



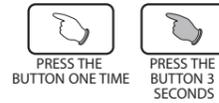
THANKS FOR PURCHASING OUR GP STYLE SPEEDOMETER. BEFORE OPERATING THIS UNIT, PLEASE READ CAREFULLY THE INSTRUCTION SHEETS AND RETAIN IT FOR FUTURE REFERENCE.

**Notice**

- DC 12V applications only.
- For installation, please follow the steps described in manual. Any damage caused by wrong installation shall be imputed to the users.
- Don't break or modify the wire terminal. To avoid a short circuit, do not pull the wires when installing.
- Do not disassemble or change any parts.
- The interior examination or maintenance of the instrument should be executed by our professionals only. Opening the instrument will void the warranty.
- While riding the vehicle, do not attend to change the setting of the instrument to avoid injuries to yourself or others.

MARK MEANING:

- Some procedures must be followed to avoid damage to the instrument.
- WARNING!** Some procedures must be followed to avoid injuries to yourself or others.
- CAUTION!** Some procedures must be followed to avoid damages to the vehicle.



1-1 Accessories

<b>1</b> LCD meter X 1	<b>2</b> Main wire X 1	<b>3</b> Passive speed sensor X 1	<b>4</b> D6 X 5L mm magnet X 6
<b>5</b> Connection X 11	<b>6</b> M8/ S type speed sensor bracket X 1	<b>7</b> M10/ S type speed sensor bracket X 1	<b>8</b> Hexagon screw X 2
<b>9</b> 2.5 mm allen key X 1	<b>10</b> Meter bracket X 1	<b>11</b> Handle bar clamp X 1	<b>12</b> Rubber X 1
<b>13</b> M6 X 18L screw X 1	<b>14</b> M5 X P0.8 nut X 2	<b>15</b> M6 X P1.0 nut X 1	<b>16</b> M5 washer X 2
<b>17</b> M6 washer X 1	<b>18</b> Aluminum bushing X 1		

**NOTE** Please contact your local distributor if the items listed are not the same.

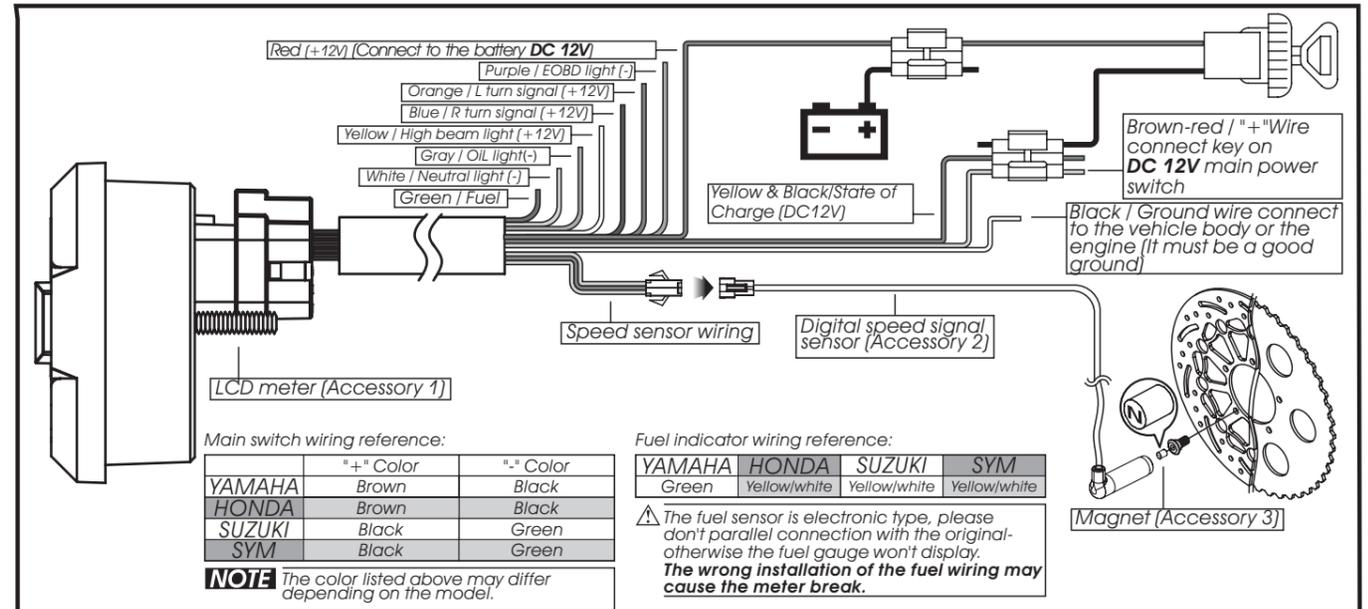
1-2 Optional accessories

<b>1</b> Bolt Magnet	<b>2</b> Active speed sensor	<b>3</b> L type speed sensor bracket
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**NOTE** The optional active speed sensor can read up to 60 pulsations and do not require the installation of any magnets to pick up the speed. Note that the passive speed sensor supplied with this instrument can read up to 6 pulsations.

**NOTE** Some of the optional accessories listed might not be sold in your country. Contact your local distributor to get more details.

2-1 Wiring installation instruction



**NOTE** The north (N) side of magnet must face to the sensor when installing.

**NOTE** If you don't connect the fuel wiring, the fuel gauge will not display.

**NOTE** If you don't connect the State of Charge wiring (Yellow&Black), the State of Charge gauge will not display.

**NOTE** When connecting the power wiring, please follow the instruction. If you connect the red & brown-red wiring in parallel will cause the meter work improperly.

2-2 Installation instruction

Follow those steps when installing.

- Lcd meter (Accessory 1)
- Meter bracket (Accessory 9)
- M5 washer X 2 (Accessory 15)
- M5 X P0.8 nut X 2 (Accessory 13)
- M6 X P1.0 screw (Accessory 14)
- M6 washer (Accessory 16)

**A** Use the meter bracket (Accessory 9), handle bar clamp (Accessory 10), rubber (Accessory 11) and the nut to install the speedometer on the handle bar.

**B** Use the aluminum bushings (Accessory 17) to install the speedometer on the handle bar stem.

2-3 Installation instruction

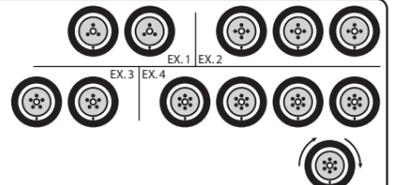
- Put the magnet into the brake disc screw hole.
- Install the s type sensor bracket.
- Adjust the sensor bracket position to make sure the sensor is facing the magnet to prevent bad speed signal.
- Install the speed sensor on the bracket.
- In order to get a good speed signal, the distance between the speed sensor and magnet should be under 2mm.

P.S.



Higher number of magnets installed on the disk brake will result in a faster speed display on the gauge. The letter "N" on the magnets must face the speed sensor in order to pick up correctly the speed.

- EX 1: If the disk brake has 3 screws, you can install 1 or 3 magnets.
- EX 2: If the disk brake has 4 screws, you can install 1, 2 or 3 magnets.
- EX 3: If the disk brake has 5 screws, you can install 1 or 5 magnets.
- EX 4: If the disk brake has 6 screws, you can install 1, 2, 3 or 6 magnets.



### 3-1 Basic function instruction

#### Fuel meter level

- Display range: 4 levels
- The fuel symbol begins to flash if only 1 bar is left.

#### Odometer

- Display range: 0~99999 km (mile), reset automatically after 99999 km.
- Display unit: 1 km (mile).

#### Trip meter

- Display range: 0~999.9 km (mile), reset automatically after 999.9 km.
- Display unit: 0.1 km (mile).

#### Fuel / Remaining Distance

- Display range: 999.9~0km (mile), reset automatically after 999.9~0 km.

#### Indicators lights

- Turn signal light (Green)
- Neutral light (Green)
- High beam light (Blue)
- Engine oil pressure light (Red)
- EOBD light (Amber)

#### Volt meter level

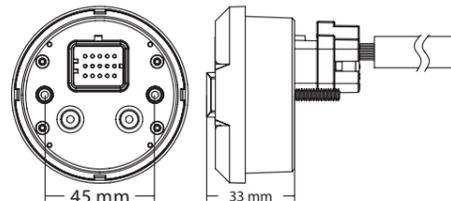
- Display range: 4 levels
- The volt symbol begins to flash if only 1 bar is left.

#### Clock

- 24H

#### Digital speedometer

- Display range: 0~360 km/h (0~223 MPH)
- Display unit: km/h or MPH for alternative.
- Digital volt meter
- Display range: DC5~DC 28V



### 3-2 Function, setting instruction

• Speedometer	Display range: 0~360 km/h (0~223 MPH) Display unit: km/h or MPH	• Clock	24 H
• Display internal	<0.5 second	• Digital volt meter	Display range: DC5~DC 28V · flashing warning
• Odometer	Display range: 0~99999 km (mile), reset automatically after 99999 km (mile)	• Volt meter levele	Display range: 4 levels The volt symbol begins to flash if only 1 bar is left.
• Trip A, B	Display unit: 0.1 km (mile) Display range: 0~999.9 km (mile), reset automatically after 0~999.9 km (mile)	• Blacklight brightness	Setting range: 5 (Brighter)~1 (Darker):1 Setting unit: 1
• Fuel / Remaining Distance	Display unit: 0.1 km (mile) Display range: 999.9~0 km (mile)	• Supply voltage	DC12V
• Tire circumference	Setting range: 300~2,500 mm Setting unit: 1 mm · Sensor point: 1~60	• Effective temperature range	-10~+60°C
• F meter level	Display range: 4 levels The fuel symbol begins to flash if only 1bar is left.	• Meter standard	JIS D 0203 S2
• Fuel resistance	Setting range: 100Ω · 250 Ω · 510Ω · 1,200Ω	• Meter size	72 mmX 63mm X 33 mm
		• Meter weight	240 g
		• Indicator lights	Turn Signal(Green)· Neutral(Green)· High beam (Blue) · Oil(Red) · EOBD(Amber)

**NOTE** Design and specifications are subject to change without notice.

### 4-1A Adjust button function instruction



- In ODO function, press the **Adjust button** one time to switch to the trip A function.

- In main screen, press down the **Adjust button** for 3 seconds to change the speed unit.



- In the fuel/remaining distance screen, press the **Adjust button** to go back to the main screen.



- In trip A screen, press the **Adjust button** one time to switch to the trip B function.
- Press down the **Adjust button** for 3 seconds to reset the trip A.



- Main screen.



- In trip B screen, press the **Adjust button** one time to switch to the fuel / remaining distance.
- Press down the **Adjust button** for 3 seconds to reset the trip B.



### 4-1B Select button function instruction



- In the clock screen, press the **Select Button** one time to switch to the volt meter.



- In the volt screen, press the **Select Button** one time to switch to the clock screen.

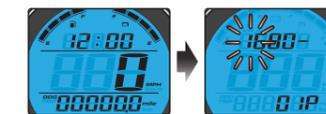


- Clock screen.

### 4-1C Adjust+Select button function instruction



- Press down the Adjust & Select button for 3 seconds to enter setting screen. (Check section 4-2 for detail)



### 4-2 Function setting instruction

- In main screen



- In main screen, press down the **Select & Adjust Button** X 3 seconds to enter the Tire circumference and sensor point setting.

Select Button

- Tire circumference setting



- EX. The tire circumference is 1,300 mm.
- Press the **Adjust button** to choose the setting number.

▲ Press the **Select button** to move to the digit you want to set.

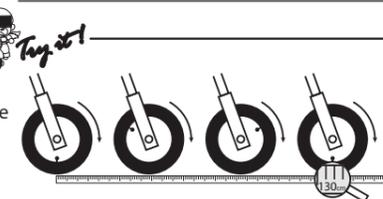
**NOTE** The tire circumference setting range: 300~2,500 mm.

**CAUTION!**

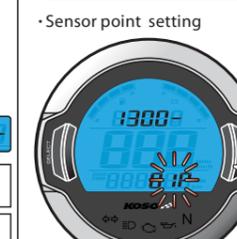
- The speed displayed on the meter will be affected by the setting, please make sure the setting numbers are correct before testing the vehicle.

P.S.

You could define the valve as the starting point and the terminal point to measure the wheel circumference with a measuring tape.



- EX. The tire circumference setting is changed from 1,000 mm to 1,300 mm.
- Press the **Select button** three times to enter the sensor point setting.



- Sensor point setting

- EX. The sensor point you want to set is 6.
- Press the **Adjust button** to choose the setting number.



▲ Press the **Select button** to move to the digit you want to set.

**NOTE** The sensor point setting range: 1~60 points. You could change the setting from left to right.



- EX. the sensor point setting is changed from 1 to 6
- Press **Select button**, to enter the fuel gauge resistance setting screen.

• The fuel resistance setting



- **EX. The fuel gauge need to be set to 510Ω**
- Press the **Adjust** button to choose the setting number.



**NOTE** The fuel gauge resistance setting range: 100 Ω, 250 Ω, 510 Ω, 1200 Ω  
If you don't install the fuel wiring, the fuel gauge will not display.



- **EX. The fuel resistance setting has been changed from 100 Ω to 510 Ω.**
- Press the **Select** button to enter the Fuel / Remaining distance function.

• Operation diagram



**CAUTION!**

- After switching the meter, only filling up the fuel can bring you into remaining distance setting.
- When you fill up the fuel next time, F----- will indicate the remaining distance.

• Fuel / Remaining distance setting



- In the Fuel / Remaining distance screen, press **Adjust** button once, to go to setting mode.

This screen indicates: Do Not Go To Training Setting.

This screen indicates: Go to Training Setting



- **EX. In the Fuel / Remaining distance setting, choose Y to go to Training mode.**
- Press **select** button, to go to the time setting screen.

If the ODO symbol is blinking, you are in training mode.

If the fuel indicator have only one bar left and the ODO is no more blinking, then the Training is completed.

• The clock setting (Hour)



- **EX. To change the setting to 14:00.**
- Press the **Adjust** button to choose the hour you want to set.



**NOTE** Setting range: 0~23 H.



- **EX. Now the setting is changed from 0:00 to 14:00.**
- Press the **Select** button to enter the minute setting.

• The clock setting (Minute)



- **EX. To change the setting to 13:05.**
- Press the **Adjust** button to select the minutes.



**NOTE** Press the **Select** button to move to the digit you want to set.

**NOTE** Setting range: 0~59 minutes.



- **EX. Now the setting is changed from 13:00 to 13:05.**
- Press the **Select** button to enter the backlight brightness setting

• The backlight brightness setting



- **EX. Change the brightness to 5-5 (100% brightness)**
- Press the **Adjust** button, to choose the setting number.



**NOTE** The setting range: 1-5 (Darkest) ~ 5-5 (Brightest), 5 different levels. Setting unit: 20 % per level. **The backlight brightness will change immediately after you adjust the setting value.**



- **EX. The backlight brightness setting is changed from 1-5 to 3-5.**
- Press **Select** button, to go back to the main screen.



• Main screen.

5 Trouble shooting

If you encounter operational failure, please check the following steps. If the problem still occur, please contact your KOSO dealer.

Trouble	Check item	Trouble	Check item
The meter doesn't work when the power is on.	<ul style="list-style-type: none"> <li>• No power supply to the meter.                             <ul style="list-style-type: none"> <li>→ Make sure the wiring is connected properly and that the fuse is not broken.</li> <li>→ The battery is broken or the battery is too old to supply enough power (DC 12V) to make the meter work properly.</li> </ul> </li> </ul>	<b>Fuel gauge does not appear or appear incorrectly.</b>	<ul style="list-style-type: none"> <li>• <b>Check your fuel tank.</b> <ul style="list-style-type: none"> <li>→ Is there any fuel inside ?</li> </ul> </li> <li>• <b>Check the wiring.</b> <ul style="list-style-type: none"> <li>→ Did you connect the wiring correctly ?</li> </ul> </li> <li>• <b>Check the setting.</b> <ul style="list-style-type: none"> <li>→ Refer to the manual 4-2.</li> </ul> </li> </ul>
<b>The meter shows wrong information.</b>  Speed does not appear or appear incorrectly.	<ul style="list-style-type: none"> <li>• <b>Check the voltage of your battery, and make sure the voltage is over DC 12V.</b></li> <li>• Make sure the speed sensor is connected correctly.</li> <li>• Check the tire-size setting. refer to the manual 4-2.</li> </ul>	<b>The odometer and trip meter is not accumulated or accumulated wrong data.</b>	<ul style="list-style-type: none"> <li>• It's possible that the positive wire is not connected properly.                             <ul style="list-style-type: none"> <li>→ Check if the red positive wire is connected to the permanent power or the battery. The brown positive wire need to be connected to the positive pole of the ignition switch.</li> </ul> </li> </ul>