





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

Symbol description:

NOTE

- 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 dissassembling this unit will void any warranty.

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

• Maintenance and repairs should be executed by our professionals only.

Nome procedures must be followed to avoid damages to the product.

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Light o

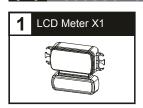


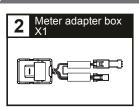


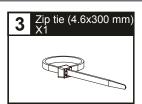
Hold the Button 1 second 3

Hold the Button 3 seconds

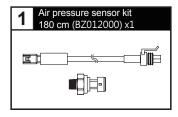
1-1 Accessories



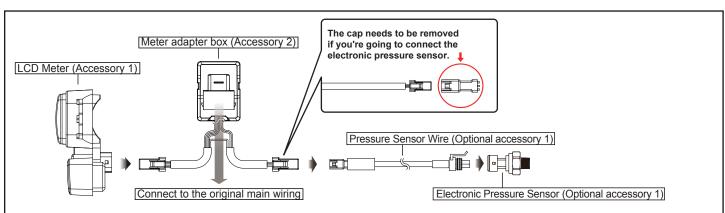




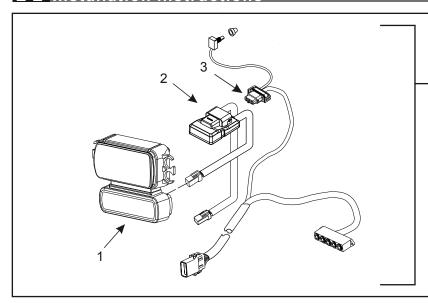
1-2 Optional accessories



2-1 Wiring installation instructions



2-2 Installation instructions



- 1. LCD Meter (KOSO)
- 2. Meter adapter box (KOSO)
- Speedometer harness connector -(from original supplier)

Use the zip tie (Accessory 3) to fix the meter adapter box in place.

*To access settings on CVO models, you must turn ON the run/stop switch so thatthe bike will not turn off. Then you can make your adjustments to the settings on the gauge.

3-1 Overview

Tachometer

●Display range: 0 ~ 10,000 RPM

Speedometer

•Display range : 0~199 km/h(0~124 MPH)

•Display unit : 1 km/h(MPH)

Gear meter

 Display range : off, highest gear, N and highest gear, show all (N / 1 ~ 6)

Indicator

•Left indicatior light (Green)

VHC light (Amber)

●High beam light (Blue)

Neutral light (Green)

●Oil pressure light (Red)

•ABS light (Amber)

•Security light (Red)

◆Right indicatior light (Green)

Rain mode light (Blue)

TPMS light (Amber)Constant speed light (Amber/Green) (a) (b)

•Engine warning light (Amber)

Battery discharge light (Red)

•Fog Light (Green)

TCS light (Amber)Temperature warning light (Red)

Odometer

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(ABS)

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 Display range: 0 ~ 999,999 km (miles) returns to zero upon exceeding

•Display unit : 1 km (mile)

Distance meter A,B

 Display range : 0 ~ 9,999.9 km (miles) returns to zero upon exceeding

Display unit : 0.1 km (mile)

Mileage maintenance user settings

 Display range: user adjustable (500 ~16,000 km/ 300 ~ 10,000 miles) ~ -999 km (miles), decreases automatically according to the increase of total mileage.

•Display unit: 1 km (mile)

Fuel meter

•Display range: 10 Levels

Remaining mileage

•Display range: 0 ~ 9,999 km (mile), when mileage is lower than 16 km (10 mile) will display Lo RNG.

Average fuel consumption

•Display range: L/100km, km/L, MPG (US-spec.),

MPG (UK-spec.)

Clock

Display range: 12 / 24 hour format

Engine temperature

•Display range : -40 ~ 300 °C (-40 ~ 572 °F)

Voltmeter

Display range : 8 ~ 18 V

Air Pressure Gauge

•Display range : Display --- when no sensor is installed,

0 ~ 150 PSI, 0~1034 kPa, 0.0~10.3 bar •Display unit : 1 PSI, 1 kPa , 0.1 bar

Tire pressure

Display range : --- , Hi, 0 ~ 73 PSI, 0~506 kPa,

0.0~5.0 bar

Display unit: 1 PSI, 1 kPa, 0.1 bar

3-2 Features and settings description

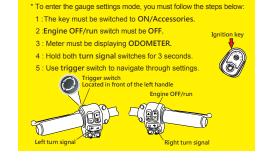
•Speedometer	Display range : 0~199 km/h(0~124 MPH) switchable Display unit : 1 km/h(MPH)	•Tire pressure (TPMS, FR RR LR. It shows TPMS if the motorcycle	Display range : , Hi, 0 ~ 73 PSI, 0~506 0.0~5.0 bar	kPa,
oDisplay interval	<0.5 second	supports it.)	Display unit : 1 PSI, 1 kPa, 0.1 bar	
oInternal and external	Display range : 0 ~ 999,999 km (mile)	 Backlight brightness 	Setting range: 1 /5(darkest)~ 5 / 5(bright	est)
odometer	returns to zero upon exceeding	 Backlight color 	Setting range : white, red, orange, yellow	Ι,
	Display unit: 1 km (mile)		green,blue, light blue, purple	
∘Trip meter A,B	Display range : 0 ~ 9,999.9 km (mile)	Millage maintenance	Setting range : Off/ 500 ~ 16,000 km	
	returns to zero upon exceeding		(300 ~ 10,000 mile)	
	Display unit: 0.1 km (mile)		Setting unit: 100 km (mile)	
∘Tire circumference	Setting range : 50 ~ 210 %	 Voltage 	DC 12 V	
	Setting unit: 1 %	 Operating temperature 	-20~ 85 °C	
Gear meter	Display range : off, highest gear, N and highest	 Storage temperature 	-30~ 90 °C	
	gear, show all(N / 1 ~ 6)	 Specification 	JIS D 0203 (S2)	
Tachometer	Display Range : 0 ~ 10,000 RPM	Meter Size	88.2 x 67.0 x 35.2 mm	
○RPM shift light	Setting range: 2,000 ~ 10,000 RPM, when the	Meter Weight	± 70 g	
	value of RPM has reached the value set,	Indication light	Left indicatior light (Green)	•
	the main screen's backlight will blink in red		VHC light (Amber)	
	and white as a warning.		High beam light (Blue)	
	Setting unit: 100 RPM		Neutral light (Green)	Ν
•Engine temperature	Setting range : -40 ~ 300 °C (-40 ~ 572 °F)		Oil pressure light (Red)	***
•Fuel meter	Display range : 10 Levels		ABS light (Amber)	
∘Fuel tank volume	Setting range : OFF/ 1.0 ~ 9.9 US gallons		Security light (Red)	•
 Average fuel consumption 	Display range: OFF, L/100km, km/L,		Right indicatior light (Green)	→
	MPG (US spec.) , MPG (UK spec)		Rain mode light (Blue)	
•Clock	Setting range: 12 / 24 hour format		TPMS light (Amber)	<u>(!)</u>
 Voltmeter 	Display range: 8 ~ 18 V		Constant speed light (Amber/Green)	(3)
Air Pressure Gauge	Display range: Display when no sensor is		Engine warning light (Amber)	1
	installed, 0 ~ 150 PSI, 0~1034 kPa, 0.0~10.3 bar		Battery discharge light (Red)	
	Display unit: 1 PSI, 1 kPa, 0.1 bar		Fog Light (Green)	‡0
∘Air Pressure Gauge	Calibration range : 0 ~ 25 PSI±1PSI		TCS light (Amber)	(10)
Calibration	Calibration unit : 1 PSI		Temperature warning light (Red)	#

NOTE Design and specification may change without further notice.

3-3 Application list



Scan QR code for the application list.



3-4 Main menu functions



- In the total mileage screen, press the button once to switch to Trip A screen.
- •In the total mileage screen, hold the button for 3 seconds to enter into the setting screen.(refer to setting 4)







- 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 the mileage maintenance screen.
- Hold the button for 3 seconds to clear the Trip B recordings.





- In the mileage maintenance screen. press the button once to switch to the remaining mileage screen.
- Mileage maintenance will count down from set value. When it reaches 0, the screen will blink to indicate mileage reached.



- •When reminding feature is activated, it will automatically return to mileage maintenance screen once the value is reached.
- When reminding feature is activated, it will automatically switch to mileage maintenance screen during startup if the value is reached.



 Hold the button for 3 seconds to switch to inform function



NOTE It will not display if it's not supported by the engine computer.

 Hold the button for 10 seconds to clear the mileage maintenance recordings.



oIn the 0 second, start holding the button.



oIn the 3rd second, the inform feature will blink once



- In the 5th second, inform feature will switch back, mileage display will begin blinking.
- Ouring the 6~9th seconds, if the button is released, it will cancel the process



On the 10th second, the mileage maintenance record is cleared

NOTE Display can be switch off (refer to setting 4-7)



- In the remaining mileage screen, press the button once to switch to the average fuel consumption screen.
- •If remaining mileage is lower than 16 km (10mile), will display "LO RNG" to inform users.



- •When reminding feature is activated, it will automatically return to the remaining mileage screen if remaining mileage is too low.
- •When reminding feature is activated, it will automatically switch to the remaining mileage screen during startup if remaining mileage is too low.



 Hold the button for 3 seconds to switch to inform feature switch.



NOTE A It will not display if it's not supported by the engine computer.

- •The following situation will result displaying "r----" or no display at all. Abnormal fuel sensor(short / open circuit)
- •Fuel related settings will affect this value's precision.



•In the average fuel consumption screen, press the button once to switch to the clock screen

It will not display if it's incompatible with the engine computer.



•In the clock screen, press the button once to switch to the engine 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 air pressure gauge screen



 In the air pressure gauge screen, press the button once to switch to tire pressure screen.



•In the tire pressure screen, press the button once to switch to the MAX record screen.





NOTE Shows Fr, rr, Lr accordingly to different models



In the MAX. record screen, press the button once to return to the total mileage screen.



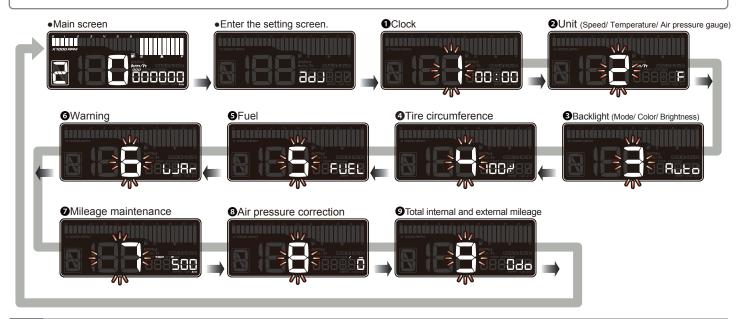




4 Setting screen navigation description

- Press the **button for 3 seconds** on the main screen to switch to the setting screen.
- •Press the button to select
- Oclock Qunit(Speed/ Temperature/ Air pressure gauge) Backlight(Mode/ Color/ Brightness) OTire circumference Spuel Owarning
- Mileage maintenance Air pressure correction Total internal and external mileage.

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



4-1 Clock settings



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



- EX : Set clock setting from 12:00 to 1:05.
- •Hold the **button for 3 seconds** to return to the clock screen.



- •Example : To set the clock to 12 hour format.
- Press the **button once** to select desired setting value.

Now the setting value will blink.

NOTE Setting range: 12h / 24h Default value: 24h



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



- Example : Set clock to 01:05 AM.
- Hold the button for 3 seconds to move the cursor to the desired setting level.



Now the setting value will blink.

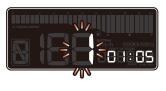
 Press the **button once** to select desired setting value.



NOTE Setting range :

Hour: 1~12 (12 h) / 0~23 (24 h) Minute: 00~59 minutes. **Default value:**

Hour : 12(12h)/0(24h). Minute : 0.



•The clock screen.

4-2 Unit settings(Speed/ Temperature/ Air pressure gauge)



 In the unit screen, hold the button for 3 seconds to enter into the settings screen



- EX : Set temperature unit from °F(Fahrenheit) to °C(Celsius).
- Hold the button for 3 seconds to enter into the air pressure gauge unit settings screen.



- Example : To set speed unit to MPH(mile).
- Press the button once to select the desired value.

Now the setting value will blink.

NOTE Setting range: km/h, MPH. Default value : km/h

NOTE Total mileage and distance meter unit will vary according to the speed unit.



- Example : To set the air pressure gauge unit to BAr.
- •Press the button once to select the desired value.

Now the setting value will blink.

NOTE Setting range : PSI, bar, kPa . Default value : PSI.



EX : Set speed unit from km/h to MPH.

•Hold the button for 3 seconds to enter into the temperature unit settings screen.



 EX : Set air pressure gauge unit from PSI to BAr.

•Hold the button for 3 seconds to return to the unit screen.



- •Example: To set the temperature unit to °C.
- •Press the button once to select the desired value.

Now the setting value will blink.

NOTE Setting range

C(Celsius) and F(Fahrenheit). Default value: °F(Fahrenheit).



The unit screen

4-3 Backlight brightness settings (Mode/ Color/ Brightness)



In the backlight screen, hold the button for 3 seconds to enter into the settings screen.



- Example : To set backlight color(day) to blue.
- •Press the button once to choose the color.

Now the setting value will blink.

NOTE Setting range: White, Red, Orange, Yellow, Green, Blue, Indigo, Purple. Default value: White

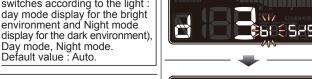
NOTE The backlight color will change immediately after you set the value.



- Example : To set the mode to Night mode.
- •Press the button once to select the desired value.

Now the setting value will blink.

NOTE Setting Auto(automatically switches according to the light : day mode display for the bright environment and Night mode Day mode, Night mode.





- •EX : Set backlight color(day) from white to blue.
- Hold the button for 3 seconds to enter the backlight brightness(day) setting.



- EX : Set background from Auto mode to Night mode.
- Hold the button for 3 seconds to enter the backlight color(day) setting.



- Example: To set the backlight brightness (day) to 4/5 (80%).
- •Press the button once to select the desired value.

Now the setting value will blink.

NOTE Setting range: 3/5~ 5/5 (Brightest), 3 different levels available. Setting unit: 20% per level. Default value: 5/5(100%).

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





- EX: The backlight brightness (day) setting is changed from 5/5 (100%) to 4/5 (80%).
- Hold the button for 3 seconds to enter the backlight color (night) setting.



- Example: To set the backlight brightness (night) to 2/5 (40%).
- Press the button once to select the desired value.

Now the setting value will blink.

NOTE Setting range : 1/5(Darkest)~ 5/5 (Brightest),

1/5(Darkest)~ 5/5 (Brightest), 5 different levels available. Setting unit : 20% per level. Default value : 3/5(60%).

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



- Example : To set backlight color(night) to Yellow.
- Press the **button once** to choose the color.

Now the setting value will blink.

NOTE Settings range: White, Red, Orange, Yellow, Green, Blue, Indigo, Purple.
Default value: White.

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



- EX: The backlight brightness (night) setting is changed from 3/5 (60%) to 2/5 (40%).
- •Hold the **button for 3 seconds** to return to the backlight screen.



- EX : Set backlight color(night) from White to Yellow.
- •Hold the **button for 3 seconds** to enter the backlight brightness(night) setting.



The backlight screen.



4-4 Tire circumference settings



•In the tire circumference screen, hold the **button for 3 seconds** to enter into the settings screen.



- •Example : Set tire percentage from 100% to 105%.
- Hold the button for 3 seconds to return to the tire circumference screen.



- Example : To set the tire circumference to 105%.
- •Hold the **button for 3 seconds** to move the cursor to the desired setting level.



Now the setting value will blink.

•Press the **button once** to select the desired value.



NOTE Setting range: 50 ~ 210%.
Default value: 100%.



•The tire percentage screen.

4-5 Fuel settings



 In the fuel screen, hold the button for 3 seconds to enter into the settings screen.





 In the fuel type screen, hold the button for 3 seconds to enter into the fuel type settings screen.



- Example: To set the fuel type to CUSt (user define).
- Press the **button once** to select desired setting value.

Now the setting value will blink.

NOTE Settings range:

Hd Std [Harley-Davidson Standard] CUSt [User define]



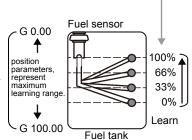
•EX: To set fuel type from

Hd Std (Harley-Davidson Standard) to CUSt (user define).

•Hold the **button for 3 seconds** to enter into the user define mode.



•User define mode Needs to learn the position of 0% (E), 33%, 66%, 100% (F) fuel volume.





- •Fuel volume 0% position learning screen.
- •confirm that there it is low fuel before learning.
- •Allow the vehicle to be still for 10 ~ 15 seconds in order to steady the liquid surface.
- Press the button once to learn the current fuel position.
- Hold the button for 3 seconds to enter into the next fuel volume position learning screen.



- Fuel volume 33% position learning screen.
 confirm that there is 1/3 fuel volume in fuel tank before learning.
- •Allow the vehicle to be still for 10 ~ 15 seconds in order to steady the liquid surface.
- Press the button once to learn current fuel position.
- Hold the button for 3 seconds to enter into the next fuel volume position learning screen.



- •Fuel volume 66% position learning screen.
- •Confirm that there is 2/3 fuel volume in fuel tank before learning.
- •Allow the vehicle to be still for 10 ~ 15 seconds in order to steady the liquid surface.
- Press the button once to learn current fuel position.
- Hold the button for 3 seconds to enter into the next fuel volume position learning screen.



- •Fuel volume 100% position learning screen.
- •Confirm that there is 3/3 fuel volume in fuel tank before learning.
- •Allow the vehicle to be still for 10 ~ 15 seconds in order to steady the liquid surface.
- •Press the button once to learn current fuel position.
- •Hold the button for 3 seconds to enter into the learning conformation screen.



- •Learning confirmation screen.
- Hold the button once to save the current learning results. It will then automatically return to the fuel type settings screen.



 If an error occurs in the learning process, it will display "Error" when saving. Exit this learning and return to fuel type screen.



 Hold the button for 3 seconds to abort current learning result and return to the sub settings screen.





- •In the Fuel type settings screen.
- Press the button once to enter the next setting.

NOTE Setting range:

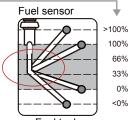
When set to other settings, will enter next setting option.





•Fuel position indicator.

 This screen will display the current liquid surface position. If it exceeds the range, it is recommended to reset the fuel volume parameters to acquire more precise fuel volume and range information.



Exceeded settings range(learned) 100% position .

Between settings range (learned).

Below settings range (learned) 0% position .

Fuel tank

 Press the button to enter fuel volume settings.







 In fuel tank volume settings screen, hold the button for 3 seconds to enter into the settings screen.



4-5-4

•In fuel consumption settings screen, hold the button for 3 seconds to enter into the settings screen.



- •Example : To set fuel volume as ON.
- Press the button once to select desired setting value.

Now the setting value will blink.

NOTE Setting range: ON,OFF.



•EX : Set fuel volume from OFF to ON. •Hold the button for 3 seconds to enter the fuel volume settings screen.



- •Example : To set fuel volume to 5.7.
- Hold the button for 3 seconds to move the cursor to desired setting level.



Now the setting value will blink.

•Press the button once to select desired setting value



NOTE Setting range : 1.0 ~ 9.9 gallons.

NOTE Volume calculation method checks for the total volume of the fuel tank and low fuel indicated volume in the user manual of vehicle, then substitutes it into the equation below: total vol. - (low fuel vol. / 2) = setting value. Then enter the result into the setting value.



- •EX: Set fuel volume value from 5.5 to
- Hold the button for 3 seconds to return to fuel volume settings screen.



- setting.



- •Example : To set fuel consumption unit as MPG (US).
- Press the button once to select the desired settings value.

Now the setting value will blink.

NOTE Settings range : OFF, L/100 km, km/L, MPG (US), MPG (UK).



- •EX : To set fuel consumption unit from OFF to MPG (US).
- •Hold the button for 3 seconds to return to the fuel consumption unit settings screen.



- •In the fuel consumption unit settings screen.
- •Press the button once to return to the fuel screen.



The fuel screen.



- •In fuel volume settings screen.
- •Press the **button once** to enter the next

S (Overspeed / Over RPM /



•In warning screen, hold the button for 3 seconds to enter into the settings screen.



- •Press the button once to choose the setting number.
 - -overspeed, please refer to 4-6-1. Warning indicator operation setting -over RPM, refer to 4-6-2.
 - •Warning indicator operation setting -overheat, refer to 4-6-3.



• Hold the button for 3 seconds to enter overspeed warning setting



- •EX : Set the overspeed warning value from 60 km/h to 90 km/h.
- •Hold the button for 3 seconds to return to overspeed warning screen.



- •Example : To set overspeed warning value to 90 km/h.
- Hold the button for 3 seconds to move the cursor to the desired settings level.

Now the setting value will blink

NOTE Settings range: 30 ~ 199 km/h (19 ~ 124 MPH). Default value: 60 km/h (38 MPH).



- •The overspeed warning screen.
 •Press the **button once** to enter next



• Press the button once to choose the setting number.

4-6-2 Warning settings - Over RPM



•Hold the button for 3 seconds to enter over rpm warning setting screen.



- •EX : Set the over rpm warning value from 5,500 RPM to 9,000 RPM.
- •Hold the button for 3 seconds to return to over rpm warning screen.



- Example : To set over rpm warning value to 9,000 RPM.
 Hold the button for 3 seconds to move
- the cursor to the desired settings level.

Now the setting value will blink

NOTE Settings range: 1,000 ~ 10,000 RPM. Default value : 5,500 RPM



- The over rpm warning screen.
- Press the button once to enter next setting.



 Press the button once to choose the setting number.

ng settings - Overheat



 Hold the button for 3 seconds to enter overheat warning setting



- •EX : Set the overheat warning value from 356 °F to 203 °F
- •Hold the button for 3 seconds to return to overheat warning screen.



- Example : To set overheat warning value to 203 °F.
- Hold the button for 3 seconds to move the cursor to the desired settings level.

Now the setting value will blink.

NOTE Settings range: 140 ~ 482 °F (60 °C ~ 250 °C). Default value : 356 °F(180 °C).



•Press the button once to choose the setting number.



•The overheat warning screen.

4-7 Mileage maintenance setting



•In the mileage maintenance screen, hold the button for 3 seconds to enter into the settings screen.



- EX : Set the mileage maintenance from 500 to 800.
- •Hold the button for 3 seconds to return to mileage maintenance screen.



- •Example: To set mileage maintenance to (ON).
- Press the button once to select the desired settings value.

Now the setting value will blink.

NOTE Display range : ON, OFF. Default value : ON.



- •EX: Set mileage maintenance to (ON).
- Hold the button for 3 seconds to enter into the mileage maintenance settings screen

NOTE When it is set to OFF, will directly return to mileage maintenance main screen



- •Example: To set mileage maintenance value to 800.
- •Hold the button for 3 seconds to move the cursor to the desired settings level.



Now the setting value will blink.

• Press the button once to select desired setting value.



NOTE Setting range: 500 ~ 16,000 km (300 ~ 10,000 mile).

Default value: 500 km(300 mile).



•The mileage maintenance screen.

r pressure gauge calibration setting



•In the air pressure gauge calibration screen, hold the button for 3 seconds to enter into the settings screen.



- •The calibration is complete.
- Hold the button for 3 seconds to return to air pressure gauge calibration screen.



- Press the button once to calibrate air pressure gauge.
- Now the setting value will blink

NOTE Calibration range 0 ~ 25 PSI ±1PSI Default value: 0 PSI



olf it shows (OPEN), it confirms the SENSOR is installed correctly.



olf it shows (OVER), release the pressure.





•The air pressure gauge calibration screen.

4-9 Total internal and external odometer settings



 In the total mileage screen, hold the button for 3 seconds to enter into the settings screen.



- •EX : Set the total external mileage from 10,000 to 50,000 km.
- Hold the button for 3 seconds to return to the total external mileage settings main screen.





- Example : Current total internal mileage display is 5 km.
- Press the button once to enter into the total external mileage settings screen.

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



- Total external mileage settings main screen.
- •Press the **button once** to return to total mileage screen.





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



- •The total mileage screen.
- Press the **button once** to return to startup screen.



- •To import the original bike mileage from ECU to the meter.
- In the loading screen for the total external mileage, press and hold the button for 3 seconds to load the current vehicle mileage once.

NOTE If the tire size setting was adjusted, the meter mileage will NOT be synchronized with the original bike mileage from the ECU.



- External mileage is imported from the ECU.
- Example: To set external total distance value 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

• Press the **button once** to select desired setting value.



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

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
The meter doesn't work when the power is on.	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).	Speed appears incorrectly. The clock is incorrect.	
The meter shows wrong information.	Check the voltage of your battery, and make sure the voltage is over DC 12 V.	THE CLOCK IS INCOMECT.	→ Check the setting list to see whether the setting for clock is correct.

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