



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

Notice

1. The LCD meter is apply for **DC 12V**.
2. For installation, please follow the steps described in manual. Any damage caused by wrong installation shall be imputed to the users.
3. To avoid the short circuit, please don't pull the wire when installing. Don't break or modify the wire terminal.
4. Do not disassemble or change any parts excluding the manual description.
5. The interior examination or maintenance should be executed by our professionals.

SYMBOL NOTE:

NOTE You could get the installation details from the information behind the mark.

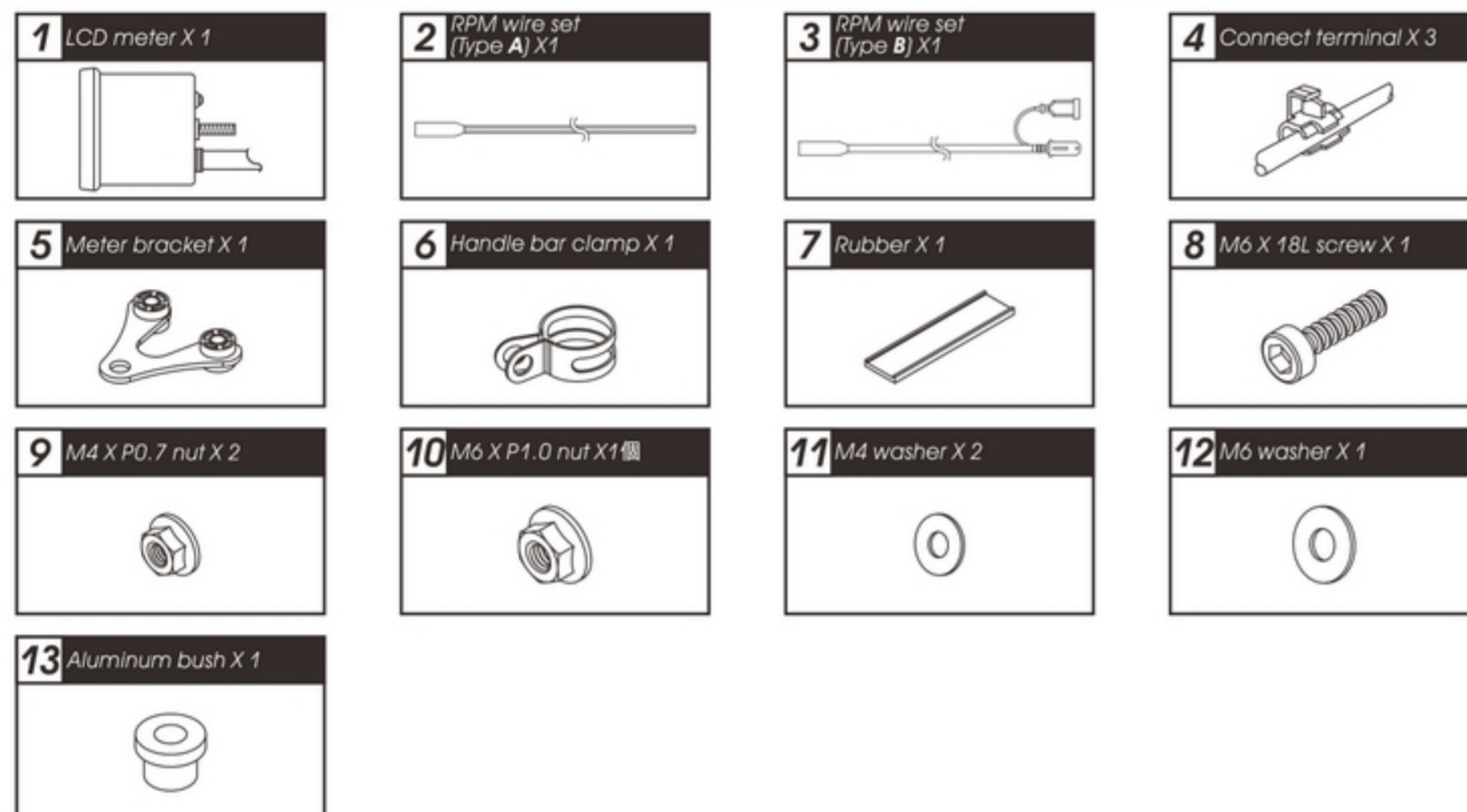
WARNING! Some processes must be followed to avoid the affection caused by wrong installation.

CAUTION! Some processes must be followed to avoid damages to yourself or the public.

CAUTION! Some processes must be followed to avoid the damage to the vehicle.



1-1 Accessory



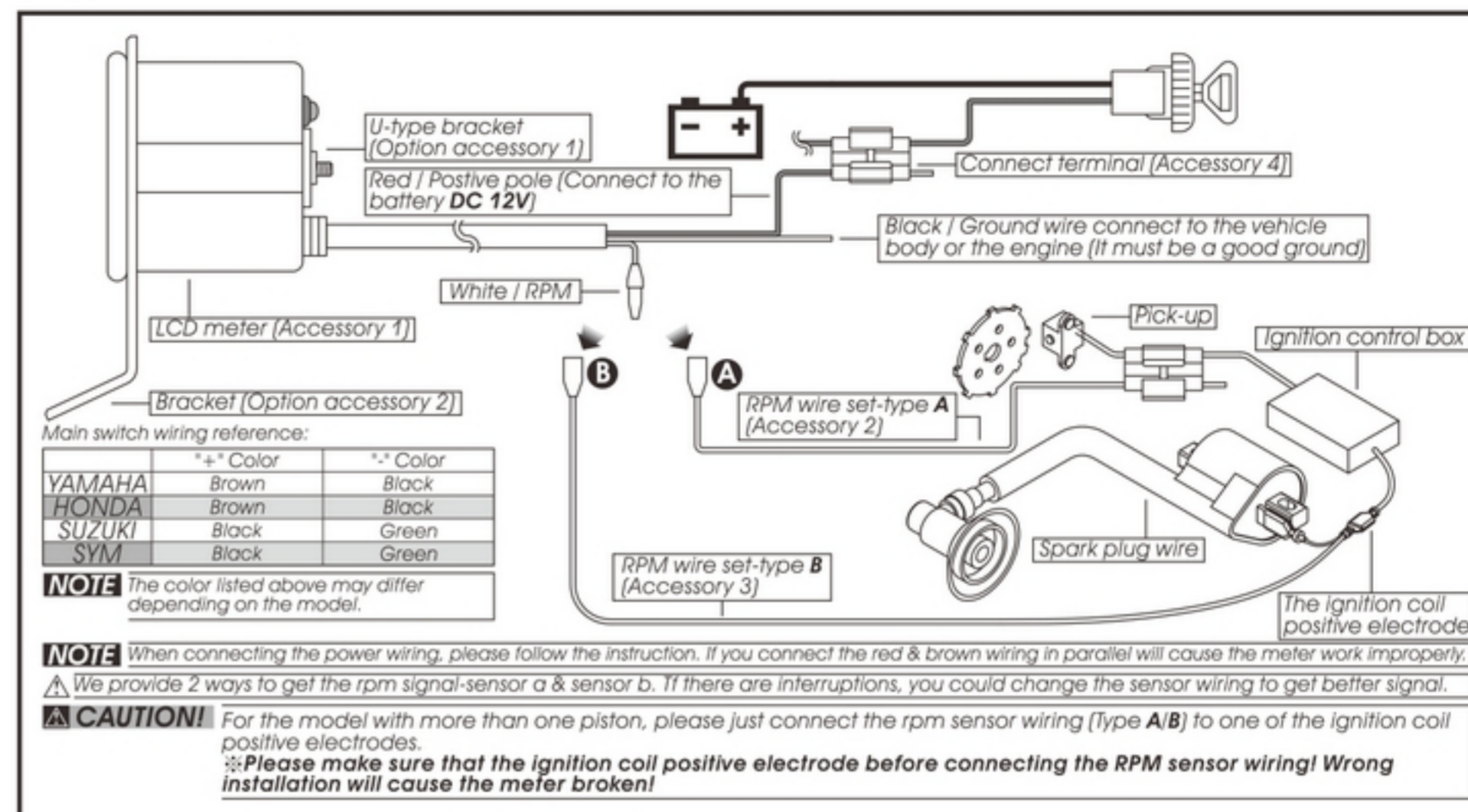
NOTE Please contact the local distributor if the items you open are not the same, with the above-listed one.

1-2 Option accessory

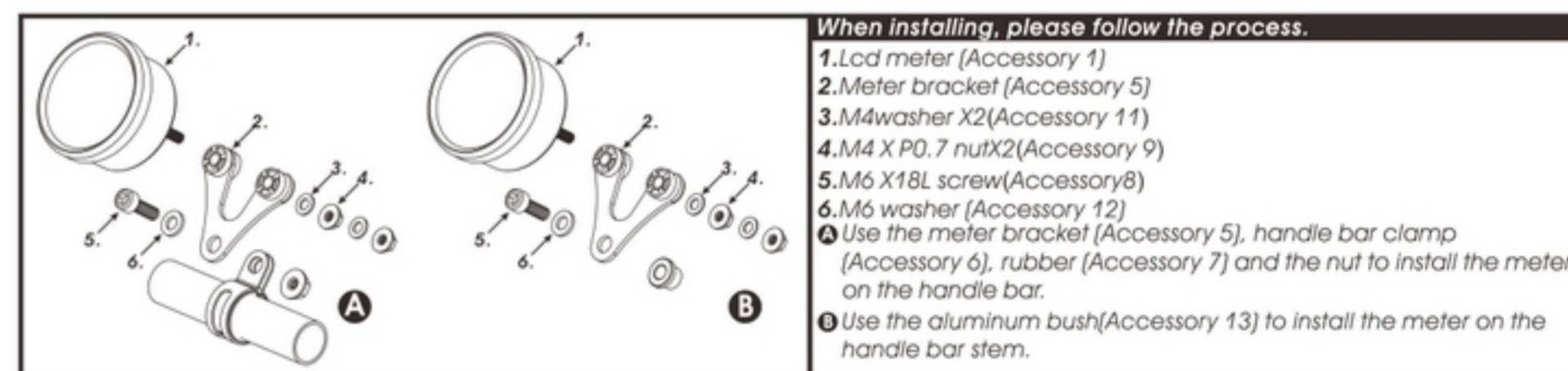


NOTE Some of the option accessories may not sell. For the details, please contact the local distributor.

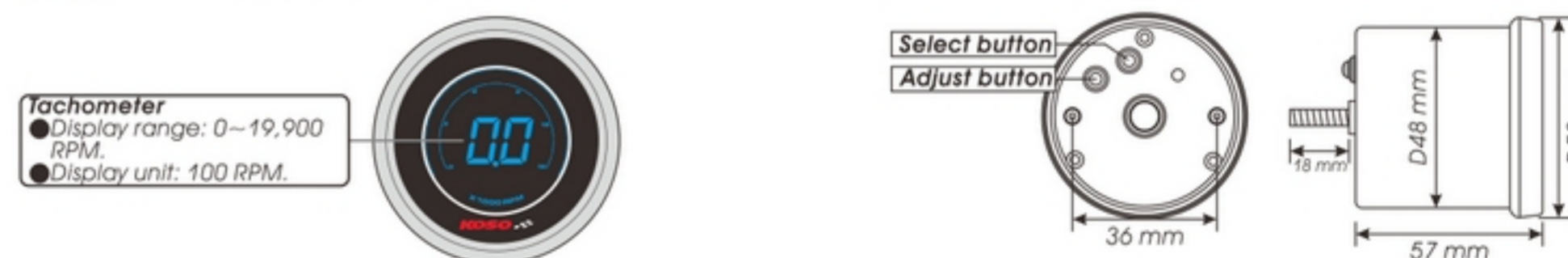
2-1 Wiring installation instructions



2-2 Installation instructions



3-1 Basic function instruction



3-2 Function, setting instruction

● Tachometer	Display range: 0~19,900 RPM Display unit: 100 RPM	● Effective voltage	DC12V
○ MAX RPM record	The record including, : 0~19,900 RPM	● Effective temperature range	-10~+60°C
○ Stroke / piston setting	2 Stroke: 1.2.3.4 pistons 4 Stroke: 1.2.3.4.5.6.8.10.12 pistons	● Meter standard	JIS D 0203 S2
		● Meter size	D48 X 52.8 mm
		● Meter weight	Around 117 g

NOTE Design and specification are subject to change without notice!

4-1 The button function instruction

4-1 Adjust button function instruction (RPM, MAX RPM)

- Press **Adjust** button once to switch function from **RPM** to **MAX RPM**



- Press **Adjust** button once to switch function from **MAX RPM** to **RPM**
- Hold press **Adjust** button 3 seconds, the record in MAX RPM will be clear.



4-2 Adjust+Select button function instruction (Cycle, piston, HI/LOW, RPM)

- Hold press **Adjust + Select** button 3 seconds to enter cycle setting screen. (Check section 4-2 for detail)



4-2 Cycle / Piston / Input signal setting

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



▲ Now the stroke number is flashing!
NOTE You could set the stroke as 2 stroke or 4 stroke.

CAUTION!

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

- **EX. Now the setting is changed from 2 stroke to 4 stroke.**
- Press the **Adjust** button enter the piston setting screen.



- **EX. To change the setting to 4 piston.**
- Press the **Select** button to enter the piston setting screen.
- **EX. Now the setting is 1P (1 piston)**



▲ Now the piston number is flashing.
NOTE 2 Cycle: 1, 2, 3, 4 pistons
 4 Cycle: 1, 2, 3, 4, 5, 6, 8, 10, 12 pistons

- **EX. The piston setting is changed from 1 P (piston) to 4 P (pistons).**
- Press the **Adjust** button, to enter the RPM signal input setting.



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



▲ Now the input signal setting is flashing!
NOTE The impulse setting range is between Hi (the positive impulse) & Lo (the negative impulse)

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.

- **EX. The impulse setting is changed from Hi to Lo.**
- Press the **Adjust** button enter the RPM setting screen.



- **EX. To change the setting to 15,000 RPM.**
- Press the **Select** button to enter the RPM setting screen.
- **EX. Now the setting is 10.0 RPM.**



▲ Now the RPM number is flashing!
NOTE RPM range setting: 10000RPM, 15000RPM, 20000 RPM

- **EX. The RPM setting is changed from 10,000RPM to 15,000.**
- Press **Adjust** button, to back the main screen.



- Now it return to the main screen.



5-1 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. <ul style="list-style-type: none"> → 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 6V) to make the meter work. 	Tachometer does not appear or appear incorrectly.	<ul style="list-style-type: none"> ● Please check the RPM sensor wiring is connected correctly. ● Please check your setting. <ul style="list-style-type: none"> → 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 6V. 	The setting is not fixed, the top RPM record doesn't work	<ul style="list-style-type: none"> ● The power wiring connection is wrong <ul style="list-style-type: none"> → Please check the power wires connection is correct or not. ● The voltage of your battery is too low <ul style="list-style-type: none"> → Please make sure that the voltage is over DC 6V.

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