KOSO
Feel The Speed

INSTRUCTIONS

Thank you for purchasing our product. Before installing/operating the product, read the instructions carefully and retain them for future reference.

⚠ Attention!

- For installation, follow the steps described. Any damage caused by wrong installation shall be imputed to the users.
- To avoid a short circuit from occuring do not pull or modify the wires during installation.
- Do not disassemble or change any parts. Opening and dissassembling this unit will void any warranty.
- Maintenance and repairs should be executed by our professionals only.

Flash	Light on
Hold the Button 1 second	Hold the Button 3 seconds

Symbol description:

NOTE
⚠ Some procedures must be followed to avoid damages to the product.

⚠ WARNING! Certain procedure must be followed to avoid damages to yourself, to the vehicle or to others.
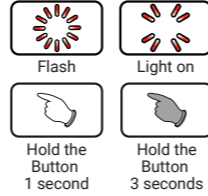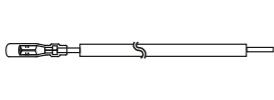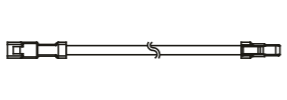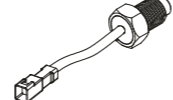
1-1 Accessory

1 LCD meter X 1
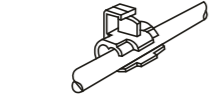
2 RPM wire set X 1

3 Temp sensor wire X1

4 PT 1/8 Temp sensor X1

5 Velcro X 1 set
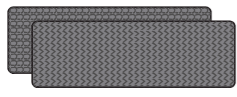
6 Connector X 2

7 Battery (CR2032) X1

1-2 Optional accessories

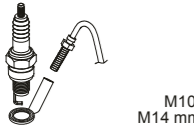**1** Temp sensor wire (2 M)

2 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
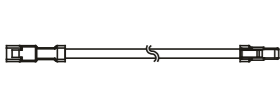
3 Water temp sensor adapter
M14
M16.M18
M22.M26 mm

4 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
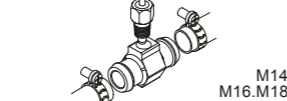
5 Cylinder head temp sensor
M10.
M14 mm

2-1 Wiring installation instructions

Temp sensor wire (Accessory3)

PT1/8 (Accessory 4) Install the temp sensor to the location you want to measure.

Connector (Accessory6)

Red / Postive pole (Connect to the battery DC 12V)

Black / Ground wire connect to the vehicle body or the engine (It must be a good ground)

LCD meter (Accessory 1)

Brown / RPM wire connect it to the suitable position according to the models

A

Coil   Spark plug wire

Spark   Spark plug cap

B

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

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

NOTE The temperature will display "- - - -" if you don't install & connect the temperature sensor to the meter.

NOTE When connecting the power wiring, follow the instructions. If you connect the brown wire in parallel it will cause the meter work improperly.
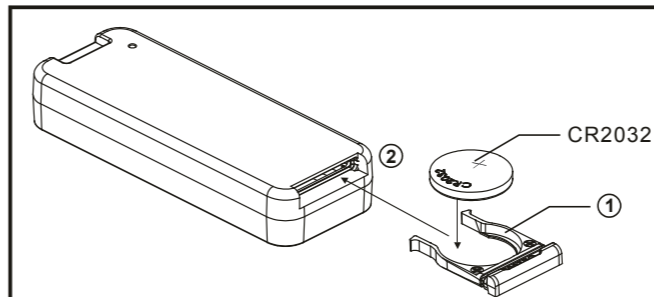
⚠ The RPM wire installation
A. Wrap the RPM wire at least 5 times around the spark plug.
  Check the spark plug is "R" type or not. If not, replace the spark plug with the "R" type spark plug.
B. For the models new ignition coils, wrap the RPM wire (Type A) at least 5 times around the spark plug as the above drawing.

2-2 Battery replancement

CR2032

Follow this procedure for proper installation
● Open the battery slot first, then put the battery in the position shown in Figure①. Finally push the battery slot back in the meter in the position shown as figure②.

⚠ WARNING! Not following this procedure could result in permanent damage to the meter.

3-1 Basic function instruction

MAX RPM / Temperature record
● The meter will record the top RPM and temperature automatically.

Thermometer
● Display range : 0~250 °C(32~482 °F)
● Display range : 0.1 °C (°F)

● Select button
Tachometer
● Display range : 20,000 RPM
● Display range : 100 RPM
● Adjust button

3-2 Function, setting instruction

● Tachometer	Display range : 0~20,000 RPM
	Display unit : 100 RPM
○ Display internal	<0.5 second
○ Max. RPM record	Display range: : 0~20,000 RPM
	Display unit : 1 RPM
○ Total hour meter	Display range : 99,999 (HOUR), resets automatically after 99,999 (HOUR)
	Display unit : 1 HOUR
○ Hour meter A / B	Display range: 9999.9 (HOUR), resets automatically after 9999.9 (HOUR)
	Display unit : 0.1 HOUR
○ RPM input pulse	Setting range : 0.5, 1~6
○ Warning	Setting range : 5,000~20,000 RPM
	Setting unit : 100 RPM

● Thermometer	Display unit:°C & °F for alternative
○ Thermometer	Display range : 0~250 °C (32~482 °F)
	Display unit : 0.1 °C (°F)
○ MAX temperature record	Display range : 0~250 °C (32~482 °F)
○ Thermometer alarm	Setting range : 60~250 °C (140~482 °F)
	Setting unit : 0.1 °C (°F)
● Backlight brightness	Setting range : 1-5 (Darkest)~5-5 (Brightest)
	Setting unit : Each level represents 20%
● Effective voltage	CR 2032
● Effective temperature range	-10~+60 °C
● Meter standard	JIS D 0203 S2
● Meter size	90 X 33.5 X 15 mm
● Meter weight	± 330g

NOTE Design and specification are subject to change without notice.

33.5 mm
90 mm
15 mm
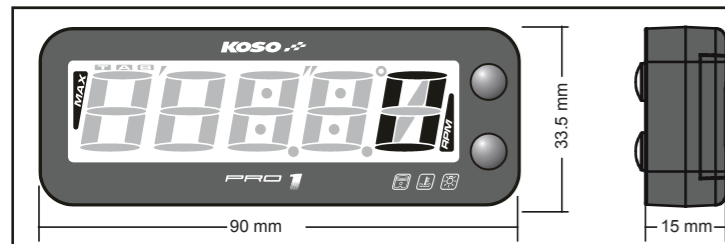
3-3 Function switch instruction

● Select button function instruction

● In RPM screen, Press the Select button once to switch function from RPM to total hour meter.

● In total hour screen, Press the Select button once to switch function from total hour to hour meter A.

● In hour meter A screen, Press the Select button once to switch function from hour meter A to hour meter B.
● Hold pressing the Adjust button for 3 seconds to reset the hour meter A.

● In hour meter B screen, Press the Select button once to switch function from hour meter B to MAX.
● Hold pressing the Adjust button for 3 seconds to reset the hour meter B.

● Max. RPM record screen, Press the Select button one time to go back to the RPM screen.
● Hold pressing the Adjust button for 3 seconds to reset the MAX.

● In RPM screen.

● Select button for 3 seconds function instruction

● In RPM screen, Hold the Select button for 3 seconds to switch function from RPM to thermometer.

● In thermometer screen, Press the Select button once to switch function from current temperature to MAX temperature recorded.
● Hold the Adjust button for 3 seconds to change the temperature unit

● In MAX temperature recorded screen, Hold pressing the Select button for 3 seconds to go back to the RPM screen.
● Hold the Adjust button for 3 seconds to reset the MAX temperature recorded.

● In RPM screen。

4 Function setting instruction

● In main screen, hold the Select + Adjust button for 3 seconds to enter the setting screen.

4-1 RPM pulse setting

● Press the Select button one time to enter the RPM pulse setting.

● EX. You want to change the current setting value from 1 to 2.
● Press the Adjust button to enter the corresponding value for the RPM signal number per ignition. (Check the reference table below)

NOTE Default:P-1

⚠ Now the default is flashing

NOTE The piston type can be set is 0.5,1, 2,3,4,5,6.

The setting value	The corresponding stroke and pistons number.		The corresponding RPM signal number per ignition.
0.5		4C-1P	2 RPM signal per 1 ignition.
1	2C-1P	4C-2P	1 RPM signal per 1 ignition.
2	2C-2P	4C-4P	1 RPM signal per 2 ignition.
3	2C-3P	4C-6P	1 RPM signal per 3 ignition.
4	2C-4P	4C-8P	1 RPM signal per 4 ignition.
5	——	4C-10P	1 RPM signal per 5 ignition.
6	2C-6P	4C-12P	1 RPM signal per 6 ignition.

⚠ **CAUTION!**
Some 4 stroke engine with single cylinder also generate 1 ignition signal per revolution of the engine. In this case the setting should be set as same as 2 stroke engine with single cylinder type of bike.

NOTE Value is how many ignition signals the engine will generate per revolution (360°)

● Press the Select button to go back to the RPM pulse setting.
● EX. The pulse setting is changed from 1 to 2 (4C-4P).

● Press the Adjust button to enter the shift light setting.

4-2 The shift light setting

● Press the Select button one time to enter the shift light setting.

● EX: You want the shift light to illuminate at 8000 RPM change the shift light setting value to 8500 directly.
● Press the Select button to move to the digit you want to set.

NOTE Default:8,000RPM

⚠ Now the default is flashing

NOTE Setting range : 5,000~20,000 RPM
Setting unit : 100 RPM

● Press the Adjust button to choose the setting number.

● Press the Select button to choose the Shift light setting.
● EX: Now the shift light setting is changed from 8,000RPM to 8,500 RPM.

● Press the Adjust button to enter the temperature alarm setting.

4-3 Temperature alarm setting

● Press the Select button one time to enter the temperature alarm setting.

● EX: You want to set the temperature alarm at 95 °C.
● Press the Select button to move to the digit you want to set.

NOTE Default:90 °C

⚠ Now the default is flashing

NOTE Setting range : 60 ~ 250 °C (140~482 °F)

● Press the Adjust button to choose the setting number.

● Press the Select button to go back to the temperature alarm screen.
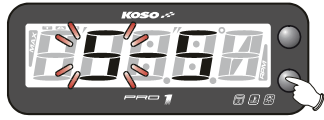● EX: The temperature alarm setting is changed from 90°C to 95 °C.

●Press the Adjust button to enter the Backlight setting.

●Press the Select button one time to enter the backlight setting.
●EX:The backlight setting setting is changed from 5-5 (100%) to 3-5 (60%).

4-4 Backlight setting

●Press the Select button one time to enter the backlight setting.

●Hold the Select button for 3 seconds to go back to the main screen.

●EX. You want to set the backlight to 3-5 (60%).
●Press the Adjust button to choose the setting number.

NOTE	Default:5-5
⚠	Now the default is flashing
NOTE	Setting range:1-5(Darkest)~5-5 (Brightest),5 different levels available. Setting unit:20% per level. The backlight brightness will change immediately after you set the value.

●The main screen.

5 Trouble shooting

The following situations do not indicate malfunctions of the meter. 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.	●Power is not supplied to the meter. →Make sure the wiring is connected. The wiring and fuse are not broken. →The battery is too old to supply enough power **DC 12V to** power the meter.	Temp does not appear or appears incorrectly.	●Check the temp sensor →Is the wire damaged or disconnect?
Tachometer does not appear or appears incorrectly.	●Confirm the RPM sensor wiring is connected correctly. ●Check the spark plug is R type or ●Check your settings. →Refer to the manual 4-1.		

※ If the problems still cannot be solved, contact our technical department for assistance.