



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

**Notice**

1. The lcd 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.

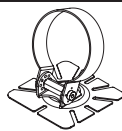
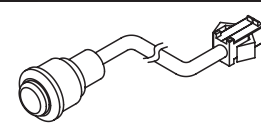
**1-1 Accessory**

<b>1</b> LCD meter X 1	<b>2</b> Digital speed signal sensor X 1	<b>3</b> D6 X 5L m/m magnet X 6	<b>4</b> Connect terminal X 4
<b>5</b> M8/ S type speed sensor bracket X 1	<b>6</b> M10/ S type speed sensor bracket X 1	<b>7</b> Hexagon socket screw X 2	<b>8</b> 2.5 m/m spanner X 1
<b>9</b> Meter bracket X 1	<b>10</b> Handle bar clamp X 1	<b>11</b> Rubber X 1	<b>12</b> M6 X 18L screw X 1
<b>13</b> M5 X P0.8 nut X 2	<b>14</b> M6 X P1.0 nut X 1	<b>15</b> M5 washer X 2	<b>16</b> M6 washer X 1
<b>17</b> Aluminum bush X 1	<b>18</b> Manual		

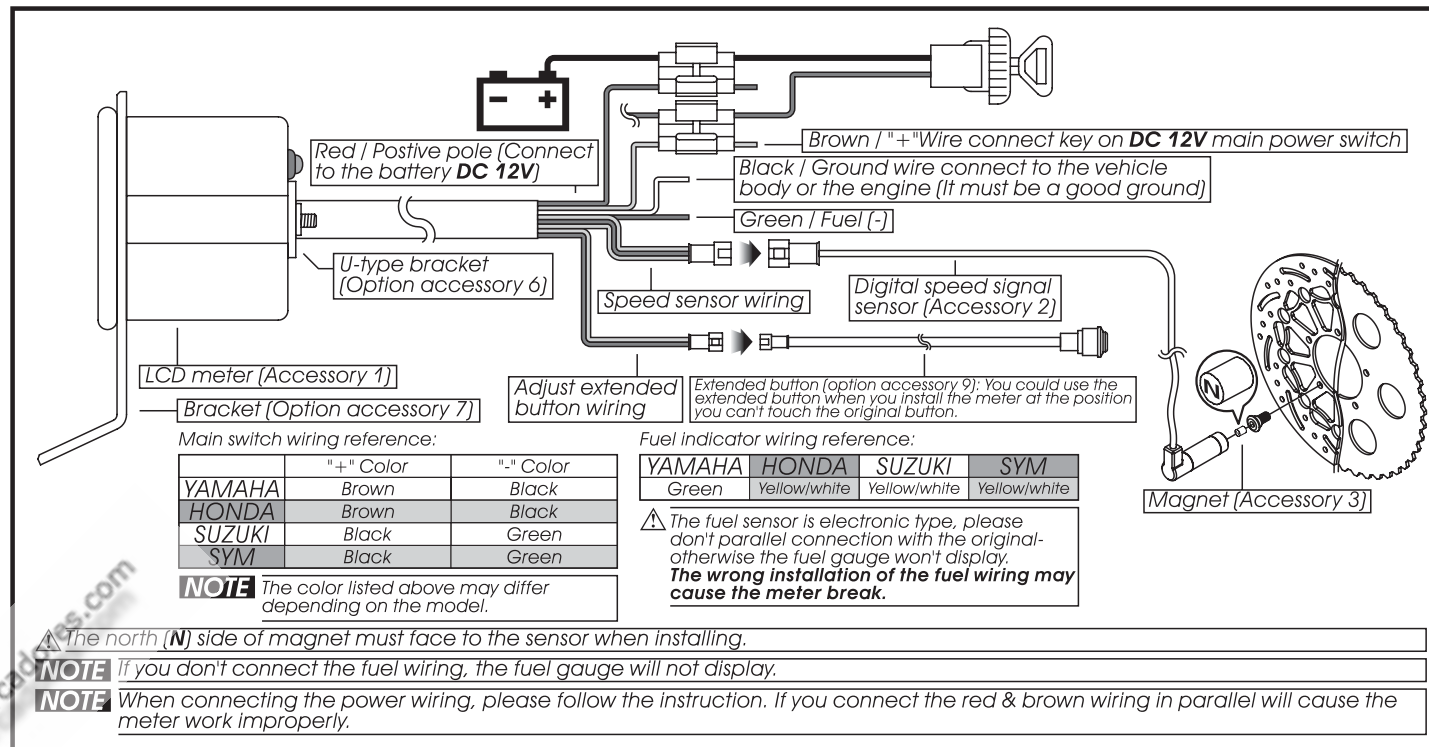
**NOTE** Please contact the local distributor if the items you open are not the same, with the above-listed one.

**1-2 Option accessory**

<b>1</b> Disc magnet screw 5/16-18 X 22.1L 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	<b>2</b> Active speed sensor	<b>3</b> Digital speed signal sensor JIS TYPE α	<b>4</b> Digital speed signal sensor JIS TYPE A
<b>5</b> Digital speed signal sensor RUNNER	<b>6</b> Digital speed signal sensor SR X-FIGHT BOOSTER	<b>7</b> U-type meter bracket	<b>8</b> Mirror hole meter bracket

**9 Universal adhesive bracket****10 Extended button**

**NOTE** Some of the option accessories may not sell. For the details, please contact the local distributor.

**2-1 Wiring installation instructions****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 m/m for catching good speed signal.

**P.S.**

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.

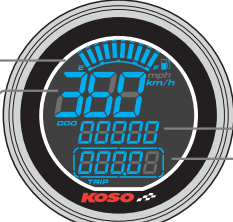
EX. 3: If your disk has 5 screws, you could install 1 or 5 magnets to catch the speed.

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

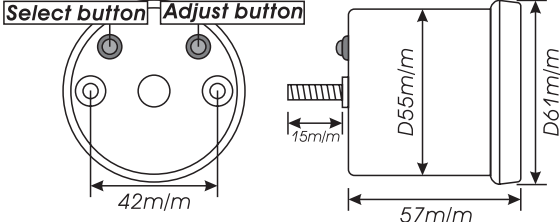
**After finishing the magnet installation and sensor point setting, please move your tire to test the speedometer work or not.**

3-1 Basic function instruction

- Fuel symbol**
- Display range: 10 levels.
  - The fuel reserve symbol begins to flash if only 3 grids left.
- Speedometer**
- Display range: 0~360 km/h (0~223 MPH).
  - Display unit: km/h or MPH.



- Odo meter**
- 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).



**Select button** ●In main screen, press the **Select button** to switch the speed unit between Km/h & MPH.

**Adjust button** ●In main screen, press down the **Adjust button** for 3 seconds to reset the trip meter.

3-2 Function, setting instruction

●Speedometer	Display range: 0~360km/h (0~223 MPH) Display unit: km/h / MPH alternative	●Fuel gauge	Display in 10 levels (one level means 10% fuel)
○Display interval	<0.5 second	○Fuel resistance setting	100 Ω · 510 Ω
○Odometer	0~99999 km (mile)	●Effective voltage	DC12V
○Trip	0~999.9 km (mile)	●Effective temperature range	-10~+60°C
○Tire circumference setting	Setting range: 300~2500 m/m Adjust unit: 1 m/m · Sensor point: 1~60	●Meter standard	JIS D 0203
		●Meter size	D55 X 57 m/m
		●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 **Adjust button** to choose the setting number.

▲ Now the circumference setting number is flashing!

**NOTE** The tire circumference setting range: 0~99 m/m. Adjust unit: 1 m/m.



Press the **Select button** to enter the sensor point setting.

EX. The circumference setting is changed from 1300 m/m to 1330 m/m.



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

EX. Now the tire circumference setting is 1000 m/m, and the sensor point is 1.

▲ Now the circumference setting number is flashing!

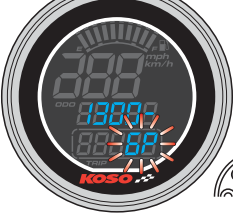
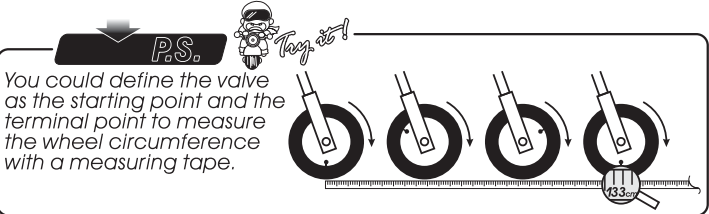
**NOTE** The tire circumference setting range: 300~2500 m/m. Adjust unit: 100 m/m.



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

▲ Now the sensor point setting number is flashing!

**NOTE** The sensor point setting range: 1~60 points.



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

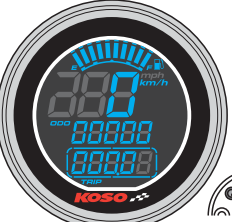
EX. the sensor point setting is changed from 1 to 6.



Press the **Select button** to enter the tire circumference setting.

EX. Now the tire circumference setting is changed from 1000 m/m to 1300 m/m.

4-2 The fuel gauge resistance setting



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



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

**P.S.**

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!



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.	●The power doesn't supply to the meter. →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.	Speed does not appear or appear incorrectly.	●Please make sure the speed sensor is connected correctly. ●Please check the tire-size setting. →please refer to the manual 4-1.
The meter shows wrong information.	●Please check the voltage of your battery, and make sure the voltage is over DC 12V.	Fuel gauge does not appear or appear incorrectly.	●Please check your fuel tank. →Is there any fuel inside? ●Please check the wiring. →Do you connect the wiring correctly? ●Please check the setting. →Please refer to the manual 4-2.

※If still can't solve the problems according to the steps above, please contact with distributors or us.