



# INSTRUCTION



Thank you for purchasing **KOSO XR-SRN+ DIGITAL LCD meter**. Before installing, please check the instruction carefully.

## Notice

- The LCD meter is apply for **DC 12V**.
- For installation, please follow the steps described in manual. Any damage caused by wrong installation shall be imputed to the users.
- To avoid the short circuit, please don't pull the wire when installing. Don't break or modify the wire terminal.
- Do not disassemble or change any parts excluding the manual description.
- 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> RPM wire set (Type A) X 1	<b>3</b> RPM wire set (Type B) X 1	<b>4</b> Temp sensor wire set X 1
<b>5</b> PT 1/8 water temp sensor X 1	<b>6</b> Digital speed signal sensor X 1	<b>7</b> D6 X 5L mm magnet X 6	<b>8</b> Connect terminal X 12
<b>9</b> M8/ S type speed sensor bracket X 1	<b>10</b> M10/ S type speed sensor bracket X 1	<b>11</b> M5 x 5L Hexagon socket screw X 2	<b>12</b> 2.5 mm spanner X 1
<b>13</b> 4 mm spanner X 1	<b>14</b> Meter bracket (for handle bar)	<b>15</b> M5 washer X 3	<b>16</b> M5 X 12L screw X 2
<b>17</b> M5 X 18L screw X 3			

**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> Oil temp sensor adapter M12 X P1.5 X 15L M14 X P1.25 X 15L M14 X P1.5 X 15L M16 X P1.5 X 15L M18 X P1.5 X 15L M20 X P1.0 X 15L M20 X P1.5 X 15L	<b>2</b> Water temp sensor adapter M14 M16, M18 M22, M26 mm	<b>3</b> Cylinder head temp sensor M10, M14 mm	<b>4</b> Temp sensor M10 X P1.0 M12 X P1.5 M14 X P1.25 M14 X P1.5 M16 X P1.5 / M18 X P1.5
<b>5</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>6</b> Meter bracket (for stem)		

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

## 2-1 Wiring installation instructions

**Main switch wiring reference:**

	"+" Color	"-" Color
YAMAHA	Brown	Black
HONDA	Brown	Black
SUZUKI	Black	Green
SYM	Black	Green

**Fuel indicator wiring reference:**

YAMAHA	HONDA	SUZUKI	SYM
Green	Yellow/white	Yellow/white	Yellow/white

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

**CAUTION!** The fuel sensor is electronic type, please don't parallel connection with the original otherwise the fuel gauge won't display. **The wrong installation of the fuel wiring may cause the meter break.**

**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.

**CAUTION!** We provide 3 ways to get the RPM signal from spark plug wire, the coil, or the pick-up on ignition control box. If there are interruptions, you could change the sensor wiring to get better signal.

**CAUTION!** Just wrap the RPM wire (A) around the spark plug wire. Do not connect them! We also suggest you to replace the "R" type spark plug in the mean time to get better signal. For the model more than one piston, please catch the signal from the first cylinder coil wire. For the model with more than one piston, please just connect the rpm sensor wiring to one of the ignition coil positive electrodes. **Please make sure that the ignition coil positive electrode before connecting the RPM sensor wiring! Wrong installation will cause the meter broken!**

**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.

## 2-2 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.

**P.S.** You could make the speed more precise by adding the magnets. 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 levels**

- Display range: 10 levels.
- The fuel reserve symbol begins to flash if only 3 grids left.

**Water temperature levels**

- Display range: 20~120°C (68~248°F), and display as 10 level.
- Display unit: one level is similar to 10°C (50°F).

**Odo meter**

- Display range: 0~99999.9 km (mile), reset automatically after 99999.9 km.
- Display unit: 0.1 km (mile).

**Trip meter A.B**

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

**Tachometer**

- Display range: 0~18,000 RPM.
- Display unit: 100 RPM.

**Speedometer**

- Display range: 0~360 km/h (0~225 MPH)
- Display unit: km/h (MPH).

**Thermometer**

- Display range: 0~120°C (32~248°F).
- Display unit: 0.1°C (°F).

**Clock**

- 24H.

**Volt meter**

- Display range: DC 8~18 V

**MAX record**

- The meter will record the top speed, RPM and temperature automatically.

### 3-2 Function, setting instruction

●Speedometer	Display range: 0~360 km/h (0~225 MPH) Display unit: km/h & MPH for alternative	●Fuel levels	Display range: 10 levels Setting range: 100 Ω, 250Ω, 510 Ω, 1200Ω, SW
○Display internal	<0.5 second	○Fuel warning	Setting range: 10~50% ; Setting unit: 10%
○Odometer	0~99999.9 km, reset automatically after 99999.9 km (mile)	●Clock	24 H
○Trip A, B meter	0~999.9 km, reset automatically after 999.9 km (mile)	●volt meter	Display range: DC 8~DC 18 V. Flashing warning when voltage lower than 11.5 V or higher than 15.5 V.
○Top speed record	Display range: 0~360 km/h (0~225 MPH)	●Top speed timer	The record including, Speed : 0~360 km/h (0~225 MPH). Distance : 0~999 m (0~3280 feet). Timer : 0~9'59"99 seconds.
○Tire circumference	Setting range: 300~2,500 mm Setting unit: 1 mm · Sensor point: 1~20	●Effective voltage	DC 12 V
●Tachometer	Display range: 0~18,000 RPM ; Display unit: 100 RPM	●Effective temperature range	-10~+60°C
○Display internal	<0.5 second	●Meter standard	JIS D 0203 D3
○MAX RPM record	Display range: 0~18,000 RPM	●Meter size	116.3 X 72.4 X 32.3 mm
○The RPM input signal number setting	Setting range: 0.5, 1~24.	●Meter weight	Around 286 g
○The RPM input pulse	Setting range: Hi (The positive wave pulse), Lo (The negative wave pulse)	●Indicator light	Neutral (green light) , High beam (blue light) ) Low beam (green light), Winker (green light) Hazard (Red light), Oil pressure (Red light) Water temperature light (Red light)
●Temperature	Display unit: °C & °F for alternative		
●Digital water temperature	Display range: 0~120°C (32~248°F) Display unit: 0.1°C (°F)		
●Water temperature levels	Display range: 20~110°C (68~230°F), 10 level Display unit: 1 level=10°C (50°F)		
○Top temperature record	Display range: 0~120°C (32~248°F)		

**NOTE** Design and specification are subject to change without notice!

### 3-3 The button function instruction

#### Press the Select button

1. In main screen, press the **Select button** to choose the display of clock, volt, water temperature.

2. In setting screen, press the **Select button** to choose the function you want to set.

#### Press the Adjust button

1. In main screen, press the **Adjust button** to choose the display of odometer, trip A, trip B, RPM or the MAX record.

2. In power test screen, press the **Adjust button** to reset the record, stop the testing, or restart the test

3. In setting screen, press the **Adjust button** to make the number setting.

#### Hold pressing the Adjust button

1. In setting screen, to add the setting value fast.

#### Hold pressing the Adjust button for 3 seconds

1. In main screen, hold pressing the **Adjust button for 3 seconds** to reset the trip A, trip B, or the MAX record.

#### Hold pressing the Select button for 3 seconds

1. In main screen, hold pressing the **Select button for 3 seconds** to switch between the fuel levels screen and the water temperature levels screen.

2. In power test screen, hold pressing the **Select button for 3 seconds** to back to the main screen.

3. In setting screen, hold pressing the **Select button for 3 seconds** to back to the main screen.

#### Press the Select + Adjust button

1. In main screen, press the **Select + Adjust button** to enter the power test screen.

#### Press the Select + Adjust button for 3 seconds

1. In main screen, press the **Select + Adjust button for 3 seconds** to enter the setting screen.

**CAUTION!** For safety reason - only when the vehicle is stop, then you could adjust the setting or operate the function.

### 3-4 Main function switch instruction (Adjust button)

● In main screen (ODO), press the **Adjust button** one time to enter the Trip A screen.



● In Trip A screen, press the **Adjust button** one time to enter the Trip B screen.



● Hold pressing the **Adjust button for 3 seconds** to reset the Trip A record.



● In Trip B screen, press the **Adjust button** one time to enter the tachometer screen.



● Hold pressing the **Adjust button for 3 seconds** to reset the Trip B record.



● In tachometer screen, press the **Adjust button** one time to enter the Max. record screen.



● In Max. Record screen, press the **Adjust button** one time to go back to the main screen (ODO).



● Hold pressing the **Adjust button for 3 seconds** to reset the Max. record.



### 3-5 Main function switch instruction (Select button)

● In clock screen, press the **Select button** one time to enter the voltage screen.



● In voltage screen, press the **Select button** one time to enter the water temperature screen.



● In water temperature screen, press the **Select button** one time to go back to the clock screen.



### 3-6 Main function switch instruction (Select button x 3)

● In main screen, hold pressing the **Select button for 3 seconds** to switch between the fuel levels screen and the water temperature levels screen.



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

### 3-7 Power TEST The top speed test



● In main screen, press the **Select + Adjust button** one time the enter the power test screen.



#### WARNING!

Please use this function at racetrack to avoid traffic accidents.

In main screen, press the **Select button** one time to enter the top speed test screen.

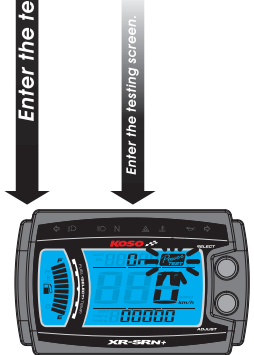
**NOTE** Please only start the test when the bike is completely stop.

△ If you had the previous power test record, it will display the record first. You must clear the record before starting a new test.



Press the **Adjust button** to clear the record and enter the top speed test screen. EX. Now you could see the record you have before. It displays the top speed is 180 km/h, the distance to reach the top speed is 510 m, the time you need to reach the top speed is 10.20 seconds.

△ If you just want to check the record, you could press the **Select button for 3 seconds** to back to the main screen.

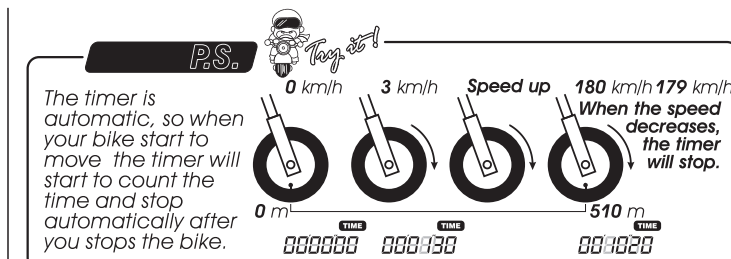


When the bike moves, the timer will start automatically.

△ Now the **Power** is flashing!

**NOTE** The top speed test range:  
Speed: 0~360 km/h (0~225 MPH).  
Distance: 0~999m (3280 feet) .  
Timer: 0~9'59"99 seconds.

△ The setting unit will change together with the speed unit setting (4-1).



△ During the test, the **Power** will keep flashing!



When you reach the top speed (180 km/h), the meter will stop counting the distance (510 m), and time (10.20 seconds).

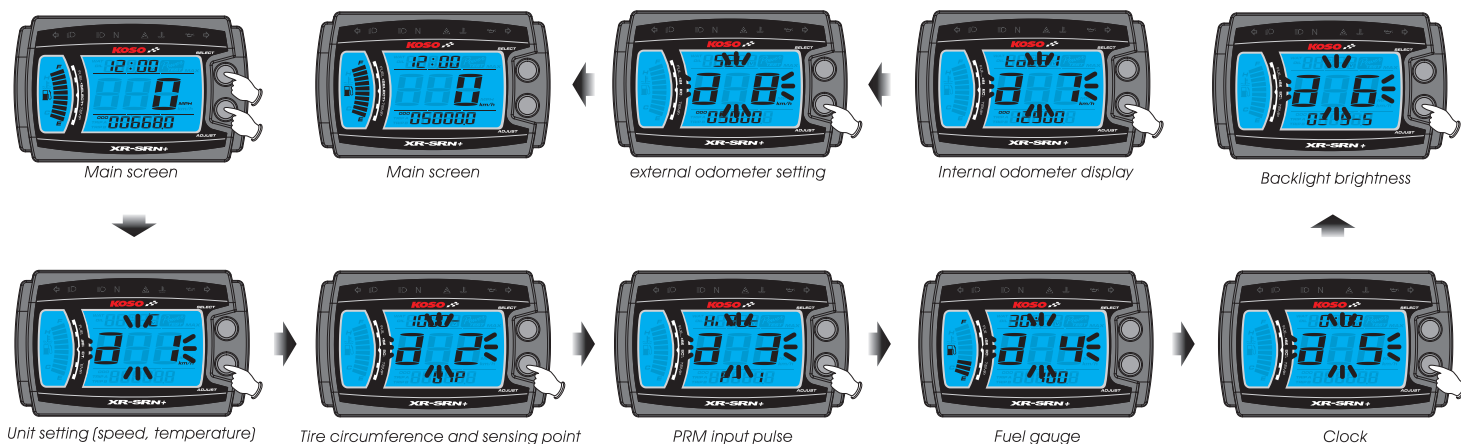
△ If you just want to use the function one time, press down the **Select button for 3 seconds** to save the records and back to the main screen.

If you want to test it again, press the **Adjust button** to clear the record and enter the target speed timer test screen again.

### 3-8 Setting screen instruction

● In setting screen, press the **Adjust button** to choose the setting screen. The setting screen is in order as below: unit setting (speed, temperature), tire circumference and sensing point, PRM input pulse, fuel gauge, clock, backlight brightness, internal odometer display, external odometer setting.

**NOTE** If you don't take any action in 30 seconds, the screen will return to the main screen automatically.



## 4 Setting screen



- Hold pressing the **Adjust + Select** button for 3 seconds the enter the a1 setting screen.

### 4-1 Unit setting(Speed & temperature)



- Press the **Select** button one time to enter the speed unit setting screen.
- △ Now the a1 is flashing!



- Press the **Adjust** button to change the setting.
- NOTE** You could choose km/h or MPH in the speed unit setting screen.
- △ The odometer & trip meter will change together with the speed unit.

- Press the **Select** button one time to enter the temperature unit setting screen.



- Press the **Adjust** button to change the setting.
- NOTE** You could choose °C or °F in the Temperature unit setting screen.
- △ The water temperature unit will change together with the temperature unit.

- Press the **Select** button one time to go back to the a1 setting screen.



- Press the **Adjust** button one time to enter the a2 setting screen.
- △ Now the a1 is flashing!



### 4-2 The circumference and sensing point

- Press the **Select** button one time to enter the circumference setting screen.
- △ Now the a2 is flashing!



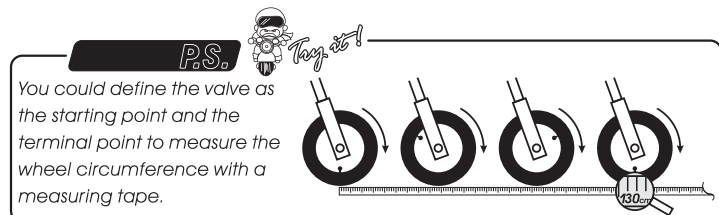
- EX. If the circumference is setting 1,300 mm.
- Press the **Select** button to move to the digit you want to set.

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

- NOTE** Setting range: 1,000~2,500 mm. Setting unit: 1 mm.

### 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 one time to enter the sensing point setting screen.
- EX. Now the circumference is setting from 1,000 to 1,300 mm.



- EX. If the sensing point is setting 06P.
- Press the **Select** button to move to the digit you want to set.

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

- NOTE** Setting range: 01P~20P. Setting unit: 01P.



- Press the **Select** button one time to go back to the a2 setting screen.
- EX. Now the sensing point is setting from 01P to 06P.



- Press the **Adjust** button one time to enter the a3 setting screen.
- △ Now the a2 is flashing!



### 4-3 The RPM input signal setting (For FI model only)

- Press the **Select** button one time to enter the RPM input signal setting screen.
- △ Now the a3 is flashing!



- EX. You want to connect the RPM signal wire to the pick up signal and there are 13 flywheel signals per turn.
- Press the **Adjust** button to change the setting.

- NOTE** Setting range: 0.5, 1~24.



- Press the **Select** button one time to enter the waveforms setting screen.
- EX. Now the RPM input signal number is setting from P-1 to P-13.



- EX. We want to change the setting to Lo.
- Press the **Adjust** button to change the setting.

- NOTE** We define the RPM input pulse as Hi (The positive pulse) & Lo (The negative pulse.)

- NOTE** If the RPM displayed on the meter is incorrect or with noise, please choose another setting and try it again.



- Press the **Select** button one time to go back to the a3 setting screen.
- EX. Now the setting is changed from Hi to Lo.



- Press the **Adjust** button one time to enter the a4 setting screen.
- △ Now the a3 is flashing!



### 4-4 The fuel gauge resistance and insufficient fuel warning setting

- Press the **Select** button one time to enter the fuel resistance setting screen.
- △ Now the a4 is flashing!



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

- NOTE** The fuel gauge resistance setting range: 100Ω, 250Ω, 510Ω, 1200Ω, SW (turn off). If Fuel Setting is set to "SW", then the value setting for this function will be skipped.

- NOTE** When fuel setting is set to "SW", the fuel level symbol will light up when fuel level signal wire connected to the (-).



- Press the **Select** button one time to enter the fuel warning setting screen.
- EX. The setting is changed from 100Ω to 510Ω.

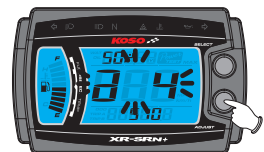


- EX. The insufficient fuel warning need to be set to 50%.
- Press the **Adjust** button to change the setting.

- NOTE** Setting range: 10%~50%.



- Press the **Select** button one time to go back to the a4 setting screen.
- EX. The setting is changed from 30% to 50%.



- Press the **Adjust** button one time to enter the a5 setting screen.
- △ Now the a4 is flashing!

### 4-5 The clock setting

- Press the **Select** button one time to enter the clock setting screen.
- △ Now the a5 is flashing!



- EX. We would like to set the clock at 0:05.
- Press the **Select** button to move to the digit you want to set.

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

- NOTE** Setting range: 24 H.



- Press the **Select** button one time to go back to the a5 setting screen.
- EX. Now the clock setting is changed from 0:00 to 0:05.



- Press the **Adjust** button one time to enter the a6 setting screen.
- △ Now the a5 is flashing!

## 4-6 The Backlight brightness setting



- Press the **Select** button one time to enter the backlight brightness setting screen.
- △ Now the a6 is flashing!



- EX. We would like to change the brightness to 3-5 (60% brightness.)
- Press the **Adjust** button to change the setting.

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



- Press the **Select** button one time to go back to the a6 setting screen.
- EX. The setting is changed from 5-5 to 3-5.



- Press the **Adjust** button one time to enter the a7 display screen.
- △ Now the a6 is flashing!



### 4-7 Internal odometer display

- Press the **Adjust** button one time to enter the a8 setting screen.
- △ Now the a7 is flashing!



### 4-8 External odometer setting

- Press the **Select** button one time to enter the external odometer setting screen.
- △ Now the a8 is flashing!



- EX. We would like to set the external odometer to 5,000 km.
- Press the **Select** button to move to the digit you want to set.

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



- Press the **Select** button one time to go back to the a8 setting screen.
- EX. The external odometer is setting 5,000 km.



- Press the **Adjust** button one time to go back to the main screen.
- △ Now the a8 is flashing!



- Main screen.

## 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"><li>●The power doesn't supply to the meter. →Please make sure the wiring is connected. The wiring and fuse are 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.</li></ul>	<b>Tachometer does not appear or appear incorrectly.</b>	<ul style="list-style-type: none"><li>●Please check the RPM sensor wiring is connected correctly.</li><li>●Please check the spark plug is "R" type or not. If not, please replace the spark plug with the "R" type spark plug.</li><li>●Please check your setting. →Please refer to the manual 4-3.</li></ul>
The meter shows wrong information.	<ul style="list-style-type: none"><li>●Please check the voltage of your battery, and make sure the voltage is over DC 12V.</li></ul>	Fuel gauge does not appear or appear incorrectly.	<ul style="list-style-type: none"><li>●Please check your fuel tank. →Is there any fuel inside?</li><li>●Please check the wiring. →Do you connect the wiring correctly?</li><li>●Please check the setting. →Please refer to the manual 4-4.</li></ul>
Speed does not appear or appear incorrectly.	<ul style="list-style-type: none"><li>●Please make sure the speed sensor is connected correctly.</li><li>●Please check the tire-size setting. →please refer to the manual 4-2.</li></ul>	<b>Temp does not appear or appear incorrectly.</b> The clock is incorrect.	<ul style="list-style-type: none"><li>●Please check the sensor. →Does the wiring break or falling off?</li><li>●Do you connect the wiring correctly. →Please check the positive wire (red) connects to the battery, and main switch positive wiring (brown) connects to the main switch.</li></ul>

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