



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

**⚠ Attention!**

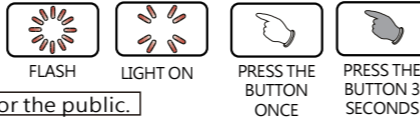
1. For installation, please follow the steps described. Any damage caused by wrong installation shall be imputed to the users.
2. Do not disassemble or change any parts.
3. Opening the instrument will void any warranty. Maintenance or repair should be executed by our professionals only.

● **SYMBOL DESCRIPTION:**

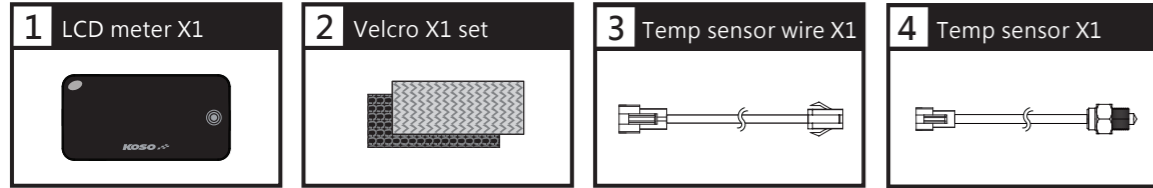
**NOTE** The symbols indicate additional instructions.

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

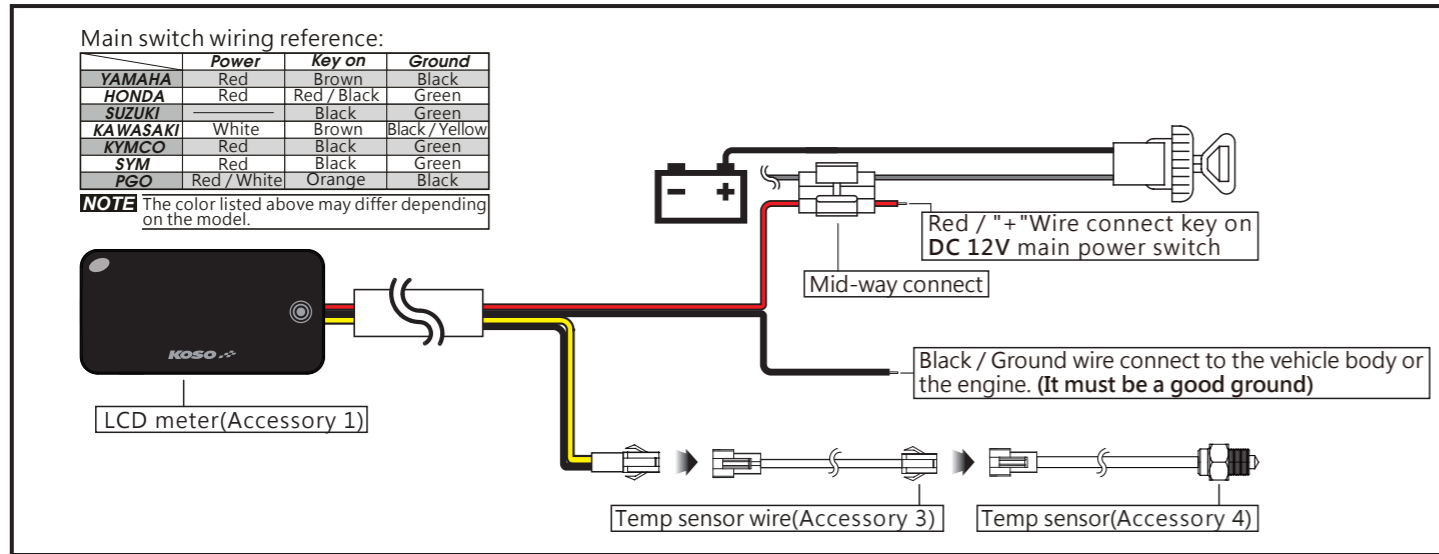
**⚠ WARNING!** Certain procedure must be followed to avoid damages to yourself, to the vehicle or the public.



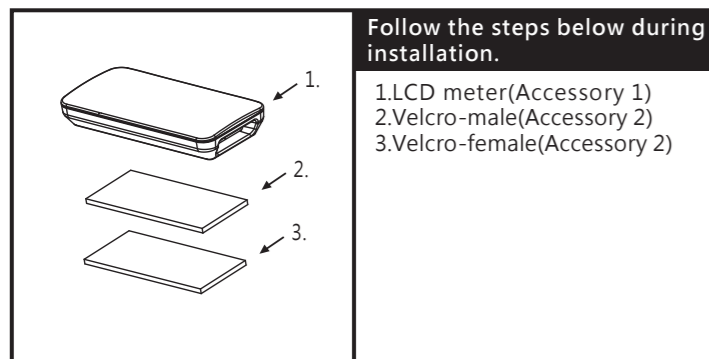
**1 Accessories**



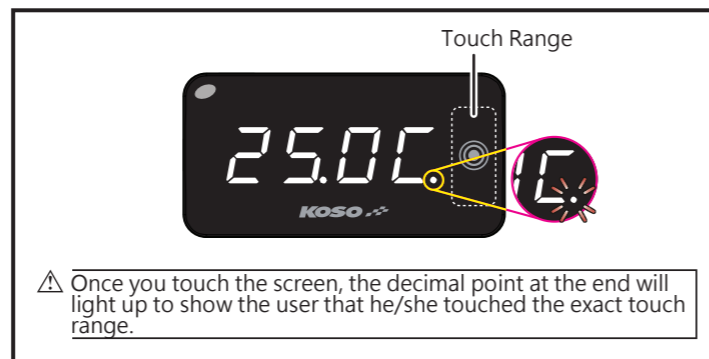
**2-1 Wiring Installation Instructions**



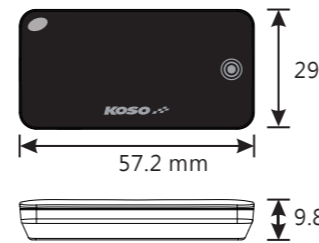
**2-2 Installation Instructions**



**2-3 Touch Range**



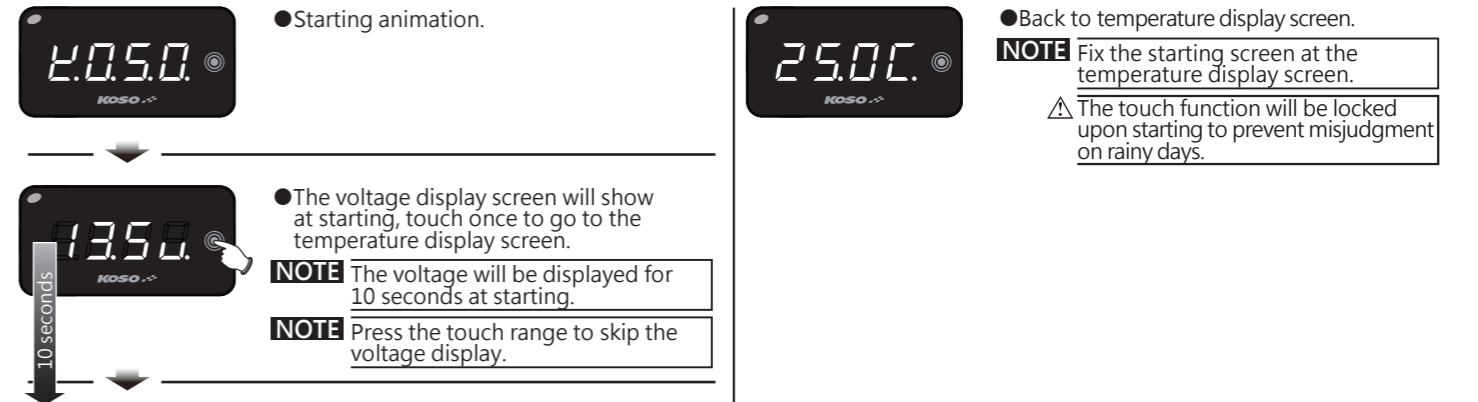
**3 Functions, Settings Description**



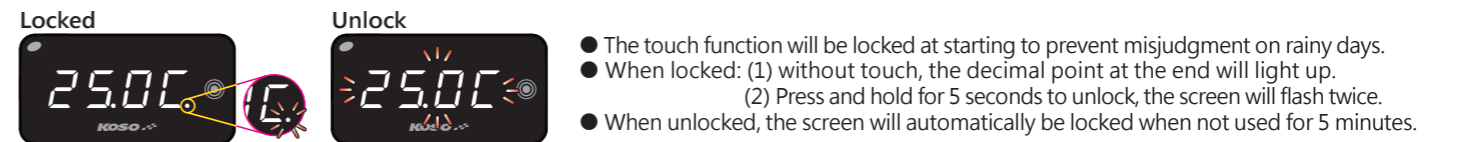
● Temperature	Display range : -20.0 ~ 120.0 °C (-4.0~248.0 °F), Display unit : 0.1 °C (0.1 °F)
● Max. temperature record	Display range : 0 ~ 120.0 °C (32.0~248.0 °F), Display unit : 0.1 °C (0.1 °F)
● Voltmeter	Display range : 8.0 v~18.0 v, Display unit : 0.1 v
● Unit	Temperature unit : °C (Celsius) and °F (Fahrenheit)
● Overheat warning	Setting range : 50~120 °C(122~248 °F), Setting unit : 1 °C (1 °F)
● Low voltage warning	Setting range : 8.0 v~13.0 v
● Effective temperature range	-10~60 °C
● Water-Proof Standard	JIS D 0203
● Meter size	L57.2 X W29.0 X H9.8 mm
● Meter weight	About 26.0 g

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

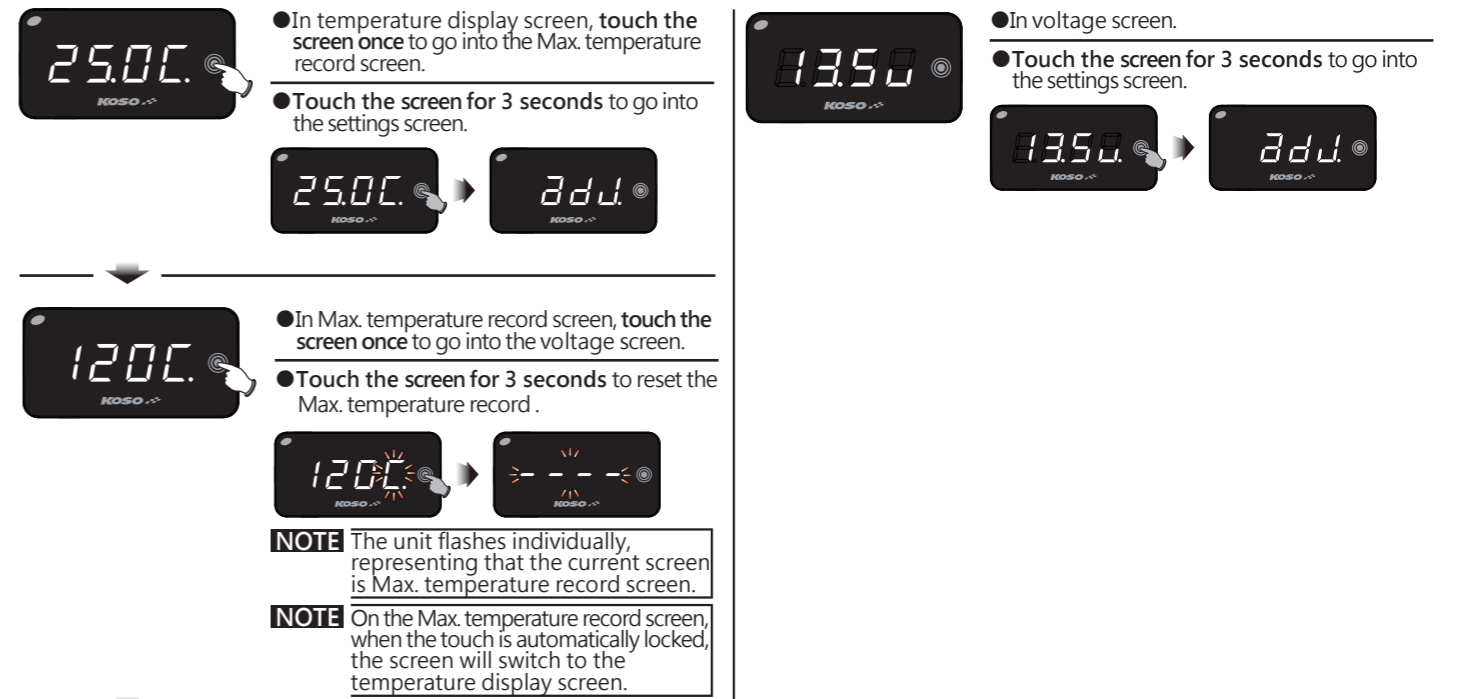
**4-1 Starting Procedures Instruction**



**4-2 Touch Lock Function Instruction**



**4-3 Main Screen Procedures Instruction**



#### 4-4 Operation Settings Description

●When in the temperature or voltage display screen, touch for three seconds to enter the setting screen.

●In the unit setting menu.

●Touch the screen for 3 seconds to enter the temperature unit setting.

●To set temperature unit to °F.  
●Touch the screen once to choose the setting unit.  
**NOTE** Setting range : °C (Celsius) and °F (Fahrenheit)  
Default value : °C (Celsius)

●To Set temperature unit from °C (Celsius) to °F (Fahrenheit).  
●Touch the screen for 3 seconds to go back to the settings menu.

●In the unit setting menu.  
●Touch the screen once to enter next operation setting.

●In the overheat warning setting menu.  
●Touch the screen for 3 seconds to enter the overheat warning setting.

●To set overheat warning value to 120 °C.  
●Touch the screen for 3 seconds to move to the digit you want to set.  
●Touch the screen once to choose the setting number.  
**NOTE** Cursor's order : hundred → ten → digit  
**NOTE** Setting range : 50 ~120 °C (122 ~248 °F)  
Default value : 100 °C (212 °F)

●To Set overheat warning value from 100 °C to 120 °C.  
●Touch the screen for 3 seconds to go back to the settings menu.

●In the overheat warning setting menu.  
●Touch the screen once to enter next operation setting.

●In the low voltage warning setting menu.  
●Touch the screen for 3 seconds to enter the low voltage warning setting.

●To set low voltage warning value to DC 11.0 V.  
●Touch the screen for 3 seconds to move to the digit you want to set.  
●Touch the screen once to choose the setting number.  
**NOTE** Cursor's order : ten → digit → decimal  
**NOTE** Setting range : 8.0~13.0 V  
Default value : 11.5 V

●EX : Set low voltage warning value from DC 11.5 V to DC 11.0 V.  
●Touch the screen for 3 seconds to go back to the settings menu.

●In the low voltage warning setting menu.  
●Touch the screen once to enter next operation setting.

●Leave the setting menu.  
●Touch the screen for 3 seconds to go back to the settings menu.

●In the temperature or voltage display screen.

#### 4-5 Warning Display Instruction

**Overheat**

Flash on the temperature display screen.

On the voltage display screen, the temperature flashes 10 times every 5 seconds.

●Flash ten times.

**Low voltage**

On the temperature display screen, the voltage flashes 10 times every 5 seconds.

Flash on the voltage display screen.

●Flash ten times.

**Overheat+Low voltage**

Flashes between the temperature or voltage display screen.

●Flash ten times.

#### 5 Trouble Shooting

The following situation does not necessary indicate malfunction of the device. Please check the following points, before taking it in for maintenance.

Trouble	Check item	Trouble	Check item
The meter doesn't work when the power is on.	<ul style="list-style-type: none"> <li>●There might be no power supply →Make sure the wires are connected..</li> <li>→Make sure the positive/negative poles are properly connected.</li> <li>→Battery malfunction or battery voltage lower than 11.5V</li> <li>→Check the wires of product and device.</li> <li>●Maybe poor connection of the sensor.</li> <li>→Please make sure the sensor is connected correctly.</li> </ul>	Temperature does not display or display error.	<ul style="list-style-type: none"> <li>●There might be a poor connection in the harness.</li> <li>→Make sure the wires are connected correctly.</li> <li>● The bad induction may be due to fluids or other matters on the touch range.</li> <li>→ Wipe the touch range clean before use.</li> <li>● The bad induction may be due to using gloves.</li> <li>→ Take off gloves before use.</li> </ul>
The meter doesn't display or display error.		The touch does not react.	

※ If you can't resolve the problems according to the steps above, please contact your local distributor.