



Thank you for purchasing KOSO GP style speedometer, before operating the unit, please read the instruction thoroughly and retain it for the future reference.

Notice

1. The meter is apply for **DC 12V**.
2. For installation, please follow the steps described in manual. Any damage caused by wrong installation shall be imputed to the users.
3. To avoid the short circuit, please don't pull the wire when installing. Don't break or modify the wire terminal.
4. Do not disassemble or change any parts excluding the manual description.
5. The interior examination or maintenance should be executed by our professionals.

MARK MEANING:

NOTE You could get the installation details from the information behind the mark.

Some processes must be followed to avoid the affection caused by wrong installation.

WARNING! Some processes must be followed to avoid damages to yourself or the public.

CAUTION! Some processes must be followed to avoid the damage to the vehicle.

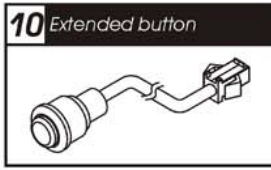
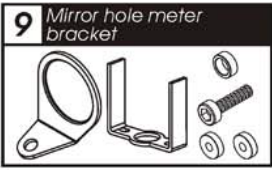


1-1 Accessory

<p>1 Meter X 1</p>	<p>2 Passive speed sensor X 1</p>	<p>3 D6 X 5L mm magnet X 6</p>	<p>4 Mid-way connect X 9</p>
<p>5 M8/ S type speed sensor bracket X 1</p>	<p>6 M10/ S type speed sensor bracket X 1</p>	<p>7 Hexagon socket screw X 2</p>	<p>8 2.5 mm spanner X 1</p>
<p>9 Meter bracket X 1</p>	<p>10 Handle bar clamp X 1</p>	<p>11 Rubber X 1</p>	<p>12 M6 X 18L screw X 1</p>
<p>13 M5 X P0.8 nut X 2</p>	<p>14 M6 X P1.0 nut X 1</p>	<p>15 M5 washer X 2</p>	<p>16 M6 washer X 1</p>
<p>17 Aluminum bush X 1</p>			

1-2 Option accessory

<p>1 Disc magnet screw</p> <p>5/16-18 X 22.4L M5 X P0.8 X 12L M6 X P1.0 X 12.6L M6 X P1.0 X 19.7L M6 X P1.0 X 24L M8 X P1.25 X 22.5L M8 X P1.25 X 27.5L M8 X P1.25 X 29L M10 X P1.25 X 28.3L</p>	<p>2 Active speed sensor</p>	<p>3 Digital speed signal sensor</p> <p>JIS TYPE a</p>	<p>4 Digital speed signal sensor</p> <p>JIS TYPE A</p>
<p>5 Digital speed signal sensor</p> <p>RUNNER</p>	<p>6 Digital speed signal sensor</p> <p>SR X-FIGHT BOOSTER</p>	<p>7 L type speed sensor bracket</p>	<p>8 U-type meter bracket</p>



NOTE The advantage of the active speed sensor is as following. 1. You don't need to install the magnet in the opposite position of the speed sensor. 2. You could set up the sensor signal input up to 60 points, and the speed displayed will be more accurate. Please note that the speed sensor attached in the kit is passive speed sensor, and the maximum speed signal it could read is 6 points.

2-1 Wiring installation instructions

Main switch wiring reference:

	Power	Key on	Ground
YAMAHA	Red	Brown	Black
HONDA	Red	Red / Black	Green
SUZUKI		Black	Green
KAWASAKI	White	Brown	Black / Yellow
KYMCO	Red	Black	Green
SYM	Red	Black	Green
PGO	Red / White	Orange	Black

Fuel indicator wiring reference:

	Green	KYMCO	Yellow / White
YAMAHA	Green		Yellow / White
HONDA	Yellow / White	SYM	Yellow / White
SUZUKI	Yellow / White	PGO	Gray
KAWASAKI	Black / Light Green		

NOTE The color listed above may differ depending on the model.

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

2-2 Installation instructions

When installing, please follow the process.

1. Lcd meter (Accessory 1)
2. Meter bracket (Accessory 9)
3. M5 washer X 2 (Accessory 15)
4. M5 X P0.8 nut X 2 (Accessory 13)
5. M6 X P1.0 screw (Accessory 14)
6. 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 bush (Accessory 17) to install the speedometer on the handle bar stem.

2-3 Installation instructions

Put the magnet into the brake disc screw hole.

Install the s type sensor bracket.

Adjust the sensor bracket position to make sure that the sensor could face the magnet to prevent bad speed signal or no signal!

Install the speed sensor on the bracket.

Adjust the distance between sensor and magnet. We suggest you to make sure the distance is under 8 mm for catching good speed signal.

PS

The more magnet sensor points are, the less the display interval is. when installing the magnet, please put the magnet with **N**-mark side face the outside and put them averagely to avoid wrong signal.

EX. 1: If your disk has 3 screws, you could install 1 or 3 magnets to catch the speed.

EX. 2: If your disk has 4 screws, you could install 1 - 2 or 4 magnets to catch the speed.

EX. 3: If your disk has 5 screws, you could install 1 or 5 magnets to catch the speed.

EX. 4: If your disk has 6 screws, you could install 1 - 2 - 3 or 6 magnets to catch the speed.

After finishing the magnet installation and sensor point setting, please move your tire to test the speedometer work or not.

3-1 Overview

Odo meter

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

Trip meter

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

Fuel symbol

- Display range: 6 grids.
- The fuel reserve symbol will begin to flash if only one grid left.

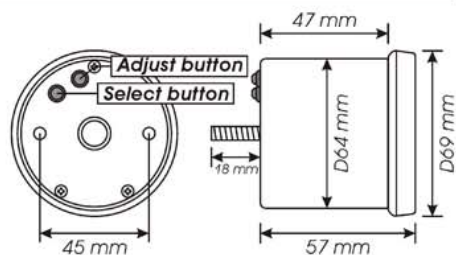


Adjust button

- In the main screen, to press the **Adjust button** to switch between odometer and trip meter.
- In the trip meter screen, to press down the **Adjust button** for 3 seconds to reset the trip meter.

Speedometer

- Display range: 0~160 MPH
- Display unit: 5 MPH



3-2 Specification

○ Tire circumference setting	Setting range: 300~2,500 mm Setting unit: 1 mm · Sensor point: 1~60
● Fuel gauge	Display in 6 grids (Around 16% for each grid)
○ Fuel resistance setting	100 Ω · 510 Ω
● Effective voltage	DC12V

● Effective temperature range	-10~+60°C
● Meter standard	JIS D 0203 S2
● Meter size	D64 X 57 mm
● Meter weight	Around 190 g

NOTE Design and specification are subject to change without notice!

NOTE If you enter the setting screen for 30 seconds and don't press the button, it will back to the main screen automatically.

4-1 Tire circumference and sensor point setting



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

CAUTION!

- Please measure the tire circumference (the tire you will install the sensor on) and make sure the number of magnet sensor point (You could install the magnet into the disc screw or the sprocket screw.)
- The speed displayed on the meter will be affected by the setting, please make sure the setting number is correct before you make the setting.



Press the **Select button** for three times to enter the sensor point setting.

EX. The tire circumference setting is changed from 1,000 mm to 1,300 mm.

Next page



EX. The tire circumference is 1,300 mm. Press the **Select button** to move to the digit you want to set.
EX. Now the original setting is 1,000 mm.

▲ Now the 1 is flashing!

NOTE The tire circumference setting range: 300~2,500 mm, and the digit you set is from left to right in order.



EX. The sensor point you want to set is 6. Press the **Select button** to move to the digit you want to set.

EX. Now the original setting is 1 point.

▲ Now the 0 is flashing!

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

NOTE Only when you use the active speed sensor, then you could make the sensor point setting over 6 points.

PS.

The active speed sensor could be installed besides the mental parts such as the disc screws, the brake disc to detect the gap of the disc, the gear plate to detect the frequency of the teeth on the gear. We will suggest you to use the method of detecting the disc screw for speed signal. The more the signals are, the better the speed accuracy is. Please note that the max signal the active speed sensor could read is 60 points per turn. **The LED on the active speed sensor will light up once the signal is detected.**

Press the **Adjust button** to choose the setting number.

▲ Now the sensor point setting number is flashing!



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

Press the **Adjust button** to change the setting.

▲ Now the 0 is flashing!



Press **Select button** 2 times, to back the main screen.

EX. the sensor point setting is changed from 1 to 6.

4-2 The fuel gauge resistance setting



In main screen, press down the **Select & Adjust X 3 seconds** to enter the Tire circumference.



Press the **Select button** 3 times to enter the fuel gauge resistance setting screen.



Usually the fuel gauge resistance is 100 Ω on YAMAHA system, and 510 Ω on HONDA system.



Press the **Adjust button** to choose the setting number.
EX. Now the fuel gauge resistance setting is 100 Ω .

⚠ Now the resistance setting number is flashing!

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



Press **Select button** 1 times, to back the main screen.
EX. Now the fuel resistance setting is changed from 100 Ω to 510 Ω .



5 Trouble shooting

The following situation do not indicate malfunction of the meter. Please check the following before taking it in for repair.

Trouble	Check item	Trouble	Check item
The meter doesn't work when the power is on.	<ul style="list-style-type: none"> ●The power doesn't supply to the meter. <ul style="list-style-type: none"> →Please make sure the wiring is connected. The wiring and fuse are not broken. →The battery is broken or the battery is too old to supply enough power (DC 12V) to make the meter work. ●Please check the voltage of your battery, and make sure the voltage is over DC 12V. 	Fuel gauge does not appear or appear incorrectly.	<ul style="list-style-type: none"> ●Please check your fuel tank. <ul style="list-style-type: none"> →Is there any fuel inside? ●Please check the wiring. <ul style="list-style-type: none"> →Do you connect the wiring correctly? ●Please check the setting. <ul style="list-style-type: none"> →Please refer to the manual 4-2.
The meter shows wrong information. Speed does not appear or appear incorrectly.	<ul style="list-style-type: none"> ●Please make sure the speed sensor is connected correctly. ●Please check the tire-size setting. <ul style="list-style-type: none"> →please refer to the manual 4-1. 	The odometer and trip meter is not accumulated or accumulated wrong data. When switch off, the needle doesn't return to 0.	<ul style="list-style-type: none"> ●It is possible that the positive wire is connected wrongly. <ul style="list-style-type: none"> →Please check is the red positive wire connect to the permanent power or battery and the brown positive wire is connected to the key on switch positive pole. ●It is possible that the permanent power wire is not connected well. <ul style="list-style-type: none"> →Please check the red positive wire is connect well or not.