



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

⚠ Attention!

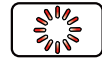
- For installation, follow the steps described below. Any damage caused by wrong installation shall be imputed to the users.
- To avoid a short circuit from occurring, do not pull or modify the wires during installation.
- Do not disassemble or change any parts. Opening and disassembling this unit will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

Symbol description:

NOTE

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

⚠ **WARNING!** Certain procedures must be followed to avoid damages to yourself, to the vehicle or to others.



Flash



Light on

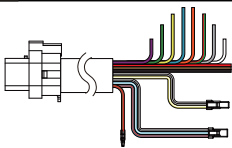
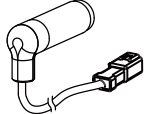
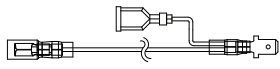
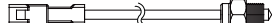
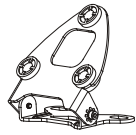


Hold the
Button
1 second

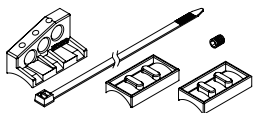
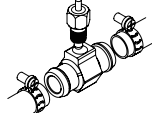
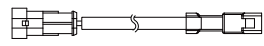
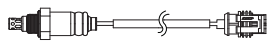


Hold the
Button
3 seconds

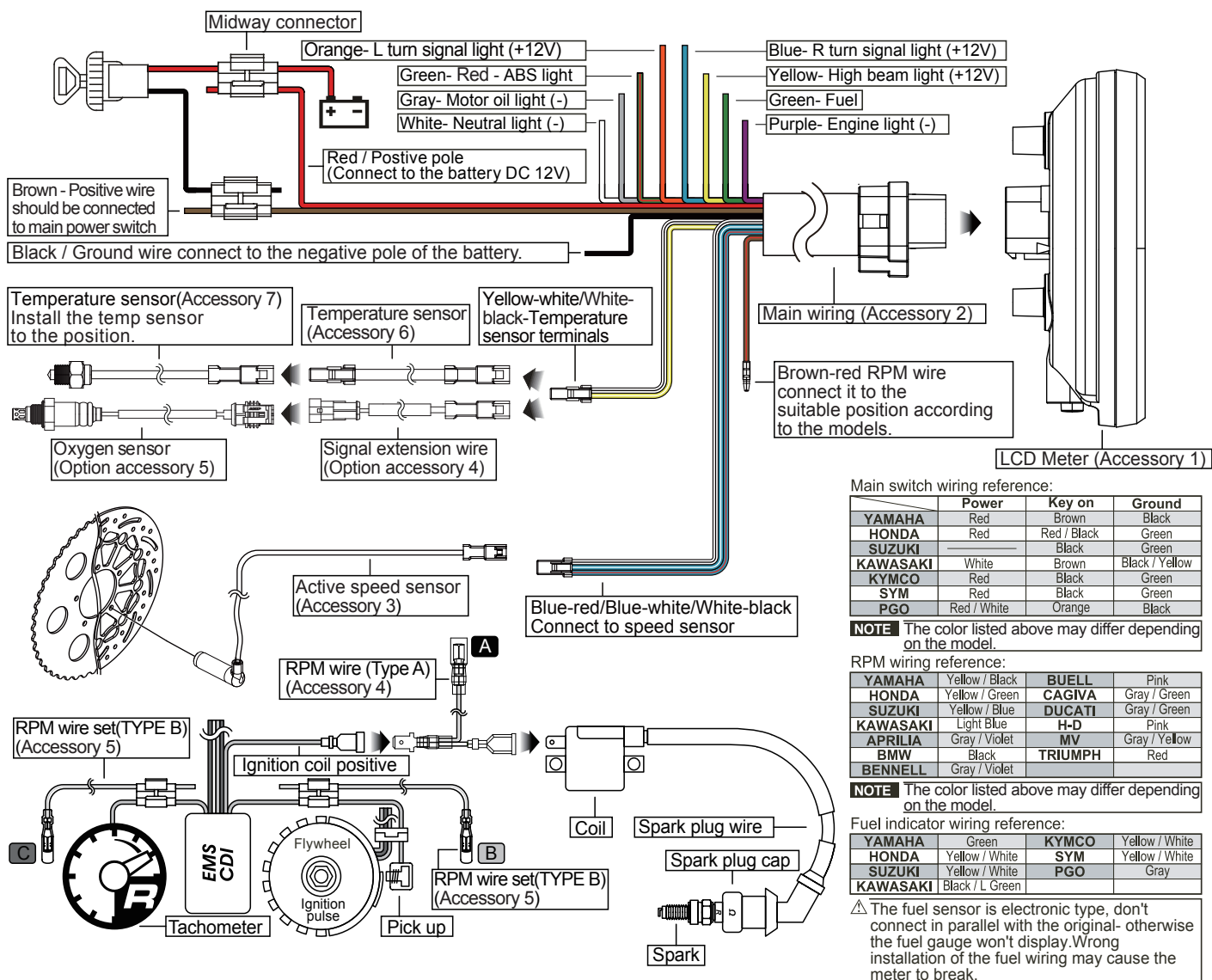
1-1 Accessories

1 LCD Meter X1 	2 Main wiring harness X 1 	3 Active speed sensor X1 	4 RPM wire (Type A) X1 
5 RPM wire set(TYPE B) X1 	6 Sensor wire set X1 	7 Temperature sensor X1 	8 M8 / S type speed sensor bracket X 1 
9 M10 / S type speed sensor bracket X 1 	10 M5x5xP0.8 Hexagon screw X 2 	11 2.5 mm Allen key X 1 	12 Meter bracket X1 
13 M5 washer X3 	14 M5x12 Screw X3 	15 3.0 mm Allen key X 1 	

1-2 Optional accessories

1 L type speed sensor bracket  BI003S01	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  BG*****	3 Water temp sensor adapter M14 M16. M18 M22. M26 mm  BG0*****	4 Signal extension wire  20-c94300a
5 Oxygen sensor  28-bk00210	6 Sensor bung  bf003r000e	7 Bung cap  ba550r020e	

2-1 Wiring Installation Instructions



NOTE When connecting the power wire, carefully follow the instructions. If the red & brown wires are connected in parallel, the meter won't work properly.

⚠ RPM wire installation

We recommend installing the R-type spark plug and low-resistance spark plug cap at the same time.

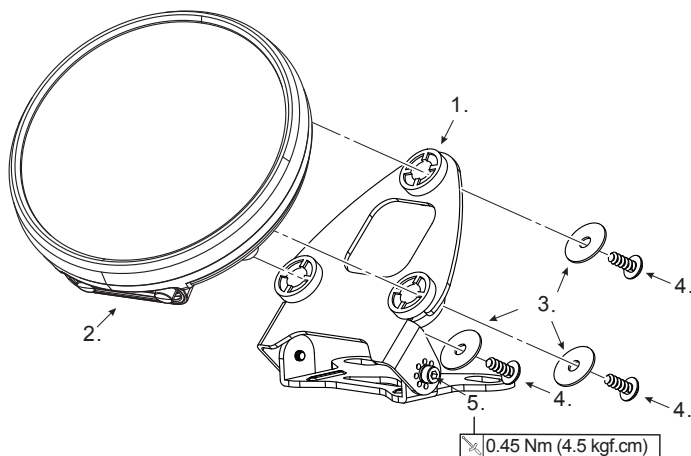
A. Connect the RPM wire (Type A) on the spark plug wire by connecting the male and female connectors.

B. Connect the RPM wire (Type B) to the pick-up sensor.

C. Connect in parallel the RPM wire (Type A) with the original tachometer signal wire.

The best signal source will be in order as C>B>A. We suggest checking different ways if you have problems getting the RPM signal.

2-2 Installation instructions

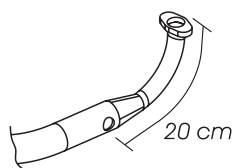


Follow the steps below during installation.

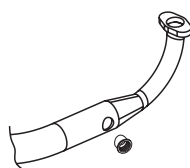
1. Meter bracket (Accessory 12)
2. LCD Meter (Accessory 1)
3. M5 washer X3 (Accessory 13)
4. M5x12 Screw X3 (Accessory 14)
5. Meter bracket micro-adjustment screw

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

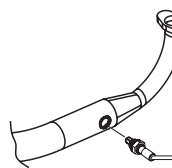
2-3 Oxygen Sensor Installation



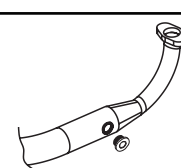
1. Drill a 22.5mm hole in the exhaust system at 200 mm away from the exhaust flange.



2. Weld the sensor bung (Optional accessory 6) to the muffler.



3. Install the oxygen sensor (Optional accessory 5) into the adapter.



After removing the oxygen sensor (Optional accessory 5), remember to put the bung cap (Optional accessory 7) back in place.

CAUTION! Make sure the sensor won't hit the body or engine when installing to avoid potential damage.

MOTO / SCOOTER S-type speed sensor bracket instruction



Install the s-type sensor bracket.



Install the speed sensor on the bracket.



Adjust the sensor bracket position to make sure that the sensor faces the magnet to prevent bad speed signal or no signal.



Adjust the distance between sensor and magnet. We suggest you make sure the distance is under **1 mm** for an optimal speed signal.

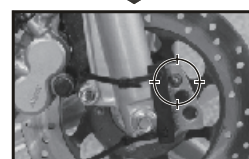
MOTO / SCOOTER L-type speed sensor bracket instruction



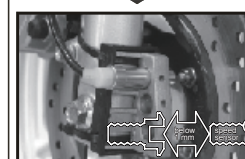
Install the L-bracket and the anti-slip rubber on the front fork and adjust it to the proper height and angle.



Install the speed sensor into the proper hole on the bracket.



Use the zip tie to fix the bracket on the front fork. Make sure the disc screw can pass the hole on the bracket for you to install the sensor into the same hole for catching the speed signal.



Adjust the distance between the sensor and screw to get the best speed signal. Make sure the distance is under **2mm** to get the best signal.

The active speed sensor could be facing the metal parts to detect the speed.

EX. 1 The disc screw.

EX. 2 The disc to detect the disc gap (make sure the distances between the gaps are the same in advance to avoid wrong speed signal.)

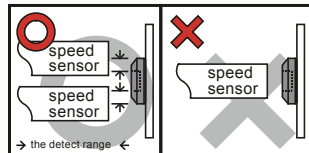
EX. 3 The sprocket to detect the disc gap (make sure the distances between the gaps are the same in advance to avoid wrong speed signal).

EX. 4 Rear disc - detect the gap between the disc.

We suggest you to catch the speed from the disc screws. The more the sensor points are, the better the speed accuracy is. The maximum sensor points the speed sensor could detect is 40 points per turn.

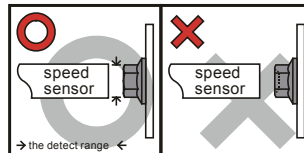
⚠ **After installation, use your hand to turn the tire to see if everything is ok. The LED on the active speed sensor will light up once the signal is detected.**

EX. 1



The hexagon socket disc screw
The best detect area: The edge of the hexagon socket screw.

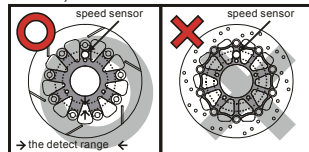
⚠ Don't pick-up the signal from the middle hole of the hexagon socket screw to avoid wrong signal.



The hexagon screw
The best detect area: The middle of the screws.

⚠ Some hexagon screws have a small hole in the center. In this case, we suggest you catch the signal from the edge of the screw like the hexagon socket screw.

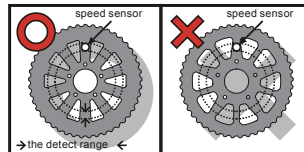
EX. 2,4



The disc
The best detect area: Detect the speed signal from the gaps of the disc.

⚠ Note that there are discs with the gaps in different difference, and this method will not work on it.

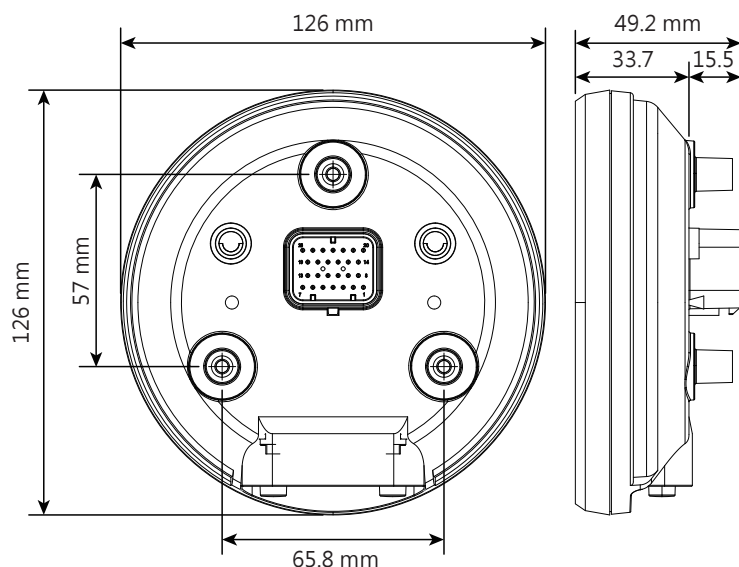
EX. 3



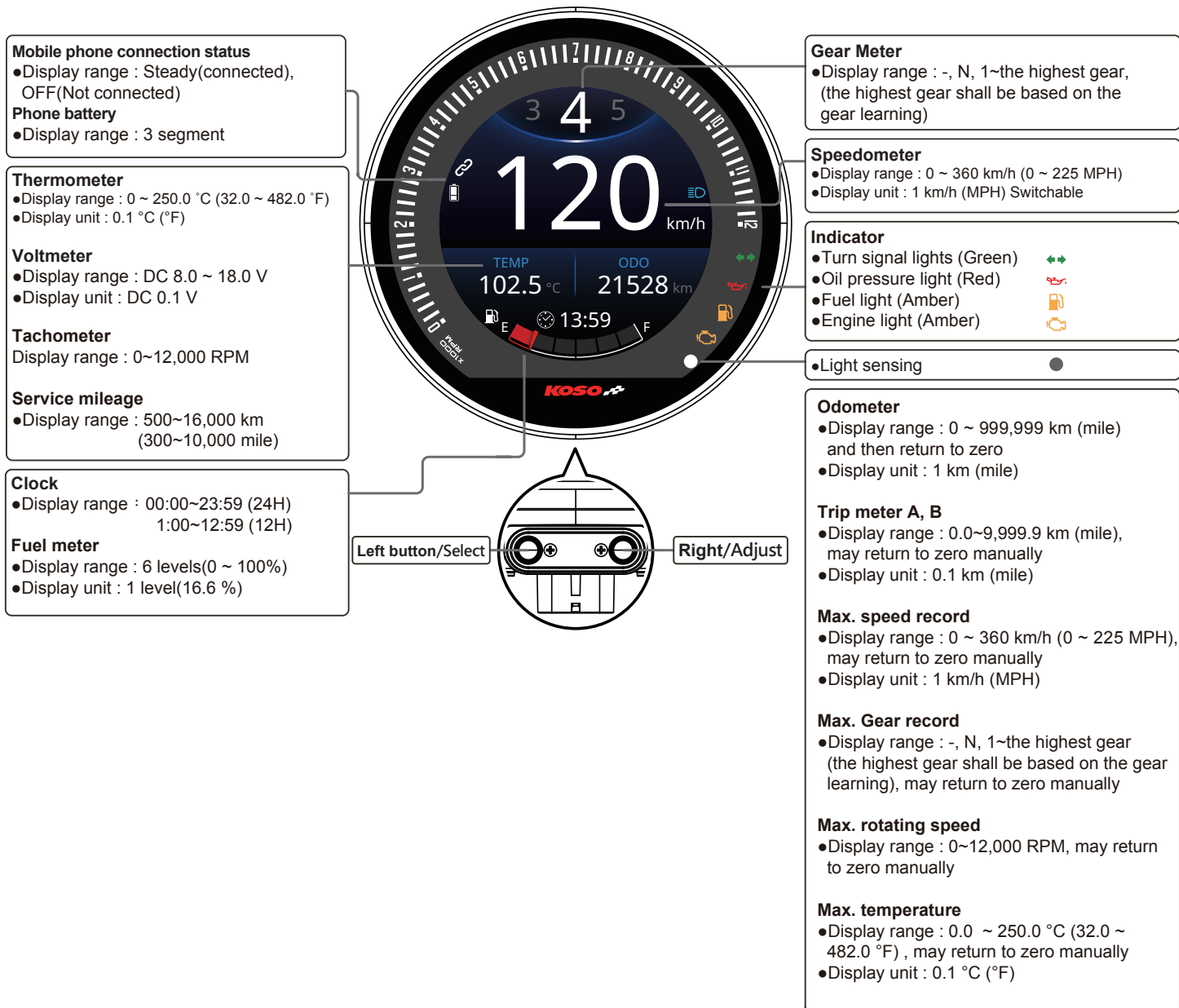
The sprocket
The best detect area: Detect the speed signal from the gaps of the sprocket.

⚠ Note that there are sprockets with the gaps in different places, and this method will not work on it.

3-1 Meter Size



3-2 Basic Function Instructions



3-3 Specifications

●Speedometer	Display range : 0 ~ 360 km/h (0 ~ 225 MPH) Display unit : 1 km/h (MPH) Switchable	○Low voltage warning	Setting range : DC 8.0~13.0 V, when setting value is below, warning light will light up. Setting unit : DC 0.1 V
○Current average speed	Display range : 0 ~ 360 km/h (0 ~ 225 MPH), automatically return to 0 after turning off the engine. Display unit : 1 km/h (MPH)	○High voltage warning	Setting range : DC 13.1~18.0 V, when setting value is above, warning light will light up. Setting unit : DC 0.1 V
○Odometer	Display range : 0 ~ 999,999 km (mile)and then return to zero Display unit : 1 km (mile)	●ABS warning	Display range : Display, No display, Flash Setting range : ON, OFF
○Current trip meter	Display range : 0.0~999.9 km (mile), automatically return to 0 after turning off the engine. Display unit : 0.1 km (mile)	●Tire pressure warning	Display range : Tire pressure, Tire temperature, Battery voltage warning
○Trip meter A, B	Display range : 0~9,999.9 km (mile), may return to zero manually Display unit : 0.1 km (mile)	●Target speed	Setting range : 30 ~ 360 km/h (20 ~ 225 MPH) Setting unit : 5 km/h (MPH)
○Speeding warning	Display range : 0~360 km/h (0~225 MPH) Display unit : 1 km/h (MPH)	●Target distance	Setting range : 50 ~ 1,500 m (1/32 ~ 30/32 mile) Setting unit : 50 m (1/32 mile)
○Current top speed record	Display range : 0~360 km/h (0~225 MPH), automatically return to 0 after turning off the engine. Display unit : 1 km/h (MPH)	●Top speed	Display range Speed : 0 ~ 360 km/h (0 ~ 225 MPH) Distance : 0 ~ 999 m (0~3,280 feet) Rotating speed : 0~10,000 RPM/0~12,500 RPM/ 0~15,000 RPM/0~18,000 RPM Time : 0 ~9 : 59"99
○Max. speed record	Display range : 0 ~ 360 km/h (0 ~ 225 MPH), may return to zero manually Display unit : 1 km/h (MPH)	○Sort by	Setting range : Sequence, Best
○Current riding time	Display range : 00:00~99:59, automatically return to 0 after turning off the engine.	○Best performance indication sign	Display range : The indication sign is displayed for the shortest time.
○Service DST	Display range : -999 ~ 16,000 km (-999~10,000 mile), may reset manually. Setting range : 500 ~ 16,000 km (300~10,000 mile), OFF Setting unit : 100 km (mile)	●Starting animation	Display range : 3 seconds
○Circumference	Setting range : 300~2,500 mm Setting unit : 1 mm	●Instruction screen for the initial use	Display range : Set up the mobile phone connection when starting initially.
○Sensitive point	Setting range : 1~20 P Setting unit : 1 P	●Mobile phone connection status	Display range : Steady(connected), OFF(Not connected)
●Gear Meter	Setting range : Return, Rotary, OFF Display range : -, N, 1~the highest gear, (the highest gear shall be based on the gear learning)	●Phone battery	Display range : 3 segment
○Max. Gear record	Display range : -, N, 1~the highest gear (the highest gear shall be based on the gear learning), may return to zero manually	●Incoming phone call notice	Display range : name or number, 7 characters; "... " will be displayed when exceeding the range, "Unknown" is displayed when there is no name.
●Tachometer	Display range : 0~12,000 RPM	●Incoming online app call notice	Display range : name, 7 characters; "... " will be displayed when exceeding the range "Unknown" is displayed when there is no name (supported : LINE, Messenger, WeChat, WhatsApp) (iOS supported, Android not supported.)
○Pre-Shift light warning	Setting range : 11,000~12,000 RPM Setting unit : 100 RPM	●Song title	Display range : 13 characters; "... " will be displayed when exceeding the range.
○Shift light warning	Setting range : 1,000~12,000 RPM Setting unit : 100 RPM Setting range : OFF, Fast Flash, Steady, Slow Flash	●Artist name	Display range : 9 characters; "... " will be displayed when exceeding the range.
○Max. rotating speed	Display range : 0~12,000 RPM, may return to zero manually	●Push notification	Display range : Name : 7 characters; "... " will be displayed when exceeding the range (iOS supported, Android not supported.)
○The RPM input signal	Setting range : 0.5, 1.0~24.0	●Turning precaution	Display range : A total of 40 turning precautions.
○The RPM input pulse	Setting range : High-Act, Low-Act	○Estimated turning distance	Display range : 0~999m, 1~999km (0~528ft, 0.1~999.9mile) Display unit : 1m, 1km (1ft, 0.1mile)
●Thermometer	Display range : 0.0 ~ 250.0 °C (32.0 ~ 482.0 °F) Display unit : 0.1 °C (°F)	○Estimated turning road	Display range : 9 Chinese characters; "... " will be displayed when exceeding the range
○Overheat warning	Setting range : 60 ~ 250 °C (140 ~ 482 °F), when setting value is reach, warning light will lit. Setting unit : 1 °C (°F)	○Turning precaution	Display range : A total of 40 turning precautions.
○Max. temperature record	Display range : 0.0 ~ 250.0 °C (32.0 ~ 482.0 °F), may return to zero manually Display unit : 0.1 °C (°F)	○Speed limit	Display range : 0 ~ 360 km/h (0 ~ 225 MPH)
●A/F ratio meter	Display range : 12.1~17.5 Display unit : 0.1 Setting range : ON, OFF	●Background display	Setting range : Auto(automatically switch according to the light : day mode display for the bright environment and Night mode display for the dark environment), Day mode, Night mode.
●Fuel meter	Display range : 6 levels (0 ~ 100%) Display unit : 1 level(16.6 %)	○Back light brightness (Day)	Setting range : 1/5~ 5/5(Brightest) Setting unit : 1/5
○Fuel(Ω)	Setting range : 100 Ω, 250 Ω, 270 Ω, 390Ω, 510 Ω, 1200 Ω, Switch, Custom, OFF	○Back light brightness (Night)	Setting range : 1/5(Darkest)~ 5/5(Brightest) Setting unit : 1/5
○Fuel warning	Setting range : 0/6 ~ 3/6 grid, when setting value is reach or below, warning light will lit. Setting unit : 1 grid	○Backlight color	Setting range : red, orange, yellow, green, blue, purple, white
●Clock	Setting range : 00:00~23:59 (24H) 01:00~12:59 (12H)	○RPM light brightness (Day)	Setting range : 1/5~ 5/5(Brightest) Setting unit : 1/5
●Voltmeter	Display range : DC 8.0 ~ 18.0 V Display unit : DC 0.1 V	○RPM light brightness (Night)	Setting range : 1/5(Darkest) ~ 5/5(Brightest) Setting unit : 1/5
		●Unit	Speed unit : km/h , MPH Temperature unit : °C (Celsius) and °F (Fahrenheit)
		●language	English (Extensive functions of Bluetooth are displayed based on the language transmitted by the mobile phone)

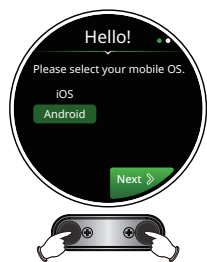
•Voltage	DC 12 V
•Operating temperature	-10~60°C
•Specification	JIS D 0203 (S2)
•Meter Size	126 x 126 x 49.2 mm
•Meter Weight	± 865 g
•Communication function	CAN communication and Bluetooth communication

•Indicator	Turn signal lights (Green)	↔
	Oil pressure light (Red)	🛢️
	Fuel light (Amber)	🛢️
	Engine light (Amber)	🔧

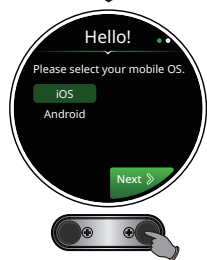
•Light sensing ●

NOTE Design and specifications are subject to change without notice.

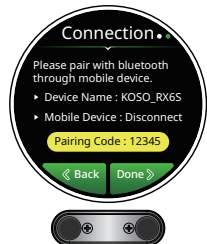
4-1 Start screen for Initial Use



- Start screen for Initial Use, press the **Left or Right button** to choose mobile phone operating system.

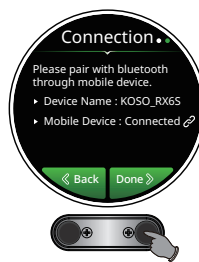


- Press the **Right button for 3 seconds**, enter the Bluetooth® pairing screen.
- EX : Select iOS for mobile phone operating system.



- Need to enter the pairing code.

NOTE **iOS operating system:**
Need to enter the pairing code.
Android operating system:
No pairing code is required.
Enter vehicle type selection directly.



- Press the **Right button for 3 seconds**, enter the vehicle status information screen.
- EX : Bluetooth® pairing screen completed.



- In the vehicle status information screen.
- Press the **Right+Left button** to enter the main screen.

NOTE If the engine starts, it'll automatically switch to the main screen.

- Press the right button to rapidly shift seven background colors when under the night mode



- In the main screen.

4-2 Menu Switching Description



- In the vehicle status information screen. Press the **Right+Left button** to enter the main screen.
- Press the **Right+Left button for 3 seconds** to enter the setting screen.



- In the main screen, press the **Right+Left button** to enter the record screen.
- Press the **Right+Left button for 3 seconds** to enter the setting screen.



- In the record screen, press the **Right+Left buttons** to go back to the main screen.

- Press the **Right+Left button for 3 seconds** to enter the setting screen.



- In the main screen.

4-3-1 Main Menu Switching Description(Right button)



- In the ODO screen, press the **Right button** to enter the Trip A screen.



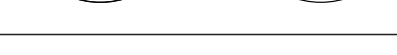
- In the Trip A screen, press the **Right button** to enter the Trip B screen.
- Press the **Right button for 3 seconds** to clear the Trip A recordings.



- In the Trip B screen, press the **Right button** to enter the Max. record screen.
- Press the **Right button for 3 seconds** to clear the Trip B recordings.



- In the Max. record screen, press the **Right button** to go back to the ODO screen.
- Press the **Right button for 3 seconds** to reset Max. records.



- In the ODO screen.

4-3-2 Main Menu Switching Description(Left button)



- In the temperature screen, press the **Left button** to enter the voltage screen.



- In the voltage screen, press the **Left button** to enter the RPM screen.



- In the RPM screen, press the **Left button** to enter the service screen.



- In the service screen, press the **Left button** to go back to the temperature screen.



- In the temperature screen.

4-4 Record Screen Switching Description(Target Speed, Target Distance, Top Speed)



- In the main screen, press the **Right+Left** button to enter the target speed record screen.



- In the target speed record screen, press the **Left** button for 3 seconds to enter the target distance record screen.



- In the target distance record screen, press the **Left** button for 3 seconds to enter the top speed record screen.



- In the top speed record screen, press the **Left** button for 3 seconds to go back to the target speed record screen.



4-4-1 Description Of Target Speed Test



- In the target speed record screen, press the **Right** button for 3 seconds to enter the testing screen.

NOTE Start the test when the bike is fully stopped.



- In the testing screen.
- ⚠ WARNING!** Use this function on racetracks to avoid accidents.



- When the bike moves, the timer will start automatically.
- NOTE** The timer is automatic, so when your bike starts to move the timer will start to calculate the time and stop automatically when you stop the bike.



- Speed up.



- When you reach the target speed that you set (0~120 km/h), the timer will stop (25"03 second).



- When speed decreases to 0 km/h(MPH), the target speed record screen will appear.



- In the target speed record screen.
- Press the **Right** button for 3 seconds, to reset the target speed record.



- Press the **Right** button to cancel deletion.
- Press the **Left** button to confirm deletion.
- Deletion succeeded.

4-4-2 Description Of Target Distance Test



- In the target distance record screen, press the **Right button for 3 seconds** to enter the testing screen.

NOTE Start the test when the bike is fully stopped.



- In the testing screen.

WARNING! Use this function on racetracks to avoid accidents.



- When the bike moves, the timer will start automatically.

NOTE The product adopts digital sensing; when the vehicle starts, the timer will immediately start measuring. Upon achieving the target distance, the timer will immediately stop measuring.



- Speed up.



- When you reach the target distance that you set (100 M . 2/32 mile), the timer will stop (12"27 second).

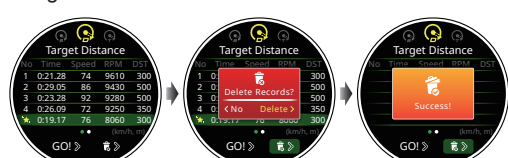


- When speed decreases to 0 km/h (MPH), the target distance record screen will appear.



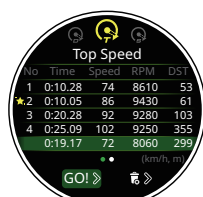
- In the target distance record screen.

- Press the **Right button for 3 seconds**, to reset the target distance record.



- Press the **Right button** to cancel deletion.
- Press the **Left button** to confirm deletion.
- Deletion succeeded.

4-4-3 Description Of Top Speed Test



- In the top speed record screen, press the **Right button for 3 seconds** to enter the testing screen.

NOTE Start the test when the bike is fully stopped.



- In the testing screen.

WARNING! Use this function on racetracks to avoid accidents.



- When the bike moves, the timer will start automatically.

NOTE Display range(Top speed) :
Speed : 0 ~ 360 km/h (0 ~ 225 MPH)
Distance : 0 ~ 999 m (0~3,280 feet)
Rotating speed : 0~10,000 RPM/
0~12,500 RPM/ 0~15,000 RPM/
0~18,000 RPM
Time : 0 ~ 9'59"99

NOTE The product adopts digital sensing; when the vehicle starts, the odometer and the timer will immediately start measuring. Upon achieving the maximum speed, the odometer and the timer will immediately stop measuring.

⚠ The speed unit of the function will change according to 5-2 Change in Speed Unit.



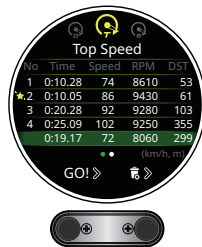
- Speed up.



- When you reach the top speed (100 km/h), the meter will stop counting the distance (510 m), and time (25'65 seconds).



- When speed decreases to 0 km/h(MPH), the top speed record screen will appear.



- In the top speed record screen.

- Press the **Right** button for 3 seconds, to reset the top speed record.



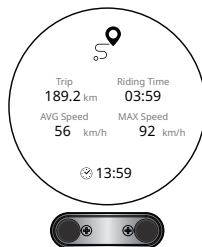
- Press the **Right** button to cancel deletion.
- Press the **Left** button to confirm deletion.
- Deletion succeeded.

4-5 Instruction to the closing screen



- Night mode.

NOTE Able to change color based on the background color when under the night mode.



- Day mode.

5-1 Link to App Installation

• This product may be used in combination with the exclusive App of KOSO; scan the QR code below or search KOSO - K Link in the App store for downloading and installation.



ios

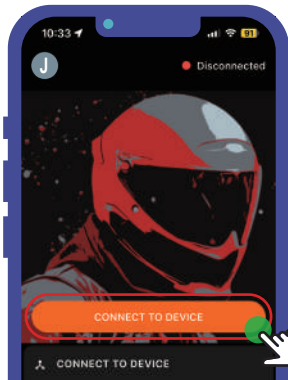
or



Android



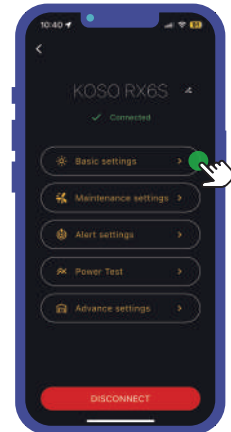
KOSO - K Link



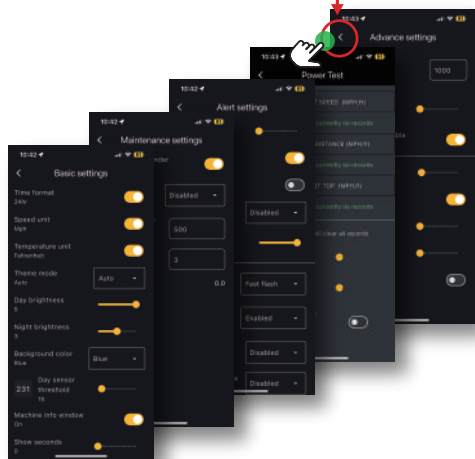
Tap the "CONNECT TO DEVICE" button.



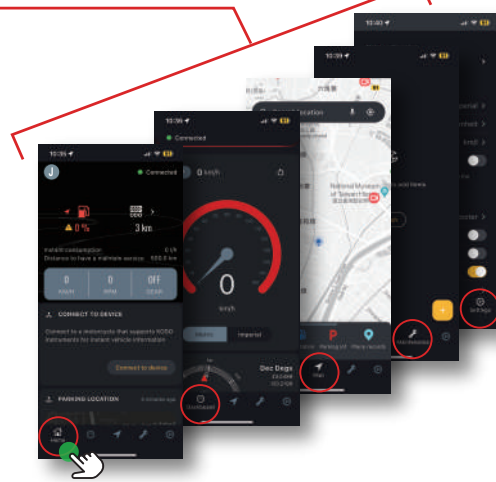
Select the target device to begin configuration.



Go into each option to configure the settings.



Ex : Basic settings, Maintenance settings, Alert settings, Power Test, Advance settings.



Ex : Home, Dashboard, Map, Maintenance, Settings.

NOTE You may directly use the App to change the settings of the meter.

⚠ The images are for reference only. Refer to the latest downloaded version of the app for the interface.

⚠ "The Company is committed to optimizing the Bluetooth® application function of the meter. However, as supports for software and hardware are different as mobile phones differ, the Bluetooth® application function of the meter may be affected, causing differences in functions."

5-2 Setting Screen Switching Description

● Press the **Right+Left button for 3 seconds** on the vehicle status information screen, main screen or record screen to switch to the setting screen.

● Press the **Left button** or **Right button** to select

- ① Clock ② Unit (Speed & Temp.) ③ Backlight (Mode & Brightness & Color) ④ Shift Light Warning ⑤ Temp Warning
⑥ Volt Warning ⑦ Low Fuel Warning ⑧ Motor Oil Maintenance (Trip O) ⑨ ABS Warning ⑩ Tire Circumference & Sensing Point
⑪ Gear ⑫ RPM (Pulse & signal & Range) ⑬ Fuel resistance ⑭ A/F Ratio ⑮ POWER TEST
⑯ Internal and External ODO ⑰ Meter information ⑱ Bluetooth

● Press the **Right button for 3 seconds** to enter the setting function screen.

● In the setting screen, press the **Left button for 3 seconds** to switch to the startup screen.

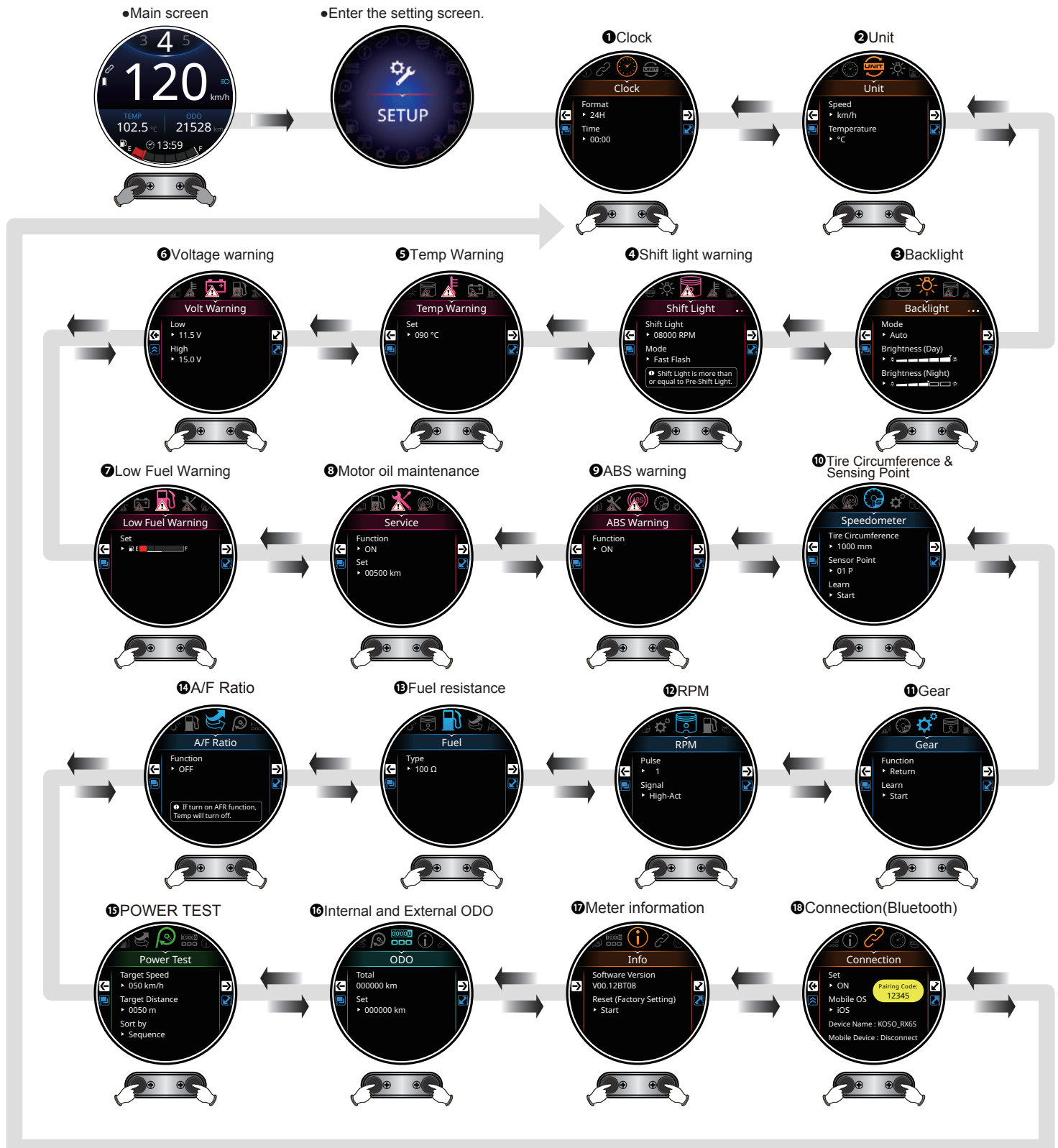
NOTE During setting, if a button is not pressed in 3 minutes, it will automatically return to the startup screen.

⚠ The product displayed in the video is for reference purposes only. Refer to the actual product that will be shipped.

Operation Setting Video



Scan or click on the QR code.



6 Troubleshooting

The following situations do not indicate malfunction of the product. 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 meter shows wrong information. Speed meter doesn't appear or appears incorrectly. Tachometer doesn't appear or appears incorrectly. Thermometer doesn't appear or appears incorrectly.	●The power isn't supplied to the meter. →Make sure the wiring is connected. The wiring and fuse are not broken. →The battery is too old to supply needed power (DC 12 V). ●Check the voltage of your battery, and make sure the voltage is over DC 12 V. ●May be poor connection of the speed sensor. →Check to confirm the speed sensor is connected correctly. ●Check the setting. →Refer to the manual ⑩ circumference and sensing point setting. ●Make sure the RPM wire is connected properly. →Confirm the RPM wire is connected correctly. ●Check the spark plug is R type or not. If not, replace the spark plug with the R type spark plug. ●Check the setting. →Refer to the manual ⑫ RPM input pulse , signal impulse. ●Make sure the temperature wire is connected properly. →Check if the temperature wire is connected correctly. ●Check the setting. →Refer to the manual ⑤ temp warning setting.	A/F ratio doesn't appear or appears incorrectly. Fuel meter doesn't display or display error. The clock is incorrect. Voltage doesn't appear or appears incorrectly. The meter indicator doesn't display. Bluetooth connection is abnormal or displays an error.	●Check the setting. →Refer to the manual ⑭ A/F ratio setting. ●Check your fuel tank. ●May be poor connection of the harness. →Make sure the wires are connected correctly. ●Check the setting. →Refer to the manual ⑮ Fuel resistance setting. ●Check the setting. →Check in the settings menu if the clock settings are correct. ●May be due to a reversed power line. →Check if the positive wire(Red) connects to the battery(DC 12 V) and if the main switch positive wiring(Brown) connects to the main switch(DC 12 V). ●May be due to poor connection of wiring. →Check whether the wires are disconnected or have fallen off. ●May be poor connection of the harness. →Make sure the wires are connected correctly. ●Bluetooth may be experiencing interference from other similar devices. → Restart your smartphone and reconnect.

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