within the next 14 days. We cannot refund goods cut from a roll or sheet. Return freight is paid by the customer. Please include a copy of your invoice and email: returns@carbuidler.com to let us know what is being returned and why. If you are unable to email us, please state the reason for return on the invoice. **Important Note:** If a return is received 29 to 90 days after purchase, but otherwise qualifies as a return, a credit note minus a handling charge of 10% or £5 (whichever is greater) will be issued. If a return is received 91 days or more after purchase, no refund will be issued. Any items returned in poor condition will always be subject to a handling charge.

BRAKES & CLUTCH

MASTER CYLINDER This aluminium cylinder has a 3/8" UNF x 13mm deep, outlet thread with concave seat. The fluid inlet thread is 7/16" UNF x 15mm deep with a convex seat. The push rod has a 5/16" UNF thread and a Stroke length of 1.15" (29mm).

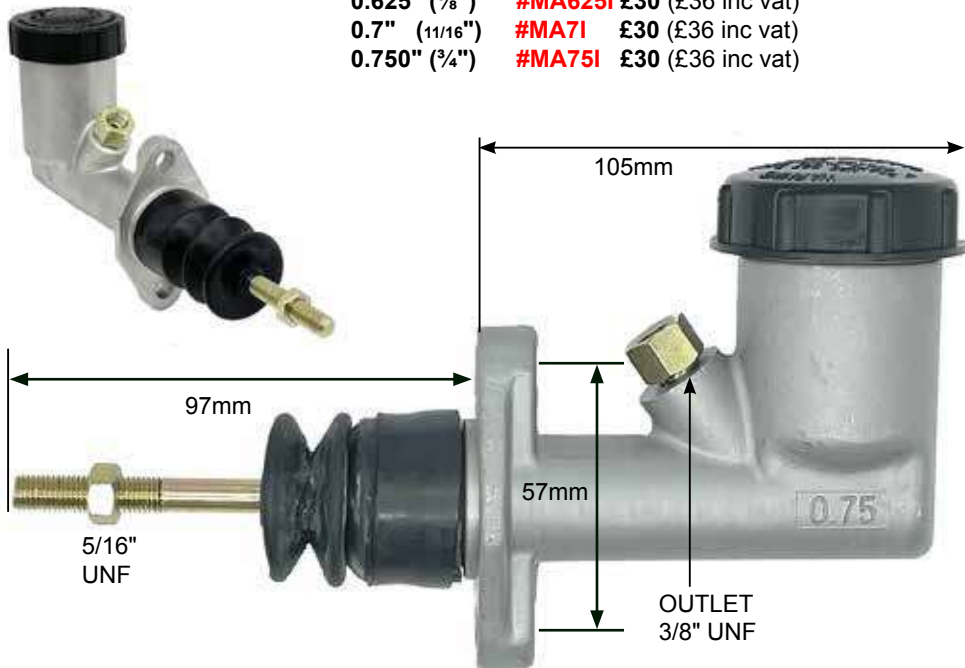
- 0.5" (1/2") #MA5 £30 (£36 inc vat)
- 0.625" (5/8") #MA625 £30 (£36 inc vat)
- 0.7" (11/16") #MA7 £30 (£36 inc vat)
- 0.750" (3/4") #MA75 £30 (£36 inc vat)
- 0.813" (13/16") #MA813 £30 (£36 inc vat)
- 0.875" (7/8") #MA875 £30 (£36 inc vat)



MASTER CYLINDER This aluminium cylinder has an integral reservoir, 5/16" UNF push rod thread and a 3/8" UNF outlet thread. Stroke 1.15" (29mm)

Accepts our #FLCAP2 with fluid level float switch (available separately).

- 0.625" (5/8") #MA625I £30 (£36 inc vat)
- 0.7" (11/16") #MA7I £30 (£36 inc vat)
- 0.750" (3/4") #MA75I £30 (£36 inc vat)



FLUID FILLER UNION
7/16" UNF to 8mm hose

#BUF £6
(£7.20 inc vat)

For 10mm hose

#BUF2 £6
(£7.20 inc vat)



BRASS MALE UNIONS

For standard 3/16" pipe.

7/16" UNF #BU716M
£1.50 (£1.80 inc vat)

3/8" UNF #BBUM38
£1 (£1.20 inc vat)



BRAKE FLUID FILLER HOSE IVA OK

Low pressure hose for connecting fluid reservoirs to master cylinders. Resistant to all types of brake & clutch fluid. Supplied with IVA compliance declaration.

7mm I.D. 13.7mm O.D.

Will push on 8mm hosetail.

#BFHOSE £10.50 per metre (£12.60 inc vat)

9.2mm I.D. 15mm O.D.

#BFHOSE10 £10.50 per metre £12.60 inc vat)



WHICH MASTER CYLINDER?

A common question: 'What bore size master cylinders should I use? In theory, it is possible to determine the correct size of the master cylinder (piston diameter) by calculating pedal ratio, pedal travel and caliper piston diameters but it's often easier to 'suck it and see' by choosing a .750" master cylinder to begin with and experimenting from there.

Many factors will determine the optimum master cylinder size such as weight of the vehicle, tyre diameter, brake pedal length, weight distribution and servo or non-servo assistance. Brake pedal ratio is often the easiest parameter to change. Increasing the pedal length is, in effect, increasing the leverage but the penalty is less fluid movement for a given pedal travel.

If the pedal is 12" long from the fulcrum to the foot pad and the cylinder push rod is 3 inches from the fulcrum then the pedal has a 3 to 1 ratio. Increasing the ratio to say 4 to 1 will give more leverage but with longer pedal travel.

For a clutch the same rules apply to the release fork. A higher ratio will make the clutch action easier but there will be less travel of the release bearing. Determine the distance the release bearing has to travel to fully disengage the clutch (usually about 10mm) and work backwards from there.

A release fork with 2 to 1 ratio will require 20mm travel of the slave cylinder.

Brake hydraulics is really all about fluid movement so, to give you an idea of the effect of changing master cylinder sizes, here's a chart of how much fluid each size master cylinder moves with each 1cm travel of the push rod.

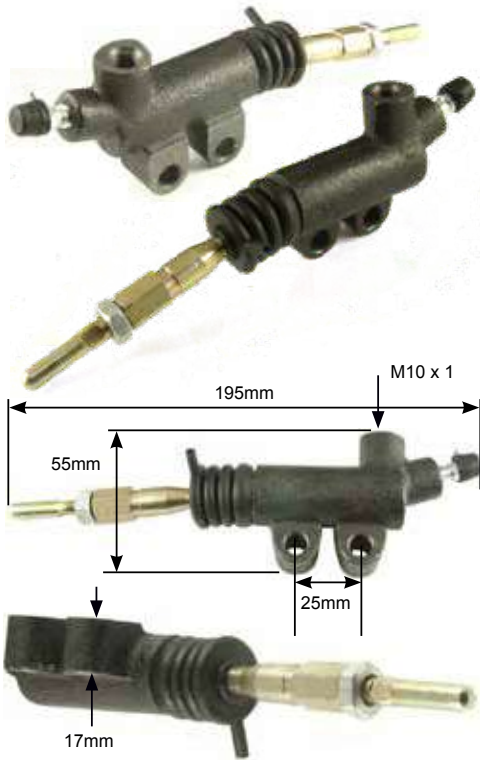
You can see that a 1" cylinder will move 2 1/2 times more fluid than a .625" cylinder. But the pedal will require 2 1/2 times more force to get the same braking performance. However, the pedal travel will be 2 1/2 times less. Of course, if you want to increase braking power without changing the pedal or cylinder you could just add a servo.

| CYLINDER PISTON DIAMETER | FLUID MOVED FOR 1cm OF PISTON TRAVEL |
|--------------------------|--------------------------------------|
| 0.625" (5/8") | 1.98 cc |
| 0.750" (3/4") | 2.85 cc |
| 0.825" (7/8") | 3.45 cc |
| 1" | 5.06 cc |

MANY MORE UNIONS AVAILABLE

CLUTCH SLAVE CYLINDERS

CAST IRON. Mounting holes 8.8mm diameter at 25mm centres. M10 x 1 thread with concave flare seat. M8 bleed screw. Bore 13mm. Stroke 26mm. Adjustable length push rod included - 105mm to 130mm
#CSC4 £25 (£30 inc vat)



CAST STEEL SLAVE CYLINDER

Overall length 110mm. Mounting holes 10mm diameter at 60mm centres. Interchangeable 3/8" UNF female inlet and bleed screw. Concave seats. Just make your own push-rod from 8 or 10mm steel. Bore 7/8". Stroke 1 3/8".
#CSC1 £28 (£33.60 inc vat)



CAST STEEL SLAVE CYLINDER

Overall length 128mm. Mounting holes 9mm diameter at 64mm centres. 7/16" UNF female inlet with concave seat. Bore 7/8". Stroke 1 5/8". (shown with plug in thread and cap on bleed screw)
#CSC2 £25 (£30 inc vat)



CAST IRON FLAT BACKED. M8 threaded mounting holes at 67mm centres. Female M12 x 1.5mm outlet thread (for copper washer or dowty washer fitting). 1/4" unf bleed screw. Bore 1 1/16" (27mm). Stroke 20mm. 166mm long push rod with 68mm long, M8 thread and two locknuts.
#CSC5 £25 (£30 inc vat)



CAST IRON FLAT BACKED.

Mounting holes 11mm diameter at 67mm centres. M12 x 1 thread with concave flare seat. M8 bleed screw. Bore 7/8" (20.8mm). Stroke 12mm. Just make your own push-rod from 8 or 10mm steel rod.
#CSC3 £25 (£30 inc vat)



CLEVIS Plated steel with 5/16" diameter hardened pin and spring-clip retainer. 5/16" UNF thread. 5/16" between forks.
#CLEVIS £5.50 (£6.60 inc vat)

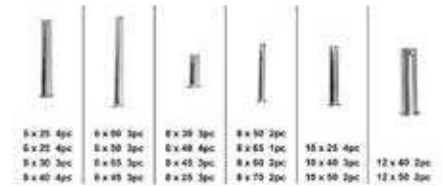


UNIVERSAL 74 PIECE CLEVIS PIN ASSORTMENT PACK

Set includes: 15pc. 1/4" x 2". 10pc. 5/16" x 2", 4pc. 3/8" x 2", 4pc. 7/16" x 2", 4pc. 1/2" x 2". All made from plated steel and drilled with eight holes for the 37 'R' Clips supplied
#CLEVPAK £14 (£16.80 inc vat)



60 PIECE CLEVIS PIN ASSORTMENT PACK An assortment of sizes, all made from plated steel and drilled for 'R' Clips.
#CLEVPAK2 £12 (£14.40 inc vat)



AEROSOL BRAKE CLEANER

Big, 600ml. can. Great for cleaning all brake components - discs, pads, drums calipers, cylinders etc.
#BRKCLN
£4 (£4.80 inc vat)



PEDAL BOX

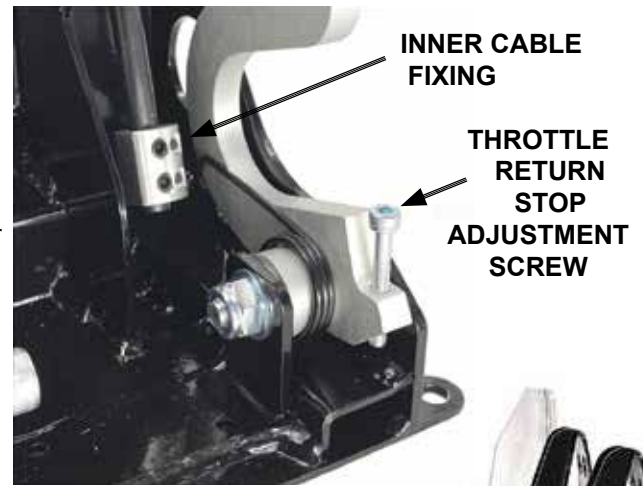
PEDAL BOX - CABLE CLUTCH WITH INTEGRAL THROTTLE PEDAL

Here's a black powder-coated, floor-mounted pedal box, nicely made from 2mm and 3mm steel. Both brake and clutch pedals pivot on nylon bushes. The clear-anodised aluminium throttle pedal has an adjustable stop, an adjustable link and a sliding clamp for the inner cable fixing, offering maximum flexibility and adjustment. There is no hole for the outer cable. This must be drilled to suit your installation and cable choice. There are two 37mm holes for master cylinders. All of our standard, Integral Reservoir and Non-Reservoir cylinders will fit. The brake pedal has an integral 26mm I.D. balance bar tube. The sprung-return clutch pedal cam is adjustable and has a maximum stroke of 50mm. The clutch outer cable is mounted on a bolted-on rear frame which is un-drilled leaving you to select hole size and position depending on your choice of cable.

SUPPLIED EXACTLY AS SHOWN IN THE PICTURE BELOW. CYLINDERS AND BALANCE BAR ARE NOT INCLUDED.

CABLE CLUTCH VERSION (below) #PEDBOX3 £199 (£238.80 inc vat).

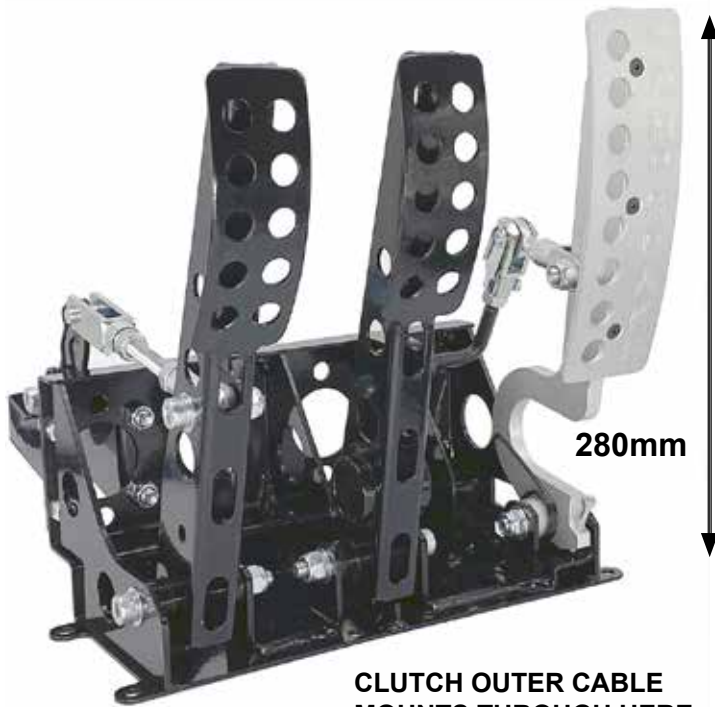
HYDRAULIC CLUTCH VERSION (see online) #PEDBOX4 £189 (£226.6 inc vat)



INNER CABLE FIXING

THROTTLE RETURN STOP ADJUSTMENT SCREW

SEE MORE, BIGGER, HI-RES PICTURES ONLINE AT www.carbuilder.com



280mm

CLUTCH OUTER CABLE MOUNTS THROUGH HERE



270mm



245mm

CUSTOM - BUILD YOUR PEDAL BOX WITH YOUR CHOICE OF CYLINDERS FROM OUR RANGE, CLUTCH CLEVIS AND BALANCE BAR KIT

Your choice of 2 or 3 master cylinders from :

#MA625, MA625I, MA7, MA7I, MA75 or MA75I

Balance Bar #BBAR, Balance Bar Adjuster Cable #BBADJ

Clutch Clevis #CLEVIS, Non Slip Tape #NOSLP

GIVE US A CALL OR DROP US AN EMAIL WITH YOUR REQUIREMENTS AND WE'LL CALCULATE YOUR SPECIAL PRICE

This item is explained on our **YouTube** channel



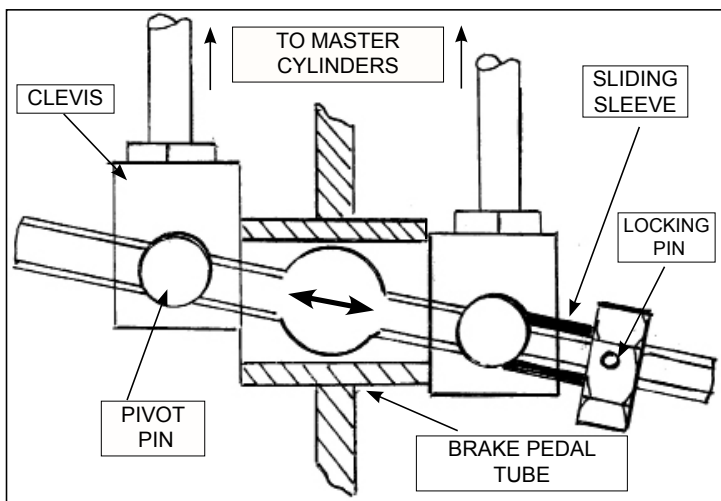
DUAL CIRCUIT BRAKING SYSTEMS

Most production cars feature a tandem brake master cylinder that pre-sets the front to back brake balance in accordance with front to back weight distribution. However, although many specialist vehicles use donor braking components, the weight distribution can be vastly different from the donor car creating potentially lethal unbalanced braking characteristics. One solution is to install a twin master cylinder system - one for the front brakes, one for the rear and an adjustable balance bar to control the proportion of front and rear braking pressure between them. For correct and safe operation it is essential to understand some basic principles in the design of this type of dual brake circuit brake pedal box and how to set it up.

The balance bar is designed to rock around it's spherical pivot as braking pressure is applied. Each end of the balance bar passes through a cylindrical threaded pivot pin upon which a threaded clevis is free to rotate. The master cylinder push-rods are each connected to a clevis. By screwing the balance bar clockwise or anticlockwise its pivot point will move left or right in the retaining tube in the brake pedal. More braking force will be applied to the master cylinder closest to the pivot point and less to the one furthest away.

A very common mistake is to lock the position of the balance bar by tightening the locknuts directly on the clevises effectively locking their floating action. **THIS IS INCORRECT AND DANGEROUS.** If the balance bar is to be locked after adjustment, all that is necessary is a single locknut tightened against a sliding sleeve to lock the thread against one pivot pin, thus allowing the clevises to swivel freely and maintain alignment with the master cylinder push rods and pistons. The sleeve must have a wall thickness thin enough to allow clearance in the clevis. Also, to maintain sufficient braking pressure on one cylinder should the other fail completely you must minimise the clearance between the two clevises and the steel tube in the brake pedal so that the balance bar rocking movement is limited to the angle necessary for the desired front to back balance, and no more. Depending on the spacing of your master cylinders it may be necessary to install some spacers between the clevises and the brake pedal tube, to keep the cylinder push-rods parallel and in-line with the cylinders. Check out our P4 Build Blog ,Post No: 12 for more pictures and details.

NOTE: IVA compliance requires that, after the brake bias has been set to an appropriate and acceptable ratio, the adjustment be rendered immovable. We understand that drilling and pinning is no longer acceptable and that the locking nut must now be welded to the threaded shaft but check with your testing station for the latest rules.



BALANCE BAR ADJUSTER CABLE 830mm. Turning the red knob will adjust the front to back brake bias 'on-the-fly'. Steel and anodised aluminium construction. Mounts through a 20mm hole in a panel up to 8mm thick. The pedal end screws on to the balance bar and secures with a grub screw. 830mm overall length. Knob diameter 40mm. For smoothest operation, route cable with least bends possible. **NOTE: SHOWN FITTED TO A BALANCE BAR BUT BALANCE BAR IS NOT INCLUDED. NOT IVA COMPLIANT** **#BBADJ £31** (£37.20 inc vat)



BALANCE BAR ASSEMBLY Industry standard 7/16" UNF threaded, hardened bar with 5/16" UNF anodised clevises. Phosphor bronze spherical bearing. Complete with reamed bearing tube to weld into your own pedal. Spherical bearing O.D. 26mm. Bearing tube O.D. 1.25" x 1.38" long. **#BBAR £31** (£37.20 inc vat)



BALANCE BAR LOCKING KIT Sleeve, nut and roll pin to lock our balance bar the correct and SAFE way. **INSTALLATION:** Adjust your balance bar to the desired position, slide on the copper sleeve until it touches the threaded clevis swivel pin. Fit the stainless locknut and tighten it gently against the copper sleeve. Ensure that the clevis can still float on its pin. With a good quality 2.5mm drill bit, drill through the stainless nut and shaft. Press the roll pin into the hole through the nut and shaft. **NOTE: BALANCE BAR NOT INCLUDED** **#BALLOC £6** (£7.20 inc vat)



CAST ALLOY PEDAL PAD SET

Just drill & bolt to your stock pedals for better grip, improved spacing and sporty look. Brake & Clutch 70mm x 60mm. Throttle 120mm x 65mm. Includes fixing kit. **#PEDPD £12.50** (£15 inc vat)

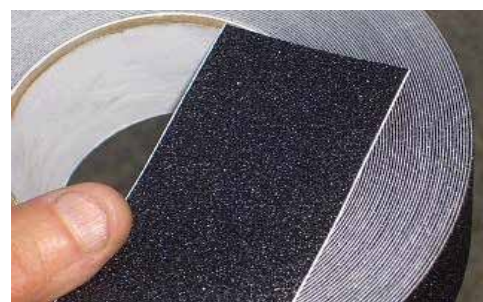


ALLOY PEDAL PAD SET Cast alloy with riveted hard rubber inserts. No drilling required. Clamp over your existing pedals with screws, plates and brackets supplied. Two @size 85mm x 80mm and one @ size 130mm x 70mm **#PEDPD2 £6** (£7.20 inc vat)



FITTING INSTRUCTIONS ON OUR WEBSITE www.carbuilder.com

NO-SLIP TAPE. 50mm wide Self-adhesive tape. Ideal for pedals, trailer ramps etc. Rugged, heavy duty stuff. **#NOSLP £3 mtr** (£3.60 inc vat)



AEROSOL BRAKE CLEANER

Big, 600ml. can. Great for cleaning all brake components - discs, pads, drums callipers, cylinders etc. **#BRKCLN £4** (£4.80 inc vat)



NOTE: AEROSOLS CANNOT BE SHIPPED BY ROYAL MAIL OR AIR MAIL

ALUMINIUM RECTANGULAR FOOTWELL HEEL PAD

Tough, 1.5mm anodised aluminium sheet with raised chequer-plate pattern. Size 300mm x 200mm. Pre-drilled with a 4mm hole in each corner. **#HEELR £9** (£10.80 inc vat)



ALSO AVAILABLE BY THE SQUARE FOOT Sold in multiples of a square foot (305mm x 305mm) **#MCHE £11 square foot** (£13.20 inc vat)



PASSENGER'S FOOTREST Made from 1.5mm thick aluminium with swaged holes for lightness and strength. Adjustable angle. Just bolt or rivet to your floor. 310mm wide. **#FTRST £24** (£28.80 inc vat)

DRIVERS NARROW CLUTCH FOOTREST (bottom) **#CLFTRST £11** (£13.20 inc vat)

DEAL BOTH #FTRSTD £33 (£36.60 inc vat)



CALIPER & DRUM PAINT 900ºf GLOSS

Resists chemicals & brake fluid. Net weight 11 ounces (311 grams)
RED #PNCR £9.50 (£11.40 inc vat)
ALUMINIUM #PNCA £9.50 (£11.40 inc vat)
BLUE #PNCBU £9.50 (£11.40 inc vat)
BLACK #PNCBK £9.50 (£11.40 inc vat)
YELLOW #PNCY £9.50 (£11.40 inc vat)
ORANGE #PNCO £9.50 (£11.40 inc vat)
CLEAR #PNCL £9.50 (£11.40 inc vat)



BRUSH ON CALIPER PAINT 250ml

Suitable for callipers and drums. Heat resistant to 150°C. High Gloss Finish. Quick Drying. Alkyd based heat resistant enamel. Can be applied directly to bare metal. Oil and brake fluid resistant. Follow over-coating instructions carefully. **Directions for use: Mix the paint well before using and brush on evenly in one direction. The paint should be touch dry within 30-40 minutes. Second coats must be applied within 1 hour after drying. Leave to properly dry for 24 hours.**

YELLOW #PNBCY £9 (£10.80 inc vat)
RED #PNBCR £9 (£10.80 inc vat)
BLUE #PNBCU £9 (£10.80 inc vat)
BLACK #PNBCB £9 (£10.80 inc vat)



FLY OFF HYDRAULIC HANDBRAKE (NO RATCHET) Gloss black powder-coated horizontal hydraulic handbrake assembly. Heavy duty welded steel casing with captive nuts for master cylinder mounting. Tig welded aluminium handle assembly with blue anodised tube finisher. 5/16" UNF female threaded rod end for direct connection of the standard master cylinder push rod. Four 7mm fixing holes in base @125mm x 32mm centres. Will accept any of these master cylinders from our range. **#MA625, MA625I, MA7, MA7I, MA75 or MA75I.** Push-rod may require shortening.
FLY OFF HANDBRAKE
#FOHB £40 (£48 inc vat)



Picture shows **#MA75I** fitted as an example. **CYLINDER IS NOT INCLUDED WITH HANDBRAKE**

RATCHET HANDBRAKE For cable operation. (Cable not included) **IVAOK** Gloss black painted, pressed steel handbrake assembly with moulded handle and release button and plated pawl and mounting bracket. Two pairs of 8.1mm holes offer a choice of two ratio options for cable mount. Internal gap between plates 7.5mm. Two 10.6mm mounting holes at 104mm centres. Maximum arc of operation 35°. Overall length 335mm. Weight 550gms.
#HBRK1 £24 (£28.80 inc vat)



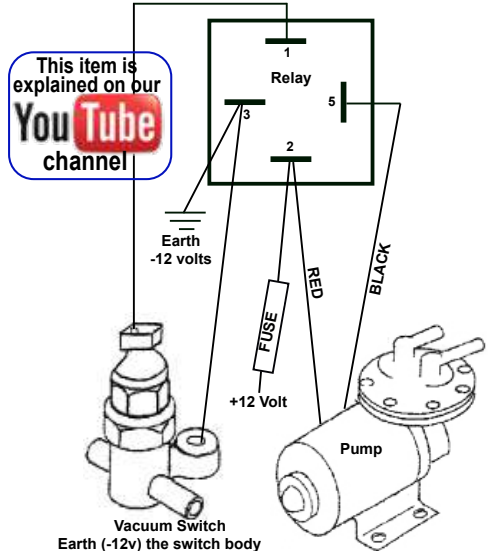
ADJUSTABLE BILLET ALLOY HYDRAULIC HANDBRAKE Unbelievable value from this precision engineered product. CNC'd, satin black powder coated aluminium. Adjustable length lever with foam handle. 0.7" master cylinder with adjustable push rod. There is a (red) swing-up hook that will lock the brake on but will just drop and 'fly-off' with a slight pull on the lever. Base mounting bracket with four 8mm holes on 34mm x 86mm centres. Stainless and plated steel fixings. Maximum width 85mm. Weight 1049 gms.
#AHHB £49 (£58.80 inc vat)



12 VOLT ELECTRIC VACUUM PUMP Many high performance engines do not produce enough vacuum for reliable servo operation. This neat little pump will maintain 18-22 inches of constant vacuum whatever your manifold pressure. Inlet and switch hoses are 12mm diameter and the exhaust is 14mm diameter. Supplied with an in-line vacuum switch which energises the pump when vacuum is required, a relay, electrical cable, in-line fuse, connectors, rubber mounts and two metres of vacuum hose. Pump must be mounted horizontally. Height 160mm. Length 210mm. Width 100mm. Weight 3 kg.
#VACPUMP £185 (£222 inc vat).

IMPORTANT NOTE: FOR THIS SYSTEM TO WORK CORRECTLY IT IS IMPERATIVE THAT THERE ARE NO VACUUM LEAKS. USE GOOD QUALITY FUEL HOSE CLIPS ON EVERY HOSE JOINT AND CHECK OPERATION OF THE RELAY AND SWITCH BY PUTTING YOUR FINGER OVER THE END OF THE HOSE JOINING THE SERVO BEFORE FINALLY CONNECTING IT. WAIT FOR THE PUMP TO STOP. THE LONGER IT STAYS STOPPED, THE BETTER YOUR SYSTEM IS SEALED.

NOTE: THIS PUMP CAN BE QUITE NOISY IF NOT MOUNTED CORRECTLY



This item is explained on our **YouTube** channel

REMOTE SERVO BRAKE BOOSTER Add servo assistance to your car. If you have twin master cylinders with a balance bar or dual master cylinder 2 units may be required. This unit can be mounted anywhere and plumbed between the cylinder outlet and the brakes. Supplied with two mounting bracket options, a metre of servo hose and even a length of preformed steel brake pipe and unions. 3/8" UNF inlet & outlet and 10mm hose tail. Chamber diameter 180mm. Overall end to end 260mm. Boost ratio 1.9 to 1. Weight 4.1 Kg

#REMSERV £160 (£192 inc vat)



SERVOS CAN ALSO BE USED TO ASSIST A HEAVY CLUTCH

SEAL REPAIR KIT for our #REMSERV REMOTE SERVO
Seals and cover. **#SERVOREPKIT £19** (£22.80 inc vat)

ALL REMOTE SERVOS IMPORTANT WARRANTY INFORMATION

Our Servos have small capillary components which, if blocked with debris or corroded by moisture in the fluid, will cause the servo to fail. It is essential to flush through your brake system before installing these servos and use clean, new fluid. Your warranty will be void if debris is found in returned servos.

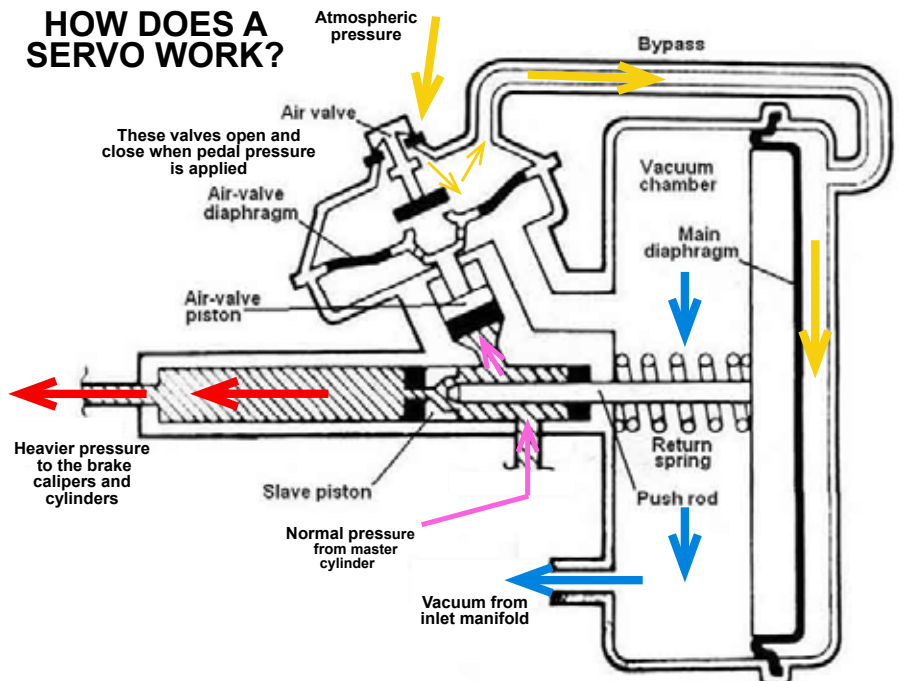


SERVO VACUUM HOSE

- 3/8" I.D. (18mm O.D.)
#VACHO38 £7 mtr (£8.40 inc vat)
- 6mm I.D. (13.6mm O.D.)
#VACHO6 £7 mtr (£8.40 inc vat)
- 8mm I.D. (16mm O.D.)
#VACHO8 £7.50 mtr (£9 inc vat)
- 10mm I.D. (17.2mm O.D.)
#VACHO10 £8 mtr (£9.60 inc vat)
- 13mm I.D. (20.5mm O.D.)
#VACHO13 £9 mtr (£10.80 inc vat)
- 15mm I.D. (24mm O.D.)
#VACHO15 £10 mtr (£12 inc vat)



HOW DOES A SERVO WORK?



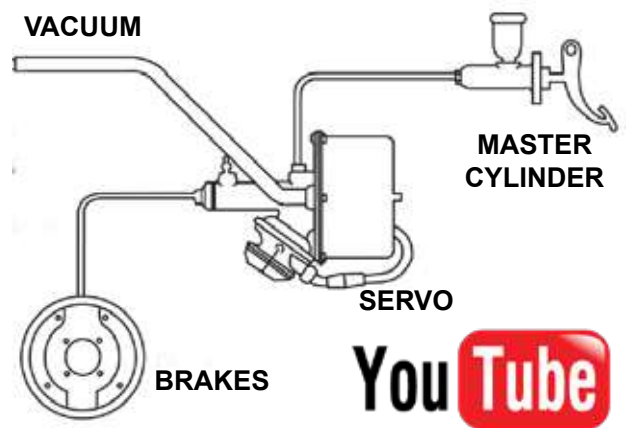
COMPACT SINGLE CIRCUIT REMOTE SERVO Canister diameter 138mm. Overall length 230mm. Vacuum inlet 8mm push-on hosetail. Fluid inlet and outlet female threads can be M12 x 1mm or 3/8" UNF. 2 : 1 power boost ratio at 600mm Hg vacuum. Two M5 mounting studs on cylinder flange and one M8 on rear of canister. Weight 2053gm. **#REMSERV2 £245** (£294 inc vat)



COMPACT DUAL CIRCUIT REMOTE SERVO Canister diameter 138mm. Overall length 380mm. Vacuum inlet 8mm push-on hosetail. Fluid inlet and outlet female threads 3/8" UNF. Fluid bleed screw on each cylinder. 2 : 1 power boost ratio @ 600mm Hg vacuum. Two M5 mounting studs on cylinder flange and one M8 on rear of canister. Weight 3740gm. **#REMSERVDUAL £299** (£358.80 inc vat)



SINGLE CIRCUIT REMOTE SERVO
2 : 1 Boost ratio at 600mm Hg vacuum. Canister diameter 180mm. Overall length 280mm. Vacuum inlet 12mm push-on hosetail. Fluid inlet and outlet female threads M12 x 1mm. 5/16" UNF mounting studs on chamber flange and one on rear of canister. Weight 4.1 Kg. **RS180 £295** (£354 inc vat)



HANGING MOUNTING BRACKET FOR #REMSERVDUAL
 Made from plated, 2mm steel. Mounts on two of each cylinder's mounting bolts. Supplied with four replacement screws and washers. Size 145mm x 60mm x 70mm. Weight 152gms. **#DUALBKT £18** (£21.60 inc vat)

- 4 x M6 x 25 CAP HEAD SCREWS
- 4 x M6 WASHERS
- 4 M6 SPRING WASHERS INCLUDED



STEEL BRAKE BLEED SCREW

**M10 x 1mm. 11mm
spanner size.**

Hex to cone 19mm

#SBBSM10 £1

(£1.20 inc vat)

**STEEL BRAKE BLEED SCREW**

**3/8" UNF. 11mm
spanner size.**

Hex to cone 19mm

#SBBS38 £1

(£1.20 inc vat)

**BRASS BRAKE BLEED SCREW**

**M10 x 1mm. 11mm
spanner size.**

Hex to cone 18mm

#BBBSM10 £4

(£4.80 inc vat)

**BRASS BRAKE BLEED SCREW**

**3/8" UNF. 11mm
spanner size.**

Hex to cone 21mm

#BBBS38 £4

(£4.80 inc vat)

**STEEL BRAKE BLEED SCREW**

**7/16" UNF. 11mm
spanner size.**

Hex to cone 20mm

#SBBS716 £2

(£2.40 inc vat)

**BLEED NIPPLE CAPS Pack of 4**

Keep your bleed nipples clean with these push-on rubber caps.

#BNCAPS

£2 (£2.40 inc vat)

CAPS ONLY

**HYDRAULIC STOP LIGHT SWITCHES**

M10 x 1 Taper thread. Seal with PTFE tape or hydraulic sealant. Two 1/4" spade terminals. 22mm Hex.

#STSH £6.00

(£7.20 inc vat)

**3/8" UNF**

Parallel thread. Two 1/4" spade terminals. 23mm Hex.

#STSH38 £6 (£7.20 inc vat)

M10 x 1 Taper thread. 2 screw terminals

Seal with PTFE tape. 22mm Hex.

#STSHST £6

(£7.20 inc vat)



1/8" NPT thread. Seal with PTFE tape or hydraulic sealant. Two 1/4" spade terminals. 22mm Hex.

#STSH18 £6

(£7.20 inc vat)

**BRASS 'T' PIECES**

Concave seats. 6.5mm Mounting hole.

3 WAY M10 x 1 METRIC

#TEEM10 £7.50 (£9 inc vat)

3 WAY 3/8" UNF IMPERIAL

#TEE38 £7.50 (£9 inc vat)

3 WAY IMPERIAL 7/16" UNF

#TEE716 £8 (£9.60 inc vat)

4 Way M10 x 1 METRIC

#TEE4WAY £12.50 (£15 inc vat)

4 Way 3/8" UNF IMPERIAL

#TEE384WAY £10 (£12 inc vat)

**STOP LIGHT SWITCH PULL - TO - MAKE**

Simply push the knurled nut into a 14mm hole and screw in the switch to self tighten. 300mm sleeved flylead with bullet terminals.

SPRING NOT INCLUDED

#STSSPR3 £5 (£6 inc vat)

**STOP LIGHT SWITCH PULL - TO - MAKE**

Fits in a 12mm hole with two locknuts. Spring length 100mm. Overall length 165mm. 100mm flyleads with bullet terminals.

#STSSPR2 £7.50

(£9 inc vat)

**STOP LIGHT SWITCH PULL - TO - MAKE**

Simply push the nut into a 15.5mm (5/8") hole and screw in the switch to self tighten. Spring length 100mm. Overall length 165mm. 100mm flyleads with bullet terminals.

#STSSPR4 £7.50 (£9 inc vat)



STOP LIGHT SWITCH A mechanical switch for mounting directly to your brake pedal or handbrake lever. Pull the spring to make the contacts. Overall length 130mm. Switch block has 2 x 4mm mounting holes at 24mm centres. Spring diameter 8mm. Switch block max. dims. 40mm x 33mm wide x 25mm high. Screw terminals. Chrome spring, hook and switch plunger.

#STSSPR £12.50 (£15 inc vat)

**MECHANICAL STOP LIGHT SWITCH**

Plunger type. Fits through 12mm hole. Spade terminal connection. Overall length 55mm. Push to break connection.

#STSM £7.50 (£9 inc vat)

**STEEL 7/16" UNF****MALE UNION**

For 3/16" pipe. Length 22mm. 11mm Hex.

#SBU716316M

£0.75 each

(£0.90 inc vat)

**STEEL 7/16" UNF****MALE UNION**

For 6mm or 1/4" pipe. Length 22mm. 11mm Hex.

#SBU716M £0.75

each (£0.90 inc vat)

**STEEL 7/16" UNF FEMALE TUBE NUTS**

For 6mm or 1/4" pipe. Length 24mm. 14mm Hex.

#SBU716F £0.75 each (£0.90 inc vat)

**STEEL 7/16" UNF FEMALE TUBE NUTS**

For 3/16" pipe. Length 24mm. 14mm hex.

#SBU716316F £0.75 each (£0.90 inc vat)



PLATED STEEL BRAKE PIPE UNIONS

For 3/16" copper or copper/nickel

M10 x 1 Male #BU10M

M10 x 1 Female #BU10F

3/8" UNF Male #BU38M

3/8" UNF Female #BU38F

All £3.50 pack of ten (£4.20 inc vat)

ALSO AVAILABLE INDIVIDUALLY

£0.50p each + vat

Just add **S** to end of part number



IN-LINE CONNECTORS

M10 x 1mm Female

#BUC10F £1.50 (£1.80 inc vat)

M10 x 1mm Male

#BUC10M £1 (£1.20 inc vat)

M12 x 1mm Male (Brass)

#BUC12M £3 (£3.90 inc vat)

3/8" UNF Female

#BUC38F £1.50 (£1.80 inc vat)

3/8" UNF Male

#BUC38M £1 (£1.20 inc vat)



PLATED STEEL UNION 7/16" UNF Male to

3/8" UNF Male

#BUC71638M £7

(£8.40 inc vat)



90 DEGREE PLATED STEEL UNION

3/8" UNF with convex seat to 1/8"NPT

#BUM381890 £8

(£9.60 inc vat)



MALE/MALE UNION

1/8" NPT MALE to

3/8" UNF #PSBF13

1/8" NPT MALE to

M10 x 1 #PSBF17

Both £3 each

(£3.60 inc vat)



PLATED STEEL BULKHEAD UNIONS

Overall length 40mm.

M10 x 1 (long end) 3/8" UNF (short end)

#SUBH £2 (£2.40 inc vat)

3/8" UNF both ends

#SUBH38 £2 (£2.40 inc vat)



COPPER WASHER

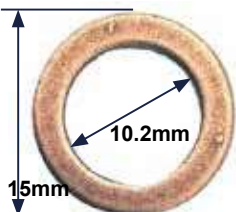
For brake, fuel, oil or water unions.

10.2mm I.D.

15mm O.D.

#CW10 £0.15 each

(£0.18 inc vat)



BRASS ADAPTER 7/16" UNF MALE to

3/8" UNF FEMALE This union will fit the

inlet of some of our master cylinders and

the outlet of some of our

clutch slave cylinders to

allow the use of 3/16"

copper or flexible hose.

#BU71638

£7.50 (£9 inc vat)



BRASS ADAPTER 3/8" UNF MALE to

7/16" UNF FEMALE This union will fit the

outlet of our master cylinders and allow the

use of 6mm or 1/4" copper

tube for clutch lines (with

the union #BU71614)

#BU38716

£7.50 (£9 inc vat)



M12 x 1mm MALE to

M10 x 1mm FEMALE

with concave seat.

16mm hex. 22mm long.

#BU1210

£7.50 (£9 inc vat)



M10 x 1mm MALE to

M12 x 1mm FEMALE

with concave seat.

16mm hex. 22mm long.

#BU1012

£7.50 (£9 inc vat)



3/8" UNF MALE to

M10 x 1 FEMALE with

concave seat.

14mm hex. 32mm long

#BU3810

£7.50 (£9 inc vat)



M10 x 1 MALE to 3/8"

UNF FEMALE with

concave seat.

14mm hex. 32mm long

#BU1038

£7.50 (£9 inc vat)



1/8" NPT MALE to

M10 x 1 FEMALE

with concave seat.

14mm hex. 20mm long.

#BU1810

£4.50 (£5.40 inc vat)



1/8" NPT Male to

M10 x 1 female with

concave seat.

14mm Hex. 20mm long.

#BU1810 £4.50

(£5.40 inc vat)



M10 x 1 MALE to

1/8" NPT FEMALE.

22mm long. 13mm

hex. **#BU1018**

£4.50 (£5.40 inc vat)



1/4" NPT MALE to

M10 x 1 FEMALE

with concave seat.

14mm hex.

25mm long.

#BU1410

£7.50 (£9 inc vat)



BRASS FEMALE BRAKE PIPE UNIONS

For 3/16" (4.75mm) pipe

M10 x 1 #BU10FB

£1.50 (£1.80 inc vat)

3/8" UNF #BU38FB

£1.50 (£1.80 inc vat)



7/16" UNF FEMALE TUBE NUTS

For 6mm or 1/4" pipe

#BU716

£1.50 (£1.80 inc vat)

For 3/16" pipe

#BU716316F

£1.50 (£1.80 inc vat)



M12 x 1mm FEMALE

TUBE NUT

For 1/4" pipe.

#BU1214F

£2 (£2.40 inc vat)



FEMALE BLANKING CAP

M10 x 1mm #BBCFM10

£2 (£2.40 inc vat)

3/8" UNF #BBCF38

£2 (£2.40 inc vat)

7/16" UNF #BBCF716

£2 (£2.40 inc vat)



BRASS MALE BRAKE PIPE UNIONS

For 3/16" pipe

M10 x 1 #BBUMM10

£1 (£1.20 inc vat)

3/8" UNF #BBUM38

£1 (£1.20 inc vat)



7/16" UNF MALE

For 1/4" pipe.

#BU71614M

£1.50 (£1.80 inc vat)



7/16" UNF MALE

For 3/16" pipe

#BU716M

£1.50 (£1.80 inc vat)



M12 x 1 MALE

For 3/16" pipe

#BU12316M

£2 (£2.40 inc vat)



1/2" UNF MALE

For 3/16" pipe

Length 15mm.

13mm hex.

#BU31612

£1.50 (£1.80 inc vat)



MALE BLANKING PLUG

Un-drilled unions.

M10 x 1mm #BBPMM10

£2 (£2.40 inc vat)

3/8" UNF #BBPMM38

£1.50 (£1.80 inc vat)

7/16" UNF #BBPMM716

£2 (£2.40 inc vat)



CHECK OUT OUR You Tube INSTRUCTION ON THREAD IDENTIFICATION VIDEO

STAINLESS STEEL BRAKE UNIONS

For 3/16" copper or copper/nickel pipe.

M10 x 1 Male **#SSBU10M**

M10 x 1 Female **#SSBU10F**

3/8" UNF Male **#SSBU38M**

3/8" UNF Female **#SSBU38F**

ALL £3 each (£3.60 inc vat)



BRASS M10x1 BRAKE BULKHEAD UNIONS

Supplied with brass M10x1 half nut. This is the union that joins your copper brake pipe to your flexible caliper hoses at a chassis bracket. Male flare on each end. Overall length 48mm.

#BUBH £5.50 each (£6.60 inc vat)



3/8" UNF BRASS BULKHEAD BRAKE UNION

49mm long. Supplied with brass half nut. **#BUBH38 £5.50 each** (£6.60 inc vat)



BRASS HALF NUTS 5mm thick. 7/16" hex.

M10x1 **#BHN10 £1 each** (£1.20 inc vat)

3/8" UNF **#BHN38 £1 each** (£1.20 inc vat)



M10 FEMALE / FEMALE.

30mm long. 14mm hex. Concave seats.

#BUC10FB £3 (£3.60 inc vat)



3/8" UNF FEMALE / FEMALE.

30mm long. 14mm hex. Concave seats.

#BUC38FB £3 (£3.60 inc vat)



M10 MALE / MALE. 34mm long. 11mm hex.
#BUC10MB £3 (£3.60 inc vat)



3/8" UNF MALE / MALE. 34mm long.
11mm hex. **#BUC38MB £3** (£3.60 inc vat)



M10 x 1 MALE to 3/8" UNF MALE.

33mm Long. 11mm Hex.

#BU1038MM £4 (£4.80 inc vat)



7/16" UNF MALE / MALE. 43mm long.

1/2" hex. **#BUC716M £4** (£4.80 inc vat)



BRASS UNION M10 MALE to 1/8" NPT

MALE. 30mm long. 14mm hex.

#BU1018M £4 (£4.80 inc vat)



1/4" NPT Male /

Male 9/16" Hex.

32mm long.

#ADAPT25 £3.50

(£4.20 inc vat)



BRASS ADAPTER

1/8" NPT Male to 1/4"

NPT Male.

9/16" hex.

28mm long.

#ADAPT26 £3.50 (£4.20 inc vat)



BRASS ADAPTER

1/8" NPT Male to

1/8" BSP parallel

Male. 14mm hex.

26mm long.

#ADAPT21 £7

£8.40 inc vat)



BRASS UNION 1/2" UNF male to 3/8" UNF

male. 34mm long.

21mm hex. With

copper washer.

#BU1238 £9

(£10.80 inc vat)



SWIVELLING HOSETAIL UNION 1/4"

BSP FEMALE to HOSETAIL Convex seat.

Overall length 37mm. 16mm hex.

6mm HOSE **#HT146S £4** (£4.80 inc vat)

8mm HOSE **#HT148S £4** (£4.80 inc vat)

10mm HOSE **#HT1410S £4** (£4.80 inc vat)



BRASS UNION 7/16" UNF MALE

TO 8mm HOSETAIL

Includes copper

washer.

#BUF

£6 (£7.20 inc vat)



BRASS UNION 7/16" UNF MALE TO 10mm HOSETAIL 31mm long

17mm hex. **BUF2**

£6 (£7.20 inc vat)



SIERRA MASTER CYLINDER BRASS REMOTE FLUID RESERVOIR ADAPTER

for 8mm I.D. Hose. This brass adapter presses into the rubber seals on a Ford Sierra Master cylinder enabling you to connect to a remote fluid reservoir with 8mm I.D. brake fluid hose. Two required per cylinder.

NOTE: CYLINDER NOT INCLUDED. SHOWN FOR DEMONSTRATION ONLY

#BUF3 £8.50 each (£10.20 inc vat)



BRASS ADAPTER 1/2"

NPT Male to 1/8" NPT

Female. 22mm hex. 18mm

long. **#ADAPT20 £4**

(£4.80 inc vat)



PLATED STEEL

ADAPTER 3/8" NPT Male

to 1/8" NPT Female. 17mm

Hex. 20mm long.

#ADAPT22 £4

(£4.80 inc vat)



BRASS ADAPTER

1/4" NPT Male to 1/8"

NPT Female. 14mm

hex. 16mm long.

#BU1418

£4 (£4.80 inc vat)



BRASS UNION 7/16" UNF FEMALE TO 8mm HOSETAIL

Concave seat. Overall

length 39mm. 14mm hex.

Fits the outlet of our

#FLRES1. **#BU7168**

£7.80 (£9.36 inc vat)



BRASS UNION 1/4" BSP FEMALE TO HOSETAIL Concave seat.

Overall length 41mm.

16mm hex.

6mm HOSETAIL **#HTF146**

8mm HOSETAIL **#HTF148**

£4 each (£4.80 inc vat)



SELF-ASSEMBLY BRAKE PIPES

PLATED STEEL SELF-ASSEMBLY FLEXIBLE BRAKE PIPE FITTINGS

Make your own flexible brake pipes with this range of self-assembly fittings. All have 7/16" AF and 1/2" AF Hex spanner sizes. All include a brass olive where appropriate. All seats machined at 90 degrees.



ASSEMBLY INSTRUCTIONS

Cut the hose to length with sharp, heavy duty side cutters or snips. If the cut end has flattened slightly, reshape it with pliers. First, push the tube nut over the braid, on to the hose. Using a pointed scriber or similar tool flare the braid away from the PTFE tube on the first 5mm of the tube.



Push the olive fully onto the PTFE hose ensuring that all the braids are on the outside of the olive.

Insert the fitting spigot into the hose and screw the tube nut onto the fitting. Tighten with two spanners until the tube nut is almost tight against the fitting.



This item is explained on our **YouTube** channel



STAINLESS BRAIDED PTFE BRAKE

HOSE Suitable for all brake fluids. I.D. 3.5mm. O.D. 6.45mm. Sold per metre. **#PTFEHO £5.50 mtr.** (£6.60 inc vat)



STRAIGHT SWIVEL FEMALE

CONCAVE SEAT. 35mm long. **M10 x 1mm #PSBF01 £5** (£6 inc vat)
3/8" UNF #PSBF02 £5 (£6 inc vat)



STRAIGHT SWIVEL FEMALE WITH

CONVEX SEAT. 35mm long. **3/8" UNF #PSBF24 £5.50** (£6.60 inc vat)



STRAIGHT SWIVEL MALE

CONVEX SEAT. 51mm long. **M10 x 1mm #PSBF03 £5** (£6 inc vat)
3/8" UNF #PSBF04 £5 (£6 inc vat)



STRAIGHT MALE BULKHEAD CONVEX

SEAT 50mm long. With locknut. NOTE. This union is commonly used with a female 'swivel' union but can also be connected with a flared 3/16" copper pipe if the flare is correctly formed. **M10 x 1mm. #PSBF09 £4.50** (£5.40 inc vat)
3/8" UNF #PSBF14 £4.50 (£5.40 inc vat)



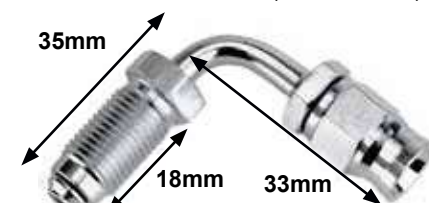
90° SWIVEL FEMALE CONCAVE SEAT

M10 x 1mm #PSBF05 £6 (£7.20 inc vat)
3/8" UNF #PSBF06 £6 (£7.20 inc vat)



90° SWIVEL MALE CONVEX SEAT

M10 x 1mm #PSBF07 £6 (£7.20 inc vat)
3/8" UNF #PSBF08 £6 (£7.20 inc vat)



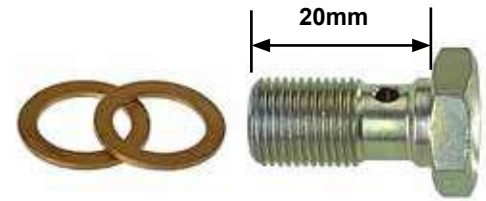
BANJO BOLT With 2 Copper Washers

M10 x 1mm #PSBF10 £4.50 (£5.40 inc vat)
3/8" UNF #PSBF11 £4.50 (£5.40 inc vat)



1/8" BSP (PARALLEL THREAD) BANJO BOLT WITH TWO COPPER WASHERS

9.6mm diameter for banjos with 10.2mm hole through. 14mm Hex. Washers 10.3mm I.D. 14.7mm O.D. **#PSBF26 £4.50** (£5.40 inc vat)



M10 x 1mm BANJO BOLT TO BRAKE

HOSE FITTING With union and olive for our #PTFEHO braided brake hose. Two copper washers 10.3mm I.D. 14.7mm O.D. Overall length 42mm. **#PSBF29 £7.50** (£9 inc vat)



1/8" NPT MALE TO BRAIDED BRAKE HOSE

UNION Plated steel with brass olive. 31mm long. **#PSBF23 £5.50** (£6.60 inc vat)



1/8" BSP SWIVEL FEMALE FITTING

WITH FLAT SEAT With union and olive for our #PTFEHO braided brake hose. Thread depth 6.5mm. **#PSBF27 £8.50** (£10.20 inc vat)



DOUBLE HOSE BANJO FOR 10mm

or **3/8" BANJO BOLT** For our DASH3 Stainless Braided PTFE Brake Hose. 12.2mm wide banjo with 10.2mm hole through. Overall length 50mm.

#PSBF25 £9 (£10.80 inc vat)



BANJO HOSE END 46mm long. 10mm wide banjo with 10.2mm hole through.

STRAIGHT #PSBF12 £4.50 (£5.40 inc vat)
45 DEGREE #PSBF15 £5.50 (£6.60 inc vat)
90 DEGREE #PSBF16 £5.50 (£6.60 inc vat)



STRAIGHT BANJO to 3/8" UNF MALE
 53mm long. 11mm wide banjo with 10.2mm hole through. 3/8" UNF male thread.

#PSBF22 £5.50 (£6.60 inc vat)



PLATED STEEL 7/16" UNF BULKHEAD UNION Overall length 45mm. 7/16" UNF both ends

#SUBH716 £2.50 (£3 inc vat)



PLATED STEEL BULKHEAD UNION Overall length 40mm. M10 x 1 (long end) 3/8" UNF (short end)

#SUBH £2 (£2.40 inc vat)

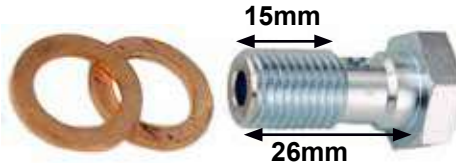
3/8" UNF both ends

#SUBH38 £2 (£2.40 inc vat)

**BANJO BOLT 7/16" UNF**

With 2 Copper Washers

7/16" UNF #PSBF19 £4.50 (£5.40 inc vat)



90° BANJO FOR 7/16" UNF BANJO BOLT to DASH3 HOSE

8mm wide banjo with 11.4mm hole through.

#PSBF21 £6 (£7.20 inc vat)



SHORT BANJO FOR 7/16" UNF BANJO BOLT TO DASH3 HOSE

8mm wide banjo with 11.4mm hole through. Overall length 33mm.

#PSBF18 £5.50 (£6.60 inc vat)



STRAIGHT SWIVEL 7/16" UNF FEMALE TO DASH3 HOSE

CONCAVE SEAT. 36mm long.

#PSBF20 £5 (£6 inc vat)



MALE / MALE ADAPTER 26mm long.

1/8" NPT MALE to 3/8" UNF with convex seat. #PSBF13 £3.50 (£4.20 inc vat)

1/8" NPT MALE to M10 x 1 with convex seat. #PSBF17 £4 (£4.80 inc vat)



SPARE BRASS OLIVE FOR BRAKE PIPE UNIONS #BUOLIVE

£0.70 (£0.84 inc vat)

**AEROSOL BRAKE CLEANER**

Big, 600ml. can. Great for cleaning all brake components - discs, pads, drums calipers, cylinders etc. **#BRKCLN**

£4 (£4.80 inc vat)

**STAINLESS STEEL MALE 'T' BLOCK WITH MOUNTING TAB**

with 7mm hole. Dimensions. 40mm x 43mm

M10 x 1 #SSBU10T £14 (£16.80 inc vat)

3/8" UNF #SSBU38T £14 (£16.80 inc vat)



STAINLESS STEEL FEMALE 'Y' WITH SWIVEL UNIONS 54mm x 46mm

M10 x 1 #SSBU10Y £14 (£16.80 inc vat)

3/8" UNF #SSBU38Y £14 (£16.80 inc vat)

**STAINLESS STEEL MALE BULKHEAD 'T'**

Dimensions 46mm x 40mm

M10 x 1 #SSBU10BHT £9 (£10.80 inc vat)

**STAINLESS STEEL MALE BULKHEAD 45 DEGREE**

End to end 45mm

M10 x 1 #SSBU1045 £9 (£10.80 inc vat)

**STAINLESS STEEL MALE BULKHEAD 90 DEGREE**

End to end 40mm

M10 x 1 #SSBU1090 £9 (£10.80 inc vat)

3/8" UNF #SSBU3890 £9 (£10.80 inc vat)



CBS BUILDER'S TIP
THOROUGHLY WASH OUT
ALL PIPES AND HOSES
BEFORE INSTALLATION

M10 x 1mm BANJO BOLT WITH BLEED NIPPLE For banjos with 10.2mm hole through. 14mm Hex. Bleed nipple with 8mm hex and rubber dust cap. Overall length 42mm. **#PSBF28 £8** (£9.60 inc vat)



3/8" UNF BULKHEAD BLEED NIPPLE BRAKE HOSE FITTING With union and olive for our #PTFEHO braided brake hose. 13mm Hex. Bleed nipple with 8mm hex. Overall length 55mm.

#PSBF30 £9.50 (£11.40 inc vat)



BLEED NIPPLE CAPS Pack of 4

Keep your bleed nipples clean with these push-on rubber caps. **NOTE: CAPS ONLY. NIPPLE SHOWN FOR ILLUSTRATION and IS NOT INCLUDED.**

#BNCAPS £2 (£2.40 inc vat)



Check out our 'P' CLIPS section for a huge range in Aluminium, Stainless Steel, Zinc plated, Nylon and Brass.



QUICK RELEASE DRY BRAKE HOSE COUPLING - NO BLEEDING REQUIRED

With this precision-engineered, high pressure bayonet-type coupling for our flexible brake hose you can quickly and safely disconnect brake calipers or cylinders for removal, service and cleaning. Automatic valves shut off flow in both parts when disconnected. Stainless and anodised aluminium construction.

3/8" UNF male convex threads on each end. Overall length 70mm. 16mm diameter.

#BUQR £43 (£51.60 inc vat)



Use these unions and hose on the quick release couplings.

STRAIGHT SWIVEL FEMALE

CONCAVE SEAT. 35mm long.

3/8" UNF **#PSBF02 £4.25** (£5.10 inc vat)



RESIDUAL PRESSURE VALVE New version.

Residual pressure valves reduce undesirable 'spongy' feel or excessive pedal travel. They retain a pre-set pressure of 2lb between themselves and the caliper to reduce the amount of 'return' of the caliper pistons. One valve fitted near each caliper will improve brake response and give you a firmer pedal. Overall Size: 64mm long x 14mm hex (across flats).

1/8" NPT threads in the blue anodised body. Supplied with two brass adapter unions - 1/8" NPT male to 3/8" UNF with convex seat.

#RPVALV £12 (£14.40 inc vat)



MALE/MALE UNION FOR OUR RPV (above)

1/8" NPT MALE to 3/8" UNF **#PSBF13**

1/8" NPT MALE to M10 x 1 **#PSBF17**

Both £3 each (£3.60 inc vat)



BRAKE PROPORTIONING VALVES

Install in your braking system to correct the effect of non-standard weight distribution found on many modified cars. Up to 60% pressure reduction in either front or rear brake lines enables you to fine tune the brake balance or dial in different braking characteristics for wet or slippery conditions.

WILWOOD BRAKE PROPORTIONING VALVE

Overall Size: 108mm x 40mm x 25mm.

Fits in a 19mm hole. Knob diameter 32mm.

Two mounting holes 6.7mm dia. Inlet and outlet port threads M10 x 1mm with concave seats for direct connection to copper brake pipe.

NOTE: ARROWS STAMPED INTO THE BODY SHOW INLET AND OUTLET

#BRKPROP £62 (£74.40 inc vat)



BRAKE PROPORTIONING VALVE

Overall Size: 86mm x 43mm x 19mm.

Knob diameter 32mm. Two mounting holes 7mm dia. counter-bored on one side.

Inlet and outlet port threads 1/8" NPT for direct connection to copper brake pipe.

NOTE: ARROWS STAMPED INTO THE BODY SHOW INLET AND OUTLET

#BRKPROP2 £29 (£34.80 inc vat)



BRAKE PROPORTIONING VALVE

Overall Size: 117mm x 86mm x 26mm. Fits in a 19mm hole. Knob diameter 37mm. Two 7mm diameter mounting holes at 25mm centres. 1/8" NPT female inlet and outlet port threads. Supplied with two brass adapter unions - 1/8" NPT male to 3/8" UNF female with convex seat.

#BRKPROP4 £29 (£34.80 inc vat)



BRAKE LINE LOCK Satin anodised aluminium body and handle of superb quality. 1/8" NPT female threads. Four M5 fixing threads on a 28mm x 25mm rectangle. Body size: 36 x 26 x 31mm.

Lever length 120mm. Weight 154gm. NOTE: May be Black or Silver anodised depending on availability.

#LINELOC £32 (£38.40 inc vat)



FLUID RESERVOIR CAP MODIFICATION

Our single fluid reservoir #FLRES1 is a great favourite with racers and rally car builders but, without a fluid level warning device, it's not IVA compliant as a brake reservoir on new car builds.

All is not lost however. It can be modified with our #FLCAP2. You can probably use a similar procedure to that outlined below to modify other non-float caps. Using a wide blade, flat, screwdriver carefully prise apart the two components. The float and switch mechanism will separate from the screw cap. Locate the centre of the new cap and, using a step hole cutter, drill a 1" (25.4mm) hole in the top of the cap. You may find that the snap-on inner disc that retains the rubber seal may pop off while you're drilling. Don't worry - it'll snap back on again. Just make a hole in it big enough for the float to pass through. Ensure both components are clean and dry. Mix some two-part epoxy adhesive and bond the float assembly into the cap, forming a fillet on both sides. Use a matchstick to spread the adhesive neatly around. The float assembly will not sit dead flush on the cap because of the terminal block but, with the inner disc in place, it should sit fairly level. A blob of adhesive under the terminal block will add to the strength. Sit it on a coffee mug overnight for the adhesive to cure. It is not possible to use the rubber diaphragm with this modification.

WIRES CAN BE SOLDERED DIRECTLY TO PINS AND THE CAVITY SEALED WITH SILICONE OR POLYURETHANE OR WE CAN SUPPLY A PLUG



CHECK OUT OUR BUILD BLOG TO SEE HOW WE USE OUR PRODUCTS ON THE FOREMAN Mk 4 PROJECT GO TO

www.carbuilder.com and click on 'BLOGS'



IVA BRAKE FLUID RESERVOIR CAP AND WIRING

Nylon screw-on cap. Fits 1.75" dia. x 8 T.P.I. pitch, buttress thread. Internal float with level switch. IVA symbol and 450mm plug-in flylead with PVC sleeving. For dual circuit systems use two, wired in parallel. For IVA you'll require a warning light on the dash and a remote means of testing it. This can be the handbrake switch or just a small push button switch next to the light. #FLCAP2 £12 (£14.40 inc vat)



BRAKE FLUID FLOAT SWITCH

Install this through a 10mm hole in your own brake or clutch fluid reservoir cap to switch on a warning light when your fluid level drops below the lowest float level. Internal switch contacts make when float is at it's lowest position. (NOTE: Don't forget to re-drill the breather hole in the cap if it had one.) Resistant to all brake and clutch fluids but OK for water too. 28mm float travel. Rubber seal. 300mm fly leads. Float diameter 26mm. 54mm required depth from inside of cap. Overall height 70mm. Weight 14gms. SWITCH ONLY - CAP NOT INCLUDED. #FLSW2 £10 (£12 inc vat)



CBS BUILDERS TIP

If you're trying to set up your front-to-back brake bias or check if your new pads and discs are working properly, test your brakes on a gravel drive with your windows open. Apply gentle pedal pressure at just a few miles an hour and you'll hear clearly when the wheels lock up and you'll even hear which one locks up first.

If it's not your drive don't forget to take a broom and sweep it all back.

COPPER WASHER PACK Assortment of 110 annealed copper washers in 6 popular imperial sizes. 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" I.D. Supplied in divided plastic storage box. #COPPAK £12 (£14.40 inc vat)



FLUID RESERVOIRS

SINGLE FLUID RESERVOIR With mounting bracket. Suitable for brake or clutch. 115mm high x 75mm diameter. 7/16" UNF x 23mm long male outlet union with convex taper seat. Capacity to line 120ml.
#FLRES1 £13 (£15.60 inc vat)

ALSO AVAILABLE WITHOUT BRACKET
#FLRES4 £10 (£12 inc vat)



7/16" UNF STAINLESS HALF NUT

1 1/16" Hex. 1/4" Thick.
#716HALF £1.50 (£1.80 inc vat)



7/16" UNF BRASS TUBE NUT

For #FLRES1 reservoir outlet union with 6mm or 1/4" copper tube with female flare. **#BU716 £1.50** (£1.80 inc vat)



7/16" UNF TUBE NUT AND HOSETAIL UNION

To fit outlet union of single reservoir #FLRES1. With 8mm hosetail. Overall length 39mm. 14mm Hex.
#BU7168 £7.80 (£9.36 inc vat)



FLUID FILLER UNION 7/16" UNF to 8mm hose

#BUF £6 (£7.20 inc vat)
For 10mm hose
#BUF2 £6 (£7.20 inc vat)



MANY MORE UNIONS AVAILABLE

BRAKE FLUID FILLER HOSE IVA OK

Low pressure hose for connecting fluid reservoirs to master cylinders. Resistant to all types of brake & clutch fluid. Supplied with IVA compliance declaration.

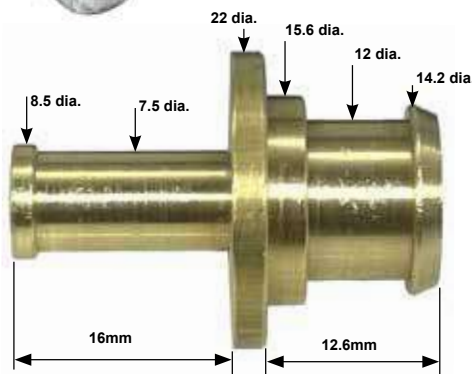


7mm ID. 13.7mm O.D.
Will push on 8mm hosetail.
#BFHOSE £10.50 per metre (£12.60 inc vat)

9.2mm I.D. 15mm O.D.
#BFHOSE10 £10.50 per metre (£12.60 inc vat)

SIERRA MASTER CYLINDER BRASS REMOTE FLUID RESERVOIR ADAPTER for 8mm I.D. Hose. This machined brass adapter presses into the rubber seals on a Ford Sierra Master cylinder enabling you to connect to a remote fluid reservoir with 8mm I.D. brake fluid hose. Two required per cylinder. **NOTE: CYLINDER NOT INCLUDED.**

#BUF3 £8.50 each (£10.20 inc vat)



FLUID RESERVOIR 2 CHAMBER

This, latest version now has the IVA symbol on the cap and a 500mm fly-lead and connector plug. Nylon reservoir. Perfect for dual circuit brakes with a single or twin master cylinders. Fluid level switch for IVA compliance. 2 x 8mm swivelling outlets. Size 125mm x 80mm x 100mm high. 350ml maximum capacity.

#FLRES2 £32 (£38.40 inc vat)



3 CHAMBER Just one fluid reservoir with internal dividers for dual circuit brakes with twin master cylinders, and clutch. Overall size 140mm x 110mm high x 50mm thick. Three 8mm outlets. 1/4" spade terminals on cap for connection of fluid level warning lamp. Fluid capacity 300ml. Aluminium mounting bracket included.
#FLRES3 £32 (£38.40 inc vat)

IVA OK



LOCKHEED BRAKE FLUID RESERVOIR

65mm diameter x 109mm high including the outlet. Breathing cap. Powder-coated steel mounting bracket. Outlet diameter 10mm.
 Capacity to fill line 180ml. Weight 120gms.
#FLRES7 £11 (£13.20 inc vat)



SINGLE FLUID RESERVOIR WITH MOUNTING BRACKET IVA-OK

Nylon reservoir with fluid level switch for IVA compliance. Plated steel mounting bracket with 2 x 7mm holes @ 65mm centres. 7mm diameter, 'Push-on' fluid outlet. Size 130mm high. Cap maximum diameter 71mm. Maximum front to back 87mm. Two 1/4" male spade terminals in cap for switch connection. Press the dimple on top of the cap to test the float operation. Capacity 130ml. **#FLRES5 £19** (£22.80 inc vat)



DOUBLE FLUID RESERVOIR

Size 130mm high. Maximum width (bracket) 138mm. Maximum front to back 87mm. Capacity 330 ml. Weight 351gms **#FLRES6 £23** (£27.60 inc vat)



WIRING CONNECTOR 1/4" Female spade to male bullet. 125mm long. #CAP71CON £3 (£3.60 inc vat)



DOT 4 BRAKE AND CLUTCH FLUID

OK for applications requiring DOT 3, SAE J1703, SAE J1704, ISO 4925 (classes 3 and 4). **500ml #DOT4 £4** (£4.80 inc vat) **1 Ltr. #DOT41L £7.50** (£9 inc vat)



SILICONE BRAKE & CLUTCH FLUID

Top specification DOT 5 fluid. Never needs replacing. Will not damage paintwork. Non-toxic. Helps eliminate corrosion. Repels moisture. High boiling point. **1/2 ltr #SILBF1 £29** (£34.80 inc vat) **1 ltr #SILBF2 £42** (£50.40 inc vat)



IVA BRAKE FLUID STICKER

45mm diameter, self-adhesive as required by latest IVA regulations for your brake fluid reservoir. **#BFSTICK £1 each** (£1.20 inc vat) (Supplied without the CBS logo)



IVA BRAKE BIAS WARNING STICKER

There's a new IVA requirement . This text is taken directly from the IVA manual: '**Vehicles fitted with adjustable twin master cylinders that have been rendered inoperable by mechanical means to comply with RS 26 must have a label affixed on the master cylinder or the immediate vicinity with legible text as detailed in note 6 that this sticker is applied in full view.**' **#BALSTICK £1** (£1.20 inc vat)



GUNSON 'EEZIBLEED' BRAKE BLEEDER.

Automatic Hydraulic Brake and Clutch bleeder kit. This kit uses fresh fluid under pressure to flush air and old fluid from brake and clutch systems. Just connect to your master cylinder reservoir with one of the four caps included, connect the black hose to a spare tyre valve to pressurise the system, then open the bleed nipples in sequence. Simple. Includes different sizes of bleed tube and caps for Lockheed, VAG, Girling and ATE systems. **#EEZIBLEED £29** (£34.80 inc vat)



POWER BRAKE BLEEDER. Here is all you need to bleed your brakes or replace all the fluid in your system. Just part-fill the 0.75 litre, 'new fluid' container and invert it over your reservoir using one of the four adapters supplied, connect an air line from your workshop compressor to the trigger assembly, loosen a bleed screw, push on the black rubber adapter and pull the trigger. Venturi effect draws fluid through the 2 metre clear tube and into the 750ml, 'old fluid' container. When all the bubbles are clear from the fluid in the pipe, just tighten the bleed screw and it's done. Clean and easy. You don't even have to touch your pedals. Repeat for each cylinder or caliper. Male, EURO - TYPE, Air line union and full instructions are included.

#POBRBL £30 (£36 inc vat)

INSTRUCTION SHEET IN ONLINE LISTING



NOTE: NOT SUITABLE FOR USE WITH STAINLESS BRAIDED, NYLON, OR WIRE-REINFORCED HOSES
HOSE CLAMP An easy-to-use clamp that 'squeezes', rubber, PVC or silicone hoses to shut-off the flow of oil, fuel, brake fluid, water or air without disconnecting the hose. Just clamp over the hose and tighten the knurled thumb-screw. Works for hose up to 19mm I.D. Length closed 110mm.

#HOSCLAMP £19 (£22.80 inc vat)



FLUID LINE CLAMP SET Easily stop fluid flow without damaging the hose. Four sizes: 10mm (3/8"), 15mm (5/8"), 25mm (1"), 45mm (1 3/4")

#FLCSET £8 (£9.60 inc vat)

NOTE: NOT SUITABLE FOR USE WITH STAINLESS BRAIDED, NYLON, OR WIRE-REINFORCED HOSES



PROFESSIONAL BRAKE PIPE FLARING TOOL If you're making loads of brake pipes then this excellent flaring tool is a must-have. Superbly engineered from hardened and plated steel. It'll last a lifetime. Simple, vice mounting. Precision machined tube grips will not mark the copper. Forms ball-end, single and double flares on copper and copper/nickel tube. Large Tommy Bar for effortless use. Blow-moulded case. Grips and Dies and grips for 3/16" and 1/4" tube included.

#PROFLARE £122 (£146.40 inc vat)



ADDITIONAL SAE DIE SETS FOR OUR #PROFLARE PIPE FLARING TOOL. Pipe clamps with single/double flare die block.

- For 6mm O.D. pipe **#PRODIE6 £14** (£16.80 inc vat)
- For 8mm O.D. pipe **#PRODIE8 £14** (£16.80 inc vat)
- For 10mm O.D. pipe **#PRODIE10 £14** (£16.80 inc vat)
- For 3/16" O.D. pipe. **#PRODIE316 £14** (£16.80 inc vat)
- For 1/4" O.D. pipe. **#PRODIE14 £14** (£16.80 inc vat)
- For 5/16" O.D. pipe. **#PRODIE516 £14** (£16.80 inc vat)
- For 3/8" O.D. pipe **#PRODIE38 £14** (£16.80 inc vat)
- For 1/2" O.D. pipe **#PRODIE12 £14** (£16.80 inc vat)



THESE DIE SETS ARE FOR FORMING 'DIN' ENDS ON BRAKE PIPE (see diagram on right)

- For 4.75mm (3/16") O.D. pipe **#PRODIE475DIN £14** (£16.80 inc vat)
- For 6mm O.D. pipe **#PRODIE6DIN £14** (£16.80 inc vat)
- For 8mm O.D. pipe **#PRODIE8DIN £14** (£16.80 inc vat)

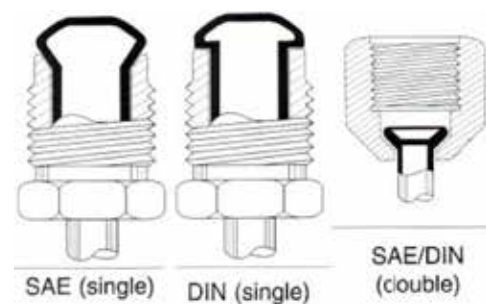


PROFESSIONAL TURRET BRAKE PIPE FLARING TOOL

This new version of our popular tool has a seven-position, rotating turret for fast changes of tooling for all five flare types included. Superbly engineered from hardened and plated steel. It'll last a lifetime. Simple, vice mounting and precision-machined tube grips will not mark the copper. Forms perfect single and double flares on copper and copper/nickel tube. Large Tommy Bar for effortless use. Supplied with full instructions and a blow-moulded case.

SAE Tooling for 4.75mm (3/16"), 6mm (1/4"), 8mm (5/16"), 10mm (3/8") and 4.75mm DIN included.

#TURFLARE £145 (£174 inc vat)



COPPER / NICKEL BRAKE PIPE 3/16"
25ft Roll. Safe working pressure 215 bar (3120 psi). Weight 580gm.
#BPCON £19.50 (£23.40 inc vat)

COPPER BRAKE PIPE 3/16". Easy to form flares and bend by hand. 25ft. Roll. Safe working pressure 127 bar (1841 psi) Weight 580gm.
#BPCO £18 (£21.60 inc vat)



HAND HELD BRAKE PIPE FLARING TOOLS for 3/16" and 1/4" PIPE

A professional-quality, easy to use tool that's great for flaring brake pipes on the vehicle or on the bench. Includes detailed instructions for producing single or double SAE flares on copper or copper/nickel brake pipe.

3/16" SAE #HPRO316 £35 (£42 inc vat)
3/16" DIN #HPRO316DIN £35 (£42 inc vat)
1/4" #HPRO14 £35 (£42 inc vat)
SPARE 3/16" SAE DOUBLE ENDED DIE #HDIE316 £14 (£16.80 inc vat)



PAIR OF TOOLS for 3/16" and 1/4" PIPE
In case with full instructions
#HPRO31614 £65 (£78 inc vat)



PIPE STRAIGHTENING TOOL Now you can easily and accurately straighten brake pipe from a coil with this clever hand-held machine. Simply feed the coiled tube in one end and it comes out dead straight from the other end. Works with Copper, Copper-nickel, Aluminium, Brass, Steel and Stainless tube.

136mm long and 63mm diameter.
1/16" (5mm) #BPSTRT £52 (£62.40 inc vat)
1/4" #BPSTRT14 £52 (£62.40 inc vat)
5/16" #BPSTRT516 £52 (£62.40 inc vat)
3/8" #BPSTRT38 £52 (£62.40 inc vat)
6mm #BPSTRT6 £52 (£62.40 inc vat)
8mm #BPSTRT8 £52 (£62.40 inc vat)
10mm #BPSTRT10 £52 (£62.40 inc vat)



3/16" BRAKE PIPE DEBURRER TOOL

Just push your cut brake pipe into the middle of this clever little tool and rotate it to deburr the inside and outside in one operation. Made from hardened and plated steel. 35mm diameter. Weight 85gms.

#BPDEB £21 (£25.20 inc vat)

FOR USE ON COPPER AND COPPER/NICKEL BRAKE PIPES ONLY



PIPE CUTTER Will cut copper, aluminium and thin-wall steel tube from 3mm to 23mm diameter. **#PIPECUT £3** (£3.60 inc vat)



BRAKE PIPE BENDER A rare little tool made specifically for 3/16" brake pipe. Will form very neat bends down to approximately 10mm radius.
#BPBEND £21 (£25.20 inc vat)



These items are explained on our **YouTube** channel

PIPE BENDER The 'Rolls Royce' of small tube benders. The ingenious, knurled, adjustable centre former allows adjustment for imperial and metric tubes from 3/16" to 11mm diameter. Suitable for Aluminium, Copper and Steel. Heavy duty construction and simple operation. Bending radius of between 22mm and 25mm depending on tube diameter.

#BPBEND2 £80 (£96 inc vat)



SMALL TUBE BENDER Here's a great little bender for smaller pipes 1/8", 3/16" and 1/4" (3mm, 5mm and 6mm). Will bend to 15mm radius. 135mm long.

#BPBEND3 £12 (£14.40 inc vat)



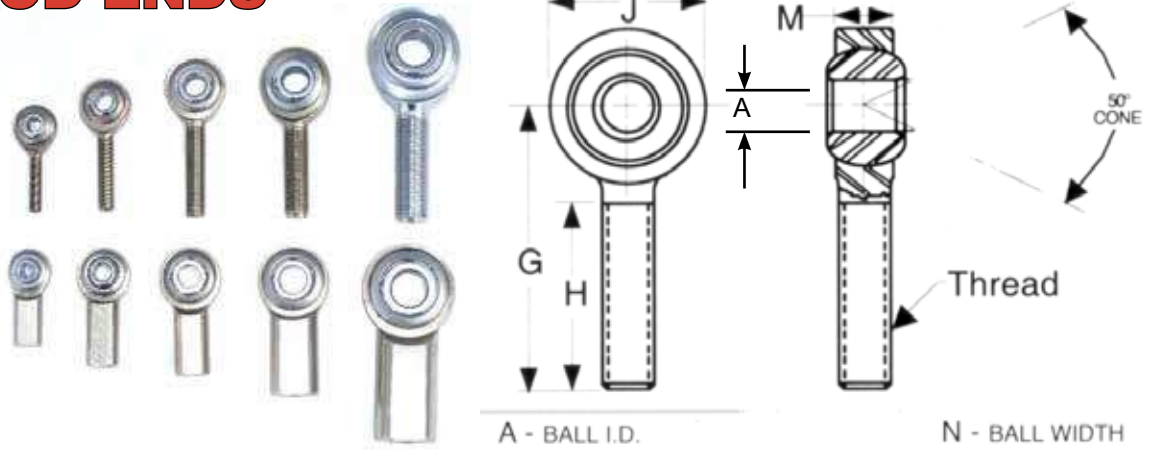
TUBE BENDER Will form nice 25mm radius bends up to 180 degrees in 6mm, 8mm or 10mm diameter Copper and Aluminium tube. Easy to use. 270mm in length.

#TUBEND £10 (£12 inc vat)



IMPERIAL ROD ENDS

BUDGET IMPERIAL ROD ENDS
Great value medium duty Rod Ends. Suitable for throttle linkages, gear linkages, off road applications etc. Low carbon, plated housings. Low carbon, surface hardened and plated ball. Right hand Male or Female thread only. STAINLESS NUTS AVAILABLE

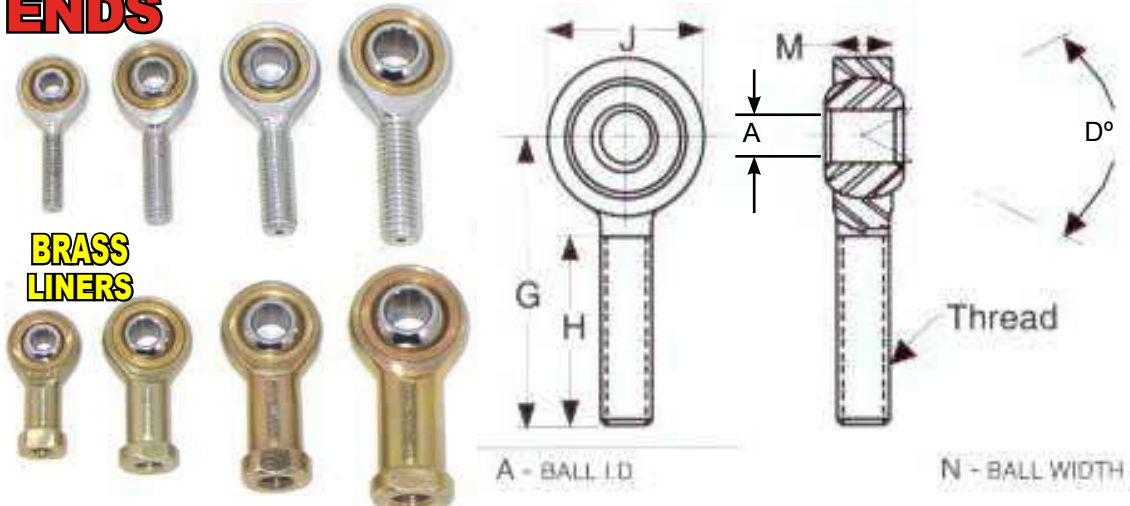


| PART No. | THREAD | A | G | H | J | M | N | PRICE |
|----------------|--------------|-------|--------|--------|--------|-------|-------|-----------------------|
| #RODB3 M or F | 3/16"-32 UNF | .190" | 1.25" | .750" | .625" | .250" | .312" | £4.50 (£5.40 inc vat) |
| #RODB4 M or F | 1/4"-28 UNF | .251" | 1.562" | 1.00" | .750" | .281" | .375" | £4.75 (£5.70 inc vat) |
| #RODB5 M or F | 5/16"-24 UNF | .313" | 1.875" | 1.250" | .875" | .344" | .437" | £5.00 (£6 inc vat) |
| #RODB6 M or F | 3/8"-24 UNF | .376" | 1.938" | 1.250" | 1.0" | .406" | .500" | £5.50 (£6.60 inc vat) |
| #RODB8 M or F | 1/2"-20 UNF | .501" | 2.450" | 1.500" | 1.312" | .500" | .625" | £6.00 (£7.20 inc vat) |
| #RODB10 M or F | 5/8"-18 UNF | .626" | 2.625" | 1.625" | 1.500" | .562" | .750" | £6.50 (£7.80 inc vat) |

UNF ZINC PLATED HALF NUTS SOLD SINGLY
1/4" UNF #14HALF £.40 each (£.48 inc vat)
5/16" UNF #516HALF £.60 each (£.72 inc vat)
3/8" UNF #38HALF £0.70 each (£.84 inc vat)
1/2" UNF #12HALF £1 each (£1.20 inc vat)

METRIC ROD ENDS

METRIC ROD ENDS
Great value medium duty Rod Ends. Suitable for throttle linkages, gear linkages, off road applications etc. Low carbon, plated housings. Brass inserts. Low carbon, surface hardened and plated ball. Right hand Male or Female thread only. STAINLESS NUTS AVAILABLE



| PART No. | THREAD | A | G | H | J | M | N | D° | PRICE |
|----------------|------------|------|------|------|------|--------|------|-----|-----------------------|
| #RODM6 M or F | M6 | 6mm | 36mm | 22mm | 20mm | 6.75mm | 9mm | 24° | £5.00 (£6 inc vat) |
| #RODM8 M or F | M8 | 8mm | 42mm | 25mm | 24mm | 9mm | 12mm | 24° | £5.50 (£6.60 inc vat) |
| #RODM10 M or F | M10 x 1.5 | 10mm | 48mm | 29mm | 28mm | 10.5mm | 14mm | 24° | £6.00 (£7.20 inc vat) |
| #RODM12 M or F | M12 x 1.75 | 12mm | 54mm | 33mm | 34mm | 12mm | 16mm | 16° | £6.50 (£7.80 inc vat) |

| LEFT HAND THREAD | | | | | | | | | |
|-------------------|------------|------|------|------|------|--------|------|-----|-----------------------|
| PART No. | THREAD | A | G | H | J | M | N | D° | PRICE |
| #RODM6 M or F LH | M6 | 6mm | 36mm | 22mm | 20mm | 6.75mm | 9mm | 24° | £5.50 (£6.60 inc vat) |
| #RODM8 M or F LH | M8 | 8mm | 42mm | 25mm | 24mm | 9mm | 12mm | 24° | £6 (£7.20 inc vat) |
| #RODM10 M or F LH | M10 x 1.5 | 10mm | 48mm | 29mm | 28mm | 10.5mm | 14mm | 24° | £6.50 (£7.80 inc vat) |
| #RODM12 M or F LH | M12 x 1.75 | 12mm | 54mm | 33mm | 34mm | 12mm | 16mm | 16° | £7 (£8.40 inc vat) |

METRIC STAINLESS HALF NUTS
M6 #M6HALF 40p each (48p inc vat)
M8 #M8HALF 50p each (60p inc vat)
M10 #M10HALF 60p each (72p inc vat)
M12 #M12HALF 80p each (96p inc vat)

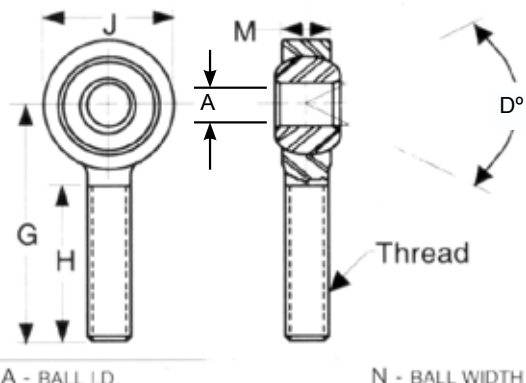
LEFT HAND THREAD METRIC HALF NUTS
M6 #M6HALFLH 40p each (48p inc vat)
M8 #M8HALFLH 50p each (60p inc vat)
M10 #M10HALFLH 60p each (72p inc vat)
M12 #M12HALFLH 80p each (96p inc vat)



HIGH SPECIFICATION IMPERIAL ROD ENDS

Important Warning Notice: Please be aware that as Car Builder Solutions is unable to determine which application a part will be used in, it's the end users responsibility to determine if the part purchased is suitable for the intended use. Where safety is a factor incorrect application or installation may result in damaged property or injury or death.

HIGH SPECIFICATION 3 PIECE ROD ENDS We've decided to add to our Rod-End range with these very nice, UK-made, high-performance joints. They are Teflon-lined The housing is made from heat treated and clear zinc chromate plated EN19T steel. The race is carbon steel, zinc plated chromate and the Ball is chrome plated alloy steel.



| PART No. | THREAD | A | G | H | J | M | N | STATIC LOAD (lb) | D° | BREAK-AWAY TORQUE | PRICE |
|------------|---------------------|-------|--------|-------|--------|-------|-------|------------------|----|-------------------|----------------------|
| #HROD38MLH | 3/8" UNF LEFT HAND | .375" | 1.938" | 1.25" | 1" | .411" | .496" | 9732 | 12 | 3-7n | £19 (£22.80 inc vat) |
| #HROD38MRH | 3/8" UNF RIGHT HAND | .375" | 1.938" | 1.25" | .1" | .411" | .496" | 9732 | 12 | 3-7n | £19 (£22.80 inc vat) |
| #HROD12MLH | 1/2" UNF LEFT HAND | .500" | 2.438" | 1.50" | 1.308" | .500" | .622" | 16313 | 12 | 3-7n | £23 (£27.60 inc vat) |
| #HROD12MRH | 1/2" UNF RIGHT HAND | .500" | 2.438" | 1.50" | 1.308" | .500" | .622" | 16313 | 12 | 3-7n | £23 (£27.60 inc vat) |
| #HROD58MRH | 5/8" UNF RIGHT HAND | .500" | 2.625" | 1.50" | 1.5" | .500" | .622" | 18051 | 16 | 3-7n | £23 (£27.60 inc vat) |

- UNF STAINLESS FULL NUTS** Packs of 10
 10-32 UNF #1032UNFNUT £1.50 (£1.80 inc vat)
 1/4" UNF #14UNFNUT £2 (£2.40 inc vat)
 5/16" UNF #516UNFNUT £2.50 (£3 inc vat)
 3/8" UNF #38UNFNUT £3 (£3.60 inc vat)
 7/16" UNF #716UNFNUT £5 (£6 inc vat)
 1/2" UNF #12UNFNUT £6 (£7.20 inc vat)
 5/8" UNF #RH58NUT £1.70 each (£2.04 inc vat)

UNF ZINC PLATED HALF NUTS SOLD SINGLY

- 1/4" UNF #14HALF £0.40 (£0.48 inc vat)
 5/16" UNF #516HALF £0.60 (£0.72 inc vat)
 3/8" UNF #38HALF £0.70 (£0.84 inc vat)
 1/2" UNF #12HALF £1 (£1.20 inc vat)



MULTI-PURPOSE WHITE GREASE AEROSOL 500ml

Lubricates and protects almost anything that moves.
 Long lasting calcium-based lubricant with PTFE.
 Temperature range -20 deg C to +110 deg C
#AEROG £4 (£4.80 inc vat)



ROD END SPACERS Use one spacer on each side of a Rod End through-bolt to increase it's width and operating angle. Also to enable fitting of a rubber boot.

6mm I.D. 6mm wide. O.D. 8.5mm and 10mm
#RSPM6 £2.30 each (£2.76 inc vat)



8mm I.D. 6mm wide. O.D. 10mm and 12mm
#RSPM8 £2.30 each (£2.76 inc vat)



10mm I.D. 6mm wide. O.D. 12.5mm and 14mm
#RSPM10 £2.30 each (£2.76 inc vat)



12mm I.D. 6mm wide. O.D. 15mm and 18mm
#RSPM12 £2.30 each (£2.76 inc vat)



1/4" I.D. .25" wide. O.D. .340" and .440"
#RSP14 £2.30 each (£2.76 inc vat)



5/16" I.D. .25" wide. O.D. .440" and .500"
#RSP516 £2 each (£2.40 inc vat)



3/8" I.D. .25" wide. O.D. .500" and .565"
#RSP38 £2.30 each (£2.76 inc vat)



1/2" I.D. .25" wide. O.D. .660" and .760"
#RSP12 £2.30 each (£2.76 inc vat)



5/8" I.D. .25" wide. O.D. .790" and .880"
#RSP58 £2.30 each (£2.76 inc vat)



ROD END BOOTS Three, soft and stretchy rubber boots that will protect your Rod Ends from dirt, dust and moisture and will retain that all-important grease or lubricant. Will stretch over the body of the Rod End.

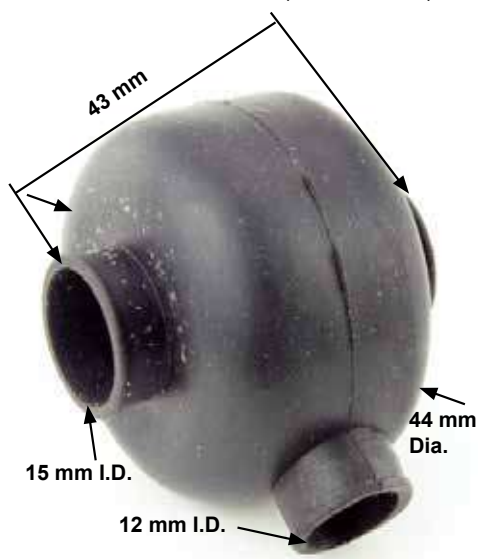
For 8mm or 5/16" MALE ROD ENDS
#RODBOOT8 £6 (£7.20 inc vat)



For 10mm or 3/8" MALE ROD ENDS
#RODBOOT10 £6 (£7.20 inc vat)



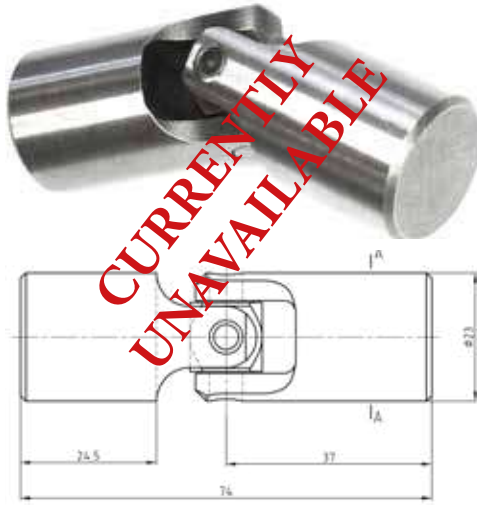
For 12mm or 1/2" or 5/8" MALE ROD ENDS
#RODBOOT12 £6 (£7.20 inc vat)



PRECISION UJ's

BUDGET UNIVERSAL JOINT

Very similar to our #UJG below. Hardened steel pins and bushes and is manufactured to a tolerance of 0.08mm. 23mm diameter x 75mm. Supplied un-drilled for machining or welding to your own shaft. Weight 220 gms.
#UJG23 £14 (£16.80 inc vat)



UNIVERSAL JOINT This joint has four hardened steel bushes and is precision manufactured for strength, low friction, accuracy and long life. 22mm diameter x 75mm. Supplied un-drilled for machining or welding to your own shaft. Weight 196 gms.
#UJG £28 (£33.60 inc vat)



UNIVERSAL JOINT Shorter version of the above joint. 22mm diameter x 45mm. Weight 106 gms.
#UJGS £28 (£33.60 inc vat)



NEOPRENE BOOT
#UJGB £7.50 (£9 inc vat)



STEERING

UNIVERSAL JOINT LARGE DIAMETER

Hardened steel bushes. Precision manufactured for strength, low friction, accuracy and long life. 37mm dia. x 72mm long. Supplied un-drilled for machining or welding. Weight 477 gms.
#UJGL £38 (£45.60 inc vat)



NEOPRENE BOOT
#UJGBL £10 (£12 inc vat)



CHROME STEEL UNIVERSAL JOINT

Needle roller bearings. Both ends have the popular 14mm (9/16") x 36 female spline. Overall length 93mm long x 41mm diameter. 45 degree operating angle. Weight 560gms. See online listing for full dimensions
#UJCHR £36 (£43.20 inc vat)



IMPORTANT SAFETY NOTE

THIS IS A VERY STRONG JOINT SO THE HIGH TENSILE PINCH BOLTS MUST BE SUFFICIENTLY TIGHTENED TO CLAMP THE JOINT SECURELY TO THE SPLINE. USE A HIGH QUALITY H6 HEX ALLEN SOCKET. FAILURE TO TIGHTEN PROPERLY CAN RESULT IN THE UJ BEING LOOSE ON THE SPLINE



MAKING & MODIFYING STEERING COLUMNS

It is perfectly acceptable to make or modify your steering column provided you maintain safe operating limits and comply with collapsibility and play requirements as specified by MoT and IVA rules. Steel UJ's can be welded to steel shafts if you immerse them in a bucket of water to sink away the heat from the spider, bearings and seals.

FORGED UNIVERSAL JOINTS

Compact and strong needle roller joints for steering columns & gear linkages. All size 80mm long x 45mm maximum diameter. All weight approx. 450 gms

14mm (9/16") x 36 spline at both ends.
#UJF £28 (£33.60 inc vat)



3/4" (19mm) x 48 spline at both ends.
#UJF2 £28 (£33.60 inc vat)



14mm (9/16") x 36 spline at one end and 3/4" (19mm) x 48 spline at the other end.
#UJF3 £35 (£42 inc vat)



14mm (9/16") x 36 spline at one end and 5/8" x 36 spline at the other end.
#UJF4 £35 (£42 inc vat)



PRESSED STEEL UNIVERSAL JOINT

Here's our high quality version of this popular UJ. For steering columns & gear linkages. Both ends have the popular 14mm (9/16") x 36 female spline. Overall length 93mm. Maximum diameter 42mm. One side of both clamping holes is tapped M8 but the thread can be drilled out to accept an M8 or 5/16" UNF nut and bolt. Weight 345 gms.
#UJP2 £22 (£26.40 inc vat)



STEEL UNIVERSAL JOINT WITH FORD SIERRA TRIANGLE END

One end has the popular 14mm (9/16") x 36 female spline and the other end will accept a triangular shaft as on Ford Sierra columns. Overall length 120mm x 60mm maximum rotating diameter. M8 thread in 'V'd section clamp. Weight 535 gms.
#UJP3 £35 (£42 inc vat)



SOMETIMES SUPPLIED IN BLACK. PLEASE CALL TO CHECK IF IMPORTANT

5/16" UNC x 1" LONG HIGH TENSILE SOCKET HEAD BOLT

#516UNCSKT
£1 each (£1.20 inc vat)



5/16" UNF HIGH TENSILE BOLT AND NYLOC NUT 1 3/4" long.

Un-threaded section - 3/4" long.
#516UNFBN £1.50 (£1.80 inc vat)



FORGED UNIVERSAL JOINT

NOTE: 'D' and splined shafts will require a retaining groove for the pinch bolt.

14mm (9/16") x 36 spline at one end and 3/4" 'DD' at the other end.

#UJD1 £28 (£33.60 inc vat)



FORGED UNIVERSAL JOINT 'DD' AT BOTH ENDS

3/4" 'DD' at the both ends. Size 80mm long x 45mm maximum diameter. Compact and strong needle roller joint for steering columns & gear linkages. Weight 449 gms.

#UJD2 £28 (£33.60 inc vat)



'DD' at one end and 5/8" x 36 spline at the other end.

#UJD3 £35 (£42 inc vat)



BUILDER'S TIP: WHEN ASSEMBLING SPLINED SHAFTS WITH TWO OR MORE UJ'S ALWAYS ENSURE THAT THE UJ 'SPIDERS' ARE ALL IN ALIGNMENT ALONG THE SHAFT.



STEERING COLUMN LINK 400mm long. **15mm diameter shaft.** Has a staked UJ with female spline and a male spline at the other end of the shaft. Both splines 14mm (9/16") x 36. Can be extended or shortened with a welded sleeve. Plated. Weight 818gms.

#COLLNK £54 (£64.80 inc vat)



STEERING COLUMN LINK Here's a cost-effective way of making a custom steering column. Can be used as-is or cut down or extended or cannibalised for it's component parts. Overall 460mm long with a 40mm collapsing/adjustment section. 48 x 3/4" spline on both forged steel UJ's. Rubber vibration damping section. The shaft is 210mm long and has a cross section like a house with a pitched roof (see picture).

One end of the shaft is clamped to the lower, cast steel section of the vibration damper and secured with staked fixings. Weight 2 Kg. **#COLLNK2 £59** (£70.80 inc vat)



SPLINED SHAFT for STEERING COLUMN 250mm long Can be cut and welded to fabricate your own steering column link.

Made from **15mm diameter** steel. Has a 14mm (9/16") diameter x 36 spline machined on each end. You can easily file or machine a groove in an appropriate position the spline for clearance of your UJ's pinch bolt. Fits our #UJCHR, #UJP, #UJP2 and #UJF. Weight 345 gms.

#SPLINED250 £25 (£30 inc vat)



DOUBLE ENDED SPLINED SHAFT Can be cut and welded to fabricate your own steering column link. Made from 15mm diameter steel. Has a 14mm (9/16") diameter x 36 spline machined on each end. Fits our #UJCHR, #UJP and #UJF.

400mm LONG #SPLINED400 £29 (£34.80 inc vat) **600mm LONG #SPLINED600 £32** (£38.40 inc vat)



'DOUBLE D' STEERING SHAFT

3/4" DD shaft made from JIS S45C Carbon Steel. Fits our 'DD' Universal Joints.

Weight 1676 gms per 36" length.

Available in 18" or 36" lengths

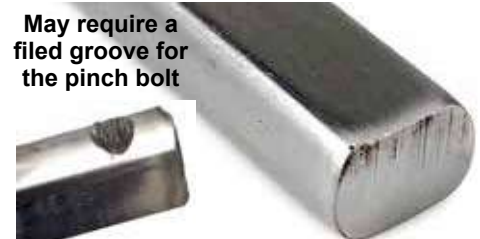
18" LENGTH #DD18 £12 (£14.40 inc vat)

36" LENGTH #DD36 £22 (£26.40 inc vat)

SPLINED SHAFT for STEERING COLUMN 250mm long Can be cut and welded to fabricate your own steering column link. Made from **15mm diameter** steel. Has a 14mm (9/16") diameter x 36 spline machined on one end. Has a groove in an appropriate position the spline for clearance of your UJ's pinch bolt. . Fits our #UJCHR, #UJP, #UJP2 and #UJF. Weight 345 gms. **#SPLINED £24** (£28.80 inc vat)



May require a filed groove for the pinch bolt



DOUBLE ENDED 3/4" SPLINED SHAFT 350mm long. Made from 19mm diameter steel. Has a 19mm (3/4") diameter x 48 spline machined on each end. Fits our #UJF2. May require a filed groove for the pinch bolt. Weight 760gm. **350mm LONG #SPLINED35019 £37** (£44.40 inc vat)



SPLINED SHAFT MATERIAL SPECIFICATION

| | |
|------------------------|---|
| Material | JIS-S45C |
| Mechanical Properties | |
| Density (kg/m3) | 7700-8030 |
| Young's Modulus (GPa) | 190-210 |
| Tensile Strength (Mpa) | 569 (Standard) 686 (Quenching, Tempering) |
| Yield Strength (Mpa) | 343 (Standard) 490 (Quenching, Tempering) |
| Poisson's ratio | 0.27-0.30 |
| JIS-S45C Hardness | |
| Brunel Hardness (HB) | 160-220 (Annealed) |

COLD DRAWN SEAMLESS STEEL TUBE

Superb quality tube for extending or modifying steering columns and track rods. The Inside diameter of this tube is 9/16" (14.2mm).

You may need to drill it larger to fit a larger diameter shaft. Outside diameter 7/8" (22.25mm). Wall thickness 5/32" (3.97mm). BS 6323 PART 4 : 1982.

SAFETY NOTE: We recommend that any machining and welding of steering components be carried out only by qualified persons.

#CDS2064 £0.75 per inch (£0.90 inc vat)



Minimum order 6"

PILLOW BLOCKS

NOTE: SOME STEERING COLUMNS 'OSCILLATE' WHEN TURNING. THIS ITEM IS UNSUITABLE FOR THESE COLUMNS. ENSURE THAT THE SECTION OF STEERING COLUMN YOU INTEND TO SUPPORT WITH A PILLOW BLOCK ROTATES ONLY ON IT'S OWN AXIS AND DOES NOT OSCILLATE.

FORGED STEEL BASE PILLOW BLOCKS

Pillow block are used as floating supports for rotating shafts. These have a sealed ball bearing with a spherical outer casing that floats up to 15 degrees in a forged steel housing. (COLOUR MAY VARY)
Two grub screws to secure the shaft to the bearing inner race. Grease nipple.
SHAFT NOT INCLUDED

FOR 15mm DIAMETER SHAFT.

Footprint 129mm x 38mm. 67mm high. Two 12mm mounting holes at 95mm centres. Weight 746gms.

#PIL15 £17 (£20.40 inc vat)



FOR 19mm DIAMETER SHAFT.

Footprint 127mm x 39mm. 65mm high. Two 12mm mounting holes at 95mm centres. #PIL19 £14.50 (£17.40 inc vat)



Check out our 'P' CLIPS section for a huge range in Aluminium, Stainless Steel, Zinc plated, Nylon and Brass.



PRESSED STEEL CASE PILLOW BLOCK

Pillow Blocks are used as floating supports for rotating shafts. This one accepts a 15mm diameter shaft and has a sealed ball bearing with a spherical outer casing that can 'rock' up to 5.6 degrees in it's plated, pressed steel housing. Two grub screws secure the shaft to the bearing inner race. Weight 142 gms. Footprint 87mm x 25mm. 45mm high. Two 9mm mounting holes at 68mm centres.

NOTE: SHAFT NOT INCLUDED

#PIL153 £19 (£22.80 inc vat)



SEE MORE, BIGGER, HI-RES PICTURES IN OUR ONLINE PRODUCT LISTINGS AT www.carbuilder.com

WELD-ABLE FORGED CASE PILLOW BLOCK

Pillow Blocks are used as floating supports for rotating shafts. This one has a casing of forged steel with a chamfered base for welding onto a steel chassis or frame. You could also drill and tap the steel housing for alternative mounting options.

The hardened, inner, spherical bearing accepts a 15mm diameter shaft which can 'rock' up to 44 degrees. A grease nipple channels grease directly to the moving surfaces. Size 53mm high x 45mm wide x 16mm thick. Weight 220 gms.

NOTE: SHAFT NOT INCLUDED

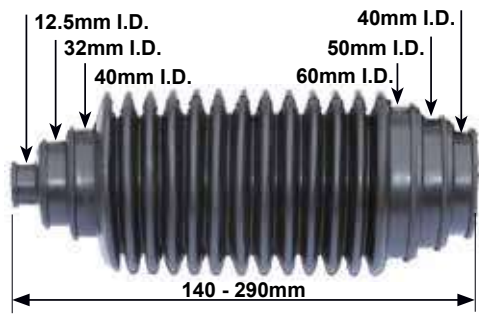
#PIL152 £19 (£22.80 inc vat)



BOOTS & GAITERS

UNIVERSAL STEERING RACK GAITER

Just measure your Rack and Track Rod diameters and cut the gaiter to suit with a pair of scissors. All dimensions will stretch + or - 5mm. **#SGAT £8 each** (£9.60 inc vat)



UNIVERSAL STEERING RACK GAITER With an open grease / oil nipple.

Just measure your Rack and Track Rod diameters and cut the gaiter to suit with a pair of scissors. All dimensions will stretch + or - 5mm. **#SGAT2 £8 each** (£9.60 inc vat)



IVA TRACK ROD COVER Two 75mm (3") long pieces of heavy duty, adhesive-lined heat shrink tubing. Simply slide over your track rod before fitting your track-rod-end. Make your adjustments, then heat it up with a heat gun or hair-drier. The adhesive seals both ends for a rust-free joint. **#TRC £3 for 2** (£3.60 inc vat)



IVA TRACK ROD SLEEVE Soft PVC sleeve. Simply slide over your track rod before fitting your track-rod-end the slide back over the nut. Can be secured in place with silicone, Polyurethane adhesive or cable ties. 2 Sizes:

26mm I.D. x 127mm (shown below on track rod) **#TRS1 £3 each** (£3.60 inc vat)

30mm I.D. x 115mm
#TRS2 £3 each (£3.60 inc vat)

40mm I.D. x 122mm
#TRS3 £3 each (£3.60 inc vat)



CV JOINT BOOTS A range of four popular sizes. All dimensions will stretch 5mm.
22mm & 75mm I.D. x 98mm long #CVB2275
22mm & 72mm I.D. x 94mm long #CVB2272
23mm & 70mm I.D. x 86mm long #CVB2370
23mm & 80mm I.D. x 93mm long #CVB2380
£4 each (£4.80 inc vat)



CV BOOT FITTING KIT A plastic cone and tub of lubricant that will allow you to replace CV boots without a complete strip down.

#CVFITKIT
£7.50
(£9 inc vat)



MULTI PURPOSE GREASE Here's a good quality, lithium-based grease with outstanding high temperature stability. Suitable for most general purpose and automotive applications. 500gms
#MPGREASE £5.50 (£6.60 inc vat)

LITHIUM-MOLY GREASE A Lithium-Moly grease for Constant Velocity joints. Also OK for general lubrication including wheel bearings, hubs and UJ's. 500 gms.
#LMGREASE £6.50 (£7.80 inc vat)

COPPER EASE Here's a high melting point, copper-based grease (-40°C to +150°C) that you can use when assembling components. Prevents seizure due to heat and corrosion on wheel nuts, exhausts, calipers, battery terminals, hubs etc. 500 gms
#COPEASE £8.50 (£10.20 inc vat)



#TRS1



#TRS2 and #TRS3



UNIVERSAL STRETCH-OVER CV JOINT BOOTS Just measure your CV and Drive-shaft diameters and cut the gaiter to suit with a pair of scissors. All dimensions will stretch at least + or - 5mm.

#CVBOOT1 12 to 65mm £7 each (£8.40 inc vat)
#CVBOOT2 15 to 92mm £8 each (£9.60 inc vat)
#CVBOOT3 25 to 115mm £9 each (£10.80 inc vat)

#CVBOOT1



#CVBOOT2



#CVBOOT3



STEERING WHEELS

DARK WOOD RIM STEERING WHEELS

Top and bottom dark-walnut effect, wooden rims bonded and riveted to a strong, 5mm thick dished aluminium pressing (25mm dished dimension). Very nice polished and lacquered finish. Each wheel includes an additional aluminium ring 114mm O.D and 88mm I.D. with six countersunk holes and six countersunk stainless steel screws and nuts and a hex key.

13" Centre hole 88mm. 6 x 6mm boss mounting holes on a 101mm (4") PCD. Diameter 330mm (13"). Weight 800 gms.

#DWRSW13 £110 (£132 inc vat)

14" Centre hole 88mm. 6 x 6mm boss mounting holes on a 101mm (4") PCD. Diameter 363mm (14 1/4"). Weight 1040 gms.

#DWRSW14 £110 (£132 inc vat)

15" Centre hole 88mm. 6 x 6mm boss mounting holes on a 101mm (4") PCD. Diameter 382mm (15"). Weight 1070 gms.

#DWRSW15 £110 (£132 inc vat)



17" DARK WOOD RIM STEERING WHEEL

Top and bottom dark-walnut effect, wooden rims bonded and riveted to a strong, 5mm thick flat aluminium pressing. Very nice polished and lacquered finish. Centre hole 88mm. 6 x 6mm boss mounting holes on a 101mm (4") PCD. Diameter 430mm (17"). Weight 925 gms. Supplied with an aluminium sandwich ring, stainless csk. screws and nuts. Weight 800 gms.

#DWRSW17 £175 (£210 inc vat)



17" WOOD RIM STEERING WHEEL

Top and bottom wooden rims, sculpted on the back, bonded and riveted to a strong, 5mm thick flat (not dished) aluminium pressing. Very nice polished and lacquered finish. Centre hole 88mm. 6 x 6mm boss mounting holes on a 101mm (4") PCD. Diameter 430mm (17"). Weight 925 gms. Supplied with an aluminium sandwich ring, stainless csk. screws and nuts.

#WRSW17 £175 (£210 inc vat)



BEFORE YOU PLACE AN ORDER PLEASE CHECK OUT OUR TERMS AND CONDITIONS AT THE FRONT AND BACK OF THIS CATALOGUE

13", 14" AND 15" WOOD RIM STEERING WHEELS WITH HORN PUSH

Wooden rims bonded and riveted to a strong, 5mm thick dished aluminium pressing. Very nice polished and lacquered finish. Six boss mounting holes on a 70mm PCD. Supplied with a horn-push, aluminium ring and fixings Weight 800 gms.

13" **#WRSW1370 £90** (£108 inc vat)

14" **#WRSW1470 £90** (£108 inc vat)

15" **#WRSW1570 £90** (£108 inc vat)

BLACK FRAME AND HORN PUSH

13" **#WRSW1370BK £90** (£108 inc vat)

14" **#WRSW1470BK £90** (£108 inc vat)

15" **#WRSW1570BK £90** (£108 inc vat)



WOOD RIM STEERING WHEELS

Top and bottom wooden rims bonded and riveted to a strong, 5mm thick dished aluminium pressing (25mm dish). Very nice polished and lacquered finish.

13" Centre hole 88mm. 6 x 6mm boss mounting holes on a 101mm (4") PCD. Diameter 330mm (13"). Weight 700 gms. **#WRSW13 £110** (£132 inc vat)

14" Centre hole 88mm. 6 x 6mm boss mounting holes on a 101mm (4") PCD. Diameter 363mm (14 1/4"). Weight 700 gms. **#WRSW14 £110** (£132 inc vat)

15" Centre hole 88mm. 6 x 6mm boss mounting holes on a 101mm (4") PCD. Diameter 382mm (15"). Weight 723 gms. **#WRSW15 £110** (£132 inc vat)



PART NUMBERS FOR EVERY ITEM IN THIS CATALOGUE ARE IN RED AND ALWAYS BEGIN WITH A HASH SYMBOL
#PARTNO

VINTAGE STYLE 15" FOUR SPOKE FLAT WOOD RIM STEERING WHEEL.

89mm (3 1/2") diameter centre hole. Nine 5.2mm mounting holes on 101mm (4") PCD. Aluminium fixing ring with countersunk holes and 36 piece stainless steel nut, bolt and washer pack included. Weight 790 gms. **#WRSW15V £130** (£156 inc vat)



PLEASE HELP US PROCESS YOUR ORDER MORE EFFICIENTLY BY MAKING A LIST OF PART NUMBERS BEFORE YOUR CALL OR VISIT

430mm (17") ITALIAN STYLED LEATHER STEERING WHEEL WITH BLACK CENTRE

Fine grained leather rim (28mm dia.), with sculptured finger grips on the rear over a satin black anodised aluminium frame 4.7mm thick. 25mm dished from the centre of the rim. 89mm diameter centre hole. Six 6mm holes on 101mm (4") PCD. Boss or adapter not included. Weight - 1025gms. **#ST430LBK £80** (£96 inc vat)



430mm (17") ITALIAN STYLED LEATHER STEERING WHEEL WITH NATURAL ALUMINIUM CENTRE

Fine grained leather rim (28mm dia.), with sculptured finger grips on the rear over a satin black anodised aluminium frame 4.7mm thick. 25mm dished from the centre of the rim. 89mm diameter centre hole. Six 6mm holes on 101mm (4") PCD. Boss or adapter not included. Weight - 1025gms. **#ST430LAL £80** (£96 inc vat)



300mm and 330mm DIAMETER SPORTS STEERING WHEEL

Lightweight, moulded, textured resin foam over a brushed, black anodised aluminium frame 3.7mm thick. Six M5 x 15mm stainless button head fixing screws on a 70mm PCD. Gloss black, moulded centre ring and horn push assembly with two 1/4" male spade terminals on rear. Allen key and 150mm horn flyleads with terminals included Boss or adapter not included. Weight 930gms. **300mm DIA. #ST300BK £20** (£24 inc vat)
330mm DIA. #ST330BK £20 (£24 inc vat)



300mm DIAMETER MOUNTNEY STEERING WHEEL

Lightweight, moulded, textured resin foam over a brushed, natural anodised aluminium frame 3.7mm thick. Six M5 x 15mm stainless button head fixing screws on a 70mm PCD. Clip-in horn push centre with two 1/4" male spade terminals on rear. Boss or adapter not included. Weight 644 gms. **#ST300NAT £49** (£58.80 inc vat)



320mm MOUNTNEY STEERING WHEEL

Beautifully textured moulded resin foam over a brushed, natural anodised aluminium frame 3.7mm thick Six M5 x 15mm stainless button head fixing screws on a 70mm PCD. Clip-in horn push centre with two 1/4" male spade terminals on rear. Boss or adapter not included. Weight 959gms. **#ST320NAT £45** (£54 inc vat)



BLACK ANODISED FRAME VERSION

#ST320BK £49 (£58.80 inc vat)



345mm MOUNTNEY STEERING WHEEL

Beautifully textured moulded resin foam over a brushed, natural anodised aluminium frame 3.7mm thick. Six M5 x 15mm stainless button head fixing screws on a 70mm PCD. Clip-in horn push centre with two 1/4" male spade terminals on rear. Boss or adapter not included. Weight 998 gms. **#ST345NAT £49** (£58.80 inc vat)



345mm MOUNTNEY STEERING WHEEL

Beautifully textured moulded resin foam over a brushed, satin anodised aluminium frame 3.7mm thick. Six M5 x 15mm stainless button head fixing screws on a 70mm PCD. Clip-in horn push centre with two 1/4" male spade terminals on rear. Boss or adapter not included. Weight 998 gms.

#ST345BK £49 (£58.80 inc vat)



HORN PUSH 60mm dia. black plastic, sprung horn push with a 42mm I.D. recess for a badge or emblem. Fits in a 55mm hole. Sample emblem included. 1/4" male spade terminals on the rear.

#HPUSH2 £7.50 (£9 inc vat)



SPADE TERMINAL 1/4" FEMALE Industry standard size. Suitable for our small warning lamps and many other switches and electrical components. Easily insulated with a short sleeve of Heatshrink.

#TER14F £4 pack of 50 (£4.80 inc vat)



250 mm DIAMETER FLAT BOTTOMED STEERING WHEEL

Leather or suede covered rim, sculptured for comfort over a brushed, black anodised flat aluminium frame 3.4mm thick. Flat bottomed rim for maximum knee clearance in tight cockpits. Yellow, leather 'Straight-ahead' indicator sewn into rim covering. Six M5 x 15mm stainless button head fixing screws on a 70mm PCD. Clip-in horn push centre with two 1/4" male spade terminals on rear. Boss or adapter not included. Weight 590 gms.

SUEDE #ST250FBS £75 (£90 inc vat)

LEATHER #ST250FBL £75 (£90 inc vat)



SUEDE

SUEDE



LEATHER



LEATHER

ITALIAN MADE 300 mm DIAMETER UN-DRILLED SLIGHTLY DISHED STEERING WHEEL

Suede covered rim, sculptured for comfort over a brushed, black anodised aluminium frame 4mm thick. 1/2" dished from the centre of the rim. Yellow, leather. 'Straight-ahead' indicator sewn into rim covering. Boss or adapter not included. Weight 945 gms.

UN-DRILLED #ST300UND £90 (£108 inc vat)



275 mm DIAMETER UN-DRILLED STEERING WHEEL

Suede covered rim, average 33mm diameter, sculptured for comfort over an un-drilled, brushed, black anodised flat aluminium frame 3.8mm thick. Made in Italy. Weight 760 gms.

#ST275 £80 (£96 inc vat)



6mm to 60mm STEPPED HOLE CUTTER

Cut clean neat accurate holes in Sheet Steel, Aluminium, Wood and GRP. (Not stainless)

6mm to 60mm (in 5mm steps) 12mm shank

#STEP60 £19 (£22.80 inc vat)



ITALIAN MADE SLIGHTLY DISHED LEATHER STEERING WHEEL Leather covered rim, sculptured for comfort over a brushed, black anodised aluminium frame 4mm thick. 1/2" dished from the centre of the rim. Six 5.5mm countersunk holes on 70mm PCD. 56mm centre hole. Boss or adapter not included. Weight 1275 gms.

LEATHER 300mm

#ST300LEA £90 (£108 inc vat)

LEATHER 330mm

#ST330LEA £90 (£108 inc vat)

LEATHER 350mm

#ST350LEA £90 (£108 inc vat)



BLACK LEATHER REVIVER 200ml
Cleaning, and reviving the colour of black leather upholstery can do a lot to improve the overall look of your car's interior, and Renovo's Leather Reviver is perfect for the job. It not only cleans and re-colours black leather upholstery, it contains an anti-bacterial formula and a UV inhibitor. It is simple to apply and infuses your car with the smell of new leather.

#RENLRBK £11.50 (£13.80 inc vat).



4mm to 42mm STEP DRILL

#STEP442 £13 (£15.60 inc vat)



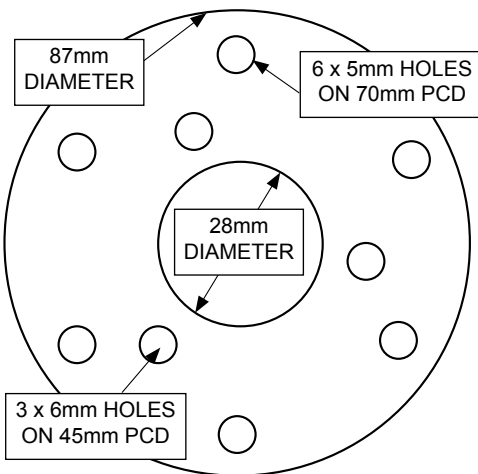
STEERING KNOB Here's a moulded black plastic swivelling knob 53mm diameter, mounted to a steel clamp that fixes to the steering wheel rim. Rubber sleeve supplied allows fitting to wheel rims up to 35mm diameter. Wheel rims below 32mm diameter may require additional rubber packing. Weight 122g.

#STKNOB £10.50 each (£12.60 inc vat)



MAKING A STEERING WHEEL ADAPTER PLATE

It's a fairly straightforward job to make a simple adapter plate for fixing a steering wheel to a boss. The sketch below shows the dimensions and hole sizes for fixing one of these wheels to our Quick Release Boss #QRSW (discarding the horn push). You can use 3mm or 4mm thick aluminium and if you don't have access to a lathe, you can drill, saw and file it to size. A paper template will help you mark out the hole positions.



GREAT ONLINE SHIPPING DEALS

IF YOU ORDER ONLINE, COURIER DELIVERY TO UK MAINLAND IS ONLY £6 + vat

or

FREE

IF YOU SPEND OVER £100 (not inc. vat)

QUICK RELEASE STEERING WHEEL

ADAPTER Black anodised, machined aluminium with a squeeze-to-release design. The 88mm diameter, 4.2mm thick, front face plate has six 5.5mm holes on a 70mm PCD and three 5mm holes on a 51mm PCD. The splined, plated steel shaft is 67mm long and has a 19mm diameter x 16mm long end for welding to your steering column. Hub front to back 53mm (not including shaft). Weight 279 gms.

#QRSW3 £65 (£78 inc vat)



Watch us on

You Tube

Dozens of instruction and demonstration videos.

Just type
CAR BUILDER SOLUTIONS
in the You Tube search box

QUICK RELEASE STEERING WHEEL ADAPTER Black anodised aluminium housing with a clever sprung release system. There is a front face plate (56mm dia.) with three M6 threads on a 45mm PCD to which you can bolt your own simple adapter plate to mount your particular steering wheel. The 25mm A/F, plated steel, hollow, hexagonal shaft adapter (I.D. 19mm) is welded to the top of your steering column. This snaps and locks into the hub. To release the adapter, just squeeze together the two hub flanges. Weight 291 gms.

#QRSW £51 (£61.20 inc vat)



STEERING WHEEL ADAPTER PLATE to fit our #QRSW Black anodised aluminium adapter to mount a 70mm PCD steering wheel to our quick-release boss #QRSW. Wheel mounting has 6 x 5.5mm holes on a 70mm PCD. Boss mounting has 3 x 6.5mm holes on a 45mm PCD. Plate thickness 17mm. Overall diameter 85mm. Weight 203gms. **#SSADAPT3 £18** (£21.60 inc vat)



VALUE COMPOSITE DIGITAL CALIPER Here's a combination of value and accuracy that's hard to beat. Yup - plastic jaws and an easy-to-read LCD digital display that will measure from 0 to 150mm and has an accuracy of 0.1 mm (four thousandths of an inch). You can switch from Metric to Imperial with the press of a button and set the readout to zero anywhere on the scale. Supplied in a hard plastic case.

#DCABS £8.50 (£10.20 inc vat)



STEERING WHEEL ADAPTER PLATE to fit our #QRSW Black anodised aluminium adapters to mount a steering wheel to our quick-release bosses.

Wheel mounting has 6 x 5.5mm holes on a 101mm (4") PCD. Boss mounting has 3 x 6.2mm holes on a 45mm PCD and 3 x 5mm holes on a 50mm PCD. Plate diameter 113mm. Max plate thickness 10mm. Weight 203gms.

#SSADAPT1 £18 (£21.60 inc vat)



STEERING WHEEL ADAPTER PLATE to fit our old #QRSW2 Black anodised aluminium adapters to mount a steering wheel to our quick-release bosses.

Wheel mounting has 6 x 5.5mm holes on a 101mm (4") PCD. Boss mounting has 3 x 9mm holes on a 45mm PCD and 3 x 5mm holes on a 50mm PCD. Plate diameter 113mm. Max plate thickness 10mm. Weight 203gms.

#SSADAPT2 £18 (£21.60 inc vat)



ASK US

We do our best to accurately describe our products' appearance and dimensions. But, if there's a detail that we've missed and you want to know about it, just give us a call. We'll be happy to take one off the shelf and measure it for you.

STEERING WHEEL HUB Fits Ford Anglia, Capri, Escort, Cortina Mk2 columns. Diecast aluminium. Spline diameter 15mm. 6 x 6mm diameter holes @ 101mm PCD and 9 x 6.2mm diameter holes @ 101mm PCD for steering wheel mounting. Supplied with horn push and fixing screws. Weight 860gm. **#SWH3 £25** (£30 inc vat)



STEERING WHEEL HUB Fits BMW E36 steering columns. Diecast aluminium with moulded black plastic shroud. Maximum diameter of shroud 125mm. Overall height 80mm. 21mm diameter splined shaft fitting. Two sets of 6 holes for steering wheel mounting @ 70mm PCD (Momo) and 74mm PCD (Nardi). Three M4 holes on underside @ 52mm PCD. Supplied with two plated steel alignment plates, three M4 screws, six countersunk hex drive screws and a hex key. Weight 317 gms. **#SWH1 £38** (£45.60 inc vat)



STEERING WHEEL HUB Fits many Ford steering columns. Diecast aluminium. Maximum diameter 113mm. Overall height 77mm. Tapered hexagon shaft fitting starting at 17mm across the flats. Two sets of 6 holes for steering wheel mounting @ 70mm PCD (Momo) and 74mm PCD (Nardi). Supplied with two plated steel alignment plates, six countersunk hex drive screws and a hex key. Weight 598 gms. **#SWH2 £43** (£51.60 inc vat)



CORSA B or C STEERING COLUMN POWER STEERING ASSISTANCE LEVEL CONTROLLER This clever little device allows you to manually change the power steering assistance level for parking or manoeuvring. It operates automatically for a minute on starting the engine or for a minute each time you press a simple, momentary contact push button (not included but there are many in our catalogue to choose from) Full instructions included **#PSALC £40** (£48 inc vat)



DIECAST ALUMINIUM STEERING WHEEL HUB 96mm long. 88mm diameter. 15mm female spline and taper at the column end. Two different PCD's to choose from at the wheel end. 70mm and 75mm. Six, M5 holes on each PCD. To fit: Ford Anglia. 105e, Cortina Mk2, Escort 69 -74, Capri Mk 1, 2 and 3. Includes two, plated steel wheel alignment discs for wheels with 53mm or 60mm diameter centre holes. Weight 968 gms. **#SWH4 £38** (£45.60 inc vat)



PLANNING TO VISIT OUR STAPLEHURST SHOP? WE CAN HAVE IT READY CLICK and COLLECT ONLINE

STEERING WHEEL HUB

Fits MAZDA MX5 steering columns. Diecast aluminium and plastic construction with black moulded shroud. Brass slip ring with wire attached for centre horn-push. Maximum diameter of shroud 100mm. Overall height 60mm. Six M5 tapped holes for steering wheel mounting @ 70mm PCD and six @ 73mm PCD. Two pressed steel alignment rings and six countersunk fixing screws included. Weight 296 gms.

#SWH6 £43 (£51.60 inc vat)



CHROMED ALUMINIUM STEERING WHEEL HUB

Fits MAZDA MX5 steering columns. Accepts steering wheels with an 88mm diameter centre hole. Maximum diameter 113mm. Hub diameter 88mm. Front to back including horn push 72mm. One set of six x 6mm holes on 101mm (4") PCD. and one set of 5 x 6mm diameter holes on a 101mm (4") PCD. Press-in horn push. Slip ring with wire attached for horn-push. Black and Silver fixing screws included. Weight 496 gms. #SWH7 £32 (£38.40 inc vat)



ALUMINIUM STEERING WHEEL HUB

Fits Pre-77 MINI, Pre-69 MGB, MIDGET Mk2, MGA and MGC steering columns with a (3/4") diameter x 48 spline and taper. Accepts steering wheels with an 88mm diameter centre hole. Maximum diameter 113mm. Hub diameter 88mm. Front to back including horn push 82mm. One set of six x 6mm holes on 101mm (4") PCD. and one set of 5 x 6mm diameter holes on a 101mm (4") PCD. Press-in horn-push with crimp connector. Weight 630 gms.

#SWH8 £30 (£36 inc vat)



GREAT ONLINE SHIPPING DEALS

IF YOU ORDER ONLINE, COURIER DELIVERY TO UK MAINLAND IS ONLY £6 + vat

or FREE

IF YOU SPEND OVER £100 (not inc. vat)

SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT www.carbuilder.com

HEX KEY SET 9 Metric sizes. Ball end keys. In handy fold-out holder and a moulded 'T' bar handle that fits all sizes.

#HEXKEY £7.50 (£9 inc vat)



**MEASURE
MEASURE
MEASURE**



"It's about this big"

OIL CATCH TANKS

CARBON FIBRE OIL CATCH TANK

Beautifully CNC'd aluminium top and bottom with a real carbon fibre body. 15mm (5/8") O.D. inlet and outlet. 1 mtr of reinforced PVC hose with hose clips. Clear sight gauge. Aluminium M10 x 1 Drain plug. 2-way powder coated mounting bracket with stainless screws. Size 180mm x 76mm diameter. Capacity 0.5ltr
Weight (without hose) 387 gms.
#CAROCT £58 (£69.60 inc vat)



THE FUNCTION OF AN OIL CATCH TANK IS TO PREVENT OIL VAPOURS BEING SUCKED BACK INTO THE INTAKE MANIFOLD. THIS WILL REDUCE CARBON AND SLUDGE BUILD-UP IN THE ENGINE. NOT ONLY DOES AN OIL CATCH TANK PROTECT THE ENVIRONMENT, IT CAN PROLONG ENGINE LIFE AND IMPROVE OVERALL PERFORMANCE. THE BASE OF THE OIL CATCH CAN HAS BEEN DESIGNED WITH A DRAIN PLUG AND NO FILTER INSIDE, SO IT IS VERY EASY TO EMPTY AND CLEAN.

LARGE OIL CATCH TANK 1.5 Ltrs capacity. Beautiful TiG welded Aluminium. Internally baffled for optimum condensation of oil vapour. Level sight tube. Stainless drain plug in bottom. Screw-in vented breather cap. Two 13mm O.D. beaded inlets. Rear bracket for vertical mounting on fire-wall or bulkhead. Size 250mm high x 150mm x 150mm. Weight 490 gms.
#OCTL £99 (£118.80 inc vat)



SPARE CAP. Clever design, moulded breathing cap. 42mm Diameter. 1/2" NPT thread #OCTLCAP £11.50 (£13.80 inc vat)



OIL CATCH TANK WITH FILTER

Here's a real beauty. 1.5 Litre capacity, polished, tig welded, aluminium tank with internal baffles, a screw-on stainless-mesh filter, drain screw and two 12mm hosetail unions. Overall height including filter and drain 305mm. Tank only size 110mm x 110mm x 169mm high. The screw-on filter has machined aluminium top and bottom plates and is 75mm diameter x 90mm high. The two welded mounting brackets have 10mm mounting holes at 140mm centres. Inlet and outlet threads AN10 (7/8" unf). Two screw-in 12mm hosetail unions with 'O' rings are included. Weight 1.23 Kg.
#OCT150FIL £98 (£117.60 inc vat)



YOUR ENGINE BREATHER CONNECTS TO THE INLET OF YOUR OIL CATCH TANK AND ITS OUTLET CONNECTS TO A BREATHER FILTER OR A DRAIN PIPE TO ROAD LEVEL. YOU CAN USE A 'Y' JOINER TO ADAPT TWO ENGINE OUTLETS TO ONE CATCH TANK INLET

CHROME OIL CATCH TANK

Pre-assembled with swivelling 8mm O.D. inlet & outlet. Sight tube & unions. Knurled drain knob. Supplied with 2 piece adjustable mounting bracket assembly with nuts & bolts, 80cm of PVC hose, 15mm to 8mm aluminium reducer, 15mm and 8mm blanking plug, 5 x stainless hose clips. Overall size: 185mm high. 63mm cylinder diameter - 88mm width including sight tube. Capacity 400ml. Outlet threads M12 x 1mm. Weight 700 gms.

#OCTCHR £30 (£36.00 inc vat)



BREATHER FILTER Chrome with cotton and mesh filter 56mm diameter x 48mm high (70mm including inlet rubber). Very nicely made, with stainless hose clip. Ideal for use with our oil catch tanks and engine breather systems. Washable. Choice of inlet diameter (will expand a few millimetres).
10mm #BFIL10 £9 (£10.80 inc vat)
12mm #BFIL12 £9 (£10.80 inc vat)
15mm #BFIL15 £9 (£10.80 inc vat)
25mm #BFIL25 £9 (£10.80 inc vat)



10mm BREATHER FILTER

Chrome with cotton and mesh filter. 61mm diameter x 78mm high. Very nicely made, with plated hose clip. Ideal for use with our oil catch tanks. Washable. Inlet diameter. 10mm (will expand to 12mm)

#BFIL78 £9 (£10.80 inc vat)



CLEAR PVC HOSE Soft PVC Hose. Good resistance to ageing. Suitable for low pressure applications. Temperature range -15°C to +60°C. 6 sizes:

- 3mm ID (6mm OD) #WTUB2 £1.50 mtr (£1.80 inc vat)**
- 5mm ID (8mm OD) #WTUB £1.75 mtr (£2.10 inc vat)**
- 6mm ID (9mm OD) #PVC6 £2 mtr (£2.40 inc vat)**
- 8mm ID (11 mm OD) #PVC8 £2 mtr (£2.40 inc vat)**
- 10mm ID (12.7mm OD) #PVC10 £2.50 mtr (£3 inc vat)**
- 12mm ID (15mm OD) #PVC12 £2.50 mtr (£3 inc vat)**



REINFORCED CLEAR PVC HOSE

With moulded-in woven nylon reinforcing web. Maximum working pressure: 2 smaller sizes 15 bar, 2 larger sizes 12 bar. Resistant to Water, oil, fuel. Good flexibility and abrasion resistance. Temperature range -20°C to +65°C. BS 6066 & ISO 5774

- 3mm ID (8.5mm OD) #RPVC3 £2 mtr**
- 6mm ID (11.2mm OD) #RPVC6 £2 mtr**
- 8mm ID (13.5mm OD) #RPVC8 £2 mtr**
- 10mm ID (14mm OD) #RPVC10 £2.50 mtr**
- 12mm ID (17mm OD) #RPVC12 £2.50 mtr**
- 16mm ID (24mm OD) #RPVC16 £3.50 mtr**
- ALL PLUS VAT**



LOW PRESSURE VENT / DRAIN HOSE This flexible, polypropylene hose is ideal for vent or drain applications of fuel oil or water at atmospheric pressure only. Will easily stretch up to 2mm bigger.

- 4mm I.D. 8.5mm O.D. #FDRAIN4 £2 mtr. (£2.40 inc vat)**
- 5.3mm I.D. 9.5mm O.D. #FDRAIN6 £2 mtr. (£2.40 inc vat)**
- 7mm I.D. 11.5mm O.D. #FDRAIN8 £2 mtr. (£2.40 inc vat)**
- 9.5mm I.D. 14mm O.D. #FDRAIN10 £2.20 mtr. (£2.64 inc vat)**
- 11mm I.D. 16.5mm O.D. #FDRAIN12 £2.80 mtr. (£3.36 inc vat)**
- 15mm I.D. 21mm O.D. #FDRAIN15 £3.40 mtr. (£4.08 inc vat)**
- 18mm I.D. 25mm O.D. #FDRAIN19 £5 mtr. (£6 inc vat)**
- 22mm I.D. 31mm O.D. #FDRAIN22 £6.50 mtr. (£7.80 inc vat)**



OIL CATCH TANKS Four new, fabricated, TIG welded Aluminium oil catch tanks. Supplied with a vented cap, two 13mm OD aluminium unions with 'O' ring seals, sight gauge, drain plug with rubber seal and two blanking plugs. You can swap the position of the sight gauge and unions to suit your installation. 6mm mounting holes at 151mm centres.

Two sizes in natural aluminium or powder-coated satin black:

1 Litre NATURAL Maximum dimensions: 180mm wide x 150mm high x 85mm front to back. Weight 476 gms.

#OCT150 £86 (£103.20 inc vat)



1 Litre BLACK (Spec. as above) **#OCT150BK £95** (£114 inc vat)



2 Litre NATURAL Maximum dimensions: 180mm wide x 250 high x 85mm front to back. Weight 760 gms.

#OCT250 £108 (£129.60 inc vat)



2 Litre BLACK (Spec. as above).

#OCT250BK £108 (£129.60 inc vat)



3 LITRE OIL CATCH TANK Fabricated, TIG welded Aluminium oil catch tank. Supplied with a vented cap, two 13mm O.D. brass unions with 'O' ring seals, sight gauge, drain plug with rubber seal and two blanking plugs. You can swap the position of the sight gauge and unions to suit your installation.

Four, 6mm mounting holes at 175 x 175mm centres. Maximum dimensions: 195mm wide x 275 high x 102mm front to back.

Weight 895 gms.

3 LITRE NATURAL

#OCT350 £128 (£153.60 inc vat)



WASH - WIPE

1.2 LTR WINDSCREEN WASHER KIT

Everything you need. 1.2 Litre capacity nylon bottle with pump and mounting bracket. Supplied complete with two nozzles (for up to 6mm thick panels but can be bonded into GRP. 8mm hole size), 1.8m hose, T piece, straight joiner, push button switch, wiring and all fixings. Bottle size approx W140mm x H185 mm x Front to back 75mm.

#WBOT £20 (£24 inc vat)



WASHER PUMP Here's a replacement 12 volt pump for our popular #WBOT washer bottle kit. Overall length 115mm. Body diameter 35mm. Inlet and outlet 7mm diameter. Two 1/4" male spade connectors labelled + and - .

PUMP MAY BE BLACK OR WHITE DEPENDING ON AVAILABILITY

#WPUMP £5 (£6 inc vat)



1.5 LTR WINDSCREEN WASHER KIT

New version Everything you need. 1.5 Litre capacity nylon bottle with pump and moulded mounting bracket. Bottle size approx W120mm x H185 mm x Front to back 110mm. Wiring, Jets, Switch, Hose, 'T' piece, clips included.

#WBOT2 £18 (£21.60 inc vat)



3 LITRE SCREEN WASHER BOTTLE .

Moulded nylon. Size 230mm high x 200mm wide x 120mm front to back. Two 6mm fixing holes in the back face at 185mm centres. Includes wiring plug with 75mm flyleads. Weight empty 515 gms.

TWIN PUMP VERSION

#WBOT3LT £35 (£42 inc vat)

SINGLE PUMP VERSION

#WBOT3LTS £33 (£39.60 inc vat)



REPLACEMENT PUMPS FOR #WBOT3LT

5mm (3/16") outlet. 7mm diameter inlet. Two 1/4" male spade terminals. 12 Volt. 70mm long. 30mm Diameter. Weight 63gms.

#WPPF £6 (£7.20inc vat)

VERSION WITH ECONOSEAL PLUG

(right) accepts our #NASPLG2

#WPPF2 £6 (£7.20inc vat)



WASHER PUMPS Two stand-alone 12 Volt washer pumps. Both have 1/4" spade terminal connections and both have standard 5mm (3/16") washer hose inlet and outlets.

GOLD ANODISED (left) case and bracket 70mm long x 52 high. 40mm mounting centres. **#WPG £16** (£19.20 inc vat)

BLACK (right) 60mm long x 45 high. 48mm mounting centres

#WPB £8 (£9.60 inc vat)



FIND A SELECTION OF WASHER PUSH BUTTON SWITCHES IN OUR ELECTRICAL SECTION



BAG TYPE WINDSCREEN WASHER KIT 1.5 Litre capacity. Bag size 275mm x 210mm. Supplied complete with hanging bracket, pump, 'T' piece, push-button switch, wiring and 2 mtrs of hose.

#WBAG £22 (£26.40 inc vat)



WINDSCREEN WASHER TUBING
5mm (3/16") I.D.

#WTUB £1.50 mtr (£1.80 inc vat)

3mm (1/8") I.D.

#WTUB2 £1.75 mtr (£2.16 inc vat)



BLACK RUBBER WASHER TUBING
3mm (1/8") I.D. 6mm O.D.

#WTUB32BK £1.75 mtr (£2.16 inc vat)

5mm (3/16") I.D. 8.5mm O.D.

#WTUBBK £1.50 mtr (£1.80 inc vat)



ALUMINIUM WASHER TANKS WITH PUMPS

Nicely fabricated and tig welded aluminium tanks with 40mm diameter, knurled, screw-on cap and integral pump.

HORIZONTAL Width 210mm, Overall height 180mm, Front to Back 82mm. Two 10mm diameter mounting holes @ 150mm centres. Pump has a 5mm (3/16") outlet and two 1/4" male spade terminals. Capacity 1.5 ltrs. Weight 635 gm.

#HAWTANK £60 (£72 inc vat)



CONNECTOR PLUG Two female 1/4" spades. Brown and Blue 500mm flyleads.

#ALTPUGS
£2 (£2.40 inc vat)



90 DEGREE WASHER TUBE BULKHEAD CONNECTOR

For 3/16" hose. Fits in an 8mm hole. M8 thread. 42mm long.

#WASBH90 £1.50 (£1.80 inc vat)



WASHER TUBE BULKHEAD CONNECTOR

For 3/16" hose. Fits in a 6mm hole. M6 thread. 50mm long. May require a small hose clip on threaded end.

#WASBH £1.50 (£1.80 inc vat)



VERTICAL Overall height 285mm. Tank width 103mm, Width with brackets 150mm. Two, 10mm diameter mounting holes at 132mm centres. Front to back 82mm. Pump has a 5mm (3/16") outlet and two 1/4" male spade terminals. Capacity 1.5 ltrs. Weight 635 gm.

#VAWTANK £60 (£72 inc vat)



SCREEN WASHER PLASTIC 'T'

Fits 5mm (3/16") Screen wash tube.

#WTEE £2
(£2.40 inc vat)



SCREEN WASHER PLASTIC 'T'

Two 3mm (1/8") and one 5mm (3/16") outlets. Black nylon.

#WTEE2 £2
(£2.40 inc vat)



NON RETURN WASHER VALVE

One-way valve for screen washer tubing runs. Prevents drain-back in long tubing runs. For 3/16" tube. NOTE: Direction arrow moulded on centre band. **#WASHNRV** £3 (£3.60 inc vat)



CHROME SINGLE WASHER JET

Single swivelling nozzle. 5mm mounting hole size. Suitable for up to 3mm thick panels but can be bonded into thicker GRP panels. 3mm (1/8") hose size tail.

23mm overall height.

#WJETCH1

£4 (£4.80 inc vat)



CHROME TWIN WASHER JET

Twin swivelling nozzles. 8mm mounting hole size. Suitable for up to 4mm thick panels but can be bonded into thicker GRP panels. 5mm (3/16") hose tail. 29mm overall height.

#WJETCH2

£4 (£4.80 inc vat)



CHROME TWIN WASHER JET

Twin swivelling nozzles. 8mm mounting hole size. Suitable for up to 4mm thick panels but can be bonded into thicker GRP panels. 5mm (3/16") hose size tail. 32mm overall height.

#WJETCH3

£4 (£4.80 inc vat)



TALL WASHER JET

IVA OK Moulded ABS.

Twin swivelling nozzles. Body 30mm high. Flange 25mm dia. Hole size 10mm. Suitable for up to 6mm thick panels (without rubber washers) 5mm (3/16") hose tail.

#WJETT £7.50

(£9 inc vat)



TWIN WASHER JET

IVA OK. Height above panel 22mm. 22mm maximum diameter. Press into a 12mm hole in a panel up to 1mm thick. For 3/16" hose.

#WJET3 £2

(£2.40 inc vat)



WASHER JET IVA OK

Moulded ABS.

Twin swivelling nozzles. 8mm diameter hole size. Suitable for up to 8mm thick panels. 5mm (3/16") hose tail.

#WJET £3

(£3.60 inc vat)



SINGLE WASHER

JET IVA OK

Moulded ABS.

Single swivelling nozzle. 8mm diameter hole size. Suitable for up to 3mm thick panels. 5mm (3/16") hose tail.

Rubber sealing base.

#WJET1 £3

(£3.60 inc vat)



SMALL WASHER JET

12mm diameter head x 8mm high with a single adjustable nozzle.

Fits in a 6mm hole in a panel up to 4mm thick. Hose tail 4.7mm. Supplied with a rubber washer, a spring washer and a plated nut. Overall length 25mm. #WJETS £4 (£4.80 inc vat)



TRIPLE WASHER JET FOR WIPER ARM

MOUNTING This Jet is designed to clamp around a flat wiper arm up to 9.5mm x 4mm. Smaller arms may require some packing. Three Jets which can be re-positioned with a sewing needle. 53mm hose Tail. Dimensions 31mm x 31mm. Weight 6gms.

#WJET4 £6.50 (£7.80 inc vat)



TWIN WASHER JET

Moulded ABS. 14mm diameter with hosetail for 5mm washer tubing. Double swivelling nozzles. Fits in an 8mm diameter hole size. Overall length 33mm. Top Projection 10mm. Suitable for up to 5mm thick panels. Rubber sealing washer and spring washer.

#WJET9 £3

(£3.60 inc vat)



EXTRA TALL WASHER

JET Moulded ABS. Single swivelling nozzle. Body 30mm high. x 16mm dia. Hole size 10mm. Thread length 32mm. Overall length 80mm. Plated nut and rubber washer. 5mm (3/16") Hose tail.

#WJET6 £5 (£6 inc vat)



Please Like us on Facebook

BLADE PARK TWIN WASHER JET

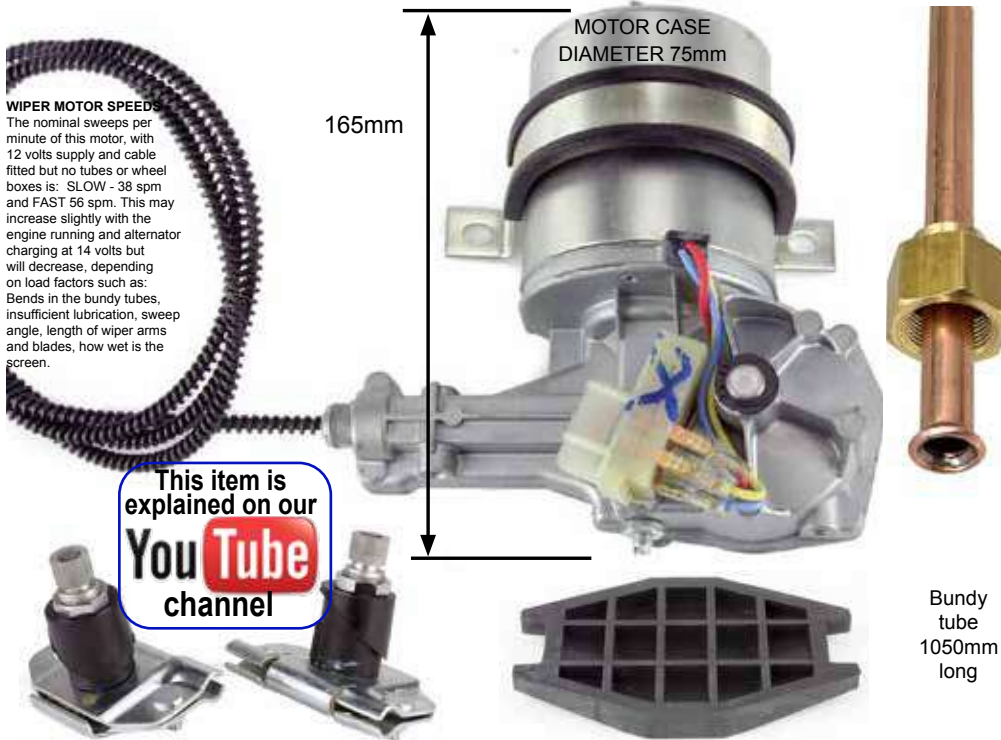
Mounts through a 10mm hole with rubber washers and brass nut. 5mm push-on hosetail. Overall length 84mm. Height above panel 35mm. Clearance under overhang 24mm. Weight 21gms.

#WJET7 £3 (£3.60 inc vat)



WINDSCREEN WIPER KIT

WIPER KIT Auto park. 2 Speed. Supplied with two 49mm wheelboxes with angled spacers, motor mounting bracket with rubber base and 1050mm copper-coated steel, Bundy tube for you to cut and make up your own custom assembly. 1500mm inner drive cable. Wheelbox spindle diameter 13.5mm. Instructions included. Five 1/4" spade terminals on connector block. Requires correct switch for 2 speed operation and park. (see next page)
 Weight 2700 gms. 90° to 140° SWEEP ANGLE WIPER KIT see range of gears below
#WK90 to #WK140 (as in list of wiper gears below) £130 (£156 inc vat)



WIPER MOTOR SPEEDS:
 The nominal sweeps per minute of this motor, with 12 volts supply and cable fitted but no tubes or wheel boxes is: SLOW - 38 spm and FAST 56 spm. This may increase slightly with the engine running and alternator charging at 14 volts but will decrease, depending on load factors such as: Bends in the Bundy tubes, insufficient lubrication, sweep angle, length of wiper arms and blades, how wet is the screen.

This item is explained on our **YouTube** channel

- SPARE BUNDY TUBE 1060mm #WTUBE £12 (£14.40 inc vat)**
- SPARE INNER CABLE 1500mm #WCAB £14 (£16.80 inc vat)**
- SPARE CLAMP & PAD #WCLAMP £8 (£9.60 inc vat)**
- 2 SPEED ROCKER SWITCH #WIPSW £18 (£21.60 inc vat)**

TWO SETS OF WIPER MOTOR GEAR FIXINGS If you're fitting or replacing the gear in one of our wiper motors it makes sense to use new fixings. So here are two each of - Belleville washers, Thrust Washers and Circlips. **Check out our YouTube video on assembly and installation.**
#WGFIX £2 for two sets (£2.40 inc vat)



WIPER MOTOR INSTALLATION INSTRUCTIONS

First mock up the system on the bench and lay out your wiper arms for either left or right park as required. Mount your motor and gearboxes in as straight a line as possible. Ensure that the drive cable will reach the furthest wheelbox. The length of Bundy tubing supplied can be formed into gentle curves if required.
 Cut the tubing into the lengths required starting with the piece that will join the motor to the first wheelbox. Install the flared end onto the motor. Remove the two nuts holding the two halves of the gearbox together. Ideally you should form a small flare on the end of the cut tube to lock it into the wheelbox when the two halves are bolted together. If you do not have a flaring tool you may be able to carefully form a sufficient flare on the tube by working around the end with a small pair of needle nose pliers. Cut a second length to join the two wheelboxes and a final short length just long enough to cover the exposed inner cable at its full extension. Flare all ends as before.
 When all the tubes are installed, remove the motor from its mount and refit it whilst feeding the inner cable through the tubes and gearboxes. To change from left park to right park simply invert the wheel boxes 180° or, if space does not allow, remove the gear wheel mechanism from the motor, prise out the white nylon slipper moulding and reinsert it on the opposite edge of the gear wheel.
 The terminal block forms part of the motor gearbox and incorporates 0.187in blades arranged to accept a 5-way connector. However, on single speed motors only four terminals are used. Correct terminal polarity must be observed. The wiper switch must be capable of switching an inductive current of 5 Amps.

REPLACEMENT GEARS FOR OUR WIPER MOTORS A range of replacement gears to set the wiper arm sweep angle between 90 degrees and 140 degrees.

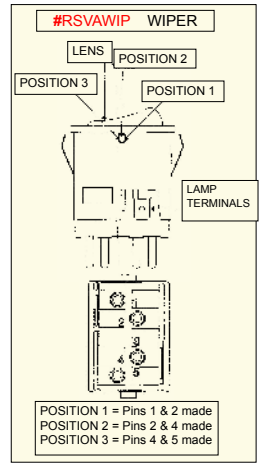
- #WG90 £21 (£25.20 inc vat)**
- #WG95 £21 (£25.20 inc vat)**
- #WG100 £21 (£25.20 inc vat)**
- #WG105 £21 (£25.20 inc vat)**
- #WG110 £21 (£25.20 inc vat)**
- #WG115 £21 (£25.20 inc vat)**
- #WG120 £21 (£25.20 inc vat)**
- #WG125 £21 (£25.20 inc vat)**
- #WG130 £21 (£25.20 inc vat)**
- #WG140 £21 (£25.20 inc vat)**

CHECK OUT OUR YOUTUBE VIDEO ON FITTING THESE GEARS

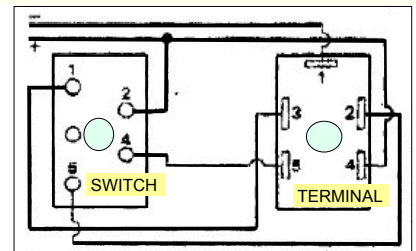


2 SPEED WIPER SWITCH

#RSVAWIP £8 each (£9.60 inc vat) 4 TERMINALS

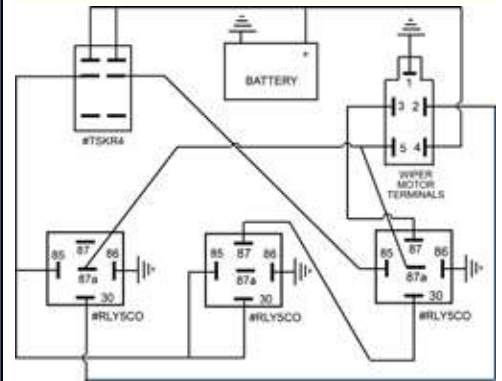


The wiring example below shows Lucas 1596A switch Part No: 39736. This was the original switch used with this type of wiper motor on many old UK classic cars. You may be lucky enough to find one at an Auto jumble. Our **#RSVAWIP** is a suitable alternative.



WIRING EXAMPLE USING OFF-ON-ON TOGGLE SWITCH

1. To Ground (earth) Black
2. From wiper switch (Brown/Green) When switch is off this connects to Terminal 5 (Red/Green)
3. From Wiper Switch Fast Speed +ve
4. To fused ignition controlled +ve (normally green)
5. From Wiper Switch Slow Speed +ve (normally Red/Green)



WIPER MOTOR WIRING PLUG WITH TERMINALS (#WK110 to #WK130) #WIPPLG2 £4 (£4.80 inc vat)



ROTARY 2 SPEED WIPER SWITCH

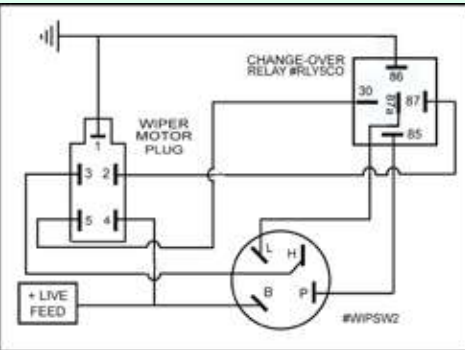
Nice quality. Nice action. 2 Speed wiper switch with 'Park' facility. Mounts through an 11mm hole. Two flats on mounting thread. Maximum panel thickness 6mm. Knob diameter 30mm. 1/4" Spade terminals on rear. Rear projection 32mm. Switch body diameter 34mm. 16 Amp max. NOTE: Your wiper motor must have two-speed winding and park facility for this switch to work correctly. You will also require a change-over relay for Park operation.

WIRING: B = +12 volts in. L = Low Speed out. H = High Speed Out. P = Park

#WIPSW2 £16 (£19.20 inc vat)



NOTE: Mini or Ford Wiper Switches feed +ve to Red/Green when switched on and link Red/Green to Brown/Green when switched off to power self-parking. For correct operation check that your switch contacts work in this fashion



WIPER WHEELBOX 45 DEGREE WEDGES

These, hard rubber, angled sleeves fit over your wiper wheelbox shaft and allow you to angle the wheelbox at 45° through your scuttle. NOTE: You will require one of each per wheelbox for a new installation.

ABOVE SCUTTLE

LARGE 27mm diameter, 16mm I.D.

Maximum length 24mm

#WBWEDGL £2.50

(£3 inc vat)

BELOW SCUTTLE

SMALL 24mm diameter, 16mm I.D.

Maximum length 25mm

#WBWEDGS £2.50

(£3 inc vat)



REPLACEMENT WIPER MOTOR PARK SWITCH

For all of our #WK90 to #WK140 wiper motors.

#PARKSWITCH £12 (£14.40 inc vat)



WINDSCREEN WIPER WHEELBOXES

An add-on to our Wiper Kit for cars with three wiper arms. Height from base to top of thread 35mm. Height from base to top of spindle 50mm. 32 teeth

STANDARD HEIGHT 49mm

#WBOX £18 (£21.60 inc vat)



EXTENDED HEIGHT WHEELBOX 64mm

#WBOX2 £24 (£28.80 inc vat)



TALL TAPER-MOUNT SPINDLE WIPER WHEELBOX

This unusual wheelbox could be a solution in some installations. Mounts through a 16mm hole with two flats.

M8 thread. Tapered rubber bush, fibre washer, nut and rubber sealing cap included.

#WBOX4 £22 (£26.40 inc vat)



CHROME PLATED WIPER WHEELBOX NUT

Octagonal nut 19mm (3/4") across the flats x 4.8mm thick. Thread 5/8" x 24 tpi UNF

#WBNUIT £2.50

(£3 inc vat)



TALL SLIM-SPINDLE WHEELBOX WITH ADAPTER

This unusual wheelbox could be a solution in some installations. It includes a 13.5mm splined adapter that fits on the 1/4" diameter spindle to fit our range of wiper arms. Mounts through a 3/8" (10mm) hole. 3/8" unf thread x 18mm long. Fibre washer, nut and rubber sealing cap included.

#WBOX3 £22 (£26.40 inc vat)



13.5mm SPLINED WIPER ARM ADAPTER AVAILABLE SEPARATELY

#WBAD

£7.50

(£9 inc vat)



CHROME FERRULE KIT FOR WIPER WHEELBOX

These decorative ferrules replace the upper black plastic spacer on our wheelboxes to finish off the scuttle look with a little bling. They offer two mounting angles for your wiper wheelboxes. Includes a rubber washer and a 5/8" x 24 tpi UNF chrome nut.

45 DEGREE

#WBCF £8.50 each (£10.20 inc vat)

35 DEGREE

#WBCF2 £8.50 each (£10.20 inc vat)



WIPER BLADES & ARMS

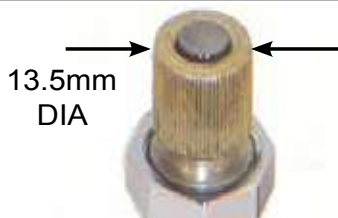
DETERMINE LEFT OR RIGHT PARK FROM THE DRIVER'S SEAT

WIPER ARMS Fits 13.5mm diameter splined spindle. Press-on. Some versions have a spindle clamp with tightening screw.

9 1/2 inch **BLACK LEFT PARK** #WA9LPB

9 1/2 inch **BLACK RIGHT PARK** #WA9RPB

£12 each (£14.40 inc vat)



11 inch **BLACK LEFT PARK** #WALPB £12 each (£14.40 inc vat)

11 inch **BLACK RIGHT PARK** #WARP £12 each (£14.40 inc vat)



11 inch **STAINLESS RIGHT PARK** #WARP £12 each (£14.40 inc vat)

11 inch **STAINLESS LEFT PARK** #WALP £12 each (£14.40 inc vat)



ADJUSTABLE STAINLESS WIPER ARM Fits 13.5mm diameter spindle. Screw-tightening spindle clamp.

RIGHT PARK #WAADJRP £15 each (£18. inc vat)

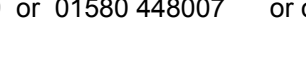
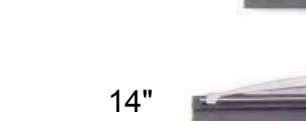
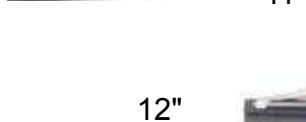
LEFT PARK #WAADJLP £15 each (£18. inc vat)



ADJUSTABLE SLIDING ARM FROM 6 1/2" to 12 1/2"



ROTATE LEVER BEHIND ARM TO LOCK



MODERN SPRUNG BLADES Sprung stainless blades to fit our 5.8mm wide wiper arms.

10" #WBS10 £7.50 each (£9 inc vat)

11" #WBS11 £7.50 each (£9 inc vat)

12" #WBS12 £7.50 each (£9 inc vat)



RIGID WIPER BLADE 10 inch. To fit 5.8mm wide arm. Can be cut down to shorter length.

STAINLESS #WBR £6 each (£7.20 inc vat)

BLACK #WBRB £6 each (£7.20 inc vat)



TRADITIONAL SPRUNG BLADES Sprung stainless blades to fit our 5.8mm wide wiper arms.

8" #WBS8 £8.50 each (£10.20 inc vat)

9" #WBS9 £8.50 each (£10.20 inc vat)

10" #WBS10T £8.50 each (£10.20 inc vat)

11" #WBS11T £7.50 each (£9 inc vat)

12" #WBS12T £7.50 each (£9 inc vat)

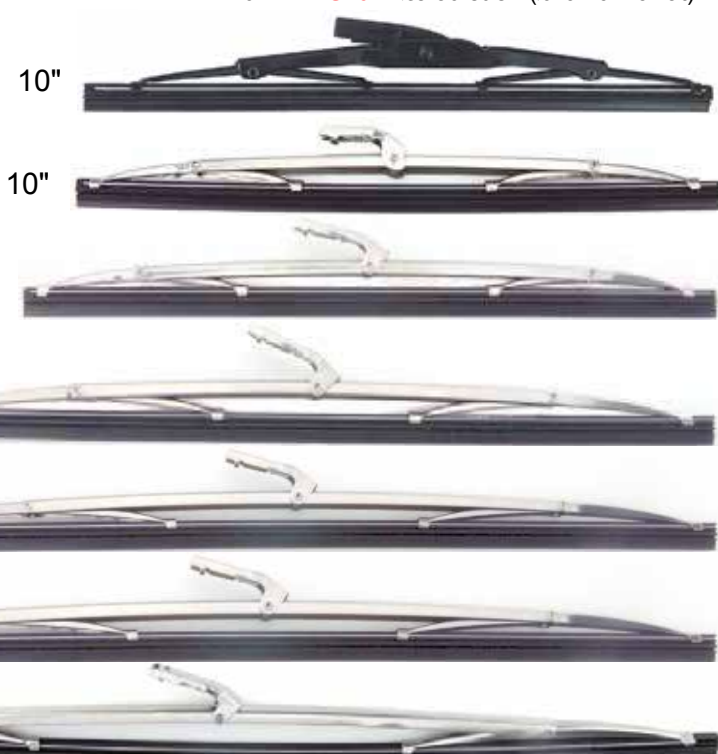
14" #WBS14T £7.50 each (£9 inc vat)

15" #WBS15T £7.50 each (£9 inc vat)

16" #WBS16T £7.50 each (£9 inc vat)



BLACK 10" #WBS10B £8.50 each (£10.20 inc vat)



COMPACT WIPER MOTOR 12 Volt. . 6 Nm torque. Integral ON/OFF toggle switch. Two 1/4" male spade connectors. Tapered spline fitting for tapered wiper arms. Simple mounting through a 12mm hole for the shaft and an 8mm hole in an integral stabiliser bracket. Overall shaft length 70mm. Body length 100mm. Motor diameter 60mm. Weight 746 gms.

85° SWEEP #TWM85 £80 (£96 inc vat)

105° SWEEP #TWM105 £80 (£96 inc vat)

NOTE: MAXIMUM TORQUE 6 Nm



COMPACT LONG SHAFT WIPER MOTOR 12 Volt. 105° sweep. 6 Nm torque. Integral ON/OFF toggle switch. Two 1/4" male spade connectors. Tapered spline fitting for tapered wiper arms. Simple mounting through a 12mm hole for the shaft and an 8mm hole in an integral stabiliser bracket. Overall shaft length 125mm. Body length 100mm. Motor diameter 60mm. Weight 782 gms.

#TWM105L £85 (£102 inc vat)



NOTE: MAXIMUM TORQUE 6 Nm

NOTE: DO NOT STALL THE MOTOR OR DAMAGE CAN OCCUR

SCUTTLE GOES HERE



SCREW MOUNT SPRUNG WIPER BLADE

Accepts 8mm x 3mm wiper arm in a rocking mount secured with two M5 screws. Weight 108gms.

300mm #SMWB300 £12 (£14.40 inc vat)

395mm #SMWB £12 (£14.40 inc vat)

500mm #SMWB500 £14 (£16.80 inc vat)



TAPER MOUNT ADJUSTABLE WIPER ARMS Heavy Duty.

Larger profile than our regular arms 8mm x 3mm sliding section with simple length adjustment every 10mm. Just press the sprung lever underneath to release the retaining pin. Slide out the arm and release the lever to lock it at the required length.

Female taper fitting to wiper shaft. Weight 250gms.

300mm to 400mm **#TWA300 £19** (£22.80 inc vat)

400mm to 500mm **#TWA400 £19** (£22.80 inc vat)



FUEL CARBURETTOR FUEL PUMPS

The fuel pumps on this and the following few pages are suitable for carburettor engines. They are OK for petrol, diesel and alcohol fuels with all additives. All have a built in anti-siphon and anti drain-back valves. Simple two bolt installation. For best results mount as close to the fuel tank as possible below the fuel level and always use a filter between the tank and pump. Rubber mountings are recommended (see our mounts section)

IMPORTANT NOTE: ALL FUEL PUMPS MUST BE FITTED WITH A PRE-FILTER ON THE INLET SIDE. RETURNED PUMPS WILL NOT BE REPLACED OR REFUNDED IF FOUND DAMAGED DUE TO DEBRIS.

CLEAN CLEAN CLEAN

It only takes a speck of grit or swarf the size of a grain of sand to destroy your fuel pump so before you connect up, flush everything thoroughly from the filler neck and hose, the tank, the feed and return fuel lines and galleries

PROFESSIONAL SIPHON PUMP
Here's a superb, engineering quality siphon pump with a firm rubber bulb and an internal valve. Inlet and outlet are machined aluminium hoesetails. Flow direction is clearly marked with an arrow on the bulb. Overall length 150mm. Bulb diameter 44mm.
8mm HOSETAILS #PROSIPHON
10mm HOSETAILS #PROSIPHON2
Both £12 (£14.40 inc vat)



SU REPLACEMENT FUEL PUMP
12 Volt. Maximum flow rate 125 ltrs / Hour. Pressure 0.35 Bar (5 P.S.I.). Maximum lift height 1.5 mtrs. Rotating Inlet and Outlet - both 8mm dia. Overall height 130mm. Diameter 74mm. 1/4" male spade terminals. Rubber lined mounting bracket included. Maximum performance if mounted at fuel tank level. Must be fitted with a pre-filter.
#FPUMP5 £88 (£105.60 inc vat)



FUEL PUMP This excellent quality pump is now available in two versions. One (**#FPUMPS**) is a 'Suction' version best used for installation in your engine bay. The other (**#FPUMP**) is a 'Pressure' version for mounting near the fuel tank. 12 Volt. Flow rate 125 Lt/hr. Integral 8mm swivelling inlet & outlet unions. Size 73mm x 128mm. Mounting bracket & fixing screws included. Made in Germany. Not suitable for Bio Diesel. ECE Approved
NOTE: We always recommend the use of a pre-filter with all fuel pumps.
#FPUMP Pressure 4.2 psi. Suction -1.4 psi. £99 (£118.80 inc vat)
#FPUMPS Pressure 2.1 psi. Suction -2.8 psi. £99 (£118.80 inc vat)

SPECIAL NOTE: WHEN ADJUSTING THE ANGLE OF THE INLET AND OUTLET, LIFT THEM CLEAR OF THE PUMP AND REFIT THE 'O' RING TO THEM BEFORE REPOSITIONING TO AVOID DAMAGE TO THE 'O' RING.

DO NOT OVER-TIGHTEN THE OUTLET CLAMP RETAINING SCREW OR YOU WILL SPLIT THE CASING



FACET FUEL PUMPS These original, American made fuel pumps are for carburettor engines. Suitable for petrol fuels with all additives. All have a built in anti-siphon and anti drain-back valves. Simple two bolt installation. For best results mount as close to the fuel tank as possible below the fuel level and always use a filter between the tank and pump. Rubber mountings are recommended (see our mounts section)

FACET ELECTRONIC FUEL PUMP

Reliable solid state internals, no electrical contacts to burn out, no bearings to wear and no diaphragms to perish. 12 volt. Less than 2 amp current drain. Will self prime up to 0.3 mtrs lift. Footprint 80mm x 43mm x 65mm high. 2 bolt fixing at 65mm centres. Union thread size 1/8" NPT. Operating temperature range -31 to +55 deg C. Will pump from 1.5 psi to 4 psi. Flow rate 113 ltrs/hour. For carburettor engines up to 150 bhp. Weight 356gm. **#FAC5 £45** (£54 inc vat)



ELECTRONIC FUEL PUMP

Reliable solid state internals, no electrical contacts to burn out, no bearings to wear and no diaphragms to perish. 12 volt. Less than 2 amp current drain. Will self prime up to 0.3mtrs lift. Footprint 80mm x 80mm x 60mm high (without unions). Two bolt fixing at 65mm centres. Thread size 1/8" NPT female. Weight 469gm. Operating temperature range -31 to +55 deg C.

ROAD SPECIFICATION Will pump from 3 psi to 4.5 psi. Flow rate 113 ltrs/hour (30 US gal/hr.) **#FAC1 £55** (£66 inc vat)

FAST ROAD SPECIFICATION Will pump from 4.5 psi to 7 psi. Flow rate 121 ltrs/hour (32 US gal/hr.) **#FAC7 £60** (£72 inc vat)

COMPETITION SPECIFICATION

Will pump from 7 psi to 10 psi. Flow rate 128 ltrs/hour (34 US gal/hr.) **#FAC2 £58** (£69.60 inc vat)



ELECTRONIC FUEL PUMP 'SILVER TOP ROAD' For engines up to 150 BHP.

Sealed, reliable solid state internals. 12 volt. Requires separate earth connection to pump body via fixing bolt. Less than 2 amp current drain. Will self prime up to 1 mtr lift. Footprint 140mm x 82mm x 85mm high (without unions). 2 bolt fixing at 65mm centres. Removable, washable, internal nylon filter. Weight 760gm. Operating temperature range -60 to + 43°C.

SILVER TOP ROAD Will pump from 4.5 psi to 5.5 psi. Flow rate 113 ltrs/hour (30 US gal/hr.) Union thread size 1/8" NPT. **#FAC6 £105** (£126 inc vat)



ELECTRONIC FUEL PUMP 'SILVER TOP FAST ROAD' For engines up to 200 BHP OTHER SPECIFICATIONS AS ABOVE

FAST ROAD Will pump from 5 psi to 6 psi. Flow rate 132 ltrs/hour (35 US gal/hr.) Union thread size 1/8" NPT. **#FAC3 £105** (£126 inc vat)



COMPETITION 'RED TOP' For engines over 200 BHP. Will pump from 6.5 psi to 8 psi. Flow rate 151 ltrs/hour (40 US gal/hr.) Union thread size 1/4" NPT. Other specification as #FAC3.

#FAC4 £105 (£126 inc vat)



TO PREVENT VAPOUR LOCK OR AIRLOCK IT IS RECOMMENDED THAT ALL FUEL PUMPS ARE MOUNTED WITH THE OUTLET HIGHER THAN THE INLET

BRASS 90° 1/8" NPT HOSETAILS FOR FUEL PUMPS AND REGULATORS

1/8" NPT to 6mm push on tail. **#HT90186**

1/8" NPT to 8mm push on tail. **#HT90188**

Both £4 (£4.80 inc vat)

1/8" NPT to 10mm I.D. hose **#HT901810**

£5.50 (£6.60 inc vat)



BRASS STRAIGHT 1/8" NPT HOSETAILS

1/8" NPT to 6mm push on tail. **#HT186**

1/8" NPT to 8mm push on tail. **#HT188**

1/8" NPT to 10mm push on tail. **#HT810**

All £4 each (£4.80 inc vat)



BRASS STRAIGHT HOSETAILS FOR #FAC4

1/4" NPT to 8mm push on tail. **#HT14NPT8**

1/4" NPT to 10mm push on tail. **#HT14NPT10**

All £4 each (£4.80 inc vat)



BRASS 90° HOSETAILS FOR #FAC4

1/4" NPT to 6mm push on tail. **#HT9014NPT6**

1/4" NPT to 8mm push on tail. **#HT9014NPT8**

1/4" NPT to 10mm push on tail. **#HT9014NPT10**

All £4 each (£4.80 inc vat)



COTTON REEL RUBBER MOUNTS

Ideal for, fuel pumps, SEE 'MOUNTS' PAGE



FACET CYLINDRICAL FUEL PUMP KITS. ALL WITH BRASS UNIONS, TWO RUBBER MOUNTS, SPARE FILTER AND EARTH LINKING CABLE

Ideal For Twin DCOE Weber competition engine set-ups or larger engine capacity. These pumps will provide high-performance output for everything from racing cars to heavy duty agricultural and construction machinery. Operating Temperature:- -40° to +180° F Complies With EEC 95/54. Length:-140mm, Diameter:- 54mm, Weight:-0.7kg

IMPORTANT NOTE: ALL FUEL PUMPS MUST BE FITTED WITH A PRE-FILTER ON THE INLET SIDE. RETURNED PUMPS WILL NOT BE REPLACED OR REFUNDED IF FOUND DAMAGED DUE TO DEBRIS.

FACET SILVER TOP ROAD 476087-K

Cylindrical Fuel Pump Box Kit With 8mm Fuel Unions Flow rate 28 gallons per hour. Delivery pressure 4 - 5.5psi. Ideal for fast road use on engines up to 150 BHP. Dry Prime Height 0.6mtrs. Thread Size:- 1/8 NPT. **#FAC6KIT £119** (£142.80 inc vat)

FACET COMPETITION SILVER TOP ROAD 480530-K

Cylindrical Fuel Pump Box Kit With 8mm Fuel Unions Flow rate 30 gallons per hour. Delivery pressure 6 - 7psi. Ideal for fast road use on engines up to 200 BHP. Dry Prime Height 0.6mtrs. Thread Size:- 1/8 NPT **#FAC3KIT £119** (£142.80 inc vat)

FACET COMPETITION RED TOP 'WORKS' 480532-K

Cylindrical Fuel Pump Box Kit With 10mm Fuel Unions Flow rate 38 gallons per hour. Delivery pressure 6 - 8psi. Ideal for fast road use on engines up to 240 BHP. Dry Prime Height 0.6mtrs. Thread Size:- 1/4 NPT **#FAC4KIT £119** (£142.80 inc vat)



FACET CUBE FUEL PUMP KITS . ALL WITH BRASS UNION AND INLET FILTER UNION, TWO RUBBER MOUNTS AND EARTH LINKING CABLE

The solid state fuel pumps from Facet are a compact design for use with carburettor equipped engines or as a supply pump to a fuel swirl pot. They require mounting close to the fuel tank and not above it as this will lower the performance of the pump. Solid State Reliability. Proven on thousands of original equipment applications. No electrical contacts. No bearings or diaphragms to wear out or fatigue. Lasts four to five times longer than many other electric fuel pumps. Compatible with gasoline, diesel, biodiesel, blended alcohol fuels and fuel additives. Operating Temperature:- -40° to +180° F (all Models) Complies with EEC 95/54. Length:-75mm, Height:- 60mm, Weight:-0.5kg

FACET SOLID STATE ROAD CUBE FUEL PUMP KIT 40105-K

Cylindrical Fuel Pump Box Kit With one 8mm fuel union and an inlet filter union. Flow rate 25 gallons per hour. Delivery pressure 3 - 4.5psi. Ideal for road use with engines up to 1600cc and up to 150BHP. Dry Prime Height 0.3mtrs. Thread Size:- 1/8 NPT. **#FAC1KIT £66** (£79.20 inc vat)

FACET SOLID STATE FAST ROAD CUBE FUEL PUMP KIT 40106-K.

Cylindrical Fuel Pump Box Kit With one 8mm fuel union and an inlet filter union. Flow rate 32 gallons per hour. Delivery pressure 4 - 7psi. Ideal for road use with engines up to 2000cc and up to 150BHP. Dry Prime Height 0.3mtrs. Thread Size:- 1/8 NPT. **#FAC7KIT £69** (£82.80 inc vat)

FACET SOLID STATE COMPETITION CUBE FUEL PUMP KIT 40185-K.

Cylindrical Fuel Pump Box Kit With one 8mm fuel union and an inlet filter union. Flow rate 28 gallons per hour. Delivery pressure 7 - 10psi. Ideal for road use with engines up to 180 BHP. Dry Prime Height 0.3mtrs. Thread Size:- 1/8 NPT. **#FAC2KIT £70** (£84 inc vat)



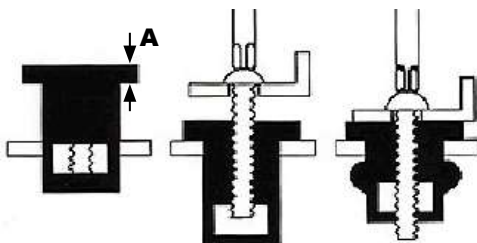
RUBBER RIVNUTS Is a flanged neoprene bushing with a captive brass nut designed to provide a shock and vibration resistant fixing for component mounting and panel assembly. Removable and reusable **INSTRUCTIONS:** Measure and drill the hole carefully so they are a press fit. Place 'Rub-Nut' insert all the way into the pre-drilled hole until the flange is firmly against the mounting surface. Pass the machine screw through the part to be fastened and tighten until snug. **SOLD IN PACKS OF 10**

- M4** Drill approx. 8mm hole **#RUBNUT4 £4** (£4.80 inc vat)
- M5** Drill approx. 10mm hole **#RUBNUT5 £4.50** (£5.40 inc vat)
- M6** Drill approx. 12.5mm hole **#RUBNUT6 £5** (£6 inc vat)
- M8** Drill approx. 16mm hole **#RUBNUT8 £12** (£14.40 inc vat)



PACKS OF 10

'A' FLANGE THICKNESS
M4 - 1mm. M5 - 1mm
M6 - 4.6mm, M8 - 3mm



BILLET ALUMINIUM FUEL PUMP BLANKING PLATE With gasket. This beautifully cnc'd cover will seal the hole in the engine block if you are converting from a mechanical pump to an electric pump. Size 67mm high x 61mm wide x 11mm thick. Two 9.7mm mounting holes at 44mm centres. Weight 80 gms. **#BFPB £14.50** (£17.40 inc vat)



CBS BUILDER'S TIP
THOROUGHLY WASH OUT ALL PIPES AND HOSES BEFORE INSTALLATION

PETROL KING LOW PRESSURE FUEL REGULATOR Suitable for most fuels except methanol. Fuel pressure can be adjusted between 1.5 psi and 5 psi. Supplied with 1/8" npt x 8mm hose tails. Supplied with plated steel mounting bracket and fixing bolts. Overall width across hosetails 124mm. Mounting bracket 90mm x 46mm. 28mm centres. **#PKR1 £63** (£75.60 inc vat)



BILLET ALLOY MOUNTING BRACKET Optional mounting bracket for all Petrol King and Filter King products. 48mm wide. 35mm high. 35mm deep. **#REGBKT £7.50** (£9 inc vat)



REPLACEMENT FILTER KING ELEMENTS
For 67mm Filter King
#FK67FIL £5 (£6 inc vat)
For 85mm Filter King
#FK85FIL £9 (£10.80 inc vat)



FILTER KING 67mm LOW PRESSURE FUEL FILTER/REGULATOR Metal bowl. Suitable for most fuels except methanol. Fuel pressure can be adjusted between 1.5 psi and 5 psi. Integral 8mm hose tails. Supplied with plated steel mounting bracket and fixing bolts. Overall width across hosetails 101mm. Overall height 126mm. Mounting bracket 90mm x 46mm. 28mm centres. **#FK67M £60** (£72 inc vat)



FILTER KING 85mm LOW PRESSURE FUEL FILTER/REGULATOR Transparent bowl. Specification as above. Overall width across hosetails 118mm. Overall height 138mm. Mounting bracket 90mm x 46mm. 28mm centres. 1/8" npt female port with blanking plug for temporary pressure gauge installation. 8mm hose tails. **#FK85T £70** (£84 inc vat)



METAL BOWL VERSION
#FK85M £70 (£84 inc vat)

All the fuel filters here are ideal for carburettor systems or as a low pressure pre-filter in fuel injected systems

BLUE ANODISED ALUMINIUM FUEL FILTER 12mm or 15mm Hosetails. Can be dismantled for cleaning. Very free-flowing, washable, sintered brass filter element. Diameter 25 mm. Length 115 mm. 26mm Hex. on each end. Weight 73 gms.
With 12mm hosetails for 12mm I.D. hose
#FFAL12 £12 (£14.40 inc vat)
With 15mm hosetails for 15mm I.D. hose
#FFAL15 £12 (£14.40 inc vat)



FUEL FILTER GLASS & CHROME Can be dismantled for cleaning. Clear glass body and chrome plated end caps. Available with 6mm, 8mm or 10mm integral hose tails. Very free-flowing. Diameter 28mm. Length 108mm. Maximum 10 psi pressure.
6mm #FFGL6 £10 (£12 inc vat) (below)
8mm #FFGL8 £10 (£12 inc vat)
10mm #FFGL10 £10 (£12 inc vat)



GLASS FUEL FILTER KIT This free-flowing glass and chrome filter is only 65mm long and 28mm diameter. It has 1/8 NPT threads in each end and can be dismantled and cleaned. It is supplied with threaded nylon hose tails 6mm (1/4") 8mm (5/16") and 10mm (3/8"). Weight 77gms
#FFGLKIT £17.50 (£21 inc vat)



HOSETAILS ONLY
#PHTSET
£3 Pack of 6
(£3.60 inc vat)



'MICRO' FUEL FILTER Here's a teeny, weeny, very discreet fuel filter. 8mm Inlet and Outlet, 60mm long and only 21mm maximum diameter. Made from crystal-clear Polycarbonate with a fine nylon mesh inside so you can see exactly what's going on in there. **#FFNY21 £2.30** (£2.76 inc vat)



PLATED STEEL FUEL FILTER

1/8" NPT to 8mm push on tail. Maximum 10 psi pressure. **#FF188 £4** (£4.80 inc vat)



SMALL ALUMINIUM FUEL FILTER

Polished natural finish. Can be dismantled for cleaning. Very free-flowing, washable, sintered brass filter element. 8mm hosetails. Diameter 29 mm. Length 73 mm. **#FFAL8 £6.50** (£7.80 inc vat)



BLUE ANODISED

#FFAL8BU £6.50 (£7.80 inc vat)



NYLON FUEL FILTER See clearly what's happening with your fuel delivery. Made from tough, transparent Nylon. Dual hose size fitting 6mm (1/4") and 8mm (5/16"). Free-flowing. 50mm (2") diameter. Max 10 psi pressure. **#FFNY £3.50** (£4.25 inc vat)



1/8" NPT to 8mm IN-LINE FUEL FILTER

48mm diameter x 94mm overall length. 8mm hosetail on one end and 1/8" NPT male thread on the other. Weight 84 gms. **#FF188L £8** (£9.60)



CANISTER FUEL FILTER 12mm (1/2")

Pre-pump, High-flow fuel filter for fuel injection or carburettor engines. Anodised aluminium 12mm inlet and outlet push-on hosetail unions. Overall length 180mm. Diameter 55mm. Weight 172 gms. **#FF1212 £24** (£28.80 inc vat)



BILLET ALUMINIUM FUEL FILTERS 53mm diameter x 95mm long (without unions) Beautifully machined and anodised with replaceable element. 1/4" NPT female threads in each end. Includes two plated spring mounting clips. Suitable for carburettor or fuel injection systems. Weight 180 gms. UNIONS NOT INCLUDED. Select the unions you require from our range. **RED #AFFR £40** (£48 inc vat)



BLUE #AFFB £40 (£48 inc vat)



REPLACEMENT ELEMENT

#FK67FIL £9 (£10.80 inc vat)



UNIONS NOT INCLUDED



CBS BUILDER'S TIP
THOROUGHLY WASH OUT
ALL PIPES AND HOSES
BEFORE INSTALLATION

FUEL INJECTION PUMPS

COMPETITION FUEL INJECTION PUMP.

13.5 volt. (12 volt)
 Maximum pressure 9.5 bar.
 Maximum flow 280 ltrs / hr
 Flow @ 3 bar 180 ltrs / hr
 Maximum distance from tank 0.6 mtrs
 Inlet and outlet thread size M10 x 1
 Inlet hose 12mm. Outlet hose 8mm
 Supplied with a 62mm dia. foam mounting sleeve (will compress to 60mm) Both straight unions. **#INJP1 £118 (£141.60 inc vat)**



Straight 12mm inlet union. 8mm banjo outlet.
#INJP2 £120 (£144 inc vat)



SPARE BANJO SET FOR FUEL INJECTION PUMPS #INJP2 and 5

Cap nut (M12 x 1.5mm) , banjo and washers.

#INJBAN £9.50 (£11.40 inc vat)



SPARE TERMINAL NUT SET FOR FUEL INJECTION PUMPS #INJP1 and 2

Nuts, and washers.

#INJPNUT £3.35 (£4.02 inc vat)



IMPORTANT NOTE: ALL FUEL PUMPS

**MUST
BE FITTED WITH A
PRE-FILTER ON
THE INLET SIDE.
RETURNED PUMPS
WILL NOT BE
REPLACED OR
REFUNDED IF FOUND
DAMAGED DUE TO
DEBRIS.**

COMPETITION FUEL INJECTION PUMP. MOUNTING BRACKET

This beautifully machined, anodised, billet aluminium mount has a hinged, quick-release clamp secured with two M6 cap head screws. Base footprint 128mm x 45mm with four 6mm fixing holes @ 25mm x 113mm centres. Height 76mm. Internal bore 65mm. Supplied with 4.5mm thick x 93mm long x 61mm O.D. foam adapter sleeve. PUMP NOT INCLUDED.

#INJBKT £40 (£48 inc vat)



FUEL INJECTION PUMP. With boots and connectors.

13.5 volt. (12 volt)
 Normal running pressure 3 Bar.
 Maximum pressure 8.5 Bar.
 Flow 156 ltrs / Hour.
 Inlet size 12mm straight push-on
 Outlet size 8mm straight push-on
 Diameter 52mm. Overall length 175mm.

#INJP4 £55 (£66 inc vat)



FUEL INJECTION PUMP. This pump is a replacement for the Bosch "044" Motorsport pump, the highest flowing of the Bosch pumps that is often used in Motorsport applications.

13.5 volt. (12 volt)
 Current drain max. approx 11 Amps
 Flow rate: 265 ltrs/hr @ 55 psi (3.9 bar) and 255 ltrs/hr @ 75 psi (5.3 bar)
 Inlet thread female M18 x 1.5mm
 Outlet thread male banjo M12 x 1.5mm
 Diameter 60mm. Overall length 195mm.
 Electrical connection threads: Positive M6 / Negative M5
 Supplied with boots and connectors.
 Weight 1126 gm.

#INJP5 £85 (£102 inc vat)



**TO PREVENT VAPOUR
LOCK OR AIRLOCK
IT IS RECOMMENDED
THAT ALL FUEL
PUMPS ARE MOUNTED
WITH THE OUTLET
HIGHER THAN
THE INLET**

IN-TANK FUEL INJECTION PUMP

120 ltrs / hour. 3 bar (45 psi) pressure. Minimum tank depth 230mm. 8mm outlet. Nylon gauze filter. Will fit through a 50mm hole. Mounting plate diameter 82mm. Five 5mm fixing holes on a 63mm PCD. Can be secured with M5 screws into M5 rivnuts fitted around the 50mm hole. 750mm double insulated two core fly lead with a 2 pin plug that can be easily removed and new terminals fitted. No gasket supplied. Can be sealed with a bead of polyurethane adhesive / sealant. **#INJP3 £45** (£54 inc vat)



FUEL INJECTION PRESSURE

REGULATOR This unit allows adjustment of fuel pressure at the injector to match fuel requirements of modified and tuned engines. Pressure range 1 to 5 Bar (14 to 72 psi). 8mm hosetails in and out. 5mm hosetail for vacuum connection. Body diameter 69mm. Overall height 106mm. Weight 220gms. Made in Italy. **NOTE:** We recommend installation of these units is checked and tested by a competent automotive workshop. Dynamometer setup may be required for full benefit. **#FIPR82 £77** (£92.40 inc vat)



VERSION With fuel gauge inlet. This version has a 1/8" npt female thread with a blanking plug for temporary installation of a pressure gauge.

#FIPR8 £79 (£94.80 inc vat)



FUEL PRESSURE GAUGE IN-LINE

ADAPTER Nicely made aluminium housing for simple installation of a fuel pressure gauge. Just cut the rubber fuel line and push on the ends. Supplied with a brass plug.

NOTE: We recommend fuel gauges for setting-up only. Not for permanent installation. GAUGE NOT INCLUDED

FOR 6mm HOSE

#FPGA6 £15 (£18 inc vat)

FOR 8mm HOSE

#FPGA8 £15 (£18 inc vat)

FOR 10mm HOSE

#FPGA10 £15 (£18 inc vat)



12mm and 19mm ALSO AVAILABLE

FILTER FOR FUEL INJECTION SYSTEMS

Pre-pump installation. Steel canister with fixed M14 x 1.5mm female threads in and out. 55mm diameter x 111mm long. 10 to 20 Micron paper element. 8mm through bore. Add your unions of choice from the selection below. **#FF1415 £8** (£9.60 inc vat)



BLACK ANODISED ALUMINIUM UNIONS

All with M14 X 1.5MM male thread and aluminium sealing washer.

JIC6 (AN6) #HT145J6 £7 (£8.40 inc vat)

JIC8 (AN8) #HT145J8 £7 (£8.40 inc vat)

8mm HOSETAIL #HT1458 £7 (£8.40 inc vat)

12mm HOSETAIL #HT14512 £7 (£8.40 inc vat)



OIL FILLED FUEL PRESSURE GAUGE

Maximum pressure 1 bar / 15psi.

Bezel diameter 41.5mm.

1/8" npt thread on the back.

NOTE: We recommend fuel gauges for setting-up only. Not for permanent installation. **#FPG1 £15** (£18 inc vat)



OIL FILLED FUEL PRESSURE GAUGE

Maximum pressure 7 bar / 100 psi.

Bezel diameter 47mm. 1/8" npt thread on the back.

NOTE: We recommend fuel gauges for setting-up only. Not for permanent installation. **#FPG2 £17** (£20.40 inc vat)



FUEL INJECTION FILTER Suitable for installation before or after the pump.

(**NOTE:** We always recommend installing a filter before the pump even if you have this one after). Overall length 140mm.

Body diameter 55mm. Hose tails 8mm.

Supplied with two spring steel mounting clips. **#FFINJ8 £10** (£12 inc vat)



FUEL INJECTION FILTER WITH ONE ANGLED END

Suitable for installation before or after the pump. (**NOTE:** We always recommend installing a filter before the pump even if you have this one after).

Overall length 132mm. Body diameter 56mm. Hose tails 8mm. Supplied with two spring steel mounting clips.

#FFINJ890 £10 (£12 inc vat)



SWIRL POTS

FUEL SWIRL POT This 1.5 litre lift tank prevents misfiring due to tank surge and fuel starvation in fuel injected engines during hard cornering, braking and acceleration.

1. Top - 6mm breather/return to main tank.
2. Inlet - 8mm fuel feed via a low pressure electric pump from the main tank.
3. Inlet - 8mm return from fuel rail.
4. 12mm main outlet to your high pressure pump.

Overall size 215mm high, 100mm diameter. Weight 460 gms. Available with:

BOTTOM MOUNT

#SWIB £99 (£118.80 inc vat)



REAR MOUNT

#SWIR £99 (£118.80 inc vat)



FUEL SWIRL POT DIECAST This die-cast, satin black coated swirl pot has a capacity of 480cc. Overall height 185mm high, 93mm maximum diameter. The inlet and return on the top are threaded 1/4" BSP female.

Two 1/4" BSP x 3/8" (10mm) brass unions are supplied. The bottom outlet (to the main fuel pump) is 12mm diameter. There is a brass bleed plug on the top. A stainless steel mounting bracket with fixings is included.

Weight 850 gms.

DIECAST SWIRL POT #SWIRL

£112 (£134.40 inc vat)



FUEL SURGE TANK (SWIRL POT)

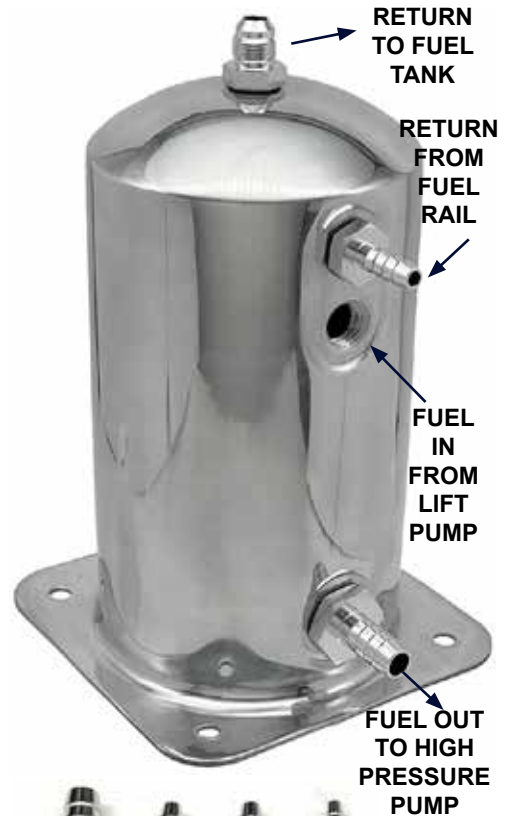
POLISHED ALUMINIUM This very clever surge tank is manufactured mostly from one piece of 3mm aluminium sheet. The only weld is on the closing plate on the base so no welds are visible when it's mounted. A selection of eight 'O' ring fittings is included:

- 1 x 6mm Hosetail
- 2 x 8mm Hosetail
- 1 x 12mm Hosetail
- 3 x AN6 (9/16" UNF)
- 1 x AN8 (3/4" UNF)

Height (without unions fitted) 195mm. Diameter 108mm. Base 130mm square with 4 x 8mm fixing holes on 100mm square. Capacity 1.5 Litres.

Weight (including all unions) 520 gms.

#SURGE £82 (£98.40 inc vat)



A selection of unions is shown fitted to this tank for illustration



BEFORE YOU PLACE AN ORDER PLEASE CHECK OUT OUR TERMS AND CONDITIONS AT THE FRONT AND BACK OF THIS CATALOGUE

FUEL HOSE

GENUINE GATES FUEL HOSE Suitable for carburettor and fuel injected engines. Petrol or Diesel. Top quality hose. Resists heat, oil, ozone & weathering.

Spiral textile reinforcement.

Working pressure up to 140 psi. IVA OK
SAE J30R7 ISO 4639-2 DIN 73379.

3.2mm (1/8") I.D. (7.5mm O.D.)

#FUHO3 £5 mtr (£6 inc vat)

4mm (5/32") I.D. (9mm O.D.)

#FUHO4 £5.50 mtr (£6.60 inc vat)

5mm (3/16") I.D. (11mm O.D.)

#FUHO5 £6 mtr (£7.20 inc vat)

6mm (1/4") I.D. (11.5mm O.D.)

#FUHO6 £6.50 mtr (£7.80 inc vat)

7mm (9/32") I.D. (13mm O.D.)

#FUHO7 £6.50 mtr (£7.80 inc vat)

8mm (5/16") I.D. (13.5mm O.D.)

#FUHO8 £7 mtr (£8.40 inc vat)

10mm (3/8") I.D. (15mm O.D.)

#FUHO10 £7 mtr (£8.40 inc vat)

12mm (1/2") I.D. (18mm O.D.)

#FUHO12 £7.50 mtr (£9 inc vat)



FUEL HOSE 100% ETHANOL OK

Top specification, German manufactured, 100% Ethanol proof fuel hose suitable for carburettor and fuel injected engines. Petrol or Diesel. Resists heat, oil, ozone & weathering. Abrasion resistant outer layer. Aramid textile bracing reinforcement. Temperature -40°F to +257°F Working pressure up to 280 psi. IVA OK. DIN 73379.

5.5mm I.D. (11.5mm O.D.)

#FUHO6ET £11 mtr (£13.20 inc vat)

7.5mm I.D. (13.5mm O.D.)

#FUHO8ET £12 mtr (£14.40 inc vat)

9.5mm I.D. (15mm O.D.)

#FUHO10ET £13 mtr (£15.60 inc vat)

11.5mm I.D. (18mm O.D.)

#FUHO12ET £18 mtr (£21.60 inc vat)

13.8mm I.D. (20mm O.D.)

#FUHO14ET £21 mtr (£25.20 inc vat)



VALUE FUEL HOSE Suitable for carburettor and fuel injected engines. Petrol or Diesel. High quality hose. Resists heat, oil, ozone & weathering. Spiral textile reinforcement. Working pressure up to 200 psi. SAE J30

6mm (1/4") I.D. (12.3mm O.D.)

#VFUHO6 £3.80 mtr (£4.56 inc vat)

8mm (5/16") I.D. (13.5mm O.D.)

#VFUHO8 £4 mtr (£4.80 inc vat)

10mm (3/8") I.D. (15mm O.D.)

#VFUHO10 £4.25 mtr (£5.10 inc vat)

12mm (1/2") I.D. (18mm OD)

#VFUHO12 £4.75 mtr (£5.70 inc vat)



FUEL HOSE TEXTILE COVERED.

Resists all petrols and diesel. Woven textile reinforcement resistant to heat, oil, ozone and weathering. For that classic look on carburetted engines. Maximum pressure 85 psi. Temperature range -35°C to +100°C

NOTE: THESE HOSES ALL MEASURE APPROX 0.5mm UNDERSIZE TO PUSH-FIT ON THE HOSETAIL SIZES QUOTED

4mm (5/32") I.D. (8.8mm O.D.)

#FUHOT4 £5 mtr (£6 inc vat)

5mm (3/16") I.D. (10mm O.D.)

#FUHOT5 £4 mtr (£4.80 inc vat)

6mm (1/4") I.D. (12mm O.D.)

#FUHOT6 £4.50 mtr (£5.40 inc vat)

8mm (5/16") I.D. (13mm O.D.)

#FUHOT8 £5 mtr (£6 inc vat)

10mm (3/8") I.D. (15mm O.D.)

#FUHOT10 £5.50 mtr (£6.60 inc vat)

14mm (9/16") I.D. (21mm O.D.)

#FUHOT15 £9 mtr (£10.80 inc vat)

25mm (1") I.D. (33mm O.D.)

#FUHOT25 £26 mtr (£31.20 inc vat)



STAINLESS BRAIDED FUEL HOSE 100% ETHANOL OK

Top specification, German manufactured, 100% Ethanol proof fuel hose suitable for carburettor and fuel injected engines. Petrol or Diesel. Resists heat, oil, ozone & weathering. Abrasion resistant outer layer. Aramid textile bracing reinforcement. Temperature -40°F to +257°F. DIN 73379 Working pressure up to 280 psi. IVA OK.

6mm I.D. (13mm O.D.)

#SSFUHO6ET £18 mtr. (£21.60 inc vat)

8mm I.D. (14.5mm O.D.)

#SSFUHO8ET £19 mtr. (£22.80 inc vat)

10mm I.D. (16mm O.D.)

#SSFUHO10ET £20 mtr. (£24 inc vat)



STAINLESS BRAIDED FUEL HOSE

Reinforced. 145 psi (10 bar) working pressure. 420 psi (30 bar) burst pressure. Suitable for leaded or unleaded fuel with up to 10% ethanol, diesel, water, air. Working temperature from -40 deg C to +150 deg C.

6mm I.D. (13.5mm O.D.)

#BRCFH6 £9 mtr. (£10.80 inc vat)

8mm I.D. (14.7mm O.D.)

#BRCFH8 £10 mtr. (£12 inc vat)

10mm I.D. (16.6mm O.D.)

#BRCFH10 £11 mtr. (£13.20 inc vat)

12mm I.D. (20.5mm O.D.)

#BRCFH12 £13 mtr. (£15.60 inc vat)



SUBMERSIBLE FUEL HOSE

Fully resistant to all fuels inside and out.

Suitable for linking chambers inside fuel tanks and for pick-up pipes inside tanks. Spiral woven textile reinforcement. Working pressure 140 psi.

SOLD PER HALF METRE 7.3mm I.D. (14mm O.D.)

#FUHO8SUB £13 per 1/2 mtr. (£15.60 inc vat)



LOW PRESSURE FUEL VENT / DRAIN HOSE

This flexible, polypropylene hose is ideal for vent or drain applications of fuel oil or water at atmospheric pressure only.

Will easily stretch up to 2mm bigger.

4mm I.D. 8.5mm O.D.

#FDRAIN4 £2 mtr. (£2.40 inc vat)

5.3mm I.D. 9.5mm O.D.

#FDRAIN6 £2 mtr. (£2.40 inc vat)

7mm I.D. 11.5mm O.D.

#FDRAIN8 £2 mtr. (£2.40 inc vat)

9.5mm I.D. 14mm O.D.

#FDRAIN10 £2.20 mtr. (£2.64 inc vat)

11mm I.D. 16.5mm O.D.

#FDRAIN12 £2.80 mtr. (£3.36 inc vat)

15mm I.D. 21mm O.D.

#FDRAIN15 £3.40 mtr. (£4.08 inc vat)

18mm I.D. 25mm O.D.

#FDRAIN19 £5 mtr. (£6 inc vat)

22mm I.D. 31mm O.D.

#FDRAIN22 £7.50 mtr. (£9 inc vat)



6mm O.D. COPPER PIPE

#COP6 £5 mtr. (£6 inc vat)

8mm O.D. COPPER PIPE

#COP8 £6 mtr. (£7.20 inc vat)

10mm O.D. COPPER PIPE

#COP10 £7 mtr. (£8.40 inc vat)



'O' CLIP HOSE SECURING SYSTEM

'O' Clips offer a more permanent means of securing pipes and hoses than traditional, 'screw-type' hose clips. Just fit the hose onto your union and carefully measure the outside diameter. Remember that hoses usually get bigger when pushed onto a union so measure carefully. Then choose the 'O' clip that is the closest size larger. Fit the clip and squeeze the two 'ears' with the special pliers. You'll have a tight, 360° seal that will never come loose.

ALL 'O' CLIPS SOLD INDIVIDUALLY

**SEE LISTING AND PRICES
LATER IN THE CATALOGUE**

WORKSHOP GRADE PLIERS With single crimping jaw. 235mm long.

#OPLIERS £9 (£10.80 inc vat)



PROFESSIONAL PLIERS With two crimping jaws - end and side for multiple access options. 235mm long..

#PROPLIERS £18.50 (£22.20 inc vat)



If you ever want to remove the clip just use the pliers to snip through one of the ears as shown on the pictures here.

FUEL HOSE CLIPS Zinc plated steel. 360° clamping pressure. Bolt and captive nut tightening.

9-11 mm **#FHC9**, 11-13 mm **#FHC11**
13-15 mm **#FHC13**, 15-17mm **#FHC15**
All £2.50 pack of 4 (£3 inc vat)



STAINLESS FUEL HOSE CLIPS

All stainless steel. 360 degree clamping pressure to ensure a leak-free joint. Lipped edge to minimise band cutting into hose.

ALL PACKS OF 4

7 - 9 mm **#SFHC7** £4 (£4.80 inc vat)
9 -11 mm **#SFHC9** £4 (£4.80 inc vat)
11-13 mm **#SFHC11** £4.50 (£5.40 inc vat)
13-15 mm **#SFHC13** £5 (£6 inc vat)
15-17mm **#SFHC15** £5.50 (£6.60 inc vat)
16-18mm **#SFHC16** £5.50 (£6.60 inc vat)
17-19mm **#SFHC17** £6 (£7.20 inc vat)
18-20mm **#SFHC18** £6 (£7.20 inc vat)
19-21mm **#SFHC19** £6.50 (£7.80 inc vat)

ALL PACKS OF 4



MINIATURE HOSE CLIPS Stainless band. Plated steel screw and housing. Band width 5mm. 6 to 11mm **#H6**

11 to 19mm **#H11**

Both £3 pack of 5 (£3.60 inc vat)



PIPE CLIPS AND SEPARATORS IN THE HARDWARE SECTION



HOSE FINISHERS Anodised aluminium with self-contained, hidden all-stainless hose clamps. Neatly hides the cut end of the hose and smartens up your engine bay. Sizes available for 12mm to 48mm diameter hoses. **SEE HARDWARE SECTION**



**BANJO UNIONS ARE IN STOCK
IN ALL POPULAR SIZES.
CHECK THE INDEX FOR
LOCATION IN THE CATALOGUE**



FLEXIBLE HOSE CLIP DRIVER Strong but flexible shaft will bend up to 30 degrees to tighten those awkward hose clips. Reversible socket on the end with 6mm and 7mm A/F sizes. 275mm long. **#HDRIVER** £5 (£6 inc vat)



HOSE FORMERS Brilliantly clever Stainless steel former for small bore hoses. Simply slip it over your hose and shape it to the required bend. Will not collapse the hose. Stays exactly to the shape you bend it to. Tidies up hose routing. Enables use of non standard hoses in repairs and custom installations.

13.4mm I.D. x 60mm long
(for hose 11.5mm to 13.4mm O.D.)

#HF6 £8 (£9.60 inc vat)

16.5mm I.D. x 65mm long
(for hose 13.5mm to 16.5mm O.D.)

#HF8 £8 (£9.60 inc vat)

18.4mm I.D. x 70mm long
(for hose 16.5mm to 18.4mm O.D.)

#HF9 £8 (£9.60 inc vat)

21.4mm I.D. x 75mm long
or hose 18mm to 21.4mm O.D.)

#HF12 £8.50 (£10.20 inc vat)

24mm I.D. x 90mm long
(for hose 21.8 to 24mm O.D.)

#HF15 £8.50 (£10.20 inc vat)

27.8mm I.D. x 100mm long
(for hose 24 to 27.8mm O.D.)

#HF19 £11 (£13.20 inc vat)

36mm I.D. x 128mm long
(for hose 28mm to 36mm O.D.)

#HF25 £12.50 (£15 inc vat)



HOSE CLAMP An easy-to-use clamp that 'squeezes', rubber, PVC or silicone hoses to shut-off the flow of oil, fuel, brake fluid, water or air without disconnecting the hose. Just clamp over the hose and tighten the knurled thumb-screw. Works for hose up to 19mm I.D. Made in UK from plated steel.

Length closed 110mm.

NOTE: NOT SUITABLE FOR USE WITH STAINLESS BRAIDED HOSE OR NYLON

#HOSCLAMP £19 (£22.80 inc vat)



FIND MORE GAUGES AND SENDERS IN INSTRUMENTS SECTION



HOSE END CAPS Use these moulded, soft vinyl caps to neaten the cut ends of braided hose. Secure as usual with your hose clip over the top. Will stretch a few millimetres. Sold in packs of 4.

NOTE: Clip, union and hose not included

12.7mm I.D x 22mm long.

#HEC12 £2 Pack of 4 (£2.40 inc vat).

16mm I.D x 23mm long.

#HEC16 £2 Pack of 4 (£2.40 inc vat).

18mm I.D x 23mm long.

#HEC18 £2 Pack of 4 (£2.40 inc vat).



LUCAS UPPER CYLINDER LUBRICANT

and INJECTOR CLEANER This Fuel Treatment is suitable for both petrol and diesel engines. It has a blend of oils and additives with a high detergent content that cleans and lubricates carburetors, fuel pumps and injectors. Fuel will burn more efficiently increasing power and reducing fuel consumption. One bottle treats 20 gallons of fuel.

155ml #LUFUEL £7
(£8.40 inc vat)



LEAD SUBSTITUTE

With fuel stabiliser preventing oxidation of fuel over long storage periods. 250ml treats 250 Litres of petrol.

LEADSUB
£10 (£12 inc vat)

PARTS CLEANER

500ml Solvent cleaner for removing oil and grease from all small parts. **#CCLEAN**
£5.50 (£6.60 inc vat)

ENGINE DEGREASER

400ml Water soluble for engines, transmissions etc. Spray on and wash off. **#DEGRE** **£4**
(£4.80 inc vat)



NOTE: AEROSOLS CANNOT BE SHIPPED BY ROYAL MAIL OR AIR MAIL

IMPORTANT NOTE: ALL FUEL PUMPS MUST BE FITTED WITH A PRE-FILTER ON THE INLET SIDE. RETURNED PUMPS WILL NOT BE REPLACED OR REFUNDED IF FOUND DAMAGED DUE TO DEBRIS.

90 DEGREE FUEL TANK BREATHER VALVE

VALVE A clever, 2 ball valve system that allows air into the tank to replace used fuel and allows air out due to expansion but will close off to prevent fuel escaping in the event of severe sloshing or a roll-over. Fits through an 11mm hole in the tank. Access from inside the tank is required to fit and tighten the nut. Takes 5mm hose. Maximum height above the tank 11mm. 7/16" UNF (JIC 6) thread with a nut and an 'O' ring. **#FTBV90 £31** (£37.20 inc vat)



STRAIGHT FUEL TANK BREATHER VALVE

#FTBV £31 each (£37.20 inc vat)



FUEL TANK LARGE BREATHER VALVE

A clever, 2 ball valve system that allows air into the tank to replace used fuel and allows air out due to expansion. In the event of a roll-over the valve closes off to prevent fuel escaping. 9/16" UNF (JIC 6) thread with an 'O' ring. 7mm hosetail. Overall length 39mm. 19mm hex. Flow capacity 0.8 ltrs. per second. **#FTBV3 £31** (£37.20 inc vat)



IN LINE FUEL TANK BREATHER VALVE

In-line version. 63mm overall length.
With 7mm hosetails on both ends. #FTBV2 £39 (£46.80 inc vat)
With 8mm hosetails on both ends. #FTBV28 £39 (£46.80 inc vat)
With JIC#6 unions on both ends. #FTBVJIC6 £39 (£46.80 inc vat)



FUEL ROLL-OVER VALVE This clever, yet simple device prevents fuel escaping in the event of the vehicle rolling over. The black, anodised aluminium, hexagonal part of this safety valve mounts inside your fuel tank and the blue, threaded hosetail union fits through a hole in the tank and screws into in with a nylon sealing washer on either side. The anodised aluminium hosetail can connect to a breather pipe back to your filler neck. Available with either a 6mm hosetail (14mm hole in the tank required) or a 8mm hosetail (19mm hole in the tank required). Hex part dimensions: 41mm long x 26mm hex. Overall length including hosetail 75mm. Weight 72 gms.

6mm HOSETAIL #ROV6 £14 (£16.80 inc vat)
8mm HOSETAIL #ROV8 £14 (£16.80 inc vat)



NON-RETURN VALVES Two-piece screw-together construction with a sprung diaphragm valve inside. Suitable for fuel, vacuum etc. Size 22mm across hex flats, 55mm long.

- ALUMINIUM 6mm #NRV6A £8** (£9.60 inc vat)
- ALUMINIUM 8mm #NRV8A £8** (£9.60 inc vat)
- ALUMINIUM 10mm #NRV10A £8** (£9.60 inc vat)
- ALUMINIUM 12mm #NRV12A £8** (£9.60 inc vat)
- ALUMINIUM 14mm #NRV14A £8** (£9.60 inc vat)



8mm NON-RETURN FUEL VALVE

Black anodised aluminium. Two-piece, screw-together construction with a sprung diaphragm valve inside. Flow tested to 480 ltr / hr. Viton seals compatible with E10 - E85 fuels. 19mm Diameter, 60mm long. **#NRV8BK £14.50** (£17.40 inc vat)



| Pressure | | |
|----------|-------|-------|
| (kPa) | (bar) | (psi) |
| 9.8 | 0.1 | 1.4 |
| 19.6 | 0.2 | 2.8 |
| 29 | 0.3 | 4.3 |
| 39 | 0.4 | 5.7 |
| 49 | 0.5 | 7.1 |
| 59 | 0.6 | 8.5 |
| 69 | 0.7 | 10.0 |
| 78 | 0.8 | 11.4 |
| 88 | 0.9 | 12.8 |
| 98 | 1.0 | 14.2 |
| 118 | 1.2 | 17.1 |
| 137 | 1.4 | 19.9 |
| 157 | 1.6 | 23 |
| 177 | 1.8 | 26 |
| 196 | 2.0 | 28 |
| 245 | 2.5 | 36 |
| 294 | 2.9 | 43 |
| 343 | 3.4 | 50 |
| 392 | 3.9 | 57 |
| 491 | 4.9 | 71 |
| 589 | 5.9 | 85 |
| 687 | 6.9 | 100 |
| 785 | 7.8 | 114 |
| 883 | 8.8 | 128 |
| 981 | 9.8 | 142 |

MINIATURE FUEL TAP Here's a small, plated-brass fuel tap. Just 48mm from end to end of the 8mm barbed hosetails. The plastic-coated handle moves 90 degrees from open to closed. Through bore 4.7mm. Weight 54gms.

#FUTAP2 £12 (£14.40 inc vat)



MICRO FUEL TAP Here's an amazingly small and discreet Fuel Tap for 6mm I.D. fuel hose. Moulded nylon construction with a red ON / OFF tap. 3.2mm through bore. Size: 45mm x 35mm x 27mm. Weight 11gms.

#FUTAP3 £18 (£21.60 inc vat)



CHECK OUT OUR BUILD BLOGS GO TO www.carbuilder.com and click on 'BLOGS'



NORVIN



FOREMAN Mk4



BERKELEY T60

CBS BUILDER'S TIP
THOROUGHLY WASH OUT ALL PIPES AND HOSES BEFORE INSTALLATION

FUEL SHUT-OFF VALVE 12 volt, solenoid operated valve. If there is a live feed to the solenoid (ignition on) then the valve is open allowing fuel to flow. When the power is switched off the valve closes shutting off the fuel. Can be operated from the ignition feed or from a separate feed with a hidden switch as an additional security device. Brass valve body with 3/8" UNF threads for inlet and outlet unions. Mounting bracket, screws and hose clips included. Size: Overall height without bracket 77mm. Overall width including connector plug 91mm. Can qualify as a form of immobilisation as required by IVA. Pressure 0-3 bar. Best fitted in low pressure feed after a pre-filter.

8mm #FUVAS £62 (£74.40 inc vat)

10mm #FUVAL £84 (£100.80 inc vat)

| PART NO. | BORE (mm) | CURRENT | FLOW RATE lt/min | HOSE I.D. |
|----------|-----------|----------|------------------|-----------|
| #FUVAS | 3.5mm | 0.44amp | 2.1 to 7.6 | 8mm |
| #FUVAL | 6mm | 1.06 amp | 6 to 18.4 | 10mm |



PROFESSIONAL SIPHON PUMP

Here's a superb, engineering quality siphon pump with a firm rubber bulb and an internal valve. Inlet and outlet are machined aluminium hosetails. Flow direction is clearly marked with an arrow on the bulb. Overall length 150mm. Bulb diameter 44mm.

8mm HOSETAILS #PROSIPHON

10mm HOSETAILS #PROSIPHON2

Both £12 each (£14.40 inc vat)



MULTI PURPOSE PUMP Syphon/transfer oil, petrol and other fluids. Inflate balls, tyres etc. Includes two x 51" hoses. 16" Tyre hose with snap-on valve. 24" Dipstick oil siphon tube. Pack of adapters. Pump height closed 230mm. **#MULPUMP £7** (£8.40 inc vat)



INERTIA SAFETY SWITCH This switch is commonly installed in the +12 volt feed wire to an electric fuel pump, connected to the closed position contacts (NC). In the event of a crash or hard shock the switch contacts will open, shutting down the fuel pump and switching on a warning light telling you that the switch has been activated or a GPS distress signal. To reset the switch just press the rubber diaphragm. Used on many BL vehicles. 10 Amp contact rating. Use with a relay if your fuel pump load is greater than 10 Amps. 360° sensing. Part No: WQT100030.

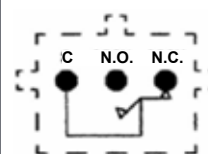
Use our connector plug #ECONO3.

#INERSW £23 (£27.60 inc vat)



This item is explained on our YouTube channel

NOTE: THIS SWITCH MUST BE MOUNTED ON A VERTICAL PANEL WITH THE RUBBER DIAPHRAGM FACING UPWARDS



| SWITCH POSITION | CONNECTION PIN-PIN |
|-----------------------------------|--------------------|
| SET (BUTTON PRESSED AND RELEASED) | C - NC |
| FIRE | C - NO |



3 PIN ECONOSEAL CONNECTOR

#ECONO3 £3 (£3.60 inc vat)

NOTE: These connectors must be crimped correctly and accurately and require a narrow crimping tool. We recommend our #CRPTL4. See our waterproof connectors page for crimping instructions.



FUEL FILLER HOSE

ULTRA FLEXIBLE FUEL FILLER HOSE.

2 Layer Neoprene hose with excellent resistance to petrol and diesel fuel. Embedded spiral wire reinforcement with glass strand windings for additional strength. For temperatures up to 135°C. Wall thickness only 2mm.

38mm I.D. (1 1/2") 42mm O.D.

#FFF38 £16 per 500mm (£19.20 inc vat)

45mm I.D. (1 3/4") 49mm O.D.

#FFF45 £17 per 500mm (£20.40 inc vat)

51mm I.D. (2") 55mm O.D.

#FFF51 £18 per 500mm (£21.60 inc vat)

57mm I.D. (2 1/4") 61mm O.D.

#FFF57 £20 per 500mm (£24 inc vat)

63mm I.D. (2 1/2") 67mm O.D.

#FFF63 £25 per 500mm (£30 inc vat)

75mm I.D. (3") 79mm O.D.

#FFF75 £30 per 500mm (£36 inc vat)



STAINLESS WIRE HOSE CLIPS FOR SPIRAL WOUND FLEXIBLE HOSE AND DUCTING

These clips offer simple installation and excellent sealing for our #FFF popular fuel filler hose and similar. All stainless construction. M6 screw and nut.

38mm #WH38SS £3.50 each (£4.20 inc vat)

45mm #WH45SS £3.50 each (£4.20 inc vat)

52mm #WH52SS £3.50 each (£4.20 inc vat)

57mm #WH57SS £4.30 each (£5.16 inc vat)

63mm #WH63SS £4.50 each (£5.40 inc vat)



STRAIGHT SILICONE FUEL FILLER HOSE.

Fluorosilicone-lined and resistant to ALL fuels and oils.

Sold in multiples of 250mm (Maximum 1 metre length). If you're ordering online and want 500mm just order '2' quantity.

Weight 250gm per 250mm.

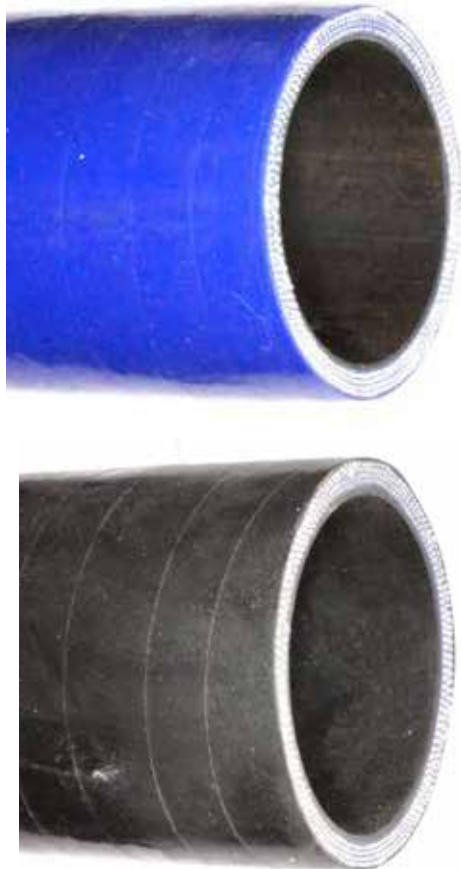
BLUE 51mm I.D.

#SILFF51BU £20 per 250mm (£24 inc vat)

BLACK 51mm I.D.

#SILFF51BK £20 per 250mm (£24 inc vat)

SEE HINTS AND TIPS SECTION FOR CUTTING INSTRUCTIONS



HOSE I.D. REDUCERS Simply push inside one end of your hose to reduce its inside diameter for a perfect fit on a smaller engine or radiator outlet. Several reducers can be fitted inside one another to reduce, for instance a 50mm hose down to 32mm.

32 to 25mm #HRED32 £3.30 (£3.96 inc vat)

38 to 32mm #HRED38 £3.52 (£4.22 inc vat)

45 to 38mm #HRED45 £3.60 (£4.32 inc vat)

50 to 45mm #HRED50 £3.82 (£4.58 inc vat)



HEAVY DUTY FLEXIBLE FUEL FILL HOSE

Ideal for installations where hose is exposed to the elements e.g. under wheel arches. Flexible hose with spiral wire reinforcement for connecting your fuel filler to your fuel tank. Cut with a sharp knife & wire cutters. Resistant to leaded, unleaded petrol & diesel.

50mm I.D. will bend to 300mm radius.

38mm I.D. x 36 inches long. 47mm O.D.

#FFHO381 £51 (£61.20 inc vat)

38mm I.D. x 18 inches long. 47mm O.D.

#FFHO382 £30 (£36 inc vat)

50mm I.D. x 36 inches long. 60mm O.D.

#FFHO1 £53 (£63.60 inc vat)

50mm I.D. x 18 inches long. 60mm O.D.

#FFHO2 £31 (£37.20 inc vat)

57mm I.D. x 36 inches long. 66mm O.D.

#FFHO571 £58 (£69.60 inc vat)

57mm I.D. x 18 inches long. 66mm O.D.

#FFHO572 £33 (£39.60 inc vat)

63mm I.D. x 36 inches long. 70mm O.D.

#FFHO631 £60 (£72 inc vat)

63mm I.D. x 18 inches long. 70mm O.D.

#FFHO632 £36 (£43.20 inc vat)



NOTE: FORMING SHARP BENDS AND ACUTE 'S' SHAPES WITH THESE HOSES WILL PUT SOME STRAIN ON YOUR FILLER NECK AND TANK INLET SPIGOT

BUDGET FLEXIBLE FUEL FILL HOSE

Neoprene-lined rubber fuel hose with wire-reinforced, convoluted centre section and 55mm long parallel ends. Suitable for all fuels. Printed 'FUEL FILLER HOSE SAE J30'

38mm I.D. x 500mm long. 47mm O.D.

#FFHO3 £8 (£9.60 inc vat)

51mm I.D. x 300mm long. 62mm O.D.

#FFHO4 £8 (£9.60 inc vat)

51mm I.D. x 500mm long. 62mm O.D.

#FFHO5 £10 (£12 inc vat)

57mm I.D. x 500mm long. 68mm O.D.

#FFHO6 £12 (£14.40 inc vat)



HOSE CLIPS All prices + vat

| SIZE IN MM | STAINLESS EACH | ZINC PLATED EACH |
|------------|---------------------|---------------------|
| 30 - 40 | £1.80 #H30SS | £0.60 #H30ZN |
| 35 - 50 | £2.00 #H35SS | £0.65 #H35ZN |
| 45 - 60 | £2.20 #H45SS | £0.75 #H45ZN |
| 60 - 80 | £2.50 #H60SS | £0.90 #H60ZN |

GATES 45° FUEL FILLER HOSE

Synthetic Rubber SAE 30R6 or SAE 30R7.
IVA OK for all fuels. Made in U.S.A.
Overall length 400mm. Max. weight 660gms.
38mm I.D. 49mm O.D. #FF3845
£22 (£26.40 inc vat)

45mm I.D. 55mm O.D. #FF4545
£24 (£28.80 inc vat)

51mm I.D. 61mm O.D. #FF5045
£27 (£32.40 inc vat)

57mm I.D. 67mm O.D. #FF5745
£28 (£33.60 inc vat)

63mm I.D. 76mm O.D. #FF6345
£29 (£34.80 inc vat)



GATES 90° FUEL FILLER HOSE

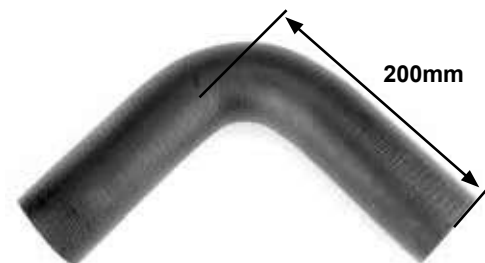
Synthetic Rubber SAE 30R6 or SAE 30R7.
IVA OK for all fuels. Made in U.S.A.
Overall length 400mm. Max weight 550gms.
38mm I.D. 49mm O.D. #FF3890
£22 (£26.40 inc vat)

45mm I.D. 55mm O.D. #FF4590
£24 (£28.80 inc vat)

51mm I.D. 61mm O.D. #FF5090
£27 (£32.40 inc vat)

57mm I.D. 67mm O.D. #FF5790
£28 (£33.60 inc vat)

63mm I.D. 76mm O.D. #FF6390
£29 (£34.80 inc vat)



STAINLESS WIDE BAND CLAMPS

These, heavy-duty Clamps offer 360 degree, even clamping pressure all around your hose or pipe. 20mm to 22mm wide, they are ideal for high pressure, high temperature applications like exhaust, coolant, fuel or turbo hoses. Remove the (10mm Hex) clamping bolt and the clamp can be opened to slide over the hose without taking it off. The band W4 304 stainless and the bolt is 302 stainless. Radiused edges to protect hoses.

SEE HOSE CLIPS SECTION LATER IN THE CATALOGUE



FUEL CAPS

3½" BSP ASTON CAP ASSEMBLY Here's the Daddy of our Aston Fuel Cap range. This superb quality cap comes assembled with an internal, breathing, locking cap insert, a screw-on neck with 51mm diameter x 38mm long outlet, gasket, fixing screws and two keys. Neck flange diameter 122mm. Lid diameter 118mm. Maximum height of catch above mounting surface 78mm. Six 5.5mm countersunk holes in flange at 115mm PCD. Weight 1200gms. **#AST35KIT £280** (£336 inc vat)



ASTON 3 1/2" BSP SATIN BLACK FUEL CAP Very nice cast aluminium with 3 1/2" BSP thread. Sprung release catch and selection of spacing gaskets. 122mm diameter. 170mm end to end. 57mm high. Rubber seal. Vented.

#AST35B £115 (£138 inc vat)

This cap can be made IVA compliant by radiusing the catch edges and repainting.



ASTON 3 1/2" BSP POLISHED ALLOY FUEL CAP WITH ROLLER CATCH

Similar to above with sprung roller release catch. Rubber O-ring seal. Vented. Dimensions as above but 77mm high.

#AST35R £219 (£262.80 inc vat)

THESE THREE 3 1/2" CAPS ACCEPT #ASTNECK (BELOW)



NECK FOR ALL 3 1/2" BSP ASTON CAPS

Anodised aluminium. 3 1/2" x 11tpi BSP thread with 125mm diameter flange and 51mm (2") hose outlet. Mounting hole PCD 114mm. Supplied with cork gasket and stainless fixings. Machined to accept the locking insert #LOCKIN and the unleaded fuel insert. #FCIN2

#ASTNECK £59 (£70.80 inc vat)



ASTON CAP ASSEMBLY Here's amazing value in this four piece cap assembly. A polished alloy, hinged cap (dimensions 100mm x 134mm) screws on to an anodised alloy, threaded neck with an integral, 51mm dia, filler hose connector. A lockable insert fits in the neck and a separate threaded slip ring with cork gasket allows you to 'sandwich' your flat body panel between the cap and the neck. Very neat.

Weight 740 gms.

#AST100 £122 (£146.60 inc vat)



3 1/2" BSP VENTED POLISHED ALLOY SCREW-ON FUEL CAP WITH TETHER 112mm diameter x 21mm high. Will screw onto our 3 1/2" BSP mounting flange #FLA312AN. A 300mm long, 'ball-chain' tether is fixed to the inside of the cap and has a ring at the other end for fixing inside the flange. NOTE: This cap is vented and will not seal completely.

#CAP35 £135 (£162 inc vat)

LOAN OFFER. £10 per month with £100 deposit + vat and P&P.



LOCKABLE INSERT FOR 2 1/2" and 3 1/2" ASTON NECK Anodised aluminium top. Rubber seal. Supplied with two keys.

VENTED #LOCKIN

UN-VENTED #LOCKINUV

Both £27 (£32.40 inc vat)



UNLEADED INSERT Will only allow unleaded fuel filling nozzle. Aluminium insert with retaining spring for all caps above. Has spring-loaded stainless flap. 44mm diameter.

#FCIN2 £21 (£25.20 inc vat)



ASTON 2 1/2" - 16 tpi POLISHED ALLOY FUEL CAP VENTED Very nicely manufactured with sprung catch. Nominal diameter of cap 76mm. Overall dimensions 107mm x 76mm x 38mm high. Two fibre washers. Weight 178gms.

#AST212ALP £75 (£90 inc vat)



ASTON FINISHING CAP Here's a very nicely chromed, brass cap with a sprung release catch and sprung lid. We call it a finishing cap because there is no seal between the cap and the neck limiting its functionality as a stand-alone fuel filler cap. However it looks superb as a decorative cover for your existing fuel cap. The neck is designed to fit on to a 61mm diameter steel or aluminium tube and is secured with three grub screws. FITTING IDEA: Our #FLA212 almost fits. If you have access to a lathe you can remove the tops of the threads until it's a nice fit in the cap. It still won't be a functional cap but you'll have a smart mounting flange on a smart cap. Weight 424 gms.

#AST61 £26 (£31.20 inc vat)



ASTON 2 3/4" - 16 tpi CHROMED BRASS FUEL CAP NOT VENTED Very nicely manufactured with sprung roller catch. Nominal diameter of cap 95mm. Overall dimensions 116mm x 85mm x 41mm high. Rubber seal. Weight 504gms.

#AST234R £88 (£105.60 inc vat)



63mm ALLOY FUEL CAP & NECK ASSEMBLY Polished aluminium Vented cap 63mm diameter with 'GAS' (for Gasoline) engraved in 8mm high letters. 51mm diameter hose spigot 39mm long. Integral mounting flange 87mm x 65mm. Four 4mm mounting holes at 44mm x 65mm centres. Maximum height above mounting surface 38mm. Weight 260 gms.

#FC63 £49 (£58.80 inc vat)



CHROME MONZA FUEL CAP Here's a metric thread version of our popular Monza caps. Cap lid dimensions 75mm x 98mm. It has a vented, sprung rubber seal and a screw-in M63 x 1.5mm, threaded brass ring which will fit nicely over a 57mm diameter tube and can be soldered or bonded in place. Weight 343 gms.

#MON51 £30 (£36 inc vat)

NO MOUNTING FLANGES ARE AVAILABLE FOR THIS CAP



**2½ MODERN CLASSIC FUEL CAP
CHROMED BRASS OR ALLOY**

Nicely made in UK, these vented caps are IVA OK. Hidden, sprung release catch. Overall size 109mm x 75mm x 33mm high. 2½ x 16 tpi thread. Will fit on any of our 2 1/2" threaded flanges.
Weight: Chrome 460 gms, Alloy 240 gms
CHROMED BRASS #CLA212CB
£85 (£102 inc vat)



POLISHED ALLOY #CLA212AL
£85 (£102 inc vat)



MODERN CLASSIC 2¾" x 16 tpi IVA OK
2¾" BSP internal thread. Chromed brass, beautifully made in UK. Vented. Hidden, sprung release catch. Dimensions. 85mm x 116mm x 33mm high. Will screw on to any of our 2¾" x 16 tpi threaded flanges.
#MODCLA £89 (£106.80 inc vat)



**LOCKING CHROME FUEL CAP AND
NECK ASSEMBLY** Nice chromed brass, vented, locking cap size: 105mm x 76mm. with two keys and 51mm (2") diameter, plated steel neck assembly. Overall height 96mm. Weight 480gms.
#FCCP £88 (£105.60 inc vat)



IVA HEADS UP

Vehicles fitted with engines manufactured after 1993 must have a restrictor fitted in the filler neck that limits refuelling to unleaded filler nozzles only. Removable filler caps without keys must be tethered to the flange or neck ensuring that you don't drive away from the filling station and leave the cap behind. Tethering of the fuel cap is not required if - The key cannot be removed from the cap in the unlocked position (**#AERO2** and **#LOCKIN** caps comply) and the vehicle has an age-related registration. Vehicles with a new registration must have all types of caps tethered. See our hints & tips section at the back. IVA requires that all vehicles with post 1993 engines must have an unleaded fuel insert in the filler neck to prevent filling with incorrect fuel.

FILLER HOSE CAP Locking caps don't come easier than this. The CNC'd aluminium neck is 57mm diameter so it will fit directly into the end of a 57mm ID filler hose. Secure it there with one hose clip and it's done. Overall height 46mm. Maximum diameter 63mm. Supplied with two keys. Non-vented. **#FHCAP £90 (£108 inc vat)**



**ACCEPTS
#FCIN2**

46mm FILLER HOSE CAP
This non-vented, non-locking cap will fit directly into the end of a 45mm ID hose. 40mm high. 50mm maximum diameter.
#FHCAP46 £75 (£90 inc vat)



ONE PIECE ANODISED ALUMINIUM NECK/FLANGE All supplied with cork gasket and stainless fixing kit.

2" x 18 tpi Diameter 82mm with integral 51mm (2") O.D. hose neck.
#AFLA2 £37 (£44.40 inc vat)



2 1/2" x 16 tpi Diameter 94mm with integral two stage 51mm (2") and 57mm (2 1/4") hose neck.
#AFLA212 £49 (£58.80 inc vat)
ACCEPTS #LOCKIN and #FCIN2



2 3/4" x 16 tpi Diameter 94mm with integral two stage 51mm (2") and 57mm (2 1/4") hose neck. 76mm mounting hole PCD.
#AFLA234 £49 (£58.80 inc vat)
ACCEPTS #LOCKIN and #FCIN2



ALUMINIUM WELD-IN THREADED FILLER NECK Threaded aluminium neck with 9mm un-threaded extension for welding into an aluminium tank.

2" x 18 tpi
#WITN2
£11
 (£13.20 inc vat)



2 1/2" x 16 tpi
#WITN212
£12
 (£14.40 inc vat)



2 3/4" x 16 tpi
#WITN234
£13 (£15.60 inc vat)



BRASS THREADED FILLER NECK For soldering or bonding into a steel or brass tank or filler tube.

2" x 18 tpi
#BTN2
£18
 (£21.60 inc vat)



2 1/2" x 16 tpi
#BTN212
£20
 (£24 inc vat)



2 3/4" x 16 tpi **#BTN234**
£22 (£26.40 inc vat)



ANODISED ALUMINIUM MOUNTING FLANGES These can be used with our Filler Neck (**#FILLNECK**) or bolted directly to the fuel tank. All supplied with cork gasket and stainless fixing kit.

2" x 18 tpi Diameter 82mm. Mounting hole PCD 63mm. Inside diameter 44mm.
#FLA2AN
£21 (£25.20 inc vat)

2 1/2" x 16 tpi Diameter 94mm. Mounting hole PCD 76mm. Inside diameter 55mm.
#FLA212AN.
£23 (£27.60 inc vat)

2 3/4" x 16 tpi Diameter 94mm. Mounting hole PCD 76mm. Inside diameter 62mm.
#FLA234AN **£30** (£36 inc vat)

ANODISED ALUMINIUM FUEL CAP MOUNTING FLANGE 3 1/2" BSP. 11 TPI. Thread diameter 100mm. Flange diameter 126mm. Mounting hole PCD 115mm. Inside diameter 90mm. Supplied with cork gasket and stainless fixings
#FLA312AN **£34** (£40.80 inc vat)



CHROMED BRASS MOUNTING FLANGES These can be used with our Filler Neck (**#FILLNECK**) or bolted directly to the fuel tank.

2" x 18 tpi Diameter 76mm. Mounting hole PCD 65mm. Inside diameter 44mm.
#FLA2C
£18
 (£22.80 inc vat)

2 1/2" x 16 tpi Diameter 100mm. Mounting hole PCD 84mm. Inside diameter 57mm.
#FLA212C
£22
 (£26.40 inc vat)



FUEL CAP FIXING RING 76mm PCD

For Aero3 Fuel Cap. Locates inside the fuel tank. Nicely made from 3mm anodised aluminium with stainless inserts tapped M5. O.D 89mm. I.D. 62mm. Weight 25gms.

#AERO3RING £14 each (£16.80 inc vat)



FUEL CAP GASKET 76mm PCD

For #AERO3 cap. Locates under the fuel cap. Made from fuel proof neoprene. O.D. 93mm. I.D. 63mm. 1mm thick. 6 x 5.5mm holes. Weight 4gms.

#AERO3GASK £4 (£4.80 inc vat)



8 HOLE FUEL CAP MOUNTING RING

102mm P.C.D. This 3mm thick, split, aluminium ring has eight threaded M5 steel inserts on a 102mm (4") P.C.D. You can manoeuvre it through the filler cap hole to the inside of the fuel tank enabling you to easily mount any fuel cap or flange with the same P.C.D. like our #AERO4B and #AERO4S.

O.D. - 117mm. I.D. - 88mm.

#AERO4RING £15 each (£18 inc vat)



79mm DIA. SATIN ALUMINIUM FUEL CAP ASSEMBLY

For direct mounting in a tank. Fits through a 51mm hole. 64mm fixing hole PCD. Overall height 32mm. Cork gasket and Stainless fixing pack included. Non vented.

#AERO79F £75 (£90 inc vat)



79mm DIA. SATIN ALUMINIUM FUEL CAP ASSEMBLY

With integral 51mm (2") neck. Fits through a 51mm hole. 64mm fixing hole PCD. Overall height 32mm. Cork gasket and Stainless fixing pack included. Non vented.

#AERO79 £77 (£92.40 inc vat)



82mm LOCKING FUEL CAP ASSEMBLY

Satin Anodised aluminium with locking insert and integral 51mm (2") neck. Fits through a 57mm hole. Overall height 55mm.

Fixing hole PCD 70mm. Cork gasket, two keys and Stainless fixing pack included.

UNVENTED (Red insert)

#AERO2 £74
(£88.80 inc vat)

VENTED (Green insert)

#AERO2V £74
(£88.80 inc vat)



UNLEADED INSERT Aluminium insert with retaining spring for all caps above. Has spring - loaded stainless flap. 44mm diameter. **#FCIN2 £21** (£25.20 inc vat)



BRASS MULTI-STRAND WIRE

Ideal wire for tethering a loose fuel cap for IVA compliance. See our hints and tips section for some ideas on how to fit it.

#BMSW £1.50 Mtr (£1.80 inc vat)

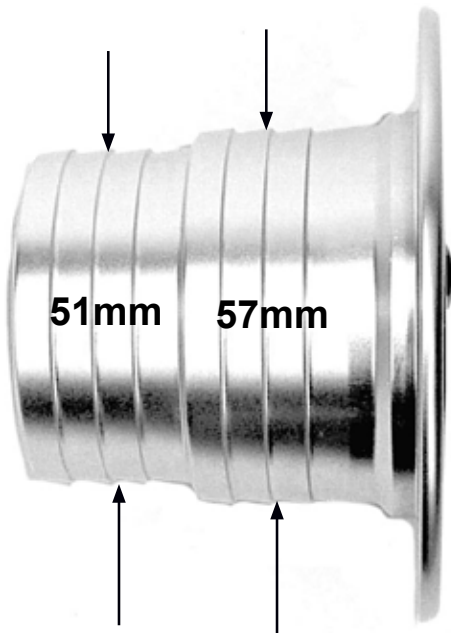


94mm LOCKING FUEL CAP ASSEMBLY

with locking insert and integral 2-stage 51mm (2") and 57mm (2¼") neck. Fits through a 62mm hole. Overall height 63mm. Fixing hole PCD 76mm. Cork gasket, Two keys and M5 Stainless fixing pack included. IVA-OK if fitted with a tether.

SATIN BLACK #AERO3B
£119 (£142.80 inc vat)

SATIN ALUMINIUM #AERO3
£115 (£138 inc vat)



94mm LOCKING FUEL CAP ASSEMBLY FOR DIRECT TANK MOUNTING

Fits through a 62mm hole. Fixing hole PCD 76mm. Cork gasket, Two keys and Stainless M5 fixing pack included. IVA-OK if fitted with a tether..

SATIN BLACK #AERO5B
£96 (£115.20 inc vat)

SATIN ALUMINIUM #AERO5S
£94 (£112.80 inc vat)



120mm AERO FUEL CAP SATIN BLACK

Aluminium flush fit locking fuel cap. 120mm diameter. If used alone, it can be mounted directly into an 80mm diameter hole in your fuel tank or it can be remotely mounted using the neck #FN2. Supplied with cork gasket, M5 stainless fixings and two keys. Fixing Holes 102mm P.C.D.

#AERO4B £99 (£118.80 inc vat)



120mm AERO FUEL CAP Accepts neck #FN2. Satin Natural anodised Aluminium version. **#AERO4S £99** (£118.80 inc vat)



120mm FILLER NECK Satin anodised spun aluminium funnel for remote mounting of the following caps: #AERO4S, #AERO4B 120mm diameter. Accepts 51mm (2") Filler hose. Supplied with cork gasket. **#FN2 £29** (£34.80 inc vat)



ALUMINIUM ANGLE Cuts easily with a hacksaw. For making simple mounting brackets or joining long panels. We can ship up to 2 mtrs length but smaller lengths are cheaper to ship. 3 sizes available:

15 x 15 x 1.5mm (5/8"x 5/8"x 1/16")

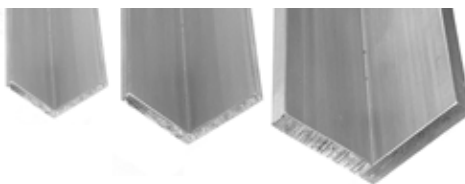
#ALIAN1 £5 mtr (£6 inc vat)

25 x 25 x 3.1mm (1"x 1"x 1/8")

#ALIAN2 £7 mtr (£8.40 inc vat)

38 x 38 x 6.5mm (1½"x 1½"x 1/4")

#ALIAN3 £15 mtr (£18 inc vat)



MOST PRODUCTS HAVE A HIGH RESOLUTION 360 DEGREE VIEW ON OUR ONLINE SHOP

BUDGET 94mm SATIN ALUMINIUM LOCKING FUEL CAP ASSEMBLY With locking cap insert and integral, 2-stage, 51mm (2") and 58mm (2¼") neck. Internal aluminium retaining ring with M5 threaded inserts. Fits through a 62mm hole. Overall height 63mm. Fixing hole PCD 76mm. Cork gasket, two keys and M5 Stainless fixing pack included. IVA-OK when fitted with a tether .

IMPORTANT NOTE: THIS IS A BUDGET CAP AND SMALL SURFACE IMPERFECTIONS MAY BE NOTICABLE. IF THIS IS IMPORTANT TO YOU PLEASE CHOOSE OUR HIGHER GRADE #AERO3 #AERO694 £50 (£60 inc vat)



FUEL FILLER NECK TiG welded aluminium filler neck. 50mm diameter x 1.5mm tube 50mm long welded to 100mm diameter, 2mm thick plate. Drill it yourself to suit your flange hole spacings. This item can also be bonded and riveted upside down to form a filler neck on any fuel tank. **#FILLNECK £15 (£18 inc vat)**



94mm AERO CAP & VENTED NECK PACKAGE This neck and cap combination could solve your fuel filler installation problems in one fell swoop. The fabricated, powder-coated steel neck has a main hose outlet of 45mm diameter, a filling breather of 16mm diameter and a vent of 8mm diameter. The non-vented, locking Aero Cap is supplied with a cork gasket and is also sealed to the neck with an 'O' ring. The locking cap insert is tethered with a wire cable to the surround for IVA compliance and is available in Satin Black or Anodised Aluminium. Supplied with two keys and a set of countersunk stainless screws and nuts. Weight 500 gms.

ANODISED SATIN BLACK #CVN94BK £205 (£246 inc vat)
ANODISED NATURAL ALLOY #CVN94NAT £185 (£222 inc vat)



126mm DIA. SATIN ALUMINIUM VENTED FUEL CAP AND NECK ASSEMBLY 126mm diameter. Fits through a 98mm hole. Eight, countersunk 5mm fixing holes on a 108mm PCD. Overall height 64mm. 50.7mm (2") outlet spigot. Cork gasket, two keys and Stainless fixing pack included. **#AERO126F £149** (£178 inc vat)



WELD-IN OR HOSE-END FILLER NECK
CNC machined, threaded aluminium necks and Caps. All with 'O' ring seal. Either weld the neck directly into an aluminium oil or fuel tank or just push into a hose end and secure with a hose clip.

1. 51mm diameter neck. 80mm overall height. 3mm wall thickness. Scalloped cap 60mm dia. **#WIFN £22** (£26.40 inc vat)
2. 51mm diameter neck. 80mm overall height. 2mm wall thickness. Knurled cap 58mm dia. **#WIFN2 £16** (£19.20 inc vat)
3. 41mm diameter neck. 53mm overall height. 1.6mm wall thickness. Knurled cap 50mm dia. **#WIFN3 £14** (£16.80 inc vat)



139mm DIA. TANK MOUNT SATIN ALUMINIUM VENTED FUEL CAP ASSEMBLY 139mm diameter. Fits through a 106mm hole, directly into the tank. Twelve, countersunk 5mm fixing holes on a 121mm PCD. Overall height 45mm. Cork gasket, two keys and Stainless fixing pack included. **#AERO139 £139** (£166.80 inc vat)



SCREW-ON CAP AND FLANGE.

Beautifully machined aluminium cap with 'O' ring seal and a threaded neck with a 6mm thick weld-on flange. OK for Oil, Fuel, Water. Three sizes:

44mm cap diameter, 25mm I.D. 30mm height. Weight 50 gms.

#CAF44 £28 (£33.60 inc vat)

57mm cap diameter, 35mm I.D. 33mm height. Weight 81 gms.

#CAF57 £29 (£34.80 inc vat)

70mm cap diameter, 46mm I.D. 33mm height. Weight 107 gms.

#CAF70 £39 (£46.80 inc vat)



EXHAUST

SUPER 2mm THICK EXHAUST WRAP

Insulate your manifolds and down-pipes. Help cool your engine bay and cockpit. Heavy duty woven ceramic fibre. Unique woven-in stainless steel reinforcing threads. Maximum working temperature 1000°C!! Supplied with a pack of ten stainless steel securing ties. We've never seen this top quality insulation for sale to the automotive industry - anywhere. Can be over-painted either by direct spraying of our aerosol exhaust paints or just spray the paint into the lid and brush it on. Including ten stainless steel fixing ties

50mm WIDE. 55ft (17mtrs) LONG.

#EXWRP50 £46 (£55.20 inc vat)

EXTRA STAINLESS TIES 200mm long

#SSTIE £7.50 pack of 10 (£9 inc vat)



TITANIUM 50mm WIDE x 10 METRES EXHAUST WRAP

Reduce under-bonnet temperature and increase combustion efficiency by wrapping your exhaust manifold with this 1.5mm thick, high quality, woven ceramic bandage. Resists up to 1022°F Ten 20cm long stainless steel ties are included.

#EXWRPTIT10 £20 (£24 inc vat)



LOCKING WIRE KIT This kit can be used for securing exhaust wrap around manifold tubes. Twist the ends of a short piece of the wire around each end of your wrap and a few between for good measure.

30 Metres of locking wire.
#LOCKIT £20 (£24 inc vat)

MORE IN TOOLS SECTION

BLACK EXHAUST WRAP

Reduce under-bonnet temperature and increase combustion efficiency by wrapping your exhaust manifold with this 1.5mm thick, high quality, woven ceramic bandage. Resists up to 1022°F Ten 20cm long stainless steel ties are included.

25mm WIDE 10 METRES LONG

#EXWRPBK25 £20 (£24 inc vat)

50mm WIDE 10 METRES LONG

#EXWRPBK10 £25 (£30 inc vat)



POLISHED STAINLESS IVA TAILPIPES.

Tailpipes must have a rolled end for IVA compliance so these tail pipe trims are just what the inspector ordered. Simply slide over your existing tail pipe and tighten the integral jubilee clip. All 150mm long. Sizes shown are maximum tailpipe diameter. These will tighten down on smaller tailpipes.

46mm I.D. (1.8") #TP2 £11 (£13.20 inc vat)

56mm I.D. (2.2") #TP1 £11 (£13.20 inc vat)

69mm I.D. (2.7") #TP3 £12 (£14.40 inc vat)



STAINLESS STEPPED EXHAUST JOINER

140mm long. 1.0mm wall thickness.

OUTSIDE DIAMETERS: 50.4 mm (2"),

55 mm (2.17"), 60 mm (2.36"),

65 mm (2.56"), 70 mm (2.75"), 75mm (3")

#SEJ10 £18 (£21.60 inc vat)



CLASSIC CHROME FISH-TAIL EXHAUST TRIM

Chrome plated steel. Size: 180mm x 120mm x 36mm. Finishes off the exhaust pipe and deflects the exhaust downwards. Fits up to 41mm diameter tail pipes.

Stainless steel securing clamp included.

#TPFISH £11 (£13.20 inc vat)



BOLT-IN SILENCER BAFFLE Fits inside a 2" tailpipe and secured by drilling a 6mm hole and fixing with the supplied bolt. Size 205mm x 48mm. If you're too noisy on the track this device will reduce your decibel level but beware of what it can also do to your engine performance. Can be cut down lengthwise. **SOLD WITH NO GUARANTEE**

#SILBAF £19 (£22.80 inc vat)



STAINLESS WIDE BAND CLAMPS

These, heavy-duty 'Mikalor' Clamps offer 360 degree, even clamping pressure all around your hose or pipe. 20mm to 22mm wide, they are ideal for high pressure, high temperature applications like exhaust, coolant or turbo hoses. Remove the (10mm Hex) clamping bolt and the clamp can be opened to slide over the hose without taking it off. The band W4 304 stainless and the bolt is 302 stainless. Radiused edges to protect hoses.

Below all M6 bolt thread

17mm to 19mm **#SCLP1719** £2.50 (£2.88 inc vat)
19mm to 21mm **#SCLP1921** £2.50 (£2.88 inc vat)
21mm to 23mm **#SCLP2123** £2.50 (£2.88 inc vat)
23mm to 25mm **#SCLP2325** £2.50 (£2.88 inc vat)
25mm to 27mm **#SCLP2527** £2.80 (£3.36 inc vat)
27mm to 29mm **#SCLP2729** £2.80 (£3.36 inc vat)

Below are M7 bolt thread

29mm to 31mm **#SCLP2931** £3.40 (£4.08 inc vat)
31mm to 34mm **#SCLP3134** £3.40 (£4.08 inc vat)
34mm to 37mm **#SCLP3437** £3.40 (£4.08 inc vat)
37mm to 40mm **#SCLP3740** £3.40 (£4.08 inc vat)



'U' EXHAUST CLAMP

Plated steel. All have 2.5mm thick steel saddles. M10 threads on 'U' bolt. Nuts included.

38 mm **#EXU38** £2.50 (£3 inc vat)
44 mm **#EXU44** £2.50 (£3 inc vat)
51 mm **#EXU51** £2.50 (£3 inc vat)
54 mm **#EXU54** £2.50 (£3 inc vat)
58 mm **#EXU58** £2.50 (£3 inc vat)
64 mm **#EXU64** £3 (£3.60 inc vat)
70 mm **#EXU70** £3 (£3.60 inc vat)



ALL STAINLESS 'U' EXHAUST CLAMP

All have 2mm thick saddles.

M8 threads on 'U' bolt. Nuts included.

45 mm **#EXU45SS** £4 (£4.80 inc vat)
51 mm **#EXU51SS** £4 (£4.80 inc vat)
57 mm **#EXU57SS** £4 (£4.80 inc vat)
64 mm **#EXU64SS** £4.50 (£5.40 inc vat)
76 mm **#EXU76SS** £4.50 (£5.40 inc vat)



ALL STAINLESS CLAMP Wide band stainless clamps suitable for exhausts or hoses. Rolled edge that will not damage pipe or hose. Solid stainless drilled and tapped ferrules (do not confuse with pressed, cheaper versions). Very strong. Excellent quality. Band width 20mm. Can be polished to a mirror finish.

36 - 39 mm **#EXCLP36** M6 bolt £7.50 (£9 inc vat)
40 - 43 mm **#EXCLP40** M6 bolt £7.50 (£9 inc vat)
44 - 47 mm **#EXCLP44** M6 bolt £7.50 (£9 inc vat)
48 - 51 mm **#EXCLP48** M6 bolt £7.50 (£9 inc vat)
52 - 55 mm **#EXCLP52** M8 bolt £7.50 (£9 inc vat)
56 - 59 mm **#EXCLP56** M8 bolt £7.50 (£9 inc vat)
60 - 63 mm **#EXCLP60** M8 bolt £7.50 (£9 inc vat)
64 - 67 mm **#EXCLP64** M8 bolt £8.50 (£10.20 inc vat)
68 - 73 mm **#EXCLP68** M8 bolt £8.50 (£10.20 inc vat)
74 - 79 mm **#EXCLP74** M8 bolt £8.50 (£10.20 inc vat)



SATIN BLACK STAINLESS HEAVY DUTY CLAMPS

These superb, high-strength clamps have an amazing satin black coating that is almost indestructible. It will not chip, scratch, scrape or peel. The clamps have a rolled edge that prevents damage to hoses and swivelling, captive nuts and spacer to ensure even clamping pressure all round. Band width 20mm. Tightening screw 10mm hex. Weight between 55 gms. and 73 gms.

37 - 40 mm **#EXCLP37BK** £7.50 (£9 inc vat)
40 - 43 mm **#EXCLP40BK** £7.50 (£9 inc vat)
43 - 47 mm **#EXCLP43BK** £7.50 (£9 inc vat)
47 - 51 mm **#EXCLP47BK** £7.50 (£9 inc vat)
51 - 55 mm **#EXCLP51BK** £7.50 (£9 inc vat)
55 - 59 mm **#EXCLP55BK** £7.50 (£9 inc vat)
59 - 63 mm **#EXCLP59BK** £7.50 (£9 inc vat)



QUICK RELEASE STAINLESS CLAMP

Adjustable from 76mm to 176mm diameter. 12.6mm wide. All stainless band and screw. Ideal for fixing exhausts and heat shields etc. **#H76176** £4 (£4.80 inc vat)



EXHAUST REPAIR BANDAGE 700°C

Repairs small holes and cracks in exhaust pipes and silencers. A tub of heat-resistant exhaust paste and 1 metre of 60mm wide ceramic tape. Clean any loose rust, grease or dirt from your repair area. Shake the paste tub. Apply paste to the pipe, then a layer of bandage and paste, alternately as you wrap the repair. Secure with wire until cured. Exhaust heat will cure the paste and complete the repair.

NOTE: Not intended as a permanent repair, but as a temporary measure to seal small cracks and holes. Works best on solid straight pipe. Results will vary if used on tight bends, flexible joints etc.
#EXREP £7.50 (£9 inc vat)



EXHAUST GASKET MATERIAL PACK

Make your own exhaust gaskets.

A three-layer sheet with aluminium front and back and a fibre core 0.8mm thick, plus a sheet of high temperature bonded fibre 0.35mm thick. Both sheets 250mm x 300mm. **#EXPAK** £7.50 (£9 inc vat)



HYLOMAR EXHAUST PASTE 140 gm tube. Well known sealant for all exhaust joints from manifold to tailpipe. Withstands 1000°C. **#EXPASTE** £3 (£3.60 inc vat)



VERY HIGH TEMPERATURE RED SILICONE GASKET 200ml pressurised cartridge with controllable release arm. Up to 343°C. Exhaust manifolds, water pumps, thermostat housings etc. Resists everything. **#HTGASK** £19 (£22.80 inc vat)



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT
www.carbuilder.com

STAINLESS FLEXIBLE EXHAUST PIPE

Nicely manufactured from 304 stainless steel. Dimensions listed are I.D. but these can be increased or decreased very slightly by twisting the pipe thus tightening or loosening the interlocking wrap design. The pipe can be cut with a grinder and welded or brazed to your system. The minimum bend radii shown are approximate. Wall thickness approximately 1.5mm.

Available in 1 mtr or 2 mtr lengths.

38mm I.D. (41mm O.D. Bend rad. 150mm)

#SSFEX38 £12 mtr (£14.40 inc vat)

45mm I.D. (48mm O.D. Bend rad. 175mm)

#SSFEX45 £15 mtr (£18 inc vat)

51mm I.D. (54mm O.D. Bend rad. 320mm)

#SSFEX51 £18 mtr (£21.60 inc vat)

57mm I.D. (60mm O.D. Bend rad. 360mm)

#SSFEX57 £20 mtr (£24 inc vat)

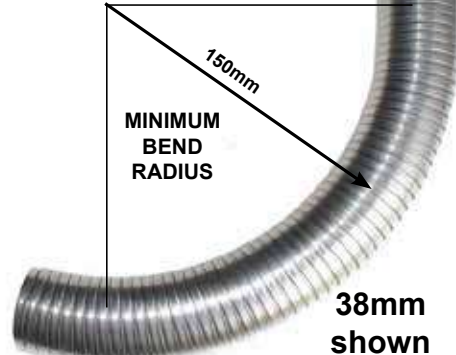
63mm I.D. (66mm O.D. Bend rad. 400mm)

#SSFEX63 £22 mtr (£26.40 inc vat)

NOTE: THIS ITEM MAY SOMETIMES BE SUPPLIED FULLY COMPRESSED FOR SHIPPING, THUS REDUCING ITS LENGTH. EXPANDING IT TO ITS NATURAL STATE WILL RESTORE ITS FULL LENGTH



ALL STAINLESS



FLEXIBLE EXHAUST COUPLING

Weld this joint into your exhaust system to reduce vibration and isolate engine movement. Flexible bellows construction with braided steel inner lining and outer casing. Weld-able ends. Will flex up to 5% but this may put some strain on your components at each end. Overall length 207mm (8 1/4")

64mm (2 1/2") I.D.

#FLEXH2 £20 (£24 inc vat)



STAINLESS FLEXIBLE EXHAUST COUPLINGS WITH STUB ENDS

Weld this joint into your exhaust system to reduce vibration and isolate engine movement. 304 stainless flexible bellows construction with stainless over-braid. You can either weld, or split and clamp the ends to your exhaust pipe. These will flex up to 5% but this may put some strain on your components at each end. End stubs all 45mm long x 1.5mm wall thickness.

Six sizes, all 305mm long:

38.6mm (1.5") I.D. Weight. 711gm

#FLEXH385 £22 (£26.40 inc vat)

45.5mm (1.75") I.D. Weight 855gm

#FLEXH45 £24 (£28.80 inc vat)

51.4mm (2") I.D. Weight 958gm

#FLEXH51 £26 (£31.20 inc vat)

57.5mm (2.25") I.D. Weight 1006gm

#FLEXH57 £28 (£33.60 inc vat)

63.6mm (2.5") I.D. Weight 1006gm

#FLEXH63 £28 (£33.60 inc vat)

76.5mm (3") I.D. Weight 1412gm

#FLEXH76 £30 (£36 inc vat)



TUBE STRAIGHTENER SET

IMPORTANT NOTE: THESE WILL NOT STRETCH OR INCREASE THE SIZE OF A TUBE These three tail pipe expanders are designed to straighten out any dents made by exhaust clamps in the end of a thin-wall (up to 1mm), steel or aluminium (not stainless) exhaust or tail pipe, from the inside. Just choose the one that fits inside the pipe and turn the hexagonal shaft to expand the drop-forged steel fingers. This set comes with spare O rings and a blow moulded case.

Small 1-1/8" to 1-3/4" (35mm to 44mm)

Medium - 1-1/2" to 2-1/2" (38mm to 62mm)

Large - 2-1/8" to 3-1/2" (52mm to 87mm)

#TUBEST £19 (£22.80 inc vat)

Please respect the limitations of these tools. They are not indestructible.



VHT EXHAUST PAINT Matt finish.

Will withstand up to 1500 ° F.

Net weight 11 ounces (311 grams)

SILVER #PNEXS £10 (£12 inc vat)

BLACK #PNEXB £10 (£12 inc vat)

WHITE #PNEWW £10 (£12 inc vat)

RED #PNEXR £10 (£12 inc vat)

WHITE HIGH TEMPERATURE EXHAUST PRIMER #PRIMEX £9.50 (£11.40 inc vat)

MORE IN PAINT SECTION



HEAT BARRIER CLOTH

Self-adhesive gold and glue-on aluminium.

Available from stock.



SEE MORE, BIGGER, HI-RES PICTURES ONLINE AT www.carbuilder.com



COTTON REEL RUBBER MOUNTS

Rubber mounts with a threaded stud on either end. Ideal for exhausts, fuel pumps, oil coolers, radiators, ECU's etc.

1. 20mm dia x 15mm. M6 x 18mm long studs. **#COT1 £2.50** (£3 inc vat)
2. 22mm diameter x 24mm long. M6 x 11mm long studs. **#COT2 £3** (£3.60 inc vat)
3. 32mm diameter x 18mm high. 5/16" UNF x 1/2" long studs. **#COT3 £3.50** (£4.20 inc vat)
5. 42mm hexagon across the flats x 27mm waisted rubber. M10 x 1.5mm x 18mm long stud on each end. Plated steel. **#COT5 £3.50** (£4.20 inc vat)
6. 40mm diameter x 39mm. M8 x 21mm long studs on each end. **#COT6 £4** (£4.80 inc vat)



MANY MORE SIZES AVAILABLE IN MOUNTS SECTION

EXHAUST HANGER DONUT

Hard rubber. 50mm dia. x 35mm thick. Two through holes for 10mm dia. hooks or rods. **#EXDON £2** (£2.40 inc vat)



EXHAUST HANGER DONUT

Hard rubber. Size: 55mm x 70mm x 21mm thick. Two through holes for 10mm dia. hooks or rods. **#EXDON2 £2.20** (£2.64 inc vat)



EXHAUST HANGER DONUT

Hard rubber. Size: 48mm x 71mm x 35mm thick. Two oval holes 17mm x 10mm for hooks or rods. **#EXDON3 £1.50** (£1.80 inc vat)



EXHAUST STRAPS 35mm wide x 6.6mm thick. Fabric reinforced rubber strap with steel reinforced 9mm hole in each end.

115mm long **#EXSTRAP115** **£3** (£3.60 inc vat)



Fabric reinforced rubber strap. 92mm x 36mm x 8mm thick. Steel reinforced 10mm hole in each end. 56mm Hole centres.

#EXSTRAP88 £3 each (£3.60 inc vat)



EXHAUST HANGER A plated steel strap with 6 x 8m holes is bolted to a flexible rubber joint which is then bolted to a 'U' clamp which will accept a round exhaust tube from 30mm to 60mm diameter.

Overall length 285mm Weight 190gm.

#EXHANG £6 (£7.20 inc vat)



EXHAUST HANGER A plated steel 35mm x 35mm angle bracket 2.5mm thick and 25mm wide, shaped to clamp to a 50mm diameter exhaust tube, is bolted to a 42mm x 180mm block of 8mm thick, fabric-reinforced rubber. Bracket bolt holes 8.5mm diameter. Holes in rubber 9mm. Weight 132gm.

#EXHANG2 £4 each (£4.80 inc vat)



EXHAUST HANGER A plated steel 35mm x 35mm angle bracket 2.5mm thick and 25mm wide, shaped to clamp to a 50mm diameter exhaust tube, is bolted to a 35mm x 80mm block of 8mm thick, fabric-reinforced rubber. Another steel plate, 2.5mm thick x 26mm x 180mm is also bolted to the rubber with M8 bolts. The plate has 7 x 9mm diameter holes at 22mm centres. Bracket bolt holes 8.5mm diameter. Weight 187gm.

#EXHANG3 £5 (£6 inc vat)



INFRARED THERMOMETER Just point it at each manifold branch at engine start up to see if they're all the same temperature.

Or aim it at your hoses and radiator to see exactly how your cooling system is performing. Measure the temperature of each disc to check for binding brakes or overheating bearings. Change from Centigrade to Fahrenheit with the push of a button. Pull the trigger to switch on the display and take a reading. A Laser pointer shows you exactly the point of measurement. Full instructions included. Measuring range -38°C and 520°C. Takes 2 x AAA batteries (Not included.)

#INFRA £36 (£43.20 inc vat)



SOUND LEVEL METER Great value meter for checking those exhaust levels for the track and IVA. Nice quality.

Size 170mm x 65mm x 40mm. Measures sound from 50 to 126db. A & C Weightings. Adjustable response speed. Battery condition indicator. Easy to use with full instructions. Requires 1 x 9v battery. Calibration control. Phono plug output for data recorder.

#SLM £20 (£24 inc vat)



EMBOSSED ALUMINIUM HEAT SHIELD

This is a deeply textured, 0.5mm thick aluminium sheet that is easy to cut, fold and shape to make very efficient heat shields and barriers. Ideal for exhaust manifold and turbo shields, Bulkheads, Electrical protection and shielding, Lining tunnels, protecting brake and fuel lines and components. Four sizes:

500mm x 500mm **#EASH1 £17** (£20.40 inc vat)

1000mm x 500mm **#EASH2 £30** (£36 inc vat)

1000mm 1000mm **#EASH3 £50** (£60 inc vat)

1000mm x 325mm **#EASH4 £21** (£25.20 inc vat)



ALL STAINLESS REPACKABLE SILENCERS

Manufactured for us to our own design and specification from 304 grade stainless steel. 16g (1.5mm), inlet and outlet pipes, internal baffles and body. Spun end caps 18g (1.2mm) stainless. Stainless button head screws and welded nuts securing removable end cap. Beautifully TiG welded construction. Filled with long life Vetratex wadding. Re-packable. Beaded tailpipes.

5" DIAMETER Body length 26" (670mm). Overall length 39½" (1 mtr). Inlet & outlet I.D. 1 7/8" (47.8mm). O.D. 2" (51mm). Weight 4.8 Kg. Nominal noise 94db (may vary with different engines). **#SIL5 £175** (£210 inc vat)

6" DIAMETER Body length 26" (670mm). Overall length 39 ½" (1mtr). Inlet & outlet I.D. 2¾" (60.3mm). O.D. 2½" (63.5mm). Weight 5.4 Kg. Nominal noise 94 db (may vary with different engines). **#SIL6 £175** (£210 inc vat)

7" DIAMETER Other dimensions as #SIL6. Weight 6.7 Kg. Nominal noise 92 db (may vary with different engines). **#SIL7 £175** (£210 inc vat)



LOOSE STRANDED WADDING
0.6 Kg. bag of stranded glass fibres for repacking your silencer as loosely or as densely as you wish.
#SWADBAG £6.50 (£7.80 inc vat)



STAINLESS TUBING BENDS

- 32mm & 38mm Outside Diameter. 1.4mm wall thickness. Nicely formed mandrel bends. Stainless grade 304.
- 32mm O.D. 90° BEND**
#SB3290 £18 (£21.60 inc vat)
- 32mm O.D. 45° BEND**
#SB3245 £18 (£21.60 inc vat)
- 32mm O.D. 135° BEND**
#SB32135 £18 (£21.60 inc vat)
- 32mm O.D. 180° BEND**
#SB32180 £19 (£22.80 inc vat)
- 38mm O.D. 90° BEND**
#SB3890 £20 (£24 inc vat)
- 38mm O.D. 45° BEND**
#SB3845 £20 (£24 inc vat)
- 38mm O.D. 135° BEND**
#SB38135 £20 (£24 inc vat)
- 38mm O.D. 180° BEND**
#SB38180 £21 (£25.20 inc vat)



COBRA SIDE PIPES Manufactured for us to our own design and specification from 304 grade, 1.3mm stainless steel. Removable, spun end cap with a 95mm diameter, beaded tail pipe and 3mm thick mounting bracket with an 11mm hole. The whole tailpipe / bracket assembly can be rotated in the silencer body to any position. Beautifully TiG welded construction. Internal perforated baffle, wrapped with long life, re-packable, Vetratex wadding. Unique, dual size inlet pipes. The four inlet pipes are made with a 75mm long, welded-in inner sleeve with an internal diameter (I.D.) of 45mm. However, it is possible to grind off the seam weld on the end of the tubes and remove the inner sleeves. This will increase the inside diameter to 50.7mm. 5" (127mm) Body diameter . Overall length 1420mm. Weight 10.4 Kg each.
#SIDEPIPES £600 pair (£720 inc vat)



45mm I.D. or 50.7 mm I.D.
 These two pictures show grinding-off the seam weld from the ends of the dual-size inlet tubes. As you carefully grind away the weld, the joint between the inner and outer tubes will appear. Slide a notched 'puller' down inside the tube and pull out the released insert. De-burr the inside of the tube.



SILENCER REFILL BLANKET Open-weave sewn ceramic cloth blanket about 8mm thick. Supplied rolled but opens to 1mtr x 45cm. Easily cut with strong scissors to repack your own silencer. Weight 427 gms.
#SWAD450 £18 (£21.60 inc vat)

SILENCER REFILLS & WADDING Pre-formed 5" and 6" diameter packs for easy installation. Ceramic felt sheet rolled around a layer of stainless steel wire wool on a 60mm diameter cardboard tube. As you slide the wrapped cartridge into your silencer case the internal baffle will push out the cardboard tube. The blanket and stainless wire wool can be unwrapped and re-wrapped around your own baffle.
5" PACK 500mm long. 0.8 Kg. #SWAD5 £12.50 (£15 inc vat)
6" PACK 600mm long. 1.5 Kg #SWAD6 £15 (£18 inc vat)



ENGINE COOLING

It is almost impossible to build a specialist Kit, Race or Sportscar using all donor engine cooling components in an identical layout to the original installation. Engine power is often increased, radiator size may have to change to fit the new space available and the original header tank may be too big and ugly to fit in a new, compact engine bay. In this short guide, we'll try to give you a basic idea on how engine cooling works and guide you in your choice of components.

One of the most common misconceptions is that a Header Tank and an Expansion tank are one and the same. They are most definitely not the same. A header tank is a pressurised part of the cooling system, usually mounted above the level of the highest point of the cooling system. Part filled, it allows for expansion and contraction of the coolant as the engine heats and cools, always keeping an optimum amount of coolant circulating whilst at the same time bleeding off any air that may be generated.

An Expansion Tank is a non-pressurised, open container, part filled with coolant that is used in conjunction with a full Header Tank. A hose, one end connected to the overflow on the neck of the Header Tank has its other end submerged below the level of the coolant in the Expansion Tank. With this setup the Header Tank is always filled to the brim. As the engine heats up, expanded, pressurised coolant forces its way past the lower valve of the radiator cap, through the overflow hose and into the Expansion Tank, raising the coolant level. As the engine cools, the coolant in the Expansion Tank is drawn back through the radiator cap into the Header Tank. An Expansion Tank does not have to be at the highest point of the system - it can be mounted anywhere. So, when do you need an Expansion Tank and when is one unnecessary? It's a bit of a suck-it-and-see thing but as a general rule, coolant in larger engines expands more than in smaller engines so an expansion tank may be necessary. Or, if your header tank will not hold enough coolant for the rise and fall of expansion and contraction, then you should fit one.

HOW DOES A RAD CAP WORK?



The radiator pressure cap is used on nearly all modern engines. As the radiator cap locks onto the radiator tank filler neck, rubber or metal seals make the cap-to-neck joint airtight. A pressure cap has several functions:

- To seal the top of the radiator tiller neck to prevent leakage.
- To pressurizes the system to raise the boiling point of coolant.
- To relieve excess pressure to protect against cooling system damage.
- In a closed system, it allows coolant flow into and from the expansion tank.

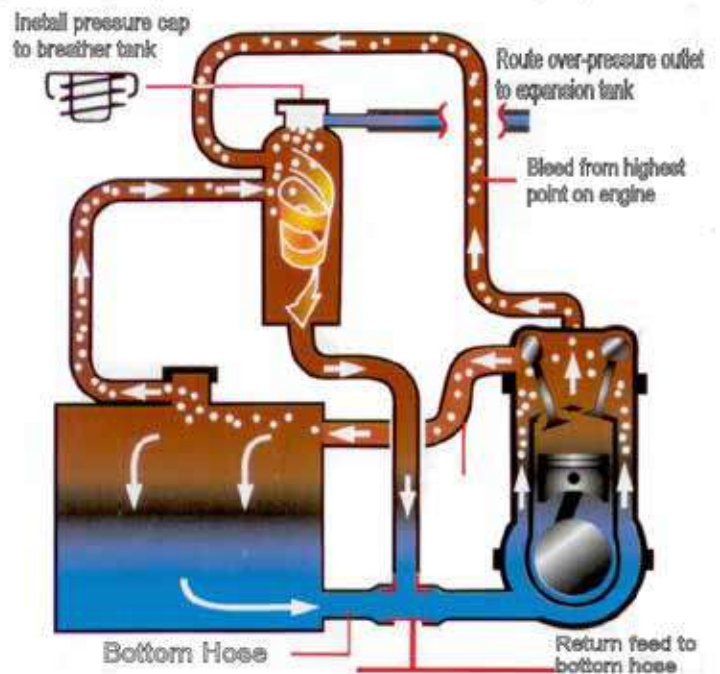
The radiator cap pressure valve consists of a spring-loaded disc that contacts the filler neck. The spring pushes the valve into the neck to form a seal. Under pressure, the boiling point of water increases. Normally water boils at 212°F. (100°C) However, for every pound of pressure increase, the boiling point goes up 3°F (1.7°C)

Typical radiator cap pressure is 12 to 16 psi. This raises the boiling point of the engine coolant to about 250°F to 260°F (121°C to 127°C). Many surfaces inside the water jackets can be above 212°F.

If the engine overheats and the pressure exceeds the cap rating, the pressure valve opens. Excess pressure forces coolant out of the overflow tube and into the expansion tank or onto the ground. This prevents high pressure from rupturing the radiator, gaskets, seals, or hoses.

When the engine is stopped and the coolant temperature drops, the radiator cap vacuum valve (the a smaller valve located in the centre, bottom of the cap) opens to allow reverse flow back into the radiator.

The cooling and contraction of the coolant and air in the system could decrease coolant volume and pressure. Outside atmospheric pressure could then crush inward on the hoses and radiator. Without a cap vacuum or vent valve, the radiator hose and radiator could collapse.



BREATHER (HEADER) TANK KIT INSTALLATION.

Mount the tank at the highest possible point in your cooling system.

Install a union into the bottom hose and connect to the bottom of the Breather Tank. This is the main flow line between the tank and the engine.

Note: Our in-line water temp sender housings are ideal for this and will accept the hoes tail supplied with the tank. If your radiator is fitted with a conventional radiator cap replace it with a valveless cap

and connect a hose from the overflow outlet, or the bleed take-off at the top of the radiator to the third union from the top of the tank. If there are any other high points on your engine's cooling system that may trap air pockets install a bleed union and connect with hose to the second union from the top of the tank. If no other bleeds are required this union can be capped using the black cap supplied in the kit. Finally connect the union just below the cap on the breather tank to an expansion tank. Fill the header/breather tank completely with coolant and fill the expansion tank half full.



HEADER TANK

These items are explained on our YouTube channel



BOTTOM HOSE UNION



EXPANSION TANK



EVANS WATERLESS COOLANTS FOR MODERN, CLASSIC AND VINTAGE CARS AND BIKES

Since the 1930's engine coolants have been based on a mixture of Ethylene Glycol, water and corrosion inhibitors. All such mixtures have inherent physical and chemical limitations that restrict engine performance and affect reliability. Evans Waterless Coolants represent a major step forward in engine cooling and engine protection technology. It's a fairly simple job to change your water-based coolant for Evans Waterless coolant. Just follow the instructions. Here are the benefits over water-based coolants:

Eliminates Overheating: Evans Waterless Coolants have a boiling point above 180°C and will not vaporise, thus eliminating overheating, boil-over and after-boil.

Reduces Pressure: Evans Waterless Coolants generate very low vapour pressures reducing strain on engine cooling system components.

Prevents Corrosion: Evans Waterless Coolants contain no oxygen effectively eliminating corrosion.

Increases BHP: Evans Waterless Coolants eliminate pre-ignition and detonation caused by overheating - thus improving combustion efficiency and delivering more power.

Stops Erosion: Evans Waterless Coolants prevent cavitation and eliminate liner and cooling pump erosion.

Freeze Protection: Evans Waterless Coolants freeze below -40°C

Non-Toxic: Evans Waterless Coolants are proven to be Non-Toxic. Standard anti-freeze is toxic and known to kill pets.

Long Life: Evans Waterless Coolants have been proven to last at least twenty years and a million miles in service without the need for replacement.

WEIGHTS 2ltr - 2.325Kg
5Ltr - 5.870Kg

VINTAGE COOL For use in vintage engines that have pre-nodular cast iron blocks and components made from copper and brass. (Not suitable for engines using thermo-syphon cooling systems).

2 LITRES #VINCL2L £30 (£36 inc vat)
5 LITRES #VINCL5L £66 (£79.20 inc vat)



PREP FLUID After draining your regular coolant, Evans recommend preparing your system with their Prep Fluid. Evans Prep Fluid is a hygroscopic fluid formulated to absorb water from your cooling system whilst flushing out loose dirt and scale. It can be used over and over again provided it is stored in the original airtight container.

2 LITRES #PREPFD2L £16 (£19.20 inc vat)
5 LITRES #PREPFD5L £39 (£46.80 inc vat)



CLASSIC COOL For use in classic car engines primarily fabricated from cast iron with carbon steel, copper & aluminium components. (Not suitable for engines using thermo-syphon cooling systems).

2 LITRES #CLASCL2L £30 (£36 inc vat)
5 LITRES #CLASCL5L £66 (£79.20 inc vat)



POWER COOL For use in high performance engines primarily fabricated from cast iron, copper & aluminium components. Boiling point above 180°C

2 LITRES #PWRCL2L £30 (£36 inc vat)
5 LITRES #PWRCL5L £66 (£79.20 inc vat)



ELECTRIC WATER PUMPS

SMALL WATER PUMP Ideal for small water-cooled engines. Will give a constant coolant flow independent of engine speed. Can be wired to a timer for continued operation after engine shut down. Supplied with wiring plug and terminals. Flow rate 13.3 litres per minute. Current draw 0.7 Amps (12volts). Temperature range -40 deg C to +135 deg C. Weight 246 gms. **NOTE: DO NOT RUN DRY. WILL NOT SELF-PRIME. ALWAYS PRIME BEFORE FIRST RUN. DO NOT USE AT HIGHEST POINT OF YOUR COOLING SYSTEM WHERE AIR CAN COLLECT** **#WPSM £85** (£102 inc vat)



MAGNETIC DRIVE WATER PUMP Here's a powerful little 12 volt pump with 16mm inlet and outlet. Tough, glass-reinforced moulded body with stainless steel internals. Ideal for water / antifreeze circulation. Manufactured for continuous duty. Temperature range -40°C to +100°C. Flow rate: 15 ltrs / min. Pressure: 0.1 Bar. Current drain: 1.6 Amps 250mm long flyleads. Supplied with anodised aluminium mounting bracket. **NOT SUITABLE FOR FUELS, OILS, SOLVENTS or ACIDS. NOT SELF-PRIMING.** Be sure to mount in a position where pump is always flooded. We recommend mounting with the outlet pointing upwards to allow self-bleeding of trapped air. Maximum dry running time 30 minutes. Weight 650 gms. **#WPMAG £100** (£120 inc vat)



SLIM WATER PUMP Ideal for small water-cooled engines. Will give a constant coolant flow independent of engine speed. Can be wired to a timer for continued operation after engine shut down. Supplied with wiring plug, terminals and rubber boots. Overall length 167mm. Body diameter 41mm. Flow rate 18 litres per minute. Current draw 1.2 Amps (12volts). Temperature range -40 deg C to +135 deg C. Weight 352 gms. **NOTE: DO NOT RUN DRY. WILL NOT SELF-PRIME. ALWAYS PRIME BEFORE FIRST RUN. DO NOT USE AT HIGHEST POINT OF YOUR COOLING SYSTEM WHERE AIR CAN COLLECT** **#WPSM2 £53** (£63.60 inc vat)



INFRARED THERMOMETER Just point it at each manifold branch at engine start up to see if they're all the same temperature. Or aim it at your hoses and radiator to see exactly how your cooling system is performing. Measure the temperature of each disc to check for binding brakes or overheating bearings. Change from Centigrade to Fahrenheit with the push of a button. Pull the trigger to switch on the display and take a reading. A Laser pointer shows you exactly the point of measurement. Full instructions included. Measuring range -38°C and 520°C. Takes 2 x AAA batteries (Not included.) **#INFRA £36** (£43.20 inc.vat)



NOTE: AN ELECTRIC WATER PUMP WILL NOT CURE AN OVERHEATING PROBLEM IF THE ENGINE IS NOT RUNNING CORRECTLY OR IF THE RADIATOR IS TOO SMALL AND HAS INSUFFICIENT AIR FLOW

ELECTRIC WATER PUMPS Many custom engine installations can benefit from replacing the standard belt-driven water pump with an electric water pump. An electric pump can offer consistent and improved cooling, especially when your engine returns to idle after a thrash around the track or a long motorway run. A belt driven pump slows down along with engine speed but an electric pump will work at full-flow when your engine needs it most. Maintaining optimum engine temperature will also benefit engine power and fuel economy.

These comprehensive kits are easy to fit and contain all the components and full instructions for almost any installation.

PUMP (115 Litres per minute.) AND DIGITAL CONTROLLER KIT

For engines up to 7 ltrs. Flow rate of 115 ltrs per minute. 12 Volt to 29 Volt. Maximum current 12Amps. Nine temperature settings between 60 deg. C and 100 deg. C

Pack contains:

- 1 x Electric pump with 38mm inlet and outlet
- 4 x 35mm to 41mm hose adapters
- 1 x Digital Electronic controller,
- 1 x Temperature sensor 1/4" NPT
- 1 x 35mm O.D. hose joiner
- 1 x Wiring harness, 1 x remote LED indicator
- Pack of hose clips, 'O' rings, relay and fixings.

#EWP115KIT £275 (£330 inc vat)

SEE FULL INSTRUCTIONS AND HI-RES PICTURES ONLINE AT www.carbuilder.com



PUMP ONLY (80 ltrs per minute) For engines up to 5 ltrs. Flow rate of 80 ltrs per minute. Can be continuous running, especially in race cars and hot climates or can be controlled with the controller #EWPCON1 or any other thermal switch. Pack contains: 1 x Electric pump, 1 x Wiring harness, 1 x 35mm O.D. Straight inlet, 1 x 35mm O.D. Angled inlet, 2 x 35mm to 41mm hose adapters, Pack of hose clips, 'O' rings, relay and fixings. #EWP80 £145 (£174 inc vat)



PUMP ONLY (115 Litres per minute) For engines up to 7 ltrs. Flow rate of 115 ltrs per minute. Pack contains:

- 1 x Electric pump with 38mm inlet and outlet
- 4 x 35mm to 41mm hose adapters
- 11 x Wiring harness and relay. Hose clips.

#EWP115 £180 (£216 inc vat)



CONTROLLER ONLY for PUMP AND FAN This is a cockpit-mounted, digital module with an LED screen that will control an electric water pump and an electric cooling fan (via a relay - not supplied). It is supplied with an in-line sensor housing with temp. sensor to fit into your top hose. Pack contains:

- 1 x Digital Electronic controller, 1 x Temp. sensor (1/4"NPT)
- 1 x 35mm OD hose joiner
- 2 x 35mm to 41mm hose reducers
- 1 x Wiring harness, 1 x remote LED indicator
- Pack of hose clips and fixings.

#EWPCON1 £145 (£174 inc vat)

SEE FULL INSTRUCTIONS AND HI-RES PICTURES ONLINE AT www.carbuilder.com



These aluminium versions of the popular Davies Craig water pumps offer superior strength and durability. The inlet and outlet now have internal threads for simple fitting of connector flanges or AN-16 Aeroquip, or similar, hose unions (available separately) Voltage: 3V DC to 15V DC. Maximum current drain: 10 Amps. Can be run continuously but it is recommended that the pump is run with the Davies Craig controller Pack contains:

- 1 x Electric pump with 38mm inlet and outlet.**
- 1 x Wiring harness with in-line fuse and relay.**

ALUMINIUM WATER PUMP 115 Litres per minute. For engines up to 7 ltrs. Flow rate of 115 ltrs per minute. Weight 1500gms.

#AEWP115 £195 (£234 inc vat)



- 2 x rubber hose adapters for 45mm hose**
- 2 x Hose clips.**

ALUMINIUM WATER PUMP 150 Litres per minute. For engines up to and over 7 ltrs. Flow rate of 150 ltrs per minute.

Weight 1620gms. **#AEWP150 £200 (£240 inc vat)**



HEADER TANKS

HEADER TANKS Beautifully TiG welded aluminium. 15mm outlet. 6mm bleed inlet. 8mm overflow outlet in neck.

All 100mm diameter cylinder. Accepts standard Red Cap.

VERTICAL TANK with REAR MOUNTS Overall size 225mm x 150mm x 150mm. Capacity 1.4Ltrs. **#HTV £99** (£118.80 inc vat)



This item is explained on our **You Tube** channel

HORIZONTAL with BOTTOM MOUNTS Drill your own holes in the mounting brackets. Overall size: H 140mm, W 220mm, Front to Back 150mm. Max capacity 1.3 Ltrs.

#HTHB £99 (£118.80 inc vat)



HEADER/BREATHER TANK KIT. Ideally suited to smaller engines. Beautifully TiG welded aluminium pressure tank. Half-fill the tank with coolant and mount at the highest point in your cooling system to ensure your cooling system remains filled at all times and temperatures. Prevents air locks and leaves room for expansion. Size 200mm high x 60mm diameter (including outlet and cap). 8mm inlets and outlets. Supplied with 2 metres of silicone hose, bracket, mounting bolts, hose clips, 8mm hose tail, 1.1 Bar (16lb) pressure cap, small valve-less replacement cap (fits many Japanese and motorcycle systems). This system can be used in conjunction with our in-line temp sender housing fitted in the bottom hose, using the hose-tail (1/8" NPT) supplied in the kit. **#BREATH £45** (£54 inc vat).



HORIZONTAL with REAR MOUNTS Drill your own holes in the mounting brackets. Overall size: H 150mm, W 220mm, Front to Back 140mm. Max capacity 1.3 Ltrs.

#HTHR £99 (£118.80 inc vat)



EXPANSION TANK

RECTANGULAR ALUMINIUM EXPANSION TANK

Tig welded construction with 40mm diameter, screw-on, knurled cap. Size: Width including brackets 170 mm, front to back 75mm, Height 182mm. Capacity 1 Ltr. Welded-on brackets for bulkhead mounting with 7mm holes at 143mm centres. 1/4" (7mm) overflow outlet on neck. 1/4" (7mm) inlet in side at bottom. Supplied in natural aluminium finish but you can polish to a mirror finish. Weight 542 gm. **#AEXPAN £68** (£81.60 inc vat)



FLOAT SWITCH This little switch may save an expensive engine rebuild by warning you if your coolant level has dropped unexpectedly. Just make a 22mm hole in your header or expansion tank and insert the float switch and the soft silicone seal. Tighten the nut until the silicone expands, sealing the hole and locking the switch in position. Connect to a live supply and warning light. Can be rotated 180° for high level warning if required. Glass reinforced nylon construction. 350mm fly leads. Operating temperature up to 110°C. Operating pressure up to 110°C. Operating pressure 4 bar. Magnetic reed switch contacts 1 amp rating. **NOTE: CONTACTS ARE MADE WHEN FLOAT IS HORIZONTAL** **#FLSW £10** (£12 inc vat)



ROUND ALUMINIUM EXPANSION TANK

Tig welded construction with 70mm diameter, screw-on, knurled cap. Tank diameter 90mm. Overall height, including unions 215mm. Welded-on bracket width 130mm for bulkhead mounting. Two, 7mm mounting holes at 116mm centres. Two 7/16" unf threaded, 10mm hosetail unions with 'O' rings, screw into welded threaded bosses in the bottom of the tank. One has a welded 130mm long, internal aluminium tube (see pics). Capacity 800ml. Supplied with 2 x 10mm barb fittings. Weight 520 gm. **#AEXPAN2 £68** (£81.60 inc vat)



These items are explained on our **YouTube** channel



EXPANSION TANK With moulded ABS mounting bracket and 8mm inlet. FULL and LOW markings. 0.75 Ltr capacity to 'FULL' mark. Use with header tank on cooling systems that have overflow problems. Size 130mm x 130mm x 90mm thick. It has an internal tube attached to the inlet that reaches down to the bottom of the tank Vented cap. **#EXPAN £14** (£16.80 inc vat)



REINFORCED PVC HOSE PVC Hose with moulded-in woven nylon reinforcing web. Maximum working pressure: 2 smaller sizes 15 bar, 2 larger sizes 12 bar. Resistant to Water, oil, fuel. Good flexibility and abrasion resistance. Temperature range -20°C to +65°C. BS 6066 & ISO 5774

6mm I.D. (11.2mm O.D.)

#RPVC6 £2 mtr (£2.40 inc vat)

8mm I.D. (13.5mm O.D.)

#RPVC8 £2 mtr (£2.40 inc vat)

10mm I.D. (14mm O.D.)

#RPVC10 £2.50 mtr (£3 inc vat)

OTHER SIZES AVAILABLE



POLISHED STAINLESS STEEL EXPANSION TANK 630cc. or 850cc

If space is limited in your engine bay try this stylish, vertical expansion tank. It has a machined, billet aluminium cap with a Viton seal, two stainless hose clips, stainless mounting brackets, rivets and stainless screws.

630cc CAPACITY

380mm overall height x 50mm diameter.

#SSEXPAN £50 (£60 inc vat)

850cc CAPACITY

315mm overall height x 75mm diameter.

#SSEXPAN2 £50 (£60 inc vat)



OVERFLOW

INLET FROM
HEADER TANK

1 LITRE LUCAS EXPANSION /

OVERFLOW BOTTLE White nylon with stainless steel mounting bracket. 190mm high x 100mm diameter. Screw-on metal cap with 14mm hole for your overflow hose. Bracket has two 6mm holes at 80mm centres. Weight 200 gms.

#LUEXP £49 (£58.80 inc vat)



Watch us on
You Tube
 Dozens of instruction and demonstration videos.
 Just type
CAR BUILDER SOLUTIONS
 in the You Tube search box

RADIATOR CAPS



STANDARD RADIATOR CAPS Plated steel. Rubber upper seal. Standard reach. Seal to seal 19mm.

- 4 lb. **#RCAP4** £6 (£7.20 inc vat)
- 7 lb. **#RCAP7** £6 (£7.20 inc vat)
- 9 lb. **#RCAP9** £6 (£7.20 inc vat)
- 10 lb. **#RCAP10** £6 (£7.20 inc vat)
- 13 lb. **#RCAP13** £6 (£7.20 inc vat)
- 15 lb. **#RCAP15** £6 (£7.20 inc vat)
- 17 lb. **#RCAP17** £6 (£7.20 inc vat)
- 20 lb. **#RCAP20** £6 (£7.20 inc vat)



RADIATOR CAP Spring steel upper seal. Standard reach. 15 lb pressure. Seal to seal 19mm **#RADCAPS** £6 (£7.20 inc vat)



CHROME RADIATOR CAPS

Standard reach 15lb caps but with chrome plating. In truth, it's more like Satin Chrome than polished chrome but they're more bling than the zinc plated ones.

RUBBER UPPER SEAL

#CHRADCAPR £7 (£8.40 inc vat)

STEEL UPPER SEAL

#CHRADCAPS £7 (£8.40 inc vat)



VALVELESS RADIATOR CAP Plated steel. Replaces your standard cap when fitting a remote header or breather tank.

#RADCAPVL £6 (£7.20 inc vat)

POLISHED STAINLESS VALVELESS RADIATOR CAP Made in polished stainless with brass internals. Rubber seals **#RADCAPVLS** £7.50 (£9 inc vat)



POLISHED STAINLESS RADIATOR CAPS STANDARD REACH caps made in polished stainless with brass internals. Rubber upper and lower seals.

- 4lb **#RADCAP4SS** £7.50 (£9 inc vat)
- 7lb **#RADCAP7SS** £7.50 (£9 inc vat)
- 10lb **#RADCAP10SS** £7.50 (£9 inc vat)
- 13lb **#RADCAP13SS** £7.50 (£9 inc vat)
- 15lb **#RADCAP15SS** £7.50 (£9 inc vat)
- 20lb **#RADCAP20SS** £7.50 (£9 inc vat)

LONG REACH Seal to seal 26mm

- 4 lb pressure **#RCLRR4** £7.50 (£9 inc vat)
- 7 lb pressure **#RCLRR7** £7.50 (£9 inc vat)



POLISHED STAINLESS PRESSURE RELIEVING 13lb RADIATOR CAP

Standard reach. Rubber upper and lower seals. No more scalded hands or hot water fountains in your engine bay. Just lift the lever to relieve pressure in your cooling system before you take the cap off.

- 7lb **#RCPR7SS** £10 (£12 inc vat)
- 10lb **#RCPR10SS** £10 (£12 inc vat)
- 13lb **#RCPR** £10 (£12 inc vat)
- 15lb **#RCPR15SS** £10 (£12 inc vat)
- 20lb **#RCPR20SS** £10 (£12 inc vat)



LONG REACH RADIATOR CAP

Spring steel upper seal. 15 lb pressure. Seal to seal 26mm.

#RCLRS £6 (£7.20 inc vat)



LONG REACH RADIATOR CAP

Rubber upper and lower seal. 15 lb pressure. Seal to seal 26mm.

#RCLRR £6 (£7.20 inc vat)



MINI PRESSURE CAP Smaller pressure cap as fitted to many modern Continental and Japanese vehicles. 45mm diameter. 65mm ear to ear. Seal to seal height 19mm

- 1.1 Bar (15 lb) **#MRCAP15** £6 (£7.20 inc vat)
- 1.3 Bar (18 lb) **#MRCAP18** £6 (£7.20 inc vat)



MINI PRESSURE CAP Smaller pressure cap as fitted to many modern Continental and Japanese vehicles. 45mm diameter. 65mm ear to ear. 0.9 Bar (13 lb) pressure. Seal to seal height 19mm

#RADCAPM £6 (£7.20 inc vat)



VALVELESS STAINLESS STEEL MINI PRESSURE CAP

Smaller cap as fitted to many modern Continental and Japanese vehicles. 45mm diameter. 65mm ear to ear.

#RADCAPMVL £4 (£4.80 inc vat)



BLACK POWDER-COATED RADIATOR CAPS Standard reach 19mm radiator caps with a Satin Black powder coat.



15 lb WITH RUBBER SEAL
#BRCAP15R £7.50 (£9 inc vat)



15 lb WITH STEEL SEAL
#BRCAP15S £7.50 (£9 inc vat)



VALVELESS #BRCAPVL £7.50 (£9 inc vat)



ALUMINIUM RADIATOR NECK
Beautifully CNC'd neck, with 8mm aluminium overflow outlet union. For welding into your own header tank or radiator. 56mm diameter x 25mm high.
#ALIRN £20 (£24 inc vat)



The following range of pressed necks can be welded or soldered into a custom made radiator or header tank

LARGE STAINLESS STEEL FILLER NECK

Accepts standard, short reach pressure caps like our #RADCAPR & #RADCAPS
Pressed stainless with swaged-in, 8mm overflow outlet. Maximum diameter 56mm. Spigot diameter 30mm. Overall height 25mm. Material thickness 0.8mm.
#SSFNL £6 (£7.20 inc vat)



SMALL BRASS FILLER NECK

Accepts smaller, Japanese and continental type pressure caps like our #RADCAPM
Pressed brass with soldered-in, beaded, 8mm overflow outlet. Maximum diameter 43mm. Spigot diameter 21.2mm. Overall height 21mm. Material thickness 0.8mm.
#BFNS £6 (£7.20 inc vat)



LARGE BRASS FILLER NECK

Accepts standard, short reach pressure caps like our #RADCAPR & #RADCAPS
Pressed brass with soldered-in, beaded, 8mm overflow outlet. Maximum diameter 56mm. Spigot diameter 30mm. Overall height 26mm. Material thickness 0.8mm.
#BFNL £6 (£7.20 inc vat)



SMALL ALUMINIUM FILLER NECK

Accepts smaller, Japanese and continental type pressure caps like our #RADCAPM
Pressed aluminium with welded-in, beaded, 8mm overflow outlet. Maximum diameter 44mm. Spigot diameter 21.2mm. Overall height 21mm. 1mm material thickness.
#AFNS £6 (£7.20 inc vat)



LARGE ALUMINIUM FILLER NECK

Accepts standard, short reach pressure caps like our #RADCAPR & #RADCAPS
Pressed aluminium with soldered-in, beaded, 8mm overflow outlet. Maximum diameter 56mm. Spigot diameter 30mm. Overall height 26mm. 1mm material thickness.
#AFNL £6 (£7.20 inc vat)



SMALL FILLER NECK Accepts smaller, Japanese and continental type pressure caps like our #RADCAPM
CNC'd aluminium with 6mm outlet. 43mm diameter. 21mm high.
#ALIRNMINI £10 (£12 inc vat)



IN-LINE FILLER NECKS FOR STANDARD RADIATOR CAPS

Beautifully CNC'd neck, with overflow outlet, TIG welded to a 150mm long, beaded aluminium tube. Simply cut your top hose and fit it in-line for 'highest point' filling and bleeding.
Radiator cap not included.

FOR 32mm I.D. HOSE
#INF32 £29 (£34.80 inc vat)
FOR 38mm I.D. HOSE
#INF38 £29 (£34.80 inc vat)



IN-LINE RADIATOR FILLER NECK

25mm I.D. HOSE SIZE AND MINI PRESSURE CAP
#INF25 £30 (£36 inc vat)



RADIATORS

ALUMINIUM COBRA RADIATOR A beautifully made, all aluminium radiator with 38mm O.D. straight inlet and 45mm O.D. angled outlet. Width - 693mm (27 1/4"), Height - 458mm (18"), Thickness 75mm (3"). Four, M6 x 25mm long, threaded aluminium fan mounting bolts at 200mm x 425mm centres welded on rear of the top and bottom plates. Two, female, M10 x 1.5mm, threaded mounting bosses at 513mm centres welded inside the top and bottom plates. Weight 5.8 Kg. **#COBRAD £240** (£288 inc vat)



ALUMINIUM RADIATOR A beautifully made, all aluminium radiator with 32mm inlet and outlet. Width - 360mm (14"), Height (including cap and bottom mounts - 460mm (18"), Thickness (not including inlet and outlet or mounts) 55mm (2 1/8"). Mini pressure cap supplied 1.1 bar (15 psi). Four, M6 threaded aluminium mounting pillars welded on rear of the top and bottom tanks. Two 11mm diameter locating posts on the bottom and one on the top. Nylon threaded drain tap. 8mm overflow on rad neck. Will easily accept one of our 12" (or smaller) fans. Capacity 1.5 litres. Weight 2.4 Kg. **#AR1 £80** (£96 inc vat)



RADIATOR COOLING FANS

NOTE: THE MOTORS ON OUR FANS ARE INDUCTION TYPE. THERE IS NO 'POLARITY'. JUST SWAP THE WIRES TO REVERSE ROTATION. ON CURVED BLADE FANS THE SHARP POINTS OF THE BLADES SHOULD ALWAYS TRAIL. IF IN DOUBT JUST HOLD A TISSUE IN FRONT OF THE FAN GRILLE TO DETERMINE AIR FLOW

MULTIPLE MOUNTING OPTIONS ON MOST FANS



10" Fan shown



ALL FANS INCLUDE
4 x Mounting feet
4 x 'Through-the-core' ties
4 x Retaining plates and
8 x Foam pads.

7" STRAIGHT BLADE 541 cfm.
Maximum dimensions 173mm x 183mm x 50mm. Mounting centre dimensions (without feet) 215mm x 105mm. Weight 0.8Kg.
Start current 12 Amps. Running 3 Amps.
#FAN7 £35 (£42 inc vat)



8" STRAIGHT BLADE 541 cfm.
Maximum dimensions 200mm x 210mm x 50mm. Mounting centres (without feet) 220mm x 125mm. Weight 0.85 Kg.
Start current 12 Amps. Running 3 Amps.
#FAN8 £40 (£48 inc vat)



Our range of electric cooling fans represent the latest generation of air movement. The blades are designed for maximise efficiency, lower noise levels and reduced power consumption. They can be mounted either in front of, or behind your radiator and the blades and motor rotation can be reversed for either sucking or blowing installations. Don't be fooled by the very reasonable cost. These are top quality fans made by a leading manufacturer for some of the worlds largest motor companies. We buy in large quantities and are thus able to pass on these remarkable prices to you. NOTE: All fan frames have flat sections on 2 opposing sides - hence the non-square overall dimensions

9" CURVED BLADE 570 cfm.
Maximum dimensions 239mm x 255mm x 50mm. Mounting centres (without feet) 218mm x 218mm. Weight 0.95 Kg.
Start current 13 Amps. Running 4 Amps.
#FAN9 £42 (£50.40 inc vat)



10" CURVED BLADE 650 cfm.
Maximum dimensions 270mm x 282mm x 55mm. Mounting centres (without feet) 240mm x 240mm. Weight 1.1 Kg.
Start current 15 Amps. Running 6 Amps
#FAN10 £45 (£54 inc vat)



11" CURVED BLADE 750 cfm.
Maximum dimensions 291mm wide, 310mm x 55mm. Mounting centre dimensions (without feet) 250mm x 250mm. Weight 1.1 Kg.
Start current 15 Amps. Running 5 Amps
#FAN11 £50 (£60 inc vat)



12" CURVED BLADE 780 cfm
Maximum dimensions. 300mm x 305mm x 62mm. Mounting centres (without feet) 320mm x 155mm. Weight 1.075 Kg.
Start current 15 Amps. Running 5 Amps.
#FAN12 £55 (£66 inc vat)



14" CURVED BLADE 1500 cfm.
Maximum dimensions 355mm x 380mm x 75mm. Mounting centres (without feet) 365mm x 180mm. Weight 1.95 Kg.
Start current 25 Amps. Running 8 Amps
Extra mounts as shown.
#FAN14 £65 (£78 inc vat)



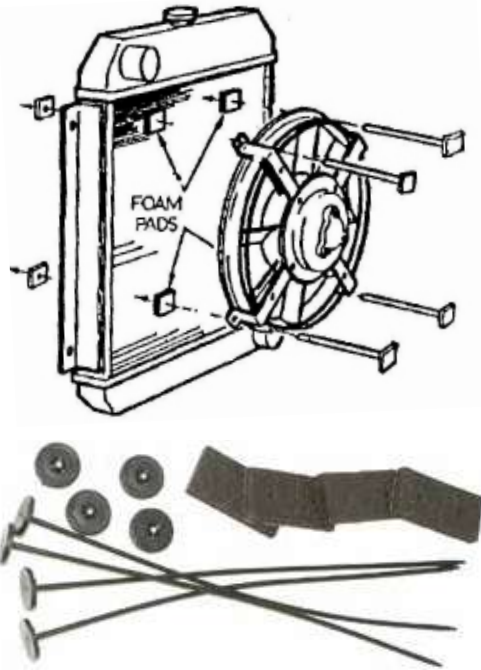
16" CURVED BLADE 2000 cfm. Max dims. 425mm x 410mm x 100mm deep. Mounting centres 428mm x 208mm. Weight 2.4 Kg.
Start current 30 Amps. Running 10 Amps.
#FAN16C £75 (£90 inc vat)



FAN MOUNTING KITS

FAN MOUNTING KIT These nylon ties work like regular cable ties. Perfect for fixing cooling fans through the radiator core or for mounting components to panels without using nuts and bolts. 180mm long. Supplied with 8 self adhesive foam pads.

#FNMNT £5 pack of 4 (£6 inc vat)



FAN MOUNTING KIT WITH ASSORTED FEET

This kit includes four, tie-type fixings with rubber washers plus a selection of mounting feet all with the universal 'T' slot fixing. Suitable for ABS framed fans only. Pack contents:

- 2 x Standard feet with 6mm hole.
- 2 x Feet with moulded-in M5 threaded brass insert.
- 2 x Extended feet 90mm overall length with one 6mm hole and one slot for maximum mounting versatility.

#FNMNT2 £12 (£14.40 inc vat)



ADJUSTABLE FAN THERMOSTATS

ADJUSTABLE THERMOSTAT

Complete installation kit with full instructions. Can be fitted into the top hose - just pull off the hose, insert the probe and re-fit the hose with a little PTFE tape around the capillary, beneath the hose clip. The 6mm diameter probe can even be clipped directly to your radiator fins. Alternatively you can purchase the 1/4" NPT threaded union for installation into our sender housing or your own radiator or thermostat housing. Operating range 5°C to 120°C. Temperature ON/OFF differential range 5°. Current rating 16 Amps.

#STAT £24.50 (£29.40 inc vat)



BRASS UNION 1/4" NPT

#STATUN £4.50 (£5.40 inc vat)



1/8" NPT THERMOSTAT PROBE UNION

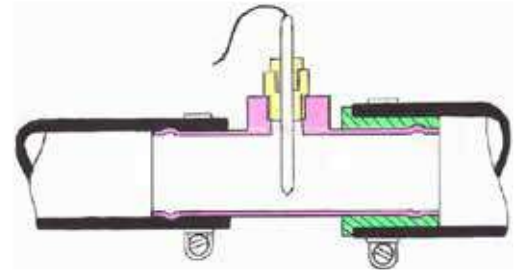
A compression union with an olive for mounting our #STAT probe into a female 1/8" NPT thread. It is brass and has a 1/8" NPT male thread.

#STATUN2 £8 (£9.60 inc vat)



PTFE TAPE General thread sealing tape ideal for oil, air and water fittings. 12mm wide x 10 metres roll.

#PTFE £1 (£1.20 inc vat)



Our adjustable thermostat offers a simple method of controlling any electric cooling fan. A stainless steel probe in the water flow senses water temperature and closes a set of contacts when a pre-selected temperature is reached.

INSTALLATION

Install the brass union into a 1/8" or 1/4" NPT thread in your cooling system. We can supply an in-line housing (see later in this section). Insert the probe as far as possible into the union and tighten the tube nut until the probe is securely gripped by the olive in the union.

Do not over-tighten.

The control switch can be mounted in a convenient position in your engine bay. Pull off the control knob and fit the mounting bracket with the two small screws and locking washers provided. The unit can now be screwed to a bulkhead or inner wing. Do not mount the unit in a position where it may become wet from road spray.

DO NOT ATTEMPT TO CUT AND SHORTEN THE CAPILLARY. COIL UP EXCESS CAPILLARY WITHOUT SHARP BENDS.

WIRING: For connecting an electric cooling fan simply take a 12 volt fused feed to terminal 2 on the control. This can be a fused spare on your fuse box or directly from the battery with an in-line fuse. Connect a wire from terminal C to your fan. Take the other fan wire to earth.

Check that the fan is rotating in the right direction. If not, simply reverse the fan wires.

CALIBRATION. Use the scale on the knob only as a guide. Observe your temperature gauge and run your engine until it reaches its normal operating temperature. Turn the thermostat's control knob until the fan cuts in. Your fan will now always cut in at this temperature. You can fine-adjust the setting as necessary.

DIGITAL FAN THERMOSTAT RELAY

Suitable for cooling fans or water pumps up to 4 Amps maximum current rating. An adjustable temperature thermostat with a digital readout. The control module measures 70 x 50 x 20mm and has three push-buttons for setting the required 'ON' and 'OFF' temperature. It has a digital readout of the current temperature and a Red LED which lights when the switched output is on. It has a 3 metre lead with a Temperature Probe at the end. The Probe can be secured in the airflow of your radiator or taped to the outside of a coolant hose. **THE PROBE MUST NOT BE PLACED IN LIQUID.** Temperature range -55°C to +125° C. Display range 0.1°C to 99.9°C Working voltage 10 to 30 Volts **#DIGISTAT £24** (£28.80 inc vat)



This item is explained on our YouTube channel

INSTALLATION CONNECTIONS:

WHITE - +12V Switched live output to Fan or Pump. Maximum current on switched circuit is 4 Amps. For bigger loads use this output to switch another relay.

RED - +12 Volt in from Ignition live (or permanent live if you require fan to run on after ignition is turned off.).

BLACK - Earth

IMPORTANT NOTE: Maximum current on output is 4 Amps. For bigger loads use this output to switch another relay. FAILURE TO DO THIS WILL DAMAGE THE STAT AND INVALIDATE YOUR WARRANTY. Even our smallest, 7" fan will draw 7 Amps on start-up.

PROGRAMMING:

1. Press 'M' button to begin 'ON' temperature setting. Use 'UP' and 'DOWN' buttons to set the temperature.
2. Press 'M' button again to begin 'OFF' temperature setting. Use 'UP' and 'DOWN' buttons to set the temperature.
3. Press 'M' button again to save the settings to the memory.

Another option is our range of MIX and MATCH Glass-reinforced, nylon fittings and unions like this 'Tee' piece. **LATER IN THIS SECTION**

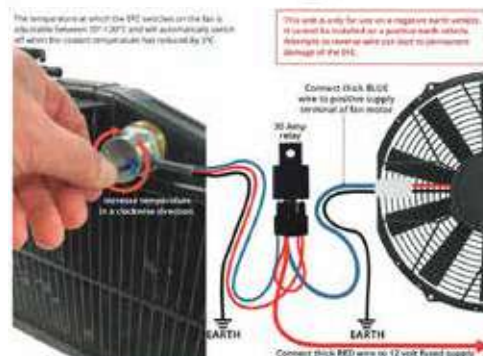


ADJUSTABLE ELECTRONIC IN-LINE FAN CONTROLLER UNION WITH RELAY For negative earth vehicles only.

A 60mm long, machined aluminium, in-line hose joiner with an integral, pre wired temperature sensor connected to a 30 Amp relay. Temperature range 70° C to 120°C. Will automatically switch fan off when coolant temperature has reduced by 3°. Simple wiring with full instructions. Two stainless hose clips, adjusting tool, cable ties and instructions are included. **32mm Dia. #FCE32 £65** (£78 inc vat) **38mm Dia. #FCE38 £65** (£78 inc vat)



FOR 32mm or 38mm I.D. HOSES



FIXED TEMPERATURE FAN SWITCHES

FAN SWITCH M14 x 1.5 thread. For use with a relay or our own accessory wiring kit. 1/4" Spade connections. **ON at 87°C and OFF at 82°C #FANSW** **ON at 97°C and OFF at 85°C #FANSW4** **ON at 100°C and OFF at 95°C #FANSW2** **OFF at 107°C and ON at 97°C (requires change-over relay) #FANSW3** **All £12** (£14.20 inc vat)



FAN SWITCH M22 x 1.5 thread. 1/4" Spade connections. 30mm A/F Hex. **ON at 95°C and OFF at 86°C #FANSW5** **ON at 88°C and OFF at 79°C #FANSW6** **ON at 82°C and OFF at 72°C #FANSW8** **All £12** (£14.20 inc vat)



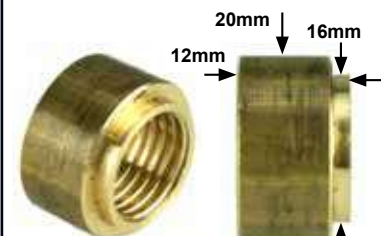
TWO STAGE RADIATOR FAN SWITCH

If you have two cooling fans on your radiator you can save fuel and run your engine more efficiently by switching them on and off one at a time, automatically. Stage 1 on at 93°C off at 88°C. Stage 2 On at 97°C off at 92°C. M22 x 1.5mm thread with aluminium sealing washer. Three 1/4" male spade terminals. Use with relays. **#FANSW9 £13.50** (£16.20 inc vat)



BRASS SOLDER-IN BUSHES

Solder into your brass or steel radiator or header tank for a simple mounting point for your M14 or M22 temperature switches. **M14 x 1.5 #BUSHM14 £5** (£6 inc vat)



M22 x 1.5 #BUSHM22 £6.50 (£7.80 inc vat)



IN-LINE SENDER HOUSINGS

Just cut your hose and insert the housing. Beautifully cnc'd aluminium. 1/8" NPT thread. Multiple uses.

Electronic water temp gauge sender which may require an earth screw. We can re-tap the thread to match your sender for £5.

Air bleed or coolant drain in top or bottom hose using an 1/8" NPT Blanking Plug or short bolt.

Air bleed back to your header tank using a 1/8" NPT threaded hose-tail.

We can re-tap the thread to accept our fan switch.

Fits hose I.D. size:

25mm #INT25

32mm #INT32

38mm #INT38 All £15 each (£18 inc vat)

Other threads machined on request.

£5 extra. (£6 inc vat)

**MULTI
PURPOSE**

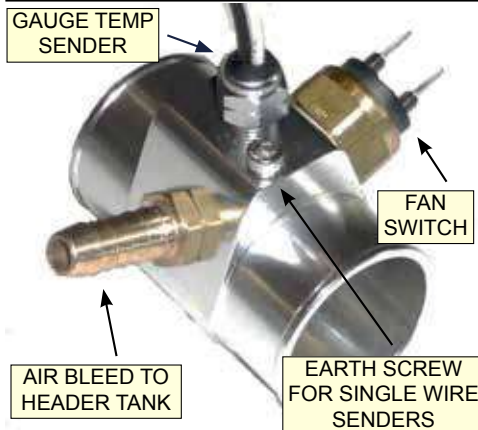


1/4" NPT thread. 75mm long. Fits hose 32mm I.D. #INT3214 £15 (£18 inc vat)



THE EXAMPLE BELOW HAS BEEN FITTED WITH A TEMP GAUGE SENDER AND HAS ALSO BEEN MACHINED WITH ADDITIONAL THREADS FOR A FAN SWITCH, AN EARTH TAG AND AN 8mm HOSE TAIL

GUAGE TEMP SENDER



AIR BLEED TO HEADER TANK

EARTH SCREW FOR SINGLE WIRE SENDERS

MODULAR IN-LINE SENDER HOUSINGS

Here's a range of machined natural aluminium in-line coolant housings for temperature senders or fan switches.

Two housing sizes are available to fit 32mm I.D. hose and 38mm I.D. hose.

Both have a female M22 x 1.5mm thread that will accept a standard M22 fan temp switch from our range.

32mm HOUSING

#MOIN32 £13 each (£15.60 inc vat)

38mm HOUSING

#MOIN38 £13 each (£15.60 inc vat)

Then there's a range of five M22 x 1.5mm male threaded inserts with 'O' rings for the senders and switches.

M10 x 1mm INSERT

#INSM10 £5 each (£6 inc vat)

M14 x 1.5mm INSERT

#INSM14 £5 each (£6 inc vat)

1/8" NPT INSERT

#INS18NPT £5 each (£6 inc vat)

1/4" NPT INSERT

#INS14NPT £5 each (£6 inc vat)

1/4" BSP INSERT

#INS14BSP £5 each (£6 inc vat)



#MOIN38



#INS18NPT



This picture shows a #FANSW4 fitted in a #INSM14 insert in a #MOIN38 housing.



SURFACE MOUNT FAN SWITCH ON

AT 100°C OFF AT 82°C Here's a tiny temperature switch that you can rivet, bolt or even Cable-Tie to a flat surface.

1 amp contact rating so it must be used with a relay. 1/4" spade terminals.

Two, 3.5mm fixing holes at 24mm centres.

The switch should be mounted with its flat surface in contact with the radiator or another component that heats and cools with the engine coolant.

#FANSW7 £22 (£26.40 inc vat)



TEMPERATURE SENDER 1/8" npt thread will fit into our in-line housings (shown below). High temperature insulated fly leads with bullet terminals. Resistance: @

5°C - 4.3kΩ

43°C - 1.0kΩ

100°C - 140Ω

#TEMPS £8 (£9.60 inc vat)

CHECK RESISTANCE
MATCHES YOUR
INSTRUMENT



SENDER SHOWN FITTED TO OUR #INT HOUSING (NOT INCLUDED)



TEMPERATURE SENDER 1/8" npt thread. M5 threaded terminal with nut. Thread and probe length 21mm.

Resistance: @ 1°C - 2.6kΩ

50°C - 100Ω

98°C - 75Ω

#TEMPS2 £8 (£9.60 inc vat)



WELDED ALUMINIUM T's

Beaded 32mm and 38mm tubes 120mm long with TiG welded take-offs. Wall thickness 1.5mm. For heater or header tank feeds etc. All diameters are O.D.

32mm with 8mm take-off
#TEE328 £20 (£24 inc vat)



32mm with 15mm take-off
#TEE3215 £20 (£24 inc vat)
38mm with 15mm take-off
#TEE3815 £20 (£24 inc vat)



Beaded, TiG welded TEE's. 120mm long 50mm long legs. All diameters are O.D.
ALL 25mm #TEE2525 £15 (£18 inc vat)
ALL 32mm #TEE3232 £20 (£24 inc vat)
ALL 38mm #TEE3838 £20 (£24 inc vat)



32mm BLANKED TEE
 Make your own adapter with whatever thread you like with this unique TEE. A 32mm tube 80mm long with a welded 25mm boss for you to drill and tap.
#TEE32BLANK £20 (£24 inc vat)



IN-LINE FILLER NECKS FOR STANDARD RADIATOR CAPS

Beautifully CNC'd neck, with overflow outlet, TiG welded to a 150mm long beaded aluminium tube. Simply cut your top hose and fit it in-line for 'highest point' filling and bleeding. **CAP NOT INCLUDED.**

FOR 32mm I.D. HOSE #INF32 £29 (£34.80 inc vat)
FOR 38mm I.D. HOSE #INF38 £29 (£34.80 inc vat)



32 & 38mm

IN-LINE RADIATOR FILLER NECK FOR 25mm I.D HOSE AND MINI PRESSURE CAP (CAP NOT INCLUDED)

#INF25 £30 (£36 inc vat)

25mm



FIND OUR LARGE SELECTION OF RADIATOR CAPS EARLIER IN THIS SECTION



**BEADED JOINERS
 MADE TO ORDER
 ANY LENGTH -
 ANY DIAMETER**



**MEASURE
 MEASURE
 MEASURE**



"It's about this big"

Make sure that we send you the right part for your job. 'About this big' just isn't good enough to guarantee it. Accurate measurement is critical.

NARROW BAND ALL STAINLESS HOSE CLIPS These clips all have a 9mm wide band with up-turned edges to prevent hose damage. The band, screw and housing are all stainless steel. 7mm, slotted Hex-drive.

| | | |
|--------------------------|--------------|-----------------|
| 8 - 12mm #NB8 | £0.50 | (£0.60 inc vat) |
| 10 - 16mm #NB10 | £0.60 | (£0.72 inc vat) |
| 12 - 20mm #NB1220 | £0.70 | (£0.84 inc vat) |
| 12 - 22mm #NB1222 | £0.80 | (£0.96 inc vat) |
| 16 - 27mm #NB16 | £0.80 | (£0.96 inc vat) |
| 20 - 32mm #NB20 | £0.90 | (£1.08 inc vat) |
| 25 - 40mm #NB25 | £1.10 | (£1.32 inc vat) |
| 30 - 45mm #NB30 | £1.10 | (£1.32 inc vat) |
| 32 - 50mm #NB32 | £1.20 | (£1.44 inc vat) |
| 40 - 60mm #NB40 | £1.20 | (£1.44 inc vat) |
| 50 - 70mm #NB50 | £1.40 | (£1.68 inc vat) |
| 60 - 80mm #NB60 | £1.40 | (£1.68 inc vat) |



RUBBER COOLANT HOSE

STRAIGHT HOSE 1 METRE LENGTHS

Woven reinforcement. Strong & flexible. High temperature (up to 135°C) and burst resistance. Supplied in 1 Metre lengths.

25mm (1") I.D. (31mm O.D.)

#HOS25 £12 (£14.40 inc vat)

28mm (1") I.D. (35mm O.D.)

#HOS28 £16 (£19.20 inc vat)

32mm (1 1/4") I.D. (39mm O.D.)

#HOS32 £13 (£15.60 inc vat)

35mm (1 3/8") I.D. (43mm O.D.)

#HOS35 £18 (£21.60 inc vat)

38mm (1 1/2") I.D. (46mm O.D.)

#HOS38 £14 (£16.80 inc vat)

45mm (1 3/4") I.D. (54mm O.D.)

#HOS45 £15.50 (£18.60 inc vat)

50mm (2") I.D. (60mm O.D.)

#HOS50 £21 (£25.20 inc vat)

57mm (2 1/4") I.D. (63mm O.D.)

#HOS57 £40 (£48 inc vat)

60mm (2 3/8") I.D. (70mm O.D.)

#HOS60 £49.50 (£59.40 inc vat)

75mm (3") I.D. (88mm O.D.)

#HOS75 £70 (£84 inc vat)



90° BENDS Woven, moulded-in reinforcement. Tight, free-flowing hoses. Cut to length - even on the bend to produce any angle up to 90°.

10mm (3/8") I.D. Arm 150mm (6")

#H9010 £8.50 (£10.20 inc vat)

12mm (1/2") I.D. Arm 150mm (6")

#H9012 £7 (£8.40 inc vat)

15mm (5/8") I.D. Arm 150mm (6")

#H9015 £7 (£8.40 inc vat)

19mm (3/4") I.D. Arm 150mm (6")

#H9019 £8 (£9.60 inc vat)

22mm (7/8") I.D. Arm 150mm (6")

#H9022 £9 (£10.80 inc vat)

25mm (1") I.D. Arm 150mm (6")

#H9025 £10 (£12 inc vat)

28mm (1 1/8") I.D. Arm 200mm (8")

#H9028 £10 (£12 inc vat)

30mm (1 3/16") I.D. Arm 200mm (8")

#H9030 £11.50 (£13.80 inc vat)

32mm (1 1/4") I.D. Arm 200mm (8")

#H9032 £12 (£14.40 inc vat)

35mm (1 3/8") I.D. Arm 300mm (12")

#H9035 £14 (£16.80 inc vat)

38mm (1 1/2") I.D. Arm 300mm (12")

#H9038 £17 (£20.40 inc vat)

40mm (1 9/16") I.D. Arm 300mm (12")

#H9040 £17 (£20.40 inc vat)

45mm (1 3/4") I.D. Arm 300mm (12")

#H9045 £18 (£21.60 inc vat)

50mm (2") I.D. Arm 300mm (12")

#H9050 £18 (£21.60 inc vat)

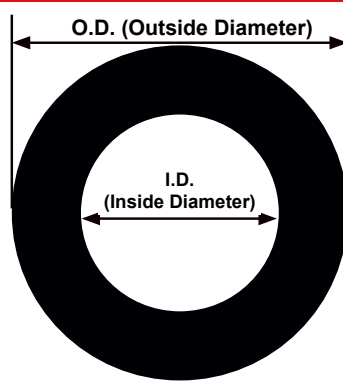
55mm (2 1/8") I.D. Arm 300mm (12")

#H9055 £18 (£21.60 inc vat)

60mm (2 3/8") I.D. Arm 300mm (12")

#H9060 £18.50 (£22.20 inc vat)

TELL US THE O.D. (Outside Diameter) if you need Hose Clips, P Clips, Hose Finishers, Sleeving.



TELL US THE I.D. (Inside Diameter) if you need unions, hosetails or anything that pushes into the hose.

25mm AND 32mm I.D. STRAIGHT HOSE FROM A ROLL - ANY LENGTH IN ONE PIECE Up to 20 mtrs.

Multiples of 1/2 mtr. after 1 mtr.

Woven reinforcement.

25mm (1") I.D. (31mm OD)

#HOS25A £12 per mtr (£14.40 inc vat)

32mm (1 1/4") I.D. (39mm OD)

#HOS32A £13 per mtr (£15.60 inc vat)

HEATER HOSE Strong & flexible allowing considerable bend radius. Textile woven reinforcing. Larger sizes will stretch up to 4mm larger than their natural ID.

SOLD FROM A ROLL. MAXIMUM LENGTH IN ONE PIECE 15 METRES

8mm I.D. (5/16") (16mm OD)

#HTHO8 £4.50 mtr (£5.40 inc vat)

10mm I.D. (3/8") (17.5mm O.D.)

#HTHO10 £4.50 mtr (£5.40 inc vat)

12mm I.D. (1/2") (20mm O.D.)

#HTHO12 £4.50 mtr (£5.40 inc vat)

15mm I.D. (5/8") (22mm O.D.)

#HTHO15 £5 mtr (£6 inc vat)

17mm I.D. (11/16") (22mm O.D.)

#HTHO17 £7 mtr (£8.40 inc vat)

19mm I.D. (3/4") (26mm O.D.)

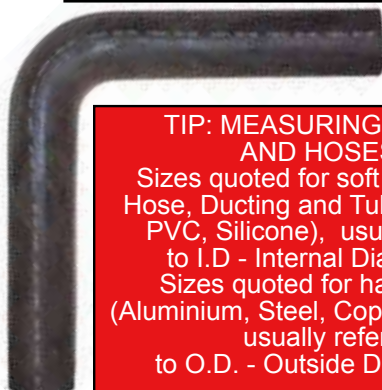
#HTHO19 £7.50 mtr (£9 inc vat)

22mm I.D. (7/8") (28mm O.D.)

#HTHO22 £9.50 mtr (£11.40 inc vat)

25mm I.D. (1") (32mm O.D.)

#HTHO25 £12 mtr (£14.40 inc vat)



TIP: MEASURING PIPES AND HOSES
 Sizes quoted for soft & flexible Hose, Ducting and Tube (rubber, PVC, Silicone), usually refer to I.D. - Internal Diameter.
 Sizes quoted for hard tube (Aluminium, Steel, Copper, Plastic) usually refer to O.D. - Outside Diameter.

SHORT 90° RUBBER BENDS

Woven, moulded-in reinforcement.

Tight, free-flowing bends.

All leg lengths are 100mm (4")

12mm (1/2") I.D. (20mm O.D.)

#HSH9012 £2.50 (£3 inc vat)

15mm (5/8") I.D. (22mm O.D.)

#HSH9015 £2.50 (£3 inc vat)

19mm (3/4") I.D. (25mm O.D.)

#HSH9019 £3 (£3.60 inc vat)

25mm (1") I.D. (34mm O.D.)

#HSH9025 £3.50 (£4.20 inc vat)

32mm (1 1/4") I.D. (42mm O.D.)

#HSH9032 £3.75 (£4.50 inc vat)

38mm (1 1/2") I.D. (48mm O.D.)

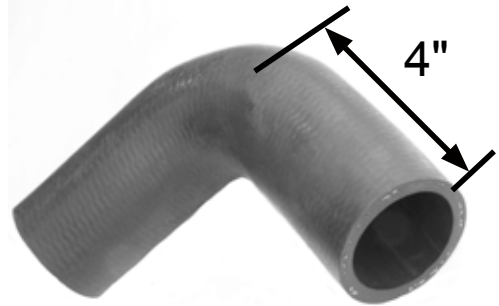
#HSH9038 £4.50 (£5.40 inc vat)

45mm (1 3/4") I.D. (56mm O.D.)

#HSH9045 £5 (£6 inc vat)

51mm (2") I.D. (61mm O.D.)

#HSH9050 £5.50 (£6.60 inc vat)



HOSE & PIPE CUTTER The cleanest, neatest method of cutting rubber hose.

Can cut up to 50mm or even larger with a couple of bites. Will also cut up to & 40mm diameter hard plastic pipe.

#HOSEC £6.50 (£7.80 inc vat)

INSTRUCTIONS: Pull handles apart to open jaws. Squeeze jaws together to cut. It is sometimes necessary to squeeze the blade and anvil together with the free hand whilst cutting the hose. Larger hoses may require two or more bites.



FLEXIBLE COOLANT HOSE Very flexible and tough, spiral wire reinforced and textile braided convoluted rubber hose in 1 Metre lengths. Can be cut to length. Smooth bore.

25mm I.D. (1") (35mm O.D.)

Will bend to a 60mm radius.

#FLEX25 £17 (£20.40 inc vat)

32mm I.D. (1¼") (42mm O.D.)

Will bend to a 75mm radius

#FLEX32 £20 (£24 inc vat)

35mm I.D. (1¼") (46mm O.D.)

Will bend to a 85mm radius.

#FLEX35 £22 (£26.40 inc vat)

38mm I.D. (1½") (49mm O.D.)

Will bend to a 95mm radius.

#FLEX38 £22 (£26.40 inc vat)



FLEXIBLE

GREEN STRIPE FLEXIBLE COOLANT HOSE

If you want the very best flexible hose - here it is. Reaches the parts other hoses can't reach. Smooth bore for unrestricted flow. Embedded spiral wire in moulded rubberised fabric. Will bend to very tight radii without collapsing. Resistant to heat grease and oil. Supplied in lengths of 1.52 Metres (5 ft). Made in USA. We used this on our first car and it was still going strong 21 years later when we sold it. Minimum bend radius approx 100mm.

25mm (1") I.D. (33mm O.D.)

#GRE25 £76 (£91.20 inc vat)

32mm (1¼") I.D. (40mm O.D.)

#GRE32 £79 (£94.80 inc vat)

35mm (1⅝") I.D. (43mm O.D.)

#GRE35 £80 (£96 inc vat)

38mm I.D. (1½") (45mm O.D.)

#GRE38 £83 (£99.60 inc vat)

45mm (1¾") I.D. (53mm O.D.)

#GRE45 £85 (£102 inc vat)

51mm (2") I.D. (59mm OD)

#GRE51 £90 (£108 inc vat)

57mm (2 ¼") I.D. (63mm OD)

#GRE57 £95 (£114 inc vat)



VULCOFLEX FLEXIBLE HOSE. Steel spiral reinforcement. Strong & ultra flexible. Will not collapse, even on the tightest bends. Bore and length listed below:

28mm I.D. x 225mm long (35mm O.D.)

#VU28 £12 (£14.40 inc vat)

28mm I.D. x 500mm long (35mm O.D.)

#VU28500 £17 (£20.40 inc vat)

28mm I.D. x 580mm long (35mm O.D.)

#VU28580 £17 (£20.40 inc vat)

32mm I.D. x 275mm long (39mm O.D.)

#VU321 £14 (£16.80 inc vat)

32mm I.D. x 400mm long (39mm O.D.)

#VU322 £16 (£19.20 inc vat)

32mm I.D. x 508mm long (39mm O.D.)

#VU323 £18 (£21.60 inc vat)

32mm I.D. x 590mm long (39mm O.D.)

#VU324 £19 (£22.80 inc vat)

32mm I.D. x 765mm long (39mm O.D.)

#VU325 £22 (£26.40 inc vat)

32mm I.D. x 1035mm long (39mm O.D.)

#VU326 £22 (£26.40 inc vat)

38mm I.D. x 375mm long (44mm O.D.)

#VU381 £16 (£19.20 inc vat)

38mm I.D. x 450mm long (44mm O.D.)

#VU382 £19 (£22.80 inc vat)

38mm I.D. x 559mm long (44mm O.D.)

#VU383 £20 (£24 inc vat)

38mm I.D. x 760mm long (44mm O.D.)

#VU384 £22 (£26.40 inc vat)

38mm I.D. x 890mm long (44mm O.D.)

#VU385 £24 (£28.80 inc vat)

45mm I.D. x 279mm long (54mm O.D.)

#VU451 £15 (£18 inc vat)



CUTTING SPIRAL WIRE-REINFORCED HOSES

Many hoses have an embedded spiral, spring-steel wire reinforcement to prevent collapse on tight bends. It is possible to make a clean, straight cut with only a sharp knife and some good quality side cutters. Here's how.

1. Lay the hose flat on a bench and rotate the hose until you can make a mark alongside the wire at the exact length required.

2. Now, depending on which direction the wire is wound, insert a sharp knife blade and cut squarely through the hose all the way around, either towards you or away from you, until the blade is exactly next to the start point, but on the other side of the wire. You can then fold back the hose and cut the wire with side cutters. The cut wire ends will often try to straighten themselves out so you can just re-bend the ends with your fingers. You can apply this method to all our coolant, fuel and duct hoses.

VULCOFLEX REDUCING FLEXIBLE HOSE. Steel spiral reinforcement. Strong & ultra flexible. Will not collapse, even on the tightest bends.

28mm to 32mm I.D. 475mm long

#VU3228 £16 (£19.20 inc vat)

38mm to 32mm I.D. 300mm long

#VU3832300 £16 (£19.20 inc vat)

38mm to 32mm I.D. 394mm long

#VU3832394 £17 (£20.40 inc vat)

38mm to 32mm I.D. 495mm long

#VU3832495 £18 (£21.60 inc vat)

38mm to 32mm I.D. 585mm long

#VU3832585 £196 (£22.80 inc vat)

38mm to 32mm I.D. 740mm long

#VU3832740 £20 (£24 inc vat)

45mm to 38mm I.D. 380mm long

#VU4538380 £16 (£19.20 inc vat)

45mm to 38mm I.D. 420mm long

#VU4538420 £17 (£20.40 inc vat)

45mm to 38mm I.D. 555mm long

#VU4538555 £19 (£22.80 inc vat)

45mm to 38mm I.D. 685mm long

#VU4538685 £18 (£21.60 inc vat)



32mm WIGGLY HOSE Overall length if straight 530mm. This very useful hose could solve several problems at one stroke in a custom cooling system design. 32mm I.D. at each end and around 30mm ID if cut anywhere along it's length but will still easily fit over a 32mm O.D. Aluminium tube (as shown in the picture below) Can be cut into at least two 45° bends and a tight 90° as shown in the examples below.

#H32WIG £22 (£26.40 inc vat)



THIS MAKES ALL THESE



15mm 90 DEGREE LONG ARM HOSE

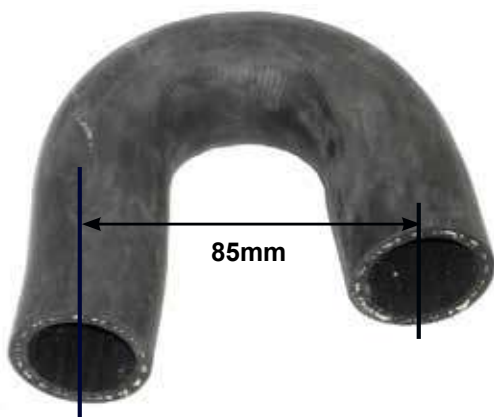
A 750 mm long reinforced 15mm I.D. heater hose with an 80mm long, 90 degree leg at one end. **#H9015750 £18** (£21.60 inc vat)



**HELP YOURSELF AND US
MEASURE
ACCURATELY**

180° 32mm HOSE This neat hose could prove invaluable when designing a compact DIY cooling system. Free-flowing 32mm I.D. in a tight 180 degree sweep measuring just 120mm (4 ¾") across.

#H18032 £11.50 (£13.80 inc vat)



STAINLESS BRAIDED PTFE BRAKE

HOSE Suitable for all brake fluids. I.D. 3.5mm. O.D. 6.45mm .Sold per metre.

#PTFEHO £5.50 mtr. (£6.60 inc vat)



IGNITION ADVANCE VACUUM TUBING

Thick walled black rubber. Won't collapse. 1/8" I.D. 3/8" O.D.

#VACAD £6 mtr (£7.20 inc vat)



BLACK REINFORCED PVC HOSE

8mm I.D. Moulded-in woven nylon reinforcing web. Maximum working pressure: 12 bar. Resistant to Water, oil, fuel. Good flexibility and abrasion resistance.

Temperature range -20°C to +65°C. 8mm I.D. (13.5mm O.D.)

#RPVC8BK £2 mtr (£2.40 inc vat)



LOW PRESSURE FUEL VENT / DRAIN HOSE

This flexible, polypropylene hose is ideal for vent or drain applications of fuel oil or water at atmospheric pressure only. Will easily stretch up to 2mm bigger. 8 sizes. See Fuel Hose section.



REINFORCED PVC HOSE PVC Hose with moulded-in woven nylon reinforcing web.

Maximum working pressure: 2 smaller sizes 15 bar, 2 larger sizes 12 bar. Resistant to Water, oil, fuel. Good flexibility and abrasion resistance. Temperature range -20°C to +65°C. BS 6066 & ISO 5774

3mm I.D. (8.5mm O.D.)

#RPVC3 £2 mtr (£2.40 inc vat)

6mm I.D. (11.2mm O.D.)

#RPVC6 £2 mtr (£2.40 inc vat)

8mm I.D. (13.5mm O.D.)

#RPVC8 £2 mtr (£2.40 inc vat)

10mm I.D. (14mm O.D.)

#RPVC10 £2.50 mtr (£3 inc vat)

12mm I.D. (17mm O.D.)

#RPVC12 £2.50 mtr (£3 inc vat)

16mm I.D. (24mm O.D.)

#RPVC16 £3.50 mtr (£4.20 inc vat)

19mm I.D. (26mm O.D.)

#RPVC19 £4.50 mtr (£5.40 inc vat)



CLEAR PVC HOSE Soft PVC Hose.

Good resistance to ageing. Suitable for non pressure applications. Temperature range -15°C to +60°C. 6 sizes:

3mm I.D. (6mm O.D.)

#WTUB2 £1.50 mtr (£1.80 inc vat)

5mm I.D. (8mm O.D.)

#WTUB £1.75 mtr (£2.10 inc vat)

6mm I.D. (9mm O.D.)

#PVC6 £2 mtr (£2.40 inc vat)

8mm I.D. (11 mm O.D.)

#PVC8 £2 mtr (£2.40 inc vat)

10mm I.D. (12.7mm O.D.)

#PVC10 £2.50 mtr (£3 inc vat)

12mm I.D. (15mm O.D.)

#PVC12 £2.50 mtr (£3 inc vat)



BRAKE FLUID FILLER HOSE IVA OK

Low pressure hose for connecting fluid reservoirs to master cylinders. Resistant to all types of brake & clutch fluid. Supplied with IVA compliance declaration.

7mm ID. 13.7mm O.D. Will push on 8mm hosetail.

#BFHOSE £10.50 per metre (£12.60 inc vat)

9.2mm I.D. 15mm O.D.

#BFHOSE10 £10.50 per metre (£12.60 inc vat)



AIR CONDITIONING REFRIGERANT HOSE

Also suitable for oil, fuel or coolant.

DASH 6 (5/16" I.D., 3/4" O.D.)

#ACHO6 £8.50 mtr (£10.20 inc vat)

DASH 8 (13/32" ID, 7/8" O.D.)

#ACHO8 £9.50 mtr (£11.40 inc vat)

DASH 10 (1/2" ID, 1" O.D.)

#ACHO10 £10.50 mtr (£12.60 inc vat)



SERVO VACUUM HOSE

3/8" I.D. (18mm O.D.)

#VACHO38 £7 mtr (£8.00 inc vat)

6mm I.D. (13.6mm O.D.)

#VACHO6 £7 mtr (£8.40 inc vat)

8mm I.D. (16mm O.D.)

#VACHO8 £7.50 mtr (£9.000 inc vat)

10mm I.D. (17.2mm O.D.)

#VACHO10 £8 mtr (£9.60 inc vat)

13mm I.D. (20.5mm O.D.)

#VACHO13 £9 mtr (£10.80 inc vat)

15mm I.D. (24mm O.D.)

#VACHO15 £10 mtr (£12 inc vat)



OIL HOSE Excellent quality hose.

Resistant to all oils. Fabric reinforced. Maximum working pressure shown.

10mm I.D. (16mm O.D.) 110bar

#OILHO10 £8 mtr (£9.60 inc vat)

12.5mm I.D (19mm O.D.) 60bar

#OILHO13 £9 mtr (£10.80 inc vat)

15.4mm I.D (23mm O.D.) 40bar

#OILHO16 £10 mtr (£12 inc vat)

18.4mm I.D (26mm O.D.) 33bar

#OILHO19 £12 mtr (£14.40 inc vat)



STAINLESS BRAIDED OIL & FUEL HOSE

Rubber NBR (nitrile butyl rubber) hose with embedded woven polyester braiding. Woven stainless steel braiding over the outside. Suitable for all motor oils. Operating temperature range from -40°C to +125°C.

10mm I.D. (17mm OD)

Working pressure 110 bar (1500 psi)

#SBOILHO10 £18 mtr. (£21.60 inc vat)

12mm I.D. (19mm OD)

Working pressure 60 bar (840 psi)

#SBOILHO12 £18 mtr. (£21.60 inc vat)

15mm I.D. (23mm OD)

Working pressure 40 bar (560 psi)

#SBOILHO15 £20 mtr. (£24 inc vat)

19mm I.D. (27mm OD)

Working pressure 33 bar (460 psi)

#SBOILHO19 £22 mtr. (£26.40 inc vat)



BLUE SILICONE HOSE

Three - ply Silicone Hose reinforced with polyester fabric. Great quality.
 Temperature range
 -50°C up to +235°C.
 Minimum 250 PSI burst pressure.
 Flame and fire resistant.
 Ozone & UV resistant.

STRAIGHT 1 METRE LENGTHS

- 6mm (1/4") I.D. (14mm O.D.)
#SILHO61 £12.50 (£15 inc vat)
- 8mm (5/16") I.D. (16mm O.D.)
#SILHO81 £12.50 (£15 inc vat)
- 10mm (3/8") I.D. (17mm O.D.)
#SILHO101 £13 (£15.60 inc vat)
- 13mm (1/2") I.D. (21mm O.D.)
#SILHO13 £16 (£19.20 inc vat)
- 16mm (5/8") I.D. (23mm O.D.)
#SILHO16 £17 (£20.40 inc vat)
- 19mm (3/4") I.D. (28mm O.D.)
#SILHO19 £18 (£21.60 inc vat)
- 22mm (7/8") I.D. (31mm O.D.)
#SILHO22 £18.50 (£22.20 inc vat)
- 25mm (1") I.D. (34mm O.D.)
#SILHO25 £18.50 (£22.20 inc vat)
- 28mm (1 1/8") I.D. (37mm O.D.)
#SILHO28 £21 (£25.20 inc vat)
- 32mm (1 1/4") I.D. (42mm O.D.)
#SILHO32 £22.50 (£27 inc vat)
- 35mm (1 3/8") I.D. (44mm O.D.)
#SILHO35 £24 (£28.80 inc vat)
- 38mm (1 1/2") I.D. (46mm O.D.)
#SILHO38 £25 (£30 inc vat)
- 45mm (1 3/4") I.D. (54mm O.D.)
#SILHO45 £29 (£34.80 inc vat)
- 51mm (2") I.D. (60mm O.D.)
#SILHO51 £33 (£39.60 inc vat)

STRAIGHT 2 METRE LENGTHS

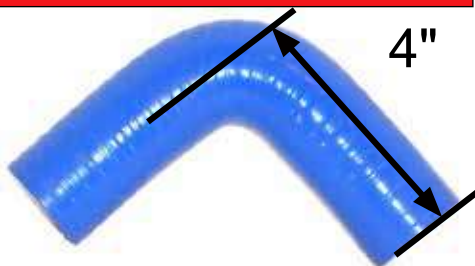
- 8mm (5/16") I.D. (16mm O.D.)
#SILHO82 £24 (£28.80 inc vat)
- 10mm (3/8") I.D. (17mm O.D.)
#SILHO102 £25 (£30 inc vat)
- 13mm (1/2") I.D. (21mm O.D.)
#SILHO132 £31 (£37.20 inc vat)
- 16mm (5/8") I.D. (23mm O.D.)
#SILHO162 £33 (£39.60 inc vat)
- 19mm (3/4") I.D. (28mm O.D.)
#SILHO192 £35 (£42 inc vat)



90 DEG ELBOW WITH 100mm (4in) LEGS

- 15mm (5/8") I.D. (25mm O.D.)
#SIL1590 £8 £9.40 inc vat)
- 19mm (3/4") I.D. (28mm O.D.)
#SIL1990 £8.25 (£9.90 inc vat)
- 22mm (7/8") I.D. (31mm O.D.)
#SIL2290 £8.50 (£10.20 inc vat)
- 25mm (1") I.D. (34mm O.D.)
#SIL2590 £9.50 (£11.40 inc vat)
- 32mm (1 1/4") I.D. (42mm O.D.)
#SIL3290 £10.50 (£12.60 inc vat)
- 38mm (1 1/2") I.D. (46mm O.D.)
#SIL3890 £11 (£13.20 inc vat)
- 45mm (1 3/4") I.D. (54mm O.D.)
#SIL4590 £11.75 (£14.10 inc vat)
- 51mm (2") I.D. (60mm O.D.)
#SIL5190 £13 (£15.60 inc vat)

NOTE: LEG LENGTH IS MEASURED FROM THE CENTRE LINE OF ONE LEG TO THE END OF THE OTHER



180 DEGREE BEND HOSE

- 25mm (1") I.D. (33mm O.D.)
 120mm x 120mm overall dimensions.
 95mm centres.
#SIL18025 £11 (£13.20 inc vat)
- 32mm (1 1/4") I.D. (40mm O.D.)
 125mm x 125mm overall dimensions.
 90mm centres.
#SIL18032 £12.50 (£15 inc vat)
- 38mm (1 1/2") I.D. (46mm O.D.)
 135mm x 130mm overall dimensions.
 90mm centres.
#SIL18038 £14 (£16.80 inc vat)



REDUCING 90 degree BEND

- 32mm (1 1/4") I.D. to 25mm (1") I.D.
#SIL903225 £9.50 (£11.40 inc vat)
- 38mm (1 1/2") I.D. to 32mm (1 1/4") I.D.
#SIL903832 £10.50 (£12.60 inc vat)
- 51mm (2") I.D. to 38mm (1 1/2") I.D.
#SIL905138 £14 (£16.80 inc vat)



135 DEG ELBOW WITH 100mm (4in) LEGS

- 19mm (3/4") I.D. (28mm O.D.)
#SIL19135 £12 (£14.40 inc vat)
- 25mm (1") I.D. (34mm O.D.)
#SIL25135 £9.50 (£11.40 inc vat)
- 32mm (1 1/4") I.D. (42mm O.D.)
#SIL32135 £12.50 (£15 inc vat)
- 38mm (1 1/2") I.D. (46mm O.D.)
#SIL38135 £14 (£16.80 inc vat)
- 45mm (1 3/4") I.D. (54mm O.D.)
#SIL45135 £18 (£21.60 inc vat)
- 51mm (2") I.D. (60mm O.D.)
#SIL51135 £17.50 (£21 inc vat)



45 DEG ELBOW WITH 100mm (4in) LEGS

- 19mm (3/4") I.D. (28mm O.D.)
#SIL1945 £8.25 (£9.90 inc vat)
- 25mm (1") I.D. (34mm O.D.)
#SIL2545 £9.50 (£11.40 inc vat)
- 32mm (1 1/4") I.D. (42mm O.D.)
#SIL3245 £10.50 (£12.60 inc vat)
- 38mm (1 1/2") I.D. (46mm O.D.)
#SIL3845 £11 (£13.20 inc vat)
- 45mm (1 3/4") I.D. (54mm O.D.)
#SIL4545 £11.75 (£14.10 inc vat)
- 51mm (2") I.D. (60mm O.D.)
#SIL5145 £13 (£15.60 inc vat)



REDUCING HOSE

- 32mm (1 1/4") I.D. to 25mm (1") I.D.
#SILRED3225 £7.50 (£9 inc vat)
- 38mm (1 1/2") I.D. to 32mm (1 1/4") I.D.
#SILRED3832 £8.50 (£10.20 inc vat)
- 51mm (2") I.D. to 38mm (1 1/2") I.D.
#SILRED5138 £10 (£12 inc vat)



HEAVY DUTY BLUE SILICONE HOSE

Higher burst pressure, thicker wall, 5-ply construction and harder wearing. STRAIGHT 1 METRE LENGTHS

8mm (5/16") I.D. (18mm O.D.)

#HDSIL8 £9 (£10.80 inc vat)

10mm (3/8") I.D. (20mm O.D.)

#HDSIL10 £10 (£12 inc vat)

13mm (1/2") I.D. (23mm O.D.)

#HDSIL13 £12 (£14.40 inc vat)

16mm (5/8") I.D. (26mm O.D.)

#HDSIL16 £14 (£16.80 inc vat)

19mm (3/4") I.D. (30mm O.D.)

#HDSIL19 £15 (£18 inc vat)

25mm (1") I.D. (36mm O.D.)

#HDSIL25 £16 (£19.20 inc vat)

32mm (1 1/4") I.D. (43mm O.D.)

#HDSIL32 £18 (£21.60 inc vat)

35mm (1 3/8") I.D. (46mm O.D.)

#HDSIL35 £20 (£24 inc vat)

38mm (1 1/2") I.D. (48mm O.D.)

#HDSIL38 £21 (£25.20 inc vat)

51mm (2") I.D. (62mm O.D.)

#HDSIL51 £28 (£33.60 inc vat)



HOSE FINISHERS

HOSE FINISHERS Anodised aluminium with self-contained, hidden all-stainless hose clamps. Neatly hides the cut end of the hose and smartens up your engine bay. Sizes available for 12mm to 48mm diameter hoses. **SEE HARDWARE SECTION**



90 DEG ELBOW WITH 100mm (4in) LEGS

15mm (5/8") I.D. (26mm OD)

#HDSIL1590 £4 (£4.80 inc vat)

19mm (3/4") I.D. (29mm OD)

#HDSIL1990 £4.50 (£5.40 inc vat)

25mm (1") I.D. (36mm OD)

#HDSIL2590 £5 (£6 inc vat)

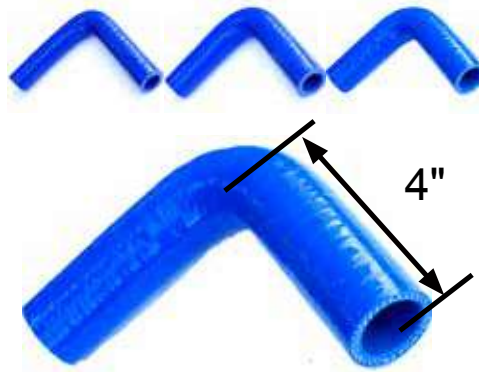
32mm (1 1/4") I.D. (43mm OD)

#HDSIL3290 £6 (£7.20 inc vat)

38mm (1 1/2") I.D. (48mm OD)

#HDSIL3890 £7.50 (£9 inc vat)

NOTE: LEG LENGTH IS MEASURED FROM THE CENTRE LINE OF ONE LEG TO THE END OF THE OTHER



BLUE SILICONE VACUUM TUBING

Suitable for vacuum advance, vacuum control etc. Temperature range from -50°C to + 235°C. Resistant to oils and solvents. Ozone and UV resistant.

3mm I.D. (7mm O.D.)

#SILVAC3 £2.50 mtr. (£3 inc vat)

4mm I.D. (8mm O.D.)

#SILVAC4 £2.50 mtr. (£3 inc vat)

5mm I.D. (10mm O.D.)

#SILVAC5 £3.50 mtr. (£4.20 inc vat)

6mm I.D. (11mm O.D.)

#SILVAC6 £4 mtr. (£4.80 inc vat)

8mm I.D. (14mm O.D.)

#SILVAC8 £4.50 mtr. (£5.40 inc vat)



BLACK SILICONE VACUUM TUBING

Suitable for vacuum advance, vacuum control etc. Temperature range from -50°C to + 235°C. Resistant to oils and solvents. Ozone and UV resistant.

3mm I.D. (7mm O.D.)

#SILVAC3BK £2.50 mtr. (£3 inc vat)

4mm I.D. (8mm O.D.)

#SILVAC4BK £2.50 mtr. (£3 inc vat)

5mm I.D. (10mm O.D.)

#SILVAC5BK £3.50 mtr. (£4.20 inc vat)

6mm I.D. (11mm O.D.)

#SILVAC6BK £4 mtr. (£4.80 inc vat)

8mm I.D. (14mm O.D.)

#SILVAC8BK £4.50 mtr. (£5.40 inc vat)



FLEXIBLE SILICONE HOSE

Smooth bore with spiral wound, steel, reinforcing wire.

BLUE 16mm I.D. (27mm O.D.)

#SILF16 £29 (£34.80 inc vat)

BLUE 25mm I.D. (33mm O.D.)

#SILF25 £31 (£37.20 inc vat)

BLUE 32mm I.D. (42mm O.D.)

#SILF32 £36 (£43.20 inc vat)

BLUE 38mm I.D. (49mm O.D.)

#SILF38 £41 (£49.20 inc vat)

BLACK 16mm I.D. (27mm O.D.)

#SILF16BK £25 (£30 inc vat)

BLACK 25mm I.D. (33mm O.D.)

#SILF25BK £31 (£37.20 inc vat)

BLACK 32mm I.D. (42mm O.D.)

#SILF32BK £36 (£43.20 inc vat)

BLACK 38mm I.D. (49mm O.D.)

#SILF38BK £41 (£49.20 inc vat)

SEE HINTS AND TIPS SECTION FOR CUTTING INSTRUCTIONS



HOSE & PIPE CUTTER The cleanest, neatest method of cutting rubber hose. Can cut up to 50mm or even larger with a couple of bites. Will also cut up to & 40mm diameter hard plastic pipe.

#HOSEC £6.50 (£7.80 inc vat)



BLACK SILICONE HOSE

Three - ply Silicone Hose reinforced with polyester fabric. Great quality.
Temperature range -50°C up to +235°C.
Minimum 250 PSI burst pressure.
Flame and fire resistant.
Ozone & UV resistant.

NOTE: SOME BLACK SILICONE HOSES ARE MANUFACTURED WITH A BLUE INNER LINER

STRAIGHT 1 METRE LENGTHS

- 6mm (1/4") I.D. (14mm O.D.)
#SILHO61BK £12.50 (£15 inc vat)
- 8mm (5/16") I.D. (16mm O.D.)
#SILHO81BK £12.50 (£15 inc vat)
- 10mm (3/8") I.D. (17mm O.D.)
#SILHO101BK £13 (£15.60 inc vat)
- 13mm (1/2") I.D. (21mm O.D.)
#SILHO13BK £16 (£19.20 inc vat)
- 16mm (5/8") I.D. (23mm O.D.)
#SILHO16BK £17 (£20.40 inc vat)
- 19mm (3/4") I.D. (28mm O.D.)
#SILHO19BK £18 (£21.60 inc vat)
- 22mm (7/8") I.D. (31mm O.D.)
#SILHO22BK £18.50 (£22.20 inc vat)
- 25mm (1") I.D. (34mm O.D.)
#SILHO25BK £18.50 (£22.20 inc vat)
- 28mm (1 1/8") I.D. (37mm O.D.)
#SILHO28BK £21 (£25.20 inc vat)
- 32mm (1 1/4") I.D. (42mm O.D.)
#SILHO32BK £22.50 (£27 inc vat)
- 35mm (1 3/8") I.D. (44mm O.D.)
#SILHO35BK £24 (£28.80 inc vat)
- 38mm (1 1/2") I.D. (46mm O.D.)
#SILHO38BK £25 (£30 inc vat)
- 45mm (1 3/4") I.D. (54mm O.D.)
#SILHO45BK £29 (£34.80 inc vat)
- 51mm (2") I.D. (60mm OD)
#SILHO51BK £33 (£39.60 inc vat)

STRAIGHT 2 METRE LENGTHS

- 8mm (5/16") I.D. (16mm O.D.)
#SILHO82BK £24 (£28.80 inc vat)
- 10mm (3/8") I.D. (17mm O.D.)
#SILHO102BK £25 (£30 inc vat)
- 13mm (1/2") I.D. (21mm O.D.)
#SILHO132BK £31 (£37.20 inc vat)
- 16mm (5/8") I.D. (23mm O.D.)
#SILHO162BK £33 (£39.60 inc vat)
- 19mm (3/4") I.D. (28mm O.D.)
#SILHO192BK £35 (£42 inc vat)



90 DEG ELBOW WITH 100mm (4in) LEGS

- 19mm (3/4") I.D. (28mm O.D.)
#SIL1990BK £8.25 (£9.90 inc vat)
- 22mm (7/8") I.D. (31mm O.D.)
#SIL2290BK £8.50 (£10.20 inc vat)
- 25mm (1") I.D. (34mm O.D.)
#SIL2590BK £9.50 (£11.40 inc vat)
- 32mm (1 1/4") I.D. (42mm O.D.)
#SIL3290BK £10.50 (£12.60 inc vat)
- 38mm (1 1/2") I.D. (46mm O.D.)
#SIL3890BK £11 (£13.20 inc vat)
- 45mm (1 3/4") I.D. (54mm O.D.)
#SIL4590BK £11.75 (£14.10 inc vat)
- 51mm (2") I.D. (60mm O.D.)
#SIL5190BK £13 (£15.60 inc vat)

NOTE: LEG LENGTH IS MEASURED FROM THE CENTRE LINE OF ONE LEG TO THE END OF THE OTHER



180 DEGREE BEND HOSE

- 25mm (1") I.D. (33mm O.D.)
120mm x 120mm overall dimensions.
95mm centres.
#SIL18025BK £11 (£13.20 inc vat)
- 32mm (1 1/4") I.D. (40mm O.D.)
125mm x 125mm overall dimensions.
90mm centres.
#SIL18032BK £12.50 (£15 inc vat)
- 38mm (1 1/2") I.D. (46mm O.D.)
135mm x 130mm overall dimensions.
90mm centres.
#SIL18038BK £14 (£16.80 inc vat)



REDUCING 90 degree BEND

- 32mm (1 1/4") I.D. to 25mm (1") I.D.
#SIL903225BK £9.50 (£11.40 inc vat)
- 38mm (1 1/2") I.D. to 32mm (1 1/4") I.D.
#SIL903832BK £10.50 (£12.60 inc vat)
- 51mm (2") I.D. to 38mm (1 1/2") I.D.
#SIL905138BK £14 (£16.80 inc vat)



135 DEG ELBOW WITH 100mm (4in) LEGS

- 25mm (1") I.D. (34mm O.D.)
#SIL25135BK £9.50 (£11.40 inc vat)
- 32mm (1 1/4") I.D. (42mm O.D.)
#SIL32135BK £12.50 (£15 inc vat)
- 38mm (1 1/2") I.D. (46mm O.D.)
#SIL38135BK £14 (£16.80 inc vat)
- 45mm (1 3/4") I.D. (54mm O.D.)
#SIL45135BK £18 (£21.60 inc vat)
- 51mm (2") I.D. (60mm O.D.)
#SIL51135BK £17.50 (£21 inc vat)



45 DEG ELBOW WITH 100mm (4in) LEGS

- 19mm (3/4") I.D. (28mm O.D.)
#SIL1945BK £8.25 (£9.90 inc vat)
- 25mm (1") I.D. (34mm O.D.)
#SIL2545BK £9.50 (£11.40 inc vat)
- 32mm (1 1/4") I.D. (42mm O.D.)
#SIL3245BK £10.50 (£12.60 inc vat)
- 38mm (1 1/2") I.D. (46mm O.D.)
#SIL3845BK £11 (£13.20 inc vat)
- 45mm (1 3/4") I.D. (54mm O.D.)
#SIL4545BK £11.75 (£14.10 inc vat)
- 51mm (2") I.D. (60mm O.D.)
#SIL5145BK £13 (£15.60 inc vat)



REDUCING HOSE

- 32mm (1 1/4") I.D. to 25mm (1") I.D.
#SILRED3225BK £7.50 (£9 inc vat)
- 38mm (1 1/2") I.D. to 32mm (1 1/4") I.D.
#SILRED3832BK £8.50 (£10.20 inc vat)
- 51mm (2") I.D. to 38mm (1 1/2") I.D.
#SILRED5138BK £10 (£12 inc vat)



FLEXIBLE HOSE CLIP DRIVER Strong but flexible shaft will bend up to 30 degrees to tighten those awkward hose clip socket to the end with 6mm and 7mm lips. ReversA/V sizes. 275mm long
#HDRIVER £5 (£6 inc vat)



FUEL HOSE

GENUINE GATES FUEL HOSE Suitable for carburettor and fuel injected engines. Petrol or Diesel. Top quality hose. Resists heat, oil, ozone & weathering.

Spiral textile reinforcement.

Working pressure up to 140 psi. IVA OK SAE J30R7 ISO 4639-2 DIN 73379.

3.2mm (1/8") I.D. (7.5mm O.D.)

#FUHO3 £5 mtr (£6 inc vat)

4mm (5/32") I.D. (9mm O.D.)

#FUHO4 £5.50 mtr (£6.60 inc vat)

5mm (3/16") I.D. (11mm O.D.)

#FUHO5 £6 mtr (£7.80 inc vat)

6mm (1/4") I.D. (11.5mm O.D.)

#FUHO6 £6.50 mtr (£7.80 inc vat)

7mm (9/32") I.D. (13mm O.D.)

#FUHO7 £6.50 mtr (£7.80 inc vat)

8mm (5/16") I.D. (13.5mm O.D.)

#FUHO8 £7 mtr (£8.40 inc vat)

10mm (3/8") I.D. (15mm O.D.)

#FUHO10 £7 mtr (£8.40 inc vat)

12mm (1/2") I.D. (18mm O.D.)

#FUHO12 £7.50 mtr (£9 inc vat)



FUEL HOSE 100% ETHANOL OK

Top specification, German manufactured, 100% Ethanol proof fuel hose suitable for carburettor and fuel injected engines. Petrol or Diesel. Resists heat, oil, ozone & weathering. Abrasion resistant outer layer. Aramid textile bracing reinforcement. Temperature -40°F to +257°F Working pressure up to 280 psi. IVA OK. DIN 73379.

5.5mm I.D. (11.5mm O.D.)

#FUHO6ET £11 mtr (£13.20 inc vat)

7.5mm I.D. (13.5mm O.D.)

#FUHO8ET £12 mtr (£14.40 inc vat)

9.5mm I.D. (15mm O.D.)

#FUHO10ET £13 mtr (£15.60 inc vat)

11.5mm I.D. (18mm O.D.)

#FUHO12ET £18 mtr (£21.60 inc vat)

13.8mm I.D. (20mm O.D.)

#FUHO14ET £21 mtr (£25.20 inc vat)



VALUE FUEL HOSE Suitable for carburettor and fuel injected engines. Petrol or Diesel. High quality hose. Resists heat, oil, ozone & weathering. Spiral textile reinforcement. Working pressure up to 200 psi. SAE J30

6mm (1/4") I.D. (12.3mm O.D.)

#VFUHO6 £3.80 mtr (£4.56 inc vat)

8mm (5/16") I.D. (13.5mm O.D.)

#VFUHO8 £4 mtr (£4.80 inc vat)

10mm (3/8") I.D. (15mm O.D.)

#VFUHO10 £4.25 mtr (£5.10 inc vat)

12mm (1/2") I.D. (18mm OD)

#VFUHO12 £4.75 mtr (£5.70 inc vat)



FUEL HOSE TEXTILE COVERED.

Resists all petrols and diesel. Woven textile reinforcement resistant to heat, oil, ozone and weathering. For that classic look on carburetted engines. Maximum pressure 85 psi. Temperature range -35°C to +100°C

NOTE: THESE HOSES ALL MEASURE APPROX 0.5mm UNDERSIZE TO PUSH-FIT ON THE HOSETAIL SIZES QUOTED

4mm (5/32") I.D. (8.8mm O.D.)

#FUHOT4 £5 mtr (£6 inc vat)

5mm (3/16") I.D. (10mm O.D.)

#FUHOT5 £4 mtr (£4.80 inc vat)

6mm (1/4") I.D. (12mm O.D.)

#FUHOT6 £4.50 mtr (£5.40 inc vat)

8mm (5/16") I.D. (13mm O.D.)

#FUHOT8 £5 mtr (£6 inc vat)

10mm (3/8") I.D. (15mm O.D.)

#FUHOT10 £5.50 mtr (£6.60 inc vat)

15mm (5/8") I.D. (21mm O.D.)

#FUHOT15 £9 mtr (£10.80 inc vat)

25mm (1") I.D. (33mm O.D.)

#FUHOT25 £25 mtr (£31.20 inc vat)



STAINLESS BRAIDED FUEL HOSE 100% ETHANOL OK

Top specification, German manufactured, 100% Ethanol proof fuel hose suitable for carburettor and fuel injected engines. Petrol or Diesel. Resists heat, oil, ozone & weathering. Abrasion resistant outer layer. Aramid textile bracing reinforcement. Temperature -40°F to +257°F. DIN 73379 Working pressure up to 280 psi. IVA OK.

6mm I.D. (13mm O.D.)

#SSFUHO6ET £18 mtr. (£21.60 inc vat)

8mm I.D. (14.5mm O.D.)

#SSFUHO8ET £19 mtr. (£22.80 inc vat)

10mm I.D. (16mm O.D.)

#SSFUHO10ET £20 mtr. (£24 inc vat)



STAINLESS BRAIDED FUEL HOSE

Reinforced. 145 psi (10 bar) working pressure. 420 psi (30 bar) burst pressure. Suitable for leaded or unleaded fuel with up to 10% ethanol, diesel, water, air. Working temperature from -40 deg C to +150 deg C.

6mm I.D. (13.5mm O.D.)

#BRCFH6 £9 mtr. (£10.80 inc vat)

8mm I.D. (14.7mm O.D.)

#BRCFH8 £10 mtr. (£12 inc vat)

10mm I.D. (16.6mm O.D.)

#BRCFH10 £11 mtr. (£13.20 inc vat)

12mm I.D. (20.5mm O.D.)

#BRCFH12 £13 mtr. (£15.60 inc vat)



SUBMERSIBLE FUEL HOSE

Fully resistant to all fuels inside and out. Suitable for linking chambers inside fuel tanks and for pick-up pipes inside tanks. Spiral woven textile reinforcement. Working pressure 140 psi. **SOLD PER HALF METRE**

7.3mm I.D. (14mm O.D.)

#FUHO8SUB £13 per 1/2 mtr. (£15.60 inc vat)



LOW PRESSURE FUEL VENT / DRAIN HOSE

This flexible, polypropylene hose is ideal for vent or drain applications of fuel oil or water at atmospheric pressure only.

Will easily stretch up to 2mm bigger.

4mm I.D. 8.5mm O.D.

#FDRAIN4 £2 mtr. (£2.40 inc vat)

5.3mm I.D. 9.5mm O.D.

#FDRAIN6 £2 mtr. (£2.40 inc vat)

7mm I.D. 11.5mm O.D.

#FDRAIN8 £2 mtr. (£2.40 inc vat)

9.5mm I.D. 14mm O.D.

#FDRAIN10 £2.20 mtr. (£2.64 inc vat)

11mm I.D. 16.5mm O.D.

#FDRAIN12 £2.80 mtr. (£3.36 inc vat)

15mm I.D. 21mm O.D.

#FDRAIN15 £3.40 mtr. (£4.08 inc vat)

18mm I.D. 25mm O.D.

#FDRAIN19 £5 mtr. (£6 inc vat)

22mm I.D. 31mm O.D.

#FDRAIN22 £6.50 mtr. (£7.80 inc vat)



6mm O.D. COPPER PIPE

#COP6 £5 mtr. (£6 inc vat)

8mm O.D. COPPER PIPE

#COP8 £6 mtr. (£7.20 inc vat)

10mm O.D. COPPER PIPE

#COP10 £7 mtr. (£8.40 inc vat)



CBS TEMPSLEEVE FIRE AND HEATPROOF SLEEVING

PROTECTION SLEEVING FOR
PERFORMANCE ENGINE BAYS
and BRAKE SYSTEMS

VELCRO TEMPROTECT SLEEVING

Knitted or braided high bulk glassfibre sleeve, silicone coated with sewn-on Velcro closure for easy installation without disconnecting cables or hoses.

Continuous operating temp. 500°F (250°C)
Max. short term exposure 3000°F (1650°C)
Flame resistance - Very good
Abrasion resistance - Very good
Flexibility - Good.
Water & Oil resistance - Good.

BLUE 19mm ID #TPV19BU £30 (£36 inc vat)
BLUE 25mm ID #TPV25BU £34 (£40.80 inc vat)
BLUE 32mm ID #TPV32BU £38 (£45.60 inc vat)
BLUE 38mm ID #TPV38BU £43 (£51.60 inc vat)

**SOLD
PER
METRE**



BLACK 19mm ID #TPV19BK £32 (£38.40 inc vat)
BLACK 25mm ID #TPV25BK £34 (£40.80 inc vat)
BLACK 32mm ID #TPV32BK £38 (£45.60 inc vat)
BLACK 38mm ID #TPV38BK £43 (£51.60 inc vat)



**SOLD
PER
METRE**

TEMPROTECT SLEEVING Braided high bulk glassfibre sleeve, silicone coated. Coated with iron oxide silicone rubber which will even shed molten steel, aluminium and glass offering outstanding protection to hoses, tubes and cables in a variety of hostile environments.

Continuous operating temp. 500°F (250°C)
Max. short term exposure 3000°F (1650°C)
Flame resistance - Very good
Abrasion resistance - Very good
Flexibility - Outstanding
Water & Oil resistance - Outstanding.
BLUE 13mm ID #TP13BU £9 (£10.80 inc vat)
BLUE 19mm ID #TP19BU £12 (£14.40 inc vat)
BLUE 25mm ID #TP25BU £15 (£18 inc vat)
BLUE 32mm ID #TP32BU £18 (£21.60 inc vat)
BLUE 38mm ID #TP38BU £21 (£25.20 inc vat)



**SOLD
PER
METRE**

BLACK 3mm ID #TP3BK £2.50 (£3 inc vat)
BLACK 6mm ID #TP6BK £3 (£3.60 inc vat)
BLACK 10mm ID #TP10BK £4 (£4.80 inc vat)
BLACK 13mm ID #TP13BK £9 (£10.80 inc vat)
BLACK 19mm ID #TP19BK £12 (£14.40 inc vat)
BLACK 25mm ID #TP25BK £15 (£18 inc vat)
BLACK 32mm ID #TP32BK £18 (£21.60 inc vat)
BLACK 38mm ID #TP38BK £21 (£25.20 inc vat)



3mm

6mm

10mm

13mm



**SOLD
PER
METRE**

TEMPTAPE A black, Silicone, self-amalgamating, self-curing, liquid-tight, high temperature sealing tape. This unique silicone rubber tape will withstand continuous temperatures up to 475° F (246°C). It is ideal for wrapping harnesses, hoses etc. Also perfect for sealing the exposed ends of TEMPROTECT or TEMPGUARD sleeving.
1" (25mm) wide x 11 Mtrs.

#TTAPE £18 per roll (£21.60 inc vat)



TEMPREFLECT SLEEVING

Two layers of heat reflective aluminium coating laminated to heavy aramid fibre cloth with heat stable adhesive. Sewn with high temperature glassfibre thread. Continuous operating temp. 650°F (343°C)
Max. short term exposure 1000°F (538°C)
Flame resistance - Good
Abrasion resistance - Outstanding
Flexibility - Outstanding

Water & Oil resistance - Outstanding.
10mm ID #TR10 £8.50 (£10.20 inc vat)
13mm ID #TR13 £9 (£10.80 inc vat)
19mm ID #TR19 £12 (£14.40 inc vat)
25mm ID #TR25 £15 (£18 inc vat)
32mm ID #TR32 £18 (£21.60 inc vat)
38mm ID #TR38 £21 (£25.20 inc vat)



**SOLD
PER
METRE**

TEMPGUARD SLEEVING WHITE

1.6mm wall thickness, soft braided fibreglass sleeve. Lightweight protection from heat and abrasion for brake lines, fuel lines and cables. Cut ends will require taping to prevent fraying.

Continuous operating temp. 1000F (538°C)
Max. short term exposure 1300°F (705°C)
Flame resistance - Very good
Abrasion resistance - Good
Flexibility - Outstanding
Water & Oil resistance - Moderate
6mm ID #TG6 £2 (£2.40 inc vat)
9mm ID #TG9 £2.50 (£3 inc vat)
13mm ID #TG13 £3 (£3.60 inc vat)
19mm ID #TG19 £3.50 (£4.20 inc vat)
25mm ID #TG25 £4 (£4.80 inc vat)

NOTE: The woven structure of this product is such that it's diameter will reduce or increase as it's length is stretched or compressed. Thus, one metre of #TG13 will cover one metre of 13mm O.D. hose or more than one metre of 8mm O.D. hose or less than a metre of 20mm O.D. hose.



**SOLD
PER
METRE**

COVERCROME

- Metalised Polyester plastic sleeving for pipes, hoses and wiring.
- Non abrasive - will not wear through adjacent components.
- 2 to 1 Expansion/Contraction Ratio.
- Easy to fit, lightweight and flexible.
- Temperature range -100°F to +275°F.
- Mildly conductive for shielding and insulation.
- UV Resistant & resistant to abrasion.
- Cuts easily with a hot knife to minimise fraying.
- Easily & neatly terminated with Heat Shrink, Tape or Ties.

1½" Covercrome as supplied.



¾" Covercrome on ½" Heater Hose.



½" Covercrome on 6mm Fuel Hose with Red and Black Heatshrink end finishers.



¼" Covercrome as supplied.



| PART NUMBER | NOMINAL I.D. | FITS HOSE OR CABLE O.D. | PRICE PER MTR. |
|-------------|--------------|-------------------------|-----------------------|
| #CC6 | 6mm (¼") | 3mm to 12mm | £3 (£3.60 inc vat) |
| #CC8 | 8mm (5/16") | 4mm to 16mm | £3.50 (£4.20 inc vat) |
| #CC12 | 12mm (½") | 6mm to 24mm | £4.50 (£5.40 inc vat) |
| #CC19 | 19mm (¾") | 10mm to 28mm | £7 (£8.40 inc vat) |
| #CC32 | 32mm (1 ¼") | 16mm to 45mm | £10 (£12 inc vat) |
| #CC38 | 38mm (1 ½") | 19mm to 50mm | £12 (£14.40 inc vat) |

NOTE: This is not a heat-shrink product. Covercrome's woven structure is such that it's diameter will reduce or increase as it's length is stretched or compressed. Thus, one metre of #CC12 will cover one metre of 12mm O.D. hose or more than one metre of 8mm O.D. hose or less than a metre of 20mm O.D. hose.

Covercrome with self-amalgamating tape finisher



Covercrome on Motorcycle hoses



BLACK EXPANDABLE PLASTIC

OVERBRAID Flame retardant. Withstands temperature from -40°C to 125°C.

NOTE: This product's woven structure is such that it's diameter will shrink or expand as the length is stretched or compressed. Thus, one metre of relaxed #NYBR13 will cover a metre of 13mm O.D. hose or more than a metre of 9mm O.D. hose or less than a metre of 15mm O.D. hose.



Prices + VAT

| PART NO: | I.D. | MIN I.D. | MAX I.D. | PRICE PER Mtr. |
|----------|--------|----------|----------|----------------|
| #NYBR6 | 6.4mm | 3.2mm | 9.5mm | £3 |
| #NYBR10 | 9.5mm | 4.8mm | 15.9mm | £3.50 |
| #NYBR13 | 12.7mm | 6.4mm | 19.0mm | £4 |
| #NYBR19 | 19.1mm | 12.7mm | 31.7mm | £4.50 |
| #NYBR32 | 31.8mm | 19.0mm | 38.1mm | £6 |
| #NYBR38 | 38.1mm | 25.4mm | 57.1mm | £6.50 |

40mm I.D. HEAT SHRINK

6" of black heavy duty, adhesive-lined heat shrink tubing. 3:1 shrink ratio for neatly finishing outside diameters of between ½" and 1 ¼"

#HSL £3 for one 6" length (£3.60 inc vat)



POLYURETHANE ADHESIVE/SEALANT

A universal wonder product for the car builder. Our Polyurethane adhesive/sealant comes in a tube and is dispensed using a regular mastic gun. It is firm enough to form beads so has excellent gap-filling properties and cures to a tough rubbery finish. Use it to bond panels together or to the chassis. Can be thinned to paint a border around inside of windows prior to bonding. Will stick almost anything to anything at half the price of some equivalent products. Includes nozzle. 310ml.

BLACK #POLY £7.50 cartridge (£9 inc vat)
WHITE #POLYW £8 cartridge (£9.60 inc vat)



CABLE TIES BARGAIN PACK of 400

Black nylon. 100 each of 4 sizes: 102mm x 2.5mm, 200mm x 4.8mm, 295mm x 4.8mm, 370mm x 4.8mm. #CTPAK £10 (£12 inc vat)



SELF-AMALGAMATING TAPE

Once stretched and overlapped it releases a resin that bonds to itself, layer upon layer, forming a weather tight seal. 19mm wide x 10 metres roll. #SATP £7.50 (£9 inc vat)



HEATMAT Aluminium skinned, woven ceramic cloth. Heatmat can be wrapped around wiring looms and starter motors that run near hot exhausts. Secure it with stainless ties or stainless MiG wire. And it looks great! We sell in multiples of ½ metre from a 1 metre wide roll. Check out our price - one fifth of some other suppliers!! Weight 1100g sq. mtr.

#HTMAT £28 sq/mtr (£33.60 inc vat).



HOSE END CAPS Use these moulded, soft vinyl caps to neaten the cut ends of braided hose. Secure as usual with your hose clip over the top. Will stretch a few millimetres. Sold in packs of 4.

NOTE: Clip, union and hose not included
12.7mm I.D x 22mm long.

#HEC12 £2 Pack of 4 (£2.40 inc vat).

16mm I.D x 23mm long.

#HEC16 £2 Pack of 4 (£2.40 inc vat).

18mm I.D x 23mm long.

#HEC18 £2 Pack of 4 (£2.40 inc vat).



FUEL HOSE CLIPS Zinc plated steel. 360° clamping pressure. Bolt and captive nut tightening.

9-11 mm #FHC9, 11-13 mm #FHC11
13-15 mm #FHC13, 15-17mm #FHC15
All £2.50 pack of 4 (£3 inc vat)



STAINLESS FUEL HOSE CLIPS

All stainless steel. 360 degree clamping pressure to ensure a leak-free joint. Lipped edge to minimise band cutting into hose.

ALL PACKS OF 4

7 - 9 mm #SFHC7 £4 (£4.80 inc vat)
9 -11 mm #SFHC9 £4 (£4.80 inc vat)
11-13 mm #SFHC11 £4.50 (£5.40 inc vat)
13-15 mm #SFHC13 £5 (£6 inc vat)
15-17mm #SFHC15 £5.50 (£6.60 inc vat)
16-18mm #SFHC16 £5.50 (£6.60 inc vat)
17-19mm #SFHC17 £6 (£7.20 inc vat)
18-20mm #SFHC18 £6 (£7.20 inc vat)
19-21mm #SFHC19 £6.50 (£7.80 inc vat)

ALL PACKS OF 4



NON-RETURN VALVES Two-piece screw-together construction with a sprung diaphragm valve inside. Suitable for fuel, vacuum etc. Size 22mm across hex flats, 55mm long.

ALUMINIUM 6mm #NRV6A £8 (£9.60 inc vat)
ALUMINIUM 8mm #NRV8A £8 (£9.60 inc vat)
ALUMINIUM 10mm #NRV10A £8 (£9.60 inc vat)
ALUMINIUM 12mm #NRV12A £8 (£9.60 inc vat)
ALUMINIUM 14mm #NRV14A £8 (£9.60 inc vat)



8mm NON-RETURN FUEL VALVE

Black anodised aluminium. Two-piece, screw-together construction with a sprung diaphragm valve inside. Flow tested to 480 ltr / hr. Viton seals compatible with E10 - E85 fuels. 19mm Diameter, 60mm long.

#NRV8BK £14.50 (£17.40 inc vat)



EPDM TUBE OR HOSE CAP

Great for blanking-off hose and tube ends. OK up to 180°C. Pressure up to 80 psi. Resistant to Coolants, oil, fuel.

6mm I.D. 9mm O.D. 42mm long
#ECAP6 £1.80 Pack of 5 (£2.16 inc vat)
8mm I.D. 11mm O.D. 44mm long
#ECAP8 £2 Pack of 5 (£2.40 inc vat)
10mm I.D. 13.5mm O.D. 51mm long
#ECAP10 £2 Pack of 5 (£2.40 inc vat)
12mm I.D. 15.5mm O.D. 46mm long
#ECAP12 £2.50 Pack of 5 (£3 inc vat)
16mm I.D. 19mm O.D. 48mm long
#ECAP16 £3 Pack of 5 (£3.60 inc vat)



FUEL FILLER HOSE

ULTRA FLEXIBLE FUEL FILLER HOSE.

2 Layer Neoprene hose with excellent resistance to petrol and diesel fuel. Embedded spiral wire reinforcement with glass strand windings for additional strength. For temperatures up to 135°C. Wall thickness only 2mm.

38mm I.D. (1 1/2") 42mm O.D.
#FFF38 £16 per 500mm (£19.20 inc vat)
45mm I.D. (1 3/4") 49mm O.D.
#FFF45 £17 per 500mm (£20.40 inc vat)
51mm I.D. (2") 55mm O.D.
#FFF51 £18 per 500mm (£21.60 inc vat)
57mm I.D. (2 1/4") 61mm O.D.
#FFF57 £20 per 500mm (£24 inc vat)
63mm I.D. (2 1/2") 67mm O.D.
#FFF63 £25 per 500mm (£30 inc vat)
75mm I.D. (3") 79mm O.D.
#FFF75 £30 per 500mm (£36 inc vat)



OFFCUTS AVAILABLE CHECK ONLINE

STAINLESS WIRE HOSE CLIPS FOR SPIRAL WOUND FLEXIBLE HOSE AND DUCTING

These clips offer simple installation and excellent sealing for our #FFF popular fuel filler hose and similar. All stainless construction. M6 screw and nut.

38mm #WH38SS £3.50 each (£4.20 inc vat)
45mm #WH45SS £3.50 each (£4.20 inc vat)
52mm #WH52SS £3.50 each (£4.20 inc vat)
57mm #WH57SS £4.30 each (£5.16 inc vat)
63mm #WH63SS £4.50 each (£5.40 inc vat)



HEAVY DUTY FLEXIBLE FUEL FILL HOSE

Ideal for installations where hose is exposed to the elements e.g. under wheel arches. Flexible hose with spiral wire reinforcement for connecting your fuel filler to your fuel tank. Cut with a sharp knife & wire cutters. Resistant to leaded, unleaded petrol & diesel. 50mm I.D. will bend to 300mm radius.

38mm I.D. x 36 inches long. 47mm O.D. #FFHO381 £51 (£61.20 inc vat)

38mm I.D. x 18 inches long. 47mm O.D. #FFHO382 £30 (£36 inc vat)

50mm I.D. x 36 inches long. 60mm O.D. #FFHO1 £53 (£63.60 inc vat)

50mm I.D. x 18 inches long. 60mm O.D. #FFHO2 £31 (£37.20 inc vat)

57mm I.D. x 36 inches long. 66mm O.D. #FFHO571 £58 (£69.60 inc vat)

57mm I.D. x 18 inches long. 66mm O.D. #FFHO572 £33 (£39.60 inc vat)

63mm I.D. x 36 inches long. 70mm O.D. #FFHO631 £60 (£72 inc vat)

63mm I.D. x 18 inches long. 70mm O.D. #FFHO632 £36 (£43.20 inc vat)



NOTE: FORMING SHARP BENDS AND ACUTE 'S' SHAPES WITH THESE HOSES WILL PUT SOME STRAIN ON YOUR FILLER NECK AND TANK INLET SPIGOT

BUDGET FLEXIBLE FUEL FILL HOSE

Neoprene-lined rubber fuel hose with wire-reinforced, convoluted centre section and 55mm long parallel ends. Suitable for all fuels. Printed 'FUEL FILLER HOSE SAE J30'

38mm I.D. x 500mm long. 47mm O.D. #FFHO3 £8 (£9.60 inc vat)

51mm I.D. x 300mm long. 62mm O.D. #FFHO4 £8 (£9.60 inc vat)

51mm I.D. x 500mm long. 62mm O.D. #FFHO5 £10 (£12 inc vat)

57mm I.D. x 500mm long. 68mm O.D. #FFHO6 £12 (£14.40 inc vat)



STRAIGHT SILICONE FUEL FILLER HOSE.

We've been asked for this for ages so, finally, here it is. Fluorosilicone-lined and resistant to ALL fuels and oils.

Sold in multiples of 250mm (Maximum 1 metre length). If you're ordering online and want 500mm just order '2' quantity. Weight 250gm per 250mm.

BLUE 51mm I.D.

#SILFF51BU £20 per 250mm (£24 inc vat)

BLACK 51mm I.D.

#SILFF51BK £20 per 250mm (£24 inc vat)

SEE HINTS AND TIPS SECTION FOR CUTTING INSTRUCTIONS



FLUID LINE CLAMP SET

Easily stop fluid flow without damaging the hose. Four sizes: 10mm (3/8"), 15mm (5/8"), 25mm (1"), 45mm (1 3/4")

#FLCSET £8 (£9.60 inc vat)



NOTE: NOT SUITABLE FOR USE WITH STAINLESS BRAIDED, NYLON, OR WIRE-REINFORCED HOSES

GATES 45° FUEL FILLER HOSE

Synthetic Rubber SAE 30R6 or SAE 30R7. IVA OK for all fuels. Made in U.S.A.

Overall length 400mm. Weight 660gms.

38mm I.D. 49mm O.D. #FF3845 £17 (£20.40 inc vat)

45mm I.D. 55mm O.D. #FF4545 £19 (£22.80 inc vat)

51mm I.D. 61mm O.D. #FF5045 £23 (£27.60 inc vat)

57mm I.D. 67mm O.D. #FF5745 £24 (£28.80 inc vat)

63mm I.D. 76mm O.D. #FF6345 £27 (£32.40 inc vat)



GATES 90° FUEL FILLER HOSE

Synthetic Rubber SAE 30R6 or SAE 30R7. IVA OK for all fuels. Made in U.S.A.

Overall length 400mm. Weight 550gms.

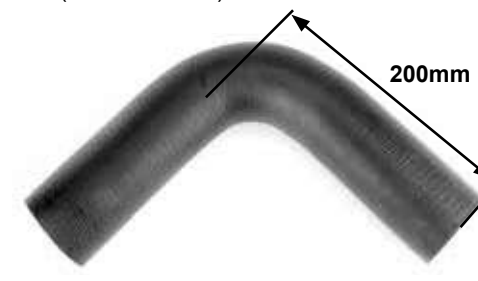
38mm I.D. 49mm O.D. #FF3890 £17 (£20.40 inc vat)

45mm I.D. 55mm O.D. #FF4590 £19 (£22.80 inc vat)

51mm I.D. 61mm O.D. #FF5090 £23 (£27.60 inc vat)

57mm I.D. 67mm O.D. #FF5790 £24 (£28.80 inc vat)

63mm I.D. 76mm O.D. #FF6390 £24 (£28.80 inc vat)



HOSE I.D. REDUCERS Simply push inside one end of your hose to reduce its inside diameter for a perfect fit on a smaller engine or radiator outlet. Several reducers can be fitted inside one another to reduce, for instance a 50mm hose down to 32mm.

32 to 25mm #HRED32 £3.30 (£3.96 inc vat)

38 to 32mm #HRED38 £3.52 (£4.22 inc vat)

45 to 38mm #HRED45 £3.60 (£4.32 inc vat)

50 to 45mm #HRED50 £3.82 (£4.58 inc vat)



HOSE CLIPS All prices + vat

| SIZE IN MM | STAINLESS EACH | ZINC PLATED EACH |
|------------|----------------|------------------|
| 30 - 40 | £1.80 #H30SS | £0.60 #H30ZN |
| 35 - 50 | £2.00 #H35SS | £0.65 #H35ZN |
| 45 - 60 | £2.20 #H45SS | £0.75 #H45ZN |
| 60 - 80 | £2.50 #H60SS | £0.90 #H60ZN |

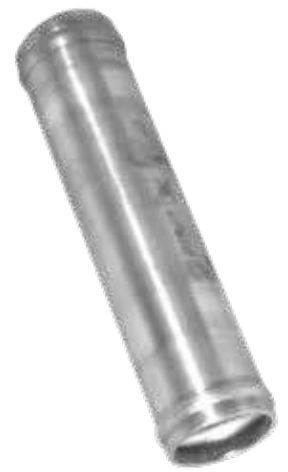
BEADED ALUMINIUM HOSE JOINERS

ALUMINIUM TUBE CUT AND BEADED TO YOUR REQUIRED LENGTH

Smarten that engine bay and simplify your plumbing. Tube ends are individually beaded for a secure, leak-free joint to your rubber hoses. Can be polished to a mirror finish. All 1.5mm wall thickness tubing.

| | | | |
|-------------------------|---------|-------------|-------------------------|
| 15mm dia. (5/8") O.D. | #BEAD15 | Up to 150mm | £5 (£6 inc vat) |
| 19mm dia. (3/4") O.D. | #BEAD19 | Up to 150mm | £6 (£7.20 inc vat) |
| 25mm dia. (1") O.D. | #BEAD25 | Up to 150mm | £7 (£8.40 inc vat) |
| 32mm dia. (1 1/4") O.D. | #BEAD32 | Up to 150mm | £8 (£9.60 inc vat) |
| 35mm dia. (1 3/8") O.D. | #BEAD35 | Up to 150mm | £8 (£9.60 inc vat) |
| 38mm dia. (1 1/2") O.D. | #BEAD38 | Up to 150mm | £8.50 (£10.20 inc vat) |
| 45mm dia. (1 3/4") O.D. | #BEAD45 | Up to 150mm | £9 (£10.80 inc vat) |
| 51mm dia. (2") O.D. | #BEAD50 | Up to 150mm | £9.50 (£11.40 inc vat) |
| 63mm dia. (2 1/2") O.D. | #BEAD63 | Up to 150mm | £10.50 (£12.60 inc vat) |
| 75mm dia. (3") O.D. | #BEAD75 | Up to 150mm | £12 (£14.40 inc vat) |

add 30p + vat per extra 25mm
 add 30p + vat per extra 25mm
 add 30p + vat per extra 25mm
 add 30p + vat per extra 25mm
 add 32p + vat per extra 25mm
 add 35p + vat per extra 25mm
 add 36p + vat per extra 25mm
 add 38p + vat per extra 25mm
 add 50p + vat per extra 25mm
 add 55p + vat per extra 25mm



ADDITIONAL BEADING @ £3 PER BEAD

STAINLESS STEEL BENDS

STAINLESS TUBING BENDS
 32mm & 38mm Outside Diameter.
 1.4mm wall thickness. Nicely formed mandrel bends. Stainless grade 304.

- 32mm O.D. 90° BEND #SB3290 £18 (£21.60 inc vat)
- 32mm O.D. 45° BEND #SB3245 £18 (£21.60 inc vat)
- 32mm O.D. 135° BEND #SB32135 £18 (£21.60 inc vat)
- 32mm O.D. 180° BEND #SB32180 £19 (£22.80 inc vat)
- 38mm O.D. 90° BEND #SB3890 £20 (£24 inc vat)
- 38mm O.D. 45° BEND #SB3845 £20 (£24 inc vat)
- 38mm O.D. 135° BEND #SB38135 £20 (£24 inc vat)
- 38mm O.D. 180° BEND #SB38180 £21 (£25.20 inc vat)

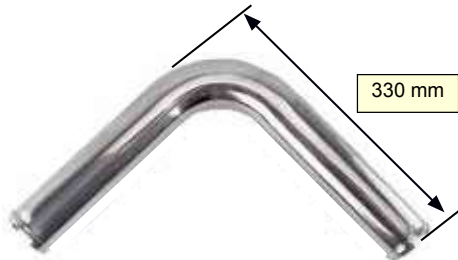


ALUMINIUM BENDS

ALUMINIUM TUBING BENDS
 Nicely formed mandrel bends with beaded ends. 1.5mm to 2mm wall thickness. Aluminium grade 6063.

DIMENSIONS MAY VARY. PLEASE CALL TO CONFIRM EXACT SIZES IF THIS IS IMPORTANT TO YOU

- 32mm O.D. 90° BEND #AB3290 £16.50 (£19.80 inc vat)



- 32mm O.D. 45° BEND #AB3245 £16.50 (£19.80 inc vat)



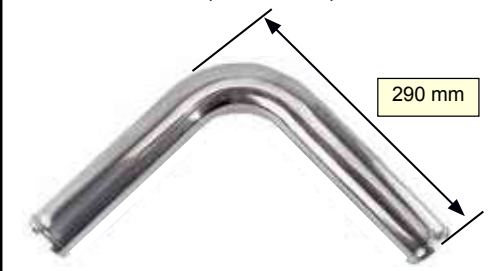
- 32mm O.D. 180° BEND #AB32180 £16.50 (£19.80 inc vat)



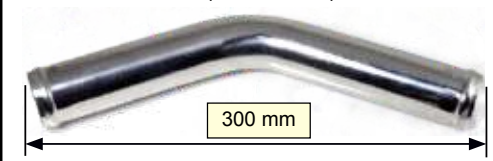
- 38mm O.D. 180° BEND #AB38180 £17.50 (£21 inc vat)



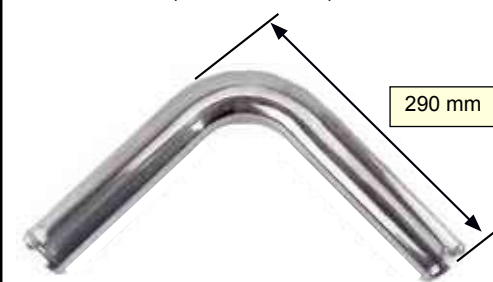
- 38mm O.D. 90° BEND #AB3890 £17.50 (£21 inc vat)



- 38mm O.D. 45° BEND #AB3845 £17.50 (£21 inc vat)



- ALUMINIUM TUBE 50mm O.D. 90° BEND #AB5190 £16 (£19.20 inc vat)



- ALUMINIUM TUBE 50mm O.D. 45° BEND #AB5145 £16 (£19.20 inc vat)



CBS BUILDER'S TIP
 THOROUGHLY WASH OUT ALL PIPES AND HOSES BEFORE INSTALLATION



ALUMINIUM HOSE REDUCERS

These spun aluminium reducers are OK for rubber or silicone hoses and all ducting

76mm to 50mm O.D.
80mm long. 1 mm wall thickness
#AHR7650 £13 (£15.60 inc vat)



BEADED VERSION 76mm to 50mm O.D.
#AHR76503B £15 (£18 inc vat)



63mm to 50mm O.D.
80mm long. 1 mm wall thickness
#AHR6350 £13 (£15.60 inc vat)



BEADED VERSION 63mm to 50mm O.D.
#AHR6350B £14 (£16.80 inc vat)



76mm to 63mm O.D.
80mm long. 1 mm wall thickness
#AHR7663 £13 (£15.60 inc vat)



BEADED VERSION 76mm to 63mm O.D.
#AHR7663B £14 (£16.80 inc vat)



BYPASS THERMOSTAT 87°C
A remote thermostat that you can mount anywhere in your cooling system. When cold, the water will circulate only around the engine. When the temperature rises the internal valve will redirect the hot water through the radiator. All outlets 32mm.
#BYST87 £29 (£34.80 inc vat)

OUTLET HOT

32mm



INLET

32mm

87°

32mm

OUTLET COLD

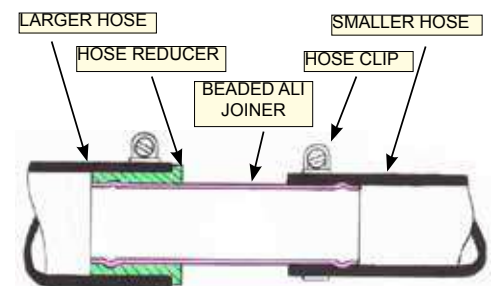
HOSE I.D. REDUCERS

HOSE ID REDUCERS Simply push inside one end of your hose to reduce its inside diameter for a perfect fit on a smaller engine or radiator outlet. Several reducers can be fitted inside one another to reduce, for instance a 50mm hose down to 32mm.

32 to 25mm #HRED32 £3.30 (£3.96 inc vat)
38 to 32mm #HRED38 £3.52 (£4.22 inc vat)
45 to 38mm #HRED45 £3.60 (£4.32 inc vat)
50 to 45mm #HRED50 £3.82 (£4.58 inc vat)



THE DIAGRAM BELOW SHOWS HOW TO JOIN TWO DIFFERENT HOSE DIAMETERS WITH A HOSE I.D. REDUCER (above) AND A BEADED ALUMINIUM TUBE JOINER



CBS BUILDER'S TIP
If you cannot exactly match your radiator or engine coolant inlets or output spigots to our standard hose sizes, cut a short length of bicycle inner-tube and slip it over the outlet to build up the outside diameter.



HOSE TAKE-OFF KITS

These precision-engineered Aluminium (except M5 threaded which is stainless) unions offer the option of 'tee-ing' into water and air hoses. They are designed to form a perfect seal without an 'O' ring in rubber, silicone and PVC hoses and will even work, with the 'O' ring supplied, on semi rigid plastic tubes. Each kit includes a single-use punch for making the correct sized hole in your hose.



HOSE TAKE OFF BLEED KIT

28mm overall height. 22mm diameter. Includes a dowty washer for sealing the knurled screw and an 'O' ring for sealing in semi-rigid tubes. Shown fitted in a 25mm I.D. rubber hose. Minimum hose I.D. 25mm.
#SSBLEED £31 (£37.20 inc vat)



M5 FEMALE STAINLESS THREADED HOSE TAKE OFF KIT

19mm overall height. 18mm diameter. Shown fitted in a 19mm I.D. rubber hose. Minimum hose I.D. 19mm.
#THOM5 £22 (£26.40 inc vat)



M10 x 1 FEMALE THREADED HOSE TAKE OFF KIT

22mm overall height. 28mm diameter. Shown fitted in a 45mm I.D. rubber hose. Minimum hose I.D. 28mm.
#THOM10 £20 (£24 inc vat)



M12 x 1.5 FEMALE THREADED HOSE TAKE OFF KIT

24mm overall height. 35mm diameter. Shown fitted in a 45mm I.D. rubber hose. Minimum hose I.D. 38mm.
#THOM12 £22 (£26.40 inc vat)



M14 x 1.5 FEMALE THREADED HOSE TAKE OFF KIT

24mm overall height. 35mm diameter. Shown fitted in a 45mm I.D. rubber hose. Minimum hose I.D. 38mm.
#THOM14 £22 (£26.40 inc vat)



1/8" NPT FEMALE THREADED HOSE TAKE OFF KIT

21mm overall height. 28mm diameter. Shown fitted in a 38mm I.D. rubber hose. Minimum hose I.D. 32mm.
#THO18N £22 (£24.40 inc vat)



1/4" NPT FEMALE THREADED HOSE TAKE OFF KIT

24mm overall height. 35mm diameter. Shown fitted in a 45mm I.D. rubber hose. Minimum hose I.D. 38mm.
#THO14N £22 (£24.40 inc vat)



3/8" BSP FEMALE THREADED HOSE TAKE OFF KIT

24mm overall height. 35mm diameter. Shown fitted in a 45mm I.D. rubber hose. Minimum hose I.D. 38mm.
#THO38B £22 (£26.40 inc vat)



These items are demo'd on our **YouTube** channel

8mm BARBED HOSE TAKE OFF KIT

39mm overall height. 21mm diameter.
Shown fitted in a 32mm I.D. rubber hose.
Minimum hose I.D. 25mm.

#BHO8 £20 (£24 inc vat)



10mm BARBED HOSE TAKE OFF KIT

39mm overall height. 21mm diameter.
Shown fitted in a 32mm I.D. rubber hose.
Minimum hose I.D. 25mm

#BHO10 £20 (£24 inc vat)



13mm BARBED HOSE TAKE OFF KIT

39mm overall height. 21mm diameter.
Shown fitted in a 32mm I.D. rubber hose.
Minimum hose I.D. 32mm.

#BHO13 £20 (£24 inc vat)



16mm BARBED HOSE TAKE OFF KIT

41mm overall height. 21mm diameter.
Shown fitted in a 32mm I.D. rubber hose.
Minimum hose I.D. 32mm.

#BHO16 £20 (£24 inc vat)



19mm BARBED HOSE TAKE OFF KIT

41mm overall height. 28mm diameter.
Shown fitted in a 45mm I.D. rubber hose.
Minimum hose I.D. 32mm.

#BHO19 £20 (£24 inc vat)



25mm BARBED HOSE TAKE OFF KIT

45mm overall height. 35mm diameter.
Shown fitted in a 45mm I.D. rubber hose.
Minimum hose I.D. 38mm.

#BHO25 £22 (£26.40 inc vat)



HOSE FORMERS Brilliantly clever
Stainless steel former for small bore hoses.
Simply slip it over your hose and shape it
to the required bend. Will not collapse the
hose. Stays exactly to the shape you bend
it to. Tidies up hose routing. Enables use of
non standard hoses in repairs and custom
installations. Four Sizes:

13.4mm I.D. x 60mm long
(for hose 11.5mm to 13.4mm O.D.)

#HF6 £8 (£9.60 inc vat)

16.5mm I.D. x 65mm long
(for hose 13.5mm to 16.5mm O.D.)

#HF8 £8 (£9.60 inc vat)

18.4mm I.D. x 70mm long
(for hose 16.5mm to 18.4mm O.D.)

#HF9 £8 (£9.60 inc vat)

21.4mm I.D. x 75mm long
or hose 18mm to 21.4mm O.D.)

#HF12 £8.50 (£10.20 inc vat)

24mm I.D. x 90mm long
(for hose 21.8 to 24mm O.D.)

#HF15 £8.50 (£10.20 inc vat)

27.8mm I.D. x 100mm long
(for hose 24 to 27.8mm O.D.)

#HF19 £11 (£13.20 inc vat)

36mm I.D. x 128mm long
(for hose 28mm to 36mm O.D.)

#HF25 £12.50 (£15 inc vat)



AIR LINE FITTINGS

**PCL - TYPE AIR-LINE and AIR TOOL
QUICK RELEASE FITTINGS** Plated steel,
industry standard fittings. 8mm (5/16")
hosetail and 1/4" BSP threads.

FEMALE TO 5/16" (8mm) HOSETAIL

#AIRF3 £2.50 (£3 inc vat)



FEMALE TO 1/4" BSP MALE

#AIRF2 £3.50 (£4.20 inc vat)



FEMALE TO 1/4" BSP FEMALE

#AIRF1 £3.50 (£4.20 inc vat)



MALE TO 5/16" (8mm) HOSETAIL

#AIRF6 £1 (£1.20 inc vat)



MALE TO 1/4" BSPT MALE

#AIRF4 £1.50 (£1.80 inc vat)



MALE TO 1/4" BSP FEMALE

#AIRF5 £1.50 (£1.80 inc vat)



MIX & MATCH HOSE CONNECTORS

UNIVERSAL CONNECTORS Almost any combination of plumbing sizes can be achieved with our unique range. Manufactured from glass-reinforced nylon. Temperature range -40°C to +130°C (-40°F to +266°F). Maximum working pressure 6 bar (84 lb). Resistant to Coolant additives, Petrol, Diesel, Oil, LPG. Simply choose the parts you need, add the corresponding quantity of 'O' rings and Retaining clips and push it all together with a little light oil or Vaseline. All diameters are O.D.

'T' PIECE All 102mm long.
25mm #UCT25 £6 each (£7.20 inc vat)
32mm #UCT32 £7 each (£8.40 inc vat)
38mm #UCT38 £7.50 each (£9 inc vat)

This item is explained on our **YouTube** channel



'Y' PIECE #UCY £7 each (£8.40 inc vat)



'X' PIECE #UCX £8 each (£9.60 inc vat)



ELBOW #UCE £5 each (£5.87 inc vat)

ELBOW JOINER #UCEJ £5 each (£5.87 inc vat)



STRAIGHT #UCS £5 each (£6 inc vat)

JOINER #UCJ £3 each (£3.60 inc vat)



M22 INSERT For Fan switch. Shown below in 'T' but can be fitted to any joint.
#UCM22 £5 each (£6 inc vat)



'O' RING Buy one per joint **#UCOR £1 each** (£1.20 inc vat)



RETAINER CLIP Buy one per joint **#UCRET £1 each** (£1.20 inc vat)

BLANKING PLUG FOR OUR UNIVERSAL CONNECTOR RANGE

Requires one 'O' ring and one Clip per plug.
#UCPLUG £2 (£2.40 inc vat)



8mm #UCH8 £3 each (£3.60 inc vat)



10mm #UCH10 £3 each (£3.60 inc vat)



12mm #UCH12 £3 each (£3.52 inc vat)



15mm #UCH15 £3 each (£3.60 inc vat)



19mm #UCH19 £3 each (£3.60 inc vat)



22mm #UCH22 £3 each (£3.60 inc vat)



25mm #UCH25 £3 each (£3.60 inc vat)



32mm #UCH32 £3 each (£3.60 inc vat)



STEPPED JOINERS

Made from glass-reinforced nylon. Suitable for Oil, Fuel, Water, Air. Leave as is or cut to length. All diameters are O.D.

#SJ1 £4 each (£4.80 inc vat)



#SJ2 £4 each (£4.80 inc vat)



#SJ3 £4 each (£4.80 inc vat)



#SJ4 £4 each (£4.80 inc vat)



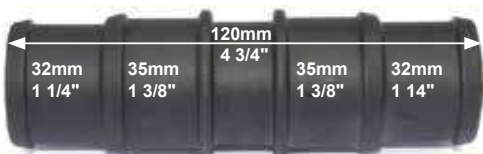
#SJ5 £4.50 each (£5.40 inc vat)



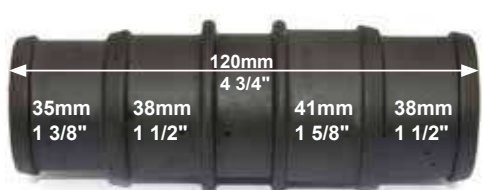
#SJ6 £5 each (£6 inc vat)



#SJ7 £5.50 each (£6.60 inc vat)



#SJ8 £6 each (£7.20 inc vat)



THREAD GAUGE IMPERIAL AND METRIC

Identify male and female threads with this handy gauge. 52 individual leaves for measuring 4 to 62 threads per inch and 0.25mm to 6mm pitch.

#THREADGA £5 (£6 inc vat)



STEPPED ELBOWS Tough glass-reinforced nylon. Use as is or cut to the sizes you require. OK for Coolant, Fuel, Oil LPG.. All diameters are O.D.



#SELB1 £5 each (£6 inc vat)

60mm
2 3/8"



#SELB2 £5 each (£6 inc vat)

60mm
2 3/8"



#SELB3 £6 each (£7.20 inc vat)

60mm
2 3/8"



#SELB4 £6 each (£7.20 inc vat)

65mm
2 1/2"

#SELB7 £6.50 each (£7.80 inc vat)



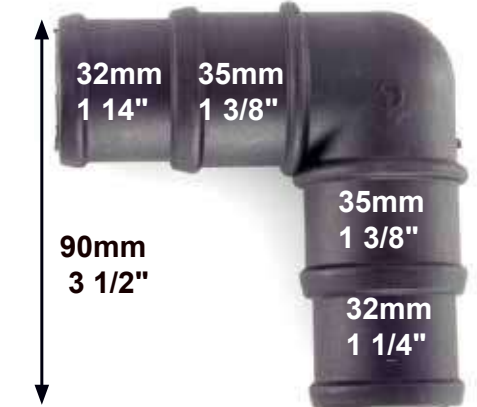
95mm
3 3/4"

#SELB6 £7.50 each (£9 inc vat)



95mm
3 3/4"

#SELB5 £7 each (£8.80 inc vat)



90mm
3 1/2"

VINTAGE STYLE UNLINED WIDE STAINLESS 'P' CLIPS. Packs of 5

Made from 0.5mm stainless steel. 6.5mm hole. 16mm wide. Flared edge for maximum cable protection.

5mm **#VSSP5** £4 pack of 5 (£4.80 inc vat)

6mm **#VSSP6** £4 pack of 5 (£4.80 inc vat)

8mm **#VSSP8** £4 pack of 5 (£4.80 inc vat)

10mm **#VSSP10** £4 pack of 5 (£4.80 inc vat)

12mm **#VSSP12** £4 pack of 5 (£4.80 inc vat)



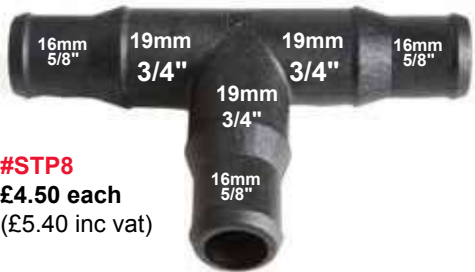
STEPPED 'T' PIECE Tough glass-reinforced nylon. Use as is or cut to the sizes you require.



#STP1
£5 each
(£6 inc vat)



#STP2
£6 each
(£7.20 inc vat)



#STP8
£4.50 each
(£5.40 inc vat)



#REDY1519
£3
(£3.60 inc vat)



#STP4
£6.50 each
(£7.80 inc vat)



#STP5
£6.50 each
(£7.80 inc vat)



#STP3
£7 each
(£8.40 inc vat)



#STP6
£7.50 each
(£9 inc vat)



#STP7
£8 each
(£9.60 inc vat)

IN-LINE REDUCERS, CONNECTORS, 'T's & ELBOWS Connect almost any inlet/outlet configuration with these tough glass reinforced nylon connectors. Suitable for oil, water or fuel. All diameters are O.D.

STRAIGHT HOSE JOINERS

- 5mm **#JOIN5** £1.50 (£1.80 inc vat)
- 6mm **#JOIN6** £1.50 (£1.80 inc vat)
- 8mm **#JOIN8** £2.00 (£2.40 inc vat)
- 10mm **#JOIN10** £2.00 (£2.40 inc vat)
- 12mm **#JOIN12** £2.25 (£2.70 inc vat)
- 15mm **#JOIN15** £2.50 (£3 inc vat)
- 19mm **#JOIN19** £3.00 (£3.60 inc vat)
- 22mm **#JOIN22** £3.25 (£3.90 inc vat)
- 25mm **#JOIN25** £5 (£6 inc vat)



REDUCING 'T' s

- 15-10mm **#REDT1** £3.50 (£4.20 inc vat)
- 19-10mm **#REDT2** £4 (£4.80 inc vat)



EQUAL 'T' s

- 5mm **#WTEE5** £2 (£2.40 inc vat)
- 6mm **#TEE6** £1.60 (£1.92 inc vat)
- 8mm **#TEE8** £1.80 (£2.16 inc vat)
- 10mm **#TEE10** £2.00 (£2.40 inc vat)
- 12mm **#TEE12** £3.20 (£3.84 inc vat)
- 15mm **#TEE15** £3.50 (£4.20 inc vat)
- 19mm **#TEE19** £4.00 (£4.80 inc vat)
- 22mm **#TEE22** £4.00 (£4.80 inc vat)
- 25mm **#TEE25** £4.50 (£5.40 inc vat)



HOSE REDUCER CONNECTOR

- 6mm to 4mm **#HRED6-4** £1.50 (£1.80 inc vat)
- 6mm to 5mm **#HRED6-5** £1.50 (£1.80 inc vat)
- 8mm to 6mm **#HRED8-6** £1.75 (£2.10 inc vat)
- 10mm to 8mm **#HRED10-8** £1.75 (£2.10 inc vat)
- 12mm to 10mm **#HRED12-10** £2.00 (£2.40 inc vat)
- 16mm to 8mm **#HRED16-8** £2.50 (£3 inc vat)
- 15mm to 12mm **#HRED15-12** £2.30 (£2.76 inc vat)
- 19mm to 15mm **#HRED19-15** £2.90 (£3.48 inc vat)
- 25mm to 19mm **#HRED25-19** £5 (£6 inc vat)



ELBOWS

- 6mm **#ELB6** £1.60 (£1.92 inc vat)
- 8mm **#ELB8** £1.80 (£2.16 inc vat)
- 10mm **#ELB10** £2.50 (£3 inc vat)
- 12mm **#ELB12** £3.00 (£3.60 inc vat)
- 15mm **#ELB15** £3.50 (£4.20 inc vat)
- 19mm **#ELB19** £4.00 (£4.80 inc vat)
- 22mm **#ELB22** £4.50 (£5.40 inc vat)
- 25mm **#ELB25** £5 (£6 inc vat)



ALL THREE OF OUR DVDs ARE NOW AVAILABLE TO VIEW FREE ON OUR YouTube CHANNEL



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT www.carbuilder.com

BRASS STRAIGHT HOSE JOINERS

- 4mm **#BJOIN4** £2.25 (£2.70 inc vat)
 6mm **#BJOIN6** £2.50 (£3 inc vat)
 8mm **#BJOIN8** £3 (£3.60 inc vat)
 10mm **#BJOIN10** £3.50 (£4.20 inc vat)
 12mm **#BJOIN12** £4 (£4.80 inc vat)
 16mm **#BJOIN16** £4.25 (£5.10 inc vat)
 19mm **#BJOIN19** £4.50 (£5.40 inc vat)

**BRASS 'TEE' HOSE JOINERS**

- 4mm **#BTEE4** £2.50 (£3 inc vat)
 5mm **#BTEE5** £3 (£3.60 inc vat)
 6mm **#BTEE6** £4 (£4.80 inc vat)
 8mm **#BTEE8** £4.50 (£5.40 inc vat)
 10mm **#BTEE10** £4.50 (£5.40 inc vat)
 12mm **#BTEE12** £4.50 (£5.40 inc vat)
 16mm **#BTEE16** £6 (£7.20 inc vat)
 19mm **#BTEE19** £9 (£10.80 inc vat)
 25mm **#BTEE25** £10 (£12 inc vat)

**BRASS STRAIGHT REDUCING JOINERS**

- 6mm to 4mm **#BRED64** £3 (£3.60 inc vat)
 10mm to 6mm **#BRED106** £6 (£7.20 inc vat)
 12mm to 10mm **#BRED1210** £7 (£8.40 inc vat)
 12mm to 8mm **#BRED128** £8 (£9.60 inc vat)

**BRASS 'Y' JOINERS**

- 6mm **#BY6** £4.50 (£5.40 inc vat)
 8mm **#BY8** £4.50 (£5.40 inc vat)
 10mm **#BY10** £4.50 (£5.40 inc vat)

**PLATED STEEL REDUCING JOINERS**

- 8mm to 6mm **#SRED86** £4 (£4.80 inc vat)
 10mm to 8mm **#SRED108** £4 (£4.80 inc vat)
 12mm to 8mm **#SRED128** £4 (£4.80 inc vat)
 15mm to 12mm **#SRED1512** £4 (£4.80 inc vat)

**BRASS QUICK DISCONNECT COUPLING**

With rubber seal.

- 12mm **#BQR12** £3 (£3.60 inc vat)
 19mm **#BQR19** £4 (£4.80 inc vat)

**PLATED STEEL EQUAL TEE**

Suitable for oil, air, water or fuel.

All diameters are O.D.

- All 5mm **#STEE5** £4.50 (£5.40 inc vat)

**PLATED STEEL REDUCING TEE**

Suitable for oil, air, water or fuel.

All diameters are O.D.

- 8mm to 5mm **#STEE85** £4.50 (£5.40 inc vat)

**PLATED STEEL REDUCING TEE**

Suitable for oil, air, water or fuel.

All diameters are O.D.

- 10mm to 8mm **#STEE108** £4.50 (£5.40 inc vat)

**SCREEN WASHER PLASTIC 'T'**

Two 3mm (1/8") and one 5mm (3/16") outlets. Black nylon.

- #WTEE2** £2 (£2.40 inc vat)

**TEMPERATURE SENDER 1/8" npt thread**

will fit into our in-line housings (shown below). High temperature insulated fly leads with bullet terminals. Resistance: @

5°C - 4.3kΩ

43°C - 1.0kΩ

100°C - 140Ω

CHECK RESISTANCE
MATCHES YOUR
INSTRUMENT

- #TEMPS** £8 (£9.60 inc vat)

SHOWN HERE FITTED TO OUR #INT38
(NOT INCLUDED)**PLATED STEEL BANJO UNIONS FOR PUSH-ON HOSE**

10.2mm through hole. 10mm thick.

For 6mm I.D. HOSE 38mm long.

- #BJ106** £3 (£3.60 inc vat)

10.2mm through hole. 10mm thick.

For 8mm I.D. HOSE 42mm long.

- #BJ108** £3 (£3.60 inc vat)



90 degree. 10.2mm through hole.

10mm thick. Weight 19 gms.

For 6mm I.D. HOSE 66mm end to end.

- #BJ10690** £3 (3.60 inc vat)



12.2mm through hole. 12mm thick.

For 6mm I.D. HOSE 41mm long.

- #BJ126** £3 (£3.60 inc vat)

12.2mm through hole. 12mm thick.

For 8mm I.D. HOSE 44mm long.

- #BJ128** £3 (£3.60 inc vat)

12.2mm through hole. 12mm thick.

For 10mm I.D. HOSE 44mm long.

- #BJ1210** £3 (£3.60 inc vat)



90 degree. 12.2mm through hole.

12mm thick. For 8mm I.D. Hose. 83mm

end to end. **#BJ12890** £4.50 (£5.40 inc vat)

13mm through hole.

12mm thick.

For 8mm I.D. hose

44mm long.

- #BJ138** £3

(£3.60 inc vat)



MORE BANJO UNIONS ARE IN STOCK IN ALL POPULAR SIZES. CHECK THE INDEX FOR LOCATION IN THE CATALOGUE



FAN SWITCH For use with a relay or our own accessory wiring kit. M14 x 1.5 thread. 1/4" Spade connections.

On at 87°C and off at 82°C

#FANSW £12 (£14.40 inc vat)

On at 97°C and off at 85°C

#FANSW4 £12 (£14.40 inc vat)

On at 100°C and off at 95°C

#FANSW2 £12 (£14.40 inc vat)

OFF at 107°C and ON at 97°C (requires change-over relay) **#FANSW3 £12** (£14.20 inc vat)



FAN SWITCH M22 x 1.5 thread. 1/4" Spade connections. 30mm A/F Hex. Weight 60 gms.

On at 95°C and off at 86°C **#FANSW5**

£12 (£14.20 inc vat)

On at 88°C and off at 79°C **#FANSW6**

£12 (£14.20 inc vat)

On at 82°C and off at 72°C **#FANSW8**

£12 (£14.20 inc vat)



TWO STAGE RADIATOR FAN SWITCH

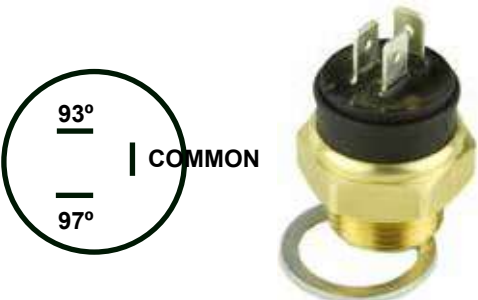
If you have two cooling fans on your radiator you can save fuel and run your engine more efficiently by switching them on and off one at a time, automatically.

Stage 1 on at 93°C off at 88°C.

Stage 2 On at 97°C off at 92°C.

M22 x 1.5mm thread with aluminium sealing washer. Three 1/4" male spade terminals.

Use with a Relay or our own accessory wiring kit. **#FANSW9 £13.50** (£16.20 inc vat)



BRASS SOLDER-IN BUSHES

For your M14 or M22 temperature switches.

M14 x 1.5 #BUSHM14 £5 (£6 inc vat)

M22 x 1.5 #BUSHM22 £6.50 (£7.80 inc vat)



HYDRAULIC STOP LIGHT SWITCH

M10 x 1 taper thread. Two 1/4" spade terminals. **#STSH £6** (£7.20 inc vat)

3/8" UNF parallel thread Two 1/4" spade terminals. **#STSH38 £6** (£7.20 inc vat)



OIL PRESSURE GAUGE TUBING KIT

For repairing or re-plumbing mechanical oil pressure gauges. Check your gauge threads before ordering. Kit contents:

- 1.8 Metres of 3mm diameter nylon tubing.
- 2 x 3mm olive
- 2 x 5/16" UNF Tube nuts
- 1 x 5/16" UNF male to 1/8" NPT male union.
- 1 x 1/8" NPT female to 1/4" NPT male union

#OILTUBE £5 (£6.00 inc vat)



BRASS ADAPTER 1/8" NPT male to 1/4" NPT male. 9/16" hex. 28mm long. **#ADAPT26 £3.50** (£4.20 inc vat)



BRASS ADAPTER 1/8" NPT male to 1/8" BSP parallel male. 14mm hex. 26mm long.

#ADAPT21 £7 (£8.40 inc vat)



BRASS ADAPTER 1/8" NPT male to M10 x 1 female with concave seat.

14mm hex. 20mm long. **#BU1810 £4.50** (£5.40 inc vat)



OIL LIGHT SWITCH This will switch on your dashboard Oil Light when pressure falls below 5 psi. 1/4" spade connector.

M10 x 1 #OILSW £6 (£7.20 inc vat)

1/8" NPT #OILSW18 £6 (£7.20 inc vat)

1/4" NPT #OILSW14 £6 (£7.20 inc vat)

M14 x 1.5 #OILSWM14 £6 (£7.20 inc vat)



NYLON OIL GAUGE TUBES

All 1840mm long. All tubes outside diameter 3/16" (4.8mm).

Both ends 1/8" BSP swivel union with convex seat. **#OILTUBE1 £12** (£14.40 inc vat)



One end 1/8" BSP swivel union with convex seat. The other end is 1/8" BSP swivel union with flat seat and fibre washer.

#OILTUBE2 £12 (£14.40 inc vat)



One end 1/8" BSP swivel union with convex seat. The other end is 1/8" NPT solid union with concave seat.

#OILTUBE3 £12 (£14.40 inc vat)



Both ends 1/8" BSP swivel unions with flat seat and fibre washers.

#OILTUBE4 £12 (£14.40 inc vat)



Both ends 5/16" UNF swivel unions with convex seat.

#OILTUBE6 £12 (£14.40 inc vat)



OUT OF STOCK
PLEASE CALL

THREE BRASS ADAPTERS

All 5/8" UNF female to:

- 1/2" NPT male,
- M18 x 1.5 male
- M16 x 1.5 male

#ADAPT2 £8 pack of 3 (£9.60 inc vat)



THREE BRASS ADAPTERS

All 1/8" NPT female to:

- M14 x 1.5 male
- M16 x 1.5 male
- M18 x 1.5 male

#ADAPT3 £8 pack of 3 (£9.60 inc vat)



FOUR BRASS ADAPTERS

All 1/8" NPT female to:

- 5/8" UNF male, 3/8" NPT male,
- 1/8" BSPT male, 1/2" NPT male.

#ADAPT4 £9 pack of 4 (£10.80 inc vat)



4 WAY BRASS ADAPTER

Seven pieces:
1 x 4 way block tapped all 1/4" NPT.
4 x 1/4" NPT male to 1/8" NPT female adapters.

- 1 x 1/8" NPT male to 1/8" NPT male joiner.
- 1 x 1/8" NPT blanking plug.

#ADAPT6 £18 (£21.60 inc vat)



PTFE TAPE General thread sealing tape ideal for oil, air and water fittings.

12mm wide x 10 metres roll.

#PTFE £1 (£1.20 inc vat)



COPPER WASHER PACKS

Metric and Imperial. See workshop packs section later in the catalogue



All of the 'T' adapters below have one male and two female threads. Perfect for converting a single block tapping into two tappings for, for instance, oil pressure and oil temperature senders.

STAINLESS STEEL

ALL 1/8" NPT 'T' ADAPTER

Overall length 51mm. Hex 19mm across flats. Weight 82 gms.

#ADAPT27 £9.50 (£11.40 inc vat)



PLATED STEEL ALL 1/8" NPT 'T' ADAPTER

Overall length 63mm. Hexagon 18mm across flats. Weight 95 gms.

#ADAPT8 £19 (£22.80 inc vat)



ALUMINIUM 'T' ADAPTERS

Overall length 60mm. Hexagon 22mm across flats. Weight 54 gms.

All 1/8" NPT

#ADAPT10 £14 (£16.80 inc vat)

M10 x 1 on both ends with one Dowty washer and 1/8" NPT in the side.

#ADAPT11 £14 (£16.80 inc vat)

1/4" NPT on both ends and M10 x 1mm in the side.

#ADAPT12 £14 (£16.80 inc vat)

All M10 x 1mm with one Dowty washer on male end.

#ADAPT13 £14 (£16.80 inc vat)

1/4" NPT on both ends and 1/8" NPT in the side.

#ADAPT14 £14 (£16.80 inc vat)

M12 x 1.5mm on both ends with one Dowty washer and 1/8" NPT in the side.

#ADAPT24 £14 (£16.80 inc vat)

1/8" BSPT both ends. 1/8" NPT in the side

#ADAPT30 £14 (£16.80 inc vat)

1/8" BSPT both ends. M10 x 1 in the side

#ADAPT29 £14 (£16.80 inc vat)



BRASS ADAPTER M22 x 1.5mm male with a Dowty washer to 1/8" NPT female
Note: M22 is a common radiator sensor thread. Weight 75gms.

#ADAPT16 £14 (£16.80 inc vat)



BRASS ADAPTER M22 x 1.5mm male with a Dowty washer to M10 x 1mm female also with a Dowty washer. Note: M22 is a common radiator sensor thread.

#ADAPT15 £14 (£16.80 inc vat)



BRASS ADAPTER 1/4" BSP Parallel Male with a Dowty Washer to 1/8" NPT Female. 19mm Hex. 20mm long

#ADAPT19 £6 (£7.20 inc vat)



BRASS ADAPTER

1/2" NPT Male to 1/8" NPT Female. 22mm hex. 18mm long.

#ADAPT20 £4 (£4.80 inc vat)



PLATED STEEL ADAPTER

3/8" NPT Male to 1/8" NPT Female. 17mm hex. 20mm long.

#ADAPT22 £4 (£4.80 inc vat)



BRASS ADAPTER

1/4" NPT Male to 1/8" NPT Female. 14mm hex. 16mm long.

#BU1418 £4 (£4.80 inc vat)



DOUBLE DRAIN PLUG Brass union with M14 x 1.5mm male and M10 x 1mm female threads, 19mm hex and a Dowty Washer plus a plated steel union with an M10 x 1mm male thread, 14mm AF hex. and a Dowty washer. Total length 26mm. Weight 23gms.

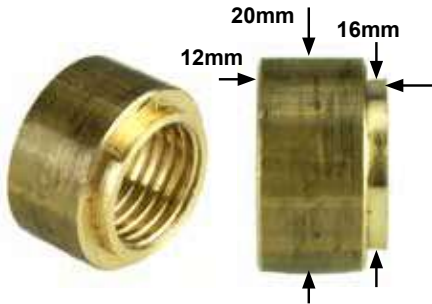
#DRNPLG1 £7.50 (£9 inc vat)



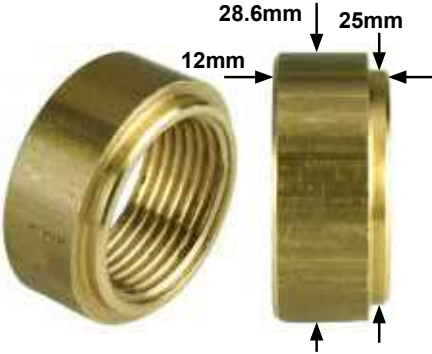
BRASS SOLDER-IN BUSHES

Solder into your brass or steel radiator or header tank for a simple mounting point for your M14 or M22 temperature switches.

M14 x 1.5 **#BUSHM14** £5 (£6 inc vat)



M22 x 1.5 **#BUSHM22** £6.50 (£7.80 inc vat)



ALUMINIUM ADAPTER M18 x 1.5mm Male to 1/4" NPT Female with Dowty washer. 35mm long. 30mm hex.

#M1814NPT £12 (£14.40 inc vat)



BLACK ANODISED ALUMINIUM UNIONS

All with M14 X 1.5MM male thread and aluminium sealing washer.

JIC6 (AN6) **#HT145J6** £7 (£8.40 inc vat)

JIC8 (AN8) **#HT145J8** £7 (£8.40 inc vat)



8mm HOSETAIL **#HT1458** £7 (£8.40 inc vat)

12mm HOSETAIL **#HT14512** £7 (£8.40 inc vat)



BLACK NYLON HOSETAIL SET 1/8" NPT

2 x for 6mm I.D. hose

2 x for 8mm I.D. hose

2 x for 10mm I.D. hose. All 29mm long

#PHTSET £3 Pack of 6 (£3.60 inc vat)



BRASS HOSETAILS

1/8" NPT for 3mm (1/8") I.D. hose.

#HT183

£2.50 (£3 inc vat)

1/8" NPT for 5mm I.D. hose.

#HT185

£2.50 (£3 inc vat)

M10 x 1 for 6mm I.D. hose.

#HT106

£6.50 (£7.80 inc vat)

M10 x 1 for 8mm I.D. hose.

#HT108

£6.50 (£7.80 inc vat)

M10 x 1 for 10mm I.D. hose.

#HT1010

£6.50 (£7.80 inc vat)

3/8" BSPT for 6mm I.D. hose

#HT386

£3.50 (£4.20 inc vat)

3/8" BSPT for 10mm I.D. hose

#HT3810

£3.50 (£4.20 inc vat)

3/8" BSPT for 12mm I.D. hose.

#HT3812

£5 (£6 inc vat)

3/8" BSPT for 15mm I.D. hose.

#HT3815

£5 (£6 inc vat)

3/8" BSPT, for 19mm I.D. hose.

#HT3819

£5 (£6 inc vat)

1/2" UNF for 8mm I.D. hose.

Plated steel

35mm long

#HT12UNF8

£5 (£6 inc vat)



BRASS UNION 7/16" UNF MALE TO 10mm HOSETAIL

31mm long 17mm hex.

#BUF2

£6 (£7.20 inc vat)



BRASS UNION 7/16" UNF MALE TO 8mm HOSETAIL

Includes copper washer.

#BUF

£6 (£7.20 inc vat)



BRASS 90 DEGREE HOSETAILS

1/8" NPT to 6mm I.D. hose **#HT90186**

1/8" NPT to 8mm I.D. hose **#HT90188**

Both £4 (£4.80 inc vat)

1/8" NPT to 10mm I.D. hose **#HT901810**

£5.50 (£6.60 inc vat)



1/4" NPT to 6mm I.D. hose **#HT9014NPT6**

1/4" NPT to 8mm I.D. hose **#HT9014NPT8**

1/4" NPT to 10mm I.D. hose **#HT9014NPT10**

All £4 each (£4.80 inc vat)



BRASS STRAIGHT HOSETAILS

1/8" NPT to 6mm I.D. hose **#HT186**

1/8" NPT to 8mm I.D. hose **#HT188**

1/8" NPT to 10mm I.D. hose **#HT1810**

All £4 (£4.80 inc vat)



#HT146 1/4" BSPT to 6mm I.D. hose

#HT148 1/4" BSPT to 8mm I.D. hose

#HT1410 1/4" BSPT to 10mm I.D. hose

All £4 (£4.80 inc vat)



1/4" NPT to 8mm I.D. hose **#HT14NPT8**

1/4" NPT to 10mm I.D. hose **#HT14NPT10**

All £4 (£4.80 inc vat)



PLATED STEEL HOSETAIL M10 x 1 for 15mm I.D. hose.

6mm through hole.

#HT1015 £4.50

(£5.40 inc vat)



STRAIGHT ALUMINIUM HOSETAILS
RED ANODISED with sealing washer
 M10 x 1 to 8mm I.D. hose **#HT1018AR**
 M10 x 1 to 12mm I.D. hose **#HT10112AR**
 M10 x 1 to 15mm I.D. hose **#HT10115AR**
 All £6 (£7.20 inc vat)



STRAIGHT ALUMINIUM HOSETAILS
BLUE ANODISED with sealing washer
 M10 x 1 to 8mm I.D. hose **#HT1018AB**
 M10 x 1 to 12mm I.D. hose **#HT10112AB**
 M10 x 1 to 15mm I.D. hose **#HT10115AB**
 All £6 (£7.20 inc vat)



STRAIGHT ALUMINIUM HOSETAILS
GOLD ANODISED
 1/4" NPT to 8mm I.D. hose **#HT14NPT8A**
 1/4" NPT to 12mm I.D. hose **#HT14NPT12A**
 1/4" NPT to 15mm I.D. hose **#HT14NPT15A**
 All £6 each (£7.20 inc vat)



SWIVELLING HOSETAIL UNION
 1/4" BSP FEMALE to HOSETAIL Convex seat. Overall length 37mm. 16mm hex.
 6mm HOSE **#HT146S** £4 (£4.80 inc vat)
 8mm HOSE **#HT148S** £4 (£4.80 inc vat)
 10mm HOSE **#HT1410S** £4 (£4.80 inc vat)



BRASS UNION 7/16" UNF FEMALE to 8mm HOSETAIL Concave seat. Overall length 39mm. 14mm Hex. Fits the outlet of our #FLRES1.
#BU7168
£7.80
 (£9.36 inc vat)



BRASS UNION 1/4" BSP FEMALE to HOSETAIL Concave seat. Overall length 41mm. 16mm hex.
 6mm HOSETAIL **#HTF146**
 8mm HOSETAIL **#HTF148**
£4 (£4.80 inc vat)



YouTube INSTRUCTION VIDEO
ON THREAD IDENTIFICATION

BRASS BLANKING PLUG M10 x 1
 For drain, bleed etc.
#PLUGM10
£2.50 (£3 inc vat)



BRASS BLANKING PLUG 1/4" BSP
#PLUG14BSP
£3 (£3.60 inc vat)



NYLON BLANKING PLUG 1/4" NPT
 Ideal for air or water bleed, drain etc. in low pressure applications.
#NYPLUG14
£1.65 (£1.98 inc vat)



BRASS BLANKING PLUG 1/8" NPT
#PLUG18NPT
£3 (£3.60 inc vat)



BRASS BLANKING PLUG 1/4" NPT
#PLUG14
£3 (£3.60 inc vat)



BRASS BLANKING PLUG 3/8" NPT
 19mm long. 17mm hex.
#PLUG38NPT
£5 (£6 inc vat)



BRASS BLANKING PLUG 1/2" NPT
 22mm long. 22mm hex.
#PLUG12NPT
£6 (£7.20 inc vat)



10mm BRASS 90° COMPRESSION FITTING 1/4" NPT male thread to compression union for 10mm diameter copper tube. Size 40mm x 40mm. 21mm hex.
#CF901410
£5 (£6 inc vat)



10mm BRASS COMPRESSION FITTING 1/8" NPT male thread to compression union for 10mm diameter copper tube. 32mm long. 19mm and 21mm hex.
#CF1810 **£5** (£6 inc vat)



BRASS ADAPTER 7/16" UNF MALE to 3/8" UNF FEMALE with concave seat 16mm hex.
#BU71638
£7.50 (£9 inc vat)



BRASS ADAPTER 3/8" UNF MALE to 7/16" UNF FEMALE with concave seat 16mm hex
#BU38716
£7.50 (£9 inc vat)



BRASS ADAPTER M12 x 1mm MALE to M10 x 1mm FEMALE with concave seat. 16mm hex. 22mm long.
#BU1210
£7.50 (£9 inc vat)



BRASS ADAPTER M10 x 1mm MALE to M12 x 1mm FEMALE with concave seat. 16mm hex. 22mm long.
#BU1012
£7.50 (£9 inc vat)



BRASS ADAPTER 3/8" UNF MALE to M10 x 1 FEMALE with concave seat. 14mm hex. 32mm long
#BU3810
£7.50 (£9 inc vat)



BRASS ADAPTER M10 x 1 MALE to 3/8" UNF FEMALE with concave seat. 14mm hex. 32mm long
#BU1038
£7.50 (£9 inc vat)



BRASS ADAPTER 1/8" NPT MALE to M10 x 1 FEMALE with concave seat. 14mm hex. 20mm long.
#BU1810
£4.50 (£5.40 inc vat)



BRASS ADAPTER M10 x 1 MALE to 1/8" NPT FEMALE. 22mm long. 13mm hex.
#BU1018
£4.50 (£5.40 inc vat)



BRASS ADAPTER 1/4" NPT MALE to M10 x 1 FEMALE with concave seat. 14mm hex. 25mm long.
#BU1410
£7.50 (£9 inc vat)



AIR CONDITIONING

UNIVERSAL AIR CONDITIONING & HEATER KIT This is the most compact, powerful and inexpensive combined Heat/AC package available - 400mm x 280mm x 120mm - the size of a large Cornflakes box. Suitable for R134a refrigerant. 5 Kilowatts (17,000 BTU) - enough for a four seat saloon. Straightforward installation with our detailed instructions. The Aircon temperature is controlled automatically and the heater is controlled by a cable operated valve. Remember to turn off the heater if you're using the Air Conditioning function. This is not fully automatic climate control. **KIT INCLUDES:**

- Under-dash unit with 4 - outlets and double squirrel cage, three - speed fan.
- Remote fan speed and temperature control panel with wiring harness.
- 2 metres of 63mm duct hose.
- Desiccant drier with Trinary safety/fan switch.
- Complete set of hose unions, 'O' rings and charging/service ports.
- (Hoses not included but we can supply)
- Heater water valve and control cable.
- Full Instructions and fitting kit. **#AIRCON £479** (£574.80 inc vat)

This item is explained on our **YouTube** channel

You will also require a compressor and a condensing radiator. We can supply these items (below) but you may find more suitable donor components that match your engine mounts and drive belt system.

Heat and AirCon All in One



CONDENSING RADIATOR

380mm wide x 360mm high x 80mm thick including the mounting brackets. 50mm thick core. #6 and #8 male 'O' ring unions. **#CONRAD5 £110** (£132 inc vat)



CONDENSING RADIATOR

665mm x 355mm x 45mm (including #6 and #8 male unions) 4 hole fixings on 293mm x 615mm rectangle. **#CONRAD7 £140** (£168 inc vat)



ALUMINIUM CONDENSING RADIATOR

480mm x 250mm x 30mm (including #6 and #8 male unions). Multiple fixing holes in side plates. **#CONRAD8 £98** (£117.60 inc vat)



CONDENSING RADIATOR

630mm wide x 330mm high x 48mm thick including the mounting brackets. #6 and #8 male 'O' ring unions. Weight 4Kg.
#CONRAD9 £98 (£117.60 inc vat)



CONDENSING RADIATOR

500mm wide x 290mm high x 32mm thick including the mounting brackets. #6 and #8 male 'O' ring unions. Weight 1.95 Kg.
#CONRAD10 £98 (£117.60 inc vat)



UNIVERSAL AIR CONDITIONING KIT If you already have a heater and you just want to install Air Conditioning in you car, here's a compact yet powerful under-dash package. Size 360mm x 290mm x 150mm. Straightforward installation with our detailed instructions. Cooling capacity 3.16 Kw (10,800 BTU). Maximum air movement 200cfm. Universal kit includes:

- Under-dash unit with double squirrel cage, three - speed fan, pre-fitted expansion valve and two rocking vane outlet vents on the front facia.
- Remote fan speed and temperature control panel pre-wired to harness. Pre-assembled to mounting bracket or can be disassembled for through-the-dash mounting.
- Desiccant drier with Trinary safety/radiator fan switch.
- Complete set of hose unions, 'O' rings and charging/service ports.
- (Hoses not included but we can supply)
- Mounting brackets, drain hose and fused power feed cable.

All this for only #AIRCON2 £315 (£378 inc vat)

NOTE: Installation requires engine - driven compressor, and condensing radiator and fan



FOUR OUTLET PLENUM This is a direct replacement for the standard outlet facia on #AIRCON2. Four 63mm outlet spigots.
#AIRCON2PL £15 (£18 inc vat)



UNIVERSAL AIR CONDITIONING KIT This is an all-in-one version of our #AIRCON2. The front facia incorporates built-in temperature and fan speed controls, two 50mm diameter, swivelling, chrome eyeball vents and two, 95mm x 45mm rotating vents with rocking vanes. The unit can be mounted directly under you dash with everything in easy reach and with much simplified installation. All other specification the same as #AIRCON2. Weight 5.3Kg.
#AIRCON6 £335 (£402 inc vat)



UNIVERSAL HEATER AND AIR CONDITIONING KIT

Combined Heating and Cooling in a compact yet powerful under-dash package. Size 360mm wide x 290mm x 150mm. Straightforward installation with our detailed instructions. Cooling capacity 3.16 Kw (10,800 BTU). Maximum air movement 200cfm. Universal kit includes:

- Under-dash unit with double squirrel cage, three - speed fan, pre-fitted expansion valve and four 63mm outlet vents on the front facia.
- Remote fan speed and temperature controls with individual legend panels (45mm x 30mm) to mount in your dash through 11mm holes.
- Desiccant drier with Trinary safety/radiator fan switch.
- Complete set of hose unions, 'O' rings and charging/service ports.
- (Hoses not included but we can supply)
- Mounting brackets, drain hose and fused power feed cable.

All this for only #AIRCON2H £325 (£390 inc vat)

NOTE: Installation requires engine - driven compressor and condensing radiator (possibly with cooling fan). Hose lengths can be determined and purchased after installation of components. See your local yellow pages for car Air Conditioning specialists who will charge and test the system for you.



NOTE: We offer a hose crimping service. For just £50 +vat we will collect your prepared hoses and unions, crimp them and send them back to you. Instructions will be included with every AC kit.



IMPORTANT: CHECK WARRANTY CONDITIONS IN ONLINE LISTINGS

'A' BELT COMPRESSOR This will require fabrication of mounting brackets and 'A' belt drive from the engine crankshaft. Dimensions: 230mm long, 115mm body diameter, 105mm fixing hole centres. Please don't forget to add unions to the dimensions when checking available space around your engine. Suitable for R134a refrigerant only. 'O' ring fittings.

#ACCOMP £258 (£309.60 inc vat)



'A' BELT COMPRESSOR WITH SIDE ENTRY UNIONS

#ACCOMP2 £258 (£309.60 inc vat)

'POLY V' 7 GROOVE BELT COMPRESSOR

Dimensions: 215mm long, 115mm body diameter, 105mm fixing hole centres. 'O' ring fittings. Suitable for R134a refrigerant only.

#ACCOMPV £258 (£309.60 inc vat)



'POLY V' 7 GROOVE BELT COMPRESSOR WITH REAR ENTRY UNIONS

Dimensions: 215mm long, 115mm body diameter, 105mm fixing hole centres. 'O' ring fittings. Suitable for R134a refrigerant only.

#ACCOMPV2 £258 (£309.60 inc vat)

SIDE OUTLET CYLINDER HEAD

#COMHD2 £42 (£50.40 inc vat)



COMPACT AIR CONDITIONING KIT Cooling capacity 2.5 Kw. This is the smallest Air Con Evaporator unit available and is ideal for smaller vehicles. Dimensions 273mm wide x 114mm high x 235mm front to back. Four air outlets 55mm O.D., 49mm I.D. 12 volts. Max 100 watt consumption. Maximum airflow 230 m³ per hour. Two 12mm condensate drain outlets on the bottom. Two, 8mm through-holes for mounting. Three speed fan with 4 x male terminals in connector plug. The unit has an integral thermostat / sensor that is intended to protect the unit from over-cooling by disengaging the compressor clutch when the temperature reaches 3°C. (the grey wire with two 5mm female spades).

The Kit includes a desiccant drier with a Trinary safety/radiator fan switch, a complete set of hose unions, 'O' rings and charging/service ports (not interchangeable but others are available) and a three-speed fan switch. (Hoses not included but we can supply. See installation guide).

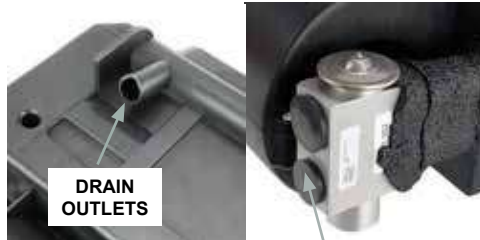
NOTE: Installation requires engine- driven compressor and condensing radiator (possibly with cooling fan). Hose lengths can be determined and purchased after installation of components. See your local yellow pages for car Air Conditioning specialists who will charge and test the system for you.

#AIRCON5 £355 (£426 inc vat)

NOTE: We now offer a hose crimping service. For just £50 +vat we will collect your prepared hoses and unions, crimp them and send them back to you. Instructions will be included with every AC kit.



INSTALLATION GUIDE
IN THE CATALOGUE



#6 AND #10
FEMALE A/C
CONNECTIONS



AIR CONDITIONING REFRIGERANT HOSE Also suitable for oil, fuel or coolant.

DASH 6 5/16" I.D. 3/4" O.D.

#ACH06 £7.50 mtr (£9 inc vat)

DASH 8 13/32" I.D. 7/8" O.D.

#ACH08 £8.50 mtr (£10.20 inc vat)

DASH 10 1/2" I.D. 1" O.D.

#ACH010 £9.50 mtr (£11.40 inc vat)



NOTE: We offer a hose crimping service. For just £50 +vat we will collect your prepared hoses and unions, crimp them and send them back to you. Instructions will be sent out with every AC kit. Part no: #ACCRIMP



CHECK OUT OUR

You Tube
CHANNEL

FOR DOZENS OF
INSTRUCTION VIDEOS

Just type 'Car Builder Solutions'
in the YouTube search box

9 kW VERTICAL HEAT / AIR CONDITIONING UNIT This unit has a massive 9kW cooling capacity for vans and larger vehicles plus heating. It is designed for vertical mounting and has two 13mm drain outlets on the plenum but can also be horizontally mounted using the alternative two 12mm condensate drains.

Dimensions 648mm wide x 411mm high x 182mm thick. Fitted with six air outlets 55mm O.D., 49mm I.D. but others (40mm, 45mm, 50mm and 55mm) are available separately. 12 volts. Max 300 watt power consumption.

Three speed fan with thermostat. Maximum airflow 725 m³ per hour.

The unit has sixteen, M8 female threaded, brass inserts for multiple mounting options.

The Kit includes a desiccant drier with a Trinary safety/radiator fan switch and a complete set of hose unions, 'O' rings and charging/service ports (not interchangeable but others are available). (Hoses not included but we can supply. See installation guide.)

NOTE: Installation requires engine- driven compressor and condensing radiator (possibly with cooling fan). Hose lengths can be determined and purchased after installation of components. See your local yellow pages for car Air Conditioning specialists who will charge and test the system for you. **#AIRCON4 £550** (£660 inc vat)



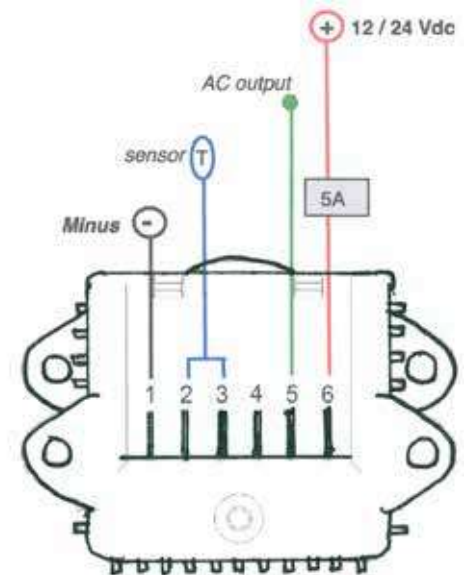
NOTES: This unit works a little differently to some of our other Aircons. The integrated thermostat /sensor acts to protect the under-dash unit from over-cooling and will disconnect power to the compressor clutch when the temperature reaches 3°C. The Aircon side is therefore always running at maximum efficiency. Cooling of the cockpit is controlled by the fan speed.

WIRING: Terminal 1 - -12 Volts
 Terminal 2 & 3 Internal temp sensor

 Terminal 4 Not used
 Terminal 5 - To the trinary switch then to the compressor clutch
 Terminal 6 - + 12 Volts



SEE OUR INSTALLATION GUIDE IN THIS CATALOGUE



#6 AND #10 FEMALE A/C CONNECTIONS



HEATER AND AIR CONDITIONING KIT WITH VERTICAL OUTLETS

High power, 12 Volt, combined Heating and Cooling in a compact yet powerful under-dash package. Size 463mm wide x 168mm front to back x 239 mm high. Heating output 6.1 kw. Cooling capacity 4.5 Kw. Maximum air movement 530 m³/hour. Electrical consumption 230 Watts. Noise level 65db. Weight 4.64 Kg. Three M6 female inserts for mounting on a vertical surface. A/C, Heater and condensate drain connections are on the underside.

Universal kit includes:

- Under-dash unit with single squirrel cage, three - speed fan with thermal cut-out.
- Pre-fitted expansion valve and six 55mm outlet connectors on the top facia.
- Desiccant drier with Trinary safety/radiator fan switch.
- Complete set of hose unions, 'O' rings and charging/service ports.
- (Hoses not included but we can supply)

All this for only #AIRCON7 £499 (£598.80 inc vat)

NOTE: Installation requires engine-driven compressor and condensing radiator (possibly with cooling fan). Hose lengths can be determined and purchased after installation of components. See your local yellow pages for car Air Conditioning specialists who will charge and test the system for you.



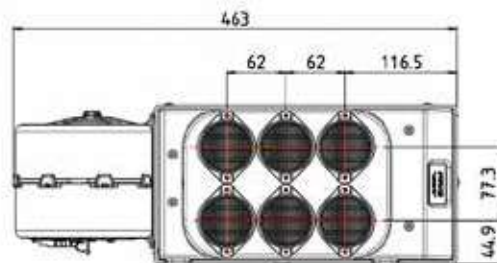
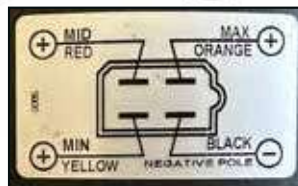
#6 AND #10 FEMALE A/C CONNECTIONS

DRAIN OUTLET

NOTE: We offer a hose crimping service. For just £50 +vat we will collect your prepared hoses and unions, crimp them and send them back to you. Instructions are included with every AC kit.



MOUNTINGS

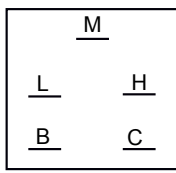


COMPACT HEAT / AIR CONDITIONING KIT Here's a compact yet powerful under-dash package delivering both Heat and Air Conditioning to your cockpit. Size 368mm wide x 216mm front to back, 136mm high. Heating capacity 4.3Kw (14,680 BTU), Cooling capacity 3.5 Kw. (12,000 BTU) - plenty for a four-seat saloon. Maximum air movement 440 cubic mtrs./hour. 16mm Heater Inlet/Outlet. Two 12mm condensate drain outlets on bottom. Multiple mounting options in the sides and top & bottom with simply-made brackets. Universal kit includes:

- Under-dash unit with double squirrel cage, three-speed fan.
- Pre-fitted expansion valve.
- Removable plenum with four 55mm outlet vents and internal foam filter.
- Heater valve.
- Desiccant drier with Trinary safety/radiator fan switch.
- Complete set of hose unions, 'O' rings and charging/service ports. (Hoses not included but we can supply)

All this for only #AIRCON3 £430 (£516 inc vat)

NOTES: Installation requires engine-driven AC compressor and condensing radiator (possibly with cooling fan). Hose lengths can be determined and purchased after installation of components. We now offer a hose crimping service. For just £50 we will collect your prepared hoses and unions, crimp them and send them back to you. Instructions will be sent out with every AC kit. This unit offers MANUAL - NOT AUTOMATIC Climate Control. It is important that you turn the heater off when turning the Air Conditioning on.



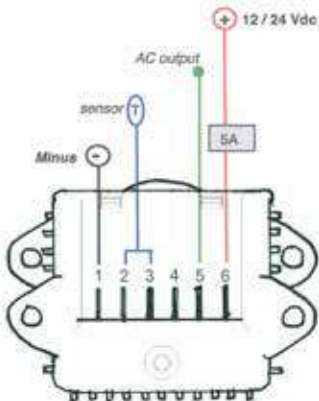
FAN MOTOR SPEED WIRING
EARTH - Black
+12v LOW - Yellow
+12v MEDIUM - Red
+12v HIGH - Orange

FAN SWITCH WIRING
+12v IN - B
+12v OUT LOW - L
+12v OUT MEDIUM - M
+12v OUT HIGH - H

C is Compressor output if switch is used with Air Conditioning.

NOTES: This unit works a little differently to some of our other Aircons. The integrated thermostat / sensor acts to protect the under-dash unit from over-cooling and will disconnect power to the compressor clutch when temperature reaches 3°C. The Aircon side is therefore always running at maximum efficiency. Cooling of the cockpit is controlled by the fan speed.

WIRING: Terminal 1 - -12 Volts
 Terminal 2 & 3 Internal temp sensor
 Terminal 4 Not used
 Terminal 5 - To the trinary switch then to the compressor clutch
 Terminal 6 - + 12 Volts



TRINARY SWITCH A three-function pressure switch for our Air Conditioning kits. The Blue wires will switch on a condensing-radiator fan (via a relay) whenever the Air-con is working and the other two wires provide a safety cut-out for the compressor if the pressure is either too high or too low. 100mm flyleads with 1/4" spade terminals. Thread 3/8" UNF. Operating pressures:

Low - 2Kg/Cm²
 Med. - 16Kg/Cm²
 High - 24Kg/Cm²

#TRINARY £20 (£24 inc vat)



BLACK AIR CON RECEIVER / DRIER

A replacement, powder-coated drier for our #AIRCON. 200mm high x 64mm diameter. Dash 6 'O' ring fittings plus two 3/8" UNF female threads with blanking plugs for fitting Trinary or other switches. Weight 764gms
#DRIER £20 (£24 inc vat)

ALUMINIUM AIR CON RECEIVER / DRIER

#6 'O' Ring fittings. Sight glass in top. Beautifully Tig welded construction. If you want to smarten up your engine bay you can polish this drier to a mirror finish.
#DRIERAL £25 (£30 inc vat)



DRIER BRACKET A plated steel mounting bracket for our Air-Con Drier (Part no #DRIER). Will mount any cylinder from 58mm to 65mm diameter. Weight 132gms
#DRIERBKT £4.50 (£5.40 inc vat)



OUR AIR CON KITS ARE SUPPLIED COMPLETE WITH A DRIER AND ALL UNIONS FOR THE MOST COMMON INSTALLATION LAYOUT. HOWEVER, YOU MAY PURCHASE AN ALUMINIUM DRIER OR DIFFERENT FITTINGS TO SUIT YOUR OWN INSTALLATION. SORRY BUT WE CANNOT INTERCHANGE KIT CONTENTS.

AIR CON UNIONS ALL AVAILABLE INDIVIDUALLY. NOTE: Our part number prefix - # also represents the 'DASH' size of our AC hoses and Unions. So, #6 means dash six size.

- #6 Fitting straight #ACU6ST £6 (£7.20 inc vat)
- #6 MALE Fitting straight #ACU6STM £7 (£8.40 inc vat)
- #8 Fitting straight #ACU8ST £7 (£8.40 inc vat)
- #8 MALE Fitting straight #ACU8STM £7 (£8.40 inc vat)
- #10 Fitting straight #ACU10ST £8 (£9.60 inc vat)
- #10 MALE Fitting straight #ACU10STM £8 (£9.60 inc vat)

- #6 Fitting 90° #ACU690 £6 (£7.20 inc vat)
- #6 MALE Fitting 90° #ACU690M £8 (£9.60 inc vat)
- #8 Fitting 90° #ACU890 £8 (£9.60 inc vat)
- #8 MALE Fitting 90° #ACU890M £10 (£12 inc vat)
- #10 Fitting 90° #ACU1090 £9 (£10.80 inc vat)
- #10 MALE Fitting 90° #ACU1090M £12 (£10.80 inc vat)

- #6 Fitting 45° #ACU645 £8 (£9.60 inc vat)
- #6 MALE Fitting 45° #ACU645M £8 (£9.60 inc vat)
- #8 Fitting 45° #ACU845 £9 (£10.80 inc vat)
- #8 MALE Fitting 45° #ACU845M £9 (£10.80 inc vat)
- #10 Fitting 45° #ACU1045 £9 (£10.80 inc vat)
- #10 MALE Fitting 45° #ACU1045M £9 (£14.40 inc vat)

- #6 Fitting 180° #ACU6180 £14 (£16.80 inc vat)
- #8 Fitting 180° #ACU8180 £15 (£18 inc vat)
- #10 Fitting 180° #ACU10180 £15 (£18 inc vat)

- #6 Fitting Tight 90° #ACU6T90 £15 (£18 inc vat)
- #8 Fitting Tight 90° #ACU8T90 £16 (£19.20 inc vat)
- #10 Fitting Tight 90° #ACU10T90 £17 (£20.40 inc vat)

- #6 Charging port #ACUPORT6 £20 (£24 inc vat)
- #8 Charging port #ACUPORT8 £20 (£24 inc vat)
- #10 Charging port #ACUPORT10 £20 (£24 inc vat)

- #6 90° Charging port #ACU90PORT6 £20 (£24 inc vat)
- #8 90° Charging port #ACU90PORT8 £20 (£24 inc vat)
- #10 90° Charging port #ACU90PORT10 £20 (£24 inc vat)

- #6 Charging port #ACUPORT6ST £20 (£24 inc vat)
- #8 Charging port #ACUPORT8ST £20 (£24 inc vat)
- #10 Charging port #ACUPORT10ST £20 (£24 inc vat)

#6 AIRCON 'O' RING BULKHEAD FITTING
47mm long. With one removable nut. 1" AF hex.
Threads 5/8" x 18 UNF. #ACU6BH £18 (£21.60 inc vat)

#8 AIRCON 'O' RING BULKHEAD FITTING
48mm long. With one removable nut. 1 1/4" AF hex.
Threads 3/4" x 16 UNF. #ACU8BH £20 (£24 inc vat)

#10 AIRCON 'O' RING BULKHEAD FITTING
52mm long. With one removable nut.
1 1/4" AF hex. Threads 7/8" x 14 UNF.
#ACU10BH £20 (£24 inc vat)

- #6 STRAIGHT JOINER #ACU6SJ £6 (£7.20 inc vat)
- #8 STRAIGHT JOINER #ACU8SJ £7 (£8.40 inc vat)
- #10 STRAIGHT JOINER #ACU10SJ £8 (£9.60 inc vat)

- #8 - #6 REDUCING STRAIGHT JOINER #ACUSJ68 £9 (£10.80 inc vat)
- #10 - #8 REDUCING STRAIGHT JOINER #ACUSJ810 £9 (£10.80 inc vat)

- 90 DEGREE JOINER Crimp fixing both ends. All plus vat
- #6 End to end diagonal dimension 125mm #ACU90J6 £12
- #8 End to end diagonal dimension 125mm #ACU90J8 £12
- #10 End to end diagonal dimension 155mm #ACU90J10 £12



| A/C UNION THREADS | |
|-------------------|---------------|
| #6 | 5/8" x 18 UNF |
| #8 | 3/4" x 16 UNF |
| #10 | 7/8" x 14 UNF |

#6 CRIMP HOSE AND MALE 'O' RING BULKHEAD FITTING 100mm long. With one removable nut. 1" AF hex.

Thread 5/8" x 18

#ACU6MH £12 (£14.40 inc vat)



#8 CRIMP HOSE AND MALE 'O' RING BULKHEAD FITTING 112mm long. With one removable nut. 1 1/4" AF hex.

Thread 3/4" x 18

#ACU8MH £12 (£14.40 inc vat)



#10 CRIMP HOSE AND MALE 'O' RING BULKHEAD FITTING 107mm long. With one removable nut. 1 1/4" AF hex. Thread 7/8" x 18

#ACU10MH £16 (£19.20 inc vat)



#6 90 DEGREE CRIMP HOSE AND MALE 'O' RING BULKHEAD FITTING 95mm x 65mm.

With one removable nut. 1" AF hex.

Thread 5/8" x 18

#ACU6MH90 £13 (£15.60 inc vat)



#8 90 DEGREE CRIMP HOSE AND MALE 'O' RING BULKHEAD FITTING 103 mm x 75mm.

With one removable nut.

1 1/4" AF hex. Thread 3/4" x 18

#ACU8MH90 £15 (£18 inc vat)



#10 90 DEGREE CRIMP HOSE AND MALE 'O' RING BULKHEAD FITTING 103 mm x 75mm.

With one removable nut. 1 1/4" AF hex.

Thread 7/8" x 18

#ACU10MH90 £25 (£30 inc vat)



#10 CRIMP HOSE TO 16mm (5/8") COMPRESSION FITTING

84mm long. With 1" hex nut.

Stepped steel olive 16.18mm (0.635") I.D.

#ACU10COMP £16 (£19.20 inc vat)

#8 CRIMP HOSE TO 1/2" COMPRESSION FITTING Stepped steel olive 0.508" I.D.

#ACU8COMP £13 (£15.60 inc vat)



#6 AIRCON STRAIGHT JOINER WITH INTEGRAL TRINARY SWITCH #ACUTRIS £30 (£36 inc vat)



#6 O ring #ACUOR6 £2 (£2.40 inc vat)

#8 O ring #ACUOR8 £2 (£2.40 inc vat)

#10 O ring #ACUOR10 £2 (£2.40 inc vat)



AIR CONDITIONING HOSE CRIMPING TOOL Here's an affordable, easy to use, Manual Hose Crimper. It comes with four sets of dies covering standard hose sizes #6, #8, #10 and #12, which snap easily into place in the tool jaws.

The tool can be mounted to a bench using the supplied holding fixture or held securely in a vice. Supplied in a blow-moulded case with full instructions. Weight 4.3Kg
#ACTOOL £220 (£264 inc vat)



AIR CONDITIONING REFRIGERANT HOSE Also suitable for oil, fuel or coolant.

DASH 6 5/16" I.D. 3/4" O.D.
#ACHO6 £7.50 mtr (£9 inc vat)

DASH 8 13/32" I.D. 7/8" O.D.
#ACHO8 £8.50 mtr (£10.20 inc vat)

DASH 10 1/2" I.D. 1" O.D.
#ACHO10 £9.50 mtr (£11.40 inc vat)



HOSE CUTTER
#HOSEC £6.50
 (£7.80 inc vat)



HEAT/AIRCON INSTALLATION GUIDE

Our universal Heating and Air Conditioning package was conceived specifically for the Foreman Mk 4 - our own 2 seater Classic Replica but the compact size of the under-dash unit makes it eminently suitable for installation into almost any front, rear or mid engined sports car or small saloon.

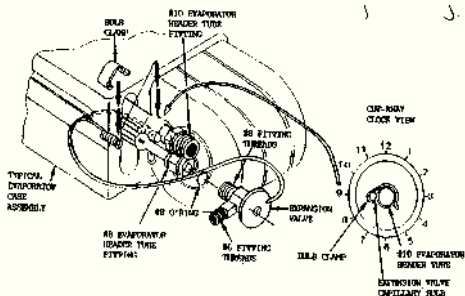
The Heat/Cool evaporator unit is best mounted behind the dash of your vehicle, above the passenger's legs. However, other mounting positions are possible so hose routing and component layout may vary depending on your vehicle. Take your time and carefully plan your installation.

The efficiency of any cooling system depends on recirculation of cooled air in the passenger compartment. It is important that you seal off any holes in the doors, floor, fire-walls and roof etc. A small percentage of fresh air can be drawn into the unit through a length of 1 1/2in diameter flexible ducting from outside of the cockpit to the near vicinity of the unit's fans. If the system is being installed into a new car by the builder it is recommended that installation is completed early in the build stage.

INSTALLING THE EXPANSION VALVE.

Before mounting the under-dash evaporator first mount the brass expansion valve as follows.

- ◆ Fit a #8 O ring to the #8 refrigerant outlet union on the evaporator.
- ◆ Loosely screw on the expansion valve, orientating the valve to the desired position for hose routing. Tighten fitting
- ◆ Route the capillary tube with it's coiled end to the #10 outlet union on the evaporator.
- ◆ Using the little chrome spring clip supplied, clamp the coiled end or the capillary to the #10



outlet orientating the coil at the nine o'clock position.

- ◆ Wrap and seal both pipes with the foam pre-tite tape provided.

MOUNTING THE EVAPORATOR Mount the evaporator using the two mounting plates provided, with the condensate drain outlets at the bottom, the fan toward the front of the car and the vent outlets facing the passengers.

Cut the two 1/4" UNC bolts just long enough to screw through the mounting brackets and fully into the sliding captive nuts on each side of the evaporator casing. First mount the evaporator in mid position, tilting downward toward the front of the car 10 to 15 degrees to ensure trouble-free condensate drainage. You can later optimise the positioning when the hose and ducting routes are finalised. At the front of the unit, at the lowest point you will see two condensate drain outlets. (All A/C units produce water as a result of the cooling process).

It is OK to blank off one outlet and connect a single drain tube to the other one, routing it through the cockpit and floor panel to discharge harmlessly on the road but bear in mind that the unit needs to drain whatever angle the vehicle is parked.

FITTING THE TRINARY SWITCH The Trinary switch is mounted in drier. This switch will disengage the compressor clutch in the event of over pressurisation or under pressurisation on the refrigerant. It also has a set of contacts for switching on an electric cooling fan on the condensing radiator (via a relay). The black and green wires simply connect to your compressor as in the wiring diagram. The blue wires are the fan switch. NOTE: Depending on positioning and air flow, your condensing radiator may not require a separate cooling fan. You will only find out when the system is up and running. You have the option to install a separate, independent cooling fan mounted on your condensing radiator which you

can connect to the Trinary switch via a relay or, the Trinary switch can control existing electric radiator fans again, with its own relay.

To install the Trinary switch remove one hexagonal plug and screw in Trinary switch with the O ring supplied. Tighten gently with spanner.



DRIER AND TRINARY SWITCH

MOUNTING THE DRIER The drier supplied with the Heat/AC package is usually mounted on the forward bulkhead or any convenient position in the engine bay using a simple 'U' bracket. Check hose routing before finally choosing a position.

A/C HOSE MEASURING AND CRIMPING

NOTE: We now offer a hose crimping service. For just £50 we will collect your prepared hoses and unions, crimp them and send them back to you. Instructions will be sent out with every AC kit.

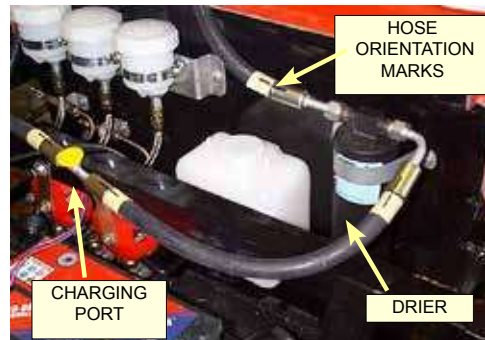
Your Universal Heat/AC package is supplied with an assortment of unions that are adequate for most installations. Should you require additional straight or elbow unions for your particular component layout we will be happy to supply them.

When installing and plumbing your AC system, it is important that all the hoses should be routed between components along the line of the least stress so we recommend that you pre-fit all unions and dummy-run all hoses using regular garden hose. Avoid tight turns close to components that will put strain on the outlets. For obvious reasons, avoid running a heater hose directly alongside a refrigerant hose - space them apart and insulate long runs.

Refer to the instruction diagram for the general routes and hose sizes.

- Push all the pieces of garden hose fully into the ferrules, trimming them to length as you go.
- When you have settled on the optimum layout and routing, measure the length of each piece of garden hose and, noting that there are three different hose sizes, order just as much refrigerant hose as you need.
- Replace the garden hose with the real stuff. It is important to realise that, unlike heater hose, AC hose is very strong and will not twist easily into shape. So it is important, if you're using angled unions, that they are crimped in exactly the same position on the hose as they were in your mock-up on the vehicle.
- So, wrap masking tape around each end of each hose right next to the union ferrule.
- Using a magic marker, mark a line on the tape and the union ferrule as in the picture below, for accurate alignment during crimping.
- Use Sellotape to keep the fittings on the hoses then remove the hoses and fittings together and keeping your magic marker lines aligned, box them up and send them off to us for crimping.
- You could also number each joint on the hose and fitting just in case they fall off.

NOTE: Compressors other than the one we supply may require different unions.



MOUNTING THE CONDENSING RADIATOR

We can supply a suitable condensing radiator that is usually mounted in front of the cooling radiator. The twin cooling fans are mounted behind the radiator, 'pulling' air through both. Space the two radiators approximately 20mm apart with rubber or hard foam pillars. TIP: Use heavy duty (10mm wide) 'Tie-raps' to secure the two radiators together. Pass a tie-rip through a hard rubber washer then through the condensing radiator fins, through the spacing pillar, through the water radiator and a final rubber washer. Cut the head from a second tie-rip, slide it over the protruding end of the first and pull the whole sandwich tight. Repeat in each corner of the condensing radiator for a simple and secure fixing. It is important that the Tie-raps are tight enough to prevent movement that may damage the matrixes. **IMPORTANT NOTE:** When tightening the unions on the condenser and evaporator use two spanners so that the welded connections to the units are not stressed and damaged.



COMPRESSOR

It is possible that the engine you choose for your car will have been used in a vehicle fitted with air conditioning. This means that, even if your own donor had no A/C, the block is probably drilled to accept standard compressor mounting brackets and that standard pulleys and fan belts are available from the vehicle manufacturer. However, if you choose to install our compressor you'll need to fabricate brackets for mounting and belt adjustment. You could also require an additional crankshaft drive pulley groove. Our 'A' groove compressor has a twin groove pulley so you can juggle the alternator or power steering pump drives and keep just a single groove crank pulley. A 'POLY V' pulley compressor is also available. Fan belts are measured around the outside circumference so, if you measure around the pulleys with a wide tape measure you should get an idea of the size you need. When the clutch of an A/C compressor switches in there is an immediate load on the engine. On smaller engines this extra load may cause the engine revs to drop - possibly stalling at tick-over. To overcome this problem some engine management systems automatically increase the tick-over speed by a couple of hundred revs whenever the compressor cuts in. Your engine circuit diagram (see the relevant 'Haynes' manual) will point you in the right direction.



CONNECTING THE HEATER

The heater control valve can be mounted anywhere provided the operating cable and control knob reaches a suitable mounting position. It makes sense, for safety reasons, to fit the valve outside of the cockpit area. Most engines will have a heater outlet union somewhere on the pressurised (top hose) side of the engine. Connect this to the inlet side of the heater control valve. Check the valve for correct flow direction. Connect from the flow valve to the uppermost connection on the heater matrix on the under dash unit. Run the return line from the lower matrix connection to a union situated just before the water pump (usually in the bottom hose). The fewer hot water connections in the cockpit the better. Use good quality 5/8in (15mm) heater hose and fit two good quality Jubilee clips on each connection. Re-tighten the hose clips after a few miles.

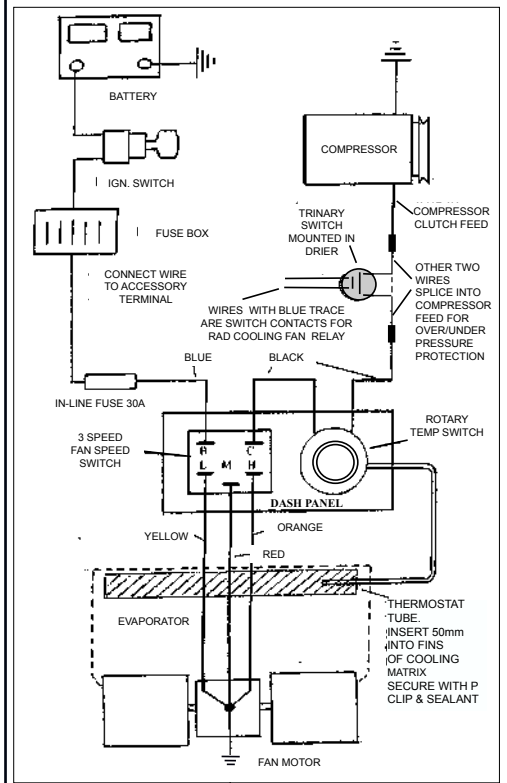
MOUNTING THE DASH VENTS AND ROUTING THE DUCT HOSE

We can supply a range of face and demist vents to suit your installation. You can install, for example, two eyeball vents positioned one on each side of the dash and one rectangular vent at the base of the windscreen for de-mist. Or two or three small demist vents fed from a plenum bonded to the underside of the dash. Cut and fit the large bore duct hose bearing in mind that flow will be enhanced through a hose that is slightly stretched. Route the duct hose ensuring that there are no kinks and a minimum of sharp bends.

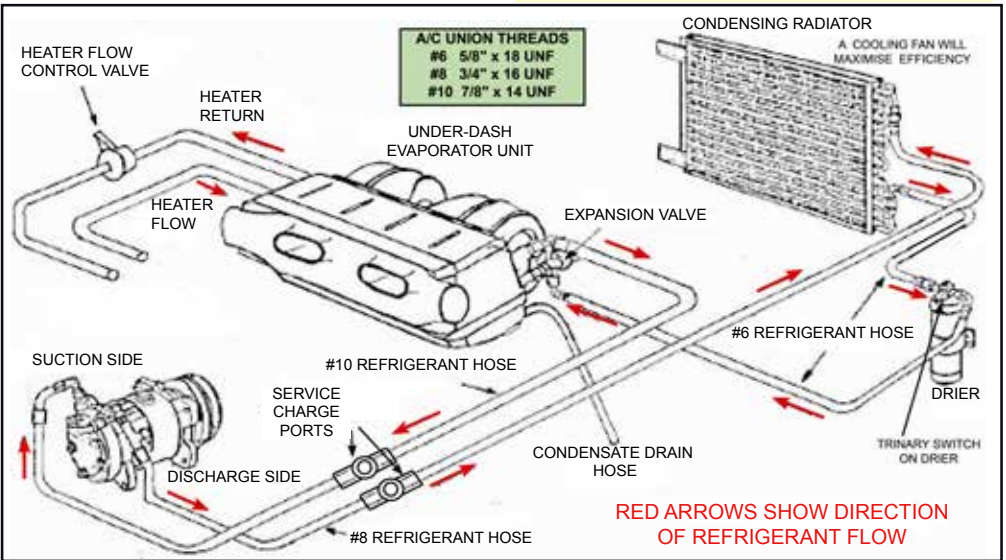


Heater hose routing in a Foreman Mk4

AIRCON WIRING SCHEMATIC



TRINARY SWITCH OPERATING PRESSURES
LOW 2 Kg/cm²
MED 17 KG/cm²
HIGH 28 Kg/cm²



RED ARROWS SHOW DIRECTION OF REFRIGERANT FLOW

INFRARED THERMOMETER

Just point it at each manifold branch at engine start up to see if they're all the same temperature. Or aim it at your hoses and radiator to see exactly how your cooling system is performing. Measure the temperature of each disc to check for binding brakes or overheating bearings. Change from Centigrade to Fahrenheit with the push of a button. Pull the trigger to switch on the display and take a reading. A Laser pointer shows you exactly the point of measurement. Full instructions included. Measuring range -38°C and 520°C. Takes 2 x AAA batteries (Not included.) **#INFRA £36** (£43.20 inc. vat)



HEATING & VENTILATION

5.2Kw CAR HEATER INCLUDING OUTLET PLENUM AND 3 SPEED SWITCH

Requires hot water feed from your engine. Here's an even more powerful version of our popular heater. Simple plumbing - 15mm inlet and outlet. High efficiency core matrix with aluminium fins. **Three speed**, double squirrel-cage fan with 300mm fly leads Supplied with wiring, connectors, in-line fuse and rotary control switch. Multiple mounting options - horizontal, vertical or on it's side. Easy to mount with simply-fabricated brackets. Complete with a sealed, four-outlet plenum with 2 x 63mm and 2 x 38mm outlets which you can open up to suit your requirements for air distribution to cabin, dash and screen. Two fan motors 12 volt 75 watt max. Air flow 350 m³/hr max. Weight 2.6Kg. Instructions included. **#HEAT3 £140** (£168 inc vat)

FAN MOTOR SPEED WIRING

EARTH - Black
+12v LOW - Yellow
+12v MEDIUM - Red
+12v HIGH - Orange



WIRING KIT INCLUDED WITH HEAT3, HEAT4 and HEAT7

FAN SWITCH WIRING

+12v IN - B
+12v OUT LOW - L
+12v OUT MEDIUM - M
+12v OUT HIGH - H

C is Compressor output if switch is used with Air Conditioning.

| | |
|---|---|
| M | |
| L | H |
| B | C |



FAN MOTOR SPEED WIRING

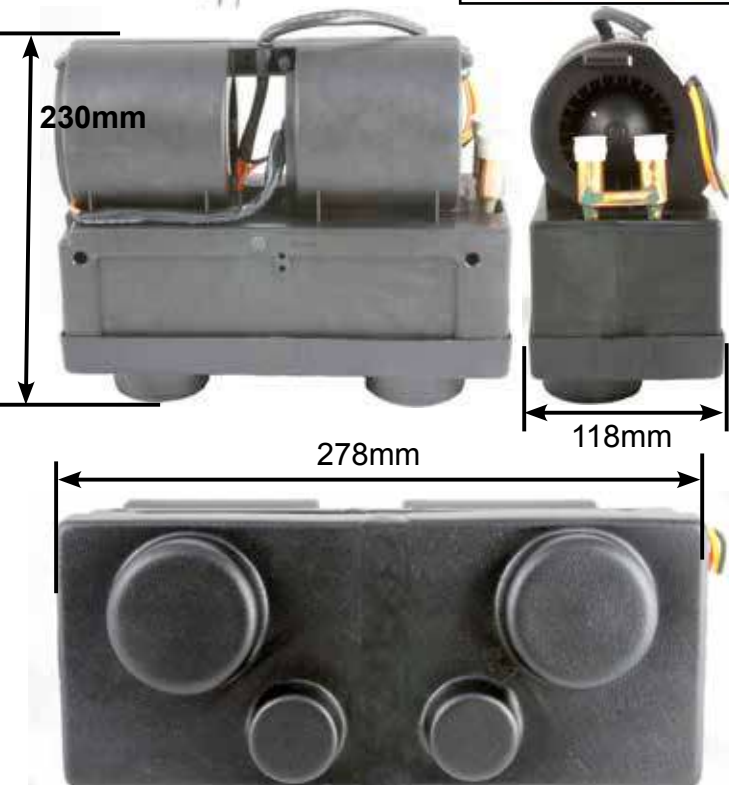
EARTH - Black
+12v LOW - Yellow
+12v MEDIUM - Red
+12v HIGH - Orange

FAN SWITCH WIRING

+12v IN - B
+12v OUT LOW - L
+12v OUT MEDIUM - M
+12v OUT HIGH - H
C is Compressor output if switch is used with Air Conditioning.

| | |
|---|---|
| M | |
| L | H |
| B | C |

COMPACT HEATER Requires hot water feed from your engine. Here's a single fan compact heater that measures only 6 3/4" (170mm) wide x 5" (130mm) high x 8 1/4" (210mm) front to back yet still has a remarkable heat output of 3.8 KW!! Simple plumbing - 15mm inlet and outlet. Maximum air-flow 170 m³/hr. High efficiency copper core matrix with aluminium fins. Three speed fan with 300mm fly lead and a 4 pin connector plug Four, 55m diameter outlet flanges are bolted to the aluminium, removable front panel which can be easily removed for modification. The air inlet on the motor housing has a 75mm diameter flange for ducting in fresh air. There are two 6.8mm holes right through the casing from top to bottom for stud fixing and there are two, moulded-in, brass, female, M6 inserts in the top and two in the bottom of the casing allowing multiple mounting options. Supplied with wiring, connectors, in-line fuse and rotary control switch. Fan motor maximum current 4.5 Amps. Weight just 1.7Kg. **#HEAT4 £110** (£132 inc vat)



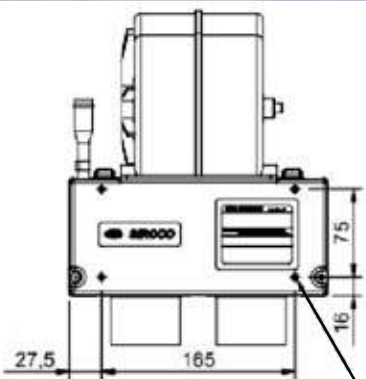
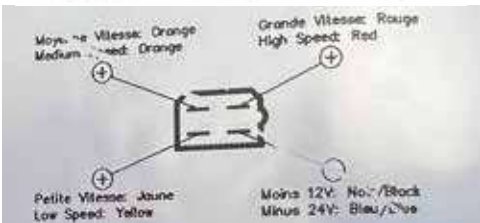
DUCT HOSE BLACK PVC

55mm (2 1/8") **#DCHS55 £7 Mtr.** (£8.40 inc vat)

COMPACT DEMIST HEATER BLOWER

12 volt, three speed fan moving a maximum of 200 cubic mtrs. of air per hour. Height 130mm. Width 220mm. Front to back 240mm. Two 40mm dia. air outlets on the front facia. Four holes on top and bottom faces for mounting to your own bracket with the four self-tapping screws supplied. Maximum current drain 5 Amps. Heater matrix can be flipped so water connections are on the other side. Full dimensions online. Weight 1700 gms.

#HEAT9 £100 (£120 inc vat)



Fixing holes 4 x 3.9mm dia x 14mm deep

ALL IN ONE COMPACT HEATER

Heater installations don't come much simpler than this, all-in-one package. It requires just a hot water feed from your engine and a 12 volt supply. Maximum dimensions 10" (260mm) wide x 5" (130mm) high x 12" (300mm) from the front of the control knobs to the back of the valve, yet still has a remarkable heat output of 4.3 KW. Simple plumbing - 15mm inlet and outlet. Maximum air-flow 230 m³/hr through two 72mm, rotating, rocking-vane vents on the front panel. Two rotary control knobs on the front panel adjust fan speed (3 speed) and heat level via the integral flow valve. Simple, two wire electrical connection with a two way spade connector on a short fly lead. Fan motor maximum current 5.8 Amps. Weight just 1.9Kg.

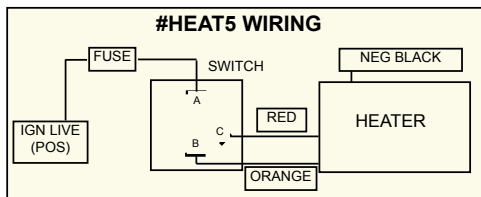
With a little ingenuity you could add demist outlets to the top of the plenum if required.

#HEAT6 £140 (£168 inc vat)



QUIET HEATER Yes - only 46db noise output - you can hardly hear it. Requires hot water feed from your engine. Supplied as shown below so it's ideal for maybe a secondary heater in the back of a limo, van or motor-home. Dimensions: 12½" (320mm) wide x 6" (152mm) high x 5" (125mm) front to back. Heat output 5.5 KW. Maximum air flow 250 m³/hr. Simple plumbing - 15mm inlet and outlet. High efficiency copper core matrix with aluminium fins. Two 100mm, two speed axial fans with 400mm fly leads. Supplied with wiring, connectors, in-line fuse and rotary control switch. There are two moulded-in mounting brackets which are ideal for floor mounting but you can easily fabricate some aluminium angle brackets for other mounting options. Fan motor maximum current 2 amps. Weight 2Kg.

#HEAT5 £130 (£156 inc vat)



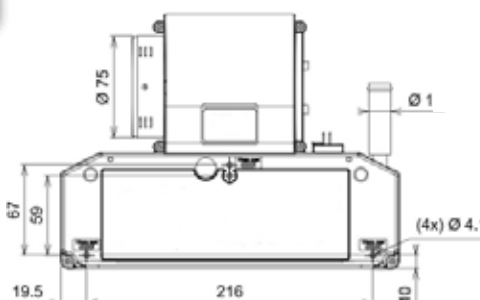
LIGHTWEIGHT HEATER WITH 3 SPEED FAN. Heaters don't come much lighter than this little beauty. It requires just a hot water feed from your engine and a 12 volt supply. Maximum dimensions 10" (255mm) wide x 4½" (115mm) high x 7½" (190mm) from the front to the back, yet still has a remarkable heat output of 4.3 KW. Inlet diameter 75mm. Simple plumbing - 15mm inlet and outlet. Maximum air-flow 230 m³/hr through the deflecting vents on the front panel. Four pin connector on 100mm fly lead. Fan motor maximum current 5.8 Amps. Weight just 1.5Kg. Noise level 63db.

WIRING ON 4 TERMINAL MULTI PIN MALE SPADE PLUG:
NEG 12V - Black, SLOW - Yellow, MEDIUM - Red, FAST - Orange.

Includes fan switch #SWFAN2
#HEAT7 £120 (£144 inc vat)



WIRING KIT INCLUDED



CABLE CONTROLLED HEATER OUTLET PLENUM This plenum will slide directly into the front facia of our #HEAT3 and #HEAT7. Size: 265mm x 125mm x 130mm. A push-pull cable can be mounted in a choice of two positions to operate a clever cam that opens and closes three sets of outlet vents in a sequence. Two banks of two 55mm diameter outlets on the front and one rectangular 150mm x 20mm outlet on the bottom edge. Cable clip included but **CABLE NOT INCLUDED. PLENUM ONLY. HEATER NOT INCLUDED - #HTPLEN £39 (£46.80 inc vat)**



FITTED TO #HEAT3



This item is explained on our **YouTube** channel

SLIMLINE AIR OUTLET PLENUM

Fits our #HEAT3 and #HEAT7. Two x 1½" (38mm) outlets and two x 2½" (63mm) outlets. All outlets 20mm front projection. Inside dimensions 270mm x 110mm x 25mm deep. Material thickness approx 1.2mm. Mounts directly over the front of the heater. Can be screwed and bonded. The outlets are supplied capped for you to cut as required. **#SPLEN2 £15 (£18 inc vat)**



SEE MORE, BIGGER, HI-RES PICTURES ONLINE AT www.carbuilder.com



HEATER MATRIX AND FAN KIT Are you struggling to find a small heater the right size and shape to fit your car. Why not make your own? Our heater matrix and fan kit comes complete with fully detailed instructions and drawings with pictures showing you how to fabricate your own casing.

MATRIX: All aluminium with 15mm inlet and outlet. Weight 640 gms.

FAN: Single squirrel cage. Single speed. 2600 R.P.M.

12 volt. 2.5 Amp. 178mm x 179mm x 100mm wide. Outlet 66 mm x 88mm.

Air movement 158 cfm. Weight 624 gms

MATRIX AND FAN #MFKIT £58 (£69.60 inc vat)

MATRIX ONLY #MATRIX £40 (£48 inc vat)

FAN ONLY #SCFAN £28 (£33.60 inc vat)

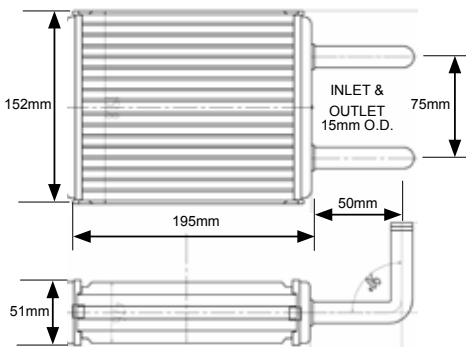


Here's the fan linked to the matrix with our #DCTHS75. You can bend the ducting reinforcing wire to form a rectangle shape that will fit inside the fan housing outlet.

Bond it in place with Polyurethane adhesive/sealant.



BUILDERS TIP If your installed radiator isn't quite up to the job, you could use one or two of these as auxiliary radiators. Mount them in the air-flow and plumb them into your heater circuit.



ABS HEATER MATRIX CASE We've designed and produced this vacuum-formed, two part case for our heater matrix. The outlet side has two 38mm and two 63mm outlets - all supplied capped so you can open any combination of them to suit your ducting. The inlet side has one 75mm outlet for connecting to our fan with 75mm ducting. Simply cut the water inlet and outlet cut-aways on the side of your choice, wrap our #TRMR1 self-adhesive foam strip around the matrix sides and slide it all together. It takes just minutes. You can bond the two halves together with a few blobs of Polyurethane adhesive / sealant if you wish. Case size (excluding water inlet and outlet and air inlet and outlet spigots) 205mm x 156mm x 80mm.

Weight of matrix and case (dry) 795gms.

#HMCASE £25 (£30 inc vat)



We've used a Powerfile to grind away the water pipe cut-aways and a hacksaw to cut the ends from the outlets.



BLACK & DECKER POWERFILE

#PWRF £62 (£74.40 inc vat)

This item is explained on our **YouTube** channel



3 SPEED 12 VOLT SQUIRREL CAGE FAN

A very powerful, compact and versatile fan with built-in overload protection.

The rectangular outlet is 100mm x 53mm and has a flat flange with four cut-outs for M4 mounting screws at 110mm x 60mm centres. The picture below shows a simple aluminium mounting / adapter plate with a round bulkhead flange. (NOT INCLUDED)

Power consumption 120 Watts.

Recommended fuse 10 Amp.

133mm x 150mm x 120mm wide.

Air movement 350 m³/h.

300mm long sleeved flylead with 4 - 1/4" male spade connector plug

Weight 850 gms

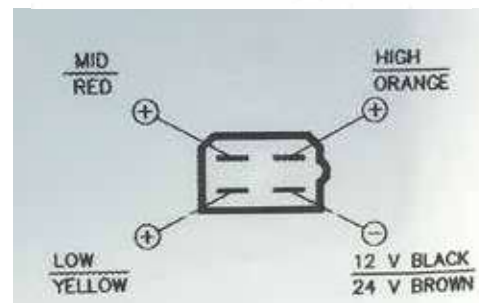
#SCFAN2 £70 (£84 inc vat)



SEE DIMENSIONS ON OUR ONLINE LISTING



THIS ALUMINIUM MOUNTING PLATE WITH ROUND BULKHEAD FLANGE IS SHOWN FOR ILLUSTRATION ONLY AND IS NOT INCLUDED



LARGE SQUIRREL CAGE FAN THREE SPEED. If you really want to move some air, this bad boy is for you! 12 Volt. Up to 910 cubic metres per hour air flow. Maximum current drain 26.4 Amps. Height 210mm. Width 150mm. Front to back 170mm. Outlet size 145mm x 65mm. Mounting face size 176mm x 120mm. Weight 2180 gms. Full dimension diagram online.
#SCFAN3 £35 (£42 inc vat)



ROTARY HEATER VALVE CONTROL Rotary switch movement converted into a push-pull cable movement. Fits through a 11mm hole in any panel up to a maximum of 4mm thick. Bezel diameter 54mm. Cable length 1 mtr. Maximum 34mm movement of inner cable. Inner cable solid wire 1.2mm diameter. NOTE: Do not over-bend cable. Minimum 100mm bend radius.
#HVCAB2 £21 (£25.20 inc vat)



This item is explained on our **YouTube** channel



SLIMLINE ROTARY HEATER VALVE CONTROL Here's a neat device that uses a spiral mechanism to convert a rotary switch movement into a push-pull cable movement. Fits through a 11mm hole in any panel up to a maximum of 4mm thick. Cable length 1 mtr. Maximum 34mm movement of inner cable. Inner cable solid wire 1.2mm diameter. Requires minimum 200mm clearance behind dash if cable is to be curved through 90 degrees. NOTE: Do not over-bend cable. Minimum 100mm bend radius. **#HVCAB £21** (£25.20 inc vat)



BRASS CABLE OPERATED 15mm HEATER VALVE Powder-coated 1.2mm steel mounting bracket with integral clip for securing outer cable. Glass-reinforced nylon actuator arm with four cable mounting holes. 2 x self-tapping mounting screws included. Mounting plate footprint 60mm x 80mm. Maximum height 43mm.
REQUIRES A PUSH-PULL CABLE (CABLE NOT INCLUDED)
#BCOHV £29 (£34.80 inc vat)



This item is explained on our **YouTube** channel



CABLE OPERATED 15mm HEATER VALVE Glass-reinforced nylon construction with integral clip for securing outer cable. Maximum dimension inlet / outlet 92mm.
REQUIRES A PUSH-PULL CABLE (CABLE NOT INCLUDED)
#COHTV £20 (£24 inc vat)



SEE MORE, BIGGER, HI-RES PICTURES ONLINE AT www.carbuilder.com

CABLE OPERATED 15mm HEATER VALVE Glass-reinforced nylon construction with steel cable-mounting bracket and integral clip for securing outer cable. Dimension across inlet / outlet 86mm. Can be mounted in heater hose or bracket-mounted using the four, 3mm holes in the housing. **REQUIRES A PUSH-PULL CABLE (CABLE NOT INCLUDED Shown for illustration)**

#COHTV2 £12.50 (£15 inc vat)



PUSH-PULL CABLE BY THE METRE

Now you can make up your own Push-Pull Cables to your own length and with your own ends. Solid wire inner 1.6mm diameter. Plastic-coated outer 5.6mm diameter. If you're ordering online and want 2 metres, just enter '2' in the quantity box. Sold only in multiples of one metre.

#PPC1M £5 per mtr (£6 inc vat)



DASH / PANEL MOUNTED 15mm BRASS HEATER VALVE Great quality, quarter-turn valve. Plated steel mounting bracket with two M5 mounting holes at 64mm centres. Rear projection 42mm. Front projection 25mm. Push-on knob diameter 36mm.

#BHTVD2 £24 (£28.80 inc vat)



HEATER HOSE Strong & flexible allowing considerable bend radius. Textile woven reinforcing. Larger sizes will stretch up to 4mm larger than their natural ID. SOLD FROM A ROLL. MAXIMUM LENGTH IN ONE PIECE 15 METRES

15mm I.D. (5/8") (22mm O.D.)
#HTHO15 £5 mtr (£6 inc vat)

OTHER SIZES AVAILABLE



DASH MOUNTED 15mm BRASS HEATER VALVE Great quality valve with moulded ABS mounting bracket. Bracket mounting centres 63mm (2 1/2"). Suitable for dash thicknesses of between 1mm and 13mm. Will require washers or spacers to obtain optimum mounting height. Maximum bracket width 77mm. Maximum rear projection 43mm. Knob facia diameter 55mm.

#BHTVD £22 (£26.40 inc vat)



DEMIST KIT All you need to plumb your demist duct from your heater. 2 x steel demist nozzles (make your own mounting brackets), 1.6 mtr of 40mm duct hose and two rubber 90 degree elbows to connect to your heater.

#DEMKIT £36 (£43.20 inc vat)



SEE MORE, BIGGER, HI-RES PICTURES ONLINE AT www.carbuilder.com

12mm HEATER VALVE Very simple 1/4 turn, rotary flow control valve which can be mounted through the dash or cockpit panel.
12mm (1/2") #HTRV12 £14 (£16.80 inc vat)



15mm HEATER VALVE. Two 3mm diameter x 8mm deep mounting holes @ 34mm centres for dash mounting. Flow direction arrow on rear.

15mm (5/8") #HTRV15 £14 (£16.80 inc vat)



BRASS 90 DEGREE BALL VALVE

Very nice free-flowing valve for water, air or vacuum. Fully open to fully closed with just a 90° turn of the moulded ABS knob. Barbed 16mm side port and 14mm bottom port. Can be mounted through a 17mm hole in a panel up to 3mm thick with 22mm hex brass nut. Total height 75mm. Knob diameter 35mm.

#BV90 £20 each (£24 inc vat)



SOLENOID OPERATED HEATER VALVE

ON / OFF Here's a simple, 12 volt ON / OFF Heater valve operated by a solenoid.

16mm inlet and outlet. 1/4" male spade terminals. Inlet has gauze filter. Size: 104mm inlet to outlet x 69mm high x 42mm wide. M6 x 18mm long studs. NOTE: This valve will not regulate the water flow. It is just ON or OFF

#HVSOL £40 each (£48 inc vat)



FAN SWITCH This 4 position, fan switch will run a 3 speed heater fan without complicated relay wiring. It also has a live out terminal for a warning light or to switch a compressor in an aircon setup. The 25mm diameter rubber knob, with fan symbol is 18mm deep. The switch housing is 26mm square and 30mm deep including the terminals.

Wiring Connections:

C-Live feed to switch, L-Speed 1, M-Speed 2, H-Speed 3, B-Live out in any on position (e.g on warning light).

#SWFAN £12 (£14.40 inc vat)



THREE SPEED FAN SWITCH 4 POSITION

OFF - 1 - 2 - 3 Mounts through a 12mm hole in panels up to 9mm thick. Push-on knob, diameter 23mm. Switch body 30mm x 30mm. 1/4" male spade terminals. 15 Amp rating. **#SWFAN4 £10** (£12 inc vat)



ILLUMINATING MICRO THREE SPEED

FAN SWITCH This small, four position rotary switch fits in a 20mm hole. It has a white pointer on the rotating knob that can be illuminated red by connecting 12v to 28v to the two small, centre terminals. Note: Polarity must be correct - one has a '+' mark. Maximum brightness will be at 28 volts. 12 volts will give reduced brightness but will still be visible in the dark. The single 4.8mm terminal on the rear is power in and the three together are the three output positions. Bezel diameter 23mm. 10 Amps.

#SWFAN3 £25 (£30 inc vat)



THREE SPEED FAN SWITCH

Four position switch for our #HEAT3 heater. 20 amp contact rating with push-on knob and shroud. Shroud diameter 55mm. Fits in an 11mm hole. 1/4" spade terminals.

#SWFAN2 £9 (£10.80 inc vat)



| POSITION | CONNECTION |
|----------|------------|
| O | NONE |
| I | B + L + C |
| II | B + M + C |
| III | B + H + C |

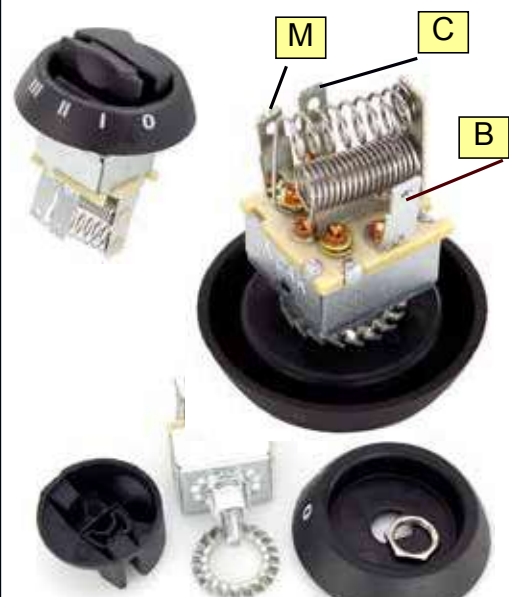


FAN-SPEED CONVERSION SWITCH

This clever, four position switch allows you to convert a single speed heater fan motor in to a three speed motor by introducing a resistor coil in switch speed positions two and three. Mounts through a 12mm hole in a panel up to 3mm thick. Bezel diameter 54mm. Rear projection 45mm. 1/4" spade terminals. **WIRING:** Terminal B - 12 volt + supply. Terminal M - To fan motor live. Terminal C - To dashboard fan warning light. Connect 12 volt earth to fan motor as usual. Maximum 20 Amp load.

IMPORTANT: THE RESISTOR COILS AT THE REAR OF THIS SWITCH WILL GET VERY HOT AND COULD MELT ANY NEARBY PLASTIC. ENSURE THERE IS ADEQUATE SPACE AND CLEARANCE AROUND THE BACK OF THE SWITCH.

#FANSPD £25 (£30 inc vat)



BOLT-IN HEATER TAKE-OFF

Brass and plated steel. Simply bolts into a hole in 50mm or larger rubber water hose. 5/8 in (15mm) hose-tail.

#BOLTIN £7.50 (£9 inc vat)



BLEED VALVE Great for getting air out of those troublesome heater circuits. Straight joiner with a built-in brass bleed valve opened with a knurled thumb screw. Made from glass reinforced nylon. Overall length 65mm.

16mm (5/8") BLEED VALVE

#BLEEDV £8 (£9.60 inc vat)

19mm (3/4") BLEED VALVE

#BLEEDV19 £8 (£9.60 inc vat)



HEATER HOSE Strong & flexible allowing considerable bend radius. Textile woven reinforcing. Larger sizes will stretch up to 4mm larger than their natural ID.

SOLD FROM A ROLL. MAXIMUM LENGTH IN ONE PIECE 15 METRES

8mm I.D. (5/16") (16mm O.D.)

#HTHO8 £4.50 mtr (£5.40 inc vat)

10mm I.D. (3/8") (17.5mm O.D.)

#HTHO10 £4.50 mtr (£5.40 inc vat)

12mm I.D. (1/2") (20mm O.D.)

#HTHO12 £4.50 mtr (£5.40 inc vat)

15mm I.D. (5/8") (22mm O.D.)

#HTHO15 £5 mtr (£6 inc vat)

17mm I.D. (11/16") (22mm O.D.)

#HTHO17 £7 mtr (£8.40 inc vat)

19mm I.D. (3/4") (26mm O.D.)

#HTHO19 £7.50 mtr (£9 inc vat)

22mm I.D. (7/8") (28mm O.D.)

#HTHO22 £9.50 mtr (£11.40 inc vat)



BULKHEAD HEATER HOSE JOINERS

If you don't want to run your heater hoses in one piece through a grommet-lined hole in your bulkhead, these joiners could be the answer. Available in straight or 90 degree versions, both accept 15mm (5/8") hoses. Mounting plate dimensions 90mm x 41mm. Hole size required 50mm x 18mm.

NOTE: We recommend using the best quality hose clips for any hot water connections inside the cockpit.

STRAIGHT #SBHJ16ST £8 (£9.60 inc vat)



90 DEGREE Rectangular mount Size 78mm x 38mm. Fits a hole 48mm x 18mm

#SBHJ1690 £8 (£9.60 inc vat)



BULKHEAD 16mm TO 12mm REDUCING HEATER HOSE JOINERS

Moulded from tough ABS. Overall size 90mm x 42mm. Fits in a hole 55mm x 25mm. Hose spigots end to end 50mm.

#SBHJ1612 £8 (£9.60 inc vat)



AXIAL FAN When space is short, weight must be kept down and you're in need of some serious ventilation this little beauty could be the answer. At just 48mm diameter and 60mm long it can be mounted directly behind one of our eyeball vents. These incredible little 12 volt fans blast a massive 22 cfm air flow. They're made in Switzerland to very high engineering standards - so cheap they ain't.

#AXFAN £133 each (£159.60 inc vat)



NOTE: SEE ARTICLE IN HINTS & TIPS SECTION

Here's an Axial Fan in a helicopter ventilation system. It will be mounted in a short piece of 50mm rubber hose which is mounted to the inlet of a 50mm aluminium 'T'. The two outlets each have a simple cable-operated butterfly valve.



DASH VENTS

84mm BLACK ROCKING VANE DASH VENTS

Great for face or demist vents. Swivelling directional vane. 84mm maximum diameter. Snaps into a 76mm hole. Ducting can be bonded or secured to the inlet with acable tie.

40mm inlet **#VENT1540**

50mm inlet **#VENT1550**

60mm inlet **#VENT1560**

65mm inlet **#VENT1565**

All **£8 each** (£9.60 inc vat)



CHROME BEZEL 60mm inlet
#VENT16 **£10 each** (£12 inc vat)



DASH VENTS Rocking vanes and rotating top. These are very nice. Fitted as standard equipment to Italian Supercars. 70mm dia. with 50mm hose spigot. Fits in a 62mm hole
#VENT6 **£9.50 each** (£11.40 inc vat)



100mm dia. with 63mm Hose spigot. Fits in a 76mm hole
#VENT7 **£9.50 each** (£11.40 inc vat)



84mm DIAMETER OPEN VENT

This vent is permanently open but the vaned insert can be swivelled in any direction. Fits in a 76mm hole. 60mm diameter ducting spigot on rear. Weight 49gms.
#VENT19 **£7** (£8.40 inc vat)



DEMIST KIT All you need to plumb your demist duct from your heater. 2 x steel demist nozzles (make your own mounting brackets), 1.6 mtr of 40mm duct hose and two rubber 90 degree elbows to connect to your heater. **#DEMKIT** **£36** (£43.20 inc vat)



MANY SIZES OF DUCTING AVAILABLE IN PVC, SILICONE, ALUMINIUM and CLASSIC CARDBOARD



RUBBER ELBOW Tight 90 degree bend for ventilation ducting. One end is 38mm ID and has a groove that fits into a 45mm hole in bulkhead or air-box up to 2mm thick. Other end is 43mm ID. You can bond 38mm ducting inside with Polyurethane or Silicone sealant or 50mm ducting on the outside.
#RUBELB **£12 each** (£14.40 inc vat)



ROUND DASH VENT 58mm diameter.
 Rocking vanes and rotating top. Fits in a 55mm hole. 40mm hose spigot. 40mm rear projection. Weight 23gms.
#VENT18 £7.20 each (£8.64 inc vat)



73mm AIR VENT Black ABS rotating air vent with two snap-closing vanes. Clips into a 68mm hole in a panel up to 2.5mm thick. Front projection 8mm closed, 20mm fully open. Rear projection 6mm closed, 16mm fully open. Weight 20g.
#VENT22 £4 (£4.80 inc vat)



60mm x 77mm DIAMETER ROTATING PANEL VENT This vent will bolt into a 55mm diameter hole in a panel or plenum with two 4mm holes at 63mm centres. The rotating part opens the air flow from closed to 50% over twelve selectable stages. Front projection 10mm. Rear projection 10mm Weight 20gms.
#VENT20 £4.50 (£5.40 inc vat)



16 PIECE HOLE SAW SET
 Sizes 19, 22, 28, 32, 38, 44, 51, 64, 76, 88, 102 & 127mm, 2 Arbors and assembly tools in a moulded case. This set is ideal for making holes in glassfibre or aluminium panels. **#HOLES £10** (£12 inc vat)
SEE OUR HINTS AND TIPS SECTION FOR FULL INSTRUCTIONS AND BEST PRACTICE ON THIS PRODUCT



LARGE STEPPED HOLE CUTTER Excellent quality. Cut clean neat accurate holes in Sheet Steel, Aluminium, Wood and GRP. (Not stainless). Use very slow drill speed for larger diameters.
6mm to 60mm
(in 5mm steps)
#STEP660
£18 (£21.60 inc vat)



PART NUMBERS FOR EVERY ITEM IN THIS CATALOGUE ARE IN RED AND ALWAYS BEGIN WITH A HASH SYMBOL
#PARTNO

42mm FIXED VANE VENT This precision-moulded ABS vent will snap into and rotate in a 42mm hole above your demist plenum or in a heater outlet plenum to direct air for demist, face vent or footwell vent. Bezel diameter 50mm. Height 14mm. Front projection 1.5mm.
#VENT42 £7 (£8.40 inc vat)



OUR #DCTHS38 DUCTING CAN BE CAREFULLY GLUED TO THE VENT



PRESSED STEEL DEMIST VENT Here's a strong steel vent with a black, textured, matt black, powder coat finish. It has a 40mm O.D inlet and a 200mm x 5mm, letter-box style outlet. There are two little hook brackets welded near the outlet. A simple mounting option would be two small pieces of aluminium angle (not included), riveted near the outlet. Weight 168gms.
#SVNT200 £10 each (£12 inc vat)



ELECTRIC DEMIST HEATER Now you can have front screen demisting without the hassle of plumbing-in a hot water powered heater. This neat little unit has a moulded ABS case with an electric fan and a 168 watt, 12 volt heater element. Either mount it on top of your dash or cut a rectangular hole in your dash top and bond the unit underneath. IVA compliance may depend upon your particular installation and may require more than one unit. Size 65mm x 193mm x 87mm with swivel base.
#DEMST £22 (£26.40 inc vat)

MOUNT HORIZONTALLY



NOTE: We do not recommend ducting the airflow from this unit.

DASH VENT Black ABS. Facia 72 x 59mm. Built-in plenum with integral butterfly valve controlled with thumb-wheel. Overall depth 63mm. Rocking vent panel in facia with direction flaps. 40mm duct inlet on side. Available left or right hand.
LEFT HAND #VENT12LH £18 (£21.60 inc vat)



RIGHT HAND #VENT12RH £18 (£21.60 inc vat)



RECTANGULAR VENT Ideal for demist or face vents. Size 145mm x 52mm. This clever vent has a knurled thumb-wheel that rotates an insert with six rocking flaps for maximum control of air flow direction. The vent snaps into a hole 122mm x 49mm. There are two, 3mm, countersunk fixing holes in the top facia at 126mm centres. Weight 49gms.
#VENT10 £8.50 (£10.20 inc vat)



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT www.carbuilder.com

2 PIECE RECTANGULAR VENT 145mm x 52mm. Has a rocking insert with six rocking directional flaps. A knurled thumb-wheel rotates the vent bank allowing full range of air flow. The upper, vent part can be used alone and will snap into a 122 x 49mm hole. It has two 3mm countersunk mounting holes @ 130mm centres. When fitted to the lower, plenum it will fit a hole 127mm x 54mm. Rear projection 45mm. Plenum outlet sized for 55mm ID ducting. Our 63mm will fit OK if secured with a tie. Ideal for de-mist and/or dash. Weight 53gms.

#VENT17 £8.50 each (£10.20 inc vat)



DEMIST VENT 206mm x 46mm. Here's a nice two-piece vent that can be fitted either as an assembly from the top of your dash through a 38mm x 172mm hole or separated, sandwiching the dash between the top and bottom sections, through a 33mm x 168mm hole. It will accept our 50mm lightweight ducting #DCTHS50. Two, counter-bored 5mm fixing holes at 183mm centres. Overall height 85mm.

#VENT14 £15 each (£18 inc vat)



DEMIST VENTS Nicely moulded ABS Size 87mm x 14mm. Fits in a hole 71mm x 8mm. Two counter-bored 3mm fixing holes @ 77mm centres. Perfect for use with our Demist Plenums.

#VENT13 £4 each (£4.80 inc vat)



DEMIST VENTS Nicely moulded ABS Size 117mm x 15mm. Two countersunk fixing holes. Perfect for use with our Demist Plenums.

#VENT8 £5 each (£6 inc vat)



POLYURETHANE ADHESIVE/SEALANT Ideal for bonding-in vents and bonding-on ducting. 310ml.

BLACK #POLY £7.50 cartridge (£9 inc vat)

WHITE #POLYW £8 cartridge (£9.60 inc vat)



DEMIST VENT 162mm x 35mm. Ideal for use with our demist plenum #DEMPL. This clever vent has a set of rotating vanes with a knurled thumb-wheel at one end to direct the air. Another knurled thumb-wheel at the other end rotates a cover to reduce or close-off the air flow. Fits in a 145mm x 32mm rectangular hole in your dash top. There are two 4mm diameter countersunk fixing holes at 150mm centres. Top projection 6mm. Maximum rear projection 22mm.

Weight 57 gms.

#VENT21 £7 (£8.40 inc vat)



196mm DEMIST VENT Injection-moulded ABS. Facia Size 196mm x 26mm. Fits through a cut-out 165mm x 18mm. Two counter-bored 4mm fixing holes @ 178mm centres. Top projection 14mm. Bottom projection 10mm. Perfect for use with our Demist Plenums.

#VENT24 £4 each (£4.80 inc vat)



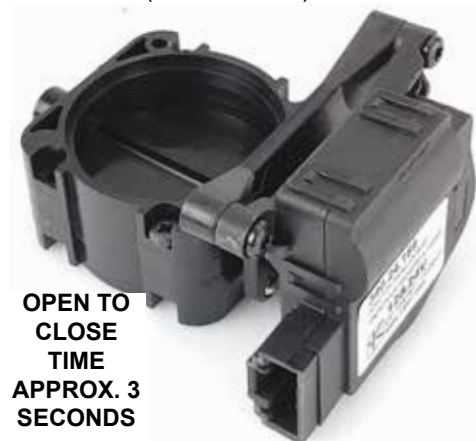
130mm DEMIST VENT Injection-moulded ABS. Facia Size 130mm x 26mm. Fits through a cut-out 100mm x 18mm. Two counter-bored 4mm fixing holes @ 112mm centres. Top projection 14mm. Bottom projection 10mm. Perfect for use with our Demist Plenums.

#VENT23 £3.50 each (£4.20 inc vat)



SOLENOID OPERATED BUTTERFLY VALVE 12 volt to 24 volt. This compact, lightweight valve can be installed in a ventilation system to control airflow - for example, to demist or face vents.

A 50mm diameter butterfly is operated by an electric motor. To open the valve apply + and - voltage to the 2 - pin connector and to close the valve just reverse the polarity. You can stop the butterfly at any position just by cutting the power. Our electric window switches #SWWIN have suitable functions. Our 2-hole ducting flanges will fit directly to the valve body offering a range of ducting options. (Use our No:8 Dome Head Self-tapping screws #NO8DHST)
#SOBV £39 (£46.80 inc vat)



CABLE OPERATED BUTTERFLY VALVE

This compact, lightweight valve can be installed in a ventilation system to control airflow - for example, to demist or face vents. A 50mm diameter butterfly is operated by a push-pull control cable (not included but several versions are available separately). Our 2-hole ducting flanges will fit directly to the valve body offering a range of ducting options. (Use our No:8 Dome Head Self-tapping screws #NO8DHST)
#COBV £19 (£22.80 inc vat)



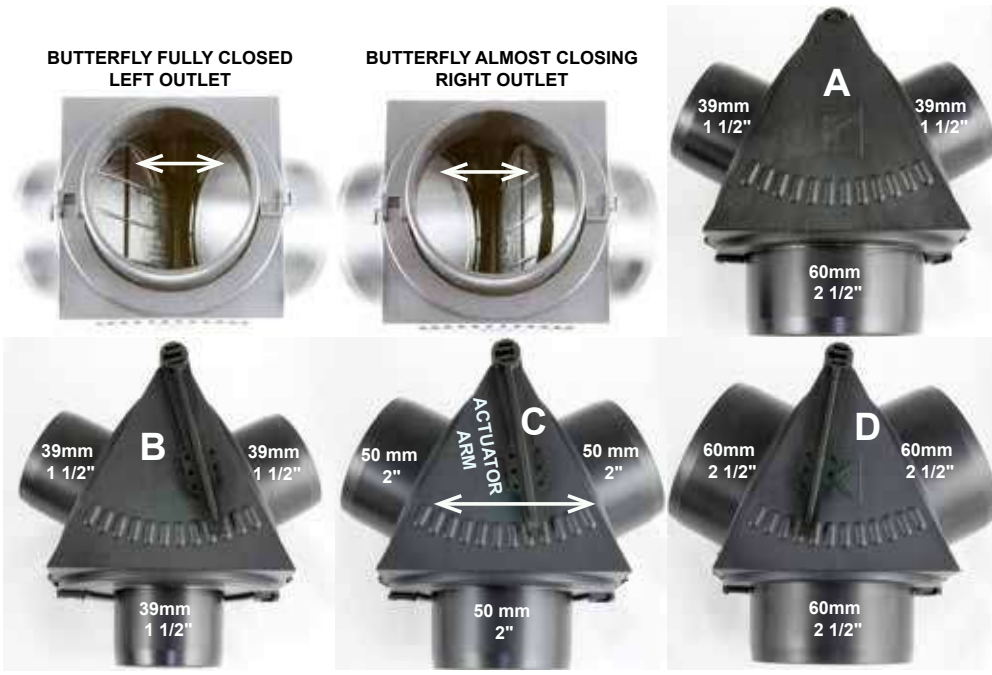
The example below is fitted with a 45mm and a 50mm 2-hole ducting flange but 40mm and 55mm are also available.



FLANGES NOT INCLUDED WITH VALVES

'Y' SPLITTER VENTS moulded ABS 'Y' ducts for splitting and directing ventilation airflow within the cockpit. Some have a cable-operated internal butterfly flap with an external actuator arm that can completely close one outlet or proportion airflow between two outlets. **CONTROL CABLE NOT INCLUDED**

- A. 2 @ 39mm outlets and 1 @ 60mm outlet NO BUTTERFLY #DEMY3960 £18** (£21.60 inc vat)
- B. 3 @ 39mm outlets WITH BUTTERFLY #DEMY39 £18** (£21.60 inc vat)
- C. 3 @ 50mm outlets WITH BUTTERFLY #DEMY50 £18** (£21.60 inc vat)
- D. 3 @ 60mm outlets WITH BUTTERFLY #DEMY60 £15** (£18 inc vat)



DEMIST 'Y' SPLITTER VENT with BUTTERFLY Cleverly moulded ABS splitter that fits our 63mm (2 1/2") ducting. Manually operated butterfly can close or open one leg for simple demist on/off control. Overall size 110mm x 96mm x 100mm high.
#DEMY £29 (£34.80 inc vat)



PUSH-PULL CABLE We've been asked for these many times so we've had some made. For heater controls, choke, bonnet or boot release and even remote seat adjustment. Solid piano wire inner cable 6ft 6in long inside a low friction outer 6ft long. Plain black Bakelite knob. Mounts through a 10mm diameter hole. Suitable for up to 6mm thick panels.

#PPC £12 (£14.40 inc vat)



OTHER CONTROLS AVAILABLE



610mm to 350mm ADJUSTABLE DEMIST PLENUM

This new version of our popular plenum is now a two-part moulding that can be trimmed and bonded to any length between 350mm and 610mm. Ideally suited to Sevens but will fit almost any vehicle with a straight dash top. Simply cut your demist slots in the dash top and bond this plenum to the underside of the dash beneath them. The single 38mm (1½") inlet is supplied capped for you to open to your required hose size. It is offset towards one end to offer flexible mounting and hose routing options. 38mm ID ducting can be bonded directly to the inlet which can also be cut to accept smaller hoses or ducting. Overall size 610mm x 80mm wide x 28mm high (not including the inlet spigot). **#DEMPL £16** (£19.20 inc vat)



YOU CAN USE A STEP DRILL TO OPEN THE INLET HOLE TO THE SIZE YOU NEED

SMALLER DEMIST PLENUMS Smaller versions of our popular Demist Plenum for when there is less space under your dash. Single 35mm (1 3/8") inlet is supplied capped and is offset towards one end. 38mm ID ducting can be bonded directly to the inlet with Polyurethane adhesive / Sealant. The inlet can also be cut to accept smaller hoses or ducting. Width 51mm including the 7mm fixing flange all round. Height 52mm including the inlet. 2 lengths available

170mm #DEMPL170 £10 (£12 inc vat)
250mm #DEMPL250 £10 (£12 inc vat)



300mm DEMIST PLENUM With central 50mm inlet. Overall length 310mm, overall width 75mm including the 7mm fixing flange all round. Maximum height 50mm. Inlet spigot 50mm diameter x 20mm high. Our 50mm #DCHS50 ducting can be bonded directly to the inlet with Polyurethane adhesive / Sealant. The inlet is supplied uncut but can be cut to accept smaller hoses or ducting. **#DEMPL300 £12** (£14.40 inc vat)



SUPPLIED WITH INLET HOLE UNCUT

SUPPLIED WITH INLET HOLE UNCUT SO YOU CAN USE YOUR CHOICE OF DUCTING DIAMETERS



300mm DEMIST PLENUM With 50mm inlet at one end. **#DEMPL300E £12** (£14.40 inc vat)



2-HOLE DUCTING FLANGES Moulded ABS flanges for connecting duct hose to heaters, bulkheads, air boxes, filters, cooling shrouds, air dams etc. All with 2 x 4mm mounting holes @ 65mm centres. Height from mounting surface 30mm. Material thickness 2mm. Duct hose can be fitted to inside or outside of spigot by bonding or ties.

40mm O.D. 34mm I.D. #BHFLA40
45mm O.D. 40mm I.D. #BHFLA45
50mm O.D. 45mm I.D. #BHFLA50
55mm O.D. 50mm I.D. #BHFLA55
All £5 each (£6 inc vat)



BULKHEAD FLANGES Moulded ABS flanges for connecting duct hose to heaters, bulkheads, air boxes, filters, cooling shrouds, air dams etc. All with 4 x 4mm mounting holes on 60mm x 60mm centres. Height from mounting surface 30mm. Material thickness 2mm. Duct hose can be fitted to inside or outside of spigot by bonding or ties.

60mm O.D. 55mm I.D. **#BHFLA60**
 65mm O.D. 60mm I.D. **#BHFLA65**
 70mm O.D. 70mm I.D. **#BHFLA70**
All £6 each (£7.20 inc vat)



BULKHEAD FLANGES Moulded ABS flanges for connecting duct hose to bulkheads, air boxes, filters, cooling shrouds, air dams etc. All with 4 mounting holes (6mm). Smaller 3 sizes have two locating tags for easy alignment with pre-cut holes. Duct hose can be fitted to inside or outside of spigot by bonding or ties. Material thickness 2mm.

49mm O.D (57mm sq. flange) **#BHFLA49**
 63mm O.D (79mm sq. flange) **#BHFLA63**
 74mm O.D (86mm sq. flange) **#BHFLA74**
All £5 each (£6 inc vat)



80mm O.D spigot. 90mm square flange. 28mm high. **#BHFLA80** £6 (£7.20 inc vat)



100mm O.D. spigot . 108mm square flange. 80mm high. **#BHFLA100** £7 (£8.40 inc vat)



CRAFT KNIFE. **#KNIFE** £5 (£6 inc vat)



DUCTING REDUCERS Moulded ABS, For joining different diameters of ducting. Ducting can be glued, cable tied or hose-clipped. Flange diameter 76mm. Length 59mm. Wall thickness 2.4mm.

60mm to 40mm **#DRED6040** £6 (£7.20 inc vat)



50mm to 40mm **#DRED5040** £6 (£7.20 inc vat)



60mm to 50mm **#DRED6050** £6 (£7.20 inc vat)



NOTE: THESE DUCTING LENGTHS ARE MEASURED FULLY STRETCHED. SEE HINTS AND TIPS SECTION FOR CUTTING INSTRUCTIONS

40mm I.D. DUCT HOSE PVC Spiral bound with nylon core. Ideal for in-car heating and ventilation. Medium duty. 40mm I.D. (1½") **#DCTHS40 £8 mtr.** (£9.60 inc vat)
NOTE: MAY BE EITHER GREY OR BLACK DEPENDING ON CURRENT STOCK



DUCT HOSE BLACK PVC Spiral wire bound. Lightweight and very flexible. Ideal for in-car heating and ventilation. Available in 5 Sizes:
38mm (1½") #DCTHS38 £7 mtr. (£8.40 inc vat)
50mm (2") #DCTHS50 £7 mtr. (£8.40 inc vat)
63mm (2½") #DCTHS63 £7 mtr. (£8.40 inc vat)
75mm (3") #DCTHS75 £8 mtr. (£9.60 inc vat)

55mm (2¼") SLIGHTLY HEAVIER AND LESS FLEXIBLE #DCTHS55 £7 Mtr. (£8.40 inc vat)



ALL DIMENSIONS REFER TO I.D. INSIDE DIAMETER

ALUMINIUM DUCTING Convoluted spiral wound ducting for heater vents and air box inlets. Very flexible and will retain its shape when curved. Supplied in compressed lengths - 1/2 Mtr (200mm) or 1 Mtr (400mm). Just pull to stretch it to length.
HALF METRE 40mm (1 ½") #ALIDCT40 £6 (£7.20 inc vat)
HALF METRE 50mm (2") #ALIDCT50 £8 (£9.60 inc vat)
HALF METRE 60mm (2 ⅝") #ALIDCT60 £9 (£10.80 inc vat)
ONE METRE 40mm (1 ½") #ALIDCT401M £12 (£14.40 inc vat)
ONE METRE 50mm (2") #ALIDCT501M £16 (£19.20 inc vat)
ONE METRE 60mm (2 ⅝") #ALIDCT601M £18 (£21.60 inc vat)

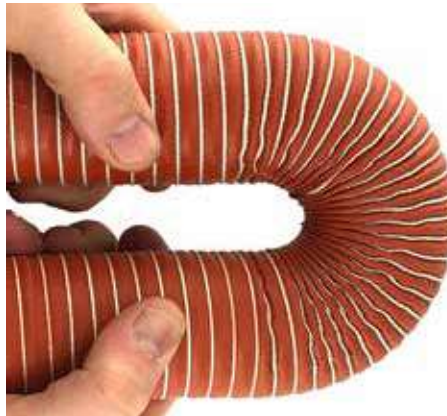


HIGH SPECIFICATION SILICONE DUCT HOSE. Widely used in aviation and racing. Strong, lightweight and very flexible. Perfect for brake cooling, ventilation and engine induction. Retains its cross-sectional area even around tight bends for maximum air flow and minimum resistance. Spiral wound wire core with glass strand reinforcing. Will withstand temperatures up to 250°C. Excellent resistance to abrasion and chemicals. Light weight. Available in four internal diameters: All prices are per mtr.

ORANGE

38mm (1½") #SD38 £18 (£21.60 inc vat)
51mm (2") #SD51 £20 (£24 inc vat)
63mm (2½") #SD63 £22 (£26.40 inc vat)
76mm (3") #SD76 £24 (£28.80 inc vat)

SEE HINTS AND TIPS SECTION FOR CUTTING INSTRUCTIONS



BLACK

38mm 1½") #SDBK38 £18 (£21.60 inc vat)
51mm (2") #SDBK51 £20 (£24 inc vat)
63mm (2½") #SDBK63 £22 (£26.40 inc vat)
76mm (3") #SDBK76 £24 (£28.80 inc vat)
83mm (3¼") #SDBK83 £26 (£31.20 inc vat)

SEE HINTS AND TIPS SECTION FOR CUTTING INSTRUCTIONS



CLASSIC DUCTING Here's the Classic, lightweight, Paper / Aluminium / Paper Laminated Ducting found on induction and ventilation systems on countless Classic Cars. Bend it to shape and it stays there. Easily cut with a sharp knife. Maximum operating temperature 120°C. Minimum bending radius 1 x diameter. Many sizes available. Sold by the metre.

40mm I.D 44mm O.D. #CDCT40 £6 per mtr. (£7.20 inc vat)

50mm I.D 54mm O.D. #CDCT50 £7 per mtr. (£8.40 inc vat)

60mm I.D. 66mm O.D. #CDCT60 £10 per mtr. (£12 inc vat)

65mm I.D. 71mm O.D. #CDCT65 £10 per mtr. (£12 inc vat)

70mm I.D. 76mm O.D. #CDCT70 £12 per metre (£14.40 inc vat)

80mm I.D. 86mm O.D. #CDCT80 £13.50 per metre (£16.20 inc vat)

100mm I.D. 106mm O.D. #CDCT100 £16 per metre (£19.20 inc vat)



85mm I.D. HEAT SHRINK Adhesive Lined. Shrinks down to 25mm I.D. Sold per 75mm (3") Just ask if you want longer than 75mm in one piece.

#HS8525 £2.50 per 75mm. (£4.20 inc vat)



POLYURETHANE ADHESIVE/SEALANT Our Polyurethane adhesive/sealant comes in a tube and is dispensed using a regular mastic gun. It is firm enough to form beads so has excellent gap-filling properties and cures to a tough rubbery finish. Will bond ducting to plenums and outlets. 310ml.

BLACK #POLY £7.50 cartridge (£9 inc vat)
WHITE #POLYW £8 cartridge (£9.60 inc vat)



RUBBER ELBOW Tight 90 degree bend for ventilation ducting. One end is 38mm ID and has a groove that fits into a 45mm hole in bulkhead or air-box up to 2mm thick. Other end is 43mm ID. You can bond 38mm ducting inside with Polyurethane or Silicone sealant or 50mm ducting on the outside.
#RUBELB £12 each (£14.40 inc vat)



CABLE TIES BARGAIN PACK of 400
 Black nylon. 100 each of 4 sizes: 102mm x 2.5mm, 200mm x 4.8mm, 295mm x 4.8mm, 370mm x 4.8mm. **#CTPAK £10** (£12 inc vat)



ALL THREE OF OUR DVDS ARE NOW AVAILABLE TO VIEW FREE ON OUR YouTube CHANNEL



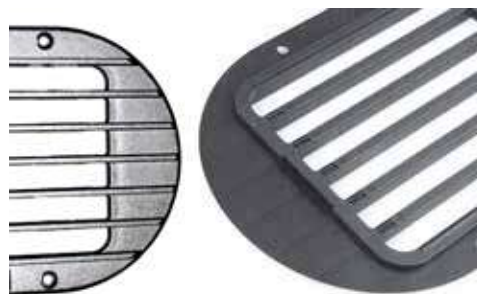
ALUMINIUM LOUVRE PANELS

A range of panels pressed from 0.8mm natural finish aluminium sheet. Can be riveted to your bonnet or side panels for additional engine bay ventilation. Each louvre pressing measures 88mm x 15mm x 6.4mm high. 3mm fixing holes. 5 Panel Sizes available.

1. 304 x 304mm **#LP1 £14** (£16.80 inc vat)
2. 240 x 240mm **#LP2 £6.50** (£7.80 inc vat)
3. 240 x 163mm **#LP3 £6** (£7.20 inc vat)
4. 240 x 88mm **#LP4 £5** (£6 inc vat)
5. 304 x 108mm **#LP5 £8** (£9.60 inc vat)



MOULDED ABS VENTS These tough, great low profile vents will fit to a flat surface or form to a gentle curve. Just cut a rectangular hole in your panel 20mm smaller than the vent and secure with countersunk screws or rivets 3mm standard but can be opened out to 4mm if necessary. Vent only 5mm High. 2 sizes -
 380x 90mm **#ABSVNT2 £9** (£10.80 inc vat)
 550 x 90mm **#ABSVNT3 £10** (£12 inc vat)



PLASTIC LOUVRE PANELS Tough black moulded panels with deep louvres for maximum air flow. 4mm fixing hole in each corner. 315 x 70mm x 17mm high.
#PLP1 £10 (£12 inc vat)



315 x 140mm x 17mm high.
#PLP2 £11 (£13.20 inc vat)



156 x 140mm x 17mm high.
#PLP3 £9 (£10.80 inc vat)



WOVEN STAINLESS MESH Two mesh pitch sizes each in two sheet sizes. For grilles, vents etc. Can be cut with good snips, cutting disc or wire cutters.

1mm Wire diameter x 6mm aperture size (left)

600mm x 600mm

#SSMESH1 £30 (£36 inc vat)

1200mm x 300mm

#SSMESH2 £30 (£36 inc vat)

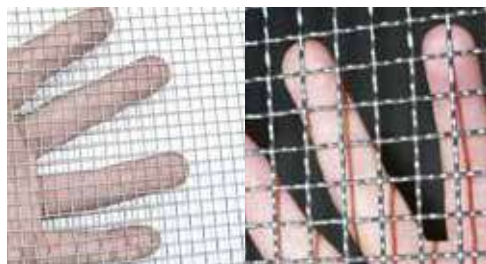
1.6mm Wire diameter x 11mm aperture size (right)

600mm x 600mm

#SSMESH3 £36 (£43.20 inc vat)

1200mm x 300mm

#SSMESH4 £36 (£43.20 inc vat)



SHIPPING COSTS

Parcels over 1 metre long can incur additional shipping costs. Please ask.

FLATTENED EXPANDED ALUMINIUM MESH

Perfect for radiator grilles and air vents. You've seen regular expanded mesh but this has been put through an extra set of rollers to flatten the mesh.

Two mesh sizes available, each in two sheet sizes:

Small Aperture 6.8 x 3.5mm

Sheet size: 600 x 600mm

Material thickness 0.9mm, Width 1.3mm

#AM11 £20 (£24 inc vat)

Small Aperture 6.8 x 3.5mm

Sheet size: 300 x 1200mm

Material thickness 0.9mm, Width 1.3mm

#AM12 £20 (£24 inc vat)

Large Aperture 14 x 5mm,

Sheet size: 600 x 600mm

Material thickness 0.9mm, Width 1.8mm

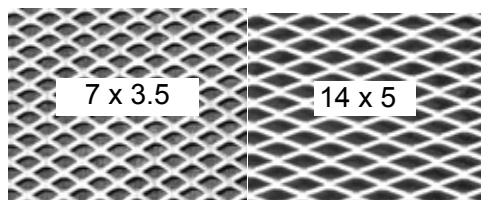
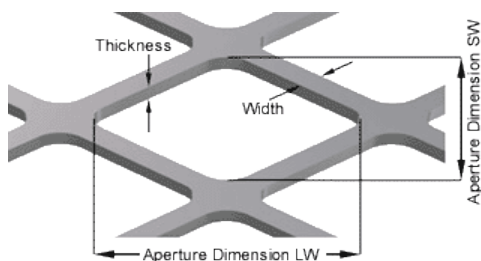
#AM21 £20 (£24 inc vat)

Large Aperture 14 x 5mm,

Sheet size: 300 x 1200mm

Material thickness 0.9mm, Width 1.8mm

#AM22 £20 (£24 inc vat)



ALUMINIUM MESH VENTS Great for body ventilation on any panel - bonnet, wings, Fury exhaust sills etc. 1mm precision cut aluminium frames with expanded aluminium mesh inserts. Will form to curved surfaces. Mesh can be cut with strong scissors. Pre-drilled for fixing with 3mm rivets. Holes can be countersunk for flush finish with countersunk rivets.

200mm x 120mm

#ALIVNT1 £14 (£16.80 inc vat)

400mm x 120mm

#ALIVNT2 £20 (£24 inc vat)

600mm x 120mm

#ALIVNT3 £28 (£33.60 inc vat)



The example below shows how a customer has fitted our ALIVNT1 onto a concave body panel with countersunk 3mm rivets. He has replaced the standard aluminium mesh with very fine stainless woven mesh.



3mm Countersunk rivets

#RVT3C £1.50 pack 50 (£1.80 inc vat)

3mm Dome head rivets

#RVT3D £1.50 pack 50 (£1.80 inc vat)



BLACK BONNET SCOOP Moulded from 2mm thick ABS sheet with a fine leather-grain texture, this slightly curved scoop measures 200mm front to back x 230 across x 60mm high. Supplied untrimmed as in the top picture for you to trim as you wish - with the option of opening the inlet fully or fitting a piece of mesh. The vent can be riveted or bonded to your panel.

BLACK #BONSCP2B £20 (£24 inc vat)

CARBON EFFECT

#BONSCP2CA £20 (£24 inc vat)



NACA DUCTS Vacuum moulded ABS. Can be riveted or bonded to body either inside or outside or even painted.

Material thickness approximately 2mm.

Dimensions including flange: **LARGE - 235mm x 190mm x 45mm high.**

SMALL - 180mm x 145mm x 25mm high.

**LARGE BLACK
TEXTURED NACA**
#NACA1B

**SMALL BLACK
TEXTURED NACA.**
#NACA2B

Both £10 each
(£12 inc vat)

May be supplied with
trimmed front opening

**SMOOTH
FINISH**

Dimensions as
above

**LARGE BLACK
SMOOTH
NACA**
#NACA1G

**SMALL BLACK
SMOOTH
NACA**
#NACA2G

Both £10 each
(£12 inc vat)

CARBON EFFECT

Dimensions as above.

LARGE CARBON NACA
#NACA1CA

£14 (£16.80 inc vat)

SMALL CARBON NACA
#NACA2CA

£12 (£14.40 inc vat)

CLEAR .

May be supplied with
trimmed front opening

LARGE CLEAR NACA

Dimensions. 200 x 180 x
40mm high. #NACA1C

£14 (£16.80 inc vat)

SMALL CLEAR NACA

Dimensions 170 x 140 x
25mm high. #NACA2C

£12 (£14.40 inc vat)

220mm LIGHTWEIGHT NACA DUCT

NACA ducts vacuum moulded from 2mm thick ABS sheet. Can be bonded or riveted to the inside of a wing, side panel or bonnet to direct air, via 60mm I.D. ducting to inlet or brakes. Size: 220 x 120 x 80mm high. Supplied untrimmed for you to cut the outlet hole to your preference. We recommend using our 50mm convoluted lightweight aluminium ducting bonded to the duct with polyurethane adhesive / sealant. Weight 40gms.

**CARBON EFFECT #NACA3CA
BLACK #NACA3BK**

Both £12 each (£14.40 inc vat)



AIR SCOOP Vacuum moulded ABS. Can be riveted or bonded to body either inside or outside. Material thickness approximately 1.7mm. Size: 170mm long x 100 x 45mm high including flange.. **NOTE: Shown trimmed but supplied untrimmed so you can cut the inlet to your own size and position.**

BLACK #AIRSCP £9 (£10.80 inc vat)
CARBON EFFECT #AIRSCPCA £9 (£10.80 inc vat)



ALUMINIUM AIR INLET PAIR For brake cooling, cockpit ventilation, engine induction etc. Natural Aluminium Body. Natural Aluminium mesh. Black coated aluminium ring. Stainless steel fixing screws and nuts. Overall diameter 100mm Accepts 75mm ducting. Just cut a 3 inch hole in your panel and fit the two parts of this vent on either side. **ALUMINIUM WITH BLACK RING #AIRINBAL £10 pair** (£12 inc vat)



SIDE LOUVRE VENTS HANDED PAIR Moulded ABS. 230mm x 105mm (9" x 4") Mount on inside or outside of your panel with the double sided tape supplied or rivet them on. Can be painted.

BLACK #SIDVNTB £8 pair (£9.60 inc vat)



SHOWN HERE MOUNTED ON THE INSIDE OF THE PANEL

SIDE REPEATER VENTS WITH ORANGE LED REPEATERS IVA OK Handed pair similar to new Mini. Alloy mesh behind with removable, black rear cover plate.

Lose some hot engine bay air. Size 205mm x 63mm. **#LEDVENT £18 pair** (£21.60 inc vat)



IVA OK

BUILDER'S TIP Almost all plastic parts can be painted to match your body colour. Key the surface with 800 grit wet & dry paper and soapy water. Regular acrylic or two-pack primer are OK, but for best results use a specialist plastic primer (see our paints section) Always be aware of ventilation and fire hazards when using solvent based products.

MINI COCKPIT VENTS These tough little Polycarbonate vents just snap into a 2" hole in Perspex or GRP panels. They can be rotated in the air flow for forced ventilation or extraction.

#CVNTS £15 pair (£18 inc vat)



COCKPIT VENTILATORS Latest 200mph version. Super-clear, lightweight Polycarbonate. These aircraft-specification vents are simply installed for adjustable, forced ventilation. Swivel round 180 degrees for extraction. Slightly domed 3½" diameter. Fits into a 3¼" hole. Suitable for panels between 2mm and 6mm in thickness.

#CVNTL £20 pair (£24 inc vat)



COCKPIT VENT (SNAPVENT) FITTING INSTRUCTIONS

Our cockpit ventilators offer a neat and simple solution to the age old problem of cockpit ventilation in closed-top sports and racing cars. Made from tough, crystal clear Polycarbonate they can easily be fitted to any flat or slightly curved cockpit panel. Effectively scooping in some of the slip-stream from around the car, Snapvents will stay in any position from fully open to closed or can be swivelled around 180 degrees to become efficient extractors of cockpit air. Snapvents do just that - they snap into a 3 1/4 inch hole and are securely held in a chosen position.

There are several ways to cut a large hole in acrylic panels and it's usually much easier to remove the panel from the car if possible. It makes sense to test your cutting method on a piece of scrap material first.

Determine the position of your Snapvent, bearing in mind that in the closed position the vent walls protrude into the cockpit approximately 1 inch. Also check that you will still have a clear view in your mirrors.

Mark the centre of the proposed hole and, using a sharp pair of dividers, scribe a circle of the exact size.

If you have a fly-cutter, drill the correct size pilot hole. Choose a slow speed, lubricate the cut with a little paraffin and cut half way through your panel.

Turn over the panel and carefully cut through from the other side. Remove the sharp corners with a piece of fine wet & dry. If you don't have a fly-cutter carefully drill a series of 2mm holes close together, just inside your scribed line. Remove the sharp cutting edges of



the drill bit with a stone so that the drill 'scrapes' the hole rather than cutting it. This will prevent the drill

grabbing the material and cracking as it breaks through.

Use a needle file or junior hacksaw blade to carefully join all the holes and remove the centre disc. With a file or flap wheel in an electric drill, carefully clean up the hole close to your scribed line. Don't rush the job and make the hole too big or the Snapvent will rattle around and won't stay in



position. Gradually enlarge the hole, trying the Snapvent each time. A perfectly fitting vent should be just tight enough to stay where you put it but should easily open, close and rotate.

To fit the Snapvent first use a sharp modelling knife to trim any moulding flash from around the sealing face of the vent that may prevent it from sitting perfectly flat on your panel. Likewise, remove any moulding flash from the little notch at the outer end of the sidewall rib – This locates in the edge of your hole.

From the outside of the panel ease the vent through the hole, squeezing the two ends of the sidewalls together and locating the Acrylic panel notch at the rear of the vent.

**ALL THREE OF OUR DVDS
ARE NOW AVAILABLE TO
VIEW FREE ON OUR
YouTube CHANNEL**



COLD AIR RAM DUCTS Beautiful, lightweight, spun Aluminium vents. Bond them into the bodywork to duct cold air direct to your intake manifold, brakes, or for fresh air into the cockpit.

Here are our 66mm ducts fitted to a Racing Fury and painted body colour. These are ducted for brake cooling.



75mm DUCTS x 2 (120mm max. O.D.)
#RAM75 £14 (£16.80 inc vat)



96mm DUCTS x 2 (140mm maximum O.D.)
#RAM96 £14 (£16.80 inc vat)



MOULDED ABS RAM AIR DUCT FOR 54mm DUCTING Bond into your bodywork for induction, fresh air inlet or brake cooling. Inlet ring 73mm dia. Hose spigot 54mm O.D. 49mm I.D. 4mm front projection. 115mm overall length. Weight 43 gms.

#RAMP54 £3.50 each (£4.20 inc vat)



MOULDED ABS RAM AIR DUCT for 80mm DUCTING For induction, fresh air inlet or brake cooling. Inlet ring 94mm dia. Hose spigot 80mm O.D., 77mm I.D. 4mm front projection. 115mm overall length. Weight 58 gms.

#RAMP80 £3.50 each (£4.20 inc vat)



STEEL VENT Tough, pressed, 1.2mm thick steel vent, satin black powder coated with steel wire mesh inlet/outlet. Width at front 156mm, width at rear 114mm, front to back 233mm, height 44mm. Bottom flange internal depth 5mm. Flange width 15mm. Opening size 79mm x 32mm. Weight 329 gms. Available in left or right hand versions.

LEFT HAND

#SVNTLH £16 each (£19.20 inc vat)

RIGHT HAND (shown)

#SVNTRH £16 each (£19.20 inc vat)

PAIR #SVNTPR £32 (£38.40 inc vat)



16 PIECE HOLE SAW SET

Sizes 19, 22, 28, 32, 38, 44, 51, 64, 76, 88, 102 & 127mm, 2 Arbors and assembly tools in a moulded case. This set is ideal for making holes in glassfibre or aluminium panels. **#HOLES £10** (£12 inc vat)



250ml. FIBREFILL Glassfibre repair paste. This is pre-mixed resin / chopped glass strands and is ideal for quick easy fibreglass repairs. Will bridge gaps to form strong structural joints.

#FIBREFIL £7.50 (£9 inc vat)

AIR FILTERS

REMOTE CARBON FIBRE CANISTER AIR FILTER For up to 250 bhp engines. Real carbon fibre air filter canister 130mm diameter x 240mm long, including the removable black ABS end caps. The end cap spigots are 75mm O.D. for direct fitting of 75mm I.D. ducting. Fine, free-flowing, washable filter inside. Two, 75mm to 63mm reducing sleeves for alternative ducting and two stainless hose clips. 1 metre of 75mm ID, semi-rigid ducting, a lightweight stainless mounting band for the canister and plated steel mounting bracket. **#CARBFIL £45** (£54 inc vat)

UP TO 250 bhp



S.U. PANCAKE AIR FILTERS Case made from mirror-chromed steel. Washable foam filter, flattened, expanded mesh rings inside and out and bright plated fittings. Size 139mm diameter, 25mm thick. **For 1¼" SU carbs (33mm main hole and 13mm vacuum hole) #SUFIL114 £13.50** (£16.20 inc vat)
For 1½" SU carbs (35mm main hole and 13mm vacuum hole) #SUFIL112 £13.50 (£16.20 inc vat)



BREATHER FILTER Chrome with cotton and mesh filter 56mm diameter x 48mm high (70mm including inlet rubber). Very nicely made, with stainless hose clip. Ideal for use with our oil catch tanks and engine breather systems. Washable. Choice of inlet diameter (all will expand a few mm's).

- 10mm #BFIL10 £9** (£10.80 inc vat)
- 12mm #BFIL12 £9** (£10.80 inc vat)
- 15mm #BFIL15 £9** (£10.80 inc vat)
- 25mm #BFIL25 £9** (£10.80 inc vat)



STAINLESS MESH DUAL CONE AIR FILTER Extra fine mesh. Fully washable. No paper element. Chrome end plates. Very free flowing. 75mm inlet with stainless hose clip. Overall size 150mm x 150mm. **#SSFIL2 £15** (£18 inc vat)



CHROME MESH DUAL CONE AIR FILTER Chrome end plates. Very free flowing. 75mm inlet with stainless hose clip. Three reducing adapter rings - 70mm, 65mm and 60mm. Overall size 150mm dia x 160mm. **#CHFIL £15** (£18 inc vat)



BREATHER FILTER Chrome with cotton and mesh filter 61mm diameter x 78mm high. Very nicely made, with plated hose clip. Ideal for use with our oil catch tanks. Washable. Inlet diameter 10mm (will expand to 12mm) **#BFIL78 £9** (£10.80 inc vat)



WARNING LIGHTS

ALL WARNING LIGHTS ARE 12 VOLT AND ARE CORRECT IVA COLOURS

SMALL WARNING LIGHTS. Plated Bezel.
1/4" Spade terminal connectors.
17mm Diameter x 40mm long.
Press into a 12mm hole.

RED #WLSR AMBER #WLSA
BLUE #WLSB GREEN #WLSG
All £1.50 each (£1.80 inc vat)



LEGEND SMALL WARNING LIGHTS

Sizes as above.

FAN Amber #WLSFAN
HAZARD Red #WLSHAZ
INDICATOR #WLSIND
DOUBLE IND #WLSIND2
LAMP Blue #WLSLAM
FRONT FOG Green #WLSFFG
IGNITION Red #WLSBAT
BRAKE Red #WLSBRK
OIL Amber #WLSOIL
REAR FOG Amber #WLSRFA
ECU Amber #WLSECU
MAIN BEAM Blue #WLSBEAM
REAR Demist #WLSDEM
LAMP Green #WLSLAMG
FRONT Demist #WLSFDEM
All £3 each (£3.60 inc vat)



PACK OF 100 1/4" FEMALE SPADE TERMINALS AND 100 COVERS

Plated Brass crimp terminals with slide-over, clear PVC covers.
#14TER100 £10 (£12 inc vat)



PLAIN BEZEL SMALL WARNING LIGHTS.

1/4" Spade terminal connectors.
17mm Diameter x 40mm long.
Press into a 12mm hole.

RED #WLS2R AMBER #WLS2A
BLUE #WLS2B GREEN #WLS2G
All £1.25 each (£1.50 inc vat)



PLAIN BEZEL LEGEND SMALL WARNING LIGHTS

FAN Amber #WLS2FAN
HAZARD Red #WLS2HAZ
INDICATOR #WLS2IND
DOUBLE IND #WLS2IND2
LAMP Blue #WLS2LAM
FRONT FOG Green #WLS2FFG
IGNITION Red #WLS2BAT
BRAKE Red #WLS2BRK
OIL Amber #WLS2OIL
REAR FOG Amber #WLS2RFA
MAIN BEAM Blue #WLS2BEAM
REAR DEMIST #WLS2RD
LAMP Green #WLS2LAM
All £2.50 each (£3 inc vat)



LEGENDS SHEET 150 words and symbols printed on transparent self-adhesive film.

Just cut out and stick to your dash, switches, warning lights or instruments.

WHITE TEXT #LEGEND £3.60 (£+ vat)

BLACK TEXT #LEGENDBK £3.60 (£+ vat)



CHROME BEZEL WARNING LIGHTS

Chrome metal bezel 1/4" spade terminal connectors. Replaceable bulb. 16mm Dia. x 48mm long. Press into a 12.5mm (1/2") hole.

RED #WLSBCR
AMBER #WLSBCA
BLUE #WLSBCB
GREEN #WLSBCG
All £3.50 each (£4.20 inc vat)



STEPPED HOLE CUTTERS Excellent quality. Cut clean neat accurate holes in GRP Aluminium & Steel. Titanium coated.

Note: A little light oil will make a cleaner cut and prolong the life of the cutting edge.

METRIC THREE PIECE SET

4mm to 32mm
#STEMP £28 (£33.60 inc vat)



WHITE LEGEND SHEET SHOWN HERE APPLIED TO A BLACK BACKGROUND

e.g.
8.5mm



23mm DIAMETER LED PLAIN WARNING LIGHTS

Press into a 20mm hole. 4.75mm spade terminals on rear.

RED #WL23R AMBER #WL23A
BLUE #WL23B GREEN #WL23G

All £4 each (£4.80 inc vat)



23mm LED LEGEND WARNING LIGHTS Press into a 20mm hole. 4.75mm spade terminals on rear.

INDICATOR #WL23IND BRAKE #WL23BRK
IGNITION #WL23BAT MAIN BEAM #WL23BEAM
OIL #WL23OIL REAR FOG #WL23RF
FAN #WL23FAN HAZARD #WL23HAZ

All £5 each (£6 inc vat)



STEPPED HOLE CUTTER
 4mm to 12mm
 in 2mm steps
#STEP9
 £6 (£7.20 inc vat)
 More sizes available

SPADE TERMINAL 3/16" (4.8mm) FEMALE Suitable for many of our small warning lamps, switches and electrical components. Easily insulated with a short sleeve of Heatshrink.
#TER48F £1.50 pack of 10 (£1.80 inc vat)



DASH TOP WARNING LIGHT Beautifully machined, black anodised, billet aluminium housing with a pre-wired, bright 4-led lamp cluster inside. Blue lens and anodised mounting bracket. Housing 80mm long x 33mm diameter. Overall height with bracket 55mm. An

ideal, 'In-Your-Face' warning for rev limit, (when used with an appropriate gauge) oil pressure, water temp etc.

#WLDASH £6 (£7.20 inc vat)



WARNING LIGHTS Screw terminals. Machined aluminium bezel. Replaceable bulb included. Suitable for up to 2.5mm panel thickness. Mounts in 8mm hole.

Bezel diameter 17mm. Maximum overall length 51mm.

RED #WLR AMBER #WLA
BLUE #WLB GREEN #WLG All £5 each (£6 inc vat)



LARGE WARNING LIGHTS. Aluminium screw-on bezel. Screw terminal connectors. 22mm Diameter x 46mm long. Mounts in a 17mm hole in panels up to 14mm thick. Replaceable bulb included.

RED #WLLR AMBER #WLLA
BLUE #WLLB GREEN #WLLG All £4.50 each (£5.40 inc vat)



LARGE LEGEND WARNING LIGHTS. Sizes as above.

FAN Amber #WLLFAN HAZARD Red #WLLHAZ
INDICATOR #WLLIND DOUBLE IND. #WLLIND2
LAMP Blue #WLLLAM FRONT FOG Green #WLLFF
IGNITION Red #WLLBAT BRAKE Red #WLLBRK
OIL #WLLOIL REAR FOG Amber #WLLRFA
MAIN BEAM #WLLBEAM LAMP Green #WLLLAMG
FRONT DEMIST #WLLFDEM All £5.50 each (£6.60 inc vat)



LED BLACK BEZEL WARNING LIGHTS Superb, aviation quality. Machined alloy housing. Plain or Engraved and filled legends. 200mm fly leads. 16mm bezel diameter. 31mm long. Fits in a 14mm hole. Maximum panel thickness 8mm. Plated securing nut with spring washer. WIRING - RED +12v. BLACK -12v

RED #WLEDRBK AMBER #WLEDABK
 BLUE #WLEDBBK GREEN #WLEDGBK

All £9 each (£10.80 inc vat)



| | |
|------------------------|-----------|
| HAZARD Red | #WLEDHAZ |
| INDICATOR Green | #WLEDIND |
| DOUBLE INDICATOR Green | #WLEDIND2 |
| BATTERY/IGNITION Red | #WLEDBAT |
| HANDBRAKE Red | #WLEDHBRK |
| BRAKE FLUID LEVEL Red | #WLEDBRK |
| LIGHTS Green | #WLEDLTS |
| FRONT FOG Green | #WLEDFF |
| MAIN BEAM Blue | #WLEDTEAM |
| REAR FOG Amber | #WLEDRF |
| OIL Amber | #WLEDOIL |
| ECU Amber | #WLEDECU |

All £9 each (£10.80 inc vat)
 ALL SHOWN LIT

LED CHROME BEZEL WARNING LIGHTS Superb, aviation quality. Chromed, machined alloy housing. Plain or Engraved and filled legends. 200mm fly leads. 16mm bezel diameter. 31mm long. Fits in a 14mm hole. Maximum panel thickness 8mm. Plated securing nut with spring washer. WIRING - RED +12v. BLACK -12v

RED #WLEDRCH AMBER #WLEDACH
 BLUE #WLEDBCH GREEN #WLEDGCH

All £9 each (£10.80 inc vat)



| | |
|------------------------|-------------|
| HAZARD Red | #WLEDHAZCH |
| INDICATOR Green | #WLEDINDCH |
| DOUBLE INDICATOR Green | #WLEDIND2CH |
| BATTERY IGNITION Red | #WLEDBATCH |
| HANDBRAKE Red | #WLEDHBRKCH |
| BRAKE FLUID LEVEL Red | #WLEDBRKCH |
| LIGHTS Green | #WLEDLTSCH |
| FRONT FOG Green | #WLEDFFCH |
| MAIN BEAM Blue | #WLEDTEAMCH |
| REAR FOG Amber | #WLEDRFCH |
| OIL Amber | #WLEDOILCH |
| ECU Amber | #WLEDECUCH |

All £9 each (£10.80 inc vat)
 ALL SHOWN UNLIT



LED BLACK HIDDEN LEGEND WARNING LIGHTS

LEGENDS ARE ONLY VISIBLE WHEN LIT
 Superb quality. Simple and elegant design.
 Machined alloy, satin black, sealed-for-life housing with all black lens. 200mm fly leads. 18mm bezel diameter. 21mm long not including wires. Fits in a 16mm hole. Front projection 2mm. Maximum panel thickness 10mm. 19mm hex plated nut, spring washer and rubber facia ring included. Weight 23gms each.

- FRONT FOG** Green #WLHFF
 - HAZARD** Red #WLHHAZ
 - INDICATOR** Green #WLHIND
 - DOUBLE INDICATOR** Green #WLHIND2
 - HEADLIGHTS** Green #WLHLTS
 - BATTERY/IGNITION** Red #WLHBAT
 - BRAKE FLUID LEVEL** Red #WLHBRK
 - MAIN BEAM** Blue #WLHBEAM
 - REAR FOG** Amber #WLHRF
 - OIL** Amber #WLHOIL
- All £14 each (£16.80 inc vat)



RECTANGULAR WARNING LIGHTS

Bezel size 31mm x 15mm. Fits in a hole size 30mm x 12mm. ¼" Spade terminals. Non-replaceable lifetime bulb included.

- RED** #RWLR **AMBER** #RWLA,
 - BLUE** #RWLB **GREEN** #RWLG
- All £2.50 each (£3 inc vat)



VALUE COMPOSITE DIGITAL CALIPER

Here's a combination of value and accuracy that's hard to beat. Yup - plastic jaws and an easy-to-read LCD digital display that will measure from 0 to 150mm and has an accuracy of 0.1 mm (four thousandths of an inch). You can switch from Metric to Imperial with the press of a button and set the readout to zero anywhere on the scale. Supplied in a hard plastic case.

#DCABS £8.50 (£10.20 inc vat)



MOST PRODUCTS HAVE A HIGH RESOLUTION 360 DEGREE VIEW ON OUR ONLINE SHOP

DON'T FORGET TO CHECK OUT THE HINTS and TIPS SECTION AT THE BACK OF THIS CATALOGUE

SWITCH PANELS Moulded plastic switch panels for mounting under your dash or in a glove box etc.

ROUND HOLE SINGLE stand alone
 42 x 52 x 16mm #SP1

ROUND HOLE TWIN stand alone
 42 x 52 x 16mm #SP2

RECTANGULAR HOLE SINGLE stand alone
 42 x 52 x 16mm #SPRE1

RECTANGULAR HOLE TWIN stand alone
 42 x 52 x 16mm #SPRE2

All £2 each (£2.40 inc vat)



28mm SWITCH PANEL Here's an easy, under-dash or glove box mounting option for all 28mm diameter sockets and switches. 28mm hole. 55mm wide. 44mm high. Two 5mm wide mounting slots at 36mm centres. Shown with USB socket fitted as example (NOT INCLUDED)

#SP28 £3 (£3.60 inc vat)



LED CHROME OR BLACK BEZEL WARNING LIGHTS. Machined alloy, Chrome housing. 200mm fly leads. 16mm bezel diameter. 31mm long. Fits in a 14mm hole. Maximum panel thickness 11mm. Front projection 1.5mm. Stainless securing nut with rubber sealing washer.

CHROME

| | |
|-------------------|----------|
| WATER TEMP | #WLFWT |
| HAZARD | #WLFHAZ |
| INDICATOR | #WLFIND |
| DOUBLE INDICATOR | #WLFIND2 |
| BATTERY/IGNITION | #WLFBAT |
| PARKING BRAKE | #WLFPB |
| FRONT FOG | #WLFFF |
| REAR FOG | #WLFRF |
| LIGHTS | #WLFSTS |
| MAIN BEAM | #WLFBEAM |
| ECU | #WLFECU |
| OIL | #WLFIL |
| BRAKE FLUID LEVEL | #WLFBRK |
| NEUTRAL | #WLFN |
| FAN | #WLFAN |
| SEAT BELT | #WLFBS |
| ENGINE | #WLFENG |
| GLOW PLUG | #WLFGP |
| FUEL | #WLFU |

All £6 each (£7.20inc vat) MOST SHOWN LIT

BLACK

| | |
|-------------------|------------|
| WATER TEMP | #WLFWTBK |
| HAZARD | #WLFHAZBK |
| INDICATOR | #WLFINDBK |
| DOUBLE INDICATOR | #WLFIND2BK |
| BATTERY/IGNITION | #WLFBATBK |
| PARKING BRAKE | #WLFPPBK |
| FRONT FOG | #WLFFFBK |
| REAR FOG | #WLFRRFBK |
| LIGHTS | #WLFSTSBK |
| MAIN BEAM | #WLFBEAMBK |
| ECU | #WLFECUBK |
| OIL | #WLFILBK |
| BRAKE FLUID LEVEL | #WLFBRKBK |
| NEUTRAL | #WLFNBK |
| FAN | #WLFANBK |
| SEAT BELT | #WLFBSBK |
| ENGINE | #WLFENGBK |
| GLOW PLUG | #WLFGPBK |
| FUEL | #WLFUBK |

All £6 each (£7.20 inc vat) MOST SHOWN LIT



MINI LED WARNING LIGHTS.

Chromed plastic construction. Labelled terminals - and + for foolproof connection. Overall length 22mm. Bezel diameter 10mm. Fits in an 8mm hole. Maximum panel thickness 5mm. 3.5mm spade terminals. Can be soldered.
RED #WLMR AMBER #WLMG
BLUE #WLMB GREEN #WLMG
 £2.50 each (£3 inc vat)



STEPPED HOLE CUTTERS Excellent quality. Cut clean neat accurate holes in GRP Aluminium & Steel. Titanium coated. Note: A little light oil will make a cleaner cut and prolong the life of the cutting edge.

METRIC THREE PIECE SET
 4 mm to 32 mm
 #STEM £28 (£33.60 inc vat)



CHECK OUT OUR FULL RANGE OF BILLET ALLOY WARNING LIGHTS IN THE NEXT FEW PAGES



BILLET ALLOY WARNING LIGHTS AND SWITCHES

This range of superb quality Warning Lights and Switches all have a CNC machined, 25mm diameter anodised, black or natural, aluminium bezel. You can choose to mount them flush to your panel in a 22mm hole or in a 16mm hole with 10mm front projection. Rear projection is approximately 50mm. The main body is available in three versions - Warning Light and either Momentary or Latching Acton for switches which can be fitted with a single pole or double pole 6 Amp switch block, with normally open and normally closed contacts. Choose from a range of engraved legends - in either black or natural aluminium finish and a range of five coloured LED bulbs for the illumination.

This item is explained on our **YouTube** channel



IVA COLOURS: RED = WARNING AMBER = ADVISORY BLUE/GREEN/WHITE = INFORMATION



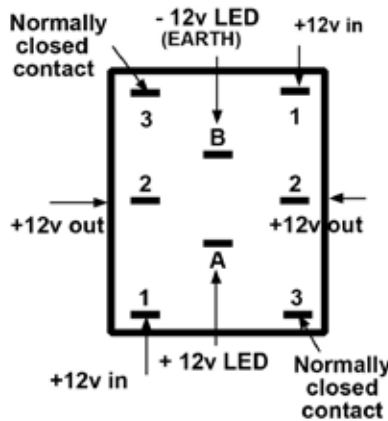
SWITCH AND ILLUMINATION WIRING INSTRUCTIONS

- Pin 1 is +12v supply to the switch
- Pin 2 is the switched +12v out to your accessory.
- For illumination when switch is operated, fit a link between pin 2 and pin A
- NOTE: Pin 3 is normally closed and opens when the switch is operated

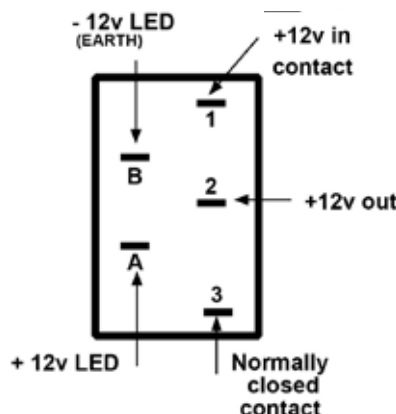
WARNING LIGHT LED TERMINALS



DOUBLE POLE CONTACT BLOCK



SINGLE POLE CONTACT BLOCK

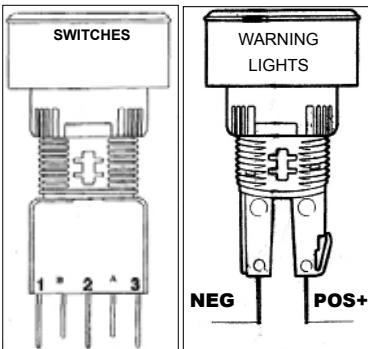


LARGE P/BUTTON ENGINE START BLUE LED

This is larger than all the others. 35mm dia. Fits in a 22mm or 32mm hole depending on flush or raised mounting option.

Momentary switch operation **BLUE LED**.

#PBESL £24 each (£28.80 inc vat)



Warning Light example part no. **# WLACUB**

| COMPONENT PART MNUMBERS | | | | | | | | | | | | | |
|-------------------------|----|------------------|----|--------------|---|--------------|---|-----------|---|--------------|---|----------|---|
| BODY | | LEGEND | | ILLUMINATION | | BEZEL FINISH | | OPERATION | | SWITCH BLOCK | | DIM LOOM | |
| Warning Light | WL | Aircon | AC | Amber | A | Black | B | Latching | L | Single Pole | S | Yes | L |
| Switch | PB | Battery | BT | Blue | U | Natural | N | Momentary | M | Double Pole | D | No | 0 |
| | | Boot Open | BO | Green | G | | | | | | | | |
| | | Brake Test | WA | Red | R | | | | | | | | |
| | | Double Indicator | DI | White | W | | | | | | | | |
| | | Fan | FN | | | | | | | | | | |
| | | Front Demist | FD | | | | | | | | | | |
| | | Front Fog | FF | | | | | | | | | | |
| | | Hazard | HZ | | | | | | | | | | |
| | | Headlights | HD | | | | | | | | | | |
| | | Horn | HN | | | | | | | | | | |
| | | Indicator | IN | | | | | | | | | | |
| | | Main Beam | MB | | | | | | | | | | |
| | | Oil | OL | | | | | | | | | | |
| | | Park Brake | PB | | | | | | | | | | |
| | | Plain | PL | | | | | | | | | | |
| | | Rear Demist | RD | | | | | | | | | | |
| | | Rear Fog | RF | | | | | | | | | | |
| | | Seat Belt | SB | | | | | | | | | | |
| | | Side Lights | SL | | | | | | | | | | |
| | | Start | ST | | | | | | | | | | |
| | | Washers | WS | | | | | | | | | | |
| | | Wiper | WI | | | | | | | | | | |



CHECK OUT OUR YOUTUBE VIDEO FOR A FULL DEMONSTRATION ON ASSEMBLY AND OPERATION OF THESE WARNING LIGHTS AND SWITCHES

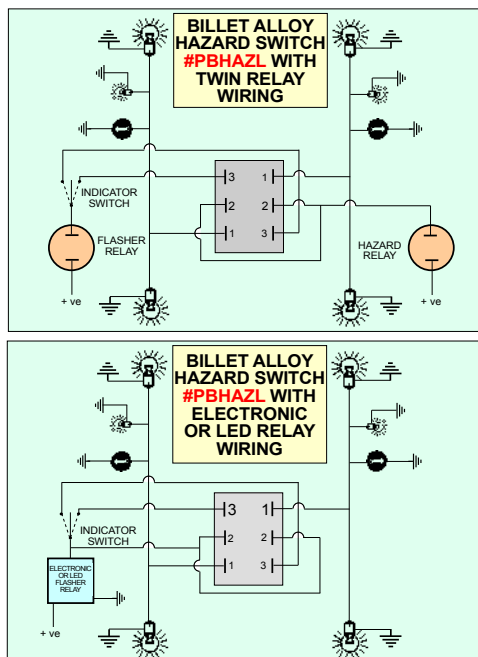
Switch e.g. **# PB FNG N L D L**

HOW TO WORK OUT YOUR PART NUMBER
 First choose if you want a Warning Light or a Switch (WL or PB), next choose your legend (AC etc.), next the colour of your illumination (A, U, G, R or W), next, either Black or Natural bezel (B or N). Finish here if your item is a Warning Light. If you've chosen a Switch then continue and choose either Latching or Momentary operation of the switch (L or M), next choose either Single Pole or Double Pole Switch Block (S or D) and finally choose Yes (L) if you want to add a dimming loom for the illumination

ALL LIGHTS BELOW ARE SHOWN ILLUMINATED



WIRING EXAMPLES



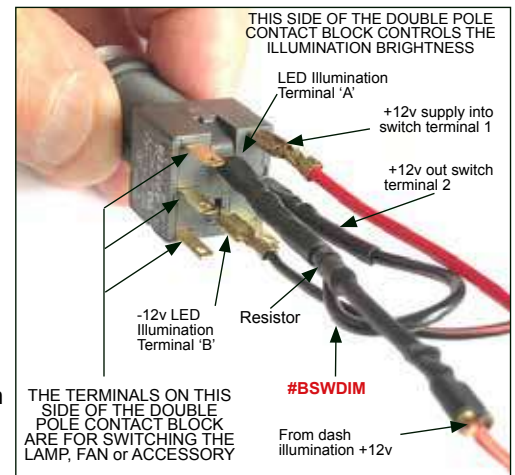
All switches and warning lights have single illumination as standard - either 'ON' with side lights or 'ON' with switch in 'ON' position. However, a dim / bright wiring mod kit is available.

DIM / BRIGHT WIRING KIT

It's now possible for these switches and warning lights to have dimmed illumination in that comes on with your sidelights. Then, if you press the switch to activate the accessory, the illumination changes to full brightness. One per switch required. Wired easiest with double pole switch contact block but can be used with single pole block by piggy-backing to the switch +12v out terminal.

NOTE: THIS KIT WILL ONLY WORK WITH A DOUBLE POLE CONTACT BLOCK
#BSWDIM £3 each (£3.60 inc vat)

WIRING INSTRUCTIONS FOR DIMMING OUR BILLET SWITCHES



5 FEMALE TERMINALS
#TER185F £1 (£1.20 inc vat)



ULTRA LOW PROFILE ILLUMINATED SWITCHES AND WARNING LIGHTS

Yes - these switches can also be used as very stylish warning lights (white light only) - just ignore the switch terminals. Black anodised brass and stainless steel body with 22mm diameter bezel that is only 1.5mm thick.

Fits in a 19mm hole in a panel up to 13mm thick. Overall length including plug 50mm. Illuminated push button centre - either Latching or Momentary depending on the switch. All have an integral Double Pole contact block with Normally Open and Normally Closed contacts. 5 Amp current rating. Supplied with six pre-assembled terminals and 200mm long wires and a plug block that you can assemble to your own configuration. The white LED illumination has independent +12v and -12v terminals. 22mm A/F Hex nut and rubber sealing 'O' ring included.

COMPONENTS FOR EACH SWITCH

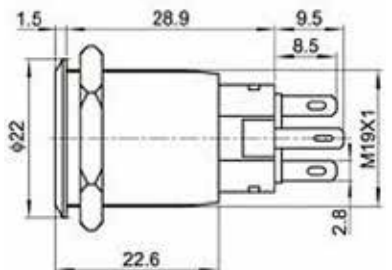
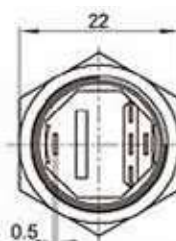
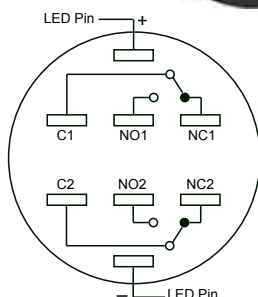
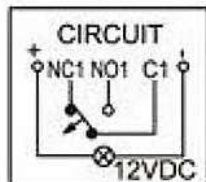


ILLUMINATION EXAMPLE



ASSEMBLY INSTRUCTIONS

Insert the pre-wired terminals into the plug from the back. The securing 'tang' on each terminal must face the small cut-out in the rectangular holes. Just push in the terminal until it 'clicks'



START
(MOMENTARY)
#BPBST £9
(£10.80 inc vat)



ECU
(MOMENTARY)
#BPBECU £9
(£10.80 inc vat)



REAR FOG
(LATCHING)
#BPBRF £9
(£10.80 inc vat)



FRONT FOG
(LATCHING)
#BPBFF £9
(£10.80 inc vat)



HAZARD
(LATCHING)
#BPBHAZ £9
(£10.80 inc vat)



INDICATOR
(LATCHING)
#BPBIND £9
(£10.80 inc vat)



WIPER
(LATCHING)
#BPBWIP £9
(£10.80 inc vat)



WASH
(MOMENTARY)
#BPBWS £9
(£10.80 inc vat)



SIDELIGHT
(LATCHING)
#BPBSL £9
(£10.80 inc vat)



HEADLIGHT
(LATCHING)
#BPBHL £9
(£10.80 inc vat)



BRAKE
(MOMENTARY)
#BPBBRK £9
(£10.80 inc vat)



HORN
(MOMENTARY)
#BPBH £9
(£10.80 inc vat)



MAIN BEAM
(LATCHING)
#BPBMB £9
(£10.80 inc vat)



FAN
(LATCHING)
#BPBFAN £9
(£10.80 inc vat)



BLACK LATCHING
shown unlit
#BPBPL £9
(£10.80 inc vat)



BLACK MOMENTARY
shown lit
#BPBPM £9
(£10.80 inc vat)



FUEL PUMP
(MOMENTARY) Ideal for bleeding and priming.
#BPBFP £9
(£10.80 inc vat)



ESP (Traction Control.)
(MOMENTARY)
#BPBESP £9
(£10.80 inc vat)



REAR FOG
(MOMENTARY)
#BPBRFM £9
(£10.80 inc vat)



SWITCHES

HEAVY DUTY TOGGLE SWITCH

25 Amp 12 Volt. Chrome toggle.
Old fashioned Bakelite body. Fit in 12mm hole. For panels up to 8mm thick. Most have 1/4" spade terminals.

ON-OFF Heater fan etc. **#TSHD1**

ON-ON Changeover, for Main/Dip **#TSHD2**

OFF-MOMENTARY Sprung return.
Screen wash, horn, headlamp flash etc.
#TSHDSPR

ON-OFF-ON Indicator. **#TSHD3**

All above **£4 each** (£4.80 inc vat)

OFF-ON(1)-ON(1+2) Off/Side/Head.

#TSHD4 £7 (£8.40 inc vat)

SWITCH BODY
STYLES MAY
VARY SLIGHTLY



WATERPROOF COVER for 12mm threads

#TSCOV

£2 (£2.40 inc vat)

SWITCH NOT INCLUDED



DOUBLE POLE ON-ON change-over e.g. Hazard

#TSHD2DP £9 (£10.80 inc vat)



ON / OFF / ON MOMENTARY SPRUNG-RETURN

For windows or sunroof etc.

20 Amp **#TSHD5. £7.50** (£9 inc vat)



NOTE: SWITCHES WITH INTEGRAL WARNING LIGHTS HAVE A SEPARATE EARTH TERMINAL THAT MUST BE CONNECTED FOR THE LIGHT TO WORK

TOGGLE SWITCH HEAVY DUTY WITH BLACK LEVER. 25 Amp 12 Volt.

Fit in a 12mm hole. For panels up to 8mm thick. Five versions.

ON-OFF (double pole) #TSB1

ON-OFF-ON (double pole) #TSB2

Indicator

OFF-MOMENTARY #TSBSPR

Sprung return - Screen wash or horn

OFF-ON-MOMENTARY #TSBSPR2

Sprung return (e.g. Wiper and washer)

OFF-ON(1)-ON(1+2) #TSB3

Sidelight, headlights, wiper.

All **£4 each** (£4.80 inc vat)



DOUBLE POLE TOGGLE SWITCH.

With printed aluminium legend plate. Fit in a 12mm hole. Maximum panel thickness 6mm. Screw connections. 12 Volt 15 Amp.

DOUBLE POLE ON-OFF-ON

#DPTS2 £4 each (£4.80 inc vat)



TOGGLE SWITCHES

Old-fashioned switches nicely made in Bakelite with screw terminals and aluminium screw-on knobs.

10 Amp. Fit in 12mm hole.

For panels up to 2mm thick.

ON-OFF Long knob #TSL1

ON-OFF-ON Long knob #TSL2

£7 each (£8.40 inc vat)



PRINTED TOGGLE SWITCH I.D. PLATES

Made from 0.5mm thick lacquered aluminium. Size 33mm x 24mm with a 12mm hole.

ON / OFF #TSID2 £2 (£2.40 inc vat)

ON / OFF / ON #TSID3 £2 (£2.40 inc vat)



RETRO LUCAS-STYLE SWITCHES

Faithful copies of the now unavailable Lucas range of classic switches. All fit in a 14mm hole. Maximum panel thickness 3mm.

Bezel diameter 19mm. Moulded black paddle 21mm long. 1/4" spade terminals.

ON / OFF (left) 5 Amp.

#TSPA1 £8 (£9.60 inc vat)

OFF / ON MOMENTARY SPRING RETURN

5 Amp **#TSPASPR £8** (£9.60 inc vat)

ON / ON CHANGEOVER (right) 18 Amp

#TSPA2 £9 (£10.80 inc vat)



ON / OFF / ON 10 Amp.

Paddle length on this switch only 32mm

Terminal 7 - supply in.

Terminals 2 and 8 - out

#TSPA3 £9 (£10.80 inc vat)

OFF / ON / ON PADDLE TOGGLE SWITCH

10 Amp. Fits in a 14mm diameter hole in panels up to 3mm thick. Paddle length 25mm. Rear projection 43mm.

All 1/4" male spade terminals.

WIRING : ALL SWITCH POSITIONS -

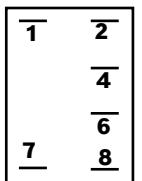
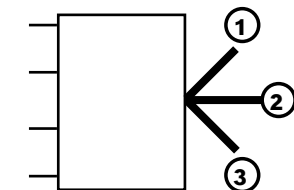
Terminals 1 and 7 made.

SWITCH POSITION 1 - 1, 7, 2 and 6 made

SWITCH POSITION 2 - 1, 7, 4 and 6 made

SWITCH POSITION 3 - 1, 7, 8 and 4 made

#TSPA4 £9 (£10.80 inc vat)



ON / OFF

IDENTIFICATION PLATE FOR TOGGLE SWITCHES

Stainless steel with stamped letters. 12mm hole with orientation tag. Overall height 25.4mm

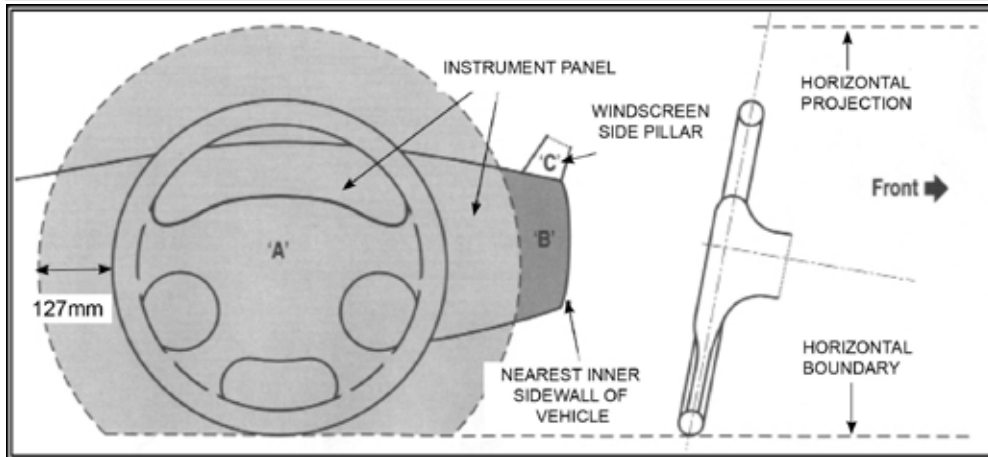
Material thickness 0.8mm.

#TSID £1.50 each

(£1.80 inc vat)



UK IVA DASHBOARD EXEMPT ZONE. All projections on your dashboard such as, switches, warning lamps, vents and instruments are subject to rules regarding minimum radii and height above the surface with the exception of the 'Exempt Zone' labelled 'A', 'B' and 'C' in the diagram. IVA rules frequently change. Please check the IVA manual for latest revisions or ask you local test centre if in doubt.



PADDLE TOGGLE SWITCH ON/OFF

Nylon body, ring and paddle.
1/4" Spade terminals on back. Mounts in a 12mm hole. Paddle length 18mm. 20 Amps. Maximum panel thickness 6mm.

CHROME TOGGLE

#TSPAD1CH £2.50 (£3 inc vat)

BLACK TOGGLE

#TSPAD1BK £2.50 (£3 inc vat)



ILLUMINATED PADDLE ON/OFF TOGGLE SWITCH

Nylon body and ring with transparent paddle. 1/4" Spade terminals on back. Mounts in a 12mm hole. Paddle length 18mm. 20 Amps. Maximum panel thickness 6mm.

RED TOGGLE #TSPADR

AMBER TOGGLE #TSPADA

BLUE TOGGLE #TSPADB

GREEN TOGGLE #TSPADG

ALL £3.50 each (£4.20 inc vat)



USE A STEPPED HOLE CUTTER FOR A CLEAN, ACCURATE HOLE



KNURLED RING TOGGLE SWITCHES

Superb quality toggle switches all with a beautifully knurled outer securing ring. Melamine/polyester case and silver plated copper contacts. Smooth, positive action. Maximum panel thickness between nuts 4.5mm. Fits in a 12mm hole. Body size (double pole) 22mm wide, 30mm top to bottom, 32mm front to back. 1/4" spade/solder terminals.



ON/OFF DOUBLE POLE 15 AMP

#TSKR1 £7 (£8.40 inc vat)

ON-ON CHANGEOVER DOUBLE POLE 15 AMP #TSKR2

£7 (£8.40 inc vat)

ON-OFF-ON DOUBLE POLE 15 AMP

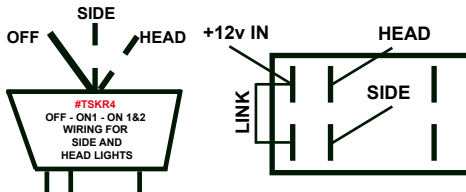
#TSKR3 £7 (£8.40 inc vat)

3 POSITION OFF-ON-ON SPRING RETURN 10 AMP #TSKRSPR2

£7 (£8.40 inc vat)

3 POSITION OFF-ON(1)-ON(1+2) 10 AMP

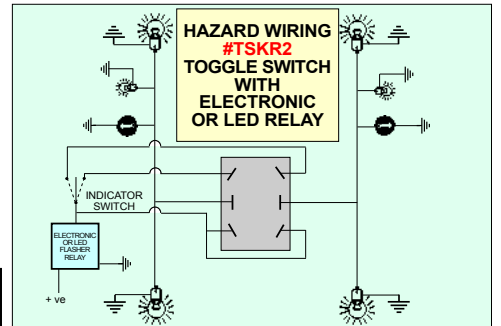
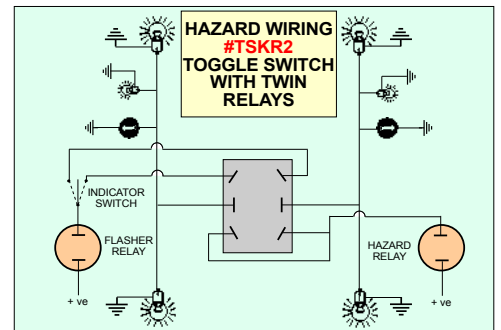
#TSKR4 £7 (£8.40 inc vat)



CENTRE OFF DOUBLE POLE WITH SPRUNG RETURN LEFT AND RIGHT

10 AMP (OK for electric windows, seats etc)

#TSKR5 £7 (£8.40 inc vat)



OFF-ON SPRING RETURN SINGLE POLE 10 AMP #TSKRSPR

£7 (£8.40 inc vat)

OFF-ON SINGLE POLE 10 AMP

#TSKR1SP £7 (£8.40 inc vat)



ON-ON CHANGE-OVER SINGLE POLE 10 AMP #TSKR2SP

£7 (£8.40 inc vat)

ON-OFF-ON SINGLE POLE 10 AMP #TSKR3SP

£7 (£8.40 inc vat)



LONG STALK TOGGLE SWITCH

Toggle 40mm long. Weight 40gms.

ON-OFF or ON-ON Double pole 15 AMP

#LTSKR1 £9 (£10.80 inc vat)

ON-OFF-ON Double pole 15 AMP

#LTSKR3 £9 (£10.80 inc vat)

OFF-MOMENTARY/SPRING RETURN Single pole 10 AMP

#LTSKRSPR £9 (£10.80 inc vat)



NYLON TOGGLE SWITCHES

All have 1/4" spade terminals and black flat nylon handle. All fit in 12mm hole. For panel thickness up to 5mm. 20 Amp 12 volt.

- ON / OFF Heater, fan, lights etc **#TSN1**
 - ON / ON Changeover Main / Dip **#TSN2**
 - OFF / ON MOMENTARY SPRUNG RETURN Horn, washer **#TSN3**
 - ON / OFF / ON Indicator **#TSN4**
- All £3 each (£3.60 inc vat)



LONG MOMENTARY TOGGLE SWITCH

SPRING RETURN Ideal for horn, washer, flasher etc. Fits in a 12mm diameter hole. 42mm long knob. Plastic construction. 20 Amp **#LTSSPR2** £4 (£4.80 inc vat)



INDICATOR TOGGLE SWITCH (on-off-on)

Classic style with spade terminals. Stalk 80mm long. Fits in a 12.5 mm hole. Maximum panel thickness 3mm. Very nice. **#TSIND** £10 (£12 inc vat)



LONG STALK ON / OFF PADDLE TOGGLE SWITCH 17mm diameter, plated brass chamfered nut /bezel. Fits in a 12mm hole in a panel up to 6mm thick. Two, 1/4" male spade terminals. 70mm long nylon paddle. **#TSPA5** £5 (£6 inc vat)



LONG STALK MOMENTARY TOGGLE SWITCH Press in any direction to make then release and the spring return disconnects. For horn (via a relay), flash or screen washer. Fit through an 11mm hole. Maximum 4mm panel thickness. 15mm hex nut. Stalk length 100mm. Body diameter 25mm. 32mm rear projection. Two 1/4" spade terminals. **#TSMOM** £8 (£9.60 inc vat)



ILLUMINATED ROUND TOGGLE SWITCH

23mm dia. Press into a 20mm hole. 5mm spade connections. 16 Amp.

- RED **#RTSR** AMBER **#RTSA**
- GREEN **#RTSG** BLUE **#RTSB**
- BLACK (2 terminal, not illuminated) **#RTSBK** All £3 each (£3.60 inc vat)



DOOMSDAY SWITCH COVERS

Sprung flip-off cover. Fits HEAVY DUTY TOGGLE SWITCH and ILLUMINATED TOGGLE SWITCH. This cover makes it impossible to accidentally turn the switch 'ON' but very easy to turn it 'OFF' in an emergency or vice-versa. **SWITCH NOT INCLUDED**

- RED **#DOOM** £3.50 (£4.20 inc vat)
- CHROME **#DOOMCH** £3.50 (£4.20 inc vat)
- CARBON **#DOOMCA** £3.50 (£4.20 inc vat)
- BLUE **#DOOMBU** £3.50 (£4.20 inc vat)
- YELLOW **#DOOMY** £3.50 (£4.20 inc vat)



LONG STALK MOMENTARY TOGGLE SWITCH SPRING RETURN

Ideal for horn, washer, flasher etc. Fits in a 12mm diameter hole in a panel up to 6mm thick. 60mm long knob. 20 Amp. 6.2mm (1/4") male spade terminals on rear. **#LTSSPR3** £5 (£6 inc vat)



LED PADDLE TOGGLE SWITCH ON/OFF

1/4" Spade terminals on back. Mounts in a 12mm hole. Paddle length 18mm. 30 Amps. Maximum panel thickness 10mm.

- RED **#PADLEDR**
 - AMBER **#PADLEDA**
 - GREEN **#PADLEDG**
- All £4 each (£4.80 inc vat)



NOTE: SWITCHES WITH INTEGRAL WARNING LIGHTS HAVE A SEPARATE EARTH TERMINAL THAT MUST BE CONNECTED FOR THE LIGHT TO WORK



ILLUMINATED TOGGLE SWITCH

Clever ON-OFF with LED light in the end of the stalk. 10 Amp 12 volt. Fits in a 12mm hole.

- BLUE **#TSLEDB** GREEN **#SLEDG**
 - RED **#TSLEDR** AMBER **#TSLEDA**
- £6 each (£7.20 inc vat)



CHECK ONLINE PICTURES FOR TERMINAL LAYOUT

PRINTED TOGGLE SWITCH I.D. PLATES

Made from 0.5mm thick lacquered aluminium. Size 33mm x 24mm with a 12mm hole.

- ON / OFF **#TSID2** £2 (£2.40 inc vat)
- ON / OFF / ON **#TSID3** £2 (£2.40 inc vat)



ON / OFF IDENTIFICATION PLATE FOR TOGGLE SWITCHES Stainless steel with stamped letters. 12mm hole with orientation tag. Overall height 25.4mm. Material thickness 0.8mm. **#TSID** £1.50 each (£1.80 inc vat)



SWITCH GUARDS Forged stainless steel and aluminium. hoop with studs at 1" centres. Secured from behind with two stainless nuts. Prevents accidental switch operation and damage in a busy cockpit.

SWITCHES NOT INCLUDED

FORGED STAINLESS #SWGWARD

£7 each (£8.40 inc vat)

NATURAL ALUMINIUM #SWGWARDAL

£6 each (£7.20 inc vat)

BLACK ANODISED #SWGWARDBK

£6 each (£7.20 inc vat)

NICKEL PLATED #SWGWARDNI

£6 each (£7.20 inc vat)



KEY SWITCHES

IGNITION SWITCH Dash mounted, four position switch with four sets of terminals for Battery, Ignition, Start and accessory. Chrome bezel. 2 keys. Strong construction and easy installation through a 19mm (3/4") hole. 30 Amps @ 12v.

Weight 77gms,
#IGNSW3 £10
(£12 inc vat)



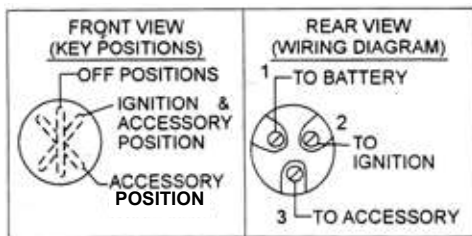
THREE POSITION KEY SWITCH

Fits in a 19mm hole in a panel up to 12mm thick. Bezel diameter 30mm. Body diameter 32mm. Maximum rear projection 41mm. Three screw terminals on rear. Two keys supplied Weight 95gms.

NOTE: Centre - OFF. Left - Accessory terminal only connected. Right - Accessory and Ignition terminals connected.

#KEYSW3 £20 (£24 inc vat)

TERMINALS ARE NOT NUMBERED SO CHECK THE SWITCHING FUNCTIONS WITH A MULTIMETER



IGNITION SWITCH Dash mounted, 4 position switch with clearly labelled terminals for Battery, Ignition, Accessory. Chrome bezel. 2 keys. Strong construction and easy installation through a 19mm (3/4") hole. 30 Amps @ 12volt.

#IGNSW £16 (£19.20 inc vat)



IGNITION/START SWITCH 3 position switch - OFF - ON - START (spring return). 1/4" male spade terminals. Mounts through a 20mm hole (with one flat). Body diameter 35mm. Maximum rear projection 47mm. Chrome bezel. Supplied with 2 keys. 30 Amps @ 12 volt.

#IGNSW2
£10 (£12 inc vat)



KEY SWITCH Double pole on / off switch with two die-cast keys. Continuous rotation on/off/on/off in both directions. The key is retained in the 'on' position and can be removed in the 'off' position. Mounts through a 12mm hole. Maximum panel thickness 10mm. Body size 33mm x 22mm. 33mm behind panel. 1/4" spade connections. 20 Amps @ 12v.

#KEYSW2 £48 (57.60 inc vat)



PUSH BUTTON SWITCHES

PUSH BUTTON SWITCHES Non-latching.
For horn, screen wash or starter etc.
All push to make.

ALL BLACK IVA OK ABS 26mm dia. bezel.
Fits in 22mm hole. 16 Amp. Screw terminals
#PBSWBK £5 (£6 inc vat)



ALUMINIUM BODY & BEZEL 25mm dia.
bezel. Fits in a 22mm hole.
Screw terminals. 20 Amp
#PBSWALI £6.50 (£7.80 inc vat)



CHROME & STAINLESS Very nice. 22mm
dia. bezel. Fits in a 19mm hole. 20 Amp.
Screw terminals. #PBSWCS £5 (£6 inc vat)



PLATED BRASS 22mm dia. bezel.
Fits in a 19mm hole. 20 Amp.
#PBSWPL £5 (£6 inc vat)



RED & BLACK PUSH BUTTON SWITCH
18mm dia. bezel. Fits 12mm hole.
Front projection 11mm. Rear projection
29mm. Solder terminals. 3 Amp.
#PBSWRBK3 £2 (£2.40 inc vat)



SWITCH GUARDS Prevent accidental switching

FLARED BASE #RSGF
£7.50 each (£9 inc vat)

PARALLEL BASE #RSGP
£7 each (£8.40 inc vat)

PARALLEL BLACK #RSGBK
£7 each (£8.40 inc vat)



IVA OK PUSH BUTTON SWITCH

For horn, screen wash etc. Polished
aluminium bezel with black button, both with
required IVA radius. 25mm diameter. Fits in a
22mm hole. Screw terminals. 20 Amp.

#PBSVA £7 (£8.40 inc vat)



ALL BLACK 28mm bezel diameter. Fits a
25mm hole. For up to 4mm thick panels.
16 Amp. Screw terminals.

#PBSWBK2 £5 (£6 inc vat)



RED & BLACK PUSH BUTTON SWITCH

IVA OK 26mm dia. bezel. Fits 22mm hole.
Suitable for up to 5mm panels.
Screw terminals. 20 Amp.

#PBSWRBK2 £7 (£8.40 inc vat)



RED & CHROME 25mm dia. bezel. Fits
in a 22mm hole. Spade terminals. 20 Amp.
#PBSWRC £7 (£8.40 inc vat)



RED & BLACK PUSH BUTTON SWITCH

25mm dia. bezel. Fits 22mm hole.
Spade terminals. 20 Amp.

#PBSWRBK £7 (£8.40 inc vat)



RED / CHROME PUSH BUTTON SWITCH

A heavy-duty switch with a 20mm diameter
shrouded red button. The plated metal
shroud is 25mm diameter and protrudes
20mm from the mounting surface. The plated
metal switch body has 26mm rear projection.
Fits in a 22mm diameter hole in a panel
up to 3mm thick. Screw terminals on rear.
27mm A/F hex on switch body and shroud.
25 Amp. Weight 78 gms.

#PBSWRC2 £9.90 (£11.88 inc vat)



SUPERB PUSH BUTTON SWITCH

Fantastic quality. Superbly made.
Nice action. Chrome with black button.
17mm diameter bezel. Fits in a 12mm hole.
For up to 6mm panel thickness. 2 Amp.

LATCHING #PBSW6L
£13 (£15.60 inc vat)

MOMENTARY #PBSW6M
£13 (£15.60 inc vat)



ALL BLACK HORN SWITCH

26mm dia. Fits 22mm hole.
#PBSWBKH £6 (£7.20 inc vat)

ALL BLACK WASHER SWITCH

26mm dia. Fits 22mm hole.
#PBSWBKW £6 (£7.20 inc vat)

ALI BODY & BEZEL HORN SWITCH

25mm diameter. Fits 22mm hole.
#PBSWALIH £7.50 (£9 inc vat)

ALI BODY & BEZEL WASHER SWITCH

25mm diameter. Fits 22mm hole.
#PBSWALIW £7.50 (£9 inc vat)



LED LATCHING PUSH BUTTON

SWITCHES Press fit in a 20mm hole. Splash-proof with a rubber bellows seal. ¼" Spade terminals. The brass terminal is the earth for the internal LED light.

**RED #PBSLEDR AMBER #PBSLEDA
BLUE #PBSLEDBU GREEN #PBSLEDG
BLACK (no led) #PBSLBK**
All £4 each (£4.80 inc vat)

LEGEND VERSIONS ALSO AVAILABLE

e.g. REAR FOG RED

#PBSLEDRF £5 each (£6 inc vat)



ILLUMINATED LATCHING PUSH BUTTON

SWITCHES Fits in a 20mm hole. Splash-proof with a rubber bellows seal. ¼" Spade terminals.

**AMBER #PBSLA RED #PBSLR
GREEN #PBSLG BLUE #PBSLBU**

All £4 each (£4.80 inc vat)

NOTE: Illumination requires an earth connection.



WITH LEGENDS -

e.g. REAR FOG AMBER

#PBSLRF £5 each (£6 inc vat)

OTHERS AVAILABLE

ILLUMINATED CHROME PUSH

BUTTON SWITCH Push to make, sprung return. Fits through a 22mm hole in up to 7mm thick panels. Three M4 terminal screws on back for ring terminals. Front projection 17mm. Rear projection 28mm.

50Amp @ 12 volts.

TERMINAL 1: +12 in

TERMINAL 2: Load

TERMINAL 3: Lamp earth.

#PBSWCH £13 (£15.60 inc vat)



SPLASH-PROOF RUBBER SHROUD

PUSH- BUTTON SWITCH Push-to-make. Die-cast alloy construction. Screw terminals. Fits through a 16mm diameter hole.

Maximum panel thickness 5mm.

Rubber shroud diameter 26mm.

Button height above mounting panel 22mm.

Rear projection 36mm. 22mm Hex backing

nut. Body diameter 29mm. 30 Amp.

Weight 50gms.

#PBSWRS £4 (£4.80 inc vat)



ALUMINIUM PUSH BUTTON SWITCH

WITH RUBBER SHROUD
Momentary, 20 Amp, push-to-make switch with removable, 28mm diameter x 12mm high, waterproof shroud. Fits in a 22mm hole in a panel up to 7mm thick. 27mm AF Hex nut. Screw terminals. Overall length 25mm.

#PBSWAR £5 (£6 inc vat)



LATCHING ILLUMINATED PUSH-BUTTON

SWITCH Push once for on - push again for off. LED warning lamp in the centre of the button. 21mm square bezel. Fits in a 12mm hole. 15mm projection in front of dash and 50mm max. behind. Black moulded plastic construction.

RED #PBSQR

BLUE #PBSQB

AMBER #PBSQA

All £5 each (£6 inc vat)



LUCAS PUSH BUTTON SWITCH

The real deal. The classic 'Bakelite', surface mounting, horn switch. Button diameter 38mm. Base footprint 52mm x 35mm. Height 27mm. Brass screw terminals on underside. Two, 4mm fixing holes @ 43mm centres. Maximum current 5 Amps. (may need to be used with a relay) Weight 38gms.

#LUPBS £10 (£12 inc vat)



NOTE: SWITCHES WITH INTEGRAL WARNING LIGHTS HAVE A SEPARATE EARTH TERMINAL THAT MUST BE CONNECTED FOR THE LIGHT TO WORK

24 VOLT ILLUMINATED RED PUSH BUTTON ON / OFF SWITCH Will still illuminate dimly on a 12 Volt supply in the ON position or can be used without illumination. Bezel diameter 28mm. Button diameter 21mm. Presses into a 25mm hole. Rear projection 35mm Three 1/4" male spade connectors. 16 Amp. WIRING: 4B - +ve in, 2A - +ve out, 1A - negative for illumination. **#PBSW24V £1** (£1.20 inc vat)



TEST SWITCH Push to make contacts. Ideal for discreet dashboard testing of brake fluid warning light in accordance with IVA requirements. (Button only 10mm dia.) Moulded plastic push button switch. 1/4" Spade terminal connections. Fits in 12mm hole. Suitable for up to 4mm panel thickness. Can also be used for alarm and other press to make switch applications. **#TESTSW £4** (£4.80 inc vat)



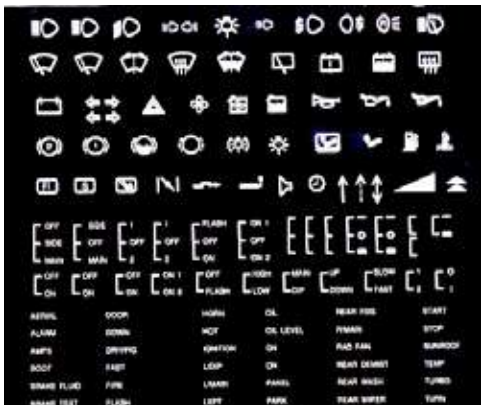
7000 PRODUCTS IN STOCK FOR IMMEDIATE SHIPPING

MINI PUSH BUTTON SWITCH Momentary 'Push to Make' switch. Ideal for IVA brake warning light test facility and other programming functions. Button diameter 5mm. Fits in a 6mm hole. 10mm A/F nut. Only 12mm long for very discreet mounting. 3 Amp rating. **RED BUTTON #MPBSR**
BLACK BUTTON #MPBSB
All £2 each (£2.40 inc vat)



LEGENDS SHEET 150 words and symbols printed on transparent self-adhesive film. Just cut out and stick to your dash, switches, warning lights or instruments. **WHITE TEXT #LEGEND £3.60** (£+ vat)
BLACK TEXT #LEGENDBK £3.60 (£+ vat)

WHITE LEGEND SHEET SHOWN HERE APPLIED TO A BLACK BACKGROUND



STEPPED HOLE CUTTERS
SEE TOOLS SECTION



6mm to 60mm (in 5mm steps)
12mm shank
#STEP660
£19 (£22.80 inc vat)



4mm to 42mm (4, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42) 10mm shank.
Weight 335 gms
#STEP442
£13 (£15.60 inc vat)

BITZBOX We've all seen similar storage boxes for workshop bits & pieces but this one's a bit different. It has four individual storage trays each with thirteen, lift-out compartments that will stay-put even if some are removed from the tray. Each tray slides and locks into a storage tower that has its own carry-handle. Multiple towers can be stacked and interlocked together. The whole thing is tough enough to be used as a stool or step-stool. If you're tight on storage space it's a great solution. OK, it's not cheap but the quality is exceptional. Four of 'em have already found a home in our workshops. Size 370mm x 270mm x 315mm high. **#BITZBOX £49** (£58.80 inc vat)



ROCKER SWITCHES

REAR FOG ROCKER SWITCH

With lamp and amber lens.
Fits 18mm x 36mm hole. 20 Amp.
#RSRF £6.50 (£7.80 inc vat)

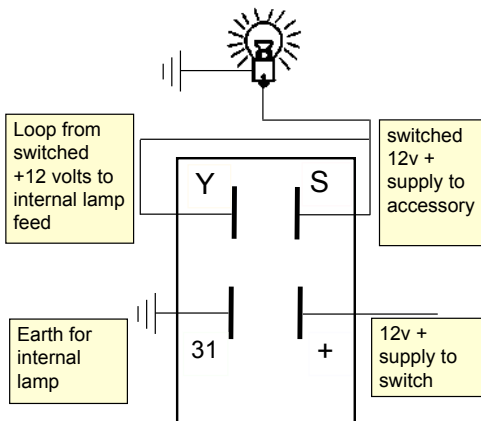


UNIVERSAL ROCKER SWITCH

Interchangeable legends and coloured lenses for internal illumination. Fits 19mm x 38mm hole. Best for panels 4mm thick. 20 Amp. Bezel size 46 x 23mm. Depth behind bezel 35mm. 1/4" male spade terminals on rear.
#RSUNI £6.50 (£7.80 inc vat)



The diagram below shows an example of how to wire this switch to, for instance, a rear fog light. The internal warning light will illuminate only when the switch is in the 'ON' position.



MINI ROCKER SWITCH LED ILLUMINATED

23mm diameter. Press into a 20mm hole.
5mm spade terminals. 10 Amp.

RED #RSR BLUE #RSB
AMBER #RSA GREEN #RSG
BLACK #RSBK (not illuminated, 2 terminal)
All £3 each (£3.60 inc vat)



REAR FOG #RSRRF £4 each (£4.70 inc vat)



ALSO
AVAILABLE
WITH OTHER
LEGENDS

BLACK MINI ROCKER SWITCH LED ILLUMINATED

23mm diameter.
Press into a 20mm hole.
5mm spade terminals. 10 Amp. 3 terminals
Not illuminated.

ON / ON CHANGEOVER (beam)

#RS232 £3 (£3.60 inc vat)

ON / OFF / ON (indicator)

#RS233 £3 (£3.60 inc vat)



OVAL ROCKER SWITCH ILLUMINATED

Size 31mm x 20mm. Fits into a 12mm hole.
Max. panel thickness 4mm. 6.5mm spade connections. 16 Amp.

RED #ORSR AMBER #ORSA
GREEN #ORSG

£3 each (£3.60 inc vat)



OVAL LED ROCKER SWITCHES WITH SYMBOLS

ON/OFF REAR FOG (Amber) #ORSRFA

ON/OFF FAN (Red) #ORSFAN

ON/OFF LIGHTS (Green) #ORSLTSG

FRONT FOG (Green) #ORSFFG

£4 each (£4.80 inc vat)

ALSO AVAILABLE
WITH OTHER LEGENDS



SQUARE ROCKER SWITCH LED ILLUMINATED

29mm square bezel.
Press into a 25mm hole. 1/4" spade terminals. 25 Amp. LED illumination.
Requires an earth connection.

RED #SRSR

AMBER #SRSA

BLUE #SRSBU

GREEN #SRSG

BLACK (no led, 2 terminals) #SRSBK

All £3 each (£3.60 inc vat)



ROCKER SWITCHES Bezel size 31mm x 15mm. Fits in a hole size 30mm x 12mm. 1/4" Spade terminals. 12v 16 Amp.

1. ON / OFF (Note: This switch has a bevelled bezel.)

#RS31151 £2 (£2.40 inc vat)

2. ON / ON change-over. e.g main/dip beam

#RS31152 £2 (£2.40 inc vat)

3. ON / OFF / ON e.g Indicator

#RS31153 £2 (£2.40 inc vat)

#RS31151



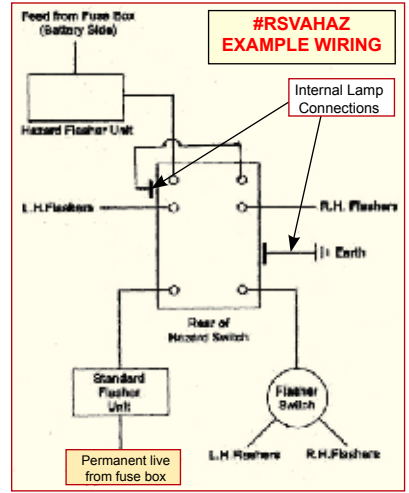
#RS31152 & 3



PLANNING TO VISIT OUR STAPLEHURST SHOP? WE CAN HAVE IT READY CLICK and COLLECT ONLINE

ROCKER SWITCHES All switches have independent illumination terminals allowing you to have illumination either fed from the main 'Sidelight or Headlight' feed so that all the switches illuminate when the main lights are on or fed from the switch's own 'ON' terminal so the switches illuminate only in the 'ON' position. With a simple circuit and a resistor it is possible to devise a 'dim' or 'bright' mode. Overall size 24mm wide by 32mm high. Fits in a rectangular hole 22mm x 30mm. Bezel sits 2mm above mounting surface. Top of rocker sits 9mm above. Maximum rear projection to tip of pins is 42mm. High quality construction and smooth, positive action. 3mm copper round pin terminals on rear. 5mm spade terminals on sides for illumination. All 10 Amp. **All £8 each** (£9.60 inc vat)

#RSVA* DIAGRAMS**



INTERIOR LIGHT
#RSVAINTLT



2 PINS

FRONT SPOT/ DRIVING
LTS. #RSVAFLS



2 PINS

RED #RSVARD



2 PINS

PACK OF 5
TERMINALS
#RSVAON
£1.50 (£1.80 inc vat)



2 SPEED WIPER
#RSVAWIP



4 PINS

BRAKE WARNING
& TEST #RSVAB



2 PINS

GREEN #RSVAGN



2 PINS

MAIN / DIP BEAM
#RSVAMB



6 PINS

SIDE / HEAD LTS.
#RSVALTS



ALSO
AVAILABLE
IN GREEN

3 PINS

FAN 2 SPEED
#RSVAFAN



3 PINS

BLUE #RSVABU



2 PINS

FRONT FOG
#RSVAFF



2 PINS

HAZARD #RSVAHAZ



6 PINS

REAR FOG #RSVARF



2 PINS

AMBER #RSVAA



2 PINS

REAR DEMIST
#RSVADEM



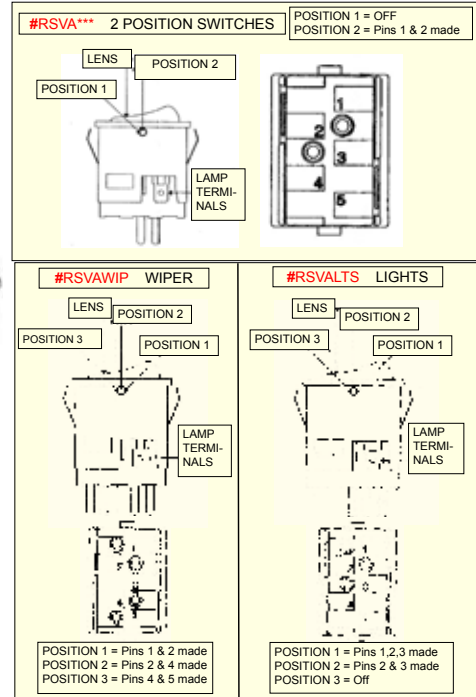
2 PINS

SCREEN WASH
#RSVAWAS



2 PINS

RSVA ROCKER SWITCH PANEL Chrome plated, pressed steel panel for five #RSVA switches. At one end is a round 10.7mm diameter recessed hole and at the other a 14mm recessed hole with a flat. You can use these for toggle switches, choke or heater controls etc. Overall size 225mm x 47.3mm. Round hole centres 177mm. Cut-outs 30mm x 22mm. **#RSVAPNL £8** (£9.60 inc vat)



RSVA SWITCH PANEL Moulded ABS panel accepts three of our #RSVA*** rocker switches. Size 126mm x 41mm x 3.8mm thick. Two countersunk 4mm fixing holes at 104mm centres. Cut-out size 22mm x 30.4mm.

#RSVAPNL2 £4.80 (£5.76 inc vat)



ROCKER SWITCH GUARDS

Guard against switching mistakes with these polished aluminium switch guards. Choose from flared base with integral stud and flange nuts or parallel base with internal thread and pozi screws.

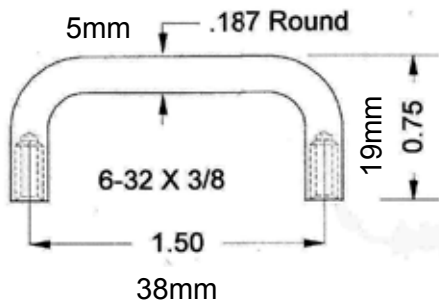
FLARED BASE #RSGF
£7.50 each (£9 inc vat)



PARALLEL BASE #RSGP
£7 each (£8.40 inc vat)



PARALLEL BLACK #RSGBK
£7 each (£8.40 inc vat)



ILLUMINATED ROCKER SWITCHES

Bezel size 31mm x 15mm. Fits in a hole size 30mm x 12mm. 1/4" Spade terminals.

12v. 20 Amp

RED #RS3115R
AMBER #RS3115A
BLUE #RS3115B
GREEN #RS3115G
All £2.50 (£3 inc vat)



ELECTRIC WINDOW SWITCH 20 Amp.

Double throw, spring return centring pre-wired rocker switch. Overall size 39 x 23mm. Fits in a hole size 32 x 18mm.

#SWWIN £4 (£4.80 inc vat)

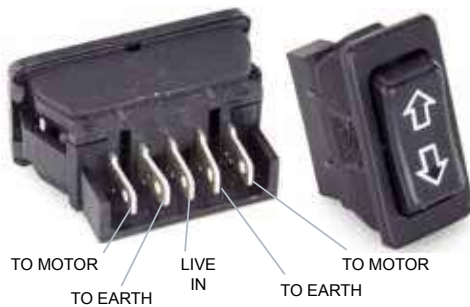
BLACK - EARTH
YELLOW - EARTH
RED - POSITIVE
BLUE/GREEN - MOTOR
BROWN - ILLUMINATION



ELECTRIC WINDOW SWITCH

Presses into a 18mm x 37mm hole in any panel up to 3mm thick. Satin black bezel size 21mm x 42mm. Five 4.8mm male spade terminals on rear. Not illuminated.

#SWWIN2 £7 (£8.40 inc vat)



SPADE TERMINAL 1/4" FEMALE

#TER14F £4 pack of 50 (£4.80 inc vat)

3/16" (4.8mm) FEMALE

#TER48F £1.50 pack of 10 (£1.80 inc vat)



RECTANGULAR WARNING LIGHTS

Bezel size 31mm x 15mm. Fits in a hole size 30mm x 12mm. 1/4" Spade terminals.

RED #RWLR
AMBER #RWLA
BLUE #RWLB
GREEN #RWLG
All £2.50 (£3 inc vat)



SWITCH PANELS Moulded plastic switch panels for mounting under your dash or in a glove box etc.

ROUND HOLE SINGLE

42 x 52 x 16mm **#SP1**

ROUND HOLE TWIN

42 x 52 x 16mm **#SP2**

RECTANGULAR HOLE SINGLE

42 x 52 x 16mm **#SPRE1**

RECTANGULAR HOLE TWIN

42 x 52 x 16mm **#SPRE2**

All £2 each (£2.40 inc vat)



DON'T FORGET THAT NEW PRODUCTS ARE ADDED ALMOST DAILY TO OUR RANGE PLEASE ASK FOR A CATALOGUE UPDATE OR CHECK 'NEW PRODUCTS' ONLINE

PUSH-PULL SWITCHES

COMPACT PUSH-PULL ON / OFF SWITCH

Screw terminals on back. Mounts in a 8mm hole. Maximum overall length 65mm. 16 Amps. Maximum panel thickness 11mm. Knob diameter 14mm
#PPSCOM £3.50 (£4.20 inc vat)



COMPACT PUSH-PULL ON / OFF SWITCH

Screw terminals. Mounts in a 8mm hole. Maximum overall length 65mm. 10mm hex. locknut. 16 Amps. Maximum panel thickness 13mm. Knob diameter 14mm. Plated brass bezel.
#PPSCOM2 £5 (£6 inc vat)



PULL-PUSH HEADLAMP SWITCH

3 position OFF-SIDE-HEAD
 Screw terminals. Fits in a 10mm hole. Closed length 83mm. Maximum open length 103mm. (knob side only 48mm max)
#PHLSW £8 (£9.60 inc vat)



MORE IN HEADLAMP SWITCHES SECTION

ON - OFF ILLUMINATED PUSH PULL SWITCH
 Mount through a 12mm hole in a panel up to 6mm thick. Knob diameter 22mm. Front projection max 44mm. Rear projection 25mm. 1/4" spade terminals on rear.

RED #PSWR £6 (£7.20 inc vat)
GREEN #PSWG £6 (£7.20 inc vat)
AMBER #PSWA £6 (£7.20 inc vat)



LUCAS-STYLE PUSH-PULL ON/OFF SWITCH

Here's a superb reproduction of the classic Lucas switch. Brass body with aluminium can. 'Bakelite' knob secured with a discreet brass screw. Knurled chrome fascia nut. Screw terminals. Fits in a 10mm (3/8") hole. Maximum panel thickness 9mm. Rear projection 45mm. Front projection 35mm. Knob diameter 19mm. 10 Amps.
#LUPPS £10 (£12 inc vat)



CONTACT CLEANER Is a fast drying, non-conductive cleaner to remove oil, dirt and condensation from electrical components, contacts and contacts. CFC free. 500ml.
#CONCLN £3.50 (£4.20 inc vat)



CHECK OUT OUR BUILD BLOGS TO SEE HOW WE USE THESE PRODUCTS ON OUR OWN PROJECTS

GO TO www.carbuilder.com and click on 'BLOGS'

NORVIN



FOREMAN Mk4



BERKELEY T60



WE STOCK A WIDE SELECTION OF WIRE AND CABLE



SPADE TERMINAL 1/4" FEMALE

#TER14F £4 pack of 50 (£4.80 inc vat)

3/16" (4.8mm) FEMALE

#TER48F £1.50 pack of 10 (£1.80 inc vat)



RETURNS

Before placing an order please read carefully our Terms and Conditions on the second and last pages of this catalogue. Thank you

BEFORE YOU PLACE AN ORDER PLEASE CHECK OUT OUR TERMS AND CONDITIONS AT THE FRONT AND BACK OF THIS CATALOGUE

ROTARY SWITCHES

THIS RANGE OF ROTARY SWITCHES fit through a 12mm hole in panels up to 9mm thick. Push-on knob, diameter 23mm. Switch body 30mm x 30mm. 1/4" male spade terminals. Front projection 25mm. Rear projection 36mm. 15 Amp rating.

ON-OFF ILLUMINATED SWITCH

Very nice. With interchangeable green, red and amber lens. **#ROSW** £10 (£12 inc vat)



ON - OFF **#ROSW1** £10 (£12 inc vat)



ON - OFF - ON **#ROSW2** £10 (12 inc vat)



ON - ON CHANGE OVER **#ROSW3** £10 (£12 inc vat)



OFF-ON-ON-ON 4 POSITION
WIRING: +12v into terminal +
POSITION1 - OFF

POSITION2 - Terminals 1 and 2 go live
POSITION3 - Terminals 1 and 3 go live
POSITION4 - Terminals 1 and 4 go live
#ROSW4 £12 (£14.40 inc vat)



THREE SPEED FAN 4 POSITION
OFF - 1 - 2 - 3 **#SWFAN4** £10 (£12 inc vat)



HEADLAMP 3 POSITION OFF - SIDE - HEAD **#ROSWHL** £11 (£13.20 inc vat)



HEADLAMP 4 POSITION OFF - SIDE - MAIN - DIP **#ROSWHL4** £10 (£12 inc vat)



LEFT / RIGHT SPRING RETURN
3 POSITION For electric windows, bonnet or boot release etc.

#ROSWR £11 (£13.20 inc vat)



CRIMP TERMINAL PACK 76 pieces including Male & Female Spades, Ring Terminals, 'U' Terminals and In-Line Joiners in Red, Yellow and Blue sizes. We have to admit there are times when these are OK for a quick and easy connection.

#CTERPAK100 £6 (£7.20 inc vat)

| | | | | | |
|-----------------------------------|------------------------------------|--------------------------------------|---|---|--|
| 22-Wire Butt Connector 4-Piece | 22-Wire Male Disconnect 4-Piece | 22-Wire Female Disconnect 4-Piece | 22-Wire Ring Terminal #10-15 4-Piece | 22-Wire Ring Terminal #10-15 4-Piece | 22-Wire Spade Terminal #10-15 4-Piece |
| 16-Wire Butt Connector 4-Piece | 16-Wire Male Disconnect 4-Piece | 16-Wire Female Disconnect 4-Piece | 16-Wire Ring Terminal #10-15 4-Piece | 16-Wire Ring Terminal #10-15 4-Piece | 16-Wire Spade Terminal #10-15 4-Piece |
| 12-Wire Butt Connector 4-Piece | 12-Wire Male Disconnect 4-Piece | 12-Wire Female Disconnect 4-Piece | 12-Wire Ring Terminal #10-15 4-Piece | 12-Wire Ring Terminal #10-15 4-Piece | 12-Wire Spade Terminal #10-15 4-Piece |



424 PIECE AUTOMOTIVE SUPERSEAL WATERPROOF CONNECTOR MULTI-PACK 22 male and 22 female connectors with male and female pins and yellow silicone seals. See electrical section for assembly instructions.

#WPMULKIT £17.50 (£21 inc vat)

| | | | | | |
|-------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------------|--------------------------------------|
| 6 pin male connectors 2pcs | 6 pin female connectors 2pcs | 5 pin male connectors 3pcs | 5 pin female connectors 3pcs | 4 pin male connectors 3pcs | 4 pin female connectors 3pcs |
| 3 pin male connectors 3pcs | 3 pin male connectors 3pcs | 3 pin female connectors 3pcs | 3 pin female connectors 3pcs | 2 pin male connectors 4pcs | 2 pin female connectors 4pcs |
| 1 pin male connectors 4pcs | 1 pin female connectors 4pcs | female terminals 100pcs | male terminals 100pcs | terminals with yellow seals 90pcs | terminals with yellow seals 90pcs |



DOOR COURTESY SWITCH Fits in an 11mm hole. 10mm sprung travel. Also suitable for interior light, alarm, glove box or boot light activation. Can be cut to length. Overall length 62mm. Single screw fixing. We've even used one of these as a sprung 'popper' for a filler cap flap.
#COURT £3 pair (£3.60 inc vat)



COURTESY SWITCH Here's a very nice quality door (bonnet, boot, glove box etc.) courtesy switch. Sturdy moulded ABS construction with all copper electrical parts. It has a removable, soft rubber surround with a very flexible leaf-seal to keep out water. One 5mm fixing hole. Mounts through a 12mm hole. Facia size 21mm x 33mm. Travel 19mm. Maximum rear projection 50mm.
#COURT2 £10 pair (£12 inc vat)



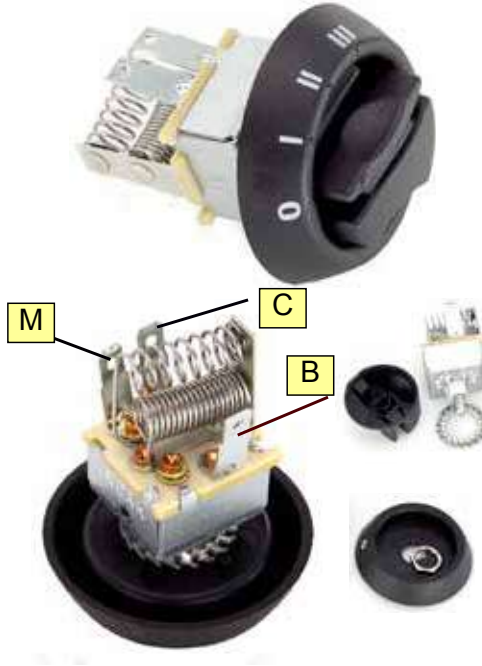
ADJUSTABLE COURTESY SWITCH This sprung-plunger-type switch can be used for door courtesy lighting, bonnet and boot lights or as an alarm trigger. It fits in a 10mm diameter hole and it's two 13mm A/F nuts allow a maximum of 17mm adjustment. A 1/4" male spade terminal is one contact and the plated switch body is the other. So, if you're using this switch on a GRP or plastic panel you'll need to ensure that the switch casing is earthed. Overall length 36mm. Maximum plunger movement 9mm. Thread M10 x 1mm. Weight 16 gms.
#COURT3 £3 (£3.60 inc vat)



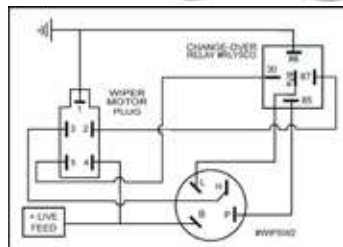
SEE OUR BRAKING SECTION FOR A RANGE OF STOP LIGHT SWITCHES



FAN SPEED CONVERSION SWITCH This clever, four position switch allows you to convert a single speed heater fan motor in to a three speed motor by introducing a resistor coil in switch speed positions two and three. Mounts through a 12mm hole in a panel up to 3mm thick. Bezel diameter 54mm. Rear projection 45mm. 1/4" spade terminals. **WIRING:** Terminal B - 12 V + supply. Terminal M - To fan motor live. Terminal C - To dashboard fan warning light. Connect 12 V earth to fan motor as usual. Maximum 20 Amp load. **IMPORTANT: THE RESISTOR COILS AT THE REAR OF THIS SWITCH WILL GET VERY HOT AND COULD MELT ANY NEARBY PLASTIC. ENSURE THERE IS ADEQUATE SPACE AND CLEARANCE AROUND THE BACK OF THE SWITCH.**
#FANSPD £25 (£30 inc vat)



ROTARY 2 SPEED WIPER SWITCH Nice quality. Nice action. 2 Speed wiper switch with 'Park' facility. Mounts through an 11mm hole. Two flats on mounting thread. Maximum panel thickness 6mm. Knob diameter 30mm. 1/4" Spade Terminals on rear. Rear projection 32mm. Switch body diameter 34mm. 16 Amp max. **NOTE:** Your wiper motor must have two-speed winding and park facility for this switch to work correctly. You will also require a change-over relay for Park operation. **WIRING: B = +12 volts in. L = Low Speed out. H = High Speed Out. P = Park**
#WIPSW2 £16 (£19.20 inc vat)



3 SPEED HEATER FAN SWITCH This 4 position, fan switch will switch your three-speed heater fan without complicated relay wiring. It also has a live out terminal for a warning light or ducting control system. Rubber knob, with fan symbol. 12 Amp current rating.
#SWFAN £8.50 (£10.20 inc vat)



NOTE: YOUR FAN MOTOR MUST HAVE WINDINGS FOR THREE SPEED OPERATION

Wiring Connections:
 C-Live feed to switch
 L-Low Speed 1
 M-Medium Speed 2
 H-High Speed 3
 B-Live out in any on position (e.g. on warning light)

THREE SPEED FAN SWITCH Four position switch for our #HEAT3 heater. 20 amp contact rating with push-on knob and shroud. Shroud diameter 55mm. Fits in an 11mm hole. 1/4" spade terminals.
#SWFAN2 £9 (£10.80 inc vat)



CONNECTOR PLUG FOR fan switches #SWFAN and #SWFAN2 Includes five female spade connectors. Weight 10gms.
#SWFANPLG £2.50 (£3 inc vat)



WE TRY HARD TO PUBLISH ALL THE INFORMATION YOU NEED TO CHOOSE THE CORRECT PART, FIRST TIME. IF YOU NEED HELP, PLEASE ASK

HEADLAMP SWITCHES

HEAVY DUTY TOGGLE SWITCHES

25 Amp 12 Volt. Chrome toggle. Old fashioned Bakelite body. Fit in 12mm hole. For panels up to 8mm thick. 1/4" spade terminals. **OFF-ON(1)-ON(1+2) CHROME TOGGLE** side/head. **#TSHD4 £7.50** (£9 inc vat)

OFF-ON(1)-ON(1+2) BLACK TOGGLE sidelights / headlights. **#TSB3 £4** (£4.80 inc vat)



ROTARY HEADLAMP & HORN SWITCH

Four position OFF-SIDE-DIP - MAIN & PUSH FOR HORN. Big 64mm diameter knob for easy control. 1/4" spade terminal connections. Mounts through a 12mm hole. 40 amp current rating means you don't have to use a relay.

NOTE: To remove knob push a pop rivet shaft into the hole in the side of the knob to release the sprung locating pin on the shaft.

#HLHSW £10 (£12 inc vat)

WIRING TERMINALS: 30 - +12v in, 49a - Horn + feed out, 57 - Side lights + feed out, 56 - Dip beam + feed out, 56a - Main beam + feed out



ROCKER SWITCH OFF/SIDE/HEAD

Illuminated. Overall size 24mm wide by 32mm high. Fits in a rectangular hole 22mm x 30mm. Bezel sits 2mm above mounting surface. Top of rocker sits 9mm above. Maximum rear projection to tip of pins is 42mm. High quality construction and smooth, positive action. 3mm copper round pin terminals on rear. 5mm spade terminals on sides for illumination. 10 Amp. **#RSVALTS £8** (£9.60 inc vat)



3 PINS

PACK OF 5 FEMALE TERMINALS

#RSVACON £1.50 (£1.80 inc vat)



FLOOR MOUNTED DIP SWITCH

Dip your lights the old-fashioned way. 1/4" spade terminal connections. Dimensions 55mm wide x 62mm high. Two 5.5mm mounting holes at 38mm centres. **#DIPSW £10** (£12 inc vat)



CHECK OUT OUR BUILD BLOGS TO SEE HOW WE USE THESE PRODUCTS ON OUR OWN PROJECTS GO TO www.carbuilder.com and click on 'BLOGS'

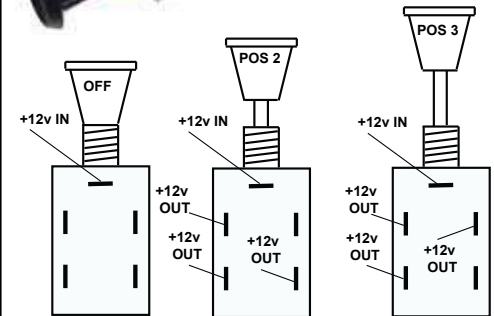
PULL-PUSH HEADLAMP SWITCH

3 position OFF-SIDE-HEAD Screw terminals. Fits in a 10mm hole. Closed length 83mm. Maximum open length 103mm. (knob side only 48mm max) **#PHLSW £9** (£10.80 inc vat)



PULL-PUSH HEADLAMP SWITCH

3 position Push Pull OFF-SIDE-HEAD 30 Amp. Screw terminals. Fits in a 10mm hole. Closed length 78mm. Maximum open length 97mm. (knob side only 42mm max). Max panel thickness 8mm. **#PHLSW2 £10** (£12 inc vat)



ROTARY HEADLAMP SWITCH

3 position OFF-SIDE-HEAD with spade terminal connection. Mounts through a 12mm hole. **#ROSWHL £11** (£13.20 inc vat)



ROTARY HEADLAMP SWITCH 3 position OFF-SIDE-HEAD Plated steel housing with Bakelite terminal plate with 3 spade terminal connections. Mounts through a 14mm hole. Knob diameter 40mm. 40 amp current rating means you don't have to use a relay. **#ROSWHL2 £10** (£12 inc vat)



SWITCH PANELS

All of these panels are suitable for road use provided they are mounted in compliance with IVA regulations

CHROME DOOMSDAY SWITCH PANEL

Chromed aluminium panel 90mm x 65mm x 2.5mm thick with deep, stamped legends. Fitted with an ON / OFF Doomsday Switch, rubber-shrouded engine-start push button and 12 volt red warning light. Four 4.5mm countersunk mounting holes at 70mm x 45mm centres. Front projection 45mm. Rear projection 40mm. OK for road use. **#SWPN7 £10** (£12 inc vat)



CABLE JOINERS HEAT-SHRINK, GLUE & SOLDER

Use a heat gun to melt the solder to join the copper strands. The two rings of glue will melt to seal around the cable insulation and the sleeve itself will shrink tightly around the wire for a strong, permanent, weatherproof joint. **3 Sizes.**

RED For wires up to 2.5mm diameter **#HSSCR £4 pack of 10** (£4.80 inc vat)

BLUE For wires up to 4.5mm diameter. **#HSSCBU £4 pack of 10** (£4.80 inc vat)

YELLOW For wires up to 5.5mm diameter. **#HSSCY £5 pack of 10** (£6 inc vat)



INDICATOR SWITCHES

STALK ASSEMBLY IVA OK This assembly offers left/right indicators, main/dip beam switching, headlamp flash (pull towards you) and horn (press on end) (relay may be required). Pre-wired with a 600mm harness and moulded connector plugs which can be easily cut off and terminals re-made. (matching connectors are not available). Stalk length 190mm. Arm is angled towards the driver and can be carefully re-shaped if necessary. **#INDBK £18** (£21.60 inc vat)



CHROME DOOMSDAY SWITCH PANEL

Chromed aluminium panel 135mm x 65mm x 2.5mm thick with deep, engraved legends. Fitted with a 25 Amp ON / OFF toggle switch, 25 Amp, ON / OFF Doomsday Switch, rubber-shrouded engine-start push button and 12 volt red and green warning Lights. Four 4.5mm countersunk mounting holes at 115mm x 45mm centres. Front projection 45mm. Rear projection 40mm. OK for road use. **#SWPN6 £12** (£14.40 inc vat)



WIRING

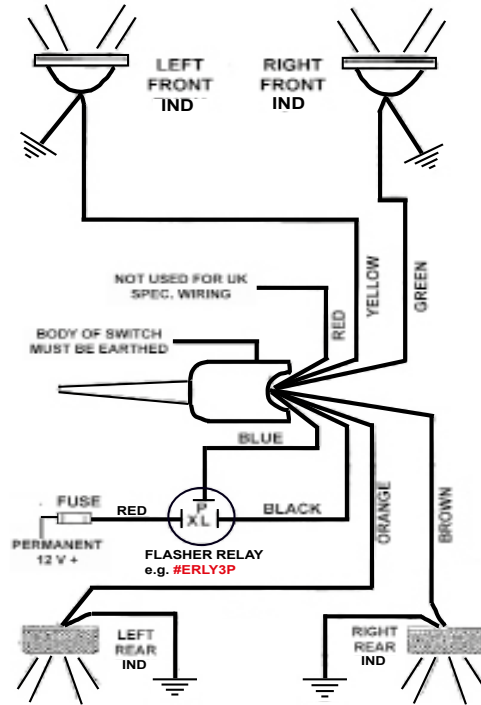
The two loose flyleads:
 GREEN/RED Flasher relay
 GREEN Flasher relay
 TWIN GREEN IN BLACK PLUG Ignition +
 BROWN Permanent +
 PURPLE + Feed to Horn
 GREEN / RED Left Indicators
 GREEN / WHITE Right Indicators
 BLUE Feed from Headlight Switch
 BLUE / RED Dip Beam +
 BLUE / WHITE Main Beam +

IF YOU'RE HAVING PROBLEMS OR ARE UNCERTAIN ABOUT ANY WIRING INSTALLATION WE RECOMMEND THAT YOU CONSULT A QUALIFIED AUTO ELECTRICIAN

INDICATOR STALK ASSEMBLY CHROME

Built-in Hazard switch with red warning light and left & right green indicator lights. 600mm wiring harness and fuse. Will fit up to 56mm diameter column. Body size 85mm x 60mm x 60mm. Overall length 190mm. (not including clip)

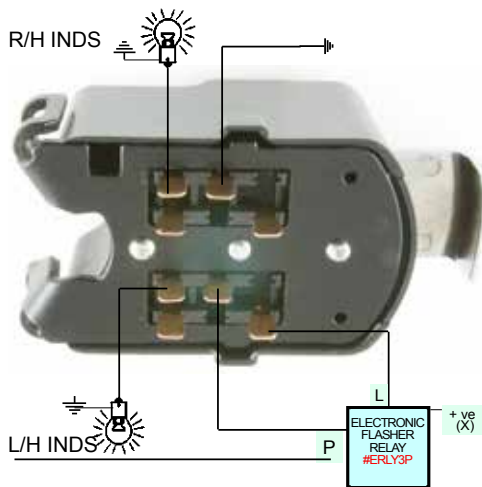
#INDCH £16 (£19.20 inc vat)



HEAVY DUTY INDICATOR STALK ASSEMBLY

Here's a chunky indicator switch that has built-in Hazard switch and hazard and indicator warning lights. It is assembled with a steel base that is shaped to accept the Jubilee clip supplied to clamp the switch around a steering column. Electrical connections are 1/4" male spade terminals on the back. The moulded plastic handle (size 125mm long x 25mm diameter) can be removed (see bottom picture) and an alternative handle fabricated as a replacement. To set the Hazard just pull the plate beneath the indicator arm outwards. To release the Hazard function just operate the indicator lever either up or down.

#INDHD £10 (£12 inc vat)



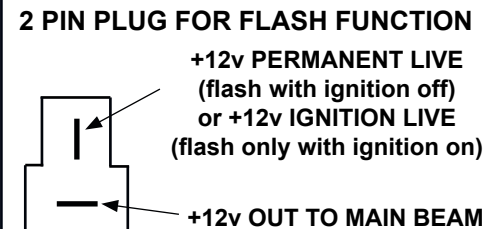
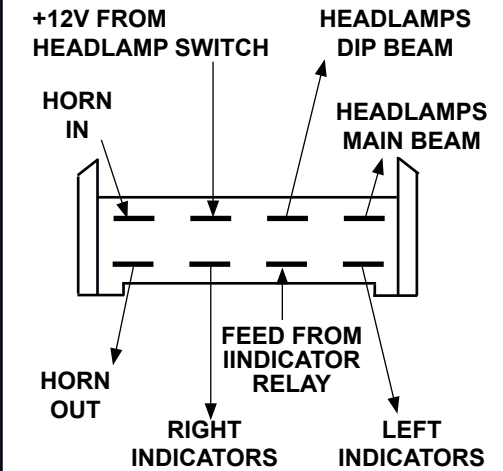
HEAVY DUTY INDICATOR / DIP / HORN STALK ASSEMBLY

A heavy-duty indicator / dip switch with headlamp flash function and push button horn on the end. It has a die-cast stalk and aluminium body that will clamp directly around a 45mm diameter column. (NOTE: smaller diameter columns will require a reducer sleeve.) 500mm long, sleeved cables with one 8 way and one 2 way multi-pin plugs with 1/4" male spade connectors. Body size 100 x 60 x 45mm. Stalk length from centre of column 245mm. Weight 575 gms.

#INDSW11 £18 (£21.60 inc vat)



WIRING: 2 Pin plug - Headlamp flash
8 Pin plug - Brown - Horn
Black/Yellow - Indicator 12v in
Black / White - Left Indicator
Black / Green - Right Indicator
Black - Headlamp 12v in
White - Dip Beam
Yellow - Main Beam



ELECTRONIC FLASHER UNIT

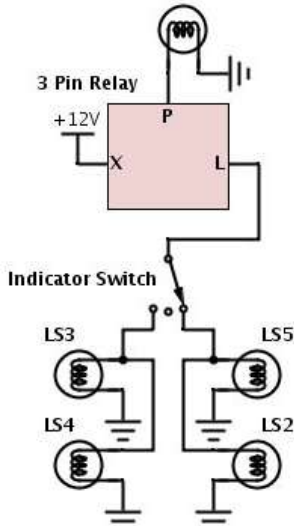
Ideal for our #INDCH.

#ERLY3P

£7.50 (£9 inc vat)



Dashboard Lamp



TOGGLE SWITCH WITH BLACK LEVER.
ON-OFF-ON Fits in a 12mm hole. 1/4" spade terminals. **#TSB2 £4** (£4.80 inc vat)



TOGGLE SWITCH ON-OFF-ON

Fits in 12mm hole. 1/4" spade terminals

#TSHD3 £4
 (£4.80 inc vat)



INDICATOR TOGGLE SWITCH (on/off/on)

Dash mounted Classic style with spade terminals. Stalk 80mm long. Fits in a 12.5mm hole. 1/4" spade terminals. Max. panel thickness 3mm.

#TSIND £10 (£12 inc vat)



ILLUMINATED DASHBOARD INDICATOR TOGGLE SWITCH (on/off/on) 12 volt.

Toggle style with screw terminals on rear. Green translucent knob unscrews to reveal 2 watt bulb inside. Mounts through a 18mm hole. Threaded securing ring diameter 24mm. Max. panel thickness 2mm. Knob front projection 42mm. Knob diameter 15mm. Body diameter 35mm. Body rear projection 19mm.

WIRING: Terminal 49a - Connect to output terminal of flasher relay.
 L - Connect to live side of left indicators.
 R - connect to live side of right indicators.
 K - connect to -12v earth

#INDSW9 £16 (£19.20 inc vat)



DASHBOARD INDICATOR SWITCH (on/off/on) Classic style with clearly labelled screw terminals on rear. Mounts through a 26mm hole. Maximum panel thickness 4mm. Very nice. Nut thickness is only 4.2mm so, in theory, this switch is IVA OK anywhere on your dash.

BLACK KNOB

#INDSW5 £18 (£21.60 inc vat)

ILLUMINATED GREEN KNOB

#INDSW6 £24 (£28.80 inc vat)



BLACK LEVER ROTARY INDICATOR SWITCH Mounts in a 26mm hole in panels up to 3mm thick. Body diameter 47mm. Rear projection 33mm.

#INDSW12 £18 (£21.60 inc vat)



COLUMN MOUNT INDICATOR SWITCH

Simple column mounted indicator switch. Tidy, plated steel adjustable clamping band for up to 40mm column diameter. Chromed brass stalk with black moulded end. Length from centre of column to end of stalk 175mm. Old fashioned Bakelite construction. **#INDSW3 £22** (£26.40 inc vat)



WITH FLASHING GREEN END Same specification as above but with built-in indicator warning light.

#INDSW7 £28 (£33.60 inc vat)



INSTALLATION INSTRUCTIONS

These switches are manufactured from a Bakelite material as authentic copies of the, now unavailable, original Lucas switches. So, like the originals they are relatively fragile and it is important they are handled carefully and installed correctly.

The adjustable clamping band is tensioned by tightening two slotted brass screws that are hidden under the removable face plate. Remove the faceplate and pull out the switch block. Choose a flat screwdriver that is the perfect size for the screw slots and loosen the screws as far as they will go without releasing the clamping band. Form the band around your steering column and hook the two halves together in the tightest possible position. Now re-tighten the screws evenly until the body and clamping band are firmly held around the column.

DO NOT OVER-TIGHTEN THE SCREWS. You can now feed the wires into the switch through the little cut-out in the switch body, next to the column and connect them to the switch block. Re-insert the switch block and refit the cover. **AGAIN, DO NOT OVER-TIGHTEN THE SCREWS.**



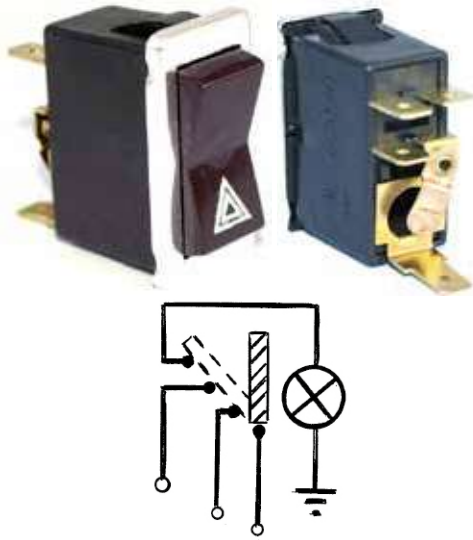
CUT-OUT FOR WIRES

HAZARD SWITCHES

There are many switch and wiring configurations for hazard circuits. If you are using a donor loom it would be wise to try to match the original switch functions. The diagrams below show examples of how to wire the specific switches shown. If in doubt we recommend that you consult a vehicle electrician.

ILLUMINATED HAZARD ROCKER SWITCH

SWITCH Chrome bezel. Fits hole 18mm x 36mm. 5mm spade terminals. Bulb included. As supplied in our #HAZKIT #HAZSW2 £8.50 (£10.20 inc vat)



PUSH PULL DASHBOARD HAZARD SWITCH

SWITCH Very nice, illuminated 24mm diameter soft rubber knob so IVA OK anywhere on your dash (with legend sticker or separate warning light). Three 1/4" spade terminals on rear and one for earth on the mounting thread. Mounts through a 10mm hole. Maximum panel thickness 4mm. Pull the switch and all three contacts on the back are made.

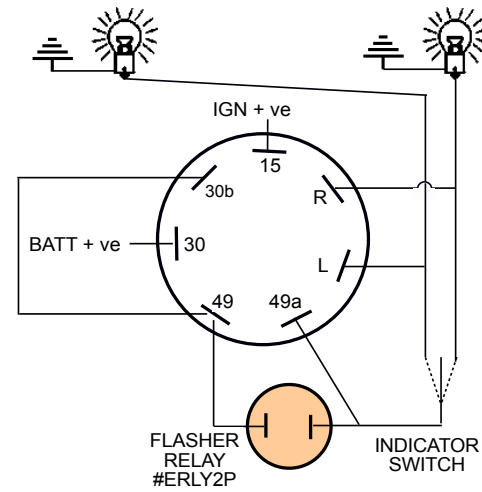
NOTE: The red knob has a small conical spring inside that keeps pressure on the bulb connections. Take care not to lose the spring when installing the switch and make sure that the pointed end of the spring is towards the bulb. #HAZSW4 £10 (£12 inc vat)



PUSH BUTTON HAZARD SWITCH

Illuminated, shower proof, Push-Button switch with a 40mm diameter rubber diaphragm bezel. Fits in a 30mm diameter hole. Suitable for up to 6mm panel thickness. Seven, 1/4" spade connections on the back. Front projection 16mm in off position, 53mm projection at rear.

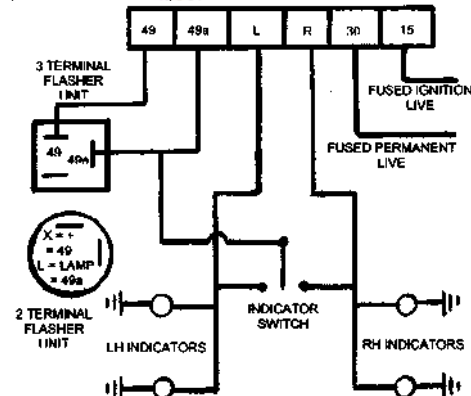
#PBHAZR £11 (£13.20 inc vat)



HAZARD ROCKER SWITCH

Fits hole 18mm x 36mm. 5mm spade terminals. Supplied with example instructions. Requires separate warning light.

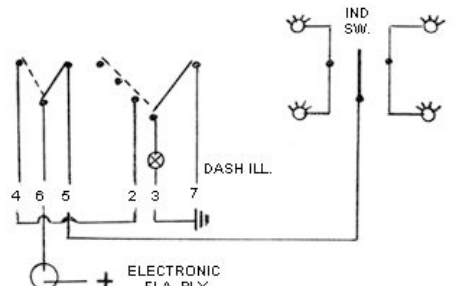
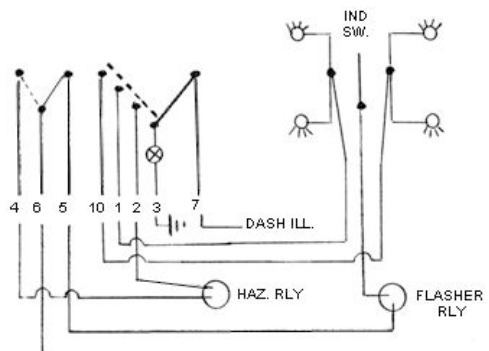
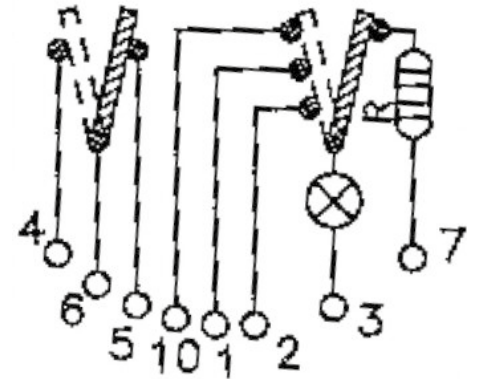
#HAZSW £6 (£7.20 inc vat)



PUSH BUTTON HAZARD SWITCH

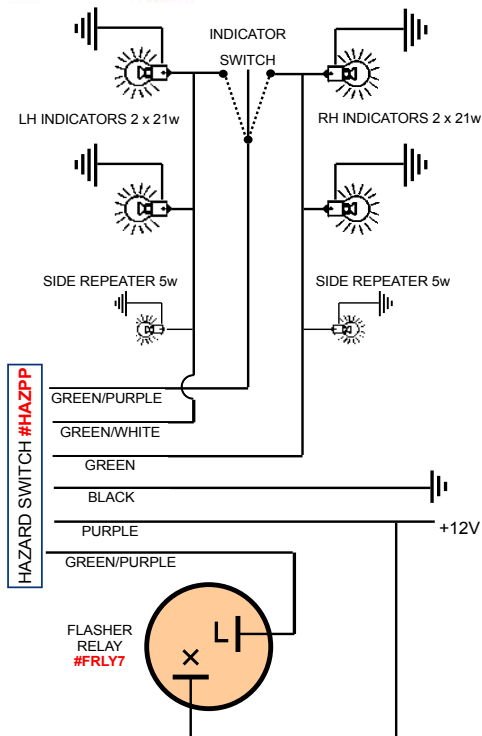
Illuminated Push-Button switch with a bezel size of 34mm x 39mm. Fits in a rectangular hole 30mm x 25mm. 5mm (3/16" spade connections on the back. Maximum front projection 14mm in off position, 9mm in on position. 47mm projection at rear.

#PBHAZ £11 (£13.20 inc vat)

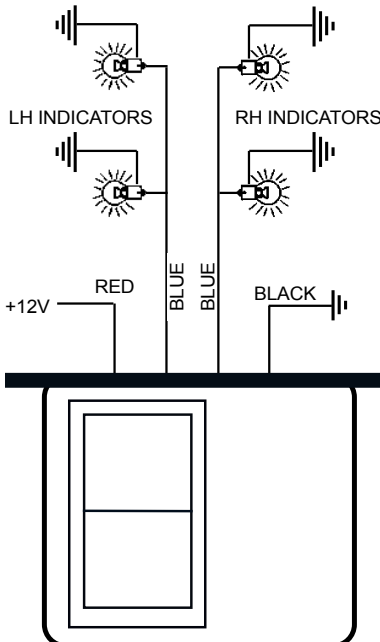


PUSH PULL HAZARD SWITCH

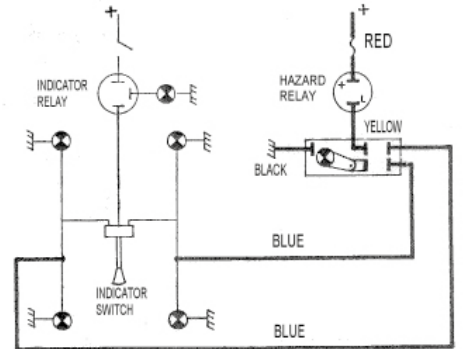
Here's an under-dash mounting hazard switch that is pre-wired to a hazard relay and is mounted on it's own steel bracket with a plastic shroud. It has an integral fuse and holder and a 400mm long wrapped wiring harness. The red Push-Pull knob illuminates when pulled to the 'ON' position. The diagram below shows an example of how the six wires of the switch can be connected to an indicator flasher circuit. An alternative 'Chrome' switch locking nut is supplied if you wish to change from the brass one fitted. Knob diameter 20mm. Maximum overall length with switch in 'ON' position 142mm. 2 x 5mm mounting holes in the bracket and shroud @ 38mm centres. **#HAZPP £28** (£33.60 inc vat)



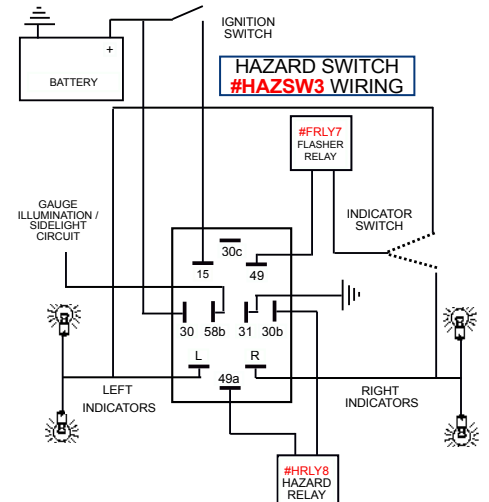
HAZARD KIT Here's an under-dash kit to add Hazards to your indicator circuit. The Illuminated Rocker Switch is pre-wired to a relay and both are mounted on a 52mm x 43mm panel that you can screw under your dash edge. Front to back maximum dimension 80mm. Two, 5mm mounting holes at 60mm centres. 400mm sleeved flyleads and ring terminal for earth. Weight 100 gms. **#HAZKIT2 £18** (£21.60 inc vat)



HAZARD KIT All you need to add Hazards to your indicator circuit. The illuminated Rocker Switch fits in a hole 18mm x 36mm. A moulded mounting bracket for the switch, a Hazard Relay, five x 400mm long leads with insulated female spades on one end and an in-line fuse in one of them are all included. **#HAZKIT £18** (£21.60 inc vat)



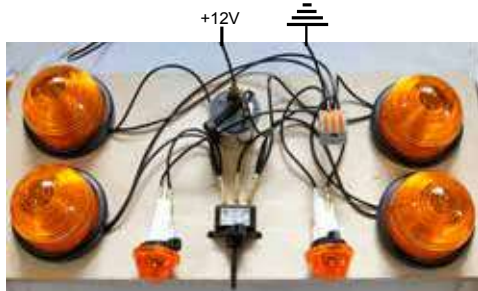
HAZARD SWITCH Nice quality with a very positive action. Bezel diameter 37mm. Snaps into a 33mm hole in panels up to 10mm thick. Replaceable bulb. 40mm maximum rear projection. Terminal designations: 15, 30c, 49, 30b, 31, 58b, 30, 49a, L, R. (see charts elsewhere in this catalogue) **#HAZSW3 £6** (£7.20 inc vat)



HAZARD & FLASHERS

Indicator and Hazard circuits rank pretty high in the 'problem' stakes when building a car. The problem is - there is no single, universal way to do it. There are hundreds of switches, lamps and relays available and hundreds of ways to wire them. If you're in any doubt over your wiring it always make sense to mock-up a circuit on the bench. Here, we've made a simple indicator circuit on a small piece of plywood using four **#RL15** indicator lamps, a pair of **#SR5** side repeaters, a flasher relay **#FRLY7** and an ON/OFF/ON toggle switch **#TSN4**. A few short pieces of 5 Amp wire, some spade connectors and a **#QCON3** connect it all together. A 12 volt battery is all that's needed to make it work and prove your design.

When you have the indicator circuit working you can add the Hazard function. All the information you need is in this catalogue. Just take it steady and work through it one wire at a time - you may surprise yourself !!



HOW DOES A FLASHER RELAY WORK?

The traditional, 2-terminal flasher relay is the mainstay of most indicator and hazard circuits. When you're problem-solving your circuit it's useful to understand how these little beauties work. Well, inside the aluminium can is basically just a switch whose contacts open and close at a specified time interval to turn the indicator lights on and off. But, getting the correct time interval is the clever bit. One of the switch contacts is mounted to the main metal frame inside the aluminium can which continues through the base to one of the spade terminals - 'L'. The other switch contact is riveted to a bi-metallic strip which is isolated from the main frame and is connected to the other spade terminal - the +12 volt supply terminal - 'X'. (terminal designations can vary. There is a list of different ones in the catalogue). Also connected to this terminal is a tiny heater coil which is fixed to and is in direct contact with the bi-metallic strip.

When the indicator switch is turned on current flows through the heater coil, warming-up the bimetallic strip (which bends when heated) and closes the switch contacts, turning the lights on and the heater coil off. The bi-metallic strip cools down, bends back and the switch contacts are open again and the heater starts again - and so on and so on.

The heater and bi-metallic strip are made to exacting specifications so that the correct bulb wattage - 2 x 21 watt and one x 5 watt - total 47 watts (two indicators and a side repeater) is the exact power needed to open and close the switch contacts at exactly the correct flashing interval.

A hazard flasher relay does the same but at a total of 94 watts. An added benefit of this type of flasher relay is that, if you have a dodgy bulb you'll know because the flash rate will change or not flash at all.



| FLASHER UNIT TERMINAL DESIGNATIONS BY COUNTRY | | | | |
|--|---------|--------|-------|---------|
| | GERMANY | FRANCE | JAPAN | US & GB |
| + 12V | +49 | + | B | X / B |
| LAMPS | 49a | C | L | L |
| DASH INDICATOR | C | R | | P |
| EARTH | 31 | | E | Ground |
| 2nd DASH INDICATOR | C2 | R2 | | C2 |

HAZARD RELAY 4 PIN SUITABLE FOR CARAVANS AND TRAILERS

Four 1/4" spade terminals in non-standard pattern. 6 x 21 watt maximum load. 3mm spade terminals pins C2 and 31 on top for a second dash indicator light. **#HRLY9 £19 (£22.80 inc vat)**

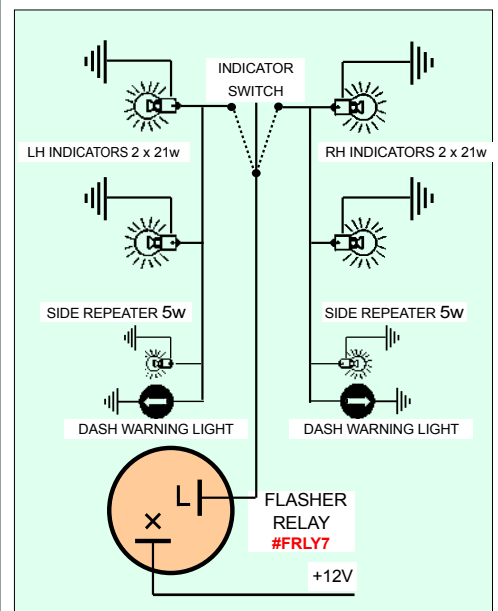
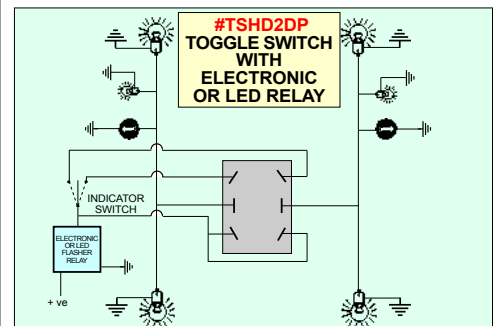
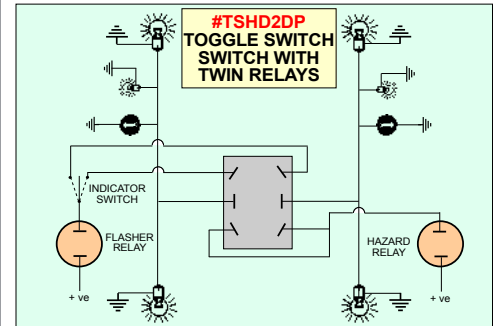
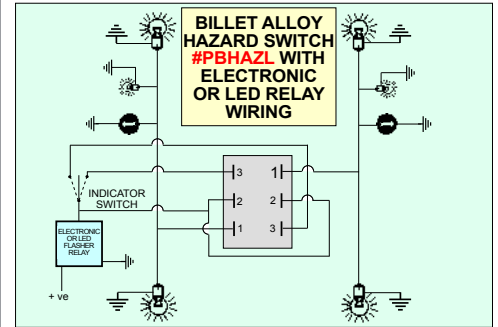
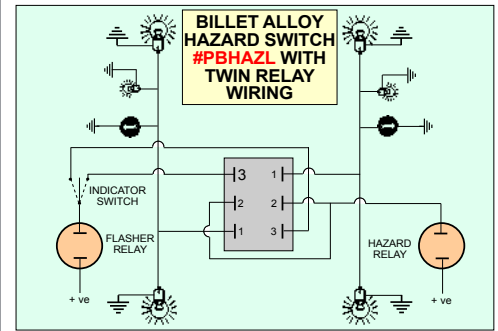


TWO POLE RELAY 5-PIN 25 Amp

This relay is ideal for creating a Hazard Circuit using any single pole ON / OFF switch. **#2POLERLY £9 (£10.80 inc vat)**



HAZARD AND INDICATOR WIRING EXAMPLES



2 PIN LED FLASHER RELAY

For all LED indicator lamps.
1/4" spade terminals.
30 watt maximum load.
With mounting bracket.

#LEDRLY2P

£14.50 (£17.40 inc vat)

TERMINAL WIRING

+ - +ve Supply
L - To Ind. switch (lamps)



3 PIN LED FLASHER RELAY

For all LED indicator lamps.
1/4" spade terminals.
30 watt maximum load.
With mounting bracket.

#LEDRLY3P

£13 (£15.60 inc vat)

TERMINAL WIRING

+ - +ve Supply
L - To Ind. switch (lamps)
P - Dash warning lamp



2 PIN ELECTRONIC FLASHER RELAY

For any type of indicator lamps.
1/4" spade terminals.
180 watt maximum load.
With mounting bracket.

#ERLY2P

£7.50 (£9 inc vat)

TERMINAL WIRING

X - +12v Input
L - To Ind. switch (lamps)



3 PIN ELECTRONIC FLASHER RELAY

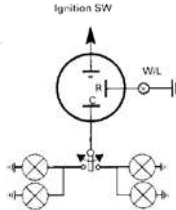
For any type of indicator lamps.
1/4" spade terminals.
180 watt maximum load.
With mounting bracket.

#ERLY3P

£7.50 (£9 inc vat)

TERMINAL WIRING

X - +12v Input
P - Dash warning light
L - To Ind. switch (lamps)



LED FLASHER RELAY For all LED indicator lamp systems. 1/4" spade terminals. 30 watt maximum load.

#LEDRLY **£13** (£15.60 inc vat)

TERMINAL WIRING

49 - +12v Input
49a - Output to indicator switch
31 - Earth

NOTE: This product may be supplied in RED or BLACK



ELECTRONIC FLASHER RELAY

1/4" spade terminals. 98 watt maximum load.

#ERLY2

£7.50 (£9 inc vat)

TERMINAL WIRING

49 - +12v Input
49a - Output to indicator switch
31 - Earth



HAZARD AND FLASHER RELAY 4 PIN

Four 1/4" spade terminals in non-standard pattern. 98 watt maximum load.

#HRLY10

£12 (£14.40 inc vat)

TERMINAL WIRING

+ (49) - +12v Input
- (31) - Neg -12v
L - (49a) Lamps-
C - Dash warning lamp



FLASHER RELAY

Two 1/4" spade terminals. 47 watt maximum load.

#FRLY7

£4 (£4.80 inc vat)



HAZARD RELAY

Two 1/4" spade terminals. 90 watt maximum load.

#HRLY8

£4 (£4.80 inc vat)



3 PIN FLASHER RELAY

Three 1/4" spade terminals. One pin is an output for a dashboard warning light so you can use just a single, twin arrow warning light.

47 watt maximum load.

#FRLY3P

£4.50 (£5.40 inc vat)

TERMINALS

X - +12 volt input
L - Load (Bulbs)
P - Dash indicator lamp



2 PIN FLASHER RELAY

Two 1/4" spade terminals. 47 watt maximum load.

76mm high including bracket.

#FRLY2P

£4.50 (£5.40 inc vat)

TERMINAL WIRING

X - +12 volt input
L - Load (Bulbs)



ELECTRONIC FLASHER RELAY

1/4" spade terminals. 92 watt maximum load. 4 x 21w + 2 x 4w

#ERLY4

£6.50 (£7.80 inc vat)

TERMINAL WIRING

B - +12v Input
L - Output to indicator switch
E - Earth



3 PIN TRANSPARENT ELECTRONIC FLASHER RELAY

For any type of indicator lamps. 1/4" spade terminals. 224 watt maximum load. 50mm high.

#ERLY3PCL **£5** (£6 inc vat)

TERMINAL WIRING

X - +12v Input
P - Dash warning light
L - To Ind. switch (lamps)



2 PIN TRANSPARENT ELECTRONIC FLASHER RELAY

For any type of indicator lamps. 1/4" spade terminals. 224 watt maximum load. 50mm high.

#ERLY2PCL **£5** (£6 inc vat)

TERMINAL WIRING

X - +12v Input
L - To Ind. switch (lamps)



6 VOLT 2 PIN 18/23W FLASHER RELAY

This unit is supplied fitted to a neat rubber holder that you can use with a cable tie or simple mounting bracket. Two 1/4" male spade terminals. Wiring:

X - Battery via ignition switch

L - Indicator switch

#FRLY6V2 **£5** (£6 inc vat)

6V



6 VOLT 18/23W FLASHER RELAY

This unit is supplied fitted to a neat rubber holder that you can use with a cable tie or simple mounting bracket. Three 1/4" male spade terminals. Wiring:

X - Battery via ignition switch

P - Dash warning light

L - Indicator switch

#FRLY6V **£5** (£6 inc vat)

6V



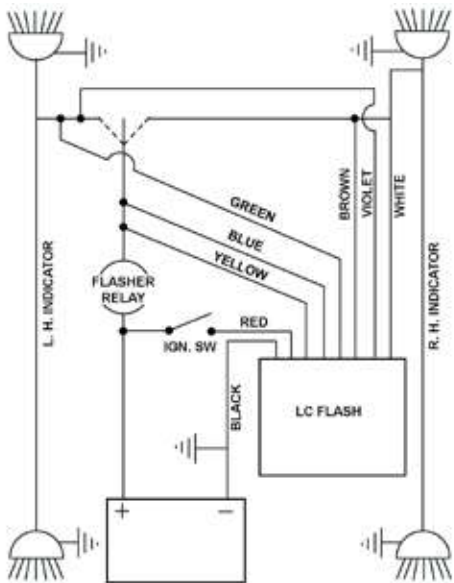
LANE CHANGE FLASHER TIMER

Many column-mounted indicator switches make a momentary connection just before they latch in either left or right position. This unit uses this momentary 'pulse' to switch on the indicator for three flashes. NOTE: Your vehicles indicator lamps or flasher relay must have a permanent earth for this device to work.

CONNECTIONS

- RED - Ignition +12 volts.
- BLACK - Earth.
- WHITE - Right Indicator Lamps Circuit.
- PURPLE - Left Indicator Lamps Circuit.
- BLUE - Connect into feed to Right side Indicator switch.
- YELLOW - Connect into feed to Left side indicator switch.
- BROWN - Connect into output of Right side indicator switch.
- GREEN - Connect into output of Left side indicator switch.

#LCFLASH £10 (£12 inc vat)



3 PIN ADJUSTABLE FLASHER RELAY
PLEASE SEE ONLINE LISTING FOR DETAILS ON THIS PRODUCT

#FRLYADJ £16 (£19.20 inc vat)

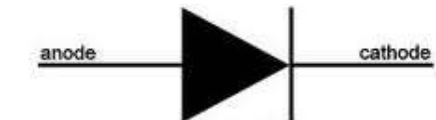
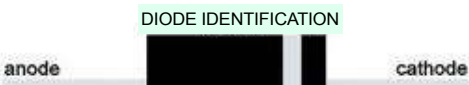
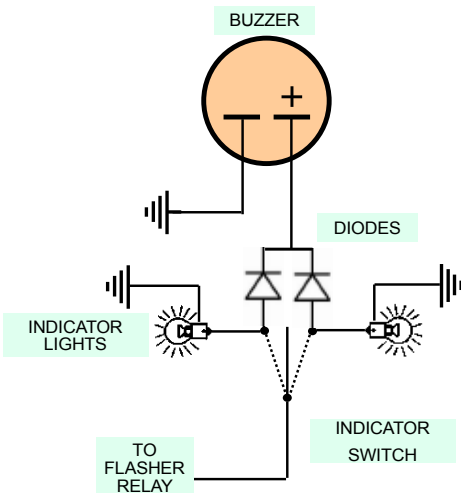


INDICATOR WARNING BUZZER

Our Indicator Warning Buzzer Kit contains a Buzzer module which can be mounted under or even on your dash and two Diodes. A simple wiring job, following this diagram will give you an audible warning that you have left your indicators on. It is important that you connect the diodes the correct way around. See the diagram below and look for the silver ring around one end. Join these two ends together and connect them to the + terminal of the buzzer. Connect the other end of the diodes to the left and right indicator light circuit.

#INDBUZ £6 (£7.20 inc vat)

NOTE: WIRE AND TERMINALS ARE NOT INCLUDED



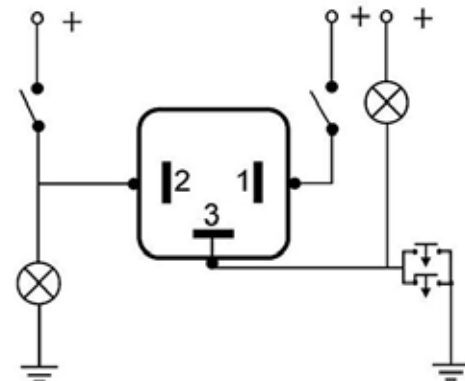
CIRCUIT DIAGRAM SYMBOL FOR A DIODE

LIGHTS LEFT ON WARNING BUZZER

This little buzzer will end the pain of a flat battery after leaving the lights on. Here's how it works: When your lights are on they feed 12v + to terminal 2. When your door is open, the door switch makes an earth connection to terminal 3. If your ignition switch is on, the buzzer is silent but when you turn your ignition switch off and the door is open the buzzer activates. Three 1/4" male spade terminals.

Wiring:

- Terminal 1 - 12v+ from ignition switch
- Terminal 2 - 12v+ from side lights
- Terminal 3 - through door courtesy switches to earth. **#RLYBUZ £12** (£14.40 inc vat)



UNIVERSAL 10 AMP 50 VOLT IN-LINE SILICON DIODE Diodes are, effectively, a one-way valve for electrical circuits. They are often used in automotive wiring circuits - for instance, to electrically separate two switches that have the same function. For example, the headlamp switch and the stalk headlamp flasher so both can, independently, operate the same lights. Voltage: Max reverse voltage 50 volts. Max forward voltage 0.9 volts. Current: Max forward current 10A Max leakage current 25µA. Nylon case. Length 63mm. Diameter 12mm. Termination: Anode 6.3mm spade terminal. Cathode 6.3mm female push-on spade terminal. Weight: 5g **#UID £3** (£3.60 inc vat)



RELAYS

WARNING: IF CURRENT IS PERMITTED TO PASS DIRECTLY TO EARTH WITHOUT PASSING THROUGH A LOAD THE RELAY / FLASHER UNIT CAN BURN OUT

STANDARD RELAY 30 Amp 4 Pin

For simple on/off switching of fans, horns, lamps etc. With removable mounting bracket. **#RLY4 £4** (£4.80 inc vat)



CHANGE-OVER RELAY 30 Amp 5 pin.

For two -operation devices. With removable mounting bracket. **#RLY5CO £5** (£6 inc vat)



LATCHING CHANGE-OVER RELAY

12v 25/25A Momentarily energise the coil and the relay will mechanically latch on one set of contacts. Momentarily energise again and it will change over to the other contact. For Dip/Main beam with momentary switch. A spring mounting clip on the case will clip onto the edge of a thin panel.

#RLY6LAT £26 (£31.20 inc vat)
NOTE: NON -STANDARD PIN LAYOUT. WILL NOT FIT IN OUR RELAY BOX



40 AMP HEAVY DUTY RELAY 12 Volt. 40 Amp. Four 1/4" male spade terminals. Mounting bracket. **#RLY40 £5** (£6 inc vat)



100 AMP 12v RELAY For simple switching of high power accessories up to 100 Amps. Control terminals 1/4" male spade. Power terminals 2 x M6 studs for ring terminal connectors. Overall size 62mm x 46mm x 46mm. One 6mm mounting hole. **#RLY100 £15** (£18 inc vat)



70 AMP HEAVY DUTY RELAY

Two 9.5mm and two 6.5mm terminals. **#HDRLY £8** (£9.60 inc vat)



HEAVY DUTY RELAY HOLDER.

Size 38mm x 33mm x 45mm high. Two 3/8". two 1/4" and four 1/8" female spade terminals included. Accepts our #HDRLY. Multiples can be interlocked together side by side. **#RLYHOLDH £4** (£4.80 inc vat)



TWO OUTLET RELAY 5-PIN 40 Amp

This relay has two, parallel 20 Amp outlet terminals. Could be used for feeding two fuel pumps, for instance, from a single pole ON / OFF switch.

#2OUTRLY £7 (£8.40 inc vat)



TWO POLE RELAY 5-PIN 25 Amp

This relay is ideal for creating a Hazard Circuit using any single pole ON / OFF switch. **#2POLERLY £9** (£10.80 inc vat)

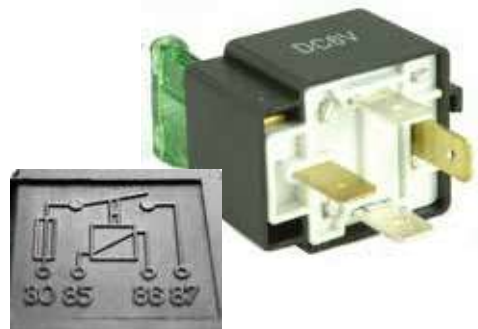


6 VOLT FUSED RELAY 30 Amp.

Here's a neat relay with an integral 30 Amp fuse on the output side. Four 1/4" male spade terminals. Mounting bracket.

#6VRLY £8.50 (£10.20 inc vat)

6V



RELAY PLUG Moulded plastic, 5 terminal relay holder with five, 1/4", female spade crimp terminals.

#RLYPLUG £2.50 (£3 inc vat)



RELAY HOLDER Here's a universal single relay holder. Size 31mm x 27mm x 30mm high. Five female spade terminals included that can be inserted in the holder in any configuration as required.

#RLYHOLD £3 (£3.60 inc vat)



FUSE BOX & RELAY HOLDER Here's a unique little accessory that will make adding additional circuits easy peasy. It's a single moulding that accepts a single relay and three blade type fuses. Size 60mm x 33mm x 45mm high. Two or more can be locked together. All terminals included

#FBRLY £4.50 (£5.40 inc vat)



4 WAY RELAY BOX Takes four, 24mm high, standard terminal pattern relays with up to 5 terminals each. Connector terminals included. Overall base size 130mm x 87mm. Plastic cover. **#RLYBOX £19** (£22.80 inc vat)



20 AMP CHANGE OVER MICRO RELAY

Two 6.5mm and three 5mm terminals.

#MRLYCO £6 (£7.20 inc vat)



22 AMP NORMALLY OPEN MICRO RELAY Two 6.5mm and two 5mm terminals.

#MRLYNO £5 (£6 inc vat)



MICRO RELAY HOLDER

Two 6.5mm and three 5mm terminals. Accepts our Micro relays #MRLYCO and #MRLYNO. Multiples can be interlocked together side by side

#RLYHOLDM £3 (£3.60 inc vat)



MULTICORE TIN / LEAD SOLDER

Proper, old-fashioned Tin / Lead solder makes the best and easiest soldering joints.

This is a 500gm roll of 1.2mm diameter Solder. 2% Flux. Grade C. (Tin) Sn40 / (Lead) Pb60.

#SOLDER £23 (£27.60 inc vat)



100gm SOLDER

60/40 Tin/Lead. 1mm diameter. Approx. 16 mtrs. .

#SOLDER100 £5.50 (£6.60 inc vat)



7 WAY MICRO RELAY BOX Takes seven of our, standard terminal MICRO RELAYS with up to 5 terminals each. Terminals included. Overall base size 130mm x 87mm. Plastic cover. Four removable feet with 8mm mounting holes at 80 x 92mm centres. Modular design - link two or more together. **#RLYBOX2 £19** (£22.80 inc vat) INSTRUCTIONS: Crimp or crimp and solder wires to terminals and insert the correct way around from underneath. Then push in the yellow location guide in from the top.



SPADE TERMINAL 1/4" FEMALE

#TER14F £4 pack of 50 (£4.80 inc vat)

3/16" (4.8mm) FEMALE

#TER48F £1.50 pack of 10 (£1.80 inc vat)



BEFORE YOU PLACE AN ORDER PLEASE READ OUR TERMS AND CONDITIONS AT THE FRONT AND BACK OF THIS CATALOGUE

FAN, STOP & OIL SWITCHES

FAN SWITCH For use with a relay or our own accessory wiring kit. M14 x 1.5 thread. 1/4" Spade connections.

On at 87°C and off at 82°C #FANSW
On at 97°C and off at 85°C #FANSW4
On at 100°C and off at 95°C #FANSW2
OFF at 107°C and ON at 97°C (requires change-over relay) #FANSW3
All £12 (£14.40 inc vat)



FAN SWITCH M22 x 1.5 thread. 1/4" Spade connections. 30mm A/F Hex. Weight 60 gms.

On at 95°C and off at 86°C #FANSW5
On at 88°C and off at 79°C #FANSW6
On at 82°C and off at 72°C #FANSW8
All £12 (£14.40 inc vat)



TWO STAGE RADIATOR FAN SWITCH

If you have two cooling fans on your radiator you can save fuel and run your engine more efficiently by switching them on and off one at a time, automatically.

Stage 1 on at 93°C off at 88°C.

Stage 2 On at 97°C off at 92°C.

M22 x 1.5mm thread with aluminium sealing washer. Three 1/4" male spade terminals.

Use with a Relay or our own accessory wiring kit.

#FANSW9 £13.50
 (£16.20 inc vat)



TEMPERATURE GAUGE SENDER 1/8" npt thread will fit into our in-line housings (shown below). High temperature insulated fly leads with bullet terminals. Resistance: @

5°C - 4.3kΩ

43°C - 1.0kΩ

100°C - 140Ω

#TEMPS £8 (£9.60 inc vat)

HOUSING NOT INCLUDED



TEMPERATURE GAUGE SENDER

1/8" npt thread. M5 threaded terminal with nut. Thread and probe length 21mm.

Resistance: @ 1°C - 2.6kΩ

50°C - 100Ω

98°C - 75Ω

#TEMPS2 £8 (£9.60 inc vat)



HYDRAULIC STOP LIGHT SWITCH

Seal with PTFE tape or hydraulic sealant.

Two 1/4" spade terminals.

M10 x 1 taper thread

#STSH £6.00
 (£7.20 inc vat)

3/8" UNF parallel thread.

#STSH38 £6
 (£7.20 inc vat)



M10 x 1 taper thread. 2 screw terminals.

#STSHST £6
 (£7.20 inc vat)



1/8" NPT thread. 22mm Hex.

#STSH18 £6
 (£7.20 inc vat)



MECHANICAL STOP LIGHT SWITCH

Plunger type. Fits through 12mm hole.

Spade terminal connection. Overall length 55mm. Push to break connection.

#STSM £7.50 (£9 inc vat)



STOP LIGHT SWITCH PULL - TO - MAKE

Fits in a 12mm hole with two locknuts. Spring length 100mm. Overall length 165mm. 100mm flyleads with bullet terminals. **#STSSPR2 £7.50** (£9 inc vat)



STOP LIGHT SWITCH PULL - TO - MAKE

Simply push the knurled nut into a 14mm hole and screw in the switch to self tighten. 300mm sleeved flylead with bullet terminals.

SPRING NOT INCLUDED

#STSSPR3 £5 (£6 inc vat)



STOP LIGHT SWITCH PULL - TO - MAKE

Simply push the nut into a 15.5mm (5/8") hole and screw in the switch to self tighten. Spring length 100mm. Overall length 165mm. 100mm flyleads with bullet terminals. **#STSSPR4 £7.50** (£9 inc vat)



OIL LIGHT SWITCHES These will switch on your dashboard oil light when pressure falls below 5 psi.

M10 x 1 thread 1/4" spade connector.

#OILSW £6 (£7.20 inc vat)



1/8" NPT thread 1/4" spade connector.

#OILSW18 £6 (£7.20 inc vat)



1/4" NPT thread 1/4" spade connector.

#OILSW14 £6 (£7.20 inc vat)



M12 x 1.5 thread 1/4" spade connector.

22mm Hex. **#OILSWM12 £6** (£7.20 inc vat)



M14 x 1.5 thread. 1/4" spade connector.

22mm hex. **#OILSWM14 £6** (£7.20 inc vat)



STOP LIGHT SWITCH

A mechanical switch for mounting directly to your brake pedal or handbrake lever. Pull the spring to make the contacts. Overall length 130mm. Switch block has 2 x 4mm mounting holes at 24mm centres. Spring diameter 8mm. Switch block max. dims. 40mm x 33mm wide x 25mm high. Screw terminals.

#STSSPR £12.50 (£15 inc vat)



PLUGS & SOCKETS

SHROUDED LIGHTER POWER SOCKET

Moulded shroud and lighter socket. Surface mounted 12 volt, outlet. Press-in soft rubber cover plug for when socket is not in use. Overall size 80mm x 55mm x 40mm high. 1/4" Spade connections. Two 4mm mounting holes at 43mm centres. 16 Amp max. **#LTRPSS £10** (£12 inc vat)



SWITCHED LIGHTER PLUG 12 volt lighter plug with an illuminated on/off rocker switch. 8 amp. Screw terminals inside. 95mm long.

#SWLTRP £6 (£7.20 inc vat)



CONVERTIBLE DIN PLUG / LIGHTER PLUG

Here's a clever design. One plug that will fit both DIN sockets and Lighter Sockets. The sliding red cage moves and locks in both positions. The plug has an 8 Amp internal ceramic fuse and a green LED to indicate that there is power.

#DINPLUG £5.50 (£6.60 inc vat)



PLUG AND SOCKET Socket fits into an 18mm hole and has integral dust cap and spade terminals on the rear. Plug has brass connections and screw terminals inside the screw-on cap. Ideal for lead light or battery charger etc. **#PLUG £11** (£13.20 inc vat)



SURFACE MOUNTING SHROUD FOR

#USBSKT4 & 5 Black plastic surface mount shroud. Footprint 73mm x 49mm.

The mounting hole is threaded so the socket can screw in directly. Two mounting screws supplied. **#USBSHRD £3** (£3.60 inc vat)



28mm SWITCH PANEL Here's an easy, under-dash or glove box mounting option for all 28mm diameter sockets and switches. 28mm hole. 55mm wide. 44mm high.

Two 5mm wide mounting slots at 36mm centres. Shown with USB socket fitted as example (**NOT INCLUDED**)

#SP28 £3 (£3.60 inc vat)



TWIN SURFACE MOUNTING SHROUD

with two, industry standard 29mm diameter holes for mounting a range of USB and power sockets. Size: 99mm x 76mm x 49mm high. Two 4mm mounting holes. Mounting screws included.

#USBSHRD2 £5.25 (£6.30 inc vat)

NOTE: SHROUD ONLY SUPPLIED.

#LTRPS and #USBSKT SOCKETS SHOWN FOR DEMONSTRATION ONLY



RETRO / CLASSIC STYLE CIGARETTE LIGHTER

With illuminated amber bezel. Fits in a 25mm hole in panels up to 3mm thick. Overall length 90mm. Rear projection 60mm Front projection 26mm. Bezel diameter 31mm. Male bullet connector for +12v supply and illumination live feed.

1/4" male spade earth connection

#LTR2 £4 (£4.80 inc vat)



SHOWER PROOF POWER SOCKET

Moulded lighter-style power socket with shower-proof rubber cap. Cap diameter 38mm. Fits through a 28mm hole in a dash up to 15mm thick. Front projection with cap on 21mm. Rear projection up to 40mm. 150mm long fly-leads. 10 Amp max.

#LTRPS4 £7.25 (£8.70 inc vat)



POWER SOCKET Very nice lighter style 12 volt outlet socket for phone charger, GPS etc. Retained cover plate. Fits through a 27mm hole. 20 Amp max. For up to 5mm thick panels. #LTRPS £7.25 (£8.70 inc vat)



POWER SOCKET 12V IVA OK Low profile. 2 spade connections on rear. Flip up plastic cover. Fits in 30mm hole. 16 Amp capacity. Ideal for GPS, phone etc. For up to 9mm thick panels. #LTRPS2 £7 (£8.40 inc vat)



CIGARETTE LIGHTER Complete socket and lighter. Illuminated. Fits 27mm hole.

#LTR £5 (£5.60 inc vat)



'LOCKING' LIGHTER STYLE POWER SOCKET

12 Volt outlet power for GPS, mobile phones, tablets, MP3 players etc. 20 Amp maximum current. Two 1/4" spade terminals on the back marked + and -. Can be fitted through a 29mm hole in your dashboard or with the 60mm x 45mm fascia plate supplied. Two shallow indents inside the socket allow 'locking' or 'unlocking' of the plug with a few degrees rotation. Includes two stainless countersunk self-tapping screws. #LTRPS5 £5 (£6 inc vat)



FUSED 12V LIGHTER STYLE OUTLET

SOCKET With a retained rubber cap. Fits in a 28mm hole. Two 4mm holes on fascia plate @ 40mm centres. 1/4" spade terminals on rear. Supplied with 900mm wires with a 4mm ring terminal on the negative and an in-line fuse holder with a 15 Amp glass fuse on the positive. #LTRPSF £10 (£12 inc vat)



FLOATING LIGHTER STYLE POWER SOCKET

Can clip directly on a battery with two 75mm crocodile clips. Moulded lighter-style power socket with shower-proof rubber cap. Overall length of clips, lead and socket is 380mm. #REMSKT £3.50 (£4.20 inc vat)



PLUG-IN ILLUMINATED TWIN USB CHARGING SOCKET

Plug into a 12 or 24 volt lighter socket. LED lights blue when plugged in. USB charging for GPS, mobile phones, tablets, ipads etc. Output 5 Volt. 2.15Amps. #USB2P £5 (£6 inc vat)



TWIN USB CHARGER OUTLET

Mount in a 28mm hole through a panel up to 12mm thick. It has a waterproof rubber cover and 1.5 metres of sleeved cable with an in-line fuse, two-pin connector plug and socket and two 6mm ring terminals. There's a mounting bracket for fixing it to a 22mm diameter tube. Cover diameter 38mm. Front projection 25mm. Rear projection 40mm. #USBKIT £26 (£31.20 inc vat)



USB CHARGER SOCKET Bezel diameter 36mm. Fits in a 28mm hole in a panel up to 10mm thick. 12 to 24 volt DC input. 5 volt 3 Amp. DC output. 150mm flyleads. Front projection 2mm. Rear projection 38mm not including leads.

#USBSKT £21 (£25.20 inc vat)



SURFACE MOUNT 3 AMP USB CHARGER SOCKET Footprint 85mm x 34mm x 32mm high. Two 4mm mounting holes at 23mm centres. Red and black flyleads 150mm long. 12 volt DC input. 5 volt 3 Amp DC output. Two self tapping screws included.

#USBSKT2 £21 (£25.20 inc vat)



USB CHARGING SOCKET WITH TWO POWER SETTINGS. 12 volt or 24 volt single charging socket with a switch on the front panel to select either 800mA or 1500mA output current. Supplied with 1.5 mtrs of cable with two fork terminals. Can be fitted through a 22mm hole in your dashboard or can be surface mounted by using the 'U' bracket supplied.

#USBSKT3 £15 (£18 inc vat)



TWIN USB CHARGING SOCKET 12 volt or 24 volt, single charging socket with a dust-proof cover. For GPS, mobile phones, tablets, MP3 players etc. 2.1 Amp maximum current. Two 1/4" spade terminals on the back marked + and -. Mounts through a 29mm hole in your dashboard with or without the 60mm x 45mm fascia plate supplied.

#USBSKT4 £14 (£16.80 inc vat)



SINGLE SOCKET VERSION

#USBSKT5 £12 (£14.40 inc vat)



HIGH POWER USB CHARGING SOCKET. CE marked. 12 volt double charging socket with a LED on the front panel. 5 volt 1 Amp and 5 volt 2.1 Amp outputs. Two 1/4" spade terminals on rear. Can be fitted through a 29mm hole in your dashboard.

#USBSKT6 £13 (£15.60 inc vat)



TWIN USB CHARGING SOCKET WITH RUBBER CAP 12 volt. Twin 5 volt x 2.5 Amp charging outputs. 150mm long flyleads on rear. Can be fitted through a 27mm hole in your dashboard. Bezel diameter 36mm.

#USBSKT7 £21 (£25.20 inc vat)



USB-A and USB-C TWIN CHARGING SOCKET 12 volt or 24 volt charging socket with a dust-proof cover. For GPS, mobile phones, tablets, ipads etc. Two 1/4" spade terminals on the back marked + and -. Mounts through a 29mm hole in a panel up to 25mm thick. Facia diameter 37mm. USB-A 3.0 Amps, 5 V. USB-C 3.1 Amps, 5 V. CE approved.

#USBSKT8 £17 (£20.40 inc vat)



USB-C

TWIN USB SOCKET WITH SPRUNG CAP

Fits in a 29mm hole in a panel up to 10mm thick. Facia size 37mm x 44mm high. 12v to 24v input. Output 5v, max 4 Amp. blue LED on front.

#USBSKT9 £15 (£18 inc vat)



ILLUMINATED USB CHARGING SOCKET WITH RUBBER CAP 12 or 24 volt. 5 volt x 2.1 Amp output. 1/4" spade terminals on rear. Mounts through a 28mm hole. Bezel diameter 37mm.

#USBSKT10 £14 (£16.80 inc vat)



TWIN USB CHARGING SOCKET WITH RUBBER CAP 12 or 24 volt. Two, 5 volt x 2.4 Amp outputs. 1/4" spade terminals on rear. Mounts through a 28mm hole. Bezel diameter 37mm.

#USBSKT11 £14 (£16.80 inc vat)



HIGH TENSION

SILICONE H.T. LEAD

Suppressed.
Carbon core.
7mm Dia. **#HTSIL7**
8mm Dia. **#HTSIL8**
Both £2.25 Mtr.
(£2.70 inc vat)



COPPER CORE H.T. LEAD 7mm Dia.

BLACK **#HTCOP7** £1.50 Mtr. (£1.80 inc vat)
RED **#HTCOP7R** £1.50 Mtr. (£1.80 inc vat)



SPARK PLUG TOOL SET A 3/8" drive 'T' handle wrench, a 13/16" (21mm) and a 5/8" (16mm) deep socket, a brass brush and a multi gap gauge. Weight 500 gms.

#SPKSET £10 (£12 inc vat)



12 VOLT ENGINE TIMING LIGHT WITH BRIGHT LED DIGITAL DISPLAY
#TLIGHT
£46 (£55.20 inc vat)
SEE TOOLS SECTION



PLUG CAP PULLER Easily remove those hard to reach spark plug boots without damage to the cables or your hands. Heavy duty plastic coating on the handles and jaws to protect against shock and give a firm grip. Shown here gripping a straight boot (not included). **#PCPULL** £6 (£7.20 inc vat)



SPARK PLUG SUPPRESSOR CAPS ARE DESIGNED TO REDUCE ELECTRO MAGNETIC INTERFERENCE AND RADIO FREQUENCY INTERFERENCE, WHICH CAN INTERFERE WITH ELECTRONIC IGNITION COMPONENTS, CAUSING MISFIRES AND POOR ENGINE PERFORMANCE. HIGHLY DURABLE PHENOLIC RESIN AND EPDM RUBBER. CERAMIC RESISTORS ENSURE OPTIMUM PERFORMANCE AND RELIABILITY. BUILT TO WITHSTAND EXTREME HEAT AND VIBRATION AND PREVENT FLASHOVER.

ANGLED RUBBER SPARK PLUG CAP

Not suppressed. Compact design made from EPDM rubber. Fits spark plugs with a 1/4" diameter, screw on connector sleeve. Screws on to copper HT cable between 7mm and 8mm diameter.

#PC1 £2 (£2.40 inc vat)



SPARK PLUG SUPPRESSOR CAP

Compact design made from EPDM rubber. For M14 threaded plugs with 1/4" diameter, screw on connector sleeve. Screws on to copper HT cable between 7mm and 8mm diameter. **#PC8338** £8 (£9.60 inc vat)



90 DEGREE ANGLED SPARK PLUG SUPPRESSOR CAP

For M14 threaded plug without screw-on sleeve. 5K Resistance. Screws on to copper HT cable between 7mm and 8mm diameter.

#PC8051 £5 (£6 inc vat)

Version for M10 and M12 threaded plugs. **#PC8060** £5 (£6 inc vat)



IGNITION TESTER Dead simple way to see if you have a spark. Push the tester onto your spark plug then connect your HT lead to the tester. The translucent red tester will flash with the spark plug. 72mm overall length. **#IGNTS** £4.80 (£5.76 inc vat)



120° SPARK PLUG SUPPRESSOR CAP

For M14 threaded plug without screw-on sleeve. 5K Resistance. Screws on to copper HT cable between 7mm and 8mm diameter.

#PC8032 £6 (£7.20 inc vat)



STRAIGHT SPARK PLUG SUPPRESSOR CAP 95mm long.

For M14 threaded plug without screw-on sleeve. 5K Resistance.

Screws on to copper HT cable between 7mm and 8mm diameter.

#PC8080 £5 (£6 inc vat)



DEEP SPARK PLUG SUPPRESSOR CAP

113mm long. For M14 threaded plug without screw-on sleeve. 5K Resistance. Screws on to copper HT cable between 7mm and 8mm diameter.

#PC2 £6 (£7.20 inc vat)



PLUG GAP CHECKING AND SETTING TOOL

Keep it on your keyring. Clever design tapering edge gauge - one side reading Imperial and the other Metric.

#PGST £5 (£6 inc vat)



BATTERY STUFF

WHAT SIZE BATTERY CABLE DO I NEED?

The biggest drain on your vehicles battery, by far, is your starter motor. A typical, four cylinder petrol engine can draw 125 to 150 Amps, a V6 150 to 175 Amps and a V8, 200 to 250 Amps. A big diesel engine can draw an initial 1000 Amps in cold weather, quickly dropping to around 325 Amps once cranking has started. We stock five sizes of stranded copper battery cable from 110 Amp to 485 Amp. This is the maximum continuous 'working' current the cable can safely carry. Cable size is measured in square millimetres of cross sectional area between 16mm² to 70mm². Copper is one of the best conductors of electricity so for a front engined car with a battery in the boot and a cable run of four metres the voltage drop would be minimal - less than 3% (0.3 volts).

110 AMP BATTERY CABLE Suitable for small and bike-engined vehicles.

16mm², 8mm O.D. 206/0.3 strands.
Weight 180 gms per mtr.

RED #BCSR £5 mtr (£6 inc vat)
BLACK #BCSB £5 mtr (£6 inc vat)



170 AMP BATTERY CABLE

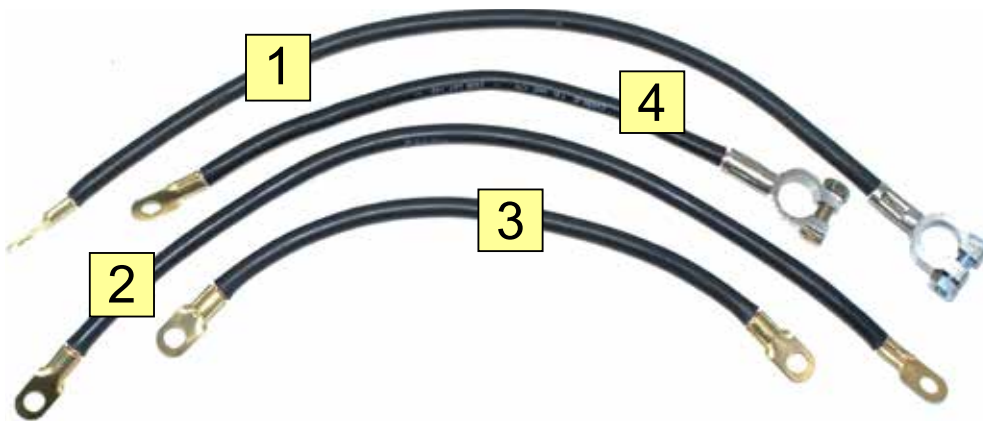
25mm², 10.5mm O.D. 322/0.30 strands.
Weight 300 gms per mtr.

RED #BCR £6 mtr (£7.20 inc vat)
BLACK #BCB £6 mtr (£7.20 inc vat)



EARTH STRAPS 16mm² copper with PVC insulation. Brass 8mm ring terminals.

- 1. 460mm (18")** With 8mm ring terminal and battery terminal clamp **#ESTRAP1 £5** (£6 inc vat)
- 2. 460mm (18")** With two 8mm ring terminals. **#ESTRAP2 £4.50** (£5.40 inc vat)
- 3. 300mm (12")** With two 8mm ring terminals **#ESTRAP3 £5** (£6 inc vat)
- 4. 460mm (18")** With 8mm ring terminal and battery terminal clamp. **#ESTRAP4 £5** (£6 inc vat)



BRAIDED STAINLESS EARTH CABLES

140 Amp capacity. Crimped ring terminals with 8.5mm hole.

150mm HOLE CENTRES #BSEC150 £3.50 (£4.20 inc vat)

300mm HOLE CENTRES #BSEC300 £4.50 (£5.40 inc vat)



150mm



300mm

345 AMP BATTERY CABLE

50mm², 13.5mm O.D. 640/0.30 strands
Weight 524 gms per mtr.

RED #BCR50 £12 Mtr. (£14.40 inc vat)

BLACK #BCB50 £12 Mtr. (£14.40 inc vat)

415 AMP BATTERY CABLE

60mm², 14.3mm O.D. 805/0.30 strands
Weight 650 gms per mtr.

RED #BCR60 £12 Mtr. (£14.40 inc vat)

BLACK #BCB60 £12 Mtr. (£14.40 inc vat)

485 AMP BATTERY CABLE

70mm², 16mm O.D. 905/0.30 strands
Weight 717 gms per mtr.

RED #BCR70 £17.50 Mtr. (£21 inc vat)

BLACK #BCB70 £17.50 Mtr. (£21 inc vat)



CRIMP JOINERS FOR BATTERY CABLE

Heavy duty crimp ferrules for making butt joints in 16mm² and 25mm² copper cable.

16mm² 5.6mm I.D. 7.5mm O.D. 30mm long
#BCJ16 £0.70p each (£0.84 inc vat)

25mm² 6.5mm I.D. 9mm O.D. 35mm long
#BCJ25 £0.70p each (£0.84 inc vat)



RING TERMINALS Tinned copper construction. Solder or crimp

For 6mm² Cable

5mm HOLE #RT56 6mm HOLE #RT66

8mm HOLE #RT86 10mm HOLE #RT106

All 50p each (£0.60 inc vat)



For 16mm² Battery Cable.

5mm HOLE #RT516 50p each (+vat)

6mm HOLE #RT616 50p each (+vat)

8mm HOLE #RT816 50p each (+vat)

10mm HOLE #RT1016 50p each (+vat)

12mm HOLE #RT1216 50p each (+vat)

BARGAIN PACK of 20 (5 each 6, 8, 10, 12)

#RT16PAK £7 (£8.40 inc vat)



For 25mm² Battery Cable.

6mm HOLE #RT6 50p each (+vat)

8mm HOLE #RT8 50p each (+vat)

10mm HOLE #RT10 75p each (+vat)

12mm HOLE #RT12 75p each (+vat)

BARGAIN PACK of 20 (5 each size)

#RTPAK £7 (£8.40 inc vat)



For 35mm² Battery Cable

6mm HOLE #RT635 £1 each (+vat)

8mm HOLE #RT835 £1 each (+vat)

10mm HOLE #RT1035 £1 each (+vat)



For 50mm² Battery Cable

6mm HOLE #RT650 £1 each (+vat)

8mm HOLE #RT850 £1 each (+vat)

10mm HOLE #RT1050 £1 each (+vat)

For 70mm² Battery Cable

6mm HOLE #RT670 £1.40 each (+vat)

8mm HOLE #RT870 £1.40 each (+vat)

10mm HOLE #RT1070 £1.40 each (+vat)



HOW TO ENLARGE RING TERMINAL HOLES - SEE HINTS AND TIPS SECTION

BATTERY CABLE CRIMPING TOOL

Here's an inexpensive and very simple crimper for battery cable ring terminals between 6mm diameter and 16mm diameter (8 AWG to 4.0 AWG). Just trim off the cable insulation so that the copper fits fully into the terminal, locate the assembled cable and terminal in the tool, below the sprung-loaded anvil and whack the anvil with a hammer (on a solid surface) until the joint is tight and secure. Hardened steel jaws and plated anvil. Weight 685gms.

#CRPPNC £21 each (£25.20 inc vat)



SMALL PLATED BRASS BATTERY TERMINALS

For the smaller, 12.5mm and 14mm diameter battery posts. Size 41mm x 21mm x 13mm high. Positive and Negative. Bolt in cable retainers. Cable hole size 10mm. #BTERS £8 pair (£9.60 inc vat)



PLATED BRASS BATTERY TERMINALS

Positive and Negative. Bolt in cable retainers. #BTER £8 pair (£9.60 inc vat)



PLATED BRASS BATTERY TERMINALS

These Positive and Negative terminals have an integral M8 x 15mm long stud with nut for connecting ring terminal cables.

#BTERB £7 pair (£8.40 inc vat)



QUICK RELEASE BATTERY TERMINALS

Diecast alloy and steel. Simply connect your cable, drop over your battery post and close the lid. The terminal automatically clamps to the post. For 50mm² cables. Closed size 58mm x 44mm x 30mm high. Weight 270gms pair.

#BTERQR £16 pair (£19.20 inc vat)



QUICK RELEASE BATTERY TERMINALS

Plated, pressed steel with moulded plastic cover. Simply connect your cable, drop over your battery post and close the lid. The terminal automatically clamps to the post. For 50mm² cables. Closed size 64mm x 47mm x 28mm high. Weight 150 gms pair.

#BTERQR2 £8 pair (£9.60 inc vat)



BATTERY TERMINAL COVERS

Flexible rubber in Red and Black. Internal dimensions 47 x 36 x 25mm deep. Cable hole I.D. 13mm.

#BTCV £3 pair (£3.60 inc vat)



#BTCV2 £3 pair (£3.60 inc vat)



IN-LINE UNIVERSAL BATTERY

TERMINAL COVERS Pair Flexible rubber in Red and Black. Internal dimensions 55 x 36 x 25mm deep. Cable hole I.D. 17mm.

#BTCV3 £3.40 pair (£4.08 inc vat)



6 METRE JUMP LEADS Top quality 800 Amp jump leads. 6 metre cables and heavy duty crocodile clips. Supplied in a zip-up carry case. 15mm cable dia.

Weight 4.5 Kg. #JUMP £23 (£27.60 inc vat)



BRASS HEAVY DUTY CROCODILE CLIPS

The covers of these great quality clips slide off exposing an M6 female thread in each handle, so you can make up your own Jump leads with whatever size and length cable you want using the appropriate ring terminals from our range and a couple of M6 screws. Weight 720 gms.

#HDCROC £19 (£22.80 inc vat)



ISOLATOR SWITCHES

BATTERY CUT-OFF SWITCH STANDARD

VERSION 1000 amps for 5 seconds. 100 Amps continuous. 10mm diameter terminals (use #RT10). Supplied with 2 keys with 10.8mm shaft diameter.

#BSSTD £7.50 (£9 inc vat)



FIA BATTERY CUT-OFF SWITCH

With alternator surge protection if used as emergency cut-off and permanent live supply for ECU, alarm or radio. Weatherproof cap. FIA approved. 1000 amps for 5 seconds. 100 Amps continuous. 10mm diameter terminals. Supplied with 1 shrouded key with 11mm shaft diameter. #BSFIA £20 (£24 inc vat)



SPARE BATTERY CUT-OFF SWITCH KEYS

SHROUDED (left) with 11mm shaft diameter. #BSKS (left) and **STANDARD (right)** with 10.8mm shaft diameter #BSK £2 each (£2.40 inc vat)



COVER FOR BATTERY SWITCH Soft plastic waterproof cover that you can put over the switch when the key is removed. Will fit over 21mm diameter switch. NOTE: SWITCH NOT INCLUDED.

#BSCOV £1.50 (£1.80 inc vat)



RING TERMINALS Tinned copper. For our 25mm² battery cable. Solder or crimp. **10mm #RT10 50p each** (£0.60 inc vat) OTHER SIZES AVAILABLE



ROTARY BATTERY SWITCH FOR

SWITCHING NEGATIVE These were fitted to old Austins and Aston Martins. It has a small brass terminal that can supply a continuous negative feed to the clock, through a 1 amp fuse when the switch is in the 'OFF' position. 500 Amp rating for five seconds. 100 amp continuous. M8 studs for ring terminals. Can mount behind a panel through a 20mm hole or on the front of a panel through a 43mm hole. Both options secured through two 4mm holes at 52mm centres. Knob diameter 35mm. Overall height 84mm. CONNECTIONS: Terminal 1 to Battery Earth. If OFF position, Terminal 1 and 2 are connected. In ON position terminal 1 and 3 are connected.

#BSROT2 £21 (£25.20 inc vat)



PANEL MOUNT BATTERY CUT-OFF

SWITCH ON /OFF with 90 degree rotation of the knob. Fits through a 19mm hole in panels up to 8mm thick. 10mm diameter connection posts. 100 Amps continuous. 1000 Amps momentary. Main body diameter 43mm. Rear projection 50mm. Front projection 33mm. Overall length 83mm. Panel mounting nuts 24mm AF.

#BSPM £9 (£10.80 inc vat)



ROTARY BATTERY SWITCH 500 Amp rating for 5 seconds. 100 amp continuous. M8 studs. Fits in 19.5mm hole.

Plate secured through two 4mm holes. Knob diameter 35mm. Overall height 80mm.

#BSROT £22 (£26.40 inc vat)



QUICK DISCONNECT BATTERY

TERMINAL A simple security device. Just remove the negative lead from the battery. Clamp the #QDIS to your battery negative terminal, then clamp the negative lead to the pillar on the #QDIS. (NOTE: Pillar also has 6.6mm dia. hole). Simply unscrew the knob for quick and easy battery isolation. A fused link is included so that you can maintain a permanent supply for ECU, radio or charging circuit. The link wire has a 12mm ring terminal on one end and an 8mm ring terminal on the other. Accepts a Mini Blade Fuse (not supplied)

#QDIS £7.50 (£9 inc vat)



QUICK BATTERY DISCONNECT

Here's another simple quick-disconnect battery terminal. Just unscrew the green knob a couple of turns and all power is disconnected. Length 86mm.

#QDIS2 £7 (£8.40 inc vat)



IN-LINE QUICK BATTERY DISCONNECT

Rotate the thumbscrew anti clockwise to separate the two diecast sections and disconnect the battery feed to your vehicle wiring. One side has a 10mm hole and the other side has a 3/8" unc thread with a plated bolt. Overall size 101mm x 28mm x 34mm high. Weight 150 gms.

#QDIS3 £7 (£8.40 inc vat)



SMALL QUICK-DISCONNECT BATTERY ISOLATOR 140 Amp. For smaller, motorcycle type batteries. Install this in the positive feed from your battery. Unscrew the knob to disconnect your battery, tighten it up to reconnect. 62mm long x 20mm wide. 6mm hole in one end and an M5 screw in the other end. Knob diameter 20mm.
#QDIS4 £7.50 (£9 inc vat)



REMOTE 12 VOLT SOLENOID
 With integral mounting bracket. Two M8 studs for ring terminals, two 3/8" male spade terminals and two 1/4" male spade terminals. Size 75mm x 68mm x 62mm high.
#REMSOL2 £16 (£19.20 inc. vat)



REMOTE SOLENOID Operates as a regular starter motor solenoid from the ignition key but also has a rubber shrouded push-button which will turn over your engine from the engine bay. Great for setting up your timing and other engine bay jobs. Size 95mm long x 60mm high. Two 5.5mm mounting holes @ 42mm centres. M8 main cable studs.
#REMSOL £30 (£36 inc vat)

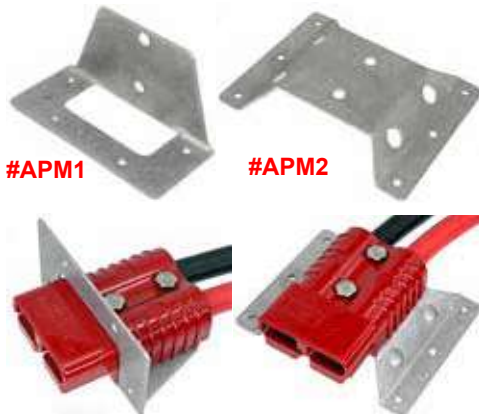


PANEL MOUNTING PLATES FOR 175 Amp Anderson Plug (#PPLG) These two aluminium plates give you other options of mounting your plug - either through a panel at 90 degrees, or raised on a panel or bulkhead.

90 DEGREE PLATE (LEFT) Overall size: 96mm x 45mm x 47mm. Four, 4mm mounting holes for the plate and two, 6.4mm holes for the plug.
#APM1 £7 each (£8.40 inc vat)

RAISED PLATE (RIGHT) This pressed aluminium plate will raise your plug 13mm from the mounting surface, making it easier to insert and remove the mating socket. Overall size: 107mm x 85mm x 13mm. Six, 4mm mounting holes for the plate and two, 6.4mm holes for the plug.
#APM2 £9 each (£10.80 inc vat)

NOTE: PLUG AND FIXINGS ARE SHOWN ONLY FOR ILLUSTRATION AND ARE NOT INCLUDED



POWER PLUG & SOCKET 175 Amp
 2 way connector for jump starting or linking a piggy-back battery. Complete with crimp/solder terminals for up to 40mm² cables. Weight 206g. Each plug 80mm x 55mm x 25mm.
#PPLG £22 (£26.40 inc vat)



175 Amp

MOULDED COVER FOR #PPLG
 Soft, push on protective cover for our #PPLG battery cable connector. Retaining loop fits tightly around plug. Opening size. 53mm x 21mm.
#PPLGCOV £3 (£3.60 inc vat)

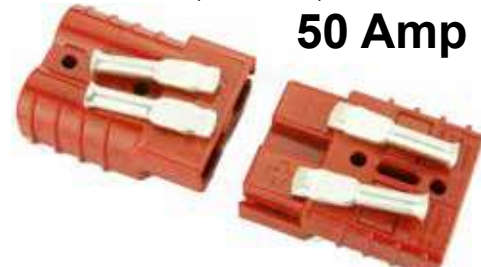


COVER ONLY. PLUG NOT INCLUDED

HANDLE FOR OUR #PPLG POWER PLUG
 Here's a tough, polypropylene handle that bolts directly to our 175 Amp Power Plug and Socket making them easier to join and pull apart. NOTE: Pictures show handle assembled to plug with two M6 x 40mm bolts and nuts, for illustration only. **PLUGS, BOLTS and NUTS are NOT INCLUDED.**
#PPLGHAN £8 (£9.60 inc vat)



POWER PLUG & SOCKET 50 Amp
 Smaller, 2 way connector for high current connections or linking a piggy-back battery. Complete with crimp/solder terminals for up to 6mm² cables. Weight 45gms. Each plug 50mm x 35mm x 15mm.
#PPLG50A £10 (£12 inc vat)



50 Amp

BILLET ALUMINIUM BATTERY TRAY FOR OPTIMA RED AND YELLOW TOP BATTERIES Natural anodised, 10mm thick recessed, aluminium base 263mm x 215mm with four countersunk 6mm mounting holes. Recess size 246mm x 165mm x 5mm deep with radiused corners. Internal height 170mm. Black anodised, 8mm thick top plate mounted on three, 18mm diameter x 165mm high aluminium pillars. Stainless steel screws. Supplied unassembled.
#OPTTRY £55 (£66 inc vat)



BATTERY CLAMP Plated steel with 300mm long threaded rods and wing nuts. Clamp bar can be cut down to size from 410mm to 230mm and 6 sizes in-between.
#BCZN £6 (£7.20 inc vat)



LARGE MOULDED ABS BATTERY BOX This high-strength Polypropylene box is supplied with two nylon saddles that screw to a horizontal panel and a webbing strap to thread through them and over the box lid to secure it all down. Overall size: 428mm x 242mm x 270mm high. Internal size: 360mm x 200mm x 270mm high. Cable outlets on the sides and front of the lid. Internal adjustable position divider. Weight 1152gms.
THIS BOX IS NOT SEALED.
#BATBOX5 £29 (£34.80 inc vat)



BATTERY ACID NEUTRALISING SPILL MAT Protect your vehicle from acid corrosion in the event of a battery leak or spill. Just cut this mat to size and fit it in your battery tray. It will absorb and neutralise acid. Size 300mm x 200mm x 2.6mm thick.
#BATMAT £8 (£9.60 inc vat)



MOULDED ABS BATTERY BOX This box is supplied with two nylon saddles that screw to your horizontal panel and a webbing strap to thread through them and over the box lid to secure it all down. Overall size: 358mm x 345mm x 268mm high. Maximum internal battery size: 265mm x 170mm x 210mm high. Cable outlets on the sides and front of the lid. Weight 860gms.
THIS BOX IS NOT SEALED.
#BATBOX3 £30 (£36 inc vat)



BATTERY BOX Moulded glassfibre. Size: 320mm x 170mm x 165mm high. Internal dimensions: 240mm x 90mm x 140mm high. Lid secured by four M5 screws and nuts. Weight 581 gms.
#BATBOX2 £30 (£36 inc vat)



MODULAR WIRING SYSTEM

Here's a Mix and Match selection for designing and building your own custom fuse and relay box. First, choose your modules for whichever combination of fuses and relays you need. Then choose your housing and cover for 1, 2, 4 or 5 modules. Then choose all the appropriate terminals for the modules you have selected. Snap it all together and away you go.



This item is explained on our **YouTube** channel

NOTE: CABLE SIZE REFERS TO THE CROSS-SECTIONAL AREA OF THE COPPER IN THE WIRE - NOT THE OVERALL DIAMETER OF THE PVC INSULATION

TERMINALS FOR RELAYS

For 3mm (1/8") spades

#TERRLYS £0.28p each (£0.34 inc vat)

For 6.5mm (1/4") spades

#TERRLYL £0.40p each (£0.48 inc vat)



TERMINALS FOR MINI FUSES

For Cable Size 1mm to 2mm

#TERMF1 £0.15p each (£0.18 inc vat)

For Cable Size 2.5mm to 4mm

#TERMF2 £0.15p each (£0.18 inc vat)

Strip of 10 terminals for busbar. Solder on any size wire to busbar or separate the terminals and use individually for 1mm to 2mm wire.

#TERBUS10 £1.30 (£1.56 inc vat)



TERMINALS FOR MAXI FUSES

All accept 9.5mm spades

For Cable 1mm to 2.5mm

#TERMAX1 £0.50p each (£0.60 inc vat)

For Cable 4mm to 6mm

#TERMAX2 £0.50p each (£0.60 inc vat)

For Cable 8mm to 10mm

#TERMAX3 £0.50p each (£0.60 inc vat)



TERMINALS FOR HEAVY DUTY RELAY

These are for the main, IN and OUT relay terminals on our modular, Mini Fuse and Relay Module #MFSHDRLY.

For cables between 2.5mm and 4.0mm

#TERHD1 £0.60p each (£0.72 inc vat)

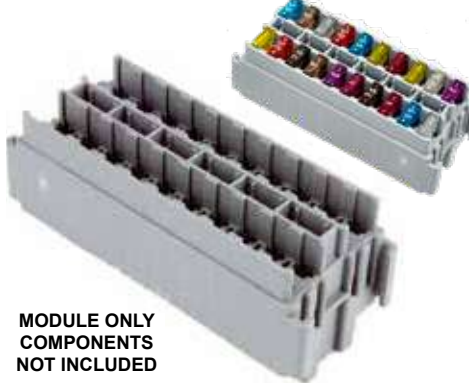
For cables between 6mm and 8mm

#TERHD2 £0.60p each (£0.72 inc vat)



20 WAY MINI FUSE MODULE Requires either 40 single terminals #TERMF1 or TERMF2 or 20 single terminals and two busbar rows of 10 #TERBUS10

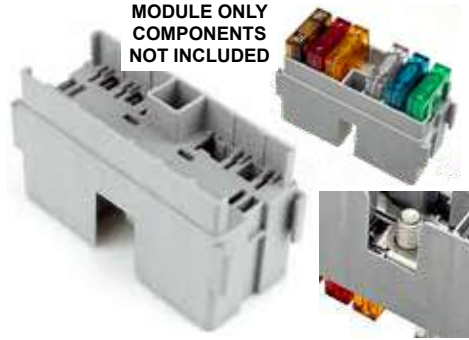
#MFSFUS20 £9 (£10.80 inc vat)



MODULE ONLY
COMPONENTS
NOT INCLUDED

6 WAY MAXI FUSE MODULE One M8 stud on the bottom for common power-IN bus. Choice of three terminals available for 'out' side depending on wire size - #TERMAX1, #TERMAX2 or #TERMAX3

#MFSFUS6 £14 (£16.80 inc vat)



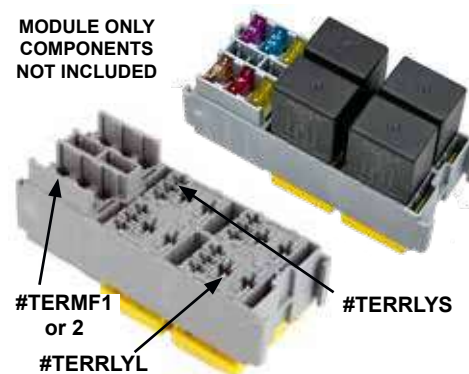
MODULE ONLY
COMPONENTS
NOT INCLUDED

6 MINI FUSE AND FOUR MICRO RELAY MODULE

Requires up to 10 terminals #TERRLYL depending on relays chosen.

Push-in terminal retainer on underside

#MFSFURLY £9 (£10.80 inc vat)



MODULE ONLY
COMPONENTS
NOT INCLUDED

#TERMF1 or 2
#TERRLYL
#TERRLYS

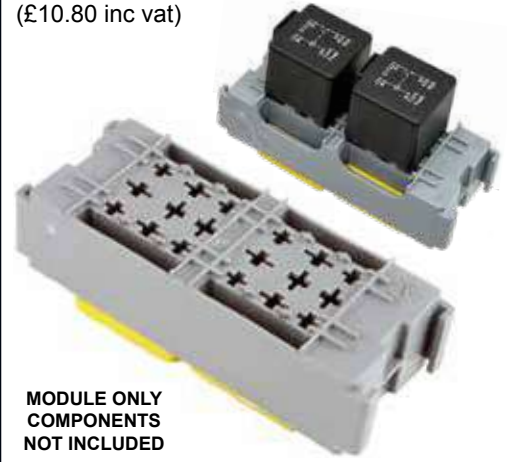
2 WAY STANDARD RELAY MODULE

Requires up to 10 terminals #TERRLYL depending on relays chosen.

Push-in terminal retainer on underside

#MFSRLY2S £9

(£10.80 inc vat)

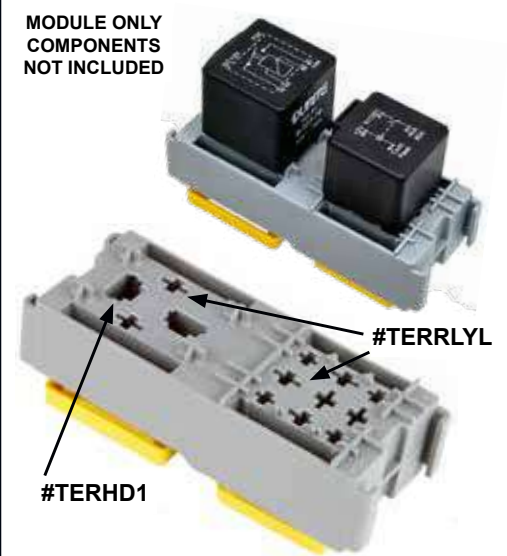


MODULE ONLY
COMPONENTS
NOT INCLUDED

ONE STANDARD AND ONE HEAVY DUTY RELAY MODULE

Requires up to 7 terminals #TERRLYL and 2 #TERHD1, depending on cable size. Push-in terminal retainers on underside

#MFSRLY2H £9 (£10.80 inc vat)



MODULE ONLY
COMPONENTS
NOT INCLUDED

#TERHD1

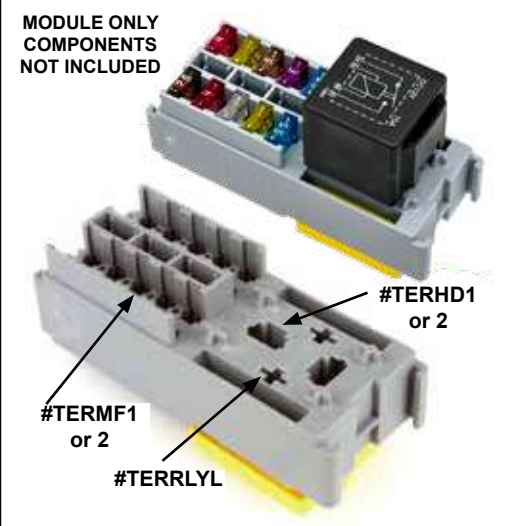
#TERRLYL

10 MINI FUSE AND ONE HEAVY DUTY RELAY MODULE

Relay requires 20 terminals #TERMF1, 2 terminals #TERRLYL and 2 #TERHD1, depending on cable size.

Push-in terminal retainer on underside

#MFSHDRLY £9 (£10.80 inc vat)



MODULE ONLY
COMPONENTS
NOT INCLUDED

#TERMF1 or 2

#TERRLYL

#TERHD1 or 2

FEMALE TERMINALS FOR MODULES WITH SIDE LOCK BARS

For 5mm spades

#TERRLY2S £0.28p each (£0.34 inc vat)

For 6.5mm spades

#TERRLY2L £0.28p each (£0.34 inc vat)



6 MICRO RELAY SIDE LOCK MODULE

This module has a single, yellow push-in terminal-retainer on one side. Requires up to 12 large spade terminals (#TERRLY2L) and up to 18 small spade terminals (#TERRLY2S)

#MFSRLY6M £10 (£12 inc vat)



MODULE ONLY COMPONENTS NOT INCLUDED

2 STANDARD RELAY AND 4 MINI FUSE SIDE LOCK MODULE

This module has a single, yellow, push-in terminal-retainer on one side. Requires up to 10 large spade terminals (#TERRLY2L) and 10 mini fuse terminals. #MFSFURLY2 £10 (£12 inc vat)



MODULE ONLY COMPONENTS NOT INCLUDED

70 AMP HEAVY DUTY RELAY

Two 9.5mm and two 6.5mm terminals.

#HDRLY £8 (£9.60 inc vat)



20 AMP CHANGE OVER MICRO RELAY

Two 6.5mm and three 5mm terminals.

#MRLYCO £6 (£7.20 inc vat)



22 AMP NORMALLY OPEN MICRO RELAY

Two 6.5mm and two 5mm terminals.

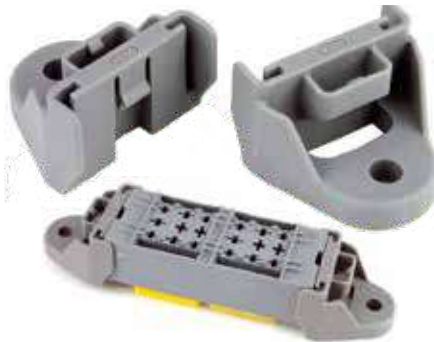
#MRLYNO £5 (£6 inc vat)



PAIR OF FEET FOR SINGLE MODULE

Snap these on to each end of any single module for a simple two-screw fixing to your panel. Wires enter through a cut-out in the panel below. Two x 7mm mounting holes @ 132mm centres. Dimensions of single module 150mm x 40mm x 67mm high including the cover.

#MFSFOOT1 £9 (£10.80 inc vat)



PAIR OF FEET FOR TWO MODULES

Clips two modules together for simple two-screw fixing to your panel. Wires enter through a cut-out in your panel below. Two x 7mm mounting holes @ 116mm centres. Dimensions of double module 131mm x 78mm x 67mm high including the cover. #MFSFOOT2 £10 (£12 inc vat)



SINGLE MODULE COVER (left) Clips on to a single Module

#MFSCOV1 £13.50 (£16.20 inc vat)

DOUBLE MODULE COVER (right) Clips on to a double Module

#MFSCOV2 £10 (£12 inc vat)



PICTURES BELOW SHOW ASSEMBLED SINGLE AND DOUBLE MODULES WITH FEET AND COVER



4 BAY HOUSING Accepts any four snap-in modules. Wires enter through cut-outs in the panel below. Overall dimensions. 165mm x 115mm x 67mm high including the cover.

NOTE: If you plan to install an #MFSFUS6 into this housing you will have to add 10mm spacers under the feet.

#MFSHOU4 £11 (£13.20 inc vat)

4 BAY COVER Clips on to the 4 Bay Housing #MFSCOV4 £9 (£10.80 inc vat)



5 BAY HOUSING Accepts any five snap-in modules. Wires can enter through cut-outs in the panel below or through the sides. Overall dimensions. 241mm x 100mm x 97mm high including the cover.

#MFSHOU5 £12 (£14.40 inc vat)

5 BAY COVER Clips on to the 5 Bay Housing #MFSCOV5 £10 (£12 inc vat)



FUSE BOXES

NOTE: THE COVERS ON MOST OF OUR FUSE BOXES WILL ONLY FIT ONE WAY ROUND. CHECK ORIENTATION CAREFULLY BEFORE FITTING

FUSE BOXES For blade type fuses. Spade terminal connections on bottom. Individual terminals on underside. Transparent cover.

4 Way #FB4 £4.50 (£5.40 inc vat)

6 Way #FB6 £5.50 (£6.60 inc vat)

8 Way #FB8 £7.50 (£9 inc vat)



16 WAY FUSE BOX Accepts 16 standard blade fuses (not supplied). Removable feet. Multiple units can be clipped together. Supplied with terminals and locking plates. Overall size 87mm x 130mm x 63mm high (including mounting feet)

#FB16 £19 (£22.80 inc vat)

SPARE TERMINAL FOR #FB16

#FB16TER £0.08p each (£0.10 inc vat)



SIDE ENTRY FUSE BOX Takes standard blade fuses. Surface mount. Strong moulded construction. Side entry 1/4" spade terminal connections. Screw-on plastic cover.

4 WAY Size: 85mm x 52mm x 43mm high (not including knob)

#FBS4 £6 (£7.20 inc vat)



NEW DESIGN 6 WAY SIDE ENTRY FUSE BOX Takes six standard blade fuses for six independent circuits. 1/4" male spade terminals on sides. Size: 115mm x 52mm x 42mm. Clip-on clear plastic cover (no knob).

#FBS6 £8 (£9.60 inc vat)



8 WAY Size 153mm x 52mm x 43mm (not including knob) **#FBS8 £10** (£12 inc vat)



12 WAY Size 212mm x 52mm x 43mm (not including knob) **#FBS12 £12** (£14.40 inc vat)



8 WAY SIDE ENTRY FUSE BOX

Eight independent standard blade fuse circuits. 1/4" spade terminals. Size 120mm x 45mm x 48mm high. Two 5mm mounting holes at 105mm centres

#FB8S £9 (£10.80 inc vat)



6 WAY Size 100mm x 45mm x 36mm high. Two 5mm mounting holes at 85mm centres

#FB6S £5.50 (£6.60 inc vat)



4 WAY Size 80mm x 45mm x 36mm high. Two 5mm mounting holes at 65mm centres

#FB4S £4.50 (£5.40 inc vat)



WIRED FUSE BOX This little fusebox provides the absolute basics for simple vehicles. There are 5 independent supplies for 8 fused circuits. 150mm pre-wired flyleads on terminals. (Fuses not included - see our #FUSPAK).

#FBW2 £10 (£12 inc vat)



FUSE BOX & RELAY HOLDER Here's a unique little accessory that will make adding additional circuits easy-peasy. It's a single moulding that accepts a single relay and three blade type fuses. Size 60mm x 33mm x 45mm high. Two or more can be locked together. All terminals included.

#FBRLY £4.50 (£5.40 inc vat)



RELAY HOLDER Here's a universal single relay holder. Size 31mm x 27mm x 30mm high. Five female spade terminals included that can be inserted in the holder in any configuration as required.

#RLYHOLD £3 (£3.60 inc vat)



WIRED FUSE BOX 8 Way. Pre-wired with 150mm colour coded cables. Accepts standard blade fuses up to 30 amp. Labelled cover can easily be re-labelled. Size 110mm x 40mm x 55 high. 2 bolt fixing at 95mm centres. Two independent 4 way, bus bar +ve supplies.

#FBW £8 (£9.60 inc vat)



MODULAR WATERPROOF FUSE HOLDER

Will accept standard blade fuse up to 30 Amp (not included) Supplied unassembled with panel mounting plate the will simply press into two 5mm holes drilled in your inner wing or wiring panel. Multiples can be clipped together. Find assembly instructions on our 'Waterproof Connectors' page.

#FUSHWP £3 (£3.60 inc vat)



4 WAY FOR CERAMIC FUSES

With four 8 Amp fuses. Screw terminals. Size 60mm x 45mm x 35mm high

#FPCS £6.50 (£7.80 inc vat)



10 WAY FOR CERAMIC FUSES

(fuses not included). Screw terminals. Size 150mm x 45mm x 30mm

#FPC10 £8 (£9.60 inc vat)



IN-LINE CERAMIC FUSE HOLDER

Bayonet-type (push together and twist) fuse holder for ceramic fuses up to 25 Amp. Screw terminals for wires. Closed length 45mm. 13mm diameter. Supplied with one 16 Amp ceramic fuse. #FHCR £1 (£1.20 inc vat)



ADD-A-CIRCUIT FUSE HOLDER

If you're running out of fused circuits in your vehicle's wiring, this clever little fuse holder just plugs into a regular fuse holder and adds a separate fused circuit with it's own 100mm long live output wire with a crimp terminal. The original fuse is placed back into the lower position and the new fuse in the upper position.

STANDARD #ADDFUS £3.50 (£4.20 inc vat)

MINI #ADDFUSM £3.50 (£4.20 inc vat)



FUSE BOXES WITH LED INDICATORS

These very nice fuse boxes have a red LED next to each fuse that will illuminate if the fuse is blown (no, we don't know how it works either !!). They have snap-on, clear plastic covers, a 10-32 threaded stud for the Positive supply to the fusebox and 1/4" male spade terminals for the fused outputs.

FOUR WAY Size: 86 x 48 x 36mm high. Two 5mm mounting holes at 28mm centres. **#FBLED4 £10** (£12 inc vat)



SIX WAY Size: 86 x 63 x 36mm high. Four 5mm mounting holes at 16mm x 28mm centres **#FBLED6 £12** (£14.40 inc vat)



TEN WAY Size: 86 x 95 x 36mm high. Four 5mm mounting holes at 27mm x 48mm centres **#FBLED10 £15** (£18 inc vat)



DISTRIBUTION & FUSE BOX

There are three independent supply connections on this useful box - A Negative (earth) distribution with one M5 threaded stud input post and 12 x M4 threaded output screws. The Positive side is split into two separate busbars, each with a 10-32 threaded stud input and 6 x fused outputs so you can have a permanent live side and an ignition-switched side (fuses not included). You can use either ring or fork terminals on all the input and output connections. The clear plastic cover is secured or removed with half a turn of the red knob.

12 FUSE Overall size: 165mm x 95mm x 57mm high. Four, 5mm dia. fixing holes at 140mm x 75mm centres

NOW INCLUDES LEGEND STICKER SHEET FOR FRONT COVER LABELLING (see online listing for pictures)

FB12DST £32 (£38.40 inc vat)

6 FUSE Overall size: 124mm x 95mm x 57mm high. Four, 5mm dia. fixing holes at 100mm x 75mm centres

FB6DST £28 (£33.60 inc vat)



#FB12DST



#FB6DST

REAR COVER REMOVED



BEFORE YOU PLACE AN ORDER PLEASE CHECK OUT OUR TERMS AND CONDITIONS AT THE FRONT AND BACK OF THIS CATALOGUE

MIDIVAL SURFACE MOUNT FUSE HOLDER With clear viewing window. Moulded ABS holder for 30mm (between hole centres) strip fuses. Two M5 studs with nuts and spring washers. Two, 4mm mounting holes in the base. Snap-on lid. Overall size - 62mm x 30mm footprint x 25mm high. Maximum 125 Amp. Weight 20gms. FUSE NOT INCLUDED.
#MIDIVAL £5.50 (£6.60 inc vat)



MIDIVAL FUSES 30mm between hole centres All £1.80 each (£2.16 inc vat)

30 AMP
#MIDV30



50 AMP
#MIDV50



60 AMP
#MIDV60



80 AMP
#MIDV80



100 AMP
#MIDV100



125 AMP
#MIDV125



150 AMP
#MIDV150



FOUR OUTLET MIDIVAL FUSE DISTRIBUTION BOX This box accepts one MEGAVAL fuse on the input side between two M8 studs and four, MIDIVAL fused outlets from a common busbar. Size 87mm x 116mm x 38mm high. Clip-on lid. Two 5mm mounting holes at 98mm centres. Weight 182gms.
FUSES AND CABLES NOT INCLUDED
#MFDB4 £20 (£24 inc vat)



FUSES AND CABLES NOT INCLUDED



SHOWN FOR EXAMPLE ONLY

ALL SIZES OF CABLE AND RING TERMINAL ARE AVAILABLE



MEGAVAL SURFACE MOUNT FUSE HOLDER Moulded ABS holder for 50mm (between hole centres) strip fuses. Two M8 studs with nuts and spring washers. Two, 6.4mm mounting holes in the base. Snap-on lid. Overall size - 120mm x 42mm footprint x 40mm high. Maximum 500 Amp. Weight 80gms. FUSE NOT INCLUDED. SHOWN FOR DISPLAY ONLY
#MEGAVAL £6.50 (£7.80 inc vat)



100 AMP MEGAVAL FUSE
#MEGV100 £2.50 each (£3 inc vat)



PART NUMBERS FOR EVERY ITEM IN THIS CATALOGUE ARE IN RED AND ALWAYS BEGIN WITH A HASH SYMBOL

#PARTNO

HIGH CURRENT SURFACE MOUNT CIRCUIT BREAKERS

These surface mounting, heavy duty, re-settable fuses are waterproof and have a simple test and reset function. Press the red test button and the red indicator bar drops down, disconnecting the breaker. Just push the bar back to reset the connection. Two, 1/4" UNF connector studs clearly marked 'BATTERY' and 'LOAD' with rubber caps.

Dimensions 48mm x 74mm x 43mm high. Two 1/4" diameter mounting holes.

- 50 AMP **#CBS50 £22.50** (£27 inc vat)
- 60 AMP **#CBS60 £22.50** (£27 inc vat)
- 80 AMP **#CBS80 £22.50** (£27 inc vat)
- 100 AMP **#CBS100 £22.50** (£27 inc vat)
- 150 AMP **#CBS150 £22.50** (£27 inc vat)



200 AMP CIRCUIT BREAKER

Dimensions 48mm x 86mm x 44mm high. Two 3/8" UNC connector studs. Two 1/4" diameter mounting holes.

- 200 AMP **#CBS200 £22.50** (£27 inc vat)



HIGH CURRENT PANEL MOUNT CIRCUIT BREAKERS

This version has a separate rubber surround and mounts through a hole 49mm x 39mm. Two, 1/4" UNF connector studs and two 1/4" mounting holes at @ 61mm centres. Dimensions 62mm x 87mm x 43mm high. Front projection 29mm. Rear projection 30mm.

- 50 AMP **#CBP50 £22.50** (£27 inc vat)
- 80 AMP **#CBP80 £22.50** (£27 inc vat)
- 100 AMP **#CBP100 £22.50** (£27 inc vat)



MODULAR WATERPROOF FUSE HOLDER

Will accept standard blade fuse up to 30 Amp (not included) Supplied unassembled with panel mounting plate the will simply press into two 5mm holes drilled in your inner wing or wiring panel. Multiples can be clipped together. 'F' Crimp terminals will require one of our 'proper' crimping tools. For assembly guidance see the instructions on our 'Waterproof Connectors' page. If in doubt consult a qualified auto electrician.

- #FUSHWP £3** (£3.60 inc vat)



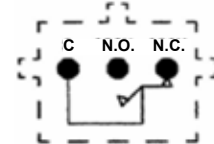
INERTIA SAFETY SWITCH This switch is commonly installed in the +12 volt feed wire to an electric fuel pump, connected to the closed position contacts (NC). In the event of a crash or hard shock the switch contacts will open, shutting down the fuel pump and switching on a warning light telling you that the switch has been activated or a GPS distress signal. To reset the switch just press the rubber diaphragm. Used on many B.L. vehicles. 10 Amp contact rating. Use with a relay if your fuel pump load is greater than 10 Amps. 360° sensing.

Part No: WQT100030. Use our connector plug **#ECONO3**. **#INERSW £23** (£27.60 inc vat)

This item is explained on our **YouTube** channel



NOTE: THIS SWITCH MUST BE MOUNTED ON A VERTICAL PANEL WITH THE RUBBER DIAPHRAGM FACING UPWARDS



| SWITCH POSITION | CONNECTION PIN-PIN |
|-----------------------------------|--------------------|
| SET (BUTTON PRESSED AND RELEASED) | C - NC |
| FIRED | C - NO |



3 PIN ECONOSEAL CONNECTOR

#ECONO3 £3 (£3.60 inc vat) NOTE: These connectors must be crimped correctly and accurately and require a narrow crimping tool. We recommend our **#CRPTL4**. See our waterproof connectors page for crimping instructions.



GLASS FUSE PACK 7 glass fuses.
30mm and 20mm long. 2A, 10A, 15A, 25A
#GLFUSPAK £1 (£1.20 inc vat)



PANEL MOUNT 30mm FUSE HOLDER
Accepts 30mm long glass fuses up to 30 Amp. 17mm maximum diameter. Fits in a 14mm diameter hole in a panel up to 6mm thick. Solder terminals. Front projection 15mm. Rear projection 36mm. FUSE NOT INCLUDED. #PANFH £2 (£2.40 inc vat)



20mm FUSE VERSION Accepts 20mm long glass fuses up to 20 Amp. 15mm maximum diameter. Fits in a 13mm diameter hole in a panel up to 5mm thick. Solder terminals. Front projection 13mm. Rear projection 27mm. FUSE NOT INCLUDED. #PANFH2 £2 (£2.40 inc vat)



IN-LINE GLASS FUSE HOLDER WITH TERMINALS Accepts 30mm long glass fuses up to 25 Amp. 60mm long x 12.5mm diameter. 90mm long fly leads with 6.3mm male and female spade terminals. #FUSH3 £2 (£2.40 inc vat)



CERAMIC FUSES PACK OF 20
5A, 8A, 16A, 25A
#CFPAK20 £1.80 (£2.16 inc vat)



IN-LINE CERAMIC FUSE HOLDER
Bayonet-type (push together and twist) fuse holder for ceramic fuses up to 25 Amp. Screw terminals for wires. Closed length 45mm. 13mm diameter. Supplied with one 16 Amp ceramic fuse. #FHCR £1 (£1.20 inc vat)



MINI FUSE PACK 80 assorted mini fuses
10 of each between 2 Amps and 30 Amps
#MINFPAK £3.50 (£4.20 inc vat)



MINI FUSES
2 AMP #MINF2 3AMP #MINF3
4 AMP #MINF4 5 AMP #MINF5
7 AMP #MINF7 10 AMP #MINF10
15 AMP #MINF15 20 AMP #MINF20
25 AMP #MINF25 30 AMP #MINF30
All £0.15p each (£0.18 inc vat)



STANDARD BLADE FUSE PACK
120 assorted standard blade fuses.
#FUSPAK £5 (£6 inc vat)



STANDARD FUSES
3AMP #STDF3 4 AMP #STDF4
5 AMP #STDF5 7 AMP #STDF7
10 AMP #STDF10 15 AMP #STDF15
20 AMP #STDF20 25 AMP #STDF25
30 AMP #STDF30
All £0.25p each (£0.30 inc vat)



50 STANDARD FUSE PACK
30, 25, 20, 15, 10 and 5 Amp fuses.
#FUSPAK2 £2.50 (£3 inc vat)



IN-LINE WATERPROOF FUSE HOLDER
Pre-wired to a 280mm loop of cable for you to cut and terminate to you own lengths. Suitable for circuits up to 30 Amp. #FUSH £3 (£3.60 inc vat)



IN-LINE WATERPROOF MINI FUSE HOLDER Pre-wired to a 280mm loop of cable for you to cut and terminate to you own lengths. Suitable for circuits up to 30 Amp. #MINFUSH £3 (£3.60 inc vat)



MAXI FUSE HOLDER Splash-proof Maxi-blade fuse holder. Maximum 80 Amps. Supplied with a pre-assembled, 310mm long loop of 8 Awg (8mm²) insulated cable which you can cut and terminate as you wish.

Fuse not included

#MAXFH £6 each (£7.20 inc vat)



MAXI FUSES

60 AMP BLUE MAXI FUSE #MF60B

50 AMP RED MAXI FUSE #MF50R

40 AMP AMBER MAXI FUSE #MF40A

30 AMP GREEN MAXI FUSE #MF30G

20 AMP YELLOW MAXI FUSE #MF20Y

All £0.90 each (£1.08 inc vat)

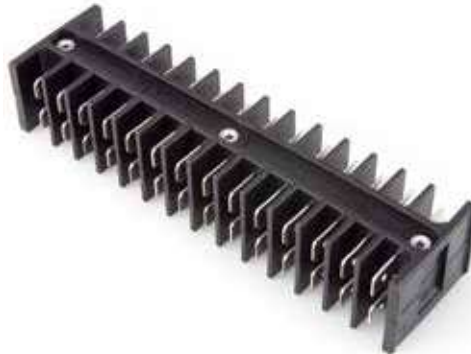


BUSBARS AND DISTRIBUTION BOXES

56 TERMINAL 1/4" MALE SPADE

BUSBAR Fourteen segments of 4, linked, 1/4" male spade terminals (two each side of each segment). Length 120mm. x 32mm x 24mm. Weight 71gms.

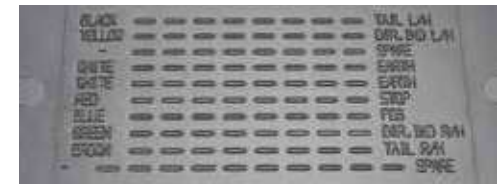
#14BUS3 £10 (£12 inc vat)



10 WAY JUNCTION BOX Designed for trailer wiring but useful for many wiring jobs.

Ten rows of eight 1/4" male terminals in a waterproof, moulded ABS box. Size 166 x 106 x 69mm. 12 or 24 volts. Two 6mm mounting holes at 120mm centres. Various grommets including un-pierced and M6 mounting bolts included.

#BUSBOX4 £24 (£28.80 inc vat)

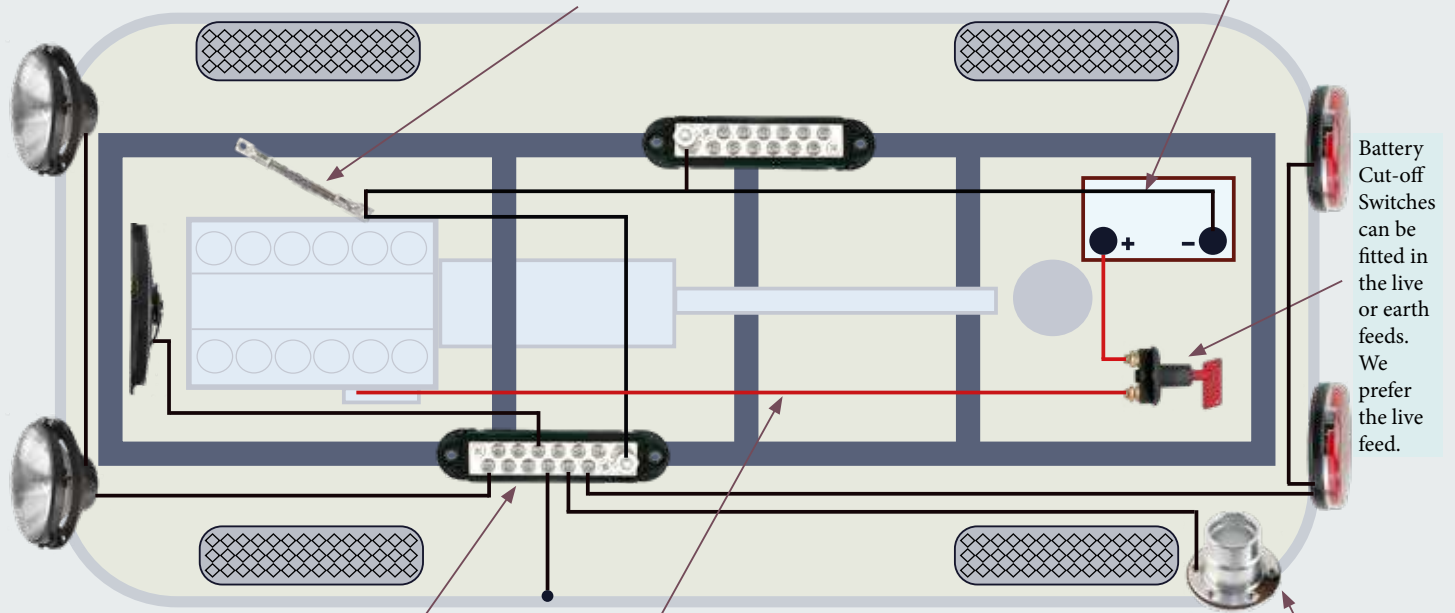


EARTH RULE No. 1 Earth the Battery to the Block, the Block to the Chassis and Block to the Steel Body. Use a starter motor or transmission bolt or stud for battery earth and a welded nut for chassis earth connections.

Electrical components mounted on the panels of Glassfibre bodied vehicles must have earth connections to the chassis or Distribution Bar.

Copper is more conductive than steel and less prone to corrosion so, no matter where your battery is located, it makes sense to minimise voltage drop by connecting the main battery Negative cable directly to the engine block.

Flexible braided cables work well for earthing the engine to the chassis.



Mount at least one Distribution Bar in a convenient location and connect its large terminal to the engine earth. Run separate earth wires to: Electric Window + Central Locking, Radiator Fan, I.C.E., Instruments, Air-Con / Heater fan, Headlights, Tail Lights, Wiper Motor, Fuel Sender and Pump, Alternator, Filler Neck, Ignition.

Connect your main +ve battery feed direct to the starter motor solenoid input terminal.

The primary cause of vehicle electrical problems is bad earthing. All metal body and chassis earths should be to bare metal and are therefore subject to corrosion - especially in countries where there is high moisture and salt. Be aware that dissimilar metals in contact can cause Electrolytic corrosion. Use dielectric grease on bare metal connections.

Always run an earth to a metal filler neck to prevent static sparks.

Battery Cut-off Switches can be fitted in the live or earth feeds. We prefer the live feed.

1/4" MALE SPADE BUSBARS

Distribute ten or twenty supplies or earths from one 1/4" dia.(6mm) post. Base size 124mm x 44mm. Four, 5mm mounting holes on 28 x 108mm centres.

10 WAY RED 100 AMP #14BUS5

£23 (£27.60 inc vat)

20 WAY RED 120 AMP #14BUS7

£23 (£27.60 inc vat)



COVER This snap-on cover will fit both versions and is supplied with two silicone boots for small or large cables.

RED COVER #COVR £8 (£9.60 inc vat)



7 WAY EARTH BUSBAR

A 60mm x 26mm, moulded green base with a seven way screw terminal Busbar. Two 5.5mm cable holes and five, 4mm cable holes. One 4.4mm fixing hole. Overall height 22mm.

#EARBUS £6.50 (£7.80 inc vat)



10 WAY BLACK 100 AMP #14BUS6

£23 (£27.60 inc vat)

20 WAY BLACK 120 AMP #14BUS8

£23 (£27.60 inc vat)



COVER This snap-on cover will fit both versions and is supplied with two silicone boots for small or large cables.

BLACK COVER #COVBK

£8 (£9.60 inc vat)



SINGLE ELECTRICAL CONNECTOR

POST An insulated hard plastic post with an M8 stainless stud 25mm long and spring washer with two lock-nuts.

Two 4.5mm counter-bored mounting holes at 30mm centres.

Base size 45 x 43mm. Height 32mm.

RED #POSTR £4.50 (£5.40 inc vat)

BLACK #POSTB £4.50 (£5.40 inc vat)



BULKHEAD POWER CABLE CONNECTOR

Install this 440 Amp, insulated connector through a 32mm (1 1/4") hole in a bulkhead and you can bolt a power cable to each side. 10mm (3/8") x 22mm long threaded posts. Plated steel, stainless and brass components. 44mm Hex nut. 78mm overall length.

#BCBH £29.50 each

(£35.40 inc vat)



JUMP START POSTS If your battery is inaccessible you can install these easily accessible, remote jump start connections. Fit these 350 Amp, insulated brass posts through two 32mm (1 1/4") holes and connect power cables to the 10mm diameter (3/8") x 22mm long threaded posts. Just pull off the insulating cover and clamp on your jump leads. Drilling template and PVC divider are included. 44mm Hex nut. 90mm overall length. Weight 350gms

#JSPOST £49 pair (£58.80 inc vat)



DISTRIBUTION POST Distribute live or earth feeds with this very heavy duty post. 12 volt or 24 volt. A 22mm long M8 stud is mounted on a 2.5mm thick disc with 8 x M4 dome-head Pozi screw terminals with shake-proof washers, mounted on an insulated ABS base. Two 6.5mm fixing holes at 63mm centres. Size: 84mm x 45mm x 54mm high.

BLACK #DISTPOST £13 (£15.60 inc vat)

RED #DISTPOSTR £13 (£15.60 inc vat)



INSULATING DISC FOR OUR #DISTPOST AND #DISTPOSTR

This 66mm diameter, 2.3mm thick, nylon disc will fit our #DISPOST as shown in the pictures and protect the connections from accidental short circuit. There is a single hole giving access to each individual screw as it is rotated. POST NOT INCLUDED

#INSDISC £3.50 (£4.20 inc vat)



BUSBAR Distribute as much power as you want with this very heavy duty Busbar. Live or earth, 12 volt or 24 volt. Four M8 studs on a chromed strip mounted on an insulated ABS base. Stainless nuts and washers. Two 5mm fixing holes at 120mm centres. Size: 134mm x 29mm x 28mm high. Includes clear plastic cover size: 190mm x 57mm x 45mm front to back. Two 6.7mm fixing holes at 173mm centres.

#BUSBAR £26 (£31.20 inc vat)



DISTRIBUTION BAR 180 Amp. With snap-on cover and rubber boot. Distribute live or earth feeds with this heavy duty bar. 12 volt or 24 volt. A 3/8" long 1/4" UNC stud is mounted on a 2.5mm thick plate with 12 x 6-32 UNC x 1/4" long, dome-head Pozi screws for ring or fork terminals with shake-proof washers, mounted on an insulated ABS base.

Two 5mm fixing holes at 119mm centres. Size: 133mm x 29mm x 29mm (max) high.

#DISTBAR £19.50 (£23.40 inc vat)



100 AMP DISTRIBUTION BAR WITH COVER Distribute live or earth feeds with this heavy duty bar. 12 volt or 24 volt. Two 5mm studs with nuts and washers and five, 1/4" long, dome-head, M4 Pozi screws for ring or fork terminals with shake-proof washers, all mounted on an insulated ABS base with two 5mm fixing holes at 87mm centres. Cover size 54mm x 141mm x 40mm high. Two 5mm mounting holes at 125mm centres.

SOLD AS A PAIR - BAR AND COVER

#DISTBAR2 £18 (£21.60 inc vat)



150 AMP DISTRIBUTION BAR WITH COVER

Two 6mm studs with nuts and washers and 10, 5/16" long, dome-head, Pozi screws. Two 6mm fixing holes at 132mm centres. Cover size 63mm x 190mm x 40mm high.

SOLD AS A PAIR - BAR AND COVER

#DISTBAR4 £17 (£20.40 inc vat)



250 AMP DISTRIBUTION BAR WITH COVER

Two 8mm studs with nuts and washers and 12, 3/8" long, dome-head, Pozi screws. Two 6mm fixing holes at 180mm centres. Cover size 70mm x 235mm x 50mm high.

SOLD AS A PAIR - BAR AND COVER

#DISTBAR3 £30 (£36 inc vat)



BUSBOX 300 AMPS Here's a lovely quality, heavy duty BUSBAR with four 10mm studs, nuts and washers on a common, nickel-plated bar inside a glass-reinforced-nylon box. There are six removable windows around the lid that just slide in and out for maximum versatility in your cable routing. Size 138mm x 69mm x 45mm high. Base mounts through four 5mm holes at 42mm x 110mm centres. The lid screws to the base with four Pozi screws into captive nuts. There's even a non-slip rubber insert in the base.

#BUSBOX £34 (£40.80 inc vat)



1/4" MALE SPADE TERMINAL DOUBLE

BUSBAR Two banks of four terminals. 25 Amp each bank. Size: 51mm x 12mm x 22mm high. Single 5mm fixing hole and one locating peg on the bottom

#14BUS1 £3.90 (£4.68 inc vat)



1/4" MALE SPADE TERMINAL TRIPLE

BUSBAR Three rows of six terminals. 25 Amp each row. Size: 55mm x 27mm x 22mm high. Single 5mm fixing hole and one locating peg on the bottom Weight 29gms.

#14BUS2 £5.90 (£7.08 inc vat)



DUAL BUSBOX 100 AMPS This version has two separate bars with a removable link. Each bar has two M6 studs, nuts and washers and six M4 pozi screws and washers.

Size 138mm x 69mm x 45mm high. Base mounts through four 5mm holes at 42mm x 110mm centres.

#BUSBOX2 £34 (£40.80 inc vat)



BUSBOX 300 AMPS This version has two 10mm studs, with nuts and washers and six M5 screws with washers on a common, nickel-plated bar. Size 138mm x 69mm x 45mm high. Base mounts through four 5mm holes at 42mm x 110mm centres.

#BUSBOX3 £34 (£40.80 inc vat)



BATTERY POST DISTRIBUTION BOX

This box fits directly onto the +-ve post of a vehicle battery. Flip open the two lids to reveal an Eight-way Maxi Fuse box with four, snap-in, two-way connectors underneath and four, M5 posts for two Midi-Fuses. The main power cable connects to one M8 stud and there are two further M6 studs for ring terminal connectors.

Size 150mm x 105mm. Adds 30mm to the height of the battery above the post. Weight 340 gms. **#BDB £37** (£44.40 inc vat)



2 POST JUNCTION BOX

Twin M8 x 20mm studs with nyloc nuts on a common plate inside a box 60mm x 54mm x 42mm high with a snap-on lid. One 6mm mounting hole. **#2STUD £10.50** (£12.60 inc vat)



TERMINALS & CONNECTORS

MULTI-PIN WIRING CONNECTORS

1/4" Male and female spade terminals in nylon moulded housings. 15 Amp per terminal.

This item is explained on our **YouTube** channel

VALUE PACK One pack of 2, 3, 4 and 6 way (Total 20 male & 20 female connectors with terminals) **#MULPAK £20** (£24 inc vat)

EXTRA BRASS TERMINALS - 10 Male, 10 Female. **#MULTERPK £3** (£3.60 inc vat)



2 way #MUL2 £5 pack of 5 (£6 inc vat)

PACK OF 5



3 way #MUL3 £5.50 pack of 5 (£6.60 inc vat)

PACK OF 5



4 way #MUL4 £6 pack of 5 (£7.20 inc vat)

PACK OF 5



6 way #MUL6 £6.50 pack of 5 (£7.80 inc vat)

PACK OF 5



8 WAY #MUL8 £2 each (£2.40 inc vat)

SOLD SINGLY



11 WAY #MUL11 £4 each (£4.80 inc vat)

SOLD SINGLY



LOCKING ROUND PIN MULTI-PIN CONNECTORS

Nylon connectors that snap and lock together. Male and Female 'F'-crimp terminals for 1.5mm to 2.5mm diameter wire are included. The female housing can be panel-mounted by snapping into a rectangular hole, like this **#RPMUL9** in 1.5mm thick, aluminium.



10 SPARE PINS - 5 Male, 5 Female. **#TER15 £2** (£2.40 inc vat)



2 WAY #RPMUL2 £2.50 each (£3 inc vat)



3 WAY #RPMUL3 £3 each (£3.60 inc vat)



6 WAY #RPMUL6 £3.50 each (£4.20 inc vat)



9 WAY #RPMUL9 £4 each (£4.80 inc vat)



12 WAY #RPMUL12 £5 each (£6 inc vat)



15 WAY #RPMUL15 £6 each (£7.20 inc vat)



2-WAY PLUG AND SOCKET. Multiple uses including connecting our A/C Trinary Switch. Four 1/4" (6.3mm) spade terminals included.

#TRINPLUG £4 (£4.80 inc vat)



2 PIN CONNECTOR PLUG FOR SIDE REPEATERS Supplied with 2 sizes of terminals (4 total) See Side Repeater page for fitments. **#SRPLUG £4** (£4.80 inc vat)



POWER TIMER PLUG 4 PIN A waterproof housing with two sets of four female, flat pin terminals and sealing grommets for different wire sizes. **#PLUG4 £7** (£8.40 inc vat)

3 PIN VERSION With two sets of three flat pin terminals. (not shown)
#PLUG5 £7 (£8.40 inc vat)



HEADLAMP PLUG Pre-wired plug for standard H4 Headlamp bulb. Red, Yellow & Blue leads 200mm long.

#HLPLG £2.50 (£3 inc vat)



HEADLAMP PLUG Moulded plug with three 1/4" female crimp spade terminals that clip in once crimped to your wires.

#HLPLG2 £3.50 (£4.20 inc vat)



1 PIN HEADLAMP PLUG Pre-wired plug with one 1/4" female spade terminal and red flylead 100mm long.

#HLPLG4 £2.50 (£3 inc vat)



CERAMIC HEADLAMP PLUG

The solution for updated, higher headlamp bulbs, this standard-format headlamp plug is made from heat proof ceramic with a PVC outer sheath and is pre-wired with female spade terminals on 150mm long flyleads

#HLPLGCR £3 (£3.60 inc vat)



ALTERNATOR PLUG For ACR alternator with two 3/8" and one 1/4" spade terminals. Replaces Lucas 54960402

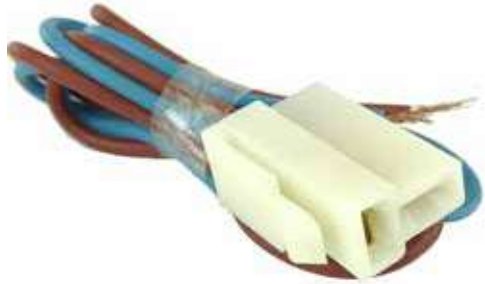
NOTE: DOES NOT FIT OUR ALTERNATOR
#ALTE #ALTPLUG1 £5.50 (£6.60 inc vat)



TYPE 1 ALTERNATOR PLUG

Two female 1/4" spades. Brown and Blue 500mm flyleads.

#ALTPLUG5 £2 (£2.40 inc vat)



2 PIN HEADLAMP PLUG Pre-wired plug with two 1/4" female spade terminals and Red and Black flyleads 100mm long.

#HLPLG3 £2.50 (£3 inc vat)



2 PIN CONNECTOR

#NASPLG2 £5 (£6 inc vat)

3 PIN CONNECTOR

#NASPLG3 £5 (£6 inc vat)





**FIND CRIMPING TOOLS
LATER IN THIS SECTION**

4mm BRASS BULLET TERMINALS

100 each of Male and Female brass terminals and 100 each male and female plastic covers 15 Amps per terminal. Crimp only or crimp and solder

#BULTERPAK £14 pack of 400 pieces
(£16.80 inc vat)

BARGAIN PACK



**1/4" BRASS SPADE & OPEN BARREL
TERMINALS with plastic covers**

PACK OF 400. 100 each of Male and Female brass terminals and 100 each plastic covers Crimp only or crimp and solder.

#TERPK £14 pack of 400 pieces
(£16.80 inc vat)

BARGAIN PACK

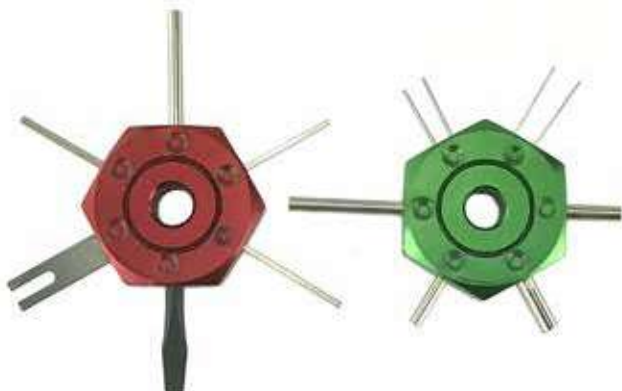


**TERMINAL EXTRACTION AND REMOVAL
TOOLS**

We've all struggled to extract a terminal from a multi-pin plug or socket. With these handy tools it's easy.

Twelve different, precision engineered blades for removing round connectors, male and female spades of all sizes and even Econoseal terminals. Just select the correct blade or sleeve, slide it over the terminal to release it's locking tab and pull out the terminal without damaging the holder.

#TERDIS £21 (£25.20 inc vat)



FEMALE 1/8" TERMINALS These fit our billet alloy switches and warning lights and other 3mm or 1/8" wide flat male terminals.

#TER185F £1 Pack of 5 (£1.20 inc vat)



SPADE TERMINAL 1/4" FEMALE

Industry standard size. Suitable for our small warning lamps and many other switches and electrical components. Easily insulated with a short sleeve of Heatshrink.

#TER14F £4 pack of 50 (£4.80 inc vat)



**SPADE TERMINAL 3/16" (4.8mm)
FEMALE**

Suitable for many of our small warning lamps, switches and electrical components. Easily insulated with a short sleeve of Heatshrink.

#TER48F £1.50 pack of 10 (£1.80 inc vat)



**PACK OF 100 1/4" FEMALE SPADE
TERMINALS AND 100 COVERS**

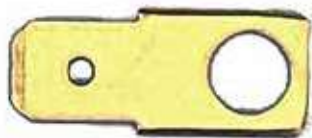
Plated Brass crimp terminals with slide-over, clear PVC covers. **#14TER100 £10** (£12 inc vat)



**1/4" (6.5mm) MALE SPADE BRASS
EARTH TAG WITH 5mm HOLE**

0.8mm thick material. Pack of 10

#EARTAG £2 (£2.40 inc vat)



Dozens of instruction and demonstration videos. Just type **CAR BUILDER SOLUTIONS** in the You Tube search box

LUCAS STYLE CONNECTORS.

Classic push-in bullet connectors. Plated spring steel insert inside a hard rubber sleeve. Accepts 4.8mm (3/16") brass solder terminals.

SINGLE CONNECTOR/JOINER Joins two wires. 30mm long

#LSCON1 £2.50 pack of 10 (£3 inc vat)

DOUBLE CONNECTOR/JOINER Joins four wires. 30mm long

#LSCON2 £3 pack 10 (£3.60 inc vat)



**BRASS SOLDER
BULLET TERMINAL**

4.8mm diameter x 12mm long. 2mm through hole.

#LSTER25 £4 pack of 25 (£4.80 inc vat)



**CRIMPING TOOL FOR LUCAS BRASS
BULLET TERMINALS**

Designed to crimp old fashioned 4.7mm (3/16") Lucas type brass bullet connectors as found on nearly all British Classic Cars and Motorcycles.

Just strip of 1/4" of insulation and slide the wire into the terminal so that the copper reaches the end. When you insert the terminal into the tool it automatically locates in the correct position. Squeeze together the handles and you have an even, flat crimp on both sides of the terminal. For extra reliability you can also run some solder into the end of the terminal. 205mm long.

#LUCRIMP £23 (£27.60 inc vat)



**ASSEMBLY TOOL FOR LUCAS STYLE
BULLET TERMINALS**

The classic, Lucas-style terminals can sometimes be a little difficult to assemble - especially in tight spaces. These pliers make the job easy. 160mm long. **#LSCTOOL £29** (£34.80 inc vat)



BUDGET VERSION

#LSCTOOL2 £14.50
(£17.40 inc vat)



WATERPROOF CONNECTORS

WATERPROOF MULT-IPIN CONNECTORS

For extreme weather exposure. Male and Female housing with seals and terminals. Top quality crimp terminals.

Each pin 12 Amp. Max 1.5mm² cable.

1 WAY #WPMUL1 £5 each (£6 inc vat)

2 WAY #WPMUL2 £5.50 ea. (£6.60 inc vat)

3 WAY #WPMUL3 £6 each (£7.20 inc vat)

4 WAY #WPMUL4 £7 each (£8.40 inc vat)

6 WAY #WPMUL6 £9 each (£10.80 inc vat)

SPARE TERMINALS PACK

10 Male, 10 Female and 20 silicone seals.

#WPTERPK £5 (£6 inc vat)

NOTE: It is important that these terminals are crimped correctly and accurately. We recommend our #CRPLT5 crimping tool.



1) **HARNESS ASSEMBLY OPERATION**

1.1) **Insertion of crimped contacts into housing**

Contacts can be inserted into housing cavities in one position only. The correct placing is shown here below.

FIG.1

After insertion of a contact, pull back the wire lightly to check if the contact is securely locked in position.

1.2) **Insertion of cavity plug**

Cavity plug PN 282081-1 must be used when some cavity is not loaded with contacts, to prevent the ingress of water. Insert it deeply into the cavity by means of a pin as shown. If necessary, it can be removed by a pin point.

FIG.2

1.3) **Positioning of anti-back out device**

The AMP SUPERSEAL 1.5 SERIES connectors are supplied with an anti-back out device, pre-assembled on both receptacle and tab housings.

After loading of all crimped contacts, these devices must be pushed in "closed" position.

If one contact is not properly seated in the cavity, the plastic locking lance remains deflected: the anti-back out device can't be closed. This condition is a warning for the user. Moreover, with this device not closed, the mating with the counterpart can't be completed.

TAB HSG
ANTI-BACK OUT DEVICE
CONTACT NOT PROPERLY SEATED

PLUG HSG
ANTI-BACK OUT DEVICE

1.3.1) **Closing the anti-back out device of plug housing**

- For 2 to 6 position plugs, manually operated, the sequence is:

rotate the device to deflect the central lances inwardly, and then push till to the locking of the side arms.

FIG.4

- For 2 to 6 position plugs, operated by harness maker machine, the sequence is:

- push inwardly:
 - the two lances for 2 pos. hsg
 - the central lance for 3 and 5 pos. hsg
 - the two central lances for 4 and 6 pos. hsgs.
- then push till to the locking of the side arms.

Use a watchmakers screwdriver

FIG.5

- For 1 position, manually or by machine operated:

Push the device till its upper end is at the same level of the housing mating face.

ANTI-BACK OUT DEVICE

FIG.6

1.3.2) **Closing the anti-back out device of tab housing**

For 1 to 6 pos., manually or machine operated:

Push the device by a jig till the stop. (Different jigs are requested for 1 & 2 position housings and 3 to 6 position housings).

ANTI-BACK OUT DEVICE

FIG.7

1.4) **Removal of contacts**

Since the locking lance of contacts can be reached from the mating side of the housings, it is necessary firstly to remove the anti-back out device.

1.4.1) **Removal of receptacle contact**

- Deflect the side arms of anti-back out device and pull it away.
- Insert the contact extraction tool (PN 784980-1) between contact and lance nose, then rotate it slightly as shown.
- Pull the wire.

ANTI-BACK OUT DEVICE
CONTACT
EXTRACTION TOOL
Use a bent paper clip

FIG.8

Caution: be careful not to insert the extraction tool in the contacting area of receptacle.

1.4.2) **Removal of tab contact**

- Insert the extraction tool (PN 785084-1) in one of central holes of anti-back out device and pull it away.
- Insert the contact extraction tool (PN 784980-1) between contact and lance nose, then rotate it slightly as shown.
- Pull the wire.

ANTI-BACK OUT DEVICE
CONTACT EXTRACTION TOOL

FIG.9

Caution: Rotating the extraction tool, be careful not to deform the tab.

LOOKING FOR SOMETHING? CHECK OUT THE CONTENTS AT THE FRONT OR THE INDEX AT THE BACK

PRE-INSULATED CRIMP TERMINALS

NOTE: WIRE SIZE REFERS TO THE CROSS-SECTIONAL AREA OF THE COPPER IN THE WIRE - NOT THE OVERALL DIAMETER OF THE PVC INSULATION

ALL PACKS OF 50 ON THIS PAGE

RED TERMINALS FOR 0.5mm² to 1.5mm² wire

FEMALE SPADE
6.5mm (1/4")
Fully insulated
#CRTFSR
£3 (£3.60 inc vat)



MALE SPADE
6.5mm (1/4")
Half insulated
#CRTMSR
£3 (£3.60 inc vat)



FEMALE / MALE PIGGY-BACK SPADE
6.5mm (1/4")
#CRTPSR
£3 (£3.60 inc vat)



FEMALE BULLET
4mm diameter bullet
Fully insulated
#CRTFBR
£3 (£3.60 inc vat)



MALE BULLET
4mm diameter bullet
Half insulated
#CRTMBR
£3 (£3.60 inc vat)



CRIMP WIRE JOINER
#CRJR
£3 (£3.60 inc vat)



FEMALE 5mm SPADE
Fully insulated
#CRT5FSR
£3 (£3.60 inc vat)



RING 6mm. #CRTR6R
£3 (£3.60 inc vat)



RING 8mm. #CRTR8R
£3 (£3.60 inc vat)



BLUE TERMINALS FOR 1.5mm² to 2.5mm² wire

FEMALE SPADE BLUE
6.5mm (1/4")
Fully insulated
#CRTFSB
£3 (£3.60 inc vat)



MALE SPADE BLUE
6.5mm (1/4")
Half insulated.
#CRTMSB
£3 (£3.60 inc vat)



FEMALE / MALE PIGGY-BACK SPADE
6.5mm (1/4")
#CRTPSB
£3 (£3.60 inc vat)



FEMALE BULLET
5mm diameter bullet
#CRTFBB
£3 (£3.60 inc vat)



MALE BULLET
5mm diameter bullet
#CRTMBB
£3 (£3.60 inc vat)



CRIMP WIRE JOINER
Fully insulated.
For 5mm diameter male bullet
#CRJB
£3 (£3.60 inc vat)



FEMALE 5mm SPADE
Fully insulated
#CRT5FSB
£3 (£3.60 inc vat)



FEMALE 5mm SPADE
Half insulated
#CRT5FSB
£3 (£3.60 inc vat)



RING 5mm. #CRTR5B
£3 (£3.60 inc vat)



RING 6mm. #CRTR6B
£3 (£3.60 inc vat)



RING 8mm. #CRTR8B
£3 (£3.60 inc vat)



RING 10mm. #CRTR10B
£3 (£3.60 inc vat)



YELLOW TERMINALS FOR 4mm² to 6mm² wire

FEMALE SPADE
6.5mm (1/4")
Fully insulated.
#CRTFSY
£4.50 (£5.40 inc vat)



FEMALE SPADE
6.5mm (1/4")
Half insulated
#CRTH6FSY
£4.50 (£5.40 inc vat)



MALE SPADE
6.5mm (1/4")
Half insulated
#CRTMSY
£4.50 (£5.40 inc vat)



FEMALE / MALE PIGGY-BACK SPADE
6.5mm (1/4")
#CRTPSY
£4.50 (£5.40 inc vat)



FEMALE BULLET
5mm diameter bullet
#CRTFBY
£3 (£3.60 inc vat)



MALE BULLET
5mm diameter bullet
#CRTMBY
£4.50 (£5.40 inc vat)



CRIMP WIRE JOINER
#CRJY
£4.50 (£5.40 inc vat)



FEMALE SPADE
9mm (3/8")
Fully insulated.
#CRT9FSY
£4.50 (£5.40 inc vat)



FEMALE SPADE
9mm (3/8")
Half insulated
#CRTH9FSY
£4.50 (£5.40 inc vat)



FORK #CRTFKY
£3 (£3.60 inc vat)



RING 6mm. #CRTR6Y
£4.50 (£5.40 inc vat)



RING 8mm. #CRTR8Y
£4.50 (£5.40 inc vat)



RING 10mm. #CRTR10Y
£4.50 (£5.40 inc vat)



CRIMP TERMINAL PACK 76 pieces including Male & Female Spades, Ring Terminals, 'U' Terminals and In-Line Joiners in Red, Yellow and Blue sizes. We have to admit there are times when these are OK for a quick and easy connection. **#CTERPAK £4** (£4.80 inc vat)



SINGLE QUICK CONNECTOR
Clever in-line, spring-lock wiring connector. Accepts 0.08 to 2.5mm solid or stranded cable. 25 Amp.
#QCON1 £4 pack of 5 (£4.80 inc vat)



QUICK CONNECTOR Clever new snap lock wiring connector. Simply insert your stripped cable and press down the lever for a strong, secure cable joint. Accepts 0.08 to 2.5mm solid or stranded cable. Great for earths or live Bus-bars. 25 Amp.
3 WAY #QCON3 £4 pack of 5 (£4.80 inc vat)
5 WAY #QCON5 £6 pack of 5 (£7.20 inc vat)



QUIK-SPLICE WIRE CONNECTORS
These 'quick and easy' 'Scotch-lock' style connectors may get you out of trouble if you need to add another wire to an existing one. There's no need to even strip off the insulation. Just lay your two wires into the connector and snap it shut with a pair of pliers - job done - all connected. No crimping or stripping required. 25 Red (18 - 22 AWG) and 25 Blue (14 - 18 AWG)
#QUSPL £5 pack of 50 (£6 inc vat)



TERMINAL BLOCKS 12 way plastic connector strip with brass inserts, plated screws. Easily cut between segments.
60 AMP #TERBK60 £4.50 each (£5.40 inc vat)
30 AMP #TERBK30 £2.50 each (£3 inc vat)
15 AMP #TERBK15 £2 each (£2.40 inc vat)
10 AMP #TERBK10 £1.30 each (£1.56 inc vat)
5 AMP #TERBK5 £1.30 each (£1.56 inc vat)



CABLE JOINERS HEAT-SHRINK, GLUE & SOLDER Length 40mm. These unique products offer a quick, simple and secure way to splice/ two cables together. Just strip 10mm of insulation from each wire, twist the ends together, slide over the sleeve and heat it up with a hot air gun. The solder will melt to join the copper strands, the two rings of glue will melt to seal around the cable insulation and the sleeve itself will shrink tightly around the wire for a strong, permanent, weatherproof joint. Weight per pack of 10 - 15gms. **3 Sizes.**
RED For wires up to 2.5mm diameter.
#HSSCR £5 pack of 10 (£6 inc vat)



BLUE For wires up to 4.5mm diameter.
#HSSCBU £5.50 pack of 10 (£6.60 inc vat)



YELLOW For wires up to 5.5mm diameter.
#HSSCY £6.50 pack of 10 (£7.80 inc vat)



HEAT GUN
2000 WATTS
#HGUN £16
(£19.20 inc vat)



RATCHET CRIMP TOOL FOR INSULATED TERMINALS #RATCRP £14 (£16.80 inc vat)



POCKET MULTIMETER You don't have to be an electrician to make good use of this inexpensive digital meter. Check fuses, bulbs, earths, cable continuity, 12v supplies & even those mysterious small current drains. Also great for mains voltages indoors. Size 125 x 70 x 25mm. Requires one PP3 (9v) battery (not included)
#MULTI £7.50
(£9 inc vat)



DIGITAL UNIVERSAL MULTIMETER 0-600v
Here's a great quality meter with all the functions you need to check voltage, resistance, current, continuity and even semiconductors. It comes in a rugged yellow case that doubles as a bench stand and a holder for the two 60mm long test leads. Size 200mm x 95mm x 40mm. Weight 498gms.
AC and DC Volts - 0 to 600v
AC and DC Current 0 to 10 Amps
Resistance 0 to 200MΩ
Frequency - 20kHz max
Capacitance - 0 to 20 μf
Diode checking
Bleep testing.
Auto Power Off.
CE approved.
#MULTI3 £13
(£15.60 inc vat)



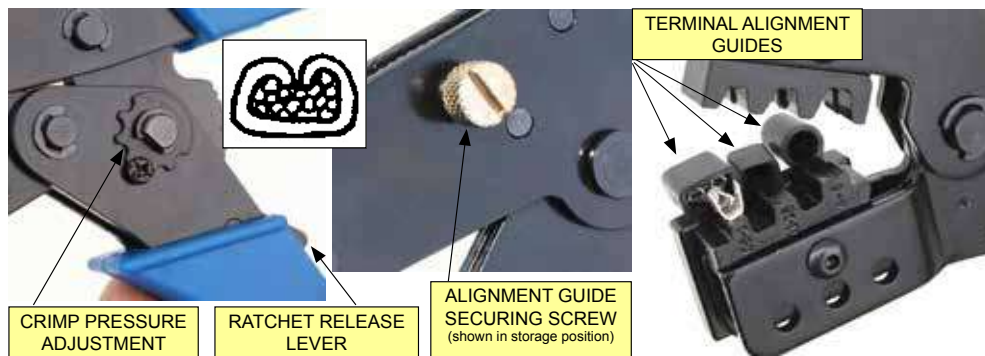
CRIMPING TOOLS

'F' CRIMP CRIMPING TOOL KIT We are able to sell this superb tool at half the price of other suppliers and even throw in 180 assorted spade and bullet terminals and plastic storage case. It will crimp all industrial quality 'F' crimp open barrel, spade and receptacle terminals between 0.5mm² and 6mm². The jaws are hardened steel and the geared, ratchet action makes light work of even the heaviest crimp. Crimping pressure is adjustable and the jaws will only open when the pre-set crimp pressure is achieved, giving consistent crimp quality. However, for one-off or unusual sizes, the crimp and release function can be disengaged for full manual control of the tool. The tool also includes a set of very clever, moulded jigs that locate along-side the jaws to help you make the perfectly alignment crimp. Weight 1 kg. Terminal selection:

- 30 x 3mm (1/8") Male spades & 30 x 3mm (1/8") Female spades,
- 30 x 6mm (1/4") Male spades and 30 x 6mm (1/4") Female spades,
- 30 x 4mm Male bullet and 30 x 4mm Female bullet.

#CRPTL3 £38 (£45.60 inc vat)

NOTE: IF THE HARDENED JAWS BECOME MISALIGNED FROM DROPPING OR INCORRECT USE, THE TOOL WILL FAIL TO FORM PERFECT CRIMPS. THE JAWS CAN BE RE-ALIGNED BY LOOSENING THE SECURING SCREWS



To obtain the best results from your crimping tool please take a few moments to familiarise yourself with these instructions and sacrifice a few practice terminals. The tool is designed to crimp terminals onto cables from 0.5mm² to 6mm². This refers to the cross-sectional area of copper in the cable. As a guide, the smallest size is usually used for low power components like instrument lights and relay feeds. The heaviest for main power feeds to and from your ignition switch. You'll see the three cable size ranges clearly stamped on the jaws. In each terminal compartment you'll find a black plastic guide sleeve. These slot into the plastic block which is screwed to the rear of the jaws and allow you to accurately set the alignment of the terminal in the tool jaws. With a little practice you'll be able to make neat, accurate crimps without the guides. Strip 4 to 5mm of insulation from your cable.

Insert your chosen terminal in to the guide sleeve (see picture, right) Insert the cable into the terminal with the wire through the closed terminal tube and the insulation butting against it. Carefully close the jaws ensuring that the open wings of the terminal slide up into the 'V' of the upper jaw. Crimp tightly.

As a 'belt & braces' measure you can also solder the inner crimp with minimal melting of the insulation.

INTERMEDIATE 'F' CRIMP CRIMPING TOOL This compact tool will crimp all small, non-insulated terminal types including industrial and aviation quality 'F' crimp open barrel and spade terminals. Precision ground, hardened steel jaws that roll the terminal flags, binding them tightly into the cable and insulation. Spring return jaws and integral wire cutter. 185mm long. Tool only.

#CRPTL2
£15
(£18 inc vat)



RATCHET CRIMP TOOL For Superseal and Econoseal 'F' crimp terminals. Two terminal sizes for - 0.5mm to 1mm and 1mm to 2mm wire. Make consistently accurate crimps with this geared ratcheting crimp tool. Adjustable crimping pressure and quick-release lever. Hardened steel jaws. 225mm long.

#CRPTL5 £28 (£33.60 inc vat)



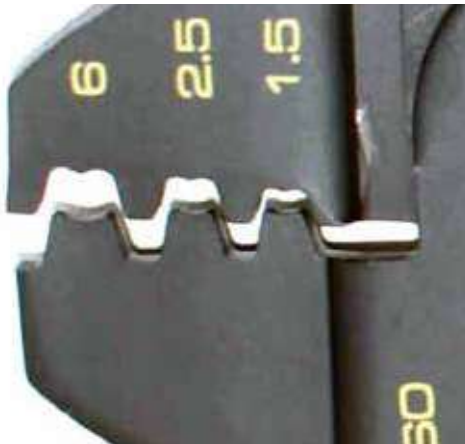
RATCHET CRIMP TOOL FOR INSULATED TERMINALS Make life easier with this geared ratcheting crimp tool. Adjustable crimping pressure. For Red, Blue and Yellow terminals. Hardened steel jaws. 225mm long. USE THIS TYPE OF CRIMP TOOL FOR ALL RED, BLUE AND YELLOW PRE-INSULATED TERMINALS
#RATCRP £14 (£16.80 inc vat)



CRIMPING TOOL FOR LUCAS BRASS BULLET TERMINALS Designed to crimp old fashioned 4.7mm (3/16") Lucas type brass bullet connectors as found on nearly all British Classic Cars and Motorcycles. Just strip of 1/4" of insulation and slide the wire into the terminal so that the copper reaches the end. When you insert the terminal into the tool it automatically locates in the correct position. Squeeze together the handles and you have an even, flat crimp on both sides of the terminal. For extra reliability you can also run some solder into the end of the terminal. 205mm long. Weight 210 gms.
#LUCRIMP £23 (£27.60 inc vat)



NARROW CRIMPING TOOL A good quality, inexpensive tool for 'F' crimp terminals. It's narrow blades are designed for crimping smaller 'F' crimp spade and barrel terminals. It even has threaded holes for cutting brass or steel bolts and a multi-gauge wire stripper and wire cutter. (NOTE: Not suitable for pre-insulated terminals).
#CRPTL4 £8 (£9.60 inc vat)



SPADE TERMINAL 1/4" FEMALE Industry standard size. Suitable for our small warning lamps and many other switches and electrical components. Easily insulated with a short sleeve of Heatshrink.
#TER14F £4 pack of 50 (£4.80 inc vat)



MULTI-JAW CRIMPING TOOL KIT WITH CASE Professional Crimping Tool with self-adjusting ratchet action. Will crimp insulated and non insulated terminals and ferrules. Five sets of interchangeable jaws for 0.5mm to 35mm cables. Supplied in a zip-up carry case with a slotted screwdriver for changing jaws.
#CRPTL6 £30 (£36 inc vat)



INSULATED TERMINALS
 0.5-1.0 / 1.5-2.5 / 4.0-6.0 mm²
 AWG 22-28 / 16-14 / 12-10

NON-INSULATED TERMINALS
 1.5 / 2.5 / 4.0-6.0 mm²
 AWG 20-18 / 16-14 / 12-10

OPEN BARREL TERMINALS
 0.5-1.0 / 1-2.5 / 4.0-6.0 mm²
 AWG 20-18 / 16-14 / 12-10

CORD END TERMINALS (small AWG)
 0.5 / 0.75 / 1.0 / 1.5 / 2.5 / 4.0 / 6.0mm²
 AWG 22 / 20 / 18 / 16 / 14 / 12 / 10

CORD END TERMINALS (large AWG)
 10 / 16 / 25 / 35 mm²
 AWG 8.0 / 6.0 / 4.0 / 2.0

AUTOMATIC WIRE STRIPPER

A very clever, nice quality tool. Simply set the depth stop, lay your wire in one of the five cut outs in the jaws and squeeze the handles together. The wire is automatically gripped and the insulation accurately stripped without cutting off any of the copper strands or damaging the insulation. Will handle wire sizes of between 0.5mm and 3.5mm. Length of tool 165mm.
#WIRSTR £9 (£10.80 inc vat)



BUTANE GAS SOLDERING IRON

Precision 'Pen' style with flame control. Easy, powerful soldering without the hassle of trailing power cables. Rechargeable - runs on regular Butane lighter fluid (Supplied empty). To solder simply slide the bit-holder onto the flame nozzle and screw it on. Turn on the gas switch and light it with a flame. Adjust the heat with the gas flow control valve. Or, just use the naked flame for those small silver-soldering jobs. Follow the safety instructions in the package. Length with tip 250mm. **#GASTOR £16** (£19.20 inc vat)



175 WATT INSTANT HEAT SOLDERING GUN KIT

Just pull the trigger and the tip gets hot within a few seconds. What's more a LED light comes on to illuminate the joint you're soldering. Supplied in a case with two spare tips, a tub of flux and a tube of solder. **#SOLD175 £20** (£24 inc vat)



MULTICORE TIN / LEAD SOLDER

Proper, old-fashioned Tin / Lead solder makes the best and easiest soldering joints. This is a 500gm roll of 1.2mm diameter Solder. 2% Flux. Grade C. (Tin) Sn40 / (Lead) Pb60. **#SOLDER £23** (£27.60 inc vat)



100gm SOLDER

60/40 Tin/Lead. 1mm diameter. Approx. 16 mtrs. **#SOLDER100 £5.50** (£6.60 inc vat)



60 WATT SOLDERING IRON

Powerful 240 volt 60 watt iron for larger soldering jobs. Supplied with pointed tip and one metre lead with plug. **#SOL60W £8** (£9.60 inc vat)



SOLDERING KIT A 240 volt, 30 watt iron with a pencil tip and a desktop rest, an adjustable, 'Helping Hand' bar with two crocodile clips and magnifying glass and a 10 watt glue gun with two glue sticks all in a handy carrying case. Weight 1088g. **#SOLKIT2 £15** (£18 inc vat)



TEST LEAD. A bulb inside the handle glows when the circuit is complete. 900mm long cable. Sharp steel probe easily pierces PVC wire insulation. Insulated crocodile clip. 6 or 12 volt. **#TESTLEAD £3** (£3.60 inc vat)



TEST LEAD 6, 12 or 24 volt.

The easy way to check for live feed in plugs, sockets, lights, cables, switches. A bulb inside the handle glows when the circuit is complete and power is present. 280mm long with 5 ft (1.5Mtr) long lead. Sharp stainless steel probe easily pierces PVC wire insulation. Insulated crocodile clip. **#TESTLEAD3 £8** (£9.60 inc vat)



SMALL WIRE CUTTERS For cutting and stripping insulated copper wire (not steel) up to 4mm diameter. 95mm long, stainless steel, side cutters with sprung, moulded handles. **#WIRECUT £2.50** (£3 inc vat)



SIDE CUTTING PLIERS Top quality, drop forged, chrome vanadium cutters. Don't confuse this tool with cheaper versions. These beauties will cut Bowden Cable, Piano wire, stainless wire and heavy cable without damage to the jaws. Soft grip handles insulated up to 10,000 volts. Length of tool 200mm. Weight 350gms. **#SIDECUT £12** (£14.40 inc vat)



WIRING AND CABLE

CABLE REELS



IF YOU ONLY NEED A SHORT LENGTH OF CABLE THEN OUR MINI CABLE REELS MAY BE THE MOST ECONOMICAL WAY OF BUYING IT. FOR LARGER INSTALLATIONS THE 50 MTR REELS MAY BE A BETTER CHOICE

MINI REEL LENGTHS: 8 Amp - 10 Mtrs. 17 Amp - 5 Mtrs. 27 AMP - 2.2 MTRS.

| | | | | | |
|--------|------------------------------------|--------|---------|----------|--------------------|
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | RED | #CR8R | 2.7mm OD | £4 (£4.80 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | BLUE | #CR8BU | 2.7mm OD | £4 (£4.80 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | BLACK | #CR8BK | 2.7mm OD | £4 (£4.80 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | GREEN | #CR8G | 2.7mm OD | £4 (£4.80 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | BROWN | #CR8BN | 2.7mm OD | £4 (£4.80 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | WHITE | #CR8W | 2.7mm OD | £4 (£4.80 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | YELLOW | #CR8Y | 2.7mm OD | £4 (£4.80 inc vat) |
| 17 Amp | 1 x 28/0.3mm (2.0mm ²) | RED | #CR17R | 3.4mm OD | £4 (£4.80 inc vat) |
| 17 Amp | 1 x 28/0.3mm (2.0mm ²) | BLUE | #CR17BU | 3.4mm OD | £4 (£4.80 inc vat) |
| 17 Amp | 1 x 28/0.3mm (2.0mm ²) | BLACK | #CR17BK | 3.4mm OD | £4 (£4.80 inc vat) |
| 17 Amp | 1 x 28/0.3mm (2.0mm ²) | GREEN | #CR17G | 3.4mm OD | £4 (£4.80 inc vat) |
| 17 Amp | 1 x 28/0.3mm (2.0mm ²) | BROWN | #CR17BN | 3.4mm OD | £4 (£4.80 inc vat) |
| 17 Amp | 1 x 28/0.3mm (2.0mm ²) | WHITE | #CR17W | 3.4mm OD | £4 (£4.80 inc vat) |
| 17 Amp | 1 x 28/0.3mm (2.0mm ²) | YELLOW | #CR17Y | 3.4mm OD | £4 (£4.80 inc vat) |
| 27 Amp | 1 x 44/0.3mm (3.0mm ²) | BLACK | #CR27BK | 4mm OD | £4 (£4.80 inc vat) |
| 27 Amp | 1 x 44/0.3mm (3.0mm ²) | RED | #CR27R | 4mm OD | £4 (£4.80 inc vat) |

WHAT DO WIRE SIZES MEAN?

1 x 44 / 0.3mm (3.0mm²)

| | | | |
|----------------------|-----------------------------|--|--|
| 1 Single cable | 44 Strands of wire | .3mm diameter of each strand | 3 mm ² Total copper cross section |
|----------------------|-----------------------------|--|--|

CABLE SIZE APPLICATION EXAMPLES

5 AMP CABLE Maximum load 60 Watts

Stereo systems, Electric Aerial
Washer pump, Map light, single horn,
Alarm, Hazards, Number plate light

8 AMP CABLE Maximum load 96 Watts

Electric windows, Rear fog lights, Fans,
Brake lights, Cigarette lighter, Heater motor

17 AMP CABLE Maximum load 200 Watts

Halogen Spot/Fog lamps, Battery charger,
Rear screen heater, Twin horns, Wiper
motor

27 AMP CABLE Maximum load 325 Watts

Charging circuit, Ammeter, Air horns

35 AMP CABLE Maximum load 420 Watts

Alternator, Dynamo, Ignition circuits

LUCAS WIRING COLOUR CODES

BROWN - Direct, unswitched, unfused supply from the battery. Usually wires to alternators, dynamos, control boxes and ignition switches etc. Always live and often carrying heavy current.

YELLOW - Sometimes used as an alternative to Brown on older cars. Also used on solenoids and overdrive switches.

PURPLE - Direct, unswitched but fused supply from the battery.

WHITE - Unfused supply from the ignition switch to Fuel pump, coil.

GREEN - Fused supply switched via the ignition switch. Indicators, stop lights, instruments, wiper motor which only work when the ignition is on

RED - The main colour for rear and side lights

BLACK - The usual colour for wires from components to earth points on the body or chassis

BLUE - The main colour for front lights - Headlamps and Spot lamps.

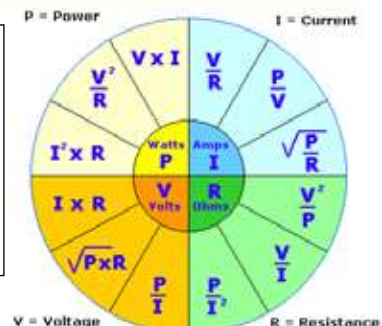
These refer to the main colour of the wires. Many wires have a second, thinner (tracer) colour. This is used to identify the specific purpose of the wire. E.g. Black/Green to Radiator fan motor

LARGE CABLE REELS 50 Mtrs

| | | | | | |
|--------|------------------------------------|------------------|----------|----------|--------------------------------|
| 5 Amp | 1 x 9/0.3mm (0.65mm ²) | GREEN | #LCR5GN | 2.5mm OD | £11 (£13.20 inc vat) |
| 5 Amp | 1 x 9/0.3mm (0.65mm ²) | WHITE | #LCR5W | 2.5mm OD | £11 (£13.20 inc vat) |
| 5 Amp | 1 x 9/0.3mm (0.65mm ²) | BROWN | #LCR5BN | 2.5mm OD | £11 (£13.20 inc vat) |
| 5 Amp | 1 x 9/0.3mm (0.65mm ²) | YELLOW | #LCR5Y | 2.5mm OD | £11 (£13.20 inc vat) |
| 5 Amp | 1 x 9/0.3mm (0.65mm ²) | BLUE | #LCR5BU | 2.5mm OD | £11 (£13.20 inc vat) |
| 5 Amp | 1 x 9/0.3mm (0.65mm ²) | BLACK | #LCR5BK | 2.5mm OD | £11 (£13.20 inc vat) |
| 5 Amp | 1 x 9/0.3mm (0.65mm ²) | GREY | #LCR5GY | 2.5mm OD | £11 (£13.20 inc vat) |
| 5 Amp | 1 x 9/0.3mm (0.65mm ²) | ORANGE | #LCR5O | 2.5mm OD | £11 (£13.20 inc vat) |
| 5 Amp | 1 x 9/0.3mm (0.65mm ²) | RED | #LCR5R | 2.5mm OD | £11 (£13.20 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | GREEN | #LCR8GN | 2.7mm OD | £17 (£20.40 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | WHITE | #LCR8W | 2.7mm OD | £17 (£20.40 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | BROWN | #LCR8BN | 2.7mm OD | £17 (£20.40 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | YELLOW | #LCR8Y | 2.7mm OD | £17 (£20.40 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | BLUE | #LCR8BU | 2.7mm OD | £17 (£20.40 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | BLACK | #LCR8BK | 2.7mm OD | £17 (£20.40 inc vat) |
| 8 Amp | 1 x 14/0.3mm (1.0mm ²) | RED | #LCR8R | 2.7mm OD | £17 (£20.40 inc vat) |
| 17 Amp | 1 x 28/0.3mm (2.0mm ²) | GREEN | #LCR17GN | 3.4mm OD | £23 (£27.60 inc vat) |
| 17 Amp | 1 x 28/0.3mm (2.0mm ²) | BLUE | #LCR17BU | 3.4mm OD | £23 (£27.60 inc vat) |
| 17 Amp | 1 x 28/0.3mm (2.0mm ²) | BLACK | #LCR17BK | 3.4mm OD | £23 (£27.60 inc vat) |
| 17 Amp | 1 x 28/0.3mm (2.0mm ²) | RED | #LCR17R | 3.4mm OD | £23 (£27.60 inc vat) |
| 35 Amp | 1 x 65/0.3mm (4.5mm ²) | BLACK 30 mtrs | #LCR35BK | 5.1mm OD | £32 (£38.40 inc vat) |
| 35 Amp | 1 x 65/0.3mm (4.5mm ²) | RED 30 mtrs | #LCR35R | 5.1mm OD | £32 (£38.40 inc vat) |
| 60 Amp | 120/0.3mm (8.5mm ²) | BLACK 1 mtr | #CA70BK1 | 7.1mm OD | £3.70 / mtr (£4.44 inc vat) |
| 60 Amp | 120/0.3mm (8.5mm ²) | RED 1 mtr | #CA70R1 | 7.1mm OD | £3.70 / mtr (£4.44 inc vat) |

There are four basic units of measurement for electricity:
Power, measured in Watts, commonly referred to as "P"
Current, measured in Amps, commonly referred to as "I"
Voltage, measured in Volts, commonly referred to as "V"
Resistance, measured in Ohms, commonly referred to as "R"

There are a number of formulas that relate each of these four things - they all change in relationship to one another such that if you know any two you can calculate the other two. Here's an easy chart to help you.



THIN WALL COLOURED AUTOMOTIVE WIRE SOLD BY THE METRE

Modern, high specification wiring cable in twelve colours now available to order by the metre. 11 Amp, 16.5 Amp and 25 Amp.

NOTE: 20 Mtrs and over of Cable will be supplied in 10m lengths

11 Amp. 0.5mm². 16/0.20 1.6mm diameter
All colours £0.25p metre (£0.30 inc vat)

BLACK #TW11B
BLUE #TW11U
BROWN #TW11N
GREEN #TW11G
GREY #TW11S
LIGHT GREEN #TW11LG
ORANGE #TW11O
PINK #TW11K
PURPLE #TW11P
RED #TW11R
WHITE #TW11W
YELLOW #TW11Y



BUNDLE 10 mtrs of each (120mtrs)
#TWBUN11A £20 (£24 inc vat)

16.5 AMP 1mm² 32/0.20 2mm diameter
All colours £0.32p metre (£0.38 inc vat)

BLACK #TW16B
BLUE #TW16U
BROWN #TW16N
GREEN #TW16G
GREY #TW16S
LIGHT GREEN #TW16LG
ORANGE #TW16O
PINK #TW16K
PURPLE #TW16P
RED #TW16R
WHITE #TW16W
YELLOW #TW16Y



BUNDLE 10 mtrs of each (120mtrs)
#TWBUN16A £26 (£31.20 inc vat)

25 AMP 2mm² 28/0.30 2.5mm diameter
All colours £0.50p metre (£0.60 inc vat)

BLACK #TW25B
BLUE #TW25U
BROWN #TW25N
GREEN #TW25G
GREY #TW25S
LIGHT GREEN #TW25LG
ORANGE #TW25O
PINK #TW25K
PURPLE #TW25P
RED #TW25R
WHITE #TW25W
YELLOW #TW25Y



BUNDLE 10 mtrs of each (120mtrs)
#TWBUN25A £40 (£48 inc vat)

ALSO AVAILABLE

33 Amp BLACK 3mm² 44/0.30
3.2mm diameter
#TW33B £0.75p metre (£0.90 inc vat)

38 Amp BLACK 4mm² 56/0.30
3.5mm diameter
#TW38B £1 metre (£1.20 inc vat)

63 Amp BLACK 8.5mm² 120/0.30
5.3mm diameter
#TW63B £2 metre (£2.40 inc vat)

TWO COLOUR THIN WALL AUTOMOTIVE WIRE SOLD BY THE METRE

Modern, high specification wiring cable now available to order by the metre.

NOTE: FIRST COLOUR DENOTES THE MAIN WIRE COLOUR AND THE SECOND DENOTES THE TRACE COLOUR

16.5 AMP 1mm² 32/0.20 2mm diameter
All colours £0.32p metre (£0.38 inc vat)

BLACK / BROWN #TW16BN
BLACK / GREEN #TW16BG
BLACK / LIGHT GREEN #TW16BLG
BLACK / ORANGE #TW16BO
BLACK / PINK #TW16BK
BLACK / PURPLE #TW16BP
BLACK / RED #TW16BR
BLACK / WHITE #TW16BW
BLUE / WHITE #TW16UW
BLUE / RED #TW16UR
BLUE / GREEN #TW16UG
BLUE / YELLOW #TW16UY
BROWN / BLUE #TW16NU
BROWN / WHITE #TW16NW
BROWN / YELLOW #TW16NY
BROWN / GREEN #TW16NG
BROWN / LIGHT GREEN #TW16NLG
BROWN / GREY #TW16NS
BROWN / BLACK #TW16NB
BROWN / PINK #TW16NK
GREEN / BLUE #TW16GU
GREEN / BROWN #TW16GN
GREEN / RED #TW16GR
GREEN / BLACK #TW16GB
GREEN / PURPLE #TW16GP
GREEN / YELLOW #TW16GY
GREEN / GREY #TW16GS
GREEN / WHITE #TW16GW
LIGHT GREEN / BLACK #TW16LGB
LIGHT GREEN / BROWN #TW16LGN
LIGHT GREEN / GREY #TW16LGS
LIGHT GREEN / PURPLE #TW16LGP
LIGHT GREEN / PINK #TW16LGK
LIGHT GREEN / WHITE #TW16LGW
LIGHT GREEN / BLUE #TW16LGU
LIGHT GREEN / ORANGE #TW16LGO
GREY / BLACK #TW16SB
ORANGE / BLACK #TW16OB
ORANGE / BLUE #TW16OU
ORANGE / GREEN #TW16OG
ORANGE / YELLOW #TW16OY
ORANGE / LIGHT GREEN #TW16OLG
ORANGE / PINK #TW16OK
PINK / BROWN #TW16KN
PINK / GREEN #TW16KG
PURPLE / BROWN #TW16PN
PURPLE / RED #TW16PR
PURPLE / WHITE #TW16PW
RED / YELLOW #TW16RY
RED / BLUE #TW16RU
RED / BROWN #TW16RN
RED / ORANGE #TW16RO
RED / WHITE #TW16RW
WHITE / BLACK #TW16WB
WHITE / BROWN #TW16WN
WHITE / PINK #TW16WK
WHITE / RED #TW16WR
WHITE / YELLOW #TW16WY
YELLOW / BLACK #TW16YB
YELLOW / GREY #TW16YS
YELLOW / PINK #TW16YK
YELLOW / WHITE #TW16YW

11 Amp. 0.5mm². 16/0.20 1.6mm diameter
All £0.25p metre (£0.30 inc vat)

ORANGE / GREEN #TW11OG
RED / BLACK #TW11RB

25 AMP 2mm² 28/0.30 2.5mm diameter
All £0.50p metre (£0.60 inc vat)

WHITE / RED #TW25WR
ORANGE / GREEN #TW25OG
RED / GREEN #TW25RG



THIN WALL CABLE SPECIFICATION CHART

| Conductor Specification (mm) | Conductor Cross Section (mm ²) | Maximum Overall Diameter (mm) | Nominal Current Rating (Amps) | Maximum Loading (Watts) | | Maximum Resistance Per Metre at 20°C (Ohms) |
|------------------------------|--|-------------------------------|-------------------------------|-------------------------|----------|---|
| | | | | 12 Volts | 24 Volts | |
| 12/0.20 | 0.35 | 1.40 | 7.0 | 84 | 168 | 0.0544 |
| 16/0.20 | 0.5 | 1.60 | 11.0 | 132 | 264 | 0.0371 |
| 24/0.20 | 0.75 | 1.75 | 14.0 | 168 | 336 | 0.0247 |
| 32/0.20 | 1.0 | 1.95 | 16.5 | 198 | 396 | 0.0185 |
| 21/0.30 | 1.5 | 2.30 | 21.0 | 252 | 504 | 0.0127 |
| 28/0.30 | 2.0 | 2.55 | 25.0 | 300 | 600 | 0.00942 |
| 35/0.30 | 2.5 | 2.75 | 29.0 | 348 | 696 | 0.00760 |
| 44/0.30 | 3.0 | 3.20 | 33.0 | 396 | 792 | 0.00615 |
| 56/0.30 | 4.0 | 3.50 | 39.0 | 468 | 936 | 0.00471 |
| 65/0.30 | 4.5 | 3.90 | 42.0 | 504 | 1008 | 0.00406 |
| 84/0.30 | 6.0 | 4.10 | 50.0 | 600 | 1200 | 0.00314 |
| 97/0.30 | 7.0 | 5.05 | 57.0 | 684 | 1368 | 0.00279 |
| 120/0.30 | 8.5 | 5.50 | 63.0 | 756 | 1512 | 0.00220 |
| 80/0.40 | 10.0 | 5.60 | 70.0 | 840 | 1680 | 0.00182 |
| 126/0.40 | 16.0 | 7.30 | 110.0 | 1320 | 2640 | 0.00116 |
| 196/0.40 | 25.0 | 8.45 | 170.0 | 2040 | 4080 | 0.000743 |

CLASSIC PVC CABLE SPECIFICATION CHART

| Conductor Specification (mm) | Conductor Cross Section (mm ²) | Maximum Overall Diameter (mm) | Nominal Current Rating (Amps) | Maximum Loading (Watts) | | Maximum Resistance Per Metre at 20°C (Ohms) |
|------------------------------|--|-------------------------------|-------------------------------|-------------------------|----------|---|
| | | | | 12 Volts | 24 Volts | |
| 9/0.30 | 0.65 | 2.5 | 5.75 | 69 | 138 | 0.0294 |
| 14/0.30 | 1.0 | 2.7 | 8.75 | 105 | 210 | 0.0189 |
| 28/0.30 | 2.0 | 3.4 | 17.5 | 210 | 420 | 0.0094 |
| 44/0.30 | 3.0 | 4.2 | 27.5 | 330 | 660 | 0.006 |
| 65/0.30 | 4.5 | 5.1 | 35.0 | 420 | 840 | 0.0041 |

BATTERY CABLE SPECIFICATION CHART

| Conductor Specification (mm) | Conductor Cross Section (mm ²) | Maximum Overall Diameter (mm) | Nominal Current Rating (Amps) | Resistance Per Metre at 20°C (Ohms) |
|------------------------------|--|-------------------------------|-------------------------------|-------------------------------------|
| 203/0.30 | 16 | 8.3 | 110.0 | 0.00126 |
| 266/0.30 | 20 | 9.0 | 135.0 | 0.00096 |
| 322/0.30 | 25 | 10.1 | 170.0 | 0.00077 |
| 455/0.30 | 35 | 11.8 | 240.0 | 0.00056 |
| 539/0.30 | 40 | 12.7 | 300.0 | 0.00050 |
| 637/0.30 | 50 | 13.3 | 345.0 | 0.00039 |
| 805/0.30 | 60 | 15.0 | 415.0 | 0.00033 |
| 912/0.30 | 70 | 15.5 | 485.0 | 0.00029 |
| 684/0.40 | 95 | 17.9 | 500.0 | 0.00020 |
| 893/0.40 | 120 | 19.7 | 600.0 | 0.00015 |
| 1178/0.40 | 150 | 22.35 | 700.0 | 0.00011 |

MULTI CORE CABLE Cased in black outer PVC sheath. Can be used intact as a multicore cable or just strip off the outer sheath for an inexpensive way to purchase a selection of wires.

3 CORE 3 cores of 16.5 Amp PVC sheathed wire (3 x .32/0.20) Green, Red, Black. Overall diameter 5.3mm.

#3CORECA
£3 metre
(£3.60 inc vat)



4 CORE 4 cores of 16.5 Amp PVC sheathed wire (4 x .32/0.20) Green, White, Red, Brown. Overall diameter 5.8mm.

#4CORECA
£3 metre
(£3.60 inc vat)



5 CORE 5 cores of 16.5 Amp PVC sheathed wire (5 x .32/0.20) Green, White, Red, Yellow, Brown.

Overall diameter 6.6mm.
#5CORECA
£3 metre
(£3.60 inc vat)



7 CORE 7 cores of 11 Amp PVC sheathed wire (7 x .16/0.20) Green, Blue, Black, White, Red, Yellow Brown.

Overall diameter 8mm.
#7CORECA
£3.50 metre
(£4.20 inc vat)



10 CORE - 9 cores of 16.5 Amp PVC sheathed wire (32 x .0.20) Green, Grey, Blue, Yellow, Black, Red, Brown, Orange, Blue and 1 core of 25 Amp (28 x .030mm) White. Overall diameter 10.7mm.

#10CORECA **£5.50 metre** (£6.60 inc vat)



13 CORE - 12 cores of 16.5 Amp PVC sheathed wire (32 x .020mm²) Green, Grey, Blue, Yellow, Black, Red, Brown, Orange, Blue, Pink, Mauve, Red with Black trace and 1 core of 25 Amp (28 x .030mm) White. Overall diameter 12.2mm.

#13CORECA **£7 metre** (£8.40 inc vat)



TWIN CORE CABLE Double PVC insulated general wiring cable. Available by the Metre or a 30m drum. NOTE: Multiple metres are supplied as a single piece.

5 AMP 1 MTR **#TCC51** **£1.25** (£1.50 inc vat)
5 AMP 30 MTR DRUM **#TCC530** **£14** (£16.80 inc vat)
8 AMP 1 MTR **#TCC81** **£1.50** (£1.80 inc vat)
8 AMP 30 MTR DRUM **#TCC830** **£20** (£24 inc vat)
17 AMP 1 MTR **#TCC171** **£2** (£2.40 inc vat)
17 AMP 30 MTR DRUM **#TCC1730** **£30** (£36 inc vat)



COPPER CABLE CUTTERS Medium duty cutters for copper electrical cable up to 12mm diameter including battery cable and multi-core. 165mm long. Sprung jaws with a hooked, safety latch to keep jaws closed.

NOTE: NOT SUITABLE FOR CUTTING BOWDEN OR STEEL CABLE.

Weight 152 gms.
#CABCUT **£7.50** (£9 inc vat)



WE STOCK A WIDE SELECTION OF TERMINALS



BATTERY CABLE

110 AMP BATTERY CABLE Suitable for small and bike-engined vehicles.

16mm², 8mm O.D. 206/0.3 strands.
Weight 180 gms per mtr.

RED **#BCSR** **£5 mtr** (£6 inc vat)
BLACK **#BCSB** **£5 mtr** (£6 inc vat)

170 AMP BATTERY CABLE

25mm², 10.5mm O.D. 322/0.30 strands.
Weight 300 gms per mtr.

RED **#BCR** **£6 mtr** (£7.20 inc vat)
BLACK **#BCB** **£6 mtr** (£7.20 inc vat)



345 AMP BATTERY CABLE

50mm², 13.5mm O.D. 640/0.30 strands
Weight 524 gms per mtr.

RED **#BCR50** **£12 mtr.** (£14.40 inc vat)
BLACK **#BCB50** **£12 mtr.** (£14.40 inc vat)

415 AMP BATTERY CABLE

60mm², 14.3mm O.D. 805/0.30, strands
Weight 650 gms per mtr.

RED **#BCR60** **£12 mtr.** (£14.40 inc vat)
BLACK **#BCB60** **£12 mtr.** (£14.40 inc vat)

485 AMP BATTERY CABLE

70mm², 16mm O.D. 905/0.30 strands
Weight 717 gms per mtr.

RED **#BCR70** **£17.50 mtr.** (£21 inc vat)
BLACK **#BCB70** **£17.50 mtr.** (£21 inc vat)



BUILDER'S TIP - PROTECT YOUR PIPES AND CABLES IN A HOT ENGINE BAY BY WRAPPING THEM IN HEATMAT SECURED WITH STAINLESS TIES



Classic British Standards Colour Codes

The British Standards institution (BSI) creates and maintains standards for British industries, one of which is colour coding automotive wire insulation based upon the use of the wire. This is a great help to those of us maintaining our own British cars allowing us to glance at a wire and know what it is being used for. This standard is periodically updated as vehicles become more complex with more colour combinations used and in some cases the uses are changed for a colour combination. Colour code tables for BS-AU7a (1983 revision) and newer can be found with an internet search.

| | |
|---------------------|---|
| Black | All ground connections |
| Black/ Purple | Temperature switch to warning light |
| Black/ Green | Relay to radiator fan motor |
| Black/ Light green | Brake light switch |
| Black/Orange | Radiator fan motor to thermal (fan) switch |
| Black/red | From 3 terminal flasher unit to flasher light |
| Black/white | Flasher unit light to ground |
| Blue | Headlamp feed |
| Blue | Headlamp switch to dip switch |
| Blue White | Headlight high beams |
| Blue/ White | High beam dip switch to high beam indicator lamp |
| Blue/ White | Dip switch to Driving light switch |
| Blue/ Red | Headlight low beams |
| Blue/ Yellow | Driving lamp switch to lamp |
| Brown | Main feed from the battery. No switches or fuses |
| Brown/ Blue | Power feed to headlamp switch |
| Brown/ White | Ammeter to main alternator terminal |
| Brown/ Yellow | Alternator to 'no charge' warning light |
| Brown/ Green | Fuse to horn (No relay) |
| Brown/ Lt. Green | Windscreen wiper motor to switch |
| Brown/ Black | Horn to horn button (no relay) |
| Green | Ignition switch controlled wiring for auxiliary devices, switched 12V to individual wiper motors, to brake light switch, flashers, etc. |
| Green/ Black | Fuel gauge to fuel tank unit |
| Green/ Blue | Water temperature gauge to temperature sender unit |
| Green/ Brown | Switch to reverse lamp |
| Green/ Red | Direction indicator switch to left-hand flasher lamps |
| Green/ Purple | Stop lamp switch to stop lamps |
| Green/ White | Direction indicator switch to right hand flasher lamps |
| Green/ Yellow | Heater switch to slow speed on heater motor or for single speed motor |
| Green/ Yellow | Oil pressure light to oil pressure switch |
| Green/ Gray | Heater switch to high speed on heater motor |
| Light green | Voltage stabilizer to instruments on LR's fitted with voltage stabilizer |
| Light green/ Black | Windscreen washer switch to motor |
| Light green/ Blue | Flasher switch to left-hand flasher warning light |
| Light green/ Brown | Flasher switch to flasher unit |
| Light green/ Purple | Flasher unit to flasher warning light |
| Light green/ Orange | Rear window washer switch to motor |
| Orange | Wiper circuit (single motor wiper system) |
| Orange/ Black | Wiper switch to motor parking |
| Orange/ Blue | wiper switch to low speed on motor |
| Orange/ Green | Wiper switch to high speed on motor |
| Orange/ Yellow | Rear wiper switch to rear wiper motor |
| Orange/ Light green | Switch to rear window motor parking |
| Purple | Accessories fed direct from battery via fuse (Always live) |
| Purple/ Brown | Horn fuse to horn relay when horn is fused separately |
| Purple/ Red | Switches to map light, under bonnet light, glove box light and boot lamp when fed direct from battery |
| Red | Tail lights, instrument lights, parking lights and side markers |
| Red/ Yellow | Fog light switch to fog light or front fog light fuse to fog lights |
| Red/ Blue | Front fog light fuse to fog light switch |
| Red/ Brown | Rear fog guard switch to lamps |
| Red Orange | Power to rear fog guard lamp fuse |
| Red/ White | Fuse to instrument lamp switch, Instrument panel lamps |
| White | Ignition circuit, no additional switches, not fused |
| White | Power to coil, fuse to cold running light |
| White | Power to electric fuel pump |
| White/ Black | Ignition coil to distributor |
| White/ Black | Distributor side of coil to tachometer impulse sensor |
| White/ Brown | Oil pressure switch to warning light or gauge |
| White/ Pink | Ignition switch to radio fuse |
| White/ Red | Ignition switch or starter switch to starter solenoid |

Approximate equivalent wire sizes and current capacities:

General use - 8 Amps. 14 strand (UK), 18 gauge(US)

Tail & side lamps. General instrument wiring- 17 amps.
28 strand(UK), 14 gauge (US)

Headlamps, horns, Aux lighting - 25.5 Amps.
44 strand (UK), 12 gauge (US)

Generator to Control box & Ammeter - 35 Amps. 65 strand (UK), 10 gauge (US)

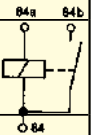
Alternator feed & ammeter - 30 Amp

DIN STANDARD TERMINAL DESIGNATIONS

| | |
|-----|---|
| 1 | IGNITION COIL TO IGNITION DISTRIBUTOR Low voltage |
| 4 | IGNITION COIL TO IGNITION DISTRIBUTOR High voltage |
| 15 | Ignition controlled feed (ignition switch) |
| 15a | Ballast resistor to ignition coil |
| 17 | GLOW PLUG TO STARTER SWITCH Start |
| 19 | Preheat |
| 30 | Direct feed from battery positive terminal |
| 31 | Earth or battery negative |
| 32 | ELECTRIC MOTORS Return |
| 33 | Main terminal |
| 45 | Starter relay feed to starter motor input (main feed) |
| 49 | INDICATOR FLASHER UNIT +12 v Input |
| 49a | Output to indicator switch |
| 49b | Output second turn signal circuit |
| 50 | Starter feed direct |

RETURNS Before placing an order please read carefully our Terms and Conditions on the second and last pages of this catalogue.

| | |
|-----|--|
| 51 | ALTERNATOR DC voltage at rectifier |
| 53 | WIPER MOTOR Feed |
| 53a | Wiper (+) self parking switch |
| 53b | Wiper (shunt winding) |
| 53c | Windscreen washer pump |
| 53e | Wiper (brake winding) |
| 53i | Permanent magnet wiper motor third brush (2 speed) |
| 55 | Fog lamps |
| 56 | Headlamps |
| 56a | Main beam and main beam indicator |
| 56b | Dip beam |
| 56d | Headlamp flash contact |
| 57 | Side marker lamp |
| 58 | Sidelights, tail lights, number plate lamps and instrument panel lamps |
| 61 | Alternator charge warning light |
| 67 | Alternator field |
| 75 | Radio, Cigarette lighter, Power outlet |
| 76 | Loudspeakers |
| 81 | NORMALLY CLOSED AND CHANGEOVER SWITCHES Feed |
| 81a | First output |
| 81b | Second output |
| 82 | NORMALLY OPEN SWITCHES Feed |
| 82a | First output |
| 82b | Second output |
| 82z | First input |
| 82y | Second input |
| 83 | MULTI POSITION SWITCHES Feed |
| 83a | Output position 1 |
| 83b | Output position 2 |
| 83L | Output left-hand |
| 83R | Output right-hand |
| 84 | CURRENT RELAYS Feed, winding and relay contact |
| 84a | Finish of winding |
| 84b | Output relay contact |
| 85 | SWITCHING RELAYS Finish of winding (earth) |
| 86 | Start of winding |
| 86a | Start of winding of first winding |
| 86b | Winding tap or second winding |
| 87 | NORMALLY CLOSED AND CHANGE-OVER CONTACTS Input |
| 87a | First output (break side) |
| 87b | Second output |
| 87c | Third output |
| 87z | First input |
| 87y | Second input |
| 87x | Third input |
| 88 | NORMALLY OPEN AND CHANGE OVER CONTACTS Input |
| 88a | First output |
| 88b | Second output |
| 88c | Third output |
| 88z | First input |
| 88y | Second Input |
| 88x | Third Input |
| B+ | GENERATOR AND GENERATOR REGULATOR Battery positive generator output |
| B- | Battery negative |
| D+ | Generator positive |
| D- | Generator negative |
| EX, | Generator field |
| EXC | Warning light |
| IND | |
| C | Turn signal dash indicator lamp |
| C2 | Second dash indicator lamp |
| X | + 12 Volt input |
| L | Load (eg bulbs) |
| P | Dash warning lamp |



| FLASHER UNIT TERMINAL DESIGNATIONS BY COUNTRY | | | | |
|--|---------|--------|-------|---------|
| | GERMANY | FRANCE | JAPAN | US & GB |
| + 12V | +49 | + | B | X / B |
| LAMPS | 49a | C | L | L |
| DASH INDICATOR | C | R | | P |
| EARTH | 31 | | E | Ground |
| 2nd DASH INDICATOR | C2 | R2 | | C2 |

CABLE SLEEVING

HEAT SHRINK TUBING. Perhaps the greatest hazard associated with Glassfibre cars is fire and the most common cause of fire is dodgy wiring. Donor looms will have many unused wire ends that should be made safe. Even custom manufactured looms will require safe, insulated termination onto spade or ring terminals. Heatshrink makes a professional and reliable finish to your wiring. This pack contains a total of 8 metres of black & red tubing in 3 sizes 4.8mm, 6.4mm and 12.7mm. It has a 2:1 shrink ratio. Shrink temperature is 100 degrees C so you can use a regular paint stripper heat gun. Material is military specification Polyolefin (don't confuse this product with inferior PVC Heat Shrink.) **8 METRE VALUE PACK**
#HTSHK £8 (£9.60 inc vat)



This item is explained on our **YouTube** channel

ALSO AVAILABLE BY THE METRE

- 3.2mm RED **#HS32R** £0.75 mtr (£0.90 inc vat)
- 3.2mm BLACK **#HS32B** £0.75 mtr (£0.90 inc vat)
- 4.8mm RED **#HS48R** £1 mtr (£1.20 inc vat)
- 4.8mm BLACK **#HS48BK** £1 mtr (£1.20 inc vat)
- 4.8mm YELLOW **#HS48Y** £1 mtr (£1.20 inc vat)
- 6.4mm RED **#HS64R** £1.50 mtr (£1.80 inc vat)
- 6.4mm BLACK **#HS64BK** £1.50 mtr (£1.80 inc vat)
- 6.4mm YELLOW **#HS64Y** £1.50 mtr (£1.80 inc vat)
- 12.7mm RED **#HS127R** £2 mtr (£2.40 inc vat)
- 12.7mm BLACK **#HS127BK** £2 mtr (£2.40 inc vat)
- 12.7mm YELLOW **#HS127Y** £2 mtr (£2.40 inc vat)
- 19mm YELLOW **#HS19Y** £2.50 mtr (£3 inc vat)



ADHESIVE LINED HEAT SHRINK

3 : 1 Shrink Ratio with a Hot-Melt adhesive inside. As the tubing shrinks the adhesive melts and forms a weather-tight seal around the cable.

- 3.5mm I.D. **#ALHS3** £1.30 per metre (£1.56 inc vat)
- 6mm I.D. **#ALHS6** £1.70 per metre (£2.04 inc vat)
- 12mm I.D. **#ALHS12** £2.40 per metre (£2.88 inc vat)
- 24mm I.D. **#ALHS24** £5 per metre (£6 inc vat)



HEATSHRINK SELECTION BOX

Approx 95 pieces. Blue, Yellow, Red and Black in 3.5mm and 6.5mm diameter x 150mm long. 2:1 shrink ratio.
#HTSHK2 £12 (£14.40 inc vat)



HEATSHRINK PACK. 127 pieces assorted black heatshrink. Supplied in a plastic storage box. Contents:

- 30pcs. @ 2mm ID x 40mm long
 - 25pcs. @ 2.5mm ID x 40mm long
 - 20pcs. @ 3.5mm ID x 40mm long
 - 20 pcs. @ 5mm ID x 40mm long
 - 16 pcs. @ 7mm ID x 80mm long
 - 8 pcs. @ 10mm ID x 80mm long
 - 8 pcs. @ 13mm ID x 85mm long
- #HTSHK3 £6 per pack** (£7.20 inc vat)



HEATSHRINK PACK. 187 pieces assorted heatshrink. Supplied in a plastic storage box. Contents:

- 2mm ID x 45mm long 15 pcs. Black, 15 pcs. White
 - 3.5mm ID x 45mm long 15 pcs. Black, 15 pcs Green
 - 5mm ID x 45mm long 15 pcs. Black, 15 pcs Red
 - 7mm ID x 45mm long 15 pcs Black, 15 pcs. Blue
 - 8mm ID x 45mm long 15 pcs. Black, 15 pcs Yellow
 - 9mm ID x 45mm long 15 pcs. Black, 15 pcs. Green
- #HTSHK4 £7 per pack** (£8.40 inc vat)



PVC CABLE SLEEVING Black, PVC sleeving that will withstand temperatures up to 105 deg C. Ideal for protecting single or groups of wires. Sold by the metre from a roll. All 0.5mm wall thickness.

- 3mm I.D. **#SLV3** £1 Mtr. (£1.20 inc vat)
- 6mm I.D. **#SLV6** £1.25 Mtr. (£1.50 inc vat)
- 12mm I.D. **#SLV12** £1.50 Mtr. (£1.80 inc vat)



SELF-AMALGAMATING TAPE

This extremely useful tape can be used to wrap electrical joints and connectors. Once stretched and overlapped it releases a resin that bonds to itself, layer upon layer, forming a weather-tight seal. 19mm wide x 10 metres roll.
#SATP £7.50 (£9 inc vat)



LOOM TAPE Non-adhesive PVC tape for wrapping wiring looms the professional way. 20mm wide x 45 mtrs roll.
#LOOMTP £4 (£4.80 inc vat)



WOVEN NYLON INSULATION TAPE Fine texture, super-strong. self-adhesive. electrical insulation tape. 19mm wide. 25 mtrs on the roll.
#INSTPNY £4 / 25 mtr. roll. (£4.80 inc vat)



WOVEN CLOTH INSULATION TAPE Here's the modern version of the classic fabric, self-adhesive, electrical insulation tape. 15mm wide. 15 mtrs on the roll.
#FABINS £10 / 15 mtr. roll. (£12 inc vat)



PVC INSULATION TAPE Self adhesive. 19mm wide x 20 metres roll.
#INSTP £1 (£1.20 inc vat)



NON-WOVEN FABRIC EASY-TEAR INSULATION TAPE Nice texture, easy-to-tear, self-adhesive, electrical insulation tape. 19mm wide. 25 Mtrs on the roll.
#INSTPET £4 / 25 mtr. roll. (£4.80 inc vat)



INSULATION TAPE PACK 10 rolls of PVC insulation tape, 18mm wide and over 18m long. Enough for any loom.
 2 Black,
 2 White,
 2 Red,
 2 Yellow
 2 Green.
#INSTPAK £7 (£8.40 inc vat)



DOOR WIRING RUBBER SLEEVE

Many vehicles will have electric windows and electric door locks. This, 180mm long flexible rubber sleeve will protect the wiring between your 'A' post and your door. It is suitable for up to 2mm thick panels but could be modified for thicker panels. You'll need some careful marking, drilling and filing to cut accurate holes - one at 21mm x 28mm and one at 15mm x 29mm. Hole through diameter is 9mm.

#DWRS £7.50 (£9 inc vat)



MULTICORE TIN / LEAD SOLDER

Proper, old-fashioned Tin / Lead solder makes the best and easiest soldering joints. This is a 500gm roll of 1.2mm diameter Solder. 2% Flux. Grade C. (Tin) Sn40 / (Lead) Pb60.

#SOLDER £23 (£27.60 inc vat)



100gm SOLDER

60/40 Tin/Lead. 1mm diameter. Approx. 16 mtrs. .

#SOLDER100 £5.50 (£6.60 inc vat)



HEAT GUN 2000 WATTS Ideal for shrinking all our Heat-shrink products as well as regular paint stripping and general component heating. Two heat settings - 300°C and 600°C. 240 Volt. Includes a set of four nozzles for a range of heating applications. #HGUN £16 (£19.20 inc vat)



CRIMP AND HEAT SHRINK BUTT CONNECTOR PACK

#CHSBPAK £5 (£6 inc vat)



CABLE JOINERS HEAT-SHRINK, GLUE & SOLDER Length 40mm. These unique products offer a quick, simple and secure way to splice/ two cables together. Just strip 10mm of insulation from each wire, twist the ends together, slide over the sleeve and heat it up with a hot air gun. The solder will melt to join the copper strands, the two rings of glue will melt to seal around the cable insulation and the sleeve itself will shrink tightly around the wire for a strong, permanent, weatherproof joint. Weight per pack of 10 - 15gms. 3 Sizes.

RED For wires up to 2.5mm diameter. #HSSCR £5 pack of 10 (£6 inc vat)



BLUE For wires up to 4.5mm diameter. #HSSCBU £5.50 pack of 10 (£6.60 inc vat)



YELLOW For wires up to 5.5mm diameter. #HSSCY £6.50 pack of 10 (£7.80 inc vat)



These are ideal for protecting exposed terminals on solenoids, starter motors, alternators or battery cut-off switches as required by IVA.

RUBBER BOOT SMALL Cap ID 10mm x 12mm deep. Sleeve ID 6.5mm. Overall length 30mm.

#BOOTS £4.90 pack of 5 (£5.88 inc vat)



RUBBER BOOT MEDIUM Cap ID 15mm x 18mm deep. Sleeve ID 8mm. Overall length 44mm.

#BOOTM £5.50 pack of 5 (£6.60 inc vat)



RUBBER BOOT LARGE Cap ID 19mm x 19mm deep. Sleeve inside dimensions 14mm x 8mm oval. Overall length 48mm.

#BOOTL £6.80 pack of 3 (£8.16 inc vat)



CONTACT CLEANER Is a fast drying, non-conductive cleaner to remove oil, dirt and condensation from electrical components, contacts and contacts. CFC free. 500ml .

#CONCLN £6.50 (£7.80 inc vat)



SPIRAP CABLE BINDING Low density, light weight Polyethylene cable binding. Temperature range -50 deg C to +85 deg C. Offers simple and fast method of protecting and reinforcing looms and even single cable runs. Wires can be exited from the loom at any point. 3 sizes. Sold per metre

BLACK SMALL for cable bundles 1.5 - 7mm
#SPIR1 £1 Mtr. (£1.20 inc vat)



BLACK MEDIUM for cable bundles 5 -20mm
#SPIR2 £1.25 Mtr. (£1.50 inc vat)



BLACK LARGE for cable bundles 10 - 40mm. **#SPIR3** £1.50 Mtr. (£1.80 inc vat)



WHITE SMALL for cable bundles 1.5 to 7mm **#WSPIR1** £1 Mtr. (£1.20 inc vat)



WHITE MEDIUM for cable bundles 9 to 20mm **#WSPIR2** £1.25 Mtr. (£1.50 inc vat)



WHITE LARGE for cable bundles 18 - 40mm **#WSPIR3** £1.50 Mtr. (£1.80 inc vat)



RAPID CABLE WRAP This is a cross between Spiral Wrap and Split Slewing. For cable bundles 18 to 22mm. Very flexible, lightweight Polyethylene.
#RCW22 £1.50 Mtr. (£1.80 inc vat)

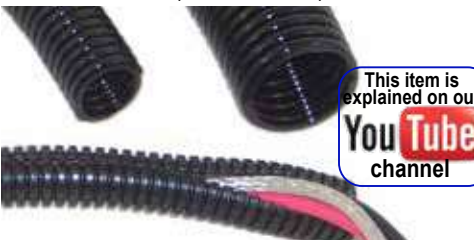


SPLIT SLEWING CABLE PROTECTION
 Tough Nylon slewing to protect and tidy your cables. Very flexible and split along its entire length for simple installation. Just bind with insulation tape every few inches when the job's complete. 3 Sizes:

8.5mm I.D. (11.5 O.D.)
#SPLT1 £1.25 Mtr. (£1.50 inc vat)

13mm I.D. (16 O.D.)
#SPLT2 £1.50 Mtr. (£1.80 inc vat)

21mm I.D. (25 O.D.)
#SPLT3 £2 Mtr. (£2.40 inc vat)



This item is explained on our **YouTube** channel

TEMPROTECT SLEEVING Braided glass-fibre sleeve, coated with iron oxide silicone rubber which will even shed molten steel, aluminium and glass offering outstanding protection to hoses, tubes and cables in a variety of hostile environments.

Larger sizes available.

BLACK 3mm ID
#TP3BK £2.50 (£3 inc vat)

BLACK 6mm ID
#TP6BK £3 (£3.60 inc vat)

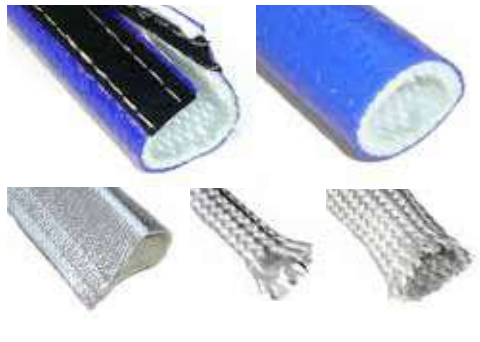
BLACK 10mm ID
#TP10BK £4 (£4.80 inc vat)

BLACK 13mm ID
#TP13BK £9 (£10.80 inc vat)



SOLD PER MTR FROM A ROLL

FIREPROOF SLEEVING - SEE END OF HOSES SECTION



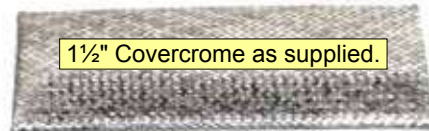
BLACK EXPANDABLE PLASTIC OVERBRAID Flame retardant. Withstands temperature from -40°C to 125°C.
NOTE. This product's woven structure is such that it's diameter will shrink or expand as the length is stretched or compressed. Thus, one metre of relaxed **#NYBR13** will cover a metre of 13mm O.D. hose or more than a metre of 9mm O.D. hose or less than a metre of 15mm O.D. hose.



| PART NO: | I.D. | MIN I.D. | MAX I.D. | PRICE PER Mtr. |
|----------------|--------|----------|----------|-----------------------|
| #NYBR6 | 6.4mm | 3.2mm | 9.5mm | £3 (£3.60 inc vat) |
| #NYBR10 | 9.5mm | 4.8mm | 15.9mm | £3.50 (£4.20 inc vat) |
| #NYBR13 | 12.7mm | 6.4mm | 19.0mm | £4 (£4.80 inc vat) |
| #NYBR19 | 19.1mm | 12.7mm | 31.7mm | £4.50 (£5.40 inc vat) |
| #NYBR32 | 31.8mm | 19.0mm | 38.1mm | £6 (£7.20 inc vat) |
| #NYBR38 | 38.1mm | 25.4mm | 57.1mm | £6.50 (£7.80 inc vat) |

COVERCROME

- Metalised Polyester plastic sleeving for pipes, hoses and wiring.
- Non abrasive - will not wear through adjacent components.
- 2 to 1 Expansion/Contraction Ratio.
- Easy to fit, lightweight and flexible.
- Temperature range -100°F to +275°F.
- Mildly conductive for shielding and insulation.
- UV Resistant.& resistant to abrasion.
- Cuts easily with a hot knife to minimise fraying.
- Easily & neatly terminated with Heat Shrink, Tape or Ties.



1 1/2" Covercrome on 1/2" Heater Hose.



1/2" Covercrome on 6mm Fuel Hose with Red and Black Heatshrink end finishers.



1/4" Covercrome as supplied.

| PART NUMBER | NOMINAL I.D. | FITS HOSE OR CABLE O.D. | PRICE PER MTR. |
|--------------|---------------|-------------------------|-----------------------|
| #CC6 | 6mm (1/4") | 3mm to 12mm | £3 (£3.60 inc vat) |
| #CC8 | 8mm (5/16") | 4mm to 16mm | £3.50 (£4.20 inc vat) |
| #CC12 | 12mm (1/2") | 6mm to 24mm | £4.50 (£5.40 inc vat) |
| #CC19 | 19mm (3/4") | 10mm to 28mm | £7 (£8.40 inc vat) |
| #CC32 | 32mm (1 1/4") | 16mm to 45mm | £10 (£12 inc vat) |
| #CC38 | 38mm (1 1/2") | 19mm to 50mm | £12 (£14.40 inc vat) |

NOTE: This is not a heat-shrink product. Covercrome's woven structure is such that it's diameter will reduce or increase as it's length is stretched or compressed. Thus, one metre of **#CC12** will cover one metre of 12mm O.D. hose or more than one metre of 8mm O.D. hose or less than a metre of 20mm O.D. hose.

Covercrome with self-amalgamating tape finisher



Covercrome on Motorcycle hoses



CBS WIRING MODULE



12 CIRCUIT WIRING MODULE

The difficult bit is already done for you. Correct rating fuses on all circuits. Indicator and Hazard flasher relays. Horn relay. Fan relay. Pre-drilled composite mounting plate. Easy to follow instructions and diagrams. Just mount the module under your dash or in your engine bay and run the correct size cables from your ancillaries and switches to the unit's screw terminals. DIY wiring doesn't get simpler than this.

Mounting plate dimensions: 145mm (5 1/4") x 145mm (5 3/4")

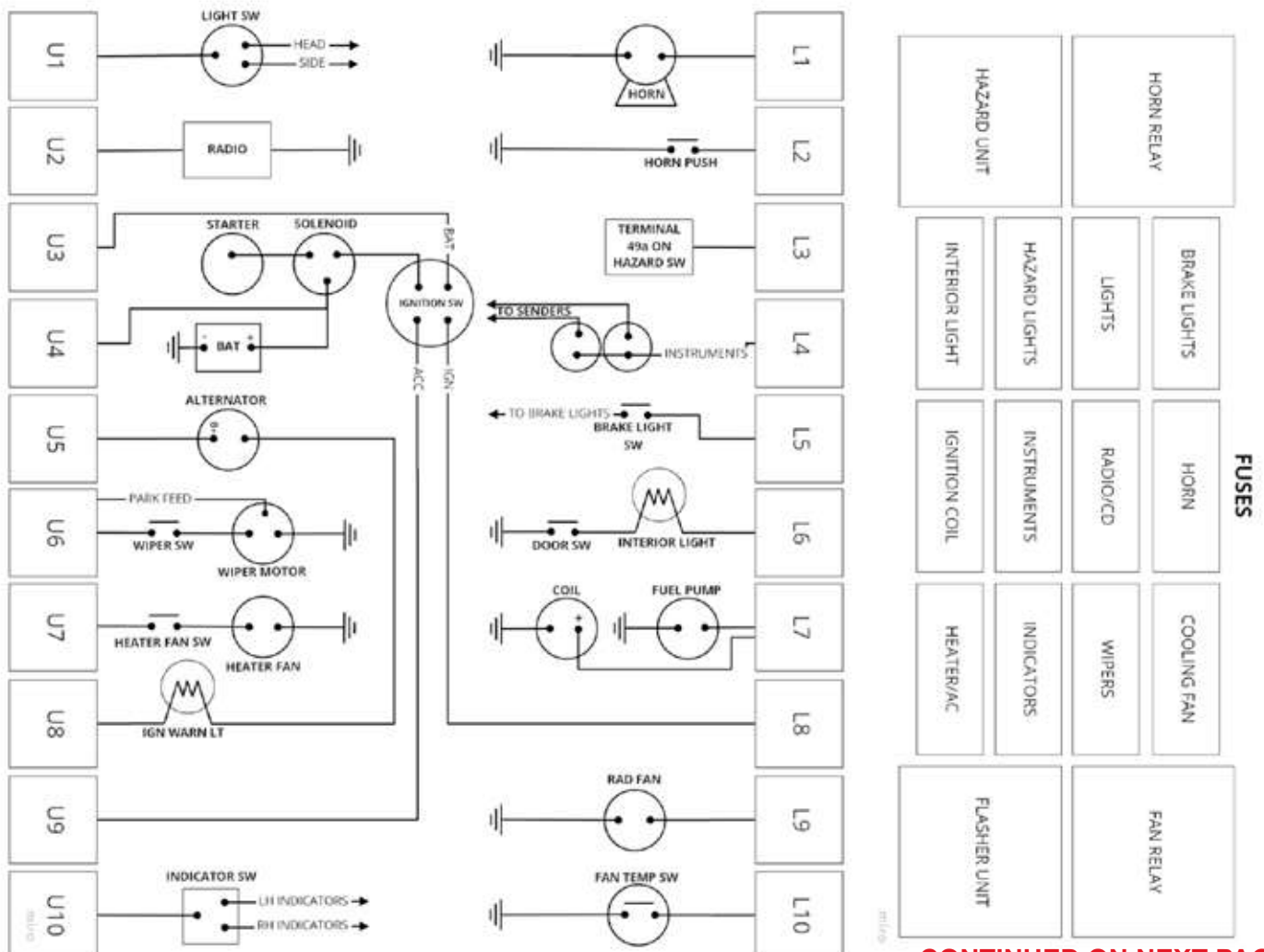
Height 75mm (3"). Weight 660 gms.

#WRMOD £94 (£112.80 inc vat)

This item is explained on our YouTube channel

THE HEART OF A CUSTOM LOOM FOR YOUR CAR

VEHICLE WIRING DOESN'T GET ANY EASIER THAN THIS



CONTINUED ON NEXT PAGE

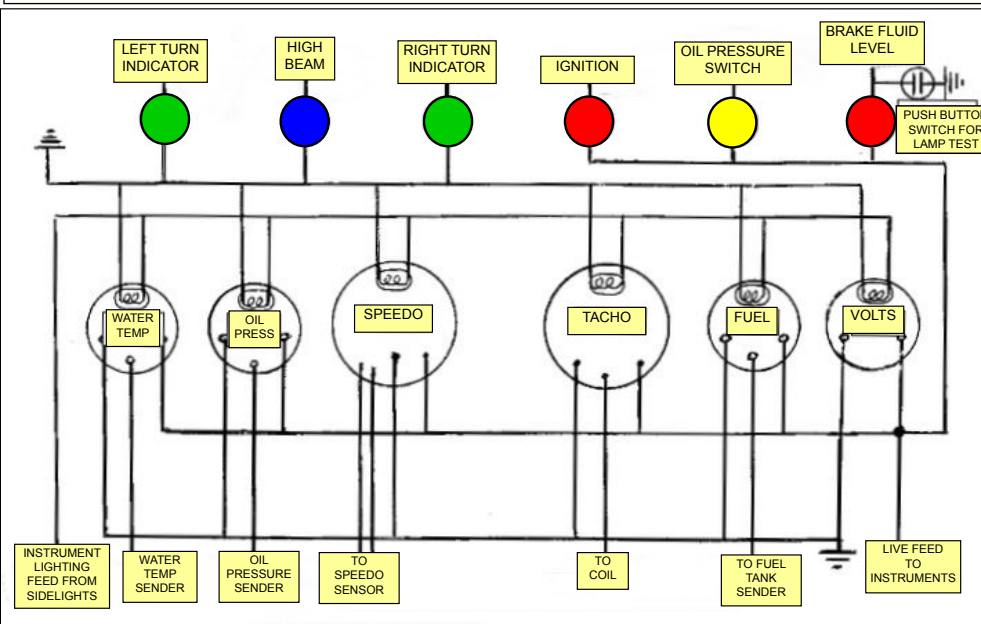
CBS WIRING MODULE

A correctly designed and installed wiring system is crucial to the safety and reliability of any vehicle. The correct size and type of cables and terminals must be used to interconnect the components. Most cables are made up of thin strands of copper. Cable sizes are denoted the number of strands and the individual strand thickness. E.g. 14/030 cable has 14 strands of wire each 0.3mm diameter. This cable will safely carry a continuous current of 5.75 amps. 28/030 –17.5 amps, 44/030—25.5 amps etc. Use the cable sizes listed in the wiring schedule only as a guide. If, for example, you are using high wattage headlight bulbs or powerful Hi-Fi equipment then increase cable sizes accordingly. To calculate current (amps) drawn by a component simply divide the wattage by the voltage. For instance, a 100 watt headlight bulb will draw $100(w)/12(v) = 8.3$ amps.

| TERMINAL | CONNECTION | WIRE SIZE |
|----------|--|-----------|
| UPPER 1 | Live feed to light switch ¹ | 28/030 |
| UPPER 2 | Live feed to Radio or CD player | 14/030 |
| UPPER 3 | Connect to 'Battery' connection on ignition switch. Live feed to switch. | 28/030 |
| UPPER 4 | Connect to battery terminal on starter solenoid. This is the main power feed to the module. | 65/030 |
| UPPER 5 | Connect to the large positive terminal (B+) on alternator. | 65/030 |
| UPPER 6 | Live feed to starter switch. (Some wiper motors require a feed from this terminal for the self-parking to work). | 28/030 |
| UPPER 7 | Live feed to heater fan switch. | 28/030 |
| UPPER 8 | Connect through ignition warning light to alternator exciter terminal. | 14/030 |
| UPPER 9 | Connect to accessory position on ignition switch. (Link to LOWER 8 if using a single position ignition switch). | 14/030 |
| UPPER 10 | Connect to central terminal on Indicator switch. | 14/030 |
| LOWER 1 | Live feed to the horn (switched via a relay) | 20/030 |
| LOWER 2 | Connect through horn switch to earth, to switch the horn relay. | 28/030 |
| LOWER 3 | Connect to 49a on hazard switch (Feed to Hazard circuit) | 14/030 |
| LOWER 4 | Live feed to + terminal on instruments. | 14/030 |
| LOWER 5 | Connect to brake lights via brake light switch. | 14/030 |
| LOWER 6 | Live feed to interior light, then via switch(es) to earth. | 14/030 |
| LOWER 7 | Connect to +ve (SW) side of coil and electric fuel pump. | 28/030 |
| LOWER 8 | Connect to IGN on ignition switch. | 28/030 |
| LOWER 9 | Live feed to cooling fan. | 28/030 |
| LOWER 10 | Connect through fan temperature switch to earth. | 28/030 |

WARNING LIGHTS & INSTRUMENT WIRING

THIS DIAGRAM IS FOR INFORMATION ONLY AND IS NOT PART OF THE WIRING MODULE



WE STOCK A LARGE SELECTION OF WIRE AND CABLE



WIRING MODULE COVER A tough, vacuum-formed ABS cover for our wiring module. Fits neatly over the module to provide dust and splash protection. Can be secured with Velcro strips, drilling holes around the flange and fixing with screws into rivnuts in your panel. Size: 200 x 200 x 75mm.

BLACK TEXTURED

#WMCOV £18 (£21.60 inc vat)



CARBON EFFECT

#WMCOVCB £18 (£21.60 inc vat)



CRIMP TERMINAL PACK 76 pieces including Male & Female Spades, Ring Terminals, 'U' Terminals and In-Line Joiners in Red, Yellow and Blue sizes. We have to admit there are times when these are OK for a quick and easy connection.

#CTERPAK100 £6 (£7.20 inc vat)

| | | | | | |
|-----------------------------------|------------------------------------|--------------------------------------|---|---|---|
| 22-Gage Butt Connector 4 Piece | 22-Gage Male Disconnect 4 Piece | 22-Gage Female Disconnect 4 Piece | 22-Gage Ring Terminal #6-12-15 4 Piece | 22-Gage Ring Terminal #6-12-15 4 Piece | 22-Gage Spade Terminal #10-15-20 4 Piece |
| 16-Gage Butt Connector 4 Piece | 16-Gage Male Disconnect 4 Piece | 16-Gage Female Disconnect 4 Piece | 16-Gage Ring Terminal #4-10-15 4 Piece | 16-Gage Ring Terminal #4-10-15 4 Piece | 16-Gage Spade Terminal #10-15-20 4 Piece |
| 12-Gage Butt Connector 4 Piece | 12-Gage Male Disconnect 4 Piece | 12-Gage Female Disconnect 4 Piece | 12-Gage Ring Terminal #2-10-15 4 Piece | 12-Gage Ring Terminal #2-10-15 4 Piece | 12-Gage Spade Terminal #10-15-20 4 Piece |



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT www.carbuilder.com

BATTERIES

PACK OF 4 AAA BATTERIES

Zinc Carbon. Size S or R036. 1.5 Volt
#BATAA £1 (£1.20 inc vat)



PACK OF 4 AA BATTERIES

Zinc Carbon. Size M or R6. 1.5 Volt.
#BATAA £1 (£1.20 inc vat)



SINGLE 9V BATTERY

Zinc Carbon. Size 9V or 6F22. 9 Volt.
#BAT9V £2 (£2.40 inc vat)



SINGLE LR44 BUTTON CELL BATTERY

Alkaline Size AG13 / A76
 1.5 Volt.
#BATLR44 £1
 (£1.20 inc vat)



SINGLE CR2032 BUTTON CELL BATTERY

Lithium 3 Volt.
#BATCR2032 £1
 (£1.20 inc vat)



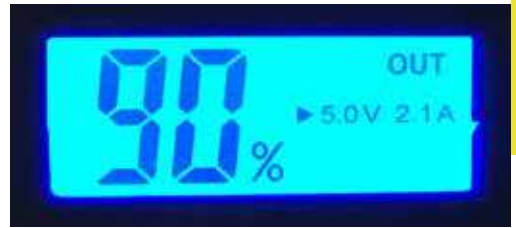
CABLE TIES BARGAIN PACK of 400

Black nylon. 100 each of 4 sizes: 102mm x 2.5mm, 200mm x 4.8mm, 295mm x 4.8mm, 370mm x 4.8mm. **#CTPAK £10** (£12 inc vat)



600 AMP MINI JUMP PACK This multi-use gadget really deserves a little space in your boot. Modern Li-Polymer battery technology has allowed the development of a battery pack just 189mm (7 1/2") x 84mm (3 1/4") x 47mm (2") that has enough power to start an engine. Starting current 300 Amps or 600 Amps for 3 seconds. It is supplied with two crocodile clips that plug directly into the battery pack. There's a USB lead that has four Apple plugs for iPhone 4, 5 and 6 and iPads plus a Mini USB connector. Also included is a set of regular power supply adapters for which you can select the output voltage - 12v, 16v or 19v and a mains charger and Lighter-style 12 volt charging lead. The battery pack has a super-bright, built-in LED torch, a compass and a LED display showing its level of charge. Full instructions are included and it is important that you **READ THEM CAREFULLY.**

#MJPACK £90
 (£108 inc vat)



6 METRE JUMP LEADS Top quality 800 Amp jump leads. 6 metre cables and heavy duty crocodile clips. Supplied in a zip-up carry case. 15mm cable dia. Weight 4.5 Kg.
#JUMP £23 (£27.60 inc vat)



BRASS HEAVY DUTY CROCODILE CLIPS

The covers of these great quality clips slide off exposing an M6 female thread in each handle, so you can make up your own Jump leads with whatever size and length cable you want using the appropriate ring terminals from our range and a couple of M6 screws. Weight 720 gms.
#HDCROC £19 (£22.80 inc vat)



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT
www.carbuilder.com

CHARGING

4 AMP SMART BATTERY CHARGER / MAINTAINER

4 Amp maximum output. Automatically adjusts to low current maintenance mode when battery is fully charged. Press the button to select one of six charging modes - 12 volt car, summer or winter, 6 volt motorcycle, summer or winter (2 Amp max.) and 12 volt motorcycle summer or winter. Bright LCD screen. Mains lead and plug. 1.4 mtr. plug-in charging leads with insulated red and black crocodile clips or ring terminals. Handy fold-out hook for hanging inside your bonnet. Size: 190mm x 85mm x 50mm .
#SMART £33 (£39.60 inc vat)



2.4 WATT SOLAR BATTERY MAINTAINER

Suitable for up to 100Ah batteries for Caravans, Large cars, Boats, Motorcycles and Lawn mowers. 138mA 15 Volt (2.4 Watt) output. Panel size overall 352mm x 214mm x 14mm thick. Weight 1150g.
#SOLAR3 £34 (£40.80 inc vat)



6 WATT SOLAR BATTERY MAINTAINER

Suitable for up to 200Ah batteries for Caravans, Large cars & vans, Boats, Motorcycles and Lawn mowers. 343mA, 17.5 Volt (6 Watt) output. Panel size overall 498mm x 345mm x 15mm thick. Weight 2250g.
#SOLAR4 £60 (£72 inc vat)



HIGH POWER USB CHARGING SOCKET.

CE marked. 12 volt double charging socket with a LED on the front panel. 5 volt 1 Amp and 5 volt 2.1Amp outputs. Works for GPS, mobile phones, tablets, MP3 players etc. Two 1/4" spade terminals on rear. Can be fitted through a 29mm hole in your dashboard. NOTE: Check your equipment manual to choose the correct output setting for your device. If in doubt, select 1 Amp.
#USBSKT6 £13 (£15.60 inc vat)



BATTERY CHARGER. A good value, no frills workshop battery charger. 4 Amp 12 volt maximum output. Charge indicator meter. Short circuit protection. Thermal overload protection. Reverse polarity protection. Mains lead and plug. 1.4 mtr charging leads with insulated red and black crocodile clips.
#BATCH £19 (£22.80 inc vat)



USB CHARGER SOCKET Bezel diameter 36mm. Fits in a 28mm hole in a panel up to 7mm thick. 12 volt DC input. 5 volt 1 Amp. DC output. 150mm flyleads. Front projection 4mm. Rear projection maximum 33mm not including leads.
#USBSKT £21 (£25.20 inc vat)



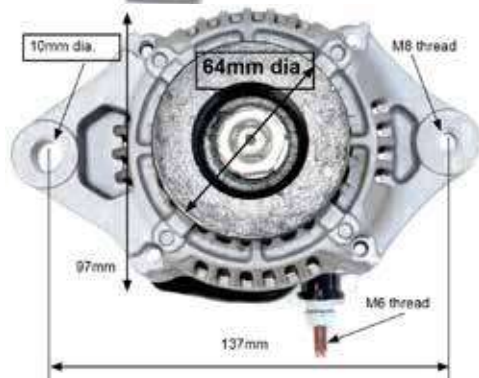
SURFACE MOUNT USB CHARGER SOCKET Footprint 85mm x 34mm x 32mm high. Two 4mm mounting holes at 23mm centres. Red and black flyleads 150mm long. 12 volt DC input. 5 volt 100 ma. DC output. Two self tapping screws included.
#USBSKT2 £21 (£25.20 inc vat)



ALTERNATORS

COMPACT LIGHTWEIGHT 40 Amp

ALTERNATOR Most specialist vehicles have limited electrical requirements, often have restricted engine bay room and can almost always benefit from weight reduction. If all this applies to your car then this is the alternator for you. Very compact - the main body is less than 100mm diameter. Light weight - only 3Kg and simple, two bolt mounting. Main power output is via an M6 stud. Warning light and +12v terminals are 1/4" male spade. (See table). Rotation clockwise looking at pulley. Wiring diagram in online listing. **#ALTE £98 each** (£117.60 inc vat)



NOTE: For anyone wishing to change the pulley on #ALTE, the shaft diameter is 15mm and there is no keyway. Doing so may invalidate your warranty.



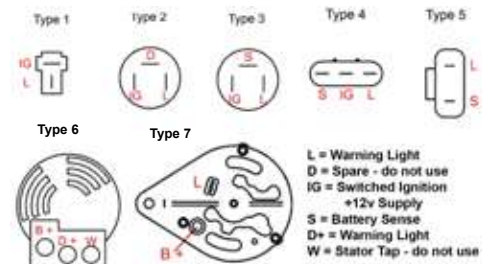
ALTERNATOR PLUG For ACR alternator with two 3/8" and one 1/4" spade terminals. Replaces Lucas 54960402 **NOTE: DOES NOT FIT OUR ALTERNATOR** #ALTE **#ALPLUG1 £5.50** (£6.60 inc vat)



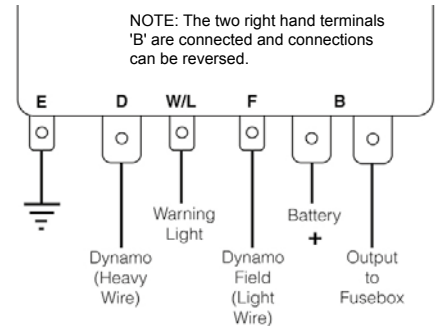
TYPE 1 ALTERNATOR PLUG Two female 1/4" spades. Brown and Blue 500mm flyleads. **#ALPLUG5 £2** (£2.40 inc vat)



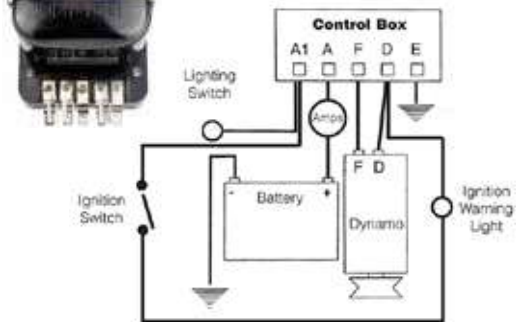
ALTERNATOR CONNECTION CHART



12 VOLT 25 AMP VOLTAGE REGULATOR/CONTROL BOX Replaces Lucas NCB131 type RB340. 12 volts, 25 Amp. Base size 130mm x 80mm (including terminals) x 70mm high. Weight 580 gms. **#REG1 £19** (£22.80 inc vat)



12 VOLT 22 AMP VOLTAGE REGULATOR/CONTROL BOX Replaces Lucas 37290. Base size 85mm x 90mm (including terminals) x 100mm high. Weight 368 gms. **#REG2 £29** (£34.80 inc vat)



DYNAMOS

DYNAMO 110482 12 Volt 22 Amp. 15mm diameter shaft x 18mm long with 1/8" key. Rotation Clockwise. All mounting holes 8mm or M8. Replacement for Lucas 22750, 22272, 22700 and others. Case diameter 102mm. Weight 6Kg. **#DYNAMO2 £85** (£102 inc vat)



DYNAMO 110483 12 volt. 11 Amp 15mm diameter shaft x 18mm long with 1/8" key. Rotation Clockwise. All mounting holes 8mm or M8. Replacement for Lucas 22255 and others. Case dia. 102mm. Weight 5.6Kg **#DYNAMO3 £80** (£96 inc vat)



**SHAFT
THREAD
M12 x 1.25mm**



15mm dia x 18mm long

**SHAFT
THREAD
M12 x 1.25mm**



15mm dia x 18mm long



5.7" (145mm)



5.7" (145mm)



HORNS

NOTE: ALWAYS MOUNT HORNS AWAY FROM ANY POTENTIAL ROAD SPRAY WITH THE TRUMPETS POINTING DOWN. ANY INGRESS OF WATER WILL DAMAGE THEM.

70mm HORN 6v or 12v. Small, discreet horn but loud enough to be legal. 8mm and 6mm mounting holes. Two 1/4" male spade terminals. Weight 100 gms.

6 VOLT #HORN706V £7 (£8.40 inc vat)

12 VOLT #HORN7012V £7 (£8.40 inc vat)



BUDGET HORNS PAIR 12 Volt High & Low tone. 91mm diameter. Single terminal connector. Earth through mounting bolt.

PAIR #BUDH2 £10 pair (£12 inc vat)

SINGLE #BUDH1 £5.50 each (£6.60 inc vat)



CLASSIC CHROME HORN 12 VOLT

A stylish addition to any classic car or motorcycle. 100mm Diameter. Single mounting bracket with an 8mm hole. Two 6.3mm male spade connections. **#CCHORN £12 each** (£14.40 inc vat)



BLACK CLASSIC SLOTTED GRILLE HORN 12 VOLT

A stylish addition to any classic car or motorcycle. 90mm Diameter. Single mounting bracket with an 8.5mm hole and a 6.5mm hole. Two 6.3mm male spade connections. **#CBHORN £11 each** (£13.20 inc vat)



MINI HORNS PAIR 'E 13' Marked.

Very nice quality. Small and powerful. High tone 76mm diameter. Low tone 72mm diameter. 8.5mm fixing holes. Twin 1/4" spade terminals. 12 Volt Weight 338gms. **#MINHRN £16.50 pair** (£19.80 inc vat)



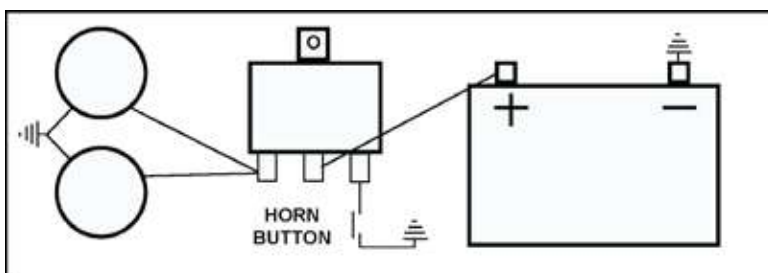
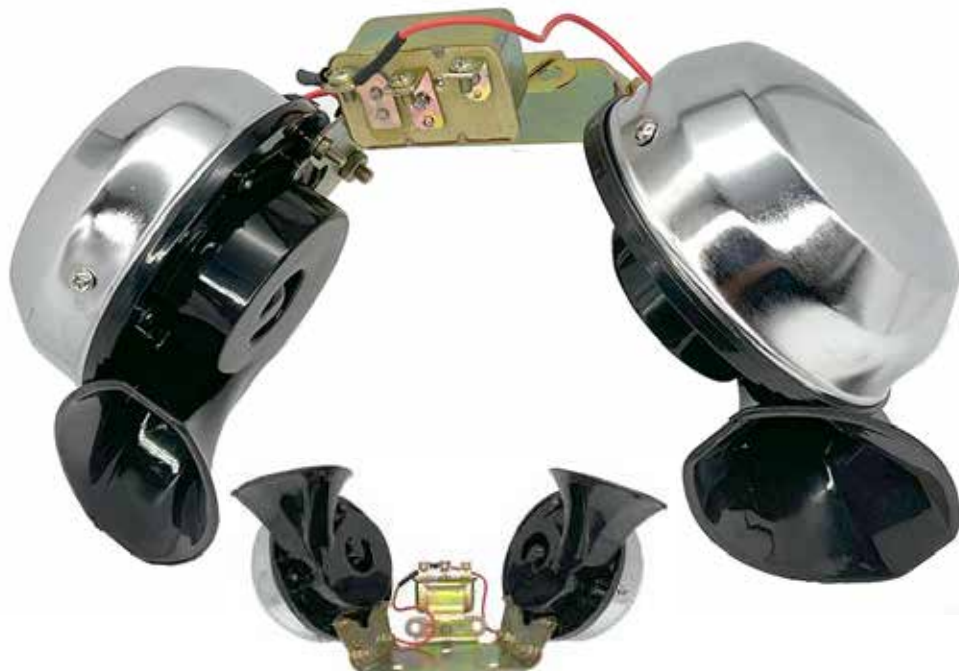
6 VOLT CHROME CLASSIC HORN

100mm diameter x 56mm maximum thickness. Two 1/4" male spade terminals. Plated steel mounting plate with one 8mm hole. 6 VOLTS. Weight 340gms **#CCHORN6V £12 each** (£14.40 inc vat)



CHROME TWIN TONE ELECTRIC HORNS 12 volt. These beauties are LOUD!!

Steel covers 100mm diameter. Fixing kit with mounting brackets, nuts & bolts, relay and wiring. 110db. **#HORNSC £18.50 pair** (£22.20 inc vat)



WE TRY HARD TO PUBLISH ALL THE INFORMATION YOU NEED TO CHOOSE THE CORRECT PART, FIRST TIME. IF YOU NEED HELP, PLEASE ASK

LUCAS STYLE LARGE CLASSIC 110 db

WIND HORNS Replica of Lucas WT618 high and low note horn. Factory fitted to Rolls Royce, Morgan, Austin, Lotus, Rootes, Bristol, Morris, Ford Consul, Zephyr, Zodiac, Triumph TR2/3/3A/3B, etc.

Cast alloy horn body with domed ABS cover. Supplied with mounting brackets and 200mm flylead. Weight 1450 gms.

Size: Diameter 137mm (5"), Overall length 200mm (8"). Triangular trumpet mouth 100mm (4"). **NOTE: MOUNT HORNS WITH TRUMPET FACING DOWN**

#LUHORN £70 Pair (£84 inc vat)



CHROME TWO TONE HORNS Very nice pair of 12 volt horns. Chromed plastic bell. High 510Hz and Low 410 Hz. Single fixing stud on each. Mounting brackets included. Body diameter 88mm. Two 1/4" male spade terminals. We recommend these are operated through a relay (available separately)

#HORNSTCH £12 (£14.40 inc vat)



BLACK HORNS PAIR 12 Volt High & Low tone. Two terminals. Plated mounting brackets. 89mm x 110mm.

#HORNSBK £14 pair (£16.80 inc vat)



BLACK & RED HORNS PAIR

Budget priced, 12 Volt High & Low Tone horns. Two terminals. Plated mounting brackets. Supplied with wiring instructions. Maximum dimensions 120mm x 90mm.

#HORNSBR £10 pair (£12 inc vat)



ALI BODY & BEZEL HORN SWITCH 25mm diameter. Fits 22mm hole.

#PBSWALIH £7.50 (£9 inc vat)



ALL BLACK HORN SWITCH ABS

26mm dia. Fits 22mm hole. **#PBSWBKH £6** (£7.20 inc vat)

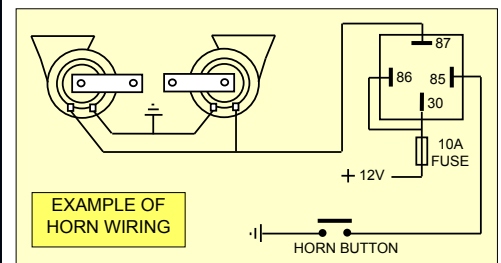


BILLET ALUMINIUM HORN PUSH BUTTONS. SEE THE WHOLE RANGE IN THE BILLET ALLOY SWITCH SECTION IN THIS CATALOGUE AND ONLINE.



STANDARD RELAY 30 Amp 4 Pin

For simple on/off switching of fans, horns, lamps etc. With removable mounting bracket. **#RLY4 £4** (£4.80 inc vat)



BUDGET TWIN TONE AIR HORNS 12 Volt

Complete with compressor, hose, mounting hardware and relay. Horn lengths 162mm and 212mm.

#AIRHR3 £13.50 set (£16.20 inc vat)



COMPACT TWIN TONE AIR HORNS

If you have limited space available and still want Air Horns these may be the answer. Only 125mm x 125mm high x 92mm wide and weighing only 640 gms. Complete with relay, mounting hardware and full instructions. #AIRHR2 £34 (£40.80 inc vat)



RED COMPACT TWIN TONE AIR HORN

This 12 volt easy to mount horn measures only 100mm x 112mm x 154mm but with its integral air compressor sounds out a massive 115 decibels at 4 metres. It is suitable for either positive or negative horn button wiring. Supplied with mounting fixings, a 30 Amp relay and full installation instructions. Weight 760 gms.

NOTE: This must be mounted with the horn outlets facing down and protected from road spray.

#AIRHR4 £18 (£21.60 inc vat)

FULL INSTRUCTIONS IN ONLINE LISTING



RED 12 VOLT KLAXON HORN 110db

Arooogha - sound (see online listing for sound sample). Overall length 225mm. Maximum (body) diameter 107mm. Single bolt mounting -bolt included. Two 1/4" male spade terminals. We recommend this horn is operated through a relay. Weight 613gms.

#ARRHR £24 (£28.80 inc vat)



CHROME KLAXON HORN 110 db

Arooogha - sound (see online listing for sound sample). Overall length 260mm. Maximum (body) diameter 96mm. Single bolt mounting -bolt included. Two 1/4" male spade terminals. We recommend this horn is operated through a relay. 12 volt. Weight 770gms

#ARRHC £30 (£36 inc vat)



ITALIAN MADE BLACK KLAXON HORN 110 db

Arooogha - sound (see online listing for sound sample). Overall length 250mm. Maximum (body) diameter 96mm. Single bolt mounting -bolt included. Two 1/4" male spade terminals. We recommend this horn is operated through a relay. 12 volt. Weight 770gms

#ARRHB £30 (£36 inc vat)



DASHCAM

RING RSDC2000 SMART DASHCAM

Pair to your Smartphone through the RingConnect App for setting up and downloading footage. Easy installation to your windscreen with a self-adhesive pad on the mount. The camera and mount are connected with strong magnets for easy removal and refitting. Connections for the power lead on both the mount and the camera. Full HD camera. 1080P at 30FPS. 120° field of view. 2" screen. Shock sensor saves files in the event of a collision. Auto start/Stop. Max SD card 32GB (required but not included). Six hours maximum recording time. Loop function will overwrite oldest recording when memory card is full. Cable and Trim installation/removal tool included.

NOTE: REQUIRES A 32GB MICRO SD CARD - NOT INCLUDED

#DASHCAM5 £58 each (£69.60 inc vat)



PARKING SENSORS

NUMBER PLATE SURROUND WITH PARKING SENSORS. Here's a moulded black plastic number plate surround with two integral parking sensors so you don't have to drill your bumper or bodywork to install them. Activates automatically when you select reverse gear. Fully programmable to ignore tow-bars. Kit includes: Number plate surround with two sensor housings (Size 565mm x 135mm x 40mm maximum rear projection, Control Module, Warning Buzzer, 2 x Sensors. Plug-in Wiring, fitting kit and screwdriver for setting up. 6 Page illustrated installation guide.

#NPSPK £60 (£72 inc vat)



SENSOR



WE AIM FOR 100% STOCK OF ALL ITEMS FOR SAME DAY SHIPPING

PARKING SENSOR KIT. Two or Four Sensor Kits suitable for installation in either front or rear bumpers. System activates automatically when ignition is switched on or you select reverse gear (manual switching, add-on kit available separately). Fully programmable to ignore tow-bars. Kit includes: Control Module, Warning Buzzer, 2 x Sensors (sensors and surrounds can be painted body colour). Sensors push into a 20.5mm hole. Plug-in Wiring, fitting kit and screwdriver for setting up included. Six Page illustrated installation guide.

TWO SENSOR KIT #PSKIT2
£59 (£70.80 inc vat)

FOUR SENSOR KIT #PSKIT4
£69 (£82.80 inc vat)



STEPPED HOLE CUTTERS Excellent quality. Cut clean neat accurate holes in GRP Aluminium & Steel. Titanium coated. Note: A little light oil will make a cleaner cut and prolong the life of the cutting edge.

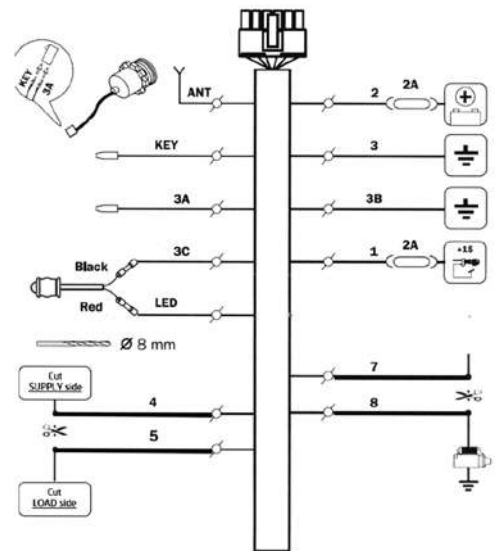
THREE PIECE SET
METRIC 4mm to 32mm
#STEMP £28
(£33.60 inc vat)



IMMOBILISER

IMMOBILISER THATCHAM CATEGORY 2

Simple to use and install. Includes panel-mounted fob receiver socket (fits in a 15mm diameter hole) and two coded Key Fobs, sealed module, installation instructions. 1.4mtrs long cable bundle with numbered wires for security. Twin circuit immobiliser. Passive arming. Touch-key operation. Fail-safe immobilisation. Water resistant. Flashing LED for diagnostics. 12 volt. Power consumption 2.8ma max. Relay current capacity 1. 10A max. 2. 25A max. Module dimensions 123mm x 65mm x 32mm. Thatcham approval No: TE21046/0898
#IMMOB2 £125 (£150 inc vat)



DON'T FORGET THAT NEW PRODUCTS ARE ADDED ALMOST DAILY TO OUR RANGE PLEASE ASK FOR A CATALOGUE UPDATE OR CHECK 'NEW PRODUCTS' ONLINE

IN-CAR ENTERTAINMENT

CLASSIC STYLE DAB FM RADIO BLACK OR CHROME FACIA

NO CD PLAYER. 1 DIN standard size. Blue LCD display. You can wirelessly link your smartphone or tablet by Bluetooth, for music playback or hands-free calling using the remote microphone included. Insert an SD card up to 32GB or connect an auxiliary device via the USB or 3.5mm stereo jack inputs. MP3 and WMA compatible. A2DP + AVRCP audio streaming. 18FM/18AM pre-sets. RDS EON radio function. 3 band pre-set equalizer. RCA output. Built-in ISO connector. Includes active DAB screen mount antenna, wiring plugs. Maximum power output 4 x 75 Watt / 4Ω Dimensions 190mm x 60mm x 125mm front to back. Weight 548gms.

BLACK FACIA

#DABTBK £145 (£174 inc vat)



CHROME FACIA

#DABTCH £145 (£174 inc vat)



RETRO BLUETOOTH TUNER / USB / SD CARD PLAYER NOTE - NO CD PLAYER

Here's a classic-looking, black face, for your dash but there's nothing retro about it's features and performance. It has an LCD display, 4-band equaliser, a detachable front panel and a wiring harness with an ISO connector. In addition to it's FM tuner you can also wirelessly link your smartphone or tablet by Bluetooth, for music playback or hands-free calling using the remote microphone included. Insert an SD card up to 16GB or connect an auxiliary device via a 3.5mm stereo jack. MP3 and WMA compatible. Maximum power output 4 x 75 Watt / 4Ω Dimensions 1 DIN. 190mm x 60mm x 200mm front to back. Weight 1790gms.

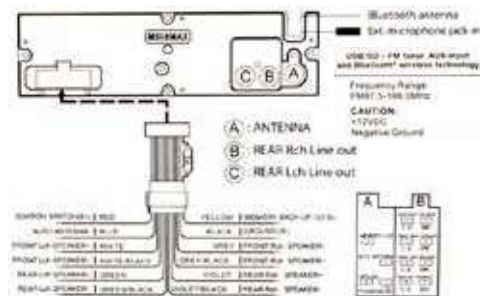
BLACK FACIA

#BTTUNERBK £145 (£174 inc vat)



CHROME FACIA

#BTTUNERCH £145 (£174 inc vat)



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT www.carbuilder.com

SINGLE DIN RADIO / CD HOUSING

Moulded ABS box with four mounting holes and blanking plugs. Overall outside dimensions 211mm Wide x 71mm High x 85mm Front to back. Inside front dimension 203mm x 64mm. Weight 433 gms.

#RADHOU £12 (£14.40 inc vat)



3 WAY SPEAKERS Set of two, 3 - way, satellite speakers with adjustable mounting brackets. 120 Watts max. 50 Watts RMS. 4 Ohms. Sensitivity 90db/W/mtr. Quick release connectors. Two, 3 metre cables. Dimensions 185 x 98 x 115mm front to back. Weight 1025gms.

#SPKRS £54 (£64.80 inc vat)



RETURNS
Before placing an order please read carefully our Terms and Conditions on the second and last pages of this catalogue. Thank you

AERIALS

ELECTRIC AM - FM RADIO ANTENNA

Here's a high quality, powerful, electric antenna. It's five-section, stainless steel mast extends to 39" (1 metre). It has a detachable, 2 metre aerial lead, a stabilising bracket with fixings, wiring harness and eleven interchangeable mounting heads for mounting on curved, sloping or flat surfaces. Mounts in a 25mm hole. Under-hang length 290mm. Current drain 0.8 Amps. Weight 650gms. Full instructions included. **#ELECANT £38** (£45.60 inc vat)



RETRACTABLE STAINLESS STEEL WING MOUNT RADIO AERIAL

900mm, 4 stage, retractable stainless antenna. Adjustable angle mount in a 20mm hole. 1.2mm cable with plug. Requires 220mm clearance below. **#AERSS2 £8.50** (£10.20 inc vat)



3-PIECE STEPPED HOLE CUTTER SET

METRIC 4mm to 32mm **#STEMP £28** (£33.60 inc vat)



AMPLIFIED SCREEN MOUNT AM / FM RADIO ANTENNA This universal, glass-mounted, amplified aerial is suitable for use in all vehicles. It is very simple to fit with self-adhesive pads on the body and the ends of the two arms. The 3mtr lead is fitted with a standard DIN aerial plug and the 200mm long earth lead is fitted with a 5mm ring terminal. The 3 mtr power supply lead should be connected to your 12 volt ignition live supply. A green LED indicates the unit is working. Width across arms 280mm. Screen cleaning pad included. NOTE: Screen must be clean, warm and dry when fitting. Use a hair-drier to warm the area. Weight 52 gms. **#SMANT £8** (£9.60 inc vat)



AM/FM AERIAL Flexible rubber antenna 400mm long. Fits through an 20mm hole. 4.5mtr long lead with aerial plug. Don't forget - you'll need an earth to the aerial base if you're fitting to a glassfibre vehicle. **#AERIAL £9** (£10.80 inc vat)



SPRING BASE STAINLESS STEEL ROOF MOUNT RADIO AERIAL 530mm long, adjustable angle, sprung antenna. Single M5 bolt mount. 2 mtr cable with plug. **#AERSS £9.50** (£11.40 inc vat)



30mm CHROMED AERIAL BLANKING CAP

This discreet little 30mm diameter, domed plate will seal and blank-off old aerial holes between 20mm and 22mm diameter in any thickness bodywork. Install from above and tighten the M6 nut beneath. **#AERBLANK £4.50** (£5.40 inc vat)



AERIAL PLUG ADAPTER For converting a female to male or male to female aerial plug. Overall length 40mm **#AERADAPT £2 each** (£2.40 inc vat)



INSTRUMENTS

GAUGE PODS Dash-top pods for 2" (51mm) instruments. Can be screwed or bonded to dash top, moulded-in or fixed with double-sided tape.

SINGLE NO HOLES Size 150 x 102 x 85mm high. **#GP1 £6** (£7.200 inc vat)

DOUBLE NO HOLES Size 162 x 150 x 80mm high. **#GP2 £8** (£9.60 inc vat)

TRIPLE HOLES CUT Size 222 x 150 x 80mm high. **#GP3 £9** (£10.80 inc vat)

SINGLE AND DOUBLE PODS CAN BE SUPPLIED WITHOUT HOLES OR WITH 52mm HOLES



GAUGES NOT INCLUDED - SHOWN ONLY FOR EXAMPLE



TRIPLE PODS SUPPLIED ONLY WITH HOLES CUT

GAUGE PANELS Pressed steel panels 0.8mm thick. Powder coated Satin Black. Simple screw fixing under your dash. 53mm diameter holes for all 2" and 52mm gauges.

SINGLE 69mm wide x 73mm high
#GPAN1 £3 (£3.60 inc vat)

TWIN 129mm wide x 73mm high
#GPAN2 £4 (£4.80 inc vat)

TRIPLE 190mm wide x 73mm high
#GPAN3 £5 (£6 inc vat)



52mm GAUGE POD Satin black moulded, adjustable, plastic pod with a self-adhesive snap-on swivel base. Pod is 59mm O.D. x 80mm long x maximum 102mm high. I.D. at the front is 54mm. The pod is supplied with two, 2mm-thick self-adhesive pads that you fix to your gauge body. These will make the gauge a nice push-in fit in the pod. The base also has three fixing holes with three self tapping screws supplied. Weight 63gm.

GAUGE NOT INCLUDED

#GPBK2 £6.50 (£7.80 inc vat)



DASH TOP GAUGE POD Accepts standard 2" (51mm) instruments. Complete with double-sided adhesive pad, screws, fitting rings and sleeving for the wires.

#GP4 £6 (£7.20 inc vat)



CHROME AND SATIN BLACK METAL GAUGE PODS Accepts all 2" and 52mm gauges. 85mm front to back, 57mm outside diameter. Adjustable angle with a single screw on the rear mount. Assemble with brackets, plates and fixings supplied.

CHROME #GP5 £10 (£12 inc vat)

BLACK #GP5BK £10 (£12 inc vat)



IVA GAUGE BEZELS These 80mm diameter bezels, moulded from 2mm thick ABS, offer a stylish alternative to mounting your gauges directly through your dash. They are 11mm thick but have a 6mm deep x 60mm diameter recess so your instrument can be mounted flush with the bezel and thus IVA compliant. **INSTRUMENTS NOT INCLUDED**

CARBON EFFECT #GBCA

BLACK #GBBK Both £5 each £6 inc vat)



GAUGES NOT INCLUDED - SHOWN ONLY FOR EXAMPLE

DURITE FULL SWEEP MECHANICAL OIL PRESSURE GAUGE. 270 Degree sweep dial, The twelve foot (3.6mtr) copper capillary connects to the back of the gauge with a 1/8" NPTF union. Fits in a 52mm hole in your dash. Three brass adapters offer engine adapter threads of: 1/8" NPT male, 1/8" NPT Female and 1/4" NPT male. Illuminated display, with 12 and 24 volt bulbs. Fitting clamp, fixings and instructions included.

#OILGAMEC £39 (£46.80 inc vat)



DURITE FULL SWEEP MECHANICAL OIL TEMPERATURE GAUGE. 270 Degree sweep dial. Fits in a 52mm hole in your dash. The twelve foot (3.6mtr) plastic covered, copper capillary is pre-fitted to the back of the gauge. It has a 5/8" UNF male union at the other end to clamp the probe into the engine. Illuminated display, with 12 and 24 volt bulbs. Fitting clamp, fixings and instructions included.

#OILGAMEC £39 (£46.80 inc vat)



DURITE FULL SWEEP MECHANICAL WATER TEMPERATURE GAUGE. 270 Degree sweep dial. Fits in a 52mm hole in your dash. The twelve foot (3.6mtr) plastic covered, copper capillary is pre-fitted to the back of the gauge. It has a 5/8" UNF male union at the other end to clamp the probe into the engine. Illuminated display, with 12 and 24 volt bulbs. Fitting clamp, fixings and instructions included.

#WATGAMEC £39 (£46.80 inc vat)



DURITE TURBO BOOST GAUGE 57mm Bezel diameter. 55mm deep. Fits in a 52mm hole. Supplied with 5ft (1.5mtrs) of nylon tubing, a PVC connector sleeve, a nylon 'T' piece and a selection of brass unions and adapters. Saddle clamp mounting and full instructions. Illuminated. 12 Volt or 24 volt. **#TURGA £47 each** (£56.40 inc vat)



MULTI ELECTRICAL GAUGE MATCHER

This latest version of our gauge matcher can match virtually any resistive sender to any gauge designed to read resistive senders. Your sender signal can be calibrated to your gauge at five points on the scale which can compensate for unusual sender characteristics and mis-shaped fuel tanks. The matcher also has a dual-stage output for a warning light - steady first, then flashing (for example, fuel level or over-temperature). There is also an auxiliary, programmable output that can operate a relay to switch on a cooling fan at a specific temperature. Included with each matcher is a miniature, 22-turn variable, 0 to 500 ohms, resistor. This can be used as a 'dummy' sender to transfer your original sender's resistance readings to the matcher on the bench. All this in the size of a matchbox - 38 x 80 x 22mm. Full instructions included. Basic electrical knowledge and a multimeter would be helpful.

#GMATCH £51 (£61.20 inc vat)

FULL INSTRUCTIONS IN ONLINE LISTING



IMPORTANT NOTE
Most instruments returned to us as 'Not working' turn out to be perfectly OK when we test them. If you are not confident or proficient with vehicle wiring please ask a professional auto-electrician to help you with your installation.

DURITE MARINE GAUGES

These 12 Volt, LED illuminated gauges are brilliant for open-topped cars and marine use. Mount in a 53mm diameter hole. 62mm bezel diameter. 16mm front projection. 60mm rear projection. Threaded collar for simple installation. Maximum panel thickness 17mm. 600mm long flyleads. Weight approximately 170 gms each,



WATER TEMPERATURE
1/8" NPT sender included
#MWATGA £58 (£69.60 inc vat)



OIL TEMPERATURE
1/8" NPT sender included
#MOILTGA £52 (£62.40 inc vat)



OIL PRESSURE 1/8" NPT sender included
#MOILGA £68 (£81.60 inc vat)



FUEL Sender NOT included. See our range of float and pole senders.
#MFUGA £49 (£58.80 inc vat)



VOLT METER 12 VOLT
#MVGA £52 (£62.40 inc vat)



DURITE GAUGES 57mm Bezel diameter. Fits in a 52mm hole. Gauges include matching senders with 1/8" NPT threads. Supplied with saddle mounting clamp and full instructions. Illuminated. 12 Volt. All 55mm deep.

OIL PRESSURE GAUGE with sender and mounting bracket.
#OILGA £39 each (£46.80 inc vat)



WATER TEMP GAUGE with sender and mounting bracket.
#WATGA £42 each (£50.40 inc vat)



OIL TEMPERATURE GAUGE with sender and mounting bracket.
#OILTGA £39 each (£46.80 inc vat)



VOLTMETER 57mm Bezel diameter Fits in a 52mm hole. 55mm deep. Mounting clamp and full fitting instructions. Illuminated. 12 Volt. **#VGA £33** (£39.60 inc vat)



AMMETER 57mm Bezel diameter Fits in a 52mm hole. 55mm deep. Mounting clamp and full fitting instructions. Illuminated. 12 volt. **#AMGA £33 each** (£39.60 inc vat)

NOTE: THE AMPS OUTPUT OF YOUR ALTERNATOR OR DYNAMO MUST NOT EXCEED THE CAPACITY OF YOUR AMMETER



REPLACEMENT 12 VOLT BULB FOR DURITE GAUGES (except metal cased Ammeter).

Presses into a 7mm hole in rear of gauge. 200mm long flyleads.

Bulb diameter 5mm. 2 Watt. **#GABULB £2** (£2.40 inc vat)



QUARTZ CLOCKS Connect to 12 volt to 24 volt permanent live. Plug in wiring harness 400mm long. 14mm diameter push button switch for setting. Fits in a 12mm hole.

CHROME BEZEL Bezel diameter 56mm. Fits in a 51mm hole. Rear projection 55mm max. Front projection 12mm. **#CLOCKC £34.50** (£41.40 inc vat)



BLACK BEZEL Bezel diameter 63mm. Fits in a 52mm hole. Rear projection 55mm max. Front projection 12mm.

#CLOCKB £34.50 (£41.40 inc vat)



2" ELECTRONIC TACHO Simple wiring and switching on rear for 4, 6 or 8 cylinder engines. Red, Green or White illumination. Takes a single wire feed from your coil. 8000 rpm maximum reading with adjustable red line. Now includes a dash-top Pod Mount. Fix to your dash with screws or a double-sided adhesive pad. Instrument slides neatly into pod with an 'O' ring seal. Height approx. 90mm. Depth 65mm.

WIRING:

THIN RED - Illumination +12V

THIN BLACK - Illumination earth

GREEN - neg on coil or tacho pulse output.

RED - + 12v

BLACK - Earth

#TACHO2 £30 (£36 inc vat)



SPIRAP CABLE BINDING Low density, light weight Polyethylene cable binding. Temperature range -50 deg C to +85 deg C. Offers simple and fast method of protecting and reinforcing looms and even single cable runs. Wires can be exited from the loom at any point. 3 sizes. Sold per metre

SMALL for cable bundles 1.5 - 7mm

#SPIR1 £1 Mtr. (£1.20 inc vat)



FUEL / WATER LEVEL SENDERS A range of four, fixed length senders. Stainless steel construction. No internal parts to go wrong. A metal-impregnated, lightweight float rises up and down the sender tube as the fluid level changes. A simple (white) adjustable clip allows you to set the bottom float position. 800mm heavy two core flex lead. Flange diameter 69mm. 20mm top projection. Five, 5.4mm holes on 54mm PCD. 3mm thick fuel-proof rubber gasket. Fits through a 33mm hole. Five screws supplied 10-24 UNC. Resistance Empty 0 Ohms - Full 180 ohms.
NOTE: If your instrument does not match the resistance of this sender you may get inaccurate readings.

THESE SENDERS CANNOT BE CUT-DOWN



FUEL LEVEL SENDER 12volt/24volt
 An adjustable sender that fits through a 43mm hole in your fuel tank. Sender flange diameter 71mm. Five 5.6mm fixing holes at 54mm PCD. Supplied with two rubber gaskets, a threaded internal fixing ring and five screws and washers. The 380mm wire float arm can be cut down to suit your installation. Float arm rotation 80 degrees. Sender length adjustable between 247mm and 320mm. (or less if slider is cut down). 1/4" spade terminal sender connection and 5mm earth tag. Please check suitability with your instrument before purchasing. If the sender resistance does not match your gauge you may not get accurate readings.
Resistance 180 Ohms to 10 Ohms.
When you're ready for final installation, replace the short piece of wire in the bottom pivot with the float wire, pre-cut to your required length.

#FUSEND3 £25 (£30 inc vat)



#FUSEND250 £60 (£72 inc vat)

#FUSEND290 £60 (£72 inc vat)

#FUSEND350 £80 (£96 inc vat)

#FUSEND500 £90 (£108 inc vat)

#FUSEND600 £94 (£112.80 inc vat)

FUEL GAUGE KIT WITH SENDER

50mm illuminated instrument, 55mm deep with matching adjustable float sender that fits through a 38mm hole in your fuel tank. Sender flange diameter 70mm. Fixing hole PCD 54mm. Supplied with gasket, fixing screws and full fitting instructions. Illuminated. 12 volt.

#FUGA £44 (£52.80 inc vat)



FUEL TANK SENDER ONLY

Resistance - Empty - 250 ohm. Full 30 Ohm. Supplied with gasket, fixing screws and full fitting instructions. Please check suitability with your instrument before purchasing.

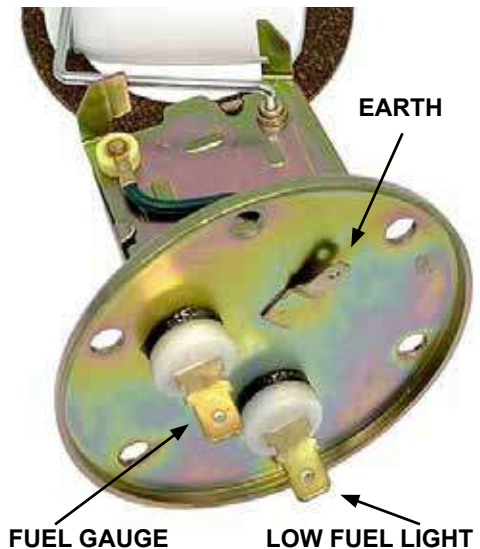
#FUSEND £29 (£34.80 inc vat)



FUEL LEVEL SENDER ONLY Adjustable float sender that fits through a 43mm hole in your fuel tank. Sender flange diameter 75mm. Six 5.4mm fixing holes at 60mm PCD. Supplied with gasket. The 2mm diameter wire float arm comes in two halves which can be bent, cut and joined with the ring-crimps supplied. We recommend that, once you have set the float arm length, you solder the two wire halves together. Float arm travel 75 degrees. Float arm length adjustable between 150mm and 600mm. Minimum fuel tank depth 200mm. 1/4" spade terminal connections. 250 ohm resistance. Please check suitability with your instrument before purchasing. If the sender resistance does not match your gauge you may not get accurate readings.

Empty 250 Ohms. Full 13 Ohms.

#FUSEND2 £26 (£31.20 inc vat)



TEMPERATURE SENDER 1/8" npt thread will fit into our in-line housings (shown below). High temperature insulated fly leads with bullet terminals. Resistance: @

5°C - 4.3kΩ
43°C - 1.0kΩ
100°C - 140Ω

#TEMPS £8 (£9.60 inc vat)

CHECK RESISTANCE MATCHES YOUR INSTRUMENT



SENDER SHOWN FITTED TO OUR #INT HOUSING (NOT INCLUDED)



TEMPERATURE SENDER 1/8" npt thread. M5 threaded terminal with nut. Thread and probe length 21mm.

Resistance: @ 1°C - 2.6kΩ
50°C - 100Ω
98°C - 75Ω

#TEMPS2 £8 (£9.60 inc vat)



PTFE TAPE General thread sealing tape ideal for oil, air and water fittings.

12mm wide x 10 metres roll.

#PTFE £1 (£1.20 inc vat)



All of the 'T' adapters below have one male and two female threads. Perfect for converting a single block tapping into two tappings for, for instance, oil pressure and oil temperature senders.

STAINLESS STEEL

ALL 1/8" NPT 'T' ADAPTER

Overall length 51mm. Hex19mm across flats. Weight 82 gms. #ADAPT27 £9.50 (£11.40 inc vat)



PLATED STEEL ALL 1/8" NPT 'T' ADAPTER

Overall length 63mm. Hexagon 18mm across flats. Weight 95 gms. #ADAPT8 £19 (£22.80 inc vat)



ALUMINIUM 'T' ADAPTERS

Overall length 60mm. Hexagon 22mm across flats. Weight 54 gms.

All 1/8" NPT

#ADAPT10 £14 (£16.80 inc vat)



M10 x 1 on both ends with one Dowty washer and 1/8" NPT in the side.

#ADAPT11 £14 (£16.80 inc vat)



1/4" NPT on both ends and M10 x 1mm in the side.

#ADAPT12 £14 (£16.80 inc vat)



All M10 x 1mm with one Dowty washer on male end.

#ADAPT13 £14 (£16.80 inc vat)



1/4" NPT on both ends and 1/8" NPT in the side.

#ADAPT14 £14 (£16.80 inc vat)



M12 x 1.5mm on both ends with one Dowty washer and 1/8" NPT in the side.

#ADAPT24 £14 (£16.80 inc vat)



1/8" BSPT both ends. 1/8" NPT in the side

#ADAPT30 £14 (£16.80 inc vat)



1/8" BSPT both ends. M10 x 1 in the side

#ADAPT29 £14 (£16.80 inc vat)



NYLON OIL GAUGE TUBES

All 1840mm long. All tubes outside diameter 3/16" (4.8mm).

Both ends 1/8" BSP swivel union with convex seat. #OILTUBE1 £12 (£14.40 inc vat)



One end 1/8" BSP swivel union with convex seat. The other end is 1/8" BSP swivel union with flat seat and fibre washer.

#OILTUBE2 £12 (£14.40 inc vat)



One end 1/8" BSP swivel union with convex seat. The other end is 1/8" NPT solid union with concave seat.

#OILTUBE3 £12 (£14.40 inc vat)



Both ends 1/8" BSP swivel unions with flat seat and fibre washers.

#OILTUBE4 £12 (£14.40 inc vat)



Both ends 5/16" UNF swivel unions with convex seat.

#OILTUBE6 £12 (£14.40 inc vat)



OIL PRESSURE GAUGE TUBING KIT

For repairing or re-plumbing mechanical oil pressure gauges.

Check your gauge threads before ordering.

Kit contents:

- 1.8 Metres 0.8mm diameter nylon tubing.
- 2 x 3mm olives.
- 2 x 1/4" UNF tube nuts.
- 1 x 5/16" UNF male to 1/8" NPT male union.
- 1 x 1/8" NPT female to 1/8" NPT male union

#OILTUBE £5 (£6 inc vat)



4 WAY BRASS ADAPTER

- Seven pieces:
- 1 x 4-way block tapped all 1/4" NPT.
- 4 x 1/4" NPT male to 1/8" NPT female adapters.
- 1 x 1/8" NPT male to 1/8" NPT male joiner.
- 1 x 1/8" NPT blanking plug.

#ADAPT6 £18 (£21.60 inc vat)



BRASS ADAPTER

1/8" NPT Male to 1/4" NPT Male. 9/16" Hex. 28mm long.

#ADAPT26 £3.50 (£4.20 inc vat)



BRASS ADAPTER

1/8" NPT Male to 1/8" BSP parallel Male. 14mm Hex. 26mm long.

#ADAPT21 £7 (£8.40 inc vat)



BRASS ADAPTER

1/8" NPT Male to M10 x 1 female with concave seat. 14mm Hex. 20mm long.

#BU1810 £4.50 (£5.40 inc vat)



THREAD GAUGE

Easily identify threads with this Metric and Imperial gauge. Fifty individual thread profiles for measuring 4 to 62 threads per inch and 0.25mm to 6mm pitch. #THREADGA £5 (£6 inc vat)



HEADLAMPS

UNLESS OTHERWISE STATED, ALL HEADLAMPS ARE RIGHT HAND DRIVE

4" HEADLAMP Yes, only four inches (108mm) diameter. 130mm long. Mounts in a single 10mm hole. 150mm long leads. 'E4' marked. Main, Dip and Side. H4 bulb + side. Weight only 0.65 Kg

SATIN BLACK

#HL4BK £56 each (£67.20 inc vat)

NOTE: THIS LAMP HAS A FLAT DIP-BEAM PATTERN SO IS OK FOR LHD or RHD CHECK SUITABILITY FOR IVA TEST



WEIGHT ONLY
0.65 Kg

WIRING COLOURS
SOLDERED WIRE ENDS:
BLACK — EARTH
WHITE — DIP BEAM
YELLOW — MAIN BEAM
UNSOLDERED WIRE ENDS
YELLOW — SIDE LIGHT +
WHITE — SIDE LIGHT -

REPLACEMENT LENS FOR OUR 4" 'HL4' LAMPS 4 inch headlamp replacement light unit. 'E' marked Main, Dip and Side. Takes H4 headlamp bulb.

Note: FLAT BEAM PATTERN Which may not pass IVA.

#HL4LENS £23 (£27.60 inc vat)



CHROME TORPEDO HEADLAMP

Beautifully chromed, 4 1/2" Headlamp with H4 bulb and flat dip beam pattern.

Maximum diameter 121mm. Length 170mm. Height 140mm. Rocking mount with M10 x 22mm long mounting stud. 250mm long sleeved cable terminating in a 3 - spade, male headlamp plug. Weight 780gms.

#HL4TOR £55 each (£66 inc vat)



HEADLAMP UNIT CLASSIC 5 1/4" and 7"

Top quality, 'E' Marked, standard Caterham items. Available in heavy powder-coated Satin Black or superb polished stainless steel. Complete assembly including, reflector, 12V 60/55W bulb, 12V 5W sidelight, wiring, bowl and rim. 16mm mounting thread.

Nut and locking washer included.

5 1/4" BLACK

#WP5 £80 each (£96 inc vat)

LHD #WP5LH £80 each (£96 inc vat)



BS WIRING CODES:
Blue/White - Main beam,
Blue/Red - Dip Beam,
Red - Side Light,
Black - Earth.

CLASSIC 7" SATIN BLACK WITH STAINLESS RIM HEADLAMP UNIT

'E' 9 marked. Top quality. Heavy powder-coated Satin Black bowl with a polished stainless steel rim. Complete assembly including reflector, 12V 60/55W bulb, 12V 5W sidelight, wiring, bowl and rim. 16mm mounting thread. Nut and locking washer included. 500mm long flyleads Overall dimensions: Height 265mm, Front to back 165mm, Dia. 185mm

#HL7BKS £98 each (£117.60 inc vat)



5 INCH HEADLAMP 5" (125mm) Diameter satin black powder-coated bowl. 4 1/4" (110mm) diameter lens. Main beam, dipped beam and sidelight. (NOTE: Lens gives flat dipped beam pattern which is MoT OK. but NOT IVA OK) 35 watt/35 watt. Bulb and sidelight bulb included. Front to back dimension 95mm. M12 Mounting bolt with spherical seat. Overall height including mounting bolt 170mm. Great value.

#HL5BK £25 each (£30 inc vat)



CABLE TIE BASES SELECTION AVAILABLE



HALO RIM HEADLAMP E4 Marked.

These unique headlamps are available in either Chrome or Satin Black. Their unique feature is an LED side light which illuminates the serrated outer edge of the glass AND a thin separating ring between the rim and the bowl so it can be seen from the side. The bowl has pressed dimple features, a regular bottom mounting bolt plus screws for side mounting brackets. Overall diameter 146mm (5 3/4"). Front to back 140mm. Overall height including mounting bolt 200mm. Fly leads 100mm long with bullet connectors. Single mounting bolt M10. Side mount screws M6. Weight 1100gms. **WIRING:** GREEN - Earth -12v. WHITE - Dip Beam. BLUE - Main Beam. BROWN - Side Light.

CHROME #HL146CH £97 each (£116.40 inc vat)
BLACK #HL146BK £97 each (£116.40 inc vat)



HEADLAMP UNIT CLASSIC 5¼" and 7"

Top quality, 'E' Marked, standard Caterham items. Brushed, polished stainless steel. Complete assembly including, reflector, 12V 60/55W bulb, 12V 5W sidelight, wiring, bowl and rim. 16mm mounting thread. Mounting angle 10° back, 16° forward. Nut and locking washer included.

5¼" STAINLESS Dimensions H210mm x D120 x W150mm.

#WP4 £87 each (£104.40 inc vat)

LHD #WP4LH £87 each (£104.40 inc vat)



7" STAINLESS Dimensions H245mm x D160 x W190mm

#WP6 £96 each (£115.20 inc vat)



MANY TYPES OF CABLE SLEEVING AND BINDING AVAILABLE



7" STAINLESS HEADLAMP SHELL AND RIM Dimensions H 255mm x D 160mm x W 190mm. Hollow mounting bolt diameter 16mm. Supplied with rubber lens cap and four lens mounting springs.

#WP6SHELL £70 (£84 inc vat)

5¼" STAINLESS Dimensions H205mm x D120 x W155mm.

#WP7SHELL £65 each (£78 inc vat)



PLANNING TO VISIT OUR STAPLEHURST SHOP? WE CAN HAVE IT READY CLICK and COLLECT ONLINE

7" SATIN BLACK HEADLAMP SHELL AND RIM Dimensions H 255mm x D 160mm x W 190mm. Hollow mounting bolt diameter 16mm. Supplied with rubber lens cap and four lens mounting springs.

5 1/4" SATIN BLACK #WP5SHELL
£65 each (£78 inc vat)



5" CHROME HEADLAMP Pillar mounting.

Complete assembly including, glass lens, reflector, 12V 60/55W bulb. Wiring with 250mm fly leads and 3 spade plug for main and dip. Nicely chromed bowl and rim 156mm diameter. Pivoting pillar mount with 3/8" UNF female thread in the bottom and chromed bolt and washers. There is even a blue, main beam warning light mounted in the top of the bowl.

Overall dimensions 156mm diameter x 115mm depth (front to back) x 195mm height. Weight 845gms

#HL5BCH £40 each (£48 inc vat)



5" CHROME HEADLAMP For mounting on side brackets.

Complete assembly including, glass lens, reflector, 12V 60/55W bulb. Wiring with 250mm fly leads and 3 spade plug for main and dip. Nicely chromed bowl and rim 156mm diameter. M8 x 25mm long chrome hex bolt screws into a threaded insert in each side of the lamp. There is even a blue, main beam warning light mounted in the top of the bowl.

Overall dimensions 156mm diameter x 115mm depth (front to back)

Weight 830gms

#HL5BKT £40 each (£48 inc vat)



7" QUADOPTIC HEADLAMP UNIT WITH CHROME RIM Complete with sidelight, plastic reflector, wiring harness and plastic nest with full adjustment and rubber mounting gasket. 'E'11 marked. 12 Volt 60/55 Watt main and dip. Overall dimensions H203mm x W203mm x D 160mm. H4 and sidelight bulb included. 200mm flyleads.
#WP8 £63 each (£75.60 inc vat)



This item is explained on our **YouTube** channel

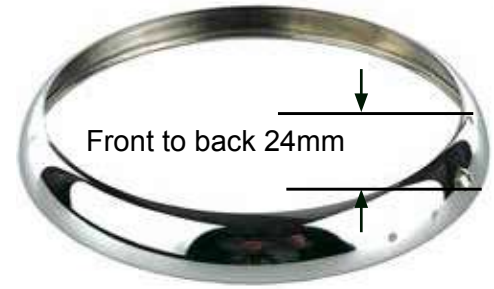
7" HEADLAMP UNIT Complete with sidelight, metal reflector, wiring harness and plastic nest with full adjustment and rubber mounting gasket. 'E'1 marked. 12 Volt 60/55 Watt main and dip. Overall dimensions H203mm x W203 x D160. H4 and sidelight bulb included.
#WP1 £55 each (£66 inc vat)
LHD #WP1LH £55 each (£66 inc vat)



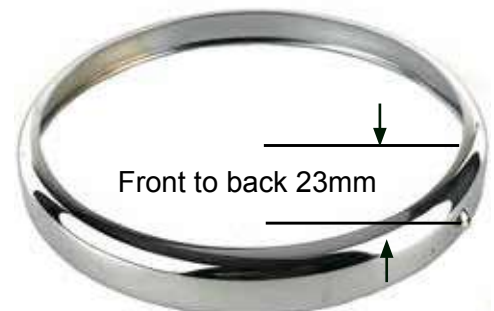
5 1/4" HEADLAMP UNIT Same specification as the 7". Overall Dimensions H160mm x W160mm x D 120mm. H4 and sidelight bulb included.
#WP2 £47 each (£56.40 inc vat)
LHD #WP2LH £47 each (£56.40 inc vat)



CHROME RIM 8 1/4" Fits our 7" (#WP1) headlamp. Single retained fixing screw. Rear O.D. 210.8mm (8.3"), Rear I.D. 200mm Front I.D. 182mm (7.2").
#HLRIM85 £14 (£16.80 inc vat)



CHROME RIM 8" Fits our 7" (#WIPAC1) headlamp. Single retained fixing screw. Rear O.D. 204mm (8"), Rear I.D. 198mm Front I.D. 182mm (7 1/8").
#HLRIM8 £14 each (£16.80 inc vat)



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT
www.carbuilder.com

7" HALF BOWL BLACK RIM HEADLAMP UNIT 'E11' marked Wipac Quadoptic lamp without sidelight. Moulded ABS half bowl nest for maximum mounting clearance. Powder coated black steel rim with black screws. 12 Volt 60/55 Watt main and dip bulb and rubber gasket included. Overall diameter 198mm. Rear projection 70mm. Front projection 53mm. Weight 688gms. **#WP1HBB £40 each** (£48 inc vat)



7" HEADLAMP BOWL KIT Moulded plastic bowl with chromed metal lamp ring, grommet and rubber gasket. Dimensions 203mm diameter. x 130mm front to back. Fits in a 160mm dia. hole. All mounting and adjuster screws and plates included. **#BOWL7 £23 each** (£27.60 inc vat)



BLACK RIM VERSION. #BOWL7B £23 each (£27.50 inc vat)



7" HALF BOWL HEADLAMP NEST Moulded ABS half bowl nest for maximum mounting clearance. Chromed steel rim. Overall diameter 198mm. Front to back 52mm. Rubber gasket and lens-mounting screws included. **#BOWL7HB £21 each** (£25.20 inc vat)

BLACK STEEL RIM VERSION AVAILABLE #BOWL7HBB £21 each (£25.20 inc vat)



CHROME RIM



BLACK RIM

5 3/4" HEADLAMP BOWL KIT Moulded plastic bowl with chromed metal lamp ring, grommet and rubber gasket. Overall dimensions 170mm diameter x 105mm front to back. Fits in a 120mm dia. hole. All mounting and adjuster screws and plates included. Weight 250gms. **#BOWL534 £25 each** (£30 inc vat)



CHROME RIM

BLACK RIM



CHROME BEZEL FOR 7" HEADLAMPS

Classic, Wipac, lens-retaining ring with three lens-fixing plates and screws.

195mm maximum diameter x 16mm thick.

#HLBEZ7 £15 each (£18 inc vat)



BLACK BEZEL FOR 7" HEADLAMPS

Classic, Wipac, lens-retaining ring with three lens-fixing plates and screws.

195mm maximum diameter x 16mm thick.

#HLBEZ7BK £15 each (£18 inc vat)



CHROME BEZEL FOR 5 3/4" HEADLAMPS

Classic, Wipac, lens-retaining ring with three lens-fixing plates and screws.

162mm maximum diameter x 22mm thick.

#HLBEZ534 £14 each (£16.80 inc vat)



POLISHED STAINLESS HEADLAMP PEAKS

For 7" Headlamps. 4mm angled lip on rear and beaded front rim.

#HLPEAK £15 pair (£18 inc vat)



STAINLESS HEADLAMP MESH COVERS

173mm (6 7/8") diameter. Welded stainless ring and domed mesh. Six stainless mounting clips. **#HLMESH £15 pair** (£18 inc vat)



CHROME HEADLAMP MESH COVERS

144mm (5 3/4") diameter. Welded ring and domed mesh. Six stainless mounting clips.

#HLMESH2 £18 pair (£21.60 inc vat)



5 3/4" REPLACEMENT LIGHT UNIT WITH SIDE LIGHT 'E' 4 marked. Metal reflector.

Accepts H4 BULB (#BULB7) and #BULB15. Bulbs not included.

#L534S £16 each (£19.20 inc vat)

WITHOUT SIDELIGHT

#L534 £16 each (£19.20 inc vat)

LEFT HAND DRIVE VERSIONS

#L534SLH and #L534LH

£16 each (£19.20 inc vat)



P700 REPLICA HEADLAMP UNIT

Here's an authentic copy of the classic, Lucas P700. H4 60/55 Watt bulb and sidelight bulb included. Glass lens, metal reflector and rubber plug cover.

RHD #P700 £59 pair (£70.80 inc vat)

LEFT HAND DRIVE #P700LHD

£59 pair (£70.80 inc vat)



**SEE MORE, BIGGER, Hi-RES
PICTURES ONLINE AT
www.carbuilder.com**

7" REPLACEMENT LIGHT UNIT
FOR H4 BULB 'E' 1 marked. Metal reflector.
Bulbs not included.

WITH SIDE LIGHT

#WP10 £22 each (£26.40 inc vat)

WITHOUT SIDE LIGHT

#WP11 £20 each (£24 inc vat)

BULB H4 60/55W

#BULB7 £2.50 each (£3 inc vat)

SIDELIGHT BULB 5w CLEAR CAPLESS

#BULB14 £0.70 (£0.84 inc vat)



CLEAR LENS 7" REPLACEMENT LIGHT UNIT This lamp has a plain, clear glass front cover. The beam pattern is generated by the faceted reflector bowl. Accepts H4 headlamp bulb and capless side light bulb 'E' 9 marked. Metalised reflector. Bulbs not included.

WITH SIDE LIGHT

#WP14 £31 each (£37.20 inc vat)

LHD #WP14LH £31 each (£37.20 inc vat)

WITHOUT SIDE LIGHT

#WP15 £31 each (£37.20 inc vat)

LHD #WP15LH £31 each (£37.20 inc vat)

BULB H4 60/55W

#BULB7 £2.50 each (£3 inc vat)

SIDELIGHT BULB 5w CLEAR CAPLESS

#BULB14 £0.70 (£0.84 inc vat)



HEADLAMP HARNESS WITHOUT SIDE-LIGHT

800mm long. Includes 3 pin socket, cable sleeving, rubber grommet and bullet terminals. **#HLH £8.50 each** (£10.20 inc vat)



4mm BRASS BULLET TERMINALS

#BULTERPAK £14 pack of 400 pieces (£16.80 inc vat)



HEADLAMP RUBBER BOOT FOR PLASTIC REFLECTORS Soft rubber . 100mm maximum diameter x 48mm deep.

#HLRUB1 £6 (£7.20 inc vat)



HEADLAMP RUBBER BOOT FOR METAL REFLECTORS Soft rubber with ribbed reinforcement . 100mm maximum dia. x 48mm deep.

#HLRUB2 £6 (£7.20 inc vat)



HEADLAMP HARNESS WITH SIDELIGHT

For plastic reflectors. 800mm long. Includes 3 pin socket, 12mm dia. sidelight bulb holder, rubber cap, cable sleeving, rubber grommet and bullet terminals.

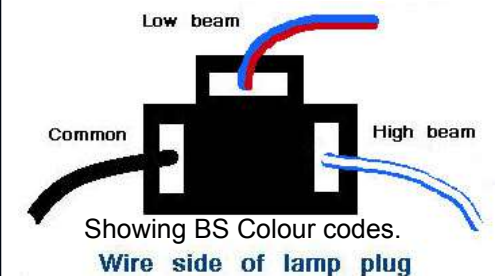
#HLHS2 £10 each (£12 inc vat)



HEADLAMP HARNESS WITH SIDELIGHT

For metal reflectors. 800mm long. Includes 3 pin socket, 16mm dia. sidelight bulb holder, rubber cap, cable sleeving, rubber grommet and bullet terminals.

#HLHS £12 each (£14.40 inc vat)



CERAMIC HEADLAMP PLUG The solution for uprated, high power headlamp bulbs. This standard-format headlamp plug is made from heat proof ceramic with a PVC outer sheath and is pre-wired with female spade terminals on 150mm long flyleads.

#HLPLGCR £3 (£3.60 inc vat)

WHITE - Low Beam
BLUE - High Beam
BLACK - Earth -12V



1 PIN HEADLAMP PLUG Pre-wired plug with one 1/4" female spade terminal and red flylead 100mm long.
#HLPLG4 £2.50
 (£3 inc vat)



2 PIN HEADLAMP PLUG Pre-wired plug with two 1/4" female spade terminals and Red and Black flyleads 100mm long.
#HLPLG3 £2.50
 (£3 inc vat)



HEADLAMP PLUG Pre-wired plug for standard H4 headlamp bulb. Red, yellow & blue leads 200mm long
#HLPLG £2.50 (£3 inc vat)



HEADLAMP PLUG Moulded plug with three 1/4" female crimp spade terminals that clip in once crimped to your wires.

#HLPLG2 £3.50 (£4.20 inc vat)



FIND MORE PICTURES AND MORE DETAILS ON ALL OF OUR PRODUCTS IN OUR ONLINE SHOP

LED

7 INCH LED REPLACEMENT PROJECTOR STYLE HEADLAMP 'E' Marked

This mega-bright, 12/24 Volt, stunning, all-LED headlamp unit is a direct replacement for a standard 7" headlamp. Diecast aluminium rear case/heatsink. Polycarbonate lens. 150mm flylead with male plug fitted and one female 1/4" spade terminal for the sidelight. Supplied with a 150mm long adapter lead with standard female headlamp plug on one end and Econoseal style, 3 pin male plug on the other. Low beam - 55 Watt High beam - 70 Watt Side light 3 Watt Weight 1.4Kg each.

#LEDHLPRO £145 Each (£174 inc vat)



'STEALTH' LED HEADLAMPS

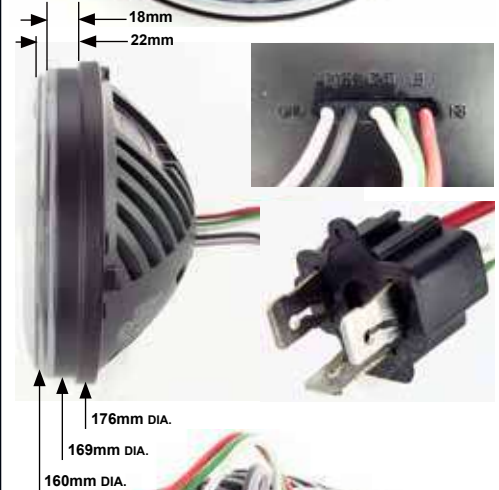
Pure white light. 'E13' Marked. Smoked reflector. Integral Sidelight/Position light. IP69K (This is the newest IP rating that was created specifically for vehicles to withstand regular high pressure cleaning). *Drop in replacement for any standard 7in Round H4 halogen headlamp including special edition model Defenders and many other vehicles Available in Right-Hand drive and Left-Hand drive format. Hard-coated, non-yellowing, impact resistant polycarbonate lens. Epoxy-coated aluminium housing and internal structures with metallized reflector. Sealed for life. Weight 1565gms each. H4 3-terminal connector on 138mm long flyleads. 1,300 Lumens. 9v-33v Multi-volt 12.8v, 1.80a (low beam), 3.60 amps (high beam) 25.6v, 1.00a (low beam), 1.80 amps (high beam)

RIGHT HAND DRIVE

#LEDHL2RHD £550 pair (£660 inc vat)

LEFT HAND DRIVE

#LEDHL2LHD £550 pair (£660 inc vat)

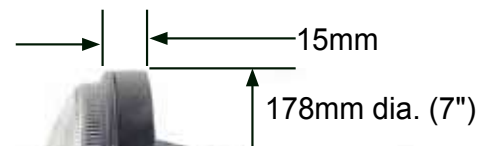


WIPAC 7 INCH LED REPLACEMENT PROJECTOR STYLE HEADLAMP WITH HALO SIDE LIGHT 'E9' Marked This mega-bright, 12/24 Volt, stunning, all-LED headlamp unit is a direct replacement for a standard 7" headlamp. It has a unique LED 'Halo' sidelight around it's rim. Diecast aluminium rear case/ heatsink. Polycarbonate lens. 150mm flylead with male spades fitted. 400mm long flyleads for the Halo sidelight. Weight 2.5Kg pair. Low beam - 9 Watt High beam - 26 Watt. Halo Side light 3.5 Watt
BLACK BEZEL #LEDHLPRO3 £395 pair (£474 inc vat)
CHROME BEZEL #LEDHLPRO3CH £395 pair (£474 inc vat)
 ALSO AVAILABLE IN LEFT HAND DRIVE

CHROME



BLACK



HALO SIDE

DIP

MAIN



PROJECTOR HEADLAMP MAIN AND DIP (TWO PAIRS REQUIRED FOR A CAR)

E4 Marked. These compact and powerful, Satin Black headlamps each have a regular H1 55 Watt Bulb in their CNC machined alloy housings. They are supplied mounted side by side on a joining plate that has mounting points at each side. Alternatively, the mounting plate can be removed and each lamp mounted individually on it's single mounting bracket underneath. The pair are pre-wired to a regular headlamp ply on 200mm long fly-leads.

Dimensions:

Pair width with joining bracket 180mm.

Front to back excluding wiring 130mm.

Maximum diameter of each housing 86mm.

12 volt Right Hand Drive.

Weight of one pair 1320gms.

#PROHL £140 each pair (£168 inc vat)

TWO PAIRS REQUIRED FOR A CAR



HELLA 90mm COMBINED MAIN / DIP PROJECTOR HEADLAMP PAIR

'E1' Marked . Superb quality original Hella product. These great value lamps feature diecast mounting frame and bulb housing, aluminium reflector and a moulded front housing with a high-impact glass lens. H7 bulb included. There is an internal, solenoid operated, flip-down, internal shield / deflector for dipped beam. Four adjuster screws and three press on caps for mounting in 14mm holes at 85mm centres. Dimensions: Front to back 180mm. Mounting frame 136mm wide x 108mm high. Lens diameter 90mm.

Weight 910gms each.

RHD #HELPRO2 £199 pair (£238.80 inc vat)

LHD #HELPRO2LH £199 pair (£238.80 inc vat)



WATERPROOF CONNECTOR PLUG FOR #HELPRO2.

#HPPLUG6 £6.50 each (£7.80 inc vat)



NEW DESIGN 70mm PROJECTOR MAIN BEAM AND DIP BEAM HEADLAMPS

This great value lamp features a diecast aluminium mounting frame, bulb housing and lens holder. H1, 55 watt bulbs are included. Dimensions: Front to back 140mm. Mounting frame 92mm x 50mm. Lens holder diameter 74mm. Weight 350gms each.

MAIN BEAM #PRO70M

£45 each (£54 inc vat)

DIP BEAM #PRO70D

£45 each (£54 inc vat)



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT www.carbuilder.com

97mm DIA. CHROME DRIVING LAMP

Very nice quality. Lens diameter 76mm. Front to back 88mm. M10 Mounting stud with spherical contact point and rubber-lined washers. Height from mounting surface 115mm. 12 Volt, 55 Watt, H1 bulb. Weight 400 gms each.

#DRVLT14 £35 pair (£42 inc vat)



210mm STAINLESS DRIVING LAMP 'E1'

Marked. 55 Watt, H1 Halogen bulb. 7" diameter lens. 210mm diameter, all stainless case, 85mm front to back. Single stainless M12 bolt and nut fixing. 100mm sleeved flyleads with male bullet terminals. Supplied with a snap-on plastic grille cover. Weight 1300gms each lamp

#SSDRV7 £60 Pair (£72 inc vat)



160mm STAINLESS

VERSION . 5 3/4" dia. lens. 160mm diameter, 75mm front to back. Single, stainless M10 mounting bolt and nut . 100mm sleeved flyleads with male bullet terminals. Weight 773gms each lamp.

#SSDRV5 £55 Pair (£66 inc vat)



40 WATT LED LIGHT BAR Black, powder-coated, die-cast aluminium body with polycarbonate lens. 8 x 5 watt LED's. 12 to 30 volts. Working life 30,000 hours. Size: 268 x 110 x 82. Multiple mounting options. Brackets and stainless fixings included. Weight 1.2Kg.

#40WLBAR £65 (£78 inc vat)



80 WATT LED LIGHT BAR Black, powder-coated, die-cast aluminium body with polycarbonate lens. 16 x 5 watt LED's. 12 to 30 volts. Working life 30,000 hours. Size: 550 x 110 x 82. Multiple mounting options. Brackets and stainless fixings included. Weight 2.15Kg.

#80WLBAR £120 (£144 inc vat)



MINIATURE DRIVING LAMPS 70mm dia.
 Superb quality. 'E9' Marked. IVA OK. H3 55 Watt bulb and fly leads with spade terminals included. Swivelling mounting bracket with stainless fixings. Weather-proof bulb housing. Overall dimensions 70mm diameter x 60mm long x 80mm including bracket.
#DRVLT8 £30 pair (£36 inc vat)
 NOTE: IF ALL THE BRACKETS ARE REMOVED, THESE LENSES WILL FIT NICELY INTO A 3" BLACK DRAIN PIPE FITTING FROM B&Q. WHICH YOU CAN THEN MOUNT THROUGH YOUR PANEL.



DRIVING LAMPS 100mm dia.
 Superb quality. 'E' Marked. IVA OK. 12 Volt, H3 55 Watt bulb and fly leads with spade terminals included. Swivelling mounting bracket with stainless fixings. Weather-proof bulb housing. Overall dimensions 101mm diameter x 103mm including bracket x 80mm front to back.
#DRVLT9 £34 pair (£40.80 inc vat)



125mm LED DRIVING LAMP WITH TILTING MOUNT This powerful driving lamp has 9 high power LED's. It has a Polycarbonate lens and satin black powder-coated, diecast aluminium housing / heat-sink. There is a single M8 bolt fixing through a tilting bracket. Maximum height 155mm. Maximum width 125mm. Front to back 62mm. Operating voltage 9 to 32 volts. Weight 730 gms.

#DRVLT16 £45 each (£54 inc vat)



7" LED DRIVING LAMP WITH TILTING MOUNT 'E6' Marked. This mega-bright lamp has 15 x 3 watt (45 watts total) LED's for the driving beam and 6 x LED's for front side light or position light. It has a Polycarbonate lens plus an additional clip-over polycarbonate cover. The diecast aluminium housing / heat-sink and the tilting saddle mount are satin black powder coated. Single M10 stainless bolt mount. Maximum height 239mm. Maximum width 198mm. Front to back 132mm. Operating voltage 9 to 32 volts. Weight 2140 gms. EC spec. ECE R112/ECE R7

#DRVLT15 £120 each (£164 inc vat)

WIRING
 WHITE - EARTH
 RED - MAIN LAMP
 BLACK - SIDE LAMP



5 3/4" REPLACEMENT DRIVING LIGHT UNIT
 'E5' marked. Glass lens. Metal reflector. Fits
 in a standard 5 3/4" headlamp bowl. Accepts
 H1 55W bulb (#BULB22) (not included)
#L534MB £16 each (£19.20 inc vat)



**100mm CHROME SPOTLIGHT WITH
 WHITE LED OUTER RING.** Here's a
 great-value little lamp. 100mm diameter x
 92mm front to back x 145mm high to the
 bottom of the M10 mounting stud. H3, 55
 watt bulb included (large white and black
 wires). Independent WHITE LED outer ring
 (small red and white wires). 120mm flyleads
 with 70mm long sleeve. Rubber washers
 for each side of mounting hole. Weight 350
 gms. **#SPOT100 £10 each** (£12 inc vat)



CHROME DRIVING LAMPS 125mm (5")
 H3 55 Watt bulb and wiring included.
 Mount through 10mm hole.
 Easy installation. Overall dimensions
 H160mm x D70mm x W120mm.
#W3CH £36 pair (£43.20 inc vat)



BLACK VERSION #W3BK
£38 pair (£45.60 inc vat)



**100mm DIAMETER DRIVING LIGHTS
 WITH BRACKET 'E4' Marked,** 12 volt. 55
 watt Halogen bulb fitted. Glass lens bonded
 to diecast alloy housing. Adjustable, powder-
 coated steel mounting bracket. Overall
 height with bracket 115mm. Front to back
 70mm. 75mm flyleads with 1/4" male spade
 terminals. Pair weight 770gms.
#DRVLT17 £20 pair (£24 inc vat)



STAINLESS STEEL VERSION #W3SS
£38 pair (£45.60 inc vat)



DRIVING LAMPS 143mm x 75mm x 70mm front to back E13 Marked. Glass lens. Moulded body. Coated steel surround. Bracket mounting. 12 Volt, H3 55 Watt bulbs and mounting bolts included. Weight 750 gms pair.

#DRVLT13 £28 pair (£33.60 inc vat)



116mm DRIVING LAMPS Moulded ABS casing with all mounting bracket and fixings. 'E13' Marked. IVA OK. Glass lens. 66mm front to back. 55 watt H3 bulbs included.

#DRVLT12 £30 pair (£36 inc vat)



RECTANGULAR FRONT FOG LAMPS E13 marked. Halogen 55w H3 bulbs included. Moulded black ABS rear case. Glass Lens. Painted steel front surround. Full fitting kit including mounting brackets, nuts, bolts, spacers and sleeving. Overall dimensions W145mm x H75mm x D72mm.

#FOGREC £30 pair (£36 inc vat)



MINIATURE FRONT FOG LAMPS 60mm x 36mm lens Superb quality. 'E11' Marked. IVA OK. H3 55 Watt bulb and fly leads with spade terminals included. Swivelling mounting bracket with stainless fixings.

Weather-proof bulb housing. Overall dimensions 60 x 36mm lens x, 65mm long x 40mm including bracket.

#FOGMIN £26 pair (£31.20 inc vat)



WE TRY TO PUBLISH ALL THE INFORMATION YOU NEED TO CHOOSE THE CORRECT PART, FIRST TIME. IF YOU NEED HELP, PLEASE ASK

130mm x 70mm FRONT FOG LAMPS SAE marked. Halogen 55w H3 bulbs included. Moulded matt black ABS case. Glass lens. Steel adjustable mounting bracket with 12mm diameter, hollow fixing bolt and nut. 100mm flyleads with male bullet connectors. Overall dimensions W140mm x H71mm x D80mm. Weight 750gm pair.

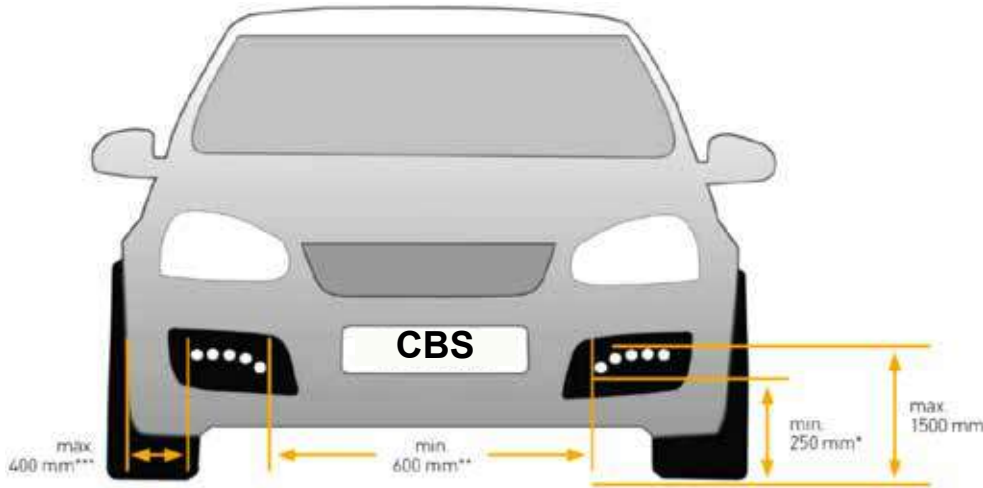
#FOG13570 £18 pair (£21.60 inc vat)



UK RULES FOR MOUNTING FOG LAMPS
When fitted as a pair, Fog and Driving lamps must match in size, shape and colour of light emitted. Fog lamps should be fitted so that their outer edge is no more than 400mm from the outer edge of the car. The top of the lens must be no higher than the top of the headlights. Maximum height above ground is 1200mm to the top of the lens. Fog lamps should not be used unless visibility is seriously reduced, i.e. less than 100m.

DAYTIME RUNNING LIGHTS

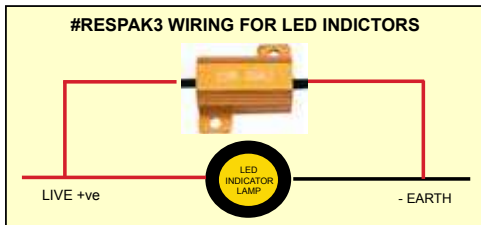
HERE ARE THE LEGAL MOUNTING POSITION DIMENSIONS FOR DAYTIME RUNNING LIGHTS



WATERPROOF MULTIPIN CONNECTORS
1 WAY, 2 WAY, 3 WAY, 4 WAY and 6 WAY
SEE ELECTRICAL SECTION



25 WATT RESISTOR PACK If you're changing your 21 watt indicator bulbs from regular to LED but you're retaining your original flasher relays you'll need one of these for each bulb. Just connect in parallel, across the bulb. Size 28mm x 25mm x 14mm high. Two 3.5mm mounting holes. Leads 150mm long. 6 Ω resistance.
#RESPAK3 £6 each (£7.20 inc vat)



95mm LED FRONT INDICATOR / DAYTIME RUNNING LAMPS 'E4' Marked. These LED front combination lights have an overall diameter of just 95mm (3 3/4") and mount through an 80mm hole. 21mm depth behind lens. Two 4mm through holes for screw mounting from the front. Ultra-bright LED's.
#DRLIND £98 pair (£117.60 inc vat)



90mm DIAMETER LED COMBO FRONT LIGHT Side light, Daytime running light, Amber indicator. 'E4' Marked. 12v / 24v. 90mm diameter lens mounted on a diecast aluminium heatsink housing 39mm thick. 3 x M5 mounting studs. DRL - 6 Watt, IND - 4 Watt, SIDE - 2 Watt.
WIRING: WHITE - Earth, GREEN - Indicator, DRL - Red, SIDE - Black.
Weight 217 gms.
#DRLIND2 £48 each (£57.60 inc vat)



LED SIDE / REVERSE / RUNNING LIGHTS 'E11' Marked. Very stylish and discreet little lamps. Only 112mm wide x 24mm high x 37mm front to back. Swivelling mounting bracket for multi mounting options. Can be wired to operate in conjunction with regular sidelights. Supplied with 150mm leads and sleeved bullet terminals.
#LEDPOS £31 pair (£37.20 inc vat)



ALL THREE OF OUR DVDs ARE NOW AVAILABLE TO VIEW FREE ON OUR YouTube CHANNEL



AUTO-SWITCHING LED DAYTIME RUNNING LIGHTS 'E9' marked. 12 Volt or 24 volt.

These lights will turn on automatically when the ignition is turned on. When the headlamps are turned on they will automatically switch off. A two metre long wiring harness with fuse holder, control module and waterproof connectors is included. Each lamp measures 203mm long x 23mm high x 30mm front to back, including the bracket. Each has 28 bright white LEDs. Total 3 Amp current drain. The lamps have multi-position mounting brackets and fixing screws. Full wiring instructions are enclosed. Weight 425 gms.

#DRL1 £18 pair (£21.60 inc vat)



WIRING INSTRUCTIONS IN ONLINE LISTING



120mm 1 WATT DAYTIME RUNNING LIGHTS Nine bright LEDs embedded in a robust acrylic dome 17mm high. 12 volt. 3M self adhesive fixing on rear Available in two widths.

15mm WIDE #DRL2 £12 pair (£14.40 inc vat)



20mm WIDE #DRL3 £12 pair (£14.40 inc vat)



AUTO-SWITCHING LED DAYTIME RUNNING LIGHTS 'E11' marked. These clever lamps will perform as bright Daytime Running Lights during daylight hours but when you switch on your sidelights the brightness will reduce by 50% to create a night styling effect. Wiring harness with in-line fuse holder and waterproof connectors, multi-position mounting brackets, fixing kit and full instructions are included.

Lens size 195mm x 20mm. Front to back 50mm. 12 to 24 volt. 18 white LED's in each lamp. 8 Watt / 0.5 watt. Weight 400 gms.

#ASLEDDRL £73 pair (£87.60 inc vat)



LED RUNNING LIGHTS KIT A pair of 'E 13' marked lamps each with five mega-bright white LED's and a control module. Lamp size 145mm x 45mm x 50mm front to back. Each lamp has a swivelling mounting bracket and 200mm long fly-lead with connecting plug. The easy-to-wire control module has 1mtr long leads for connecting to your headlamp supply, live feed and earth and two, 1mtr long sleeved connecting leads with plugs.

Note: IVA rules state that Daytime Running Lights must come on with the ignition and turn off when the headlamps are turned on.

#LEDRUN2KIT £95 (£114 inc vat)



LED RUNNING LIGHTS Eleven bright white LED's in each lamp. Simple wiring. Mounting bracket, screws and double sided adhesive pads included. Size 100mm x 30mm x 28mm front to back

#LEDRUN £27 pair (£32.40 inc vat)



LED INDICATOR / SIDE REPEATER

'E'9 marked. 12 volt. 59mm x 36mm x 22mm thick. Light/lens assembly pops out of moulded black frame to reveal two 5mm mounting holes at 28mm centres. Surface mounting with a 6mm hole for the wire.

#IN015 £18 pair (£21.60 inc vat)



INDICATORS

WING MOUNT INDICATORS 'E9' Marked. Surface mount, two bolt fixing. With 250mm fly leads. Size 92 x 52 x 33mm 12V/21W.

CLEAR IRIDIUM LENS
#IN001 £18 pair (£21.60 inc vat)

FLASHES
AMBER



CARBON EFFECT WING MOUNT INDICATORS with CLEAR LENS 'E11' Marked. Surface mount, with multiple mounting options - Nuts, bolts washers, self-tappers and double sided adhesive pads. 250mm fly leads.

Size 92 x 56 x 33mm. 12V/21W Amber bulb.
#IN002CL £18 pair (£21.60 inc vat)



WING MOUNT INDICATORS 'E9' Marked. Surface mount, two bolt fixing. With 250mm fly lead. Size 92 x 52 x 33mm 12V/21W.

CARBON with AMBER LENS
#IN002 £18 pair (£21.60 inc vat)



SPIRAP CABLE BINDING Low density, light weight Polyethylene cable binding. Temperature range -50 deg C to +85 deg C. Offers simple and fast method of protecting and reinforcing looms and even single cable runs. Wires can be exited from the loom at any point. 3 sizes. Sold per metre

BLACK SMALL for cable bundles 1.5 - 7mm
#SPIR1 £1 Mtr. (£1.20 inc vat)



BLACK MEDIUM for cable bundles 5 -20mm
#SPIR2 £1.25 Mtr. (£1.50 inc vat)



BLACK LARGE for cable bundles 10 - 40mm.
#SPIR3 £1.50 Mtr. (£1.80 inc vat)



WHITE SMALL for cable bundles 1.5 to 7mm
#WSP1R1 £1 Mtr. (£1.20 inc vat)



WHITE MEDIUM for cable bundles 9 to 20mm
#WSP1R2 £1.25 Mtr. (£1.50 inc vat)



WHITE LARGE for cable bundles 18 - 40mm
#WSP1R3 £1.50 Mtr. (£1.80 inc vat)



SEE MORE, BIGGER, HI-RES PICTURES ONLINE AT www.carbuilder.com



AMBER OVAL INDICATORS / SIDE REPEATERS 37mm x 29mm. Fits in a 21mm hole. 100mm leads with male bullet terminals. Foam gasket. 46mm depth behind lens. Includes 12 volt 21 watt bulbs.
#IN011A £14 pair (£16.80 inc vat)



CLEAR LENS OVAL INDICATORS / SIDE REPEATERS 37mm x 29mm. Fits in a 21mm hole. 100mm leads with male bullet terminals. Foam gasket. 46mm depth behind lens. Includes 12 volt 21 watt amber bulbs.
#IN011 £14 pair (£16.80 inc vat)



AMBER OVAL INDICATORS / SIDE REPEATERS 12 volt 21 watt bulbs included. 72mm x 35mm with 10mm front projection and 41mm rear projection. Fit through a 28mm hole. 300mm sleeved leads with male bullet terminals. Foam gasket.
#IN010A £14 (£16.80 inc vat)



CLEAR LENS OVAL INDICATORS / SIDE REPEATERS 72mm x 35mm. Fits in a 28mm hole. 300mm sleeved leads with male bullet terminals. Foam gasket. 41mm depth behind lens. Includes 12 volt 21 watt amber bulbs.
#IN010 £14 pair (£16.80 inc vat)



SIDE REPEATER VENTS WITH ORANGE LED REPEATERS IVA OK Handed pair similar to Mini. Alloy mesh behind with removable, black rear cover plate. (shown fitted and removed below) Lose some hot engine bay air. Size 205mm x 63mm.
#LEDVENT £18 (£21.65 inc vat)



LED SIDE REPEATERS IVA OK 'E11' marked. These cracking Amber LED side repeaters have a clear lens with a chromed plastic surround. They are flat-backed with 3M double-sided adhesive tape fixing. Drill only one 4mm hole for the wires. Size: 66mm x 40mm x 18mm high.
#SR9 £14 pair (£16.80 inc vat)



LED SIDE REPEATERS 'E11' Marked. Exceptionally nice, Chrome plastic surround and clear lens with 6 amber LEDs. Simple fixing with 3M double sided adhesive pad supplied. Drill only one 6mm hole for the cable grommet Size 67mm x 38mm x 15mm.
#SR6 £14 pair (£16.80 inc vat)



THE BULB HOLDER/CONNECTORS ON MANY LAMPS OFTEN HAS TWO SMALL SPADE TERMINALS. ONE METHOD OF CONNECTION IS TO SOLDER WIRES DIRECTLY TO THE SPADES AND FILL THE CAVITY WITH A BLOB OF SILICONE. OR YOU CAN, OF COURSE, USE A PLUG #SRPLUG.

LED SIDE REPEATER LAMPS

'E 11' Marked. Nice-looking lamps with either Clear Lens or Amber Lens. Surface mounting. Self-adhesive. Requires just a 13mm hole for location boss and wiring. Size 72mm x 40mm x 20mm. 5 Watt. 150mm flyleads.

CLEAR #SR17 £16 pair (£19.20 inc vat)



AMBER #SR16 £16 pair (£19.20 inc vat)



4mm BRASS BULLET TERMINALS

100 each of Male and Female brass terminals and 100 each male and female plastic covers 15 Amps per terminal.

#BULTERPAK £14 pack of 400 pieces (£16.80 inc vat)



LED DOMED LIGHTS 'E'11 marked.

Size 56mm x 35mm oval. Surface mount through two 5mm holes at 29mm centres. Height above mounting surface 27mm. Lens snaps into black housing from the front. 300mm long flylead.

AMBER INDICATOR

#IN012 £8 each (£9.60 inc vat)

CLEAR SIDE LIGHT

#IN013 £12 each (£14.40 inc vat)

RED MARKER LIGHT

#IN017 £12 each (£14.40 inc vat)



LED SIDE REPEATER / INDICATORS

'E'9 marked. Size 70mm x 35mm oval. Surface mount with 3M double-sided adhesive pad attached. 8mm hole required for cable. There are two 6mm diameter moulded plastic location studs on the rear which can be just cut off if you wish. Front projection 22mm. Rear projection (not including cable) 10mm. 100mm long flylead.

#SR11 £12 pair (£14.40 inc vat)



30mm SIDE REPEATERS IVA OK

'E4' Marked. 9 to 33 volts. Lens diameter 30mm. Fits through a 22mm hole and secured with a double-sided adhesive ring around the back of the lens. 13mm front projection. 19mm rear projection. 300mm long double insulated flylead with two male bullet terminals fitted. Weight 50gms.

#SR19 £25 pair (£30 inc vat)



30mm CLEAR LENS SIDE REPEATERS

Illuminates Amber. IVA OK 'E4' Marked. 9 to 33 volts. Lens diameter 30mm. Fits through a 22mm hole and secured with a double-sided adhesive ring around the back of the lens. 13mm front projection. 19mm rear projection. 300mm long double insulated flylead with two male bullet terminals fitted. Weight 50gms.

#SR19C £25 pair (£30 inc vat)



TINY LED AMBER INDICATORS Ultra bright Amber LED's. Size only 49mm x 29mm x 23mm high. Fix through a single 9mm hole. 'E11' marked.

#IN005 £28 pair (£33.60 inc vat)



MICRO LED LAMPS 28mm DIA. IVA OK
SAE DOT P2PC marked. To mount,
simply push the rubber surround through
a 20mm hole in your panel then push the
LED lamp unit into it, locking it all in place.
Diameter 28mm. Front projection 8mm.
Rear projection (not including wire) 11mm.
Maximum panel thickness 5mm.
150mm flylead. 12 volt.

Chrome Bezels available separately.
**CLEAR LENS WHITE LIGHT (front side
light) #FM1**

CLEAR LENS RED LIGHT (tail) #T28

**CLEAR LENS AMBER LIGHT (side
repeater) #SR10C**

**AMBER LENS AMBER LIGHT (side
repeater) #SR10**

RED LENS RED LIGHT (tail) #T28R

BLUE LENS BLUE LIGHT #SR10B

ALL £15 pair (£18 inc vat)



CHROME BEZEL FOR 28mm LED LAMPS

Very nice chromed metal bezel for all our
28mm diameter LED lamps. Just lay it over
the rubber surround before assembly. 30mm
diameter. 17mm ID. Shown fitted to lamp.
LAMP NOT INCLUDED.

#CB28 £2.50 each (£3 inc vat)



FLUSH MOUNTING LED LAMPS 'E9'

Marked Neat little lamps - just 25mm x
83mm with 6mm front projection and max.
12mm rear projection (not including cable).
Rear of lamp fits through a rectangular
hole 17mm x 55mm. Sealed with a nice,
chamfered rubber gasket and secured
through two 4.3mm, counter-bored holes at
66mm centres. Black press-in caps cover the
screws (Screws not supplied) 500mm long
flylead. Weight 35gms.

WIRING: WHITE + -12v. BROWN = + 12v.
NOTE:: Unusually, on this lamp, the 'E' mark
is on the rear of the lamp and cannot be
seen when installed.

**AMBER LIGHT Suitable for side repeater,
marker etc. #SR13 £7 each (£8.40 inc vat)**

**ALSO AVAILABLE WITH WHITE LED's
#RNOLED9 £7 each (£8.40 inc vat)**



**96mm LED MARKER / REPEATER /
INTERIOR LAMPS** Each lamp has six bright
LED's. Size 96mm x 20mm x 8mm thick.
Surface mount through two counter-bored.
3.6mm holes at 86mm centres. Drill one
10mm hole for wires. Wires 300mm long.
RED - +12v, BLACK - Neg 12V.

Foam gasket on the back. Weight 18 gms.

RED #ML9620R £11.50 (£13.80 inc vat)

AMBER #ML9620A £11.50 (£13.80 inc vat)

WHITE #ML9620W £11.50 (£13.80 inc vat)



STALK INDICATORS

**SEQUENCING AMBER LED STALK
INDICATORS WITH BUILT IN FLASHER
RELAY. 'E8' Marked. IVA OK.**

This unique,
smoked lens lamp has a row of LEDs that
illuminate in sequence on every flash. Each
lamp also has a built in flasher relay so,
if four lamps are used, front and rear, the
wiring can be really simple. The 20mm long,
M8 mounting stud has a flexible rubber
joint to the lamp so it will flex, not break
on impact. Length 95mm excluding stud.
15mm high and 25mm front to back. 200mm
sleeved flyleads with male bullet connectors.
See a video of them in action on our online
listing. **#SI032 £29 pair (£34.80 inc vat)**



**NO
FLASHER
RELAY
REQUIRED**



**SEE A VIDEO
ON OUR
YOUTUBE
CHANNEL**



96mm BLUE LED MARKER LAMP

Six bright LED's. Size 96mm x 20mm x 8mm
thick. Surface mount through two counter-
bored 3.6mm holes at 86mm centres. Drill
one 10mm hole for wires. Wires 300mm
long. RED - +12v, BLACK - Neg 12V.

Foam gasket on the back. Weight 18 gms.

#ML9620B £11.50 (£13.80 inc vat)



SPEAR HEAD 'E8' Marked. Spear head shaped indicator lenses on a stalk. 12 volt/21 Watt. M8 mounting thread. 90mm x 30mm x 42mm.

BLACK #SI003 £14 pair (£16.80 inc vat)

CARBON EFFECT

#SI004 £14 pair (£16.80 inc vat)

LED CLEAR LENS BLACK

#SI003C £14 pair (£16.80 inc vat)

LED CLEAR LENS CARBON EFFECT

#SI004C £14 pair (£16.80 inc vat)



CATS EYE STALK INDICATORS

Carbon effect. Clear lens. 12 volt 21 watt amber bulb. M10 mounting thread with nut. Body length only 66mm. Lens size 48mm x 28mm. 'E1' Marked

#SI006 £14 pair (£16.80 inc vat)

AMBER LENS VERSION (picture online)

#SI006A £14 pair (£16.80 inc vat)



CHROME CATS EYE INDICATORS

E8 Marked. The chromed plastic housing contains a 12 volt 23 watt amber bulb. Removable amber lens. Lens size 48mm diameter x 28mm. Overall length including the M10 x 28mm long mounting stud is 95mm. 200mm flyleads with bullet terminals

#SI031 £12 pair (£14.40 inc vat)



BUDGET STALK Basic stalk indicator, 12V/21W M8 mounting thread. 100mm x 40mm x 35mm. 'E9' Marked.

BLACK #SI002B £12 pair (£14.40 inc vat)

CARBON #SI002C £12 pair (£14.40 inc vat)



SMOKED AMBER LENS

Replacement smoked lenses for all #SI002 indicators.

#SI002SL £1 pair (£1.20 inc vat)



LARGE SPEAR HEAD INDICATORS 'E8' marked.

Superb quality. Replaceable, 10 Watt bulb with chromed reflector. Amber lens. Size 96mm long not including the M8 x 18mm fixing stud x 53mm front to back, 36mm high lens. Flexible rubber stud mount. Fix through a single 8mm hole. 300mm flyleads with male bullet terminals.

#SI023 £14 pair (£16.80 inc vat)



RECTANGULAR AMBER

Rectangular amber lens, plastic body. M10 x 1.25 mounting thread. 12V/10W bulb included. 102mm x 47mm x 60mm. 'E11' Marked. 300mm fly lead with male bullet terminals. Weight 200 gms pair.

#SI026 £20 pair (£24 inc vat)



BULLET STALK INDICATORS 'E4' marked. Superb quality. Replaceable, 21 Watt halogen bulb with polished reflector. Amber lens with moulded-in focusing area in front of bulb. Size 82mm long x 22mm diameter, not including the M8 x 18mm fixing stud. Flexible rubber stud mount. Fix through a single 8mm hole. 200mm flyleads with male bullet terminals.

#SI022 £26 pair (£24 inc vat)



OVAL AMBER WITH CLEAR LENS

Simple but nice. Clear oval lens with amber inside. Plastic body and flexible rubber stalk. M10 x 1.25 mounting thread. 12V/10W. 95mm x 45mm x 48. 'E9' Marked

#SI005C £16 pair (£19.20 inc vat)



OVAL AMBER

Simple but nice. Oval amber lens, plastic body and flexible rubber stalk. M10 x 1.25 mounting thread. 12V/10W. 95mm x 45mm x 48mm. 'E9' Marked

#SI005 £16 pair (£19.20 inc vat)



OVAL AMBER Similar to our #SI005.

Oval amber lens, plastic body and flexible rubber stalk. M10 x 1.25 mounting thread. 12V/10W bulb included. 108mm x 47mm x 53mm. 'E11' Marked. 300mm fly lead with male bullet terminals. Weight 170g pair.

#SI027 £20 pair (£24 inc vat)



SATIN BLACK BULLET STALK INDICATORS

All coated metal construction. Removable amber lens. Head size 49mm diameter x 69mm. Stem length 16mm plus M8 x 33mm long mounting stud with nut and washers. 12V/21W bulbs included. 160mm flyleads. **#SI024 £24 pair** (£28.80 inc vat)



RETRO CUSTOM INDICATORS

We rather like these. All chromed metal construction. Amber lens. Head size 51mm diameter x 74mm. Stem length 75mm. M10 x 25mm long mounting stud with nut and washers. 12V/21W bulbs included. 300mm flyleads. **#SI020 £24 pair** (£28.80 inc vat)



CHROME BULLET STALK INDICATORS

All chromed metal construction. Removable amber lens. Head size 49mm diameter x 69mm. Stem length 53mm plus M10 x 18mm long mounting stud with nut and washers. 12V/21W bulbs included. 160mm flyleads. **#SI025 £24 pair** (£28.80 inc vat)



STALK INDICATOR

Clear lens. Amber bulb 12V/21W. M8 mounting thread. 100mm x 40mm x 35mm. 'E9' Marked. **#SI002CL £10 pair** (£12 inc vat)



SMALL LED AMBER INDICATORS

'E4' marked. Superb quality. Mega-bright single 3 watt LED. CNC'd black anodised, aluminium body with designed-in cooling fins. Clear frosted lens. Size only 55mm x 26mm x 21mm not including the M8 x 18mm fixing stud. Fix through a single 8mm hole. Split nut and washer for easy installation. 550mm flyleads incorporating an in-line Transformer/rectifier (do not cut off) **#SI021 £42 pair** (£50.40 inc vat)



MINIATURE LED AMBER INDICATORS

'E11' marked. We could not believe the intensity of these minuscule lamps. Six mega-bright amber LED's. Body size only 26mm x 29mm x 17mm. Fix through a single 6mm hole. You'll hardly know they're there until you turn them on.

CHROME #IN006C £23 pair (£27.60 inc vat)

BLACK #IN006B £28 pair (£33.60 inc vat)

ALSO AVAILABLE REAR NUMBER PLATE VERSION



STALK LED INDICATOR E4 Marked

Mega-bright. M8 mounting thread 19mm long with nut and locking washer. Rubber mount at thread end. Overall length including thread 92mm. Width and depth 25mm. 350mm long flyleads with bullet terminals. WIRING: BLACK (Earth -12V). YELLOW: (Indicator Live +12V). Weight 80gms. **#SI029 £35 pair** (£42 inc vat)



STALK INDICATOR E4 Marked Mega-

bright, easily replaceable, 6W Halogen bulb. Just remove a single small screw and the whole lens assembly slides off. M8 mounting thread 19mm long with nut and locking washer. Rubber mount at thread end. Overall length including thread 78mm. Width and depth 21mm. 300mm long flyleads with bullet terminals. WIRING: BLACK (Earth -12V). YELLOW: (Indicator Live +12V). Weight 75gms. **#SI028 £30 pair** (£36 inc vat)



STALK LED STOP - TAIL - INDICATOR

E4 Marked This is the smallest all-in-one we've found. Mega-bright. M8 mounting thread 19mm long with nut and locking washer. Rubber mount at thread end. Overall length including thread 92mm. Width and depth 25mm. 350mm long flyleads with bullet terminals. Weight 85gms. WIRING: BLUE (Indicator +12v). WHITE (Indicator -12V). YELLOW (Rear tail Light +12v). RED (Rear Stop Light +12v). BLACK (Earth -12V). **#SI030 £45 pair** (£54 inc vat)



73mm DIAMETER LED REAR LIGHTS

'E4' Marked Super-bright LED lamps. Surface mounting. Supplied with foam gasket. 150mm flyleads and fitted waterproof plugs. Two 4.5mm mounting holes at 53mm centres. Maximum diameter 73mm. Front to back 39mm.

CLEAR STOP/TAIL (3 pin)

#RL92 £34 pair (£40.80 inc vat)

RED STOP/TAIL (3 pin)

#RL93 £34 pair (£40.80 inc vat)

INDICATOR AMBER

#RL90 £34 pair (£40.80 inc vat)

INDICATOR CLEAR

#RL91 £34 pair (£40.80 inc vat)

FRONT SIDELIGHT CLEAR

#RL94 £34 pair (£40.80 inc vat)



2 PIN CONNECTOR

#NASPLG2 £5 (£6 inc vat)

3 PIN CONNECTOR

#NASPLG3 £5 (£6 inc vat)



80mm TWIN LAMPS

Twin festoon bulbs. Front indicator and side light in one. 80mm diameter 40mm deep. Surface mounting. Bulbs not included

AMBER / CLEAR

#TWIN (left) £18 pair (£21.60 Inc vat)

RED / AMBER

#TWINRA (right) £18 pair (£21.60 Inc vat)

BULB SET (4 bulbs) £2 (£2.40 Inc vat)



LUCAS L539 REAR LIGHTS Originally fitted to AC Cobra, Bentley Continental, Daimler, Alvis, Rover and many more classic cars. 82mm diameter chrome bezel with plastic lens. Push and twist onto plated steel back plate with bulb holder and rubber gasket. Fits through a 30mm hole. Front projection 47mm. Rear projection 45mm. 500mm flyleads with Lucas bullet terminals. Bulbs included.

AMBER #RL151 £90 pair (£108 inc vat)

CLEAR #RL152 £90 pair (£108 inc vat)

STOP/TAIL #RL153 £90 pair (£108 inc vat)



MADE IN ENGLAND



83mm REAR LIGHTS

MADE IN ENGLAND Yup - that's right - real home grown lights as fitted to early Morgans. Indicator, reverse and stop/tail. Plastic lens with rubber seal/gasket. Chromed metal surround/backplate with brass threaded inserts. Rubber mounting gasket. 350mm flyleads with bullet terminals. Two M5 x 15mm long mounting studs with nuts on the back at 45mm centres. Female bullet earth terminal on bulb holder. All 'E11' Marked. 83mm diameter. 50mm front to back (not including bulb holder). Bulb holder rear projection 50mm. 12 Volt Bulbs included.

STOP/TAIL #RL78 £56 pair (£67.20 inc vat)

AMBER #RL79 £52 pair (£62.40 inc vat)

CLEAR #RL80 £52 pair (£62.40 inc vat)



72mm BLMC STYLE SURFACE MOUNT

LAMPS Single filament festoon bulbs included. All 'E' Marked.

AMBER 21w

#RL29 £16 pair (£19.20 inc vat)

RED STOP 21w

#RL30S £16 pair (£19.20 inc vat)

RED TAIL 5w

#RL30T £16 pair (£19.20 inc vat)

CLEAR

#RL31 £16 pair (£19.20 inc vat)

SET OF 8

#708SET £60 (£72 inc vat)



REAR LIGHTS 63mm Diameter, 49mm high. Surface mount. Single filament 21 watt festoon bulbs included. Rubber backing surround, plated steel bulb holder and plastic lens. All 'E' Marked

RED #RL14 £16 pair (£19.20 inc vat)

AMBER #RL15 £16 pair (£19.20 inc vat)

CLEAR #RL16 £16 pair (£19.20 inc vat)

SET OF 8 (4 Red, 2 Amber, 2 Clear)

› £60 (£72 inc vat)



REAR LIGHTS 63mm Diameter, 49mm high. Flat, surface mount. Single filament Festoon bulbs included. Rubber backing surround, Flat bulb holder and plastic lens.

RED #RL147 £16 pair (£19.20 inc vat)

AMBER #RL148 £16 pair (£19.20 inc vat)

CLEAR #RL149 £16 pair (£19.20 inc vat)



73mm LUCAS GLASS LENS CLASSIC

BLMC STYLE REAR LIGHTS. As fitted to

many classic British sportscars. Shallow domed, real glass lenses with chromed metal trim rings. 73mm diameter. Mount through a 35mm hole. 25mm front projection. 75mm rear projection. 12 volt bulbs included.

STOP/TAIL #RL75 £32 pair (£38.40 inc vat)

AMBER #RL76 £32 pair (£38.40 inc vat)

CLEAR #RL77 £32 pair (£38.40 inc vat)



MADE IN ENGLAND



LUCAS REPLACEMENT GLASS LENSES.

60mm diameter x 20mm high.

RED #RL75LENS £7.50 each (£9 inc vat)

AMBER #RL76LENS £7.50 each (£9 inc vat)

CLEAR #RL77LENS £7.50 each (£9 inc vat)

MADE IN ENGLAND



70mm WIPAC REAR LIGHTS All 'E11'

Marked. Indicator, reverse and stop/tail.

Plastic lens with rubber seal/shroud.

Mount through a 33mm hole. Lens diameter 70mm. Overall diameter 73mm.

12 Volt Bulbs included.

STOP/TAIL #RL21 £12 pair (£14.40 inc vat)

AMBER #RL22 £12 pair (£14.40 inc vat)

CLEAR #RL23 £12 pair (£14.40 inc vat)

SET OF SIX #RL24 £35 (£42 inc vat)

SET OF EIGHT (INCLUDING 4 AMBER)

#RL248 £42 (£50.40 inc vat)



BLMC MINI STYLE REAR LIGHTS.

'E11' marked. 72mm diameter. Plastic lenses with stainless trim rings. Indicator, reverse and stop/tail. Bulbs included. Mount through a 32mm hole. 70mm rear projection. 48mm front projection. Bulbs included.

STOP/TAIL #RL25 £16 pair (£19.20 inc vat)

AMBER #RL26 £16 pair (£19.20 inc vat)

CLEAR #RL27 £16 pair (£19.20 inc vat)

SET OF SIX #RL28 £46 (£42 inc vat)



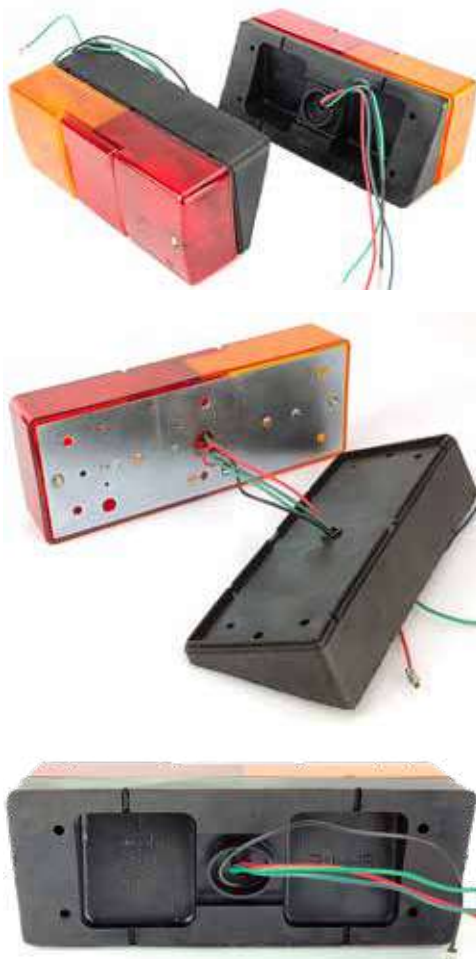
BULB HOLDER PLATE 48mm DIAMETER



BUDGET REAR LIGHTS 'E11' marked. Indicator, stop, tail, and number plate at one end. 168mm x 85mm x 50 high. Surface mounted. Including bulbs.
#RL3 £20 pair (£24 inc vat)



CATERHAM REAR LIGHTS Stop, Tail, Indicator and Reflector. Great quality as fitted to Caterhams. Lamps have separate rubber mounting wedge that angle the lens perfectly vertical on a Caterham wheel arch. Mounting angle 20°. Lens size: 190mm x 70mm x 40mm. 200mm flyleads with male bullet terminals. Bulbs included. Weight 1100gms pair.
#RL128 £95 pair (£114 inc vat)



REAR LIGHT CLUSTERS 'E11' marked. Indicator, Reflector and Stop/Tail, all in one. Plastic lens with rubber seal for wires and spade connectors included. Mount vertical or horizontal. Two M5 mounting studs on rear @ 155mm centres. 12 Volt Bulbs included. 200mm x 91mm x 60mm deep. Mounting face 25mm from front of lens.
#RL2 £44 pair (£52.80 inc vat)



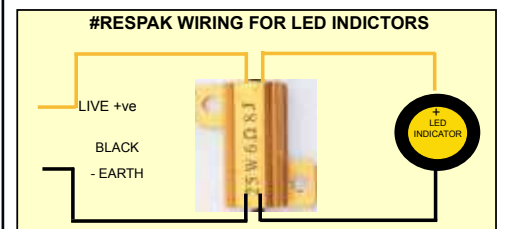
SLIMLINE LED REAR LIGHTS. STOP, TAIL, INDICATOR and REFLECTOR 'E4' Marked. These very neat and compact lights can be surface mounted and will only protrude 24mm. Alternatively, they can be mounted in a rectangular hole 67mm x 135mm where they will protrude even less - just 15mm. Overall size 80mm x 150mm. Two M5 mounting studs on rear at 110mm centres. 300mm long flylead. Indicator and stop lamp LED power 16 watts. Tail light 0.5 watts. Weight 300 gms pair. 12 Volt only. WIRING: EARTH - White, STOP - Red, INDICATOR - Yellow, TAIL - Brown.
#RL89 £25 pair (£30 inc vat)



HANDED PAIR ALL IN ONE LED REAR LAMPS. STOP, INDICATOR and REVERSE with NEON-STYLE TAIL LIGHT and INTEGRAL REFLECTOR E9 Marked 12V / 24V. These are big lamps - 355mm x 90mm x 34mm thick. Two, M6 mounting studs at 116mm centres. WIRING: WHITE - Earth -12v, GREEN - Indicator, RED - Stop, BROWN - Tail, BLACK - Reverse. Fully sealed with 400mm flylead.
#RL150 £150 pair (£180 inc vat)



25 WATT RESISTOR PACK One required for each LED indicator lamp if you're using regular flasher relays (non-electronic or LED relays). 3.5mm male and female bullet terminals. Size 28mm x 25mm x 14mm high. Two 3.5mm mounting holes. Leads 150mm long. 6 Ω resistance.
#RESPAK £8.80 each (£10.56 inc vat)



PORSCHE 356A REAR LIGHTS Handed Pair. These very nice lights are direct replacements for the original 356 items but they may fit other vehicles with some ingenuity. The pressed steel body and rubber surround accurately match the double curvature of the Porsche body. The Chrome bezel and lens is retained with chrome screws in brass inserts. Stop, Tail and Indicator bulbs are included. Size 195mm x 75mm. Three M5 mounting studs with nuts. 200mm flyleads for live supplies. **NOTE:** These lamps require an earth - either through contact with the vehicle's metal body or with a separate earth wire connected to the lamp housing. Weight 665gms./pair. **#RL132 £110 pair** (£132 inc vat)



117mm REAR LIGHTS ALL IN ONE
 These really are very nice. Italian made. 'E13' marked and IVA compliant. Indicator, stop, tail, and reverse in one compact unit. Only 117mm dia. x 70mm deep. They can be surface mounted on the two mounting studs or bonded into a 100mm hole so that only the lens can be seen. Rubber grommet cable outlet. (bulbs not included) **#RL1 £66 pair** (£79.20 inc vat)
BULB SET (6)
 4 x Clear 21 watt (our #BULB4)
 2 x Clear 21/5 watt (our #BULB5)
#BULBSET £3.95 (£4.74 inc vat)



140mm BULLS EYE REAR LAMPS
 Stop, tail and Indicator. 140mm diameter. 85mm overall front to back. Can be surface mounted on two M6 studs through rear of bowl. Can be bonded into a 135mm hole so only the lens is visible. Lens projection above surface 30mm. Bulbs not included. **#RL34 £34 pair** (£40.80 inc vat)



ABSOLUTELY ALL IN ONE LED REAR LAMP Check this out - **STOP, TAIL, INDICATOR, REAR FOG, REVERSE and REFLECTOR** - in one lamp - that's all the legal requirements. 'E' 1 marked. If you want a really simple and stylish rear light installation this one has it all - even has built-in Rear Fog, Reverse and Reflector. The sealed-for-life housing has a tough ABS back and crystal clear lens. Overall size 224mm x 105mm x 21mm. Two 6mm fixing holes at 100mm centres. A snap-in chrome cover hides the screw heads. 500mm long 6-core flylead. 9 to 32 volt operation. Weight 405 gms each.
 WIRING: TAIL - BLACK STOP - RED INDICATOR - GREEN
 REAR FOG - BLUE REVERSE - GREY EARTH - WHITE
#RL81 £350 pair (£420 inc vat)



140mm HAMBURGER REAR LAMPS

We call these 'Hamburger' because of the layout of the lens. Very nice quality 'E2' Marked, 3 function lamp STOP, TAIL and INDICATOR. Overall diameter 140mm. Overall depth 75mm. Lens depth 20mm. Three mounting options: Can be bonded into a 130mm hole so that only the lens can be seen. Or you can sandwich your mounting panel between the lens and rear case. Or you can simply bolt through the back of the rear case to surface-mount the whole assembly. Supplied with wiring grommet, sealing ring, fixing screws and earth wire. Bulbs not included.

#RL32 £25 pair (£30 inc vat)

BULB SET

4 x Clear 21 watt (our #BULB4)

2 x Clear 5 watt (our #BULB10)

#BULBSET2 £3.95 (£4.74 inc vat)



SELF-ADHESIVE CLIPS Quick and simple fixing of small wires and pipes. White plastic-coated steel with self adhesive backing pads. Just bend up the tab, lay on your wires and bend it down again. Size 20mm x 30mm

#SAPAD £4.50 Pack of 50 (£5.40 inc vat)



140mm LED HAMBURGER REAR LAMPS

'E4' marked. 9 to 33 volts. Stop, tail and Indicator. 140mm diameter. 73mm overall front to back plus two M6 x 20mm long mounting studs at 44mm centres. Can be surface mounted on the studs or bonded into a 135mm hole so only the lens is visible. Or the rear case can be discarded and the sealed lens/lamp unit (which is only 25mm thick) can be surface mounted in a 130mm hole. Four 1/4" male spade terminals clearly marked on the back. Wiring couldn't be easier.

#RL58 £70 pair (£84 inc vat)



140mm LED BULLS EYE REAR LAMPS

'E9' marked. 12 volt or 24 volt. Stop, tail and Indicator. 140mm diameter. 65mm overall front to back plus two M6 x 16mm long mounting studs at 44mm centres. Can be surface mounted the studs or bonded into a 135mm hole so only the lens is visible. Lens projection above surface 25mm. Pre-wired with 300mm fly lead. Stop and tail are concentric.

#RL55 £70 pair (£84 inc vat)



WIRING
 WHITE - EARTH
 RED - STOP
 BROWN - TAIL
 GREEN - INDICATOR

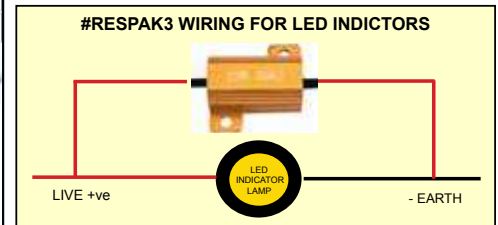
140mm LOW PROFILE LED SURFACE MOUNT REAR LAMP 'E9' Marked. STOP, TAIL AND CLEAR-LENS INDICATOR

Sealed-for-life on a thin white base. 140mm diameter. Front projection just 20mm. Fixes to rear panel with 3M double sided tape. Two 10mm diameter locating pegs at 80mm centres. 400mm long flylead. 12 or 24 volt.

WIRING: WHITE - Earth, RED - Stop. YELLOW - Indicator, BROWN - Tail, **#RL97 £55 pair** (£66 inc vat)



25 WATT RESISTOR PACK If you're changing your 21 watt indicator bulbs from regular to LED but you're retaining your original flasher relays you'll need one of these for each bulb. Just connect in parallel, across the bulb. Size 28mm x 25mm x 14mm high. Two 3.5mm mounting holes. Leads 150mm long. 6 Ω resistance. **#RESPAK3 £6 each** (£7.20 inc vat)



125mm DIAMETER LED ALL-IN-ONE REAR LAMP WITH BUILT-IN REFLECTOR

Yes, it's all built-in!! Super-bright Stop, Tail and Indicator and even a reflector. 125mm (5") diameter x 38mm (1½") thick. Two M8 x17mm stainless fixing studs on rear @ 45mm centres. Nuts and washers included. 'E'9 marked. 400mm pre-wired, sleeved leads. Sealed for life housing. All clear lenses. Fully IVA compliant.

WITH RED STOP/TAIL LENS

#RL652 £90 pair (£108 inc vat)

REAR FOG

#RL65RF £48 each (£57.60 inc vat)

REVERSE

#RL65REV £52 each (£62.40 inc vat)



WIRING
WHITE - EARTH
RED - STOP
BROWN - TAIL
YELLOW - INDICATOR



REAR FOG.
and REVERSE



125mm LED ALL-IN-ONE REAR LAMP WITH BUILT-IN REFLECTOR

Yes, it's all built-in!! Super-bright Stop, Tail and Indicator and even a reflector. Fully IVA compliant. 125mm (5") diameter x 38mm (1½") thick. Two M8 x17mm stainless fixing studs on rear @ 45mm centres Nuts and washers included. 'E'9 marked. 400mm pre-wired, sleeved leads. Sealed for life housing.

#RL53 £96 pair (£115.20 inc vat)



WIRING
WHITE - EARTH
RED - STOP
BROWN - TAIL
YELLOW - INDICATOR



LED REVERSE AND REAR FOG TO MATCH OUR #RL53

REAR FOG 'E'9 F1 marked

#RL53RF £48 each (£57.60 inc vat)

REVERSE 'E'9 marked

#RL53REV £52 each (£62.40 inc vat)



122mm LED STOP TAIL AND INDICATOR

'E1' Marked These awesome lights have an overall diameter of 122mm (4¾") and mount through a 110mm hole. 30mm depth behind lens. Either bond them in or make a simple U bracket to hold them in place. You can even surface mount them with the two M6 integral studs. Super bright LED's give the red stop/tail outer and amber indicator centre.

#RL35 £120 pair (£144 inc vat)



WIRING
WHITE - EARTH
BLACK - TAIL
RED - STOP
GREEN - INDICATOR



REAR FOG WITH REFLECTOR 'F' Marked

#RL35RF £60 each (£72 inc vat)

REVERSE WITH REFLECTOR

#RL35REV £90 each (£108 inc vat)



125mm SURFACE MOUNT LED REAR LIGHT 'E4' Marked. 125mm diameter x 38mm front to back. Satin black surround with a 95mm lens. Two concealed 4mm mounting holes at 110mm centres. Needs just one central 14mm hole for cable. Foam gasket. Pre-wired and sealed to a 500mm flylead.

STOP, TAIL, INDICATOR

#RL114 £48 each (£57.60 inc vat)

REAR FOG and REVERSE 'F' Marked

#RL115 £50 each (£60 inc vat)



125mm CHROME BEZEL LED REAR LIGHT 'E4' Marked. 125mm diameter with a 95mm lens. Fits through a 90mm diameter hole. This lamp has a neat, 'twist and release' chromed plastic bezel that hides the three, 4mm fixing holes on a 105mm PCD. 13mm front projection, 20mm rear projection. Pre-wired and sealed to a 500mm flylead.

STOP, TAIL, INDICATOR

#RL116 £48 each (£57.60 inc vat)

REAR FOG and REVERSE 'F' Marked

#RL117 £50 each (£60 inc vat)



140mm LED ROUND STOP TAIL AND SEQUENCING INDICATOR 'E20' Marked.

This unusual lamp has a three segment, Neon-like glowing red outer ring tail lamp, a two-bar red LED 'stop' lamp and a sequencing amber LED strip across the centre. It mounts on a flat surface with two M6 studs at 45mm centres. Maximum 142mm maximum diameter x 32mm deep. WIRING: WHITE: neg.12 volt. RED - Stop. BLACK - Tail, YELLOW - Indicator

POWER CONSUMPTION:

INDICATOR - 2.6W

TAIL - 2.4W

STOP - 4W

12 volt / 24 volt. Weight 475gms each.

For handed installation just invert one lamp.

NOTE: The internal sequencing electronics of the indicator in this lamp needs no additional relay. Your existing indicator relay is all you need. SEE OUR ONLINE VIDEO OF THE INDICATOR SEQUENCING.

#RL136 £135 pair (£162 inc vat)



122mm LED STOP TAIL AND INDICATOR
 'E11' Marked These lights have an overall diameter of 122mm (4¾") and mount through a 112mm hole. 34mm depth behind lens. Either bond them in or make a simple U bracket to hold them in place. You can even surface mount them with the two M6 integral studs. Super bright LED's give the red stop/ tail outer and amber indicator centre.

STOP - 4 Watt
 TAIL - 1 Watt
 INDICATOR - .4 Watt
#RL127 £99 pair
 (£118.80 inc vat)

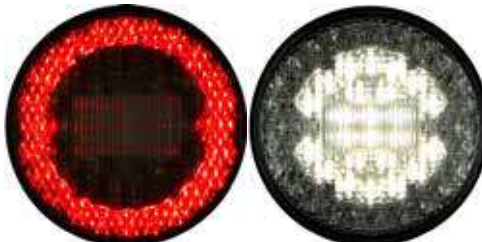
WIRING
 WHITE - EARTH
 RED - STOP
 BLUE - TAIL
 GREEN - INDICATOR



122mm LED REVERSE AND REAR FOG
 'E11' Marked These lights have an overall diameter of 122mm (4¾") and mount through a 112mm hole. 34mm depth behind lens. Either bond them in or make a simple U bracket to hold them in place. You can even surface mount them with the two M6 integral studs. Super bright LED's give the Red FOG outer and White REVERSE centre.

REVERSE - 2 Watt
 REAR FOG - 2 Watt
#RL127RF £40 each
 (£48 inc vat)

WIRING
 WHITE - EARTH
 GREY - REVERSE
 BLUE - FOG



LED STOP / TAIL / INDICATOR. 'E' 9
 marked. Clear lens sealed lamp. Surface mount. Size 80mm x 80mm x 23mm. Two 5mm x 17mm fixing studs with nuts and washers at 50mm centres. 300mm flyleads. Requires a 11mm hole for cable. Weight 210 gm. pair. Stop - 1.4 Watts. Tail - 0.18 Watts. Indicator - 1.36 Watts
#RL95 £30 pair (£36 inc vat)



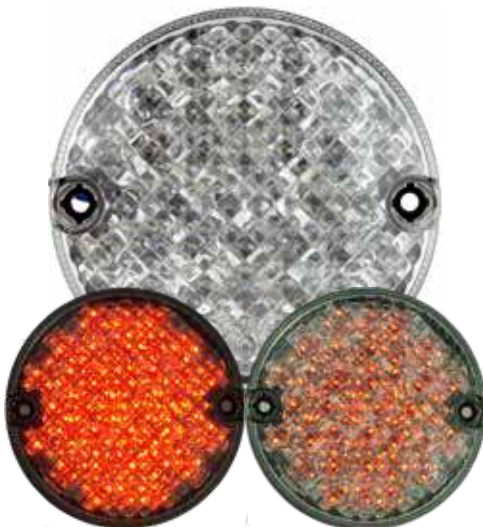
95mm CLEAR LENS LED INDICATOR 'E11' Marked. These clear lens, rear lights have an overall diameter of just 95mm (3¾") and mount through an 82mm hole. Two 4.5mm mounting holes at 80mm centres. Overall depth 47mm. Rear projection 24mm. Front projection 23mm. 4 watt super bright LED's. Supplied with matching caps to plug and disguise the mounting holes.

#RL108 £40 pair (£48 inc vat)



95mm CLEAR LENS LED STOP AND TAIL 'E11' Marked. Matching #RL108. 4 watt Stop, 1 Watt side, super bright LED's. Supplied with matching caps to plug and disguise the mounting holes.

#RL107 £40 pair (£48 inc vat)



95mm CLEAR LENS REAR FOG 'E11' and 'F' Marked. These clear lens, rear lights have an overall diameter of just 95mm (3¾") and mount through an 82mm hole. Two 4.5mm mounting holes at 80mm centres. Overall depth 47mm. Rear projection 24mm. Front projection 23mm. 3 watt super bright LED's. Supplied with matching caps to plug and disguise the mounting holes.

#RL109 £20 each (£24 inc vat)



95mm REVERSE / REAR FOG COMBINED 'E4' Marked. Clear lens Ultra bright LED combo for plinth or surface mount
#RL87 £48 each (£57.60 inc vat)



95mm LED STOP TAIL AND INDICATOR 'E2' Marked. These clear lens, 3 function rear lights have an overall diameter of just 95mm (3¾") and mount through an 89mm hole. Overall depth 32mm (not including studs). Red stop/tail outer and Amber indicator centre. Either bond them in or make a simple U bracket to hold them in place. You can even surface mount them using the three M6 studs. Super bright LED's.

#RL36 £92 pair (£110.40 inc vat)



95mm LED REVERSE and LED REAR FOG 'E2' Marked. Identical size and mountings to RL36 above. Ultra bright LED's. Very, very nice.
REAR FOG #RL38 £48 (£57.60 inc vat)



REVERSE #RL39
£75 (£90 inc vat)



95mm LED REAR LAMPS 'E24' Marked.
Mount through an 83mm hole. 28mm depth behind lens (not including wires).
Two 4.3mm through holes at 80mm centres.
500mm flyleads.
WIRING: WHITE - Earth, STOP - Red,
TAIL - Brown, INDICATOR - Green.
12 Volt. Weight 300gms per pair.
RED / CLEAR LENS STOP / TAIL / INDICATOR
#RL96 £99 pair (£118.80 inc vat)



The Rear Fog / Reverse version also has a Tail light option which can be connected or not.

WIRING: WHITE - Earth, FOG - Red,
TAIL - Brown, REVERSE - Green.
12 Volt. Weight 300gms per pair.

RED / CLEAR LENS REAR FOG / REVERSE

#RL96FR £99 pair (£118.80 inc vat)



95mm LED REAR FOG AND REVERSE
'E2' Marked.
REVERSE #RL41 £70 each (£84 inc vat)



REAR FOG #RL42 £35 each (£42 inc vat)



95mm REVERSE 'E11' and 'R' Marked.
These clear lens, rear lights have an overall diameter of just 95mm (3¾") and mount through an 82mm hole. Two 4.5mm mounting holes at 80mm centres. Overall depth 47mm. Rear projection 24mm. Front projection 23mm. 5 watt super bright LED's. Supplied with matching caps to plug and disguise the mounting holes.

#RL110 £46 each (£55.20 inc vat)



95mm CLEAR LED REAR LAMPS
'E9' Marked. Mount through an 83mm hole. 28mm depth behind lens (not including wires). Two 4.3mm through holes at 80mm centres. 300mm flyleads. Foam gasket included
WIRING: EARTH - Black, STOP - Red,
TAIL - White, INDICATOR - Yellow.
12/24 Volt. Weight 250gms per pair.
CLEAR LENS STOP / TAIL / INDICATOR
#RL146 £35 pair (£42 inc vat)



95mm LED REAR LAMPS 'E4' or 'E9' Marked. Ultra bright LED's. Total thickness 32mm. Can be mounted in an 83mm diameter hole or in our housings. Front projection 20mm. Two 4mm mounting holes at 80mm centres. 220mm fly leads.

WIRING: White - earth. Blue - Indicator. Red - Stop. Green - Tail.

10 volts to 30 volts/

RED STOP TAIL

#RL60 £45 pair (£54 inc vat)

CLEAR STOP TAIL

#RL60C £45 pair (£54 inc vat)

AMBER INDICATOR

#RL61 £45 pair (£54 inc vat)

CLEAR INDICATOR

#RL61C £45 pair (£54 inc vat)

CLEAR REAR FOG

#RL61RFC £28 each (£33.60 inc vat)



95mm LED REAR LAMPS Ultra bright LED's. Total thickness 32mm. Can be mounted in an 83mm diameter hole or in our housings. Front projection 20mm. Two 4mm mounting holes at 80mm centres. 220mm fly leads

WIRING: White - earth. Red - +12v.

REVERSE 'E4' Marked

#RL72REV £24 each (£28.80 inc vat)

REAR FOG 'F1' Marked

#RL74RF £24 each (£28.80 inc vat)



95mm RED REFLECTOR E1 Marked. 95mm diameter x 24mm thick. Flat back. Two 5mm counter-bored mounting holes at 80mm centres.

#RR95 £7.50.each (£9 inc vat)



94mm DIA. LED STOP/TAIL/INDICATOR 'E9' Marked. Clear lens Stop/Tail/ Indicator ultra bright LED combo for surface mounting. Fits in a 84mm hole. Total thickness 36mm. Waterproof housing and cable gland. Two 4.3mm mounting holes @ 80mm centres. 250mm flyleads

#RL63 £45 pair (£54 inc vat)



WIRING
WHITE - EARTH
RED - STOP
BLACK - TAIL
GREEN - INDICATOR



95mm FRONT INDICATOR / DAYTIME RUNNING LAMPS 'E4' Marked. These LED front combination lights have an overall diameter of just 95mm (3 3/4") and mount through an 80mm hole. 21mm depth behind lens. Two 4mm through holes for screw mounting from the front. Ultra-bright LED's.

#DRLIND £45 pair (£54 inc vat)



95mm LED REAR LAMPS 'E11' Marked.
Mount through an 82mm hole. 30mm depth behind lens (including wires).
Two 4.3mm through holes at 80mm centres.
Two hole finishing/blanking plugs included.
180mm flyleads. 12 Volt.
WIRING: WHITE - Earth, STOP - Red, TAIL - Blue, INDICATOR - Green.

RED/AMBER LENS STOP/TAIL INDICATOR

#RL57 £120 pair (£144 inc vat)

CLEAR LENS STOP/TAIL INDICATOR

#RL56 £120 pair (£144 inc vat)



YOU CAN FIT ANY SURFACE MOUNT LAMP TO A SLOPING REAR PANEL BY MOULDING AND SHAPING A WEDGE OF BODY FILLER. STICK SELLOTAPE TO YOUR PANEL AND THE BACK OF THE LAMP TO ACT AS MOULD RELEASE. TAPE THE LAMP VERTICALLY IN POSITION AND FILL THE GAP WITH FILLER. REMOVE AND DRESS THE MOULDING, DRILL THE MOUNTING HOLES THROUGH AND PAINT IT BLACK. See Hints pages.

95mm LED STOP / TAIL / INDICATOR
'E4' Marked. Clear Indicator lens Red Stop/Tail. Ultra bright LED combo for plinth or surface mounting or fitting in a 90mm hole. Total thickness 33mm. Waterproof housing and cable gland. Three M5 x 12mm mounting studs with nuts and washers. 300mm fly lead.

#RL86 £90 pair (£108 inc vat)



95mm REVERSE / REAR FOG

'E4' Marked. Clear lens Ultra bright LED combo for plinth or surface mount

#RL87 £66 each (£79.20 inc vat)



4mm BRASS BULLET TERMINALS

100 each of Male and Female brass terminals and 100 each male and female plastic covers 15 Amps per terminal.

#BULTERPAK £14 pack of 400 pieces (£16.80 inc vat)



95mm LED REVERSE AND REAR FOG COMBO 'E4' Marked. This 2 function rear light has an overall diameter of just 95mm (3 3/4") and mounts through an 89mm hole. Overall depth 32mm (not including studs). Red Rear Fog outer ring and White Reverse centre. Either bond them in or make a simple bracket to hold them in place. You can even surface mount them using the three M5 studs on a 70mm P.C.D. Super bright LED's. 30mm long flylead. Wiring colour codes on rear of lamp.

#RL86RRF £48 each (£57.60 inc vat)



95mm REAR LIGHTS (without bezel).
12 Volt. With bulb holder and bulb (single or twin filament). Rear depth from mounting face 55mm. 'E'11 marked.

COLOURED OR CLEAR LENSES

RED Stop / Tail #RL17ST

£20 pair (£24 inc vat)

RED Rear fog #RL17F

£20 pair (£24 inc vat)

AMBER Indicator #RL18

£20 pair (£24 inc vat)

CLEAR Indicator #RL20A (use amber bulb)

£20 pair (£24 inc vat)

CLEAR Rear fog #RL20F (use red bulb)

£10 each (£12 inc vat)

REVERSE #RL20R £10 each (£12 inc vat)

WIRING CONNECTOR PLUG for any above:

2 PIN #PLUG2

3 PIN (stop & tail) #PLUG3

£4 each (£4.80 inc vat)



CHROME BEZELS 122mm dia.

CHROME #BEZC

RED #BEZR

AMBER #BEZA

£5 each

(£6 inc vat)



SINGLE ROUND CARBON EFFECT PLINTH 120mm diameter x 65mm high.

(Shown fitted with a red #RL17)

#HOU1 £12 each (£14.40 inc vat)

SINGLE ROUND BLACK 120mm diameter x 65mm high

#HOU1BK £10 each (£12 inc vat)



TWIN ROUND HOUSINGS 295mm x 115mm 70 high (shown below with a clear #RL20 and 60mm red reflector)

CARBON EFFECT

#HOU2 £22 each (£26.40 inc vat)

TWIN ROUND BLACK

#HOU2BK £22 each (£26.40 inc vat)



THESE HOUSINGS CAN BE CUT AT AN ANGLE TO MOUNT THE LAMPS VERTICALLY ON A SLOPING REAR PANEL. THE REAR EDGE HAS BEEN TRIMMED WITH OUR #TRMU2 AND THE WHOLE ASSEMBLY MOUNTED TO THE PANEL WITH M3 STAINLESS STUDDING AND NUTS. THE TWIN HOUSINGS BELOW CAN BE CUT SIMILARLY.

HOUSING FOR 125mm DIAMETER

LAMPS Gloss Black moulded ABS housing for 125mm diameter rear lamps. Shown below with a #RL53. Moulded from 2mm thick ABS sheet it's mounting face diameter is 130mm. This means that a 125mm diameter lamp will sit nicely on the edge of the moulding radius. The height of the housing is 60mm so you can trim it to mount on an angled rear panel up to 20° off vertical. Housing is shown drilled for a #RL53 but will be supplied un-drilled.

MOUNTING TIPS: The trimmed edge can be fitted with our #TRMU2 rubber edging trim giving a good contact point with your panel. The housing can be mounted with long studs and / or spacing tubes through the panel.

#HOU125 £8 each (£9.60 inc vat)



SEE HINTS & TIPS SECTION AT THE BACK FOR HOW TO CUT HOUSINGS AT AN ANGLE

123mm DIAMETER REFLECTOR LAMP HOUSING FOR 95mm LAMPS

'E1' Marked, Surface mounting with a 97mm diameter x 22mm deep recess for 95mm diameter rear lamps. Multiple mounting holes. Weight 68gms.

HOUSING ONLY. LAMPS NOT INCLUDED

#REF122 £12 each (£14.40 inc vat)



EXAMPLES



SHOWN WITH #RL17ST



SHOWN WITH #RL61C

NUTS BOLTS & WASHERS MANY SIZES AVAILABLE



ANGLED TWIN ROUND LAMP HOUSING

202mm x 114mm 82 maximum front to back. 12 degree angle for mounting on sloping rear panels. Shown below with a clear #RL57 and RLT12 fitted. Can be painted.

#HOU3 £28 each (£33.60 inc vat)

PARALLEL TWIN ROUND LAMP HOUSING

Same height and width as #HOU3 but 60mm front to back

#HOU4 £24 each (£28.80 inc vat)



PLINTH Simple addition for surface mounting lights. Only a 12mm central hole in your panel required for wiring. Moulded ABS. 100mm diameter x 24mm high. 4 x 5mm fixing holes @ 66mm centres. 45mm hole in back. ACCEPTS OUR #RL7 to 12 and with a little simple modification (remove the fixing projections on the inside), our #RL41, and 42.

#PLINTH £4.50 (£5.40 inc vat)



RECESSED PLINTH Here's another option for mounting your 95mm rear lights. Just cut a hole 88mm diameter in your panel and bond or screw-in the plinth. The lamp is then fixed to the plinth with two small self-tappers. Height of plinth above surface is just 8mm. Maximum diameter 99mm. Rear projection 16mm.

#PLINTH2 £4.50 (£5.40 inc vat)



6 to 60mm STEPPED HOLE CUTTER

Excellent quality. Cut clean neat accurate holes in Sheet Steel, Aluminium, Wood and GRP. (Not stainless). Note: A little light oil will make a cleaner cut and prolong the life of the cutting edge. Use very slow drill speed for larger diameters.

Weight 610 gms
6mm to 60mm
(in 5mm steps)
12mm shank

#STEP660 £19 (£22.80 inc vat)



This range of 80mm diameter x 19mm deep lamps are discreet but powerful and can be surface mounted on any flat panel or mounted in our triple housing #803MB with the 3M double sided adhesive pad. Each lamp has a 12mm diameter x 4mm high wiring boss on the rear for location in a 12mm hole. All flyleads are 300mm long.

80mm LED ROUND SELF ADHESIVE RED LENS STOP TAIL 'E9' Marked.
WIRING: WHITE: neg.12 volt. RED - Stop.
BROWN: Tail. Weight 58gms.
#RL143 £11 (£13.20 inc vat)



CLEAR LENS VERSION STOP TAIL 'E9' Marked.
WIRING: WHITE: neg.12 volt. RED - Stop.
BROWN: Tail. Weight 58gms.
#RL142 £11 (£13.20 inc vat)



80mm LED ROUND SELF ADHESIVE AMBER LENS INDICATOR 'E9' Marked.
WIRING: WHITE: neg.12 volt.
YELLOW: + 12 volt. Weight 58gms.
#RL138 £11 (£13.20 inc vat)



CLEAR LENS VERSION INDICATOR 'E9' Marked.
WIRING: WHITE: neg.12 volt.
YELLOW: + 12 volt. Weight 58gms.
#RL139 £11 (£13.20 inc vat)



80mm LED ROUND SELF ADHESIVE RED LENS REAR FOG 'E9' and 'F1' Marked. WIRING: WHITE: neg 12 volt
BLUE: + 12 volt
#RL140 £19 (£22.80 inc vat)



CLEAR LENS VERSION REAR FOG 'E9' and 'F1' Marked.
WIRING: WHITE: neg 12 volt
BLUE: + 12 volt
#RL141 £19 (£22.80 inc vat)



80mm LED ROUND SELF ADHESIVE REVERSE LAMP 'E9' Marked.
 WIRING: WHITE: neg.12 volt.
 BLACK: + 12 volt
#RL144 £19 (£22.80 inc vat)



CABLE JOINERS HEAT-SHRINK, GLUE & SOLDER RED For wires up to 2.5mm diameter. **#HSSCR** £5 pa of 10 (£6 inc vat)



BLUE For wires up to 4.5mm diameter. **#HSSCBU** £5.50 pack of 10 (£6.60 inc vat)



YELLOW For wires up to 5.5mm diameter. **#HSSCY** £6.50 pack of 10 (£7.80 inc vat)



GLOSS BLACK TRIPLE MOUNT HOUSING PANEL FOR 80mm LED ROUND SELF ADHESIVE LAMPS
 Size 280mm x 100mm x 20mm. Two 5mm mounting holes at 230mm centres.
 NOTE: LAMPS NOT INCLUDED. SHOWN FOR ILLUSTRATION ONLY.
#8030MB £5 (£6 inc vat)



CRIMP AND HEAT SHRINK BUTT CONNECTOR PACK
#CHSBPAK £5 (£6 inc vat)



HEAT GUN
 2000 WATTS
#HGUN £16
 (£19.20 inc vat)

DUAL CONCENTRIC LED REAR LAMPS
 Mix and Match with these 95mm Outer rings and 55mm inner lamps.

'E11' marked. 98mm overall diameter. Fits in a 93mm diameter hole. 22mm projection at rear, 14mm projection on front with inner lamp fitted.



95mm CLEAR STOP/TAIL OUTER RING
#LED95ST £30 each (£36 inc vat)



95mm CLEAR INDICATOR OUTER RING
#LED95IND £20 each (£24 inc vat)



95mm CLEAR LENS REAR FOG OUTER RING #LED95RFC £25 each (£30 inc vat)



95mm REFLECTOR OUTER RING #LED95REF £8 each (£9.60 inc vat)



55mm CLEAR. REAR FOG 'E' marked and 'F' marked. 12v / 24v. 4 Watt #LED55RFC £39 each (£46.80 inc vat)



LIGHTS RED

55mm REVERSE 'E1' Marked 12v 4 Watt. With Heatsink. Front projection from mounting plate 35mm. Rear projection from mounting plate 30mm #LED55REV £39 each (£46.80 inc vat)



55mm DIAMETER INNER LAMPS

Use these 55mm diameter lamps either with the 95mm outer ring lamps or as stand-alone lamps. In the picture below three are 'frenched-in' on the rear panel of a Raw Fulcrum. They can also be surface mounted or rear-mounted through a 55mm hole. They're very bright, 'E' marked, and only 38mm front to back. Rear Fog, Reverse and Daytime Running Lights have an integral heat-sink and are 76mm front to back. The backplate has three 5mm mounting holes on a 70mm PCD. Sealed for life. 12 / 24 volt..

1. AMBER INDICATOR

#LED55IND £55 pair (£66 inc vat)

2. RED STOP/TAIL

#LED55ST £55 pair (£66 inc vat)

3. CLEAR INDICATOR

#LED55INDC £55 pair (£66 inc vat)

4. CLEAR STOP/TAIL

#LED55STC £55 pair (£66 inc vat)



55mm REAR FOG 'E1' and 'F' marked 12v / 24v. 4 Watt #LED55RF £39 each (£46.80 inc vat)



NOTE: THE LIGHT FROM BOTH THESE REAR FOG LAMPS ABOVE EMITS FROM THE CENTRE LED. THE RING OF SMALL LENSES AROUND THE EDGE DO NOT ILLUMINATE. SEE ILLUMINATED PICTURE BELOW



SLIMLINE LED STOP /TAIL / INDICATOR REVERSE 'E4' marked. HANDED PAIR
 Hidden mounting. The moulded black plastic housing is surface-mounted to your panel and the LED lamp unit just snaps into it. Maximum overall dimensions 200mm (8") x 50mm (2") x 28mm deep (1.12"). 800mm pre-wired fly leads. Two 6mm mounting holes @ 175mm centres. Works on 10 volt to 30 volt supply. Weight 460gms pair.
#RL103 £60 pair (£72 inc vat)



SMALL LED REAR LAMPS STOP/TAI/ INDICATOR 120mm x 38mm x 20mm front to back 'E9' Marked. Surface mounting. Two 4mm mounting holes at 108mm centres. 12 - 24 Volt. 300mm flylead
#RL102 £66 pair (£79.20 inc vat)



SPLIT SLEEVING CABLE PROTECTION
 Tough Nylon sleeving to protect and tidy your cables. Very flexible and split along its entire length for simple installation. Just bind with insulation tape every few inches when the job's complete. 3 Sizes:
8.5mm I.D.(11.5mm O.D.)
#SPLT1 £1.25 Mtr. (£1.50 inc vat)
13mm I.D. (16mm O.D.)
#SPLT2 £1.50 Mtr. (£1.80 inc vat)
21mm I.D. (25mm O.D.)
#SPLT3 £2 Mtr. (£2.40 inc vat)



LED REAR LAMPS STOP/TAI/ INDICATOR WITH REFLECTOR 158mm x 81mm x 32mm front to back 'E4' Marked. Surface mounting. Lens unit snaps into detachable mounting housing. Two 6mm mounting holes at 100mm centres. 10 -30 Volt. 400mm flylead with multi-pin connector half way along. Weight 600gms pair.
#RL101 £60 pair (£72 inc vat)



Watch us on
You Tube
 Dozens of instruction and demonstration videos. Just type **CAR BUILDER SOLUTIONS** in the You Tube search box

This item is explained on our
You Tube
 channel

WE TRY HARD TO PUBLISH ALL THE INFORMATION YOU NEED TO CHOOSE THE CORRECT PART, FIRST TIME. IF YOU NEED HELP, PLEASE ASK

LED STOP TAIL INDICATOR LIGHT

'E20' Marked. 12v / 24v. Surface mount with rubber gasket. Size: 107mm x 45mm x 22mm Two 4mm mounting holes at 90mm centres. STOP - 1.4 Watt, IND - 3 Watt, TAIL - 0.2 Watt.
 WIRING: WHITE - Earth, YELLOW - Indicator, STOP - Red, SIDE - Black.
 Weight 100 gms. 350mm fly leads.
#RL126 £25 each (£3 inc vat)



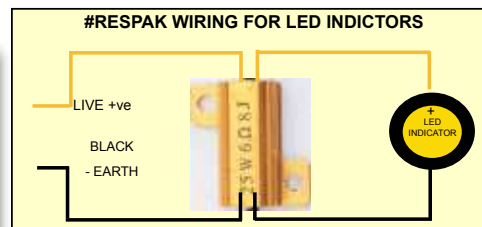
LED REAR FOG / REVERSE 'E9', 'F1' and 'AR' marked. Surface mount with two M4 x 12mm studs at 146mm centres. Size: 165mm x 67mm x 30mm. 12 to 24 volt operation. REVERSE - 1.4 Watt. REAR FOG - 1.7 Watt. Pre-wired with 20mm flylead. Foam rubber gasket, nuts and washers. Weight 170 gms.
#RL112 £18.50 each (£22.20 inc vat)
 WIRING: BLUE - Earth, RED - Fog, GREEN - Reverse.



STOP, TAIL and INDICATOR 'E9' marked. Surface mount with two M4 x 12mm studs at 146mm centres. Size: 165mm x 67mm x 30mm. 12 to 24 volt operation. TAIL- 0.5 Watt. STOP - 2 Watt. INDICATOR - 2.5 Watt. Pre-wired with 20mm flylead. Foam rubber gasket, nuts and washers. Weight 170 gms.
#RL111 £18.50 each (£22.20 inc vat)
 WIRING: BLUE - Tail, RED - Stop, GREEN - Indicator, WHITE - Earth.



25 WATT RESISTOR PACK One required for each LED indicator lamp if you're using regular flasher relays (non-electronic or LED relays). 3.5mm male and female bullet terminals. Size 28mm x 25mm x 14mm high. Two 3.5mm mounting holes. Leads 150mm long. 6 Ω resistance.
#RESPAK £8.80 each (£10.56 inc vat)



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT www.carbuilder.com

RECTANGULAR LED ALL IN ONE REAR LAMP IVA OK 'E9'

Marked. Stop, Tail, Indicator and Reflector. Size 190mm x 50mm x 28mm thick. Two 4mm mounting holes @ 173mm centres. 500mm long flylead. Foam rubber mounting gasket. Will operate from 9 volts to 33 volts. Weight 400gms pair. **#RL88 £65 pair** (£78.00 inc vat)
 Wiring: WHITE - 12v neg, GREEN - Indicator, BLUE - Tail, RED - Stop.



RECTANGULAR LED 5 FUNCTION REAR LAMP WITH REVERSE IVA OK 'E9'

Marked. Stop, Tail, Indicator, Reverse and Reflector. Size 190mm x 50mm x 28mm thick. Two 4mm mounting holes @ 173mm centres. 300mm long flylead. Foam rubber mounting gasket. Will operate from 10 volts to 33 volts. Weight 400gms pair. **#RL129 £65 pair** (£78.00 inc vat)
 Wiring: BLACK - 12v neg, GREEN - Ind, RED/BLUE - Tail, RED/GREEN - Stop GREEN/BROWN - Reverse.



SPIRAP CABLE BINDING

Low density, light weight Polyethylene cable binding. Temperature range -50 deg C to +85 deg C. Offers simple and fast method of protecting and reinforcing looms and even single cable runs. Wires can be exited from the loom at any point. 3 sizes. Sold per metre.

BLACK SMALL for cable bundles 1.5 - 7mm
#SPIR1 £1 Mtr. (£1.20 inc vat)



BLACK MEDIUM for cable bundles 5 - 20mm
#SPIR2 £1.25 Mtr. (£1.50 inc vat)



BLACK LARGE for cable bundles 10 - 40mm
#SPIR3 £1.50 Mtr. (£1.80 inc vat)



WHITE SMALL for cable bundles 1.5 to 7mm
#WSPIR1 £1 Mtr. (£1.20 inc vat)



WHITE MEDIUM for cable bundles 9 to 20mm
#WSPIR2 £1.25 Mtr. (£1.50 inc vat)



WHITE LARGE for cable bundles 18 - 40mm
#WSPIR3 £1.50 Mtr. (£1.80 inc vat)



COMPACT LED REAR LAMPS WITH SURROUND Hidden mounting. The rubber grommet/housing presses into an accurately cut hole in your panel - size 36mm x 132.8mm (card template included with each lamp.) Note: maximum panel thickness 2mm. The lamp unit is then simply pressed into the grommet locking it all in place. Maximum overall dimensions 145mm (5¾") x 48mm (1.9") x 21mm deep (0.82") 175mm pre-wired fly leads. Front projection 10mm. Rear projection 9mm. 12 volt to 24 volt.



FRONT SIDELIGHT AND INDICATOR 'E9 marked. **#FMIND2 £27 each** (£32.40 inc vat)



STOP / TAIL / INDICATOR CLEAR LENS 'E9 marked. **#RL66 £27each** (£32.40 inc vat)



REAR STOP / TAIL RED LENS 'E'9 marked. **#RL67 £20 each** (£24 inc vat)



INDICATOR AMBER LENS 'E'9 marked. Complies with ECE RoHS. **#RL68 £20 each** (£24 inc vat)



REAR FOG 'E'9 marked. Complies with ECE FO1. **#RL69 £32 each** (£38.40 inc vat)



REVERSE LAMP Mega-bright white LED's. 'E'9 marked. **#RL70 £34 each** (£40.80 inc vat)



COMPACT LED REAR LAMPS All only 133mm (5¼") x 37mm (1½") x 25mm deep (1") 175mm pre-wired fly leads. Hidden fixings. Fixing kit of plug inserts and screws included. Just drill two 6.5mm holes in your panel, insert the two nylon (rawl-type) fixing plugs, secure the black rear housing with the two stainless screws supplied and snap in the front light unit.



LED COMPACT REAR STOP / TAIL / INDICATOR CLEAR LENS 'E'9 marked. **#RL43 £27 each** (£32.40 inc vat)



WIRING: Brown - Tail, Red - Stop, Yellow - Indicator, White - Earth



LED COMPACT REAR STOP / TAIL RED LENS 'E'9 marked. **#RL52 £20 each** (£24 inc vat)



LED COMPACT INDICATOR AMBER LENS 'E'9 marked. Complies with ECE RoHS. **#RL49 £20 each** (£24 inc vat)



LED COMPACT REAR FOG 'E'9 marked. Complies with ECE FO1. **#RL50 £32 each** (£38.40 inc vat)



LED COMPACT REVERSE LAMP Mega-bright white LED's. 'E'9 marked. **#RL51 £34 each** (£40.80 inc vat)



COMPACT LED FRONT SIDE LIGHT AND INDICATOR LAMP 133mm (5¼") x 37mm (1½") x 25mm deep (1"). 175mm pre-wired fly leads. Hidden fixings. **#FMIND £24 each** (£28.80 inc vat)



BUTYL SEALER STRIP Think - very sticky Plasticene. As supplied to Ford, BMW and Mercedes. This is a synthetic, non curing, rubber based bonding and sealing strip. Developed for sealing lap joints, bolt-on panels and for sealing rear light clusters. Commonly used to bond polythene sheet to the inside of production car doors. Can be stretched out to 1 or 2 mm diameter. Kit Car uses are endless. From sealing Seven type rear wings to the body, bonding and sealing body to chassis, fixing badges and emblems, plugging holes, sealing light clusters to bodywork and seating fuel tanks in their cradles. 8mm diameter bead. Supplied in a 8 metre roll which will probably last you forever. NOTE: Not fuel resistant. **#BUTYL £12** (£14.40 inc vat)



WATERPROOF CONNECTORS

WATERPROOF MULTI-PIN CONNECTORS For extreme weather exposure. Male and Female housing with seals and terminals.

Top quality crimp terminals. Each pin 12 Amp. Max 1.5mm² cable.

1 WAY #WPMUL1 £5 each (£6 inc vat)

2 WAY #WPMUL2 £5.50 ea. (£6.60 inc vat)

3 WAY #WPMUL3 £6 each (£7.20 inc vat)

4 WAY #WPMUL4 £7 each (£8.40 inc vat)

6 WAY #WPMUL6 £9 each (£10.80 inc vat)

SPARE TERMINALS PACK

10 Male, 10 Female and 20 silicone seals.

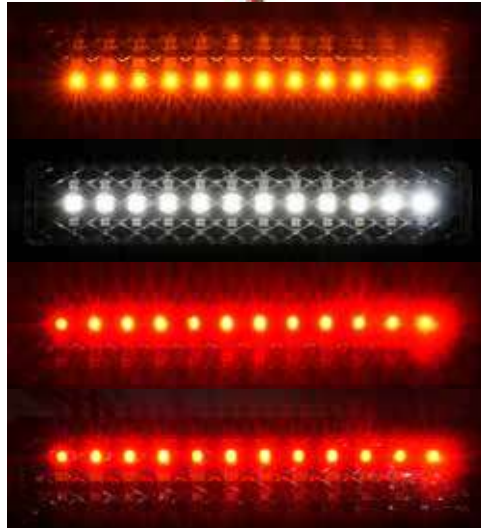
#WPTERP £5 (£6 inc vat)

NOTE: It is important that these terminals are crimped correctly and accurately. We recommend our **#CRPLT5** crimping tool.

SEE ELECTRICAL SECTION

SLIMLINE LED STOP /TAIL / INDICATOR / REVERSE LAMP 'E9' marked.

Hidden mounting. The moulded black plastic housing is surface-mounted to your panel and the LED lamp unit just snaps into it. Maximum overall dimensions 200mm (8") x 50mm (2") x 28mm deep (1.12") 380mm long pre-wired fly leads. Two 6mm mounting holes @ 160mm centres. 12 volt to 24 volt. Weight 150gms each.
#RL99 £44 each (£52.80 inc vat)



SLIMLINE LED STOP /TAIL / INDICATOR LAMP 'E9' marked.

Hidden mounting. The moulded black plastic housing is surface-mounted to your panel and the LED lamp unit just snaps into it. Maximum overall dimensions 200mm (8") x 50mm (2") x 28mm deep (1.12") 380mm pre-wired fly leads. Two 6mm mounting holes @ 160mm centres. 12 volt to 24 volt.
#RL71 £30 each (£36.00 inc vat)



SLIMLINE LED REVERSE LAMP

'E11' marked Hidden mounting. The moulded black plastic housing is surface-mounted to your panel and the LED lamp unit just snaps into it. Maximum overall dimensions 200mm (8") x 50mm (2") x 28mm deep (1.12") 380mm pre-wired fly leads. Two 6mm mounting holes @ 160mm centres. 12 volt to 24 volt.
#RL82 £45 each (£54 inc vat)



SLIMLINE LED REAR FOG LAMP 'E9' and 'F1' marked

#RL83 £38 each (£45.60 inc vat)



WE STOCK A WIDE SELECTION OF WIRE AND CABLE



237mm SEQUENCING INDICATOR 'E20' Marked.

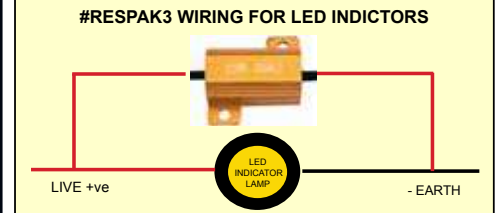
This sealed for life lamp has a rubber gasket for mounting on a flat surface. Overall size 243mm x 24mm x 25mm front to back. Two 4mm mounting holes on 212mm centres. 500mm flylead. WIRING: WHITE: neg.12 volt. BLACK - + 12 volt. POWER CONSUMPTION - 8.6W 12 volt / 24 volt. Weight 102gms.

NOTE: The internal sequencing electronics of the indicator in this lamp needs NO additional relay. Your existing indicator relay is all you need. SEE OUR ONLINE VIDEO OF THE SEQUENCING IN ACTION **#RL137 £31** (£37.20 inc vat)



25 WATT RESISTOR PACK If you're changing your 21 watt indicator bulbs from regular to LED but you're retaining your original flasher relays you'll need one of these for each bulb. Just connect in parallel, across the bulb. Size 28mm x 25mm x 14mm high. Two 3.5mm mounting holes. Leads 150mm long. 6 Ω resistance.

#RESPAK3 £6 each (£7.20 inc vat)



BEFORE YOU PLACE AN ORDER PLEASE CHECK OUT OUR TERMS AND CONDITIONS AT THE FRONT AND BACK OF THIS CATALOGUE

SEE MORE, BIGGER, HI-RES PICTURES ONLINE AT www.carbuildersolutions.com

SLIMLINE MINI REAR FOG LAMPS E9 and 'F' Marked.

Surface mount with 3M double sided adhesive pad. Stainless self-tapping screws also included. Size 90mm x 308mm x only 10mm thick. Two, 4mm holes at 78mm centres.

CLEAR LENS VERSION (ILLUMINATES RED)

#MLEDRFC £17.50 each (£21 inc vat)



RED LENS VERSION E9 and 'F' Marked

#MLEDRF £17.50 each (£21 inc. vat)



130mm x 35mm SELF ADHESIVE STOP TAIL INDICATOR LAMP

E9 Marked. Only 130mm x 35mm x 10mm thick.

Two, 4mm, counter-bored 4mm mounting holes at 120mm centres.

Peel-off 3M self-adhesive foam backing pad.

WIRING: WHITE - Earth -12v. RED - Stop. BROWN - Tail.

YELLOW - Indicator. **#RL145 £20 each (£24 inc vat)**



90mm x 35mm SELF ADHESIVE REVERSE LAMP E9 Marked

Only 90mm x 35mm x 10mm thick. Two, 4mm, counter-bored 4mm mounting holes at 78mm centres. Peel-off 3M self-adhesive foam backing pad. Stainless self-tapping fixing screws included. 100% waterproof. WIRING: WHITE - Earth -12v. BLACK +12/24 volts.

#MLEDEV £17.50 each (£21 inc vat)



LED REAR LIGHTS 'E4' Marked. Surface mount. 260mm x 24mm x 14mm. Two 4.7mm hidden fixing holes at 235mm centres. 300mm sealed flylead. 9 - 33 volts. Weight 93 gms.

SEQUENCING AMBER INDICATOR WITH BUILT IN FLASHER RELAY.

This unique lamp has a row of LEDs that illuminate in sequence on every flash. It also has a built in flasher relay so, if four lamps are used, front and rear, the wiring can be really simple. Can also be used as a replacement lamp with an existing flasher relay. See the video on our online listing. **#RL118 £30 each (£36 inc vat)**

AMBER INDICATOR 5 Watts #RL122 £20 each (£24 inc vat)



STOP / TAIL (3 Watts and 1 Watt) WIRING: Earth - White, STOP - Red, TAIL - Black #RL120 £20 each (£24 inc vat)

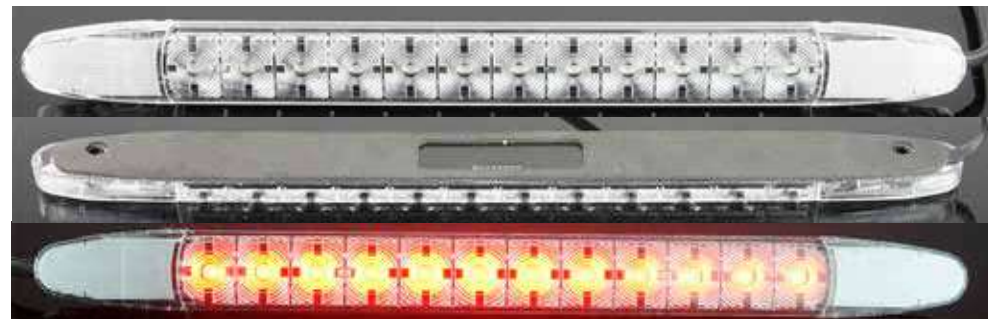
REAR FOG 'F1' marked. 4 Watts WIRING: Earth - White, +12V - Black #RL119 £20 each (£24 inc vat)



REVERSE (3 Watts) WIRING: Earth - White, +12v - Grey #RL121 £20 each (£24 inc vat)



LED THIRD BRAKE LIGHTS 'E4' Marked. 280mm x 25 x 11mm. Two, hidden 3.5mm mounting holes at 245mm centres. 1 Watt. **CLEAR LENS #LEDST13 £15.50 each (£18.60 inc vat)**



RED LENS #LEDST14 £15.50 each (£18.60 inc vat)



#RL118 WIRING



REAR LIGHTS 12 / 24 volt. Surface mount 237mm long x 20mm wide x 25mm high. Two, counter-bored, 4mm fixing holes at 212mm centres.



CLEAR LENS REAR FOG / REVERSE
E20 and 'F' marked. Reverse 1.5 Watt.
Rear Fog - 3.6 Watt.

Pre-wired with 2.4 mtr. cable.
White- Earth, Red- Reverse, Blue- Fog
#RL106 £40 each (£48 inc vat)



THIRD BRAKE LIGHT E20 marked.
1.3 Watt. 400mm fly leads.
#LEDST12 £18 each (£21.60 inc vat)



CLEAR LENS STOP, TAIL and INDICATOR
E20 marked. 1.2 Watt. Pre-wired with 2.4 mtr. long cable.
#RL105 £40 each (£48 inc vat)



4mm BRASS BULLET TERMINALS
100 each of Male and Female brass terminals and 100 each male and female plastic covers 15 Amps per terminal.
#BULTERPAK £14 pack of 400 pieces
(£16.80 inc vat)

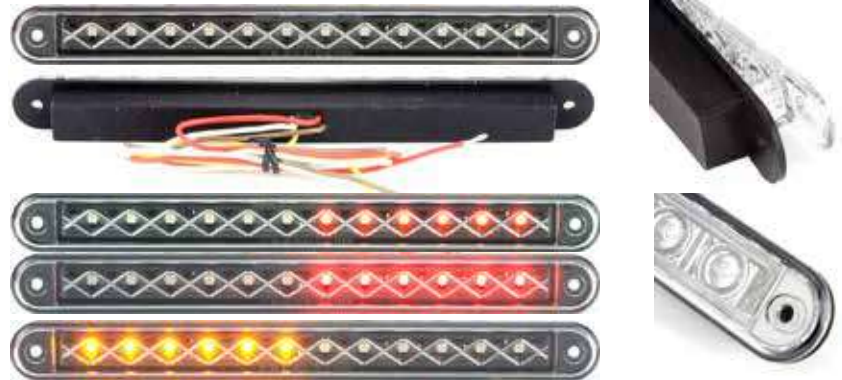


LED STOP, TAIL AND INDICATOR STRIP LIGHTS. Our popular strip lights are now available with Stop, Tail and Indicator in one lamp. You can use them in pairs each side of the car. Pre-wired with 400mm fly leads. Supplied with a removable white or black silicone gasket / rear cover for weatherproofing. And here's the clever bit. They're slightly concave by just a few millimetres so that, as you screw them in place they seal in the middle first then at the ends as you tighten the screws. Nice. All 24mm high. 5mm front projection. 18mm overall depth. Two lengths : 237mm or 380mm.

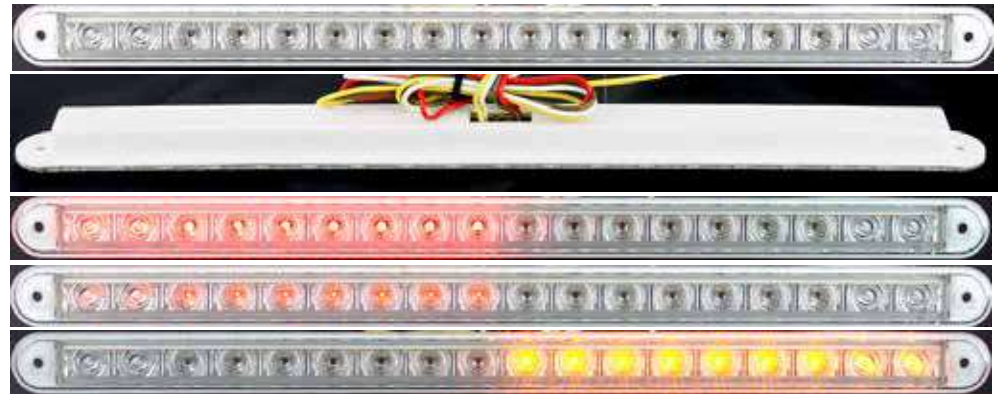
WIRING: Brown - Tail, Red - Stop, Yellow - Indicator, White - Earth
237mm long Two 4mm fixing holes at 214mm centres. Fits in a cut-out 202mm x 18mm.
237mm WHITE STOP TAIL INDICATOR #LEDSTI237W £20 each (£24 inc vat)



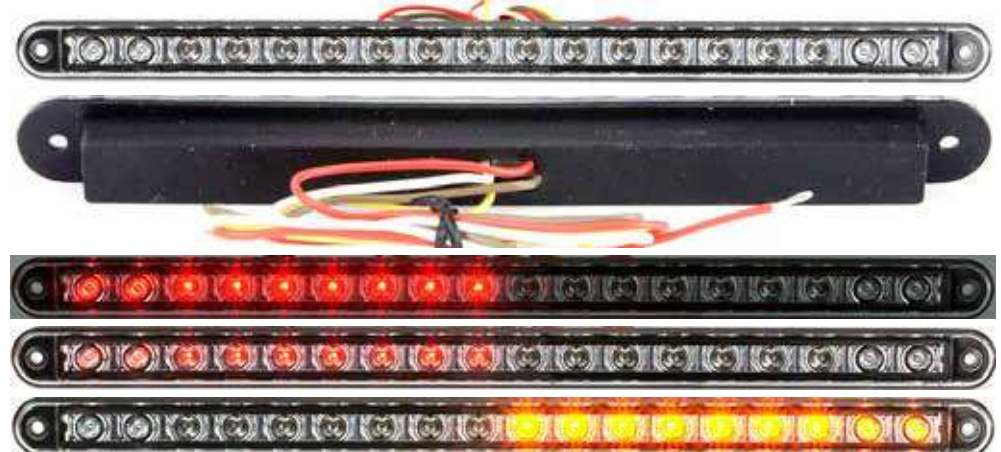
237mm long Two 4mm fixing holes at 214mm centres. Fits in a cut-out 202mm x 18mm.
237mm BLACK STOP TAIL INDICATOR #LEDSTI237B £20 each (£24 inc vat)



380mm long. Two 4mm fixing holes at 360mm centres. Fits in a cut-out 347mm x 18mm.
380mm WHITE STOP TAIL INDICATOR #LEDSTI380W £26 each (£31.20 inc vat)



380mm long. Two 4mm fixing holes at 360mm centres. Fits in a cut-out 347mm x 18mm.
380mm BLACK STOP TAIL INDICATOR #LEDSTI380B £26 each (£31.20 inc vat)



LED STOP AND TAIL STRIP LIGHTS. Here's an unusual light. 'E'9 marked, compact strip lights with both stop and tail function. You can use them in pairs on each side of the car or as a single, third light in the centre. Pre-wired with three, 400mm fly leads. Supplied with a removable white silicone gasket / rear cover for weatherproofing. And here's the clever bit. They're slightly concave by just a few millimetres so that, as you screw them in place they seal in the middle first then at the ends as you tighten the screws.

All 24mm wide. 5mm front projection. 18mm overall depth.

237mm long Two 4mm fixing holes at 214mm centres.

Fits in a cut-out 202mm x 18mm.

380mm long. Two 4mm fixing holes at 360mm centres.

Fits in a cut-out 347mm x 18mm.

237mm STOP ONLY #LEDSTOP237 £19.50 each (£23.40 inc vat)

237mm STOP/TAIL #LEDST237 £19.50 each (£23.40 inc vat)

237mm STOP/TAIL CLEAR LENS #LEDST237C £19.50 each (£23.40 inc vat)

237mm INDICATOR #LEDIND237 £19.50 each (£23.40 inc vat)

237mm REVERSE #LEDREV237 £19.50 each (£23.40 inc vat)

380mm STOP/TAIL. #LEDST380. £28.50 each (£34.20 inc vat)

380mm INDICATOR #LEDIND380 £28.50 each (£34.20 inc vat)

380mm REVERSE #LEDREV380 £28.50 each (£34.20 inc vat)



WHITE ABS FRAME

FOR OUR 237mm LED LIGHTS Overall dimensions 258mm x 45mm x 14mm.

#SM237W £4 (£4.80 inc vat)

FOR OUR 380mm LED LIGHTS Overall dimensions 403mm x 45mm x 14mm.

#SM380W £4.50 (£5.40 inc vat)



BLACK ABS FRAME

FOR OUR 237mm LED LIGHTS Overall dimensions 258mm x 45mm x 14mm.

#SM237B £4 (£4.80 inc vat)

FOR OUR 380mm LED LIGHTS Overall dimensions 403mm x 45mm x 14mm.

#SM380B £4.50 (£5.40 inc vat)



CHROME ABS FRAME

FOR OUR 237mm LED LIGHTS Overall dimensions 258mm x 45mm x 14mm.

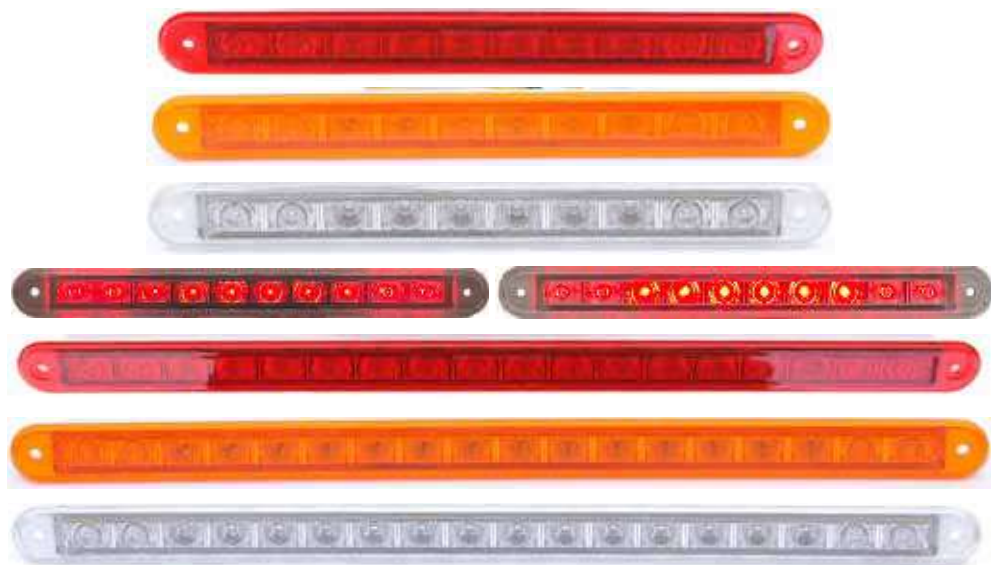
#SM237C £5 (£6 inc vat)

FOR OUR 380mm LED LIGHTS Overall dimensions 403mm x 45mm x 14mm.

#SM380C £7 (£8.40 inc vat)



WIRING: Brown - Tail, Red - Stop, Yellow - Indicator, White - Earth, Black - +ve



SURROUNDS FOR LED 237 SERIES LAMPS

Beautifully moulded ABS frames that will allow surface mounting of two of our 237 series LED lamps. e.g. - Indicator and Stop/Tail.

Overall dimensions 260mm x 81mm x 14mm.

Supplied with four mounting screws.

BLACK #237SURB £6 each (£7.20 inc vat)

CHROME #237SURC £8 each (£9.60 inc vat)



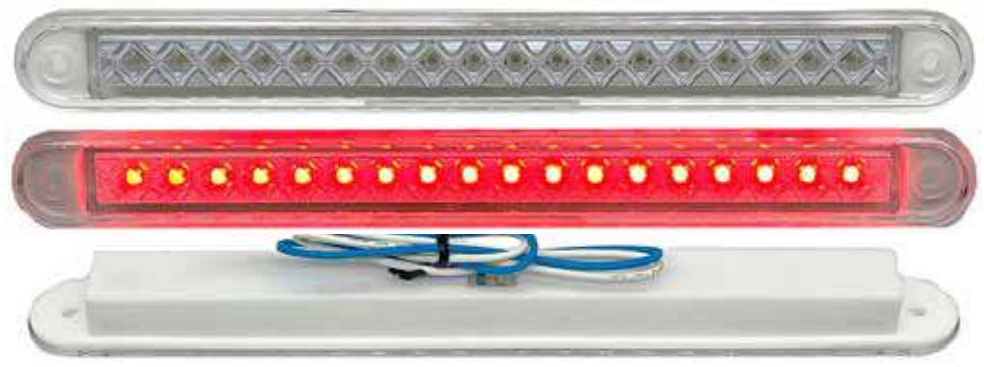
LED 237mm STRIP LIGHTS. E9 Marked. 12 Volt. Four new additions to our popular strip lights. Pre-wired with 400mm fly leads. Supplied with a removable white silicone gasket / rear cover for weatherproofing. Here's the clever bit. They're slightly concave by just a few millimetres so that, as you screw them in place they seal in the middle first then at the ends as you tighten the screws. All 24mm high. 5mm front projection. 18mm overall depth. 237mm long. Two 4mm fixing holes at 214mm centres. Fits in a cut-out 202mm x 18mm.

237mm CLEAR LENS INDICATOR WIRING: White - Earth. Yellow - +12V
#LEDIND237C £15 each (£18 inc vat)

SEQUENCING 237mm CLEAR LENS INDICATOR with sequencing - leds lighting one after the other along the lamp with every flash. (See Video online) WIRING: White - Earth. Yellow - +12V **#LEDIND237SC £22 each (£26.40 inc vat)**



237mm CLEAR LENS REAR FOG E9 Marked and 'F' Marked.
 WIRING: White - Earth. Blue - +12V **#LEDRF237C £19.50 each (£23.40 inc vat)**



237mm RED LENS REAR FOG E9 Marked and 'F' Marked
 WIRING: White - Earth. Blue - +12V **#LEDRF237 £19.50 each (£23.40 inc vat)**



SLIMLINE 640mm LED THIRD BRAKE LIGHT CLEAR LENS 'E4' marked. 12 volt to 24 volt. 1 Watt, 640mm (25 1/4") x 24mm (1") x 13mm (1/2"). 450mm pre-wired cable. Two concealed fixing holes at 480mm centres behind snap-on removable end caps. Peel-off self-adhesive pads on the back. Weight 170 gms. **#LEDST640C £46.50 (£55.80 inc vat)**



SLIMLINE 540mm LED THIRD BRAKE LIGHT RED LENS 'E4' marked. 12 volt to 24 volt. 1 Watt, 540mm (21") x 24mm (1") x 13mm (1/2"). 450mm pre-wired cable. Two concealed fixing holes at 480mm centres behind snap-on removable end caps. Peel-off self-adhesive pads on the back. Weight 170 gms. **#LEDST540 £44.50 (£53.40 inc vat)**



248mm COMBINED LED REAR FOG AND REVERSE LAMP This easy-to-fit, surface mounting lamp has six bright white LEDs for Reverse totalling 1.2 watts and twelve red LEDs totalling 2.5 watts for Rear Fog. It will work on 10 to 30 volts. Size 248mm long x 25mm high x 25mm front to back.

Two 4.5mm mounting holes at 230mm centres with white capping plugs. The Polycarbonate lens and ABS body are sealed for life with the 250mm long sleeved flylead. WIRING: RED - Fog + 12v
 WHITE - Reverse
 BLACK - Earth -12v

#RL131 £20 (£24 inc vat)



REAR FOG & REVERSE

NEW IVA REAR FOG RULES In June 2013 the rules for switching on and off your Rear Fog Lights changed. Now, the Rear Fog lamps must only be lit when the Dipped Beam, Main Beam or Front Fog lamps are lit. The Rear Fog Lamps may continue to operate until the other lights are switched off. The rear fog lamps must then remain off, even if the other lights are switched on again, until they are deliberately switched on again. This is to prevent people driving off to work in the morning with the rear fog lights glaring after forgetting to switch them off the foggy evening before. Just follow the instructions and connect the four wires of this simple little module into your lighting circuit and you'll comply. Job done.

Supply voltage: +9v to +14 v.
Circuit idle current: 3 to 5 ma.

Maximum switched load: 2 Amps 1 x 21 watt bulb)

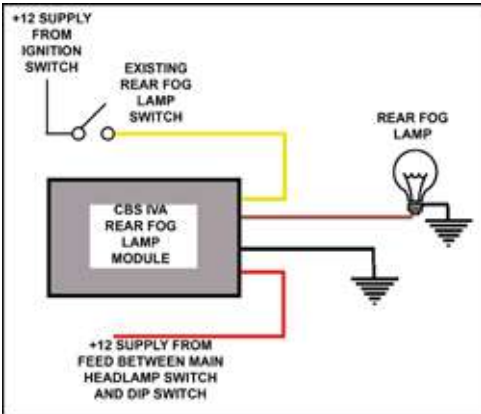
Case size: 40mm x 30mm x 20mm.
#RFLATCH £37 (£44.40 inc vat)

ALSO AVAILABLE - VERSION FOR USE WITH A MOMENTARY SWITCH

#RFLATCHM £37 (£44.40 inc vat)



FOLLOW INSTRUCTIONS CAREFULLY



'F' MARKED REAR FOG 'E11' marked 120mm x 80mm x 58mm. Very popular on seven type vehicles. Supplied with 12 Volt 21 Watt bulb. 430mm long sleeved wiring harness **#FL3F £14 each** (£16.80 inc vat)



REVERSE Surface mount 120mm x 80mm x 58mm. Very popular on seven type vehicles. Supplied with 12 Volt 21 Watt bulb. 430mm long sleeved wiring harness. **#REVL3 £8 each** (£9.60 inc vat)



BRACKET MOUNT REAR FOG 'E3' & 'F' marked. Bracket mount 86mm wide x 95 high including bracket x 50mm deep. Easy mount. With 12 Volt 21 Watt bulb. **#FL4 £7 each** (£8.40 inc vat)

BRACKET MOUNT REVERSE 'E3' marked. **#REVL4 £9 each** (£10.80 inc vat)



BRACKET MOUNT REAR FOG Adjustable angle mounting bracket. 135 x 75 x 60mm deep. Single bolt fixing. With 12 Volt 21 Watt bulb. 'E3' marked. 'E20' & 'F' marked. **#FL1 BRACKET MOUNT REVERSE #REVL1 £9 each** (£10.80 inc vat)

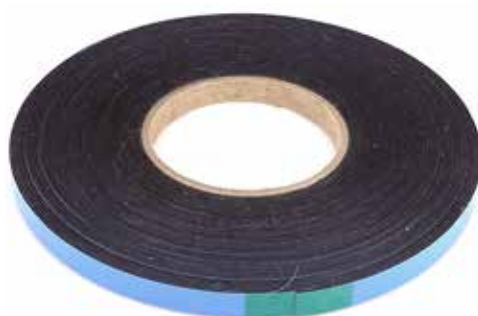


This item is explained on our **You Tube** channel

LED REVERSE LAMP 'E11' marked.
 Clear lens. 15 x LED's. 4 Watts. 100mm x 100mm x 29mm front to back. Surface mounting with hidden fixings. Lamp snaps in to black housing which has two 5mm fixing holes at 60mm centres. 300mm flyleads. 12 volt. WIRING: Black - Live +ve. White - Earth -ve. **#REVL9 £33 each** (£39.60 + vat)



HIGH BOND DOUBLE SIDED TAPE
 For best adhesion ensure both surfaces are clean, dry and free of wax and oil.
6mm #HBDST6 £10 (£12 inc vat)
12mm #HBDST12 £16 (£19.20 inc vat)
25mm #HBDST25 £23.50 (£28.20 inc vat)



LED REAR FOG LAMP 'F1 - E9' marked.
 Clear lens. 20 x LED's. 100mm x 100mm x 29mm front to back. Hidden fixings. Lamp snaps in to black housing which has two 5mm fixing holes at 60mm centres. 300mm flyleads. 12 volt. WIRING: Blue - Live +ve. White Earth -ve. **#FL9 £26 each** (£31.20 inc vat)



CHECK OUT OUR BUILD BLOGS
 GO TO www.carbuilder.com
 and click on 'BLOGS'



NORVIN



FOREMAN Mk4



BERKELEY T60

LED REVERSE LAMP 'E9' marked.
 Clear lens. 15 x LED's. 4.65 Watts. 80mm x 80mm x 25mm front to back. Two 5mm x 17mm long fixing studs at 50mm centres. Surface mounting. 300mm flyleads. 12 volt. WIRING: Black - Live +ve. White Earth -ve. **#REVL11 £17 each** (£20.40 inc vat)



LED REAR FOG LAMP 'E9' and 'F1' marked.
 19 x LED's. 2 Watts. 80mm x 80mm x 25mm front to back. Two 5mm x 17mm long fixing studs at 50mm centres. 300mm flyleads. 12 volt. WIRING: Blue - Live +ve. White Earth -ve. **#FL11 £17 each** (£20.40 inc vat)



BUDGET REVERSE LAMP 'E3' Marked.
Size 83mm x 74mm x 50mm. Surface
mounting. 2 holes @ 55mm centres.
12V/21W Bulb included. **#REVL7 £5 each**
(£6 inc vat)



BUDGET REAR FOG LAMP 'E3' & 'F'
Marked. Size 83mm x 74mm x 48mm
12V/21W. 2 mounting holes @ 55mm
centres. Bulb included.
#FL7 £5 each (£6 inc vat)



REAR FOG LIGHT 'E1' & 'F' marked
Surface Mounting. Size 90mm x 76mm x
54 deep. With 12 Volt 21 Watt bulb. 'E1'
marked. Chrome reflector.
#FL2 £8 each (£9.60 inc vat)



**STAINLESS STEEL REVERSE AND REAR
FOG LAMP** Polished stainless housing with
10mm dia. hollow bolt mount. 113mm wide x
55 high (99mm including bolt) x 72mm deep.
Glass lens size, 87mm x 37mm. Spherical
joint for angle adjustment. With 12 Volt 21
Watt bulb. 200mm flyleads. Weight 245gms.
REVERSE #REV6 £35 (£42 inc vat)



REAR FOG LAMP
#FL6 £35 (£42 inc vat)



**STAINLESS STEEL REVERSE AND REAR
FOG LAMP** Polished stainless housing with
a single M8 bolt, spherical fixing. Glass lens
115mm x 57mm. Lamp front to back 70mm.
Overall height including bolt 89mm.
H3, 12 volt, 20 Watt bulb. Weight 220gms.
#REVL12 £32 (£38.40 inc vat)



REAR FOG LAMP
#FL12 £32 (£38.40 inc vat)



ABS LAMP HOUSINGS
These moulded ABS housings
are designed to accept our
95mm diameter rear lamps and
our rectangular Rear Fog and
Reverse.

**SINGLE RECTANGULAR
CARBON EFFECT** (shown
fitted with a red #FL2)
102mm x 92mm x 58mm high.
#HOUSCB £12 each
(£14.40 inc vat)

**SINGLE RECTANGULAR
BLACK** 102mm x 92mm x
58mm high
#HOUSBK £10 each
(£12 inc vat)



THESE HOUSINGS CAN BE CUT AT AN ANGLE TO
MOUNT THE LAMPS VERTICALLY ON A SLOPING REAR
PANEL. THE REAR EDGE HAS BEEN TRIMMED WITH OUR
#TRMU2 AND THE WHOLE ASSEMBLY MOUNTED TO THE
PANEL WITH M3 STAINLESS STUDDING AND NUTS.

RAIN LIGHT

RAIN LIGHT 65 x 106 x 22mm thick
FIA approved. Moulded ABS housing with 72 mega-bright RED LED's fully embedded and weather-proofed. Two M5 x 14mm long mounting studs at 65mm centres with nuts and washers. 100mm fly leads RED +ve, BLACK -ve. 12 volt.
#RAIN3 £49 (£58.80 inc vat)



BUTYL SEALER STRIP This is a synthetic, non curing, rubber based bonding and sealing strip. Developed for sealing lap joints, bolt-on panels and for sealing rear light clusters. 8mm diameter bead. Supplied in a 8 metre roll which will probably last you forever. NOTE: Not fuel resistant.
#BUTYL £12 (£14.40 inc vat)



LOOKING FOR SOMETHING? CHECK OUT THE CONTENTS AT THE FRONT OR THE INDEX AT THE BACK

NUMBER PLATE LIGHTS

REAR NUMBER PLATE LIGHTS
Lightweight plastic. 'E' 11 marked. Including festoon bulb. Black or chrome finish. Size 110mm x 45mm
BLACK #RNOBK £7.50 (£9 inc vat)
CHROME #RNOCH £7.50 (£9 inc vat)



SURFACE MOUNT LED NUMBER PLATE LIGHT 'E' 4 Marked 80mm x 25mm x 10mm thick. Clever, prismatic lens that directs some of the light downward. Mounts through two counter-bored 4.5mm holes at 65mm centres. 12 Volt. 0.6 watt.
#RNOLED11 £16 (£19.20 inc vat)



WIPAC LED REAR NUMBER PLATE LIGHT 'E'9 marked. Moulded satin black ABS casing size 112 x 40 front to back x 48mm high. 300mm long flyleads. Foam gasket, mounting screws and blanking cap for front screw hole. Waterproof and sealed for life. 9 to 33 volts. Weight 105 gms. Two 5mm mounting holes in back panel at 85mm centres.
#RNOLED10 £13 (£15.60 inc vat)



LED



RECESS MOUNT LED NUMBER PLATE LIGHT 'E' 2 Marked 82mm x 32mm. Mounts through a 54mm x 22mm hole. Nicely made. Sealed front and back.
#RNOLED6 £19.50 (£23.40 inc vat)



LED

STAINLESS STEEL REAR NUMBER PLATE LIGHT 'E' 11 marked. Beautifully made three-piece, weather-proof lamp with pressed, polished stainless steel cover secured with a stainless steel screw. 500mm long, sleeved flylead with male bullet terminals. Two, M5 x 18mm long fixing studs on rear at 87mm centres. Size 110mm x 47mm x 39mm front to back (not including studs). Including 2 x 12 volt, 4 watt bulbs. Weight 180gms.

#RNOSS £21 (£25.20 inc vat)



COMPACT REAR NUMBER PLATE LIGHT 'E' 11 marked. Modern style, black moulded ABS. with integral clear lens. 12 volt, 5 watt festoon bulb included. Moulded base size 68mm to 38mm with two mounting screw holes. Height 33mm. Spade terminal connections.

#RNOCOM £6 each (£7.20 inc vat)



LED REAR NUMBER PLATE LIGHT 'E'11 marked. Six bright white LED's in sealed-for-life housing. Fully weather-proof. Moulded satin black ABS casing. Size 111 x 41 x 47mm high. 500mm long, sleeved red & black leads. Supplied with foam rubber gasket and two M5 plated fixing screws, nuts and washers. Two fixing holes at 86mm centres. Single stainless screw securing front cover to main lamp assembly. Weight 89gms.

#RNOLED8 £22 (£26.40 inc vat)



FLUSH REAR NUMBER PLATE LAMP 'E'1 marked with festoon bulb. 91mm x 29mm. Fits into a hole 60mm x 17mm. Two screw fixing at 70mm centres. Rubber seal. Spade connections on rear.

#RNOF £5 (£6 inc vat)



BLACK Body diameter 13mm x 14mm long. M8 mounting thread x 18mm long. 400mm cables with male bullet connectors.

NPBLBK £20 pair (£24 inc vat)



IVAOK

PRISMATIC LED NUMBER PLATE LAMP Six white LED's and a prismatic lens that deflect the light back towards the mounting surface. Body size only 26mm x 29mm x 17mm. Fix through a single 6mm hole.

'E'11 marked. Use them as number plate fixing bolts or simply mount them above your plate, pointing down. **SOLD SINGLY CHROME CASING #RNOLED5CH £14 each (£16.80 inc vat)**



BLACK CASING #RNOLED5BK £14 each (£16.80 inc vat)



LED REAR NUMBER PLATE / INTERIOR LIGHT Superb, tiny and bright. Ideal for discreet number plate illumination. Size 38mm x 20mm x 9mm. Supplied with angle mounting bracket, screws and double sided pads. 500mm lead.

#RNOLED £13.50 (£16.20 inc vat)



LED

NUMBER PLATE BOLT LIGHTS Secure and illuminate your number plate at the same time with these two chromed, threaded pillars with Super Bright LED's inside. Supplied with 300mm cable (Red - +ve, Black -ve) and nuts. Body diameter 14mm x 19mm long. M6 mounting thread x 16mm long.

CHROME #NPBL £12 pair (£14.40 inc vat)



BLACK Body diameter 13mm x 14mm long. M8 mounting thread x 18mm long. **#NPBLBK2 £15 pair (£18 inc vat)**



BLACK LED REAR NUMBER PLATE LAMP 'E11' marked. Die Cast aluminium, lacquered Black Satin finish. These are the nicest we've ever seen. Size 56 x 30 x 21mm. Four bright white LED's. 130mm fly leads. Two M4 screw mounting from rear @ 45mm centres.

#RNOLED7 £22 (£26.40 inc vat)



LED REAR NUMBER PLATE LAMP

'E11' marked. Die Cast aluminium, lacquered Satin finish Aluminium. These are the nicest we've ever seen. Size 56 x 35 x 22mm. Four bright LED's. 130mm fly leads. Two M4 screw mounting from rear @ 45mm centres.

#RNOLED4 £23 (£27.60 inc vat)

LED



PLATED BRASS NUMBER PLATE / INTERIOR LIGHT 'E9' Marked. Pressed brass case securing a sealed LED lamp on a rubber gasket with two countersunk screws at 52mm centres. Size 65mm x 30mm x 24mm top to base. 150mm long fly-leads. 0.6 Watts. BLACK - +12v. WHITE -neg. 12v. **#RNOLED12 £13** (£15.60 inc vat)



BLACK VERSION #RNOLED12BK £13 (£15.60 inc vat)



LED REAR NUMBER PLATE LAMP 'E11' marked. Moulded Satin Black ABS. Size 55 x 25 x 19mm. 56mm. Four bright LED's. 130mm fly leads. Two screw mounting from rear @ 45mm centres. **#RNOLED3 £12** (£14.40 inc vat)

LED



LUCAS TYPE EYEBALL NUMBER PLATE LIGHT A reproduction of the classic Lucas L550 lamp fitted to many old British Triumphs, Aston Martin, Lotus, MG etc. Chromed brass cover with two 3mm holes at 40mm centres. Plastic lens in a rubber housing. Fits in a 27mm hole. 500mm flyleads with one ring and one male bullet terminal. Accepts our 4 watt #BULB15 Size: 48mm x 34mm x 22mm high from mounting surface.

#RNOEYE £7.50 (£9 inc vat)



CLASSIC CHROME DIECAST MINI NUMBER PLATE LIGHT COVER / BOOT HANDLE Original part number 13H6990

Fits on a classic Mini boot lid above the number plate. Size: 245mm x 40mm high x 52mm front to back. Three mounting holes tapped 2 BA as on the original item. Weight 508 gms. **#MINPCOV £13** (£15.60 inc vat)



INTERIOR LIGHTS

INTERIOR LIGHT 45mm x 100mm x 20mm deep. Rock the lens to turn on/off or can be switched with your door courtesy switches. Just cut a hole 88mm x 30mm, install the frame and press in the light. 7 Watt festoon bulb included. **#INTLT £15** (£18 inc vat)



CHROME LED INTERIOR LIGHT

Stylish 12 volt interior light made from chromed plastic. Pre-wired with 100mm fly leads. Chrome end covers snap off to reveal two 3mm fixing holes at 66mm centres. Frosted effect plastic lens cover. **#LEDINT2 £12** (£14.40 inc vat)



HARD-WIRED RED / WHITE LED MAP LIGHT

Switch between bright white light for daytime operation or Red for night time reading at the push of a button. Overall length 460mm. Screw the base to your dash or kick-panel. 12 volt with sprung return rocker switch on the head of the lamp. Lamp head size 44mm diameter x 80mm long. 250mm fly leads. Very nice. **#MAPLT3 £31** (£37.20 inc vat)



LED MAP LIGHT 9 to 30 Volts. Very bright, 1.8 Watt, single LED. Press the lens to switch ON/OFF. Overall length 290mm. Two 5.8mm mounting holes. 700mm long flyleads. Head size 90 x 40 x 30mm. Weight 133gms. **#MAPLT4 £27** (£32.40 inc vat)



THESE LITTLE LED LAMPS ARE IDEAL FOR INTERIOR FOOTWELL OR GLOVE BOX ILLUMINATION

WHITE LED BOLT LIGHT Chromed 12mm Hex body. Fits through a 6mm hole in a panel up to 16mm thick. Front projection 16mm. 400mm long flyleads. **#LEDBL1 £5 pair** (£6 inc vat)



TERMINAL BLOCKS 12 way plastic connector strip with brass inserts, plated screws. Easily cut between segments.
60 AMP #TERBK60 £4.50 each (£5.40 inc vat)
30 AMP #TERBK30 £2.50 each (£3 inc vat)
15 AMP #TERBK15 £2 each (£2.40 inc vat)
10 AMP #TERBK10 £1.30 each (£1.56 inc vat)
5 AMP #TERBK5 £1.30 each (£1.56 inc vat)



SMALL CHAMFERED WHITE LED BOLT LIGHT

Chromed 10mm dia body. Fits through an 8mm hole in a panel up to 5mm thick. Front projection 4mm. 200mm long flyleads. **#LEDBL3 £5 pair** (£6 inc vat)



TAPERED HEX WHITE LED BOLT LIGHT

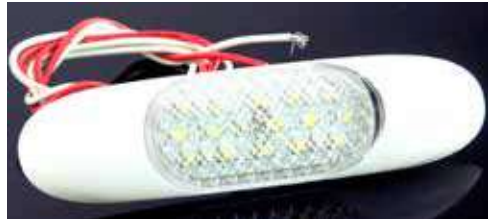
Chromed 12mm Hex body. Fits through a 6mm hole in a panel up to 16mm thick. Front projection 14mm. 600mm long flyleads. **#LEDBL2 £5 pair** (£6 inc vat)



WHITE LED INTERIOR LIGHT

'E 11' Marked. Stylish 12 volt interior light with white plastic trim caps. Pre-wired with 500mm fly leads. Trim caps snap off to reveal two 3mm fixing holes at 60mm centres. Frosted effect plastic lens cover. Overall size: 100mm x 25mm x 10mm high from mounting surface. 12 volt.

#LEDINT4 £12 (£14.40 inc vat)



300mm VERSION WHITE LED INTERIOR LIGHT

'E 11' Marked. Stylish 12 volt interior light with white plastic trim caps. Pre-wired with 500mm fly leads. Trim caps snap off to reveal two 3mm fixing holes at 60mm centres. Frosted effect plastic lens cover. Overall size: 300mm x 25mm x 10mm high from mounting surface. 12 volt.

#LEDINT12 £25 (£30 inc vat)



245mm LED INTERIOR LIGHT 'E6'

marked. Slimline, 5.4 Watts. 12volt/24volt surface mounting interior lamp. 245mm x 25mm x 16mm high. Removable white ABS end caps covering two 3mm hidden fixing holes at 230mm centres. One end cap has an integral, latching on/off push switch.

WIRING: WHITE: neg. 12/24volt.

BLACK - + 12/24volt. 150mm flyleads.

600 lumens. Weight 55gms.

#LEDINT8 £19 (£22.80 inc vat)



CHROME LED INTERIOR LIGHT 300mm

Stylish 12 volt interior light. Pre-wired with 100mm fly leads. Chrome end covers snap off to reveal two 3mm fixing holes at 266mm centres. Overall size 300mm x 25mm x 12mm high. Frosted effect plastic lens cover.

#LEDINT7 £30 (£36 inc vat)

6.4 WATT HIGH POWER LED INTERIOR LIGHT

Superb, powerful surface mounting lamp for vans, trucks, boats. 200mm x 60mm x 35mm with an extruded aluminium body / heatsink. Removable white ABS end caps covering two 3mm hidden fixing holes at 164mm centres. Just touch the glowing blue switch to turn the lamp on and off.

WIRING: BLACK: neg. 12volt.

RED - + 12volt. Weight 206gms.

#LEDINT9 £17 (£20.40 inc vat)



FLUSH MOUNTING LED LAMP

'E9' Marked Neat little lamps - just 25mm x 83mm with 6mm front projection and max. 12mm rear projection (not including cable). Rear of lamp fits through a rectangular hole 17mm x 55mm. Sealed with a nice, chamfered rubber gasket and secured through two 4.3mm, counter-bored holes at 66mm centres. Black press-in caps cover the screws (Screws not supplied) 500mm long flylead. Weight 35gms.

WIRING: WHITE + -12v. BROWN = + 12v.
NOTE: Unusually, on this lamp, the 'E' mark is on the rear of the lamp and cannot be seen when installed.

WHITE LIGHT Suitable for rear number plate, interior etc.

#RNOLED9 £8 (£9.60 inc vat)

ALSO AVAILABLE WITH AMBER LED's



ALL PURPOSE LED STRIP LAMP

Size 175mm x 25mm. 20mm overall depth. 12mm behind mounting face. Fit into a hole 145mm x 16mm. Two hole fixing. White rubber sealing gasket. Simple two wire connection. Ideal for Rear Number Plate, Interior light or Side Marker.

WHITE 145mm #APLED £14 (£16.80 inc vat)

LED



MOUNTING FRAME FOR 145mm APLED LAMPS

Moulded white Acrylic. Spaces the lamp for surface mounting. Just drill small holes for the fixings and wires. LAMP NOT INCLUDED 17mm deep for 145mm lamp

#APLEDF1 £4 (£4.80inc vat)



ALL PURPOSE LED STRIP LAMP

Size 90mm x 25mm. Two hole fixing. Fit into a hole 60mm x 16mm. Same specification as above.

WHITE 90mm #APLED2 £10 (£12 inc vat)



450mm (18") HEAVY DUTY FLEXIBLE

STICK-ON WHITE LED STRIP Great for daytime running lights, interior lights, number plate lights, glove box lights etc. Waterproof, flexible plastic housing with 200mm fly-leads on one end. 12mm wide and 6mm thick. Bright white LEDs are every 16mm. Peel off the backing and the strong, 3M adhesive will stick it securely in place.

#LEDSTRIPW2 £15 (£18 inc vat)



96mm BLUE LED MARKER LAMP

Six bright LED's. Size 96mm x 20mm x 8mm thick. Surface mount through two counter-bored 3.6mm holes at 86mm centres. Drill one 10mm hole for wires. Wires 300mm long. RED - +12v, BLACK - Neg 12V. Foam gasket on the back. Weight 18 gms.

#ML9620B £10 (£12 inc vat)



HEATSHRINK SELECTION BOX

Approximately 95 pieces. Blue, Yellow, Red and Black in 3.5mm and 6.5mm diameter x 150mm long. 2:1 shrink ratio.

#HTSHK2 £12 (£14.40 inc vat)



SEE MORE, BIGGER, HI-RES PICTURES ONLINE AT www.carbuilder.com

REFLECTORS

LUCAS REAR REFLECTOR Original, British Standard, 4-piece, snap together, LUCAS reflector with chrome rim, plastic lens, rubber backing mount and steel reinforcing washer. Single bolt fixing. Stainless nut and bolt and self tapping screw supplied. 52mm diameter x 15mm thick. Triumph, Land Rover etc.
#RRLU52 £12 each (£14.40 inc vat)



RED ROUND REFLECTORS
60mm diameter. 10mm thick
#REFRND £5 pair (£6 inc vat)



29mm ROUND REFLECTORS
7mm thick with self-adhesive backing pad. On black surround.
#RR29 £2 pair (£2.40 inc vat)



RED RECTANGULAR
75mm x 45mm . 9mm thick
#REFREC £5 pair (£6 inc vat)



60mm SELF-ADHESIVE REFLECTORS
PAIR 'E3' Marked 9mm thick with peel-off self-adhesive backing.
#REFRSA £4 pair (£4.80 inc vat)



95mm RED REFLECTOR E1 Marked.
95mm diameter x 24mm thick. Flat back. Two 5mm counter-bored mounting holes at 80mm centres.
#RR95 £8 (£9.60 inc vat)



63mm DIAMETER REFLECTORS
'E1' Marked IVA OK. 15mm thick with a single M5 x 15mm mounting stud with nut and washer. **#RIVA3 £6 pair** (£7.20 inc vat)



REFLECTORS 'E 11' marked. Size 96mm x 25mm x 10mm thick. Self-adhesive backing pad. Weight 22 gms.
#REF9625 £7 pair (£8.40 inc vat)



RED RECTANGULAR 'E9' Marked
126mm x 51mm x 7.3mm thick. 4mm countersunk holes at 113mm centres.
#REF10247 £5 pair (£6 inc vat)



RED RECTANGULAR 30 x 100mm
Self-adhesive backing pad. Maximum 8mm thick. **#RR30 £3 pair** (£3.60 inc vat)



AMBER ROUND 35mm Diameter
#RA35 £2 pair (£2.40 inc vat)



AMBER RECTANGULAR 30 x 100mm
#RA30 £3 pair (£3.60 inc vat)



AMBER HANDY 40 x 40mm
#RAH £1 pair (£1.20 inc vat)



HIGH BOND DOUBLE SIDED TAPE
Ensure all surfaces are clean, dry and free of wax and oil.
6mm #HBDST6 £10 (£12 inc vat)
12mm #HBDST12 £16 (£19.20 inc vat)
25mm #HBDST25 £23.50 (£28.20 inc vat)



BULBS AND HOLDERS



12 VOLT BULBS SOLD SINGLY

1. RED STOP/TAIL 21W / 5W staggered bayonet pins **#BULB1** £1 (£1.20 inc vat)
2. RED 21 W **#BULB2** £1 (£1.20 inc vat)
3. AMBER 21W **#BULB3** £1 (£1.20 inc vat)
4. CLEAR 21W **#BULB4** £1 (£1.20 inc vat)
5. CLEAR STOP/TAIL 21W/5W staggered bayonet pins **#BULB5** £1 (£1.20 inc vat)
6. H7 55W **#BULB6** £3 (£3.60 inc vat)
7. HEADLAMP H4 60/55W **#BULB7** £2.50 (£3 inc vat)
8. AMBER 23W **#BULB8** £1 (£1.20 inc vat)
9. CLEAR 10W **#BULB9** £0.70 (£0.84 inc vat)
10. CLEAR 5W 15mm dia. **#BULB10** £1 (£1.20 inc vat)
11. FESTOON 21W 43mm long 14mm dia. **#BULB11** £1 (£1.20 inc vat)
12. FESTOON 5W 38mm long 10mm dia. **#BULB12** £0.70 (£0.84 inc vat)
13. AMBER 5W CAPLESS **#BULB13** £0.70 (£0.84 inc vat)
14. CLEAR 5W CAPLESS **#BULB14** £0.70 (£0.84 inc vat)
15. CLEAR 4W **#BULB15** £0.70 each (£0.84 inc vat)
16. FESTOON 10W 38mm long 10mm dia. **#BULB16** £1 each (£1.20 inc vat)
17. AMBER 23W 9mm cap **#BULB17** £1.50 (£1.80 inc vat)
21. PANEL BULB 2 W capless 12mm long 4mm dia. **#BULB21** £0.70 (£0.84 inc vat)
22. HEADLAMP H1 55W **#BULB22** £3 (£3.60 inc vat)
23. CLEAR 2W 7mm cap **#BULB23** £0.70 (£0.84 inc vat)
24. CLEAR 21W double contact **#BULB24** £1 (£1.20 inc vat)
25. CLEAR 5W **#BULB25** £0.70 (£0.84 inc vat)
26. AMBER 8W **#BULB26** £0.70 (£0.84 inc vat)

SIX VOLT BULBS SOLD SINGLY

28. CLEAR 21W **#BULB28** £1 (£1.20 inc vat)
29. CLEAR STOP/TAIL 21W/5W staggered bayonet pins **#BULB29** £1 (£1.20 inc vat)
30. CLEAR 5W **#BULB30** £0.70 (£0.84 inc vat)
31. CLEAR 4W **#BULB31** £0.70 (£0.84 inc vat)
32. HEADLAMP H4 60/55W **#BULB32** £4 (£4.80 inc vat)

REPLACEMENT BULB FOR DURITE GAUGES

#GABULB £2 (£2.40 inc vat)



XENON H4 HEADLAMP BULBS

Pack of 2 12 volt 60 / 55 watt replacement H4 bulbs. Up to 130% more light on the road. **#130H4** £19 pair (£22.80 inc vat)

XENON H7 HEADLAMP BULBS

Pack of 2 12 volt 55 watt replacement H7 bulbs. Up to 130% more light on the road. **#130H7** £19 pair (£22.80 inc vat)



12mm DIA. PUSH-IN PLASTIC BULB HOLDER FOR CAPLESS BULBS

1/4" male spade terminals. (Accepts our #BULB14). **#BH12 £1** (£1.20 inc vat)



12mm DIA. PUSH-IN METAL BULB HOLDER FOR SINGLE CONTACT 9mm BAYONET BULBS

Single screw terminal. Body is earth. (Accepts our #BULB15) **#BH13 £3.50** (£4.20 inc vat)



12mm DIA. PUSH-IN PLASTIC BULB HOLDER FOR SINGLE CONTACT 9mm BAYONET BULBS

1/4" male spade terminals. (Accepts our #BULB15). **#BH14 £1.50** (£1.80 inc vat)



10mm DIA. PUSH-IN METAL BULB HOLDER FOR SINGLE CONTACT 7mm BAYONET BULBS

Single screw terminal. Body is earth. (Accepts our #BULB23) **#BH15 £2.10** (£2.52 inc vat)



BULB & FUSE PACK 18 x 12 volt bulbs and 12 x blade-type fuses **#BULBPAK £6** (£7.20 inc vat)

ALSO AVAILABLE WITH 1 x H4 60 / 55w and 1 x H7 / 55w Headlamp bulbs. All other contents identical.

#BULBPAK2 £6 (£7.20 inc vat)



BULB AND HOLDER Rubber holder with pre-wired 12 volt, 2 watt bulb. Mount from behind into a 12.5mm hole in a thin metal panel or from the front into a 13.5mm hole. 100mm long flyleads. **#BH7 £2 each** (£2.40 inc vat)



BULB HOLDER For single contact 9mm bulb caps with bayonet. (Like our #BULB15). Supplied with 2 x Lucas style in-line connectors and 4 crimp terminals. Presses into a 12.4mm diameter hole. **#BH5 £4.50** (£5.40 inc vat)



BULB HOLDER For small capless bulbs. (Like our #BULB14). Supplied with 2 x Lucas style in-line connectors and 4 crimp terminals. Press into a 16.5mm diameter hole. **#BH6 £4** (£4.80 inc vat)



BRASS BATTEN TYPE BULB HOLDER For single filament bulbs with 15mm cap and non-offset pins (BA15D - type). 40mm diameter base with three, 4mm mounting holes and screw earth tag. Height 32mm without bulb. Ceramic connector block with screw terminals. Accepts our bulb #BULB24 **#BH10 £4** (£4.80 inc vat)



BULB HOLDER WITH MOUNTING BRACKET For single filament, single contact 15mm diameter bulb cap. Bracket size 25mm high x 37mm with two, 4mm x 6mm mounting holes at 22mm centres. 100mm flylead for live supply. Earth through bracket. **BULB NOT INCLUDED**

ANGLED BRACKET **#BH8 £4** (£4.80 inc vat)

FLAT BRACKET **#BH9 £4.50** (£5.40 inc vat)



BULB HOLDERS

1. For single contact 9mm bulb caps. **#BH1 £1.50** (£1.80 inc vat)
2. For single filament, single contact 15mm diameter bulb cap. **#BH2 £2** (£2.40 inc vat)
3. For twin contact 15mm bulb cap with non-offset bayonet pins. **#BH3 £2** (£2.40 inc vat)
4. For twin contact 15mm bulb cap with offset bayonet pins. **#BH4 £2** (£2.40 inc vat)



PLANNING TO VISIT OUR STAPLEHURST SHOP? WE CAN HAVE IT READY CLICK and COLLECT ONLINE

MIRRORS

IVA HEADS - UP

Information from Revision 1 of the VOSA IVA MANUAL

1. The vehicle must have an offside exterior mirror fitted.
2. An interior mirror must be fitted
3. The vehicle must have a nearside exterior mirror fitted if the interior rear view mirror gives no view to the rear or is less than 70% light transmittance. If the interior rear view mirror does not provide any rearward vision then it's presence shall not be required.
4. All obligatory mirrors must be securely mounted to the vehicle to ensure that the field of view does not change or the view cannot be misinterpreted due to vibration..
5. All mirrors must be adjustable.
6. All mirrors must have an acceptable approval marking or have equivalent characteristics to a mirror approved for use on a vehicle of the same category. (CBS Note: Mirrors do not have to be necessarily 'E' marked.) The reflective surface must be enclosed in a protective housing.

Surfaces contactable by a 165mm diameter sphere (interior) or a 100mm diameter sphere (exterior) must have a 2.5mm radius except for fixing holes less than 12mm wide.

7. Except for mirrors fitted to left hand drive vehicles or those that do not protrude beyond the extreme outer edge of the vehicle, the nearside and offside mirrors must be able to rotate inwards towards the vehicle when a force of 10kg is applied to the extreme outer edge from both the front and rear and have an axis of rotation within 50mm of the mounting surface.

8. An interior mirror must be a minimum of 40mm high by 80mm long.

9. An exterior mirror must be a minimum of 40mm high and 70mm long and be able to incorporate a measurement parallel to the height of the rectangle at least 70mm in length within the lens.

10. The interior mirror must be adjustable from the normal driving position.

11. The obligatory offside mirror fitted to a vehicle with a right hand or central driving position must be adjustable from the driving seat. Alternatively, if knocked out of alignment, it must be capable of being returned to its former position without the need for adjustment.

12. An obligatory mirror must provide the required field of view (see VOSA manual)

NOTE: Our 'IVA OK' tags refer to the mirror characteristics only. Incorrect mounting and field of view may still result in failure.

BLACK MIRRORS Friction swivel mount. Spherical ball joint on body. Moulded ABS. Arm and mount are diecast aluminium. Rubber boot. Overall length 260mm. Convex glass maximum size 76mm x 118mm. 2 x M6 x 20mm long stud fixings @ 30mm centres on arm. Supplied with a wedge-shaped rubber washer for additional mounting versatility.

#M07BK £35 pair (£42 inc vat)



Here's one (without the rubber boot) fitted to a Vindicator. The owner said, 'I've tried loads of mirrors but finally, I'm able to see clearly what's behind me'.



BLIND SPOT MIRROR If you have large mirrors with room for these little domed mirrors, they could save you a little embarrassment at the least. Size 52mm diameter x 8mm thick with a peel-off self-adhesive pad on the back. Weight 27gms.

#BSMIR £3 (£3.60 inc vat)



BUILDER'S TIP. If you're mounting stalk mirrors on a thin panel you may wish to reinforce the mounting area by fitting a M8 stainless washer under the tapered locknut on the mirror stalk and / or on the inside, formed to match the shape of the panel.

CARBON FIBRE EFFECT MIRRORS

Beautifully sculptured aerodynamic moulded ABS body. Overall length 260mm. Convex glass maximum size 85mm x 133mm. 2 x 6mm holes @ 40mm pitch for bolt fixing on base. Swivel joint on inboard end of arm. Spherical ball joint on body. Arm and mount is die-cast aluminium.

#M08CA £45 pair (£54 inc vat)



LARGE STALK MIRROR Nice sturdy stalk mirror. 300mm end to end. 12mm diameter chromed steel shaft with M10 x 1.25 thread and lock nut. Ball joint at mirror body. Stalk can be rotated for either horizontal or vertical mounting. Mirror body chromed plastic size 144mm x 90mm. Convex glass.

#M17CH £26 pair (£31.20 inc vat)



STALK MIRROR Moulded plastic body with steel chromed stalk. Ball joint at mirror end and M8 mounting thread. Convex glass size 135mm x 77mm. Glass rocks within body. Overall size 310mm. Stalk swivels for mounting on a vertical or horizontal surface.
CARBON EFFECT #M09CA
CHROME #M09CH
Both £20 pair (£24 inc vat)



FLAT CHROME STALK MIRROR
 'E' Marked Chromed plastic mirror housing. Convex glass 134mm x 85mm max. Chromed steel stalk with M8 thread and tapered chrome lock-nut. Ball joint on mirror body to stalk. Stalk swivels with a lock-nut in the ball joint to allow simple mounting on a vertical or horizontal surface. Maximum overall length 270mm.
ALL CHROME #M11CH
£28 pair (£33.60 inc vat)



CHROME WITH CARBON PANEL
 As above **#M11CB £30 pair (£36 inc vat)**



RECTANGULAR STALK MIRRORS
 Flat glass. Head size 136mm x 90mm x 33mm thick. End to end dimension 315mm. M10 x 1.25mm thread with lock nut. The arm swivels on a ball joint at the head so you can mount them with the stalk thread horizontal or vertical.
#M31 £16 pair (£19.20 inc vat)



OVAL STALK MIRRORS 'E' Marked. IVA OK. Convex glass. Maximum head size 136mm x 92mm x 41mm thick. End to end dimension 305mm. M10 x 1.25mm thread with lock nut and moulded plastic cover. The arm swivels on a ball joint at the head so you can mount them with the stalk thread horizontal or vertical.
#M30 £16 pair (£19.20 inc vat)



STALK MIRRORS Long or short stalk. Short 200mm end to end. Long 260mm end to end. Glass maximum size 63mm x 95mm M8 mounting thread on end of steel stalk with tapered lock-nut.

Spherical ball joint between mirror body and stalk so stalk can be turned for vertical or horizontal mounting. Moulded ABS body. Choose from Chrome, Carbon Fibre effect, or Gloss Black. Sold as handed pairs.

CHROME LONG #M03CHL £10 (£12 inc vat)
BLACK LONG #M01BKL £10 (£12 inc vat)
CARBON LONG #M02CAL £10 (£12 inc vat)

CHROME SHORT #M03CHS £10 (£12 inc vat)
BLACK SHORT #M01BKS £10 (£12 inc vat)
CARBON SHORT #M02CAS £10 (£12 inc vat)



CHROME LONG STALK SHOWN AS VERTICAL MOUNT

SHORT STALK HORIZONTAL MOUNT

BLACK LONG STALK

CARBON SHORT STALK

76mm DIA. ROUND CHROME STALK MIRROR Handed pair. Flat glass with a spherical ball joint. Maximum end to end dimension 180mm. The 7mm diameter arm has an M8 x 1.25mm thread with a lock nut.
#M14RD £12 pair (£14.40 inc vat)



ROUND CHROME MIRROR WITH POST MOUNT Flat glass. Head size 105mm diameter. End to end dimension 315mm. M8 thread with two lock nuts. The arm has a swivelling ball joint at the head end and a threaded, rotating joint with a locknut at the mounting post end with a rubber covering sleeve. The mounting post has an M8 thread with a chrome locknut. There is also an M10 x 1.5mm threaded, 17mm hexagonal adapter that screws on to the M8 thread. Total maximum post height 82mm.
#M28 £22 pair (£26.40 inc vat)



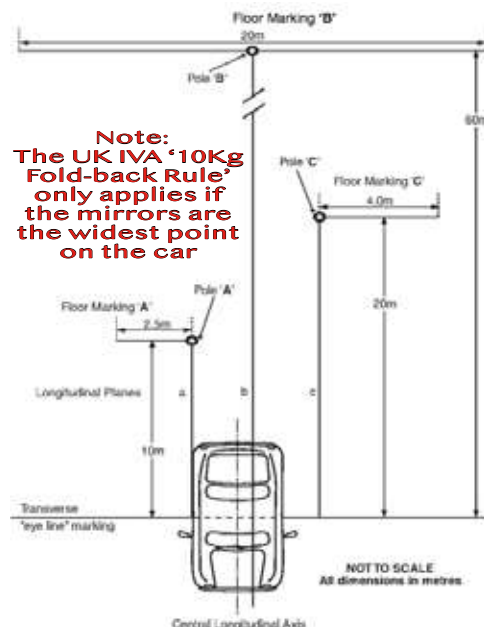
105mm DIA. ROUND CHROME STALK MIRROR Handed pair. Convex glass with a spherical ball joint. Maximum end to end dimension 285mm. The 10mm diameter arm has an M8 x 1.25mm thread with a lock nut.
#M20RD £14 pair (£16.80 inc vat)



123mm DIAMETER CHROME STALK MIRRORS Flat glass. Overall length end to end 310mm. Spherical joint between stalk and mirror head. M10 x 1.25mm thread with locknut. Weight 735 gms pair.
#M32 £22 pair (£26.40 inc vat)



IVA FIELD OF VIEW CHART



ROUND CHROME STALK MIRROR Flat glass. Head size 105mm diameter. End to end dimension 320mm. M8 thread with two lock nuts. The arm has a swivelling ball joint at the head end and a threaded, rotating joint with locknut in the middle for maximum mounting versatility.
#M29 £20 pair (£24 inc vat)



MIRROR REPAIR SHEET A flexible plastic sheet 210mm x 125mm (8" x 5") x 0.8mm thick. Easy to cut with strong scissors. Just cut to shape, stick over your broken or cracked mirror with the double-sided strips included then peel off the protective film from the front for an easy repair.
#MIREP £3 (£3.60 inc vat)



LONG STALK RACE STYLE STALK MIRROR 260mm maximum length corner to stalk mounting surface. Moulded plastic body size 112mm x 52mm x 54mm front to back. Glass size 110mm x 50mm.

Aluminium stem with spherical swivel and M6 x 30mm fixing stud. FLAT GLASS. Sold as a pair - left and right hand.

SATIN BLACK

#MF1BK £26 pair (£31.20 inc vat)

CARBON EFFECT

#MF1C £26 pair (£31.20 inc vat)



SHORT STALK RACE STYLE MIRROR Satin black. 195mm maximum length corner to stalk mounting surface. Moulded plastic body size 112mm x 52mm x 54mm front to back. Glass size 110mm x 50mm. Aluminium stem with spherical swivel and M6 x 30mm fixing stud. Sold as a pair - left and right hand. FLAT GLASS. Pair weight 255gms

#MF2 £15 pair (£18 inc vat)



SHORT STALK RACE STYLE MIRROR CARBON EFFECT

200mm length corner to stalk mounting surface. Moulded plastic body size 112mm x 52mm x 54mm front to back. Flat Glass size 110mm x 50mm. Aluminium stem with spherical swivel and M6 x 30mm fixing stud. Sold as a pair - left and right hand. FLAT GLASS.

Pair weight 273gms **#MF1CS £26 pair** (£31.20 inc vat)



RACE STYLE STALK MIRROR

190mm maximum length corner to end of stalk. Moulded plastic body size 116mm x 58mm x 52mm front to back. Convex glass size 110mm x 50mm. Aluminium stem with spherical swivel and M6 threaded fixing stud. Not handed - suitable for left or right mounting. Just insert a 3mm hex key through the small hole in the top to loosen the stalk locking screw. Rotate the stalk then re-tighten the stalk retaining screw.

SATIN BLACK

#M18BK £17 each (£20.40 inc vat)

CARBON EFFECT

#M18CA £17 each (£20.40 inc vat)



HIGH BOND DOUBLE SIDED TAPE

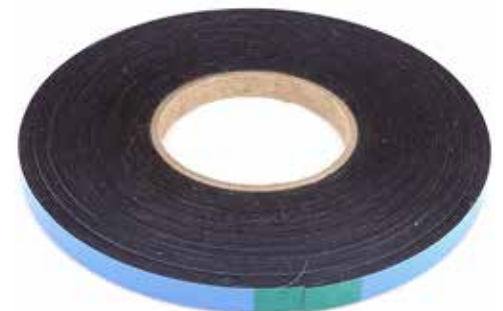
This High Bond tape is an OEM approved fixing for trims, number plates, spoilers, body mouldings, badges etc. 0.09mm thick - (just under 1mm). It is weather proof, UV proof and oil resistant. Bond strength increases over time. Available in three widths on 22 mtr long rolls.

NOTE: For maximum adhesion ensure both surfaces are clean, dry and free of wax and oil.

6mm #HBDST6 £10 (£12 inc vat)

12mm #HBDST12 £16 (£19.20 inc vat)

25mm #HBDST25 £23.50 (£28.20 inc vat)



SLIMLINE CHROME MIRROR WITH INDICATOR Nicely finished chrome and satin black head with built in 12 volt LED amber indicators. 270mm maximum length from end of head to stalk mounting surface. Head size 150mm x 90mm x 35mm front to back. Glass maximum dimensions 135mm x 80mm. Chrome steel stalk with ball joint at the head and M10 x 1.25mm thread, 30mm long. One nut included on each thread. Angled rubber boot to cover nut and cable outlet. 450mm long flylead with male bullet connectors. Sold as a pair - left and right hand. CONVEX GLASS. Pair weight 470gms. **#M26 £25 pair** (£30 inc vat)



BLACK UNIVERSAL MIRRORS IVA OK. Flexible ball & socket adjustment with rubber bellows shroud. Overall mount to tip 220mm. Flat glass 133mm x 75mm. Base 120mm x 33mm. 2 Screw fixing in base between 50mm and 90mm centres. Weight 328gms. **#M85145 £10 pair** (£12 inc vat)



TURBO-RACING' MIRRORS Twin rubber-sheathed diecast pillars. Adjustment by ball joints at both ends of each pillar and floating glass. Concealed mounting. Supplied black but can be over-painted. Maximum overall length base to tip 260mm. Base size 114mm x 35mm. Adjustable 2 hole fixing. **#M11TB £15 pair** (£18 inc vat)



PART NUMBERS FOR EVERY ITEM IN THIS CATALOGUE ARE IN RED AND ALWAYS BEGIN WITH A HASH SYMBOL
#PARTNO

GT MIRROR Here's a stylish, period mirror made from moulded plastic. 160mm high from base to top of glass. Glass diameter 104mm. Base size 90mm x 30mm with a single M8 bolt fixing. Loosen the single pozi screw in the base and the stem can be rocked left and right on the base up to 180 degrees. Loosen the glass housing by rotating it anti-clockwise and it can be angled in relation to the head. Flat glass.

#M19BK £12 pair (£14.40 inc vat)



PORSCHE STYLE DOOR MIRROR

Very sleek and stylish door or wing-mounted mirror. Chromed mirror head, size - 125mm x 93mm with flat glass. Limited (3 degrees) head adjustment. Chromed, diecast arm with black plastic stand-off / gasket. Base footprint 125mm x 25mm. Two M6 studs at 64mm centres with nuts and washers

Weight 420gms.

#M34 £38 each (£45.60 inc vat)



CHROME PEDESTAL MIRROR

Tough, round, chromed plastic glass housing - size 120mm dia. rotates 360 degrees and has 45 degrees angular movement on spherical mount. Flat glass.

Base gasket footprint 160mm x 30mm.

Base mounting plate has 2 screw fixing.

Will fit existing hole centres between 35mm and 120mm. Moulded plastic gasket.

Chromed, diecast alloy pedestal has single screw fixing to base plate.

#M22PD £20 pair (£24 inc vat)



PLANNING TO VISIT OUR STAPLEHURST SHOP? WE CAN HAVE IT READY CLICK and COLLECT ONLINE

GIFT VOUCHERS
GREAT FOR CHRISTMAS AND BIRTHDAYS.
WE'LL POST THEM FREE OF CHARGE. THEY CAN BE USED AGAINST ANY PURCHASE FROM THIS CATALOGUE.



STAINLESS AND CHROME WING OR DOOR MIRROR PAIR IVA OK (but not 'E' Marked) The mirror housing is stainless steel and is mounted to the Chromed, diecast base through a ball joint which has adjustable tension. The mirror is supplied with a choice of two moulded mounting plinths - one flat and one angled. Mirror head size 145mm x 92mm. Plinth footprint 37mm x 89mm. SUPPLIED AS A PAIR - ONE LEFT HAND AND ONE RIGHT HAND. Weight 298 gms. each.
#M24 £44 pair (£52.80 inc vat)



STAINLESS AND CHROME WING OR DOOR MIRROR PAIR The Convex mirror housing is stainless steel and is mounted to the Chromed, diecast stem with a ball joint at the head. The stem base has a rubber gasket with a footprint of 23mm x 62mm. The base has a single M8 mounting stud 17mm long. Nut and washer supplied. Mirror head is 112mm diameter. Maximum overall end to end length 160mm. Weight 440 gms. Pair. SUPPLIED AS A PAIR - ONE LEFT HAND AND ONE RIGHT HAND.
#M25 £34 pair (£40.80 inc vat)



CHROME PEDESTAL MIRROR Tough, chromed plastic housing with flat glass - size 135mm x 98mm. Base gasket footprint 152mm x 31mm. Base mounting plate has 2 screw fixing Through rubber mounting gasket. Will fit existing hole centres between 35mm and 120mm. Chromed, diecast alloy pedestal has single screw fixing to base plate. 30 degrees angular glass movement. **#M12PD £20 pair** (£24 inc vat)



BUTYL SEALER STRIP Think - very sticky Plasticene. As supplied to Ford, BMW and Mercedes. This is a synthetic, non curing, rubber based bonding and sealing strip. Developed for sealing lap joints, bolt-on panels and for sealing rear light clusters. Commonly used to bond polythene sheet to the inside of production car doors. Can be stretched out to 1 or 2 mm diameter. Kit Car uses are endless. From sealing Seven type rear wings to the body, bonding and sealing body to chassis, fixing badges and emblems, plugging holes, sealing light clusters to bodywork and seating fuel tanks in their cradles. 8mm diameter bead. Supplied in a 8 metre roll which will probably last you forever. NOTE: Not fuel resistant.
#BUTYL £12 (£14.40 inc vat)



UNIVERSAL SURFACE MOUNT LONG BASE EXTERIOR MIRROR 112mm diameter flat glass in a chromed steel head with a spherical floating mounting to the heavy, chromed diecast base with one hidden (keyhole) fixing and one screw fixing. Base footprint 162mm x 32mm. Overall height 145mm. Rubber gasket and fixing screws included. Weight 359 gms.
#M35PD £17 each (£20.40 inc vat)



SEE MORE, BIGGER, HI-RES PICTURES ONLINE AT www.carbuilder.com

CHROME UNIVERSAL SIDE MIRROR PORSCHE STYLE 114mm diameter convex glass. Stainless head 42mm front to back with a spherical, floating joint to the chromed, heavy, diecast door mount. Footprint 88mm x 29mm. The base has one 5mm diameter locating peg and one M6 bolt fixing. Rubber gasket included. Weight 250 gms.
#M36 £16 each (£19.20 inc vat)



STAINLESS AND CHROME WING OR DOOR MIRROR PAIR The mirror housing is stainless steel and is mounted to the Chromed, diecast stem through a ball joint which has adjustable tension. The stem base has a rubber gasket with a footprint of 32mm x 43mm. The base has a single M8 mounting stud 22mm long. Nut and washer supplied. Mirror head is 116mm diameter. SUPPLIED AS A PAIR - ONE LEFT HAND AND ONE RIGHT HAND. Weight 440 gms. Pair..
#M23 £24.50 pair (£29.40 inc vat)



STAINLESS AND CHROME ROUND MIRROR HANDED PAIR Flat glass size 107mm diameter, in a stainless steel head with a spherical, floating joint to the chromed, diecast stem. Footprint 42mm x 31mm. Single M8 stud mounting. Rubber gasket and large washer included. Weight 440 gms. Pair.
#M23F £24.50 handed pair (£29.40 inc vat)



GLASS CLEANER
 400ml Superb glass and mirror cleaner for inside and out.
#WINDC £3
 (£3.60 inc vat)



CLIP-ON ROUND MIRROR 100mm

Chromed metal construction. Flat glass. Will mount to a vertical windscreen support or door frame up to 10mm thick using two grub screws. With a little ingenuity you could remove and modify the clamping plate and replace the two plate-securing screws with studs so that you can surface mount the mirror on a door top or scuttle.

Spherical mount allows rotational movement and approximately 20 degrees angular movement. Mirror frame diameter 100mm.

#MCORND £20 each (£24 inc vat)



STAINLESS ROUND CLIP-ON OVERTAKING MIRROR WITH CHROME 90 DEGREE MOUNT

102mm diameter convex glass with a spherical, floating joint on an angled, diecast arm. Just tighten the two grub screws to clamp the mount onto a gutter or panel edge up to 3mm thick. Weight 254gms.

#MCORND90 £17 each (£20.40 inc vat)



CLIP-ON RECTANGULAR MIRROR

Stainless steel construction. Flat glass. Mount on a vertical windscreen support or door frame up to 3mm thick, by tightening two grub screws on a rubber-lined clamp. Spherical mount between stem and mirror back allowing approximately 90 degrees total movement angle. Mirror frame size 115mm x 73mm. Mounting frame can be reversed for fitting to forward or rearward facing flanges. #MCOREC £20 each (£24 inc vat)



STAINLESS ROUND CLIP-ON MIRROR WITH FLAT PLATE MOUNTING

107mm diameter convex glass with a spherical, floating joint on a stainless mounting bracket. Just tighten the two grub screws to clamp the mount onto a gutter or panel edge up to 3mm thick. Weight 192gms.

#MCORNDFP £17 each (£20.40 inc vat)



MINI CLIP-ON OVERTAKING MIRROR

RIGHT HAND 73mm x 115mm flat glass in a pressed stainless steel head with a spherical, floating joint on a shaped stainless mounting bracket. Just tighten the two grub screws to clamp the mount onto a windscreen gutter or panel edge up to 3mm thick. Weight 189gms.

#MCOMR £15 each (£18 inc vat)



MINI CLIP-ON OVERTAKING MIRROR LEFT HAND VERSION

#MCOML £15 each (£18 inc vat)



SMALL ROUND MINI SPORT MIRROR

PAIR Flat glass size 87mm dia. x 55mm. Stainless bowl 102mm diameter x 83mm front to back with a spherical, floating joint to the chromed, heavy, diecast door mount. Footprint 83mm x 39mm. Two 6mm mounting holes at 50mm centres. Rubber gaskets and fixing screws included. Weight 700 gms. pair.

#M37 £44 pair (£52.80 inc vat)



CHROME PLATED BRASS BULLET MIRROR

MIRROR Two M6 bolt fixing. Flat glass 100mm diameter. Base size 95 x 25mm. Fixing hole centres 50mm. Bolts & gasket included.

#M16BS £19 each (£22.80 Inc vat)



CLIP-ON BULLET MIRROR

Chromed metal construction. Flat glass in a floating, dished glass housing with approximately 50 degrees of angular adjustment in the mirror body. A diecast arm is rubber-mounted to the mirror body and will rotate 360 degrees. There is a spherical ball joint between the arm and mounting foot that has approximately 80 degrees of angular movement. The clip-on mount will fit to a vertical windscreen support or door frame of up to 10mm thick using two grub screws. Two black plastic packing pieces are supplied. With a little ingenuity you could remove and modify the clamping plate and replace the two plate-securing screws with studs so that you can surface mount the mirror on a door top or scuttle. Mirror diameter 100mm. Bullet front to back 110mm. Arm length 50mm. Mounting base footprint 45mm x 30mm.

#MCOBUL £20 each (£24 inc vat)



CLASSIC ALUMINIUM BULLET MIRROR

Superb quality. Single M8 stud fixing. Flat glass 88mm dia. Maximum diameter 96mm. Base size 60 x 20mm Base to top 110mm.

CHROME #M15BA £19 each (£22.80 inc vat)
BLACK #M15BK £19 each (£22.80 inc vat)



SATIN BLACK BULLET MIRROR

Mirror housing rotates and is adjustable on a spherical seat. Mirror housing diameter 100mm. Flat mirror glass 88mm diameter. Base footprint 93mm x 27mm. Two M6 bolt fixings in base at 50mm centres. Maximum height 115mm. Bolts & plastic base gasket included. Pressed steel and diecast construction. Weight 360gms.

#MBULBK £19 each (£22.80 Inc vat)



LIGHTWEIGHT ALUMINIUM MIRROR
 IVA OK 100mm Diameter x 80mm front to back. Single 5/16" bolt fixing (except #MIALWS) on spherical mount with plastic washer. Plated steel base diameter 40mm. Height above mounting surface 115mm. Weight only 160g.

SATIN ANODISED Convex glass with black pedestal. 1/4" UNC bolt fixing
#MIALWS £22 each (£26.40 inc vat)

BLACK Convex glass
#MIALWB £22 each (£26.40 inc vat)

POLISHED Convex glass
#MIALWP £22 each (£26.40 inc vat)

POLISHED Flat glass
#MIALWPF £22 each (£26.40 inc vat)



IVA OK

INTERIOR MIRRORS

INTERIOR DIPPING MIRROR

Flat glass, frame size 210mm x 55mm. A strong mirror and mount with flexible mounting options. The small mounting plate can be bonded to your screen or drilled and screwed to your surround. The mirror stem is slid over the base and secured with a single screw.

#MINT2 £12 (£14.40 inc vat)



CHROME INTERIOR DIPPING MIRROR

Flat glass. Glass size 118 x 55mm. Chrome plated housing with spherical joint to a cast stainless steel mount with a spring-loaded, quick-release fixing (Mercedes O/E). The spring lugs can be cut off and the base drilled for fixing to your own specification.

#MINT8 £14 (£16.80 inc vat)



Here's a painted MIALW on a beautiful Nostalgia 'C' Type



MIRROR REPAIR SHEET A flexible plastic sheet 210mm x 125mm (8" x 5") x 0.8mm thick. Easy to cut with strong scissors. Just cut to shape, stick over your broken or cracked mirror with the double-sided strips included then peel off the protective film from the front for an easy repair.

#MIREP £3 (£3.60 inc vat)



Example of mount modified and drilled for M4 csk. fixings

SHOWN AT MAXIMUM ANGLE



127mm DIA. ROLL CAGE MIRROR This very wide-angle mirror is designed to clamp to a 38mm diameter tube on your roll cage. The curved glass mirror is mounted on an anodised aluminium disc with a spherical mount for maximum adjustability. The 6mm thick CNC'd aluminium clamp has two M4 stainless cap head screws. Weight 403gms. **#RCMR125 £25 each** (£30 inc vat)



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT www.carbuilder.com

ROLL CAGE MIRROR This very wide-angle mirror is designed to clamp to the front bar of your roll cage, Multi-adjustable for height and angle. The curved glass mirror head is a massive 350mm wide x 70mm high. The 185mm long mounting arms (measured from the centre of the roll bar tube) are CNC'd from 1/4" billet, anodised aluminium which clamp around the roll bar by tightening the stainless cap-head screws. Weight 415gms.

NOTE: This item is extremely fragile and will break if not handled carefully and correctly. Only mount on a straight run of tubing. Do not try to bend or reshape any of the components. Ensure that the mirror head is not under any strain when the all the bolts are tightened.

38mm (1.5") #RCM38 £25 (£30 inc vat)
45mm (1.75") #RCM45 £25 (£30 inc vat)



SLIM INTERIOR MIRROR Moulded black ABS housing and die-cast stem. Convex glass size 208mm x 55mm. Two 5mm fixing holes at 31mm centres. **#MINT6 £7 each** (£8.40 inc vat)



SMALL INTERIOR MIRROR Very discreet little stainless mirror with flat glass. Swivelling ball joint with a thread on the back and a screw-on, chrome plated mounting boss. Can be mounted with double-sided tape or make your own stem. Size 55mm x 120mm. Boss diameter 22mm. Maximum front to back 35mm. Weight 160 gms.

SMALL INTERIOR MIRROR #M55120 £8 (£9.60 inc vat)



If you're fixing rubber 'U' channel with glue always wash the channel first with thinners to remove the wax film left by the manufacturing process.



INTERIOR DIPPING MIRROR E11 marked. Self adhesive. Frame size 196mm x 65mm
#MINT3 £14 (£16.80 inc vat)



IVA OK



INTERIOR DIPPING MIRROR
 IVA compliant. Slightly larger than our MINT3. Self adhesive double-sided pad included. Frame size 230mm x 70mm.
#MINT4 £10 (£12 inc vat)



IVA OK

INTERIOR MIRROR ADHESIVE
 Tough Acrylic adhesive with Primer and full instructions. Cures in 1 to 2 minutes. Strong bond in 10 minutes.
#MINTAD £4.50 (£5.40 inc vat)



TIP: IF YOU'RE FIXING A MIRROR WITH A PAD OR ADHESIVE, CLEAN THE AREA OF SCREEN AND MIRROR BASE WITH ACETONE OR SOLVENT. IN COLD CONDITIONS WARM UP THE SCREEN AND MIRROR BASE WITH A HAIR DRIER. BREATH VAPOUR CAN CONDENSE ON THE GLASS AND PREVENT A SUCCESSFUL BOND

INTERIOR DIPPING MIRROR Forged alloy stalk with ball joint at both ends. 2 screw fixing @ 34mm centres. Can be mounted at top of windscreen frame. Plastic construction with leather-grain texture finish. 80mm stalk. NOTE: Do not over-tighten fixings. **#MINTST £10** (£12 inc vat)



IVA OK



SMALL INTERIOR MIRROR
 Suction mounting. Tough, plastic construction. Flat glass size 113mm x 48mm (4.4" x 1.9"). Cam - operated vacuum suction pad for fixing to glass windscreen.
#MINTSUC2 £6 (£7.20 inc vat)



IVA NOTE: IVA says 'Mirrors attached by suction are not permitted' but we can see no reason why you cannot bond-on a suction mirror if you wish. Check with your local IVA station.

INTERIOR MIRROR Suction fitting. Tough, plastic construction. Flat glass size 155mm x 65mm (6" x 2½"). Cam - operated vacuum suction pad for fixing to glass windscreen.
#MINTSUC £6 (£7.20 inc vat)



INTERIOR MIRROR POLISHED BILLET ALUMINIUM CNC machined. 235 x 60mm. For bonding to windscreen with 2-pack adhesive supplied or can be drilled and screwed to surround. Chromed stem with 2 swivelling ball joints.
#MINTBIL £25 (£30 inc vat)



INTERIOR PEDESTAL MIRROR

Chrome and Stainless construction. Flat glass size 147mm x 55mm (5¾" x 2¼"). Overall height from base to top 100mm (4"). 2 x 5mm countersunk fixing holes 40mm apart. Spherical adjustment on stalk.

IMPORTANT NOTE: THE SLIM DESIGN OF THIS MIRROR MAKES IT QUITE FRAGILE.

IT IS IMPORTANT THAT THE CLAMPING SCREW / BALL MOUNT IS NOT TOO TIGHT OR THE GLASS WILL BREAK WHEN YOU TRY TO ADJUST IT. LOOSEN THE SCREW UNTIL THE BALL IS JUST GRIPPED SUFFICIENTLY AND ADJUST THE MIRROR GRIPPING THE CENTRE OF THE GLASS.

#MINTCHR £18 (£21.60 inc vat)



DOUBLE SIDED ADHESIVE PAD FIXING VERSION

Spherical adjustment on stalk.

#MICHSA £18 (£21.60 inc vat)



CAM-OPERATED SUCTION CUP VERSION

Spherical adjustment on stalk.

#MICHSUC £18 (£21.60 inc vat)



THIS MIRROR CAN BE MADE IVA COMPLIANT WITH OUR RUBBER EDGE TRIM #TRMU3 SEE HINTS & TIPS SECTION



INTERIOR PEDESTAL MIRROR

Originally designed for pre-'96 Mini. Chrome and Stainless construction. Flat glass size 155mm x 60mm (6" x 2½"). Overall height from base to top 135mm (5¼"). 3 x 5mm countersunk fixing holes. Spherical adjustment on stalk. Weight 260gms.

IMPORTANT NOTE: THE SLIM DESIGN OF THIS MIRROR MAKES THE GLASS QUITE FRAGILE. IT IS IMPORTANT THAT THE CLAMPING SCREW / BALL MOUNT IS NOT TOO TIGHT OR THE GLASS WILL BREAK WHEN YOU TRY TO ADJUST IT. LOOSEN THE SCREW UNTIL THE BALL IS JUST GRIPPED SUFFICIENTLY AND ADJUST THE MIRROR GRIPPING THE CENTRE OF THE GLASS.

#MINTCHR2 £25 (£30 inc vat)



ADJUSTING THESE MIRRORS

INTERIOR MIRROR WITH DISC BASE

135mm overall height. Moulded plastic body size 116mm x 58mm x 52mm front to back. Convex glass size 110mm x 50mm. Aluminium stem with spherical swivel and 45mm diameter base with 3 5mm fixing holes on a 38mm PCD. Two versions available as standard (shown below) or with rubber edge (IVA OK.)

SATIN BLACK

#M5BK £15 each (£18 inc vat)

SATIN BLACK IVA OK

#M5BKIVA £22 each (£26.40 inc vat)

CARBON EFFECT

#M5CA £17 each (£20.40 inc vat)

CARBON EFFECT IVA OK

#M5CAIVA £24 each (£28.80 inc vat)



DASH TOP PEDESTAL REAR VIEW MIRROR

Here's a compact, flat glass, interior mirror. It has a die-cast chrome base and with a spherical mount to an ABS shrouded, trapezoid-shaped glass mirror. Maximum head size 125mm x 55mm. Overall height 85mm. Base size 60mm x 16mm with two 4.6mm countersunk mounting holes at 38mm centres.

#MINT7 £12 (£14.40 inc vat)



CLASSIC STAINLESS ADJUSTABLE HEIGHT INTERIOR MIRROR.

Flat glass size 150mm x 55mm with stainless steel surround. Spherical, floating joint to adjustable chromed mount with base footprint of 57mm x 15mm. Overall height adjustable between 140mm and 200mm. Base mount angled 20 degrees towards the driver. Weight 204gms.

IMPORTANT NOTE: THE SLIM DESIGN OF THIS MIRROR MAKES THE GLASS QUITE FRAGILE. IT IS IMPORTANT THAT THE CLAMPING SCREW / BALL MOUNT IS NOT TOO TIGHT OR THE GLASS WILL BREAK WHEN YOU TRY TO ADJUST IT. LOOSEN THE SCREW UNTIL THE BALL IS JUST GRIPPED SUFFICIENTLY AND ADJUST THE MIRROR GRIPPING THE CENTRE OF THE GLASS.

#MINTADJ £21 (£25.20 inc vat)



ADJUSTING THESE MIRRORS



SMALL STAINLESS ROD MOUNT SLIDING CLAMP INTERIOR MIRROR.

Flat glass size 150mm x 55mm with stainless steel frame. Spherical joint to chrome mount which clamps on a 5mm diameter rod. Weight 159gms.

NOTE: Rod not included
#MINTCHRSL £18 (£21.60 inc vat)



STAINLESS STEEL ROD MOUNTED SLIDING CLAMP INTERIOR MIRROR.

Flat glass size 150mm x 55mm. Full stainless steel back with spherical, floating joint to chrome mount which clamps on a 5mm diameter rod. Weight 149gms.

NOTE: Rod not included
#MINTSSL £18 (£21.60 inc vat)



GOLD ROD MOUNTED SLIDING CLAMP INTERIOR MIRROR.

Flat glass size 150mm x 55mm. Gold finish, pressed steel back with spherical, floating joint to chrome mount which clamps on a 5mm diameter rod. Weight 149gms.

NOTE: Rod not included
#MINTGSL £18 (£21.60 inc vat)



ADJUSTING THESE MIRRORS

SEAT BELTS

TWR HARNESSES IVA OK 'E'2 approved, CLUBMAN harnesses have 50mm straps and 70mm abdominal reinforcement webs. Easy, smooth adjustment and snap-in buckle with push-button release. Fixing kit included. Shoulder straps adjustable from 500mm to 900mm. Lap straps adjustable from 230mm to 600mm. Weight: 1289 gms.

BLACK #TWRSBK £60 (£72 inc vat)



RED #TWRSBR £60 (£72 inc vat)



BLUE #TWRSBU £60 (£72 inc vat)



GREEN #TWRSBG £60 (£72 inc vat)



ORANGE #TWRSBO £60 (£72 inc vat)



YELLOW #TWRSBY £60 (£72 inc vat)



MIAMI BLUE #TWRSMBU £60 (£72 inc vat)



SLATE GREY #TWRSBSL £60 (£72 inc vat)



TWR LONG BLACK HARNESS IVA OK 'E'2 approved, Fixing kit included. Shoulder straps adjustable from 1mtr to 1.9mtrs. Lap straps adjustable from 230mm to 600mm. Weight: 1489 gms.

LONG BLACK #TWRSBKL £60 (£72 inc vat)



RETRACTING SEAT BELT WITH 300mm LONG STALK This 'E1' marked automatically retracting seat belt has a maximum length of 3 metres and a 300mm long semi-rigid stalk with push-button release. The upper ('B' post fixing) has a snap-on plastic cover for IVA compliance. Fixing pack with IVA a plastic bolt head covers included. Made in Germany. Weight 1121 gms.

#SBRL £25 (£30 inc vat)



RETRACTING SEAT BELT WITH 150mm LONG RIGID STALK Weight 1072 gms.

#SBR5 £25 (£30 inc vat)



1.5 Mtr. STATIC LAP SEAT BELT

This 'E1' marked lap belt has manual adjustment up to a maximum of 1.5 metres between fixing bolts. 200mm long webbing stalk with push-button release. Fixing pack with IVA plastic bolt head covers included. Made in Germany. Weight 336 gms.

#LAPBELT2 £21 (£25.20)



SECURON Was founded in 1973 and is Britain's leading manufacturer of seat belts and safety restraints. Their products are manufactured, tested and approved to UK and European safety standards.

SECURON RETRACTABLE LAP BELT 2 point mounting. Automatic retractor for single hand operation. All bolts and brackets included. Total belt length 1.1 mtrs.

'E' marked. Two-button release on 150mm stalk. Weight 871 gms.

#SECLR £30 each (£36 inc vat)



For correct function install at 60°/90°.

SECURON STATIC ADJUSTABLE, Non retractable. All bolts and brackets included. 'E' marked. Maximum belt length 2.2mtrs. Two button release on stalk. Weight 730 gms.

LONG STALK (300mm)

#SEC3L £35 each (£42 inc vat)

SHORT STALK (150mm)

#SEC3S £35 each (£42 inc vat)



SECURON STANDARD RETRACTABLE WITH WEBBING BUCKLE

As above but with webbing buckle with maximum length 400mm.

#SEC5W £60 each (£72 inc vat)



SECURON LAP BELT For rear seats, PSVs etc. Supplied with securing bolts. Adjustable from 60cm to 210cm total length. Weight 636 gms. **#SECL £31** (£37.20 inc vat)



IVA HEADS - UP

A recent IVA revision has outlawed static adjustable three-point mounting seat belts for the front seats. Three point retractable belts are OK, as are four point harnesses. As far as we know, all 3 point belts are MoT OK for all seats.

SECURON STANDARD RETRACTABLE

Lap & shoulder 3 point mounting. All bolts and brackets included. Max length 2.89mtrs. 'E' marked. Weight 1300gms.

LONG STALK (300mm)

#SEC5L £51 each (£61.20 inc vat)

SHORT STALK (150mm)

#SEC5S £51 each (£61.20 inc vat)



IVA OK



MULTI-ANGLE RETRACTABLE BELTS

SECURON MULTI-ANGLE RETRACTABLE

3 point mounting. The automatic retractor can be adjusted to operate at any angle. New - Snap-on moulded ABS cover over reel. NOTE: These belts do not have a 'B' post-mounted belt guide. All bolts and brackets included. Maximum belt length 2.4mtrs.

'E' marked. Two-button release on stalk. Weight 1360 gms.

LONG STALK (300mm)

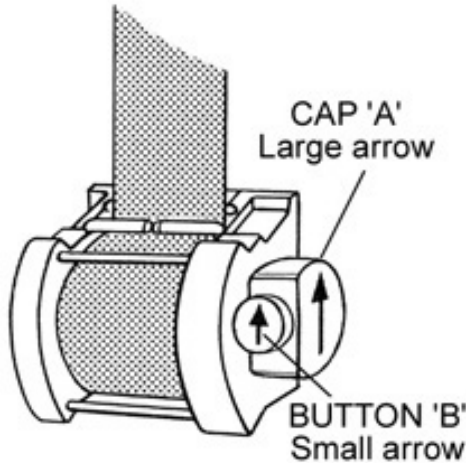
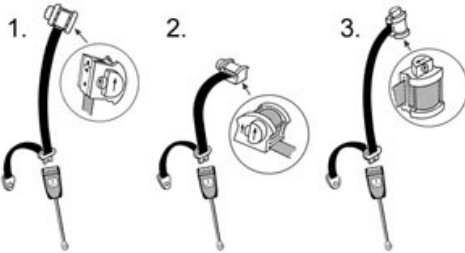
#SECM5L £59 each (£70.80 inc vat)

SHORT STALK (150mm)

#SECM5S £59 each (£70.80 inc vat)



150mm
OR
300mm



**MOST PRODUCTS HAVE A
HIGH RESOLUTION
360 DEGREE VIEW
ON OUR ONLINE SHOP**

SECURON 4 - POINT MOUNTING, MULTI-ANGLE SEAT BELT WITH WEBBING BUCKLE.

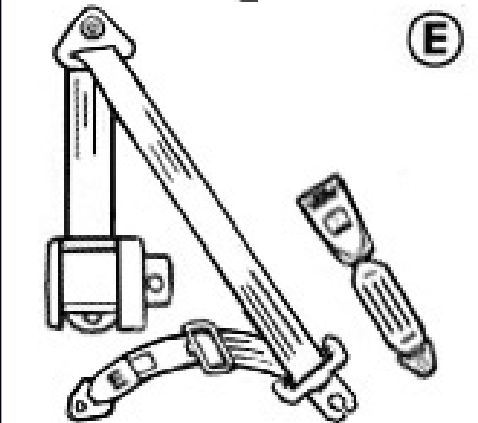
The automatic retractor can be adjusted to operate at any angle. New - Snap-on moulded ABS cover over reel. NOTE: These belts have a 'B' or 'C' post-mounted belt guide which offers multiple mounting positions for the retractor. Webbing buckle length adjustable from 150mm to 400mm. Maximum belt length 2.6mtrs.

All bolts and brackets included. 'E' marked. Two-button release on stalk.

Weight 1450 gms.

MULTI ANGLE SEAT BELT

#SEC5W £59 each (£70.80 inc vat)



E

HARNESS MOUNTING PLATE Plated steel backing plate 52mm x 25mm x 6mm thick. Tapped 7/16" UNF. Each plate has a drilled 6.4mm hole for mounting the plate.
#716RP2 £2 (£2.40 inc vat)



EYEBOLT Strong, forged eyebolt. Heavy gold colour plating. 7/16" UNF thread 15.4mm hole in eyebolt.
22mm thread.
#EB71622 £3 each (£3.60 inc vat)
32mm thread.
#EB71632 £4 each (£4.80 inc vat)
48mm thread.
#EB71648 £4 each (£4.80 inc vat)



HARNESS EYE BOLT & MOUNT KIT
 Four high tensile (8.8) plated eyebolts with 7/16" x 22mm long threads. Four plated steel backing plates 52mm x 25mm x 6mm thick. Tapped 7/16" UNF. Each plate has a drilled 6.4mm hole for mounting the plate.
#EBK £14 (£16.80 inc vat)



7/16" UNF HIGH TENSILE SET SCREW
 Suitable for Seat Belt Fixing. Grade 5. Bright plated. 5/8" A/F hex.
1 1/4" #716114HEX £1 each (£1.20 inc vat)
2" #7162HEX £1.10 each (£1.32 inc vat)
NUT #716ZNUT £0.25 each (£0.30 inc vat)



SEAT BELT ADJUSTER PLATE
 Manufactured from 3.3mm thick steel. For 50mm wide seat belts. Satin black powder coated. Size: 70mm x 38mm. Slots 8mm wide.
#SBADJ £3 (£3.60 inc vat)



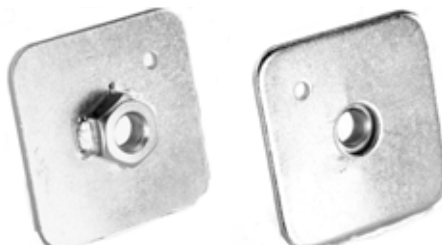
SEAT BELT HOOK PLATE Clips on to Eyebolts. Manufactured from 4mm thick steel. For 50mm wide seat belts. Spring-loaded retaining clip. Bright zinc plated. Size: 69mm x 62mm. Slot 8mm wide.
#SBHOOK £3.50 (£4.20 inc vat)



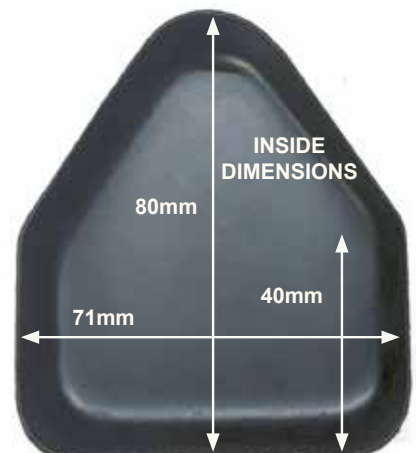
HARNESS FIXING PLATE
 A plated steel reinforcing / backing plate with a welded 7/16" UNF nut for seat belt mounting points. 55mm x 55mm x 2mm thick. There is a 5mm drilled location hole in one corner.
#716RP £2 each (£2.40 inc vat)



FIA HARNESS FIXING PLATE
 FIA - approved, plated steel reinforcing / backing plate with a welded 7/16" UNF nut for seat belt mounting points. 65mm x 65mm x 3mm thick. There is a 5mm drilled location hole in one corner.
#716RP3 £2.50 each (£3 inc vat)



MOULDED ABS SEAT BELT MOUNT IVA COVER Exclusive to CBS, these textured, plastic covers will make your 'B' Post or roll-over bar seat belt mounts IVA compliant. Here, for example, we've fixed a small block of 12mm x 12mm M.D.F. to the plate mount with double-sided tape and used another piece of tape to secure the cover. (WOOD AND TAPE NOT INCLUDED) Self-adhesive Velcro would do the same but easily removable. Easy to cut, drill or trim. Maximum outside dimensions: 83mm x 73mm x 22mm.
BLACK #SBMCOV £3 each (£3.60 inc vat)
CARBON EFFECT #SBMCOVCA £3.50 each (£4.20 inc vat)



ROLL CAGE FOAM PADDING

Partially split foam protection sleeving for 38mm (1½") diameter chassis and roll cage tubing. 75mm (3") diameter with an offset 38mm bore. The wall thickness is 24mm maximum and 13mm at it's thinnest. Install with the thickest side towards the occupants. Supplied in 1 metre lengths in seven distinctive colours.

NOTE: This product is rated B1 Fire resistant. It is not fire-proof and not FIA approved.

- RED #RBFR £10 for 1 mtr (£12 inc vat)**
- ORANGE #RBFO £10 for 1 mtr (£12 inc vat)**
- PURPLE #RBFP £10 for 1 mtr (£12 inc vat)**
- BLUE #RBFU £10 for 1 mtr (£12 inc vat)**
- GRAPHITE #RFBK £10 /1 mtr (£12 inc vat)**
- GREY #RBFGY £10 for 1 mtr (£12 inc vat)**
- YELLOW #RBFY £10 for 1 mtr (£12 inc vat)**



Here's an example of some similar runners adapted to mount a Glassfibre bucket seat for our P4 Project. Headroom in the car is very low so we jiggged the runners far enough apart that the seat would sit between them, on a 2mm spacer to raise the seat bottom just clear of the floor. We fabricated, drilled and mounted two steel straps across the rear and front mounting points on the seat. Trial and error determined the most comfortable angle for the seat back so we cut and tacked two 25mm diameter x 40mm high, steel tube spacing pillars to raise the front strap and twisted the ends of the rear strap parallel to the runners and welded it all together. Don't forget to keep the runners parallel.



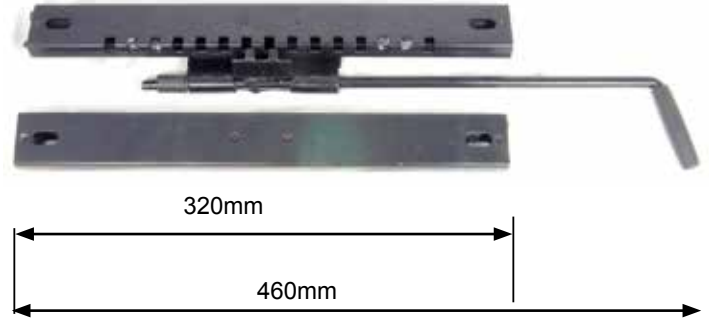
SEAT RUNNERS

SEAT RUNNERS Pair of good quality seat runners for one car seat. Single side locking so can be mounted at any width spacing. Black painted steel construction with roller bearing slides. Fixing screws and spacers are included. Each runner 37mm wide x 22mm high. Slider movement 195mm. Weight 1.6Kg per pair of runners (1 seat).

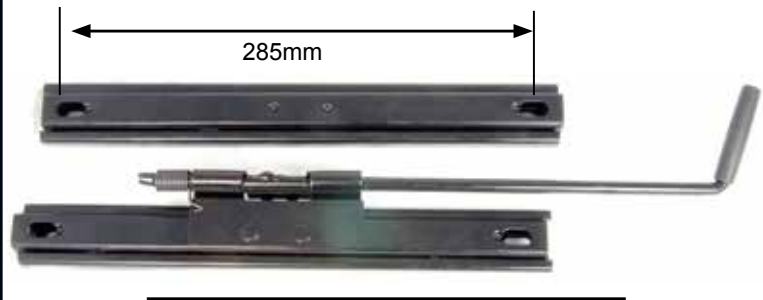
RIGHT HAND (Shown) #SEATRUN4RH
£18 (1 seat) (£21.60 inc vat)



FLOOR MOUNTING SIDE



SEAT MOUNTING SIDE



LEFT HAND This picture shows the Left Hand runners, seat-side-up, in the fully - rearward position. Dimensions are the same as RH. **#SEATRUN4LH £18 (1 seat) (£21.60 inc vat)**



NUTS BOLTS & WASHERS
MANY SIZES AVAILABLE

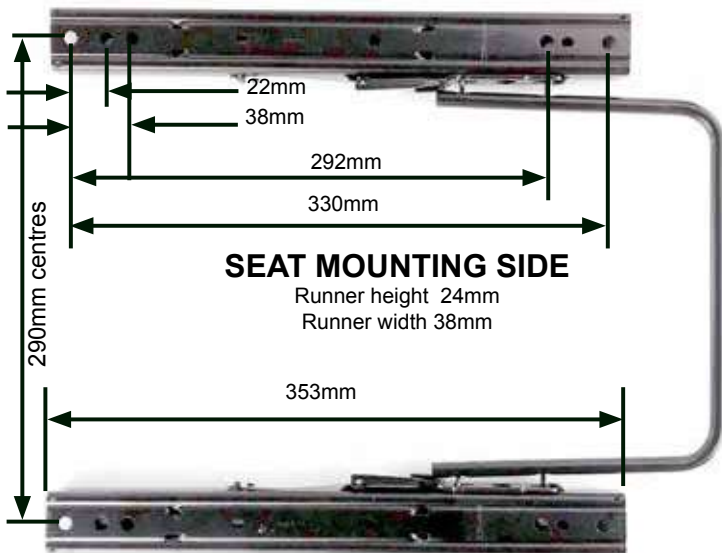


SEAT RUNNERS Pair of good quality seat runners. A tubular 'U' frame handle releases both runners at the same time. Smooth, ball bearing action. All holes accept M8 or 5/16" fixings (not supplied). Black painted 1.5mm thick steel. Slider movement 161mm. Weight 1.9Kg. **#SEATRUN2 £30 (1 seat)** (£36 inc vat)



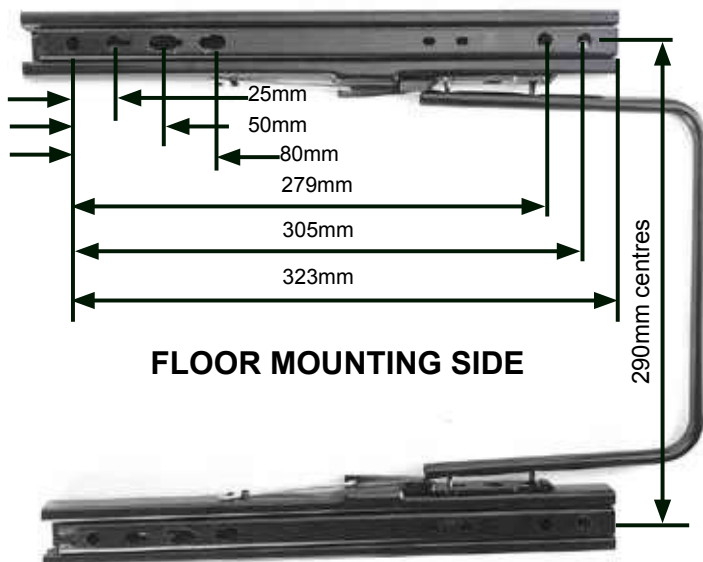
LIFT & SLIDE

NOTE: It is possible to reshape seat runner handles to adjust for narrower or wider runner spacing. We recommend holding in a vice and heating the bend areas to cherry red then repainting with our Epoxy Chassis paint.



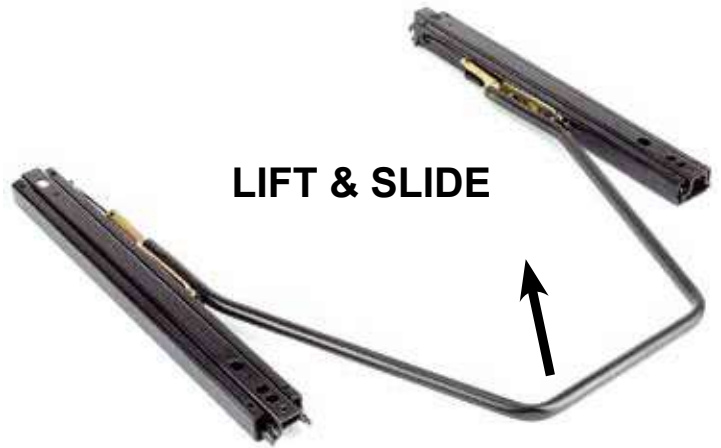
SEAT MOUNTING SIDE

Runner height 24mm
Runner width 38mm

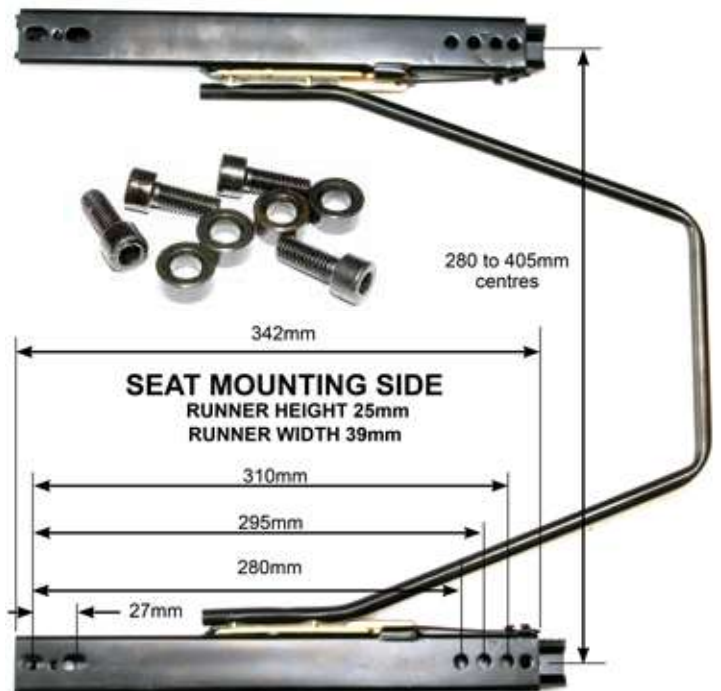


FLOOR MOUNTING SIDE

SEAT RUNNERS Pair of excellent quality seat runners. A tubular steel 'U' frame handle releases both runners at the same time. Smooth, ball bearing action. All holes accept M8 or 5/16" fixings (4 x M8 Cap Heads and spacers included). Black painted 2mm thick steel with plated actuator arms. Slider movement 225mm. Weight 2.5Kg. **#SEATRUN3 £32 (1 seat)** (£38.40 inc vat)



LIFT & SLIDE



SEAT MOUNTING SIDE
RUNNER HEIGHT 25mm
RUNNER WIDTH 39mm



FLOOR MOUNTING SIDE

INTERIOR PARTS

PASSENGER'S FOOTREST Made from 1.5mm thick aluminium with swaged holes for lightness and strength. Adjustable angle. Just bolt or rivet to your floor. 310mm wide.
#FTRST £24 (£28.80 inc vat)



DRIVERS NARROW CLUTCH FOOTREST (right)
#CLFTRST £11
 (£13.20 inc vat)

DEAL BOTH
#FTRSTD £33
 (£36.60 inc vat)

CAST ALLOY PEDAL PAD SET

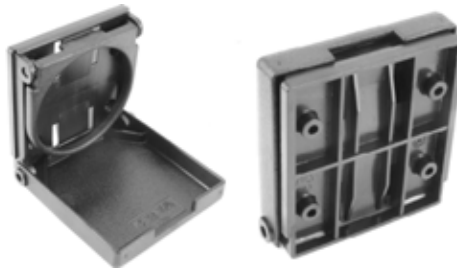
Just drill & bolt to your stock pedals for better grip, improved spacing and sporty look. Brake & Clutch 70mm x 60mm. Throttle 120mm x 65mm. Includes fixing kit.
#PEDPD £8 (£9.60 inc vat)



ALUMINIUM RECTANGULAR FOOTWELL HEEL PAD Tough, 1.5mm anodised aluminium sheet with raised chequer-plate pattern. Size 300mm x 200mm. Pre-drilled with a 4mm hole in each corner.
#HEELR £9 (£10.80 inc vat)



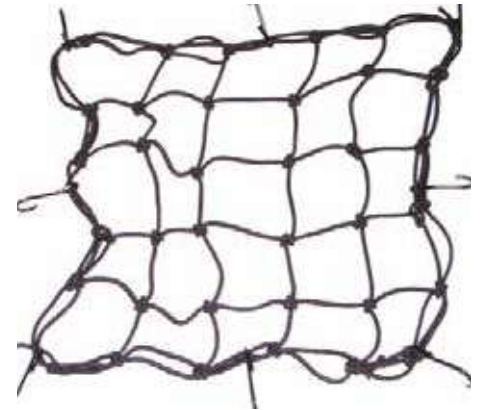
FOLDING CUP HOLDER Mounts on a vertical surface. Front drops down and the ring pops up. Moulded ABS. Folded size 100mm x 100mm x 25mm. Open size 100mm x 100mm x 100mm. Maximum cup diameter 75mm. Weight 105gms.
#CUPH £7 (£8.40 inc vat)



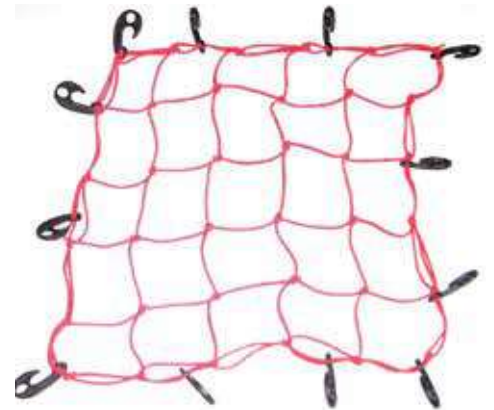
STORAGE TRAY Roll-top storage tray for your coins and keys etc. Moulded ABS. Flock lined. Double sided adhesive pads on underside. Size 165mm x 70mm x 45mm high.
#STTY £8 (£9.60 inc vat)



CARGO NET Keep all those bits & pieces safe & secure in the boot or parcel shelf. Black elastic. Un-stretched size 15" x 15" (380mm x 380mm). 8 coated steel wire hooks.
#CARGO1 £5 (£6 inc vat)



LARGE CARGO NET Red elastic. 25" x 25" (630 x 630mm) with 12 Plastic hooks
#CARGO2 £7.50 (£9 inc vat)



CHECK OUT OUR

You Tube
CHANNEL

FOR DOZENS OF INSTRUCTION VIDEOS

Just type 'Car Builder Solutions' in the YouTube search box

STORAGE POCKETS

Ideal for maps, sunglasses, phone and all the bits and pieces that you'd normally cram in your glove box.

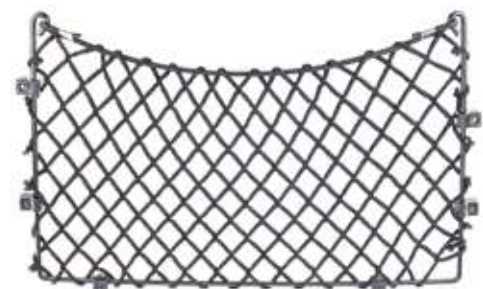
290mm (11½") x 180mm (7").

Powder coated wire Frame. Elasticated net and five ABS fixing brackets with 3.7mm holes for fixing with screws or rivets (not included). **#STPOC8 £13** (£15.60 inc vat)



410mm (16") x 260mm (10").

Powder coated wire Frame. Elasticated net and five ABS fixing brackets with 3.7mm holes for fixing with screws or rivets (not included). **#STPOC7 £15** (£18 inc vat)



14" (366mm) x 7" (180mm). ABS Frame. Elasticated net and five fixing holes.

#STPOC3 £12 each (£14.40 inc vat)



DOOR PULLS

ABS DOOR PULL One piece snap-in recessed door pull. Facia size 93mm x 35mm. Will fit into an accurately cut hole 87mm x 30.5mm. For up to 1.8mm panel thickness but can be fitted to thicker panels with careful modification

#DP1 £5 each (£6 inc vat)



ABS DOOR PULL Two piece recessed door pull. Front facia size 123mm x 47mm. Will fit into an accurately cut hole 114mm x 38mm. Rear cover fits on the inside with two screws into the facia, sandwiching the door panel between the two parts. For up to 3mm panel thickness but can be fitted to thicker panels with careful modification.

#DP2 £9 each (£10.80 inc vat)



CHROMED METAL DOOR PULL (PAIR)

Here's a very nice, classic-style, loose-hinged door pull. Two countersunk 5mm holes at 120mm centres. 140mm wide x 42mm. Weight 95gms each.

#DP4CH £10 pair (£12 inc vat)



DOOR PULL Moulded black plastic. Footprint 170mm x 30mm. 42mm high. Two 5mm fixing holes at 134mm centres. **#DP3 £5 each** (£6 inc vat)



ALUMINIUM HANDLE Black anodised aluminium. Nicely radiused top edges. Four 10mm decorative holes. Overall length 180mm. Width 25mm. Height from mounting surface 25mm. Thickness 3mm. Two 3mm diameter, countersunk mounting holes at 154mm centres. **SOLD SINGLY**

#AH180 £5 each (£6 inc vat)



DIECAST METAL 'D' PULL HANDLES

Beautifully made handles for inside door pull etc. Two M4 threaded pillars on the back 7mm diameter at 64mm centres. These can be cut off and your own fixing holes drilled if necessary. Footprint 84mm x 37mm. Handle sits 25mm above mounting surface. Two M4 screws included. Weight 58gms.

CHROME PLATED

#DP5CH £5 each (£6 inc vat)



SATIN BLACK POWDER COAT

#DP5BK £5 each (£6 inc vat)



GEAR KNOBS AND GAITERS

ALL FIT LEVERS BETWEEN 8mm and 15mm DIAMETER

SPHERICAL POLISHED ALUMINIUM GEAR KNOB Classic style, 50mm diameter without a neck. 16mm hole size. Single M6 grub screw fixing. Supplied with 4 universal adapter sleeves and a hex key.
#KNOBRND2 £14 (£16.80 inc vat)



ALUMINIUM GEAR KNOB
 51mm high x 34mm maximum diameter. 5/16" UNC thread x 25mm deep.
#KNOB5134 £10 (£12 inc vat)



GOLD ANODISED
 With real Carbon Fibre sleeve. Self-tightening internal collet. 38 dia. x 85mm long.
#KNOBGLD £7.50 (£9 inc vat)



RED ANODISED
 With Carbon effect sleeve, four adapter sleeves, grub screws and allen key. Screws hidden under bottom screw-on trim ring. 30mm dia. x 100mm long.
#KNOBRED £7.50 (£9 inc vat)



ALUMINIUM SHEET

We can now offer sheet in pre-cut panels of fixed sizes for you to trim to your own dimensions. Our video on YouTube explains how to cut and shape aluminium sheet). All panels are general purpose grade and can be easily cut, drilled and formed. Most sheets are coated on at least one side with a protective PVC film. Shipped to you on a protection sheet.

1mm #ALIS1 £7 sq ft (£8.40 inc vat)
1.2mm #ALIS12 £7 sq ft (£8.40 inc vat)
1.5mm #ALIS15 £7 sq ft (£8.40 inc vat)
2mm #ALIS2 £8 sq ft (£9.60 inc vat)
3mm #ALIS3 £9 sq ft (£10.80 inc vat)

Available sizes:

| | | |
|--|-----------|-----------|
| 1ft x 1ft | 2ft x 1ft | 2ft x 2ft |
| 3ft x 1ft | 3ft x 2ft | 4ft x 1ft |
| 4ft x 2ft. Larger sizes for collection | | |

LARGE SHEET SIZES MAY INCUR ADDITIONAL PACKING AND SHIPPING CHARGES

TORPEDO STYLE NATURAL ANODISED ALUMINIUM GEAR KNOB 34mm dia. x 78mm long. M18 x 1.5mm internal thread. Supplied with three threaded plastic inserts with 8mm, 10mm and 12mm tapered holes. Press-on or bond to your gear lever.
#KNOBTOR3 £8 (£9.60 inc vat)



SATIN ALUMINIUM GEAR KNOB
 Egg-shaped knob machined from solid aluminium. Overall height 72mm. Diameter 48mm. For gear levers between 8mm and 14.5mm diameter. Supplied with four moulded adapters secured with grub screws, hidden by a chrome, moulded screw-on sleeve. Weight 196 gms.
#KNOBRND3 £8 (£9.60 inc vat)



UNIVERSAL RUBBER GEAR GAITER

Black moulded urethane. Can be cut to any of 7 sizes from 90mm x 65mm to 150mm x 110mm. Max height 135mm.

#GRGTR £10 (£12 inc vat)



RUBBER GEAR GAITER This item was originally designed for 1970s Triumph Stag (Part number 715382) but could be suitable for other applications. Moulded rubber 1.8mm thick x 50mm high with 12.5mm hole for the gear lever. Make your own retaining ring for the 145mm diameter x 12mm wide mounting flange. Maximum lateral lever movement at the gaiter hole approximately 25mm. Weight 60gms.

#GRGTR2 £13 (£15.60 inc vat)



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT www.carbuilder.com

SPARE WHEEL TIE DOWN

Keep your spare wheel secure either inside or outside the car. Three mounting brackets with 12mm holes. One, 1.3 mtr strap with brackets and one, adjustable 1.1 mtr. ratchet strap. Suitable for all wheel sizes. Strap width 25mm. Available in three colours.

BLACK #WTDB £17.50 (£21 inc vat)

RED #WTD R £17.50 (£21 inc vat)

BLUE #WTDU £17.50 (£21 inc vat)



INTERIOR DOOR HANDLE STRAP

These lightweight, easy to fit straps are ideal for race, rally or track-day cars where the interior door cards have been modified or removed. Just bolt the strap to the door and pull it to shut. Bolt hole 12mm. 210mm length. Weight 48gms. Available in seven colours.

#DHS £6 (£7.20 inc vat)



RALLY WINDOW NET

These 57cm x 45cm window nets are essential for drivers in closed cockpits with open windows. They offer protection from debris coming in through the window and protection for the driver in the event of a collision. Weight 250gms.

Available in seven colours.

#WNET £25 (£30 inc vat)



HELMET HAMMOCK

Store up to two helmets between races in this universal fit, tangle-free, black nylon mesh Helmet Hammock. Size 90cm x 50cm. It attaches to the roll cage with four 670mm long adjustable straps. Weight 250gms.

#HELMHB £30 (£36 inc vat)



TOWING STRAPS These are a scrutineers requirement in some race series'. Made from tough, 50mm wide webbing in Italy by famous seat belt company SABELT. The powder-coated, 4mm thick steel mounting plate has a 15mm hole for attaching to your chassis. Length 270mm. Weight 107gms. Load capacity 2.9 tons.

ORANGE #SABTSO £12 (£14.40 inc vat)
YELLOW #SABTSY £12 (£14.40 inc vat)
RED #SABTSRD £12 (£14.40 inc vat)
BLUE #SABTSBU £12 (£14.40 inc vat)
BLACK #SABTSBK £12 (£14.40 inc vat)



STEEL TOWING EYE AND MOUNTING BRACKET A powder-coated, 6mm thick steel towing eye, 270mm long with a 65mm diameter hole. There are ten 9mm holes in the eye and eight in the 6mm thick angled mounting bracket for multiple mounting options. The 115mm long x 63 x 63mm angled bracket also has three 12mm holes for mounting to your chassis. Weight 1200 gms.

#TOWEYE £30 (£36 inc vat)



EXTENDED WHEEL STUD STANDARD+13mm For FORD and others. M12 x 1.5 thread.

#STUDM1213 £2 each (£2.40 inc vat)



EXTENDED WHEEL STUD STANDARD+25mm For FORD and others. M12 x 1.5 thread.

#STUDM1225 £2 each (£2.40 inc vat)



WHEEL SPACERS Die-cast aluminium. 152mm diameter. Universal fit for 4 and 5 stud wheels from 95mm PCD to 130mm PCD. 3mm

#WS3 £12 pair (£14.40 inc vat)



5mm **#WS5 £12 pair** (£14.40 inc vat)

SELF-ADHESIVE SILL PROTECTORS Made from flexible, pressed aluminium. Peel-off backing. Polished and lacquered. Can be formed to curves. Size 485 x 35mm.

#SILLPRO £4 pair (£4.80 inc vat)



RUBBER MUD FLAPS Two pieces 500mm X 300mm of tough rubber for making your own mud flaps or engine bay side shields. Available in either 3mm or 4mm thickness. Easily cut with a knife or snips.

2 PIECES 3mm
#MUDF3 £12 (£14.40 inc vat)
2 PIECES 4mm
#MUDF4 £16 (£19.20 inc vat)



ANODISED ALUMINIUM BRACKETS These Tig-welded angle brackets offer one option for mounting our mud flaps. Size 56mm x 26mm x 26mm. 1.6mm thick material. Four 7.6mm holes and two 13mm holes in each bracket.

#MUDBKT £8 pair (£9.60 inc vat)



PLUG WIRE SEPARATORS Singly for 4 cylinder engines or double for V8's.

SINGLE RAIL
#PLSEP1 £7.50 (£9 inc vat)
DOUBLE RAIL
#PLSEP2 £12 (£14.40 inc vat)



GASKET PAPER Cut your own gaskets for carburetors, intake manifolds thermostat housings etc. Oil resistant, easy to cut, 0.8mm thick. Size 300mm (12") x 250mm (10"). See our wad punch kit for making the holes.

#GASPAP £1 per sheet (£1.20 inc vat)
ONE METRE SQUARE sheet
#GASPAP1M £19 (£22.80 inc vat)



EUROPEAN TRAVEL SAFETY KIT Don't get caught out by Monsieur Plod. This useful pack contains all the legal stuff you need to take on a driving trip to any EU country. Each item has the correct 'E' marks and it's all packed in a zip-up carry bag. Pack contents:

- 1 x Fold up Warning Triangle to ECE R27
 - 2 x High Visibility Jackets to EN471
 - 1 x Universal Bulb Pack including H4, H1 and H7 bulbs
 - 1 x Pair of Stick-on Beam Converters
 - 1 x .UK Sticker. A legal requirement if you don't have UK on your number plates.
 - 1 x First Aid Kit. All you need for minor injuries.
 - 1 x Foil Blanket. Retains up to 90% of body heat if you're waiting at the roadside.
 - 1 x Zip-up Holdall.
- Weight 1520 gms.
#TRAVELKIT £36 (£43.20 inc vat)



WARNING TRIANGLE

A legal requirement in Europe and common sense for UK owners. Opens in seconds to a full height (420mm), reflective triangle with stable 4- leg base. Folds to a compact 440mm x 60mm x 35mm.
#WARNTRI £4.60 (£5.52 inc vat)



CAR DEHUMIDIFIER 500gm and 1 Kg

All-year-round use in cars, caravans, motor-homes, bikes in bags etc. to continuously remove excess humidity from the air to prevent mould growth, musty smells and corrosion. Activated Silica Gel will absorb up to 40% of its weight in moisture. Easily dried an unlimited number of times on a radiator or in an airing cupboard. Fabric bag with non-slip strip.

- 500gm. Size 310mm x 90mm x 40mm.**
#DEHUM500 £6 (£7.20 inc vat)
- 1 Kg Size 310mm x 140mm x 40mm.**
#DEHUM1KG £8 (£9.60 inc vat)



30mm CHROMED AERIAL BLANKING CAP

This discreet little 30mm diameter, domed plate will seal and blank-off old aerial holes between 20mm and 22mm diameter in any thickness bodywork. Install from above and tighten the M6 nut beneath.
 Weight 24gms.
#ABK1 £4.50 (£5.40 inc vat)



POLYESTER INDOOR CAR COVER

This excellent value cover will protect your car from dust and paint fade. Water repellent. Storage bag included.

- EXTRA SMALL 3.4m (11ft 1in)**
#CXSIN £22 (£26.40 inc vat)
- SMALL 4.1m (13ft 4in)**
#CSIN £24 (£28.80 inc vat)
- MEDIUM 4.4m (14ft 2in)**
#CMIN £27 (£32.40 inc vat)
- LARGE 4.9m (15ft 10in)**
#CLIN £29 (£34.80 inc vat)
- EXTRA LARGE 5.4m (17ft 6in)**
#CXLIN £30 (£36 inc vat)

**COLOURS
MAY
VARY**



THREE LAYER POLYESTER OUTDOOR CAR COVER NEW HEAVIER MATERIAL WITH SOFTER INNER LAYER. LOWER PRICES - EVEN BETTER VALUE.

Non abrasive, waterproof and breathable. Elastic hems. Electro-welded seams. This excellent value cover will keep the car dry and protect your paintwork. Supplied with storage bag.

- SMALL (GREY) 4.1m (13ft 4in)**
#CSOUT £37 (£44.40 inc vat)
- MEDIUM (GREY) 4.4m (14ft 2in)**
#CMOUT £39 (£46.80 inc vat)
- LARGE (GREY) 4.9m (15ft 10in)**
#CLOUT £41 (£49.10 inc vat)
- X LARGE (GREY) 5.4m (17ft 6in)**
#CXLOUT £43 (£51.60 inc vat)



Notes: Not suitable for use whilst towing. Never store a wet cover for prolonged periods. Never put a dry cover on a wet vehicle. As with all outside car covers, in stormy conditions, it makes sense to stretch a few rubber bungees across the car to help hold down the cover. Sharp edges and obtrusions can tear the cover.

MEASURING YOUR CAR. Although the length of your car will give a good indication of the required cover size, a much more accurate method is to measure the total distance around your car, it's circumference, at it's widest and longest points. The following measurements are the maximum stretched, total hem length for each cover. Dimensions for indoor and outdoor are the same.

- CAR CIRCUMFERENCE**
- EXSMALL 10m (33ft)**
 - SMALL 11.5m (37ft 8in)**
 - MEDIUM 11.8m (38ft 4in)**
 - LARGE 13m (42ft 3in)**
 - EXLGE 14.2m (46ft 2in)**

FIRE

EXTINGUISHER

We all know how quickly a glassfibre car can turn to a pile of ashes by the roadside. Our dry Powder extinguisher could be your best investment. 60mm diameter x 300mm long. Single use for small liquid, solid and electrical fires. Powder-coated, snap-in wire mounting bracket included. Weight 0.7kg. Fire test rating 13B. Class A B C type. **BLACK #FIREXBK £15 each** (£18 inc vat)



4 AMP SMART BATTERY CHARGER / MAINTAINER

More details in Charging section
#SMART £33 (£39.60 inc vat)



LOCKING TYRE DUST CAPS Aluminium with a rubber seal inside and a tiny grub screw to lock them in place. Supplied with a watchmakers screwdriver to keep on your glove-box. NOTE: Always fit with a smear of grease on the threads.

SATIN BLACK #DCLBK £4 (£4.80 inc vat)
NATURAL ALUMINIUM #DCLAL £4 (£4.80 inc vat)



CHROME BRASS DUST CAPS Pack of four dust caps with rubber seals. Knurled edge and internal rubber seal. 9mm diameter x 8mm. **#CDC £2** (£2.40 inc vat)



TYRE DUST CAPS Packs of 5 anodized aluminium dust caps with rubber seals. 10mm Hex x 16mm long.

SILVER #DUSTS £3 (£3.60 inc vat)
RED #DUSTR £3 (£3.60 inc vat)
BLUE #DUSTB £3 (£3.60 inc vat)



HEXAGONAL POLISHED ALUMINIUM DUST CAPS Pack of 5 anodized aluminium dust caps with rubber seals. 13mm Hex with chequered decorative insert. Anodised Key ring 'Spanner' with leather loop. **#HEXDC £4** (£4.80 inc vat)



TYRE VALVE KIT 4 valve inserts, valve key, 2 sets of valve caps and a Pressure Gauge on a key ring. All in a plastic box. **#TVKIT £5.50** (£6.60 inc vat)



LOW RISE RAMPS Sometimes it can be a struggle to fit regular car ramps or a trolley jack under a lowered vehicle. Here's the solution. These heavy duty, Polypropylene Low-rise ramps can support 5000 Kg between them and will raise the vehicle by 60mm - enough to get your jack under. 700mm long x 200mm wide x 80mm high. They are lightweight (3.7Kg the pair) and easy to store. **#LRRAMPS £43 pair** (£51.60 inc vat)



ROLL CAGE FOAM PADDING Partially split foam protection sleeving for 38mm (1½") diameter chassis and roll cage tubing. 75mm (3") diameter with an offset 38mm bore. The wall thickness is 24mm maximum and 13mm at it's thinnest. Install with the thickest side towards the occupants. Supplied in 1 metre lengths in seven distinctive colours.

NOTE: This product is rated B1 Fire resistant. It is not fire-proof and not FIA approved.

RED #RBFR **ORANGE #RBFO** **PURPLE #RBF P**
BLUE #RBFBU **GRAPHITE #RBF BK** **GREY #RBF GY**
YELLOW #RBF Y

ALL £10 for 1 mtr (£12 inc vat)



BADGE BARS 19mm diameter, polished stainless steel tube with stainless end plugs. End plugs are not fitted so tube can easily be shortened. Chrome plated, diecast mounts with stainless fixing bolt and rubber gasket. Stainless grub screw in the mount secures it to the tube with an allen key.

Four versions

1. 235mm tube with single mount

#BB235 £16 (£19.20 inc vat)

2. 615mm straight tube with two mounts.

#BB615 £22 (£26.40 inc vat)

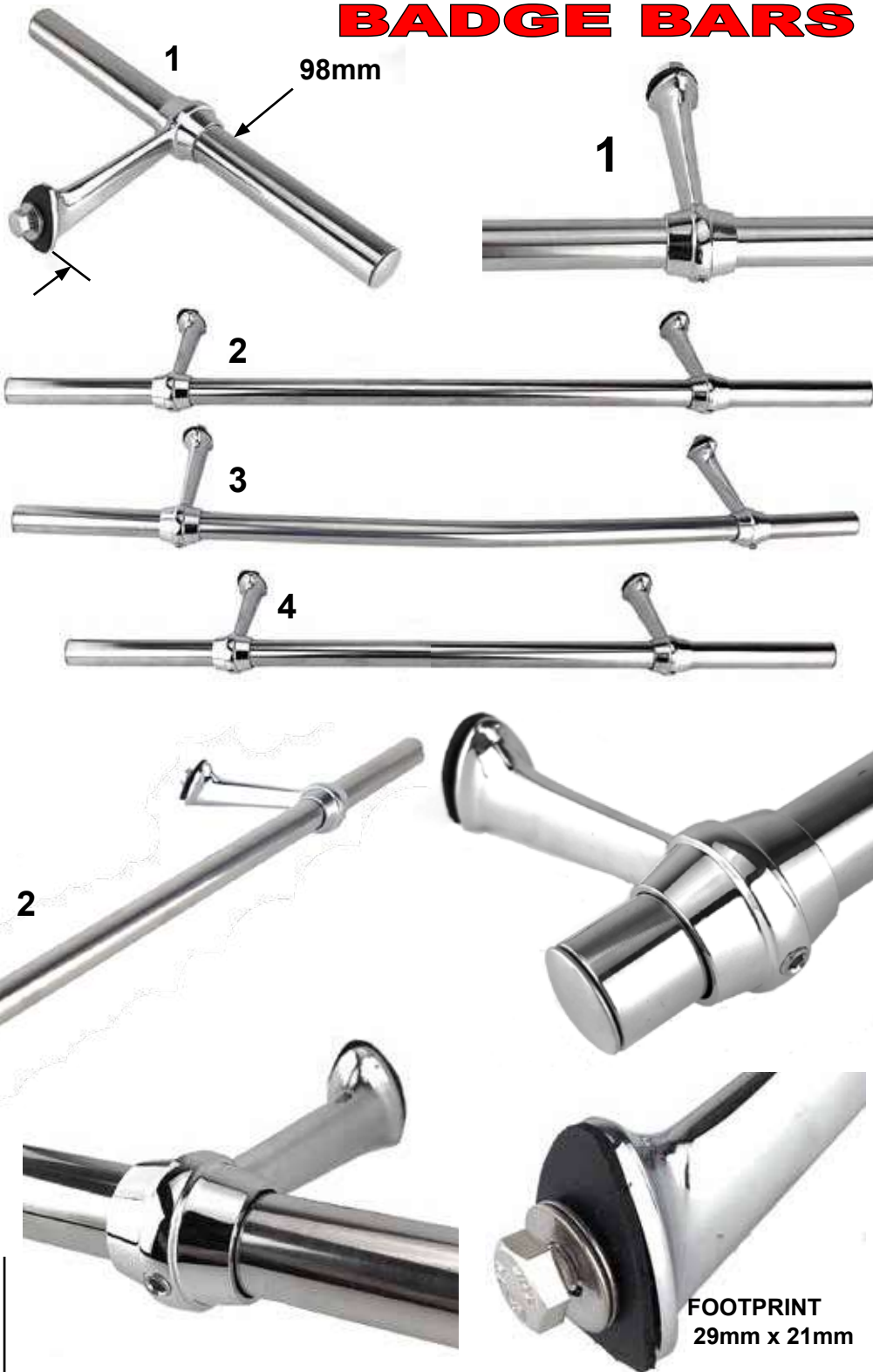
3. 615mm curved tube with two mounts.

#BB615C

4. 565mm straight tube with two mounts.

#BB565 £22 (£26.40 inc vat)

BADGE BARS



SPOTLIGHT BADGE BAR MOUNTING CLIP

This polished stainless clip is a perfect fit around our 19mm Badge Bar Tubes. 9.5mm holes. Size 35mm wide x 46mm high. #BBSLC £3 (3.60 inc vat)



BADGE MOUNTING CLIP

This polished stainless clip is a perfect fit around our 19mm Badge Bar Tubes. Slotted holes for badge holes between 14mm and 25mm centres. Size 38mm wide x 36mm high. Stainless screws, washers and nuts included

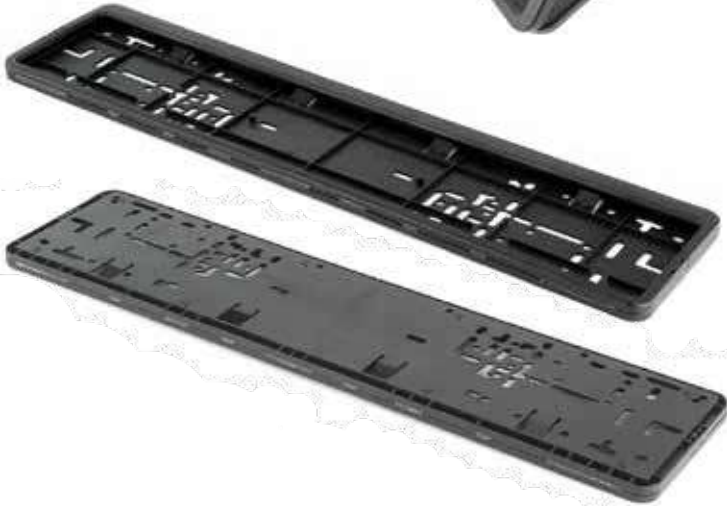
#BMC £3.50 (£4.20 inc vat)



NUMBER PLATE HOLDERS

BLACK MOULDED ABS CLIP-IN REGISTRATION PLATE HOLDER This clever holder is designed for easy installation and changing of your registration plate. Jut unclip and open the two hinged sections on the front, drop in the plate and snap it back together. Multi fixing options. Size 532mm x 129mm x 14mm. NOTE: Flat surface mounting only. Weight 200 gms.

#NPSBK2 £4.50 (£5.40 inc vat)



BLACK PLASTIC Size 543 x 134 x 15mm. Designed to accept standard UK plates size 520 x 110mm. Nice quality and lightweight with multi fixing options. Can be formed around slight curves.

#NPSBK £8 (£9.60 inc vat)



NUMBER PLATE FIXINGS

#NPSY Yellow washer with cap and self-tapping screw.

#NPSW White washer with cap and self-tapping screw.

#NPSB Black washer with cap and self-tapping screw.

#NPBY Yellow bolt with nut.

#NPBW White bolt with nut.

#NPBB Black bolt with nut.

Each item sold in packs of 5.

All £2.50 per pack of 5 (£3 inc vat)



NUMBER PLATE SURROUND PRESSED STAINLESS STEEL

Size 543 x 132 x 10mm. Highly polished stainless with multi fixing options. Can be formed around slight curves but must be bolted or screwed on. Plate can be secured into surround with double-sided tape. #NPSS £20 (£24 inc vat)



CHROMED PLASTIC Size 535 x 138 x 15mm. Nice quality and lightweight with multi fixing options. Can be formed around slight curves. #NPSC £10 (£12 inc vat)



NOTE: The outside edge of the surround sits 5mm above the mounting surface to prevent chafing of the paint.



BADGES AND EMBLEMS

ALL THE BADGES HERE ARE BEAUTIFULLY MADE IN CHROMED METAL AND ENAMEL WITH A SELF-ADHESIVE PAD ON THE BACK NOT SHOWN ACTUAL SIZE

CROSSED BLACK AND CHROME CHEQUERED FLAG AND UNION JACK

Overall 51mm x 25mm x 2mm thick.
#UCFBAD3 £6 (£7.20 inc vat)



CROSSED CHEQUERED FLAG AND UNION JACK

Overall 51mm x 25mm high x 2mm thick.
#UJCFBAD2 £6 (£7.20 inc vat)



CHEQUERED FLAG

51mm x 29mm x 2mm thick.
#CFBAD £6 (£7.20 inc vat)



OVERLAID UNION JACK AND CHEQUERED FLAG

Overall 51mm x 29mm x 2mm thick.
#UJCFBAD £6 (£7.20 inc vat)



UNION JACK WITH FIXING HOLES

Overall 67mm x 31mm x 2mm thick.
 Two 4mm holes at 58mm centres.
#UJ1S £6.50 (£7.80 inc vat)



UNION JACK

Size: 52mm x 30mm x 2mm thick
#UJ1 £10 (£12 inc vat)



CHROME AND BLACK UNION JACK

52mm x 29mm x 2mm
#UJ1BCH £7 (£8.40 inc vat)



SMALL PAIR UNION JACK

38mm x 21mm x 2mm.
#UJ2 £5 for 2 (£6 inc vat)

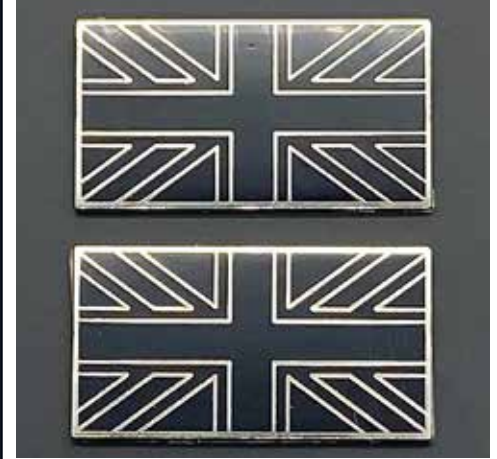


HIGH BOND DOUBLE SIDED TAPE IN THREE WIDTHS. SEE TAPES SECTION



SMALL PAIR CHROME AND BLACK UNION JACK

38mm x 21mm x 2mm.
#UJ2BCH £5 for 2 (£6 inc vat)



WAVY UNION JACK BADGES

28mm x 14mm x 2mm thick with self adhesive backing.

SMOKED CHROME & BLACK ENAMEL

#UJWBK £5 (£6 inc vat)



CHROME & ENAMEL

#UJW1 £5 (£6 inc vat)



FLEXIBLE CHROME PLASTIC UNION JACK BADGE

98mm x 55mm x 1.3mm thick. Just peel off the brown backing paper. All segments are still attached to a clear front film. When the badge is positioned and pressed down, peel off the front film.

#UJBADGE £9 (£10.80 inc vat)



CHROME and ENAMEL ITALIAN FLAG
21mm high x 38mm x 2mm thick including
the peel-off self-adhesive backing.

#ITBAD £5 (£6 inc vat)



CHROME and ENAMEL SCOTTISH FLAG
30mm high x 62mm x 3mm thick including
the peel-off self-adhesive backing.

#SCBAD £5 (£6 inc vat)



CHROME and ENAMEL GERMAN FLAG
29mm high x 51mm x 3mm thick including
the peel-off self-adhesive backing.

#DEBAD £5 (£6 inc vat)



CHROME and ENAMEL U.S. FLAG
30mm high x 52mm x 3mm thick including
the peel-off self-adhesive backing.

#USBAD £5 (£6 inc vat)



**MEDIUM DUTY AEROSOL
ADHESIVE** Here's a new
generation of synthetic rubber/
resin adhesive. This one
falls between our regular
aerosol adhesive and our high
temperature brush-on adhesive.
Suitable for carpet, vinyl, fabric,
foam, felt etc. OK for up to
110°C. **NOTE:** Always try a
test piece first to determine
suitability for your purpose and
compatibility with your materials.

#ADHAEROMD
£8.50 (£10.20 inc vat)



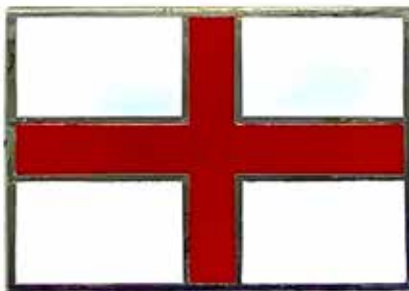
**CHROME and ENAMEL GEORGE CROSS
CRUSADER SHIELD** 42mm high x 30mm
x 3mm thick including the peel-off self-
adhesive backing.

#SIBAD £5 (£6 inc vat)



**ST. GEORGE CROSS CHROME AND
ENAMEL BADGE** 38mm x 27mm x 1.75mm
thick with peel-off self-adhesive back.

#GCBAD £5 (£6 inc vat)



CHROME NURBURGRING
61mm x 44mm x 3.8mm thick including the
peel-off self-adhesive backing.

#NUBAD £4 (£4.80 inc vat)



**AUTOSOL CHROME & ALUMINIUM
POLISH** 100 gm The original and best.
Also great for stainless, brass and copper.

#AUTOSOL £6.50 (£7.80 inc vat)



CHROME and ENAMEL SILVERSTONE
65mm high x 52mm x 4mm thick including
the peel-off self-adhesive backing.

#SIBAD £9 (£10.80 inc vat)



CHROME and ENAMEL BRANDS HATCH
60mm high x 44mm x 4mm thick including
the peel-off self-adhesive backing

#BHBAD £9 (£10.80 inc vat)



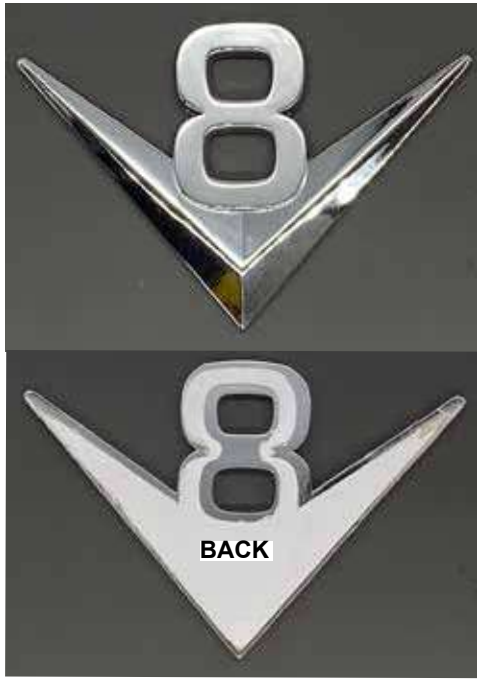
CHROME and ENAMEL HOCKENHEIM
60mm high x 44mm x 4mm thick including
the peel-off self-adhesive backing.

#HOCBAD £8 (£9.60 inc vat)



CHROME V8 55mm high x 80mm x 4mm thick including the peel-off self-adhesive backing.

#V8BAD £6 (£7.20 inc vat)



GT BADGE Size: 18mm high x 60mm x 3mm thick including the peel-off self-adhesive backing.

CHROME #GTBADC £5 (£6 inc vat)



CHROME and RED

#GTBADR £5 (£6 inc vat)



CHROME and BLACK

#GTBADB £5 (£6 inc vat)



CHROME and BLUE

#GTBADU £5 (£6 inc vat)



CHROME, SELF-ADHESIVE, ULTRA FLEXIBLE, UK EMBLEM New EU regulations in September 2021 require cars travelling to Europe, to display a 'UK' badge either instead of, or alongside, the traditional 'GB' badge. Nicely moulded, flexible vinyl. Size: 110mm x 80mm x 1.6mm thick.

#UKC £5 (£6 inc vat)



UK EMBLEM Overall size 120mm x 65mm x 4.5mm thick. Very nicely made, letters are slightly curved, chrome plated, moulded plastic with a peel-off self-adhesive backing.

#UKCP £7.50 (£9 inc vat)



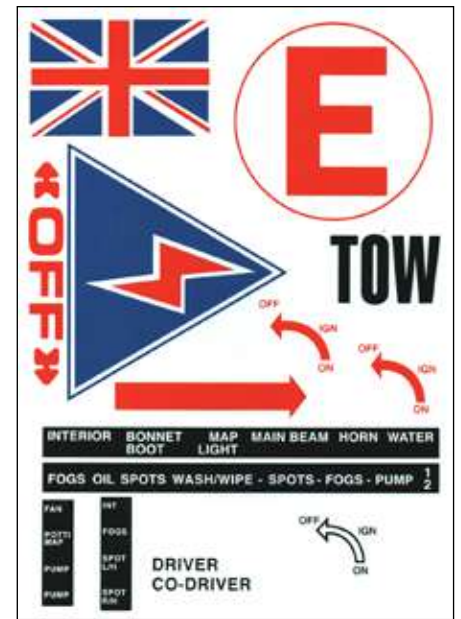
PRESSED STAINLESS STEEL GB BADGE WITH SELF-ADHESIVE BACKING

Each letter size: 86mm x 55mm x 3.8mm thick. Strong 3M peel-off foam adhesive is inset into the stainless steel pressing so the fixing method is virtually invisible.

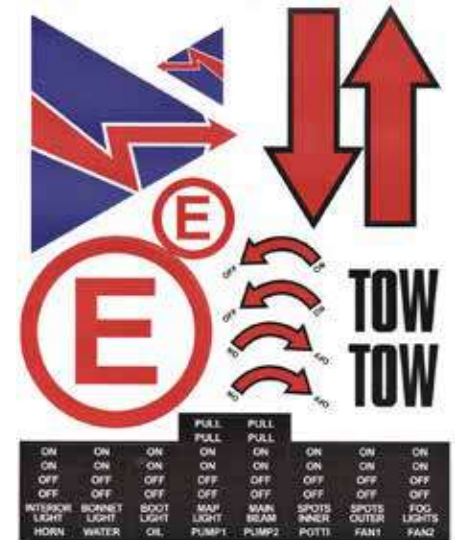
#GBPLATE £9 (£10.80 inc vat)



STICKER SHEET 2 A4 size printed white vinyl sheet. Just cut around the symbols with scissors or a knife, peel off the backing and stick 'em on. **#STICK2 £3** (£3.60 inc vat)



STICKER SHEET 3 Sheet size 250mm x 200mm. Printed on white vinyl sheet. All symbols and individual words are pre-cut so just peel them off the backing and stick 'em on. **#STICK3 £4** (£4.80 inc vat)



Watch us on **You Tube**

Dozens of instruction and demonstration videos. Just type **CAR BUILDER SOLUTIONS** in the You Tube search box

POLYURETHANE ADHESIVE/SEALANT Ideal for bonding-in vents and bonding-on ducting. 310ml. **BLACK #POLY £7.50** cartridge (£9 inc vat) **WHITE #POLYW £8** cartridge (£9.60 inc vat)



TOOLS

HSS METRIC DRILL BIT SET

Set of 25 good quality High Speed Steel Drills. Between 1mm and 13mm in 0.5mm increments. Supplied in a handy, steel, lift-up storage tray for your work bench. Suitable for Iron, Steel, Aluminium, Wood, GRP or plastic.
#DRIL25 £12 (£14.40 inc vat)



This item is explained on our **YouTube** channel

8 PIECE 14mm TO 25mm BLACKSMITHS DRILL SET

High Speed Steel for professional or home use. Sizes: 14mm, 16mm, 18mm, 19mm, 21mm, 22mm, 24mm & 25mm. All with 1/2" shank that will fit in most electric drills. All 145mm long. Supplied in an aluminium, hinged case.
BUILDER'S TIP: Remember - the larger the drill, the slower the speed. Do not run these drills at high speed.
#DRIL8 £28 (£33.60 inc vat)



SELF-STRIKING AUTOMATIC CENTRE PUNCH

This, knurled brass, spring-loaded punch automatically strikes a sharp blow to its hardened point when you press it on your mark.
#ACP £4 (£4.80 inc vat)



COUNTERSINK BIT SET OF 5

115° cutting angle. 8, 10, 12, 16 and 19mm dia. HSS with a 6mm shank. Fine for wood, plastics, GRP, Aluminium and steel. Use slow speed and lubricant.
#CSKSET £5 (£6 inc vat)



99 PIECE HSS METRIC DRILL BIT SELECTION 99 good quality High Speed Steel Drills in a strong, steel carry case. Case size: 240 x 260 x 40mm.
 15 pcs. @ 1.5mm 15 pcs. @ 2.0mm
 15 pcs. @ 2.5mm 10 pcs. @ 3mm
 10 pcs. @ 3.2mm 8 pcs. @ 3.5mm
 8 pcs. @ 4mm 3 pcs @ 4.5mm
 3 pcs. @ 5mm 2 pcs. @ 5.5mm
 2 pcs. @ 6mm 2 pcs. @ 6.5mm
 2 pcs. @ 8mm 2 pcs. @ 10mm
 Suitable for Iron, Steel, Aluminium, Wood, GRP or plastic. **#DRIL99 £20** (£24 inc vat)



SINGLE JOBBER DRILLS Suitable for Iron, Steel, Brass, Aluminium, Wood, GRP or plastic

METRIC 3mm #DRIL3 £1 each (£1.20 inc vat)
METRIC 4mm #DRIL4 £1.25 each (£1.50 inc vat)
METRIC 5mm #DRIL5 £1.50 each (£1.80 inc vat)
METRIC 6mm #DRIL6 £2 each (£2.40 inc vat)

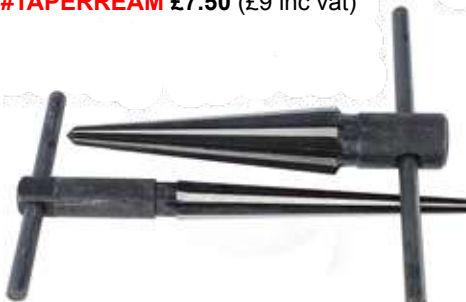


IMPERIAL 1/8" #DRIL18 £1 each (£1.20 inc vat)
IMPERIAL 3/16" #DRIL316 £1.50 each (£1.80 inc vat)
IMPERIAL 1/4" #DRIL14 £2 each (£2.40 inc vat)



TAPERED REAMER SET

You'll find a multitude of jobs for this handy kit. From enlarging and cleaning dashboard holes for switches and warning lights to correcting misaligned holes in chassis brackets. Suitable for Steel, Aluminium, GRP, Acrylics and Wood. Two heat-treated, High Carbon Steel Hand Reamers with 'T' Handles. 3mm to 12mm at 5 degrees angle and 3mm to 16mm at 10 degrees angle.
#TAPERREAM £7.50 (£9 inc vat)



STEPPED HOLE CUTTERS Excellent quality. Cut clean neat accurate holes in GRP Aluminium & Steel. Titanium coated. Note: A little light oil will make a cleaner cut and prolong the life of the cutting edge.

SINGLES

METRIC 4mm to 12mm (2mm steps)
#STEP9 £6 (£7.20 inc vat)

METRIC 4mm to 20mm (2mm steps)
#STEP10 £8 (£9.60 inc vat)

METRIC 4mm to 22mm (2mm steps)
#STEP4 £10 (£12 inc vat)

METRIC 4mm to 32mm (2mm steps)
#STEP6 £16 (£19.20 inc vat)

IMPERIAL 1/4" to 3/4" (1/16" steps)
#STEP11 £8 (£9.60 inc vat)

IMPERIAL 3/16" to 7/8" (1/16" steps)
#STEP3 £10 (£12 inc vat)

THREE PIECE SET

METRIC 4mm to 32mm
#STEPM £28 (£33.60 inc vat)

METRIC SET



LARGE STEPPED HOLE CUTTERS

Excellent quality. Cut clean neat accurate holes in Sheet Steel, Aluminium, Wood and GRP. (Not stainless). Note: A little light oil will make a cleaner cut and prolong the life of the cutting edge. Use very slow drill speed for larger diameters.

Weight 610 gms
6mm to 60mm (in 5mm steps)
12mm shank
#STEP660
£19 (£22.80 inc vat)



4mm to 42mm (4, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42) 10mm shank.
 Weight 335 gms
#STEP442
£13 (£15.60 inc vat)

CIRCLE CUTTER The Rolls Royce of circle cutters. Easy adjustment from 40mm to 120mm diameter. Just loosen the wing nut, slide the cutting arm and re-tighten the wing nut. Tungsten Carbide tip for clean cutting in wood, plastics, GRP and aluminium. 6mm diameter HSS pilot drill. Overall height 136mm. Best used in a pillar drill but can be used in a hand drill with care. Use 800 rpm up to 90mm and 200 rpm over 90mm.
#CIRCUT £15 (£18 inc vat)



16 PIECE HOLE SAW SET
 Sizes 19, 22, 28, 32, 38, 44, 51, 64, 76, 88, 102 & 127mm, 2 Arbors and assembly tools in a moulded case. This set is ideal for making holes in glassfibre or aluminium panels.
#HOLES £10 (£12 inc vat)
SEE OUR HINTS AND TIPS SECTION FOR FULL INSTRUCTIONS AND BEST PRACTICE ON THIS PRODUCT



COUNTERSINK / DEBURRING TOOL
 3 piece hand de-burr tool. Three bits and tough polypropylene handle.
#DEBUR3PC £5 (£6 inc vat)



SWIVELLING BLADE DEBURRING TOOL
 A handy pocket version of the de-burring tool used by engineers and sheet-metal workers the world over. Will remove sharp edges and burrs from the rim of any hole or the inside lip of a tube. Suitable for Steel, Aluminium, Stainless, Copper.
#SWDEB £3.50 (£4.20 inc vat)



10mm to 33mm HOLE DEBURRING / ENLARGING TOOL
 160mm long with comfort grip handle. For aluminium, plastics, GRP. and steel.
#LHDEB £9 (£10.80 inc vat)



SET OF FIVE SHEET METAL HOLE PUNCHES Never again struggle to cut a nice round clean hole through a panel. Our range of hole cutters will cut a neat, distortion free hole in mild or stainless steel up to 16 swg (1.6mm) or up to 2mm in aluminium, copper and brass. Sizes 19, 25, 32.5, 37.5 and 51mm.
#HOLEP £75 (£90 inc vat)
SEE OUR HINTS AND TIPS SECTION FOR FULL INSTRUCTIONS AND BEST PRACTICE ON THIS PRODUCT



BILLET ALUMINIUM SWIVEL DEBURRER Anodised handle with replaceable rotating blade.
#SWDEB2 £5.25 (£6.30 inc vat)



TWO SPARE BLADES FOR SWIVELLING DEBURRING TOOL A pack of two spare blades for our popular deburring tools.
#SWBL £1.80 (£2.16 inc vat)



SHEET METAL HOLE PUNCHES

12.7mm (1/2") #HP127 £8 (£9.60 inc vat) **15mm (5/8") #HP15** £9 (£10.80 inc vat)



19mm (3/4") #HP19 £9.50 (£11.40 inc vat) **25mm (1") #HP25** £11 (£13.20 inc vat)



32.5mm (1 1/4") #HP325 £13 (£15.60 inc vat) **37.5mm (1 1/2") #HP375** £17 (£20.40 inc vat)



51mm (2") #HP51 £25 (£30 inc vat) **52mm (2 1/16") #HP52** £29 (£34.80 inc vat)



75mm (3") #HP75 £105 (£126 inc vat) **80mm (3 1/8") With thrust bearing #HP80** £145 (£174 inc vat)



19mm (3/4") SQUARE #HP19SQ £75 (£90 inc vat)



25.4mm (1") SQUARE #HP254SQ £78 (£93.60 inc vat)



THREADS AND HOW TO MAKE THEM

Threads are all around us - they hold our world together. From the tiniest in your watch to the largest that hold bridges together. There are a few hundred of them on your car and sooner or later you'll have to make one, or two, or dozens. The simplest thread-making devices are taps and dies - Taps are for making female threads in things (nuts) and dies are for making male threads on things (bolts).

If, till now, you've never made a thread it's likely that you've at least damaged one - we all have. The thought of making a thread on or in a piece of material can frighten the enthusiasm out of many people, but there is really nothing magical or difficult about it at all. The problem is - there are hundreds of different types and sizes - and they all look confusingly similar. So how different are they?

During the second world war, the difference between British and American screw threads caused havoc with the guys who looked after the allies' equipment. Virtually nothing was interchangeable so, after the war, standards officials from US and UK got together to decide on a common system of threads.

They agreed upon UNC (Unified National Coarse) and UNF (Unified National Fine) - both are transatlantic versions of ANC (American National Coarse) and ANF (American National Fine).

- The angle of the new UN threads was 60°, the same as AN. The established British Whitworth and BSF (British Standard Fine) threads are cut at 55°.
- UNF and BSF pitches were different throughout the range but UNC and Whitworth pitches coincided perfectly up to 2" diameter - except for 1/2", whereupon an extra thread crept into the UNC!
- Both UNF and ANF pitches stayed in step until they reached 1". Here, as if just to prove good faith and that the changeover was not too biased in favour of the USA, they slipped in two extra threads.
- To throw a final spanner in the works (sorry), they decided to denote all UN spanners as A/F (Across Flats) instead of using the bolt actual diameters as on BSF and Whitworth spanners.

OK, so we've all got a new system. Or have we? Many British engineering and manufacturing companies ignored the new standard and carried on using BSF and Whitworth (plus BA for small stuff and BSP for pipework). So, we've got a new system and some of the old system. Then along comes Metric and guess what? There's not a compatible thread in the lot. They're all new, and all different and called Metric Coarse.

OK, so everybody throw away all your UNC, UNF, ANC, ANF, BSF, Whitworth, BA NPT and BSP stuff, and start using Metric. You may think everyone is happy now. Not a chance. There's a new range and its called Metric Fine.

It can all appear pretty confusing, but it's not really as bad as it seems. At the back of this catalogue you'll find charts listing all the common threads and their tapping sizes. If you want more information every good tool store will stock an inexpensive little book listing all British, American and Metric threads, and all the relevant dimensions and tapping drill sizes. You may even find, within its grease-proof pages, a chart of allowances for sheet metal bending, Sines, Cosines and basic Trig - They could all come in handy.

PRACTICAL CAR BUILDING

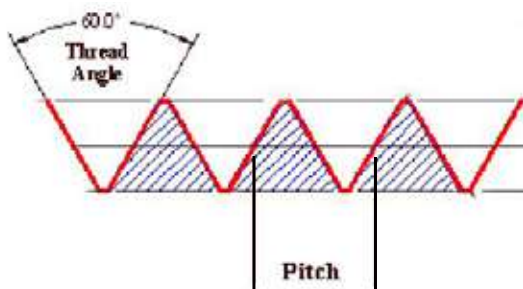
It would be almost impossible to construct your car with the same system of threads throughout. Early Ford and Chevy components will be UNC & UNF, older British vehicles will be BSF and Whitworth and Continental and Japanese cars will mostly be Metric.

If you're unsure about the identity of a particular bolt, first accurately measure the thread diameter to establish whether it's Imperial or Metric. You can use a thread gauge to identify most pitches. Or, if you suspect the thread to be Imperial, set the jaws of your vernier (or digital) caliper to one inch and count the number of threads that will fit between the jaws. This will give you TPI (Threads Per Inch). Look through your data charts at the back of this catalogue to identify the thread. Remember that most Whitworth and UNC threads can only be identified by measuring the thread angle with a gauge (Whit 55° and UNC 60°) Metric threads are denoted by the thread diameter and the pitch, in millimetres (eg. 10 mm x 1.5).

Always drill the correct size hole if you're tapping a thread and use a cutting fluid or thin oil. Ensure that the tap or die are perfectly square to the drilled hole. Once the thread has started to form take your time and cut just half a turn at a time then rotate the tool backwards to break off the swarf.

Pitch on Imperial threads is designated in TPI - Threads Per Inch. So, a 1/4"-24 UNF thread is 1/4" diameter and has 24 threads per inch.

Metric thread pitch is the measurement of one thread in millimetres. So, a M10 x 1.5 bolt has a 10mm diameter and a pitch of 1.5mm.



This is explained on our **YouTube** channel

HELI-COIL KITS

THREAD REPAIR KITS FOR ALUMINIUM Affordable kits for repairing stripped threads in aluminium components. Each kit consists of the correct size Drill, a Tap, Installation tool, Tang removal tool and repair Coils - all in a plastic box.

M5 x 0.81mm (20 inserts) #HCM508 £8.25 (£9.90 inc vat)

M6 x 1mm (20 inserts) #HCM61 £10 (£12 inc vat)

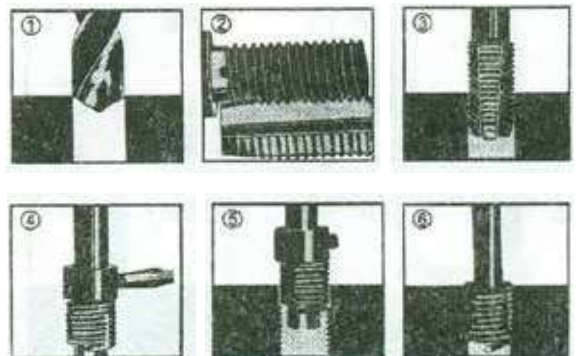
M8 x 1.25mm (20 inserts) #HCM8125 £15 (£18 inc vat)

M10 x 1mm (10 inserts) #HCM101 £15 (£18 inc vat)

M10 x 1.5mm (10 inserts) #HCM1015 £15 (£18 inc vat)

M12 x 1.75mm (10 inserts) #HCM12175 £15 (£18 inc vat)

M14 x 1.25mm (10 inserts) #HCM14125 £16 (£19.20 inc vat)



INSTALLATION INSTRUCTIONS

- 1. CHECK** carefully the size and pitch of the required thread
- 2. DRILL** out the damaged thread with the drill included in the kit. Be sure to keep the drill square and perpendicular to the hole. We recommend using a pillar drill if possible. No drilling is required for the M14 (spark plug) size.
- 3. TAP** the hole using the tap supplied in the kit. Keep the tap perfectly square and perpendicular to the hole and use cutting oil. TIP: Filling the tap flutes with grease will help retain the swarf and prevent it from falling into the hole.
- 4. INSTALL** the insert. Place the insert on the installation tool with the tang at the bottom. Position the adjustable ring so that the tang is centred in the tang slot. Wind the insert in with light downward pressure until the top of the insert is half a turn below the surface. Do not attempt to unscrew as the tang will break.
- 5. REMOVE** the tang. Insert the tang removal tool and tap it lightly with a hammer to remove the tang. On larger size inserts you can remove the tang with long-nosed pliers.

115 PIECE IMPERIAL AND METRIC TAP AND DIE SET This, superb value, 115 piece tap and die set is made from high quality alloy steel and is suitable for making and repairing threads in plastics and metals (not stainless). Each Tap and Die is clearly etched with the diameter and the thread pitch. The set includes a set of five screw extractors, two thread gauges and five drill bits

Supplied in a blow-moulded storage case. **CONTAINS ONE EACH, TAP AND DIE, IN THE FOLLOWING SIZES:**

IMPERIAL: 4-40, 5-40, 6-32, 8-32, 10-24, 10-32, 12-24

1/4"x20, 1/4"x28, 5/16"x18, 5/16"x24, 3/8"x16, 3/8"x24, 7/16"x14, 7/16"x20

1/2"x13, 1/2"x20, 9/16"x12, 9/16"x18, 5/8"x11, 5/8"x18, 3/4"x10, 3/4"x16

PIPE THREADS: 1/8"x27 NPT, 1/4"x18 NPT, 1/8"x28 BSP, 1/4"x19 BSP

2 x BAR-TYPE TAP WRENCHES, 1 x T-TYPE TAP WRENCH,

2 x DIE HOLDERS, 2 x THREAD GAUGES

5 x DRILL BITS: 2.5mm, 3.3mm, 4.2mm, 5.0mm, 6.8mm, (for M3 to M8)

5 x SCREW EXTRACTORS, 1 x SCREWDRIVER,

1 x CENTRE PUNCH

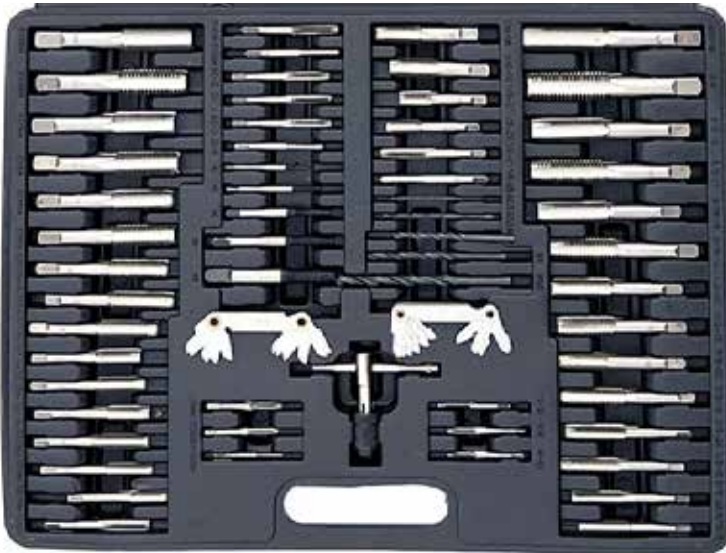
Closed case size: 450mm x 340mm x 60mm

#TAPDIE115 £85 (£102 inc vat)

METRIC: 2×0.4, 3×0.5, 4×0.7, 5×0.8, 6×1.0, 7×1.0, 8×1.0, 8×1.25, 9×1.25, 10×1.0, 10×1.25, 10×1.5, 11×1.5, 12×1.25, 12×1.75, 14×1.5, 14×2, 16×1.5, 16×2, 18×1.5, 18×2.5.



BUILDER'S TIP. CUT THROUGH THE CASE HINGE AND LAY THE TWO HALVES IN A SHALLOW DRAWER IN YOUR TOOLBOX



110 PIECE METRIC TAP AND DIE SET This, superb value, 110 piece tap and die set is made from high quality alloy steel and is suitable for making and repairing threads in all plastics and all metals. Each Tap and Die is clearly etched with the diameter and the thread pitch so you can't go wrong. The set includes two sliding jaw tap wrenches and a T-Bar type tap wrench plus two die holders.

Supplied in heavy-duty metal storage case.

35 x TAPER TAPS: 2×0.4, 3×0.5, 4×0.7, 5×0.8, 6×0.75, 6×1.0, 7×0.75, 7×1.0,

8×0.75, 8×1.0, 8×1.25, 9×0.75, 9×1.0, 9×1.25, 10×0.75, 10×1.0, 10×1.25, 10×1.5,

11×0.75, 11×1.0, 11×1.25, 11×1.5, 12×0.75, 12×1.0, 12×1.25, 12×1.5, 12×1.75,

14×1.0, 14×1.25, 14×1.5, 14×2.0, 16×1.5, 16×2.0, 18×1.5

35 x PLUG TAPS: Same sizes as Taper Taps.

35 x DIES: Same sizes as Taper Taps.

2 x DIE WRENCHES: for 25mm and 38mm dies.

2 x TAP WRENCHES: for M3-M12 taps and for M6-M20 taps.

1 x T-TYPE TAP WRENCH: for M3-M6 taps.

#TAPDIE110 £88 (£105.60 inc vat)



**CHECK OUT OUR
YouTube
CHANNEL**



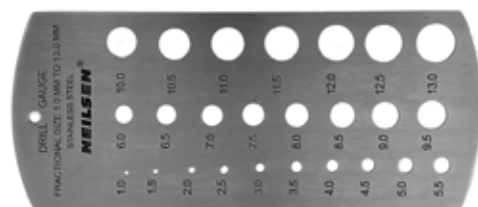
40 PIECE BUDGET METRIC TAP & DIE SET

34 high carbon steel, Metric Coarse and Metric Fine taps and dies from M3 to M12. The set also includes two tap wrenches, a die holder, a 12 blade thread gauge and an 1/8" NPT tap (the size of many engine senders). We won't pretend that this is top quality stuff but saving the life of one damaged engine thread could be worth the purchase price of this useful set. Weight 1.1Kg. **#TAP £20** (£24 inc vat)



DRILL GAUGE 1mm to 13mm

66mm x 158mm x .7mm thick stainless steel gauge for measuring your drill sizes between 1mm and 13mm, in 0.5 mm increments. **#DRILLGAUGE £3** (£3.60 inc vat)



24 PIECE UNF / UNC TAP & DIE SET

11 Alloy tool-steel taps and 11 dies. Ideal for forming and repairing threads in softer materials (not stainless). The set also includes a tap wrench and a die holder. 1 each tap and die of the following sizes: 1/4" x 28 UNF, 1/4" x 20 UNC, 5/16" x 24 UNF, 5/16" x 18 UNC, 3/8" x 24 UNF, 3/8" x 16 UNC, 7/16" x 20 UNF, 7/16" x 14 UNC, 1/2" x 20 UNF, 1/2" x 13 UNC, 1/8" NPT. Supplied in a hinged steel box. **#UNFTAP £16** (£19.20 inc vat)



24 PIECE BSF TAP AND DIE SET Six taper taps and six bottoming taps in sizes: 3/16" x 32, 1/4" x 26, 5/16" x 22, 3/8" x 20, 7/16" x 18, 1/2" x 16. Six dies, Tap Wrench and Die Holder. All in a metal storage case. **#BSFTAP £18** (£21.60 inc vat)



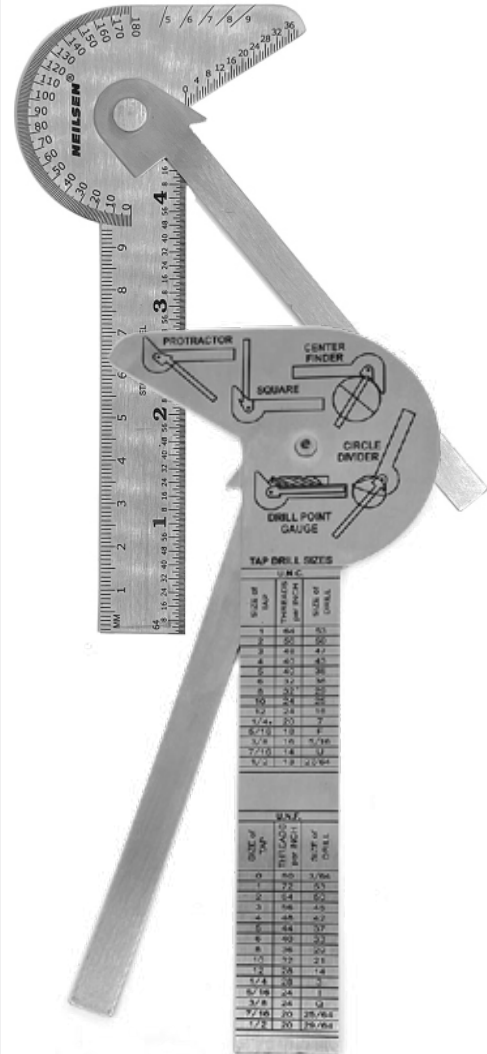
EXTRACTOR SET 5 PIECES

It is sometimes impossible to cleanly remove broken studs and bolts - especially if they're rusty, but these tapered, fluted, hardened steel extractors offer you a good chance without damaging the female thread. Drill a hole in the stud as accurately and centrally as possible at the size and depth recommended on the packaging, lightly tap in the extractor and turn it anti-clockwise. Applying heat from a gas torch will always help. **#EXTRACT5 £3** (£3.60 inc vat)



RULE AND PROTRACTOR MULTI GAUGE

This handy little, stainless steel gauge offers multiple measuring options: Angle finder, Centre finder, Circle divider, Drill point gauge, Square. On the back is a tapping chart for UNF and UNC threads. Overall size folded 147mm x 70mm. **#RAF £3** (£3.60 inc vat)



THREAD GAUGE Easily identify threads with this Metric and Imperial gauge. Fifty individual thread profiles for measuring 4 to 62 threads per inch and 0.25mm to 6mm pitch. **#THREADGA £5** (£6 inc vat)



CHINAGRAPH PENCILS RED and BLACK

Write on glass, metal, plastic - all smooth surfaces. Easy, peel-off sharpening. 170mm long **#CHINAG £1.50** (£1.80 inc vat)



BUDGET PROFILE GAUGE Enables you to duplicate the shape of corners, cut-outs and profiles. 5½" (138mm) width.

#PROF £4 (£4.80 inc vat)



LARGE PROFILE GAUGE Duplicate curves and shapes over a wider area with our 258mm wide gauge. 30mm travel of fingers. Imperial and Metric measuring scales and magnetic pads on the back.

#PROF2 £10 (£12 inc vat)



PLATED STEEL PROFILE GAUGE

Fine steel pins for accurate profile copying. Maximum depth 45mm. Maximum length 150mm. Imperial and Metric scales on centre frame. Weight 210 gms.

#PROF4 £6 (£7.20 inc vat)



FEELER GAUGE SET 26 blades. 0.0015" to 0.025". Metric equivalents etched on each blade. **#FEELER £4** (£4.80 inc vat)



MEASURING AND MARKING SET

There's no excuse for getting it wrong if you have this great value set:

- 1. PROTRACTOR / DEPTH GAUGE.** Tempered stainless steel. Measure and mark angles accurately. You can also slide the reversible scale (Inches on one side and Metric on the other) up and down to measure the depth of a groove - or even a tyre. 150mm scale. 180° protractor 78mm across.
- 2. 150mm SPRUNG DIVIDERS.** Accurately scribe a circle up to 350mm diameter on metal, plastic or wood. Hardened and ground points and quick adjustment.
- 3. 150mm EXTERNAL SPRUNG CALIPER** Measures for instance the depth of an external circlip groove or make size comparisons of similar parts up to 150mm.
- 4. 150mm INTERNAL SPRUNG CALIPER** Measure or compare the internal diameter of tubes or any internal dimension up to 170mm.
- 5. CENTRE FINDER / MARKER** With this clever, clear plastic tool you can find and mark the centre of a disc or square up to 200mm diameter or a Hexagon up to 145mm. Weight 750gms.

#MMSET £20 (£24 inc vat)



COMBINATION SQUARE Four useful measuring and marking tools in one. 300mm Stainless steel rule. Right angle and 45° sliding square with spirit level and scriber. 180° sliding protractor head for marking accurate angles. Sliding centre-finder for locating the middle of anything round. Everything you need for laying-out and marking panels and tubing.

#COMSQ £12 (£14.40 inc vat)



MINI COMBINATION SQUARE

A great little tool for marking your tubes and panels & keeping everything square & level. 150mm rule, integral spirit level and detachable scriber.

#COMSQM £6 (£7.20 inc vat)



NUT & BOLT GAUGE This great little gadget will help you identify all those mysterious nuts & bolts.

#NBGA £3 (£3.60 inc vat)



STAY-OUT TAPE MEASURES Brilliant new take on the old traditional tape-measure. These actually stay put when you pull out the tape and only release when you press the button. Now, why didn't I think of that?

THREE METRE #TAPE3 £2 (£2.40 inc vat)
FIVE METRE #TAPE5 £3 (£3.60 inc vat)



TUNGSTEN CARBIDE SCRIBER

150mm long aluminium body with two Tungsten tips. Pocket clip and magnetic end cap. **#SCRIBER £3** (£3.60 inc vat)



BUDGET 150mm (6") MEASURING CALIPER

If you're not looking for maximum, toolroom precision then this amazingly inexpensive and almost indestructible tool will get a lot of use in your workshop. It will measure inside and outside diameters and hole or shoulder depth to an accuracy of 0.1mm. **#MEACAL £4** (£4.80 inc vat)



DIGITAL CALIPER STAINLESS STEEL

This essential tool box item will measure from 0 to 150mm has an accuracy of 0.02 mm (half a thousandth of an inch) and an easy to read LCD display. You can switch from Metric to Imperial with the press of a button and set the readout to zero anywhere on the scale. Supplied in a hard plastic case. **#DIGICAL £22** (£26.40 inc vat)



PRECISION MICROMETER 0 - 25mm

We couldn't believe how such a precision instrument could be available at this price. There are some measuring jobs for which a real engineering micrometer is the only tool. Ours has carbide tipped jaws, a fixed-torque clutch, a locking lever and a calibration spanner. Measure drills, shafts, bearings or sheet metal up to 25mm with 0.01mm accuracy. **#MICRO £10** (£12 inc vat)



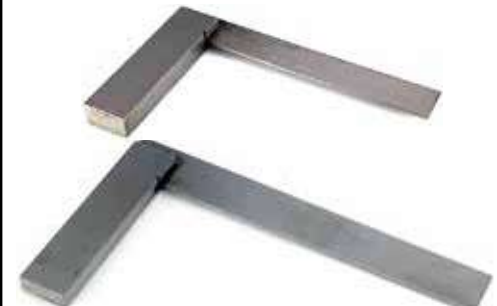
VALUE COMPOSITE DIGITAL CALIPER

Here's a combination of value and accuracy that's hard to beat. Yup - plastic jaws and an easy-to-read LCD digital display that will measure from 0 to 150mm and has an accuracy of 0.1 mm (four thousandths of an inch). You can switch from Metric to Imperial with the press of a button and set the readout to zero anywhere on the scale. Supplied in a hard plastic case **#DCABS £8.50** (£10.20 inc vat)



ENGINEERS SQUARES

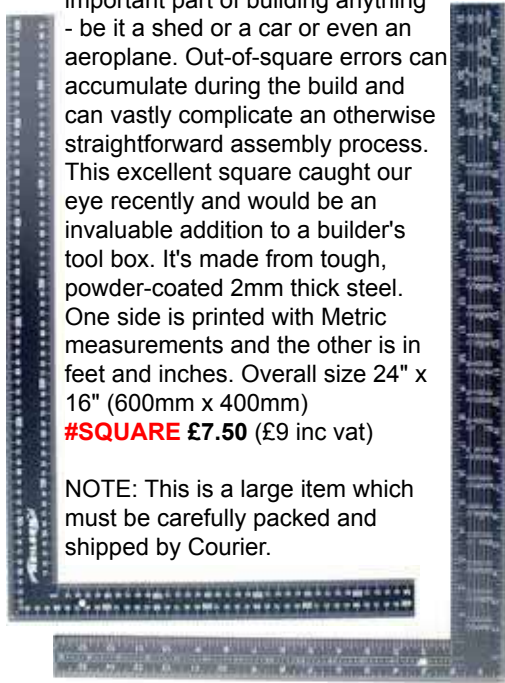
Some fabrication jobs require a higher level of accuracy. You can achieve it with these superb, precision-made Engineers Squares. Made from hardened high carbon steel to British Standard BS939 and ground to a perfect 90°, they will help you set up exact right angles on any inside or outside corner. **4" (125 x 80mm x 11mm thick) 169gms. #ENGSQ4 £6** (£7.20 inc vat)
8" (230 x 130mm x 11mm thick) 416gms #ENGSQ8 £9 (£10.80 inc vat)



CAR BUILDER'S SQUARE.

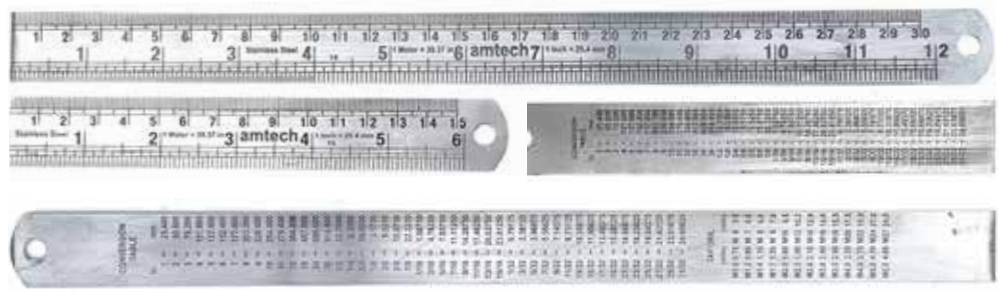
Getting things square is a vitally important part of building anything - be it a shed or a car or even an aeroplane. Out-of-square errors can accumulate during the build and can vastly complicate an otherwise straightforward assembly process. This excellent square caught our eye recently and would be an invaluable addition to a builder's tool box. It's made from tough, powder-coated 2mm thick steel. One side is printed with Metric measurements and the other is in feet and inches. Overall size 24" x 16" (600mm x 400mm) **#SQUARE £7.50** (£9 inc vat)

NOTE: This is a large item which must be carefully packed and shipped by Courier.



6" (150mm) and 12" (300mm) STEEL RULE PACK

Made from hardened stainless steel with very clear markings. Turn them over and you'll find a handy conversion chart and tapping drill sizes for popular Metric and Imperial threads. Supplied in plastic wallets. **#RULEPAK Pack of 2 £2** (£2.40 inc vat)



1 Mtr ALUMINIUM RULE

Clearly printed Imperial and Metric scales on both sides. NOTE: This item will have to be shipped by Courier on a piece of wood so will be expensive to ship alone. **#1MTRULE £5** (£6 inc vat)



HOW TO USE CALIPERS

Exact measurement is critical in the manufacture and fitting of special parts for your car, so the simple adaptation of modern electronics to the faithful old Vernier Caliper has bought accuracy and versatility within reach of the home workshop. The old style, traditional Vernier Caliper relies on the eyesight of the user to judge alignment of two scored divisions on the fixed and movable scales. Reasonable accuracy can be achieved. A digital caliper will directly display readings accurate to around half a "thou" .0005" (.012 mm). A gentle press of a small button will instantly convert the displayed dimension from imperial to metric, or vice versa - far easier than scanning a wall-chart!

Another button resets the display to zero, at any opening of the jaws. This gives a simple method of measuring deviation from a normal, known dimension when comparing a batch of parts. There are four measuring facilities on your caliper

- The inside edges of the large jaws are the main measuring surfaces. The thicker, upper part helps you to square the jaws over the workplace; the thinner, chamfered ends will fit into narrow slots or grooves. When measuring inside or outside dimensions, rock the calipers gently on the workplace whilst pushing the jaws together. Keep an eye on how the readout changes as you rock. The lowest reading will be the most accurate.
- The smaller, upper jaws appear to cross-over as you open the calipers. It is these jaws that you will use to



the thread. Remember that most Whitworth and UNC threads can only be identified by measuring the thread angle with a gauge (Whit 55° and UNC 60°) Metric threads are denoted by the thread diameter and the pitch, in millimetres (e.g. 10 mm x 1.5) Your donor car parts will, most likely, all have the same system of threads.

American Ford and Chevy parts will be UNC & UNF. Older British vehicles will be BSF and



Whitworth and Continental and Japanese will mostly be Metric. It is almost impossible to build a car with a single thread system but at least you can try to maintain uniformity within say, your engine bay and your suspension systems. There are benefits to be gained from this approach. You'll need to buy less taps and dies. Your stock of nuts and bolts can be more carefully planned. You'll become more familiar with tapping-drill sizes and there will be less chance of damaging your parts by forcing the wrong bolts in the wrong nuts.

If looked after and kept clean, your Digital Caliper will give you many years of use. Be careful not to drop it on the jaws - even though it is made from hardened stainless steel, mishandling can easily damage the accurately machined components and affect the accuracy of the instrument. Keep the printed strip clean and free from oil, grease and metal filings - this is part of the sensing electronics.

BUILDER'S TIP This tip could be viewed as misuse of a tool and would make many an engineer weep, but we find the technique so useful that we justify it as a time saver.

When marking-out softer materials like aluminium and mild steel simply set the caliper to the required dimension, lock the jaws with the locking screw and scratch a line on the job with the point of one jaw whilst running the other along the edge of the material. Both the inner and outer, measuring jaws of your caliper are hardened and ground to a point so, providing you're not trying to mark stainless or hardened steel, the calipers will suffer no serious damage.



measure inside dimensions like tubing bores or hole sizes. Because the jaws are pointed and chamfered almost to a knife edge you can accurately measure holes from a couple of millimetres in diameter. Again rock the caliper and keep an eye on the readout. This time, the highest reading is the one to look for.

- If you turn over the instrument you'll see that the ends of both the fixed and sliding jaws are level when the jaws are closed. This is a useful feature for measuring a step height or slot depth. Once more, rock one jaw against the work until it is sitting square then slide the other jaw to touch the step..
- The final measuring technique uses the other end of the instrument. You'll find that, as you open the jaws, a rod extends from the end shoulder the



exact dimension shown on the readout. With this feature you can measure depth of holes and steps between two surfaces.

One of the main uses of a digital caliper is identification of bolts and drill sizes. If you are unfamiliar with the multitude of different international standards it is all too easy to mistake one thread for another and damage a valuable part beyond repair. The solution - measure it and identify it first.

If you're unsure about the identity of a particular bolt, first measure the thread diameter to establish whether it's Imperial or Metric. If you suspect the thread to be Imperial, set the jaws of your caliper to one inch and count the number of threads that will fit between the jaws. This will give you TPI (Threads Per Inch). Look through your data charts or reference tables to identify

13 PIECE CHROME VANADIUM METRIC RATCHET COMBINATION SPANNER SET

Great value and quality set. Foam mounted in a tough aluminium case.

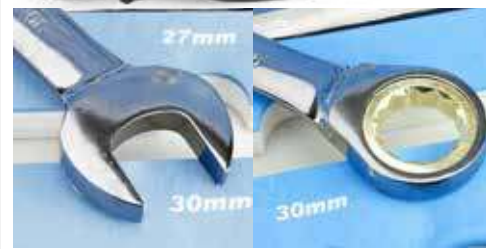
Case size: 480 x 400 x 120mm.

8mm, 10mm, 12mm, 13mm, 14mm, 17mm, 19mm, 21mm, 23mm, 24mm, 27mm, 30mm.

Weight 6.2 Kg.

#RATSPAN £74

(£88.80 inc vat)



48 PIECE CHROME VANADIUM METRIC AND IMPERIAL SPANNER SET

Great value set including Combination, Double open-ended and Offset Double Ring spanners. Supplied in a tough canvas case that you can roll up or hang on the wall.

Weight 6.7Kg. **#SPANSET £60** (£72 inc vat)



RIVNUT TOOLS

RIVNUT KIT Our popular Rivnut kit makes it easy to install a strong and secure threaded insert in GRP or steel and aluminium tube or sheet. Simply drill a hole and operate the tool like a regular pop rivet gun to install rivnuts. Ideal for mounting removable panels or brackets for the horn or washer bottle etc. The kit includes a universal application tool with mandrels for M3, M4, M5, M6 and M8 threads and an assortment of 50 steel rivnuts. Additional packs of rivnuts are available including aluminium for mounting in glassfibre panels. Weight 1500 gms.

#RIVHD £42 (£50.40 inc vat)

ALUMINIUM, STEEL and STAINLESS RIVNUTS AVAILABLE



NOTE: THE SMALLER (M3 and M4) MANDRELS ARE EXTREMELY FRAGILE AND ARE EASILY BROKEN IF THE TOOL IS NOT SUPPORTED AND HELD PERFECTLY SQUARE AT ALL TIMES SPARES ARE NOT AVAILABLE

BUDGET RIVNUT KIT Our low cost Rivnut tool brings this useful technology within reach of the once-only car builder. Works on a similar principle to pop rivets - installing a neat threaded insert in steel, aluminium or GRP panels. Mandrels supplied M3, M4, M5 & M6 plus 40 assorted aluminium rivnuts. Suitable for aluminium rivnuts only. M3 to M6. #RIVBG £22.50 (£27 inc vat)



RETURNS

Before placing an order please read carefully our Terms and Conditions on the second and last pages of this catalogue. Thank you

RIVNUT KIT A professional quality tool in a blow-moulded case with 75 Aluminium Rivnuts. Cast aluminium head assembly and lower handle and strong, pressed steel upper handle. High grade steel nose pieces, mandrels and fulcrum pin. Mandrels are easy-change - you just pull one out and slide the other one in. Mandrels supplied M3, M4, M5 & M6. Suitable for aluminium, steel or stainless steel rivnuts. M3 to M6. Weight 825gms.

#KAKIT £52 (£62.40 inc vat)



NOTE: THE SMALLER (M3 and M4) MANDRELS ARE EXTREMELY FRAGILE AND ARE EASILY BROKEN IF THE TOOL IS NOT HELD PERFECTLY SQUARE AT ALL TIMES

360° SWIVELLING RIVNUT TOOL

A professional quality tool with a unique swivelling head feature. Yes, you can also swivel the head around so it also works in the 'in-line' mode when you have restricted access and need to install a rivnut, for instance, at the bottom of a channel. Cast aluminium head assembly and lower handle and strong, pressed steel upper handle. High grade steel nose pieces, mandrels and fulcrum pin. Mandrels are easy-change - you just pull one out and slide the other one in. Mandrels supplied M3, M4, M5 & M6. Suitable for aluminium, steel or stainless steel rivnuts. M3 to M6. Weight 1090gms.

#KASWIV £62 (£74.40 inc vat)



This item is explained on our YouTube channel



ALUMINIUM RIVNUTS Packs of 10

- M3 COUNTERSUNK #RN3CA £2.50 (£3 inc vat)
- M3 FLAT HEAD #RN3FA £2.50 (£3 inc vat)
- M4 COUNTERSUNK #RN4CA £2.50 (£3 inc vat)
- M4 FLAT HEAD #RN4FA £2.50 (£3 inc vat)
- M5 COUNTERSUNK #RN5CA £2.50 (£3 inc vat)
- M5 FLAT HEAD #RN5FA £2.50 (£3 inc vat)
- M6 COUNTERSUNK #RN6CA £2.50 (£3 inc vat)
- M6 FLAT HEAD #RN6FA £2.50 (£3 inc vat)
- M8 COUNTERSUNK #RN8CA £3 (£3.60 inc vat)
- M8 FLAT HEAD #RN8FA £3 (£3.60 inc vat)

STEEL RIVNUTS Packs of 10

- M3 COUNTERSUNK #RN3CS £2.50 (£3 inc vat)
- M3 FLAT HEAD #RN3FS £2.50 (£3 inc vat)
- M4 COUNTERSUNK #RN4CS £2.50 (£3 inc vat)
- M4 FLAT HEAD #RN4FS £2.50 (£3 inc vat)
- M5 COUNTERSUNK #RN5CS £2.50 (£3 inc vat)
- M5 FLAT HEAD #RN5FS £2.50 (£3 inc vat)
- M6 COUNTERSUNK #RN6CS £2.50 (£3 inc vat)
- M6 FLAT HEAD #RN6FS £2.50 (£3 inc vat)
- M8 COUNTERSUNK #RN8CS £3 (£3.60 inc vat)
- M8 FLAT HEAD #RN8FS £3 (£3.60 inc vat)

CSK



FLAT



ALL PACKS OF 10

CSK



FLAT HEAD



STAINLESS STEEL RIVNUTS Low profile head for flush setting.

These are the best available for the ultimate build quality. Packs of 10

- M4 #RN4SS £5 (£6 inc vat)
- M5 #RN5SS £5.50 (£6.60 inc vat)
- M6 #RN6SS £6.50 (£7.80 inc vat)



INDUSTRIAL RIVNUT KIT Here's the Daddy of all Rivnut Tools. This bad boy will pull Aluminium, Steel and even Stainless steel Rivnuts up to M12. This superb quality kit includes the 200mm long, ratcheting, Setting Tool, quick change Mandrels for, M5, M6, M8, M10 and M12 Rivnuts and quick change Mandrels for M5, M6 and M8 Rivet Bolts. Weight of the Kit 3.5Kg. It's expensive, we know, but what a beauty.

#RIVIND £175 (£210 inc vat)



NUTS BOLTS & WASHERS
MANY SIZES AVAILABLE



HOW TO USE OUR RIVNUT TOOLS

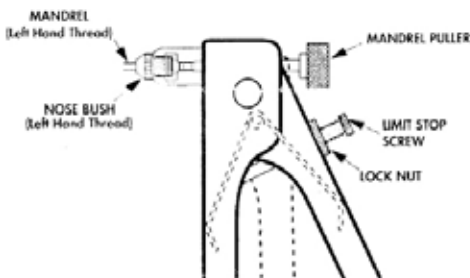
Correctly installed rivnuts make a strong and secure thread in steel or aluminium tube or sheet for mounting removable panels or brackets for the horn or washer bottle etc. Simply drill a hole and operate the tool like a regular pop rivet gun to install Rivnuts. The industrial quality kit includes a universal application tool with mandrels for M3, M4, M5, M6 and M8 threads and an assortment of 50 steel rivnuts. The budget kit is suitable only for aluminium rivnuts and includes 40 aluminium rivnuts in M3, M4, M5 & M6 sizes.

The operating principle is very simple. The Rivnut protrudes through the drilled hole where it is squeezed and deformed with the applicator tool. The mandrel is unscrewed from the Rivnut leaving a strong, deep thread. In the event of stripping the thread simply drill out the Rivnut and install a replacement. The rivnuts supplied with the industrial kit are flat head version that sit just proud of the surface but we can also supply countersunk rivnuts that sit flush with the surface. As a general rule select steel rivnuts for insertion into steel panels or tubes and aluminium rivnuts for insertion into aluminium and thicker, glassfibre panels.

NOTE: Always make sure that you drill an accurately-sized hole for maximum grip of the Rivnut. It's worth investing in a set of 4 drills and leave them in the kit.

When inserting aluminium rivnuts with the industrial kit place a steel washer over the threaded mandrel between the rivnut head and the mandrel nose.

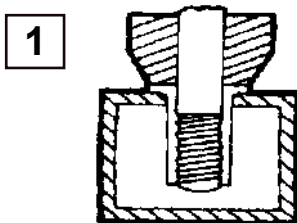
NOTE: THE SMALLER (M3 and M4) MANDRELS ARE EXTREMELY FRAGILE AND ARE EASILY BROKEN IF THE TOOL IS NOT HELD PERFECTLY SQUARE AT ALL TIMES



OPERATING INSTRUCTIONS

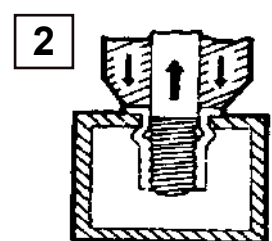
1. With the tool in the open position, use the spanner (located around the handles) to screw in the chosen mandrel (NB Left hand thread). Tighten gently with spanner.
2. Screw the matching nose bush in by hand.
3. Screw the rivnut onto the mandrel and place into an accurately drilled (and countersunk if using countersunk rivnuts) hole.
4. Holding the tool square to the job gently squeeze the handles together until the rivnut is firmly secured in the hole. The rivnut should be tight enough to accept a screw without turning or risking damage to the mandrel. You can always re-insert the mandrel and tighten the rivnut a little more.
5. When setting M6 and M8 Steel rivnuts it may be easier to start with the tool handles closer together and set the rivnut in stages, winding the mandrel into the rivnut a turn at a time then squeezing the handles after each turn until the rivnut is fully set.
6. If you are inserting a series of the same size rivnut you can set the limit stop screw and locknut once you have determined the correct amount of pull required. **IMPORTANT**— Some smaller sizes of rivnut will set sufficiently tightly before the limit screw reaches its operating range. We recommend that you sacrifice a rivnut or two on a small scrap piece of material to get a feel for the setting tension required—it is surprisingly little on M3 & 4 rivnuts, especially aluminium.
7. **NOTE:** Take great care and handle the tool gently. The smaller size mandrels are easily broken if the tool is not held perpendicular to the job at all times.
8. If you're setting a large number of large rivnuts apply some grease to the wear areas of the handle and moving nose section. If the tool is overstressed the retaining circlip may spring off the pivot pin. If this happens the circlip and pin can be replaced with an M8 Bolt and Nyloc nut.

ALWAYS TAKE CARE TO MEASURE THE DIAMETER OF THE RIVNUT AS ACCURATELY AS YOU CAN AND DRILL THE HOLE TO MATCH.

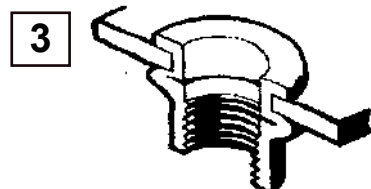


1
SCREW RIVNUT ONTO THE MANDREL AND INSERT INTO THE HOLE IN THE TUBE OR PANEL

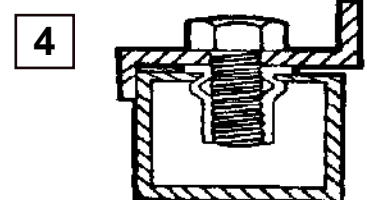
This item is explained on our **YouTube** channel



2
OPERATE THE TOOL TO SET THE RIVNUT



3
UNSCREW THE MANDREL TO LEAVE THE RIVNUT READY FOR USE



4
BOLT YOUR PARTS TOGETHER

RIVETING

LAZY TONGUE RIVETER Very nice, single pull action power riveter for fast, repetitive riveting. Diecast alloy head, steel mechanism and moulded ABS comfort grip. Five sizes of interchangeable nozzles for : 2.4mm, 3.2mm, 4mm, 4.8mm, 6.4mm diameter rivets. Extended length 825mm. compressed length 250mm, working stroke 9mm. Weight 1.6 Kg
#LAZY £20 (£24 inc vat)



The pop rivet – a wonder of modern fastener design; simple, inexpensive, versatile and easy to use. Well, maybe not so easy to use – properly.

Pop rivets are available in many different materials for different applications – aluminium, steel, stainless steel and plastic. They come in different lengths and diameters with countersunk or dome heads. The most common and indeed the most useful to the car builder are aluminium rivets in 3mm, 4mm and 5mm diameters. As a general guide, the larger the rivet – the stronger the joint. That said, closely spaced 3mm rivets on an aluminium panel could be a stronger and neater option than wider spaced 5mm rivets. Likewise, two 5mm rivets securing a washer bottle bracket to a chassis bulkhead may be a better option than four, 3mm rivets.

Several types of riveting tools are available; from basic hand pliers to air-operated, production models. They all work the same way – by pulling the shank of the rivet (the steel pin piece that you throw away), swelling the body of the rivet behind the panels until the shank breaks off leaving a neat rivet head and strong, permanent fixing.

When choosing a riveting tool ensure that it has a range of replaceable 'noses'. This is the part that screws into the tool and actually contacts the rivet head. Different size rivets have different diameter shanks so it is important to choose the correct nose for the rivet you are using. Too small and the rivet shank will not fit into the riveter – too large and you risk forming a sharp burr on the rivet head as the shank breaks off. Also, if you are using under-flush countersunk rivets, check that the contact diameter on the riveter nose is no larger than the head diameter of the rivet or you will have loose rivets.

RIVETING KIT This is a professional high quality tool that will last you a lifetime. Aluminium body with a swivel head for getting into those tight spaces. 4 interchangeable nozzles for up to 5mm (3/16") rivets. Supplied with 300 pop rivets 50 each size 3mm 4mm & 5mm countersunk and flat head. **#RIVKIT £22** (£26.40 inc vat)
RIVETER AVAILABLE SEPARATELY #RIVTL £14 (£16.80 inc vat)



RIVETS

ALL PACKS OF 50

ALUMINIUM RIVETS All packs of 50

- 2.4 x 8mm Dome Head **#RVT24D £2** (£2.40 inc vat)
- 3 x 10mm Countersunk **#RVT3C £2** (£2.40 inc vat)
- 3 x 10mm Dome Head **#RVT3D £2** (£2.40 inc vat)
- 4 x 14mm Countersunk **#RVT4C £2** (£2.40 inc vat)
- 4 x 14mm Dome Head **#RVT4D £2** (£2.40 inc vat)
- 5 x 14mm Countersunk **#RVT5C £2.25** (£2.70 inc vat)
- 5 x 14mm Dome Head **#RVT5D £2.25** (£2.70 inc vat)



ALUMINIUM BODY RIVETS

- 5 x 16mm Dome head 14mm dia. **#RVTBODY £4** Pk of 50 (£4.80 inc vat)
- BLACK ALUMINIUM BODY RIVETS**
- 5 x 16mm Dome head 14mm dia. **#RVTBODYBK** Pk of 50 **£5** (£6 inc vat)



BLACK ANODISED ALUMINIUM RIVETS

- 4 x 14mm Dome head **#RVT4B £3.50** pack of 50 (£4.20 inc vat)
- 4.8 x 14mm Dome head **#RVT5B £4.50** pack of 50 (£5.40 inc vat)
- 4.8 x 25mm Dome head **#RVT525B £7** pack of 50 (£8.40 inc vat)



STAINLESS STEEL RIVETS Yes - all stainless - even the shaft. An end to salt and electrolytic corrosion. Ideal for exterior cockpit panels and floor pans. Much stronger than steel or aluminium. **Packs of 50**

- 3 x 8mm Dome head **#RVT3S £5.00** Pk of 50 (£6 inc vat)
- 4 x 10mm Dome head **#RVT4S £6.00** Pk of 50 (£7.20 inc vat)



ALUMINIUM PEEL RIVETS

These rivets split and peel back like the petals of a flower when you pull them. Ideal for load spreading on GRP, plastic and wooden panels.

- 4 x 12mm Dome head **#RVT4P £5.00** Pk of 50 (£6 inc vat)
- 5 x 12mm Dome head **#RVT5P £6.00** Pk of 50 (£7.20 inc vat)
- 5 x 20mm Dome head **#RVT520P £6.50** Pk of 50 (£7.80 inc vat)



PEEL RIVET
FRONT BACK



WHITE ALUMINIUM RIVETS

- 4 x 14mm Dome head **#RVT4W £4.50** Pk of 50 (£5.40 inc vat)
- 4.8 x 14mm Dome head **#RVT5W £5** Pk of 50 (£6 inc vat)



CLEKO FASTENER KIT

CLEKO FASTENER KIT (TEMPORARY RIVETS) A must have tool for perfect drilling and alignment of cockpit panels, brackets, plates - in fact anything that is fitted with rivets or screws. Cleko temporary fasteners are the tools that will help you do the job properly. Use a few of them to hold panels and brackets in place as you drill all your rivet holes. Then simply remove all the Clekos, clean up your holes and refit the panel with the proper rivets. If you've only got two hands this is the frustration-saving tool for you. Includes a pair of applicator pliers and ten 1/8" (3mm) fasteners.
CLEKO KIT #CLEKO £25 (£30 inc vat)
TOOL ONLY #CLEKOTOOL £16 (£19.20 inc vat)



This item is explained on our **YouTube** channel

PROTECTIVE CAPS FOR CLEKO FASTENERS These handy little soft polyurethane caps just fit over the end of your clekos to protect polished or painted surfaces as you work. **SUPPLIED IN PACKS OF 5.** (Clekos not included).

- RED for 1/8" CLEKOS**
#CLECAP18 £3 (£3.60 inc vat)
- BLACK for 5/32" CLEKOS**
#CLECAP532 £3 (£3.60 inc vat)
- YELLOW for 3/16" CLEKOS**
#CLECAP316 £3 (£3.60 inc vat)



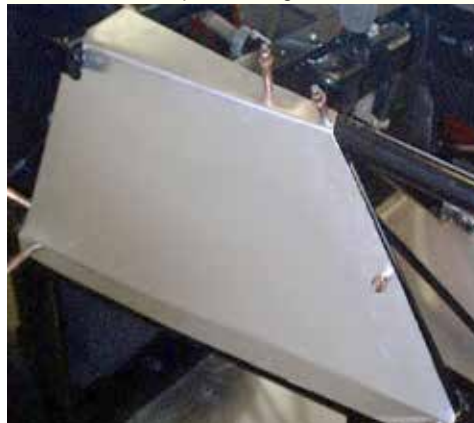
- 3/32" (2mm) CLEKOS (silver)**
#CLEK332 £1.50 each (£1.80 inc vat)
- 1/8" (3mm) CLEKOS (copper)**
#CLEK18 £1.50 each (£1.80 inc vat)
- 5/32" (4mm) CLEKOS (black)**
#CLEK532 £2 each (£2.40 inc vat)
- 3/16" (5mm) CLEKOS (gold)**
#CLEK316 £2.50 each (£3 inc vat)



CLEKO CLAMP Here's a useful addition to your Cleko collection. A powerfully sprung little clamp that's ideal for holding components together while you work. Overall length 65mm. Jaw width 11mm. Maximum opening 19mm.
JAW DEPTH 12mm. #CLECLAMP
£4.50 each (£5.40 inc vat)
JAW DEPTH 25mm. #CLECLAMP2
£4.50 each (£5.40 inc vat)



Its almost impossible to drill and pop rivet a panel to a chassis in one operation without collecting a mound of swarf between the two. Cleko temporary fasteners are the tools that will help you do the job properly. In the example below we show you how to fit an aluminium cockpit panel to a Foreman Mk4 chassis fixing to both round and square tubing.



If your panel is not supplied pre-cut and bent to fit, trim it until it fits correctly and makes contact with the frame wherever you require a rivet.

Hold the panel securely in position by hand or with strong tape and drill the first hole through the panel and frame. Choose a hole position that will be at the end of a line of rivets. Insert a Cleko. Check the panel position and drill a few more 'end of line' holes, inserting more Clekos as you go. When your panel is secured with a few Cleko fasteners it is time to mark hole positions for the remaining rivets. To evenly space the rivets in



a line between two Clekos, like the bottom of the panel in the picture, measure the distance between the two end Clekos. If this is, for instance, 532 mm use a calculator to divide by a whole number (in this case 9) to determine accurate spacing of the rivets (here, 59mm). For unstressed panels 40mm to 70mm spacing is usually OK. For stressed panels space the rivets closer together. Ensure that the holes are in a straight line, spaced evenly from the panel edge. If you are drilling through to a round tube make sure that your line of holes follows exactly the point of contact between the panel and tube. Failure to do this will make it difficult to drill the hole and will distort the panel when the rivets are finally pulled.

When all your holes are drilled remove the Clekos and de-burr the drilled holes in the chassis tubes and both sides of the panel. (To make a neat tool for de-burring holes, simply grind a couple of flats on a 10mm drill and glue it with resin into an old file handle). If you are using countersunk rivets now is the time to countersink the panel. For a neat job, de-burr the panel edges and round-off sharp corners with a file.



If the panel is to be sealed weather tight, run two small beads of Polyurethane sealant all around the panel - one on each side of the line of rivets then go ahead, insert a couple of Clekos to hold the panel in position and rivet it securely in place.

Finally, if your panel overlaps slightly, dress the edges of around the tubes with a hard rubber mallet. If you should get some sealant on your Clekos just drop them in a jam jar of thinners.



**HELP YOURSELF AND US
 MEASURE
 ACCURATELY**

SHEET METAL JODDLER.

This, professional tool will produce a 10mm flange on 18 – 20 gauge (0.9 to 1.2mm) mild steel or aluminium for perfect, flush, lap joint for welding or panel bonding. The head can be rotated to engage a 5mm punch for neat spot or plug welding. Tough, steel construction with rubber, ergonomic handles for comfort and grip. Length 290mm.
#JODDLER £30 (£36 inc vat)



CRAFT KNIFE If there's one tool that you'll use every day it's probably a craft knife. So, it makes sense to have a good one. This one feels safe and substantial in your hands because it's made from die-cast zinc alloy. It has a plated steel blade guide and uses 8-segment snap-off replaceable blades. Supplied with a pack of 10 carbon steel blades. Knife length closed 155mm.
#KNIFE £5 (£6 inc vat)



SCROLL NIBBLER Make a clean, distortion-free, cut in metal up to 1.2mm (18g) thick. Using a clamped guide you can cut straight line across whole sheets. Sprung handles for easy, single handed operation.
#SCRNIB £14 (£16.80 inc vat)



This item is explained on our YouTube channel



AVIATION SNIPS Good quality snips. Geared action for easy cutting. Chrome Vanadium blades. Soft, moulded vinyl grips. Will cut 1.5mm Alu, 1mm steel.
#AVSN £7.50 (£9 inc vat)

This item is explained on our YouTube channel



250mm TIN SNIPS Good quality forged and heat-treated Tin Snips with leaf spring opening assistance and leather securing loop. Suitable for steel up to 1mm thick, Aluminium and Brass. Weight 420 gms.
#TINS250 £6 (£7.20 inc vat)



FABRIC, RUBBER & LEATHER PUNCH

Nice quality Punch pliers. Rotating head with six punches: 2mm, 2.5mm, 3mm, 3.5mm, 4mm, 4.5mm. Pressed steel construction with Plastic grips. 250mm overall length.
#FPNC £8.50 (£10.20 inc vat)



TRIM / HOSE CUTTER This simple cutter is a great way to make clean, square cuts through non-steel-reinforced plastic, PVC, neoprene, nylon and rubber trim and hose. It has die-cast alloy handles and a very sharp, ground, hardened steel blade which is supported on both sides as it cuts for a very neat job. Size 210mm long. Maximum hose diameter or trim width 35mm. Weight 170gms.

NOTE: NOT TO BE USED ON STEEL-REINFORCED DOOR OR EDGING TRIM OR STEEL BRAIDED HOSE
#TRIMCUT £8.50 (£10.20 inc vat)



HOSE & PIPE CUTTER The cleanest, neatest method of cutting rubber hose. Can cut up to 50mm or even larger with a couple of bites. Will also cut up to & 40mm diameter hard plastic pipe.
#HOSEC £6.50 (£7.80 inc vat)



CBS BUILDER'S TIP
When cutting thin sheet material with snips, always keep one blade flat on the good side of the cutting line. The waste side will then curl as you cut leaving the sheet flat and free of distortion.



9 PIECE PICK AND HOOK SET WITH GASKET SCRAPER Use the smaller hooks and picks to easily remove 'O' Rings, seals, bushes, springs and fuses. The larger hooks and podgers are perfect for releasing those stuck-on hoses - and there's even a gasket scraper. Soft rubber handles and steel shanks. Larger tools 260mm long. Smaller tools 170mm long.

#PICKSET £11 £13.20 inc vat)



PLUG CAP PULLER Easily remove those hard to reach spark plug boots without damage to the cables or your hands. Heavy duty plastic coating on the handles and jaws to protect against shock and give a firm grip. Shown here gripping a straight boot (not included). **#PCPULL £6 (£7.20 inc vat)**



LONG REACH PLIERS FOR SPRING BAND HOSE CLIPS These clever pliers will help you get to those awkward clips buried deep in your engine. The jaws are at the end of a 650mm long, 'memory flex' cable that stays in its selected shape. The handles have a quick-release ratchet mechanism that holds the jaws closed until you have released and moved the clip.

Pliers 210 mm long.

CLIPS NOT INCLUDED - SHOWN FOR ILLUSTRATION ONLY

#LRHCP £12 (£14.40 inc vat)



TUBE STRAIGHTENER SET
IMPORTANT NOTE: THESE WILL NOT STRETCH OR INCREASE THE SIZE OF A TUBE These three tail pipe expanders are designed to straighten out any dents made by exhaust clamps in the end of a thin-wall (up to 1mm), steel or aluminium (not stainless) exhaust or tail pipe, from the inside. Just choose the one that fits inside the pipe and turn the hexagonal shaft to expand the drop-forged steel fingers. This set comes with spare O rings and a blow moulded case.

Small 1-1/8" to 1-3/4" (35mm to 44mm)

Medium - 1-1/2" to 2-1/2" (38mm to 62mm)

Large - 2-1/8" to 3-1/2" (52mm to 87mm)

#TUBEST £19 (£22.80 inc vat)

Please respect the limitations of these tools. They are not indestructible.



CABLE TIE TOOL AND 400 TIES KIT

No more loose ties or sharp cut-off ends in your engine bay or under the dash. Our heavy duty, professional cable tie tool will automatically tension your ties and then cut them off neatly in one pull of the trigger. Just turn the thumb-wheel to adjust tension for all common tie sizes. Kit comes complete with 400 black cable ties in 4 sizes. Tackles the job properly with only one hand.

#CTKIT £24 (£28.80 inc vat)

TOOL ONLY

#CTTOOL £15 (£18 inc vat)

This item is explained on our **YouTube** channel



SEE MORE, BIGGER, HI-RES PICTURES ONLINE AT www.carbuilder.com

CARTRIDGE GUN A steel applicator gun suitable for our Polyurethane Adhesive/ Sealant cartridges. Will accept all standard 215mm long cartridges.

#CGUN £6 (£7.20 inc vat)



COLOUR AND STYLE MAY VARY

PRECISION SCREWDRIVER SET

This brilliant little screwdriver set is about the size of a packet of fags and is ideal for the tiny screws and fixings found on Phones, Computers, Clocks and Watches. 116mm long screwdriver with 30 small size, interchangeable bits - Pozi, Torx, Slotted and Hex. Supplied in a plastic case 150mm x 66mm x 55mm. **#PRECS D £5** (£6 inc vat)



SELF-STRIKING AUTOMATIC CENTRE PUNCH

This, knurled brass, spring-loaded punch automatically strikes a sharp blow to its hardened point when you press it on your mark. **#ACP £4** (£4.80 inc vat)



TELESCOPIC MAGNETIC PICK UP / MIRROR TOOL

The 800mm telescopic, stainless steel shaft has a rubber handle and will accept any of the three interchangeable heads. The 15mm diameter magnetic pick up head is powerful enough to lift a heavy spanner. One 50mm diameter flat mirror and one 30mm diameter magnifying mirror are included. All heads simply screw into the end of the handle. Weight 135gms.

#PICKUP £7 (£8.40 inc vat)



WONDER GUN VACUUM CLEANER

An end to dragging around that cumbersome vacuum cleaner. Keep things clean & tidy with the brilliant Wonder Gun. A cracking product for anyone with a workshop air compressor. Simply plug the wonder gun into your compressed air line and vacuum up the swarf and dust as you drill, grind or file. Beautifully made cast and machined aluminium body. Trigger operated with a zipped collection bag for easy emptying. 125cm x 38mm hose and four tools. **#WONGUN £38** (£45.60 inc vat)



HANDY BRUSH PACK We use these excellent quality brushes every day in our workshop for painting, gluing, washing and cleaning parts. The tapered hardwood handles are brilliant for stirring, mixing or even for plugging hoses and blanking holes when painting. Twelve sizes between 3mm diameter and 14mm diameter. All about 300mm long.

#BRUSHES £3 pack (£3.60 inc vat)



HEX KEY SET 9 Metric sizes. Ball end keys. In handy fold-out holder and a moulded 'T' bar handle that fits all sizes.

#HEXKEY £7.50 (£9 inc vat)



IMPERIAL HEX KEY SET Here's a rarity these days - A set of A/F Allen Keys.

One each of 5/64", 3/32", 1/8", 5/32", 3/16", 7/32" and 1/4".

Manufactured by STANLEY and Supplied in plastic wallet.

#HEXIMP £2.50 (£3 inc vat)



'F' CLAMPS When you need an extra hand these tough, inexpensive clamps are your ideal assistant. Simple, one-handed operation. Steel rack, thread and jaws. Moulded handles and 'soft jaw' plastic, jaw covers.

150mm JAW WIDTH

#FC150 £3.50 each (£4.20 inc vat)

300mm JAW WIDTH

#FC300 £4.50 each (£5.40 inc vat)



6" (150mm) MAGNETIC SOFT VICE JAWS

30mm high x 28mm across the top. Tough plastic jaws made from Thermoplastic Polyurethane. Multi grooved for gripping components without marking or damage. Strong magnets hold the jaws in position on your vice. Can be cut down to 4" (100mm). Weight 255gms.

#SOFTJAWS £6 pair (£7.20 inc vat)



SWIVELLING BLADE DEBURRING TOOL

A handy pocket version of the de-burring tool used by engineers and sheet-metal workers the world over. Will remove sharp edges and burrs from the rim of any hole or the inside lip of a tube. Suitable for Steel, Aluminium, Stainless, Copper.

#SWDEB £3.50 (£4.20 inc vat)



BILLET ALUMINIUM SWIVEL DEBURRER

Anodised handle with replaceable rotating blade.

#SWDEB2 £5.25 (£6.30 inc vat)



TWO SPARE BLADES FOR SWIVELLING DEBURRING TOOL

A pack of two spare blades for our popular deburring tools.

#SWBL £1.80 (£2.16 inc vat)



COUNTERSINK / DEBURRING TOOL

3 piece hand de-burr tool. Three bits and tough polypropylene handle.

#DEBUR3PC £5 (£6 inc vat)



This item is explained on our YouTube channel

VALVE SPRING COMPRESSOR

Heavy duty, adjustable, chrome plated tool for all engines. Hand-operated jaw opening and closing between 35mm and 200mm for ease of use and clear visibility. Reversible, collet-release, pressure pieces for valve spring caps between 21mm and 30mm diameter. Throat clearance 225mm for large cylinder heads.

#VSC £40 (£48 inc vat)



10mm to 33mm HOLE DEBURRING / ENLARGING TOOL 160mm long with comfort grip handle. For aluminium, plastics, GRP. and steel.

#LHDEB £9 (£10.80 inc vat)



AIRLINE BLOW GUN

Use with compressed air for cleaning jobs around your workshop. Moulded body with sprung trigger and 150mm long nozzle. 1/4" BSP double-ended steel union. Overall length 290mm.

Weight 92gms. **#BLOWGUN £5** (£6 inc vat)



TYRE LEVER Very nicely made. 375mm long with a plastic handle. Weight 270 gms.

#TYLEV £9.50 (£11.40 inc vat)

RATCHET STRAP 1" wide strap. 15 feet long overall. Up to 1000kg tension capacity. Black Powder-coated hooks and plated ratchet. Ideal for load securing on roof racks, trailers, boats etc.

#RATCH £3 (£3.60 inc vat)



LUGGAGE TIE 25mm wide x 2mtrs long strap. Up to 250kg tension capacity. Black Powder-coated hooks and ratchet frame. Die-cast tensioning mechanism. Ideal for load securing on roof racks, trailers, boats etc.

#LUGTIE £2 (£2.40 inc vat)



TWO x 6 ft HEAVY DUTY BUNGEEES

Good quality elastic 12mm diameter. Ideal for additional security on Car Covers, trailers, luggage etc. Plated steel hooks with rubber caps.

#BUNGEE £3.50 (£4.20 inc vat)



STAY-OUT TAPE MEASURES Brilliant new take on the old traditional tape-measure. These actually stay put when you pull out the tape and only release when you press the button. Now, why didn't I think of that?

THREE METRE #TAPE3 £2 (£2.40 inc vat)

FIVE METRE #TAPE5 £3 (£3.60 inc vat)



FILE SET Do away with those burrs and sharp edges. Make any shape hole. Nice quality. Soft, comfortable handles. Set of five. Half-round, Flat, Square, Round and Triangular. **#FILES £7.50** (£9 inc vat)



NEEDLE FILE PACK Ten nice quality needle files with comfortable moulded handles. Ideal for detailing jobs or thread repairs. Complete with plastic wallet.

#NEEDLE £4.25 (£5.10 inc vat)



3 PIECE MAGNETIC TOOL HOLDER SET

We use loads of these in our workshops. Keep your favourite, most-used tools close to hand. Just fix these to your wall or tool box with the screws supplied

#MAGTOOL £8 (£9.60 inc vat)



HACKSAW BLADES 300mm Bi-metal. Good quality.

18 TPI **#HSB18** £1.15 each (£1.38 inc vat) 24 TPI **#HSB24** £1.15 each (£1.38 inc vat)



SANDING KIT Includes a rubber-faced Sanding Block 85mm x 160mm and Twenty sheets of Wet & Dry abrasive paper 280 x 225mm. 5 @ 80 grit, 5 @ 120 grit, 5 @ 240 grit, 5 @ 400 grit **#SAND £6.50** (£7.80 inc vat)



WIRE WOOL PACK For some jobs, only real wire wool will do. This pack includes Fine, Medium and Coarse grades. Great for removing rust, and cleaning up wood, glass and GRP surfaces.

#WIREWOOL £4 pack (£4.80 inc vat)
BUILDER'S TIP: THERE IS NOTHING BETTER THAN WIRE WOOL FOR CLEANING GLASS WINDSCREENS AND WINDOWS. SOAK IT IN A LITTLE DILUTED WASHING UP LIQUID TO REMOVE OVER-SPRAY, GRIME, OIL, WAX AND INSECTS

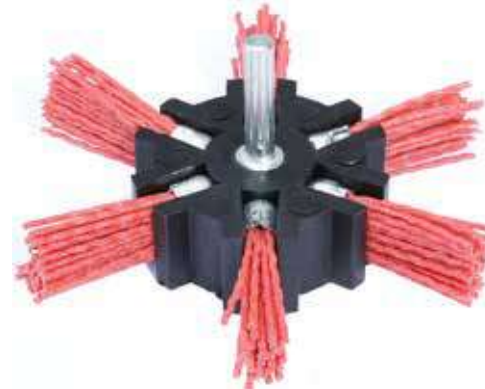


WIRE WHEEL BRUSH SET Six brass-plated steel wire wheels with 6mm mandrels for mounting in a pillar drill or hand drill. Great for cleaning up and removing corrosion on smaller parts. 40mm, 50mm, 80mm, 100mm, diameter wheels, 70mm cup brush and 25mm end brush. Max 4500 rpm. **#BBSET £7** (£8.40 inc vat)



ABRASIVE NYLON BRUSH We've been waiting a long time for someone to make this. Abrasive impregnated nylon bristles in a sturdy plastic housing with a 6mm shaft for mounting in your electric drill. 102mm (4") diameter x 20mm wide. Great for stripping paint, rust, scale and other surface contaminants. Non sparking.

#ABRUSH £8 (£9.60 inc vat)



SMALL CLEANING BRUSH SET

These are perfect for cleaning small components before a rebuild or detailing interior components and upholstery. Two with nylon bristles, two Brass and two Steel. Each brush 180mm long. Head size 35mm x 12mm. Bristle length 15mm. Pack weight 115gms.

#BRUSHPAK £3 (£3.60 inc vat)



LETTER & NUMBER STAMP SET

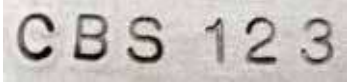
This set has full upper-case alphabet and 0-9 numbers 6mm high. Nice quality. Suitable for Steel, Brass, Copper, Aluminium. Supplied in plastic storage boxes.

Weight approximately 2kg
#STAMP £16 (£19.20 inc vat)

If you're thinking of purchasing several items, please consider ordering at the same time as these heavy item to save on shipping costs.



THE EXAMPLE BELOW WAS STAMPED INTO ALUMINIUM SHEET AND DRESSED FLAT WITH 240 GRIT WET & DRY PAPER



LETTER & NUMBER STAMP SET

This new set has full upper-case alphabet and 0-9 numbers (6 and 9 use the same stamp). 5mm high. Nice quality. Suitable for Steel, Brass, Copper, Aluminium. Supplied in plastic storage box. Weight 1100 gms.

#STAMP5MM £12 (£14.40 inc vat)



FABRIC, RUBBER & LEATHER PUNCH

Nice quality Punch pliers. Rotating head with six punches: 2mm, 2.5mm, 3mm, 3.5mm, 4mm, 4.5mm. Pressed steel construction with Plastic grips. 250mm overall length.

#FPNC £8.50 (£10.20 inc vat)



PUNCH SET 5 straight pin punches, 5 tapered drift punches, 2 Centre punches, 3 Chisels. Tough Chrome Vanadium Steel. Very nice quality. Weight 1100 gms.

#PUNCH £12 (£14.40 inc vat)



WAD PUNCH SET Set of 12 round, hardened steel Wad Punches. Ideal for making holes in gaskets or templates. OK for paper, card, thin plastic, fabric, leather etc. Simply hammer through material onto a block of wood. Sizes 3mm (1/8"), 4mm (5/32"), 5mm (3/16"), 6mm (7/32"), 6.5mm (1/4"), 8mm (5/16"), 10mm (3/8"), 11.5mm (7/16"), 12.5mm (1/2"), 14mm (9/16"), 15mm (5/8") and 19mm (3/4"). Weight 1100 gms.

#WAD2 £12 (£14.40 inc vat)



WAD PUNCH SET Set of 6 round, hardened steel Wad Punches. Sizes 3mm (1/8"), 4mm (5/32"), 5mm (3/16"), 6mm (7/32"), 8mm (5/16"), 10mm (3/8").

Weight 300gms. **#WAD7 £5** (£6 inc vat)



LOCKING WIRE KIT Ultimate security against vibration loosening nuts and bolts etc. This great-value kit contains 30 metres of 0.7mm locking wire on a handy spool and a simple twisting tool. Simply insert a short length of locking wire through a drilled nut or bolt, push the wires through the small hole in the end of the tool, apply a little tension and wind the handle. Tool 190mm long.

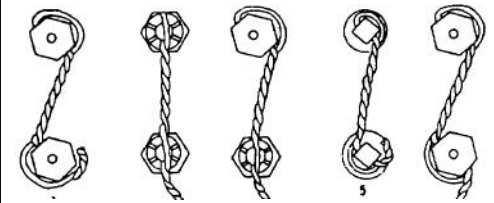
#LOCKIT £20 (£24 inc vat)



LOCKING WIRE 30 metre coil of stainless locking wire. **#LOCKWI £7.50** (£9 inc vat)



LOCKING WIRE DRUM 127 Metres of stainless steel locking wire on a moulded plastic drum. **#LOCKW2 £20** (£24 inc vat)



LOCKING WIRE PLIERS Ultimate security against vibration loosening nuts and bolts etc. Simply insert a short length of locking wire through a drilled nut or bolt, clamp the wires in the pliers jaws and pull the knurled knob. An internal spiral mechanism will neatly and tightly twist the wire. Loop the wire through another hole in the chassis or panel and twist again. Full instructions supplied. 265mm long.

#LOCKPL £22 (£26.40 inc vat)



PROFESSIONAL BRAKE PIPE FLARING TOOL If you're making loads of brake pipes then this excellent flaring tool is a must-have. Superbly engineered from hardened and plated steel. It'll last a lifetime. Simple, vice mounting. Precision machined Tube grips will not mark the copper. Forms perfect ball-end, single and double flares on copper and copper/nickel tube. Large Tommy Bar for effortless use. Blow-moulded case. Grips and Dies and grips for 3/16" and 1/4" tube included.
#PROFLARE £122 (£146.40 inc vat)



ADDITIONAL SAE DIE SETS FOR OUR #PROFLARE PIPE FLARING TOOL. Pipe clamps with single/double flare die block.

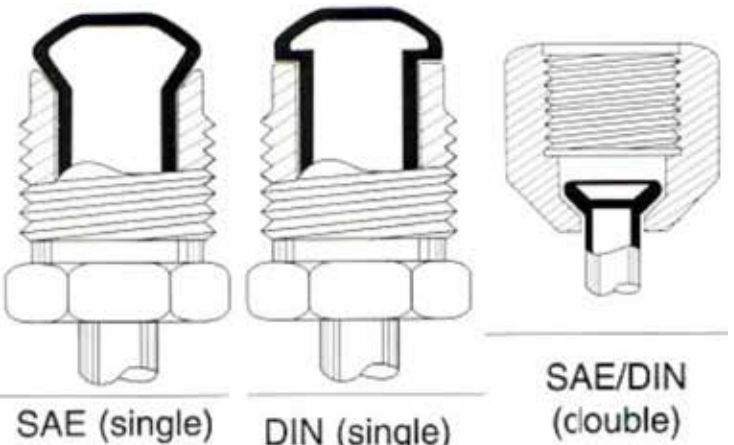
- For 6mm O.D. pipe
#PRODIE6 £14 (£16.80 inc vat)
- For 8mm O.D. pipe
#PRODIE8 £14 (£16.80 inc vat)
- For 10mm O.D. pipe
#PRODIE10 £14 (£16.80 inc vat)
- For 3/16" O.D. pipe.
#PRODIE316 £14 (£16.80 inc vat)
- For 1/4" O.D. pipe.
#PRODIE14 £14 (£16.80 inc vat)
- For 5/16" O.D. pipe.
#PRODIE516 £14 (£16.80 inc vat)
- For 3/8" O.D. pipe
#PRODIE38 £14 (£16.80 inc vat)
- For 1/2" O.D. pipe
#PRODIE12 £14 (£16.80 inc vat)

THESE DIE SETS ARE FOR FORMING 'DIN' ENDS ON BRAKE PIPE (see diagram on right)

- For 4.75mm (3/16") O.D. pipe
#PRODIE475DIN £14 (£16.80 inc vat)
- For 6mm O.D. pipe
#PRODIE6DIN £14 (£16.80 inc vat)
- For 8mm O.D. pipe
#PRODIE8DIN £14 (£16.80 inc vat)



PROFESSIONAL TURRET BRAKE PIPE FLARING TOOL This new version of our popular tool has a seven-position, rotating turret for fast changes of tooling for all five flare types included. Superbly engineered from hardened and plated steel. It'll last a lifetime. Simple, vice mounting and precision-machined tube grips will not mark the copper. Forms perfect single and double flares on copper and copper/nickel tube. Large Tommy Bar for effortless use. Supplied with full instructions and a blow-moulded case. SAE Tooling for 4.75mm (3/16"), 6mm (1/4"), 8mm (5/16"), 10mm (3/8") and 4.75mm DIN included. MADE IN ENGLAND
#TURFLARE £145 (£174 inc vat)



HAND HELD BRAKE PIPE FLARING TOOLS for 3/16" and 1/4" PIPE

A professional-quality, easy to use tool that's great for flaring brake pipes on the vehicle or on the bench. Includes detailed instructions for producing single or double SAE flares on copper or copper/nickel brake pipe.

- 3/16" SAE #HPRO316 £35** (£42 inc vat)
- 3/16" DIN #HPRO316DIN £35** (£42 inc vat)
- 1/4" #HPRO14 £35** (£42 inc vat)
- SPARE 3/16" DOUBLE ENDED DIE #HDIE316 £14** (£16.80 inc vat)



PAIR OF TOOLS for 3/16" and 1/4" PIPE

In case with full instructions
#HPRO31614 £65 (£78 inc vat)



BRAKE PIPE BENDER A rare little tool made specifically for 3/16" brake pipe.

Will form very neat bends down to approximately 10mm radius.
#BPBEND £21 (£25.20 inc vat)

These items are explained on our **YouTube** channel



PIPE BENDER The 'Rolls Royce' of small tube benders. The ingenious, knurled, adjustable centre former allows adjustment for imperial and metric tubes from 3/16" to 11mm diameter. Suitable for Aluminium, Copper and Steel. Heavy duty construction and simple operation. Bending radius of between 22mm and 25mm depending on tube diameter.

#BPBEND2 £80 (£96 inc vat)



SMALL TUBE BENDER Here's a great little bender for smaller pipes 1/8", 3/16" and 1/4" (3mm, 5mm and 6mm). Will bend to 15mm radius. Tool 135mm long.

#BPBEND3 £12 (£14.40 inc vat)



TUBE BENDER Will form nice 25mm radius bends up to 180 degrees in 6mm, 8mm or 10mm diameter Copper and Aluminium tube. Easy to use. 270mm in length.

#TUBEND £10 (£12 inc vat)



PIPE STRAIGHTENING TOOL Now you can easily and accurately straighten brake pipe from a coil with this hand-held machine. Simply feed the coiled tube in one end and it comes out dead straight from the other end. Works with Copper, Copper-nickel, Aluminium, Brass, Steel and Stainless tube. 136mm long and 63mm diameter.

- 3/16" (5mm) #BPSTRT £52** (£62.40 inc vat)
- 1/4" #BPSTRT14 £52** (£62.40 inc vat)
- 5/16" #BPSTRT516 £52** (£62.40 inc vat)
- 3/8" #BPSTRT38 £52** (£62.40 inc vat)
- 6mm #BPSTRT6 £52** (£62.40 inc vat)
- 8mm #BPSTRT8 £52** (£62.40 inc vat)
- 10mm #BPSTRT10 £52** (£62.40 inc vat)



PIPE CUTTER Will cut copper, aluminium and thin-wall steel tube from 3mm to 23mm diameter.

#PIPECUT £3
 (£3.60 inc vat)



FLUID LINE CLAMP SET Easily stop fluid flow without damaging the hose. Four sizes: 10mm (3/8"), 15mm (5/8"), 25mm (1"), 45mm (1 3/4")

#FLCSET £8 (£9.60 inc vat)
NOTE: NOT SUITABLE FOR USE WITH STAINLESS BRAIDED, NYLON OR WIRE-REINFORCED HOSES



HOSE CLAMP An easy-to-use clamp that 'squeezes', rubber, PVC or silicone hoses to shut-off the flow of oil, fuel, brake fluid, water or air without disconnecting the hose. Just clamp over the hose and tighten the knurled thumb-screw. Works for hose up to 19mm I.D. Made in UK from plated steel. Length closed 110mm.

NOTE: NOT SUITABLE FOR USE WITH STAINLESS BRAIDED, NYLON OR WIRE-REINFORCED HOSES
#HOSCLAMP £19 (£22.80 inc vat)



GUNSON 'EEZIBLEED' BRAKE BLEEDER.

Automatic Hydraulic Brake and Clutch bleeder kit. This kit uses fresh fluid under pressure to flush air and old fluid from brake and clutch systems. Just connect to your master cylinder reservoir with one of the four caps included, connect the black hose to a spare tyre valve to pressurise the system, then open the bleed nipples in sequence. Simple. Includes different sizes of bleed tube and caps for Lockheed, VAG, Girling and ATE systems.



#EEZIBLEED
£29
(£34.80 inc vat)



POWER BRAKE BLEEDER. Here is all you need to bleed your brakes or replace all the fluid in your system. Just part-fill the 0.75 litre, 'new fluid' container and invert it over your reservoir using one of the four adapters supplied, connect an air line from your workshop compressor to the trigger assembly, loosen a bleed screw, push on the black rubber adapter and pull the trigger. Venturi effect draws fluid through the 2 metre clear tube and into the 750ml, 'old fluid' container. When all the bubbles are clear from the fluid in the pipe, just tighten the bleed screw and it's done. Clean and easy. You don't even have to touch your pedals. Repeat for each cylinder or caliper. Air line union and full instructions are included.

#POBRBL £30 (£36 inc vat)

INSTRUCTIONS
IN ONLINE
LISTING

EURO - TYPE
male airline
union included



LOW RISE RAMPS Sometimes it can be a struggle to fit regular car ramps or a trolley jack under a lowered vehicle. Here's the solution. These heavy duty, Polypropylene Low-rise ramps can support 5000 Kg between them and will raise the vehicle by 60mm - enough to get your jack under. 700mm long x 200mm wide x 80mm high. They are light weight (3.7Kg the pair) and easy to store.

#LRRAMPS £43 pair (£51.60 inc vat)



2000 Kg, 4 METRE TOW ROPE

Made by Goodyear, this Tow Rope should have a home in the boot of every vehicle. Ultra-strong polypropylene rope with forged steel hooks which have a spring latch to prevent the hook falling out of the towing eye. A red flag is attached half way along the rope. Storage bag included. Weight 770gms.

#TOWROPE £10 (£12 inc vat)



STAY-OUT TAPE MEASURES Brilliant new take on the old traditional tape-measure. These actually stay put when you pull out the tape and only release when you press the button. Now, why didn't I think of that?

THREE METRE #TAPE3 £2 (£2.40 inc vat)
FIVE METRE #TAPE5 £3 (£3.60 inc vat)



UNIVERSAL INTERNAL AND EXTERNAL CIRCLIP PLIERS Brilliantly clever tool. Just rotate the integral lever to switch between internal and external operation. Fitted with straight tips but two pairs of 90° angled tips (1.2mm and 1.8mm) are stored in the handles along with a small allen key to change them. Tool length 190mm.

#CLPIERS £12.50 (£15 inc vat)



HOT MELT GLUE GUN 10 Watt. You can do endless little glueing jobs with this handy tool. Paper, card, fabric, leather, wood, ceramics, plastic. Just insert a glue stick in the rear opening of the gun, switch it on and wait 5 minutes for it to heat up and off you go. Supplied with a clip-on wire stand, two 7.5mm diameter glue sticks and a 1.2mtr long lead with fitted 13A plug.

WARNING. Gets very hot. Not for young children. Unplug immediately you have finished the job and allow to cool down before putting away. Weight 190gms.

#GLUGUN £4.50 (£5.40 inc vat)



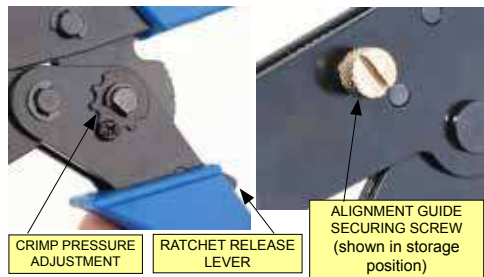
HOT MELT GLUE STICKS. Pack of 15, 7.5mm diameter x 100mm long, transparent glue sticks for our 10 Watt Hot Melt Glue Gun.

#GLUSTIX £2
(£2.40 inc vat)



AND NOW!! AN EVEN BETTER, AFFORDABLE 'PROPER' CRIMPING TOOL We are able to sell this superb tool at half the price of other suppliers and even throw in 180 assorted spade and bullet terminals and plastic storage case. It will crimp all industrial quality 'F' crimp open barrel spade and receptacle terminals between 0.5mm² and 6mm². The jaws are hardened steel and the gear ratchet action makes light work of even the heaviest crimp. Crimping pressure is adjustable and the jaws will only crimp when the pre-set crimp pressure is achieved, giving consistent crimp quality. However, for one-off or unusual sizes, the full ratchet and release function can be disengaged for full manual control of the crimp pressure. The tool also includes a set of very clever, moulded jigs that locate alongside the jaws to help you make the perfectly alignment crimp.

Terminal selection included. Weight 1kg.
#CRPTL3 £38 (£45.69 inc vat)
 See electrical section for full instructions.



CRIMP PRESSURE ADJUSTMENT RATCHET RELEASE LEVER ALIGNMENT GUIDE SECURING SCREW (shown in storage position)

TERMINAL ALIGNMENT GUIDES



This item is explained on our **YouTube** channel

INTERMEDIATE 'F' CRIMP CRIMPING TOOL This compact tool will crimp all small, non-insulated terminal types including industrial and aviation quality 'F' crimp open barrel and spade terminals. Precision ground, hardened steel jaws that roll the terminal flags, binding them tightly into the cable and insulation. Spring return jaws and integral wire cutter. 185mm long.

Tool only. **#CRPTL2 £15** (£18 inc vat)



NARROW CRIMPING TOOL Here's a rare and very inexpensive tool for crimping smaller 'F' crimp spade and barrel terminals (NOTE: not for pre-insulated 'squeeze-flat' terminals). Integral wire stripper and wire cutter. It even has threaded holes for cutting brass or steel bolts.

#CRPTL4 £8 (£9.60 inc vat)



RATCHET CRIMP TOOL For pre-insulated terminals. Make life easier with this geared ratcheting crimp tool. Adjustable crimping pressure. For Red, Blue and Yellow terminals. Hardened steel jaws. 225mm long.

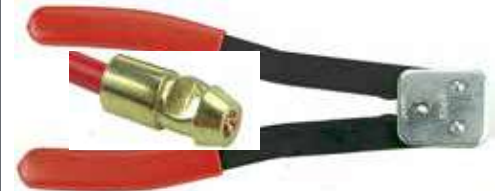
#RATCRP £14 (£16.80 inc vat)



CRIMPING TOOL FOR LUCAS BRASS BULLET TERMINALS Designed to crimp old fashioned 4.7mm (3/16") Lucas type brass bullet connectors as found on nearly all British Classic Cars and Motorcycles. Just strip of 1/4" of insulation and slide the wire into the terminal so that the copper reaches the end. When you insert the terminal into the tool it automatically locates in the correct position. Squeeze together the handles and you have an even, flat crimp on both sides of the terminal.

For extra reliability you can also run some solder into the end of the terminal. 205mm long. Weight 210 gms.

#LUCRIMP £23 (£27.60 inc vat)



MULTI-JAW CRIMPING TOOL KIT WITH CASE Professional Crimping Tool with self-adjusting ratchet action. Will crimp insulated and non insulated terminals and ferrules. Five sets of interchangeable jaws for 0.5mm to 35mm cables. Supplied in a zip-up carry case with a slotted screwdriver for changing jaws.

#CRPTL6 £30 (£36 inc vat)



- INSULATED TERMINALS**
0.5-1.0 / 1.5-2.5 / 4.0-6.0 mm²
AWG 22-28 / 16-14 / 12-10
- NON-INSULATED TERMINALS**
1.5 / 2.5 / 4.0-6.0 mm²
AWG 20-18 / 16-14 / 12-10
- OPEN BARREL TERMINALS**
0.5-1.0 / 1-2.5 / 4.0-6.0 mm²
AWG 20-18 / 16-14 / 12-10
- CORD END TERMINALS (small AWG)**
0.5 / 0.75 / 1.0 / 1.5 / 2.5 / 4.0 / 6.0mm²
AWG 22 / 20 / 18 / 16 / 14 / 12 / 10
- CORD END TERMINALS (large AWG)**
10 / 16 / 25 / 35 mm²
AWG 8.0 / 6.0 / 4.0 / 2.0

RATCHET CRIMP TOOL For 'F' Crimp terminals. Two terminal sizes for 0.5mm to 1mm and 1mm to 2mm wire. Make consistently accurate crimps with this geared ratcheting crimp tool. Adjustable crimping pressure and quick-release lever. Hardened steel jaws. 225mm long.
#CRPTL5 £28 (£33.60 inc vat)



BATTERY CABLE CRIMPING TOOL Here's an inexpensive and very simple crimper for battery cable ring terminals between 6mm diameter and 16mm diameter (8 AWG to 4.0 AWG). Just trim off the cable insulation so that the copper fits fully into the terminal, locate the assembled cable and terminal in the tool, below the sprung-loaded anvil and whack the anvil with a hammer (on a solid surface) until the joint is tight and secure. Hardened steel jaws and plated anvil. Weight 685gms.
#CRPPNC £21 each (£25.20 inc vat)



COPPER CABLE CUTTERS Medium duty cutters for copper electrical cable up to 12mm diameter including battery cable and multi-core. 165mm long. Sprung jaws with a hooked, safety latch to keep jaws closed.
NOTE: NOT SUITABLE FOR CUTTING BOWDEN OR STEEL CABLE.
#CABCUT £7.50 (£9 inc vat)



SIDE CUTTING PLIERS Top quality, drop forged, chrome vanadium cutters. Don't confuse this tool with cheaper versions. These beauties will cut Bowden Cable, Piano wire, stainless wire and heavy cable without damage to the jaws. Soft grip handles insulated up to 10,000 volts. Length of tool 200mm.
#SIDE CUT £12 (£14.40 inc vat)



AUTOMATIC WIRE STRIPPER A very clever, nice quality tool. Simply lay your wire in one of the five cut outs in the jaws and squeeze the handles together. The wire is automatically gripped and the insulation accurately stripped without cutting any of the copper strands or damaging the insulation. Will handle wire sizes of between 0.5mm and 3.5mm. Length of tool 165mm.
#WIRSTR £9 (£10.80 inc vat)

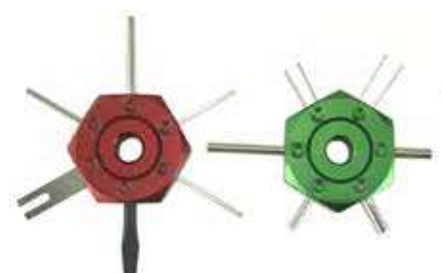


TERMINAL EXTRACTION AND REMOVAL TOOLS We've all struggled to extract a terminal from a multi-pin plug or socket. With these handy tools it's easy. Twelve different, precision engineered blades for removing round connectors, male and female spades of all sizes and even Econoseal terminals. Just select the correct blade or sleeve, slide it over, or alongside the terminal to release it's locking barb and pull out the terminal without damaging the holder.
#TERDIS £21 (£25.20 inc vat)

SMALL WIRE CUTTERS For cutting and stripping insulated copper wire (not steel) up to 4mm diameter. 95mm long, stainless steel, side cutters with sprung, moulded handles. **#WIRECUT £2.50** (£3 inc vat)



HEAT GUN 2000 WATTS Ideal for shrinking all our Heat-shrink products as well as regular paint stripping and general component heating. Two heat settings - 300°C and 600°C. 240 Volt. Includes a set of four nozzles for a range of heating applications. **#HGUN £16** (£19.20 inc vat)



SOLDERING KIT A 240 volt, 30 watt iron with a pencil tip and a desktop rest, an adjustable, 'Helping Hand' bar with two crocodile clips and magnifying glass and a 10 watt glue gun with two glue sticks all in a handy carrying case. Weight 1088g.
#SOLKIT2 £15 (£18 inc vat)



BUTANE GAS SOLDERING IRON Precision 'Pen' style with flame control. Easy, powerful soldering without the hassle of trailing power cables. Rechargeable - runs on regular Butane lighter fluid (Supplied empty). To solder simply slide the bit-holder onto the flame nozzle and screw it on. Turn on the gas switch and light it with a flame. Adjust the heat with the gas flow control valve. Or, just use the naked flame for those small silver-soldering jobs. Follow the safety instructions in the package. Length with tip 250mm.
#GASTOR £16 (£19.20 inc vat)



175 WATT INSTANT HEAT SOLDERING GUN KIT Just pull the trigger and the tip gets hot within a few seconds. What's more a LED light comes on to illuminate the joint you're soldering. Supplied in a case with two spare tips, a tub of flux and a tube of solder.
#SOLD175 £20 (£24 inc vat)



60 WATT SOLDERING IRON Powerful 240 volt 60 watt iron for larger soldering jobs. Supplied with pointed tip and one metre lead with plug.
#SOL60W £8 (£9.60 inc vat)



MULTICORE TIN / LEAD SOLDER Proper, old-fashioned Tin / Lead solder makes the best and easiest soldering joints. This is a 500gm roll of 1.2mm diameter Solder. 2% Flux. Grade C. (Tin) Sn40 / (Lead) Pb60.
#SOLDER £23 (£27.60 inc vat)



100gm SOLDER 60/40 Tin/Lead. 1mm diameter. Approx. 16 mtrs. .
#SOLDER100 £5.50 (£6.60 inc vat)



OIL EXTRACTOR Too old for crawling around under your car, struggling with that inaccessible drain plug? Make life easy and keep your engine happy with this easy to use gadget. Simply operate the plunger pump to create a vacuum in the container and suck out your old oil through the dipstick tube. Automatically stops when full. Capacity 4 Litres. Ideal for cars, bikes, boats, machinery, lawn mowers.

#OILEX £30 (£36 inc vat)



**BOATS
CARS
BIKES
MOWERS
MACHINERY**

9 LITRE OIL EXTRACTOR Vacuum operated either manually with the built-in hand pump or by connection to a compressed-air line. For extracting Engine Oil, Gear Oil, Coolant, Brake Fluid, Power Steering Fluid. This high-capacity extractor will suck out your engine oil through the dipstick hole and automatically shut-off when it is full. Includes a quick air-line coupler, a brake nipple connector and an extractor tube.
#OILEX2 £88 (£105.60 inc vat)



OIL FILTER WRENCH 3/8" SQUARE DRIVE

This self-tightening mechanism grips filters from 60mm to 110mm diameter. Rubber feet for maximum grip.

#OFW £6.50 (£7.80 inc vat)



CV BOOT FITTING KIT A plastic cone and tub of lubricant that will allow you to replace CV boots without a complete strip down.

#CVFITKIT £7.50 (£9 inc vat)



4 LITRE VALUE TUB OF HAND CLEANER

This pleasantly fragranced, soap and alkali-free hand cleaner with moisturiser cleans hands thoroughly removing oil, grease and dirt without causing skin irritation. Environmentally friendly. SEE OUR ONLINE LISTING FOR FULL INGREDIENTS.

#WHC £15 (£18 inc vat)



6 METRE JUMP LEADS Top quality 800 Amp jump leads. 6 metre cables and heavy duty crocodile clips. Supplied in a zip-up carry case. 15mm cable dia. Weight 4.5 Kg. #JUMP £23 (£27.60 inc vat)



BRASS HEAVY DUTY CROCODILE CLIPS

The covers of these great quality clips slide off exposing an M6 female thread in each handle, so you can make up your own Jump leads with whatever size and length cable you want using the appropriate ring terminals from our range and a couple of M6 screws. Weight 720 gms.

#HDCROC £19 (£22.80 inc vat)



PROFESSIONAL SIPHON PUMP

Here's a superb, engineering quality siphon pump with a firm rubber bulb and an internal valve. Inlet and outlet are machined aluminium hose-tails. Flow direction is clearly marked with an arrow on the bulb. Length 150mm. Bulb diameter 44mm.

8mm HOSETAILS #PROSIPHON
10mm HOSETAILS #PROSIPHON2
Both £12 each (£14.40 inc vat)



OIL FILTER GRIPS During our years building cars, we've tried 'em all, from strap wrenches to 3-legged grips to a screwdriver hammered through the filter (very messy). But these are by far the best and easiest to use so we thought we'd include them in our tool range. This one is particularly good quality. It is adjustable for filter size and great for one-handed 'swear-free' operation in tight spaces, from any angle. #OILGRIP £9 (£10.80 inc vat)



COMPACT SIZE GREASE GUN Here's a nice quality, small grease gun with multiple nozzle options which can use either pre-filled grease cartridges or it can be filled from a bulk grease supply. It has a die-cast alloy head assembly with a bleed screw for easy filling. The pack includes a 270mm flexible hose, a 180mm steel tube, a 115mm steel tube, 2 nozzles and one, 85 gm. cartridge of general purpose grease. Overall height of gun 260mm. Cartridge size 150mm x 33mm diameter. Weight 903gms.

#GREGUN £14 (£16.80 inc vat)



GREASE CARTRIDGE 2 PACK General purpose grease for our Grease Gun #GREGUN.

Each cartridge is 85 gms (3 oz.). Temperature range -20°C to 120°C. Cartridge size 150mm x 33mm diameter. #GREPAK £5.25 (£6.30 inc vat)



MULTI-PURPOSE PUMP Syphon/transfer oil, petrol and other fluids. Inflate balls, tyres etc. Includes two x 51" hoses. 16" Tyre hose with snap-on valve. 24" Dipstick oil siphon tube. Pack of adapters.

Pump height closed 230mm. #MULPUMP £7 (£8.40 inc vat)



POWER TOOLS

900 WATT ANGLE GRINDER

Here's a good quality angle grinder Powerful 900 watt motor. No load speed 12,000 RPM. 115mm disc capacity head. Supplied in a blow-moulded case with side handle, guard, spanner and even spare motor brushes. Push-button spindle lock for easy disc changing. Can be fitted with a cutting disc to cut metal tube and sheet, a grinding disc to dress welds and shape metal, or a sanding disc to dress and shape GRP and wood. M14 x 2mm thread. Accepts discs with a 22mm hole. Weight 2.760 Kg. **#ANGLE900 £34** (£40.80 inc vat)



1mm CUTTING DISC. 115mm diameter x 1mm thick with a 22.2mm hole. These discs are suitable for cutting stainless steel tube, pipe, bar and even our stainless braided hose (don't forget to wash it out before fitting). See the instructions in the Hints and Tips pages at the back of this catalogue. **#D115X1 £1.20 each** (£1.44 inc vat)



5 PIECE ABRASIVE NYLON BRUSH PACK These are great for removing rust and scale, de-burring and finishing with minimal material removal. All have a 6mm shank for hand drill or pillar drill mounting. Pack contains:
 1 x 50mm Cup Brush,
 1 x 24mm End Brush,
 1 x 75mm Wheel Brush,
 1 x 100mm Wheel Brush,
 1 x 100mm Flap brush. Maximum speed 4500 RPM. **#NYBRKIT £11** (£13.20 inc vat)

ANGLE GRINDER Here's an inexpensive angle grinder Powerful 850 watt motor. 115mm disc capacity head. Supplied with side handle, guard and spanner. Push-button spindle lock for easy disc changing. Can be fitted with a cutting disc to cut metal tube and sheet, a grinding disc to dress welds and shape metal, or a sanding disc to dress and shape GRP and wood. Weight 2.1 Kg. **#ANGLE2 £24** (£28.80 inc vat)



FLAP DISC PACK. All 60 Grit.
 Size: 114mm OD with a 22mm hole. When we were building cars we used Flap Discs for everything from dressing chassis welds to trimming Acrylic and Glassfibre panels. They outlast any sanding disc and give consistent clog-free cutting. They're usually priced between £2 and £4 each so our pack of 3 offers great value. **#FLAPPAK £4.50 pack of 3** (£5.40 inc vat)



40 GRIT FLAP DISC. 114mm OD with a steel reinforced 22mm hole. This is a good quality 40 grit disc for fast material removal. Moulded glassfibre backing. **#FLAPP40 £2.50 each** (£3 inc vat)



WIRE CUP AND WHEEL BRUSH SET FOR AN ANGLE GRINDER WITH M14 x 2 THREAD Strong construction for heavy-duty rust and paint removal. Two 75mm cup brushes and two 100mm semi-flat wheel brushes. ANGLE GRINDER NOT INCLUDED. SHOWN FOR ILLUSTRATION ONLY **#WCWSET £9.50** (£11.40 inc vat)



FITTED TO OUR #ANGLE900

TWISTED WIRE CLEANING DISC FOR ANGLE GRINDER For heavy-duty rust and paint removal and surface preparation 115mm diameter with a 22mm centre hole. **#TWDISC £6** (£7.20 inc vat)

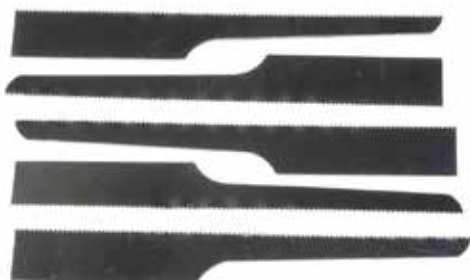


AIR TOOLS

AIR PANEL SAW Of all our air tools it's our panel saw that gets the most use so we thought we'd include this great value one in our range. It is supplied with two blades but you can use cut-down regular hacksaw blades. They're easy to change with the hex keys provided. Air inlet 1/4" NPT. Maximum air pressure 110psi. Working pressure 90psi. Air consumption 4cfm. Length without blade and union 230mm. Weight 650gm.
#PANSAW £34 (£40.80 inc vat)



PACK OF 5 PANEL SAW BLADES High speed steel. 94mm long. 24 teeth per inch.
#PANBLADES £5 (£6 inc vat)



AIR SHEARS This air tool cuts a 5mm wide strip of material in straight cuts or gentle curves, from sheet aluminium, plastic or steel up to 18 gauge (1mm) with minimal distortion to either side. Operating and maintenance instructions included. Air consumption 2.1 cfm. Maximum air pressure 100 psi. 1/4" BSP air inlet connector union included. Weight 1160 gms.

#AIRSHEAR £46 (£55.20 inc vat)



AIR NIBBLER This air tool nibbles a 5mm wide track through sheet steel or aluminium up to 1.5mm thick with minimal distortion. It will cut intricate shapes by hand or straight lines along a template or edge. Air consumption 6 cfm. Maximum air pressure 100 psi. 1/4" BSP air inlet connector union included. Weight 930 gms.

#AIRNIBBLER £34 (£40.80 inc vat)



AIR CUT-OFF GRINDER There are loads of uses for this great-value air tool. From cutting stainless-braided hoses to trimming GRP panels or cutting metal pipes and tubes. Takes 75mm diameter x 2mm thick discs with 9.75mm bore. Comes with a clear plastic guard, spanner and hex key. Air inlet 1/4" BSP. Maximum air pressure 110psi. Working pressure 90psi. Air consumption 4cfm. Length 245mm. Weight 670gm.

#AIRCUTOFF £25 (£30 inc vat)



1mm CUTTING DISC. 76mm diameter x 1mm thick with a 10 mm hole. These discs are suitable for cutting stainless steel tube, pipe, bar and even our stainless braided hose (don't forget to wash it out before fitting). See the instructions in the Hints and Tips pages at the back of this catalogue.

#D76X1 £2.50 each (£3 inc vat)



AIRLINE BLOW GUN Use with compressed air for cleaning jobs around your workshop. Moulded body with sprung trigger and 150mm long nozzle. 1/4" BSP double-ended steel union. Overall length 290mm. Weight 92gms.

#BLOWGUN £5 (£6 inc vat)



AIR DIE GRINDER Perfect for porting engines, dressing welds and castings and many more intricate grinding jobs. Includes 10 mounted stones, spanners and collets for 1/4" and 1/8" shanks. No load speed 25,000 rpm. Air consumption 4 cfm Maximum air pressure 90 psi. 1/4" BSP air inlet connector. Two unions included. Overall length (without stone) 170mm. Operating and maintenance instructions included. Weight 827 gms. **#AIRDIE £29** (£34.80 inc vat)



AIR BELT SANDER Here's an Air-powered version of our popular 'Powerfile'. A self-tensioning, 10mm wide x 330mm long abrasive belt is driven at 995 mtrs. per minute. Air consumption 4 cfm Maximum air pressure 90 psi. 1/4" BSP air inlet connector. Two unions included. Overall length 310mm. Spare belt and operating and maintenance instructions included. Weight 1110 gms. **#AIRFILE £46** (£55.20 inc vat)



SPARE ABRASIVE BELTS Pack of 5 abrasive belts for our #AIRFILE Size 10 x 330mm. 1 x 40, 1 x 60, 2 x 80, 1 x 120 Grit. **#PFBAIR £3** (£3.60 inc vat)



COMPACT NARROW BELT SANDER This very neat and compact electric Powerfile has a 260 watt motor and takes the popular, 13mm wide x 457mm belts. The handle is only 52mm diameter making it comfortable and easy to use, one-handed for long periods. It has an ON/OFF trigger and rotary thumb control to adjust the belt speed between 330 and 550 metres per minute. Unscrew the clamping knob and the belt arm can be set through a 55 degree sweep angle. There is a 36mm O.D. (32mm I.D) dust collection spigot for attaching a vacuum cleaner hose. The nose is sprung loaded for quick belt changes. Suitable for wood, GRP, acrylics, metals. Weight only 1 Kg. 2 metre lead with plug. Supplied with a spare belt. **#PWRF2 £52** (£62.40 inc vat)



Shown fitted with a #H9035 hose for vacuum cleaner dust extraction



SPARE ABRASIVE BELTS Pack of 5 abrasive belts for our #PWRF2 and the Black & Decker Powerfile. Size 13 x 457mm. 60 Grit. (40, 80, & 120 grit also available) **#PFBELTS £3** (£3.60 inc vat)



AIR LINE FITTINGS

PCL - TYPE, AIR-LINE and AIR TOOL QUICK RELEASE FITTINGS Plated steel, industry standard fittings. 8mm (5/16") hose tail and 1/4" BSP threads.

FEMALE TO 5/16" (8mm) HOSETAIL
#AIRF3 £2.50 (£3 inc vat)



FEMALE TO 1/4" BSP MALE
#AIRF2 £3.50 (£4.20 inc vat)



FEMALE TO 1/4" BSP FEMALE
#AIRF1 £3.50 (£4.20 inc vat)



MALE TO 5/16" (8mm) HOSETAIL
#AIRF6 £1 (£1.20 inc vat)



MALE TO 1/4" BSPT MALE
#AIRF4 £1.50 (£1.80 inc vat)



MALE TO 1/4" BSP FEMALE
#AIRF5 £1.50 (£1.80 inc vat)



HOW TO USE A POWERFILE IN THE HINTS AND TIPS SECTION

BLACK & DECKER POWERFILE
#PWRF £62 (£74.40 inc vat)



This item is explained on our **You Tube** channel

HEAVY DUTY AIR COMPRESSOR KIT

This heavy duty, 12 Volt compressor can has a 2.4 metre power cable with an in-line fuse and crocodile clips. The 7 metre, coiled hose has a quick-release connector on each end. One end plugs directly onto the compressor and the other onto the tyre inflater. On / Off switch. Pressure gauge. Tough carry case. 23 Amps current draw. Maximum pressure 100 psi. Weight 3.8Kg. Size in bag: 300mm x 250mm x 250mm.
#AIRCOMPHD £115 (£138 inc vat)



AIR COMPRESSOR Dump that little plastic one that takes two days to pump up a tyre. This little beauty will inflate a 4 x 4 tyre in a few minutes. Three metres of heavy duty cable with an in-line fuse and a cigarette lighter plug allows you to reach any corner of your vehicle with ease. 60cm Air line hose with locking valve connector. On / Off switch. Pressure gauge. Tough carry handle. Rubber feet. Aluminium, plated steel and ABS case. 12 Volt DC. 12 Amps current draw. Weight 2.3Kg. Size 180mm x 100mm x 160mm high. Supplied with 3 adapters for footballs etc.

#AIRCOMP £51 (£61.20 inc vat)



MICHELIN TWIN BARREL FOOTPUMP

Twice the inflating power of a normal footpump. Great quality. Heavy duty construction. The accurate, easy-to-read dial shows both PSI and BAR. The integral 600mm hose has a thread for screwing directly onto the tyre valve. There's a handy little box attached to the hose that holds a range of adapters for footballs, beach toys and other inflatable equipment. Packed size: 300mm x 180mm x 85mm. Weight 2160gms.
#FOOTPUMP £23 (£27.60 inc vat)



EMERGENCY TYRE REPAIR KIT

Sometimes there's just not enough room for a spare wheel in our 'Big Boy's Toys', so this handy kit could save a few choice words in the event of tyre trouble on a long journey home. It contains a 12 volt (plug in to your lighter socket) compressor, a 400ml aerosol of Tyre Sealant, a pressure gauge, depth gauge, vinyl gloves, cleaning wipes and a zip-up carry bag for it all. Size just 260 x 220 x 280mm. Weight 1570 gms.
#ETKIT £30 (£36 inc vat)



PORTABLE SPRAY BOOTH EXTRACTOR

If you're tight on space, here's a fantastic little booth for painting all your small parts with an Airbrush or Aerosol. We have one permanently set up in our workshop. The front of the unit opens and folds out to a maximum size of 480mm x 420mm x 360mm. It has a two-stage filter and a 25 watt fan that can extract the air through a hole in a wall or duct the filtered air back into the workshop at the rate of 3 cubic metres per minute. The power cord has an automatic rewind. Two units can be linked together to make an 840mm wide booth. A 200mm turntable is included. Weight 5.5Kg
#BOOTH £89 (£106.80 inc vat)



PROFESSIONAL AIR BRUSH KIT

Perfect for graphics and minor touch-ups, this amazing little kit includes an automatic start-stop, adjustable pressure Air Compressor with a separate mains power supply. 6 feet (830mm) of very flexible hose with screw-on unions on each end. An in-line filter with a Schrader drain valve that screws on to the air inlet of the brush. A holder for the airbrush that presses into the compressor case. Paint cup capacity 7cc. Airflow is 10.5 litres per minute at between 2 and 15 psi. Weight 1.4Kg.
#ABKIT £52 (£62.40 inc vat)



AIRBRUSH KIT Great for those little touch-in jobs. Just fill one of the glass jars from an aerosol or mix only the amount of paint you need for the job. Accurate, controllable spray pattern. Operates from 15 to 50 psi air pressure. Included is a screw-on adapter for Hobby compressed air canisters and a 1/4" NPT female union for connecting to your own air supply. The 1.7mtr hose could also be adapted to connect on a tyre valve for compressor free operation.

#AIRBR £12 (£14.40 inc vat)



HANDY BRUSH PACK We use these excellent quality brushes every day in our workshop for painting, gluing, washing and cleaning parts. The tapered hardwood handles are brilliant for stirring, mixing or even for plugging hoses and blanking holes when painting. Twelve sizes between 3mm diameter and 14mm diameter. All about 300mm long.

#BRUSHES £3 pack (£3.60 inc vat)



MASKING TAPE Good quality. Easy to use. 25mm wide x 50 metres roll.

#MASK25 £1.20 (£1.44 inc vat)

50mm wide x 50 metres roll.

#MASK50 £2.30 (£2.76 inc vat)



CHARGING

BATTERY CHARGER. A good value, no frills workshop battery charger. 4 Amp 12 volt maximum output. Charge indicator meter. Short circuit protection. Thermal overload protection. Reverse polarity protection. Mains lead and plug. 1.4 mtr charging leads with insulated red and black crocodile clips. Weight 1.3kg. **#BATCH £19** (£22.80 inc vat)



HIGH POWER USB CHARGING SOCKET.

CE marked. 12 volt double charging socket with a LED on the front panel. 5 volt 1 Amp and 5 volt 2.1Amp outputs. Works for GPS, mobile phones, tablets, MP3 players etc. Two 1/4" spade terminals on rear. Can be fitted through a 29mm hole in your dashboard. **NOTE:** Check your equipment manual to choose the correct output setting for your device. If in doubt, select 1 Amp. **#USBSKT6 £13** (£15.60 inc vat)



OTHERS AVAILABLE IN THE ELECTRICAL SECTION

USB CHARGER SOCKET Bezel diameter 36mm. Fits in a 28mm hole in a panel up to 7mm thick. 12 volt DC input. 5 volt 1 Amp. DC output. 150mm flyleads. Front projection 4mm. Rear projection maximum 33mm not including leads. **#USBSKT £21** (£25.20 inc vat)



2.4 WATT SOLAR BATTERY MAINTAINER Keep your battery topped-up over long periods of storage. Needs no mains power. Charges direct from daylight. It doesn't even have to be sunny!! Suitable for up to 100Ah batteries. For Caravans, Small cars, Boats, Motorcycles and Lawn mowers. 138mA 15 Volt (2.4 Watt) output. One 2.5 mtrs long cable with interchangeable ends - either a plug to charge via your cigarette lighter or crocodile clips for connecting direct to your battery. Flashing LED charge indicator. Water resistant casing. Supplied with rubber suckers for mounting the solar panel directly to the inside of your windscreen or garage window. Panel size overall 352mm x 214m x 14mm thick. Weight 1150g.

#SOLAR3 £42 (£50.40 inc vat)



6 WATT SOLAR BATTERY MAINTAINER

Suitable for up to 200Ah batteries. for Caravans, Large cars & vans, Boats, Motorcycles and Lawn mowers. 343mA , 17.5 Volt (6 Watt) output. Panel size 498mm x 345m x 15mm thick. Weight 2250g. **#SOLAR4 £60** (£72 inc vat)



4 AMP SMART BATTERY CHARGER / MAINTAINER

4 Amp maximum output. Automatically adjusts to low current maintenance mode when battery is fully charged. Press the button to select one of six charging modes - 12 volt car, summer or winter, 6 volt motorcycle, summer or winter (2 Amp max.) and 12 volt motorcycle summer or winter.

Bright LCD screen. Mains lead and plug. 1.4 mtr. plug-in charging leads with insulated red and black crocodile clips or ring terminals.

Handy fold-out hook for hanging inside your bonnet. Size: 190mm x 85mm x 50mm . **#SMART £33** (£39.60 inc vat)



DIAGNOSTICS

IGNITION TESTER Dead simple way to see if you have a spark. Push the tester onto your spark plug then connect your HT lead to the tester. The translucent red tester will flash with the spark plug. 72mm overall length. **#IGNTS £4.80** (£5.76 inc vat)



SOUND LEVEL METER Nice quality. Great value meter for checking those exhaust levels for the track and IVA. Size 170mm x 65mm x 40mm. Measures from 50 to 126db. A & C Weightings. Adjustable response speed. Battery condition indicator. Easy to use with full instructions. Requires 1 x 9v battery. Calibration control. Phono output for data recorder. **#SLM £20** (£24 inc vat)



DIGITAL UNIVERSAL MULTIMETER 0-600V Here's a gr eat quality meter with all the functions you need to check voltage, resistance, current, continuity and even semiconductors. It comes in a rugged yellow case that doubles as a bench stand and a holder for the two 60mm long test leads. Size 200mm x 95mm x 40mm. Weight 498gms. AC and DC Volts - 0 to 600v AC and DC Current 0 to 10 Amps Resistance 0 to 200MΩ Frequency - 20khz max Capacitance - 0 to 20 μf Diode checking. Bleep testing. Auto Power Off. CE approved. **#MULT13 £13** (£15.60 inc vat)



12 VOLT ENGINE TIMING LIGHT WITH BRIGHT LED DIGITAL DISPLAY Set your ignition timing spot-on with this very nice, easy to use, stroboscopic light. Just connect the crocodile clips to your battery and clamp the spring-loaded pick up onto your 'Cylinder no.1' HT lead. The display can be switched to show engine RPM or Ignition Advance Angle (R/A) and you can press another button to select either 2 stroke or 4 stroke engines. 1.8 Metre leads for battery connection and HT pick up. Full instructions included. Weight 810gms. **#TLIGHT £46** (£55.20 inc vat)



INFRARED THERMOMETER Just point it at each manifold branch at engine start up to see if they're all the same temperature. Or aim it at your hoses and radiator to see exactly how your cooling system is performing. Measure the temperature of each disc to check for binding brakes or overheating bearings. Change from Centigrade to Fahrenheit with the push of a button. Pull the trigger to switch on the display and take a reading. A Laser pointer shows you exactly the point of measurement. Full instructions included. Measuring range -38°C and 520°C. Takes 2 x AAA batteries (Not included.) **#INFRA £36** (£43.20 inc. vat)



BORESCOPE A picture can paint a thousand words with our cracking little borescope. A 12mm diameter camera head with internal LED lighting is mounted to the end of a 1 metre long flexible probe. So you can even see what's going on down in your bores through the spark plug hole. It has a bright 2.4" full colour display with brightness controls. Powered by four AA batteries (included). Also included is a 1.5 mtr video lead so you can view the image on a much larger computer or TV screen. **#BORE £140** (£168 inc vat)



WI-FI ENDOSCOPE WITH 8mm DIAMETER CAMERA

A compact, rechargeable endoscope compatible with Android and IOS operating systems. Wirelessly communicates with smart phones, tablets and computers. Can be viewed and controlled with an App on your phone. The flexible, 3.5 mtr. long, semi-rigid cable bends and holds its shape making it easier to position in confined places. The IP67 rated, waterproof, auto-exposure camera has eight dim-able LED lights providing exceptional picture quality and allowing detailed inspection inside pipes, tanks, engines etc..

Specification: System requirements: IOS/Android /Windows/Mac
Resolution: HD 1280 x 720, 640 x 480
Frame rate: 30 fps
Focus: 4-10CM.
View Angle: 70°
Photo Format: JPEG
Video Format: MP4



Contents:
Powerbank Wifi box
Tool fixing sleeve
7cm Hook, 7cm
Magnet, Mirror
2 x USB charging cable
2 x self-adhesive suction pads

#ENDO1 £21 (£25.20 inc vat)



MECHANICAL TYRE PRESSURE GAUGE

Accurate tyre pressure is critical for safe and positive handling on road or track. This handy gauge is only 100mm long and has a 45mm diameter dial. It is accurate to +/- 2psi. and will read between 2 and 100 psi. Range 0-100 psi (0 - 7.5 bar)

A handy feature of this gauge is that you can push the gauge onto your tyre valve and remove it to view the pressure reading. Then simply press the reset button on the side of the dial to return the needle to zero.
#PRESGA2 £6.50 (£7.80 inc vat)



DIGITAL TYRE PRESSURE GAUGE / TREAD DEPTH GAUGE

Here is the Rolls Royce of tyre pressure gauges. You can select the bright LCD to display pressure in either psi, bar, kpa or Kg/cm² with just a press of a button. Range 0-99psi (0 - 7 bar). Accuracy +/- 1 psi. The unit has a slide-out tread depth gauge that reads directly off a scale printed on the tool. The angled nozzle rotates 360 degrees to obtain the most convenient angle for access to your valve. And there's an LED torch built into the nozzle to help you locate the valve in dark conditions. Batteries and a handy zip-up storage case included. Note: Remove the card packing piece between the batteries before use.

#PRESGA3 £18.50 (£22.20 inc vat)



| Pressure | | |
|----------|-------|-------|
| (kPa) | (bar) | (psi) |
| 9.8 | 0.1 | 1.4 |
| 19.6 | 0.2 | 2.8 |
| 29 | 0.3 | 4.3 |
| 39 | 0.4 | 5.7 |
| 49 | 0.5 | 7.1 |
| 59 | 0.6 | 8.5 |
| 69 | 0.7 | 10.0 |
| 78 | 0.8 | 11.4 |
| 88 | 0.9 | 12.8 |
| 98 | 1.0 | 14.2 |
| 118 | 1.2 | 17.1 |
| 137 | 1.4 | 19.9 |
| 157 | 1.6 | 23 |
| 177 | 1.8 | 26 |
| 196 | 2.0 | 28 |
| 245 | 2.5 | 36 |
| 294 | 2.9 | 43 |
| 343 | 3.4 | 50 |
| 392 | 3.9 | 57 |
| 491 | 4.9 | 71 |
| 589 | 5.9 | 85 |
| 687 | 6.9 | 100 |
| 785 | 7.8 | 114 |
| 883 | 8.8 | 128 |
| 981 | 9.8 | 142 |

TEST LEAD. A bulb inside the handle glows when the circuit is complete. 900mm long cable. Sharp steel probe easily pierces PVC wire insulation. Insulated crocodile clip. 6 or 12 volt. **#TESTLEAD £3** (£3.60 inc vat)



TEST LEAD 6, 12 or 24 volt.

The easy way to check for live feed in plugs, sockets, lights, cables, switches. A bulb inside the handle glows when the circuit is complete and power is present. 280mm long with 5 ft (1.5Mtr) long lead. Sharp stainless steel probe easily pierces PVC wire insulation. Insulated crocodile clip.
#TESTLEAD3 £8 (£9.60 inc vat)



FEELER GAUGE SET 26 blades. 0.0015" to 0.025". Metric equivalents etched on each blade. **#FEELER £4** (£4.80 inc vat)



SMALL WIRE CUTTERS For cutting and stripping insulated copper wire (not steel) up to 4mm diameter. 95mm long, stainless steel, side cutters with sprung, moulded handles. **#WIRECUT £2.50** (£3 inc vat)



INSPECTION LAMPS

MAGNETIC BASE SWIVELLING WORK LAMP

A great addition to your toolbox. This self-contained, battery powered lamp gives a powerful, wide angle light and has a powerful magnet in the base with a flexible ball joint allowing you to swivel the head in any direction. Three 'AA' batteries are included inside the lamp, which has a 75mm diameter lens and a push-button ON-OFF switch. Just twist the head to remove it to replace the batteries.

#WORKLAMP2 £4.20 (£5.04 inc vat)



PACK OF 4 AA BATTERIES

Zinc Carbon. Size M or R6. 1.5 Volt.

#BATAA £1 (£1.20 inc vat)



LED MULTI TORCH Here's a handy LED torch with two beams. A bright, 28 LED, lamp and a 5 LED, narrow beam torch in the end. It has a swivelling base with two strong magnets and a flip-out hook. Up to 7.5 hours operating time. Length 215mm. Powered by 3 x AAA batteries (not included)

#TORCH £10 (£12 inc vat)



RECHARGEABLE LED Strip inspection lamp Mega-bright 15 watt LED strip with rotary dimmer control. Folding wire hook at top end and magnetic base with spherical ball mount for multi-positioning options. Can be charged from a USB outlet with the cable supplied or from the 240 volt mains adapter included.

Weight 350gms.

#INSP7 £38 (£45.60 inc vat)



SLIMLINE HAND LAMP / TORCH

This compact and powerful lamp has a folding, 500 lumens, 2 watt LED array that can be switched to three levels of brightness plus an LED torch in the end. It has a strong magnetic base and a folding hook. A row of green LEDs adjacent to the on off switch displays remaining battery power.

A 1 metre Micro-B USB cable is included with a mains adapter and 12 volt car adapter. The USB charging socket in the handle has a waterproof cover. Charging time 5½ hours. Up to 20 hours battery life. Size fully opened 325mm x 40mm x 30mm. Weight 420gms.

#INSP8 £32 (£38.40 inc vat)



PAINT

ENGINE PAINT Gloss finish. Resists fuel, oil & solvents. Will withstand up to 550°F

Net weight 11 ounces (311 gms)

GOLD #PNENG £9.50 (£11.40 inc vat)

BLACK #PNENBK £9.50 (£11.40 inc vat)

CHEVY ORANGE #PNENO £9.50 (£11.40 inc vat)

RED #PNENR £9.50 (£11.40 inc vat)

FORD BLUE #PNENBU £9.50 (£11.40 inc vat)

FORD GREY #PNENFGY £9.50 (£11.40 inc vat)

VHT METALLIC ENGINE PAINT

This high temperature, high performance paint has sparkling metallic finish. A unique formulation of urethane and ceramic resins produces a tough and long lasting finish for engines, engine accessories, or any other surface that requires a durable, heat and chemical resistant finish. Heat resistant to 650° F (343°C)

Applications: Headers, Engine Blocks, Starters, Brackets, Water Pumps, Valve Cover, Transmissions, Differential Covers
11 OZ. (312 GRAMS)

TITANIUM SILVER BLUE

#PNETIT £9.50 (£11.40 inc vat)

VHT METALLIC ENGINE PAINT

CAST ALUMINIUM

#PNENSA £9.50 (£11.40 inc vat)



VHT ANODIZED COLOUR COAT

This unique transparent coating creates an anodized effect over properly prepared chrome, shiny bare metal and chrome-like surfaces. Withstands intermittent temperatures up to 550°F (228°C)

Applications: Engine Components, Chrome Wheels, Bumpers, Trim, Accessories
Size: Approximately 400ml

Dry Time: Dries To The Touch In 30 Minutes. Dries Thoroughly Overnight

No Curing Required.

For Added Protection you can apply our

Clear Gloss Engine Enamel When Dry.

BLUE #PNANODBU

£9.50 (£11.40 inc vat)

RED #PNANODR

£9.50 (£11.40 inc vat)

PURPLE #PNANODP

£9.50 (£11.40 inc vat)



CAST IRON EFFECT

#PNENCA £9.50 (£11.40 inc vat)

SATIN BLACK

#PNENSB £9.50 (£11.40 inc vat)

GREY PRIMER #PNENGP

£9.50 (£11.40 inc vat)

CLEAR LACQUER #PNENCL

£9.50 (£11.40 inc vat)

VHT ANODIZED BASE COAT

This is a primer for use under VHT Anodised Colour Coats.

#PNANOBASE £9.50 (£11.40 inc vat)

VHT BARREL PAINT Barrel Spray Paint

offers an original factory appearance for motorcycle barrels. It is resistant to oil, petrol and solvents, and is heat resistant to 550°F (288°C). It virtually stops rust and corrosion while resisting chipping, cracking and fading.

Temperature: 550°F (288°C). Dries to the touch in 30 minutes. Dries thoroughly overnight. Cures when engine is run

11 OZ. (312 GRAMS)

GLOSS BLACK #PNBARRG

£9.50 (£11.40 inc vat)

SATIN BLACK #PNBARRS

£9.50 (£11.40 inc vat)



**IMPORTANT NOTE:
ROYAL MAIL WILL NOT SHIP
AEROSOLS.
UK DELIVERIES MUST BE BY
COURIER.
AEROSOLS CANNOT BE
SHIPPED BY AIR -
ONLY ROAD COURIER
TO EUROPE**



CALIPER & DRUM PAINT 900°F GLOSS,

Resists chemicals & brake fluid.

Net weight 11 ounces (311 grams)

- RED #PNCR £9.50** (£11.40 inc vat)
ALUMINIUM #PNCA £9.50 (£11.40 inc vat)
BLUE #PNCBU £9.50 (£11.40 inc vat)
BLACK #PNCBK £9.50 (£11.40 inc vat)
YELLOW #PNCY £9.50 (£11.40 inc vat)
ORANGE #PNCO £9.50 (£11.40 inc vat)
CLEAR #PNCL £9.50 (£11.40 inc vat)



BRUSH ON ENGINE ENAMEL Here's a good quality, long lasting brush-on gloss engine paint formulated with ceramic resin to withstand temperatures up to 250°C. Quick drying and chip resistant. Ideal for blocks, rocker covers and other castings. 250ml can.

- YELLOW #EE06Y**
WHITE #EE09W
LIME GREEN #EE08LG
GOLD #EE07G
BRITISH RACING GREEN #EE10BRG
All £10 each (£12 inc vat)

**EXHAUST PAINT Matt finish.**

Will withstand up to 1500 degrees F.

Net weight 11 ounces (311 gms)

- SILVER #PNXS £10** (£12 inc vat)
BLACK #PNEXB £10 (£12 inc vat)
WHITE #PNEXW £10 (£12 inc vat)
RED #PNEXR £10 (£12 inc vat)

HIGH TEMPERATURE EXHAUST PRIMER

- WHITE #PRIMEX £9.50** (£11.40 inc vat)
GREY #PRIMEXG £9.50 (£11.40 inc vat)

**POR15 HIGH TEMPERATURE**

BRUSH-ON PAINT Superb paint for exhausts. Heat resistance up to 1200°F. Better metal preparation will yield better results. We recommend blasting then painting immediately with several light coats. Must be cured for two hours at 400°F. Resists cracking, chipping and peeling. Salt and moisture resistant.

Follow the instructions on the can.

MANIFOLD GREY

- 236ml #PHTMGBR £18** (£21.60 inc vat)
946ml #PHTMGBR1Q £39 (£46.80 inc vat)

ALUMINIUM

- 236ml #PHTALBR £18** (£21.60 inc vat)
946ml #PHTMGBR1Q £39 (£46.80 inc vat)

FLAT BLACK

- 236ml #PHTFBBR £18** (£21.60 inc vat)
946ml #PHTMGBR1Q £39 (£46.80 inc vat)



HEAT-RESISTANT PAINT Great value heat-resistant aerosol paint from Holland. Does not require primer. Apply to clean, dry, grease-free surface (blasting recommended) in several thin coats between 15°C and 25°C. Dry for one hour at room temperature then cure at 160°C for one hour. (NOTE: It will smoke a little during the cure process) Check maximum temperature of the item you're painting against maximum on the can.

WHITE 650°C

- #PNHRW 400ml £4.50** (£5.40 inc vat)

RED 300°C

- #PNHRR 400ml £4.50** (£5.40 inc vat)



PLATED FINISH Very shiny silver but NOT CHROME as the cap suggests.

#PNCHR £9.50 (£11.40 inc vat)



WHITE HEAVY DUTY PRIMER

For wood, metal or fibreglass.

#PRIME £9.50 (£11.40 inc vat)

EPOXY CHASSIS AND ROLL-BAR PAINT

SATIN BLACK This is great stuff. Tough, self priming epoxy paint with rust inhibitor. Use on Steel, Aluminium, Fibreglass.

#PNCHRA £9.50 (£11.40 inc vat)



MASKING TAPE Good quality. Easy to use. 25mm wide x 50 metres roll.

#MASK25 £1.55 (£1.86 inc vat)

50mm wide x 50 metres roll.

#MASK50 £2.80 (£3.36 inc vat)



WRINKLE PAINT For that classic period finish on GRP or metal. Great for dashboards & rocker covers. We include our own instructions on how to achieve the best results.

Net weight 11 ounces (311 grams).

RED #PNWRR £10.50 (£12.60 inc vat)

BLACK #PNWRB £10.50 (£12.60 inc vat)

GREY #PNWRG £10.50 (£12.60 inc vat)

WRINKLE PAINT INSTRUCTIONS



Create that authentic period 'Wrinkle' finish on your dash, interior, rocker covers and all those engine-bay brackets and boxes. This stuff is tough, durable and resistant to fading, grease, and engine cleaners. It will withstand adverse weather conditions and temperatures up to 350° but it must be properly applied to achieve the best results.

Firstly the surface to be painted must be clean and dry. You don't necessarily need a primer and minor scratches will be covered by the wrinkle texture so wipe the surface with thinners to remove all traces of grease, finger marks and dust. Temperature. This is important. The manufacturer recommends 70°F (21°C) minimum. In UK that's not always easy to achieve but if you have an insulated workshop or painting area you must bring it up to temperature with a heater. But remember, your item and paint must also be up to temperature as well. Leave the item to warm up for an hour or so and stand the can of paint in warm water. In cold weather you can make an oven by laying a large cardboard box on it's side and having a small fan heater at the opening. Put the paint and the item in it for at least half an hour to warm up before applying the paint.

Technique. Forget every thing you've learned about aerosol painting - Wrinkle paint doesn't work the same way. When you paint an item with a conventional aerosol paint all you need to achieve is a minimum paint thickness to cover whatever finish is underneath - it doesn't really matter if the paint is slightly heavier in some areas so long as you have good coverage. When using wrinkle paint, spraying a uniform paint thickness is critical to an ending up with a uniform wrinkle texture - the heavier the paint - the bigger the wrinkles. Start with a heavier base coat and apply two or three slightly thinner coats 2 minutes apart. Remember, if the temperature isn't high enough, the paint won't dry as quickly and you'll risk the danger of runs and sags. Concentrate on spraying each coat evenly, blending each stroke with the previous one without too much over-painting. Alternate each coat with horizontal and vertical strokes to minimise a stripe effect. It makes sense to practice on a test piece but if you're not happy with the finish you can wipe it off with thinners and try again. Larger areas like dashboards require more attention to achieve even coverage.

Patching or making-good duff areas isn't possible after the paint has cured - your only option is to rub down and start again. Minor scratches and chips can be carefully touched-in with conventional aerosol. Spray a little Satin Black into a lid and 'stipple' tiny spots of paint onto the chipped area with a fine artist's paint brush. Build up the paint slowly with many coats, allowing each to dry or you may create a 'pickling' reaction with the wrinkle paint that will make things even worse.

Total cure time is 48 hours but the wrinkles can appear at anything between 20 minutes to 12 hours. Be careful. This product is extremely flammable so don't use an open flame type heater and wear a good quality carbon filter mask when spraying. Check out the safety information printed on the can label. NOTE: For some reason unknown to us the paint nozzle appears to become blocked intermittently during use - they all do it! Simply pull off the nozzle and push it back on again.

CARDBOARD BOX OVEN

In cooler climates, spraying small parts in a cold, damp garage can prove challenging. Curing times are increased and blooming (going dull) often spoils the finish. An simple solution to this problem is a makeshift oven. You can make one easily with a cardboard box and a small fan heater.

Place the parts on a block inside or simply hang them on a piece of wire punched through the top of the box. You can even turn them round using the wire without putting your hands inside the box. Warm both the parts and the paint in the 'oven'. 70 degrees Fahrenheit is a good temperature to aim for. Use a thermometer in the box and move the heater closer or further away until you have the temperature stabilised. Keep your workshop well ventilated and turn off the heater whilst you're actually spraying. Turn it on again when the fumes and vapour have cleared and leave it on until the paint has cured.

TAKE ALL NECESSARY SAFETY PRECAUTIONS AND DO NOT LEAVE UNATTENDED.



PAINT STRIPPER AEROSOL

A powerful blend of solvents. Removes or softens most types of paint, varnish and lacquer. Removes worn gaskets and rubber residues.

Removes charred oil and other carbon deposits.

The viscous gel formula clings to vertical surfaces, helping to prevent run off. 500ml

#STRIPAERO
£8 (£9.60 inc vat)



ACRYLIC AEROSOLS

Suitable for plastics, glassfibre and metal. Good coverage and adhesion to primers. 500ml

SATIN BLACK
#PNSATBK
MATT BLACK
#PNMATBK
GLOSS BLACK
#PNGLOBK
GLOSS WHITE
#PNGLOWHT

All £5
(£6 inc vat)



ALUMINIUM FINISH

Fast drying Acrylic. Excellent coverage, durability and adhesion to primed surfaces. 500ml.

#PNALU
£6.50
(£7.80 inc vat)



PRIMER
Excellent adhesion to metals and rigid plastics. High-build with excellent covering power. Suitable for weld-through. 500ml.

GREY
#PNGYPRI £5
(£6 inc vat)

RED
#PNRDPRI £5
(£6 inc vat)

WHITE
#PNWHPRI £6.50
(£7.80 inc vat)



PETROL RESISTANT GLOSS LACQUER

Excellent resistance to petrol and adhesion to metal and most other paints. Flexible. 500ml.

#PNLAC
£6.50
(£7.80 inc vat)



GLOSS WHEEL LACQUER

Fast drying. Tough, durable gloss finish resistant to weathering and abrasion. 500ml.

#PNWLAC
£5 (£6 inc vat)



ETCH PRIMER AEROSOL

This is an acidic grey primer that gives improved adhesion to bare Aluminium, Galvanised steel, cured paint, GRP and other rigid plastics. 500ml.

#ETCHPRI
£6.50
(£7.80 inc vat)



PLASTIC PRIMER
Superb white primer for rigid plastics. Adjustable fan nozzle. Great initial protection layer for all surfaces. 500ml

#PLASPRI
£6.50
(£7.80 inc vat)



ZINC RICH PRIMER

Excellent corrosion resistance for bare steel surfaces. Good primer for over-painting. 500ml.

#PNZINC
£7
(£8.40 inc vat)



FILLER PRIMER AEROSOL

Beige, High-build and Easy-sand for quick and easy surface levelling. Can be used on painted or unpainted metal, GRP, rigid plastics, wood and masonry. 500ml.

#FILPRI
£6.50
(£7.80 inc vat)



BLACK BUMPER AND TRIM SPRAY PAINT

Suitable for most surfaces including rigid plastics. No pre treatment required 500ml

#PNBBT
£6.50
(£7.80 inc vat)



STONE GUARD

A durable coating on sills, valences and other body panels. Protects against stone chip damage and corrosion from minor scratches. 500ml

BLACK
#PNSGB
WHITE
#PNSGW
ALL £6.50
(£7.80 inc vat)



HIGH TEMPERATURE PANT

Up to 500°C. Self-priming. Excellent durability and adhesion to bare steel. 500ml.

ALUMINIUM
#PNVHTAL
BLACK
#PNVHTBK
ALL £8.50
(£10.20 inc vat)



RUST PREVENTER AEROSOL

Grey. Contains 90% enriched Zinc particles which chemically bond to the steel surface forming a permanent non-porous barrier against moisture and oxygen - the causes of rust. Resistant to, UV, road salt, oil, extreme weather and temperatures up to 350°C. 500ml.

#RUSTPREV
£7.50
(£9 inc vat)



HANDY BRUSH PACK

Sometimes it's easier to just spray a little paint in the lid and use a brush. Here's a pack of twelve sizes between 3mm diameter and 14mm diameter. All about 300mm long. The tapered hardwood handles are brilliant for stirring, mixing or even for plugging hoses and blanking holes when painting.

#BRUSHES
£3 pack (£3.60 inc vat)



CLIP ON AEROSOL TRIGGER

This universal clip-on pistol grip will fit almost all of our aerosols and make spray painting easier and more controllable.. Simply push it onto the top of the aerosol - from the side and pull the trigger to spray. **#PNGRIP £4** (£4.80 inc vat)



BRUSH ON CALIPER PAINT 250ml

Suitable for calipers and drums. Heat resistant to 150°C. High Gloss Finish. Quick Drying. Alkyd based heat resistant enamel. Can be applied directly to bare metal. Oil and brake fluid resistant. Follow over-coating instructions carefully. **Directions for use: Mix the paint well before using and brush on evenly in one direction. The paint should be touch dry within 30-40 minutes. Second coats must be applied within one hour after drying. Leave to properly dry for 24 hours.**

YELLOW #PNBCY £9 (£10.80 inc vat) **RED #PNBCR £9** (£10.80 inc vat)
BLUE #PNBCU £9 (£10.80 inc vat) **BLACK #PNBCB £9** (£10.80 inc vat)



PORTABLE SPRAY BOOTH EXTRACTOR If you're tight on space, here's a fantastic little booth for painting all your small parts with an Airbrush or Aerosol. We have one permanently set up in our workshop. The front of the unit opens and folds out to a maximum size of 480mm x 420mm x 360mm. It has a two-stage filter and a 25 watt fan that can extract the air through a hole in a wall or duct the filtered air back into the workshop at the rate of 3 cubic metres per minute.

The power cord has an automatic rewind. Two units can be linked together to make an 840mm wide booth. A 200mm turntable is included. Weight 5.5Kg **#BOOTH £89** (£106.80 inc vat)





We now stock a large range of Classic Waxoyl products. Waxoyl has long been established as one of the best treatments to prolong the life of your vehicles by protecting against rust and damp. Waxoyl is a thick, waxy fluid, saturated with a powerful rust killer that will kill old rust and prevent new rust. It is easy to apply and is ideal for the insides of doors and box sections, behind sills, inside chassis members and anywhere that water is likely to collect, forming a flexible weatherproof skin that will stay active indefinitely. Waxoyl is available in different sizes and colours and can be applied by pressure spray or brush.

NOTE: OFFSHORE UK AND INTERNATIONAL SHIPPING RESTRICTIONS APPLY TO LIQUID AND AEROSOL PRODUCTS. CHECK WITH US BEFORE ORDERING OUTSIDE UK

WAXOYL 1 and 5 Ltr CANS

- BLACK 1 Ltr.**
#WAXBK1L £15 (£18 inc vat)
- CLEAR 1 Ltr.**
#WAXCL1L £15 (£18 inc vat)
- BLACK 5 Ltr.**
#WAXBK5L £47 (£56.40 inc vat)
- CLEAR 5 Ltr.**
#WAXCL5L £47 (£56.40 inc vat)



WAXOYL PRESSURE SPRAYER

Industrial sprayer for use with Waxoyl for rustproofing vehicles. 1 litre tank. Extension probe. Just pump the handle up and down to pressurise the tank. Height 250mm.
#WAXGUN2 £45 (£54 inc vat)



MASKING TAPE Good quality. Easy to use. 25mm wide x 50 metres roll.

- #MASK25 £1.55 (£1.85 inc vat)
- 50mm wide x 50 metres roll.
- #MASK50 £2.80 (£3.36 inc vat)



WAXOYL UNDERBODY SEAL

This is a One-coat, heavy duty protection for underbody, wheel arches and other high impact areas. It will protect against stones, grit, water and salt and has the additional benefit of reducing drumming and road noise. Underbody Seal contains anti-corrosion chemicals and will not crack, chip or peel. It is non-drip and can be brushed-on as a smooth layer or stippled with a brush for a textured finish. 500ml will cover approximately 1 square metre.

- Clean brushes with White Spirit.
- BLACK 500ml CAN**
#UBSEAL500 £10 (£12 inc vat)
- BLACK 1 Ltr CAN**
#UBSEAL1000 £15 (£18 inc vat)
- BLACK 2 ½ Ltr CAN**
#UBSEAL2500 £29 (£34.80 inc vat)

UNDERBODY SEAL AEROSOL 600ml

Here's the aerosol version of Underbody Seal. Easy to apply in 2 or more coats. Coverage approximately 1 square metre.
BLACK #UBSEALAERO £13 (£15.60 inc vat)



WAXOYL AEROSOL CANS 400ml

Here's a quick and simple way to apply Waxoyl to small components or to repair or re-coat small areas.

- BLACK #WAXAEROBK £12 (£14.40 inc vat)**
- CLEAR #WAXAEROCL £12 (£14.40 inc vat)**



STONE CHIP AEROSOL CANS 600ml

Here's the aerosol version of Stone chip Seal. Dries to a hard finish but remains flexible and will not crack or peel. It can be over-painted with most good quality paints. Easy to apply in 2 or more coats. Coverage approximately 1 square metre.

BLACK #SCAEROBK £11 (£13.20 inc vat)
GREY #SCAEROGY £11 (£13.20 inc vat)



STONE CHIP SHIELD (SCHUTZ)

1 Ltr. CAN Here's a tough, over-paintable, durable coating that will protect sills and lower body panels

against stones, grit, salt, damp and rust. It will touch-dry in 2 to 3 hours and is re-coatable in 3 to 5 hours. It dries to a hard finish that is over-paintable with most good quality paints.

(Always check on a test piece first). The can has a threaded top that will screw directly onto our #SCHUTZGUN, compressed air-powered spray gun. Just connect an air line at 60 to 80 psi and away you go.

NOTE: This is a solvent-based product.

BLACK #STCHIPBK1L £13 (£15.60 inc vat)



STONE CHIP SCHUTZ APPLICATION GUN

This is a die-cast aluminium, compressed air - powered application gun that screws directly to our 1 Litre, STONE CHIP and WAXOYL cans. The nozzle can be replaced with a 600mm long flexible nylon tube. The air input union is a 1/4" NPT male thread. Wash out with thinners or white spirit depending on the product sprayed.

#SCHUTZGUN £14 (£16.80 inc vat)



CAUTION: Certain stressed plastic body mouldings and rubber trim may be adversely affected by application of Waxoyl products. Do not allow Waxoyl to come into contact with these materials. If contact does occur, remove excess Waxoyl with a cloth and thoroughly wash the area with warm soapy water.

WUNDERSEAL is a synthetic elastomer based, brush on sealer ideal for GRP and metal panels. Applied in heavy coats to wheel arches or floor pans, it will seal against water and salt and will guard against stone chips. Wunderseal can be stippled or brushed smooth to disguise GRP mat texture. Will not run, drip or sag. Over-paint in just 1 hour. User friendly and almost odour free. **THIS IS NOT A BITUMEN BASED PRODUCT**

#WUNDS £13 for 1 Kg (£15.60 inc vat)



9 LITRE OIL EXTRACTOR Vacuum operated either manually with the built-in hand pump or by connection to a compressed-air line. For extracting Engine Oil, Gear Oil, Coolant, Brake Fluid, Power Steering Fluid. This high-capacity extractor will suck out your engine oil through the dipstick hole and automatically shut-off when it is full. Includes a quick air-line coupler, a brake nipple connector and an extractor tube. Weight 4.6Kg.

OILEX2 £80 (£96 inc vat)



NOTE: OFFSHORE UK AND INTERNATIONAL SHIPPING RESTRICTIONS APPLY TO LIQUID AND AEROSOL PRODUCTS. CHECK WITH US

LUBRICANTS

MULTI PURPOSE GREASE Here's a good quality, lithium-based grease with outstanding high temperature stability. Suitable for most general purpose and automotive applications. 500gms.
#MPGREASE £5.50 (£6.60 inc vat)



LITHIUM-MOLY GREASE A Lithium-Moly grease for Constant Velocity joints. Also OK for general lubrication including wheel bearings, hubs and UJ's. 500 gms.
#LMGREASE £6.50 (£7.80 inc vat)



COPPER EASE Here's a high melting point, copper-based grease (-40°C to +150°C) that you can use when assembling components. Prevents seizure due to heat and corrosion on wheel nuts, exhausts, calipers, battery terminals, hubs etc. 500 gms.
#COPEASE £8.50 (£10.20 inc vat)



COMPACT SIZE GREASE GUN Here's a nice quality, small grease gun with multiple nozzle options which can use either pre-filled grease cartridges or it can be filled from a bulk grease supply. It has a die-cast alloy head assembly with a bleed screw for easy filling. The pack includes a 270mm flexible hose, a 180mm steel tube, a 115mm steel tube, 2 nozzles and one, 85 gm. cartridge of general purpose grease. Overall height of gun 260mm. Cartridge size 150mm x 33mm diameter. Weight 903gms.
#GREGUN £14 (£16.80 inc vat)



GREASE CARTRIDGE 2 PACK General purpose grease for our Grease Gun #GREGUN. Each cartridge is 85 gms (3 oz.). Temperature range -20°C to 120°C. Cartridge size 150mm x 33mm diameter. Weight 240gms.
#GREPAK £5.25 (£6.30 inc vat)



WURTH ULTRA MULTI-PURPOSE LUBRICANT, PENETRANT AND WATER DISPLACER Contains P.T.F.E. for long term lubrication. Displaces moisture from electrical systems. Ideal for restoring and cleaning plastic components like bumpers and interiors. Silicone free. We find this product invaluable as a coolant and lubricant when drilling aluminium. 500ml.
#ULTR2040 £5.50 (£6.60 inc vat)



SILICONE LUBRICANT 500ml Great for window runners and squeaky door seals.
#SILAERO £5 (£6 inc vat)



MULTIPURPOSE WHITE GREASE AEROSOL 500ml Lubricates and protects almost anything that moves. Long lasting calcium-based lubricant with PTFE. Temperature range -20 deg C to +110 deg C
#AEROG £4 (£4.80 inc vat)

3-IN-ONE OIL The original, multi-purpose tool-box oil for the home, garden and workshop. Spout nozzle for precision application. Prevents seizure, rust and corrosion. 200ml.
#3INONE £4.50 (£5.40 inc vat)



WD-40 Handy size 100ml Aerosol (165mm High). Supplied with 5" plastic nozzle extension. The classic moisture dispersant, anti-corrosion lubricant.
#WD40 £3 (£3.60 inc vat)

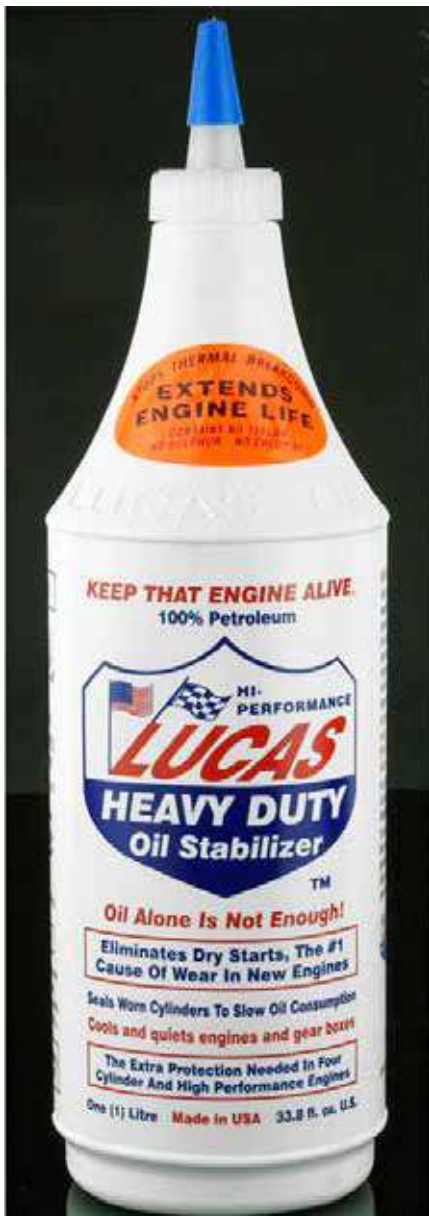




LUCAS HEAVY DUTY OIL STABILISER

Lucas Oil Stabilizer is a 100% petroleum-based product, formulated to eliminate dry starts and reduce friction, heat and wear in any type of engine, manual transmission or differential. It reduces leaks and oil consumption and lowers operating temperatures. It will safely blend with all other automotive lubricants, even synthetics, ATF and mineral oils and increase their life. It raises oil pressure and increases power and miles per gallon. Recommended quantity 20% of oil volume.

1 LITRE #LUSTAB £17 (£20.40 inc vat)



OUR OPINION

We replaced all the oil in the 1964 BSA Gearbox of our NORVIN bike project with LUCAS TRANSMISSION FIX and we can report that it works pretty well. A 'whine' in 3rd gear was significantly reduced as was a nuisance oil leak from the main output shaft.

LUCAS TRANSMISSION FIX

Lucas Transmission Fix is a non-solvent formula that stops slip, hesitation and rough shifting in worn auto-transmissions. It will reduce operating temperature and eliminate most seal leaks. Can also be used in light duty manual transmissions to ease shifting and prolong transmission life. Can be added to existing fluid without draining any out.

710ml #LUTRAN £16 (£19.20 inc vat)



LUCAS POWER STEERING STOP LEAK

If your system is leaking add Lucas Power Steering Stop Leak until leak stops - usually one bottle but occasionally a second bottle. It is also effective in reducing slack, squeals, and hard spots in worn rack and pinions. Results are immediate and long lasting. Some fluid must be sucked from the reservoir (up to 355ml) before topping up with Lucas Power Steering Stop Leak.

355ml #LUSTEER £11 (£13.20 inc vat)



LUCAS UPPER CYLINDER LUBRICANT and INJECTOR CLEANER

This Fuel Treatment is suitable for both petrol and diesel engines. It has a blend of oils and additives with a high detergent content that cleans and lubricates carburetors, fuel pumps and injectors. Fuel will burn more efficiently increasing power and reducing fuel consumption.

One bottle treats 20 gallons of fuel.
155ml #LUFUEL £7 (£8.40 inc vat)



ADHESIVES AND SEALANT

POLYURETHANE ADHESIVE/SEALANT

A universal wonder product for the car builder. Our Polyurethane adhesive/sealant comes in a tube and is dispensed using a regular mastic gun. It is firm enough to form beads so has excellent gap-filling properties and cures to a tough rubbery finish. Use it to bond panels together or to the chassis. Can be thinned to paint a border around inside of windows prior to bonding. Will stick almost anything to anything at half the price of some equivalent products. Includes nozzle. 310ml.

BLACK #POLY £7.50 cartridge (£9 inc vat)
WHITE #POLYW £8 cartridge (£9.60 inc vat)



POLYURETHANE ADHESIVE / SEALANT

INSTRUCTIONS Unfinished tubes will remain usable for a few months but you'll have to remove the cured slug of adhesive from the nozzle each time you want to use some. You may also find that the piston has tightened because some sealant has cured around it. This is normal and will free up after a few squeezes. Even if you only use a small amount at a time and you find that the adhesive has cured inside the ends of the cartridge making it impossible to use with the mastic gun it is still likely that the adhesive in the centre of the tube is OK. You can use this adhesive by piercing the cartridge with a screwdriver and squeezing it out. The adhesive is firm enough to form beads so has excellent gap-filling properties and cures to a tough rubbery finish. It will stick almost anything to anything - glass, rubber, metal, wood, GRP, cloth etc. but be sure that both surfaces are absolutely clean and grease-free. It can be used to bond aluminium panels together or to a tubular chassis. The adhesive can be thinned with thinners or acetone to a paint-able consistency. Check out the 'thin-ability' of your thinners on a small sample of adhesive - some thinners will not work. To bond in a window, first thin some adhesive in a jam jar to a paint-able consistency. Use masking tape to mask an even border around the inside of your glass or Perspex panel and paint on your thinned sealant. Be sure to peel off the masking tape before the border has cured. You can then apply a heavy bead of sealant around the window reveal and bond in the window. From the outside all you will see is a neat black border. The list of potential jobs on the car and around the home is endless and limited only by your ingenuity. Do not use as a stand alone fixing for safety-related components and follow the safety guidelines on the cartridge.

CARTRIDGE GUN A budget, steel applicator gun suitable for our Polyurethane Adhesive/Sealant cartridges. Will accept all standard 215mm long cartridges.

#CGUN £6 (£7.20 inc vat)



COLOUR AND STYLE MAY VARY

WINDSCREEN BONDING KIT

Very high specification structural Polyurethane adhesive with separate glass and body primer. Supplied with nozzle and primer applicator. Also suitable for Perspex and acrylics. **#SCRNB £24** (£28.80 inc vat)



BUTYL SCREEN SEAL CARTRIDGE

A non-setting, permanently flexible, water resistant, Butyl mastic in a 310ml cartridge. Great for sealing lights, panels, trims **#BUTUBE £6.50** (£7.80 inc vat)



STRUCTURAL 2-PART EPOXY ADHESIVE.

This remarkably strong epoxy adhesive comes in a clever, dual compartment, standard sized cartridge. It is only mixed when it passes through the special nozzle onto your components. It cures at room temperature to give a durable bond up to 200°C on bare metal or composite materials. It has high chemical resistance and is OEM approved. Supplied with two mixing nozzles. Weight 360 gms. **#EPOXY195 £39** (£46.80 inc vat)



RTV INSTANT SILICONE GASKET

Specially developed for the Automotive Industry as a replacement for most gaskets, seals and gasket dressings. When applied to clean, dry, oil-free surfaces, it will cure quickly, remain permanently flexible and withstand temperatures up to 200°C. Not recommended for head gaskets, exhaust gaskets or parts immersed in fuel. Colour - Clear or Black 310ml cartridge with nozzle. Weight: 379 gms. **CLEAR #RTVGASKCL £9.50** (£11.40 inc vat)
BLACK #RTVGASKBK £9.50 (£11.40 inc vat)



GLASSFIBRE REPAIR KITS Two packs with everything you need for Glassfibre repairs and bonding panels.

KIT 1 has 500ml of resin, hardener, 2 x pieces of glass-fibre matting 43" x 10", mixing tub, disposable gloves, brush and 2 spatulas. **#GRPL £23** (£27.60 inc vat)

KIT 2 has the same except 250ml resin and one piece of glass matting. **#GRP2 £15** (£18 inc vat)



250ml. FIBREFILL Glassfibre repair paste. Includes hardener, a soft PVC mixing lid and a plastic spreader. This is pre-mixed resin / chopped glass strands and is ideal for quick easy fibreglass repairs. Will bridge gaps to form strong structural joints. **#FIBREFIL £7.50** (£9 inc vat)



1 Ltr. FIBREFILL Weight 1.6 Kg NOT SHOWN **#FIBREFIL1 £30** (£36 inc vat)

1.85 Ltr. FIBREFILL Weight 2.8 Kg **#FIBREFIL185 £48** (£57.60 inc vat)



250ml EASY SAND FILLER

Includes hardener and a plastic spreader. Bonds well to glassfibre and metal for smooth easy repairs to dents, repairs and surface imperfections.

#FILLER £6.50 (£7.80 inc vat)



1.2 Ltr P38 EASY SAND FILLER

Includes hardener, a soft PVC mixing lid and a plastic spreader. Bonds well to glassfibre and metal for smooth easy repairs to dents, repairs and surface imperfections. Weight 2.2Kg.

#FILLER12 £24 (£28.80 inc vat)



2.25 Ltr P38 EASY SAND FILLER

Includes hardener, a soft PVC mixing lid and a plastic spreader. Bonds well to glassfibre and metal for smooth easy repairs to dents, repairs and surface imperfections. Weight 3.9Kg.

#FILLER185 £35 (£42 inc vat)



MEDIUM DUTY AEROSOL ADHESIVE

Here's a new generation of synthetic rubber/resin adhesive. This one falls between our regular aerosol adhesive and our high temperature brush-on adhesive. Suitable for carpet, vinyl, fabric, foam, felt etc. OK for up to 110°C.

NOTE: Always try a test piece first to determine suitability for your purpose and compatibility with your materials. **#ADHAEROMD £8.50** (£10.20 inc vat)



AEROSOL ADHESIVE

Aerosol glue suitable tacking interior trim to door cards, carpet, linings etc. Not suitable for high temperature applications.

#ADHAERO £7.50 (£9 inc vat)



HIGH TEMPERATURE CONTACT ADHESIVE

High specification, High Temperature contact adhesive suitable for carpet, vinyl, Heatmat and many other areas. Mega-sticky on almost any surface, won't peel off in sunlight like some aerosol adhesives. 1 litre tin. Maximum temperature when cured 168°C. STIR BEFORE USE

#ADHCON £10.50 (£12.60 inc vat)



SUPER GLUE GEL This stuff is thicker than most other super glues so will not run. Just one drop will bond metals rubber, ceramic, glass and most plastics. 3g tube. **#FUGL GEL £3** (£3.60 inc vat)



X-TREME BOND ADHESIVE

This is a two-part, Cyanoacrylate adhesive system for steel, aluminium copper, glass rubber and most plastics. Just apply the adhesive part to the components and bond together as usual. Then cover the bonded area with the welding powder to further strengthen and harden the joint. The cured adhesive can be drilled, filed or painted. 10gm bottles.

#XTREME £7 (£8.40 inc vat)



JB WELD STEEL REINFORCED EPOXY
 Mix equal amounts from each tube to make strong, lasting repairs to metals, wood, plastics, concrete and GRP. J-B Weld will form a permanent bond that once cured can be shaped, tapped, filed, sanded and drilled. At room temperature J-B Weld will set in 4-6 hours to a dark grey colour. Fully cured in 24 hours. Resistant to temperatures up to 287°C. Pack contains. 1 fl.oz (28.4g) tube of Steel & 1fl.oz (28.4g) tube of Hardener
#JBWELD £7.50 (£9 inc vat)



EPOXY ADHESIVE Sets in 4 - 5 minutes but 24 hour cure time for maximum strength. Clever double syringe that dispenses exact quantity of resin and hardener. Will make a strong bond on Wood, Ceramics, Metal, Masonry, Leather, Cardboard, Fabric, Fibreglass and most hard Plastics.
#EPOXY £4 (£4.80 inc vat)



STEELSTIK is a hand-mixable, steel-reinforced, non-rusting, epoxy putty that can be moulded to repair or rebuild anything made of metal. It sets in 3 to 5 minutes and after 60 minutes can be drilled, tapped, machined, ground, filed or painted. It has a tensile strength of 900 PSI and can withstand temperatures of up to 149°C.
 57gm (2 oz) tube. **#JBSSE £8** (£9.60 inc vat)



2 PART HIGH-STRENGTH ADHESIVE
 Two-part Methylacrylate adhesive for high performance bonding of various materials - Steel, Aluminium, ABS, Acrylics, PVC, fabrics, GRP. Cures to the touch in one hour. Full strength cure in 24 hours. Mix the output of both tubes by hand or using the mixer nozzle supplied. **#2KAD £7.50** (£9 inc vat)



BUTYL SEALER STRIP Think - very sticky Plasticene. As supplied to Ford, BMW and Mercedes. This is a synthetic, non curing, rubber based bonding and sealing strip. Developed for sealing lap joints, bolt-on panels and for sealing rear light clusters. Commonly used to bond polythene sheet to the inside of production car doors. Can be stretched out to 1 or 2 mm diameter. Car uses are endless. From sealing Seven type rear wings to the body, bonding and sealing body to chassis, fixing badges and emblems, plugging holes, sealing light clusters to bodywork and seating fuel tanks in their cradles. 8mm diameter bead. Supplied in a 8 metre roll which will probably last you forever. NOTE: Not fuel resistant.
#BUTYL £12 (£14.40 inc vat)

HIGHHEAT is a hand-mixable, epoxy putty formulated to bond and repair materials that will be exposed to high temperatures. It sets in 1 hour and after 8 hours, can be drilled, tapped, machined, ground, filed or painted. It has a tensile strength of 4000 PSI and can withstand temperatures of up to 260°C.
 57gm (2 oz) tube. **#JBHHE £8** (£9.60 inc vat)



XTREME THREAD LOCKER 50ml
 High strength for locking studs, bolts, bushes or fasteners. Seals and retains bearings, core plugs, rocker arm and cylinder block studs preventing leakage and corrosion of threads. Two strengths - Removable and Permanent.
 NOTE: FOR FULL STRENGTH, COMPONENTS MUST BE DE-GREASED, CLEAN AND DRY.
REMOVABLE #XTLREM £8 (£9.60 inc vat)
PERMANENT #XTLPER £8 (£9.60 inc vat)



THREAD LOCKING / SEALING

COMPOUND A great way to lock nuts and bolts or any threaded component to prevent them coming loose from shock and vibration. It has the added benefit of sealing the thread against moisture and corrosion and will seal pipework and joints on oil, fuel and water systems. Works best when components are thoroughly degreased. Full cure in 45 to 60 minutes.

6ml Tube #THLOCK6 £2.50 (£3 inc vat)



EXHAUST REPAIR BANDAGE 700°C

Repairs small holes and cracks in exhaust pipes and silencers. A tub of heat-resistant exhaust paste and 1 metre of 60mm wide ceramic tape. Clean any loose rust, grease or dirt from your repair area. Shake the paste tub. Apply paste to the pipe, then a layer of bandage and paste, alternately as you wrap the repair. Secure with wire until cured. Exhaust heat will cure the paste and complete the repair.

NOTE: Not intended as a permanent repair, but as a temporary measure to seal small cracks and holes. Works best on solid straight pipe. Results will vary if used on tight bends, flexible joints etc.

#EXREP £7.50 (£9 inc vat)



VERY HIGH TEMPERATURE RED SILICONE GASKET 200ml pressurised cartridge with controllable release arm. Up to 300°C intermittent. Exhaust manifolds, water pumps, stat housings etc. Resists everything.

#HTGASK £19 (£22.80 Inc vat)



EPOXY PUTTY Here's one of our favourite bonding goos. A quick setting, waterproof epoxy putty/adhesive that can be moulded to any shape and cures as hard-as-nails. It can be filed, sanded, drilled and painted. For repairing tanks, tools, radiators, GRP, plastics, pipework etc. Comes as a two-part, sausage sized cylinder. Just cut off a slice with a sharp knife and knead it like plasticine in your fingers for a few seconds until the two colours are mixed. Shape it and apply it to your job. Cures in 5 to 20 minutes depending on temperature.

57 gms. #EPOPOT £6 (£7.20 inc vat)

RTV INSTANT SILICONE GASKET

Specially developed for the Automotive Industry as a replacement for most gaskets, seals and gasket dressings. When applied to clean, dry, oil-free surfaces, it will cure quickly, remain permanently flexible and withstand temperatures up to 200°C.

Not recommended for head gaskets, exhaust gaskets or parts immersed in fuel. Colour - Clear or Black 310ml cartridge with nozzle. Weight: 379 gms.

CLEAR #RTVGASKCL £9.50 (£11.40 inc vat)
BLACK #RTVGASKBK £9.50 (£11.40 inc vat)



EXHAUST GASKET MATERIAL PACK

Make your own exhaust gaskets. A three-layer sheet with aluminium front and back and a fibre core 0.8mm thick, plus a sheet of high temperature bonded fibre 0.35mm thick. Both sheets 250mm x 300mm. **#EXPAK £7.50 (£9 inc vat)**



EXHAUST PASTE 140 gm tube Well known sealant for all exhaust joints from manifold to tailpipe. Withstands 1000°C **#EXPASTE £3 (£3.60 inc vat)**



SEE MORE, BIGGER, Hi-RES PICTURES ONLINE AT www.carbuilder.com

HYLOMAR GASKET & JOINTING COMPOUND

The classic non-setting blue sealer. Resistant to fuels and oils. For use on gaskets and metal surfaces. **#HYLOMAR £10 (£12 Inc vat)**



GASKET PAPER Cut your own gaskets for carburetors, intake manifolds, thermostat housings etc. Oil resistant, easy to cut, 0.8mm thick. Size 300mm (12") x 250mm (10"). See also our wad punch kit for making the holes.

#GASPAP £1 per sheet (£1.20 inc vat)

ONE METRE SQUARE sheet #GASPAP1M £19 (£21.60 inc vat)



CAR CARE

IF YOU'RE PLACING AN ORDER WITH COURIER DELIVERY WHY NOT ADD YOUR CONSUMABLES FROM OUR NEW RANGE FOR LITTLE OR NO EXTRA SHIPPING COST



RADWELD
The original and best Holts product for repairing small radiator leaks. Anti-corrosive. Unaffected by anti-freeze. Harmless to rubber hoses. 250ml for cooling systems up to 40 litres. **#RADW** £5 (£6 inc vat)



EXHAUST PASTE
140 gm tube Well known sealant for all exhaust joints from manifold to tailpipe. Withstands 1000°C **#EXPASTE** £3 (£3.60 inc vat)



LEAD SUBSTITUTE
With fuel stabiliser preventing oxidation of fuel over long storage periods. 250ml treats 250 Litres of petrol. **LEADSUB** £10 (£12 inc vat)



AUTOSOL CHROME & ALUMINIUM POLISH
100 gm The original and best. Also great for stainless, brass and copper. **#AUTOSOL** £6.50 (£7.80 inc vat)



MULTIPURPOSE WHITE GREASE AEROSOL 500ml
Lubricates and protects almost anything that moves. Long lasting calcium-based lubricant with PTFE. Temperature range -20 dec C to +110 degC **#AEROG** £4 (£4.80 inc vat)

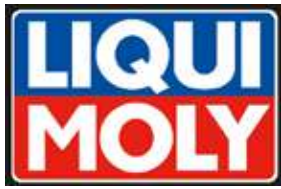


CAR DEHUMIDIFIER 500gm and 1 Kg
All-year-round use in cars, caravans, motorhomes, bikes in bags etc. to continuously remove excess humidity from the air to prevent mould growth, musty smells and corrosion. Activated Silica Gel will absorb up to 40% of its weight in moisture. Easily dried an unlimited number of times on a radiator or in an airing cupboard. Fabric bag with non-slip strip. **500gm. Size 310mm x 90mm x 40mm. #DEHUM500** £6 (£7.20 inc vat)
1 Kg Size 310mm x 140mm x 40mm. #DEHUM1KG £8 (£9.60 inc vat)



- 1. WURTH ULTRA MULTI-PURPOSE LUBRICANT, PENETRANT AND WATER DISPLACER** Contains P.T.F.E. for long term lubrication. Displaces moisture from electrical systems. Ideal for restoring and cleaning plastic components like bumpers and interiors. Silicone free. 500ml. **#ULTR2040** £5.50 (£6.60 inc vat)
- 2. GLASS CLEANER** 400ml Superb glass and mirror cleaner for inside and out. **#WINDC** £3 (£3.60 inc vat)
- 3. PARTS CLEANER** 500ml Solvent cleaner for removing oil and grease from all small parts. **#CCLEAN** £5.50 (£6.60 inc vat)
- 4. ENGINE DEGREASER** 500ml Water soluble for engines, transmissions etc. Spray on and wash off. **#DEGRE** £4 (£4.80 inc vat)
- 5. SPRAY WAX** 400ml Convenient. Quick and easy spray wax polish for all paint finishes. **#WAXSP** £3 (£3.60 inc vat)
- 6. TYRE FIX** 400ml If you don't carry a spare this could be a life saver. Inject into the tyre for a fast temporary, get-you-home repair. Suitable for up to 16" tyres. **#TYREFIX** £9 (£10.80 inc vat)
- 7. SILICONE LUBRICANT** 500ml Great for window runners and squeaky door seals. **#SILAERO** £5 (£6 inc vat)
- 10. WHEEL CLEANER** 500ml Detergent based foam wheel cleaner. Cuts through dirt, grease, grime, road film and brake dust. **#WHEELC** £4 (£4.80 inc vat)
- 11. BRAKE CLEANER** Big, 600ml. aerosol can. Great for cleaning all brake components - discs, pads, drums calipers, cylinders etc. **#BRKCLN** £4 (£4.80 inc vat)

NOTE: AEROSOLS CANNOT BE SHIPPED BY ROYAL MAIL OR AIR MAIL



**QUALITY
CAR CARE
PRODUCTS
FROM
GERMANY**

SUPER DIESEL ADDITIVE Suitable for all diesel engines with and without a diesel particulate filter. Prevents any seizing up and gumming up of nozzle needles. Boosts the cetane number, improves the ignition performance of the diesel fuel and ensures smooth engine running. Clean engines use less fuel and reduce the pollutant emissions. The lubricity enhancer contained provides sufficient lubricity for diesel fuels low in sulphur. FULL SPECIFICATION in our online listing

#DIAD £5 (£6 inc vat)



PEEK Is a mild abrasive cream for removing oxidation and polishing almost anything from Gold to Glassfibre, Chrome to Acrylic, Paint to Pewter. Simply apply the cream to a damp cloth and buff by hand. Recommended by His Majesty The King. 250ml tin

#PEEK £7.50 (£9 inc vat)



**LM40 MAINTENANCE
SPRAY**

Protects against corrosion, displaces water and lubricates. Improves electrical conductivity at contacts. Removes dirt and oil and grease residues. Silicone free. OK for use on plastics, paints, metals and wood.

400ml aerosol.

#LM40 £4

(£4.80 inc vat)



PETROL STABILISER

One 25ml measure will treat five litres of fuel. Preserves and protects fuel from aging and oxidation over long periods of storage. Classic cars, motorcycles, motor scooters, quads, lawnmowers, chain saws and other petrol-powered 2-stroke and 4-stroke engines. Prevents corrosion in the entire fuel system. 250ml bottle treats 50 litres of petrol.

#FUSTAB

£4 (£4.80 inc vat)



**RADIATOR STOP
LEAK**

Sufficient for up to 10 Litres of coolant water. Add content to a cold cooling system. Turn Heater on. Drive for at least 10 minutes. Suitable for aluminium radiators. Permanently and reliably seals hairline cracks and small leaks. No negative side effects on the water pump or heating circuit. Also for preventive use.

#RSL £4

(£4.80 inc vat)



**RAPID RUST
SOLVENT**

Rapid Rust aerosol solvent contains a selection of agents with excellent rust-dissolving, water repellent, protective and penetrating properties. Dissolves rust. Resistant to salt water. Corrosion protection. Does not attack plastics, paints and metals. A wide range of applications in the home and workshop. Spray on, or apply with a brush or rag. 300ml.

#RUSTSOLV £3

(£3.60 inc vat)



Watch us on



Dozens of instruction and demonstration videos. Just type **CAR BUILDER SOLUTIONS** in the You Tube search box

**PLEASE HELP US
PROCESS YOUR
ORDER MORE
EFFICIENTLY BY
MAKING A LIST OF
PART NUMBERS
BEFORE YOUR CALL
OR VISIT**

ALUMINIUM POLISH

A UK made, water-based cream-textured compound with fine, high grade abrasives that will remove tarnishing, discolouration, oxidation and minor surface imperfections and leave a highly polished finish. Works on Aluminium, Brass, Copper and most other non ferrous metals. Can be used with a soft cloth or polishing mop. 259ml pot.

#ALPOL £12 (£14.40 inc vat)



STAINLESS STEEL POLISH

A UK made, water-based cream-textured compound with fine, high grade abrasives that will remove 'Blue-ing' and discolouration from stainless exhaust pipes and manifolds. Works on aluminium and bare steel. **NOTE: NOT SUITABLE FOR CHROME.** Can be used with a soft cloth or polishing mop. 259ml pot.

#SSPOL £10 (£12 inc vat)



PEEK Is a mild abrasive cream for removing oxidation and polishing almost anything from Gold to Glassfibre, Chrome to Acrylic, Paint to Pewter. Simply apply the cream to a damp cloth and buff by hand. Recommended by His Majesty The King. 250ml tin

#PEEK £7.50 (£9 inc vat)



STAIN AND RAIN DEFENDER AEROSOL

Delivers a long lasting, high quality barrier repelling liquids and stains from a vast range of fabrics including carpets, car seats, outdoor clothing, even shoes and tents. CFC free. 500ml .

#SRDEF £4.50 (£5.40 inc vat)

MAINTENANCE SPRAY

Is a powerful displacing agent that will penetrate and lubricate siezed parts, hinges, locks and tools leaving a protective film. CFC free. 500ml.

#MAINT £3.50 (£4.20 inc vat)



AIR SANITISER AEROSOL

A highly perfumed odour neutraliser, formulated to remain suspended in the air for many hours, eliminating bad odours. CFC free. 500ml .

LINEN #ASWAS £2.50 (£3 inc vat)

LEMON #ASLEM £2.50 (£3 inc vat)



CONTACT CLEANER Is a fast drying, non-conductive cleaner to remove oil, dirt and condensation from electrical components, contacts and contacts. CFC free. 500ml .

#CONCLN £6.50 (£7.80 inc vat)



ANTI FOG GLASS CLEANER Spray on, leave to dry and buff off for a streak-free finish that prevents misting on interior glass surfaces. 750ml spray bottle.

#FOG750 £3.90 (£4.68 inc vat)



A RANGE OF UK-MADE, 'E-TECH' PRO CLASS INOVATIVE CAR CARE PRODUCTS

WHEEL WAX Will seal the surface of all types of wheels - chromed, lacquered, painted and polished. Formulated to molecularly bond to the surface and create a barrier which prevents the build-up of contaminants and grime. Quick and easy to use leaving a deep gloss shine that repels water. 250ml tin with a storage bag.

#WHLWAX £20 (£24 inc vat)



ULTIMATE SHAMPOO AND WAX Has powerful cleaning agents that remove dirt, road grime and traffic film whilst at the same time enhancing any existing wax layer already applied to the vehicle. Quick-drying with a spot-free finish. 500ml makes up to 160 litres of shampoo.

#USAW £6.50 (£7.80 inc vat)

TYRE DETAILING GEL Is a unique high-concentrate gel that coats your tyre walls with a long-lasting, high-gloss protective layer that beads-off water and prevents road grime sticking to it. 500ml with a pull-and-squeeze nozzle.

#TYDGEL £8.50 (£10.20 inc vat)

CARANUBA WAX Is formulated with pure, natural Caranuba wax and synthetic waxes which will last up to 50% longer than conventional waxes, protecting your car from traffic film, weathering and environmental pollutants. Quick and easy to apply. Non marking on rubber plastics and vinyl. 500ml with a pull-and-squeeze nozzle.

#CARAWAX £8.50 (£10.20 inc vat)

HI-RES POLISH Is a unique blend of natural and synthetic waxes and resins in an advanced polish that gently removes blemishes and swirl marks from your paint whilst coating it with a high gloss resin wax layer. Quick and easy to apply. Non-marking of plastic, vinyl and rubber. 500ml with a pull-and-squeeze nozzle.

#HIRPOL £8.50 (£10.20 inc vat)



INTERIOR DETAILER Is a powerful yet gentle interior cleaner that lifts dirt, dust and grime from all surfaces - lacquered, painted, veneered, wood, plastics, aluminium, vinyl and leather. Non-greasy. Leaves no residue. Solvent-free. Non-shiny. Non-slip. Leaves a fresh, clean scent. 500ml with spray head.

#INTDET £7.50 (£9 inc vat)

INSTANT DETAILER Is formulated for use between washes to quickly and easily remove finger marks, water spots, and general road grime from paintwork, plastic trim and glass. It produces a high-gloss shine leaving no residue. Can be applied to wet or dry surfaces. 500ml with spray head.

#INSDET £7.50 (£9 inc vat)

WHEEL CLEANER is a powerful gel that quickly breaks down harmful contaminants like road grime and brake dust that build up and corrode road wheels. Just spray it on and leave it for 2 to 3 minutes then rinse off. NOT for use on Stainless steel, chrome, anodised or unlacquered alloy, split rims or wire wheels. 500ml with spray head.

#WHLCLN £7.50 (£9 inc vat)

PLASTIC RESTORER Is instantly effective at rejuvenating all but the very worst faded and discoloured plastic to as-new condition. Can be used on wheel arches, bumpers, mirror covers, door sills, body mouldings, spoilers etc. Quick and easy to apply. Allow to dry without buffing for a high gloss finish. 500ml.

#PLARES £11 (£13.20 inc vat)





A renowned range of UK-manufactured cleaners and waterproofer for vehicle interiors and Soft Tops

FOLLOW MANUFACTURER'S INSTRUCTIONS CAREFULLY

BLACK LEATHER REVIVER 200ml
Cleaning, and reviving the colour of black leather upholstery can do a lot to improve the overall look of your car's interior, and Renovo's Leather Reviver is perfect for the job. It not only cleans and re-colours black leather upholstery, it contains an anti-bacterial formula and a UV inhibitor. It is simple to apply and infuses your car with the smell of new leather.

#RENLBK £13 (£15.60 inc vat).



SOFT TOP CLEANER 500ml
Renovo's soft top canvas cleaner is the best product to clean your canvas, double-duck or mohair soft top. The easy application formula lifts grime and ingrained dirt, especially effective for removing the unsightly green haze caused by growth of mould and mildew on the fabric of your top. Use to thoroughly clean and prepare your convertible top prior to application of the re-colouring soft top reviver. **#RENSTC £14** (£16.80 inc vat).



SOFT TOP ULTRA-PROOFER 500ml
Renovo's ultra-proofer is designed to cocoon your fabric soft top in its own multi-purpose barrier. It is easy to apply and will re-establish the original 'as new' waterproof barrier on your canvas, double-duck or mohair soft top. The formulation also contains UV protection and a mould/mildew growth inhibitor too.

#RENSTU £18 (£21.60 inc vat).



BLACK SOFT TOP REVIVER This unique and innovative formulation is simple to apply and will restore the deep black colour on both slightly or severely faded fabric

500ml #RENSTRBK £18 (£21.60 inc vat).

1 Ltr #RENSTRBK1L £28 (£33.60 inc vat)



PLASTIC WINDOW POLISH 100ml

Suitable for hard and soft plastic windows, perspex screens and lights covers on Cars, Motorcycles, Aircraft, Boats and Visors.

Just polish it on and polish it off to remove microscopic scratches and cloudy, surface staining. A little goes a long way.

#RENWP £19 (£22.80 inc vat).



INTERIOR ULTRA-PROOFER 400ml with spray head. Dirty, grubby fascias make a vehicle look old and tired. Renovo's formulation not only cleans and waterproofs, it also protects with advanced anti-bacterial guard and contains a UV inhibitor too. Simple to apply and infuses your car with that 'new car' scent.

#RENIUP £14 (£16.80 inc vat).



BLACK CARPET REVIVER 400ml with spray head. Cleaning, and reviving the colour of black carpets can do a lot to improve the overall look of your car's interior, and Renovo's new, unique and marvellous formulation cleans and re-colours black carpet. It also protects with an advanced anti-bacterial guard, is effective against super-bugs, and contains a UV inhibitor. Renovo Carpet Reviver is simple to apply and infuses your car with that 'new car' scent. **#RENCRBK £16** (£19.20 inc vat).



FLOORING

RUBBER MATTING Black, low profile 3mm wide flutes 3mm thick.

Roll width 1016mm (40").

#TRMAT £14 linear mtr (£16.80 inc vat)



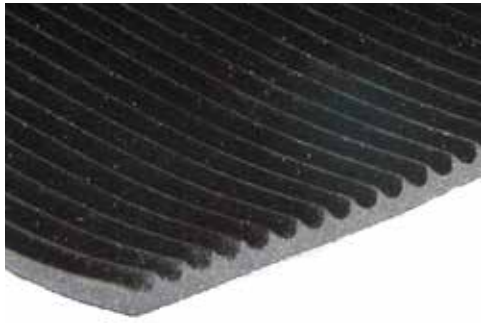
RUBBER MATTING Black, low profile 9mm wide flutes at 14mm centres for easy cleaning. 3mm thick. Roll width 1.2 mtr.

#TRMAT2 £14 linear mtr (£16.80 inc vat)



RUBBER MATTING Black, 3mm wide pointed flutes 3mm thick. Roll width 1.2 mtr.

#TRMAT3 £14 linear mtr (£16.80 inc vat)



HARD RUBBER SHEET 1.5mm thick.

Very flexible. Black. Easy to cut with knife or scissors. Ideal for gaskets, seals etc. Piece size 700mm x 300mm (27" x 12") or 1400mm x 300mm. Larger sizes can be supplied from roll - width 1400mm (please call) .

700mm x 300mm #RS15 £4 (£4.80 inc vat)

1400mm x 300mm #RS152 £7 (£8.40 inc vat)



PVC CHEQUERPLATE EFFECT FLOOR

MAT Tough moulded PVC. Can be cut with scissors or knife and secured with our contact adhesive. Sheet size 65cm x 110cm.

#CHEQU £12 (£14.40 inc vat)



RUBBERFELT Here's a 12mm thick, heavy Rubber / Felt composite that has pretty good sound insulation properties. A bonded layer of dense felt with a bonded layer of granulated rubber. Easily cut with a sharp knife or heavy scissors. Sold in multiples of 1mtr length from a 1.37mtr wide roll - 1.3

Square Metres. Maximum length in one piece 7mtrs (10 square metres.) Weight 2.2 Kg per square metre. **#RUBFELT**

£18 per linear mtr. (£21.60 inc vat)



We cannot guarantee that the appearance and/or colours of products shown in this catalogue exactly reproduce the appearance and/or colours of the physical products themselves.

All sizes quoted are approximate.

RUBBER SHEET 500mm X 300mm

Tough rubber for making your own mud flaps or engine bay side shields. Available in either 3mm or 4mm thickness. Easily cut with a knife or snips.

2 PIECES 3mm #MUDF3 £12 (+ vat)

2 PIECES 4mm #MUDF4 £16 (+ vat)



LIGHTWEIGHT CARPET (More like a heavy felt) Lightweight, very flexible, polyester, non-woven fabric. Easy to trim and glue to your floor, side panels, boot lining or even headlining.

Good damping and sound absorption properties. We recommend our **#ADHCON** contact adhesive. Weight 450 gms. per square metre. Sold by the metre from a 1.22 mtr. (48") wide roll.

BLACK/RED

#CPTRD £8 per linear mtr (£9.60 inc vat)



FELT UNDERLAY WITH A BONDED AND REINFORCED ALUMINIUM SKIN

Offers a degree of both sound and heat insulation under carpets, inside boots, on bulkheads and in your engine bay. Glue with our Contact Adhesive **#ADHCON** Sold by the metre from a metre-wide roll. **12mm thick. #ALIFELT**

£16 sq. mtr (£19.20 inc vat).



RUBBER MAT SET Set of 4. Tough, black moulded rubber. Size: Front 720mm x 490mm. Rear 450mm x 480mm. Can easily be trimmed down to pre-marked sizes using scissors. **#MATSET1 £13** (£15.60 inc vat)



SHIPPING COSTS FOR ROLLED ITEMS

Parcels over 1 metre long can incur additional shipping costs. It may be possible to fold some fabric products to reduce shipping costs. Please ask.

SOUND-PROOFING



DYNADECK is a Charcoal-coloured, durable, waterproof, carpet replacement or underlay combining high thermal insulation capabilities with low-frequency exhaust noise rejection. The top layer is a 1/8" thick, heavy, deep-twist, embossed vinyl that matches the textured floor pattern of many vintage cars. This is bonded to a 1/4" thick, closed cell rubber layer to reduce engine and exhaust heat, and road noise. It does not absorb water so is ideal for use in Kit and Vintage Cars and Convertibles, Trucks and Off road vehicles. DynaDeck is simple to install. It is thick and heavy so no adhesive is needed. Because of this, DynaDeck can be easily moved and reused. For optimal results, install DynaDeck over Dynamat Xtreme

One sheet, 10mm thick x 36" x 54" (.914 mtrs x 1.371 mtrs). Total coverage 13 1/2 square feet (1.25 square metres)
Weight 8.4 Kg.

#DYN21203 £149 (£178.80 inc vat)

One sheet, 10mm thick x 72" x 54" (1.83 mtrs x 1.37 mtrs). Total coverage 27 square feet (2.5 square metres). Weight 16Kg

#DYN21206 £240 (£288 inc vat)



CRAFT KNIFE If there's one tool that you'll use every day it's probably a craft knife. I Supplied with a pack of 10 carbon steel blades. Knife length closed 155mm.

#KNIFE £5 (£6 inc vat)



DYNALINER is an ultra-lightweight, closed-cell, high performance, thermal and acoustic insulation for roof, firewall, floor, quarter panels, doors and even as a bonnet liner. Dark grey in colour and available in 3mm, 6mm and 12mm thicknesses. The high temperature, acrylic, peel-and-stick backing is optimised for temperatures from -30°F to 200°F (-34°C to 94°C) and meets both UL and FMVSS flame resistance requirements. Dynaliner is the perfect ultra light weight insulator to use on top of Dynamat. This durable crush and tear resistant material is unaffected by oil, does not absorb water and has the highest heat blocking properties available in a single layer synthetic foam-type material.

- Isolate Vibrations
- Reduce Noise
- Block Heat
- Oil & Water Resistant
- Ultra Light and Flexible

Dynaliner is available in three thicknesses, be sure to choose the thickness that best suits your application.

1/8" Dynaliner is ideal for sandwiching under trimming materials.

1/4" Dynaliner is ideal for floor, doors and under bonnet.

1/2" Dynaliner is ideal for firewalls and bulkheads.

One sheet, 32" x 54" (.81 mtrs. x 1.37mtrs)
Total Coverage:12 square feet (1.1 square metres).

DYNALINER 1/8" thick (3.1 mm)

#DYN11101 £48 (£57.60 inc vat)

DYNALINER 1/4" thick (6.2 mm)

#DYN11102 £69 (£82.80 inc vat)

DYNALINER 1/2" thick (12.4 mm)

#DYN11103 £84 (£100.80 inc vat)



BEFORE YOU PLACE AN ORDER PLEASE CHECK OUT OUR TERMS AND CONDITIONS AT THE FRONT AND BACK OF THIS CATALOGUE

DYNAMAT HOODLINER is made from 3/4" thick, acoustic, sound soaker foam with a reinforced, reflective aluminized skin. The aluminized skin is washable, oil and water resistant and offers 97% heat reflection. Hoodliner has a high-tack, pressure sensitive adhesive for easy peel and stick application. The effectiveness of acoustical foam is dependent on its ability to convert sound waves into heat energy. Hoodliner has a combination of open and closed cells to accept sound waves and dissipate them. If all of the foam cells were open, sound waves would simply pass through. Conversely, if all of the foam cells were closed, few sound waves would be absorbed. Common uses of Hoodliner include under-bonnet and inside engine compartments, generator housings, and anywhere else that requires heat resistant acoustic foam.

NOTE: Hoodliner provides maximum noise control when applied over Dynamat Xtreme. One sheet, 32" x 54" (.812 mtrs x 1.371 mtrs). Weight 1.52 Kg.

HOODLINER

#DYN11905 £66 (£79.20 inc vat)



HIGH TEMPERATURE CONTACT

ADHESIVE High specification, High Temperature contact adhesive suitable for carpet, vinyl, Heatmat and many other areas. Mega-sticky on almost any surface, won't peel off in sunlight like some aerosol adhesives. 1 litre tin. Maximum temperature when cured 168°C. **STIR BEFORE USE**

#ADHCON £10.50 (£12.60 inc vat)



DYNAMAT XTREME is a Black, light-weight, elastomeric, butyl and aluminum vibrational damper for use on bulkheads, doors, floors, boot, roof and bonnet to reduce road noise and internal resonance. When applied to a vibrating panel, noise is converted into silent energy. It is supplied in thin (1.7mm), flexible, easy to cut and mould sheets which conform to curves and bond easily to sheet metal and other hard surfaces. You can apply Dynamat in patches (25-50% area coverage) to dampen resonance of a specific panel or you can apply it over an entire area (such as the floor, doors, or boot) to create a sound barrier and vibrational damper.

Even a small amount of Dynamat can make a big reduction in noise levels. For example, applying Dynamat to the doors of your vehicle can reduce road noise from 3-6dB. Complete coverage of an average vehicle can reduce road noise by as much as 18dB! We recommend applying Dynamat to any surface you can easily reach such as the doors, rear panels, bulkheads, floors, roof, boot or under the bonnet.

Installing Dynamat requires only a few tools: Craft knife or scissors, roller tool, rags and a solvent-based cleaner. Applying Dynamat to the panels around your car also prevents panel distortion by stiffening the flimsy sheet metal or fibreglass into a more solid non-resonant baffle.

Suitable for use in temperatures between -10°C to +60°C (14°F to +140°F). Material can withstand temperature extremes between -54°C to +149°C (-65°F to +300°F) and is highly resistant to aging.

DYNAMAT XTREME BULK PACK

Contents: Nine folded sheets, 0.067" (1.7mm) thick x 18"x 32" (457mm x 812mm). Weight 1Kg per sheet. Total coverage 36 square feet (3.25 square metres)

#DYN10455 £133 (£159.60 inc vat)

DYNAMAT XTREME MEGA PACK

Contents: Nine flat sheets, 0.067" (1.7mm) thick x 24"x 48" (609mm x 1219mm). Weight 2Kg per sheet. Total coverage 72 square feet (6.5 square metres)

#DYN10465 £325 (£390 inc vat)



DYNAMAT SUPERLITE is a Blue, high-efficiency sound damping material used to reduce noise and vibration in your car. It is the material as Dynamat Xtreme but 30% thinner (1.2mm) and 30% lighter (700gms per sheet). Use Dynamat SuperLite when you need to reduce the noise levels in your car without adding too much weight.

The 1.2mm thick butyl rubber layer is bonded to a gleaming blue, 0.002" (0.05mm) thick aluminum alloy.

It does not require any special equipment, so it is very simple to cut and install. It will conform easily to all interior surfaces, and the sticky butyl rubber will adhere and stay in place without any special surface prep. Dynamat SuperLite can be used for full coverage on your vehicle's interior or just in problem areas of high sound resonance. A car door typically requires about 5 square feet of SuperLite, but you can apply it anywhere, including the boot, bonnet, and roof.

Installation: Dynamat SuperLite offers simple peel & stick installation.

- Measure and cut the Dynamat SuperLite sheets
- Remove the paper liner
- Place and press firmly to adhere

DYNAMAT SUPERLITE TRI-PACK

Contents: Three folded sheets 1.2mm thick x 18" x 32" (457mm x 812mm).

Weight 700gms per sheet.

Total coverage 12 square feet.

#DYN10612 £59 (£70.80 inc vat)

DYNAMAT SUPERLITE BULK PACK

Contents: Twelve folded sheets 1.2mm thick x 18" x 32" (457mm x 812mm).

Weight 700gms per sheet.

Total coverage 48 square feet.

#DYN10648 £168 (£201.60 inc vat)



DYNAPAD is a heavy-duty, 4-layer, composite barrier providing maximum soundproofing and excellent thermal insulation. It can be used as carpet underlay, in the boot, on firewalls and is oil and water resistant so is ideal for use in Kit and Vintage Cars and Convertibles, Trucks and Off road vehicles.

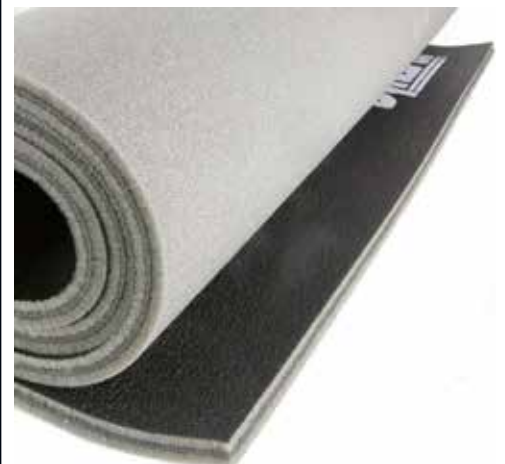
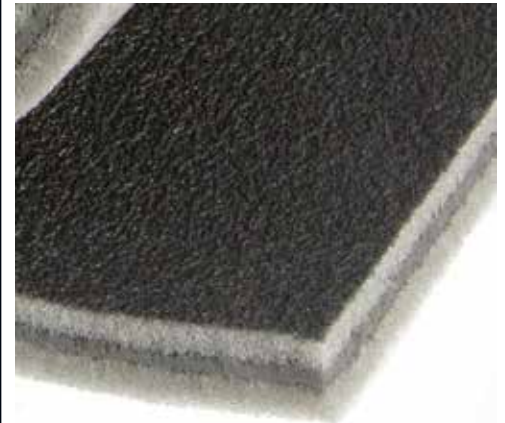
Dynapad is simple to install. Cut to shape and secure with out contact adhesive on vertical surfaces or our spray aerosol adhesive on floors

One sheet, 3/8" (10mm) thick x 32" x 54" (.810 mtrs x 1.371 mtrs)

Total coverage 12 square feet.

Weight 6.6 Kg.

#DYN21100 £104 (£124.80 inc vat)



DYNAMAT SUBWOOFER TRUNK KIT

This is a heavy, composite, Butyl / Aluminium, high-temperature, self-adhesive sheet that will dampen, reinforce and stabilise your vehicle's panels to reduce vibration and road noise and allow clearer, louder bass from you car's audio system. Just cut to size, peel-off the backing and stick it on.

Pack contains Five Sheets, 4sq. ft. each (0.37 sq. mtrs). Total 1.85 sq. mtrs. Weight 4.8 Kg.

#DYN19405 £99 (£118.80 inc vat)



DYNATAPE finishes your soundproofing projects with a clean and tidy look. You can use this 38mm wide aluminum tape to seal seams between sheets of Dynamat, seal the edges or to fill gaps between your vehicle's body panels. Use DynaTape to secure wiring that's routed through your car, giving your installation a professional look while reinforcing its noise-dampening properties. DynaTape features a pressure-sensitive acrylic peel-and-stick adhesive that applies easily so you can finish your project tidily. One roll, 0.002" thick, (.05mm)1.5" wide x 30 ft long (38mm x 9.1mtrs)

#DYN13100 £12 (£14.40 inc vat)



ECONOMY WOOD ROLLER is perfect for ensuring good adhesion on simple applications on flat surfaces.

1 1/8" (29mm) wide x 1 3/8" (35mm) diameter, hardwood roller with wooden handle and plated steel frame and pin. Weight 110 gms.

#DYN10005 £12.50 (£15 inc vat)



PROFESSIONAL RUBBER ROLLER

Perfect for ensuring good adhesion on curved and irregular surfaces. 2" (50mm) wide x 1 1/2" (38mm) diameter, rubber roller with wooden handle and plated steel frame and pin.

Weight 188 gms.

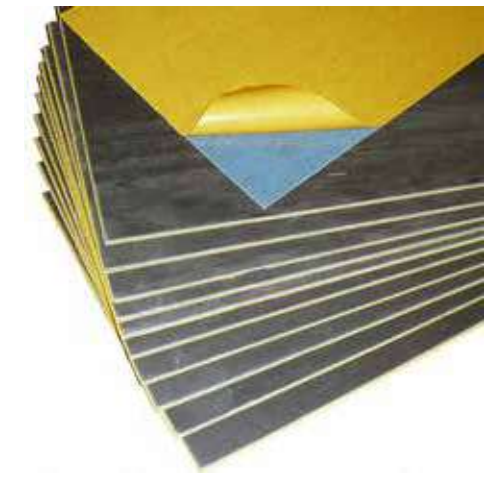
PROFESSIONAL RUBBER ROLLER

#DYN10007 £19.50 (£23.40 inc vat)



SOUNDMAT PADS. Vibration and noise suppression panels. Forget that old bitumen-based stuff. Soundmat pads are made from the same modern, flexible material used by mainstream motor manufacturers. Sound mat Pads can be applied in temperatures down to 0°C on the inside surface of doors, bonnet, boot, floors, inner wings, tunnels etc. Can be easily cut to shape with a knife or scissors. Simply peel off the backing to reveal the super-strong adhesive. Can be painted over. Supplied in a pack of 10 panels 200mm x 500mm. Weight 4Kg.

#SOUND £29 pack of 10 (£34.80 inc vat)



RUBBER-FELT Here's a 12mm thick, heavy Rubber Felt composite that has good sound insulation properties. A bonded layer of dense felt with a bonded layer of granulated rubber. Easily cut with a sharp knife or heavy scissors. Sold in multiples of 1mtr length from a 1.37mtr wide roll - 1.3 Square Metres. Maximum length in one piece 7mtrs (10 square metres.) Weight 2.2 Kg per square metre.

#RUBFELT £18 per linear metre. (£21.60 inc vat)



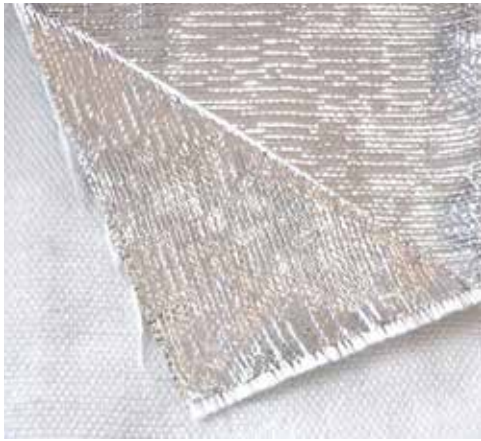
HELP YOURSELF AND US
MEASURE
ACCURATELY



Please
Like us on
Facebook

HEATMAT

HEATMAT Aluminium skinned, woven ceramic cloth. The ideal liner for those hot engine bays. Perfect for lining the bonnet and insulating firewalls, tunnels and footwells. Heatmat is a ceramic fibre cloth with a vacuum-transferred aluminium foil coating on one side. It has excellent heat reflection properties and will withstand temperatures up to 800° C. Heatmat is extremely flexible, can be easily cut with scissors and glued to GRP or aluminium panels. It is best suited to two-dimensional surfaces but will form to slight three-dimensional curves like a power-dome and can be neatly finished or butted edge-to-edge with Aluminium tape. Heatmat can also be wrapped around wiring looms and starter motors that run near hot exhausts. And it looks great! We sell in multiples of one metre from a 1 metre wide roll. Check out our price - one fifth of some other suppliers!! Weight 1100g sq. mtr.
#HTMAT £28 sq/mtr (£33.60 inc vat).



FOR THE BEST BOND TO ANY SURFACE WE RECOMMEND THAT YOU FIRST PRIME THE HEATMAT WITH A WELL-BRUSHED-IN COAT OF ADHESIVE. ALLOW IT TO CURE COMPLETELY THEN START AGAIN WITH A COAT OF ADHESIVE TO BOTH SURFACES



Heatmat is the ideal insulation material for lining hot engine bays, bulkheads and tunnels. Made from a Ceramic fibre cloth with a vacuum transferred aluminium foil coating on one side, it has excellent heat reflection properties and will withstand temperatures of up to 800° C. Heatmat is extremely flexible and can be easily cut with scissors and glued to GRP or aluminium panels. It will form to gentle, three-dimensional curves like a power dome and will wrap around wiring looms and starter motors that run near hot exhausts. As with all trimming jobs it makes sense to cut a paper template and hold it in place with masking tape to determine the exact shape and size of your piece. Measure twice - cut once!

Try to use the largest possible sized piece of Heatmat on flat and two-dimensional, curved panels but don't try to form Heatmat into tight inside corners. Glue each piece exactly into the corner and butt the next piece against it. Make a mental note of the weave pattern on Heatmat and try to cut your panels so that the weave follows the lines of your chassis or GRP panel. Ensure that all surfaces are clean and dry. Wash new or oily GRP with Acetone or thinners and allow to dry thoroughly.

Use a high temperature, brush-able contact adhesive (we haven't yet found an aerosol adhesive that works well enough) and prime the Heatmat with a well brushed-in coat of adhesive. Leave to cure fully then coat both the Heatmat and its mating panel with adhesive. Wait a few minutes for the adhesive to flash-off and, with the help of an assistant if necessary, carefully align the Heatmat and press it in place.

It's almost impossible to apply Heatmat upside down - on the inside of an insitu bonnet for instance. It can be easier to remove the panel and lay it on an old duvet to allow gravity to assist with the procedure. If you're covering a large area in one piece a good investment is a dozen garden canes. Lay the canes a few inches apart on the glued panel and carefully lay the glued Heatmat on the canes. When you're sure that you have the Heatmat correctly positioned, carefully draw out the canes one by one working from the centre outward, pressing the Heatmat into place as you go. Try to be accurate because you'll only get one chance. Roll the Heatmat all over with a decorator's narrow wooden paper hanging roller, following the weave of the cloth (don't roll diagonally or you'll leave unsightly creases in the aluminium surface).

Don't worry too much about straggly pieces of ceramic at the edges - if they're coated with glue they will trim off neatly later. You can tidy up butt joints and bind raw edges with our self-adhesive aluminium tape. Simply apply the tape along the join or around the edge and roll it with the roller. Joints will be almost invisible.

To form a shield around starter motors, cable harnesses or hydraulic pipes simply wrap with strips of Heatmat and secure with a few bands of stainless locking wire or Mig wire.

GOLDMAT Heat Barrier is a self-adhesive, 0.2mm (.008") thick, lightweight, metallized polymer, laminated glass cloth that will reflect 80% of radiant heat. It will withstand constant temperature of up to 850°F.

It has a peel-off backing which reveals a high temperature, pressure sensitive adhesive.

GOLDMAT is lightweight and easy to cut and apply and is highly effective for lining firewalls, bulkheads, engine compartments, under-floor panels etc. Sold from a 1 mtr. (39") wide roll in multiples of 1 Metre.

#GOLDMAT £40 per sq. metre (£48 inc vat)



HIGH TEMPERATURE CONTACT

ADHCON High specification, High Temperature contact adhesive suitable for carpet, vinyl, Heatmat and many other areas. Mega-sticky on almost any surface, won't peel off in sunlight like some aerosol adhesives. 1 litre tin. Maximum temperature when cured 168°C. **STIR BEFORE USE**

#ADHCON £10.50 (£12.60 inc vat)



MEDIUM DUTY AEROSOL ADHESIVE

Here's a new generation of synthetic rubber/resin adhesive. This one falls between our regular aerosol adhesive and our high temperature brush-on adhesive. Suitable for carpet, vinyl, fabric, foam, felt etc. OK for up to 110°C. **NOTE:** Always try a test piece first to determine suitability for your purpose and compatibility with your materials.

#ADHAEROMD
£8.50 (£10.20 inc vat)



AEROSOL ADHESIVE
 Aerosol glue suitable tacking interior trim to door cards, carpet, linings etc. Not suitable for high temperature applications.
#ADHAERO
£7.50 (£9 inc vat)

HANDY BRUSH PACK We use these excellent quality brushes every day in our workshop for painting, gluing, washing and cleaning parts. The tapered hardwood handles are brilliant for stirring, mixing or even for plugging hoses and blanking holes when painting. Twelve sizes between 3mm diameter and 14mm diameter. All about 300mm long.
#BRUSHES **£3 pack** (£3.60 inc vat)



BEFORE YOU PLACE AN ORDER PLEASE CHECK OUT OUR TERMS AND CONDITIONS AT THE FRONT AND BACK OF THIS CATALOGUE

VINYL

TRIMMING VINYL WITH NON-WOVEN BACKING Here's a superb quality, non-stretching vinyl for trimming seats, door cards, dashboards etc. Black non-woven fibre backing. Thickness 1mm. Sold by the Metre from a 1500mm wide roll.
BLACK LEATHER-GRAIN EFFECT
#VYNLG **£14 per linear metre (1.5 sq. mtrs.)** (£16.80 inc vat)

SHIPPING COSTS FOR ROLLED ITEMS
 Parcels over 1 metre long can incur additional shipping costs. It may be possible to fold some fabric products to reduce shipping costs. Please ask.



BLACK CARBON EFFECT
#VYNCA **£14 per linear mtr. (1.5 sq. mtrs.)**
 (£16.80 inc vat)



CRAFT KNIFE. #KNIFE **£5** (£6 inc vat)



1 Mtr ALUMINIUM RULE Clearly printed Imperial and Metric scales on both sides. **NOTE:** This item will have to be shipped by Courier on a piece of wood so will be expensive to ship alone. **#1MTRULE** **£5** (£6 inc vat)

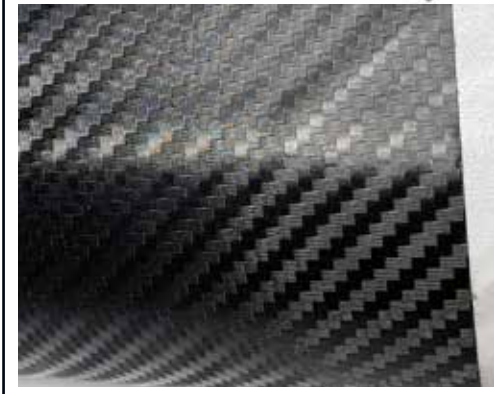


SELF-ADHESIVE VINYL SHEETS 0.11 mm THICK 330mm x 450mm. Similar product to our Stone Chip Film. Can be cut and applied to gentle double curvatures such as wheel arches and fuel tanks for decoration or protection. You can even cut your own logos or graphics easily with a sharp knife or scissors. See our Stone Chip film listing (#STONE) in the main catalogue for application instructions.

CARBON EFFECT #SAVCARB **£10** (£12 inc vat)
CLEAR #SAVCLR **£10** (£12 inc vat)
YELLOW #SAVYEL **£10** (£12 inc vat)
RED #SAVRED **£10** (£12 inc vat)
WHITE #SAVWHT **£10** (£12 inc vat)
BLACK #SAVBLK **£10** (£12 inc vat)



SATIN CARBON FIBRE EFFECT VINYL WRAP Self-adhesive vinyl sheet with peel-off backing sold by the metre from a 1.5mtrs wide roll. 0.16mm (160 microns) thick. Weight 160 gms per square metre (not including backing). Will form around gentle three dimensional curved surfaces with careful application. **#SCWRAP** **£12 per linear metre (1.5 sq. mtrs.)** (£14.40 inc vat)



CARBON EFFECT 2mm THICK ABS SHEET This very versatile fabricating material has Acrylic film laminated onto the surface of high impact ABS sheet. Great for dashboards, panels etc.

1350mm x 300mm sheet
#ABSCB1 £27 (£32.40 inc vat)

1350mm x 600mm sheet
#ABSCB2 £48 (£57.60 inc vat)



HIGH BOND DOUBLE SIDED TAPE

This High Bond tape is an OEM approved fixing for trims, number plates, spoilers, body mouldings, badges etc. 0.09mm thick - (just under 1mm).

NOTE: FOR MAXIMUM ADHESION ENSURE BOTH SURFACES ARE CLEAN, DRY AND FREE OF WAX AND OIL.

6mm #HBDST6 £10 (£12 inc vat)
12mm #HBDST12 £16 (£19.20 inc vat)
25mm #HBDST25 £23.50 (£28.20 inc vat)



BRUSH-ON AND AEROSOL ADHESIVES
See Adhesive section



STONECHIP CLEAR PROTECTION FILM

STONE CHIP FILM 0.25mm thick.

A very high specification self-adhesive transparent Polyurethane film similar to that manufactured by the world famous 3M group. Fuel, acid solvent and UV resistant. Will stretch and form around curved body panels. Protects against stone chips, insect and bird damage and abrasion. Easily applied to clean panels using a spray bottle of clean soapy water and a squeegee. Almost invisible when applied. No perceivable change in paint colour. Instructions included. We can supply any length from a 2½ foot wide roll in multiples of 6 inches. Minimum order 1ft.

NOTE: (2½ft x 1ft should be sufficient for the front area of two Seven - type rear wheel arch panels)

#STONE £18 per linear foot (2½ft x 1ft) (£21.60 inc vat)



- Only apply to a clean surface free of wax, grease, silicones etc. between 55° F and 90°F. Use a non abrasive cleaner like Methylated Spirit.
- Make a paper template of the shape required before cutting film. Always check position, shape and size of film before applying.
- If you have some spare film use a piece to practice application first.
- After removing protective liner liberally apply either a weak soapy water solution or a mix of 25% Isopropyl Alcohol 75% water. This is best applied with a small hand sprayer bottle to both the vehicle surface and the adhesive side of the film.
- Lay the film gently into position and starting at the centre, gently squeegee the solution and air from under the film using overlapping strokes. Use a hard rubber squeegee, credit card or plastic spreader. Always squeegee the trapped air and solution towards the nearest edge. Be careful to avoid creasing the film. Film may be stretched slightly to accommodate curves.
- Film may be removed and repositioned but remember to keep the adhesive wet at all times and allow the film to relax back to its original size before reapplying.
- Avoid stretching the film more than 20%.
- Trapped small bubbles can be removed by piercing the film with a pin.
- Where the film follows the edge of a panel leave a gap of 2mm from the panel edge to avoid lifting.
- Small bubbles will disperse within 2 to 3 weeks of installation.
- Allow at least 72 hours for adhesive to fully cure before washing the vehicle.

VELCRO

HEAVY DUTY SELF ADHESIVE

50mm wide Hook & loop strips. Peel-off backing. Both parts supplied - Hook & Loop
#VELSA £5.50 mtr (£6.60 inc vat)



SEW-ON HOOK AND LOOP 50mm wide.

Both parts supplied - Hook & Loop
#VELSEW £3.50 mtr (£4.20 inc vat)



DOUBLE SIDED STRIP

16mm wide. Hooks on one side & Loops on the other. Brilliant for tying bundles, cables & pipes to chassis, rolling soft tops etc.
#VELDS £3.50 mtr (£4.20 inc vat)



VELCRO HANDY PACK Heavy Duty self adhesive strips. 4 Strips (2 Hook & 2 Loop) 50mm x 100mm. Ideal for fixing carpet, panels. Adhesive takes 24 hours to fully cure very strong on a good surface.

#VELHAN £2.50 pack (£3 inc vat)



CATCHES LATCHES & HINGES

LATCHING STAINLESS STEEL OVER-CENTRE FASTENERS

High quality latches have a spring steel release catch that hold them securely closed. They also feature a through hole for insertion of a pin or 'R' clip for additional security. Full dimensions in online listing.

#SSOCLAT £14 pair (£16.80 inc vat)

STAINLESS RETAINING CLIP

Belt & Braces security

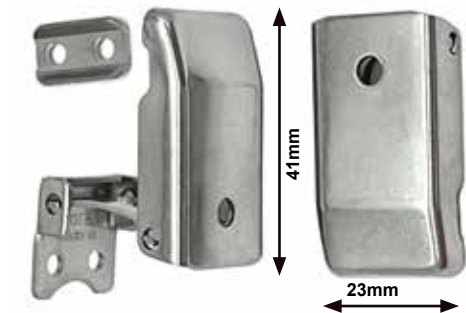
#SSOCLIP £1.50 each (£1.80 inc vat)



STAINLESS STEEL MINI OVER CENTRE FASTENERS

Great for discreet lightweight fixing of panels, tonneau covers etc. Hidden hook plate. Size 41mm x 23mm. Full dimensions in online listing

#SSOCMINI £10 pair (£12 inc vat)



SMALL STAINLESS STEEL OVER-CENTRE FASTENERS

Size 60 x 23mm. Keeper fixing holes 3mm diameter at 14mm centres. Latch fixing holes 3mm diameter at 10.5mm centres.

#SSOC2 £14 pair (£16.80 inc vat)



LARGE LOCKABLE STAINLESS STEEL OVER-CENTRE FASTENER

This good quality, heavy duty, locking fastener is perfect for securing hoods, bonnets, cabinets etc. 130mm overall length. Mounting holes 5.3mm diameter. Maximum catch width 38mm. Max. height above mounting surface 23mm. Keeper size 60mm x 22mm. Supplied with two keys.

NOTE: Lock and keeper are not stainless. Full dimensions in online listing. Weight 160 gms. #SSOCL £18 each (£21.60 inc vat)



STAINLESS KEEPER

We're often asked for only the keeper part for over-centre fasteners, so here it is. Two 4mm holes at 14mm centres

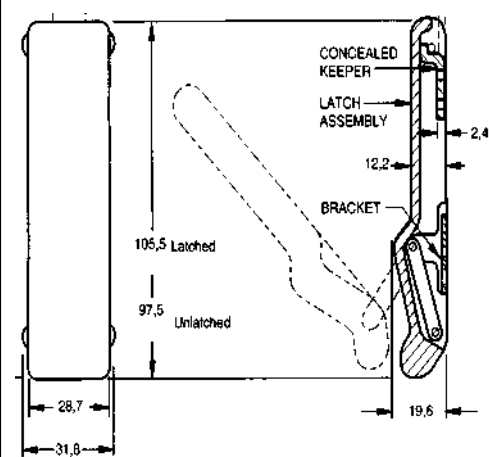
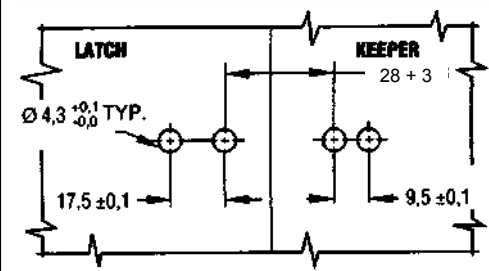
#KEEPER £3 (£3.60 inc vat)



RIVETS MANY SIZES AVAILABLE



RUBBER BONNET CATCH IVA OK Our rubber Bonnet Catches offer the perfect solution for securing your bonnet or engine cover. Manufactured in black thermoplastic elastomer with glass-reinforced, nylon bushes and stainless steel keeper and brackets. They are tough and IVA compliant, easy to fit and will tolerate slight misalignment. Under tension, they will absorb impact and vibration. Size 90mm x 30mm #BNLCH £16 pair (£19.20 inc vat) NOTE: 28mm dimension on drawing is nominal and depends on tension required. We recommend experimenting before final drilling.



Mount the keeper and latch using 4mm diameter rivets (stainless are strongest) or M4 Button Head screws

AERO CATCH IVA OK. Moulded, glass-reinforced nylon construction. Anodised aluminium stud with rubber bump stop and all mounting screws and fixings. Almost flush fitting - only 2.5mm front projection. 22mm rear projection. Stud can enter from rear or side. Hole template and full installation instructions supplied. Locking version supplied with four keys. Maximum dimensions 126mm x 69mm.

Weight per pair 316 gms.

BLACK NON LOCKING

#ACATBN £51 pair (£61.20 inc vat)

BLACK LOCKING

#ACATBL £58 pair (£69.60 inc vat)



CARBON EFFECT AERO CATCH

IVA OK. Moulded, glass-reinforced nylon construction. Anodised aluminium stud with rubber bump stop and all mounting screws and fixings. Almost flush fitting - only 2.5mm surface projection. 22mm rear projection. Stud can enter from rear or side. Hole template and full installation instructions supplied.

Locking version supplied with four keys. Maximum dimensions 126mm x 69mm. Weight per pair 316 gms.

CARBON NON LOCKING

#ACATCN £68 pair (£81.60 inc vat)

CARBON LOCKING

#ACATCL £79 pair (£94.80 inc vat)



FLUSH FITTING AERO CATCH

IVA OK. This version has a recessed outer flange allowing it to be fitted beneath the panel for a smoother, more discreet appearance. Moulded glass-reinforced nylon construction. Same specification as the others. Locking version supplied with four keys. Maximum dimensions 126mm x 69mm. Weight per pair 477 gms.

FLUSH BLACK NON LOCKING

#FACATBN £65 pair (£78 inc vat)

FLUSH BLACK LOCKING

#FACATBL £66 pair (£79.20 inc vat)



RECESSED BONNET PIN PLATES Pair.

These, pressed aluminium bonnet pin plates mount in a cut-out in your bonnet and allow the top of your bonnet pins and their retaining clips to be mounted under-flush. Just rivet your #BPRET or #BPRETSS into the plate recess. Overall size 131mm x 84mm. Recess depth 15.5mm. Six, 4mm fixing holes in each plate.

NATURAL ANODISED FINISH

#BPPLNAT £9 Pair (£10.80 inc vat)

SATIN BLACK ANODISED FINISH

#BPPLTBK £9 Pair (£10.80 inc vat)

NOTE: PLATES ONLY - CATCHES NOT INCLUDED



HEAVY DUTY BONNET PIN KIT Chrome

plated, 1/2" UNF steel threaded pins, each with two locknuts. Plated retaining pins with stainless wire ties. 64mm diameter polished stainless bonnet plates with four 4mm holes on 53mm PCD.

#BPRC2 £11 (£13.20 inc vat)



RETAINED BONNET PIN KIT WITH

STAINLESS PLATES, Size 85mm (3 3/8") x 40mm (1 1/2") with plated steel sliding pin and ring. Adjustable 128mm (5") long plated steel 7/16" UNF threaded pins.

#BPRETSS £11 pair (£13.20 inc vat)



BLACK SLIDING RETAINED PIN BONNET

PIN KITS Beautifully made threaded pillars and plates in lightweight Black-anodised aluminium with chromed steel pin and ring. Pin length 130mm 7/16" UNF thread. Supplied with stainless self-tappers and spire clips but plates can be riveted on.

Weight 160 gms. #BPRETBK £10 pair (£12 inc vat)



SLIDING RETAINED PIN BONNET PIN

KITS Beautifully made threaded pillars and plates in lightweight anodised aluminium with chromed steel pin and ring. Maximum height 130mm. Complete with all fixings. M12x 1.75mm threaded pin.

#BPRET £10 pair (£12 inc vat)



LOCKING BONNET PIN KIT Chrome lock, stainless top plate (65mm diameter), plated steel striker bolt (70mm long, 3/8" UNF thread), 2 keys. Quarter-turn locking.

FITTING INSTRUCTIONS

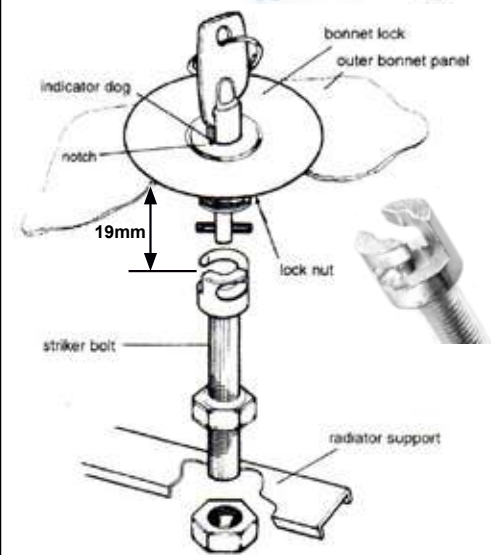
1. When you are determining the mounting position for the locking bonnet pins bear in mind the critical dimension requirement of 3/4" (19mm) from the top of the striker bolt to the top of the bonnet in it's closed position. The lock and bolt mounting surfaces must also be parallel to ensure accurate alignment and correct operation of the lock. If these conditions cannot be met you may need to fabricate a mounting bracket for the striker bolt.

2. Drill a 3/4" (19mm) hole for the lock and a 3/8" (10mm) hole for the bolt.

3. Install the lock, stainless plate and rubber gasket from the outside of the bonnet and the grey, locking plate on the inside. (Note: You may wish to deburr the stainless plate before fitting.)

4. Install the striker bolt and adjust it's height to achieve 3/4" (19mm) from the top of the bolt to the outer skin of the closed bonnet.

#BPLOC £20 pair (£24 inc vat)



IMPORTANT NOTE This product is best used in conjunction with the manufacturer's own bonnet safety catch - especially on cars with glassfibre bonnets.

HELP YOURSELF AND US
**MEASURE
CAREFULLY**

PUSH-BUTTON RELEASE LATCH PAIR

A discreet, precision-engineered latch for bonnets, glove box and any other opening panels. The 32mm diameter, anodised aluminium push-button assembly mounts through a 19mm hole in your top panel, which can be up to 10mm thick. The 100mm long, ball-ended, plated steel, M8 stud can be cut down and mounted through your slam panel or on a bracket beneath your top panel. The two will 'click' and lock together when you close the panels. Simply press the central latch button to release.

BLACK #PBPINBK £30.50 pair (£36.60 inc vat)
NATURAL #PBPIN £31.50 pair (£37.80 inc vat)



LARGE STEPPED HOLE CUTTER

Excellent quality. Cut clean neat, accurate holes in Sheet Steel, Aluminium, Wood and GRP. (Not stainless). Note: A little light oil will make a cleaner cut and prolong the life of the cutting edge. Use very slow drill speed for larger diameters.

Weight 610 gms
6mm to 60mm
(in 5mm steps)
12mm shank

#STEP660

£19 (£22.80 inc vat)



BLACK SPRUNG BONNET HOOK KIT

Black coated steel spring hook and fixings 128mm (5") long. M8 mounting bolts.

For bonnet or boot retaining. 5mm diameter fixing holes in catch plate.

#SPRHKBK £10 pair (£12 inc vat)



SPRUNG BONNET HOOK KIT

Stainless Steel spring and hook 128mm (5") long. Plated steel retainer and M8 mounting bolts.

For bonnet or boot retaining.

#SPRHK £10 pair (£12 inc vat)



SMALL RUBBER HOOK KIT

Rubber Hook 64mm (2½") long. Plated steel brackets, pin and split pin.

For bonnet or boot retaining.

#SRUBHK £5 pair (£6 inc vat)



RUBBER BONNET HOOKS

We've seen some really naff versions of these hooks but these are the best we've found. Nicely moulded rubber with heavy duty plated hardware. Overall height 135mm. Maximum width 70mm.

#BONHK £8 pair (£9.60 inc vat)



ALUMINIUM ANGLE

Cuts easily with a hacksaw. For making simple mounting brackets or joining long panels.

We can ship up to 2 mtrs length but smaller lengths are cheaper to ship.

3 sizes available:

15 x 15 x 1.5mm (5/8" x 5/8" x 1/16")

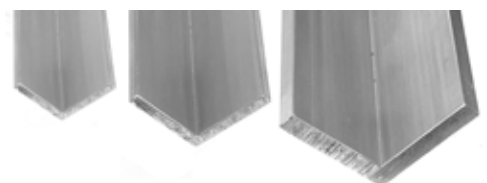
#ALIAN1 £5 mtr (£6 inc vat)

25 x 25 x 3.1mm (1" x 1" x 1/8")

#ALIAN2 £7 mtr (£8.40 inc vat)

38 x 38 x 6.5mm (1½" x 1½" x 1/4")

#ALIAN3 £15 mtr (£18 inc vat)



CHECK OUT OUR FOREMAN P4 BUILD TO SEE HOW WE USE MANY OF THESE PRODUCTS ON OUR OWN PROJECTS

GO TO www.carbuilder.com and click on 'BLOGS'

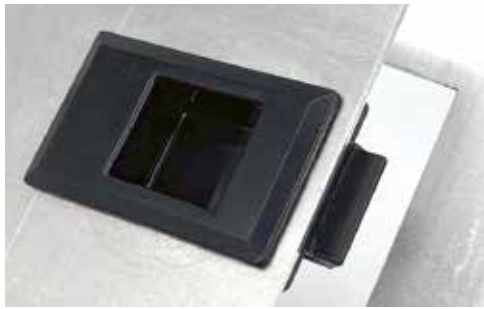


SLIDE LATCH ABS This neat little moulded ABS Slide Latch is a one piece moulding with a clean, flush appearance that mounts through a rectangular hole in a lid or removable panel. It is held in place on the underside of the panel by a separate, push-on 'U'-shaped retainer. Three different thickness retainers are available depending on the panel thickness. The rectangular hole in the panel is cut to allow the latch to slide to and fro to release or engage the pawl. A hidden, stainless steel spring is nested at the back end of the one-piece latch body, and contacts the back edge of the panel hole. This ensures that the latch is always held in the closed position. When the panel is pushed closed, the sloped pawl edge meets the lower panel which pushes the latch back. As the panel closes fully, the pawl clears the lower panel and the spring pushed the latch forward to the closed position. Sliding the latch back with a finger opens the panel. The panel hole is always hidden. Recommended pawl latching overlap 1/4" (6mm). **LATCH**

#SLABS £4 (£4.80 inc vat)

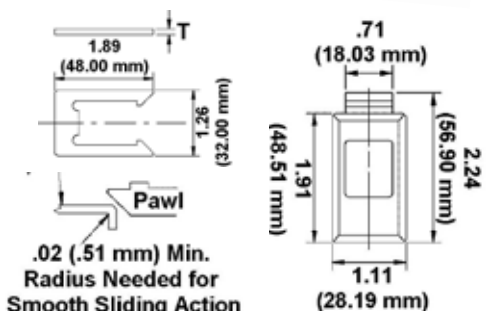
SNAP CLIP RETAINER #SCRET1, (2) or (3) £0.60 (£0.72 inc vat)

Select the appropriate snap clip retainer from the table. accommodates panel thickness from 1.09 to 2.11 mm.



| P - PANEL THICKNESS | | T - SNAP CLIP THICKNESS | | PART NO: |
|---------------------|------------|-------------------------|------|----------------|
| INCH | MM | INCH | MM | |
| .043 - .051 | 1.09 - 1.3 | .125 | 3.18 | #SCRET1 |
| .055 - .067 | 1.4 - 1.7 | .110 | 2.79 | #SCRET2 |
| .071 - .083 | 1.8 - 2.11 | .095 | 2.41 | #SCRET3 |

This item is explained on our **YouTube** channel



SLIDE LATCH This neat little plated steel Slide Latch consists of a sliding plate assembly and a 'cotton-reel' bush. The sliding latch assembly is attached to the hinged or removable panel and the bush is mounted to the fixed panel below. When the lid or panel is closed, sliding section is slid along, locating around the bush to resist opening under vibration and shock loads. Washers can be installed under the bush to accommodate different panel thicknesses.

#SLSS £6 (£7.20 inc vat)



This item is explained on our **YouTube** channel

BUSH INSTALLATION OPTIONS
The Bush can be secured with a screw or rivet. Washers or spacers under the bush will adjust it's height for different panel thicknesses. See technical drawings and dimensions in our online listing. In the pictures below, the latch is fixed with 3mm pop rivets and the bush with an M4 Button Head screw and nut.



CABINET LATCH Zinc plated with stainless 'bolt'. 76mm x 25mm x 10mm thick. Two 7mm dia. mounting holes at 60mm centres. 4.5mm thick latch protrudes 16mm when opened. 8mm square drive.

#CABLAT £5 each (£6 inc vat)



CABINET KEY Black steel 'Tee' Key for cabinet latch. From 5mm square to 10mm square. Will also fit many other square drive latches.

#CABKEY £3 each (£3.60 inc vat)

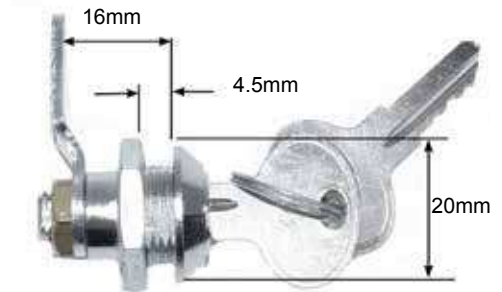
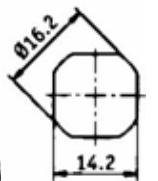


GLOVE BOX LATCH Small latch for glove box lids, luggage compartments or even boot lids and bonnets. Maximum panel thickness 4.5mm. Supplied with two keys. Bezel projection 5mm.

#GBL £10 (£12 inc vat)



HOLE SIZE



RETURNS
Before placing an order please read carefully our Terms and Conditions on the second and last pages of this catalogue. Thank you

CHROME HINGES A pair of nicely made chrome hinges. Originally supplied for the slightly curved panels on early Mini boot lids. Slightly angled and supplied as a left and right pair. Length 90mm. Width of countersunk plate 66mm with 2 x 6.5mm holes at 45mm centres. Width of pointed section 22mm, Height 21mm with 2 x M6 threaded holes at 29mm centres. Supplied with plated screws, studs and nuts.

#CHIN1 £15 pair (£18 inc vat)



POLISHED STAINLESS HINGE

101mm x 34mm open size. 2mm thick. Four 7mm diameter countersunk holes. Fixed stainless pin. Recommended fixing screw size M6 csk.

#SSHIN1 £5 each (£6 inc vat)



STAINLESS COUNTERSUNK SOCKET HEAD SCREWS Packs of 10

M5 x 25 **#M525CSK £2.50** (£3 inc vat)

M6 x 25 **#M625CSK £3.50** (£4.20 inc vat)



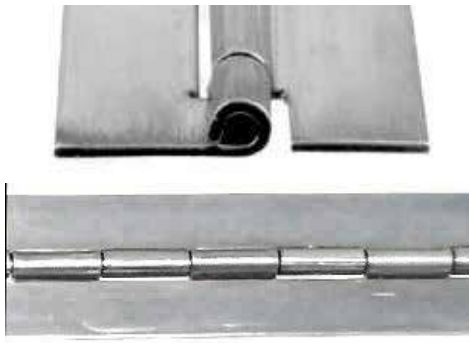
PIANO HINGE. Polished stainless steel. 26mm across opened flat. 1mm thick. 2mm pin diameter. Un-drilled.

600mm **#PIA6 £6.00** (£7.20 inc vat)

900mm **#PIA9 £8.00** (£9.60 inc vat)

1800mm **#PIA18 £12.50** (£15 inc vat)

NOTE: Long lengths could incur additional shipping charges



DRILLED PIANO HINGE. Polished stainless steel. 26mm across opened flat. 1mm thick. 2mm pin diameter. 4.5mm holes at 60mm centres.

600mm **#PIA6D £7.50** (£9 inc vat)

900mm **#PIA9D £10** (£120 inc vat)

1800mm **#PIA18D £15.50** (£18.60 inc vat)



POLISHED STAINLESS HINGE

138mm x 44mm open size. 2mm thick. Six 5mm diameter countersunk holes. Fixed stainless pin. Recommended fixing screw size M5 csk.

#SSHIN2 £6 each (£7.20 inc vat)



BONNET & BOOT LID STAYS

Both are single hand operation - lift to latch, lift again to release. Plated steel. Good quality, smooth action.

If your bonnet or boot panel is fairly stiff (e.g. Cobra boot) you may need only one stay but large, flexible panels (e.g. some Cobra bonnets) may require one on each side.

LARGE 21" (530mm) open, **12"** (300mm) closed. Swivelling mount at one end with 8mm holes. 6.5mm hole in sliding section.

#BNSTY £14 (£16.80 inc vat)



DOOR PULLS

ABS DOOR PULL One piece snap-in recessed door pull. Facia size 93mm x 35mm. Will fit into an accurately cut hole 87mm x 30.5mm. For up to 1.8mm panel thickness but can be fitted to thicker panels with careful modification

#DP1 £5 each (£6 inc vat)



DOOR POPPER SET A set of two, plated steel, spring-loaded plungers that will push your door (or bonnet, or boot lid) open when the latch is released. Fits through a 17mm hole. Cylinder diameter 16.3mm. Rubber-tipped plunger travel 20mm. Mounting plate 25mm x 50mm with two 4mm holes at 38mm centres. Two, 32mm x 26mm plated steel, self-adhesive pressure plates, washers and fixing screws included. Maximum rear projection 74mm. Maximum front projection 35mm.

#DPOP £15 (£18 inc vat)



SEE MORE, BIGGER, HI-RES PICTURES ONLINE AT www.carbuilder.com

ABS DOOR PULL Two piece recessed door pull. Front facia size 123mm x 47mm. Will fit into an accurately cut hole 114mm x 38mm. Rear cover fits on the inside with two screws into the facia, sandwiching the door panel between the two parts. For up to 3mm panel thickness but can be fitted to thicker panels with careful modification.

#DP2 £9 each (£10.80 inc vat)



ALUMINIUM HANDLE Black anodised aluminium. Nicely radiused top edges. Four 10mm decorative holes. Overall length 180mm. Width 25mm. Height from mounting surface 25mm. Thickness 3mm. Two 3mm diameter, countersunk mounting holes at 154mm centres. **SOLD SINGLY**

#AH180 £4.50 each (£5.40 inc vat)



DOOR PULL Moulded black plastic. Footprint 170mm x 30mm. 42mm high. Two 5mm fixing holes at 134mm centres.

#DP3 £5 each (£6 inc vat)



BEFORE YOU PLACE AN ORDER PLEASE CHECK OUT OUR TERMS AND CONDITIONS AT THE FRONT AND BACK OF THIS CATALOGUE

DIECAST METAL 'D' PULL HANDLES

Beautifully made handles for inside door pull etc. Two M4 threaded pillars on the back 7mm diameter at 64mm centres. These can be cut off and your own fixing holes drilled if necessary. Footprint 84mm x 37mm. Handle sits 25mm above mounting surface. Two M4 screws included. Weight 58gms.

CHROME PLATED #DP5CH
£5 each (£6 inc vat)

SATIN BLACK POWDER COAT

#DP5BK £5 each (£6 inc vat)



DOOR LOCK ACTUATOR

The Heavy Duty, 12 volt, 5 wire, Power Door Lock / Boot lid Actuator has built in switches that trigger a module with relays to lock and unlock the other doors. It will push and/or pull the door lock mechanism using the power supplied from the keyless entry system in the vehicle or a simple push-button. **MORE DETAILS ON NEXT PAGE**

#ACTU1 £8 each (£9.60 inc vat)



DOOR LATCHES

MINI BEAR CLAW LATCHES Ideal for smaller, lightweight doors with limited mounting space, e.g. D Type, Fury, Cobra, NG etc. This small version still has two-stage latching so is IVA compliant. Simple to fit and very strong. Only 75mm x 35mm x 14mm overall size. Each latch has two 6.2mm mounting holes.. Supplied with two strikers. Striker thread M8.

BEARMINI £39 handed pair (£46.80 inc vat)



LARGE BEAR CLAW DOOR LATCHES IVA

OK Our Bear Claw, anti-burst door latches are probably the easiest-to-fit latches you will ever find. As fitted to Beauford, GT40, etc. Measuring just 90mm x 48mm x 21mm the paired latches provide IVA compliant 'two stage' latching. Each latch has three 8.2mm mounting holes. A simple release mechanism makes it easy to connect internal door opening handles, rods or 'pull cables (as on early Minis) and outside push-buttons. Includes two striker bolts with 7/16" UNC thread. Weight 682 gms.

#BEARLARGE

£39 handed pair (£46.80 inc vat)



MINI IN-LINE BEAR CLAW LATCHES

This version of our popular two stage door latch has an in-line release arm. For bonnet and boot release mechanisms, a simple cable pull is often all that is required to release the latch. A handed pair may be a suitable choice for doors. Simple to fit and very strong. Only 75mm x 35mm x 14mm overall size. 2 mounting threads 1/4" UNC Available handed. Strikers not included.

LEFT HAND #BEARINL £20 each (£24 inc vat)

RIGHT HAND #BEARINR £20 each (£24 inc vat)

STRIKER Available separately, as supplied with #BEARMINI. Thread 5/16" UNC)

#STRIKER £3 each (£3.60 inc vat)



DOOR LOCK ACTUATOR

The Heavy Duty, 12 volt, 5 wire, Power Door Lock / Boot lid Actuator has built in switches that trigger a module with relays to lock and unlock the other doors. It will push and/or pull the door lock mechanism using the power supplied from the key-less entry system in the vehicle or a simple push-button. This door lock actuator will work with most security systems. The Blue and Green wires can be used as a two-wire actuator for boot release using a simple push-button switch or relays. The output shaft can rotate 360 degrees. Supplied with 2.7mm diameter x 220mm (7.0in) long wire, steel mounting plate and joining block.

Current consumption: 0.15A to 3A

Push & pull force: 4kg

Travel distance: 20mm

Actuator size: approx. 150 x 63 / 32mm.

Two 3.5mm mounting holes at 58mm centres. Weight: 140g

WIRING: BROWN - Lock Input

BLUE - Unlock Output

WHITE - Unlock Output

Black - Earth

Green - Lock Output

WIRING FOR TWO WIRE APPLICATION:

GREEN +ve, BLUE -ve - PULL

BLUE +ve, GREEN -ve - PUSH

#ACTU1 £8 each (£9.60 inc vat)

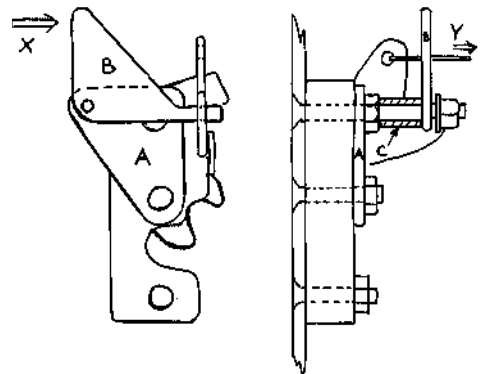


Our Bear Claw, anti-burst door latches are probably the easiest-to-fit latches available. The paired latches provide IVA compliant 'two stage' latching. The simplest method of installation is ideal for open top vehicles whose doors can be opened by leaning over and opening from the inside. A pull cord 'Y' is attached to the upper hole of the latch release lever and the other end secured inside the front of the door. A sleeved bicycle brake cable and solderless nipple or connector from a 'Choc-Block' will do the job. Early Minis had a similar system.

With the addition of a simple mechanism, a push-button release on the outside of the door can convert a horizontal motion to a vertical motion, releasing the catch. The diagram shows just one method of accomplishing this. You can fine-tune the design to your own application. Cut plates 'A' and 'B' from a piece of 3mm steel and make a spacing sleeve 'C'.

A Powerfile is the ideal tool for cutting away GRP clearances in your door panels.

Check out our P4 Build Blog for pictures and details on fitting these latches



These two pictures show our #BEARLARGE fitted to a P4 glassfibre door, using M6 countersunk screws, nuts and countersunk screwcups. The cut-outs were made with a Powerfile and hand files. The latches are released with a solenoid and rods, operated by a hidden push-button on the outside of the door. See our P4 Build Blog for more details.



TUBE & SHEET MATERIALS

ALUMINIUM TUBE

IMPORTANT: TUBE DIAMETERS LISTED HERE ARE NOMINAL AND MAY BE METRIC OR IMPERIAL DEPENDING ON AVAILABILITY. IF YOU REQUIRE ACCURATE DIMENSIONS PLEASE CALL US.

All 1.5mm (1/16") WALL THICKNESS GRADE 6063

| | | |
|--------------------|----------|------------|
| 8mm (5/16") O.D. | #ALIT8 | £6 mtr |
| 10mm (3/8") O.D. | #ALIT10 | £7 mtr |
| 12.5mm (1/2") O.D. | #ALIT125 | £8 mtr |
| 15mm (5/8") O.D. | #ALIT15 | £8.50 mtr |
| 19mm (3/4") O.D. | #ALIT19 | £9 mtr |
| 22mm (7/8") O.D. | #ALIT22 | £9.50 mtr |
| 25mm (1") O.D. | #ALIT25 | £10 mtr |
| 28mm (1 1/8") O.D. | #ALIT28 | £12 mtr |
| 32mm (1 1/4") O.D. | #ALIT32 | £10 mtr |
| 35mm (1 3/8") O.D. | #ALIT35 | £10.50 mtr |
| 38mm (1 1/2") O.D. | #ALIT38 | £11 mtr |
| 45mm (1 3/4") O.D. | #ALIT45 | £12 mtr |
| 50mm (2") O.D. | #ALIT50 | £12 mtr |
| 63mm (2 1/2") O.D. | #ALIT63 | £15 mtr |
| 75mm (3") O.D. | #ALIT75 | £17.50 mtr |

Minimum order 1 Mtr length

ALL PRICES PLUS VAT @ 20%

SHIPPING COSTS

Parcels over 1 metre long can incur additional shipping costs. Multiple 1 metre lengths can be cheaper to ship than one two-metre length.

Please ask.



BEADING SERVICE

£3 per BEAD



POLISHED STAINLESS STEEL TUBE

16mm DIAMETER x 1.5mm WALL

Great for Air, Vacuum, Oil, Fuel, Water.

Sold per 300mm

(So for 1200mm, order qty. 4)

#SST16 £4 per 300mm (£4.80 inc vat)



ALUMINIUM SHEET

We can now offer sheet in pre-cut panels of fixed sizes for you to trim to your own dimensions. (Our video on YouTube explains how to cut and shape aluminium sheet). All panels are general purpose grade and can be easily cut, drilled and formed. Most sheets are coated on at least one side with a protective PVC film. Shipped to you on a protection sheet.

| | | |
|-------|---------|---------------------------|
| 1mm | #ALIS1 | £7 sq ft (£8.40 inc vat) |
| 1.2mm | #ALIS12 | £7 sq ft (£8.40 inc vat) |
| 1.5mm | #ALIS15 | £7 sq ft (£8.40 inc vat) |
| 2mm | #ALIS2 | £8 sq ft (£9.60 inc vat) |
| 3mm | #ALIS3 | £9 sq ft (£10.80 inc vat) |

Available sizes:

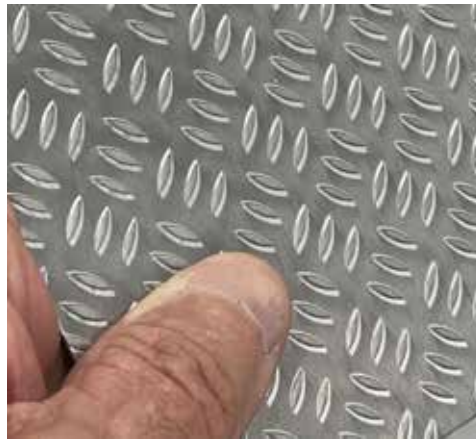
| | | |
|--|-----------|-----------|
| 1ft x 1ft | 2ft x 1ft | 2ft x 2ft |
| 3ft x 1ft | 3ft x 2ft | 4ft x 1ft |
| 4ft x 2ft. Larger sizes for collection | | |

LARGE SHEET SIZES MAY INCUR ADDITIONAL PACKING AND SHIPPING CHARGES

MINI CHEQUERPLATE ALUMINIUM SHEET

This is a lighter, smaller pattern version of industrial chequerplate, ideally suited to floor pans and footwells. 2mm thick sheet. Triple pattern size 7mm x 12mm. Sold in multiples of a square foot (305mm x 305mm)

#MCHE £11 square foot (£13.20 inc vat)



ALUMINIUM ANGLE

ALUMINIUM ANGLE Cuts easily with a hacksaw. For making simple mounting brackets or joining long panels.

We can ship up to 2 mtrs length but smaller lengths are cheaper to ship.

3 sizes available:

15 x 15 x 1.5mm (5/8" x 5/8" x 1/16")

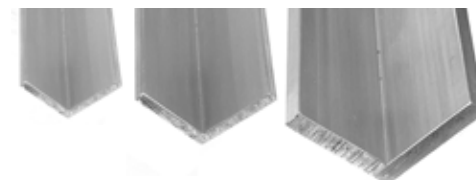
#ALIAN1 £5 mtr (£6 inc vat)

25 x 25 x 3.1mm (1" x 1" x 1/8")

#ALIAN2 £7 mtr (£8.40 inc vat)

38 x 38 x 6.5mm (1 1/2" x 1 1/2" x 1/4")

#ALIAN3 £15 mtr (£18 inc vat)



ALUMINIUM COMPOSITE SHEET

This stuff is fantastic for panelling a cockpit, making a dash, lids, covers, boxes etc. It is easy to cut and is very rigid and durable. Can be neatly folded if a 'V' is machined on the fold line on one side. The total panel thickness of 3.2mm includes a polyethylene core chemically bonded to a 0.21mm thick aluminium panel on each side. The aluminium surfaces are stove-lacquered before assembly for high wear resistance. Weight 380gms per sq ft. Sold in any multiples of 300mm x 300mm. Maximum width 1220mm. Supplied with a protective film covering on both sides.

GLOSS BLACK one side and SATIN BLACK on the other side.

#COMPANBK £5 per 300mm x 300mm (£6 inc vat)



CARBON EFFECT 2mm THICK ABS SHEET

This very versatile fabricating material has Acrylic film laminated onto the surface of high impact ABS sheet. Great for dashboards, panels etc.

1350mm x 300mm sheet

#ABSCB1 £27 (£32.40 inc vat)

1350mm x 600mm sheet

#ABSCB2 £48 (£57.60 inc vat)



EMBOSSED ALUMINIUM HEAT SHIELD

This is a deeply textured, 0.5mm thick aluminium sheet that is easy to cut, fold and shape to make very efficient heat shields and barriers. Ideal for exhaust manifold and turbo shields, Bulkheads, Electrical protection and shielding, Lining tunnels, protecting brake and fuel lines and components. Four sizes:

500mm x 500mm #EASH1 £17 (£20.40 inc vat)

1000mm x 500mm #EASH2 £30 (£36 inc vat)

1000mm 1000mm #EASH3 £50 (£60 inc vat)

1000mm x 325mm #EASH4 £21 (£25.20 inc vat)

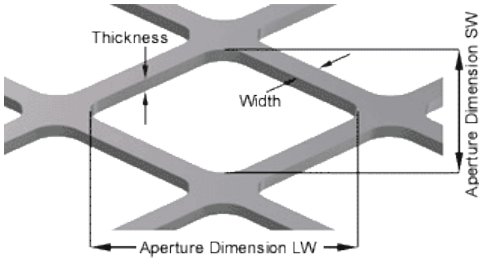


FLATTENED ALUMINIUM MESH

SHIPPING COSTS
Parcels over 1 metre long can incur additional shipping costs. Please ask.

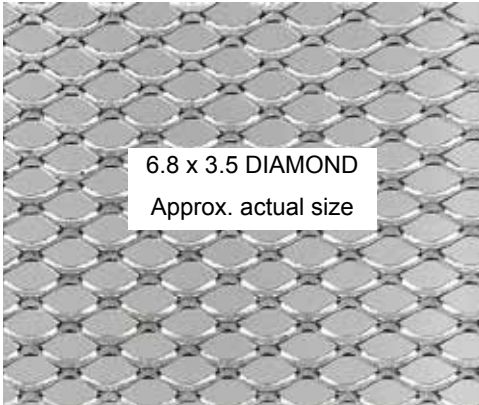
Perfect for radiator grilles and air vents. You've seen regular expanded mesh but this has been put through an extra set of rollers to flatten the mesh.

Two mesh sizes available, each in two sheet sizes. Can be cut with snips or cutting disc.



Small Aperture 6.8 x 3.5mm
Sheet size: 600 x 600mm
Material thickness 0.9mm, Width 1.3mm
#AM11 £20 £24 inc vat)

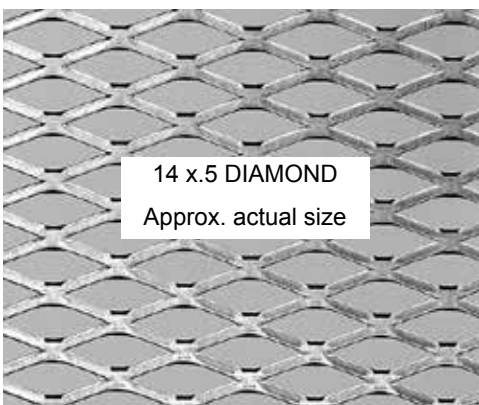
Small Aperture 6.8 x 3.5mm
Sheet size: 300 x 1200mm
Material thickness 0.9mm, Width 1.3mm
#AM12 £20 (£24 inc vat)



6.8 x 3.5 DIAMOND
Approx. actual size

Large Aperture 14 x 5mm,
Sheet size: 600 x 600mm
Material thickness 0.9mm, Width 1.8mm
#AM21 £20 (£24 inc vat)

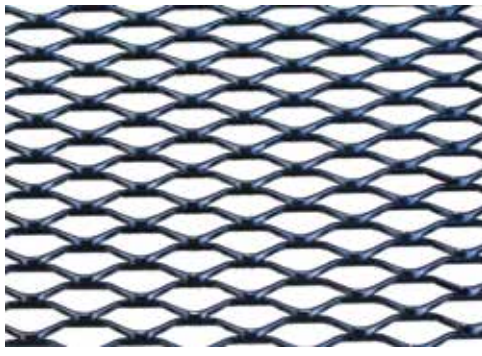
Large Aperture 14 x 5mm,
Sheet size: 300 x 1200mm
Material thickness 0.9mm, Width 1.8mm
#AM22 £20 (£24 inc vat)



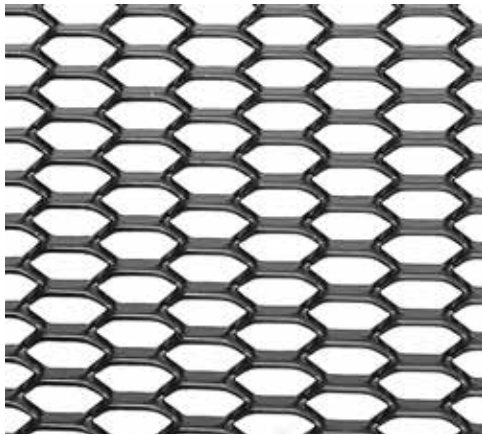
14 x 5 DIAMOND
Approx. actual size

EXPANDED ALUMINIUM MESH

ALUMINIUM MESH Anodised Satin Black
Expanded mesh. Sheet Size 1mtr x 330mm (39" x 13"). Aperture size 18mm x 6mm
#AMBK £22 (£26.40 inc vat)



HONEYCOMB ALUMINIUM MESH
Anodised Satin Black Expanded mesh
Sheet Size 1.25mtr x 250mm (49" x 10").
Aperture size 11mm x 5mm
#AMBK2 £27 (£32.40 inc vat)



250mm TIN SNIPS Good quality forged and heat-treated Tin Snips with leaf spring opening assistance and leather securing loop. Suitable for steel up to 1mm thick, Aluminium and Brass. Weight 420 gms.
#TINS250 £6 (£7.20 inc vat)



1mm CUTTING DISC. 76mm diameter x 1mm thick with a 10 mm hole. Fits a mini grinder or our Air Cut off Grinder
#D76X1 £2.50 each (£3 inc vat)



WOVEN STAINLESS MESH

Two mesh sizes, each in two sheet sizes. Can be cut with good snips, side cutters or cutting disc.

Aperture size 6mm x 6mm.
Wire diameter 1mm

600mm x 600mm
#SSMESH1 £30 (£36 inc vat)

1200mm x 300mm
#SSMESH2 £30 (£36 inc vat)



Aperture size 11mm x 11mm.
Wire diameter 1.6mm

600mm x 600mm
#SSMESH3 £36 (£43.20 inc vat)

1200mm x 300mm
#SSMESH4 £36 (£43.20 inc vat)



SIDE CUTTING PLIERS Top quality, drop forged, chrome vanadium cutters. Don't confuse this tool with cheaper versions. These beauties will cut Bowden Cable, Piano wire, stainless wire and heavy cable without damage to the jaws. Soft grip handles insulated up to 10,000 volts. Length of tool 200mm.
#SIDECUT £12 (£14.40 inc vat)



TAPES

HIGH BOND DOUBLE SIDED TAPE

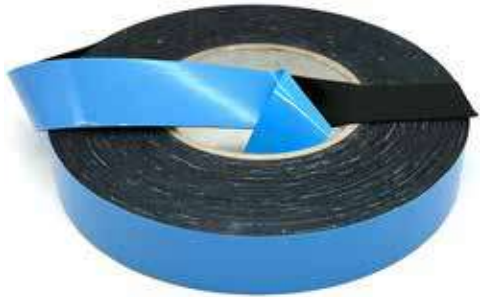
This High Bond tape is an OEM approved fixing for trims, number plates, spoilers, body mouldings, badges etc. 0.09mm thick - (just under 1mm). It is weather proof, UV proof and oil resistant. Bond strength increases over time. Available in three widths on 22 mtr long rolls.

NOTE: For maximum adhesion ensure both surfaces are clean, dry and free of wax and oil.

6mm #HBDST6 £10 (£12 inc vat)

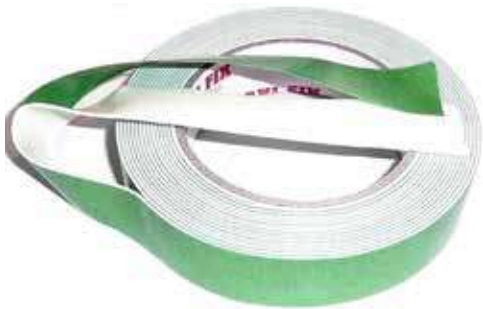
12mm #HBDST12 £16 (£19.20 inc vat)

25mm #HBDST25 £23.50 (£28.20 inc vat)



DOUBLE-SIDED TAPE 24mm wide x 0.5mm thick x 5 metre roll. Ideal for fixing legend plaques, labels, badges or signs.

#DSTAP £3.25 (£3.90 inc vat)



DOUBLE-SIDED TAPE 12mm wide x 0.5mm thick x 4 metre roll. Ideal for fixing trim, legend plaques, labels, badges or signs. **#DSTAP12 £3** (£3.60 inc vat)



NO-SLIP TAPE. 50mm wide Self-adhesive, bonded grit tape. Ideal for pedals, trailer ramps etc. Rugged, heavy duty stuff.

#NOSLP £3 mtr (£3.60 inc vat)



PTFE TAPE General thread sealing tape ideal for oil, air and water fittings. 12mm wide x 10 metres roll.

#PTFE £1 (£1.20 inc vat)



TEMPTAPE A black, Silicone, self-amalgamating, self-curing, liquid-tight, high temperature sealing tape. This unique silicone rubber tape will withstand continuous temperatures up to 475° F (246°C). It is ideal for wrapping harnesses, hoses etc. Also perfect for sealing the exposed ends of TEMPROTECT or TEMPGUARD sleeving. 1" (25mm) wide x 11 Mtrs.

#TTAPE £18 per roll (£21.60 inc vat)



INSULATION TAPE PACK 10 rolls of PVC insulation tape, 18mm wide and over 18m long. Enough for any loom. 2 Black, 2 White, 2 Red, 2 Yellow and 2 Green. Colours may vary. **#INSTPAK £7** (£8.40 inc vat)



ALUMINIUM TAPE Self-Adhesive 25mm wide Aluminium with a peel-off backing. 50 Metres roll. **#ALITP £5** (£6 inc vat)



GAFFER TAPE The classic, multi-purpose tape for running repairs. Tough waterproof cloth with strong adhesive. 50mm wide x 10 metres roll.

BLACK #GAFB £2.50 (£3 inc vat)

GREY #GAFG £2.50 (£3 inc vat)



INSULATION TAPE Self adhesive PVC insulation tape. 19mm wide x 20 metres roll.

#INSTP £1 (£1.20 inc vat)



EARTH INSULATION TAPE

Green/Yellow striped, self adhesive PVC insulation tape for earthed connections. 19mm wide x 4.5 metres roll.

#EARTHTP £0.60p (£0.72 inc vat)



SELF-AMALGAMATING TAPE

This extremely useful tape can be used to wrap electrical joints and connectors. Once stretched and overlapped it releases a resin that bonds to itself, layer upon layer, forming a weather-tight seal. 19mm wide x 10 metres roll. **#SATP £7.50** (£9 inc vat)



LOOM TAPE Non-adhesive PVC tape for wrapping wiring looms the professional way. 20mm wide x 45 metres roll. **#LOOMTP £4** (£4.80 inc vat)



WOVEN CLOTH INSULATION TAPE

Here's the modern version of the classic fabric, self-adhesive, electrical insulation tape. 15mm wide x 15 metres roll. **#FABINS £10** (£12 inc vat)



NON-WOVEN FABRIC EASY-TEAR INSULATION TAPE Nice texture, easy-to-tear, self-adhesive, electrical insulation tape. 19mm wide x 25 metres roll. **#INSTPET £4** (£4.80 inc vat)



WOVEN NYLON INSULATION TAPE Fine texture, super-strong, self-adhesive, electrical insulation tape. 19mm wide x 25 mtrs roll. **#INSTPNY £4** (£4.80 inc vat)



CARTON TAPE PVC tape commonly used for wrapping parcels but also for many other applications. 48mm wide x 66 metres roll. **#CARTONTP £1** (£1.20 inc vat)



25mm MASKING TAPE Good quality. Easy to use. 25mm wide x 50 metres roll. **#MASK25 £1.55** (£1.86 inc vat)



50mm MASKING TAPE Good quality. Easy to use. 50mm wide x 50 metres roll. **#MASK50 £2.80** (£3.36 inc vat)



BUTYL SEALER STRIP Think - very sticky Plasticene. As supplied to Ford, BMW and Mercedes. This is a synthetic, non curing, rubber based bonding and sealing strip. Developed for sealing lap joints, bolt-on panels and for sealing rear light clusters. Commonly used to bond polythene sheet to the inside of production car doors. Can be stretched out to 1 or 2 mm diameter. Kit Car uses are endless. From sealing Seven type rear wings to the body, bonding and sealing body to chassis, fixing badges and emblems, plugging holes, sealing fuel filler necks and light clusters and seating fuel tanks in their cradles. 8mm diameter bead. Supplied in a 8 metre roll which will probably last you forever. **#BUTYL £12 roll** (£14.40 inc vat)



CRAFT KNIFE Supplied with a pack of 10 carbon steel blades. Knife length closed 155mm. **#KNIFE £5** (£6 inc vat)



LEARN BASIC WIRING SKILLS ON OUR

You Tube CHANNEL

SEE DOZENS OF INSTRUCTION VIDEOS

Just type 'Car Builder Solutions' in the YouTube search box

GREAT ONLINE SHIPPING DEALS

IF YOU ORDER ONLINE, COURIER DELIVERY TO UK MAINLAND IS ONLY £6 + vat

or

FREE

IF YOU SPEND OVER £100 (not inc. vat)

CABLE TIES

CABLE TIES BARGAIN PACK of 400

Black nylon. 100 each of 4 sizes: 102mm x 2.5mm, 200mm x 4.8mm, 295mm x 4.8mm, 370mm x 4.8mm. **#CTPAK £10** (£12 inc vat)



You Tube

CABLE TIES 630mm LONG Pack of 10

Black nylon. 4.8mm x 630mm.

#CT630 £1.50 pack of 10 (£1.80 inc vat)



RELEASABLE CABLE TIES 200mm

LONG Pack of 100 Black nylon. 4.8mm x 200mm. Just squeeze the little plastic tag to release the tie and use it again and again.

#CTREL200 £4 pack of 100 (£4.80 inc vat)



RELEASABLE CABLE TIES 300mm LONG

Pack of 100

4.8mm x 300mm

#CTREL300

£8.50 pack of

100

(£10.20 inc vat)

RELEASABLE



STAINLESS CABLE TIES 5mm wide x 200mm long. Very strong ties for high heat situations.

#SSTIE £7.50 pack of 10 (£9 inc vat)



500 PIECE MULTI-COLOURED CABLE TIE PACK 200mm,

150mm and 100mm long ties in 2.5mm and 3.5mm widths.

#CTTUBE2

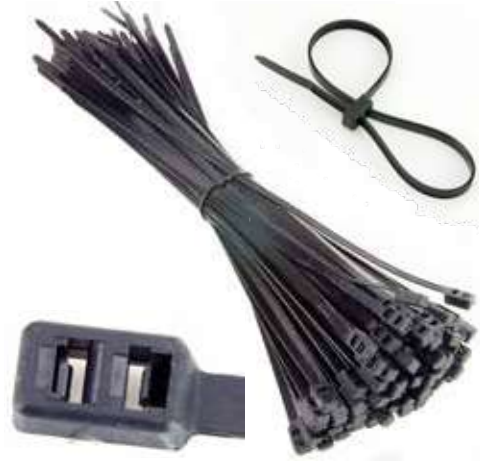
£5 (£6 inc vat)



FIGURE OF 8 CABLE TIE Here's an unusual cable tie. It has a double entry head so you can form a figure of 8 shape to secure two tubes, hoses, cables etc. together. 300mm long. 5mm wide.

#F8TIE25 Pack of 25 £2 (£2.40 inc vat)

#F8TIE100 Pack of 100 £7.50 (£9 inc vat)



ADJUSTABLE MULTI CLIP Just wind the thumbscrew to tighten this nylon clamp around any regular or irregular-shaped, tube or bundle between 1cm and 10cm diameter.

#MULTICLIP £2 (£2.40 inc vat)



CABLE TIE TOOL AND 400 TIES KIT

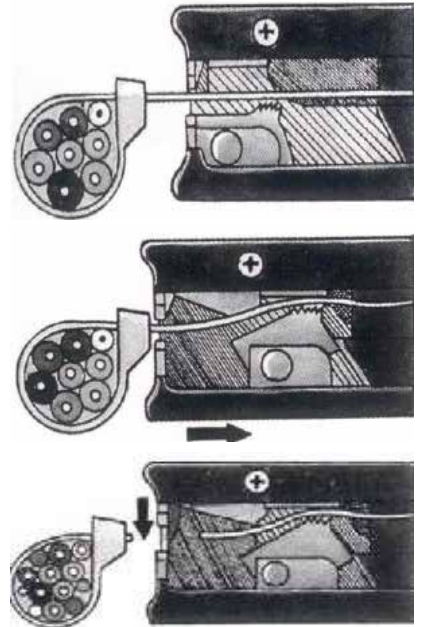
No more loose ties or sharp cut-off ends in your engine bay or under the dash. Our heavy duty, professional cable tie tool will automatically tension your ties and then cut them off neatly in one pull of the trigger. Adjustable tension for all common tie sizes. Kit comes complete with 400 black cable ties in 4 sizes. Tackles the job properly.

#CTKIT £24 (£28.80 inc vat)

TOOL ONLY #CTTOOL £15 (£18 inc vat)



This item is explained on our **You Tube** channel



PANEL MOUNT CABLE TIE

Here's a simple way to secure your pipes, hoses, cables etc. to a panel. Simply drill a 6mm hole, push in the tie base and it'll snap into place. 190mm long 4.8mm wide.

#PANTIE25 £2 Pack of 25 (£2.40 inc vat)

#PANTIE100 £7.50 Pack of 100 (£9 inc vat)



SELF-ADHESIVE ADJUSTABLE CABLE CLIPS

Secure a bundle of pipes or cables up to 25mm diameter with these handy, adjustable clips. Base size 30mm x 21mm with a single countersunk 4mm fixing hole and a peel-off 3M backing tape. **Pack of 30 #SACC2 £5** (£6 inc vat)



METAL SELF-ADHESIVE CLIPS

Quick and simple fixing of small wires and pipes. White plastic-coated steel with self adhesive backing pads. Just bend up the tab, lay on your wires and bend it down again. Size 20mm x 30mm

#SAPAD £4.50 Pack of 50 (£5.40 inc vat)



STAINLESS STEEL CABLE TIE BASE

Mount one of these 28mm x 15mm x 1mm thick, stainless steel plates to your panel or chassis with a screw or Rivet through the 4.2mm hole for a strong and corrosion free cable tie mount. Will accept up to 10mm wide x 2mm thick cable ties.

Weight 32gms / pack.

#SSCTBAS £2.50 Pack of 10 (£3 inc vat)



MINI CABLE TIE BASE For up to 5mm wide ties. Only 13mm x 18mm x 8mm high. 9mm diameter counter-bore will accept our M4 Pan-head screws or 4mm pop rivet.

#MCTBAS £2.50 pack of 25 (£3 inc vat)



CABLE TIE BASE Self-adhesive and or screw fixing. Size 28mm x 28mm. Accepts up to 5mm wide cable ties.

#CTBAS £3 pack of 25 (£3.60 inc vat)

YouTube



CBS BUILDER'S TIP

Here's a simple way to secure cables and hoses on stand-off pillars. This not only keeps everything neat and tidy but minimises chaffing and vibration damage. Stick a self-adhesive Cable Tie Base to your chassis or panel. Cut a 20mm long piece of rubber tubing (6mm fuel hose works fine).

Feed the cable tie through the fuel hose, then through the CT base and back up through the fuel hose. Sit your cable or hose on top and tighten the tie.



NYLON CABLE TIE PLUGS. Just press one of these, 34mm long moulded plugs into an 8.5mm to 9mm diameter hole in wood, metal, GRP or even concrete for a strong fixing for cable ties up to 10mm wide. Head size 11mm x 15mm x 6mm high. Can be trimmed to length.

Weight 18gms / pack.

#CTPLUG £3 Pack of 10 (£3.60 inc vat)



SELF-ADHESIVE 5mm CABLE CLIPS

Secure a small bundle of wires or a 5mm brake pipe with these handy clips. Base size 19mm x 14mm with a peel-off 3M backing tape. **Pack of 20 #SACC1 £2** (£2.40 inc vat)



SELF ADHESIVE CABLE CLIP ASSORTMENT Pack of 20

Five each in four sizes: 8 - 10mm, 11 - 15mm, 16 - 20mm, 18 - 24mm. Peel-off self-adhesive backing pad. Just press the latching loop to clamp your bundle and press the latch to release.

#SACC3 £3.60 pack of 20 (£4.32 inc vat)



FAN MOUNT KITS - See fans page.



GROMMETS

BLANKING GROMMETS PACK Soft Black PVC material. For panels up to 1.5mm thick. 4 sizes for holes 12, 16, 20 & 25mm. Pack of 20 (5 each size)
#BLAPAK £3 (£3.60 inc vat)



LARGE GROMMETS PACK Three each of six different grommets - Blanking and Hollow. To fit hole sizes 50mm (2"), 38mm (1½") and 32mm (1¼"). For panel thickness up to 2mm.
#GROLG £5.50 pack of 18 (£6.60 inc vat)



GROMMET PACK 35 Assorted Rubber Grommets. Sizes from 1/8" x 3.8" x 3/16" to 3/4" x 1 1/4" x 3/8".
#GROPAK £4 (£4.80 inc vat)

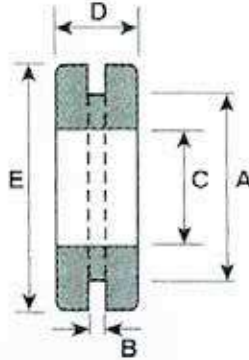


125 PIECE GROMMET PACK
 125 Assorted Rubber Grommets - Holed and Blanking. For hole sizes from 6.3mm to 23.8 and panel thickness 1mm to 3mm.
#GROPAK2 £5 (£6 inc vat)

| | | | | | |
|-----------------------|-----------------------|------------------------|------------------------|----------------|---------------|
| 3.18 x 6.35mm 15pc | 12.7 x 15.08mm 3pc | 7.94 x 14.29mm 3pc | 15.88 x 24.61mm 3pc | 9.53mm x 20pc | 19.05mm x 4pc |
| 5.57 x 7.94mm 10pc | 9.53 x 11.91mm 6pc | 9.53 x 20.64mm 3pc | 19.05 x 23.81mm 2pc | 12.07mm x 10pc | 22.23mm x 3pc |
| 7.14 x 12.7mm 7pc | 9.53 x 12.7mm 5pc | 11.11 x 19.05mm 4pc | 7.14mm x 20pc | 15.88mm x 5pc | 25.4mm x 2pc |



GROMMETS All will fit in panels up to 1.6mm
#GRO6 £2 pack of 10 (£2.40 inc vat)
#GRO9 £2 pack of 10 (£2.40 inc vat)
#GRO12 £3 pack of 10 (£3.60 inc vat)
#GRO16 £3 pack of 10 (£3.60 inc vat)
#GRO20 £3.50 pack of 10 (£4.20 inc vat)
#GRO25 £4 pack of 10 (£4.80 inc vat)
#GRO32 £4 pack of 10 (£4.80 inc vat)
#GRO38 £5 pack of 10 (£6 inc vat)
#GRO50 £6 pack of 10 (£7.20 inc vat)



NOTE: Dimension 'A' is the hole drilling size.

| A mm | B mm | C mm | D mm | E mm | PART NUMBER |
|------|------|------|------|------|---------------|
| 6 | 1.6 | 5 | 6 | 10 | #GRO6 |
| 9 | 1.6 | 7 | 6 | 13 | #GRO9 |
| 12 | 1.6 | 9 | 6.5 | 16 | #GRO12 |
| 16 | 1.6 | 12 | 6.5 | 19 | #GRO16 |
| 19 | 1.6 | 16 | 6.5 | 23 | #GRO19 |
| 25 | 1.6 | 19 | 7.5 | 30 | #GRO25 |
| 32 | 1.6 | 24 | 8 | 38 | #GRO32 |
| 38 | 1.6 | 31.5 | 9.5 | 46 | #GRO38 |
| 50 | 1.6 | 44.5 | 11 | 60 | #GRO50 |

DIGITAL CALIPER STAINLESS STEEL
 This essential tool box item will measure from 0 to 150mm has an accuracy of 0.02 mm (half a thousandth of an inch) and an easy to read LCD display. You can switch from Metric to Imperial with the press of a button and set the readout to zero anywhere on the scale. Supplied in a hard plastic case.
#DIGICAL £22 (£26.40 inc vat)



This item is explained on our
YouTube
 channel

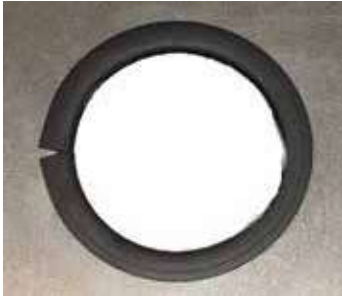
DOOR WIRING RUBBER SLEEVE Many vehicles will have electric windows and electric door locks. This, 180mm long flexible rubber sleeve will protect the wiring between your 'A' post and your door. It is suitable for up to 2mm thick panels but could be modified for thicker panels. You'll need some careful marking, drilling and filing to cut accurate holes - one at 21mm x 28mm and one at 15mm x 29mm. Hole through diameter is 9mm.
#DWRS £7.50 (£9 inc vat)



CBS BUILDER'S TIP

'U' Channel trim is mostly used as panel edging. But it can also be used to line large holes. The picture shows a 50mm hole in a 1mm thick aluminium sheet, lined with a short length of TRMU1.

Neat, safe and self-securing.

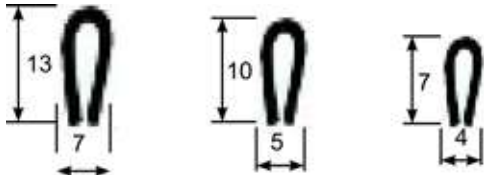


RUBBER 'U' CHANNEL Can be glued on with our Polyurethane or Contact Adhesive.

7 x 4mm for 1mm panels
#TRMU1 £1.75 mtr (£2.10 inc vat)

10 x 5mm for 2mm panels
#TRMU2 £2 mtr (£2.40 inc vat)

13 x 7mm for 3mm panels
#TRMU3 £2.25 mtr (£2.70 inc vat)



EPDM TUBE OR HOSE CAP

Great for blanking-off hose and tube ends. OK up to 180°C. Pressure up to 80 psi. Resistant to Coolants, oil, fuel.

6mm I.D. 9mm O.D. 42mm long
#ECAP6 £1.80 Pack of 5 (£2.16 inc vat)

8mm I.D. 11mm O.D. 44mm long
#ECAP8 £2 Pack of 5 (£2.40 inc vat)

10mm I.D. 13.5mm O.D. 51mm long
#ECAP10 £2 Pack of 5 (£2.40 inc vat)

12mm I.D. 15.5mm O.D. 46mm long
#ECAP12 £2.50 Pack of 5 (£3 inc vat)

16mm I.D. 19mm O.D. 48mm long
#ECAP16 £3 Pack of 5 (£3.60 inc vat)



25mm DIAMETER RUBBER WASHER.

Hard rubber washers for vibration or electrical isolation when mounting panels or components. 4mm thick. 4.8mm hole.

#RUBWAS25 £2 per pk of 10 (£2.40 inc vat)



PLASTIC NUT COVERS

10mm #NUTCV10 £5 pk of 20 (£6 inc vat)

13mm #NUTCV13 £6 pk of 20 (£7.20 inc vat)

17mm #NUTCV17 £6 pk of 20 (£7.20 inc vat)

19mm #NUTCV19 £6 pk of 20 (£7.20 inc vat)

VALUE PACK OF 60

1 Pack each of 13mm, 17mm and 19mm

#NUTPAK £15 (£18 inc vat)

ALSO AVAILABLE

24mm #NUTCV24 £0.75 each (£0.90 inc vat)

27mm #NUTCV27 £0.75 each (£0.90 inc vat)

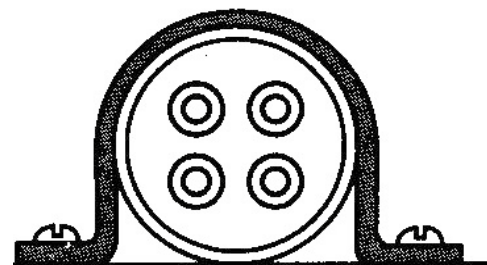


IVA OK

UNIVERSAL BAND is the easiest and most cost effective way to mount pipes, hoses, pumps, filters, relays, etc. Universal Band is a strip of perforated, plastic coated steel. Simply a piece to length, form to the shape required and bolt or rivet in position through any of the holes.

12mm wide, 4.3mm holes
#UNI12 £3.00 mtr (£3.60 inc vat)

17mm wide, 6.7mm holes
#UNI17 £3.50 mtr (£4.20 inc vat)



PRESS STUDS

PRESS STUD KIT Comprehensive kit containing all you need to install Press Studs in Fabric, Tonneaus, Soft Tops etc. Male part of stud can be riveted to bodywork or secured to fabric. Illustrated instructions included. Pack includes all components for 12 x 15mm diameter press studs (4 parts for each male & female stud set) and press tools - all you need is a hammer. **INCLUDES TOOLS**

BRIGHT PLATED #PRESCH

BRONZE #PRESBRZ

ANTIQU BRASS #PRESANT

All £7.50 pack of 12 (£9 inc vat)

REFILL PACKS OF 12 (without tools)

BRIGHT PLATED #REFCH

BRONZE #REFBRZ

ANTIQU BRASS #REFANT

All £5 pack of 12 (£6 inc vat)



BLACK PRESS STUDS Heavy duty 15mm

diameter. #PRESBK+10

£5 pack of 10 (40 pcs.) (£6 inc vat)



STAINLESS PRESS STUDS Heavy duty

15mm diameter. #PRESST+10

£7.50 pack of 10 (40 pcs.) (£9 inc vat)



NICKEL PLATED PRESS STUDS

Heavy duty 15mm diameter. #PRESNI+10

£5 pack of 10 (40 pcs.) (£6 inc vat)



PRESS STUD SETTING KIT Set of tools for setting our heavy duty 15mm diameter press studs. Kit includes a wad punch for making a clean hole in your fabric, a punching base to preserve the sharpness of the punch, a spreading punch and a double-sided nest to support the studs. All you need is a hammer. Instructions on the back of the packet. #PRESTL £3 (£3.60 inc vat)



INSTRUCTIONS ON NEXT PAGE

HOOD & TONNEAU FIXINGS

LIFT THE DOT PLATE MOUNTING

Classic fastener for Hoods, Tonneaus, Side Screens etc. Nickel plated with plate type fixing. Base Plate size 27mm x 13mm. Top plate 22mm x 19mm. Pillar 11mm high. **#LTDP £10 pack of 5** (15 pcs.) (£12 inc vat)



LIFT THE DOT STUD MOUNTING

Classic fastener for Hoods, Tonneaus, Side Screens etc. Nickel plated with stud type fixing. Top plate size 22mm x 19mm. Stud M5 x 10mm long. Pillar 3.7mm high including hex. **#LTDS £9 pk of 5** (15 pcs.) (£10.80 inc vat)



LIFT THE DOT SCREW MOUNTING

Classic fastener for Hoods, Tonneaus, Side Screens etc. Screw fixing post for wood, aluminium or glassfibre. Screw 5mm dia. x 13mm long. Post 15.8mm high including hex. Hex 8mm AF. Top plate size 22mm x 19mm. **#LTSC1 £9 pk of 5** (15 pcs.) (£10.80 inc vat)



LIFT THE DOT SCREW MOUNTING

Classic fastener for Hoods, Tonneaus, Side Screens etc. Screw fixing post for wood, aluminium or glassfibre. Screw 4mm dia. x 14mm long. Post 13mm high including hex. Hex 9mm AF. Top plate size 22mm x 19mm. **#LTSC2 £9 pack of 5** (15 pcs.) (£10.80 inc vat)



FITTING NOTES: Both Lift the Dot and Turnbuckle fixings have spiked upper plates that are designed to pierce the fabric then locate through the slots of the lower plates. The spikes are then gently pressed or hammered over to sandwich and secure the fabric between the two plates.

The spikes on this component are pressed through the fabric, and the oval plate is located over the spikes on the other side of the material with the recesses on top so that when the spikes are flattened, they sit under-flush on the plate.



SHORT NICKEL PLATED TURNBUCKLE

Classic fastener for Hoods, Tonneaus, Side Screens etc. Mounting ring size 32mm x 12mm x 17mm high. Retainer size 32mm x 25mm. Top plate size 27mm x 22mm. Fix with M3 csk. screws or 4mm csk rivets. **#TBSN £4.80 pk of 5** (15 pcs.) (£5.76 inc vat)



LONG NICKEL PLATED TURNBUCKLE

Classic fastener for Hoods, Tonneaus, Side Screens etc. Mounting ring size 32mm x 12mm x 21mm high. Retainer size 32mm x 25mm. Top plate size 27mm x 22mm. Fix with M3 csk screws or 4mm csk rivets. **#TBLN £4.80 pk of 5** (15 pcs.) (£5.76 inc vat)



SHORT BLACK TURNBUCKLE

Classic fastener for Hoods, Tonneaus, Side Screens etc. Mounting ring size 32mm x 12mm x 17mm high. Retainer size 32mm x 25mm. Top plate size 27mm x 22mm. **#TBSB £4.80 pk of 5** (15 pcs.) (£5.76 inc vat)



LONG BLACK TURNBUCKLE

Classic fastener for Hoods, Tonneaus, Side Screens etc. Mounting ring size 32mm x 12mm x 21mm high. Retainer size 32mm x 25mm. Top plate size 27mm x 22mm. **#TBLB £4.80 pk of 5** (15 pcs.) (£5.76 inc vat)



CARPET / MAT FIXINGS

Ten x 3-piece fixings.

These discreet, hidden, press-stud fixings will secure your mat or carpet to the floor pan. A spiked ring is pressed through the carpet from above. The ring will disappear in the pile. The mating disc is located over the spikes on the back of the carpet and the spikes folded over to secure the ring. The male press stud is riveted to the floor pan to complete the fixing.



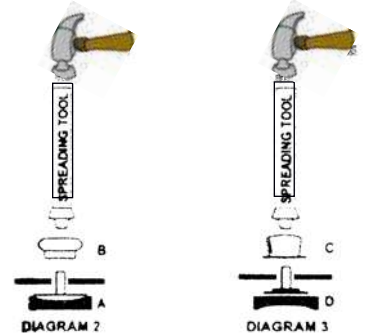
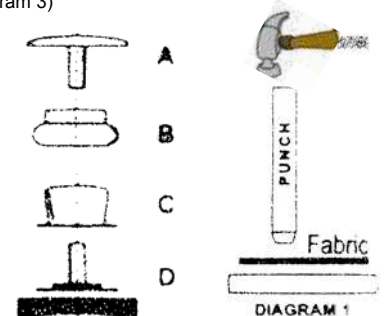
#CPTFIX £5.50 pack of 10 (£6.60 inc vat)



PRESS STUD INSTRUCTIONS

NOTE: ALWAYS WORK ON A FLAT STURDY SURFACE SUCH AS A BLOCK OF WOOD OR MDF. EXCESSIVE IMPACT WITH HAMMER WILL DAMAGE TOOLS.

1. Pierce hole with Punch Tool in top layer of fabric.
2. Push shank of snap 'A' through hole from front of fabric.
3. Place socket 'B' over snap 'A' as shown. Align point of spreading tool with hole in socket 'B' and tap lightly with hammer until both sections of snap are securely tightened. (Diagram 2)
4. Pierce hole with punch tool in corresponding position in under layer of fabric.
5. Push shank of flat-backed snap 'D' through underside of fabric. Invert base tool and position 'D' in centre of base tool.
6. Place snap 'C' over shank of 'D' as shown. Align point of spreading tool; with hole in socket 'C' and tap lightly with hammer until both sections are securely fixed. (Diagram 3)



HOSE CLIPS

HOSE CLIPS A common problem area of the home-built car is cooling system failure. You can minimise this risk at minimal expense by using high quality hose clips. Our range of Hi-Grip hose clips really are the best available. Made in UK to BS5315 they are N.A.T.O approved and have the BSI Kitemark. All clips have rounded edges and 7mm slotted hex drive screw. The beautifully polished 301 grade stainless range are made entirely from 18/8 marine quality stainless steel. We get all sorts through our workshops but these are simply the best with no near equal. They're not the cheapest hose clips you'll find but check other suppliers specifications and prices - you'll be pleasantly surprised.

STAINLESS STEEL

| | | |
|--------------------|-------|-----------------|
| 11 - 16mm #H11SS | £1.40 | (£1.68 inc vat) |
| 13 - 20mm #H13SS | £1.40 | (£1.68 inc vat) |
| 14 - 22mm #H14SS | £1.50 | (£1.80 inc vat) |
| 17 - 25mm #H17SS | £1.60 | (£1.92 inc vat) |
| 22 - 30mm #H22SS | £1.65 | (£1.98 inc vat) |
| 25 - 35mm #H25SS | £1.70 | (£2.04 inc vat) |
| 30 - 40mm #H30SS | £1.80 | (£2.16 inc vat) |
| 35 - 45mm #H3545SS | £2 | (£2.40 inc vat) |
| 35 - 50mm #H35SS | £2 | (£2.40 inc vat) |
| 45 - 60mm #H45SS | £2.20 | (£2.64 inc vat) |
| 60 - 80mm #H60SS | £2.50 | (£3 inc vat) |



NARROW BAND ALL STAINLESS HOSE CLIPS These clips all have a 9mm wide band with up-turned edges to prevent hose damage. The band, screw and housing are all stainless steel. 7mm, slotted Hex. drive.

| | | |
|-------------------|-------|-----------------|
| 8 - 12mm #NB8 | £0.50 | (£0.60 inc vat) |
| 10 - 16mm #NB10 | £0.60 | (£0.72 inc vat) |
| 12 - 20mm #NB1220 | £0.70 | (£0.84 inc vat) |
| 12 - 22mm #NB1222 | £0.80 | (£0.96 inc vat) |
| 16 - 27mm #NB16 | £0.80 | (£0.96 inc vat) |
| 20 - 32mm #NB20 | £0.90 | (£1.08 inc vat) |
| 25 - 40mm #NB25 | £1.10 | (£1.32 inc vat) |
| 30 - 45mm #NB30 | £1.10 | (£1.32 inc vat) |
| 32 - 50mm #NB32 | £1.20 | (£1.44 inc vat) |
| 40 - 60mm #NB40 | £1.20 | (£1.44 inc vat) |
| 50 - 70mm #NB50 | £1.40 | (£1.68 inc vat) |
| 60 - 80mm #NB60 | £1.40 | (£1.68 inc vat) |



ZINC PLATED STEEL

| | | |
|--------------------|-------|-----------------|
| 11 - 16mm #H11ZN | £0.42 | (£0.50 inc vat) |
| 13 - 20mm #H13ZN | £0.42 | (£0.50 inc vat) |
| 14 - 22mm #H14ZN | £0.46 | (£0.55 inc vat) |
| 17 - 25mm #H17ZN | £0.50 | (£0.60 inc vat) |
| 22 - 30mm #H22ZN | £0.50 | (£0.60 inc vat) |
| 25 - 35mm #H25ZN | £0.55 | (£0.66 inc vat) |
| 30 - 40mm #H30ZN | £0.60 | (£0.72 inc vat) |
| 35 - 45mm #H3545ZN | £0.65 | (£0.78 inc vat) |
| 35 - 50mm #H35ZN | £0.65 | (£0.78 inc vat) |
| 45 - 60mm #H45ZN | £0.75 | (£0.90 inc vat) |
| 60 - 80mm #H60ZN | £0.90 | (£1.08 inc vat) |



MINIATURE HOSE CLIPS Stainless band. Plated steel screw and housing. Band width 5mm 6mm to 11mm

| | | |
|------|--------------|-----------------|
| #H6 | £3 pack of 5 | (£3.60 inc vat) |
| #H11 | £3 pack of 5 | (£3.60 inc vat) |



HOSE BAND KIT Make up your own hose clips as large as you like! Three Metres of 8mm wide stainless banding. Eight plated steel worm drive clips.

| | | |
|--------|-------|-----------------|
| #HBKIT | £6.50 | (£7.80 inc vat) |
|--------|-------|-----------------|



FLEXIBLE HOSE CLIP DRIVER Strong but flexible shaft will bend up to 30 degrees to tighten those awkward hose clips.

Reversible socket on the end with 6mm and 7mm A/F sizes. 275mm long

| | | |
|----------|----|--------------|
| #HDRIVER | £5 | (£6 inc vat) |
|----------|----|--------------|



BLACK (STEALTH) STAINLESS HOSE CLIPS

All stainless (AISI-430 high-ferritic) steel. This stainless steel is known for its good corrosion resistance and formability, coupled with good mechanical properties. The black oxide coating further improves corrosion resistance and is widely used in defence applications. The stamped, 12mm-wide band has bevelled edges to protect the hose from damage. 7mm AF slotted drive screw. Weight between 22 and 38 gms.

| | | |
|---------------------|------------|-----------------|
| 8 - 16 mm #H816BK | £1.30 each | (£1.56 inc vat) |
| 12 - 22 mm #H1222BK | £1.30 each | (£1.56 inc vat) |
| 16 - 27 mm #H1627BK | £1.30 each | (£1.56 inc vat) |
| 20 - 32 mm #H2032BK | £1.30 each | (£1.56 inc vat) |
| 25 - 40 mm #H2540BK | £1.40 each | (£1.68 inc vat) |
| 30 - 45 mm #H3045BK | £1.40 each | (£1.68 inc vat) |
| 32 - 50 mm #H3250BK | £1.50 each | (£1.80 inc vat) |
| 40 - 60 mm #H4060BK | £1.50 each | (£1.80 inc vat) |
| 50 - 70 mm #H5070BK | £1.60 each | (£1.92 inc vat) |
| 60 - 80 mm #H6080BK | £1.80 each | (£2.16 inc vat) |



STAINLESS HOSE CLIP

13mm wide band. 7mm hex. stainless screw. 70 to 90mm #H7090SS £3 (£3.60 inc vat) 90 to 120mm #H90120SS £4 (£4.80 inc vat)



QUICK RELEASE STAINLESS CLAMP

Adjustable from 76mm to 176mm. 12.6mm wide. All stainless band and screw. Ideal for fixing exhausts and heat shields etc. #H76176 £4 (£4.80 inc vat)



RUBBER CLIP LINER SEE TRIM SECTION

#TRMPL £3 per mtr. (£3.60 inc vat)



STAINLESS WIDE BAND CLAMPS

These, heavy-duty 'Mikalor' Clamps offer 360 degree, even clamping pressure all around your hose or pipe. 20mm to 22mm wide, they are ideal for high pressure, high temperature applications like exhaust, coolant or turbo hoses. Remove the (10mm Hex) clamping bolt and the clamp can be opened to slide over the hose without taking it off. The band W4 304 stainless and the bolt is 302 stainless. Radiused edges to protect hoses.

Below all M6 bolt thread

17mm to 19mm **#SCLP1719** £2.50 (£2.88 inc vat)
 19mm to 21mm **#SCLP1921** £2.50 (£2.88 inc vat)
 21mm to 23mm **#SCLP2123** £2.50 (£2.88 inc vat)
 23mm to 25mm **#SCLP2325** £2.50 (£2.88 inc vat)
 25mm to 27mm **#SCLP2527** £2.80 (£3.36 inc vat)
 27mm to 29mm **#SCLP2729** £2.80 (£3.36 inc vat)

Below are M7 bolt thread

29mm to 31mm **#SCLP2931** £3.40 (£4.08 inc vat)
 31mm to 34mm **#SCLP3134** £3.40 (£4.08 inc vat)
 34mm to 37mm **#SCLP3437** £3.40 (£4.08 inc vat)
 37mm to 40mm **#SCLP3740** £3.40 (£4.08 inc vat)



ALL STAINLESS CLAMP Wide band stainless clamps suitable for exhausts or hoses. Rolled edge that will not damage pipe or hose. Solid stainless drilled and tapped ferrules (do not confuse with pressed, cheaper versions). Very strong. Excellent quality. Band width 20mm. Can be polished to a mirror finish.

36 - 39 mm **#EXCLP36** M6 bolt £7.50 (£9 inc vat)
 40 - 43 mm **#EXCLP40** M6 bolt £7.50 (£9 inc vat)
 44 - 47 mm **#EXCLP44** M6 bolt £7.50 (£9 inc vat)
 48 - 51 mm **#EXCLP48** M6 bolt £7.50 (£9 inc vat)
 52 - 55 mm **#EXCLP52** M8 bolt £7.50 (£9 inc vat)
 56 - 59 mm **#EXCLP56** M8 bolt £7.50 (£9 inc vat)
 60 - 63 mm **#EXCLP60** M8 bolt £7.50 (£9 inc vat)
 64 - 67 mm **#EXCLP64** M8 bolt £8.50 (£10.20 inc vat)
 68 - 73 mm **#EXCLP68** M8 bolt £8.50 (£10.20 inc vat)
 74 - 79 mm **#EXCLP74** M8 bolt £8.50 (£10.20 inc vat)



WE TRY HARD TO PUBLISH ALL THE INFORMATION YOU NEED TO CHOOSE THE CORRECT PART, FIRST TIME. IF YOU NEED HELP, PLEASE ASK

SATIN BLACK STAINLESS HEAVY DUTY CLAMPS

These superb, high-strength clamps have an amazing satin black coating that is almost indestructible. It will not chip, scratch, scrape or peel. The clamps have a rolled edge that prevents damage to hoses and swivelling, captive nuts and spacer to ensure even clamping pressure all round. Band width 20mm. Tightening screw 10mm hex. Weight between 55 gms. and 73 gms.

37 - 40 mm **#EXCLP37BK** £7.50 (£9 inc vat)
 40 - 43 mm **#EXCLP40BK** £7.50 (£9 inc vat)
 43 - 47 mm **#EXCLP43BK** £7.50 (£9 inc vat)
 47 - 51 mm **#EXCLP47BK** £7.50 (£9 inc vat)
 51 - 55 mm **#EXCLP51BK** £7.50 (£9 inc vat)
 55 - 59 mm **#EXCLP55BK** £7.50 (£9 inc vat)
 59 - 63 mm **#EXCLP59BK** £7.50 (£9 inc vat)



FUEL HOSE CLIPS Zinc plated steel.

9 -11 mm **#FHC9** 11-13 mm **#FHC11**
 13-15 mm **#FHC13** 15-17mm **#FHC15**
 Each size £2.50 pack of 4 (£3 inc vat)



STAINLESS FUEL HOSE CLIPS

All stainless steel. 360 degree clamping pressure to ensure a leak-free joint. Lipped edge to minimise band cutting into hose.

ALL PACKS OF 4

7 - 9 mm **#SFHC7** £4 (£4.80 inc vat)
 9 - 11 mm **#SFHC9** £4 (£4.80 inc vat)
 11-13 mm **#SFHC11** £4.50 (£5.40 inc vat)
 13-15 mm **#SFHC13** £5 (£6 inc vat)
 15-17mm **#SFHC15** £5.50 (£6.60 inc vat)
 16-18mm **#SFHC16** £5.50 (£6.60 inc vat)
 17-19mm **#SFHC17** £6 (£7.20 inc vat)
 18-20mm **#SFHC18** £6 (£7.20 inc vat)
 19-21mm **#SFHC19** £6.50 (£7.80 inc vat)



HEAVY DUTY SPRING BAND HOSE CLIPS

Suitable for heavier duty jobs. Made from high carbon steel strip with blacked finish. Just squeeze the two ears together with pliers to open the clip, slide it on the hose and release.

NOTE: THE DIMENSION REFERS TO THE OPTIMUM HOSE O.D. FOR EACH CLIP

17mm **#SBHC17** £0.60 (£0.72 inc vat)
 19mm **#SBHC19** £0.60 (£0.72 inc vat)
 20mm **#SBHC20** £0.60 (£0.72 inc vat)
 21mm **#SBHC21** £0.60 (£0.72 inc vat)
 23mm **#SBHC23** £0.65 (£0.72 inc vat)
 24mm **#SBHC24** £0.65 (£0.72 inc vat)
 25mm **#SBHC25** £0.65 (£0.72 inc vat)
 26mm **#SBHC26** £0.65 (£0.72 inc vat)
 27mm **#SBHC27** £0.70 (£0.84 inc vat)
 29mm **#SBHC29** £0.75 (£0.90 inc vat)
 32mm **#SBHC32** £0.90 (£1.08 inc vat)
 35mm **#SBHC35** £0.90 (£1.08 inc vat)
 36mm **#SBHC36** £0.95 (£1.14 inc vat)
 38mm **#SBHC38** £1.00 (£1.20 inc vat)
 40mm **#SBHC40** £1.10 (£1.32 inc vat)
 42mm **#SBHC42** £1.20 (£1.44 inc vat)
 44mm **#SBHC44** £1.30 (£1.56 inc vat)
 46mm **#SBHC46** £1.30 (£1.56 inc vat)
 47mm **#SBHC47** £1.35 (£1.62 inc vat)
 50mm **#SBHC50** £2.00 (£2.40 inc vat)
 51mm **#SBHC51** £2.00 (£2.40 inc vat)
 53mm **#SBHC53** £2.00 (£2.40 inc vat)
 55mm **#SBHC55** £2.00 (£2.40 inc vat)

SEE TOOLS SECTION FOR PLIERS



SELF CLAMPING DOUBLE WIRE HOSE CLIPS

Made from high carbon steel wire with zinc plated finish. They have a wide acceptance in the automotive industry which is testament to their cost effectiveness and efficiency. Just squeeze the two ears together with pliers to open the clip, slide it on the hose and release.

NOTE: THE DIMENSION REFERS TO THE OPTIMUM HOSE O.D. FOR EACH CLIP

7mm **#SCHC7** £0.15 (£0.18 inc vat)
 8mm **#SCHC8** £0.15 (£0.18 inc vat)
 9mm **#SCHC9** £0.15 (£0.18 inc vat)
 10mm **#SCHC10** £0.15 (£0.18 inc vat)
 11mm **#SCHC11** £0.20 (£0.24 inc vat)
 12mm **#SCHC12** £0.20 (£0.24 inc vat)
 13mm **#SCHC13** £0.20 (£0.24 inc vat)
 14mm **#SCHC14** £0.30 (£0.36 inc vat)
 16mm **#SCHC16** £0.30 (£0.36 inc vat)
 18mm **#SCHC18** £0.30 (£0.36 inc vat)
 23mm **#SCHC23** £0.40 (£0.48 inc vat)
 26mm **#SCHC26** £0.40 (£0.48 inc vat)
 28mm **#SCHC28** £0.40 (£0.48 inc vat)



TWO WIRE HOSE CLIPS A very useful clip where concentrated clamping force is needed. They do not have a wide adjustment range – 3 to 6mm but the 5mm bolt transmits all its clamping force to a small contact area, and of course the smooth edges of the round wire minimise hose damage.

- 13-16mm #TWHC1316 £0.75 (£0.90 inc vat)
- 17-20mm #TWHC1720 £0.75 (£0.90 inc vat)
- 21-24mm #TWHC2124 £0.80 (£0.96 inc vat)
- 24-27mm #TWHC2427 £0.80 (£0.96 inc vat)
- 27-31mm #TWHC2731 £0.90 (£1.08 inc vat)
- 28-33mm #TWHC2833 £0.90 (£1.08 inc vat)
- 33-37mm #TWHC3337 £0.90 (£1.08 inc vat)
- 35-40mm #TWHC3540 £1 (£1.20 inc vat)
- 38-43mm #TWHC3843 £1 (£1.20 inc vat)
- 45-50mm #TWHC4550 £1 (£1.20 inc vat)



STAINLESS WIRE HOSE CLIPS FOR SPIRAL WOUND FLEXIBLE HOSE AND DUCTING These clips offer simple installation and excellent sealing for our #FFF popular fuel filler hose and similar.

All stainless construction. M6 Screw and Nut. All sizes will work OK on hoses a few millimetres smaller or bigger.

- 38mm #WH38SS £3.50 each (£4.20 inc vat)
- 45mm #WH45SS £3.50 each (£4.20 inc vat)
- 52mm #WH52SS £3.50 each (£4.20 inc vat)
- 57mm #WH57SS £4.30 each (£5.16 inc vat)
- 63mm #WH63SS £4.50 each (£5.40 inc vat)



'O' CLIP HOSE SECURING SYSTEM

'O' Clips offer a more permanent means of securing pipes and hoses than traditional, 'screw-type' hose clips. Just fit the hose onto your union and carefully measure the outside diameter. Remember that hoses usually get bigger when pushed onto a union so measure carefully. Then choose the 'O' clip that is the closest size larger. Fit the clip and squeeze the two 'ears' with the special pliers. You'll have a tight, 360° seal that will never come loose.

ALL 'O' CLIPS SOLD INDIVIDUALLY

WORKSHOP GRADE PLIERS With single crimping jaw. 235mm long.

#OPLIERS £9 (£10.80 inc vat)



#OPLIERS

PROFESSIONAL PLIERS With two crimping jaws - end and side for multiple access options. 235mm long.

#PROPLIERS £18.50 (£22.20 inc vat)



#PROPLIERS



If you ever need to remove the clip just use the pliers to snip through one of the ears as shown on the pictures here.

PLATED STEEL

- 5-7mm (1/4") I.D. #OC5 £0.15p each (£0.18 inc vat)
- 7-9mm (5/16") I.D. #OC7 £0.15p each (£0.18 inc vat)
- 9-11mm (3/8") I.D. #OC9 £0.15p each (£0.18 inc vat)
- 10-12mm (7/16") I.D. #OC10 £0.20p each (£0.24 inc vat)
- 11-13mm (1/2") I.D. #OC11 £0.20p each (£0.24 inc vat)
- 13-15mm (9/16") I.D. #OC13 £0.20p each (£0.24 inc vat)
- 14-17mm (19/32") I.D. #OC14 £0.25 each (£0.30 inc vat)
- 15-18mm (5/8") I.D. #OC15 £0.25p each (£0.30 inc vat)
- 17-20mm (3/4") I.D. #OC17 £0.25p each (£0.30 inc vat)
- 18-21mm (13/16") I.D. #OC18 £0.25 each (£0.30 inc vat)

STAINLESS STEEL

- 5-7mm (1/4") I.D. #OC5SS £0.40 each (£0.48 inc vat)
- 7-9mm (5/16") I.D. #OC7SS £0.40p each (£0.48 inc vat)
- 9-11mm (3/8") I.D. #OC9SS £0.40 each (£0.48 inc vat)
- 10-12mm (7/16") I.D. #OC10SS £0.45p each (£0.54 inc vat)
- 11-13mm (1/2") I.D. #OC11SS £0.45 each (£0.54 inc vat)
- 13-15mm (9/16") I.D. #OC13SS £0.50p each (£0.60 inc vat)
- 14-17mm (19/32") I.D. #OC14SS £0.50p each (£0.60 inc vat)
- 15-18mm (5/8") I.D. #OC15SS £0.55p each (£0.66 inc vat)
- 17-20mm (3/4") I.D. #OC17SS £0.60p each (£0.72 inc vat)
- 18-21mm (13/16") I.D. #OC18SS £0.65 each (£0.78 inc vat)



PLANNING TO VISIT OUR STAPLEHURST SHOP? WE CAN HAVE IT READY CLICK and COLLECT ONLINE

P CLIPS

'P' CLIPS Made by the same UK manufacturer as our hose clips, these mild and stainless steel lined 'P' clips are superb. All clips have a pressed-in strengthening rib which keeps the clip flush with the surface it's bolted to. The steel range is heavily Zinc plated and passivated and the stainless steel range is, again, marine quality 18/8 BS304 stainless steel. The rubber liner is UV stable and resistant to oil & fuel. The smallest size is perfect for copper brake & clutch lines. Fixing hole size 6.5mm x 7.7mm oval.



YouTube

| 'P' Clips All prices + vat | | | | |
|----------------------------|---------------------------|--------|-----------------------------------|--------|
| CLOSED DIAMETER IN MM | STAINLESS PRICE PACK OF 5 | | ZINC PLATED STEEL PRICE PACK OF 5 | |
| 5 | £4.20 | #P5SS | £2.30 | #P5ZN |
| 6 | £4.30 | #P6SS | £2.40 | #P6ZN |
| 8 | £4.40 | #P8SS | £2.45 | #P8ZN |
| 10 | £4.50 | #P10SS | £2.55 | #P10ZN |
| 13 | £4.60 | #P13SS | £2.80 | #P13ZN |
| 16 | £4.80 | #P16SS | £3.00 | #P16ZN |
| 19 | £5.00 | #P19SS | £3.15 | #P19ZN |
| 25 | £5.50 | #P25SS | £3.75 | #P25ZN |
| | EACH | | | |
| 32 | £1.30 each | #P32SS | n/a | |
| 35 | £1.50 each | #P35SS | n/a | |
| 38 | £1.55 each | #P38SS | n/a | |
| 40 | £1.60 each | #P40SS | n/a | |
| 44 | £1.70 each | #P44SS | n/a | |
| 52 | £1.75 each | #P52SS | n/a | |
| 60 | £2 each | #P60SS | n/a | |

BLACK NYLON 'P' CLIPS Cost-effective fixing of pipes, hoses, cables. Elongated fixing slot for size adjustment. Can be fixed with M4 screw or 4mm rivet.

PACKS OF TEN

- 3mm #P3NY £1.00 (£1.20 inc vat)
- 4.8mm #P48NY £1.00 (£1.20 inc vat)
- 6mm #P6NY £1.25 (£1.50 inc vat)
- 9mm #P9NY £1.40 (£1.68 inc vat)
- 12mm #P12NY £1.75 (£2.10 inc vat)
- 19mm #P19NY £2.35 (£2.82 inc vat)
- 25mm #P25NY £3.00 (£3.60 inc vat)

Value pack!! 10 of each size (60 clips)
4.8mm 6mm 9mm 12mm 19mm 25mm
#VALUP £10 (£12 inc vat)



BRASS 'P' CLIPS Pure brass for that Classic look. All 11mm wide with a 5.2mm mounting hole. Packs of 5.

- For 4.8mm tube. 0.5mm thick material. #P48BR £3 Pack of 5 (£3.60 inc vat)
- For 6mm tube. 0.5mm thick material. #P6BR £3 Pack of 5 (£3.60 inc vat)
- For 8mm tube. 0.7mm thick material. #P8BR £3 Pack of 5 (£3.60 inc vat)
- For 9.5mm tube. 0.7mm thick material. #P9BR £3.20 Pack of 5 (£3.84 inc vat)
- For 12.7mm tube. 0.7mm thick material. #P12BR £3.40 Pack of 5 (£4.08 inc vat)
- For 16mm tube. 0.7mm thick material. #P16BR £3.60 Pack of 5 (£4.32 inc vat)
- For 19mm tube. 0.9mm thick material. #P19BR £3.80 Pack of 5 (£4.56 inc vat)
- For 25mm tube. 0.9mm thick material. #P25BR £5 Pack of 5 (£6 inc vat)



VINTAGE STYLE UNLINED WIDE STAINLESS 'P' CLIPS. Packs of 5

Made from 0.5mm stainless steel. 6.5mm hole. 16mm wide. Flared edge for maximum cable protection.

- 5mm #VSSP5 £4 pack of 5 (£4.80 inc vat)
- 6mm #VSSP6 £4 pack of 5 (£4.80 inc vat)
- 8mm #VSSP8 £4 pack of 5 (£4.80 inc vat)
- 10mm #VSSP10 £4 pack of 5 (£4.80 inc vat)
- 12mm #VSSP12 £4 pack of 5 (£4.80 inc vat)
- 16mm #VSSP16 £4.75 pack of 5 (£5.70 inc vat)
- 20mm #VSSP20 £6 pack of 5 (£7.20 inc vat)
- 25mm #VSSP25 £7 pack of 5 (£8.40 inc vat)



RUBBER CLIP LINER 16mm x 5mm with an internal slot 12.3mm x 1.3mm. SOLD PER METRE
#TRMPL
£3 (£3.60 inc vat)



ANODISED ALUMINIUM 'P' CLIPS

If you're after the ultimate in weight reduction or just need to colour match other engine bay fixings these Aluminium 'P' clips could be for you. Made from lightweight aluminium and anodised in either Red, Blue or Natural finish, they have the same rubber liner as our stainless and zinc-plated 'P' clips. Width of aluminium band 13mm. Hole size 5.3mm. SOLD INDIVIDUALLY

| ALUMINIUM 'P' CLIPS All prices + vat | | | | |
|--------------------------------------|------------|--------------|------------------|---------------|
| CLOSED DIAMETER IN MM | PRICE EACH | RED PART NO: | NATURAL PART NO: | BLUE PART NO: |
| 5 (3/16") | £2.30 | #ALP5R | #ALP5N | #ALP5B |
| 6.5 (1/4") | £2.30 | #ALP6R | #ALP6N | #ALP6B |
| 8 (5/16") | £2.30 | #ALP8R | #ALP8N | #ALP8B |
| 9.5 (3/8") | £2.30 | #ALP9R | #ALP9N | #ALP9B |
| 11 (7/16") | £2.30 | #ALP11R | #ALP11N | #ALP11B |
| 12.5 (1/2") | £2.50 | #ALP12R | #ALP12N | #ALP12B |
| 16 (5/8") | £2.50 | #ALP16R | #ALP16N | #ALP16B |
| 19 (3/4") | £2.50 | #ALP19R | #ALP19N | #ALP19B |
| 25 (1") | £2.50 | #ALP25R | #ALP25N | #ALP25B |



STAINLESS SADDLE CLAMPS Great for securing cables, wiring and small hoses to panels and chassis tubes. Simple, low-profile, corrosion-free mounting. Bright polished finish. All with 6.5mm mounting hole.

- 6mm #SAD6 £3.80 pk of 5 (£4.56 inc vat)
- 8mm #SAD8 £4 pk of 5 (£4.80 inc vat)
- 10mm #SAD10 £4.25 pk of 5 (£5.10 inc vat)
- 12mm #SAD12 £4.60 pk of 5 (£5.52 inc vat)

Value pack!! 5 of each size (20 clips)
#SADPAK £15 (£18 inc vat)



3/16" STAINLESS SADDLE CLAMP PACK of 12 Heavy duty. Made from 2mm thick stainless. Great for securing brake pipes. 5.2mm mounting hole and an M5 x 12mm stainless button head screw. Size 23mm x 13mm
#SAD316 £4.50 pk of 12 (£5.40 inc vat)



3/16" DOUBLE STAINLESS SADDLE CLAMP PACK of 12 Heavy duty. Made from 2mm thick stainless. Great for securing brake pipes. 5.2mm mounting hole and an M5 x 12mm stainless button head screw. Size 38mm x 13mm.
#SAD316D £6 pk of 12 (£7.20 inc vat)



CBS BUILDER'S TIP

Double pipe 'P' clips are becoming difficult to source so here's how you can make your own. In this example we're reshaping one 19mm stainless 'P' clip to secure two, side-by-side 13mm diameter tubes or hoses.



Finding the right size 'P' clip for other sizes of hose or tube may need some trial and error.



Find two bolts of the same diameter as your intended hoses or pipes and clamp them, inside the 'P' clip, in a vice with soft jaws as in the picture below. The clip will flatten around the bolts as the vice is tightened. Use a big flat-blade screwdriver in the corner of the angled mounting hole to 'push' and reshape the angled tang parallel to the other one.



WIRE ROPE 2.1mm diameter plated steel multi-strand cable ideal for door-pulls, retaining and restraining.
#WROPE2 £1.50 per metre (£1.80 inc vat)



WIRE / CABLE CLAMP Plated steel clamps for joining heavy, steel cable or wire.



For two cables up to 4mm diameter.
M4 threads.
#WC4 £0.50
 (£0.60 inc vat)



For two cables up to 5mm diameter.
M5 threads.
#WC5 £0.50
 (£0.60 inc vat)



For two cables up to 6mm diameter.
M5 threads.
#WC6 £0.50
 (£0.60 inc vat)



For two cables up to 8mm diameter.
M6 threads.
#WC8 £0.60
 (£0.72 inc vat)



For two cables up to 10mm diameter.
M8 threads.
#WC10 £0.75
 (£0.90 inc vat)



HOSE FINISHERS

HOSE FINISHERS Anodised aluminium with self-contained, hidden all-stainless hose clamps. Neatly hides the cut end of the hose and smartens up your engine bay. Sizes available for 12mm to 48mm diameter hoses.



| COLOUR | INSIDE DIAMETER | PART NO: | PRICE |
|----------------------|-------------------|----------|-----------------------|
| SILVER | 48.9mm | #HFS49 | £12 (£14.40 inc vat) |
| SILVER | 44.5mm | #HFS44 | £11 (£13.20 inc vat) |
| SILVER N.B. ROUND | 40.5mm NOT HEX | #HFS37 | £10 (£12 inc vat) |
| SILVER | 30.5mm | #HFS30 | £8 (£9.60 inc vat) |
| SILVER | 25mm | #HFS25 | £6 (£7.20 inc vat) |
| SILVER | 21mm | #HFS21 | £5.50 (£6.60 inc vat) |
| SILVER | 17.5mm | #HFS17 | £5 (£6 inc vat) |
| SILVER | 16mm | #HFS16 | £4.50 (£5.40 inc vat) |
| SILVER | 12.8mm | #HFS12 | £4 (£4.80 inc vat) |
| RED | 48.9mm | #HFR49 | £12 (£14.40 inc vat) |
| RED | 44.5mm | #HFR44 | £11 (£13.20 inc vat) |
| RED N.B. ROUND | 40.5mm NOT HEX | #HFR37 | £10 (£12 inc vat) |
| RED | 30.5mm | #HFR30 | £8 (£9.60 inc vat) |
| RED | 25mm | #HFR25 | £6 (£7.20 inc vat) |
| RED | 21mm | #HFR21 | £5.50 (£6.60 inc vat) |
| RED | 17.5mm | #HFR17 | £5 (£6 inc vat) |
| RED | 16mm | #HFR16 | £4.50 (£5.40 inc vat) |
| RED | 12.8mm | #HFR12 | £4 (£4.80 inc vat) |
| BLACK | 48.9mm | #HFB49 | £12 (£14.40 inc vat) |
| BLACK | 44.5mm | #HFB44 | £11 (£13.20 inc vat) |
| BLACK N.B. ROUND | 40.5mm NOT HEX | #HFB37 | £10 (£12 inc vat) |
| BLACK | 30.5mm | #HFB30 | £8 (£9.60 inc vat) |
| BLACK | 25mm | #HFB25 | £6 (£7.20 inc vat) |
| BLACK | 21mm | #HFB21 | £5.50 (£6.60 inc vat) |
| BLACK | 17.5mm | #HFB17 | £5 (£6 inc vat) |
| BLACK | 16mm | #HFB16 | £4.50 (£5.40 inc vat) |
| BLACK | 12.8mm | #HFB12 | £4 (£4.80 inc vat) |
| BLUE | 48.9mm | #HFU49 | £12 (£14.40 inc vat) |
| BLUE | 44.5mm | #HFU44 | £11 (£13.20 inc vat) |
| BLUE N.B. ROUND | 40.5mm NOT HEX | #HFU37 | £10 (£12 inc vat) |
| BLUE | 30.5mm | #HFU30 | £8 (£9.60 inc vat) |
| BLUE | 25mm | #HFU25 | £6 (£7.20 inc vat) |
| BLUE | 21mm | #HFU21 | £5.50 (£6.60 inc vat) |
| BLUE | 17.5mm | #HFU17 | £5 (£6 inc vat) |
| BLUE | 16mm | #HFU16 | £4.50 (£5.40 inc vat) |
| BLUE | 12.8mm | #HFU12 | £4 (£4.80 inc vat) |

7mm BRAKE HOSE SEPARATORS

Moulded nylon clips for securing two 7mm diameter braided brake pipes side by side. NOTE: These clips only clip two pipes together. There is no fixing hole.

#PS77 £3 Pack of 10 (£3.60 inc vat)



8mm FUEL PIPE

CLIPS For one 8mm (5/16") Copper, Nylon or Steel pipe. Press into a 8mm (5/16") hole.

#BPC8 £5 pack of 5 (£6 inc vat)



5mm PIPE SEPARATORS Moulded nylon pipe clips for securing two 5mm (3/16") brake pipes or the like side by side. Size: 18mm x 10mm x 11mm. NOTE: These are not for securing pipes to a chassis - they are just separators.

#PS55 £2.50 Pack of 10 (£3 inc vat)



ANODISED ALUMINIUM CABLE OR HOSE SEPARATORS For tidying and separating electrical or HT cables, pipes, hoses or control cables. Weight 12 gms.

2 WAY 8mm SILVER

#CSEP28S £5 each (£6 inc vat)



2 WAY 8mm RED

#CSEP28R £5 each (£6 inc vat)



2 WAY 8mm BLUE

#CSEP28BU £5 each (£6 inc vat)



3 WAY 8mm GUNMETAL

#CSEP38G £6.50 each (£7.80 inc vat)



4 WAY 8mm GUNMETAL

#CSEP48G £8 each (£9.60 inc vat)



6mm PIPE SEPARATORS Moulded nylon pipe clips for securing two 6mm (1/4") copper fuel pipes or the like side by side. Size: 28mm x 10mm x 11mm.

NOTE: These are not for securing pipes to a chassis - they are just separators..

#PS66 £2.50 Pack of 10 (£3 inc vat)



NUTS BOLTS & WASHERS

ALL SOLD IN PACKS OF 10

UNLESS OTHERWISE STATED

STAINLESS HEX HEAD Packs of 10

| | | |
|--------------------|------------|-----------------|
| M4 x 25 #M425HEX | £2.30 | (£2.76 inc vat) |
| M5 x 25 #M525HEX | £2.50 | (£3 inc vat) |
| M5 x 50 #M550HEX | £3 | (£3.60 inc vat) |
| M6 x 20 #M620HEX | £3.00 | (£3.60 inc vat) |
| M6 x 25 #M625HEX | £3.00 | (£3.60 inc vat) |
| M6 x 30 #M625HEX | £3.00 | (£3.60 inc vat) |
| M6 x 40 #M640HEX | £3.50 | (£4.20 inc vat) |
| M6 x 50 #M650HEX | £4.30 | (£5.16 inc vat) |
| M8 x 25 #M825HEX | £5.20 | (£6.24 inc vat) |
| M8 x 50 #M850HEX | £6.50 | (£7.80 inc vat) |
| M10 x 70 #M1070HEX | £1.32 each | (£1.58 inc vat) |



PACKS OF 10

STAINLESS SOCKET CAP

| | | |
|------------------|-------|-----------------|
| M4 x 16 #M416SKT | £3.00 | (£3.60 inc vat) |
| M4 x 20 #M420SKT | £3.00 | (£3.60 inc vat) |
| M4 x 25 #M425SKT | £3.00 | (£3.60 inc vat) |
| M5 x 20 #M520SKT | £3.20 | (£3.84 inc vat) |
| M5 x 25 #M525SKT | £3.20 | (£3.84 inc vat) |
| M6 x 20 #M620SKT | £3.00 | (£3.60 inc vat) |
| M6 x 25 #M625SKT | £3.00 | (£3.60 inc vat) |
| M6 x 35 #M635SKT | £3.50 | (£4.20 inc vat) |
| M8 x 25 #M825SKT | £3.50 | (£4.20 inc vat) |
| M8 x 45 #M845SKT | £4 | (£4.80 inc vat) |



PACKS OF 10

STAINLESS PAN HEAD POZIDRIVE

| | | |
|---------------------|-------|-----------------|
| M3 x 25 #M325PANPOZ | £3 | (£3.60 inc vat) |
| M4 x 7 #M47PANPOZ | £2 | (£2.40 inc vat) |
| M4 x 10 #M410PANPOZ | £2 | (£2.40 inc vat) |
| M4 x 16 #M416PANPOZ | £2.20 | (£2.64 inc vat) |
| M4 x 20 #M420PANPOZ | £2.30 | (£2.76 inc vat) |
| M4 x 25 #M425PANPOZ | £3 | (£3.60 inc vat) |



PACKS OF 10

XTREME THREAD LOCKER 50ml

High strength for locking studs, bolts, bushes or fasteners. Seals and retains bearings, core plugs, rocker arm and cylinder block studs preventing leakage and corrosion of threads. Two strengths - Removable and Permanent.

NOTE: FOR FULL STRENGTH COMPONENTS MUST BE DE-GREASED, CLEAN AND DRY

REMOVABLE #XTLREM £7.50 (£9 inc vat)

PERMANENT #XTLPER £7.50 (£9 inc vat)



STAINLESS COUNTERSUNK SOCKET HEAD SCREWS

| | | |
|------------------|-------|-----------------|
| M3 x 10 #M310CSK | £2 | (£2.40 inc vat) |
| M3 x 20 #M320CSK | £2.50 | (£3 inc vat) |
| M4 x 16 #M416CSK | £2 | (£2.40 inc vat) |
| M4 x 20 #M420CSK | £2.30 | (£2.76 inc vat) |
| M4 x 25 #M425CSK | £2.30 | (£2.76 inc vat) |
| M4 x 50 #M450CSK | £3.50 | (£4.20 inc vat) |
| M5 x 16 #M516CSK | £2.30 | (£2.76 inc vat) |
| M5 x 25 #M525CSK | £2.50 | (£3 inc vat) |
| M5 x 50 #M550CSK | £3 | (£3.60 inc vat) |
| M6 x 25 #M625CSK | £3.50 | (£4.20 inc vat) |
| M6 x 30 #M630CSK | £3.50 | (£4.20 inc vat) |
| M6 x 35 #M635CSK | £3 | (£3.60 inc vat) |
| M8 x 40 #M840CSK | £4 | (£4.80 inc vat) |



PACKS OF 10

STAINLESS BUTTON HEAD HEX DRIVE

| | | |
|--------------------|-------|-----------------|
| M4 x 12 #M412BUT | £3 | (£3.60 inc vat) |
| M4 x 16 #M416BUT | £3 | (£3.60 inc vat) |
| M4 x 20 #M420BUT | £3 | (£3.60 inc vat) |
| M4 x 25 #M425BUT | £3 | (£3.60 inc vat) |
| M5 x 16 #M516BUT | £3.25 | (£3.90 inc vat) |
| M5 x 20 #M520BUT | £3.25 | (£3.90 inc vat) |
| M5 x 25 #M525BUT | £3.25 | (£3.90 inc vat) |
| M6 x 20 #M620BUT | £3.50 | (£4.20 inc vat) |
| M6 x 25 #M625BUT | £3.50 | (£4.20 inc vat) |
| M6 x 35 #M635BUT | £3.75 | (£4.50 inc vat) |
| M8 x 25 #M825BUT | £4 | (£4.80 inc vat) |
| M8 x 40 #M840BUT | £5 | (£6 inc vat) |
| M10 x 50 #M1050BUT | £6.50 | (£7.80 inc vat) |



PACKS OF 10

STAINLESS COUNTERSUNK HEAD POZIDRIVE SCREWS

| | | |
|---------------------|-------|-----------------|
| M4 x 16 #M416CSKPOZ | £2.20 | (£2.64 inc vat) |
|---------------------|-------|-----------------|



PACKS OF 10

STAINLESS STEEL STUDDING

330mm LENGTHS OF METRIC

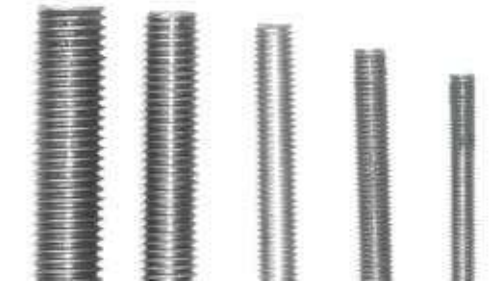
| THREADED STAINLESS ROD | | METRIC |
|------------------------|----------|-----------------------|
| M3 x .5 | #M3STUD | £2.50 (£3 inc vat) |
| M4 x .7 | #M4STUD | £2 (£2.40 inc vat) |
| M5 x .8 | #M5STUD | £2.50 (£3 inc vat) |
| M6 x 1 | #M6STUD | £3 (£3.60 inc vat) |
| M8 x 1.25 | #M8STUD | £3.50 (£4.20 inc vat) |
| M10 x 1.5 | #M10STUD | £4 (£4.80 inc vat) |
| M12 x 1.75 | #M12STUD | £5 (£6 inc vat) |

ONE METRE LENGTHS ALSO AVAILABLE

300mm (1ft) LENGTHS OF UNF

| THREADED STAINLESS ROD | | UNF. |
|------------------------|-----------|--------------------|
| 1/4" UNF | #14USTUD | £4 (£4.80 inc vat) |
| 5/16" UNF | #516USTUD | £5 (£6 inc vat) |
| 3/8" UNF | #38USTUD | £6 (£7.20 inc vat) |
| 7/16" UNF | #716USTUD | £7 (£8.40 inc vat) |
| 1/2" UNF | #12USTUD | £8 (£9.60 inc vat) |

ONE YARD LENGTHS ALSO AVAILABLE



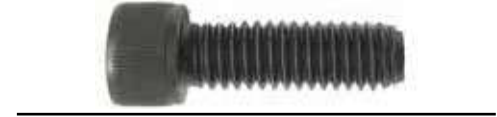
5/16" UNF HIGH TENSILE BOLT AND NYLOC NUT SAE Grade 5. 1 3/4" long. un-threaded section - 3/4"

#516UNFBN £1.50 (£1.80 inc vat)



5/16" UNC x 1" LONG HIGH TENSILE SOCKET HEAD BOLT

#516UNCSKT £1 each (£1.20 inc vat)



7/16" UNF HIGH TENSILE SET SCREW

Suitable for Seat Belt Fixing. Grade 5. Bright plated. 5/8" A/F hex.

1 1/4" #716114HEX £1 each (£1.20 inc vat)

2" #7162HEX £1.10 each (£1.32 inc vat)

NUT #716ZNUT £0.25 each (£0.30 inc vat)



THREAD GAUGE IMPERIAL AND METRIC

Identify male and female threads with this handy gauge. 52 individual leaves for measuring 4 to 62 threads per inch and 0.25mm to 6mm pitch.

#THREADGA £5 (£6 inc vat)



METRIC STAINLESS NYLOC NUTS

- M3 **#M3NYL** £1 (£1.20 inc vat)
- M4 **#M4NYL** £1 (£1.20 inc vat)
- M5 **#M5NYL** £1 (£1.20 inc vat)
- M6 **#M6NYL** £1.40 (£1.68 inc vat)
- M8 **#M8NYL** £3.50 (£4.20 inc vat)
- M10 **#M10NYL** £5.50 (£6.60 inc vat)

PACKS OF 10



METRIC STAINLESS PLAIN FULL NUTS

- M3 **#M3NUT** £0.50 (£0.60 inc vat)
- M4 **#M4NUT** £0.50 (£0.60 inc vat)
- M5 **#M5NUT** £0.50 (£0.60 inc vat)
- M6 **#M6NUT** £0.60 (£0.72 inc vat)
- M8 **#M8NUT** £1.20 (£1.44 inc vat)
- M10 **#M10NUT** £2.80 (£3.36 inc vat)
- M12 **#M12NUT** £4 (£4.80 inc vat)

PACKS OF 10



LEFT HAND THREAD STAINLESS PLAIN FULL NUTS

- M6 **#LHM6NUT** £1 each (£1.20 inc vat)
- M8 **#LHM8NUT** £1.25 each (£1.50 inc vat)
- M10 **#LHM10NUT** £1.50 each (£1.80 inc vat)
- M12 **#LHM12NUT** £2 each (£2.40 inc vat)
- 3/8" UNF **#LH38NUT** £1.30 each (£1.20 inc vat)
- 1/2" UNF **#LH12NUT** £1.50 each (£1.50 inc vat)



SOLD SINGLY

METRIC FINE STAINLESS NUTS

- M10 x 1 HALF NUT **#M10X1HALFNUT** £0.50 each (£0.60 inc vat)
- M10 x 1.25 FULL NUT **#M10X125NUT** £0.50 each (£0.60 inc vat)



SOLD SINGLY

METRIC STAINLESS HALF NUTS

- M6 **#M6HALF** £0.40 each (£0.48 inc vat)
- M8 **#M8HALF** £0.50 each (£0.60 inc vat)
- M10 **#M10HALF** £0.60 each (£0.72 inc vat)
- M12 **#M12HALF** £0.80 each (£0.96 inc vat)

LEFT HAND THREAD METRIC HALF NUTS

- M6 **#M6HALFLH** £0.40 each (£0.48 inc vat)
- M8 **#M8HALFLH** £0.50 each (£0.60 inc vat)
- M10 **#M10HALFLH** £0.60 each (£0.72 inc vat)
- M12 **#M12HALFLH** £0.80 each (£0.96 inc vat)



SOLD SINGLY

**HELP YOURSELF AND US
MEASURE
CAREFULLY**

UNF STAINLESS FULL NUTS Packs of 10

- 10-32 UNF **#1032UNFNUT** £1.50 (£1.80 inc vat)
- 1/4" UNF **#14UNFNUT** £2 (£2.40 inc vat)
- 5/16" UNF **#516UNFNUT** £2.50 (£3 inc vat)
- 3/8" UNF **#38UNFNUT** £3 (£3.60 inc vat)
- 7/16" UNF **#716UNFNUT** £5 (£6 inc vat)
- 1/2" UNF **#12UNFNUT** £6 (£7.20 inc vat)
- 5/8" UNF **#RH58NUT** £1.70 each (£2.04 inc vat)

PACKS OF 10



UNF HALF NUTS ZINC PLATED

SOLD SINGLY

- 1/4" UNF **#14HALF** £0.40 (£0.48 inc vat)
- 5/16" UNF **#516HALF** £0.60 (£0.72 inc vat)
- 3/8" UNF **#38HALF** £0.70 (£0.84 inc vat)
- 1/2" UNF **#12HALF** £1 (£1.20 inc vat)
- 7/16" UNF **#716HALF** £1.50 (£1.80 inc vat)



SOLD SINGLY

STAINLESS ACORN NUTS Packs of 10

Nicely machined Acorn nuts for finishing those unsightly threads in dressed-up areas. Already slightly polished but can be finished like chrome with a little elbow grease.

- M4 (7mm Hex) **#ACORN4** £2.50 (£3 inc vat)
- M5 (8mm Hex) **#ACORN5** £3 (£3.60 inc vat)
- M6 (10mm Hex) **#ACORN6** £3.50 (£4.20 inc vat)
- M8 (13mm Hex) **#ACORN8** £4 (£4.80 inc vat)
- M10 (17mm Hex) **#ACORN10** £4.50 (£5.40 inc vat)

PACKS OF 10



METRIC STAINLESS WING NUTS Pack of 10

- M4 **#M4WING** £4 (£4.80 inc vat)
- M5 **#M5WING** £5 (£6 inc vat)
- M6 **#M6WING** £6 (£7.20 inc vat)
- M8 **#M8WING** £7 (£8.40 inc vat)

PACKS OF 10



METRIC STAINLESS FLANGE NUTS

These nuts have an integral, serrated washer that helps prevent them becoming loose.

- M3 **#M3FLAN** £1 (£1.20 inc vat)
- M4 **#M4FLAN** £1 (£1.20 inc vat)
- M5 **#M5FLAN** £1 (£1.20 inc vat)
- M6 **#M6FLAN** £1.40 (£1.68 inc vat)
- M8 **#M8FLAN** £2 (£2.40 inc vat)

PACKS OF 10



BRASS HALF NUTS 5mm thick. 7/16" Hex.

- M10 x 1 **#BHM10** £1 each (£1.20 inc vat)
- 3/8" UNF **#BHN38** £1 each (£1.20 inc vat)



LARGE DIAMETER STAINLESS WASHER

- M4 (12mm dia.) **#M4WASL12** £0.50 (£0.60 inc vat)
- M4 (15mm dia.) **#M4WASL15** £0.55 (£0.66 inc vat)
- M5 (12mm dia.) **#M5WASL12** £0.55 (£0.66 inc vat)
- M5 (25mm dia.) **#M5WASL** £0.60 (£0.72 inc vat)
- M6 (25mm dia.) **#M6WASL** £1 (£1.20 inc vat)
- M8 (30mm dia.) **#M8WASL** £1.25 (£1.50 inc vat)



PACKS OF 10

PLAIN STAINLESS WASHER Packs of 10

- M3 (7mm dia.) **#M3WAS** £0.25 (£0.30 inc vat)
- M4 (9mm dia.) **#M4WAS** £0.30 (£0.36 inc vat)
- M5 (10mm dia.) **#M5WAS** £0.35 (£0.43 inc vat)
- M6 (12mm dia.) **#M6WAS** £0.40 (£0.48 inc vat)
- M8 (17mm dia.) **#M8WAS** £0.60 (£0.72 inc vat)
- M10 (21mm dia.) **#M10WAS** £0.80 (£0.96 inc vat)



PACKS OF 10

STAINLESS SPRING WASHERS Packs of 10

- M4 **#M4WASSPR** £0.30 (£0.36 inc vat)
- M5 **#M5WASSPR** £0.35 (£0.42 inc vat)
- M6 **#M6WASSPR** £0.40 (£0.48 inc vat)
- M8 **#M8WASSPR** £0.60 (£0.72 inc vat)
- M10 **#M10WASSPR** £0.80 (£0.96 inc vat)

PACKS OF 10



STAINLESS SHAKE-PROOF WASHER

- M4 **#M4SHK** £0.30 (£0.36 inc vat)
- M5 **#M5SHK** £0.35 (£0.43 inc vat)
- M6 **#M6SHK** £0.40 (£0.48 inc vat)
- M8 **#M8SHK** £0.60 (£0.72 inc vat)
- M10 **#M10SHK** £0.80 (£0.96 inc vat)

PACKS OF 10



STAINLESS RAISED SCREW CUPS

These pressed, bright stainless steel, raised screw cups will accept a countersunk screw to give you a neat, load-spreading fixing when, maybe, you can't countersink your thin panel below. Sold in packs of 10.

FOR M3 CSK. SCREW 11mm dia. 2.3mm high.

#RSCRC3 £2 pack of 10 (£2.40 inc vat)

FOR M4 CSK. SCREW 13mm dia. 2.6mm high.

#RSCRC4 £2 pack of 10 (£2.40 inc vat)

FOR M5 CSK. SCREW 15mm dia. 2.7mm high.

#RSCRC5 £2.50 pack of 10 (£3 inc vat)

FOR M6 CSK. SCREW 17mm dia. 3.3mm high.

#RSCRC6 £2.50 pack of 10 (£3 inc vat)



STAINLESS LARGE FLANGE COUNTERSUNK SCREW CUPS

A great way to fix through GRP, Acrylic, Wood, Aluminium etc. Simply drill and countersink your panel then use our screw cup under the head of a countersunk screw. Result - an almost flush, neat, fixing that spreads the load, reduces the risk of cracking and hides unpainted and untidy countersinks.

M3 (12.8mm dia.)

#SCRCL3 £2 pack of 10 (£2.40 inc vat)

M4 (14.2mm dia.)

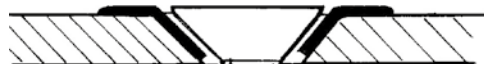
#SCRCL4 £2.50 pack of 10 (£3 inc vat)

M5 (19mm dia.)

#SCRCL5 £2.75 pack of 10 (£3.30 inc vat)



This item is explained on our **YouTube** channel



PACKS OF 10

M3, M4 and M5 STAINLESS STEEL



COUNTERSINK / DEBURRING TOOL

3 piece hand de-burr tool. Three bits and tough polypropylene handle.

#DEBUR3PC £5 (£6 inc vat)



NUMBER PLATE FIXINGS

#NPSY Yellow washer with cap and screw.

#NPSW White washer with cap and screw.

#NPSB Black washer with cap and screw.

#NPBY Yellow nylon bolt with nut.

#NPBW White nylon bolt with nut.

#NPBB Black nylon bolt with nut.

All £2.50 pack of 5 (£3 inc vat)



BLACK SELF-TAPPING SCREWS

No.6 x 1/2" (3.5mm dia) #612BKST

No.6 x 3/4" (3.5mm dia) #634BKST

No.8 x 1/2" (4.1 mm dia) #812BKST

No.8 x 3/4" (4.1 mm dia) #834BKST

No.10 x 1/2" (4.7 mm dia) #1012BKST

No.10 x 3/4" (4.7 mm dia) #1034BKST

All £2.50 (£3 inc vat)

ALL ARE FLANGED DOME HEAD POZI SOLD IN PACKS OF 50



STAINLESS SELF-TAPPERS Pack of 100

No.6 x 16mm Dome Head Pozi (3.4mm dia)

#NO6DHST £5 (£6 inc vat)

No.8 x 19mm Dome Head Pozi (4 mm dia)

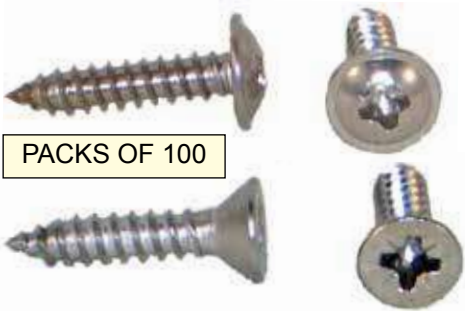
#NO8DHST £7.50 (£9 inc vat)

No.6 x 16mm Countersunk Pozi (3.4mm dia)

#NO6CSKST £5 (£6 inc vat)

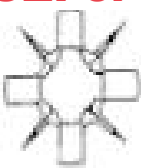
No.8 x 19mm Countersunk Pozi (4 mm dia)

#NO8CSKST £7.50 (£9 inc vat)

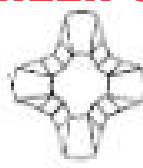


PACKS OF 100

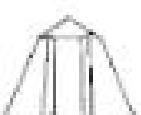
POZI or PHILLIPS?



POZIDRIV



PHILLIPS



EYEBOLT M12 Forged steel collared eyebolt. 14.5mm hole size. M12 x 1.75 thread x 20mm long. Self colour finish. Manufactured to BS4278. Material BS970 080A27. Grade 8 full nut.

#EYEBOLTM12 £2.50 (£3 inc vat)



EYEBOLT 7/16" UNF Strong, forged eyebolt. Heavy gold colour plating. 7/16" UNF thread 15.4mm hole in eyebolt. 22mm long thread.

#EB71622 £3 each (£3.60 inc vat)

32mm long thread.

#EB71632 £4 each (£4.80 inc vat)

48mm long thread.

#EB71648 £4 each (£4.80 inc vat)



BLACK NYLON HEX HEAD SCREWS

Made from nylon PA-66 DIN 976

M5 x 20 #M5X20NY £2.50 (£3 inc vat)

M6 x 30 #M6X30NY £3.20 (£3.84 inc vat)

M8 x 40 #M8X40NY £5.50 (£6.60 inc vat)

M10 x 50 #M10X50NY £1.50 each (£1.80 inc vat)

PACKS OF 10



BLACK NYLON PLAIN NUTS

Made from nylon PA-66 DIN 976

M5 #M5NYN £1.50 (£3.80 inc vat)

M6 #M6NYN £1.75 (£2.10 inc vat)

M8 #M8NYN £2 (£2.40 inc vat)

M10 #M10NYN £4 (£4.80 inc vat)

PACKS OF 10



SOFT PVC PLASTIC WASHERS

5mm x 15 dia. x 1.5mm thick

#M5PLW £1 pk of 10 (£1.20 inc vat)

6mm x 18 dia x 2mm thick

#M6PLW £1.20 pk of 10 (£1.44 inc vat)

8mm x 25 dia x 2.5mm thick

#M8PLW £1.80 pk of 10 (£2.16 inc vat)

10mm x 25 dia x 3mm thick

#M10PLW £3 pk of 10 (£3.60 inc vat)

PACKS OF 10



NUT PLATES Widely used in the Aircraft Industry, Nut Plates offer a nice alternative to rivnuts and other captive nut systems. For fixing two panels together or for making a permanent, retained thread in thin sheet metal. Just secure the plated-steel, Nut Plate to the underside of the panel with two countersunk rivets, drill a clearance hole for the screw and it's done. Perfect panel alignment every time. The Nut Plate threaded section is slightly deformed to provide a 'locking' grip on your screw. Available in M3, M4, M5, M6 and M8 threads. Sold in Packs of 5.



M3 NUT PLATES Pack of 5

Size 17mm x 5.8mm.

Two 2.4mm holes at 12mm centres.

M3 #NPLT3 £12 Pack of 5 (£14.40 inc vat)

M4 NUT PLATES Pack of 5

Size 23mm x 8mm.

Two 2.4mm holes at 17mm centres.

M4 #NPLT4 £8.50 Pack of 5 (£10.20 inc vat)

M5 NUT PLATES Pack of 5

Size 25mm x 9mm.

Two 2.4mm holes at 19mm centres.

M5 #NPLT5 £8.50 Pack of 5 (£10.20 inc vat)

M6 NUT PLATES Pack of 5

Size 29mm x 5.8mm.

Two 3mm holes at 22mm centres.

M6 #NPLT6 £8.50 Pack of 5 (£10.20 inc vat)

M8 NUT PLATES Pack of 5

Size 33mm x 12.5mm.

Two 3.5mm holes at 26mm centres.

M8 #NPLT8 £20 Pack of 5 (£24 inc vat)



2.4mm DIAMETER DOME HEAD POP RIVETS Pack of 50

Aluminium rivet 10mm long with steel shaft
#RVT24D £2 Pack of 50 (£2.40 inc vat)



COUNTERSINK / DEBURRING TOOL

3 piece hand de-burr tool. Three bits and tough polypropylene handle.

#DEBUR3PC £5 (£6 inc vat)



DIGITAL CALIPER STAINLESS STEEL

This essential tool box item will measure from 0 to 150mm has an accuracy of 0.02 mm (half a thousandth of an inch) and an easy to read LCD display. You can switch from Metric to Imperial with the press of a button and set the readout to zero anywhere on the scale. Supplied in a hard plastic case.
#DIGICAL £22 (£26.40 inc vat)



This item is explained on our YouTube channel



CHECK OUT OUR VIDEO ON IDENTIFYING THREADS

Just type **CAR BUILDER SOLUTIONS** in the YouTube search box



BIG HEAD STUD FIXINGS All stainless steel. A tried-and-tested way to add fixing studs between the laminates of glassfibre. Just bond these into the mat and resin of your GRP panels for a low-profile mounting stud. All have a 23mm diameter plate with a threaded stud electro-welded to it.

Three sizes: Packs of 5

M4 x 20mm #BIGH4 £7.50 for 5 (£9 inc vat)

M5 x 20mm #BIGH5 £8 for 5 (£9.60 inc vat)

M6 x 25mm #BIGH6 £8.50 for 5 (£10.20 inc vat)



BIG HEAD NUT FIXINGS All stainless steel.

A tried-and-tested way to add fixing nuts between the laminates of glassfibre. Just bond these into the mat and resin of your GRP panels for a low-profile mounting nut. All plates are 38mm x 15mm x 1.1mm thick with the nut electro-welded to it.

Three sizes: Packs of 5

M4 #CNBH4 £6 for 5 (£7.20 inc vat)



M5 #CNBH5 £6.50 for 5 (£7.80 inc vat)



M6 #CNBH6 £7 for 5 (£8.40 inc vat)



RIVETS

ALL PACKS OF 50

ALUMINIUM RIVETS All packs of 50

- 2.4 x 8mm Dome Head **#RVT24D** £2 (£2.40 inc vat)
- 3 x 10mm Countersunk **#RVT3C** £2 (£2.40 inc vat)
- 3 x 10mm Dome Head **#RVT3D** £2 (£2.40 inc vat)
- 4 x 14mm Countersunk **#RVT4C** £2 (£2.40 inc vat)
- 4 x 14mm Dome Head **#RVT4D** £2 (£2.40 inc vat)
- 5 x 14mm Countersunk **#RVT5C** £2.25 (£2.70 inc vat)
- 5 x 14mm Dome Head **#RVT5D** £2.25 (£2.70 inc vat)



ALUMINIUM BODY RIVETS

- 5 x 16mm Dome head 14mm dia.
#RVTBODY £4 pack of 50 (£4.80 inc vat)
- BLACK ALUMINIUM BODY RIVETS**
5 x 16mm Dome head 14mm dia.
#RVTBODYBK pack of 50 £5 (£6 inc vat)



BLACK ANODISED ALUMINIUM RIVETS

- 4 x 14mm Dome head
#RVT4B £3.50 pack of 50 (£4.20 inc vat)
- 4.8 x 14mm Dome head
#RVT5B £4.50 pack of 50 (£5.40 inc vat)
- 4.8 x 25mm Dome head
#RVT525B £7 pack of 50 (£8.40 inc vat)



STAINLESS STEEL RIVETS Yes - all stainless - even the shaft. An end to salt and electrolytic corrosion. Ideal for exterior cockpit panels and floor pans. Much stronger than steel or aluminium. Packs of 50

- 3 x 8mm Dome head
#RVT3S £5.00 Pk of 50 (£6 inc vat)
- 4 x 10mm Dome head
#RVT4S £6.00 Pk of 50 (£7.20 inc vat)



ALUMINIUM PEEL RIVETS

These rivets split and peel back like the petals of a flower when you pull them. Ideal for load spreading on GRP, plastic and wooden panels.

- 4 x 12mm Dome head
#RVT4P £5 pack of 50 (£6 inc vat)
- 5 x 12mm Dome head
#RVT5P £6 pack of 50 (£7.20 inc vat)
- 5 x 20mm Dome head
#RVT520P £6.50 pack of 50 (£7.80 inc vat)



WHITE ALUMINIUM RIVETS

- 4 x 14mm Dome head
#RVT4W £4.50 pack of 50 (£5.40 inc vat)
- 4.8 x 14mm Dome head
#RVT5W £5 pack of 50 (£6 inc vat)



RIVETING KIT This is a professional high quality tool that will last you a lifetime. Aluminium body with a swivel head for getting into those tight spaces. 4 interchangeable nozzles for up to 5mm (3/16") rivets. Supplied with 300 pop rivets 50 each size 3mm 4mm & 5mm countersunk and flat head.

- #RIVKIT** £22 (£25.85 inc vat)
- RIVETER AVAILABLE SEPARATELY**
#RIVTL £14 (£16.80 inc vat)



LAZY TONGUE Very nice, single pull action power riveter for fast, repetitive riveting. Diecast alloy head, steel mechanism and moulded ABS comfort grip. Five interchangeable noses included.

- #LAZY** £20 (£24 inc vat)



CLEKO FASTENER KIT (TEMPORARY RIVETS) A must have tool for perfect drilling and alignment of cockpit panels, brackets, plates - in fact anything that is fitted with rivets or screws. Includes a pair of applicator pliers and ten 1/8" (3mm) fasteners. **#CLEKO** £22 (£26.40 inc vat)

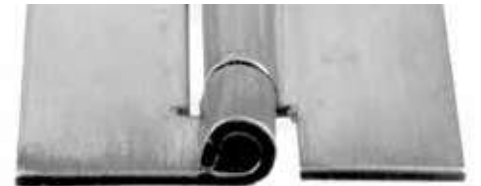
This item is explained on our **You Tube** channel



PIANO HINGE. Polished stainless steel. 26mm across opened flat. 1mm thick. 2mm pin diameter. Un-drilled.

- 600mm **#PIA6** £6.00 (£7.20 inc vat)
- 900mm **#PIA9** £8.00 (£9.60 inc vat)
- 1800mm **#PIA18** £12.50 (£15 inc vat)

NOTE: Long lengths could incur additional shipping charges



DRILLED PIANO HINGE. Polished stainless steel. 26mm across opened flat. 1mm thick. 2mm pin diameter. 4.5mm holes at 60mm centres.

- 600mm **#PIA6D** £7.50 (£7.20 inc vat)
- 900mm **#PIA9D** £10 (£9.60 inc vat)
- 1800mm **#PIA18D** £15.50 (£15 inc vat)



RIVNUTS

ALUMINIUM RIVNUTS Packs of 10

- M3 COUNTERSUNK #RN3CA £2.50 (£3 inc vat)
- M3 FLAT HEAD #RN3FA £2.50 (£3 inc vat)
- M4 COUNTERSUNK #RN4CA £2.50 (£3 inc vat)
- M4 FLAT HEAD #RN4FA £2.50 (£3 inc vat)
- M5 COUNTERSUNK #RN5CA £2.50 (£3 inc vat)
- M5 FLAT HEAD #RN5FA £2.50 (£3 inc vat)
- M6 COUNTERSUNK #RN6CA £2.50 (£3 inc vat)
- M6 FLAT HEAD #RN6FA £2.50 (£3 inc vat)
- M8 COUNTERSUNK #RN8CA £3 (£3.60 inc vat)
- M8 FLAT HEAD #RN8FA £3 (£3.60 inc vat)

CSK

FLAT HEAD



PACKS OF 10

STEEL RIVNUTS Packs of 10

- M3 COUNTERSUNK #RN3CS £2.50 (£3 inc vat)
- M3 FLAT HEAD #RN3FS £2.50 (£3 inc vat)
- M4 COUNTERSUNK #RN4CS £2.50 (£3 inc vat)
- M4 FLAT HEAD #RN4FS £2.50 (£3 inc vat)
- M5 COUNTERSUNK #RN5CS £2.50 (£3 inc vat)
- M5 FLAT HEAD #RN5FS £2.50 (£3 inc vat)
- M6 COUNTERSUNK #RN6CS £2.50 (£3 inc vat)
- M6 FLAT HEAD #RN6FS £2.50 (£3 inc vat)
- M8 COUNTERSUNK #RN8CS £3 (£3.60 inc vat)
- M8 FLAT HEAD #RN8FS £3 (£3.60 inc vat)

CSK

FLAT HEAD



STAINLESS STEEL RIVNUTS

Low profile head for flush setting. These are the best available for the ultimate build quality.

Packs of 10

- M4 #RN4SS £5 (£6 inc vat)
- M5 #RN5SS £5.50 (£6.60 inc vat)
- M6 #RN6SS £6.50 (£7.80 inc vat)



RUBBER RIVNUTS Is a flanged neoprene bushing with a captive brass nut designed to provide a shock and vibration resistant fixing for component mounting and panel assembly. This demountable blind screw anchor is suitable for applications of many kinds in many conditions, in materials from 1mm to 4mm thick. These even work well in blind holes in solid material.

SOLD IN PACKS OF 10

- Access needed from only one side
- Can be used in closed end holes
- Will not mark finished surfaces
- Helps seal out moisture
- Absorbs noise
- Electrically isolating
- Dampens vibration and shock
- Helps prevent galvanic corrosion
- Ideal for mixed material assemblies
- Resistant to weathering in outdoor conditions.

Removable and reusable

INSTRUCTIONS: Place 'Rub-Nut' insert all the way into the pre-drilled hole until the flange is firmly against the mounting surface. Pass the machine screw through the part to be fastened and tighten until snug.

M4 Thread. Drill 8mm hole
#RUBNUT4 £4 (£4.80 inc vat)

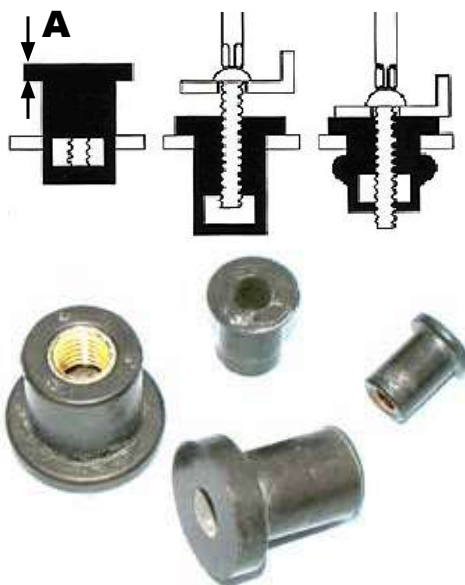
M5 Thread. Drill 10mm hole
#RUBNUT5 £4.50 (£5.40 inc vat)

M6 Thread. Drill 12.5mm hole
#RUBNUT6 £5 (£6 inc vat)

M8 Thread Drill 16mm hole
#RUBNUT8 £12 (£14.40 inc vat)

PACKS OF 10

'A' FLANGE THICKNESS
M4 - 1mm
M5 - 1mm
M6 - 4.6mm
M8 - 3mm



THREAD GAUGE IMPERIAL AND METRIC

Identify male and female threads with this handy gauge. 52 individual leaves for measuring 4 to 62 threads per inch and 0.25mm to 6mm pitch.

#THREADGA £5 (£6 inc vat)



SILICONE LUBRICANT 500ml

Great for window runners and squeaky door seals.

#SILAERO £5 (£6 inc vat)



MULTI-PURPOSE WHITE GREASE AEROSOL 500ml

Lubricates and protects almost anything that moves. Long lasting calcium-based lubricant with PTFE. Temperature range -20 deg C to +110 deg C

#AEROG £4 (£4.80 inc vat)

3-IN-ONE OIL

The original, multi-purpose tool-box oil for the home, garden and workshop. Spout nozzle for precision application. Prevents seizure, rust and corrosion. 200ml.

#3INONE £4.50 (£5.40 inc vat)



WD-40

Handy size 100ml Aerosol (165mm High). Supplied with 5" plastic nozzle extension. The classic moisture dispersant, anti-corrosion lubricant.

#WD40 £3 (£3.60 inc vat)



FIND A SELECTION OF RIVNUT TOOLS IN OUR TOOLS SECTION



SPRING STEEL SPEED CLIPS The classic fixing for trim panels, lamps etc. Two sizes: **For No.6 screws (right)** 11x16mm for up to 1.5mm thick panels.

#SC6 £7.50 pack of 100 (£9 inc vat)

For No.8 screws (left) 13x15mm for up to 2mm thick panels.

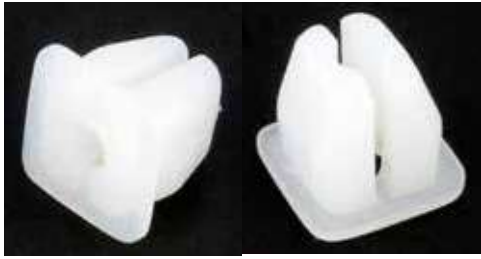
#SC8 £7.50 pack of 100 (£9 inc vat)



PACKS OF 100

NYLON SCREW GROMMET These are commonly used for trim and number plate fixings on production cars. Press into a square hole 8.5mm x 8.5mm in panels up to 4mm thick. Head size 11.5mm x 11.5mm x 1.3mm thick. Hole size 3.8mm. Pack of 25.

#NSG85 £5 pack of 25 (£6 inc vat)



HSS METRIC DRILL BIT SET

Set of 25 good quality High Speed Steel Drills. Between 1mm and 13mm in 0.5mm increments. Supplied in a handy, steel, lift-up storage tray for your work bench. Suitable for Iron, Steel, Aluminium, Wood, GRP or plastic. **#DRIL25 £12** (£14.40 inc vat)

This item is explained on our YouTube channel



METRIC SPRING STEEL SPIRE CLIPS

The classic fixing for trim panels, lamps etc. Female threads for metric screws or bolts.

Four sizes:

For M4 screws Size 10mm x 15mm for up to 3mm thick panels. Material thickness 0.6mm. Centre of thread 7mm from edge of panel.

#SCM4 £1.20 pack of 5 (£1.44 inc vat)

For M5 screws Size 14mm x 21mm for up to 4mm thick panels. Material thickness 0.6mm. Centre of thread 10mm from edge of panel.

#SCM5 £1.20 pack of 5 (£1.44 inc vat)

For M6 screws Size 15mm x 22mm for up to 5mm thick panels. Material thickness 0.8mm. Centre of thread 11mm from edge of panel.

#SCM6 £1.20 pack of 5 (£1.44 inc vat)

For M8 screws Size 17mm x 26mm for up to 5mm thick panels. Material thickness 1mm. Centre of thread 14mm from edge of panel.

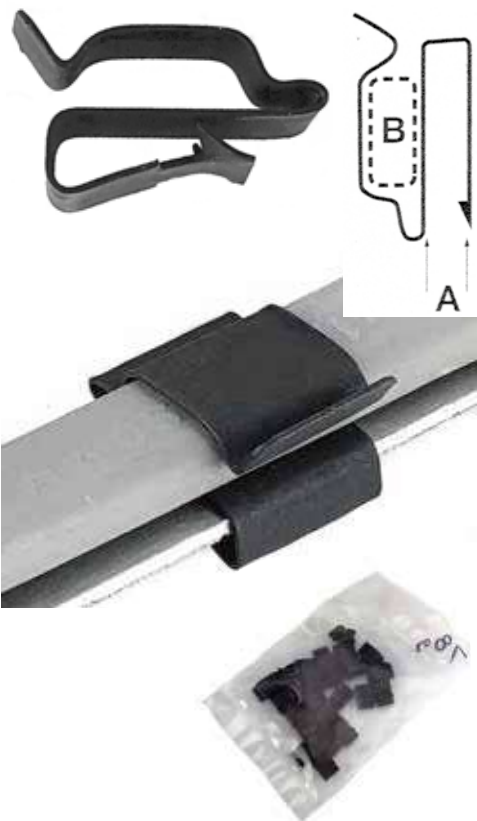
#SCM8 £1.20 pack of 5 (£1.44 inc vat)



SPRING STEEL FLAT CABLE CLIPS

For 12 x 7mm flat cables ('B') on panels 0.6mm to 4.5mm thick ('A') 13mm wide, made from 0.4mm thick material.

#SSCC127 £5.50 pk 25 (£6.60 inc vat)



SPRING STEEL CABLE CLIPS 4 SIZES

Press the barbed side of these clips on to the edge of any steel, aluminium, wood or fibreglass panel between 4mm and 7mm thick (see 'A' on diagram) for a secure, sprung holder for four sizes of pipes, tubes or cables with a round profile (see 'B' on diagram). All 14mm wide. Made from 0.55mm thickness material.

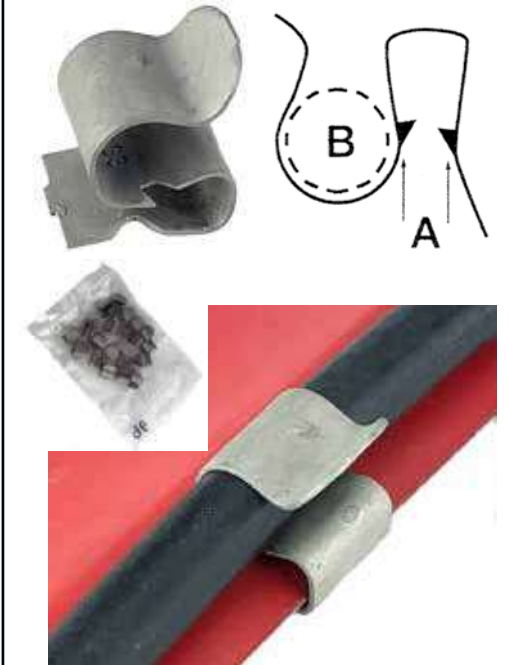
SOLD IN PACKS OF 25

6 to 7mm #SSCC67 £10 pk 25 (£12 inc vat)

8 to 9mm #SSCC89 £10 pk 25 (£12 inc vat)

10 to 11mm #SSCC1011 £11 pk 25 (£13.20 inc vat)

12 to 14mm #SSCC1214 £11 pk 25 (£13.20 inc vat)



BITZBOX

We've all seen similar storage boxes for workshop bits & pieces but this one's a bit different. It has four individual storage trays each with thirteen, lift-out compartments that will stay-put even if some are removed from the tray. Each tray slides and locks into a storage tower that has it's own carry-handle. Multiple towers can be stacked and interlocked together. The whole thing is tough enough to be used as a stool or step-stool. If you're tight on storage space it's a great solution. OK, it's not cheap but the quality is exceptional. Four of 'em have already found a home in our workshops.

Size 370mm x 270mm x 315mm high.

#BITZBOX £49 (£58.80 inc vat)



PANEL FIXING 8mm Similar panel fixing to those found in mainstream production vehicles but this two-part fixing is de-mountable. Simply insert the fixing through an 8mm hole in your two panels then press in the cross-head screw. The mushroom stem splits and expands, securing the panels.

To release the panels just undo the screw and pull out the fastener. Neat and discreet. Head diameter 15mm. Overall length 24mm Grip length 11mm.

#PANFIX £4 pack of 10 (£4.80 inc vat)



PANEL FIXING 6mm

Simply press the barbed mushroom part through a 6mm hole in your two panels then press in the cross-head screw.

Head diameter 15mm.

Overall length 26mm. Grip length 11mm.

#PANFIX6 £4 pack of 10 (£4.80 inc vat)



FIR TREE TRIM CLIPS 8mm

Pack of 10, low-profile, push-in trim clips. For fitting door cards and other removable interior panels. Push into an 8mm hole.

#FTC8 £2.50 (£3 inc vat)



QUARTER TURN FASTENERS

CHROME or BLACK HEAD QUARTER TURN FASTENER WITH BACKING PLATE. These quarter-turn fasteners were designed as a quick-release fixing for two panels. The clip (receiver) is slid over the edge of the lower panel (can be up to 3mm thick) and a 9mm clearance hole is marked and drilled through.

A 6mm hole is marked and drilled through the top panel and the fastener is pushed through and twisted just a quarter of a turn, locking the panels together. A rubber washer prevents vibration and protects the top panel's surface. If your lower panel is very thin you can use a 'Doubler' - a small piece of panel glued to the first to increase it's thickness. Chrome head diameter 12mm. Shaft diameter 6mm. Hole centre distance from edge of lower panel 13mm.

A selection of sizes are available for different thicknesses of top panel. If your top panel is thinner than the designated size you can add rubber washers under the head of the fastener.

- CHROME For 4mm top panels #CQT14**
 - CHROME for 7mm top panels #CQT17**
 - CHROME for 10mm top panels #CQT19**
 - BLACK for 4mm top panels #CQT14BK**
 - BLACK for 7mm top panels #CQT17BK**
 - BLACK for 10mm top panels #CQT19BK**
- All £3.25 each** (£3.90 inc vat)



CHROME or BLACK HEAD QUARTER TURN FASTENER WITH RIVETED BACKING PLATE. The plate (receiver) is slid over the edge of the lower panel which can be up to 3mm thick, secured with two rivets (supplied) and an 8mm clearance hole is drilled through the panel. A 6mm hole is drilled through the top panel and the fastener is pushed through and twisted just a quarter of a turn, locking it in place. A rubber washer prevents vibration and protects the top panel's surface. If your lower panel is very thin you can use a 'Doubler' - a small piece of panel glued to the first to increase it's thickness. Chrome head diameter 12mm. Shaft diameter 6mm. Plate fixing hole centres 25mm. Hole centre distance from edge of lower panel 12mm.

CHROME For 4mm top panels #CQTRIV14

CHROME for 7mm top panels #CQTRIV17

CHROME for 10mm top panels #CQTRIV19

BLACK for 4mm top panels #CQTRIV14BK

BLACK for 7mm top panels #CQTRIV17BK

BLACK for 10mm top panels #CQTRIV19BK

All £3.25 each (£3.90 inc vat)



DZUS FASTENERS

ROUND PLATE DZUS FASTENERS

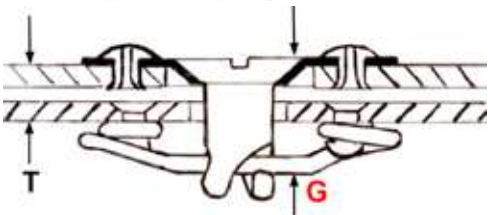
These new, self-ejecting fasteners feature a 36mm diameter, circular plate which will spread the tensile load over a much larger area, providing an advantage on weaker and thinner materials. Another great new feature is the combination Slotted / 4mm Hex drive head which offers operation with either a regular screwdriver or a Hex Key reducing the likelihood of slipping and damaging the surrounding area. 3.3mm fixing holes @ 27mm centres. Self-ejecting fastener. Bright zinc plated. Weight 16 gms.

To order, measure the total thickness of the panels you are fixing together and select the Fastener and Spring combination from the big chart. Some of the fastener/spring combinations give the same total of panel thickness - Long fastener with short spring or short fastener with long spring. You can choose the option that best suits your installation.

ROUND DZUS FASTENERS

Purchased without a spring.

#DZR1 #DZR2 #DZR3 #DZR4
£4 each (£4.80 inc vat)

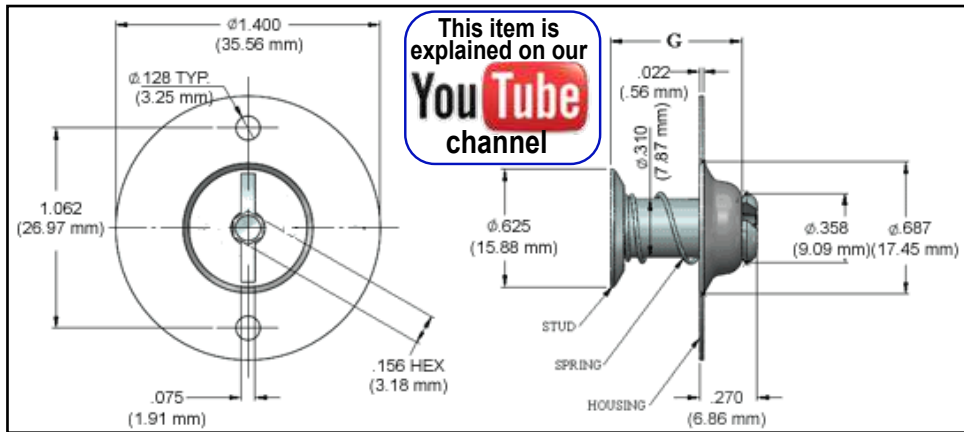


THERE ARE FOUR SIZES OF ROUND PLATE FASTENERS.

THE 'G' (Grip) DIMENSIONS ARE LISTED BELOW

NOTE: 'G' IS NOT THE OVERALL LENGTH OF THE FASTENER BUT THE DISTANCE FROM THE TOP OF THE FASTENER TO THE BOTTOM OF THE SPIRAL CUT-OUT

| ROUND SELF-EJECTING FASTENER | 'G' DIMENSION MM | 'G' DIMENSION INCH |
|------------------------------|------------------|--------------------|
| DZR1 | 10.16 | .400" |
| DZR2 | 12.7 | .500" |
| DZR3 | 13.97 | .550" |
| DZR4 | 15.24 | .600" |

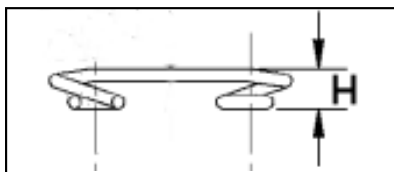


| ROUND SELF-EJECTING FASTENER | 'G' DIMENSION MM | 'G' DIMENSION INCH | RETAINING SPRING | TOTAL MATERIAL THICKNESS (T) INCH | TOTAL MATERIAL THICKNESS (T) MM | FASTENER AND SPRING PART NUMBER |
|------------------------------|------------------|--------------------|------------------|-----------------------------------|---------------------------------|---------------------------------|
| DZR1 | 10.16 | .400 | DZSPR300 | .100 - .124 | 2.41 - 3.14 | #DZR1300 |
| DZR1 | 10.16 | .400 | DZSPR275 | .125 - .149 | 3.05 - 3.78 | #DZR1275 |
| DZR1 | 10.16 | .400 | DZSPR250 | .150 - .174 | 3.81 - 4.42 | #DZR1250 |
| DZR1 | 10.16 | .400 | DZSPR225 | .175 - .199 | 4.45 - 5.05 | #DZR1225 |
| DZR1 | 10.16 | .400 | DZSPR200 | .200 - .224 | 5.08 - 5.69 | #DZR1200 |
| DZR2 | 12.7 | .500 | DZSPR300 | .200 - .224 | 5.08 - 5.68 | #DZR2300 |
| DZR2 | 12.7 | .500 | DZSPR275 | .225 - .249 | 5.72 - 6.32 | #DZR2275 |
| DZR2 | 12.7 | .500 | DZSPR250 | .250 - .275 | 6.35 - 6.99 | #DZR2250 |
| DZR2 | 12.7 | .500 | DZSPR225 | .275 - .299 | 6.99 - 7.59 | #DZR2225 |
| DZR2 | 12.7 | .500 | DZSPR200 | .300 - .324 | 7.62 - 8.23 | #DZR2200 |
| DZR3 | 13.97 | .550 | DZSPR300 | .250 - .274 | 6.35 - 6.95 | #DZR3300 |
| DZR3 | 13.97 | .550 | DZSPR275 | .275 - .299 | 6.99 - 7.59 | #DZR3275 |
| DZR3 | 13.97 | .550 | DZSPR250 | .300 - .324 | 7.62 - 8.26 | #DZR3250 |
| DZR3 | 13.97 | .550 | DZSPR225 | .325 - .349 | 8.26 - 8.86 | #DZR3225 |
| DZR3 | 13.97 | .550 | DZSPR200 | .350 - .399 | 8.89 - 9.50 | #DZR3200 |
| DZR4 | 15.24 | .600 | DZSPR300 | .300 - .324 | 7.62 - 8.22 | #DZR4300 |
| DZR4 | 15.24 | .600 | DZSPR275 | .325 - .349 | 8.26 - 8.86 | #DZR4275 |
| DZR4 | 15.24 | .600 | DZSPR250 | .350 - .374 | 8.89 - 9.50 | #DZR4250 |
| DZR4 | 15.24 | .600 | DZSPR225 | .375 - .399 | 9.53 - 10.13 | #DZR4225 |
| DZR4 | 15.24 | .600 | DZSPR200 | .400 - .424 | 10.17 - 10.77 | #DZR4200 |

ROUND FASTENER AND SPRING #DZR** £5 (£6 inc vat)**

THERE ARE FIVE SIZES OF RETAINING SPRINGS AVAILABLE. THE HEIGHT 'H' DIMENSIONS ARE LISTED BELOW

| SPRING | 'H' DIMENSION MM | 'H' DIMENSION INCH |
|----------|------------------|--------------------|
| DZSPR200 | 5.08 | .200" |
| DZSPR225 | 5.72 | .225" |
| DZSPR250 | 6.35 | .250" |
| DZSPR275 | 6.99 | .275" |
| DZSPR300 | 7.50 | .300" |



RETAINING SPRINGS

Purchased separately

#DZSPR200 #DZSPR225 #DZSPR250
#DZSPR275 #DZSPR300
£1 each (£1.20 inc vat)

ALL THREE OF OUR DVDs ARE NOW AVAILABLE TO VIEW FREE ON OUR YouTube CHANNEL



MOUNTS

BUILDER'S TIP - CUT A MOUNT IN HALF TO MAKE TWO BUMP STOPS

UNIVERSAL ENGINE OR GEARBOX MOUNTS.

If you are building your own chassis or even doing an engine change, these mounts are tough and easy to use.

Hard rubber . M10 fixing studs 20mm long.
64mm diameter x 37mm. Weight 252 gms.
#ENGMNT2 £5 (£6 inc vat)



78mm diameter x 38mm. Weight 419 gms.
#ENGMNT3 £6 (£7.20 inc vat)



EXHAUST STRAP. Fabric reinforced rubber strap. 86mm x 36mm x 8.6mm thick. 7.5mm hole in each end. 44mm Hole centres.

#EXSTRAP88 £2.50 each (£3 inc vat)



EXHAUST STRAP Fabric reinforced rubber strap with steel reinforced 9mm hole in each end.

#EXSTRAP115 115mm x 35 x 6.6 thick.
£2.50 each (£3 inc vat)



BUMP STOP 30mm diameter x 20mm. M8 x 20mm long stud on one end.
#BUMP1 £3.80 each (£4.56 inc vat)



BUMP STOP 50mm diameter x 25mm. M10 x 30mm long stud on one end.
#BUMP2 £4.80 each (£5.76 inc vat)



BUMP STOP 15mm diameter x 15mm. M5 x 15mm long stud on one end.
#BUMP3 £3.80 each (£4.56 inc vat)



RUBBER BUMP CAP Pack of 4

Here's a useful bump stop for bonnets, boot lids and other hinged panels. Just bond it onto a 10mm diameter adjustable stud or pillar. 20mm diameter x 18mm long. One rounded end. Hole in the other end 10mm diameter x 9mm deep.

#BUMPCAP £2.50 pack of 4 (£3 inc vat)



CBS BUILDER'S TIP
NEED A DIFFERENT SIZE BUMPSTOP?
JUST CUT A SUITABLE RUBBER MOUNT
IN HALF.

COTTON REEL RUBBER MOUNTS

Ideal for Exhausts, fuel pumps, oil coolers, radiators, ECUs etc.

1. 20mm dia x 15mm. M6 x 18mm long studs on each end.
#COT1 £2.50 (£3 inc vat)



2. 22mm diameter x 24mm long. M6 x 11mm long stud on each end.

#COT2 £3
 (£3.60 inc vat)



3. 32mm diameter x 18mm. 5/16" UNF x 1/2" long stud on each end.

#COT3 £3.50
 (£4.25 inc vat)



5. 42mm hexagon across the flats x 27mm thick waisted rubber.

M10 x 1.5mm x 18mm long stud on each end.

#COT5 £3.50
 (£4.20 inc vat)



6. 40mm diameter x 39mm. M8 x 21mm long stud on each end.

#COT6 £4
 (£4.80 inc vat)



8. 16mm diameter x 16mm. Threaded M5 x 6mm deep at each end.

#COT8 £3
 (£3.60 inc vat)



9. 25mm diameter x 31mm. Threaded M6 x 6mm deep at each end.

#COT9 £3 (£3.60 inc vat)



10. 40mm diameter x 35mm. Threaded M8 x 8.5mm deep at each end.

#COT10 £4.50
 (£5.40 inc vat)



11. 50mm diameter x 40mm. Threaded M10 x 10mm deep at each end

#COT11 £4
 (£4.80 inc vat)



12. 24mm across hexagon flats. x 19mm.
M6 x 20mm long stud on each end.
Rubber diameter 19.5mm.
#COT12. £3 (£3.60 inc vat)



13. 42mm hexagon across the flats x 27mm
M8 x 1.25mm x 18mm long stud on each end.
#COT13 £3.50 (£4.20 inc vat)



14. 32mm diameter x 25mm.
M8 x 20mm long stud on each end.
#COT14 £3 (£3.60 inc vat)



16. 25mm diameter x 25mm. M6 x 20mm long stud on each end.
#COT16 £3 (£3.60 inc vat)



17. 50mm diameter x 50mm.
M8 x 20mm long stud on each end.
#COT17 £4.50 (£5.40 inc vat)



18. 25mm diameter x 10mm.
M6 x 12mm long stud on each end.
#COT18 £2.50 (£3 inc vat)



19. 16mm Hex x 16mm.
M6 x 18mm long stud on each end
#COT19 £2.80 (£3.36 inc vat)



20. 10mm diameter x 10mm.
M5 x 12mm long stud on each end.
#COT20 £3 (£3.60 inc vat)



21. 15mm diameter x 15mm.
M5 x 15mm long stud on each end.
#COT21 £2 (£2.40 inc vat)



THROTTLE LINKAGES

The length of a left hand / right hand, threaded rod with two ball joints can be adjusted up to 20mm just by loosening the locknuts and rotating the rod clockwise or anticlockwise.



5mm CLEVIS Plated steel with 5mm diameter hardened pin and spring-clip retainer. M5 right hand female thread. 5.4mm between forks. 26mm overall length. Body 10mm x 10mm.
5mm CLEVIS #CLEVISM5 £3.50 each (£4.20 inc vat)

6mm CLEVIS Plated steel with 6mm diameter hardened pin and spring-clip retainer. M6 right-hand female thread. 6.25mm between forks. 31mm overall length. Body 12mm x 12mm.
6mm CLEVIS #CLEVISM6 £3.50 each (£4.20 inc vat)



BUDGET BALL JOINT Tough nylon housing. Plated ball with M5 thread. Overall 30mm length. Self lubricating. Thread depth 19mm. Stud length 10mm.
M5 LH Thread. 8mm dia. ball. #BBJM5LH £3 (£3.60 inc vat)

M5 RH Thread. 8mm dia. ball. #BBJM5RH £3 (£3.60 inc vat)



HEAVY DUTY BALL JOINT Plated steel housing with female left or right hand thread. Plated ball with male thread. All with rubber dust seal which can be removed. Maximum 15° angular movement (without dust seal). Thread depth 12mm to 21mm. Stud length 9mm to 17mm.

M5 LH Thread. 8mm dia. ball. #BJM5LH £4.90 (£5.88 inc vat)

M5 RH Thread. 8mm dia. ball. #BJM5RH £4.90 (£5.88 inc vat)

M6 LH Thread. 10mm dia. ball. #BJM6LH £5 (£6 inc vat)

M6RH Thread. 10mm dia. ball. #BJM6RH £5 (£6 inc vat)

M8 LH Thread. 13mm dia. ball. #BJM8LH £5.50 (£6.60 inc vat)

M8 RH Thread. 13mm dia. ball. #BJM8RH £5.50 (£6.60 inc vat)



LEFT HAND / RIGHT HAND THREADED RODS Plated steel with 30mm of thread at each end. Lock nuts included.

M5 x 147mm #TRODM51 £4.50 (£5.40 inc vat)

M5 x 297mm #TRODM52 £4.50 (£5.40 inc vat)

M6 x 141mm #TRODM61 £5 (£6 inc vat)

M6 x 300mm #TRODM62 £5 (£6 inc vat)

M8 x 215mm #TRODM8 £6 (£7.20 inc vat)



CONTROL CABLES

LONG THROTTLE CABLE 11 foot outer 12 foot inner with stepped (6mm & 3mm) nipple on one end and nothing on the other end.

Low friction, Acetal liner. M8 adjuster. Plated shackle and pin included. Perfect for mid or rear engined cars. Can be shortened. Inner 1.5mm dia. Outer 5.5mm dia.

#**THCAB** £26 (£31.20 inc vat)

Shackle & pin also available separately.

#**SHACKLE** £2 (£2.40 inc vat)



SHORT THROTTLE CABLE 625mm covered outer with 5.4mm brass ferrule at each end. 790mm x 1.5mm diameter inner. 5.3mm diameter nipple on one end.

#**THCABS** £7 (£8.40 inc vat)



THROTTLE CABLE 1.2 mtr outer, (5.5mm dia). 1.3 mtr inner (1.5mm dia). Stepped nipple on one end (6mm & 3.7mm diameters.) and nothing on the other end.

Low friction, Nylon liner.

#**THCAB12** £8 (£9.60 inc vat)



THROTTLE CABLE 3 mtr outer (5.5mm dia). 3.3 mtr inner (1.5mm dia). Stepped nipple on one end (6mm & 3.7mm diameters.) and nothing on the other end.

Low friction, Nylon liner.

#**THCAB3** £12 (£14.40 inc vat)



CONTROL CABLE Here's a multi- purpose cable that can be modified for all sorts of uses. Overall length 1mtr. Maximum travel of inner 40mm. Inner bowden cable diameter 2mm. Outer diameter 5mm.

#**CONCAB1** £8 (£9.60 inc vat)



BALL AND BARREL NIPPLE ENDS CABLE Multi-strand 1.5mm diameter, inner cable with a 6mm ball nipple on one end and a 6mm diameter x 8mm long barrel nipple on the other end. Inner cable 960mm long Outer cable 900mm long x 6mm diameter. 11mm diameter plastic ferrule on each end.

There are also three plastic mounting clips that snap around the outer cable and press into a 6mm hole. Weight 75 gms.

#**BALLCAB** £4 (£4.80 inc vat)



CABLE TIE BASES SELECTION AVAILABLE



HELP YOURSELF AND US

MEASURE MEASURE MEASURE

Sometimes pictures can be deceiving - things may be bigger or smaller than they appear on your computer or in our catalogue.

But, we always give dimensions in our product descriptions. It only takes a few seconds to get out your tape measure and check what 245mm looks like.

Check before you order.

OR ASK US

We do our level best to accurately describe our products' appearance and dimensions. But, if there's a detail that we've missed and you want to know about it, just give us a call. We'll be happy to take one off the shelf and measure it for you.

GROMMET PACK Great Value. 35 Assorted Rubber Grommets. Sizes from 1/8" x 3.8" x 3/16" to 3/4" x 1 1/4" x 3/8".

#**GROPAK** £4 (£4.60 inc vat)



BOWDEN CABLE WITH NIPPLES 3.6 Mtr.

1.5mm thick multi-strand Bowden Cable with a fixed nipple on each end. Use as is or cut to length using the nipple of your choice. Stepped nipple - 3.3mm and 5.5mm diameters x 12mm long.

Barrel nipple - 7mm diameter x 6mm wide.

#**BOWCAB36** £5 (£6 inc vat)



BOWDEN CABLE Nice quality inner and outer cable OK for throttle, choke, door, bonnet or boot release and light clutches. Sold by the metre from a roll. Maximum length in one piece 15 mtrs.

INNER - 2mm diameter. 19 strands of 0.44mm plated wire.

#CAB2IN £1.50 per metre (£1.80 inc vat)

OUTER - PVC covered 5.2mm O.D. 3.2mm I.D

#CAB52OUT £4 per metre (£4.80 inc vat)



PUSH-PULL CABLE BY THE METRE

Now you can make up your own Push-Pull Cables to your own length and with your own ends. Solid wire inner 1.6mm diameter. Plastic-coated outer 5.6mm diameter. If you're ordering online and want 2 metres, just enter '2' in the quantity box. Sold only in multiples of one metre.

#PPC1M £5 per mtr (£6 inc vat)



PUSH-PULL CABLE. For heater controls, choke, bonnet or boot release and even remote seat adjustment. Solid piano wire inner cable 6ft 6in long inside a low friction outer 6ft long. Plain black Bakelite knob. Mounts through a 10mm diameter hole. Suitable for up to 6mm thick panels.

#PPC £12 (£14.40 inc vat)



CHOKE CABLE LOCKING (Not push-pull) 1.5 mtrs. long. Mounts through a 9mm hole. Multi-strand cable. Plain end inner.

#CCLOC £10 (£12 inc vat)



PUSH-PULL CABLE Plain outer. For heater controls, choke, bonnet or boot release and even remote seat adjustment. Solid piano wire inner cable 6ft long inside a outer 6ft 3" long. Plain black Bakelite knob 23mm dia.. Mounts through a 10mm diameter hole. Suitable for up to 8mm thick panels.

#PPC2 £7.50 (£9 inc vat)



FLEXIBLE CHOKE CABLE / BONNET RELEASE CABLE

Chromed, diecast 'T' handle with 1.6 mtr bowden cable. Fits in a 10mm hole in panels up to 10mm thick.

#BONRELC £9.50 (£11.40 inc vat)



3 METRE PUSH-PULL CABLE Plain outer. For heater controls, choke, bonnet or boot release and even remote seat adjustment. Solid piano wire inner cable Black Bakelite 'T' handle. Mounts through a 10mm diameter hole. Suitable for up to 8mm thick panels. **#PPC3M £16 (£19.20 inc vat)**



BONNET RELEASE CABLE T - Handle bonnet release cable 1.5 mtrs. long. Panel mounting through 9mm hole. No nipple on end. **#BONREL £9 (£10.80 inc vat)**



CHOKE CABLES

What's the difference between our choke cables and how do you choose which one you need? Some choke mechanisms feature a spring that keeps the choke in the off position. This will act as an automatic return for a non push-pull cable (multi-strand inner). The twist 'locking' feature will keep the choke closed until you twist it again to release the lock. A non locking choke cable is like a fly-off handbrake - it'll open when you let go of the knob, provided there is a spring return on the choke. Push-pull cables have a stiff inner wire that will open and close the choke without the need for a spring on the mechanism.

4 Mtr. RED 'T' HANDLE RELEASE CABLE RAC track day rules now dictate that battery cut-off switches must be mounted inside the vehicle, away from body panels and must be able to be remotely disconnected with a Red 'T' pull cable on the outside of the vehicle. Here's the solution. Just make a simple bracket that will fit on the switch and locate the cable adjuster (supplied). Secure the inner cable to the key with the solderless nipple supplied. Can also be used for bonnet and boot release. Removable red 'T' handle. 3.7mtr Outer cable mounts through a 10mm hole. 4 mtr multi-strand bowden cable inner. Supplied with M6 cable adjuster, cable ferrule and a solderless nipple.
#RTCAB £16 (£19.20 inc vat)



1.8 mtr. RED 'T' HANDLE RELEASE CABLE Can also be used for bonnet and boot release. 1.8mtr Outer cable mounts through a 11mm hole. 2 mtr multi-strand bowden cable inner with a moulded-on red plastic 'T' handle.
#RTCAB18 £10.50 (£12.60 inc vat)



SIDE CUTTING PLIERS Top quality, drop forged, chrome vanadium cutters. Don't confuse this tool with cheaper versions. These beauties will cut Bowden Cable, Piano wire, stainless wire and heavy cable without damage to the jaws. Soft grip handles insulated up to 10,000 volts. Length of tool 200mm. Weight 350gms.
#SIDECUT £12 (£14.40 inc vat)



CABLE REPAIR KIT Includes:

- 1.6mtrs of 1.5mm diameter bowden cable with a 3.5mm to 6mm stepped nipple on one end.
- 1.6 mtrs of 1.1mm diameter bowden cable with a 3mm nipple on one end.
- 1 x 10mm dia. x 20mm solderless nipple.
- 1 x 8mm dia. x 12mm solderless nipple
- 1x 5mm dia. x 8mm solderless nipple
- 1 x 8mm dia. x 14mm solderless nipple with sleeve and nut.
- 1 x 7.8mm dia. x 9mm horizontal barrel nipple for 1.5mm dia. cable.
- 1 x 7.8mm x 15mm shouldered horizontal nipple for 1.5mm dia. cable.
- 1 x 3.5mm to 6mm brass steel sleeve nipple for 1.1mm cable above.
- 1x Storage tin for all parts above

#CRKIT £8 (£9.60 inc vat)



CABLE COVER BELLOWS Rubber bellows. Great for protecting control cables from ingress of dirt and grime. Can also be used for protecting wires in flexible installations. e.g. between 'A' post and doors or body and boot lid. 106mm long relaxed. Will compress to 40mm. 20mm maximum diameter. 6mm holes in one end and 7.5mm hole in the other.
#CABCOV £2 (£2.40 inc vat)



WIRE ROPE 2.1mm diameter plated steel multi-strand cable ideal for door-pulls, retaining and restraining.
#WROPE2 £1.50 per metre (£1.80 inc vat)



CLAMPS AVAILABLE SEPARATELY



CABLE ADJUSTERS 2 sizes. Supplied with 2 locknuts. Plated steel. For throttle, choke, bonnet release etc.
M6 48mm overall length. 38mm thread length. 2.6mm diameter inner bore. 6.5mm diameter outer.
#CA6 £3 (£3.60 inc vat)
M8 52mm Overall length. 37mm thread length. 3.3mm diameter inner bore. 6.4mm diameter outer.
#CA8 £3.25 (£3.90 inc vat)



FERRULE for Control Cables If you're making your own throttle or choke cable here's the Ferrule that fits over the cut end of the outer cable. 5.8mm I.D. 6.3 O.D. 11mm long. 3mm hole for inner cable. Plated steel.
#FERRULE £0.70p each (£0.84 inc vat)



SOLDERLESS NIPPLE. 6mm diameter, 13mm long. Will accept up to 2.5mm cable. Ideal for custom throttle cables and choke etc. **#SLNIP £2 each** (£2.40 inc vat)

SOLDERLESS NIPPLE. 8mm large diameter, 5mm small diameter, 14mm long. Will accept up to 2.5mm cable.
#SLNIP2 £2 each (£2.40 inc vat)



SOLDERLESS NIPPLE NIPPLE: 8mm diameter x 9mm long.
SCREW: Slotted x 8mm long. **HOLE:** 2.5mm
#SLNIP3 £2.50 each (£3 inc vat)










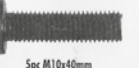










THROTTLE SPRING Plated steel. 10mm diameter. Stretches from 75mm to 140mm
#THSPR2 £3 (£3.60 inc vat)



WORKSHOP PACKS

Note: Some of these packs are very heavy so you may wish to combine them with other items to save on postage

NUT & BOLT STARTER PACK 240 Piece Nut, Bolt and Washer assortment. Black finish Hex Head bolts from M4 x 10mm to M10 x 40mm. Low tensile steel ideal for general assembly. Weight 828gms. **#NBPAK2 £6** (£7.20 inc vat)

| | | | | | |
|---|---|---|---|---|---|
|  10pc M4x12mm |  10pc M4x20mm |  10pc M5x16mm |  10pc M5x25mm |  10pc M6x20mm |  10pc M6x30mm |
|  5pc M8x40mm |  5pc M8x25mm |  5pc M10x16mm |  5pc M10x40mm | | |
|  20pc M4 |  20pc M5 |  20pc M6 |  10pc M8 |  10pc M10 | |
|  20pc M4 |  20pc M5 |  20pc M6 |  10pc M8 |  10pc M10 | |



BOLT PACK Assortment of 145 hex head bolts and set screws. Some Grade 4.8 and some 8.8. Sizes: M5x12, M5x20, M6x30, M6x40, M6x50, M8x30, M8x50, M8x60, M10x30, M10x60, M10x70. In plastic organiser box. Weight 1700 gms **#HTBOLT £11** (£13.20 inc vat)



M5 NUT & BOLT PACK 440 PIECES Plain nuts, plain washers & Hex head set screws between 16mm and 50mm. Zinc plated and clear passivate. Weight 1.1Kg. **#NBPAK5 £14** (£16.80 inc vat)



M6 NUT & BOLT PACK 415 PIECES Plain nuts, plain washers & Hex head set screws between 16mm and 50mm. Zinc plated and clear passivate. Weight 1.1 Kg. **#NBPAK6 £14** (£16.80 inc vat)



M8 NUT & BOLT PACK 220 PIECES Plain nuts, plain washers & Hex head set screws between 25mm and 75mm. Zinc plated and clear passivate. Weight 2Kg. **#NBPAK8 £15** (£18 inc vat)



M10 NUT & BOLT PACK 145 PIECES Plain nuts, plain washers & Hex head set screws between 25mm and 75mm. Zinc plated and clear passivate. Weight 2.5 Kg. **#NBPAK10 £16** (£19.20 inc vat)



Watch us on
You Tube

Dozens of instruction and demonstration videos. Just type **CAR BUILDER SOLUTIONS** in the You Tube search box

450 PIECES MACHINE SCREW PACK Countersunk, slotted between M3 x 8mm and M5 x 20mm. And Pan Head Pozi. between M3 x 12mm and M6 x 50mm. All plated steel.

Weight 1545 gms. **#PANPOZPAK £12** (£14.40 inc vat)



STAINLESS COUNTERSUNK SELF TAPPING SCREW PACK

Grade A2. Assortment of 570 Pozi head screws. 11 Sizes between 3mm dia. x 9mm long to 4mm dia. x 37mm long. In plastic organiser box. Weight 690 gms **#STPAKSS £18** (£21.60 inc vat)



PAN HEAD SELF TAPPING SCREW PACK Assortment of 750 Pozi head screws. 11 Sizes between 3.5mm dia. x 9mm long to 5mm dia. x 30mm long. In plastic organiser box. Weight 1369 gms.

#STPAK £13 (£15.60 inc vat)



BLACK FLANGED HEAD POZI SELF TAPPING SCREW PACK.

Assortment of 700 Pozi head screws. Nine sizes between 3.5mm dia. x 13mm long, 4mm dia. x 37mm long to 4.7mm dia. x 20mm long. In plastic organiser box. Weight 1510 gms

#STPAKBK £19 (£22.80 inc vat)



SHEET METAL SCREW PACK 300 PIECES Plated self-tapping screws all with captive washers. Selection of sizes from 4mm diameter to 6mm diameter, 10mm to 18mm long. 8mm and 10mm Hex Heads. In a plastic storage box. Zinc plated and clear passivate. Weight 1700 gms. **#SMSPAK £25** (£30 inc vat)



SELF DRILLING SCREW PACK OF 120 120 pieces in 8 popular sizes. Perfect for fixing to thin sheet metal. Just pop one in an 8mm socket in your battery drill and the screw will drill it's own, perfectly-sized hole and then screw itself in, in one simple operation. Point (drill) diameter 3.9mm. Thread diameter 4.7mm. and .3mm and 4.1mm. **#SDRILPAK £5** (£6 inc vat)

#8 x 19mm 16pcs. #8 x 25mm 16pcs. #8 x 12.5mm 16pcs.
#8 x 16mm 16pcs. #10 x 16 16pcs. #10 x 16mm 14pcs.
#10 x 19mm 14pcs. #10 x25mm 14pcs.



246 PIECE STAINLESS NUT AND BOLT PACK Nice selection of Pan Head Pozidrive screws with plain nuts and washers

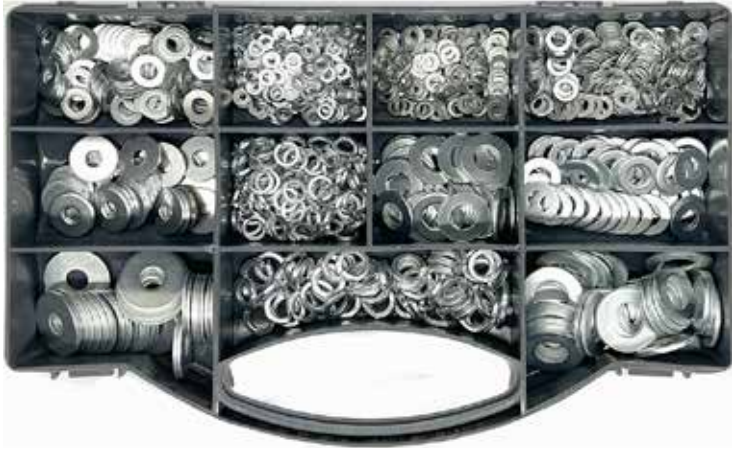
#SSPANPAK £7 (£8.40 inc vat)

| | | | | | |
|----------------|----------------|----------------|----------------|----------------|----------------|
| M6x40 6pcs | M6x2.5 8pcs | M5 10pcs | M3 12pcs | Ø5 10pcs | Ø3 12pcs |
| | | M6 14pcs | M4 46pcs | Ø6 14pcs | Ø4 46pcs |
| M4x40 10pcs | M4x50 6pcs | M5x25 10pcs | M4x20 14pcs | M4x12 16pcs | M3x25 12pcs |



1000 PIECES WASHER PACK All plated steel, Plain, Spring and large diameter between M3 and M12. Weight 960 gms.

#WASHPAK £12.50 (£15 inc vat)



1000 PIECES NUT PACK Plain, plated steel hex nuts. M3, M4, M5, M6, M8, M10, M12. Wt. 2 Kg. **#NUT1000PAK £13** (£15.60 inc vat)



DOWTY WASHER PACK 27 pieces including 7 x M8, 6 x M10, 5 x M12, 2 x M14, 2 x M16, 2 x M18, 2 x M20, 1 x M22, 1 x M24. In a plastic storage box. **#DOWTYPAK £10** (£12 inc vat)



SPLIT PIN (COTTER PIN) PACK Great Value. Pack of 500 Zinc Plated Split Pins. From 1/16" (1.6mm) x 1" to 5/32" (4mm) x 3". Weight 576 gms. **#SPLPAK £5** (£6 inc vat)



COPPER WASHER PACK Assortment of 110 annealed copper washers in 6 popular imperial sizes. 1/4", 5/16", 3/8", 7/16", 1/2", 5/8". Supplied in divided plastic storage box.

#COPPAK £12 (£14.40 inc vat)

| | | | | | |
|----------------|-----------------|----------------|-----------------|----------------|----------------|
| 1/4" 30 pcs | 5/16" 25 pcs | 3/8" 20 pcs | 7/16" 15 pcs | 1/2" 10 pcs | 5/8" 10 pcs |
| | | | | | |



150 PIECE METRIC COPPER WASHER PACK Ten each of fifteen sizes from 10mm diameter with a 5mm hole to 24mm diameter with a 17.5mm hole. Supplied in divided plastic storage box.

#COPPAK2 £11 (£13.20 inc vat)

| | | | | | |
|----------------------------|---------------------------------|-------------------------------|---------------------------------|-----------------------------|-------------------------------|
| 5 x 10 x 1 mm 10pcs | 8 x 12 x 1 mm 10pcs | 11 x 17 x 1.5 mm 10pcs | 12.5 x 20 x 1.5 mm 10pcs | 15 x 20 x 2 mm 10pcs | 16.5 x 24 x 2 mm 10pcs |
| 6 x 10 x 1 mm 10pcs | 10 x 16 x 1 mm 10pcs | 14 x 18 x 1 mm 10pcs | 14 x 20 x 1.5 mm 10pcs | 16 x 22 x 2 mm 10pcs | 17.5 x 24 x 2 mm 10pcs |
| 7 x 10 x 1 mm 10pcs | 10.5 x 17 x 1.5 mm 10pcs | 12 x 20 x 1.5 mm 10pcs | 10pcs | 10pcs | 10pcs |















FIBRE WASHER PACK 110 Assorted washers in 8 sizes from 10mm diameter with a 3mm hole to 30mm diameter with a 16mm hole. **#FIBREPAK £5** (£6 inc vat)



PENNY WASHER PACK Sometimes called 'Repair Washers'. Pack of 240 plated steel. 25mm and 38mm diameter with 5, 6, 8 and 10mm holes. 2Kg weight. **#PENPAK £12** (£14.40 inc vat)



RIVNUT PACK Assortment of 300 flathead, Aluminium and Plated Steel Rivnuts. Twenty five each of M3, M4, M5, M6, and M8. Supplied in divided plastic storage box. **#RNPAK £13** (£15.60 inc vat)

| | | | | | |
|---|--|--|--|--|--|
| M10  25 PCS | M8  25 PCS | M6  25 PCS | M6  25 PCS | M8  25 PCS | M10  25 PCS |
| M3  25 PCS | M4  25 PCS | M5  25 PCS | M5  25 PCS | M4  25 PCS | M3  25 PCS |



FLEXIBLE HOSE CLIP DRIVER Strong but flexible shaft will bend up to 30 degrees to tighten those awkward hose clips. Reversible socket on the end with 6mm and 7mm A/F sizes. 275mm long. **#HDRIVER £5** (£6 inc vat)












PENNY WASHER PACK Assortment of 240 plated steel washers in thirteen useful sizes. Supplied in divided plastic storage box. **#PENPAK2 £8** (£9.60 inc vat)

| | | | | | | |
|-----------------|---------------|--------------|--------------|---------------|--------------|--------------|
| | 10X25 20PC | 8X25 20PC | 6X25 20PC | 10X20 20PC | 8X20 20PC | 6X20 20PC |
| 240PC WASHER | 2X32 20PC | | 4X32 20PC | | 6X32 20PC | |
| | 8X32 20PC | | 10X32 20PC | | 12X32 20PC | |



SPEED CLIP PACK Assortment of 170 speed clips and fixing screws in six popular sizes. Supplied in divided plastic storage box. **#SCPAK £4.50** (£5.40 inc vat)

| | | | | | |
|---|--|---|--|---|--|
| #6 x 5/16"  40 Piece | #10 x 1/2"  15 Piece | #6  20 Piece | #8  20 Piece | #10  15 Piece | 1/4"  10 Piece |
| #8 x 5/8"  20 Piece | 1/4" x 3/4"  10 Piece | #6 With Notch  20 Piece | | | |



VALUE COMPOSITE DIGITAL CALIPER
#DCABS £8.50 (£10.20 inc vat)



ROLL PIN PACK Assortment of 120 Black Hardened Spring Steel Roll Pins in 30 popular sizes between 1.6mm x 4.8mm and 9.5mm x 50mm. Supplied in divided plastic storage box.

#ROLLPAK £5 (£6 inc vat)

| NO | MODEL | QTY | NO | MODEL | QTY | NO | MODEL | QTY |
|----|------------|-----|----|------------|-----|----|------------|-----|
| 1 | 1.6X4.8mm | 4 | 11 | 4.0X25.4mm | 4 | 21 | 8.0X50.8mm | 4 |
| 2 | 1.6X8.0mm | 4 | 12 | 4.0X38.1mm | 4 | 22 | 3.2X15.9mm | 5 |
| 3 | 1.6X11.1mm | 4 | 13 | 5.6X15.9mm | 4 | 23 | 3.2X25.4mm | 5 |
| 4 | 2.0X6.4mm | 4 | 14 | 5.6X31.8mm | 4 | 24 | 3.2X31.8mm | 5 |
| 5 | 2.0X12.7mm | 4 | 15 | 5.6X44.5mm | 4 | 25 | 4.8X15.9mm | 5 |
| 6 | 2.0X25.4mm | 4 | 16 | 6.4X15.9mm | 4 | 26 | 4.8X25.4mm | 5 |
| 7 | 2.4X15.9mm | 4 | 17 | 6.4X31.8mm | 4 | 27 | 4.8X31.8mm | 5 |
| 8 | 2.4X25.4mm | 4 | 18 | 6.4X44.5mm | 4 | 28 | 9.5X19.1mm | 2 |
| 9 | 2.4X31.8mm | 4 | 19 | 8.0X19.1mm | 4 | 29 | 9.5X38.1mm | 2 |
| 10 | 4.0X15.9mm | 4 | 20 | 8.0X38.1mm | 4 | 30 | 9.5X50.8mm | 2 |












UNIVERSAL 74 PIECE CLEVIS PIN ASSORTMENT PACK

Set includes: 15pc. 1/4" x 2". 10pc. 5/16" x 2", 4pc, 3/8" x 2", 4pc 7/16" x 2", 4pc, 1/2" x 2". All made from plated steel and drilled with eight holes for the 'R' Clips supplied (37 of them). Weight 855gms.

#CLEVPAK £14 (£16.80 inc vat)








'E' CLIP PACK Assortment of 300 clips in 9 popular sizes between 3.2mm (1/8") and 19mm (3/4"). Supplied in divided plastic storage box. **#EPAK £8.50** (£10.20 inc vat)

| | | | | | |
|---|--|--|--|--|--|
|  30pc x 1.6mm |  30pc x 3.2mm |  40pc x 4.8mm |  20pc x 15.9mm |  20pc x 19.1mm |  20pc x 22.2mm |
|  50pc x 6.4mm |  50pc x 9.5mm |  40pc x 12.7mm | | | |



60 PIECE CLEVIS PIN ASSORTMENT PACK An assortment of sizes, all made from plated steel and drilled for 'R' Clips.

Weight 1050gms. **#CLEVPAK2 £12** (£14.40 inc vat)

| | | | | | |
|---|--|---|---|--|--|
|  5 x 25 4pc |  6 x 60 3pc |  8 x 30 3pc |  8 x 50 2pc |  10 x 25 4pc |  12 x 40 2pc |
|  6 x 25 4pc |  6 x 50 3pc |  8 x 40 4pc |  8 x 65 1pc |  10 x 40 3pc |  10 x 50 2pc |
|  6 x 30 3pc |  6 x 65 3pc |  8 x 45 3pc |  8 x 60 2pc |  10 x 40 3pc |  12 x 40 2pc |
|  6 x 40 4pc |  6 x 45 3pc |  8 x 25 3pc |  8 x 70 2pc | | |



LOOKING FOR SOMETHING? CHECK OUT THE CONTENTS AT THE FRONT OR THE INDEX AT THE BACK

PLASTIC NUT COVERS

10mm **#NUTCV10** £5 pack of 20 (£6 inc vat)
13mm **#NUTCV13** £6 pack of 20 (£7.20 inc vat)
17mm **#NUTCV17** £6 pack of 20 (£7.20 inc vat)
19mm **#NUTCV19** £6 pack of 20 (£7.20 inc vat)

VALUE PACK OF 60 1

Pack each of 13mm, 17mm and 19mm

#NUTPAK £15 (£18 inc vat)

ALSO AVAILABLE

24mm **#NUTCV24** £0.75 each (£0.90 inc vat)

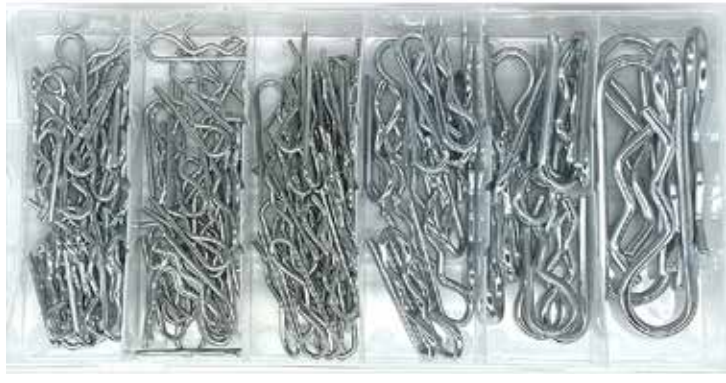
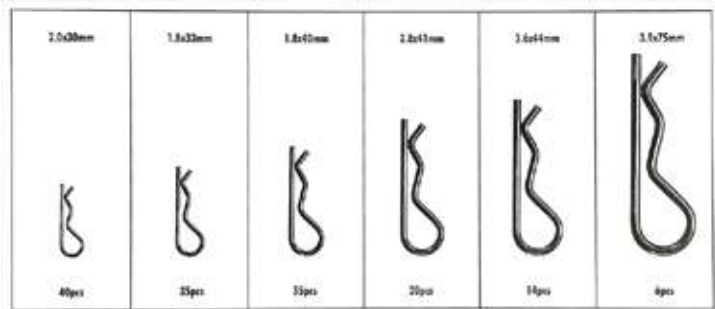
27mm **#NUTCV27** £0.75 each (£0.90 inc vat)



IVA OK

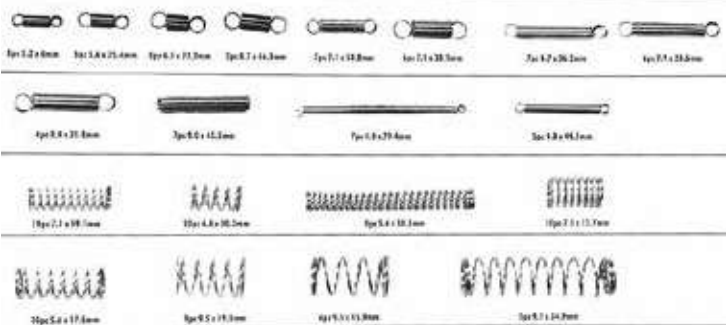
'R' CLIP PACK Assortment of 150 clips in 6 popular sizes between 30mm and 75mm. Supplied in divided plastic storage box. .

#RPAK £5 (£6 inc vat)



SPRING PACK Assortment of 150 Compression and Extension Springs in 20 popular sizes. Supplied in divided plastic storage box.

#SPRPAK £5 (£6 inc vat)



WHITE NYLON WASHERS Ideal for separating, packing or insulating components. 3 Sizes: Sold in Packs of 20.

15mm O.D., 5.4mm I.D., 1.5mm thick

#NW15 £3 pack of 20 £3.60 inc vat)

18.2mm O.D., 6.4mm I.D., 2mm thick

#NW18 £4 pack of 20 £4.80 inc vat)

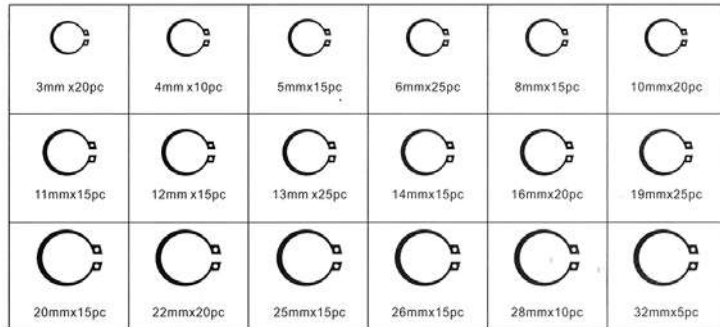
30mm O.D., 10.4mm I.D., 3mm thick

#NW30 £5 pack of 20 £6 inc vat)



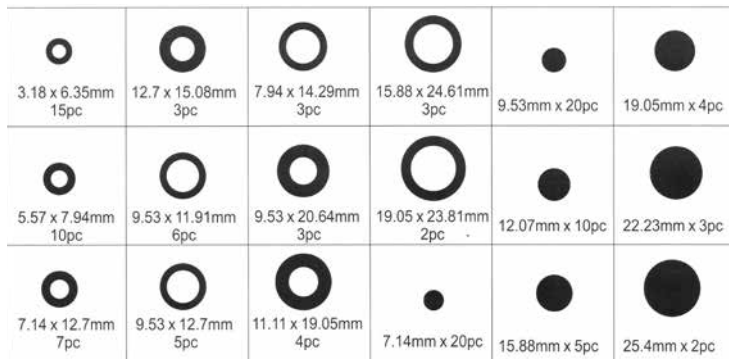
CIRCLIP PACK (EXTERNAL) Assortment of 300 clips in 18 popular sizes between 3mm and 34mm. Supplied in divided plastic storage box.

#CPAK £5 (£6 inc vat)



125 PIECE GROMMET PACK 125 Assorted Rubber Grommets -

Holed and Blanking. For hole sizes from 6.3mm to 23.8 and panel thickness 1mm to 3mm. **#GROPAK2 £5** (£6 inc vat)



SOFT PVC PLASTIC WASHERS

5mm x 15 dia. x 1.5mm thick

#M5PLW £1 pk of 10 (£1.20 inc vat)

6mm x 18 dia x 2mm thick

#M6PLW £1.20 pk of 10 (£1.44 inc vat)

8mm x 25 dia x 2.5mm thick

#M8PLW £1.80 pk of 10 (£2.16 inc vat)

10mm x 25 dia x 3mm thick

#M10PLW £3 pk of 10 (£3.60 inc vat)

PACKS OF 10



415 PIECE TRIM CLIP ASSORTMENT PACK An assortment of the most common body trim clips found on FORD and many other vehicles. Supplied in a divided plastic storage box. OEM part numbers inside lid. **#TCPAK £18** (£21.60 inc vat)

| | | | | | |
|---|--|--|--|--|--|
| Shield Retainer (25pc) OEM NO: 3882775 | Push Retainer (15pc) OEM NO: N80119255 | Weatherstrip Retainer (45pc) OEM NO: N8062893 | Screw Nut (30pc) OEM NO: N3798305 | Push-type Retainer (15pc) OEM NO: 1307802 | Trim Panel Retainer (15pc) OEM NO: N3749653 |
| Tail Light Retainer (35pc) OEM NO: 1650038 | Fascia Retainer (35pc) OEM NO: N8031705 | Push-type Retainer (10pc) OEM NO: W7049595300 | Push-type Retainer (20pc) OEM NO: W7067135300 | Weatherstrip Fastener (35pc) OEM NO: N3882465 | Stamping Retainer (15pc) OEM NO: N3879445 |
| Hood Insulation Retainer (30pc) OEM NO: P22216774A | Push-type Retainer (20pc) OEM NO: 1673046 | Push-type Retainer (20pc) OEM NO: N8052118 | Deflector Retainer (15pc) OEM NO: W7056325300 | Retaining Clip (20pc) OEM NO: F1C216674A | Push-type Retainer (15pc) OEM NO: W7102505300 |



CHECK OUT OUR NEW #TCPAK2 ONLINE

BULB & FUSE PACK With 2 x H4 60 / 55W headlamp bulbs. Total of 18 x 12 volt bulbs and 12 x blade-type fuses in a compact moulded case that you can easily tuck away in your luggage compartment for an emergency. **#BULBPAK £6** (£7.20 inc vat)

ALSO AVAILABLE WITH 1 x H4 60 / 55w and 1 x H7 / 55w Headlamp bulbs All other contents identical. **#BULBPAK2 £6** (£7.20 inc vat)



CRIMP TERMINAL PACK 76 pieces including Male & Female Spades, Ring Terminals, 'U' Terminals and In-Line Joiners in Red, Yellow and Blue sizes. We have to admit there are times when these are OK for a quick and easy connection.

#CTERPAK100 £6 (£7.20 inc vat)

| | | | | | |
|---------------------------------------|--|--|--|---|--|
| 22-18ga Butt Connector 4 Piece | 22-18ga Male Disconnect 4 Piece | 22-18ga Female Disconnect 4 Piece | 22-18ga Ring Terminal #6 1.25-3.5 4 Piece | 22-18ga Ring Terminal #10 1.25-5 5 Piece | 22-18ga Spade Terminal #10 1.25-5.5 5 Piece |
| 16-14ga Butt Connector 4 Piece | 16-14ga Male Disconnect 4 Piece | 16-14ga Female Disconnect 4 Piece | 16-14ga Ring Terminal #6 2-3.5 4 Piece | 16-14ga Ring Terminal #10 2-5.5 4 Piece | 16-14ga Spade Terminal #10 2-5.5 4 Piece |
| 12-10ga Butt Connector 4 Piece | 12-10ga Male Disconnect 4 Piece | 12-10ga Female Disconnect 4 Piece | 12-10ga Ring Terminal #10 5.5-6 4 Piece | 12-10ga Ring Terminal #1/4 5.5-6 4 Piece | 12-10ga Spade Terminal #10 5.5-6 4 Piece |



WE STOCK A WIDE SELECTION OF WIRE AND CABLE



424 PIECE AUTOMOTIVE SUPERSEAL WATERPROOF CONNECTOR MULTI-PACK 22 male and 22 female connectors with male and female pins and yellow silicone seals. See electrical section for assembly instructions. **#WPMULKIT £17.50** (£21 inc vat)

| | | | | | |
|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|--|
| 6 pin male connectors 2pcs | 6 pin female connectors 2pcs | 5 pin male connectors 3pcs | 5 pin female connectors 3pcs | 4 pin male connectors 3pcs | 4 pin female connectors 3pcs |
| 3 pin male connectors 3pcs | 3 pin male connectors 3pcs | 3 pin female connectors 3pcs | 3 pin female connectors 3pcs | 2 pin male connectors 4pcs | 2 pin female connectors 4pcs |
| 1 pin male connectors 4pcs | 1 pin female connectors 4pcs | female terminals 100pcs | male terminals 100pcs | terminals with yellow seals 90pcs | terminals with yellow seals 90pcs |



162 PIECE HEATSHRINK KIT WITH GAS TORCH Multi-colour Heatshrink sleeves in sizes: 1.5, 2.5, 3.5, 5, 6, 10, 15mm I.D. The self-igniting torch must be filled with regular lighter Butane gas. (NOT SUPPLIED)

#HTSHK5 £20 (£24 inc vat)



CABLE JOINERS HEAT-SHRINK, GLUE & SOLDER Length 40mm. These unique products offer a quick, simple and secure way to splice/ two cables together. Just strip 10mm of insulation from each wire, twist the ends together, slide over the sleeve and heat it up with a hot air gun. The solder will melt to join the copper strands, the two rings of glue will melt to seal around the cable insulation and the sleeve itself will shrink tightly around the wire for a strong, permanent, weatherproof joint.

Weight per pack of 10 - 15gms. **3 Sizes.**

RED For wires up to 2.5mm diameter.

#HSSCR £5 pack of 10 (£6 inc vat)



BLUE For wires up to 4.5mm diameter.

#HSSCBU £5.50 pack of 10 (£6.60 inc vat)



YELLOW For wires up to 5.5mm diameter.

#HSSCY £6.50 pack of 10 (£7.80 inc vat)



HEATSHRINK SELECTION BOX

Approximately 95 pieces. Blue, Yellow, Red and Black in 3.5mm and 6.5mm diameter x 150mm long. 2:1 shrink ratio.

#HTSHK2 £12 (£14.40 inc vat)



HEATSHRINK PACK. 187 pieces assorted heatshrink. Supplied in a plastic storage box. 2mm ID x 45mm long 15 pcs. Black, 15 pcs. White 3.5mm ID x 45mm long 15 pcs. Black, 15 pcs Green 5mm ID x 45mm long 15 pcs. Black, 15 pcs Red 7mm ID x 45mm long 15 pcs Black, 15 pcs. Blue 8mm ID x 45mm long 15 pcs. Black, 15 pcs Yellow 9mm ID x 45mm long 15 pcs. Black, 15 pcs. Green

#HTSHK4 £7 per pack (£8.40 inc vat)



HEATSHRINK PACK. 127 pieces assorted black heatshrink. Supplied in a plastic storage box. Contents:

- 30 pcs. @ 2mm ID x 40mm long
- 25 pcs. @ 2.5mm ID x 40mm long
- 20 pcs. @ 3.5mm ID x 40mm long
- 20 pcs. @ 5mm ID x 40mm long
- 16 pcs. @ 7mm ID x 80mm long
- 8 pcs. @ 10mm ID x 80mm long
- 8 pcs. @ 13mm ID x 85mm long

#HTSHK3 £6 per pack (£7.20 inc vat)



CRIMP AND HEAT SHRINK BUTT CONNECTOR PACK

Insert two wires into the connector and crimp the copper connector in the centre. Then heat shrink the insulation for a strong weatherproof joint. Pack contains 18 pcs. RED - 10-12AWG 12 pcs. BLUE - 14-16AWG 6 pcs. YELLOW - 16-22AWG **#CHSBPAK £5 (£6 inc vat)**



ADHESIVE LINED HEAT SHRINK

3 : 1 Shrink Ratio with a Hot-Melt adhesive inside. As the tubing shrinks the adhesive melts and forms a weather-tight seal around the cable.

3.5mm I.D. #ALHS3 £1.30 per metre

6mm I.D. #ALHS6 £1.70 per metre

12mm I.D. #ALHS12 £2.40 per metre

24mm I.D. #ALHS24 £5 per metre

All plus vat.



40mm I.D. HEAT SHRINK 6" of black heavy duty, adhesive-lined heat shrink tubing.

3:1 shrink ratio for neatly finishing outside diameters of

between 1/2" and 1 1/4"

#HSL £3

for one 6" length

(£3.60 inc vat)



85mm I.D. HEAT SHRINK Adhesive Lined. Shrinks down to 25mm I.D.

Sold per 75mm (3") Just ask if you want longer than 75mm in one piece.

#HS8525

£2.50 per 75mm.

(£4.20 inc vat)



PVC CABLE SLEEVING Black, PVC sleeving that will withstand temperatures up to 105 deg C. Ideal for protecting single or groups of wires. Sold by the metre from a roll. All 0.5mm wall thickness.

3mm I.D. #SLV3 £1 Mtr. (£1.20 inc vat)

6mm I.D. #SLV6 £1.25 Mtr. (£1.50 inc vat)

12mm I.D. #SLV12 £1.50 Mtr. (£1.80 inc vat)



HEAT SHRINK TUBING. Perhaps the greatest hazard associated with Glassfibre cars is fire and the most common cause of fire is dodgy wiring. Donor looms will have many unused wire ends that should be made safe - even custom manufacturers looms will require safe, insulated termination onto spade or ring terminals. Heatshrink makes a professional and reliable finish to your wiring. This pack contains a total of 8 metres of black & red tubing in 3 sizes 4.8mm, 6.4mm and 12.7mm. It has a 2:1 shrink ratio. Shrink temperature is 100 degrees C so you can use a regular paint stripper heat gun. Material is military specification Polyolefin (don't confuse this product with inferior PVC Heat Shrink.)

8 METRE VALUE PACK
#HTSHK £8 (£9.60 inc vat)

This item is explained on our **YouTube** channel



ALSO AVAILABLE BY THE METRE

- 3.2mm RED **#HS32R** £0.75 mtr (£0.90 inc vat)
- 3.2mm BLACK **#HS32B** £0.75 mtr (£0.90 inc vat)
- 4.8mm RED **#HS48R** £1 mtr (£1.20 inc vat)
- 4.8mm BLACK **#HS48BK** £1 mtr (£1.20 inc vat)
- 4.8mm YELLOW **#HS48Y** £1 mtr (£1.20 inc vat)
- 6.4mm RED **#HS64R** £1.50 mtr (£1.80 inc vat)
- 6.4mm BLACK **#HS64BK** £1.50 mtr (£1.80 inc vat)
- 6.4mm YELLOW **#HS64Y** £1.50 mtr (£1.80 inc vat)
- 12.7mm RED **#HS127R** £2 mtr (£2.40 inc vat)
- 12.7mm BLACK **#HS127BK** £2 mtr (£2.40 inc vat)
- 12.7mm YELLOW **#HS127Y** £2 mtr (£2.40 inc vat)
- 19mm YELLOW **#HS19Y** £2.50 mtr (£3 inc vat)



HEAT GUN 2000 WATTS
#HGUN £16 (£19.20 inc vat)



GLASS FUSE PACK 7 glass fuses. 30mm and 20mm long. 2A, 10A, 15A, 25A
#GLFUSPAK £1 (£1.20 inc vat)



CERAMIC FUSES PACK OF 20
 5A, 8A, 16A, 25A
#CFPAK20 £1.80 (£2.16 inc vat)



MORE FUSE HOLDERS IN ELECTRICAL SECTION

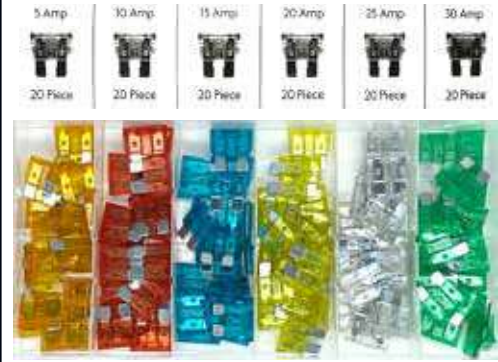
CROCODILE CLIP PACK 28 Piece pack including uninsulated mini (40mm) to 30 Amp charging clips (75mm) Red and Black insulated. Ideal for test equipment, lead lights and chargers.
#CROCPAK £4 (£4.80 inc vat)



CHECK OUT OUR BUILD BLOG
 GO TO www.carbuilder.com and click on 'BLOGS' FOREMAN Mk4



FUSE PACK 120 assorted standard blade fuses. **#FUSPAK** £5 (£6 inc vat)



50 STANDARD FUSE PACK
 30, 25, 20, 15, 10 and 5 Amp fuses.
#FUSPAK2 £2.50 (£3 inc vat)



MINI FUSE PACK 80 assorted mini fuses 10 of each between 2 Amps and 30 Amps
#MINFPAK £3.50 (£4.20 inc vat)



TERMINAL BLOCKS 12 way plastic connector strip with brass inserts, plated screws. Easily cut between segments.
60 AMP #TERBK60 £4.50 each (£5.40 inc vat)
30 AMP #TERBK30 £2.50 each (£3 inc vat)
15 AMP #TERBK15 £2 each (£2.40 inc vat)
10 AMP #TERBK10 £1.30 each (£1.56 inc vat)
5 AMP #TERBK5 £1.30 each (£1.56 inc vat)



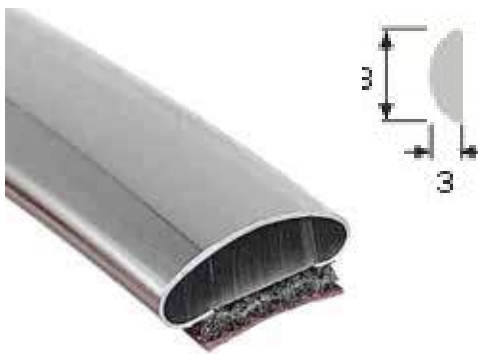
TRIM

NOTE: ALL TRIM DIMENSIONS ARE NOMINAL AND MAY VARY SLIGHTLY

CHROME TRIM 5mm x 2mm Self-adhesive. Hard rubber, skinned in hard wearing chrome. Very Flexible in both directions.
#TRMC2 £2.50 mtr (£3 inc vat)



CHROME TRIM 8mm x 3mm Self-adhesive. Very flexible flattened oval hard plastic chrome trim. Will form to a 75mm radius in its flat plane.
#TRMC4 £3 mtr (£3.60 inc vat)



END CAPS FOR #TRMC4
Size: 9.6mm x 16.5mm

#TRMC4END £3.50 pack of 4 (£4.20 inc vat)



CHROME TRIM 17.5mm x 3.5mm

Self-adhesive, flexible plastic chrome trim. Chrome version has wrap-around laminate that covers the sides. Satin black has natural surface finish.

Will form to 200mm radius in flat plane.

#TRMC8 £3.50 mtr (£4.20 inc vat)



ALL TRIMS THAT HAVE PEEL-OFF ADHESIVE BACKING. DO NOT APPLY TO NEW PAINT ALLOW 4 WEEKS FOR NEW PAINT TO CURE BEFORE APPLYING TRIM

BEND RADIUS EXAMPLES



CHROME TRIM 21mm x 3mm Hard rubber, skinned with chrome cover. Strong adhesive with peel-off backing. Beautiful mirror finish. Can be trimmed to a rounded end as shown.

#TRMC1 £4 mtr (£4.80 inc vat)



CHROME PLASTIC TRIM END CAPS FOR #TRMC1. Size 22.3mm x 45mm

Self-adhesive, injection-moulded end caps for two of our Chrome trims. This is a neat way to finish off and protect the cut ends.

#TRMC1END £5 pack of 4 (£6 inc vat)



MOST TRIMS ON THIS PAGE CAN BE CURVED IN THEIR FLAT PLANE AND WILL ADHERE WELL PROVIDED THE RADIUS IS NOT LESS THAN RECOMMENDED AND DOESN'T FINISH ON OR NEAR A CUT END.

NOTE: THIS MATERIAL CANNOT BE HEAT-FORMED AND WILL NOT RETAIN A CURVED SHAPE UNTIL IT HAS ADHERED TO THE PANEL FOR MAXIMUM PROTECTION SEAL ALL CUT ENDS WITH CLEAR LACQUER OR NAIL VARNISH

SANDWICH TRIM Very nice decorative trim. Very flexible self-adhesive. Black hard rubber with either Chrome or Red in-fills.
BLACK WITH CHROME INFILL #TRMSANC £2 mtr (£2.40 inc vat)



BLACK WITH RED INFILL #TRMSANR £2 mtr (£2.40 inc vat)



STAY-OUT TAPE MEASURES Brilliant new take on the old traditional tape-measure. These actually stay put when you pull out the tape and only release when you press the button. Now, why didn't I think of that?

THREE METRE **#TAPE3 £2** (£2.40 inc vat)
 FIVE METRE **#TAPE5 £3** (£3.60 inc vat)



PROFESSIONAL RUBBER ROLLER

Perfect for ensuring good adhesion on curved and irregular surfaces.

2" (50mm) wide x 1 1/2" (38mm) diameter,

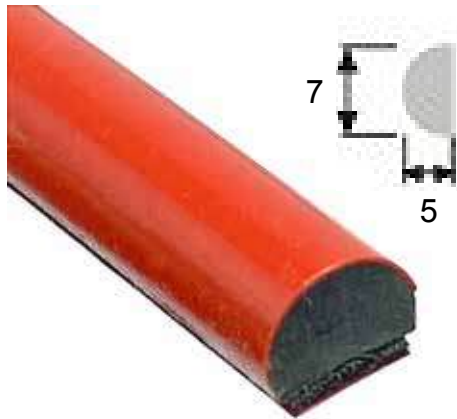
PROFESSIONAL RUBBER ROLLER

#DYN10007 £19.50 (£23.40 inc vat)



RED GLOSS TRIM 7mm x 5mm Self-adhesive. Hard rubber, skinned in hard wearing laminate Very Flexible in both directions.

#TRMRED1 £1 mtr (£1.20 inc vat)



14mm x 4.2mm Self-adhesive, very flexible plastic chrome trim. Will form to a 125mm radius in its flat plane. This version has a shallow recess in the back for the double sided tape which allows the edges of the trim to sit closer to the panel.

RED #TRMRED3

£1 mtr (£4.20 inc vat)



13mm x 3.5mm Hard rubber skinned in glossy black or chrome. Can be formed to 90mm radius in its flat plane and 10mm radius on its thickness. Strong adhesive with peel-off backing.

GLOSS BLACK #TRMB1

£3 mtr (£3.60 inc vat)



17.5mm x 3.5mm Self-adhesive, flexible plastic chrome trim. Chrome version has wrap-around laminate that covers the sides. Satin black has natural surface finish. Will form to 200mm radius in flat plane.

SATIN BLACK #TRMB2

Both £3.50 mtr (£4.20 inc vat)



WHEEL ARCH MOULDING Extremely flexible self-adhesive. Will easily follow wheel arch contours. Will finish off a sharp edge and provide protection against car park 'dings'.

BLACK WITH CHROME INFILL #TRMWAC

ALL BLACK

#TRMWAB

Both £8 mtr (£9.60 inc vat)



TRIM / HOSE CUTTER

Perfect for neat, accurate cuts on non-reinforced plastic and rubber trim.

#TRIMCUT £8.50 (£10.20 inc vat)

NOTE: NOT TO BE USED ON STEEL-REINFORCED DOOR OR EDGING TRIM OR STEEL BRAIDED HOSE



HIGH BOND DOUBLE SIDED TAPE

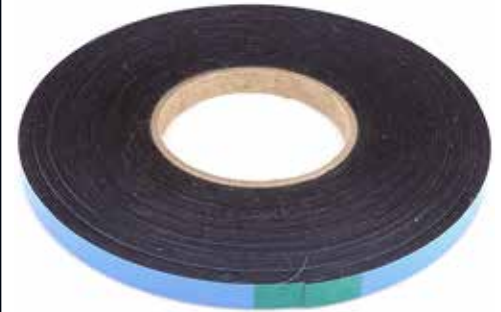
This High Bond tape is an OEM approved fixing for trims, number plates, spoilers, body mouldings, badges etc. 0.09mm thick - (just under 1mm). It is weather proof, UV proof and oil resistant. Bond strength increases over time. Available in three widths on 22 mtr long rolls.

NOTE: FOR MAXIMUM ADHESION ENSURE BOTH SURFACES ARE CLEAN, DRY AND FREE OF WAX AND OIL.

6mm #HBDST6 £10 (£12 inc vat)

12mm #HBDST12 £16 (£19.20 inc vat)

25mm #HBDST25 £23.50 (£28.20 inc vat)



DOUBLE-SIDED TAPE 24mm wide x 0.5mm thick x 5 metre roll. Ideal for fixing legend plaques, labels, badges or signs.

#DSTAP £3.25 (£3.90 inc vat)



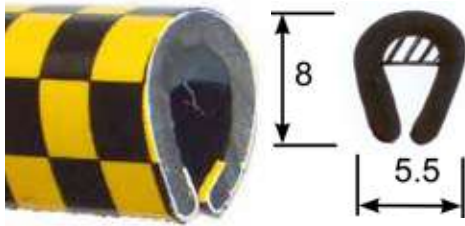
DOUBLE-SIDED TAPE 12mm wide x 0.5mm thick x 4 metre roll. Ideal for fixing trim, legend plaques, labels, badges or signs. **#DSTAP12 £3** (£3.60 inc vat)



U CHANNEL 8mm x 5.5mm. Very nice hard plastic trim that will curve without distortion in both directions as tight as 50mm radius. Will fit over 1mm to 4mm panels.

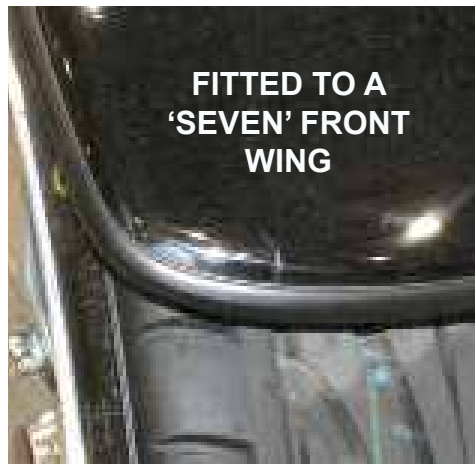
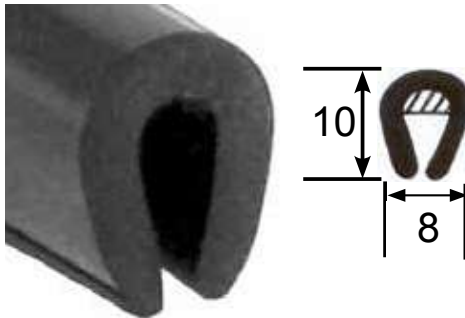
A brilliant feature is a fillet of non-setting adhesive at the bottom of the 'U' to help it stay firmly in place.

BLACK/YELLOW #TRMYU
£3 mtr (£3.60 inc vat)



SATIN BLACK 'U' CHANNEL 10mm x 8mm

Very nice, hard plastic trim that will curve without distortion in both directions as tight as 50mm radius. Will fit over 1mm to 4mm panels. A brilliant feature is a fillet of non-setting adhesive at the bottom of the 'U' to help it stay firmly in place. Picture shows trim around the edges of a Dax Rush front wheel arch. **#TRMSBU** £4 mtr (£4.80 inc vat)



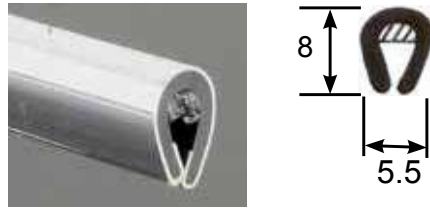
CRAFT KNIFE If there's one tool that you'll use every day it's probably a craft knife. It has a plated steel blade guide and uses 8-segment snap-off replaceable blades. Supplied with a pack of 10 carbon steel blades. Knife length closed 155mm.

#KNIFE £5 (£6 inc vat)



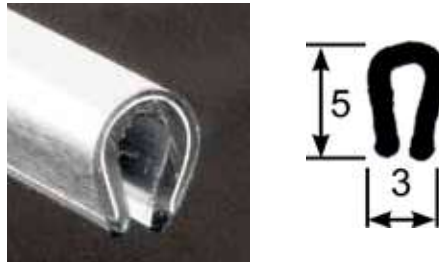
CHROME U CHANNEL Very nice hard plastic trim that will curve without distortion in both directions as tight as 50mm radius. A useful feature is a fillet of non-setting adhesive at the bottom of the 'U' to help it stay firmly in place.

8mm x 5.5mm For 1mm to 4mm panels
#TRMCU1 £3 mtr (£3.60 inc vat)

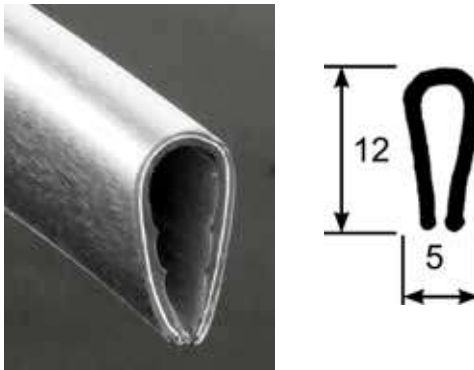


BRUSHED STAINLESS EFFECT PLASTIC 'U' EDGE TRIM Much stiffer than our other chrome U trims but can be formed around gentle curves.

5mm x 3mm for panels up to 1.5mm
#TRMCU2 £2.25 mtr (£2.70 inc vat)



12mm x 5mm for panels up to 3mm
#TRMCU3 £2.50 mtr (£3 inc vat)



RUBBER CLIP LINER Slide this rubber liner over your 12mm wide Hose Clips and P Clips for extra protection of your cables and hoses. Overall size 16mm x 5mm with an internal slot 12.3mm x 1.3mm. SOLD PER METRE **#TRMPL** £3 (£3.60 inc vat)



RUBBER 'U' CHANNEL Can be glued on with our Polyurethane or Contact Adhesive.

7 x 4mm for 1mm panels

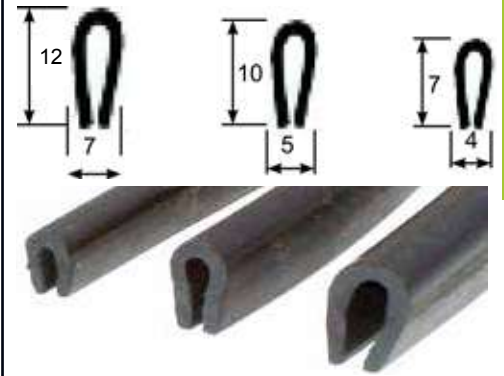
#TRMU1 £1.75 mtr (£2.10 inc vat)

10 x 5mm for 2mm panels

#TRMU2 £2 mtr (£2.40 inc vat)

12 x 7mm for 3mm panels

#TRMU3 £2.25 mtr (£2.70 inc vat)



RUBBER 'U' CHANNEL Can be glued on with our Polyurethane or Contact Adhesive.

15mm x 5.5mm for 1 to 2mm panels

#TRMU4 £3 mtr (£3.60 inc vat)

18mm x 5.5mm for 1 to 2mm panels

#TRMU5 £3.25 mtr (£3.90 inc vat)

21mm x 7mm

For panels up to 2mm thick

#TRMU7 £3 Mtr. (£3.60 inc vat)

26mm x 6mm for 1 to 3mm panels

#TRMU6 £3.50 mtr (£4.20 inc vat)



If you're fixing rubber 'U' channel with glue always wash the channel first with thinners to remove the wax film left by the manufacturing process.

SELF-ADHESIVE BLACK FOAM RUBBER STRIP

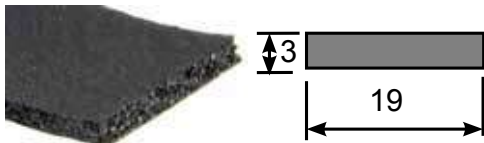
Open cell, skinned on top side. Ideal for vibration isolation or sealing between panel joints.

Three sizes:

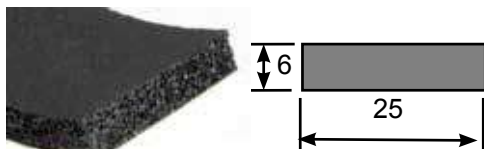


PEEL-OFF BACKING

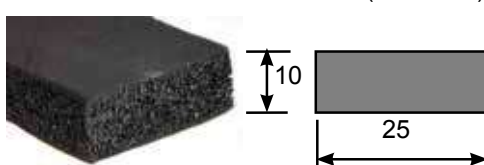
19 x 3mm #TRMR1 £1.75 mtr (£2.05 inc vat)



25 x 6mm #TRMR2 £2.25 mtr (£2.64 inc vat)



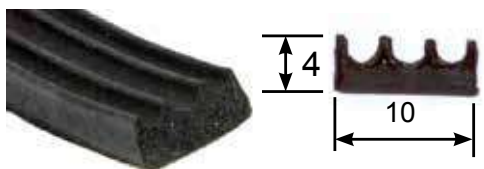
25 x 10mm #TRMR3 £2.50 mtr (£3 inc vat)



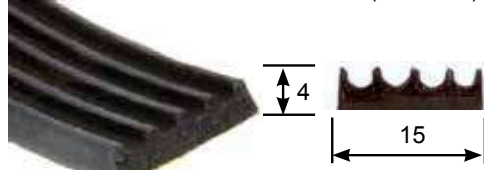
SELF ADHESIVE RIBBED NEOPRENE SPONGE STRIP

Soft, skinned closed cell sponge. Ideal for bonnet and boot shuts or panel to panel joints. Peel-off backing. Three sizes:

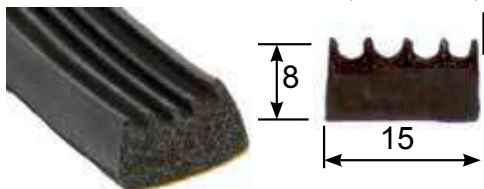
10mm x 4mm #TRMRIB1 £2 mtr (£2.40 inc vat)



15mm x 4mm #TRMRIB2 £2.50 mtr (£3 inc vat)



15mm x 8mm #TRMRIB3 £3 mtr (£3.60 inc vat)



CRAFT KNIFE #KNIFE £5 (£6 inc vat)



RUBBER 'P' SECTION WING PIPING

Use in the traditional way between bolt-on wings and body to make a neat, sealed joint. Or, as a finishing trim around the edges of aluminium panels. **4mm diameter bead. 22.5mm long tail x 2.3mm thick.**

#TRMPI2 £3 mtr (£3.60 inc vat)



PVC WING PIPING

Flexible, black PVC. Use in the traditional way between bolt-on wings and body to make a neat, sealed joint. Or, as a finishing trim around the edges of aluminium panels. **4.5mm diameter hollow bead. 25mm long tail x 1.3mm thick.**

#TRMPI £2.50 mtr (£3 inc vat)



5.5mm Dia. Hollow Bead. 38mm long tail x 1.3mm thick.

#TRMPI4 £2.50 mtr (£3 inc vat)



8.7mm Dia. Hollow Bead. 38mm long tail x 1.9mm thick.

#TRMPI5 £3 mtr (£3.60 inc vat)



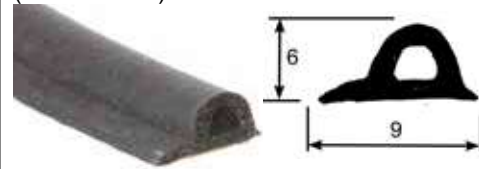
10mm Dia. Hollow Bead. 38mm long tail x 1.9mm thick.

#TRMPI6 £3 mtr (£3.60 inc vat)



NEOPRENE SPONGE 'P' SECTION SELF-ADHESIVE

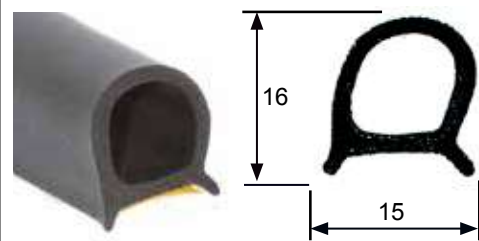
Soft, skinned sponge. Strong adhesive with peel-off backing **9mm x 6mm #TRMPSA £3.50 mtr (£4.20 inc vat)**



NEOPRENE SPONGE EARED 'D' SECTION SELF-ADHESIVE

Soft, skinned sponge. Strong adhesive with peel-off backing. A nice feature of this trim is the protruding ears that hide and seal the adhesive strip once it is applied.

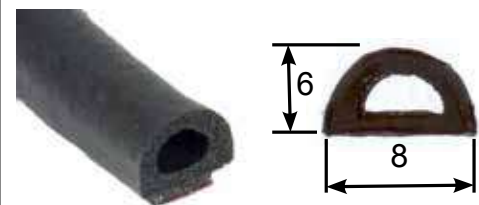
16mm x 15mm #TRMDSA4 £4.50 mtr (£5.40 inc vat)



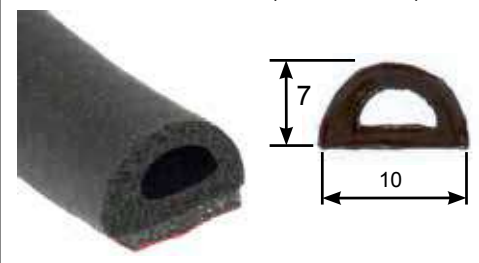
NOTE: HOLLOW 'D' SECTIONS ARE HIGHLY COMPRESSIBLE AND SUITABLE FOR BONNET, BOOT AND DOOR SEALS. WHEN CHOOSING THE CORRECT SIZE FOR THE JOB REMEMBER THAT ALTHOUGH YOU MAY BE ABLE TO SQUEEZE THE TRIM ALMOST FLAT BETWEEN YOUR FINGER AND THUMB, IT IS NOT SO EASY TO COMPRESS OVER A LARGER AREA

NEOPRENE HOLLOW 'D' SECTION SELF-ADHESIVE

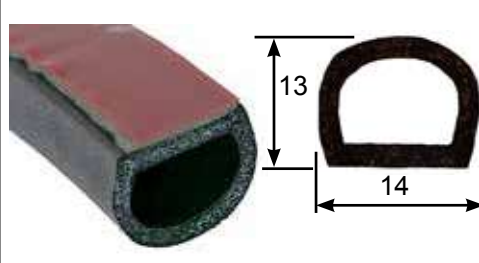
Soft, skinned sponge. Strong adhesive with peel-off backing **8mm x 6mm #TRMDSA1 £3.50 mtr (£4.20 inc vat)**



10mm x 7mm HOLLOW 'D' SECTION #TRMDSA2 £3.50 mtr (£4.20 inc vat)



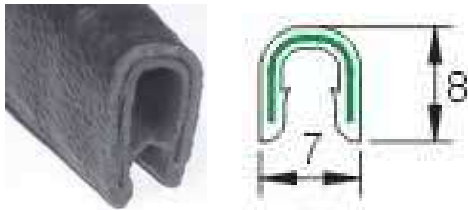
14mm x 13mm HOLLOW 'D' SECTION #TRMDSA6 £3.50 mtr (£4.20 inc vat)



PATTERNED PVC EDGE TRIMS All with steel reinforcing.

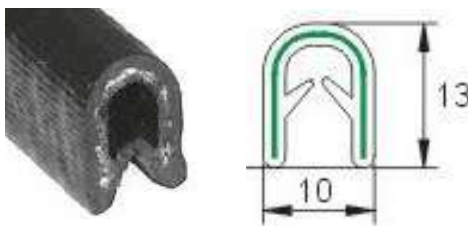
MINI EDGE TRIM Patterned PVC with steel reinforcing. Max panel thickness 2.5mm. Channel depth 7mm. Will form to 30mm radius curves.

#TRMPS £2.50 mtr (£3 inc vat)



EDGE TRIM Patterned PVC with steel reinforcing. Max panel thickness 5mm. Channel depth 10mm. Will form to 50mm radius.

#TRMPV £2.50 mtr (£3 inc vat)



LARGE EDGE TRIM Patterned PVC with steel reinforcing. Max panel thickness 6mm. Channel depth 16mm. Will form to 75mm radius. **#TRMPVL £3.50 mtr** (£4.20 inc vat)



SIDE CUTTING PLIERS Top quality, drop forged, chrome vanadium cutters. Use these for cutting reinforced trims like those on this and the following page. Length of cutters 200mm.

#SIDE CUT £12 (£14.40 inc vat)



CBS BUILDER'S TIP

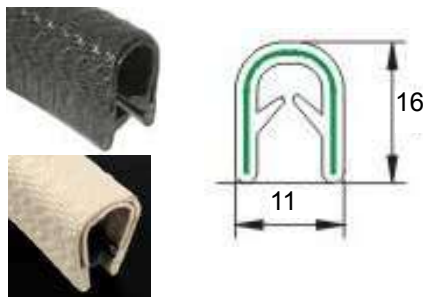
'U' Channel trim is mostly used as panel edging. But it can also be used to line large holes. The picture shows a 50mm hole in a 1mm thick aluminium sheet, lined with a short length of TRMU1. Neat, safe and self-securing.



Max panel thickness 7mm. Channel depth 13mm. Will form to 60mm radius.

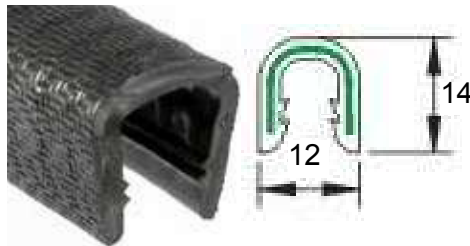
BLACK #TRMPV7 £3 mtr (£3.60 inc vat)

WHITE #TRMPV7W £3 mtr (£3.60 inc vat)



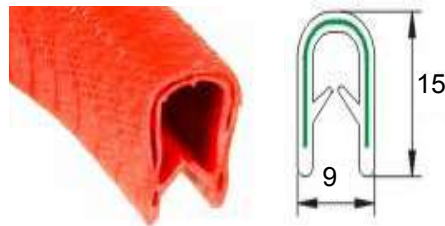
Max panel thickness 8mm. Channel depth 12mm. Will form to 50mm radius.

#TRMPVW £4 mtr (£4.80 inc vat)



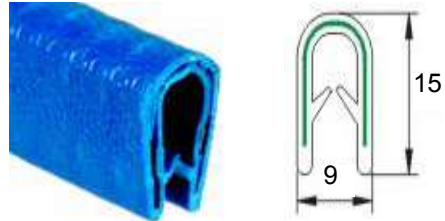
Max panel thickness 5mm. Channel depth 12mm. Will form to 60mm radius.

#TRMPVRD £3.50 mtr (£4.20 inc vat)



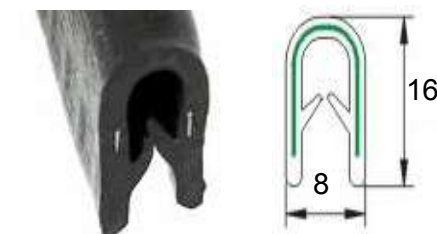
Max panel thickness 5mm. Channel depth 12mm. Will form to 60mm radius.

#TRMPVBU £3.50 mtr (£4.20 inc vat)



Max panel thickness 3mm. Channel depth 11mm. Will form to 60mm radius.

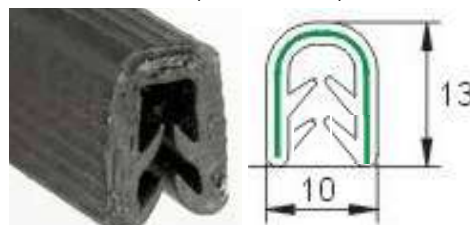
#TRMPV3 £2 mtr (£2.40 inc vat)



RUBBER EDGE TRIM with steel reinforcing.

Max panel thickness 5mm. Channel depth 10mm. Will form to 50mm radius.

#TRMPR £4 mtr (£4.80 inc vat)



EDGE SEAL Black rubber. For boot edge lips etc. Overall 19mm high. 9mm diameter soft round hollow bead. For up to 3mm thick panels. Steel reinforced 'U'.

#TRME £4.50 mtr (£5.40 inc vat)



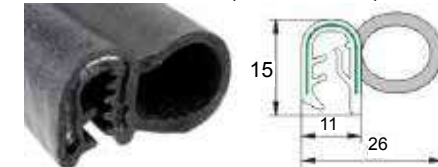
LARGE EDGE SEAL Black rubber. For boot edge lips etc. Overall 29mm high. 16mm diameter soft round hollow bead. For up to 3mm thick panels. Steel reinforced 'U'.

#TRME2 £4 mtr (£4.80 inc vat)



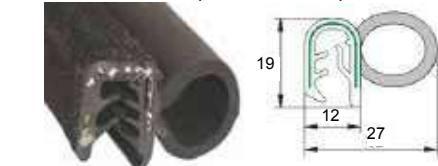
DOOR SEAL For panels up to 5mm thick. 17mm diameter soft hollow bead bonded to steel-reinforced rubber gripper with leather-grain finish.

#TRMDR £3.50 mtr (£4.20 inc vat)



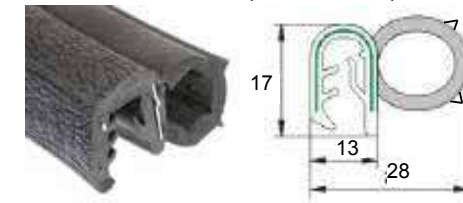
FLOCKED DOOR SEAL For panels up to 5mm thick. 17mm diameter soft hollow bead moulded to steel-reinforced PVC gripper with the luxury of a furry, black flocked finish.

#FDS £5.50 mtr (£6.60 inc vat)



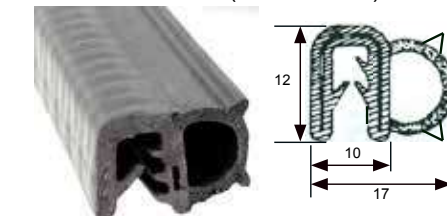
EARED DOOR SEAL For panels up to 6.5mm thick. 16mm diameter soft hollow bead with additional sealing ears moulded to steel-reinforced PVC gripper with leather-grain finish.

#TRMDRE £4.50 mtr (£5.40 inc vat)



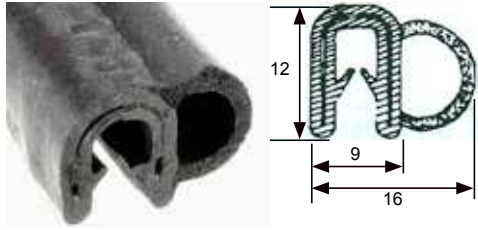
SMALL EARED DOOR SEAL For panels up to 5mm thick. 10mm diameter soft hollow bead with additional sealing ears moulded to steel-reinforced PVC gripper.

#TRMDRES £4 mtr (£4.80 inc vat)



SMALL DOOR SEAL Suitable for panels up to 4mm thick. 10mm diameter soft hollow bead moulded onto textured, steel-reinforced PVC gripper.

#TRMDRS £4 mtr (£4.80 inc vat)



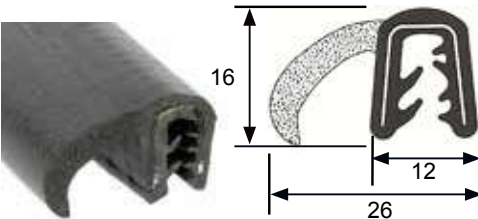
BOOT & DOOR SEAL

Steel reinforced 'U' section
SMALL 28mm total height for up to 3mm panels. **#TRMBS**
LARGE 42mm total height for up to 5mm panels. **#TRMBL**
Both £5 mtr (£6 inc vat)



LEAF DOOR SEAL Here's another door seal alternative. Very flexible, steel reinforced press-on 'U' section with a bonded-on, flexible, Neoprene sponge leaf. Suitable for panels up to 5mm thick. 13mm 'U' channel depth.

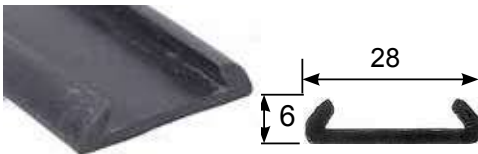
#TRMDRL £4.50 mtr (£5.40 inc vat)



TANK STRAP RUBBER

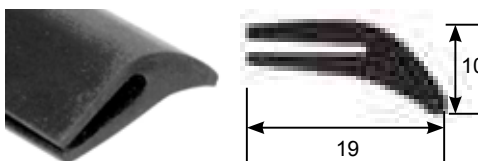
28 x 6mm hard black rubber channel. Will accept 20mm wide strap.

#TRMTANK £7.50 mtr (£9 inc vat)



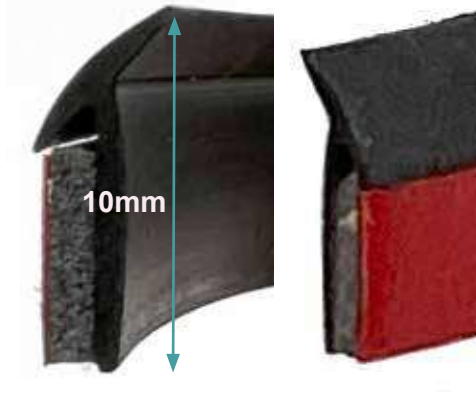
LEAF SEAL Black flexible rubber. For window seal, boot edge lips etc. Overall 19mm high. For up to 2mm thick panels.

#TRML1 £3.50 mtr (£4.20 inc vat)



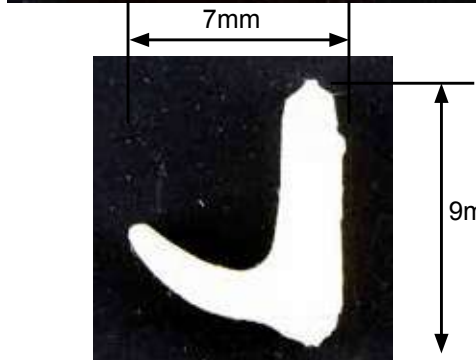
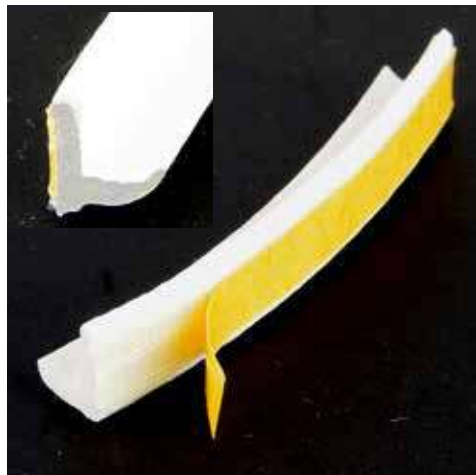
SMALL RUBBER SELF-ADHESIVE LEAF SEAL Clinched Bodykit seal. Black flexible rubber. Size 10mm high. 5mm wide, peel-off, self adhesive strip. Sold from a roll by the metre. ie. if you order quantity 3 you will receive one 3m length.

#TRML3 £4 (£4.80 inc vat)



WHITE NEOPRENE SELF-ADHESIVE LEAF SECTION SEAL Soft, skinned sponge. Strong adhesive with peel-off backing. 9mm x 7mm.

#TRMSAL £1.80 mtr (£2.16 inc vat)



RUBBER SHEET 500mm X 300mm

Tough rubber for making your own mud flaps or engine bay side shields. 3mm or 4mm thickness. Cut with a knife or snips.

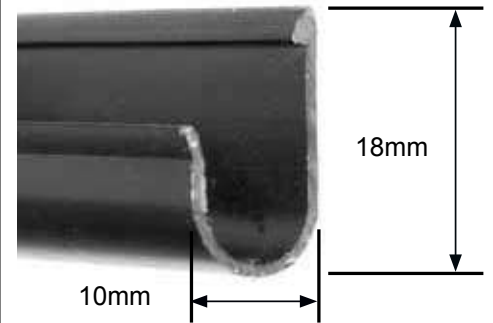
2 PIECES 3mm #MUDF3 £12 (+ vat)

2 PIECES 4mm #MUDF4 £16 (£+ vat)



GUTTER TRIM MOULDED BLACK PVC 'J' SECTION Will follow gentle roof curves. Easily cut and trimmed. 1mm wall thickness. 1800mm (6ft) lengths. Fix with 12mm Double-Sided Foam Tape. (Available separately)

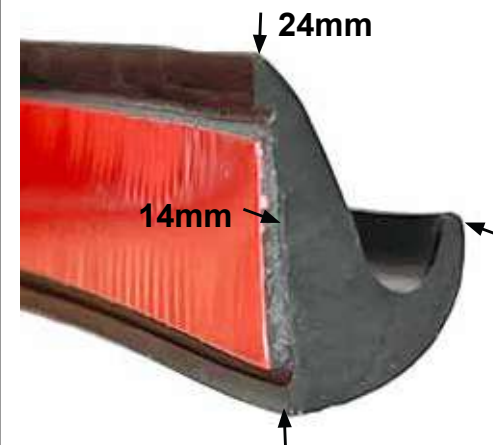
#GUTTER £6 per 6ft length (£7.20 inc vat)
NOTE: Safe delivery will require packing to a wooden batten and additional shipping costs.



RUBBER SELF-ADHESIVE GUTTER TRIM

Exclusive to CBS, this flexible, hard rubber trim has a strong peel-off self-adhesive strip, inset on the back for a neat and flush installation. Size 24mm high x 14mm thick. Minimum radius in its flat plane 120mm.

#TRMSAJ £9 mtr. (£10.80 inc vat)



CLASSIC FELT BONNET STRIP

1" (25mm) wide x 1/8" (3mm) thick. Often used on classic vehicles between body panels and chassis, for window channels, bonnet and boot cushioning. 70% Wool - 30% Viscose.

SOLD BY THE METRE FROM A ROLL
 Maximum length in one piece - 15 metres.

#FELTSTRIP £3 per metre (£3.60 inc vat)



DON'T FORGET TO CHECK OUT THE HINTS and TIPS SECTION AT THE BACK OF THIS CATALOGUE

FLOCKED WINDOW 'U' CHANNEL

A hard rubber 'U' channel that is flocked on it's inside edges. Press or glue into a 1/2" (12.4mm), inside dimension, channel. Will accept 5mm or 6mm acrylic or glass panes. Sold by the metre from a roll.

#WCHAN £5.80 (£6.96 inc vat)



DOUBLE FLOCKED WINDOW 'U' CHANNEL

A hard rubber 'U' channel that is flocked on it's inside edges. Press or glue into a 7/8" (22mm), inside dimension, channel. Will accept 5mm or 6mm acrylic or glass panes. Sold by the metre from a roll.

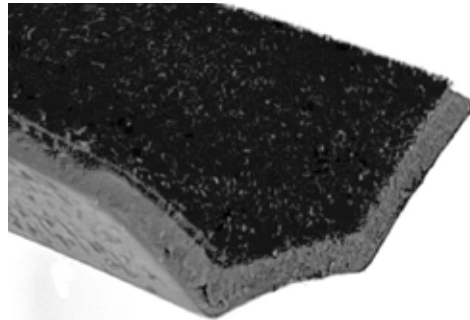
#WCHAN2 £6 (£7.20 inc vat)



FLOCKED WINDOW 'U' CHANNEL

A hard rubber 'U' channel that is flocked on it's inside edges. Press or glue into a 11mm wide x 11mm deep, channel. Will accept 5mm or 6mm thick acrylic or glass panes. Sold by the metre from a roll.

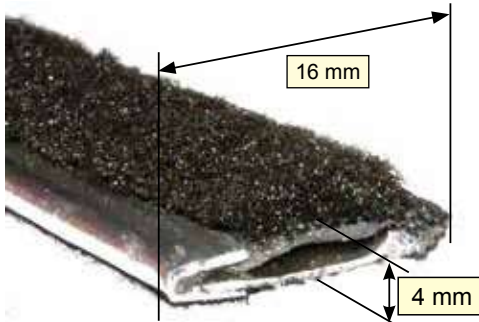
#WCHAN3 £6 mtr (£7.20 inc vat)



OPENING WINDOW INNER STRIP

This is the strip that is usually fitted to doors as a sealing guide for the inside of opening windows. It has plated steel reinforcing cleverly folded with a woven fabric side and a brushed fabric side. We are still trying to find the fixing clips but it can easily be secured with small pop rivets. Supplied in one metre lengths taped to a piece of wood.

#OWS £6 mtr (£7.20 inc vat)



RUBBER AND STEEL WINDOW TRIM

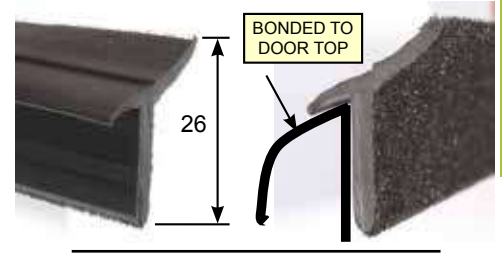
Originally a Triumph part, this 745mm long rubber moulded over a plated steel strip could be useful in other applications. Three 3mm holes at 330mm centres. Weight 69 gms.

#FWT3 £9 (£10.80)



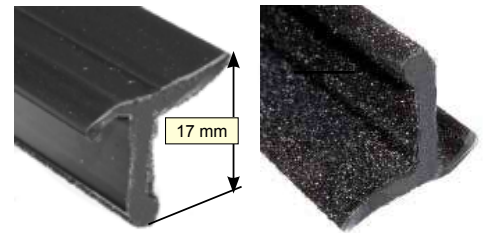
FLOCKED WINDOW TRIM These two trims have a soft and flexible top section bonded to a much stiffer, vertical mounting strip that can be riveted, bonded or fixed with clips to the door panel. The flocked side wipes against the window as it goes up and down. Suitable for MGs, Rootes cars and many others. Sold in one metre lengths.

#FWT £7.50 mtr (£9 inc vat)



SMALL FLOCKED WINDOW TRIM

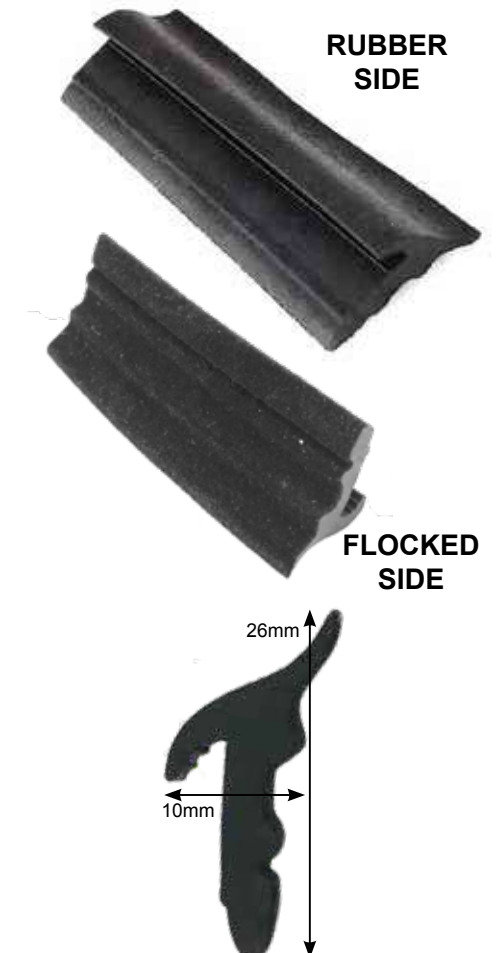
#FWT2 £6.50 mtr (£7.80 inc vat)



FLOCKED RUBBER WINDOW TRIM - FROM A ROLL BY THE METRE

Here's a very flexible window trim that can be bonded along the top edge of a door to seal against the window as it moves up and down. Flocked finish on the side that contacts the glass. Sold by the Metre from a roll. Weight 142 gms per metre.

#FWTROLL £7 (£8.40 inc vat)



BIKE BUILDER SOLUTIONS

OUR PLANS FOR A SEPARATE 'BIKE BUILDER' CATALOGUE HAVE CHANGED A LITTLE BECAUSE SO MANY OF OUR PARTS ARE SUITABLE FOR TWO, THREE OR FOUR WHEELED VEHICLES SO HERE ARE A FEW BIKE-SPECIFIC PARTS

LUCAS STYLE MOTORCYCLE REAR LIGHT

Here's a nicely made, chrome plated, die-cast rear lamp fitting with a rubber pad and fixing points for a number plate to attach to. It is designed to mount on most rear mudguards. The lamp has STOP and TAIL function with a clear underside for number plate illumination. Maximum width - 180mm. Height 90mm. Front to back 145mm. Lamp lens size 110mm x 52mm. 12 volt 21w / 5w bulb and fixing screws included. 200mm flyleads with male bullet terminals.

NOTE: 2 - wire connection so the unit must be earthed to work correctly. Weight 500 gms.

#MCRL1 £35 (£42 inc vat)



CUSTOM ALUMINIUM MOTORCYCLE REAR LIGHT

Here's a stylish, chromed aluminium and chromed plastic rear lamp unit with fixing points for a number plate to attach to. It has a 65mm x 30mm rubber 'sandwich' pad and is designed to mount on most rear mudguards. The lamp has STOP and TAIL function with a clear underside for number plate illumination. Maximum width - 170mm. Height 100mm. Front to back 85mm. Lamp lens size 85mm x 55mm. 12 volt 21w / 5w bulb and fixing screws included.

300mm sleeved flyleads for STOP TAIL and EARTH with male bullet terminals.

Weight 176 gms.

#MCRL2 £25 (£30 inc vat)



MOTORCYCLE RIM TAPES

Tough rubber ring to protect your inner tube from sharp spoke ends. With valve hole.

FOR 17" WHEELS 30mm WIDE

#RIMT17 £2 (£2.40 inc vat)

FOR 18" WHEELS 30mm WIDE

#RIMT18 £3 (£3.60 inc vat)

FOR 18" to 19" WHEELS 30mm WIDE

#RIMT19 £3 (£3.60 inc vat)

FOR 20" to 21" WHEELS 20mm WIDE

#RIMT20 £2 (£2.40 inc vat)



PROFESSIONAL BIKE CHAIN SPLITTER / REPAIR TOOL

Top quality, heavy duty tool for removing and replacing rivets and links in motorcycle chains. Height 115mm

For Chain Sizes from HD 520 525 530 532

Full instructions included. Weight 583 gms.

#CHTOOL £45 (£54 inc vat)



TYRE LEVER Very nicely made. 375mm long with a plastic handle. Weight 270 gms.

#TYLEV £9.50 (£11.40 inc vat)



25mm + 25mm RUBBER HANDLEBAR

GRIPS Soft, stretchy rubber for 25mm (1") diameter bars. Overall length 130mm

#GRIPS1 £6.50 (£7.80 inc vat)

22mm + 25mm VERSION

#GRIPS2 £6.50 (£7.80 inc vat)



22 and 25mm RUBBER HANDLEBAR

GRIPS Classic style, soft, stretchy rubber for 22mm (7/8") diameter Bars. One 22mm and the other 25mm for throttle side. Closed end. Overall length 125mm.

#GRIPS3 £6.50 (£7.80 inc vat)



CHROME HORN / KILL BUTTON

Only 22mm diameter. Fits 22mm (7/8") bar. Single wire connection.

Earth through the bars.

#HBS1 £6 (£7.20 inc vat)



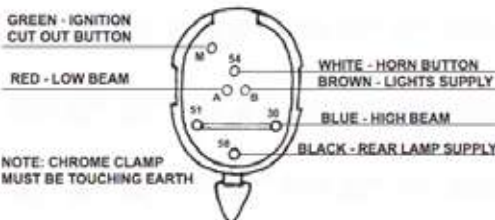
CHROME LIGHTS HORN AND KILL SWITCH

Fits 22mm (7/8") bar. 3 position switch for OFF - MAIN and DIP. HORN button on top and KILL button on the side.

#HBS2 £10 (£12 inc vat)



VIEW FROM UNDERSIDE



CHROME DIP SWITCH BAR MOUNTING

Fits 22mm (7/8") bar.

2 position switch for MAIN / DIP BEAM

#HBS3 £8 (£9.60 inc vat)



BLACK LIGHTS AND KILL SWITCH

Fits 22mm (7/8") bar. 3 position switch for OFF - MAIN and DIP. KILL button on side.

400mm sleeved flylead with insulated bullet terminals.

#HBS4 £18 (£21.60 inc vat)



70mm HORN 6v or 12v. Small, discreet horn but loud enough to be legal. 8mm and 6mm mounting holes. Two 1/4" male spade terminals. Weight 100 gms.

6 VOLT #HORN706V £7 (£8.40 inc vat)

12 VOLT #HORN7012V £7 (£8.40 inc vat)



123mm DIAMETER CHROME STALK MIRRORS Flat glass. Overall length end to end 310mm. Spherical joint between stalk and mirror head. M10 x 1.25mm thread with locknut. Weight 735 gms pair.

#M32 £22 pair (£26.40 inc vat)



MANY OTHER STALK MIRRORS AVAILABLE IN OUR 'MIRRORS' SECTION

SPARK PLUG TOOL SET A 3/8" drive 'T' handle wrench, a 13/16" (21mm) and a 5/8" (16mm) deep socket, a brass brush and a multi gap gauge. Weight 500 gms.

#SPKSET £10 (£12 inc vat)



83mm CONVEX BAR END MIRRORS

Nicely engineered aluminium. Designed to mount in a tube with 18mm Inside Diameter but could be modified with a little ingenuity for other mounting options. Weight 389gms.

SATIN BLACK

#M33BK £18 pair (£21.60 inc vat)



SILVER #M33S £18 pair (£21.60 inc vat)



STOP LIGHT SWITCH PULL - TO - MAKE

Simply push the knurled nut into a 14mm hole and screw in the switch to self tighten. 300mm sleeved flylead with bullet terminals.

SPRING NOT INCLUDED

#STSSPR3 £5 (£6 inc vat)



STOP LIGHT SWITCH PULL - TO - MAKE

Fits in a 12mm hole with two locknuts. Spring length 100mm. Overall length 165mm. 100mm flyleads with bullet terminals.

#STSSPR2 £7.50 (£9 inc vat)



STOP LIGHT SWITCH PULL - TO - MAKE

Simply push the nut into a 15.5mm (5/8") hole and screw in the switch to self tighten. Spring length 100mm. Overall length 165mm. 100mm flyleads with bullet terminals.

#STSSPR4 £7.50 (£9 inc vat)



RETURNS

Before placing an order please read carefully our Terms and Conditions on the second and last pages of this catalogue. Thank you

HINTS & TIPS

SILENCER MODIFICATION The silencer on customer, Pat's MX5 was getting just too noisy so, as an alternative to an expensive replacement, he decided to buy one of our wadding refills and convert his silencer to make it re-packable. He first marked a cutting line an inch from the end of the can with some tape and cut through the outer case with a hacksaw. Our wadding refill was wrapped around his original baffle and the cut end of the original case was slipped over the stainless strip, drilled and riveted in place. Easy peasy. Nice one Pat.



LINING HOLES WITH 'U' CHANNEL

Sometimes you need to line holes in panels or bodywork, either for decoration or to comply with IVA 'sharp edge and radius' requirements but you just can't find a grommet of the correct size. One simple solution is to use 'U' channel trim. The picture below shows a 50mm hole in 1mm thick aluminium lined with our 7mm x 4mm rubber 'U' channel. If you cut the correct length and trim the ends neatly the join will be almost invisible and it won't even need gluing in place. You can use our Chrome, Gloss Black or Carbon effect 'U' channels for more decorative effect and even our Herringbone embossed, steel reinforced PVC trims for larger holes and thicker panels.



WHAT IS P.C.D.?

This means 'Pitch Circle Diameter' and is the diameter of a circle drawn through the centre of a set of holes on a circle. So, four equally spaced 12mm holes on a 98mm PDC could refer to the size and spacing of your wheel bolts, for example.

HOW DO YOU MEASURE TUBES AND HOSES? To the experienced car builder that may seem like a daft question but you may be surprised at how much confusion this can cause a beginner. Lets start with the basics - apart from the length, which is obvious, every hose or tube has three dimensions: 1. Outside diameter (O.D.) 2. Inside diameter (I.D.) 3. Wall thickness - the thickness of the metal or rubber tube wall. You can measure the length easily enough with a tape measure but for the other three measurements the best tool is a Digital or Vernier Caliper. But what dimension do you ask for when you need to order some hose or tubing - Inside or Outside Diameter?

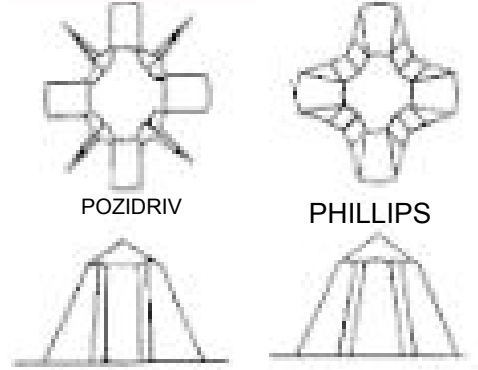
HERE'S A SIMPLE RULE TO REMEMBER.... Everything soft like Rubber, PVC, Silicone, Neoprene, Polythene is always denoted using it's Inside Diameter (I.D.) and everything hard like Steel, Aluminium, Copper, Brass, Nylon etc. is always denoted using it's Outside Diameter (O.D.) Asking for a rubber hose with an O.D. of 43 mm is meaningless - unless you know the wall thickness - you can then calculate the I.D. In fact, if you know any two out of I.D., O.D. or wall thickness, you can easily calculate the third. Absolute measuring accuracy is not always important. For instance, 38mm rubber hose is, as far as cooling system plumbing goes, the same as 1½" hose. The size difference is unimportant. However, 5/16" copper tube looks alarmingly similar in size to 8mm copper tube. But if you're using compression fittings and olives on, for instance, a fuel system using the correct size components is essential for safe, tight joints.

NOTE: Rubber hoses are not always perfectly round and can be flattened slightly in storage. Whilst this does not affect the performance of the hose it can make them difficult to measure accurately. Simply take the dimension at the widest point and again at the thinnest point and average the two.

SAFER FILING A simple hint but one that could prevent a heap of heartache and extra work. Filing holes in dashboards and body panels is one of the more tedious jobs when building a car. And it's all too easy for the file to slip and gouge a hefty gash in a polished or painted surface. The simple solution - just cut a couple of inches of rubber hose and push it over the end of the file. Even if you then make a slip-up, the rubber won't mark your panel.



DO CROSS HEAD SCREWS MAKE YOU CROSS? Have you ever wondered why some 'Posi' screws feel sloppy on your screwdriver whilst others fit so nicely that they stay on the end of the driver? It's all down to using the correct screwdriver. There are three main types of 'cross-head' screws and here they are. Pozidrive and the less common Supadrive screwdrivers are interchangeable but using a Phillips screwdriver in a Pozi or Supa screw will burr the head and vice-versa.



MARKING OUT Measuring calipers are the most-used tools in our workshops and have never been as inexpensive as they are today. When I was an apprentice, a vernier caliper, identical to the one for sale in our catalogue for under a tenner, cost a week's wages!! This hint would make many an engineer weep, but I find the technique so useful that I justify it to myself as a time saver. When marking-out softer materials like aluminium and mild steel simply set the caliper to the required dimension, tighten the jaws and scribe a line on the surface with the point of one jaw whilst running the other jaw along the edge of the material. Both the inner and outer, measuring jaws of your caliper are hardened and ground to a point so, providing you're not trying to mark stainless or hardened steel, the calipers will not be damaged.



MIX IT UP Many bottled products like polishes and waxes can settle on the shelf and leave a thick sediment layer on the bottom. Drop a couple of M8 stainless nuts inside. It'll now mix properly whenever you shake it up.



BRAKE FLUID RESERVOIR CAP MOD

Dear CBS,
During the week I ordered three brake fluid reservoir caps (FLCAP) to convert my single fluid reservoirs (FLRES1) to have float switches. I looked at the conversion method you suggest in your catalogue, but decided on a slightly different route. The outcome was successful, so I thought I'd share it with you as it might be a useful alternative as some point.

1. Drill the 24.5 mm hole in the top of the white FLRES1 cap as you describe.
2. Smooth the top of the cap around the hole and remove adjacent raised lettering with a sharp knife.
3. If it hasn't done so already, pop out the white seal ring retaining section from the underside of the cap.
4. Open out the hole in middle of this seal retaining section to 30mm diameter.
5. Separate the two parts of the black FLCAP as you describe.
6. Warm the stem of the terminal block and bend it up very slightly so that the switch sits flush in the top of the FLRES1 cap.
7. Take the remaining section of the FLCAP and carefully trim off the thin flange on the top using a sharp knife.
8. Now trim off the threaded outer ring and file or sand down the top flange to a circle 37 mm diameter.
9. Clean all the parts then place the float section through the top of the FLRES1 cap.
10. Turn upside down and support the yellow cap on a hard surface.
11. Pace the trimmed down float cover into the centre of the cap and press firmly until it snaps into place.
12. Put the big seal ring back into the cap.
13. Place the retaining section over the float cover and seal ring, and press firmly until it snaps into place

The main benefit of this method is that it allows the terminals to be rotated to any position with the cap in place.

Hope you like it :-))



HOW TO TRIM PLASTIC LAMP MOUNTS AT AN ANGLE

Not all rear panels have vertical surfaces to mount your rear lamps. Our moulded lamp housings offer an easy way to mount your lamps vertically on a sloping rear panel. Here's how to trim them.

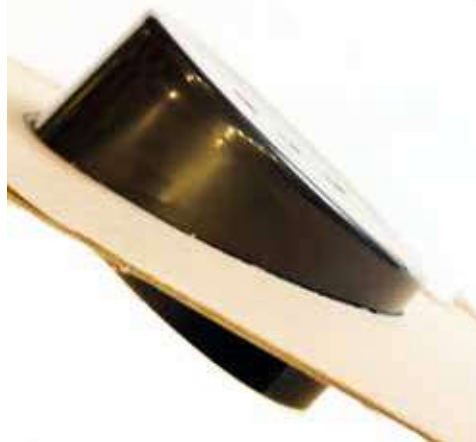
First make a cardboard template. Draw around the lamp with a magic marker.



Cut the hole with a sharp knife. Depending on the angle of the sloping rear panel you may have to extend the cut hole a little to an 'Ellipse' shape. Trial and error is the best way here - just trim a little at a time.....



... until the housing sits nicely in the hole at the required angle.



**7000
PRODUCTS IN
STOCK FOR
IMMEDIATE
SHIPPING**

Mark the cutting line on the moulding - we've used a Tippex pen here.



Trim carefully to the line with snips or strong scissors. Trim in stages, testing the angle against your panel every time. You can always trim a little more off - but you can't put it back on. For final finishing you can level the cut edge by rubbing it on a sheet of 60 grit abrasive paper glued to a piece of flat ply or MDF.



Glue a strip of rubber 'U' channel around the edge and you're ready to mount it to your panel..



TO ENLARGE THE MOUNTING HOLE IN A RING TERMINAL In this case 6mm to 8mm. Push the terminal onto the shank of a drill of the same size and open the hole with a step drill on a block of wood. .



ENGINE TURNING is the name given to a regular pattern of abraded circles on a metal panel. This impressive decorative effect is surprisingly easy to achieve using basic home workshop equipment. The key – Scotchbrite. No, not the wimpy pad that you use for scouring the Sunday roast dish. There are much tougher versions available. Check out your DIY Superstore. It is available in sheets like wet & dry paper, in rolls 25mm wide or in discs, glued to a hard backing pad for use in your small angle grinder. At a push, try your industrial cleaning supplies merchant – the coarsest grade floor polisher scrubbers are a little on the big side but should be a cost-effective way of buying the stuff. The tool – A valve. Yes, from a cylinder head. We use mostly 25mm or 1 inch. Be sure that the valve has a flat head –dished valves are a no-no. Cut a disc from your Scotchbrite the same size as your valve head. A wad-punch (sharp, tubular cutter for making holes in leather, gaskets etc.) is ideal but scissors are OK. ‘Superglue’



the disc to the valve, allow to cure and fit in a drill chuck on a pillar drill. Don't attempt to engine turn with a hand drill – it won't work. Mount the valve tightly in the drill chuck and set the speed at slow. Use plenty of light oil (Duck Oil or WD40) and, applying even pressure each time, gradually move across the panel overlapping the last turn by about a third. You can clamp a piece of timber to your drill platform as a guide-bar to ensure parallel lines. Start either at the top or the bottom and work from left to right. Overlap each circle by approximately one third. At the end of the first row move back and start a second row, placing the circle between the two above and overlapping them by one third. And so on. Always keep the panel flat on the drill base and try to avoid forming small sections of circles at the edges or the holes in your panel. Be careful, this can tear your Scotchbrite disc clean off the valve. Whenever you use a new piece of Scotchbrite always 'break it in' on a piece of scrap. This will help ensure that your circles maintain a uniform texture. As always, it makes sense to practice on a piece of waste material, perfecting your technique before finally creating your masterpiece.



CARDBOARD BOX OVEN In cooler climates, spraying small parts in a cold, damp garage can prove challenging. Curing times are increased and blooming (going dull) often spoils the finish. Our simple solution to this problem is a makeshift oven. We made one easily with a cardboard box and a small fan heater. We place the parts on a block inside or simply hang them on a piece of wire punched through the top of the box. We can even and turn them round using the wire without putting your hands inside the box.

We warm both the parts and the paint in the 'oven'.

70 deg Fahrenheit is a good temperature to aim for. A thermometer is put in the box and move the heater closer or further away until you have the temperature stabilised. We keep our workshop well ventilated and we turn off the heater whilst you're actually spraying. Turn it on again when the fumes and vapour have cleared and leave it on until the paint has cured.

It makes sense to have a fire extinguisher handy. **DISCLAIMER:** Use this method at your own discretion.



ANGLED REAR LAMP MOUNTING

You can fit any surface-mounted lamp to a sloping rear panel by moulding and shaping a wedge of body filler.

1. Determine the area where the light is to be mounted and stick sellotape to it a few inches larger than the lamp surface. This acts as a mould release preventing the filler from sticking to the panel.
2. Cover the rear and sides of the lamp with sellotape.
3. Position the lamp and temporarily hold it in place with a few pieces of tape and cardboard supports.
4. Fill the gap with filler. Don't worry about getting it full with one mix of filler. This part can be done in several stages.
5. When the gap is sufficiently filled you can pull off the lamp and the hardened wedge of filler. Dress the filler to size and shape and paint it black.
6. Drill right through the mounting holes and the wedge.



WELDING UNIVERSAL JOINTS

It's sometimes necessary to weld a Universal Joint to a shaft for steering columns or gear linkages - a perfectly acceptable practice. The problem is, most UJ's have rubber or plastic seals that keep out the dust and grit and keep in the grease. Excessive welding heat, just a couple of inches away will melt the seals and destroy the component. The solution? - Immerse most of the UJ in a bucket of water whilst you weld the above the water level. The water will soak away heat and protect the UJ's seals. In the picture we're supporting the UJ and shaft with mole grips just above the water level. Of course water and mains electricity don't mix, so take the necessary precautions if you're trying this one. But if you have the savvy to build a car you'll know that already.



CORRECTING HOSE SIZE MISMATCHES

Mainstream car and motorcycle manufacturers have a habit of making hoses and hose outlets in some weird and wonderful sizes like 23mm or 41mm. And sometimes there is no exact hose size equivalent when you come to re-plumb your cooling system. OK, you can stretch a 32mm rubber hose over a 34mm outlet and you can squeeze a 25mm hose down to 22mm with a good hose clip but it's better to aim for a good fit - and here's one way to achieve it. A bicycle inner tube is really just a very thin-walled hose with it's ends joined together. You can get four different sizes for about a tenner on ebay that will suit any hose size on your system. Cut a 30mm section from one and you have a wide ring that you can slip over your outlet to increase it's diameter by about 2mm. You can even build up the thickness with a couple of layers if necessary. In the picture above a short section of inner tube has been used to increase the diameter of one end of a 25mm hose joiner to 27mm.



TOP TIP We've recently introduced several new cable-operated ventilation ducts and heater valves so I thought I'd dig out this old picture of the cockpit ventilation ducting from our helicopter website. It may give you a few ideas. At the centre is a welded aluminium 'T' made from 1.5mm wall thickness 2" diameter tube. Two, upside-down 'L' shaped rods have butterfly discs screwed to them inside the ali tube and a small hole drilled at the end of the 'L'. Cold air is drawn in from the left hose and warm air from the right hose. The butterfly valves control the mix. Inside the short piece of gates rubber hose is one of our 50mm 12 volt Axial fans. This pumps the air through the top hose to vent outlets at the base of the screen. The butterfly valves are cable operated with simple push-pull cables like our #PPC. The solid wire inners are bent to fit through the small hole in the 'L' arms and the outers are held in 5mm rubber-lined 'P' Clips fixed to M5 bolts, which are silver-soldered to the stainless hose clips. The left-hand cable operates the right hand butterfly and vice versa.



CUTTING U CHANNEL RUBBER TRIM

Our rubber 'U' channel is pretty flexible stuff and will form nicely around gentle curves. But if the required radius is too small the trim may pucker as it tries to form itself to the curve. One method of ensuring a neat fit is to cut the arms of the 'U', either along the whole length or just where it goes around the tight corners. In other words, cut the tall 'U' down to a short 'U'. We use this technique to edge our stainless pedestal mirror with a short length or our #TRMU2, increasing it's edge radius to make it IVAOK.

Here's our method:
Find a scrap piece of aluminium sheet, preferably the same thickness as the gap in the 'U' channel - in this case 2mm. Push the length of trim fully onto the edge of the sheet. Then, with a straight edge or steel rule and a sharp knife, cut down the length of the trim legs either on both sides or one side as required.
If you're bonding the trim to your component don't forget to wash the 'U' channel out with solvent to remove the wax residue from the manufacturing process.



STAY-OUT TAPE MEASURES

Brilliant new take on the old traditional tape-measure. These actually stay put when you pull out the tape and only release when you press the button. Now, why didn't I think of that?

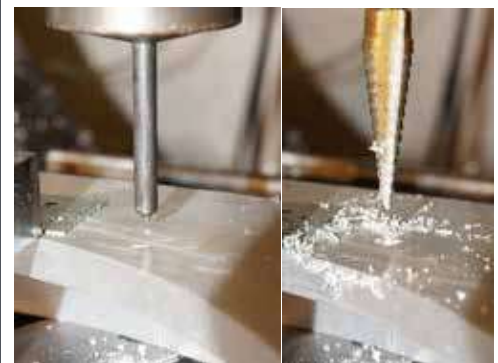
THREE METRE #TAPE3 £2 (£2.40 inc vat)
FIVE METRE #TAPE5 £3 (£3.60 inc vat)



HOW TO DRILL AND TAP A HOLE.

You can just drill a hole or you can drill an accurate hole. There are occasions when a hole will do but there are occasions when an accurate hole is required to keep precision components perfectly aligned - and this job is such an occasion. Here's how I tackle the job of making the M10 tapped holes in the adapter plate for the gearbox to adapter plate studs. We're fortunate to have a universal milling machine but a good quality pillar drill will be fine. Just ensure that the 'Quill' (the part that moves up and down with the drill chuck on) is perfectly perpendicular to the bed of the machine.

1. We've already marked the six hole positions through both components with a transfer punch and here we are with the same transfer punch, mounted in a collet in the milling machine. A collet is more accurate than a drill chuck so I use one for this first step. Although the adapter plate will be clamped down firmly for the drilling operations (you can just see the clamp in the pictures), leave the adapter plate floating until the transfer punch is located in the centre-pop mark - then tighten the clamp.
2. Use a step drill to start the hole. Step drills are stronger and more rigid than regular drills and will not wander. With a little light oil you'll have a perfectly centred, stepped hole right through. Be careful not to make the hole too big.
3. Open up with the tapping drill. I always use a drill about 0.2mm smaller than the charts recommend. Drills always cut bigger than their actual size so this will leave you with the correct size hole for tapping.
4. Replace the drill with the tap and, using gentle pressure on the quill, turn the chuck by hand for a few turns to get the tap started.
5. Release the chuck and finish the tapping with a tap wrench.



TETHERING FUEL CAPS UK IVA (Individual Vehicle Approval) rules require most removable fuel caps be tethered to the filler neck so that you don't drive away from the filling station leaving your cap on the wing or on the petrol pump. Here's one suggestion on how to tether an Aero-style cap, although you can apply similar methods to many other types of cap.

The tether we chose is brass picture-frame wire. It's a fine, multi-strand, flexible wire that has good corrosion resistance and can easily be secured and soldered. To join the ends we used cut-down, uninsulated crimp terminals. We drilled two 1.5mm holes in the bottom plastic housing of an Aero cap, in a position that will not interfere with the locking action of the cap. The wire is threaded through the holes and the terminal sleeve slipped over the wire and crimped. It can be soldered for added strength. The tether should be 6 or 8 inches long and must also be secured down, inside the neck.

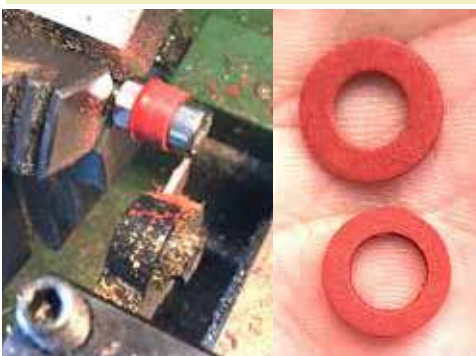


CUTTING SPIRAL WIRE-REINFORCED HOSES Many hoses have an embedded spiral, spring-steel wire reinforcement to prevent collapse on tight bends. It is perfectly possible to make a clean, straight cut with only a sharp knife and some good quality side cutters. Here's how. Lay the hose flat on a bench and rotate the hose until you can make a mark alongside the wire at the exact length required. Now, depending on which direction the wire is wound, insert a sharp knife blade and cut through the hose all the way around, either towards you or away from you, until the blade is exactly next to the start point, but on the other side of the wire. You can then fold back the hose and cut the wire with your cutters. The cut wire ends will often try to straighten themselves out so you can just re-bend the ends with your fingers. You can apply this method to all our coolant, fuel and duct hoses.



SIZING FIBRE WASHERS

Sometimes you need a particular size of Fibre Washer that just doesn't appear in your selection pack. You can easily reduce the outside diameter of a larger one. Just mount three or four washers on a nut and bolt and turn down the O.D. on a lathe or in a drill chuck with a file.



TOP TIP. Our **#M19BK** GT mirrors can be modified to accept most of our 95mm LED rear lights. These moulded housings are 160mm high from base to top and offer a great opportunity to create a striking feature on the back of your car. The base size is 90mm x 30mm with a single M8 bolt fixing. Loosen the single pozi screw in the base and the stem can be rocked left and right on the base up to 180 degrees. For this example we removed the base and clamped the mirror stem in a drill vice with the back edge squared perfectly vertical. We carefully drilled a 6mm hole right down the stem into the mirror head. We removed the captive aluminium rivnut from inside the mirror head and cut away the plastic boss with wire cutters.

The 6mm hole can be continued through the base and the base gasket so all the wires are hidden. The easiest mounting option for the lamps is to just bond them in because you'll never have to change a bulb - but you could bond a couple of rivnuts inside the housing and screw them in. The picture below shows a 95mm lamp in the housing in a vertical orientation. But the housings can just as easily be mounted horizontally and the lamp rotated 90 degrees. Also shown is our 'Bullseye' #RL57. We would recommend that, once you have worked-out the angle of the base, you bond the base securely to the stem - the standard screw may not be strong enough for the additional weight of a lamp.

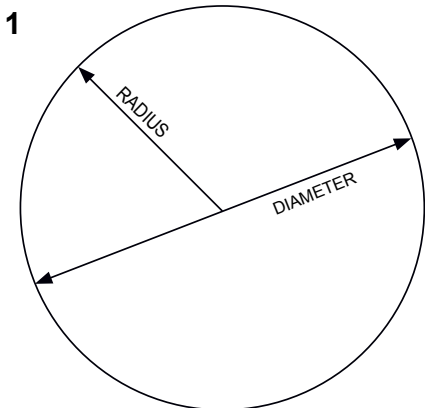
#M19BK £12 pair (£14.40 inc vat)



RADIUS OR ANGLE

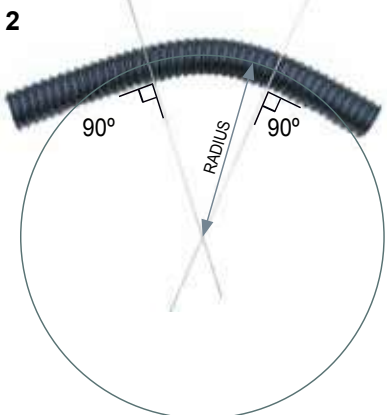
A very common area of confusion, when talking to our telephone customers is knowing the difference between a Radius and an Angle. How tightly you can bend a hose or a piece of trim without it buckling or distorting will often determine it's suitability for the job. Or, how can you be sure that the moulded front wheel arch of a Seven will be a pleasing fit around your wheel and tyre, or that chrome trim will form around the curve of your windscreen??

So, lets get back to basics. The term 'Radius' is always applied to a circle or part of a circle and is always a dimension. It could be a dimension measured in centimetres, millimetres or inches but it is always a dimension. And it is always half of the diameter of the circle. A circle with a diameter of 400mm will have a 200mm radius.



The confusion, perhaps arises when there isn't a full circle to be seen - for instance on a bent piece of flexible hose or indeed, a Seven's front wing. As you can see in picture 2, the full circle is still there, even though you can't see it. So you still have a diameter and therefore you still have a radius. But how do you measure it? Well, again we're back to basic geometry. Any radius is always perpendicular to the circle. That is, wherever the radius meets the circle it's always at 90 degrees. So here's where a little judgement and a good eye come into play.

Lay two straight pieces of stiff wire or welding rod each at 90 degrees, across the hose where the curved segment ends and the straight section begins. The point where the wires cross will be the centre of the circle. It's now a simple job to measure the radius with a rule or tape measure - which, on hoses, is usually deemed to be measured in the middle.



This example above shows a piece of 40mm I.D. ducting. The bend radius was measured at about 190mm

So, what is the angle that this hose is bent to? You can read the angle directly from your two rods using a simple schoolroom protractor or an inexpensive workshop angle finder as shown in picture 3. Remember that the angle of a bent hose will always be measured as the deviation in degrees from a straight hose as shown in picture 4. Both methods will give you the same result.



HOLE SAW SIZE TWEAKING

Hole saws are an easy way to make a hole through wood, GRP and metal but they almost always cut bigger than their designated size. Mostly this is unimportant, but it is possible to modify them slightly to cut a smaller, more accurate hole size. As with all saws, alternate teeth are offset to the left or right - or on a holesaw, to the inside or the outside. This is to help clear away the shavings from the cut and prevents a build-up of shavings between the teeth. But it is this very offset on the outside of a holesaw that make them cut slightly bigger. One possible sizing option is to remove the offset from the 'outside' row of teeth. Just mount the holesaw in a hand drill and spin it against the rotating wheel of a bench grinder. Keep the holesaw in-line with the wheel and gently grind away the outside offset. Keep testing the cut on a piece of scrap material until you have reached the hole size you need. A 1mm to 2mm reduction is possible with this method but remember that you have reduced the swarf-clearing capacity of the holesaw so keep clearing the teeth with a stiff brush as you cut your way through the material.



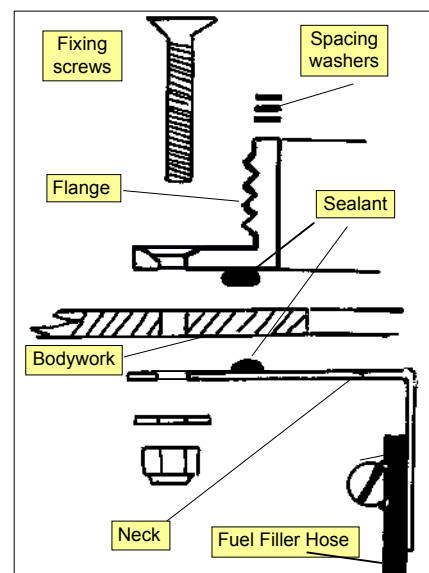
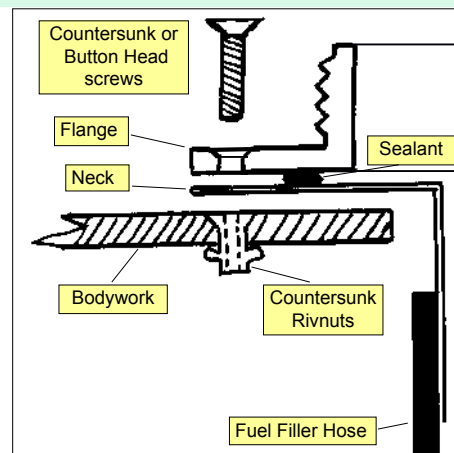
FITTING FUEL CAP FLANGE AND NECK ASSEMBLIES

Some fuel caps have separate flanges and necks. There are two possible methods of assembly. The first enables you to mount all the components from above. This is recommended for applications where the fuel cap assembly is recessed into the bodywork as on the Foreman cars or if you are mounting the cap on a slightly curved surface. For both methods first screw the filler cap tightly onto the flange with the card washers to ensure that the release latch and hinge are in the required position in relation to the fixing holes. Mark the position of the cap on the flange with a magic marker. An assortment of card washers of different thicknesses is supplied to help you. To mount the assembly simply cut a hole through the bodywork to accept the hose neck. The flange and neck can then be clamped and drilled together. Insert the neck through the bodywork in the correct position and spot the hole positions with a magic marker or a drill. Drill the body and insert countersunk rivnuts. (You can use nuts and bolts if you have access to the inside of the body). The flange and neck are then sealed together and the whole assembly secured to the body with screws into the rivnuts.

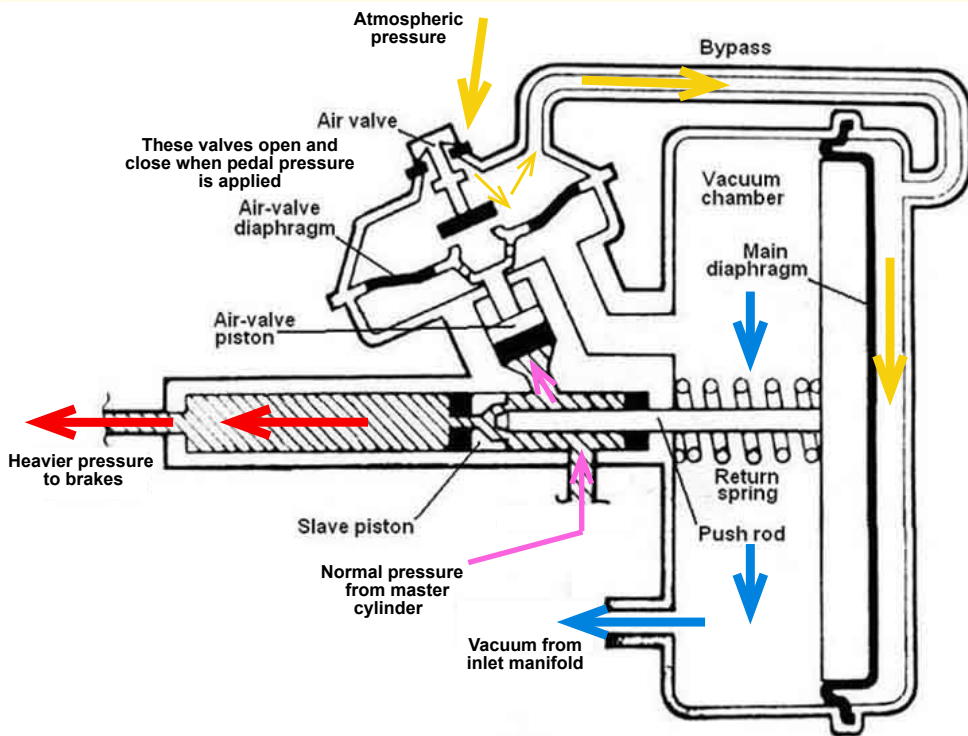
The second method 'sandwiches' the vehicle body between the alloy flange and the neck making a neater job for vehicles with a flat panel area around the filler. Again, clamp the flange and neck together and drill through both. Use the flange as a template to drill the body. Then seal both flange and neck to the body and wipe a fillet of sealant around the cut edge of the hole to seal it. Use Polyurethane sealant for the best adhesion and leak proofing.

NOTE: If you are mounting to a curved body panel you can mould filler 'wedges' to take up the gap between the flange and the body.

First neatly cover around the body mounting area with Sellotape to act as a mould release. Do the same with the underside of the flange. Mix some body filler and pop it on the body. Press the flange into it's exact final position, squeezing out excess filler. Allow the filler to cure. Drill through the filler and body. Remove the flange and lift the tape to release the filler wedges then dress them to shape and size. The wedges can be painted black or body colour.



HOW DOES A SERVO WORK? A servo is a device that uses a combination of pneumatics (air pressure) and hydraulics (oil pressure) to boost the pressure of brake or clutch slave cylinders. The servo's main vacuum chamber is connected by a strong hose to the engine's inlet manifold which creates a vacuum in the chamber. The vacuum is retained by a one-way valve in the hose. When pressure is applied to the brake (or clutch) pedal, valves are opened and closed which allow air at atmospheric pressure (14 psi) into the other side of the vacuum chamber, moving a diaphragm and push-rod increasing the output fluid pressure. The power of a servo is denoted as a ratio - for example, 2 to 1. So, 100 lbs pressure applied to the fluid inlet of the servo will be amplified to 200 lbs at the outlet. The ratio is wholly dependant on the size of the vacuum chamber and the diameter of the main diaphragm, simply because a larger diaphragm has more square inches of area for the atmospheric pressure of 14 psi to push against.



HOW TO DRILL A HOLE CENTRALLY IN A SHAFT OR A TUBE. This method isn't a substitute for accurate setting-up in a milling machine but it'll give you a pretty close idea of where the middle of a tube is to drill a hole. All you need is a pillar drill and a short, flat strip of metal - we've used a six inch steel rule here. Just hold your tube in a drill vice and lay the steel rule across the tube. Mount the drill in the chuck and bring it down until it just makes contact with the steel rule. You'll immediately know if the drill is in the centre if the steel rule is horizontal. If the steel rule is see-sawing either way then the drill is off-centre. Clamp down the vice and drill your hole. A small drill may want to wander around a little so replace it with a centre drill to start your hole.



HOW TO CUT STAINLESS-BRAIDED RUBBER HOSE. This method is probably the neatest way of cutting stainless-braided rubber hose BUT - you must remember to wash out the hose before installing it. Wrap the hose tightly with masking tape and mark the cut position with a pen. Mount a 1mm thick steel cutting disc on your angle grinder. Hold one end of the pipe in your bench vice and hold the other end straight with a little tension. Cut through the hose slowly and carefully, reducing the pull tension as the cutter finally goes through the hose. If there are any straggly stainless fibres left you can trim them off with side cutters. Now WASH OUT the hose with some thinners. There will inevitably be some stainless and rubber powder inside and the last place you want that is in your engine.



HOW DOES A FLASHER RELAY WORK?

The traditional, 2-terminal flasher relay is the mainstay of most indicator and hazard circuits. When you're problem-solving your circuit it's useful to understand how these little beauties work. Well, inside the aluminium can is basically just a switch whose contacts open and close at a specified time interval to turn the indicator lights on and off. But, getting the correct time interval is the clever bit. One of the switch contacts is mounted to the main metal frame inside the aluminium can which continues through the base to one of the spade terminals - 'L'. The other switch contact is riveted to a bi-metallic strip which is isolated from the main frame and is connected to the other spade terminal - the +12 volt supply terminal - 'X'. (terminal designations can vary. There is a list of different ones in the catalogue). Also connected to this terminal is a tiny heater coil which is fixed to and is in direct contact with the bi-metallic strip. When the indicator is turned on current flows through the heater coil, through the made contacts and lights the indicator lamps on the vehicle - at the same time, warming-up the bimetallic strip which bends when heated and opens the switch contacts, turning off the lights and the heater coil. The bi-metallic strip cools down, bends back and the switch contacts are made again - and so on and so on. The heater and bi-metallic strip are made to exacting specifications so that the correct bulb wattage - 2 x 21 watt and one x 5 watt - total 47 watts (two indicators and a side repeater) is the exact power needed to open and close the switch contacts at exactly the correct flashing interval. A hazard flasher relay does the same but at a total of 94 watts. An added benefit of this type of flasher relay is that, if you have a dodgy bulb you'll know because the flash rate will change or not flash at all.



HOW TO MAKE A PAINT TURNTABLE

It can be much easier to get a great paint job on some objects using a simple turntable. We were asked to repaint some headlamp shells so we've used an old bearing which we've set in a heavy lump of steel - but you could easily use an old wheel hub or steering column. We've fitted a piece of ali bar to the bearing inner but it could be something as simple as a broom handle. Then we wrapped two discs of our self-adhesive foam strip around the shaft so that the shell sits safely and neatly in place. You'll soon discover the best speed and coverage to achieve a perfect finish.



ALL THREE OF OUR DVDS ARE NOW AVAILABLE TO VIEW FREE ON OUR YouTube CHANNEL



HOW TO MAKE AN 'O' RING

Sometimes, even if you have a pack of assorted 'O' rings in your toolbox, there's just not the right size that you need. But - never fear - as long as some of them in your kit are made of the right diameter rubber (most commonly 2 or 3mm) you can cut and glue them together with superglue to make the size you need. Of course, this is not the solution for high pressure fuel or oil systems but it's often good enough to get you out of trouble.

The broken 'O' ring on the left was just a dust seal on a bush on one of our bikes' swinging arms.

We didn't have a spare of the right size in our workshops but we had some smaller ones of the same diameter rubber. We cut two and glued them to make an adequate replacement.



NEED A LARGER HOLE IN A WASHER?

There have been many occasions when I needed, but couldn't find a particular washer size. Like a large diameter stainless washer with a 10mm hole. I have, however, a drawer full of them with 8mm holes. It's almost impossible to hold a washer in a drill vice and use a regular drill bit to enlarge the hole neatly. This method works pretty well without damaging the washer but you need a small lathe with grooved chuck jaws. I use a carbide tipped boring tool and open the 8mm hole to 10.2mm taking small cuts and finishing with a swivel duburring tool. It works with copper washers too but you need to grip very lightly and take lots of very small cuts.



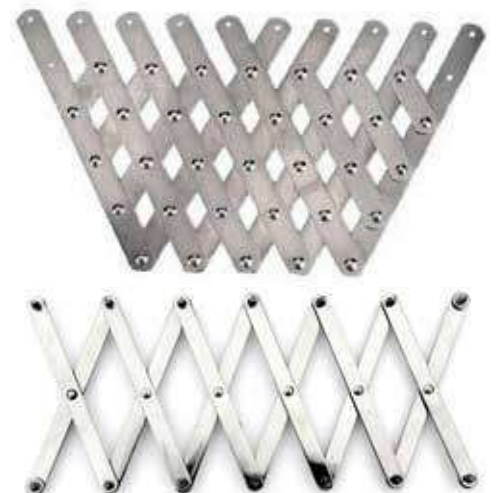
HOW TO CHECK A FAN TEMPERATURE SWITCH

We regularly receive returned Fan Switches reported as 'faulty'. Almost invariably there is nothing wrong with them - the real fault lies elsewhere in the cooling system. Here's an easy way to check your switch operation at home. The picture below shows a small metal dish of water, supported on our bench vice. We've drilled a 15mm hole in a strip of 1mm aluminium and roughly bent it so that the Fan Switch thread is submerged in the water. We've connected two wires to the switch terminals and connected them to a meter set to 'OHMS'. A gas blowtorch is used to gently heat the water whilst constantly monitoring the temperature. Increase the temperature slowly so that the switch has time to catch-up. We're using an Infra Red Thermometer but any thermometer that reads up to 100°C will do the job. When the switch reaches it's 'ON' temperature it's contacts will close and the meter will show continuity. Remember to Remove the heat and as the water cools, the switch contacts will open. NOTE: This method cannot accurately duplicate the heat-soak characteristics of your engine and may not show accurate switching temperatures but will confirm the ON / OFF operation. DON'T FORGET - ALWAYS USE A RELAY WITH FAN SWITCHES



A BUDGET RIVET SPACER

The top picture is an Aircraft spec. rivet spacer that costs about £45 on ebay. The bottom picture is a saucepan lid rack from IKEA that'll do pretty-much the same job for a fiver. Just sayin'!



A Narrow Belt Sander, is an efficient machine for removing material and is one of our favourite tools. If you've never used one it may be difficult to appreciate the amount of time and effort a this tool can save you. The operating principle is simple but surprisingly effective - An endless abrasive belt, either 6 mm or 12 mm wide, is driven around rollers and over a slipper plate. Instead of moving the tool to and fro, across the job, like a file, the moving belt is simply held against it. Different grades of belt enable you to cut wood, metal, plastics, glass, ceramic tiles and, of course, glassfibre. Cyclonic dust collection, with a washable filter, helps keep things clean and tidy. Here, the nose of the belt is being plunged



through a GRP door panel to make a square hole for a Fiat Panda door release.



These pictures show how you can plunge a hole through a GRP panel with the nose of the belt and 'stretch' the hole to form perfectly clean holes for vents, door locks, latches etc. Keep a vacuum cleaner nozzle close to the cutting area for a dust-free job.

You can form delicate convex or concave curves with less than 10 mm radii.

This is a cut-out for one of our Bear Claw door latches.



We've yet to find an easier or more foolproof method of cutting Perspex.

This picture shows the belt, angled at about 45 degrees cutting an opening in a 3mm Acrylic window panel.



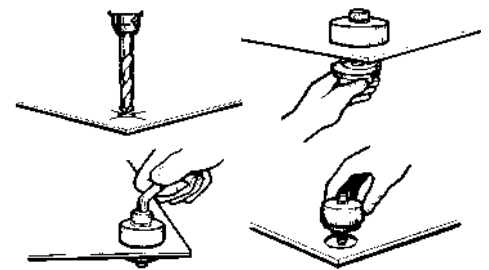
Remember: If you're grinding steel, remove the dust bag for obvious reasons.



Our hole saw set is ideal for the home car builder. For the best results and longest life here are a few tips:

- Use on Aluminium, wood, acrylics and Glassfibre. Cutting steel will result in a shorter tool life. If you wish to cut steel use a very slow speed and plenty of coolant.
- Speed is the enemy of any hole saw especially the larger sizes. As a general rule use a slower speed as diameter increases. Most hand drills run at far too high speeds but it is possible to cut your hole by using short trigger bursts.
- Where possible use a pillar drill, keeping the material square to the drill shaft.
- Use a coolant when cutting aluminium (paraffin is good and inexpensive. WD40 is OK). When cutting wood or GRP keep the teeth clear of swarf.
- Do not allow the tool to overheat. Take your time and cut with gentle pressure.

HOW TO USE OUR SHEET METAL HOLE PUNCHES



Our hole punches can be used on the bench in a vice or in situ on a vehicle. All you need is a pilot hole through your panel and an allen key to cut a clean, round distortion free hole. Here's how.

1. Drill a hole through your panel the size of the punch's Allen screw.
2. Unscrew the Allen screw and separate the two halves of the punch.
3. Insert the allen screw through the die (the larger of the two pieces) and through your panel.
4. Screw the punch (the smaller part) onto the allen screw on the other side of the panel until it touches the panel.
5. Turn the Allen screw with a key until the hole is punched.
6. Take the punch apart and remove the punched disc ready for the next time.

NOTE: To ensure long life, always grease the thread of the Allen screw and beneath its head. A little WD40 or light oil around the punch edge will help maintain sharpness and prevent a build-up of material on the punch when cutting Aluminium.

WHAT SIZE BATTERY CABLE DO I NEED?

The biggest drain on your vehicles battery, by far, is your starter motor. A typical, four cylinder petrol engine can draw 125 to 150 Amps, a V6 150 to 175 Amps and a V8, 200 to 250 Amps. A big diesel engine can draw an initial 1000 Amps in cold weather, quickly dropping to around 325 Amps once cranking has started. We stock five sizes of stranded copper battery cable from 110 Amp to 485 Amp. This is the maximum continuous 'working' current the cable can safely carry. Cable size is measured in square millimetres of cross sectional area between 16mm² to 70mm². Copper is one of the best conductors of electricity so for a front engined car with a battery in the boot and a cable run of four metres the voltage drop would be minimal - less than 3% (0.3 volts).



RE-THREADING AN EYE BOLT

A customer wanted an Eye Bolt but with an M10 x 1.25 thread instead of the standard, M12 x 1.5. Eye bolts are forged steel and the only machined part available as a datum, is the thread. Hmmm - how to hold it to re-machine the thread? We cut short pieces of 38mm aluminium tube, sealed one end with Gaffer Tape and suspended the eye bolts centrally in the tube from an aluminium strip with a 12mm hole. We poured casting resin into the tube up to the level of the thread. When the resin was cured we split the tube with a saw cut and prised the tube clear of the resin plug inside. We then held the plug, by the M12 thread, in our lathe jaws and turned the resin down until it 'cleaned-up' - making the resin perfectly concentric with the thread. With the plug reversed in the lathe we could turn down the 12mm thread diameter to 9.8mm and die the new M10 x 1.25 thread. A quick wave with a blowtorch set the resin alight and ten minutes later the eye bolt was ready for a grit blast. Job done.



DRILLING AND MACHINING ALUMINIUM

We keep a couple of cans of this stuff by the machines in our workshop. A little squirt on the drill or tap or cutting tool, when machining aluminium, makes for a much cleaner cut and longer-lasting sharp edge on your tools. A squirt on your wet & dry paper will help prevent clogging and improve the finish when you're rubbing down aluminium sheet or castings. Oh - and of course, it's a penetrating lubricant too.



PROTECT YOUR PIPES AND CABLES IN A HOT ENGINE BAY BY WRAPPING THEM IN HEATMAT SECURED WITH STAINLESS TIES



SHORTENING A BOLT

Sometimes you need to cut down the length of a screw or bolt to get the size you want. Here's a way to do it accurately and cleanly. The example below is a 16mm long, M5 countersunk screw which we need to cut down to 11mm long.



Put an M5 plain nut on the thread and adjust it's position so that it measures 11mm from the top of the head of the screw. (With hex head, dome head or cap head screws measure from the underside of the head). We're using a Digital Caliper here. 10.99mm is close enough.



Holding the nut on the thread with your fingers so that it doesn't move, grip the waste end of the thread in a vice and cut through the thread alongside the nut with a hacksaw. Removing the nut afterwards will re-form any damage to the thread.

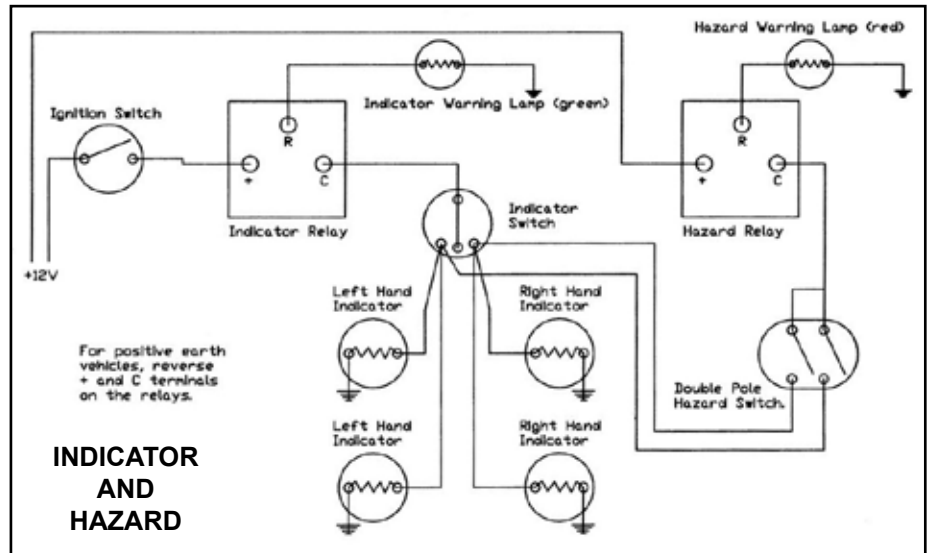
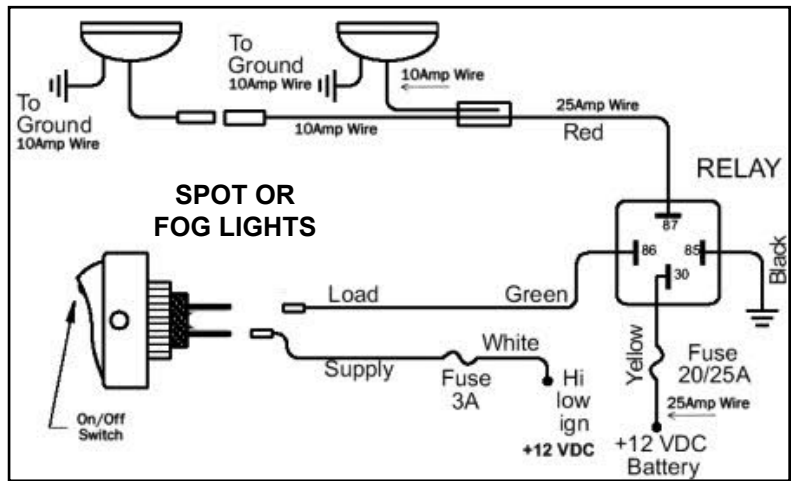
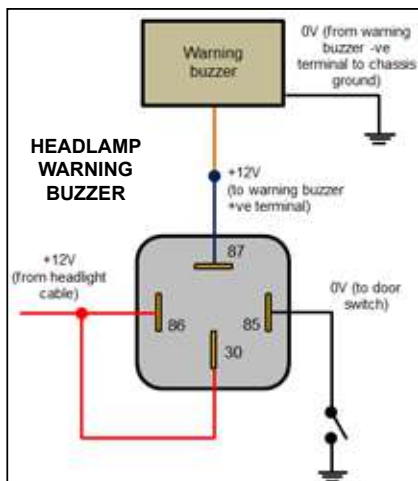
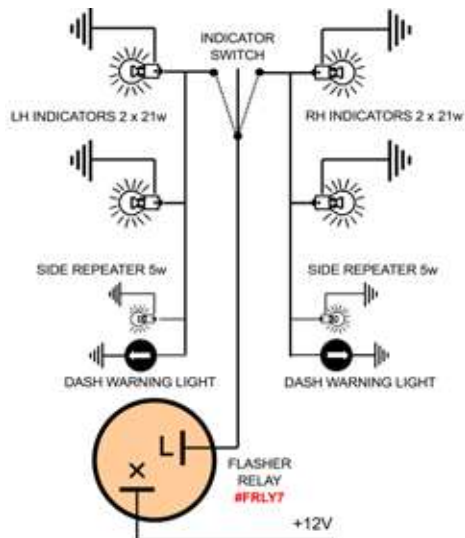
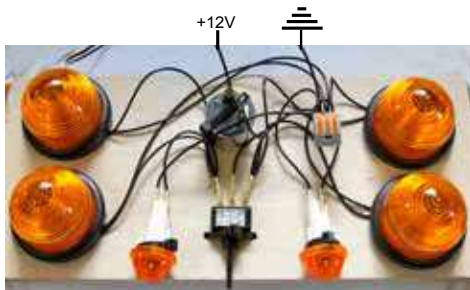


Deburr the end of the thread with a file or small bench grinder.

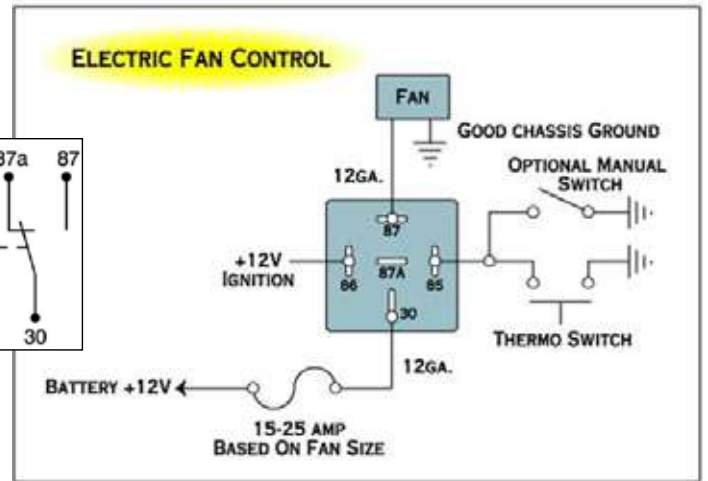
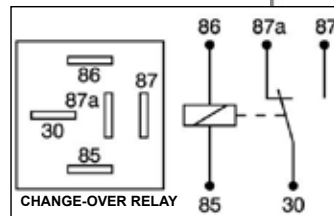
INDICATOR CIRCUITS

Indicator and Hazard circuits rank pretty high in the 'problem' stakes when building a car. The problem is - there is no single, universal way to do it. There are hundreds of switches, lamps and relays available and hundreds of ways to wire them. If you're in any doubt over your wiring it always make sense to mock-up a circuit on the bench. Here, we've made a simple indicator circuit on a small piece of plywood using four #RL15 indicator lamps, a pair of #SR5 side repeaters, a flasher relay #FRLY7 and an ON/OFF/ON toggle switch #TSN4. A few short pieces of 5 Amp wire, some spade connectors and a #QCON3 connect it all together. A 12 volt battery is all that's needed to make it work and prove your design.

When you have the indicator circuit working you can add the Hazard function. All the information you need is in this catalogue. Just take it steady and work through it one wire at a time - you may surprise yourself !!

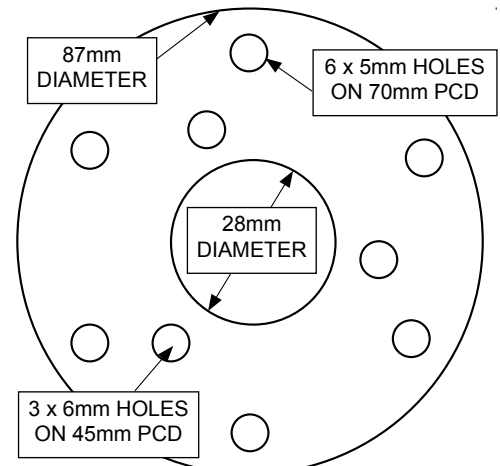


ELECTRIC FAN CONTROL



MAKING A STEERING WHEEL ADAPTER PLATE

It's a fairly straightforward job to make a simple adapter plate for fixing a steering wheel to a boss. The sketch below shows the dimensions and hole sizes for fixing one of these wheels to our Quick Release Boss #QRSW (discarding the horn push). You can use 3mm or 4mm thick aluminium and if you don't have access to a lathe, you can drill, saw and file it to size. A paper template will help you mark out the hole positions.



TAPPING DRILL SIZES

TAPPING DRILL SIZES

BSF

| Size inch | Threads per inch | Tapping Drill Sizes | |
|--------------|------------------------|---------------------|-------------------|
| | | Preferred mm | Alternative mm |
| 3/16 | 32 | 4.0 | 5/32 |
| 1/4 | 26 | 5.3 | 13/64 |
| 5/16 | 22 | 6.8 | 17/64 |
| 3/8 | 20 | 8.3 | 21/64 |
| 7/16 | 18 | 9.5 | 3/8 |
| 1/2 | 16 | 11.0 | 27/64 |
| 9/16 | 14 | 12.5 | 31/64 |
| 5/8 | 14 | 13.8 | 17/32 |
| 3/4 | 12 | 16.5 | 21/32 |
| 7/8 | 11 | 19.5 | 49/64 |
| 1 | 10 | 22.5 | 7/8 |
| 1-1/4 | 9 | 28.5 | 1- 7/64 |
| 1-1/2 | 8 | 34.5 | 1-11/32 |
| 1-3/4 | 7 | 40.0 | 1-37/64 |

BSPF (Parallel Pipe)

| Size inch | Threads per inch | Tapping Drill Sizes | |
|--------------|------------------------|---------------------|-------------------|
| | | Preferred mm | Alternative mm |
| 1/8 | 28 | 8.8 | 11/32 |
| 1/4 | 19 | 11.5 | 29/64 |
| 3/8 | 19 | 15.25 | 19/32 |
| 1/2 | 14 | 19.0 | 5/32 |
| 5/8 | 14 | 21.0 | 47/64 |
| 3/4 | 14 | 24.5 | 13/16 |
| 7/8 | 14 | 28.0 | 61/64 |
| 1 | 11 | 30.5 | 1-49/64 |
| 1-1/4 | 11 | 39.5 | 1-7/32 |
| 1-1/2 | 11 | 45.5 | 1-35/64 |
| 2 | 11 | 45.5 | 1-25/32 |
| 2-1/2 | 11 | 50.0 | 2- 1/4 |
| 3 | 11 | 59.0 | 2-27/32 |

Hole size 3.369 — 3.344 inch

UNF UNS*

| Size inch | Threads per inch | Tapping Drill Sizes | |
|--------------|------------------------|---------------------|-------------------|
| | | Preferred mm | Alternative mm |
| No. 5 | 44 | 2.7 | 2.65 |
| No. 6 | 40 | 2.95 | 2.9 |
| No. 8 | 36 | 3.6 | 3.5 |
| No. 10 | 32 | 4.1 | 4.0 |
| No. 12 | 28 | 4.7 | 4.6 |
| 1/8* | 28 | 4.7 | 4.6 |
| 5/32* | 32 | 5.3 | 5.2 |
| 3/16* | 32 | 6.1 | 6.0 |
| 7/32* | 28 | 6.9 | 6.8 |
| 1/4 | 24 | 7.3 | 7.2 |
| 5/16 | 24 | 8.5 | 8.4 |
| 3/8 | 24 | 10.0 | 9.8 |
| 7/16 | 20 | 11.5 | 11.3 |
| 1/2 | 20 | 13.0 | 12.8 |
| 9/16 | 18 | 14.5 | 14.3 |
| 5/8 | 18 | 16.0 | 15.75 |
| 11/16* | 16 | 17.5 | 17.2 |
| 3/4 | 16 | 19.0 | 18.7 |
| 13/16* | 14 | 20.5 | 20.2 |
| 7/8 | 14 | 23.5 | 23.2 |
| 1* | 14 | 26.5 | 26.2 |
| 1-1/8 | 12 | 28.0 | 27.7 |
| 1-1/4 | 12 | 31.0 | 30.7 |
| 1-3/8 | 12 | 33.0 | 32.7 |
| 1-1/2 | 12 | 36.0 | 35.7 |

Metric ISO Coarse

| Size mm | Pitch mm | Tapping Drill Sizes | |
|------------|-------------|---------------------|-------------------|
| | | Preferred mm | Alternative mm |
| 2.0 | 0.40 | 1.65 | 1.6 |
| 2.5 | 0.45 | 2.1 | 2.05 |
| 3.0 | 0.50 | 2.55 | 2.5 |
| 3.5 | 0.60 | 2.95 | 2.9 |
| 4.0 | 0.70 | 3.4 | 3.3 |
| 4.5 | 0.75 | 3.8 | 3.7 |
| 5.0 | 0.80 | 4.3 | 4.2 |
| 6.0 | 1.00 | 5.1 | 5.0 |
| 8.0 | 1.00 | 6.1 | 6.0 |
| 10.0 | 1.25 | 6.9 | 6.8 |
| 12.0 | 1.25 | 7.9 | 7.8 |
| 16.0 | 1.50 | 8.6 | 8.5 |
| 20.0 | 1.75 | 10.2 | 10.0 |
| 25.0 | 2.00 | 12.2 | 12.0 |
| 30.0 | 2.00 | 14.25 | 14.0 |
| 36.0 | 2.50 | 15.75 | 15.5 |
| 40.0 | 2.50 | 17.5 | 17.2 |
| 45.0 | 2.50 | 19.5 | 19.2 |
| 50.0 | 3.00 | 21.0 | 20.7 |
| 60.0 | 3.00 | 24.0 | 23.7 |
| 80.0 | 3.50 | 27.0 | 26.5 |
| 100.0 | 4.00 | 30.0 | 29.5 |

60° thread form

BSW Whitworth*

| Size inch | Threads per inch | Tapping Drill Sizes | |
|--------------|------------------------|---------------------|-------------------|
| | | Preferred mm | Alternative mm |
| 1/16* | 60 | 1.2 | 3/64 |
| 3/32* | 48 | 1.9 | 1.75 |
| 1/8 | 40 | 2.55 | 2.5 |
| 5/32* | 32 | 3.2 | 2.95 |
| 3/16 | 24 | 3.7 | 3.6 |
| 7/32* | 24 | 4.5 | 4.3 |
| 1/4 | 20 | 5.1 | 5.0 |
| 5/16 | 18 | 6.5 | 6.4 |
| 3/8 | 16 | 7.9 | 7.8 |
| 7/16 | 14 | 9.5 | 9.2 |
| 1/2 | 12 | 10.5 | 10.2 |
| 9/16 | 12 | 13.5 | 13.2 |
| 5/8 | 11 | 16.0 | 15.7 |
| 3/4 | 10 | 19.0 | 18.7 |
| 7/8 | 9 | 22.0 | 21.7 |
| 1 | 8 | 25.0 | 24.7 |
| 1-1/8 | 7 | 28.0 | 27.5 |
| 1-1/4 | 6 | 33.5 | 33.0 |
| 1-1/2 | 5 | 39.0 | 38.5 |
| 1-3/4 | 4 1/2 | 44.5 | 44.0 |

BSPT (Taper Pipe)

| Size inch | Threads per inch | Approximate Diameter Measured half way along the thread | Tapping Drill Sizes | |
|--------------|------------------------|---|----------------------|-------------------|
| | | | Without Reamer mm | With Reamer mm |
| 1/8 | 28 | .401" 10.18mm | 8.4 | 21/64 |
| 1/4 | 19 | .533" 13.54mm | 11.2 | 7/16 |
| 3/8 | 19 | .668" 16.98mm | 14.75 | 37/64 |
| 1/2 | 14 | .832" 21.14mm | 23.32 | 23/32 |
| 3/4 | 14 | 1.043" 26.49mm | 26.49 | 15/16 |
| 1 | 11 | 1.309" 33.25mm | 30.0 | 1-11/64 |
| 1-1/4 | 11 | 1.650" 41.91mm | 38.5 | 1-33/64 |
| 1-1/2 | 11 | 1.888" 47.97mm | 44.5 | 1- 3/4 |
| 2 | 11 | 2.362" 60mm | 60 | 2- 3/16 |

UNC UNS*

| Size inch | Threads per inch | Tapping Drill Sizes | |
|--------------|------------------------|---------------------|-------------------|
| | | Preferred mm | Alternative mm |
| No. 2 | 56 | 1.85 | 1.8 |
| No. 3 | 48 | 2.1 | 2.05 |
| No. 4 | 40 | 2.35 | 2.3 |
| No. 5 | 40 | 2.65 | 2.6 |
| No. 6 | 32 | 2.85 | 2.8 |
| No. 8 | 32 | 3.5 | 3.4 |
| No. 10 | 24 | 3.9 | 3.8 |
| No. 12 | 24 | 4.5 | 4.4 |
| 1/8* | 40 | 2.65 | 2.6 |
| 5/32* | 32 | 3.3 | 3.1 |
| 3/16* | 24 | 3.8 | 3.7 |
| 7/32* | 24 | 4.6 | 4.5 |
| 1/4 | 20 | 5.2 | 5.1 |
| 5/16 | 18 | 6.6 | 6.5 |
| 3/8 | 16 | 8.1 | 8.0 |
| 7/16 | 14 | 9.5 | 9.4 |
| 1/2 | 13 | 11.0 | 10.8 |
| 9/16 | 12 | 12.2 | 12.0 |
| 5/8 | 11 | 13.8 | 13.5 |
| 11/16* | 11 | 15.25 | 15.0 |
| 3/4 | 10 | 18.0 | 17.5 |
| 13/16* | 10 | 19.5 | 19.0 |
| 7/8 | 9 | 22.5 | 22.0 |
| 1 | 8 | 25.0 | 24.5 |
| 1-1/8 | 7 | 31.0 | 30.5 |
| 1-1/4 | 7 | 31.0 | 30.5 |
| 1-3/8 | 6 | 31.0 | 30.5 |
| 1-1/2 | 6 | 31.0 | 30.5 |

Metric ISO Fine

| Size mm | Pitch mm | Tapping Drill Sizes | |
|------------|-------------|---------------------|-------------------|
| | | Preferred mm | Alternative mm |
| 8.0 | 1.00 | 7.1 | 7.0 |
| 10.0 | 1.00 | 9.0 | 8.9 |
| 12.0 | 1.25 | 8.9 | 8.8 |
| 14.0 | 1.50 | 14.75 | 14.5 |
| 16.0 | 1.50 | 14.75 | 14.5 |
| 18.0 | 1.50 | 14.75 | 14.5 |
| 20.0 | 1.50 | 14.75 | 14.5 |
| 22.0 | 1.50 | 14.75 | 14.5 |
| 24.0 | 2.00 | 7/8 | 7/8 |

60° thread form

BA

| Size inch | Pitch mm | Tapping Drill Sizes | |
|--------------|-------------|---------------------|-------------------|
| | | Preferred mm | Alternative mm |
| 0 | 1.00 | 5.1 | 5.0 |
| 1 | 0.90 | 4.5 | 4.4 |
| 2 | 0.81 | 4.0 | 3.9 |
| 3 | 0.73 | 3.4 | 3.3 |
| 4 | 0.66 | 3.0 | 2.95 |
| 5 | 0.59 | 2.7 | 2.6 |
| 6 | 0.53 | 2.35 | 2.25 |
| 7 | 0.48 | 2.1 | 2.0 |
| 8 | 0.43 | 1.8 | 1.75 |
| 9 | 0.39 | 1.55 | 1.5 |
| 10 | 0.35 | 1.4 | 1.35 |
| 11 | 0.31 | 1.2 | 1.15 |
| 12 | 0.28 | 1.05 | 1.0 |

NPT (Taper Pipe)

| Size inch | Threads per inch | Approximate Diameter Measured half way along the thread | Tapping Drill Sizes | |
|--------------|------------------------|---|----------------------|-------------------|
| | | | Without Reamer mm | With Reamer mm |
| 1/8 | 27 | .401" 10.18mm | 8.4 | 7/16 |
| 1/4 | 18 | .533" 13.54mm | 11.2 | 9/16 |
| 3/8 | 18 | .668" 16.98mm | 14.25 | 45/64 |
| 1/2 | 14 | .832" 21.14mm | 23.0 | 29/32 |
| 3/4 | 14 | 1.043" 26.49mm | 26.0 | 1-9/64 |
| 1 | 11-1/2 | 1.309" 33.25mm | 37.5 | 1-31/64 |
| 1-1/4 | 11-1/2 | 1.650" 41.91mm | 44.0 | 1-47/64 |
| 1-1/2 | 11-1/2 | 1.888" 47.97mm | 60 | 2-13/64 |

NPS (Parallel Pipe)

| Size inch | Threads per inch | Tapping Drill Sizes | |
|--------------|------------------------|---------------------|------------|
| | | NPSM mm | NPSM mm |
| 1/8 | 27 | 8.7 | 11/32 |
| 1/4 | 18 | 11.2 | 23/64 |
| 3/8 | 18 | 14.25 | 15/32 |
| 1/2 | 14 | 23.0 | 7/16 |
| 3/4 | 14 | 26.0 | 31/64 |
| 1 | 11-1/2 | 37.5 | 1-9/64 |
| 1-1/4 | 11-1/2 | 44.0 | 1-31/64 |
| 1-1/2 | 11-1/2 | 60 | 1-47/64 |
| 2 | 11-1/2 | 60 | 2-13/64 |

Spark Plug

| Size mm | Pitch mm | Tapping Drill Sizes | |
|------------|-------------|---------------------|-------------------|
| | | Preferred mm | Alternative mm |
| 10.0 | 1.00 | 9.0 | 8.8 |
| 12.0 | 1.25 | 10.5 | 10.5 |
| 14.0 | 1.50 | 12.5 | 12.5 |
| 18.0 | 1.50 | 16.5 | 16.5 |
| 20.0 | 1.50 | 18.5 | 18.5 |
| 22.0 | 1.50 | 20.5 | 20.5 |
| 24.0 | 2.00 | 7/8 | 7/8 |

60° thread form

CONVERSION FACTORS & DRILL SIZES

| Imperial | × Factor | = Metric | Metric | × Factor | = Imperial |
|-----------------|----------|-------------------|------------------|-----------|-------------------|
| inch | × 25.4 | = mm | mm | × 0.03937 | = inch |
| inch | × 2.54 | = cm | cm | × 0.3937 | = inch |
| feet | × 30.48 | = cm | mtr | × 39.37 | = inch |
| feet | × 0.3048 | = mtr | mtr | × 3.2808 | = ft |
| yard | × 0.9144 | = mtr | mtr | × 1.0936 | = yard |
| in ² | × 645.16 | = mm ² | mm ² | × 0.00155 | = in ² |
| in ² | × 6.4516 | = cm ² | mtr ² | × 10.7639 | = ft ² |

| Imperial | × Factor | = Metric | Metric | × Factor | = Imperial |
|-----------------|-------------|--------------------|------------------|-----------|-------------------|
| ft ² | × 929.0304 | = cm ² | cm ² | × 0.1550 | = in ² |
| yd ² | × 0.836127 | = mtr ² | mtr ² | × 1.19599 | = yd ² |
| in ³ | × 16.387064 | = cm ³ | litre | × 0.0353 | = ft ³ |
| ft ³ | × 0.028317 | = mtr ³ | mtr ³ | × 35.3147 | = ft ³ |
| UK Pint | × 0.5683 | = litre | litre | × 1.7597 | = UK Pint |
| Pound (Avoir) | × 453.59237 | = grams | gram | × 0.03527 | = Ounce (Avoir) |
| Pound (Avoir) | × 0.45359 | = Kg | Kg | × 2.20462 | = Pound (Avoir) |

| Drill Size | | | mm Equiv* | Decimal Inches Equiv* | Drill Size | | | mm Equiv* | Decimal Inches Equiv* | Drill Size | | | mm Equiv* | Decimal Inches Equiv* |
|------------|------------|-------|-----------|-----------------------|------------|------------|-------|-----------|-----------------------|------------|------------|-------|-----------|-----------------------|
| Metric | Fractional | Gauge | | | Metric | Fractional | Gauge | | | Metric | Fractional | Gauge | | |
| | | | 0.10 | .0039 | 2.15 | | 2.15 | .0847 | | 5.22 | .2055 | | | |
| | | | 0.20 | .0079 | | 44 | 2.18 | .0860 | 5.30 | 5.30 | .2087 | | | |
| | | | 0.25 | .0098 | 2.20 | | 2.20 | .0866 | | 5.31 | .2090 | | 10.50 | Z |
| | | | 0.30 | .0118 | 2.25 | | 2.25 | .0886 | 5.40 | 4 | 5.40 | .2126 | 10.80 | 27/64 |
| | | | 0.34 | .0135 | | 43 | 2.26 | .0890 | | 5.41 | .2130 | | 11.00 | |
| 0.35 | | 80 | 0.35 | .0138 | 2.30 | | 2.30 | .0906 | 5.50 | 3 | 5.50 | .2165 | 11.10 | .4331 |
| | | | 0.37 | .0145 | 2.35 | | 2.35 | .0926 | | 5.50 | .2188 | | 11.20 | 7/16 |
| 0.38 | | | 0.38 | .0150 | | 42 | 2.37 | .0935 | 5.60 | 7/32 | 5.60 | .2205 | 11.50 | .4409 |
| | | | 0.40 | .0156 | | 3/32 | 2.38 | .0938 | | 5.60 | .2205 | | 11.50 | .4528 |
| | | | 0.40 | .0157 | 2.40 | | 2.40 | .0945 | 5.70 | 2 | 5.61 | .2210 | 11.51 | .4531 |
| 0.40 | | 78 | 0.41 | .0160 | | 41 | 2.44 | .0960 | | 5.70 | .2244 | | 11.80 | .4646 |
| | | | 0.42 | .0165 | 2.45 | | 2.45 | .0965 | 5.80 | 1 | 5.79 | .2280 | 12.00 | 15/32 |
| 0.45 | | | 0.45 | .0177 | | 40 | 2.50 | .0980 | 5.90 | | 5.80 | .2283 | 12.00 | .4688 |
| | | | 0.46 | .0180 | 2.50 | | 2.50 | .0984 | 5.90 | A | 5.90 | .2323 | 12.20 | .4724 |
| 0.48 | | | 0.48 | .0189 | | 39 | 2.53 | .0995 | | 5.94 | .2340 | | 12.20 | .4803 |
| | | | 0.50 | .0197 | 2.55 | | 2.55 | .1004 | 6.00 | 15/64 | 5.95 | .2344 | 12.50 | .4844 |
| 0.52 | | | 0.51 | .0200 | | 38 | 2.58 | .1015 | | 6.00 | .2362 | | 12.50 | .4921 |
| | | | 0.52 | .0205 | 2.60 | | 2.60 | .1024 | 6.10 | B | 6.05 | .2380 | 12.80 | .5000 |
| 0.55 | | | 0.53 | .0210 | | 37 | 2.64 | .1040 | | 6.10 | .2402 | | 13.00 | .5039 |
| | | | 0.55 | .0217 | 2.65 | | 2.65 | .1043 | 6.20 | C | 6.15 | .2420 | 13.00 | .5118 |
| 0.58 | | | 0.57 | .0225 | | 36 | 2.70 | .1063 | | 6.15 | .2420 | | 13.10 | .5156 |
| | | | 0.58 | .0228 | 2.70 | | 2.70 | .1063 | 6.20 | D | 6.20 | .2441 | 13.20 | .5197 |
| 0.60 | | | 0.60 | .0236 | | 36 | 2.71 | .1065 | 6.30 | | 6.25 | .2460 | 13.49 | .5312 |
| | | | 0.61 | .0240 | 2.75 | | 2.75 | .1083 | | 6.30 | .2480 | | 13.50 | .5315 |
| 0.65 | | | 0.64 | .0250 | | 35 | 2.79 | .1100 | 6.40 | 1/4 | 6.35 | .2500 | 13.80 | .5433 |
| | | | 0.65 | .0256 | 2.80 | | 2.80 | .1102 | 6.50 | E | 6.40 | .2520 | 13.89 | .5469 |
| 0.70 | | | 0.66 | .0260 | | 34 | 2.82 | .1110 | 6.60 | F | 6.50 | .2559 | 14.00 | .5512 |
| | | | 0.70 | .0276 | 2.85 | | 2.85 | .1122 | 6.60 | G | 6.53 | .2570 | 14.25 | .5610 |
| 0.75 | | | 0.71 | .0280 | | 33 | 2.87 | .1130 | | 6.60 | .2598 | | 14.29 | .5625 |
| | | | 0.74 | .0292 | 2.90 | | 2.90 | .1142 | 6.70 | 17/64 | 6.63 | .2610 | 14.50 | .5709 |
| 0.75 | | | 0.75 | .0295 | | 32 | 2.95 | .1160 | | 6.70 | .2638 | | 14.68 | .5781 |
| | | | 0.79 | .0310 | 2.95 | | 2.95 | .1162 | 6.80 | H | 6.75 | .2656 | 14.75 | .5807 |
| 0.80 | | | 0.79 | .0312 | | 31 | 3.00 | .1181 | 6.80 | | 6.76 | .2660 | 15.00 | .5906 |
| | | | 0.80 | .0315 | 3.00 | | 3.00 | .1181 | 6.90 | I | 6.80 | .2677 | 15.08 | .5937 |
| 0.85 | | | 0.81 | .0320 | | 31 | 3.05 | .1200 | 7.00 | | 6.90 | .2717 | 15.25 | .6004 |
| | | | 0.84 | .0330 | 3.10 | | 3.10 | .1220 | 7.00 | J | 6.91 | .2720 | 15.48 | .6094 |
| 0.85 | | | 0.85 | .0335 | | 30 | 3.20 | .1260 | 7.10 | K | 7.00 | .2756 | 15.50 | .6102 |
| | | | 0.89 | .0350 | 3.20 | | 3.20 | .1285 | 7.10 | | 7.04 | .2770 | 15.75 | .6201 |
| 0.90 | | | 0.90 | .0354 | | 30 | 3.26 | .1299 | | 7.10 | .2795 | | 15.88 | .6250 |
| | | | 0.91 | .0360 | 3.30 | | 3.30 | .1339 | 7.20 | 9/32 | 7.14 | .2810 | 16.00 | .6299 |
| 0.95 | | | 0.94 | .0370 | | 29 | 3.45 | .1360 | 7.30 | | 7.14 | .2812 | 16.27 | .6406 |
| | | | 0.95 | .0374 | 3.50 | | 3.50 | .1378 | 7.30 | L | 7.20 | .2835 | 16.50 | .6496 |
| 0.95 | | | 0.97 | .0380 | | 28 | 3.57 | .1405 | | 7.30 | .2874 | | 16.67 | .6562 |
| | | | 0.99 | .0390 | 3.60 | | 3.60 | .1417 | 7.40 | M | 7.37 | .2900 | 17.00 | .6693 |
| 1.00 | | | 1.00 | .0394 | | 28 | 3.66 | .1440 | 7.40 | | 7.40 | .2913 | 17.07 | .6719 |
| | | | 1.02 | .0400 | 3.70 | | 3.70 | .1457 | 7.50 | N | 7.49 | .2950 | 17.46 | .6875 |
| 1.05 | | | 1.04 | .0410 | | 27 | 3.76 | .1440 | 7.50 | | 7.50 | .2953 | 17.50 | .6890 |
| | | | 1.05 | .0414 | 3.80 | | 3.80 | .1496 | 7.60 | 19/64 | 7.54 | .2969 | 17.86 | .7031 |
| 1.10 | | | 1.07 | .0420 | | 26 | 3.73 | .1470 | | 7.60 | .2992 | | 18.00 | .7087 |
| | | | 1.09 | .0430 | 3.80 | | 3.80 | .1496 | 7.70 | | 7.67 | .3020 | 18.00 | .7187 |
| 1.15 | | | 1.10 | .0433 | | 25 | 3.80 | .1496 | 7.80 | N | 7.70 | .3031 | 18.50 | .7284 |
| | | | 1.15 | .0453 | 3.90 | | 3.90 | .1535 | 7.80 | | 7.80 | .3071 | 18.65 | .7344 |
| 1.20 | | | 1.18 | .0465 | | 23 | 3.91 | .1540 | 7.90 | | 7.90 | .3110 | 19.00 | .7480 |
| | | | 1.19 | .0469 | 4.00 | | 4.00 | .1575 | 8.00 | 5/16 | 7.94 | .3125 | 19.05 | .7500 |
| 1.25 | | | 1.20 | .0472 | | 22 | 3.97 | .1562 | 8.00 | | 8.00 | .3150 | 19.45 | .7656 |
| | | | 1.25 | .0492 | 4.10 | | 4.10 | .1614 | 8.10 | O | 8.03 | .3160 | 19.50 | .7677 |
| 1.30 | | | 1.30 | .0512 | | 21 | 4.04 | .1590 | 8.20 | | 8.10 | .3189 | 19.84 | .7812 |
| | | | 1.32 | .0520 | 4.20 | | 4.20 | .1654 | 8.20 | P | 8.20 | .3228 | 20.00 | .7874 |
| 1.35 | | | 1.35 | .0532 | | 20 | 4.09 | .1610 | 8.30 | | 8.20 | .3230 | 20.24 | .7969 |
| 1.40 | | | 1.40 | .0550 | 4.30 | | 4.30 | .1693 | 8.30 | 21/64 | 8.30 | .3268 | 20.50 | .8071 |
| | | | 1.45 | .0571 | | 19 | 4.22 | .1660 | 8.40 | | 8.33 | .3281 | 20.64 | .8125 |
| 1.50 | | | 1.50 | .0591 | 4.30 | | 4.30 | .1693 | 8.40 | Q | 8.40 | .3307 | 21.00 | .8268 |
| | | | 1.51 | .0595 | | 18 | 4.31 | .1695 | 8.50 | | 8.43 | .3320 | 21.03 | .8281 |
| 1.55 | | | 1.55 | .0610 | | 18 | 4.37 | .1719 | 8.50 | | 8.50 | .3346 | 21.43 | .8438 |
| | | | 1.59 | .0625 | 4.40 | | 4.39 | .1730 | 8.60 | R | 8.60 | .3386 | 21.50 | .8465 |
| 1.60 | | | 1.60 | .0630 | | 17 | 4.40 | .1732 | 8.70 | | 8.61 | .3390 | 21.84 | .8594 |
| | | | 1.61 | .0635 | 4.40 | | 4.40 | .1732 | 8.70 | 11/32 | 8.70 | .3425 | 22.00 | .8661 |
| 1.65 | | | 1.65 | .0650 | | 16 | 4.50 | .1770 | | 8.73 | .3438 | | 22.23 | .8750 |
| | | | 1.70 | .0669 | 4.50 | | 4.50 | .1772 | 8.80 | S | 8.80 | .3465 | 22.50 | .8858 |
| 1.75 | | | 1.70 | .0670 | | 15 | 4.57 | .1800 | 8.80 | | 8.84 | .3480 | 22.62 | .8906 |
| | | | 1.75 | .0689 | 4.60 | | 4.60 | .1811 | 8.90 | | 8.90 | .3504 | 23.00 | .9055 |
| 1.80 | | | 1.78 | .0700 | | 14 | 4.62 | .1820 | 9.00 | | 9.00 | .3543 | 23.02 | .9062 |
| | | | 1.80 | .0709 | 4.70 | | 4.70 | .1850 | 9.00 | T | 9.09 | .3580 | 23.42 | .9219 |
| 1.85 | | | 1.85 | .0729 | | 13 | 4.76 | .1875 | 9.20 | 23/64 | 9.13 | .3594 | 23.50 | .9252 |
| | | | 1.85 | .0730 | 4.80 | | 4.80 | .1890 | 9.20 | | 9.20 | .3622 | 23.81 | .9375 |
| 1.90 | | | 1.90 | .0748 | | 12 | 4.85 | .1910 | 9.50 | U | 9.35 | .3680 | 24.00 | .9449 |
| | | | 1.93 | .0760 | 4.90 | | 4.90 | .1929 | 9.50 | | 9.50 | .3740 | 24.21 | .9531 |
| 1.95 | | | 1.95 | .0768 | | 11 | 4.91 | .1935 | 9.80 | 3/8 | 9.53 | .3750 | 24.50 | .9646 |
| | | | 1.98 | .0781 | | 10 | 4.98 | .1960 | 9.80 | | 9.56 | .3770 | 24.61 | .9687 |
| 2.00 | | | 1.99 | .0785 | 5.00 | | 5.00 | .1969 | 9.80 | V | 9.80 | .3858 | 25.00 | .9842 |
| | | | 2.00 | .0787 | | 8 | 5.05 | .1990 | 9.80 | | 9.80 | | | |

Index

A

Abrasive Nylon Brush 349
Abrasive Nylon Brush Pack 358
ABS Sheet 391, 401
Acorn Nuts 417
Adhesives and Sealants 376
Adjustable Fan Thermostats 88
Advance Tubing 94
Aerial Blanking Cap 230
Aerial Plug Adapter 230
Aerials 230
Aero Catches 393
Aero Fuel Caps 66
Aerosol Paint 367
Aerosol Trigger Gun 371
Air Belt Sander 360
Air brush 362
Air Brush Kit 362
Air Compressors 361
Air compressor (Tyres) 361
Air-Con Compressors 117
Air conditioning 115
Air-Con Driers 121
Air-Con Hose 94
Air-Con Radiators 115
Air-Con Unions 122
Air Cut Off Grinder 359
Air Die Grinder 360
Air Filter 38
Air Filters 147
Air Freshener Aerosol 382
Air Inlet Vents 144
Airline Blow Gun 348, 359
Air Line Fittings 106, 360
Air Nibbler 359
Air panel Saw 359
Air Saw Blades 359
Air Scoops 144
Air Shears 359
Allen Keys 347
Alternator 223
Alternator Plug 203, 223
Aluminium Angle 401
Aluminium Bends 103
Aluminium Composite Sheet 401
Aluminium ducting 140
Aluminium Heat Shield 73, 401
Aluminium Hosetails 114
Aluminium Louvre Panels 141
Aluminium mesh 103
Aluminium Mesh Vents 142
Aluminium P Clips 413
Aluminium Polish 382
Aluminium Sheet 323, 401
Aluminium Tape 403
Aluminium T's 91
Aluminium Tube 401
Aluminium Washer Tanks 41
Angle Grinders 358
Antenna 230
Anti Fog Glass Cleaner 382
Aston Fuel Caps 62
Autosol Polish 331, 380
Aviation Snips 345
Axial Fan 132

B

Badge Bars 328
Badges 332
Badges and Emblems 330
Balance Bar 6
Ball Joints 426
Banding 408
Banjo Hosetails 110
Banjo Unions 15
Batteries 221
Battery Box 189
Battery Cable 185, 214
Battery Cable Crimping Tool 186
Battery Chargers 222, 363
Battery Clamp 189
Battery Cut-Off Switch 187
Battery Terminal Covers 186
Battery Terminals 186
Battery Tray 189
Beaded Joiners 103
Bear Claw Door Latches 400
Belt Sander 360
Big Head Fixings 419
Bike Builder Solutions 446
Bike Chain Splitter 446
Billet alloy switches 153
Bitzbox Storage Box 162, 422
Black Hose Clips 410
Black Reinforced PVC Hose 94
Blanking Grommets 407
Blanking Plugs 114
Bleeder 19, 353
Bleed Nipple Caps 11
Bleed Screw 11
Bleed valve 132
BLMC Rear Lamps 262
Blue Silicone Hose 95
Body rivets 343
Body Rivets 343
Bolt-in Take-off 132
Bolts Nuts and Washers 416
Bonnet and Boot Lid Stays 398
Bonnet Hook Kits 396
Bonnet Pin Kits 395
Bonnet Release Cable 428
Bonnet Scoop 142
Bonnet Vent 146
Boot and Door Seal 444
Borescope 364
Bowden Cable 427, 428
Braided Brake Hose 14
Brake Bleeding Tools 19, 353
Brake Bleed Screw 11
Brake Cleaner 4
Brake Cleaner Aerosol 7
Brake Fluid Filler Hose 3, 18, 94
Brake Fluid Float Switch 17
Brake fluid Line Clamp Set 352
Brake Fluid Reservoirs 18
Brake Fluid Sticker 19
Brake Light Switches 11
Brake Parts 3
Brake Pipe 21
Brake Pipe Bender 21
Brake Pipe Benders 352
Brake Pipe Cutter 21, 352
Brake Pipe Debur Tool 21
Brake Pipe Fittings 14
Brake Pipe Flaring Tools 20, 351
Brake Pipe Straightening Tool 21
Brake Proportioning Valve 17
Brake Residual Pressure Valve 16

Brake Servo 9
Brake Servo Hose 9
Brake Unions 12
Brass Adapters 112
Brass Hosetails 113
Brass Joiners 110
Brass Nuts 417
Brass P Clips 413
Brass Unions 112
Brass Wire 66
Brass Y Joiners 110
Breather Filter 38
Breather Filters 147
Breather Tanks 81
Brushes 347, 349, 370, 390
Brush On Caliper Paint 371
Bulb and Fuse Pack 436
Bulb Holders 299
Bulbs 298
Bulkhead Flanges 138
Bulkhead Hose Joiners 132
Bullet Mirrors 309
Bump Cap 425
Bump Stops 425
Bungees 348
Busbar 198
Butterfly Vents 137
Button Head Screws 416
Butyl Sealer 378
Butyl Sealer Strip 404
Buzzer 177
Bypass Thermostat 104

C

Cabinet Latch 397
Cabinet Latch Key 397
Cable Adjusters 429
Cable Clamps 414
Cable Cover Bellows 429
Cable Cutters 214
Cable Joiners 170, 207, 217, 276, 437
Cable Reels 211
Cable Repair Kit 429
Cable Sleeving 216
Cable Tie Bases 406
Cable Tie Plugs 406
Cable ties 405
Cable Tie Tool 346, 405
Caliper & Drum paint 7
Caliper Paint 368
Caranuba Wax 383
Carbon Effect Sheet 391, 401
Carbon Effect Wrap 390
Car Care Products 380
Car Covers 326
Cargo Net 321
Carpet 385
Carpet Reviver 384
Carton Tape 404
Cartridge Gun 347
Catches Latches and Hinges 392
Caterham Rear Lights 263
Ceramic Wadding 75
Charging 222
Chequerplate PVC 385
Chinagraph pencils 337
Choke Cable 428
Chrome Trim 439
Cigarette Lighter 181
Circle cutter 334
Circlip Pack 435
Circlip Pliers 353
Circuit Breakers 196
Clamps 347
Cleaning Brush Set 349
Clear PVC Hose 94
Cleko Fasteners 344
Clevis 4, 426
Clevis Pin Pack 434
Clevis Pins 4
Clip On Mirrors 308
Clocks 234
Clutch Slave Cylinders 4
Cobra Side Pipes 75
Cockpit Vents 145
Cold drawn seamless tube 26
Combination Square 338
Composite Sheet 401
Compression Fittings 114
Connector Pack 167, 436
Contact Adhesive 377
Contact Cleaner 217, 382
Control Box 223
Coolant Hose 92
Coolant Prep Fluid 77
Cooling Fans 87
Copper Brake Pipe 21
Copper Ease 374
Copper Nickel Brake Pipe 21
Copper Pipe 47, 98
Copper Slip 374
Copper Washer Pack 432
Copper Washer Pack Metric 432
Cotton Reel Rubber Mounts 425
Countersink Bits 334
Countersink Set 333
Countersunk Screwcups 418
Countersunk Screws 398, 416
Courtesy Switches 168
Coverchrome 100
Coverchrome Sleeving 218
Craft Knife 345
Crimping tool 123
Crimping Tools 208, 354
Crimp Terminal Pack 167, 220, 436
Crocodile Clip Pack 438
Crocodile Clips For Battery 221
Cup Holders 321
Cutting Disc 358
CV Boot fitting kit 28
CV Boot Fitting Kit 357
C V Joint Boots 28

D

Dashcam 227
Dash Storage Tray 321
Dashtop Storage Tray 321
Dash vents 133
Daytime Running Lights 253
Deburring Tools 334, 348
Dehumidifier 326
Dehumidifier Bags 380
Demist Heater 135
Demist Kit 130, 133
Demist Plenums 138
Diagnostics 364
Diesel Additive 381
Digital Calipers 339
Digital Multimeter 364
Dimmer for Billet Switches 154
Diode 177
Dip Switch 169

Distribution Box 194
 Distribution Post 200
 Dividers 338
 Doomsday Switch Cover 158
 Door Courtesy Switches 168
 Door Handles 322, 324
 Door Latches 400
 Door Lock Actuator 399, 400
 Door Popper Set 399
 Door Pulls 322, 399
 Door Seal 444
 Door Seals 443
 Door Wiring Rubber Sleeve 407
 Double Sided Tape 403
 Dowty Washer pack 432
 Dowty washers 432
 Drain Plug 112
 Drier Bracket A/C 121
 Drill Bits 333, 422
 Drill Gauge 337
 Driving Lamps 249
 Driving lights 251
 Dual Concentric Rear Lamps 276
 Duct Hose 140
 Duct Hose Reducers 104
 Ducting Flanges 138
 Dustcaps 327
 Dynaliner 386
 Dynamat Products 386
 Dynamat Superlite 387
 Dynamat Xtreme 387
 Dynatape 388
 DZUS Fasteners 424

E

Earth Insulation Tape 403
 Earth Straps 185
 Easy Sand Filler 377
 E Clip Pack 434
 Econoseal Connector 51, 196
 Edge Seals 443
 Edge Trims 443
 Electric Demist Heater 135
 Electric Water Pumps 78
 Emblems 332
 Embossed Heat Shield 73, 401
 Emergency Tyre Repair Kit 361
 End Caps 408
 Endoscope 365
 Engine Cooling Tips 76
 Engineers Squares 339
 Engine Mounts 425
 Engine Paint 367
 Engine Start Push Button 153
 Epoxy Adhesive 376
 Epoxy Putty 379
 Etch Primer 370
 E Tech Car Care Products 383
 Evans Coolant 77
 Evans Power Cool 77
 Evans Prep Fluid 77
 Exhaust Clamps 71, 411
 Exhaust Coupling 72
 Exhaust Gasket 379
 Exhaust Gasket Material 71
 Exhaust Hangers 73
 Exhaust Heat Shield 73, 401
 Exhaust Joiner 70
 Exhaust Paint 368
 Exhaust Paste 71, 379
 Exhaust Repair Kit 71, 379

Exhaust Straps 73, 425
 Exhaust Tailpipes 70
 Exhaust Wrap 70
 Expanded Mesh 402
 Expansion Tanks 82
 Extractor 362
 Extractor Set 337
 Eyebolts 318, 418

F

Fabric Punch 345
 Facet fuel pumps 53
 Fan Mounting Kit 406
 Fan Mounting Kits 88
 Fan Speed Switches 168
 Fan Switch 90
 Fan Switches 111, 131
 Fan Switches and Senders 180
 Fanswitch three speed 168
 Fan Thermostats 88
 F Clamps 347
 Feeler Gauge 338
 Felt Bonnet Strip 444
 Ferrule 429
 Fibrefill 376
 Fibre Washer Pack 432
 File Set 349
 Filler 377
 Filler Hose 101
 Filler Necks 68, 85
 Filters 147
 Fire extinguishers 327
 Fir Tree Trim Clips 423
 Fish Tail Exhaust Trim 70
 Flags 330
 Flange Nuts 417
 Flanges 138
 Flap Discs 358
 Flaring Tools 351
 Flasher Relays 176
 Flexible Blue Silicone Hose 96
 Flexible Exhaust Pipe 72
 Flexible hose 93
 Float Switch 82
 Flocked Window Trim 445
 Flooring 385
 Floor Mats 385
 Fluid Line Clamp Set 352
 Fly-Off Handbrake 8
 Foam Rubber Strip 442
 Footpump 361
 Footrest 7
 Footrests 321
 Footwell Heel Pad 321
 Front Fog Lamps 252
 Fuel Additive 49
 Fuel Filler Caps 61
 Fuel Filler Hose 60, 61, 101
 Fuel Filler Necks 65
 Fuel Filters 55
 Fuel Hose 47, 98
 Fuel Injection Pumps 57
 Fuel Injection regulator 58
 Fuel pressure gauge 58
 Fuel Pump Blanking Plate 54
 Fuel Pumps 52
 Fuel Senders 236
 Fuel Shut Off Valve 51
 Fuse Boxes 192
 Fuse Holder 193
 Fuse packs 197
 Fuse Packs 438

Fuses 197

G

Gaffer tape 403
 Gaiters 28
 Gasket Paper 325, 379
 Gas Soldering Irons 210, 356
 Gauge Matcher 232
 Gauge Panels 231
 Gauge Pods 231
 Gauges 231
 GB Badge 332
 Gear Gaiters 323
 Gear Knobs 323
 Glass Cleaner 380
 Glassfibre Repair Kits 376
 Glove Box Latch 397
 Glue Gun 353
 Goldmat 389
 Grease Aerosol 374, 421
 Grease Cartridge 357
 Grease Gun 357
 Green Stripe Hoses 93
 Grommet Pack 435
 Grommets 407
 Gutter Moulding 444

H

Hacksaw Blades 349
 Half Nuts 417
 Handbrake 8
 Handbrakes 8
 Hand Cleaner Gel 357
 Handlebar Grips 447
 Handles 399
 Harnesses 315
 Harness Fixings 318
 Harness Mount Covers 318
 Hazard Kit 174
 Hazard Relay 175
 Hazard Relays 176
 Hazard Switches 173
 Header Tanks 81
 Headlamp Bezels 244
 Headlamp Bowls 243
 Headlamp Harnesses 245
 Headlamp Mesh Covers 244
 Headlamp Peaks 244
 Headlamp Plug 203
 Headlamp Plugs 246
 Headlamps 238
 Headlamp Shells 240, 241
 Headlamp Switches 169
 Heater case 128
 Heater Control Valves 129
 Heater hose 132
 Heater Hose 92
 Heater Matrix 128
 Heaters 125
 Heat Gun 355
 Heatmat 389
 Heatproof Sleeving 99
 Heatshrink 437
 Heat Shrink Connector Pack 437
 Heatshrink Kit 437
 Heat Shrink Sleeving 216
 Heavy Duty Hose Clamps 411
 Heavy Duty Relay 178
 Heel Pad 7, 321
 Heli-Coil Kits 335
 Helmet Hammock 324

Hex Head Screws 416
 Hex Keys 347
 High Tension 184
 Hinges 398
 Hole cutters 157, 162, 228
 Hole Punches 334
 Hole Saw Set 334
 Hollow Bead Wing Piping 442
 Honeycomb Mesh 402
 Hood and Tonneau Fixings 409
 Hoodliner 386
 Horn Button 447
 Horn Push 32
 Horns 224
 Horn Switch 160, 226
 Hose Band Kit 410
 Hose Clamp 20
 Hose Clip Driver 410
 Hose Clip Pliers 346
 Hose Clips 410
 Hose Crimping Tool 123
 Hose Cutter 345
 Hose End Caps 49, 101
 Hose finishers 96, 415
 Hose formers 49, 106
 Hose I.D. Reducers 60, 102
 Hose Joiners 108
 Hose reducers 104
 Hoses 92
 Hose Separators 415
 Hose Take-Off Kits 105
 Hot Melt Glue Gun 353
 Housings 273, 290
 H.T. Lead 184
 Hylomar 379
 Hylomar Exhaust Paste 71

I

Ignition Advance Vacuum Tubing 94
 Ignition Switches 159
 Ignition Tester 364
 Immobiliser 228
 In-Car Entertainment 229
 Indicators 255
 Indicator Switches 170
 Indicator Warning Buzzer 177
 Industrial Rivnut Kit 342
 Inertia Safety Switch 51, 196
 Infrared Thermometer 364
 Injector cleaner 375
 Injector Cleaner 49
 In-Line Sender Housings 90
 Inspection Lamps 366
 Instruments 231
 Insulation 389
 Insulation Tape 216, 403
 Interior Cleaner 383, 384
 Interior lights 294
 Interior mirror adhesive 312
 Interior mirrors 310
 Interior Parts 321
 Isolator 188

J

JB Weld 378
 Joddler 345
 Joiners 108
 Jointing Compound 379
 Jump Leads 186, 357
 Jump Start Pack 221
 Junction Box 198

K

Key Switch 159
Knife 345

L

Lamp Bezels 273
Lamp Housings 273, 290
Lamp Plinth 274
Lane Change Flasher Timer 177
Lazy tongue riveter 420
Lazy Tongue Riveter 343
Lead Substitute 49
Leaf Seal 444
Leather Punch 345
Leather Reviver 384
LED Strip Lights 296
LED Toggle Switch 158
LED Torches 366
Letter and Number Stamp Sets 350
Lift The Dot Fixings 409
Lightbars 249
Lighting 238
Lights Left On Warning Buzzer 177
Line Lock 17
Lithium Grease 374
Locking Wire 350
Locking Wire Kit 70, 350
Locking Wire Pliers 350
Loom Tape 216, 404
Loudspeakers 229
Louvre Panels 141
Low Rise Ramps 327, 353
Lubricants 374
Lucas Oil Products 375
Lucas style connectors 204
Lucas Style Switches 156
Luggage Ties 348

M

Magnetic Pick Up Tool 347
Magnetic Tool Holders 349
Maintenance Spray 381, 382
Masking Tape 404
Master Cylinders 3
Materials 401
Maxi Fuses 198
Measuring and Marking 338
Measuring Calipers 339
Mechanical Gauges 232
Megaval Fuse Holder 195
Micrometer 339
Midival Fuse Holder 195
Mini Chrome Boot Handle / Light 293
Mirror 347
Mirrors 300, 448
Mix and Match Hose Connectors 107
Modular Wiring System 190
Monza Fuel Cap 63
Motorcycle Horn 448
Motorcycle Horn Button 447
Motorcycle Lights Switch 447
Motorcycle Mirrors 448
Motorcycle Stop Light Switches 448
Mounts 425
Mud Flaps 325, 385, 444
Multiclip 405

Multi-Core Cable 214
Multimeter 364
Multi Purpose Grease 374
Multi Purpose Pump 357

N

NACA ducts 143
NAS Plug Connector 261
Needle Files 349
Neoprene D Section Sponge 442
Neoprene P Section 442
Nibbler 345
Non-return valves 50, 101
Non Slip Tape 403
No-Slip Tape 7
Number Plate Fixings 329, 418
Number Plate Holders 329
Nut and Bolt Gauge 338
Nut and Bolt Packs 430
Nut Covers 408
Nut Plates 419
Nuts Bolts and Washers 416
Nylon Bolts Nuts and Washers 418
Nylon Overbraid 218
Nylon P Clips 413

O

O Clip Pliers 412
O Clips 48, 412
Oil Catch Tanks 37
Oil Extractor 373
Oil Extractors 356
Oil Filter Grips 357
Oil Filter Wrench 357
Oil Gauge Tubes 237
Oil hose 94
Oil Light Switches 111, 180
Oil Pressure Gauge Tubing Kits 111
Order form 467
Overbraid 218
Over Centre Fasteners 392

P

P38 Filler 377
Paint 367
Paint Spray Booth 362
Paint Stripper 370
Panel Fixings 423
Parking Sensors 228
Passengers Footrest 7, 321
P Clips 413
Pedal Box 5
Pedal Pads 7, 321
Peel Rivets 343, 420
Penetrant Oil 374
Penny Washer Pack 433
Petrol King 55
Petrol Resistant lacquer 370
Petrol Stabiliser 381
Piano Hinge 398, 420
Pillow Blocks 27
Pipe Benders 352
Pipe Cutter 352
Pipe Flaring Tools 351
Pipe Separators 415
Pipe Straightener Set 346
Pipe Straightening Tool 21
Plastic Primer 370
Plastic Restorer 383

Plastic Trim 439
Plastic U Channel 441
Plastic Washers 418
Plastic Window Polish 384
Plinth 274
Plug Cap Puller 184
Plug Gap Tool 184
Plugs and Sockets 181
Plug Separators 325
Polyurethane Adhesive Sealant 376
Pop Rivets 420
Power Brake Bleeder 20, 353
Powerfile 360
Powerfile Belts 360
Power Plug 188
Power Socket 182
Power Steering Controller 35
Power Steering Stop Leak 375
Precision Screwdrivers 347
Pre-Insulated Crimp Terminals 206
Press Studs 408
Primer 369
Profile Gauges 338
Projector Headlamps 248
Proportioning Valve 17
Protractor 338
Protractor Gauge 337
P Section Wing Piping 442
PTFE Brake Hose 14
PTFE Tape 403
Punch Set 350
Puncture Repair 380
Push Button Release Latch 396
Push Button Switches 160
Push-Pull Cable 428
Push Pull Switches 166
PVC hose 94
PVC Hose 94
PVC Sleeving 216, 437

Q

Quarter Turn Fasteners 423
Quick Connectors 207
Quick Disconnect Battery Terminal 187
Quick Disconnect Isolator 188
Quick Release Brake Coupling 16
Quick Release Hose Clip 410
Quik Splice connectors 207

R

Radiator Cap 84
Radiator Fans 87
Radiator Leak Sealer 381
Radiators 86
Radio 229
Radweld 380
Rain Lights 291
Rally Window Net 324
Ram Air Ducts 146
Ramps 327, 353
Rapid Cable Wrap 218
Ratchet Strap 348
R Clip Pack 435
Rear fog lamps 288
Rear Fog Light 277
Rear Lights 261
Rear Number Plate Lights 291
Reducing Joiners 109

Reducing T's 109
Reflectors 297
Registration Plate Fixings 418
Relay Box 179
Relay Holder 179, 193
Relay Plug 179
Relays 178
Renovo Products 384
Residual Pressure Valve 16
Reverse lamps 288
Ribbed Rubber Strip 442
Rim Tapes 446
Ring Terminals 185
Riveting 343
Riveting Tools 343
Rivets 343, 420
Rivnut Instructions 342
Rivnut Pack 433
Rivnuts 341, 421
Rivnut Tools 341
Rocker switches 164
Rocker Switches 163
Rod End Boots 24
Rod Ends 22
Rod End Spacers 23
Roll Cage Mirrors 311
Roll Cage Padding 319, 327
Rollers 388
Roll Over Valve 50
Roll Pin Pack 434
Rotary Switches 167
RTV Silicone Gasket 376, 379
Rubber Bonnet Catch 392
Rubber Bonnet Hook Kits 396
Rubber Bump Cap 425
Rubber Coolant Hose 92
Rubberfelt Flooring 385
Rubber Gear Gaiters 324
Rubber Mat Set 385
Rubber Matting 385
Rubber Mounts 425
Rubber rivnuts 54
Rubber Rivnuts 421
Rubber Roller 388
Rubber Sheet 385
Rubber Trim 439
Rubber U Channel 441
Rubber Washers 408
Rubnuts 54
Rules 339
Running Lights 253
Rust Preventer Paint 370
Rust Solvent 381

S

Saddle Clamps 413
Sanding Kit 349
Screen Bonding Kit 376
Screen Wash 40
Screw cups 417, 418
Screwdrivers 347
Screw Extractor Set 337
Scriber 338
Scroll Nibbler 345
Sealant Gun 347
Sealer Strip 404
Seat Belt Fixings 318
Seat Belt Mount Covers 318
Seat Belts 315
Seat runners 319
Self-adhesive vinyl 390
Self-amalgamating tape 404

- Self-Amalgamating Tape 216
Self Clamping Hose Clips 411
Self Drill Screws 431
Self Striking Centre Punch 333
Self Tapping Screws 418, 431
Servo 9
Servo Hose 9
Servo Vacuum Pump 8
Shackle and Pin 427
Shakeproof Washers 417
Shampoo and Wax 383
Sheet Metal Hole Punches 334
Sheet Metal Joddler 345
Side Cutting Pliers 210, 355, 402
Side Repeaters 255
Side Vents 144
Silencer Baffle 70
Silencers 74
Silencer Wadding Blanket 75
Silicone Ducting 140
Silicone Gasket 71
Silicone Hose 95
Silicone Lubricant 374
Silicone Sealant 376, 379
Silicone Sleeving 218
Silicone tape 99, 403
Silicone Vacuum Tubing 96
Sill Protectors 325
Siphon Pump 51, 357
Six Volt Bulbs 298
Sleeving 99
Slide Latch 397
Smart Charger 222, 363
Snips 345
Socket Cap Screws 416
Soft Top Cleaner 384
Soft Top Proofer 384
Soft Vice Jaws 348
Solar Battery Charger 222
Solar Battery Maintainer 363
Solder-in Bushes 89, 113
Soldering Irons 210, 356
Solderless Nipples 429
Solenoid 188
Sound Level Meter 73, 364
Soundproofing 386
Spanner Set 340
Spare Wheel Tie-Downs 324
Spark Plug Caps 184
Spark Plug Tool 184
Speakers 229
Speed Clip Pack 433
Speed Clips 422
Spirap Cable Binding 218
Split Pin Pack 432
Split Sleeving 218
Splitter Vents 137
Sponge Rubber Strip 442
Spotlights 251
Spray Booth 362
Spring Band Hose Clamps 411
Spring Pack 435
Spring Steel Cable Clips 422
Spring Washers 417
Spring Wire Hose Clips 411
Squares 339
Squirrel Cage Fan 128
Stainless bends 103
Stainless Braided Oil and Fuel
Hose 94
Stainless Cable Tie Base 406
Stainless Mesh 142, 402
Stainless Radiator Caps 84
Stainless Steel Polish 382
Stainless Steel Tubing Bends 74
Stainless Ties 405
Stainless Tube 401
Stalk indicators 258
Stamp Sets 350
Starter Solenoid 188
Steel Rules 339
Steering Column Links 26
Steering Gaiters 28
Steering joints 24
Steering Knob 33
Steering Universal Joints 25
Steering Wheel Adapters 33
Steering Wheel Hubs 35
Steering Wheels 29
Stepped Elbows 108
Stepped hole cutters 228
Stepped Hole cutters 157, 162
Stepped Hole Cutters 333
Stepped Joiners 108
Stepped T Pieces 109
Sticker Sheet 332
Stone Chip Applicator Gun 373
Stonechip film 391
Stone Guard 370
Stop light switch 181, 268
Stop Light Switches 11, 180
Storage Box 162, 422
Storage Pockets 322
Studding 416
S.U. Pancake Air Filter 147
Super Glue 377
Suppressor Caps 184
Surface Mount Fan Switch 90
Surge Tank 59
Swirl Pots 59
Switches 156
Switches With Warning Lights
155
Switch Guards 159
Switch panel 164
Switch panels 170
Switch Panels 181
- T**
- Tacho 234
Tailpipes 70
Tank Strap Rubber 444
Tap and Die Sets 337
Tape Measure 338
Tape measures 439
Tapered Reamer Set 333
Tapes 403
Temperature Gauge Sender 180
Temperature sender 90, 180, 236
Temperature Senders 90, 236
Tempguard Sleeving 99
Tempreflect sleeving 99
Tempprotect Sleeving 99
Temp Switches and Senders 180
Temptape 99, 403
Terminal Blocks 207, 294, 438
Terminal Extraction Tool 355
Terminals and Connectors 202
Test Lead 210, 365
Textile covered fuel hose 98
Threaded Brass Bushes 89
Threaded Rods 426
Thread gauges 335
Thread Lock 379
Thread Repair Kits 335
Threads Guide 335
Throttle Linkage 426
Timing Light 184, 364
Tin Snips 345
Toggle Switches 156
Tools 333
Torches 366
Towing Eye Steel 325
Towing Straps 325
Tow Rope 353
Track Rod Cover 28
Travel Safety Kit 326
Trim 439
Trim Clip Pack 436
Trim Clips 409
Trim Cutter 345
Trinary Switch 121
Tube Benders 352
Tube Straightener Set 72, 346
Tubing Bender 21
Tuner 229
Turnbuckle Fixings 409
Twisted Wire Disc 358
Tyre Dustcaps 327
Tyre Gel 383
Tyre Pressure Gauge 365
Tyre pump 361
Tyre Repair Kit 361
Tyre Valve Kit 327
Tyreweld 380
- U**
- U Channel Trim 441
UK Badge 332
Underseal 373
Union Jack Badges 330
Universal band 408
Universal Joints 24
Upper Cylinder Lubricant 49,
375
USB Charger 182
USB Outlets 182, 183
- V**
- Vacuum Cleaner 347
Vacuum Hose 94
Vacuum Pump 8
Valve Spring Compressor 348
Velcro 391
Vents 133
Vernier Calipers 339
VHT Paint 367
Vice Jaws 348
Vinyl Fabric 390
Vinyl Wrap 390
Voltage Regulator 223
Vulcoflex Hoses 93
- W**
- Wad Punch Sets 350
Warning Lights 148
Warning Triangle 326
Washer Bag 41
Washer Bottles 40
Washer Jets 42
Washer Non Return Valve 41
Washer Pumps 40
Washers 417
Washers Bolts and Nuts 416
Washer Tubing 41
Waterproof Connector 248
Waterproof Connector Pack 167,
436
Waterproof Connectors 205
Water Pumps 78
Waxoyl 372
Wax Polish 383
Wax Polish Aerosol 380
WD40 374, 421
Weld-in Filler Neck 69
Wheel Arch Trim 440
Wheel Cleaner 380, 383
Wheel Lacquer 370
Wheel Spacers 325
Wheel Studs 325
Wheel Wax 383
White Nylon Washers 435
Wide Band Clamps 411
Wiggly Hose 93
Window Cleaner 380
Window Net 324
Window Trims 445
Window U Channel 445
Windscreen Bonding Kit 376
Windscreen Washer Bottles 40
Windscreen Wiper Blades and Arms
45
Windscreen Wiper Parts 43
Wing Mounted Indicators 255
Wing Nuts 417
Wing Piping 442
Wiper Blades and Arms 45
Wiper Motor Plug 43
Wiper Motors 46
Wiper Parts 43
Wiper Switch 44
Wire and Cable 211
Wire Clamps 414
Wire Cup Brushes 358
Wire Hose Clips 411, 412
Wire Rope 414, 429
Wire Stripper 209, 355
Wire Wheel Set 349
Wire Wool Pack 349
Wiring Codes 215
Wiring Colour Codes 215
Wiring Module 219, 220
Wiring Module Cover 220
Wooden Roller 388
Wood Rim Steering Wheels 29
Work Lamps 366
Workshop Packs 430
Wrap 390
Wrinkle paint 369
Wunderseal 373
- Y**
- Y Splitter Vents 137

CAR BUILDER SOLUTIONS

Tel: (01580) 891309 or 01580 448007 FAX: (01580) 893733

email: info@carbuilder.com www.carbuilder.com

HOURS OF BUSINESS

Monday to Friday 8 to 5 Saturday 8 to 12

SHOP OPENING HOURS

Monday to Friday 9 to 5 Saturday 9 to 12

MAIL ORDER POSTAGE & SHIPPING CONDITIONS PLEASE READ CAREFULLY

Orders received before 16:00 Monday to Friday are usually shipped the same day. Shipping options and costs are calculated mostly on size and weight, but some items cannot be sent via Royal Mail and/or may be subject to a courier surcharge. Standard Royal Mail services are uninsured and are not trackable while in transit. If you require trackable and insured shipping, please select either a Tracked Royal Mail or courier service. UK Mainland courier delivery is normally next working day, but some post codes are excluded from this. Large or heavy items may take longer. International orders may be subject to additional charges upon delivery. Please see the 'Delivery & Returns' section on our website for more information.

DELIVERY, DAMAGED GOODS and SHORTAGE CLAIMS

When you sign for a parcel, please inspect it carefully. If it has suffered damage in transit, you must mark the delivery note 'Parcel Damaged', before signing, or even refuse delivery in serious cases. We do of course pack our products carefully to help avoid any problems. Some deliveries involve more than one parcel - please check that all parcels have been received when signing for the delivery. **IMPORTANT NOTE:** If you need to make a claim for 'Shortages or Damaged Goods' CBS Online **MUST** be advised of your claim within the first 48 hours after delivery for your claim to be processed. Email info@carbuilder.com or call (+44) 01580 891309

RETURNS

We must be notified of your intent to return an item within 14 days of receipt. The item must be received by us, in as new condition, including the retail packaging within the next 14 days. We cannot refund goods cut from a roll or sheet. Return freight is paid by the customer. Please include a copy of your invoice and email: returns@carbuilder.com to let us know what is being returned and why. If you are unable to email us, please state the reason for return on the invoice. **Important Note:** If a return is received 29 to 90 days after purchase, but otherwise qualifies as a return, a credit note minus a handling charge of 10% or £5 (whichever is greater) will be issued. If a return is received 91 days or more after purchase, no refund will be issued. Any items returned in poor condition will always be subject to a handling charge.

We aim to keep all catalogue items in stock

