KOSO
Feel The Speed
INSTRUCTIONS

- Thank you for purchasing our product. This product is a multifunction meter that has a digital liquid crystal display (LCD) with a backlight design, and is easy to install. Before using, please read the instructions carefully and retain them for future reference.

⚠ Notice

- To avoid a short circuit from occuring do not pull or modify the wires during installation.
- Any damages caused by faulty installation shall be imputed to the users.
- Opening and dissasembling this unit will void any warranty.
- Maintenance and repairs should be executed by our professionals only.

◉ Symbol description:

NOTE	
⚠	Procedures must be followed in order to avoid faulty installation.
⚠ WARNING!	Procedures must be followed in order to avoid damages from occuring to yourself and others.
⚠ CAUTION!	Procedures must be followed in order to avoid damages from occuring to the vehicle.

FLASH   LIGHT ON

HOLD THE BUTTON ONE TIME   HOLD THE BUTTON 3 SECONDS
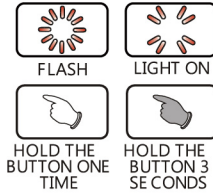
1-1 Accessories

1 LCD Meter X1	2 TH-01_PT 1/8 Temperature sensor X1	3 RPM wire (TYPE A) X1	4 RPM wire (TYPE B) X1
5 Sensor wire set X1	6 Active speed sensor X1	7 M8 / S type speed sensor bracket X1	8 M10 / S type speed sensor bracket X1
9 M5X5Lmm Hexagon screw X2	10 2.5 mm Allen key X1	11 Meter bracket X1	12 Handle bar clamp X1
13 Rubber X1	14 M6X18L screw X1	15 M5XP0.8 nut X3	16 M6XP1.0 nut X1
17 M5 washer X3	18 M6 washer X1	19 External button X1	

NOTE Contact your local distributor if the items received are not the same as the items listed above.

1-2 Optional accessories

1 L TYPE speed sensor backet	2 Temperature 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

NOTE Some of the optional accessories may not be available in your area. Contact your local distributor to obtain more information.

2-1 Wiring installation instructions

- Orange - L turn signal light (+12V)
- Blue - R turn signal light (+12V)
- Yellow - High beam light (+12V)
- White - Neutral light (⊖)
- Green - Fuel
- Purple - Engine light (⊖)

Red - Postive pole (Connect to the battery DC 12V)

Mid-way connector

Brown - Positive wire should be connect to main power switch.

Black - Ground wire connects directly to the negative pole of the battery.

LCD Meter (Accessories 1)

Brown / Red - RPM wire please connect it to the suitable position according to the models

Sensor wire set (Accessories 5)

TH-01_PT 1/8 Temperature sensor (Accessories 2)

Yellow / White - Temperature sensor terminals

Orange / White - Pushbutton switch terminal

External button (Accessories 19)

Connect to speed sensor

Active speed sensor (Accessories 6)

Main power switch wire reference:

	Power	Key on	Ground
YAMAHA	Red	Brown	Black
HONDA	Red	Red / Black	Green
SUZUKI		Black	Green
KAWASAKI	White	Brown	Black / Yellow
KYMCO	Red	Black	Green
SYM	Red	Black	Green
PGO	Red / White	Orange	Black

NOTE The color listed above may differ depending on the model and year.

RPM wire reference:

YAMAHA	Yellow / Black	BUELL	Pink
HONDA	Yellow / Green	CAGIVA	Gray / Green
SUZUKI	Yellow / Blue	DUCATI	Gray / Green
KAWASAKI	Light Blue	H-D	Pink
APRILIA	Gray / Violet	MV	Gray / Yellow
BMW	Black	TRIUMPH	Red
BENELLI	Gray / Violet		

NOTE The color listed above may differ depending on the model and year.
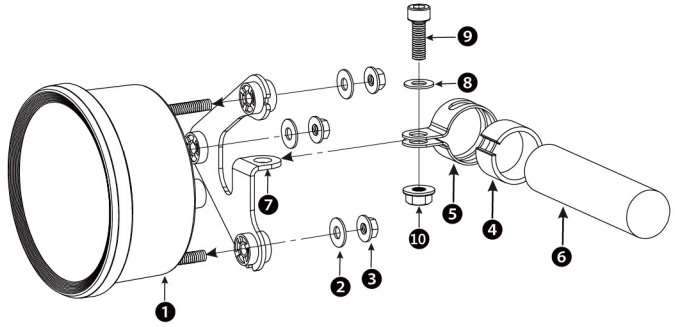
Fuel indicator wire reference:

YAMAHA	Green	KYMCO	Yellow / White
HONDA	Yellow / White	SYM	Yellow / White
SUZUKI	Yellow / White	PGO	Gray
KAWASAKI	Black / L Green		

⚠ The fuel sensor is electronic type, do not connect in parallel with the original wire - other wise the fuel gauge won't display. **The wrong installation of the fuel wire might damage the instrument.**

RPM wire (TYPE B) (Accessories 4)

RPM wire (TYPE A) (Accessories 3)

Ignition coil positive

Spark plug wire

Coil

Spark plug

Spark plug cap

EMS CDI

Tachometer

Flywheel

Ignition pulse

Pick up

R PM wire (TYPE B) (Accessories 4)

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

⚠ The RPM wire installation
We recommend installing the R type spark plug or 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 will suggest that you check different ways if you have problems getting the RPM signal.

2-2 Installation instructions

When installing, please follow the steps bellow.

1. LCD Meter (Accessories 1)
2. M5 washer (Accessories 17)
3. M5XP0.8 nut (Accessories 15)
4. Rubber (Accessories 13)
5. Handle bar clamp (Accessories 12)
6. Bike handle
7. Meter bracket (Accessories 11)
8. M6 washer (Accessories 18)
9. M6X18L screw (Accessories 14)
10. M6XP1.0 nut (Accessories 16)

NOTE Adjust the meter to the proper angle before tightening the handle bar bracket screws.

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 catching good speed signal.

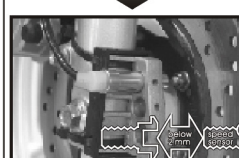### MOTO / SCOOTER L type speed sensor bracket instruction

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 on the bracket.

Use the cable tie to fix the bracket on the front fork. Please make sure the disc screw could 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 sensor and magnet. We suggest you make sure the distance is under **1 mm** for catching good speed signal.
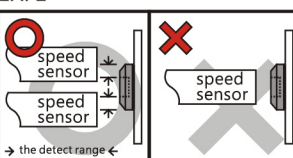
P.S.

The active speed sensor could be installed by the metal parts to detect the speed.
EX. 1 The disc screw.
EX. 2 The disc to detect the disc gap. (Please 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. (Please make sure the distances between the gaps are the same in advance to avoid wrong speed signal.)
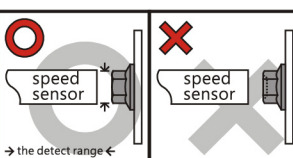EX. 4 Rear disc - detect the gap between the disc.
We suggest you to catch the speed from the disc screws. The more the sensor points are, the better the speed accuracy is. The maximum sensor points the speed sensor could detect is 20 points per turn.

⚠ After installation, please use your hand to turn the tire to see is everything ok. The LED on the active speed sensor will light up once the signal is detected.
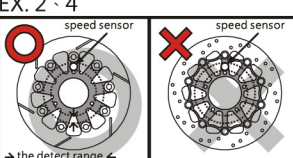
EX. 1

The hexagon socket disc screw
The best detect area: The edge of the hexagon socket screw.
⚠ Please don't catch the signal from the middle hole of the hexagon socket screw to avoid wrong signal.
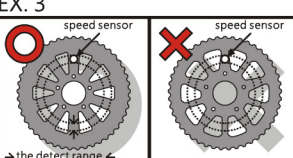
The hexagon screw
The best detect area: The middle of the screws.
⚠ Some hexagon screw center is with a small hole in the center in this case,we will suggest you to catch the signal from the edge of the screw like the hexagon socket screw.

EX. 2、4

The disc
The best detect area: Please detect the speed signal from the gaps of the disc.
⚠ Please 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: Please detect the speed signal from the gaps of the sprocket.
⚠ Please note that there are sprockets with the gaps in different difference, and this method will not work on it!

3-1 Basic function instruction

Tachometer
● Display Range : 0 ~ 10,000 RPM

Indicator ●🚗🚗
● Warning cause : Overspeed, over rpm, overheat, under voltage, low fuel, reached motor oil maintenance mileage, maximum gear level
● Warning method : Lit.(L), Slow flash(S), Flash(F)

Indicator
● Neutral   N   ● High beam light   🔵
● Trun signal 🔁 ● Engine warning light 🔁

Gear meter
● Display range : OFF, highest gear, N and highest gear, show all (N / 1 ~ 6)

Fuel meter
● Display Range : 6 Levels

Speedometer
● Display range : 0~360 km/h (0~225 MPH)
● Display unit : 1 km/h (MPH)

Odometer
● Display range : 0 ~ 999,999 km (mile) return to zero upon exceed
● Display unit : 1 km (mile)
Distance meter A,B
● Display range : 0 ~ 9,999.9 km (mile) return to zero upon exceed
● Display unit : 0.1 km (mile)
Mileage maintenance user settings (closable)
● Display range : user adjustable (500 ~ 16,000km / 300 ~ 10,000 mile) ~ -999 mile, automatically decreases according to the increase of total mileage.
● Display unit : 1 km (mile)
Time
● Display range : 12 / 24 hour format
Temperature
● Display range : 0 ~ 250 °C (32 ~ 482 °F)
Voltmeter
● Display range : 8 ~ 18 V

Max. speed record
● Display range : 0 ~ 360 km/h (0 ~ 255 mph)
Max. RPM
● Display range : 0 ~ 10,000 RPM

Max. temperature record
● Display range : 0 ~ 250 °C (32 ~ 482 °F)
Max gear level record
● Display range : -(No display) ~ 9 gear level

3-2 Features and settings description

● Speedometer	Display range : 0 ~ 360 km/h (0 ~ 225 MPH) switchable Display unit : 1 km/h (MPH)		● Thermometer	Display range : 0 ~ 250°C (32 ~ 482°F)
			○ Thermometer unit	Setting range : ℃、°F
○ Speedometer unit	Setting range : km/h、MPH		○ Over temp warning	Setting range : 0 ~ 250°C (32 ~ 482°F)，warning sign will be given once exceeding the setting value. Setting unit : 1°C(°F)
○ Over speed warning	Setting range : 0 ~ 360 km/h (0 ~ 225MPH)，warning sign will be given once exceed (include) setting value. Setting unit : 1 km/h (MPH)			
			● Warning 0、Warning 1、Warning 2	
○ Tire circumference	Setting range : 300 ~ 2,500 mm Setting unit : 1 mm		○ Warning cause	Overspeed, over rpm, overheat, under voltage, low fuel, reached motor oil maintenance mileage, maximum gear level
○ Sensitive point	Setting range : 1 ~ 20 point Setting unit : 1 point		○ Warning method	Lit.(L), Slow flash(S), Flash(F)
○ Internal and external odometer	Display range : 0 ~ 999,999 km (mile) return to zero upon exceed Display unit : 1 km (mile)		● Fuel meter	100Ω、250Ω、270Ω、510Ω、1200Ω、fuel switch、USER
			● Clock	Setting range : 12 / 24 hour format
○ Trip meter A、B	Display range : 0 ~ 9,999.9 km (mile) return to zero upon exceed Display unit : 0.1 km (mile)		● Voltmeter	Display range : 8.0 ~ 18.0 V
			○ Under voltage warning	Setting range : 8.0 ~ 18.0 V，warning sign will be given once below(include)setting value.
● Maintenance mileage	Setting range : OFF, 500 ~ 16,000 km (300 ~ 10,000 mile) Setting unit : 100 km (mile)		● Backlight brightness	Setting range : 1 - 5 (darkest)~ 5 - 5 (brightest)
			○ Backlight color	Setting range : red, orange, yellow, green, blue, light blue, purple, white
● Gear meter	Display range : OFF, highest gear, N and highest gear, show all (N / 1 ~ 6)		○ Operating voltage	DC 12V
			● Temperature range	-10 ~ +60℃
● Tachometer	Display range : 0 ~ 10,000 RPM		○ Specifications	JIS D 0203(S2)
○ RPM signal	Setting range : P-0.5、P-1 ~ P-24		● Meter Size	D 94.7 X 55.8 mm
○ The RPM input pulse	Setting range : Hiact、Loact		○ Meter Weight	165 g
○ Over RPM warning	Setting range : 0 ~ 10,000 RPM，warning sign will be given once exceed(include) setting value. Setting unit : 100 RPM		● Indication light	● Warning 0 ● ● Trun signal 🔁
				● Warning 1 🔁 ● High beam light 🔵
				● Warning 2 🔁 ● Engine warning light 🔁
				● Neutral N

NOTE Design and specification may change without further notice.

- In the total mileage screen, **press the button once** to switch to Trip A screen.
- **Hold the button for 3 seconds** to enter into the setting screen.

- Trip A screen, press the **button once** to switch to Trip B screen.
- **Hold the button for 3 seconds** to clear the Trip A recordings.

- Trip B screen, press the **button once** to switch to switch to the mileage maintenance screen.
- Hold the **button for 3 seconds** to clear the Trip B recordings.

- Mileage maintenance screen, press the **button once** to switch to switch to the clock screen.
- Mileage maintenance will count down from setting value, when it reaches 0, the screen will blink to indicate mileage reached.

- Hold the **button for 8 seconds** to clear the mileage maintenance recordings.
  - ○ In the 0 second, start holding the button.
  - ○ In the 5 th second, mileage display will begin blinking.
  - ○ During the 4~7 th seconds, if release button, will cancel the process.
  - ○ On the 8 th second, the mileage maintenance record is cleared.

- In the clock screen, **press the button once** to switch to the temperature screen.

- In the engine temperature screen, **press the button once** to switch to the voltage screen.

- In the voltage screen, **press the button once** to switch to the MAX screen.

- In the MAX screen, **press the button once** to return to total mileage screen.
- Hold the **button for 3 seconds** to clear the MAX screen.

- In the clock settings screen, hold the **button for 3 seconds** to enter into the setting screen.

- **EX：To set hours to 12.**
- Press the **button once** to choose the setting number.
- ⚠ Now the setting value will blink.
- **NOTE** Setting value : 24 H.
- **NOTE** Setting range : 12 / 24 hour format.

- **EX : Set time settings from 24 hour format to 12 hours format.**
- Hold the **button for 3 seconds** to enter time into the (hour) settings screen.

- **Example：You want to change the hour to PM.10.**
- Press the **button once** to choose the setting number.
- ⚠ Now the setting value will blink.
- **NOTE** Cursor moving order is : Hour > Digit in ten minutes > Digit in minutes
- **NOTE** Setting range : 1 ~ 12 (12H), 0 ~ 23 (24H).

- Example : Set time settings from AM.12 to PM.10.
- Hold the **button for 3 seconds** to enter time into the (minutes) settings screen.

- **Example：You want to change the minutes to 15.**
- Press the **button once** to choose the setting number.
- ⚠ Now the setting value will blink.
- **NOTE** Setting range : 00 ~ 59 minutes.

- Hold the **button for 3 seconds** to move the cursor to the desired settings level.

- **EX : Set time settings from 0 to 15.**
- Hold the **button for 3 seconds** to go back clock screen.

- Clock screen.
- Press the **button once** to enter next setting.
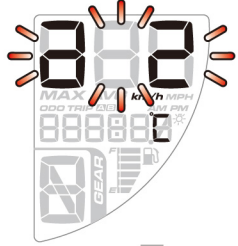
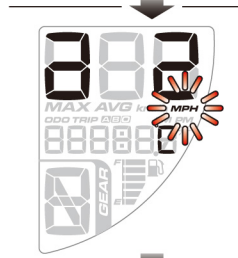- When the engine switch is OFF, **hold the button for 3 seconds** to enter settings.

4-2 Speed, temperature unit settings

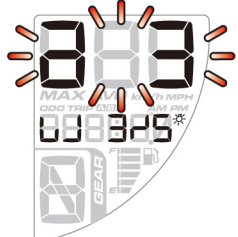●In the speed, temperature unit settings screen, hold the **button for 3 seconds** to enter into the setting screen.

●**EX：To set speed unit to MPH。**
●Press the **button once** to choose the setting number.
⚠ Now the setting value will blink.
NOTE Default value：km/h。
NOTE Setting range：km/h、MPH。
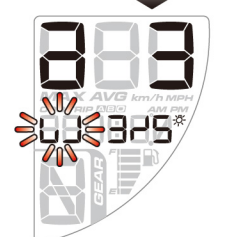NOTE Total mileage and distance meter unit will vary according to the speed unit.

●Example：Set speed unit from km/h to MPH。
●Hold the **button for 3 seconds** to enter into the temperature unit settings screen.

●**EX：To set the temperature unit to ℉。**
●Press the **button once** to choose the setting number.
⚠ Now the setting value will blink.
NOTE Default value：℃。
NOTE Setting range：℃、℉。

●Example：Set temperature unit from ℃ to ℉。
●Hold the **button for 3 seconds** to return to the speed,temperature unit settings main screen.

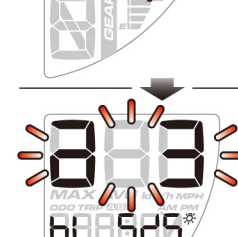●Temperature unit settings main screen.
●Press the **button once** to enter next setting.
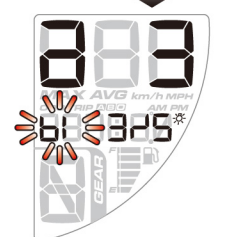
4-3 Backlight brightness settings

●In the backlight (color / brightness) settings screen, hold the **button for 3 seconds** to enter into the setting screen.
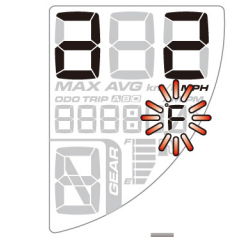
●**EX：To set the backlight (color) to blue.**
●Press the **button once** to choose the setting number.
⚠ Now the setting value will blink.
NOTE Default value：White light.
NOTE Setting range：Red (rE), Orange (Or), Yellow (YE), Green (Gr), Blue (bl), Blue light (ln), Purple (Pu), White (W).
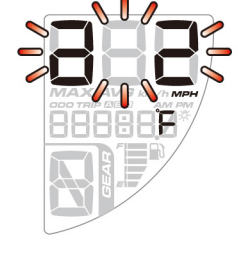
●Example：Set backlight color from white(W) to blue(bl)。
●Hold the **button for 3 seconds** to enter into the backlight (brightness) settings screen.

●**EX：To set the backlight (brightness) to 5/5 (100%).**
●Press the **button once** to choose the setting number.
⚠ Now the setting value will blink.
NOTE Default value：3/5
NOTE Settings range：
1 / 5 (darkest) ~ 5 / 5 (brightest)
Setting unit：Each stage about 20% brightness.
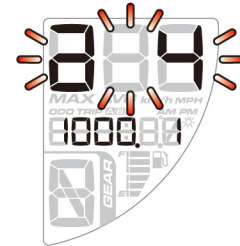Back light brightness changes as soon as setting value changes.

●Example：Set the backlight (brightness) from 3 / 5 (60%) to 5 / 5 (100%).
●Hold the **button for 3 seconds** to return to the backlight (Color / Brightness) settings main screen.

●Backlight (color/brightness) settings main screen.
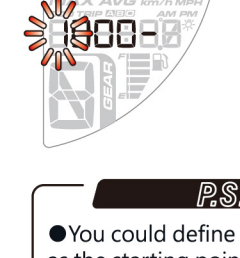●Press the **button once** to enter next setting.

4-4 Tire overall diameter, Induction spot, Learning operation setting

●Main screen for tire overall diameter, induction spot operation setting, hold the **button for 3 seconds** to enter into the setting screen.

⚠**CAUTION!**
●Please measure the tire circumference (the tire you will install the sensor on) and make sure the number of magnet sensor point (You could install the magnet into the disc screw or the sprocket screw.)
●The speed displayed on the meter will be affected by the setting, please make sure the setting number is correct before you make the setting.
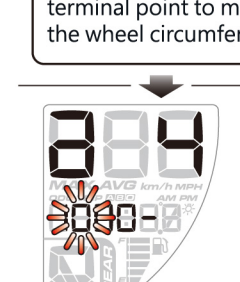
⚠ Please reset this function upon changing the tire size.

●**EX：To set the tire circumference to 1,300 mm.**
●Hold the **button for 3 seconds** to move the cursor to the desired settings level.
⚠ Now the setting value will blink.
NOTE Default value：1,000 mm
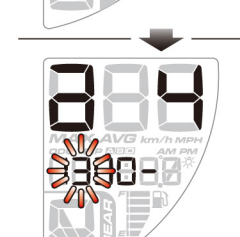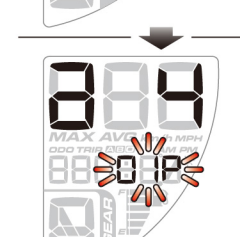NOTE Settings range：300 ~ 2,500 mm.
Settings unit：1 mm

P.S. Try it !
●You could define the valve as the starting point and the terminal point to measure the wheel circumference with a measuring tape.

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

●Example：Set the tire circumference from 1,000 mm to 1,300 mm.
●Hold the **button for 3 seconds** to enter the sensor point setting screen.

●**EX：To set the sensor point to 6P.**
●Press the **button once** to choose the setting number.
⚠ Now the setting value will blink.
NOTE Default value：1P
NOTE Settings range：1 ~ 20 P

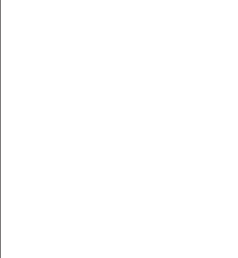●Example：Set the sensor point from 1P to 6P.
●Hold the **button for 3 seconds** to enter the tire overall diameter and induction spot learning operation setting screen.
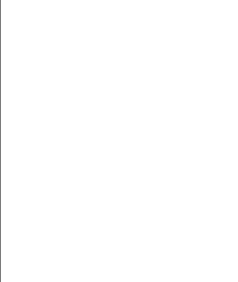
●Example：When the meter shows LEArN, it shall be blinking.
●Press the **button once** Enter tire overall diameter and induction spot learning.
NOTE If learning the gear is not required, hold the **button for 3 seconds,** return to the main screen for tire overall diameter, induction spot operation setting.

●When GO is blinking, start riding the motorbike.
●Press the **button once** commence the overall value and induction spot learning.
NOTE If learning the gear is not required, hold the **button for 3 seconds,** return to the main screen for tire overall diameter, induction spot operation setting.
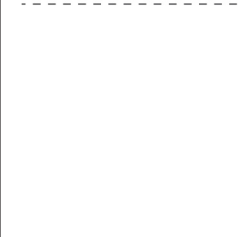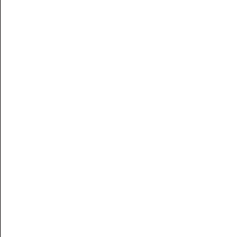
NOTE If the unit setting is km, please ride for 1 km; If the unit setting is mile, please ride for 1 mile. To alter the display unit, please refer to 4-2.

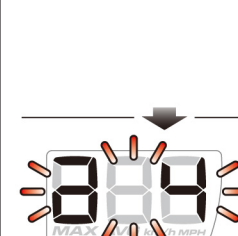●The display value would increase with the movement of the vehicle.

NOTE To drop learning, short-press the button to return to the main screen for tire overall diameter and induction spot operation setting.

●When the vehicle has traveled to a distance of 1km (mile), press and hold the button for three seconds to complete the process, and return to the main screen for tire setting.

●When OUEr is displayed, the value detected is excessive, exceeding the setting scope. The screen will return to the main screen for tire overall diameter, induction spot operation setting.
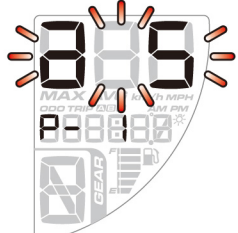
●When SHorE is displayed, the value detected is insufficient, lower than the setting scope. The screen will return to the main screen for tire overall diameter, induction spot operation setting.

●Tire overall diameter, induction spot operation settings main screen.
●Press the **button once** to enter next setting.

4-5 RPM pulse setting

●In the RPM pulse settings screen, hold the **button for 3 seconds** to enter into the setting screen.
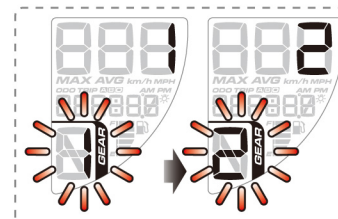
●EX : **To set the RPM signal wire to the pick up signal and there are 13 flywheel signals per turn.**
●Press the **button once** to choose the setting number.
⚠ Now the setting value will blink.
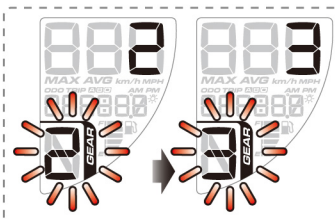**NOTE** Default value : P-1
NOTE Settings range : P-0.5、P-1 ~ P-24

●Example : Set the engine ignition angle from P-1 to P-13.
●Hold the **button for 3 seconds** to enter waveform setting screen.

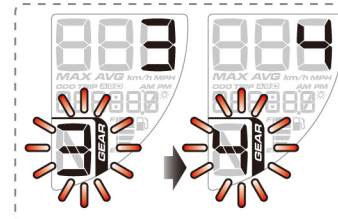●EX : **To set waveform to high waveform (Lo-Act).**
●Press the **button once** to choose the setting number.
⚠ Now the setting value will blink.
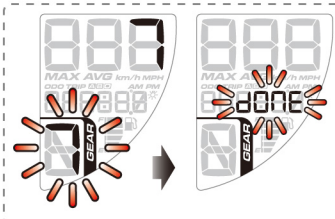**NOTE** Default value : Hi-Act
NOTE Settings range : Hi-Act、Lo-Act

●Example : Set the high wave (Hi-Act) to low wave (Lo-Act).
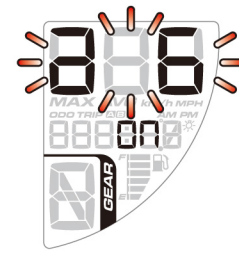●Hold the **button for 3 seconds** to return to the RPM pulse settings main screen.

●RPM pulse settings main screen.
●Press the **button once** to enter next setting.

4-6 Gear level learning setting

●In the gear learning settings creen, hold the **button for 3 seconds** to enter into the setting screen.

●Press the **button once** to choose turn on or off the gear indicator display.
NOTE If any changing happen for tires circumference then the gear indicator need to re-learn the gear positioning.
NOTE Default value : ON
NOTE Settings range : ON、OFF

●When gear level display is "ON", hold the **button for 3 seconds** to enter gear level learning screen.
●When gear level display is "OFF", hold the **button for 3 seconds** to return to gear level learning setting screen.
●Example : Gear level display is "ON".

●Example : When chronograph display LEArN, it will blink.
●Press the **button once** to start the gear learning.
NOTE Hold the **button for 3 seconds** to quit the learning and return to the previous screen.

●Start the riding when "GO" is flashing.
●Hold the **button for 3 seconds** to start the gear learning.
NOTE Press the **button once** to quit the learning and return to the previous screen.

P.S. Try it!
●During actual gear level learning, please select road that is wide and has more straight distance with no traffic light for more accurate settings and traffic safety.

●When the 1st Gear is blinking, please change the gear of the bike to 1st gear and keep riding the bike for few seconds. The setting is completed when the signal has detected the accurate 1st gear value, and the process will move on to the 2nd gear.
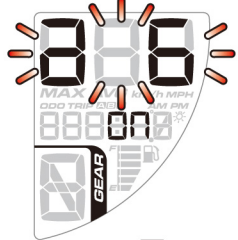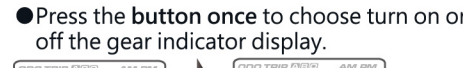
●When the 2nd Gear is blinking, please change the gear of the bike to 2nd gear and keep riding the bike for few seconds. The setting is completed when the signal has detected the accurate 2nd gear value, and the process will move on to the 3rd gear.

●When the 3rd Gear is blinking, please change the gear of the bike to 3rd gear and keep riding the bike for few seconds. The setting is completed when the signal has detected the accurate 3rd gear value, and the process will move on to the 4th gear.

●If the highest gear for the bike is the 6th gear, when the gear learning model has reached the 7th gear and it is unable to detect the accurate gear after pending for few seconds, it will end the learning process and return to the setting screen.
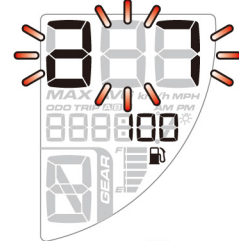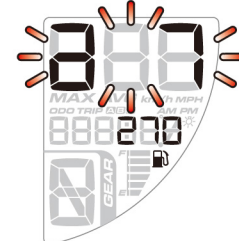
●Gear level learning settings main screen.
●Press the **button once** to enter next setting.

4-7-1 Fuel gauge resistance setting

●In the fuel gauge resistance screen, hold the **button for 3 seconds** to enter into the setting screen.

●EX : **To set the fuel gauge resistance to 270 Ω.**
●Press the **button once** to choose the setting number.
⚠ Now the setting value will blink.
NOTE Default value : 100 Ω
NOTE The fuel gauge resistance setting range : CUSt、100 Ω、250 Ω、270 Ω、510 Ω、1200 Ω、SW (turn off).
NOTE Fuel meter will be displayed with the wiring connected.

●Example : Set fuel meter's resistance value from 100 Ω to 270 Ω.
●Hold the **button for 3 seconds** to return to the fuel gauge resistance settings main screen.
NOTE If the setting is CUSt, it will enter the 4-7-1 (manual) and 4-7-2 (auto) operation setting.

●Fuel gauge resistance settings main screen.
●Press the **button once** to enter next setting.

4-7-2 User customized operation setting

- Hold the **button for 3 seconds,** enter the minimum fuel resistance auto-detection screen.

↓

- Press the **button once**, enter the minimum fuel resistance auto-detection screen.

  ⚠ 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.

  NOTE If auto-detection is not required, hold the **button for 3 seconds**, and enter the low fuel resistance manual setting.

P.S.
- The fuel surface sensor float in the lowest position.

The lowest position

↓

- Example：The minimum fuel resistance increased to 82Ω from 80Ω after the auto-detection.
- Hold the **button for 3 seconds,** enter the manual operation setting.
  ⚠ Now the setting value will blink.

↓

- Hold the **button for 3 seconds** to move the cursor to the desired settings level.

  NOTE If manual setting is not required, hold the **button for 3 to 4 seconds**, and enter the maximum fuel resistance auto-detection screen.

↓

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

↓

- Example：The minimum fuel resistance increased to 82Ω from 80Ω after setting.
- Hold the **button for 3 seconds,** enter the maximum fuel resistance auto-detection screen.

- Press the **button once,** learn the maximum fuel resistance auto-detection screen.

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

  NOTE If auto-detection is not required, hold the **button for 3 seconds,** and enter the high fuel resistance manual setting.

P.S.

The highest position

- The fuel surface sensor float is in the highest position.

↓

- Example：The maximum fuel resistance increased to 13Ω from 10Ω after the auto-detection.
- Hold the **button for 3 seconds,** enter the manual operation setting.
  ⚠ Now the setting value will blink.

↓

- Hold the **button for 3 seconds** to move the cursor to the desired settings level.

  NOTE If manual setting is not required, hold the button for 3 to 4 seconds, and return to the fuel meter resistance (Ω) setting main screen.

↓

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

↓

- Example：The maximum fuel resistance increased to 15Ω from 13Ω after setting.
- Hold the **button for 3 seconds** to return to the fuel gauge resistance settings main screen.

↓

- Fuel gauge resistance settings main screen.
- Press the **button once** to enter next setting.

4-8 Warning indicator operation settings (Over RPM, Overspeed, Overheat) / Warning Indicator Operation Settings (Warning A/Warning B/Warning C)

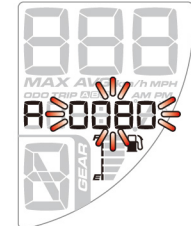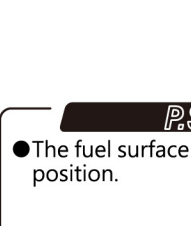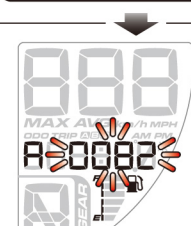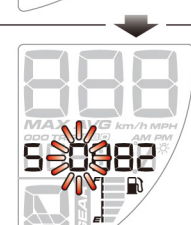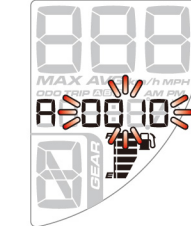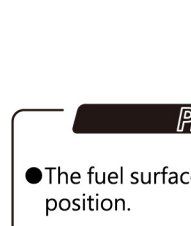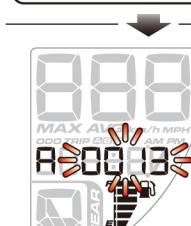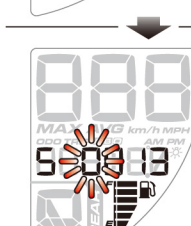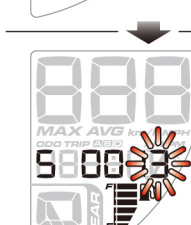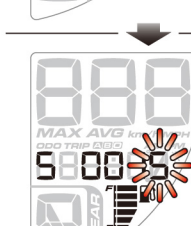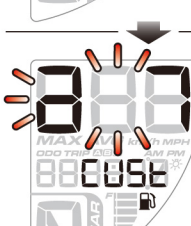- In warning indicator setting screen, hold the **button for 3 seconds** to enter sub screen for warning indicator setting.

↓

- Press the **button once** to choose the setting number.
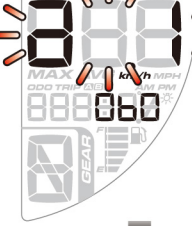 ⚠ Now the setting value will blink.

  NOTE
  - Warning indicator operation setting -overspeed, please refer to 4-8-1.
  - Warning indicator operation setting -over rpm, please refer to 4-8-2.
  - Warning indicator operation setting -overheat, please refer to 4-8-3.
  - Warning value operation setting -low voltage, please refer to 4-8-4.
  - Warning indicator operation setting -warning A, please refer to 4-8-5.
  - Warning indicator operation setting -warning B, please refer to 4-8-6.
  - Warning indicator operation setting -warning C, please refer to 4-8-7.

4-8-1 Warning indicator operation settings - overspeed

- Hold the **button for 3 seconds** to enter overspeed warning setting screen.

↓

- **EX：To set overspeed warning value to 70 km/h.**
- Hold the **button for 3 seconds** to move the cursor to the desired settings level.
  ⚠ Now the setting value is flashing!

  NOTE Default value：60 km/h (38 MPH)

  NOTE Setting range：
  60 ~ 360 km/h (37 ~ 225 MPH).

↓

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

- Example：Set the overspeed warning value from 60 km/h to 90 km/h.
- Hold the **button for 3 seconds** to return to warning indicator settings main screen.

↓

- Warning indicator resistance settings main screen.
- Press the **button once** to enter next setting.

4-8-2 Warning indicator operation settings - over rpm

- Hold the **button for 3 seconds** to enter over rpm warning setting screen.
- Example：Set the warning indicator from overspeed to over rpm.

↓

- **EX：To set over rpm warning value to 12,000 RPM.**
- Press the **button once** to choose the setting number.
  ⚠ Now the setting value is flashing!

  NOTE Default value：9,000 RPM

  NOTE Setting range：1,000 ~ 10,000 RPM

↓

- Hold the **button for 3 seconds** to move the cursor to the desired settings level.
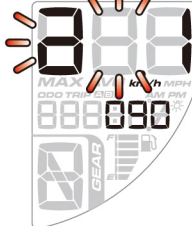

- Example：Set the over rpm warning value from 9,000 RPM to 12,000 RPM.
- Hold the **button for 3 seconds** to return to warning indicator settings main screen.

↓

- Warning indicator resistance settings main screen.
- Press the **button once** to enter next setting.

4-8-3 Warning indicator operation settings - overheat

- Hold the **button for 3 seconds** to enter overheat warning setting screen.
- Example : Set the warning indicator from over rpm to overheat.

⬇

- EX : To set overheat warning value to 90 °C.
- Press the **button once** to choose the setting number.

⚠ Now the setting value is flashing!

NOTE Default value : 90 °C (194 °F)

NOTE Setting range :
60 °C ~ 250 °C (140 ~ 482 °F)

⬇

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

- Example : Set the overheat warning value from 90 °C to 95 °C.
- Hold the **button for 3 seconds** to return to warning indicator settings main screen.

⬇

- Warning indicator resistance settings main screen.
- Press the **button once** to enter next setting.

4-8-4 Warning indicator operation settings - Low Voltage

- Example : Set the warning indicator from overheat to low voltage.
- Hold the **button for 3 seconds** to enter low voltage warning setting screen.

⬇

- EX : To set low voltage warning value to 10.0 V.
- Press the **button once** to choose the setting number.

⚠ Now the setting value is flashing!

NOTE Default value : 11.5 V

NOTE Setting range : 8.0 ~ 18.0 V

⬇

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

Highest gear

- Example : Set the low voltage warning value from 11.5 V to 10.0 V.
- Hold the **button for 3 seconds** to return to warning indicator settings main screen.
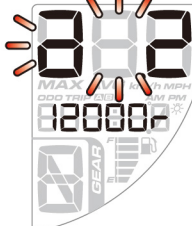
⬇

- Warning indicator resistance settings main screen.
- Press the **button once** to enter next setting.

4-8-5 Warning Indicator Operation Setting - Warning A

- Hold the **button for 3 seconds** to enter Warning A - warning source screen.
- Example : Warning indicator operation setting is changed to warning a from the low voltage.

⬇

- EX : Warning A - If you wish to set the warning source as overspeed.
- Press the **button once** to choose the setting number.

⚠ Now the setting value is flashing!

NOTE Default value : Over-running

NOTE Setting range : Overspeed `SPEEd` →
Over-running `rPnn` →
Overheat `tEnP` →
Low voltage `UOLt` →
Low fuel `L-FUEL` →
Reached the engine oil maintenance mileage `S-Odo` →
Highest gear `t-GEar` .

⬇

- Example : Warning A - Warning source altered to overspeed.
- Hold the **button for 3 seconds**, enter warning A - warning method screen.

⬇

- EX : Warning A - If you wish to set the warning method as blinking.
- Press the **button once** to choose the setting number.

⚠ Now the setting value is flashing!

NOTE Default value : Lit

NOTE Setting range :

Lit → Blinking `5` → Flashing `F`

⬇

- Example : Warning A - Warning method is altered to blinking from lit.
- Hold the **button for 3 seconds**, return to warning a - warning source screen.

⬇

- Warning A - resistance settings main screen.
- Press the **button once** to enter next setting.

4-8-6 Warning Indicator Operation Setting - Warning B

- Hold the **button for 3 seconds** to enter Warning B - warning source screen.
- Example : The warning indicator operation setting is changed to Warning A from Warning B.

⬇

- EX : Warning B - If you wish to set the warning source as low fuel.
- Press the **button once** to choose the setting number.

⚠ Now the setting value is flashing!

NOTE Default value : Low voltage

NOTE Setting range : Overspeed `SPEEd` →
Over-running `rPnn` →
Overheat `tEnP` →
Low voltage `UOLt` →
Low fuel `L-FUEL` →
Reached the engine oil maintenance mileage `S-Odo` →
Highest gear `t-GEar` .

⬇

- Example : Warning B - The warning source is changed to low fuel from low voltage.
- Hold the **button for 3 seconds**, enter warning B - warning method screen.

- EX : Warning B - If you wish to set the warning method as blinking.
- Press the **button once** to choose the setting number.

⚠ Now the setting value is flashing!

NOTE Default value : Lit

NOTE Setting range :

Lit → Blinking `5` → Flashing `F`

⬇

- Example : Warning B - Warning method is altered to blinking from lit.
- Hold the **button for 3 seconds**, return to warning B - warning source screen.

⬇

- Warning B - resistance settings main screen.
- Press the **button once** to enter next setting.

4-8-7 Warning Indicator Operation Setting - Warning C

- ●Hold the **button for 3 seconds** to enter Warning C - warning source screen.
- ●Example : The warning indicator operation setting is changed to Warning B from Warning C.
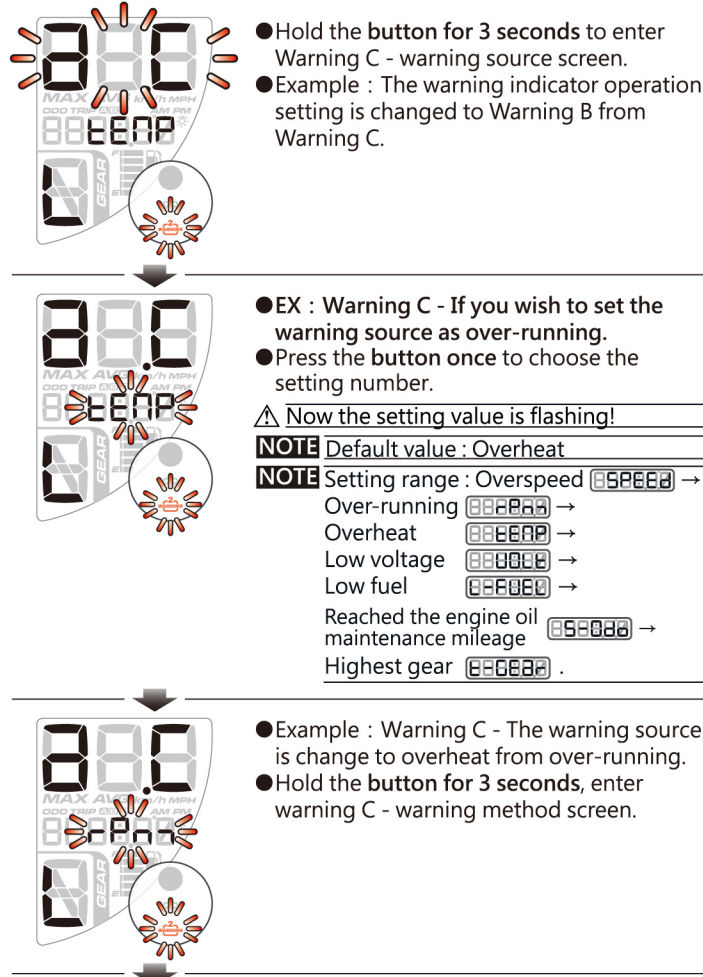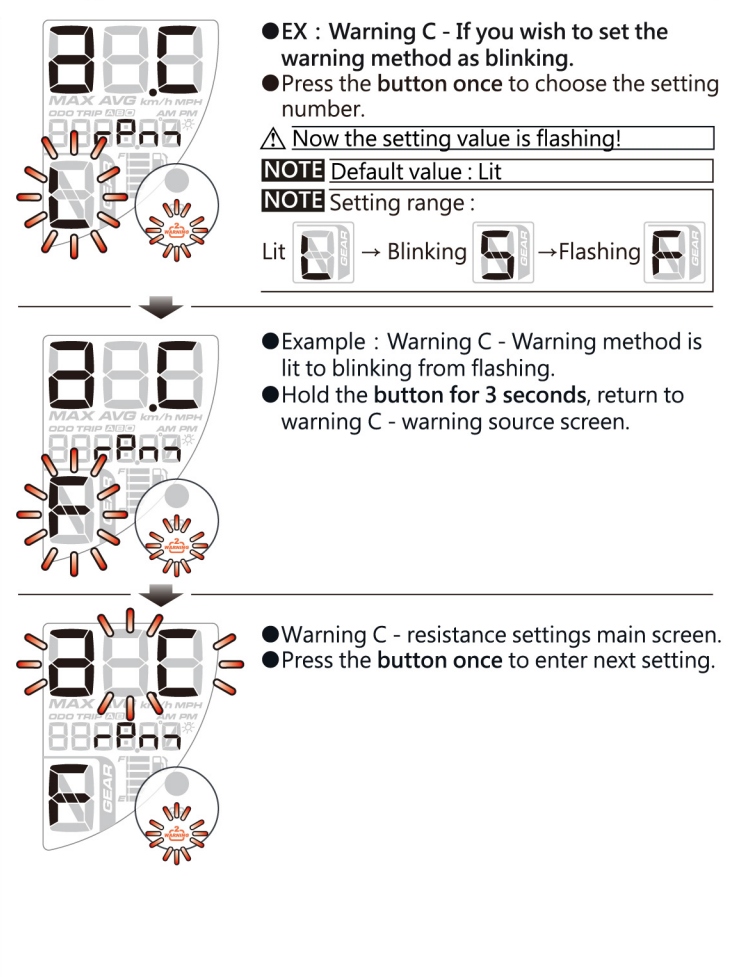
- ●EX : Warning C - If you wish to set the warning source as over-running.
- ●Press the **button once** to choose the setting number.
  - ⚠ Now the setting value is flashing!
  - **NOTE** Default value : Overheat
  - **NOTE** Setting range : Overspeed `0SPEEd` →
    - Over-running `00rPnn` →
    - Overheat `00tEnP` →
    - Low voltage `00UOLt` →
    - Low fuel `0-FUEL` →
    - Reached the engine oil maintenance mileage `05-Odo` →
    - Highest gear `0-GEAr` .

- ●Example : Warning C - The warning source is change to overheat from over-running.
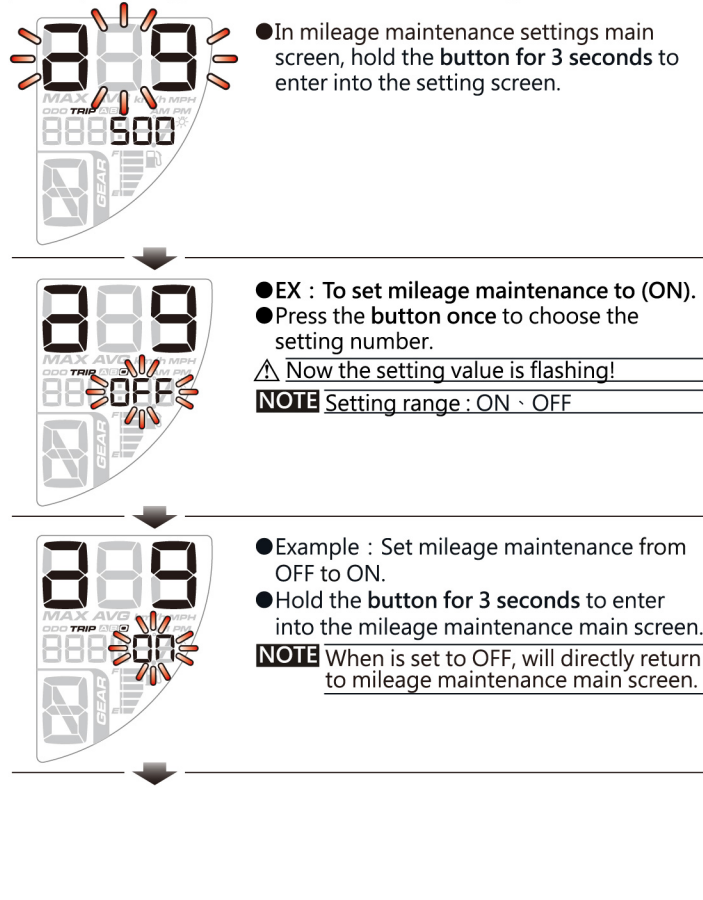- ●Hold the **button for 3 seconds**, enter warning C - warning method screen.

- ●EX : Warning C - If you wish to set the warning method as blinking.
- ●Press the **button once** to choose the setting number.
  - ⚠ Now the setting value is flashing!
  - **NOTE** Default value : Lit
  - **NOTE** Setting range :
  - Lit `L` → Blinking `5` →Flashing `F`

- ●Example : Warning C - Warning method is lit to blinking from flashing.
- ●Hold the **button for 3 seconds**, return to warning C - warning source screen.

- ●Warning C - resistance settings main screen.
- ●Press the **button once** to enter next setting.
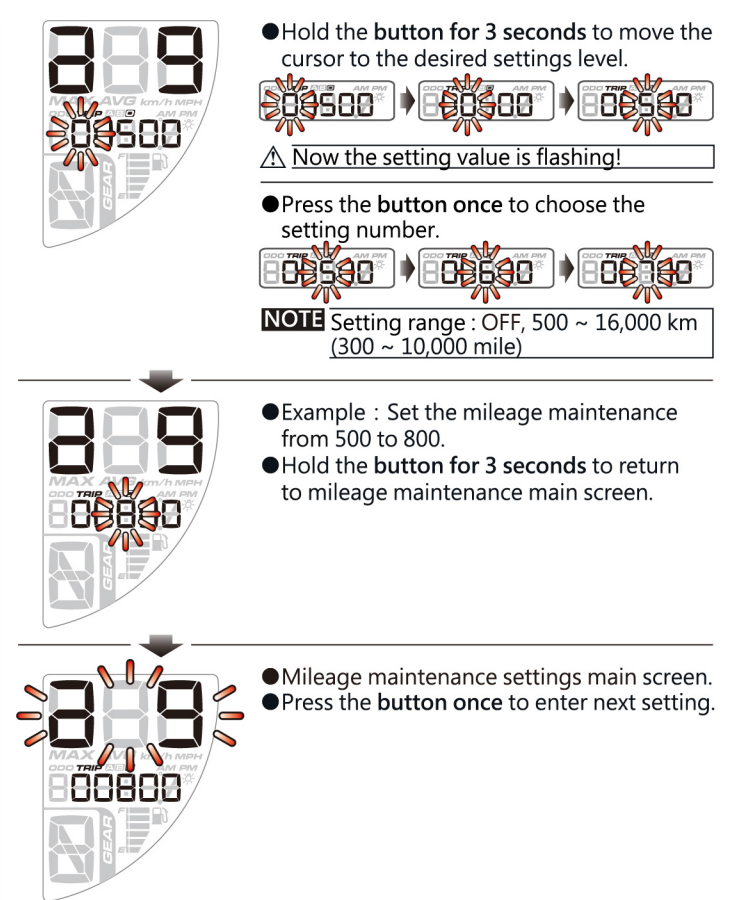
4-9 Mileage maintenance settings

- ●In mileage maintenance settings main screen, hold the **button for 3 seconds** to enter into the setting screen.

- ●EX : To set mileage maintenance to (ON).
- ●Press the **button once** to choose the setting number.
  - ⚠ Now the setting value is flashing!
  - **NOTE** Setting range : ON、OFF

- ●Example : Set mileage maintenance from OFF to ON.
- ●Hold the **button for 3 seconds** to enter into the mileage maintenance main screen.
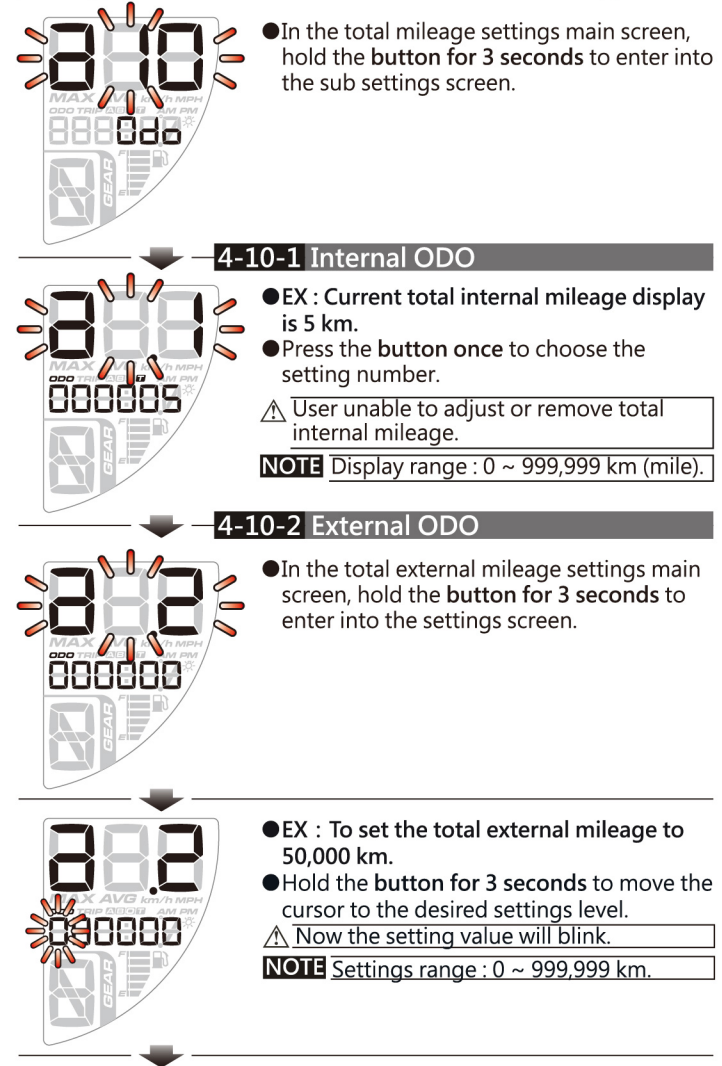 - **NOTE** When is set to OFF, will directly return to mileage maintenance main screen.

- ●Hold the **button for 3 seconds** to move the cursor to the desired settings level.
  - ⚠ Now the setting value is flashing!

- ●Press the **button once** to choose the setting number.
  - **NOTE** Setting range : OFF, 500 ~ 16,000 km (300 ~ 10,000 mile)

- ●Example : Set the mileage maintenance from 500 to 800.
- ●Hold the **button for 3 seconds** to return to mileage maintenance main screen.

- ●Mileage maintenance settings main screen.
- ●Press the **button once** to enter next setting.

4-10 Total internal and external mileage settings

- ●In the total mileage settings main screen, hold the **button for 3 seconds** to enter into the sub settings screen.
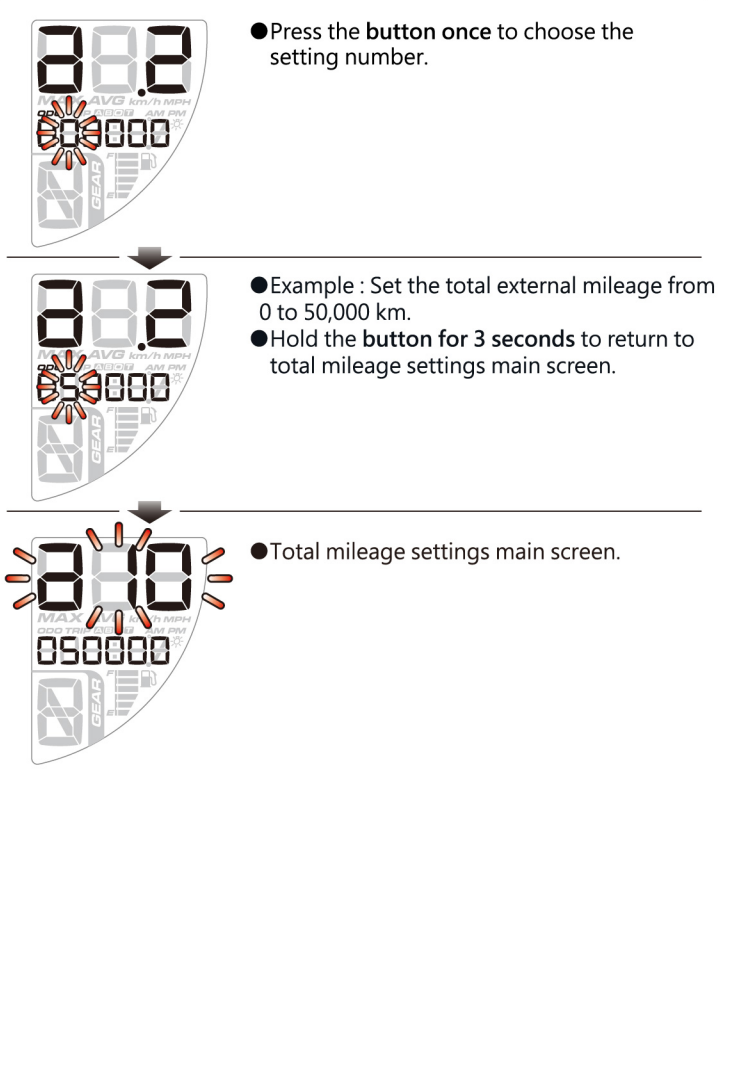
4-10-1 Internal ODO

- ●EX : Current total internal mileage display is 5 km.
- ●Press the **button once** to choose the setting number.
  - ⚠ User unable to adjust or remove total internal mileage.
  - **NOTE** Display range : 0 ~ 999,999 km (mile).

4-10-2 External ODO

- ●In the total external mileage settings main screen, hold the **button for 3 seconds** to enter into the settings screen.

- ●EX : To set the total external mileage to 50,000 km.
- ●Hold the **button for 3 seconds** to move the cursor to the desired settings level.
  - ⚠ Now the setting value will blink.
  - **NOTE** Settings range : 0 ~ 999,999 km.

- ●Press the **button once** to choose the setting number.

- ●Example : Set the total external mileage from 0 to 50,000 km.
- ●Hold the **button for 3 seconds** to return to total mileage settings main screen.

- ●Total mileage settings main screen.

5 Trouble shooting

The following situations do not indicate malfunction of the meter. Check the following points before taking it in for repairs.

Trouble	Check item	Trouble	Check item
The meter doesn't work when the power is on.	●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 too old to supply needed power (DC 12 V).	RPM meter does not display or display error.	●Check the setting. →Please check the settings menu, the RPM of the settings are correct. ●Make sure the RPM wire is connected properly. →check the RPM wire wire is connected correctly.
The meter shows incorrect information or keep performing system reboot.	●Check the voltage of your battery, and make sure the voltage is over DC 12 V.	Fuel meter does not display or display error.	●Check your fuel tank. ●Check the wiring harness. →Is the wire connected properly.
Speed meter does not display or display error.	●Make sure the speed sensor is connected properly. →check the speed sensor wire is connected correctly. ●Check the setting. →Please check the settings menu, the speed of the settings are correct.	Thermometer does not display or display error.	●Make sure the temperature wire is connected properly. →check the temperature wire is connected correctly.
		The clock is incorrect.	●Check the setting. →Please check the settings menu, the clock settings are correct.

※If the problems still can not be solve, please contact your local distributor to get assistance.