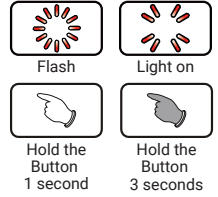




Thank you for purchasing our product. Before installing/operating the product, read the instructions carefully and retain them for future reference.

⚠ 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 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

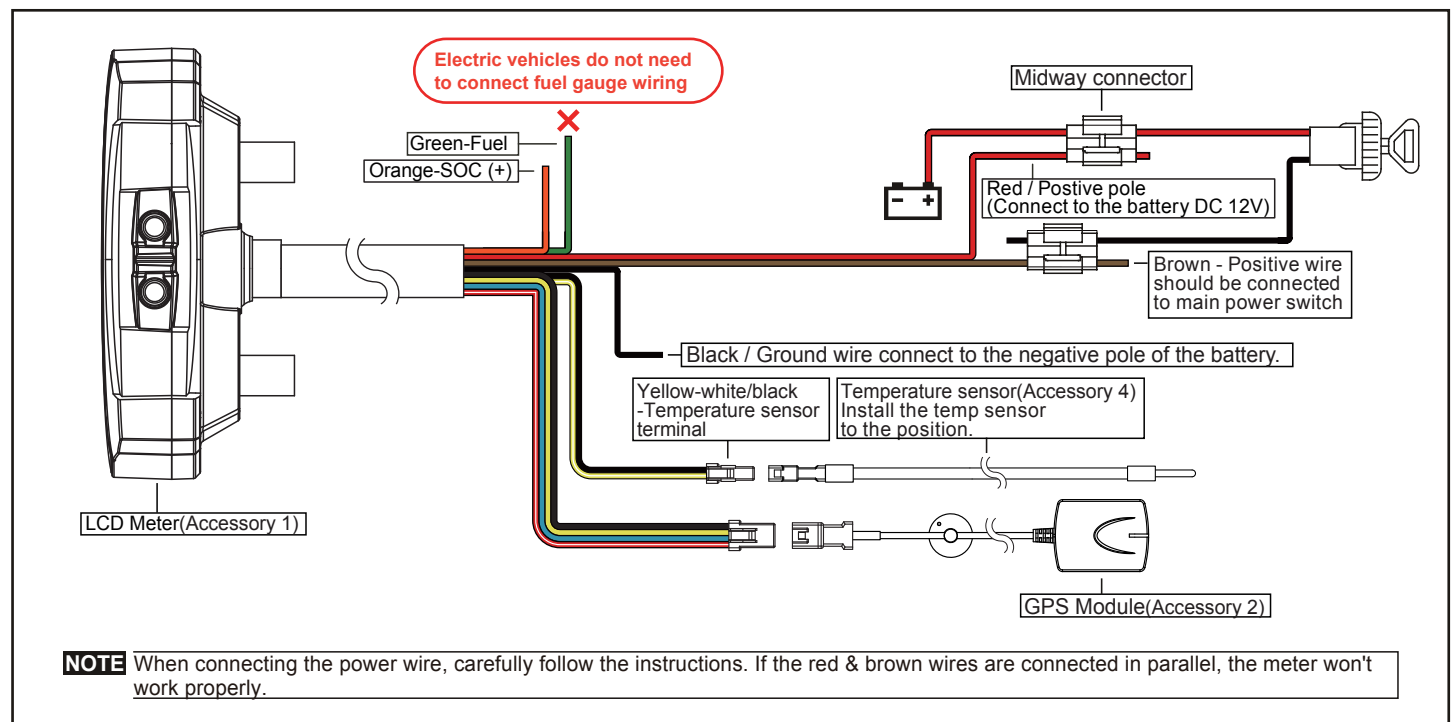
⚠ Some procedures must be followed to avoid damages to the product.

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

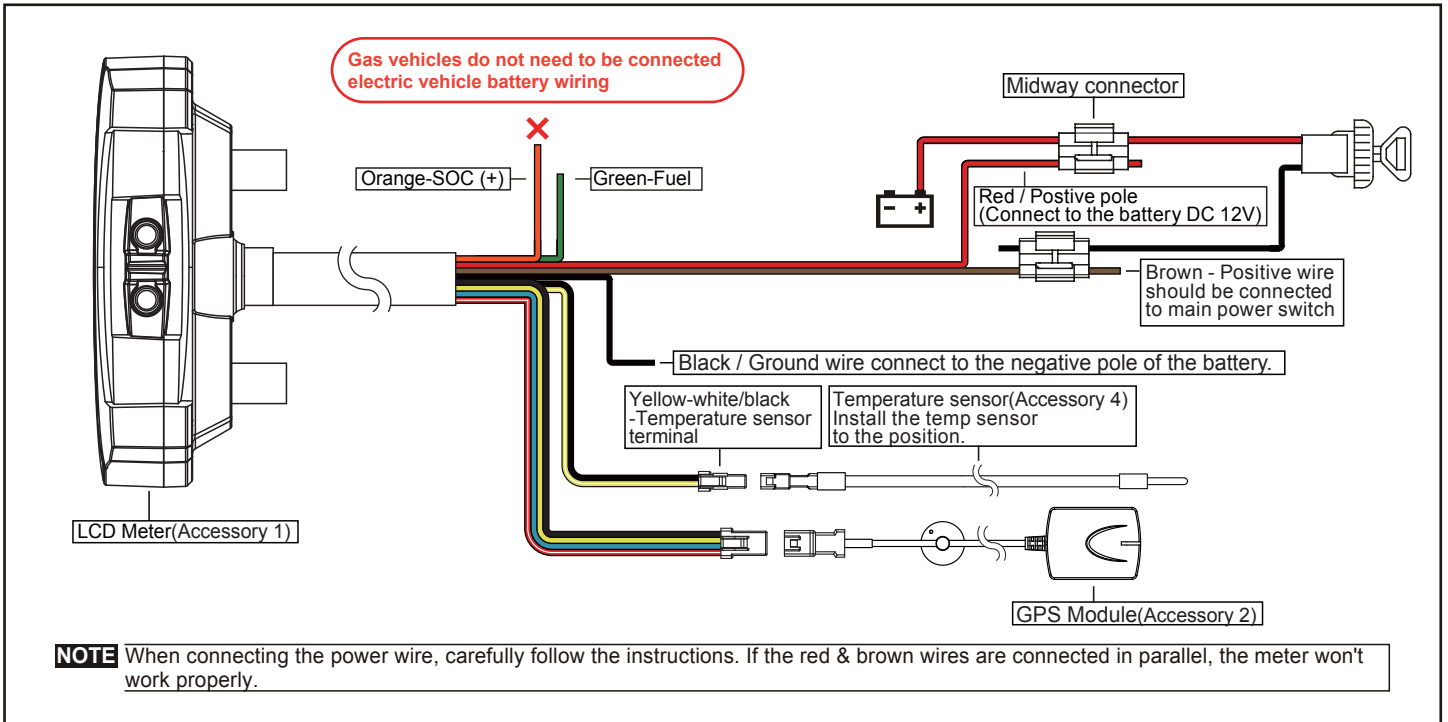
1-1 Accessories

1 LCD Meter X1 	2 GPS Module X1 	3 3M Adhesive Tape X1 	4 Temperature sensor X1
5 Meter bracket X1 	6 M5 washer X2 	7 M4x10xP0.7 screw X2 	8 Rubber Gasket X1
9 Rubber Gasket X1 	10 Steel gasket X 1 	11 3mm Allen Key X1 	12 Zip Tie (2.5x300 mm) X2

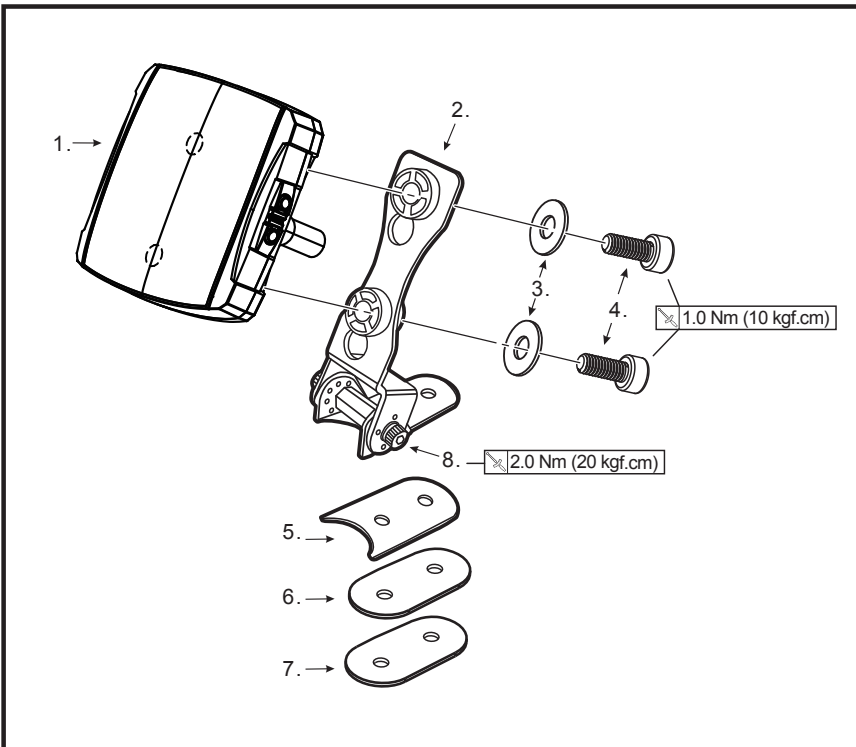
2-1-1 Wiring Installation Instructions(electric vehicle)



2-1-2 Wiring Installation Instructions(gas vehicle)



2-2 Installation instructions



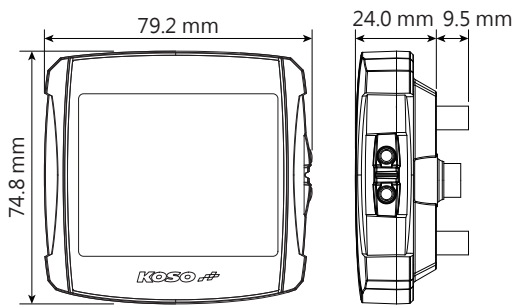
Follow the steps below during installation.

1. LCD Meter (Accessory 1)
2. Meter bracket (Accessory 5)
3. M5 washer X2 (Accessory 6)
4. M4x10xP0.7 screw X2 (Accessory 7)
5. Rubber Gasket (Accessory 8)
6. Rubber Gasket (Accessory 9)
7. Steel gasket (Accessory 10)
8. Meter bracket micro-adjustment screw

NOTE You can choose the desired viewing angle. After adjustment, tighten (8.) the two screws on both sides at the same time to lock it tightly.

NOTE You can use a cable tie (Accessory 12) to secure the wiring to the appropriate location on the vehicle.

3-1 Meter Size



3-2 Basic Function Instructions

Fuel meter
(When fuel function is enabled)

- Display range : 6 Levels(0 ~ 100%)
- Display unit : 1 Level(16.6 %)

Voltmeter
(When fuel gauge function is disabled)

- Display range : 6 Levels(42~52V, 63~78V)
- Display unit : 1 Level(2V, 3V)

GPS positioning success indicator

Clock

- Display range : 00:00~23:59 (24H)

Voltmeter
(When fuel gauge function is enabled)

- Display range : DC 8.0~24.0 V
- Display unit : DC 0.1 V

(When fuel gauge function is disabled)

- Display range : DC 0~85 V
- Display unit : DC 1 V

Thermometer

- Display range : -22.0~ 248.0 °F(-30.0 ~ 120.0°C)
- Display unit : 0.1 °F(°C)

Up button/Select

Down button/Adjust

Speedometer

- Display range : 0 ~ 360 km/h (0 ~ 225MPH)
- Display unit : 1 km/h (MPH) Switchable

Odometer

- Display range : 0~99,999 km (mile) and then return to zero
- Display unit : 1 km (mile)

Trip meter A, B

- Display range : 0.0~9,999.9 km (mile) may return to zero manually
- Display unit : 0.1 km (mile)

Motor oil maintenance

- Display range : 300~5,000 mile(500 ~ 8,000 km)
- Display unit : 1 mile(km)

Riding time

- Display range : 0~99,999 H

Max. speed record

- Display range : 0 ~ 225 MPH(0 ~ 360 km/h)
- Display unit : 1 MPH(km/h) Switchable

Max. temperature record

- Display range : -22.0~ 248.0 °F(-30.0 ~ 120.0°C)
- Display unit : 0.1 °F(°C)

3-3 Specifications

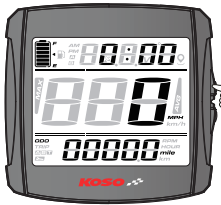
•Speedometer	Display range : 0 ~ 225 MPH(0 ~ 360 km/h) Display unit : 1 MPH(km/h) Switchable	•Voltage BAR	Setting range : 48 V \ 72 V
○Odometer	Display range : 0 ~ 99,999 mile(km) and then return to zero Display unit : 1 mile(km)	•Clock	Setting range : 00:00~23:59 (24H)
○Trip meter A, B	Display range : 0.0~9,999.9 km(mile), may return to zero manually Setting unit : 0.1 km(mile)	•Voltmeter	(When fuel function is enabled) •Display range : DC 8.0~24.0 V •Display unit : DC 0.1 V (When fuel gauge function is disabled) •Display range : DC 0~85 V •Display unit : DC 1 V
○Motor oil maintenance	Setting range : 300~5,000 mile(500 ~ 8,000 km) Setting unit : 100 mile(km)	•Backlight color	Setting range : white, red, orange, yellow, green, blue, light blue, purple
○Max. speed record	Display range : 0 ~ 225 MPH(0 ~ 360 km/h) Display unit : 1 MPH(km/h) Switchable	○Backlight brightness	Setting range : 1 / 5(darkest)~ 5 / 5(brightest) Setting unit : 1/5
•Thermometer	Display range : -22.0~ 248.0 °F(-30.0 ~ 120.0°C) Display unit : 0.1 °F(°C)	•Unit	Speed unit : km/h(km), MPH(mile) Temperature unit : °C (Celsius) and °F (Fahrenheit)
○Max. temperature record	Display range : -22.0~ 248.0 °F(-30.0 ~ 120.0°C) Display unit : 0.1 °F(°C)	•Operating voltage	DC 12 V
•Fuel meter	Setting range : 100Ω, 250Ω, 270Ω, 390Ω, 510Ω, 1200Ω, SW, Custom, OFF (When fuel function is enabled) Display range : 6 Levels(0 ~ 100%) Display unit : 1 Level(16.6 %)	•Operating temperature	-20~ 85 °C
•Voltmeter	(When fuel gauge function is disabled) Display range : 6 Levels (42~52V, 63~78V) Display unit : 1 Level(2V, 3V)	○Storage temperature	-30~ 90 °C
		•Specifications	JIS D 0203 (S2)
		•Meter size	79.2x74.8x33.5 mm
		•Meter weight	±183 g

NOTE Design and specification may change without further notice.

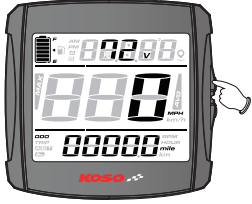
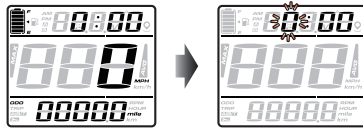
0~72V	SOC Level	0 (Flashing)	1 (Flashing)	2	3	4	5	6
	Voltage	< 63V	63~65V	66~68V	69~71V	72~74V	75~77V	>=78V

0~48V	SOC Level	0 (Flashing)	1 (Flashing)	2	3	4	5	6
	Voltage	< 42V	42~43V	44~45V	46~47V	48~49V	50~51V	>=52V

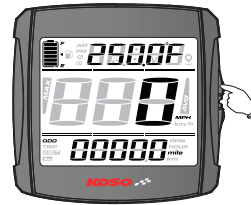
3-4 Up button (Select) function switching instructions



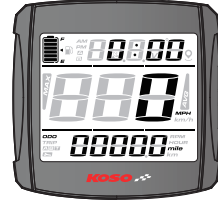
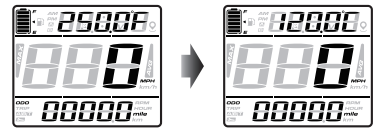
- In the clock screen, press the **Up button** to enter the volt screen.
- Press the **Up button for 3 seconds** to enter the fast setting for clock.



- In the volt screen, press the **Up button** to enter the temperature screen.

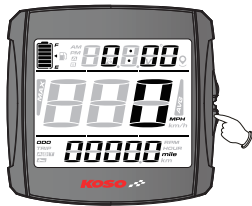


- In the temperature screen, press the **Up button** to go back to the clock screen.
- Press the **Up button for 3 seconds** to enter the fast setting for temperature unit.

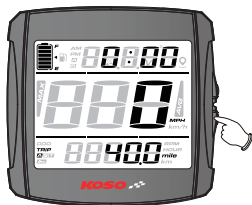
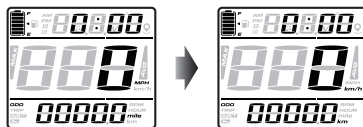


- In the clock screen.

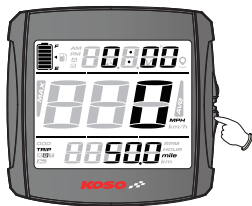
3-5 Down button (Adjust) function switching instructions



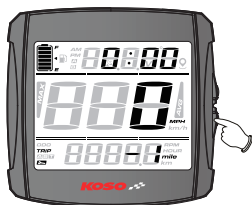
- In the ODO screen, press the **Down button** to enter the Trip A screen.
- Press the **Down button for 3 seconds** to enter the fast setting for speed unit.



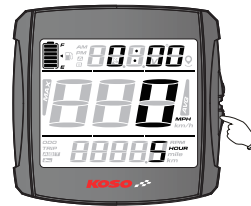
- In the Trip A screen, press the **Down button** to enter the Trip B screen.
- Press the **Down button for 3 seconds** to clear the Trip A recordings.



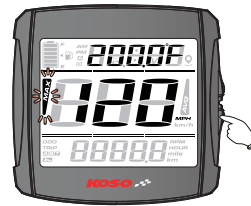
- In the Trip B screen, press the **Down button** to enter the motor oil maintenance screen.
- Press the **Down button for 3 seconds** to clear the Trip B recordings.



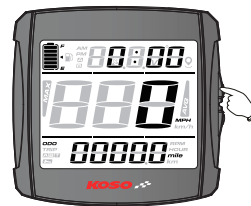
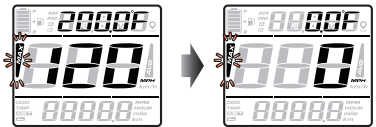
- In the motor oil maintenance screen, press the **Down button** to enter the riding time screen.
- Press the **Down button for 3 seconds**, to reset motor oil maintenance recordings.



- In the riding time screen, press the **Down button** to enter the Max. record screen.
- Press the **Down button for 3 seconds**, to reset riding time recordings.



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



- In the ODO screen.

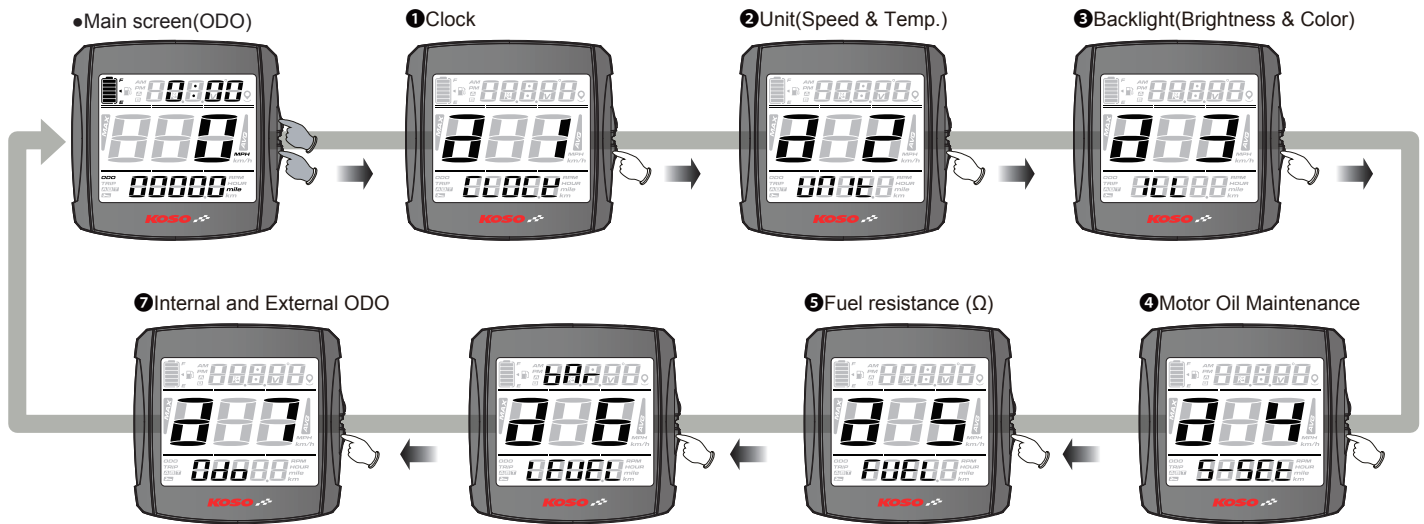
4 Setting Screen Switching Description

● Press the Up + Down buttons for 3 seconds on the main screen(ODO) to switch to the setting screen.

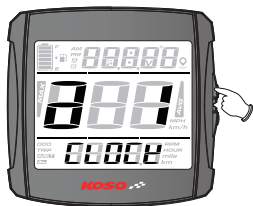
● Press the Down button to select

① Clock ② Unit(Speed & Temp.) ③ Backlight(Brightness & Color) ④ Motor Oil Maintenance ⑤ Fuel resistance (Ω) ⑥ LCD bar ⑦ Internal and External ODO.

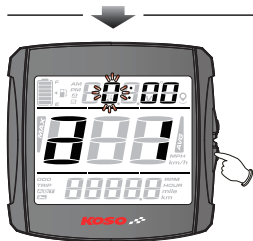
NOTE During setting, if button is not pressed in 30 seconds, it will automatically return to the startup screen.



4-1 Clock Settings



● In the Clock screen, press the **Up** button to enter the clock setting.

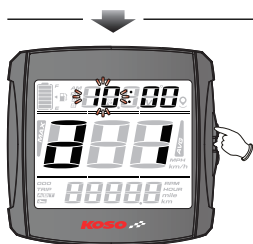


● **Example** : To set clock(hour) as 10 hours.
● Press the **Down** button to choose the setting number.

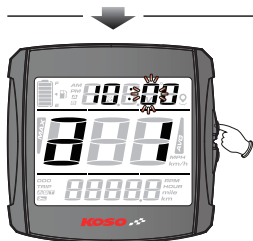
⚠ Now the setting value is flashing.

NOTE Cursor moving order is :
Hour → Digit in ten minutes →
Digit in minutes

NOTE Setting range : 0 ~23.



● EX : Set hour from 12:00 AM to 10:00 AM.
● Press the **Up** button to enter clock adjustment minute setting.

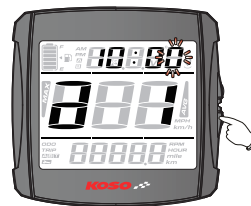


● **Example** : To set clock(minute) as 01 minute.

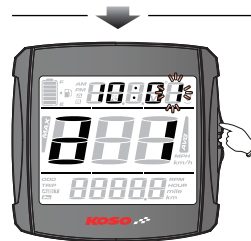
● Press the **Up** button to move to the digit you want to set.

⚠ Now the setting value is flashing.

NOTE Setting range : 00~59 minutes.



● Press the **Down** button to choose the setting number.

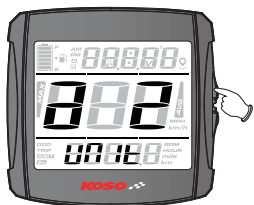


● EX : Set minute from 0 minute to 01 minute.
● Press the **Up** button to go back to the clock screen.

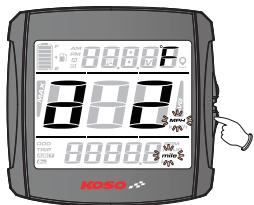


● The Clock screen.

4-2 Unit (Speed & Temp.) Settings



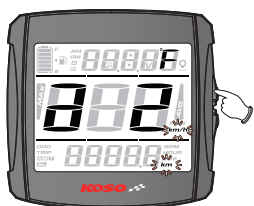
- In the unit screen, press the **Up button** to enter the speed unit setting.



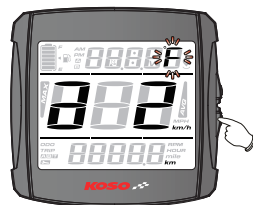
- **Example : To set speed unit as km/h(km).**
- Press the **Down button** to choose the setting options.

⚠ Now the setting value is flashing.

NOTE Setting range : km/h(km), MPH(mile).



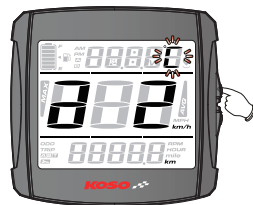
- EX : Set speed unit from MPH(mile) to km/h(km).
- Press the **Up button** to enter the temp. unit setting screen.



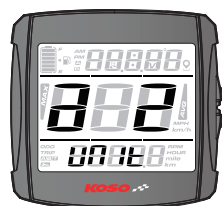
- **Example : To set temp. unit to °F.**
- Press the **Down button** to choose the setting options.

⚠ Now the setting value is flashing.

NOTE Setting range : °C (Celsius), °F (Fahrenheit).

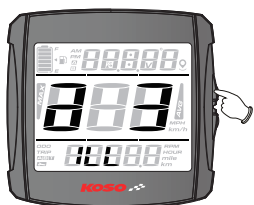


- EX : Set temp. unit from °F (Fahrenheit) to °C (Celsius).
- Press the **Up button** to go back to the unit screen.

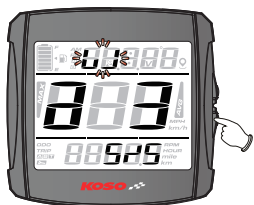


- In the unit screen.

4-3 Backlight (Brightness & Color) Settings



- In the backlight screen, press the **Up button** to enter the backlight color setting.

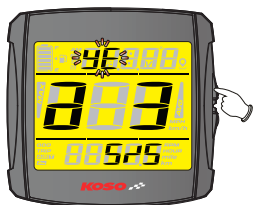


- **Example : To set backlight color to yellow.**
- Press the **Down button** to choose the color.

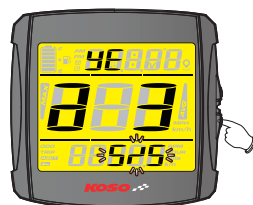
⚠ Now the setting value is flashing.

NOTE Setting range : white, red, orange, yellow, green, blue, light blue, purple.

NOTE The backlight color will change immediately after you set the value.



- EX : Set backlight color from white to yellow.
- Press the **Up button** to enter to the backlight brightness screen.

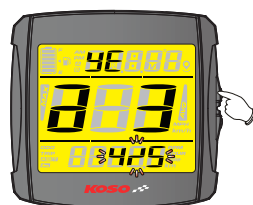


- **Example : To set the backlight brightness at 4/5(80%).**
- Press the **Down button** to choose the setting number.

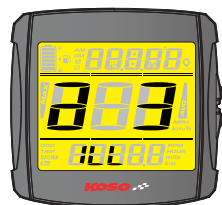
⚠ Now the setting value is flashing.

NOTE Setting range : 1/5 (Darkest) ~ 5/5 (Brightest). Setting unit : 20% per level.

NOTE The backlight brightness will change immediately after you set the value.

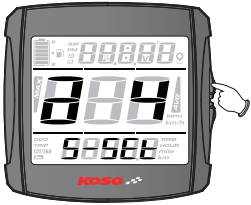


- EX : The backlight brightness setting is changed from 5/5 (100%) to 4/5 (80%).
- Press the **Up button** to go back to the backlight screen.

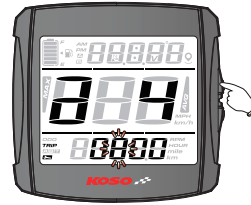


- In the backlight screen.

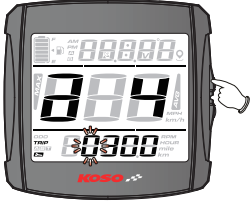
4-4 Motor Oil Maintenance Settings



- In the motor oil maintenance screen, press the **Up button** to enter the motor oil maintenance setting.



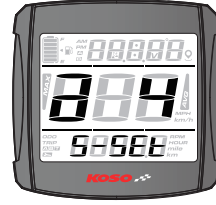
- EX : The motor oil maintenance setting is changed from 300 mile to 800 mile.
- Press the **Up button** to go back to the motor oil maintenance screen.



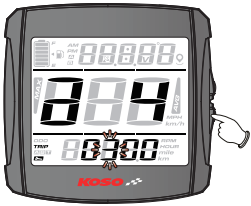
- **Example** : To set motor oil maintenance as 800 mile.
- Press the **Up button** to move to the digit you want to set.

⚠ Now the setting value is flashing.

NOTE Setting range : 300~5,000 mile (500 ~ 8,000 km).

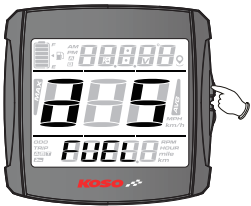


- In the motor oil maintenance screen.

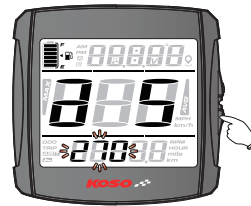


- Press the **Down button** to choose the setting number.

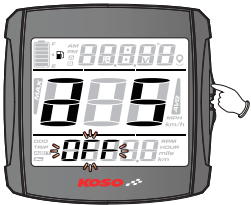
4-5-1 Fuel Resistance(Ω) Settings



- In the fuel resistance(Ω) screen, press the **Up button** to enter into the fuel resistance(Ω) setting.



- EX : Set fuel meter's resistance value from OFF to 270 Ω.
- Press the **Up button** to go back to the fuel screen.

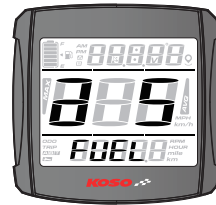


- **Example**: If the vehicle's resistance is 270 Ω according to the service manual.
- Press the **Down button** to choose the setting number.

⚠ Now the setting value will blink.

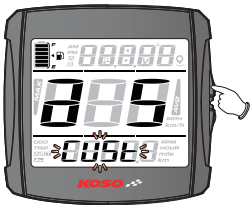
NOTE Settings range : 100 Ω, 250 Ω, 270 Ω, 390 Ω, 510 Ω, 1200 Ω, Switch, Custom, OFF.

NOTE If the setting is Custom, it will enter the 4-5-2(Auto) and 4-5-3 (Manual) operation setting.



- In the fuel resistance(Ω) screen.

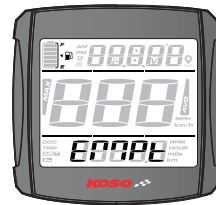
4-5-2 Fuel Gauge Resistance Settings (Auto Detection)



- Press the **Up button** to enter the fuel gauge resistance setting(Auto detection).

⚠ CAUTION!

- Before detection, ensure that your current fuel level is in the lowest position that you would like to have.
- Stop the vehicle for a few seconds to allow the fuel surface to become steady, then start the detection of the resistance.



- EX : Auto detection the lowest fuel level resistance value is 90 Ω.

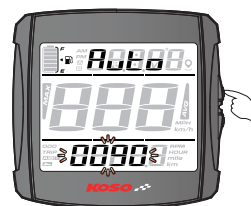
- Hold and press the **Up button 5 times** to enter the highest fuel level resistance auto detection screen.

P.S.



- When the fuel surface sensor floats in the lowest position then press the **Up button**, it will detect the resistance around 90 Ω.

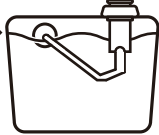
The lowest position ▶



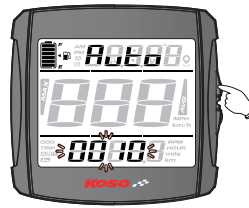
P.S.



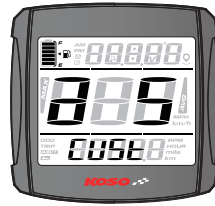
The highest position ▶



- When the fuel surface sensor floats in the highest position then press the **button**, it will detect the resistance around 10 Ω.

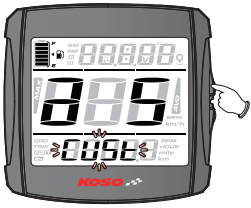


- EX : Auto Detection the highest fuel level resistance value is 10 Ω.
- Press the **Up button 5 times** to go back to the fuel gauge resistance screen.

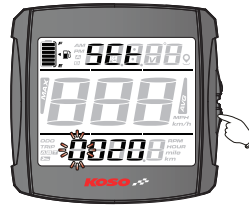


- The fuel gauge resistance screen.

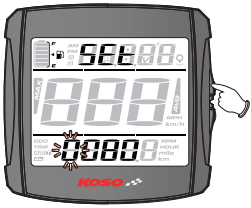
4-5-3 Fuel Gauge Resistance Settings (Manual)



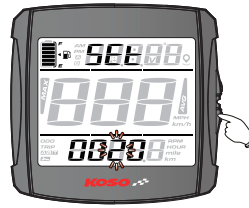
- Press the **Up button twice** to enter the fuel gauge resistance setting (Manual).



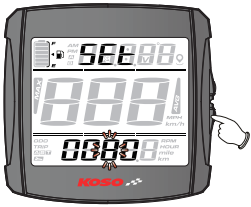
- Example : To set the highest fuel level resistance value as 10 Ω.**
- Press the **Up button** to move to the digit you want to set.
- ⚠ Now the setting value is flashing.



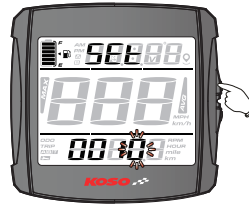
- Example : To set the lowest fuel level resistance value as 90 Ω.**
- Press the **Up button** to move to the digit you want to set.
- ⚠ Now the setting value is flashing.



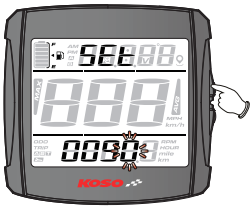
- Press the **Down button** to choose the setting number.



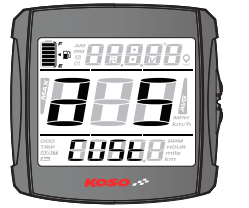
- Press the **Down button** to choose the setting number.



- EX : Set the highest fuel level resistance value to 10 Ω.
- Press the **Up button** to go back to the fuel gauge resistance screen.

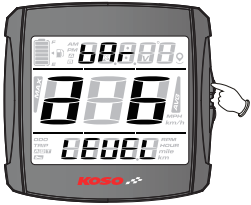


- EX : Set the lowest fuel level resistance value from 80 Ω to 90 Ω.
- Press the **Up button twice** to enter the highest fuel level resistance setting.



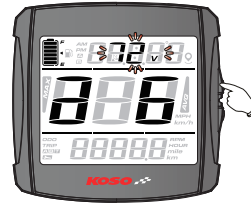
- The fuel gauge resistance screen.

4-6 LCD bar Settings

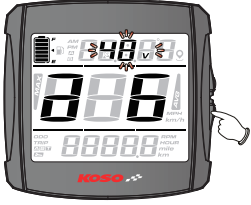


- In the LCD bar screen, press the **Up button** to enter the LCD bar setting.

NOTE Battery bar, when the fuel gauge function is selected OFF, it can be set to 48V or 72V by parameter setting.



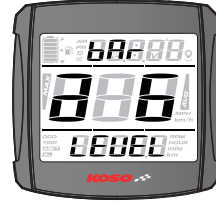
- EX : Set LCD bar from 48V to 72V.
- Press the **Up button** to go back to the LCD bar screen.



- **Example** : To set LCD bar to 72V.
- Press the **Down button** to choose the setting options.

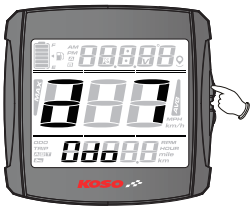
⚠ Now the setting value is flashing.

NOTE Setting range : 48V, 72V.

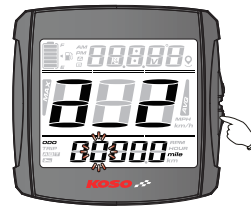


- In the LCD bar screen.

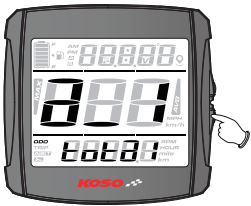
4-7 Internal And External ODO Settings



- In the internal and external ODO screen, press the **Up button** to enter the internal ODO screen.



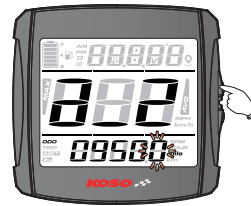
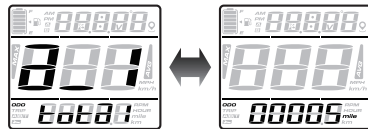
- Press the **Down button** to choose the setting number.



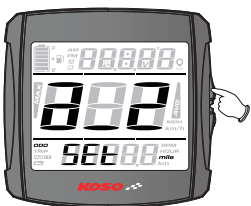
- EX : Currently internal ODO inspect as 5 mile.
- Press the **Down button** to enter the external ODO screen.

⚠ User unable to adjust or clear internal ODO.

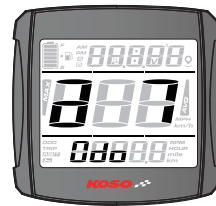
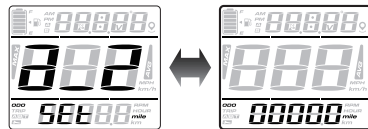
NOTE Display range : 0~999,999 km (mile).



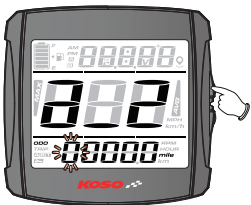
- EX : Set external total distance value from 0 km to 9,500 mile.
- Press the **Up button** to go back to the internal and external ODO screen.



- Press the **Up button** to enter the external ODO setting.



- In the internal and external ODO screen



- **Example** : To set external total distance value to 9,500 km.
- Press the **Up button** to move to the digit you want to set.

⚠ Now the setting value is flashing.

NOTE Cursor's order : ten thousand → thousand → hundred → ten → digit.

NOTE Setting range : 0 ~ 99,999 mile(km).

5 Troubleshooting

The following situations do not indicate malfunctions of the product. Check the following before taking it in for repair.

Trouble	Check item	Trouble	Check item
<p>The meter doesn't work when the power is on.</p> <p>The meter shows wrong information.</p> <p>Speed meter doesn't appear or appears incorrectly.</p> <p>The odometer and trip meter are not accumulated or accumulated the wrong data.</p> <p>Thermometer doesn't appear or appears incorrectly.</p>	<ul style="list-style-type: none"> ● 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. ● The GPS module may not be connected properly. → Confirm that the GPS module wiring is properly installed and there are no broken wires. ● The GPS module may not be connected properly. → Confirm that the GPS module wiring is properly installed and there are no broken wires. ● Make sure the temperature wire is connected properly. → Check if the temperature wire is connected correctly. 	<p>Fuel meter doesn't display or display error.</p> <p>The clock is incorrect.</p> <p>Voltage doesn't appear or appears incorrectly.</p>	<ul style="list-style-type: none"> ● Check your fuel tank. ● May be poor connection of the harness. → Make sure the wires are connected correctly. ● Check the setting. → Check the settings menu, the fuel settings are correct. ● 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.

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