



Thank you for purchasing **KOSO RX2NR**, before operating the unit, please read the instruction thoroughly and retain it for the future reference.

⚠ Notice

1. Power supply: battery (9V-1604, 6LR61.) - 12 Volts DC
2. For installation, please follow the steps described in manual. Any damage caused by wrong installation shall be imputed to the users.
3. Don't break or modify the wire terminal. To avoid the short circuit, please don't pull the wire when installing.
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.



Press the Button one time



Press the Button 3 Seconds

1-1 Accessory

1 Meter X 1 	2 Main wiring X 1 	3 RPM wire (Type A) X 1 	4 RPM wire (Type B) X 1
5 Temp sensor wire X 1 	6 PT 1/8 water temp sensor X 1 	7 Battery case X 1 	8 Foam X 1
9 Blind X 1 	10 3 mm spanner X 1 	11 Meter bracket X 1 	12 M4 screw X 3
13 M5 gasket X 3 	14 M6 X 35L screw X 2 	15 M8 X 30L screw X 2 	16 M6 screw X 2
17 M8 screw X 2 	18 M6 gasket X 2 	19 M8 gasket X 2 	

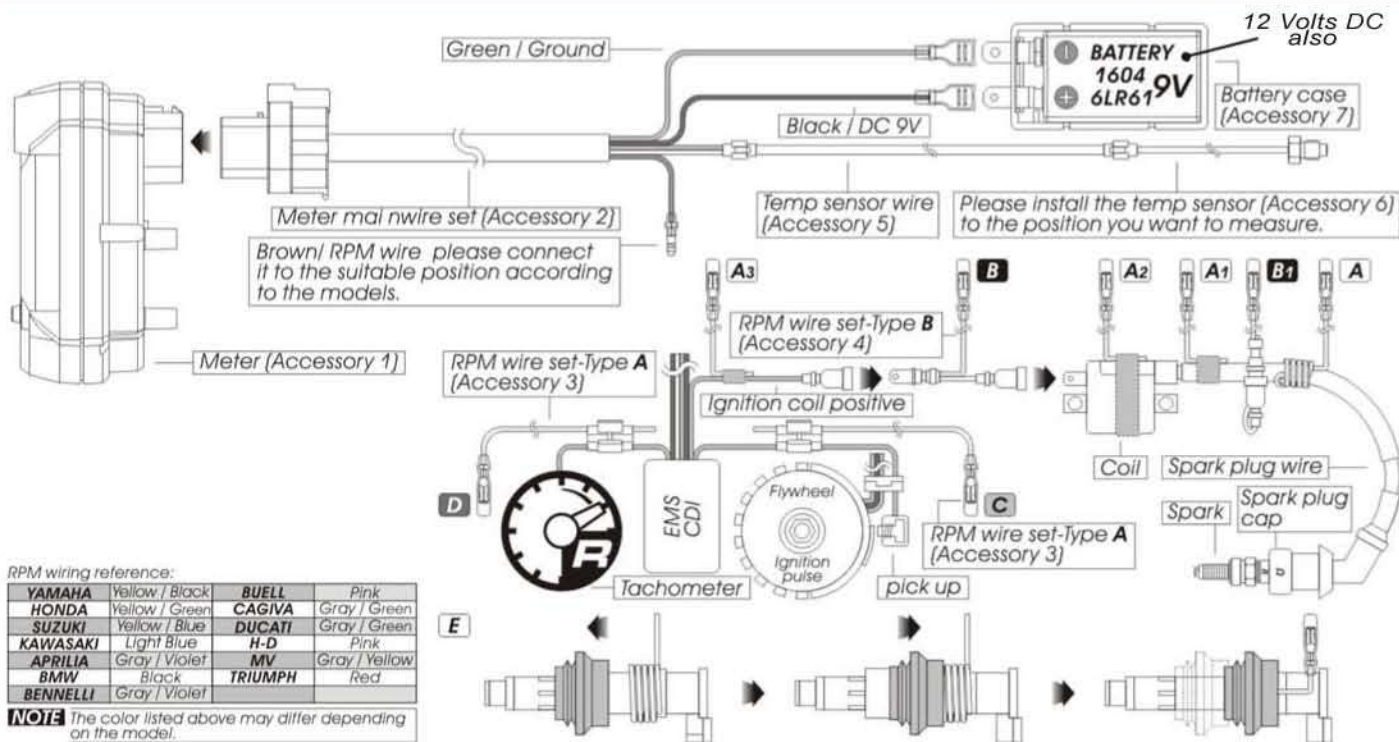
NOTE Please contact the local distributor if the items you open are not the same, with the above-listed one.

1-2 Option accessory

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	6 Meter bracket (For handle bar) 		

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

2-1 Wiring installation instructions



NOTE The temperature will disappear if you don't install & connect the temperature sensor with the meter.

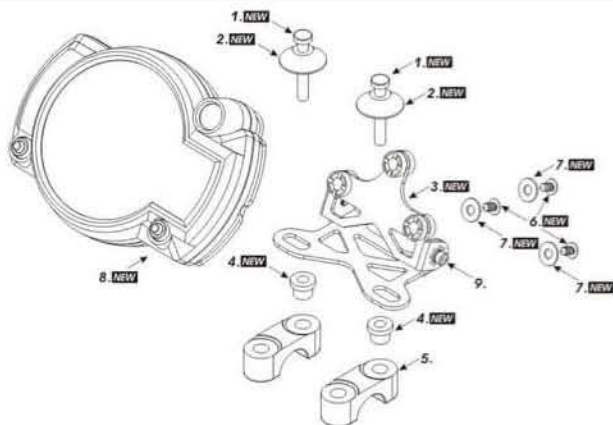
⚠ The RPM wire installation

- A. Please wrap the RPM wire at least 5 times around the spark plug.
- A1. Please use tape to fix the RPM (Type A) wire onto the spark plug wire.
- A2. Please use tape to fix the RPM wire (Type A) on the spark plug cap.
- A3. Please use tape to fix the RPM wire (Type A) on the coil positive pole wire. For some models with the coil negative wire, please tape the RPM wire (Type A) on the negative wire to get the RPM signal. (For example, the YAMAHA V-max 1200)
- B. Please connect the RPM wire (type B) to connect to the ignition coil positive pole.
- B1. Please wrap the RPM wire (type B) on the spark plug wire by connecting the male and female connector.
- C. Please connect the RPM wire (Type A) to the pick up.
- D. Please parallel the RPM wire (Type A) with the original tachometer signal wire (This method is available only when the original speedometer comes with a tachometer on it. You could get the RPM wire information from the service manual of your bikes.)
- E. For the models comes with the new ignition coil, please wrap the RPM wire (Type A) at least 5 times around the spark plug as the above drawing.

For multi-ignition models, we will suggest you to get the signal on the first ignition.

The best signal source will be in order as D>C>B>A, we will suggest you to check different ways if you have problems to get the RPM signal.

2-2 Installation instructions



When installing, please follow the process

1. M6 or M8 screw X 2 (Accessory 14, 15)
2. M6 or M8 aluminum screw washer X 2 (Accessory 16, 17)
3. Bracket (Accessory 11)
4. M6 or M8 bushing X 2 (Accessory 18, 19)
5. Handle bar bracket

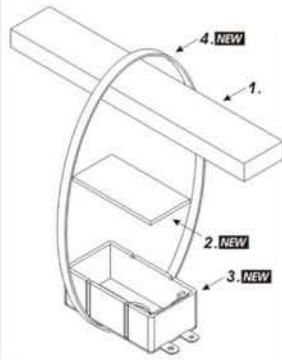
NOTE You could also install it (Meter bracket) on the original meter bracket.

6. M5 screw X 3 (Accessory 12)
7. M5 washer X 3 (Accessory 13)
8. Meter (Accessory 1)
9. Meter bracket micro-adjustment screw

NOTE You could choose the angle first and then use the screw to fix the angle.

NOTE The handle bar bracket screw and screw hole will differ depending on different model. We suggest you to use the additional assembly (Item 1.2.4) to fit it.

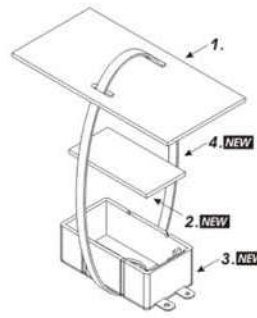
2-3 The instruction of battery box fix to the bike frame



When installing, please follow the process

1. Bike Frame.
2. Please put the foam on the top of the battery box.
3. Battery box put the battery box on sponge.
4. Belt tie the battery box to the bike frame via belt.

2-4 The instruction of battery box fix to the bike case



When installing, please follow the process

1. Bike case drill two hole (3 X 10 mm) on the bike case.
2. Please put the foam on the top of the battery box.
3. Battery box put the battery box on sponge.
4. Belt tie the battery box to the bike frame via belt.

3-1 Overview

Tachometer (16,000 RPM)
● Display range: 0~16,000 RPM.

Over heat warning light
● Setting range: 60~150°C (140~302°F).
● Setting unit: 1°C (1°F).

The RPM shift light
● Setting range: 5,000~16,000 RPM.
● Setting unit: 100 RPM.

Pre-shift light
● Setting range: -500~-5,000 RPM.
● Setting unit: 100 RPM.

Thermometer
● Display range: 0~150°C (32~302°F).
● Display unit: 1°C (1°F).

The Digital tachometer
● Display range: 0~16,000 RPM.
● Display unit: 100 RPM.

3-2 Function, setting instruction

● Needle tachometer	Display range: 0~16,000 RPM	● Thermometer	Display range: 0~150°C (0~302°F)
● Digital tachometer	Display range: 0~16,000 RPM	○ Display internal	Display unit: 0.1°C (0.1°F)
○ Display internal	Display unit: 100 RPM	○ Over heat warning light	<0.5 second
○ Shift light	Setting range: 5,000~16,000 RPM	○ Pre-Shift light	Setting range: 60~150°C (140~302°F)
○ Pre-Shift light	Setting unit: 100 RPM	○ Stroke / piston setting	Setting unit: 1°C (1°F)
○ Stroke / piston setting	Setting range: -500~-5,000 RPM	● Battery type	9V-1604, 6LR61
	Setting unit: 100 RPM	● Effective temperature range	-10~+60°C
	2 Stroke: 1, 2, 3, 4 pistons	● Meter standard	JIS D 0203 S2
	4 Stroke: 1, 2, 3, 4, 5, 6, 8, 10, 12 pistons	● Meter size	135.7 X 100.7 X 52 mm
		● Meter weight	Around 240 g

NOTE Design and specification are subject to change without notice!

4-1 Adjust button function instruction

● Press Adjust button one time to switch the temperature unit between °C and °F.

4-2 Cycle / Piston / Input signal setting

● In the main screen, press down the **Select & Adjust button** together for 3 seconds to enter the setting screen.

● EX. To change the setting to 4 stroke.
● Press the **Adjust button** to select the stroke.
● EX. Now the setting is 2C (2 Stroke).

NOTE You could set the stroke as 2 stroke or 4 stroke.

⚠ The digit you could set is flashing now.

CAUTION!

- Make sure the correct strokes and pistons before setting.
- Make sure the input is correct, or the RPM output will be incorrect.
- We define the engine with the ignition system ignites every 360 degree as 2-stroke and the engine with the ignition system ignites every 720 degree as 4-stroke.
- Some 4-stroke bikes with one single piston are igniting every 360 degree once, so the setting should be the same as the bike with 2-stroke and one piston engine.

● Press the **Select button** to enter the piston setting screen.

● EX. Now the setting is changed from 2 cycle to 4 cycle.

● EX. To change the setting to 4piston.
● Press the **Adjust button** to select the piston digit.
● EX. Now the setting is 1P (1 piston).

NOTE 2 Cycle: 1, 2, 3, 4 pistons
4 Cycle: 1, 2, 3, 4, 5, 6, 8, 10, 12 pistons

⚠ The digit you could set is flashing now.



- Press the **Select button** to enter the signal input setting screen.
- EX. Now the piston setting is changed from 1 P (Piston) to 4 P (Pistons).



- EX. To change the setting to Lo. (The negative impulse)
- Press the **Adjust button** to choose the input signal you want to set.
- EX. Now the setting is Hi (The positive impulse)

NOTE The input signal setting range is between high (The positive signal) & low (The negative signal)

⚠ Now the input signal setting is flashing!

NOTE If the tachometer can't detect the signal (No RPM is displayed on the screen), you could choose another setting, and check it again.



- Press the **Select button** to enter the shift light setting screen.
- EX. Now the input signal is changed from high to low.



- EX. The shift light set on 9,500 RPM.
- Press the **Select button** to move to the digit you want to set.
- EX. Now the RPM shift light setting is 9,000 RPM.



⚠ The digit you could set is flashing now.



● Pre-shift light (-1,500 RPM) ● Shift light (9,500 RPM)

If you set the RPM shift light at 9,500 RPM, the yellow light (Pre-shift light) will light on at 8,000 RPM. And the red light (Shift light) will light on when it reaches 9,500 RPM.



- Press the **Adjust button** to change the setting digit.
- NOTE** Setting range: 5,000~16,000 RPM
Setting unit: 100 RPM



- Press the **Select button** to enter the pre-shift light setting screen.
- EX. Now the shift light setting is changed from 9,000 RPM to 9,500 RPM.



- EX. The pre-shift RPM set on 8,000 RPM. (It means that the pre-shift light will light on 1,500 RPM before the shift light.)
- Press the **Select button** to move to the digit you want to set.
- EX. Now the RPM pre-shift light setting is -1,000 RPM.



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

NOTE Setting range: -500~-5,000 RPM.
Setting unit: 100 RPM.



- Press the **Select button** to enter the over heat warning light setting screen.
- EX. Now the pre-shift light setting is changed from 1,000 RPM to 1,500 RPM.



- EX. The over heat warning set on 105°C.
- Press the **Select button** to move to the digit you want to set.
- EX. Now the over heat warning setting is 100.0°C.



The temperature light will light on when the temperature reached your setting.



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

NOTE Setting range: 60~150°C (140~302°F)
Setting unit: 1°C (1°F)

⚠ The digit you could set is flashing now.

⚠ The setting unit will change together with the temperature unit setting.



- Press the **Select button** to back the main screen.
- EX. Now the setting is changed from 100°C to 105°C.



- 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"> ● 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 9 V) to make the meter work. 	Temp does not appear or appear incorrectly.	<ul style="list-style-type: none"> ● Please check the spark plug is R type or not. If not, please replace the spark plug with the R type spark plug. ● Please check your setting. → Please refer to the manual 4-2.
The meter shows wrong information.	<ul style="list-style-type: none"> ● Please check the voltage of your battery, and make sure the voltage is over DC 9 V. ● Please check the RPM sensor wiring is connected correctly. 		<ul style="list-style-type: none"> ● Please check the sensor. → Does the wiring break or falling off?
Tachometer does not appear or appear incorrectly.			

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