

Super Multi TFT Meter Instruction manual

Adaptation model For motorcycle with DC12V battery.

Thank you very much for purchasing our products.

Thank you so you will comply with the following matters at the time of use. Before installation, please check your always kit contents. If there is a point of notice event, Please contact us the dealer of purchase.


◎ If the description, such as photos or illustration different with this part.

☆ Please read carefully before use ☆

- ◎ The use ignoring the instructions that are written in the manual, if the accident or damage has occurred, we can not assume any responsibility for compensation.
- ◎ This product installation and use, when a problem occurs to after market goods, guarantee other than this product, also can not assume any in any such matters.
- ◎ If it was the case or mounting that has been processed like a product, it will not be covered under warranty.
- ◎ It is not possible to inquire of the combination of other manufacturers.
- ◎ Product may have edges or protrusions. Be sure to wear working gloves.
(Please wear work gloves when working, even if a photo in this article show without work gloves.)
- ◎ This product is a general-purpose product for motorcycles with DC12V batteries
(But not compatible with all DC12V batteries sold (may have some exceptions).
Depending on the model, you may not be able to use the all or any meter functions.
- ◎ Do not use gasoline or thinner (or any solvent) cleaning this product. There is a risk of deterioration of rubber and plastic parts.
- ◎ If you have any questions, please contact your local Takegawa dealer.
- ◎ Place the separate unit in a position where the speedometer cable will work properly.
- ◎ Please use stock spark plug caps, cable, and ignition coils, or SP Takegawa products.
- ◎ Please use a register type spark plug.
- ◎ External battery-less kits cannot be used.
- ◎ Do not combine to use any ignition, electric related products other than SP Takegawa made products.
- ◎ Do not use LED, H.I.D. headlights or fog lamps kit made by other than our companies at the same time. Some ballast/inverter (voltage converter) generates high-voltage noise that adversely affects the digital circuit, resulting in product failure or malfunction.
- ◎ Product and programs are subject to change and improvement without notice.
Even with the same product number, the operation and screen may slightly differ depending on the production time.
- ◎ When using this fuel gauge, please make sure that the fuel tank is empty (and as the meter shows empty).
Caution: If the meter shows remaining but actually out of gas, there is a risk that the vehicle will stop due to out of gas.
- ◎ Please do not use a strong impact to the meter, such as off-road driving, jumping, wheelies, etc.
Strong impact, may be damaged internal parts or body.
- ◎ This product is not a full waterproof.
Caution: It has a rain-proof, can be used in the normal rain condition, but it is not fully waterproof (Do not get it in the water).
If water gets into the unit, please stop using it immediately.
Also, when the humidity is high or outside temperature changed, the main unit may absorb moisture and cause fogging on the inside of the panel.
- ◎ Please be careful not to leave it in the hot sun. Please cover it if you leave your bike outdoors for a long time.
If left for a long time under harsh conditions such as in the hot sun, there is a risk of deterioration or deformation of body and rubber parts.
[Prohibition of riding with headlights off. / Converted street to Racing motorcycle with safety light parts removed.]
Running without headlights, the unused power will increase the voltage. When you continue to run in this condition, the battery may deteriorate due to overcharging or the genuine regulator may malfunction due to excessive strain.
In motorcycle with modified engines that run at higher engine speeds than stock, the negative effects will be stronger.
If your headlights burn out, stop riding immediately, *if you need to continue riding, switch headlight to high beam
(adjust the optical axis) and run at as low a speed as possible.
Removing all safety equipment to be as a racing motorcycle (from street motorcycle) requires specialized knowledge and replacement or additional parts.
- ◎ This product is for DC12V. Do not use it with AC12V power supply.
(Caution: SP Takegawa mini regulator can NOT be used with this products.)
- ◎ When replacing the gear sprocket or changing the speed display setting on the meter, error codes such as ABS may not be erased.
- ◎ The high beam indicator cannot be used on motorcycles that headlights are used with negative voltage.
- ◎ Modern models may detect an ABS error code if the speed is displayed directly from the metal speed sensor.

~ feature ~

- This multimeter is equipped with many functions such as speed, engine speed, gear position, oil/water temperature gauge, fuel gauge, time, voltage, tire outer diameter correction, power test function, etc.
Highly visible pointer-type tachometer and digital display with TFT LCD.
The meter unit comes with a small JIS cable type speed sensor and H1 bracket set.
- The H1 bracket set for the general-purpose.
- All meter operations and function can be done with the included external switch.

 Note: setting the gear position

To set the gear position, both the speed signal and the engine speed signal must be input to the Super Multi DN meter. Therefore, it is require to learn gear display by chassis dynamo, free roller or actual driving.

We recommend learning gear display by chassis dynamo or free rollers for safety reasons.

Do not learn gear display on driving in the city because there are many traffic lights and traffic in the city.

When performing in actual driving, select a safe place with good visibility and check the surroundings.

 Caution When the handling of ignoring this display, property damage and human shows the assumption of what injury.

- When performing the work, etc., be sure during the cold (when the engine and the muffler is cold). (It may cause burns.)
- When performing the work, it should be made to prepare the tools for the job. (Breakage of parts, it may cause injury.)
- Do the work must always specified torque using a torque wrench. (Damage of bolts and nuts, and cause of dropout.)
- The product and the frame, might have edges or protrusions. When working, please wear work gloves to protect your hands. (It may cause injury.)
- Be sure to each part inspection before operation, check the loosening of the threaded portion, be sure to securely tighten the specified torque if there is loose. (It may cause detachment of the parts.)

SPECIAL PARTS
TAKEGAWA

CONTACT Address : 3-5-16 Nishikiorihigashi Tondabayashi Osaka JAPAN
TEL: +81-721-25-1357 FAX: +81-721-24-5059 e-mail: english@takegawa.co.jp URL: http://www.takegawa.co.jp
Please contact with your name and country name provided. (Only English please)

Warning When the handling of ignoring this display people died, shows the contents of the serious injury possibility is assumed.

- During operation, when an abnormality occurs, immediately stop the vehicle in a safe place, please stop running. (It may lead to an accident.)
- When performing the work, do the work safely stabilize the vehicle in a horizontal location. (There is a risk of injury vehicle collapsed while working.)
- Inspection, maintenance, the instruction manual or, inspection methods such as service manuals, to protect the way, should be done correctly. (unsuitable inspection and maintenance, there is a risk that result to an accident.)
- When carrying out the inspection and maintenance, etc., if found damaged parts, replace the damaged parts to avoid possible to reuse the parts. (There is a risk that lead to accidents Continued use.)
- Plastic bags of product packaging, you can either be stored in a place that is out of reach of children, it should be discarded. (When the children or wearing, there is a risk of suffocation.)
- Do not operate the switch while driving. (It may lead to an accident.)
- When replacing the gear sprocket or changing the speed display setting on the meter, error codes such as ABS may not be erased. (in some models)

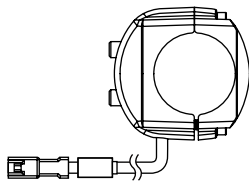
© Please note. Performance up, the design change, the product and the price in the cost up, etc. are subject to change without notice.
 © Please be informed that we shall be held harmless against any claim against us whatsoever arising out of use of the products in racing and the like. © Keep this manual stored until this product is discarded.

Product content

① Meter body



② External switch



③ Rubber strip

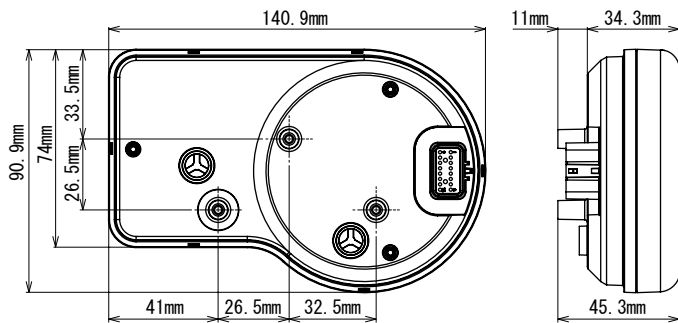


Super Multi TFT meter			
Number	Product content	Quantity	Item Number
1	Meter body	1	—
2	External switch	1	00-05-0380
3	Rubber strip	1	

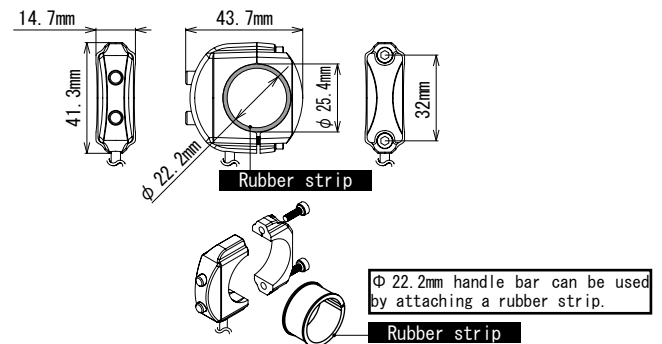
* Please order in the repair parts are always repair part number.
 If it is not the part number order, you may not be able to order. Please be forewarned.
 It should be noted. In the case of parts that can not be separately shipment, please order a set part number.
 * Repair parts may differ slightly from the kit contents in terms of shape, etc.
 There is no problem to use it. Please be forewarned.

Unit size drawing of the meter unit and meter external switch.

Meter body

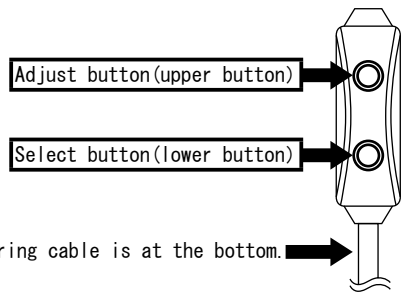


External switch



External switch Operation

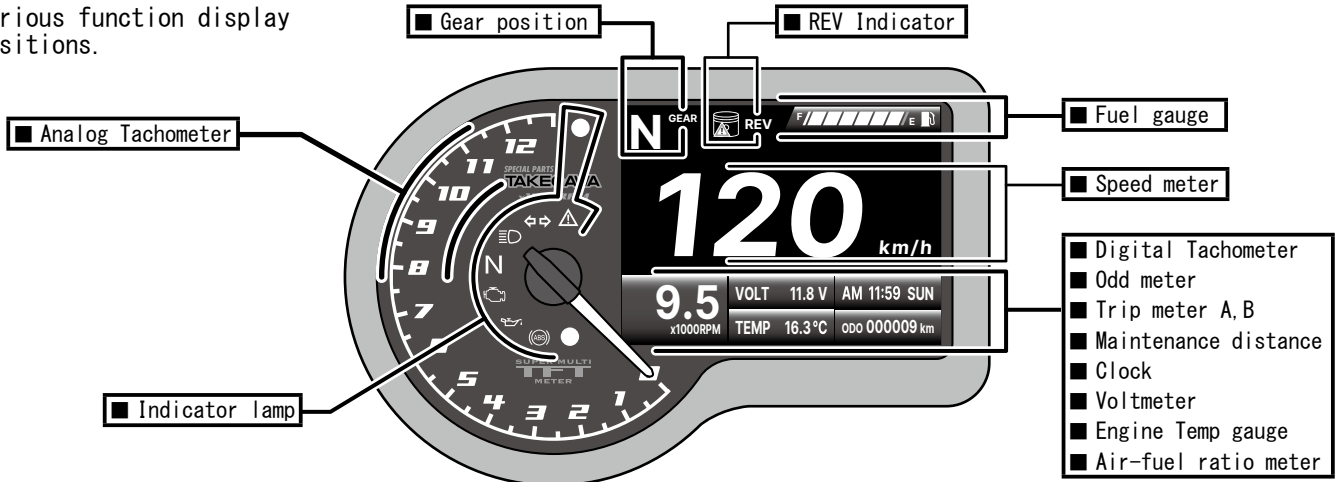
Install the meter external switch with the wiring cable underneath as shown in the illustration below. The upper button is the "adjust button" and the lower button is the "select button". (attached as shown figure below)



To operate the meter external switch.
 To display the manual, please check how to press the button below.

Adjust button "Press" (short press once)	Adjust button "Press 3 seconds" (hold long press)	Select button "Press" (short press once)	Select button "Press 3 seconds" (hold long press)	Press "Adjust button" and "Select button" at the same time "Press" (short press once)	Press "Adjust button" and "Select button" at the same time "Press 3 seconds" (hold long press)

Various function display positions.



■ List of various functions Setting method heading number

	Speed meter	Display range:0 ~ 360km/h	
		Tire circumference setting	Setting unit:1mm Setting range:300 ~ 2500mm Headline number ⑫
		Maximum speed limit warning light	Setting range:30 ~ 360km/h Setting unit:1km/h Headline number ④
		Top speed record	Display range:0 ~ 360km/h Display unit:1km/h

	Tachometer	Needle type display:0 ~ 13000rpm Digital display:0 ~ 20000rpm	
		RPM warning light	指針 setting range:1000 ~ 13000rpm Digital setting range:1000 ~ 20000rpm Setting unit:100rpm Headline number ⑤
		Highest RPM record	Display range:0 ~ 20000rpm
		Ignition settings	Setting range : 0.5 · 1 ~ 24 : Hi Act · Lo Act Headline number ⑭

ODO 000009 km	Odd meter	Display range:0 ~ 999999km Display unit:1km (Returns to 0 when the range is exceeded) Total distance · Trip meter setting (user)	Headline number ⑩
TRIP A 9999.9 km TRIP B 9999.9 km	Trip meter A, B	Display range:0 ~ 9999.9km Display unit:0.1km (Returns to 0 when the range is exceeded)	Setting page → P6

TRIP C 9999.9 km	Oil change warning	Setting range:500 ~ 16000km Setting unit:100km	Headline number ⑨
	Maintenance distance (notification mode)		

N ^{GEAR}	Gear position	All gear indicator, OFF Gear transmission registration function using automatic learning mode	Headline number ⑬
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F / / / / / E	Fuel gauge	Display unit:6 steps Fuel sensor resistance value preset :100 Ω · 250 Ω · 270 Ω · 390 Ω · 510 Ω · 1200 Ω	Headline number ⑮
		User resistance value setting Resistance value range : 0 ~ 1500 Ω	
		Low fuel level warning light	Headline number ⑧

Backlight	Brightness	Day mode Setting range:1/5 (Dark) ~ 5/5 (Bright)	Headline number ③
Day/Night		Night mode Setting range:1/5 (Dark) ~ 5/5 (Bright)	
AUTO function	Color	Setting range:White, Red, Orange, Green, Blue, Yellow	

VOLT 11.8 V	Voltmeter	Display range:8 ~ 18V	
		Voltage warning light Setting range:8 ~ 18V Setting unit:0.1V	Headline number ⑦

TEMP 16.3 °C	Temp gauge	Display range:0 ~ 250 °C Can be measured with the temperature at the drain bolt. (* sensor drain bolt/ sold separately)	
		Temperature warning light Setting range:60 ~ 250 °C	Headline number ⑥
		Highest temperature record Display range:0 ~ 250 °C	

AM 11:59 SUN	Clock	Display	Headline number ①
	Day of the week	:12/24 hours	

A/F 12.1	Air-fuel ratio meter	Display range	Headline number ①
		:12.1 ~ 17.5	

Target Speed	Target speed record (Record display)
Target Distance	Target distance record (Record display)
Top Speed	Top speed record (Record display)

Meter unit size	140.9mm X 90.9mm X 45.3mm
Meter unit weight	188g
Operating voltage	DC12V
Operating temperature range	-10 ~ +60 °C

Indicator lamp	Icon
RPM warning light (Red light)	●
Warning light (Red light)	▲
Turn lamp (Green light)	↔
High beam lamp (Blue light)	≡
Neutral lamp (Green light)	N
Engine warning light (Yellow light)	⊗
Oil check lamp (Red light)	⊗
ABS lamp (Yellow light)	⊗

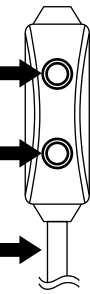
External switch Operation

Install the meter external switch with the wiring cable underneath as shown in the illustration below. The upper button is the "adjust button" and the lower button is the "select button". (attached as shown figure below)

Adjust button(upper button)

Select button(lower button)

Wiring cable is at the bottom.



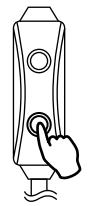
To operate the meter external switch.
To display the manual, please check how to press the button below.



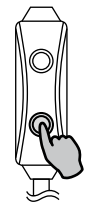
Adjust button
"Press
(short press once)"



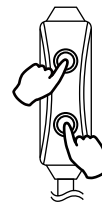
Adjust button
"Press 3 seconds
(hold long press)"



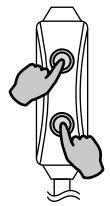
Select button
"Press
(short press once)"



Select button
"Press 3 seconds
(hold long press)"



Press "Adjust button"
and "Select button"
at the same time
"Press
(short press once)"

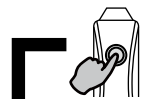
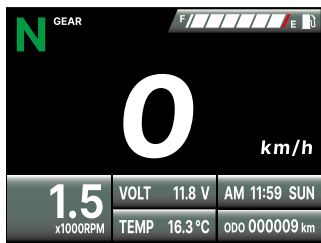


Press "Adjust button"
and "Select button"
at the same time
"Press 3 seconds
(hold long press)"

■ Main screen Switch operation

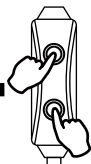
Pressed briefly or held for 3 seconds from the main screen.

Main screen



Adjust button
"Press 3 seconds
(hold long press)"

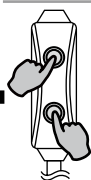
→ Switch to date/time and backlight setting function.
(Press and hold the adjust button for 3 seconds to return to the main screen)



Press "Adjust button"
and "Select button"
at the same time
"Press
(short press once)"

→ Switch to recording function

Return to the main screen by brief pressing the adjust button and select button twice (at the same time).



Press "Adjust button"
and "Select button"
at the same time
"Press 3 seconds
(hold long press)"

→ Setting screen

Press and hold the adjust button for 3 seconds to return to the main screen.



Select button
"Press
(short press once)"

→ Change the display in the following order: odometer, trip meter A/B, oil change warning (distance), and highest record displayed on the main screen.



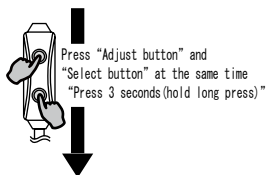
Select button
"Press 3 seconds
(hold long press)"

→ Trip meter A/B, oil change warning (distance), and maximum record. (can be reset individually).

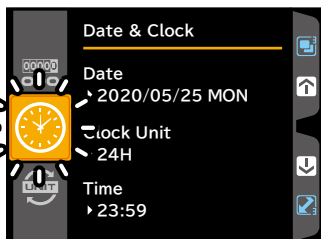
■ Setting screen Switch operation

From the main screen, where you press and hold the adjust button and select button (at the same time) for 3 seconds to switch to the settings screen.
Each button will function as a brief press or a long press for 3 seconds.

Main screen

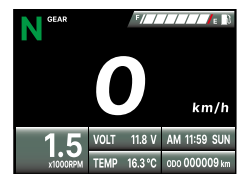


Setting screen



Adjust button
"Press 3 seconds
(hold long press)"

→ Main screen



Adjust button
"Press
(short press once)"

→ Move upward



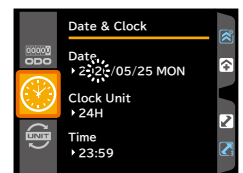
Select button
"Press
(short press once)"

→ Move downward



Select button
"Press 3 seconds
(hold long press)"

→ Setting screen



External switch Operation

■ Check screen

Switch operation

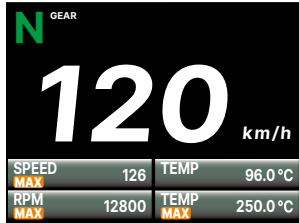
Main screen

Press "Adjust button" and "Select button" at the same time "Press(short press once)"

Record display screen

Press "Adjust button" and "Select button" at the same time "Press(short press once)"

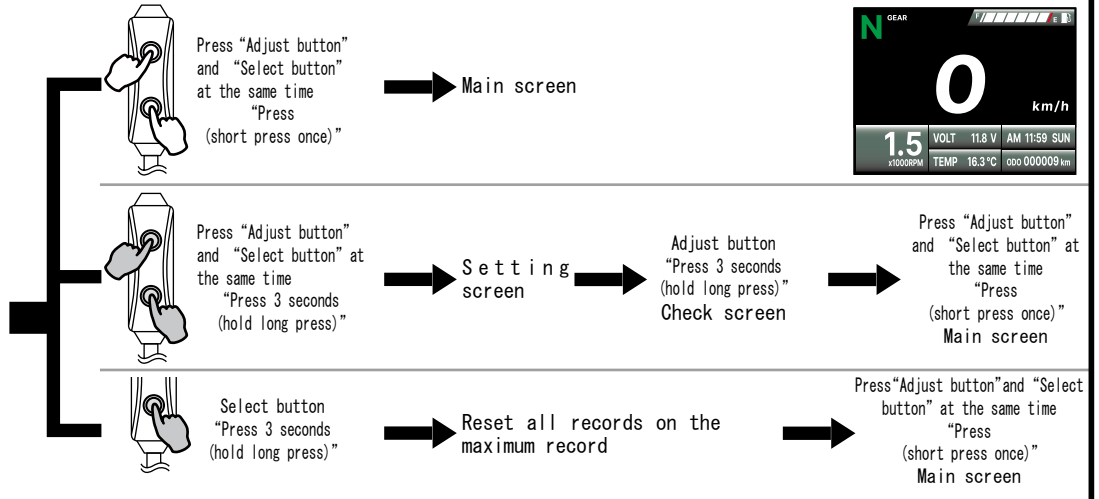
Check screen



Press "Adjust button" and "Select button" at the same time "Press(short press once)"

Main screen

Adjust button and select button are pressed briefly (from main menu) to switch to the recording, and then the adjust button and select button are pressed briefly (at the same time) to switch to the check screen. Each button will function as a brief press or a long press for 3 seconds.



■ Record display screen

Switch operation

Main screen



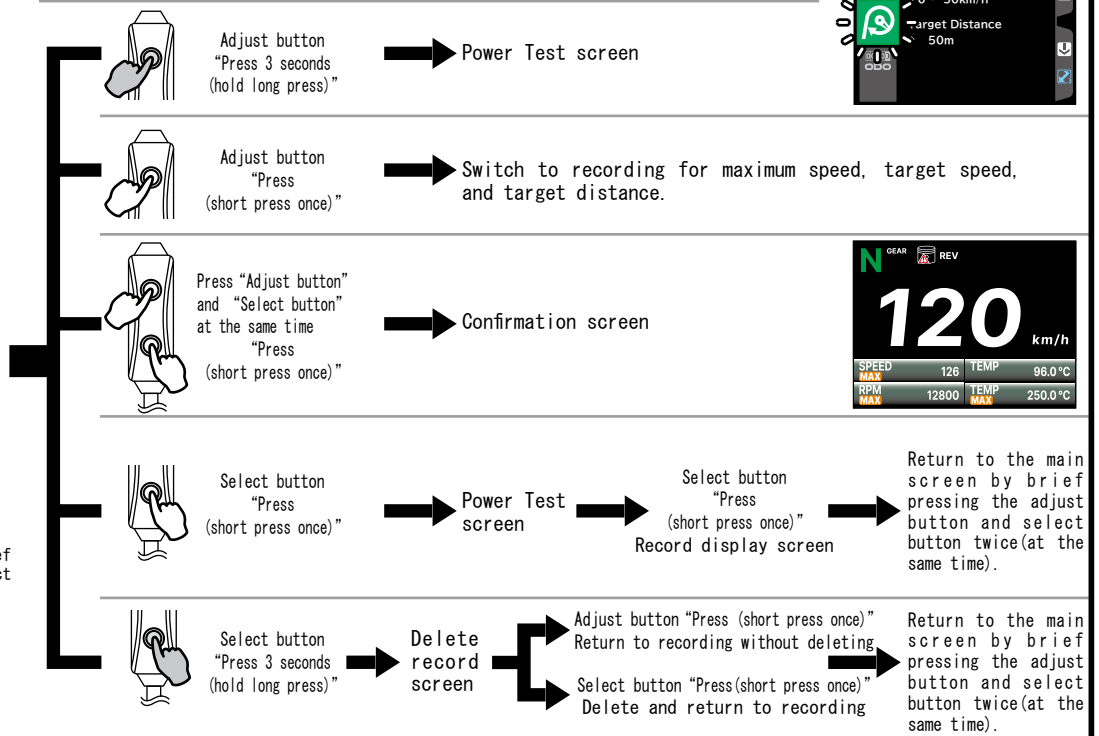
Press "Adjust button" and "Select button" at the same time "Press(short press once)"

Record display screen

No.	Time	Speed	RPM	DST
★ 1	0:20:07	120	12610	279
2	0:21:28	120	12610	282
3	0:23:28	120	11530	283
4	0:25:03	120	10840	285
5	0:26:09	120	10290	286
6	0:26:22	120	10280	290
7	0:29:02	120	9430	325
8	0:29:05	120	9250	350

Return to the main screen by brief pressing the adjust button and select button twice (at the same time).

Main screen is switched to the recording page by briefly pressing the adjust button and select button (at the same time). Each button will function as a short press or a long press for 3 seconds.



■ Setting screen

Switch operation

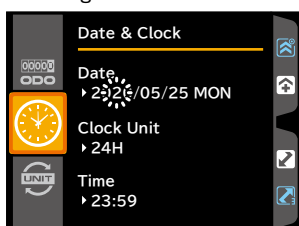
Main screen

Press "Adjust button" and "Select button" at the same time "Press 3 seconds (hold long press)"

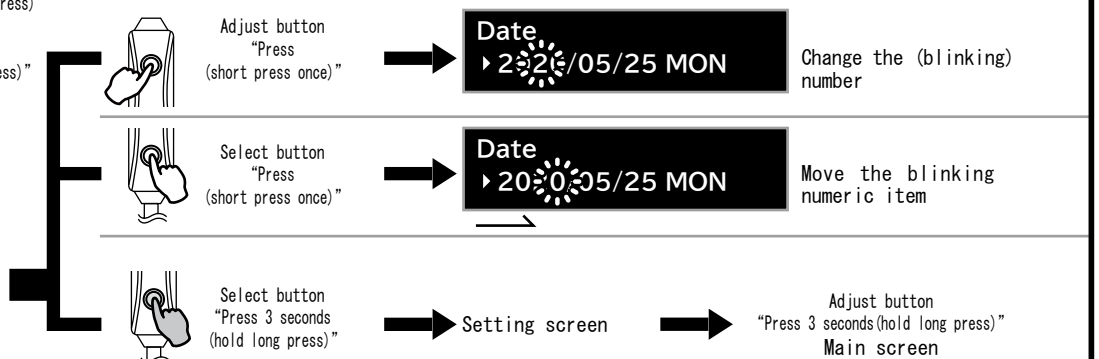
Setting screen

Select button "Press 3 seconds (hold long press)"

Setting screen



From the main screen, press and hold the adjust button and select button (at the same time) for 3 seconds, switch to , and then press and hold the select button for another 3 seconds to switch to the Setting screen. Each button will function as a "short press" or "long press for 3 seconds".



How to enter the SET UP menu and switch between various setting screen.

- Various settings can be changed on the SET UP screen. To go SET UP screen, press and hold the adjust button and select button (at the same time) for 3 seconds on the main screen.
- You can switch to each function by brief pressing the adjust button (scroll up) or the select button (scroll down). To enter the function screen for further selection, press and hold the select button for 3 seconds. To switch items or change values within the selected function, press the adjust button, and to move to the next item or determine the value, brief press the select button.

Main screen

Press "Adjust button" and "Select button" at the same time "Press 3 seconds (hold long press)".

"SETUP" screen

After displaying, the page will switch to the "Date & Clock" setting screen.

"Date & Clock" Setting screen

Date/Clock display (12/24)/Clock Setting method → Headline number ①

"Unit" Setting screen

Speed unit/temperature unit Setting method → Headline number ②

"Temp Warning" Setting screen

Temperature warning light setting Setting method → Headline number ⑥

"Shift Light" Setting screen

RPM warning light (pre-warning) setting Setting method → Headline number ⑤

"Overspeed" Setting screen

Speed warning setting/Warning light ON/OFF Setting method → Headline number ④

"Backlight" Setting screen

Day/night display/color selection Setting method → Headline number ③

"Volt Warning" Setting screen

Voltage warning light setting Setting method → Headline number ⑦

"Low Fuel Warning" Setting screen

Fuel warning light setting Setting method → Headline number ⑧

"Oil Change (Trip 0)" Setting screen

Oil change duration setting Setting method → Headline number ⑨

"ABS Warning" Setting screen

ABS warning light setting Setting method → Headline number ⑩

"RPM" Setting screen

Tachometer input setting Setting method → Headline number ⑭

"Gear" Setting screen

Gear Setting Setting method → Headline number ⑬

"Speedometer" Setting screen

Speed display setting Setting method → Headline number ⑫

"Warning Light" Setting screen

Warning light settings (specify function) Setting method → Headline number ⑪

"Fuel" Setting screen

User resistance value setting Setting method → Headline number ⑮

"A/F Ratio" Setting screen

Air fuel ratio display setting Setting method → Headline number ⑯

"Power Test" Setting screen

Target speed/distance test settings Setting method → Headline number ⑰

"ODO" Setting screen

Total mileage/user odo settings Setting method → Headline number ⑱

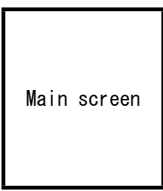
"Date & Clock" Setting screen

Select button "Press (short press once)"

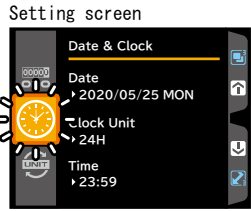
① Date & Clock

1

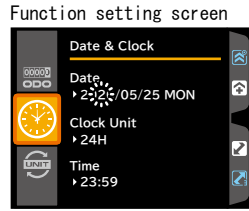
From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note: The "SETUP" will be displayed before the settings screen.
 To enter the Date/Clock settings screen, press/hold (3 seconds) the select button while Date & Clock is displayed.



Press "Adjust button" and "Select button" at the same time "Press 3 seconds (hold long press)" SETUP screen → Setting screen



Select button "Press 3 seconds (hold long press)"

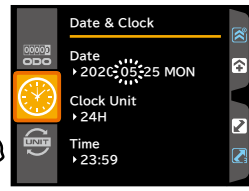
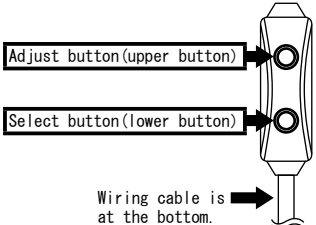


Adjust button "Press (short press once)"
 Number change
 Adjust button "Press (hold long press)"
 Fast forward the numbers change

Select button "Press (short press once)"
 Number set/Next

Enter the function setting screen, the number of the year 20XX will blink. Enter the year.
 To change the 10's digit (flashing), press the adjust button briefly. Fast-forward number changes by press/hold the adjust button.
 To set, press the select button briefly.
 Set to the next 1's digit and blink.
 Set the last 1's digit (short press the select button), the setting is complete and you can move on to the next item (date).
 Year setting range : 2000 ~ 2099

Select button "Press (short press once)"
 Next



Adjust button "Press (short press once)"
 Number change
 Adjust button "Press (hold long press)"
 Fast forward the numbers change

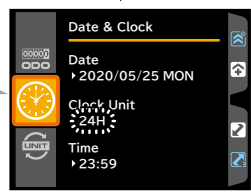
Select button "Press (short press once)"
 Number set/Next

The month digits will flash, enter date.
 To change the blinking number, press the adjustment button "shortly". Fast-forward number changes by press/hold the adjust button. Confirm with a short press (select button)
 The settings are completed and you will move on to the next item (day). day digits flashing.
 Enter day in the same way as month.
 Setting is completed when you select day. (short press the select button).
 ※ The day of the week will change automatically.



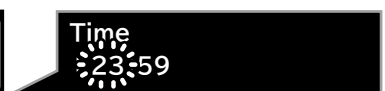
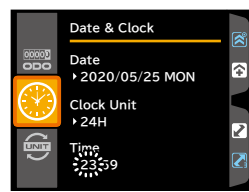
Adjust button "Press (short press once)"
 12H or 24H change
 Adjust button "Press (hold long press)"
 Fast forward the 12H or 24H change

Select button "Press (short press once)"
 Set 12H or 24H/Next



Select button "Press (short press once)"
 Next

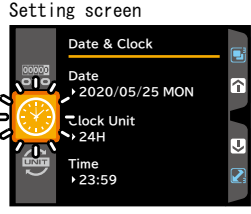
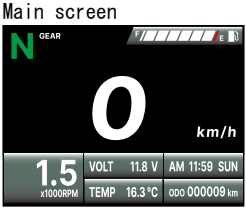
In the Clock screen (clock display), the 12H/24H display will flash. Select 12H or 24H.
 Switching between 12H/24H, short press the adjust button. To set, press the select button briefly.
 Once you set (short press the select button), the setting is complete and you will move to the Time (Clock).



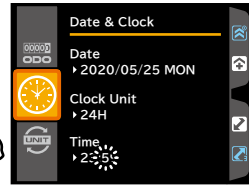
Adjust button "Press (short press once)"
 Time number change
 Adjust button "Press (hold long press)"
 Fast forward the Time numbers change

Select button "Press (short press once)"
 Set Time/Next

Time (clock), the "hour" will blink and enter the time. By pressing the adjust button briefly, the "hour" changes to 12H (1~12) or 24H (0~23). Fast-forward number changes by press/hold the adjust button.
 Confirm with a short press (select button)
 At 12H display, AM/PM will flash.
 When setting the time, check whichever AM or PM is flashing to determine whether it is morning or afternoon.



Select button "Press (short press once)"
 Next

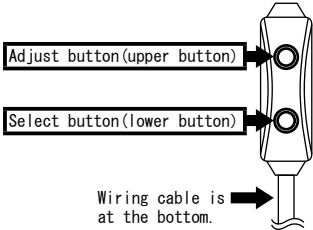
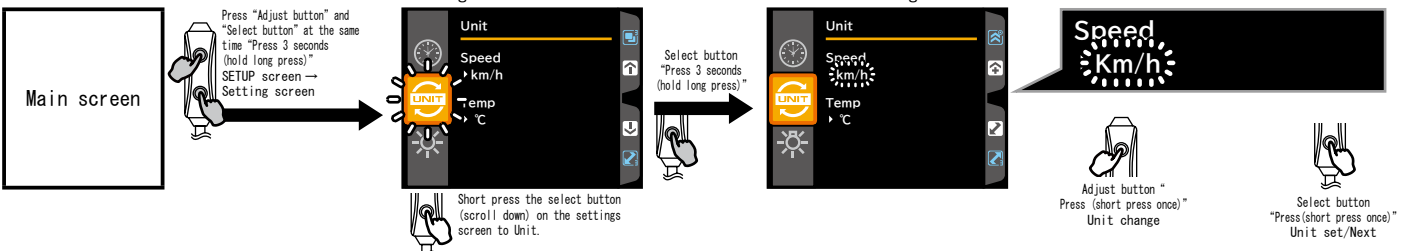


Next, the 10's digit (minutes) will flash and you can make the set as same method. Minutes, must be set in the tens and ones digits. The last 1's digit (short press select button), the setting is completed and return to the setting screen.

② Unit (Speed/Temperature settings)

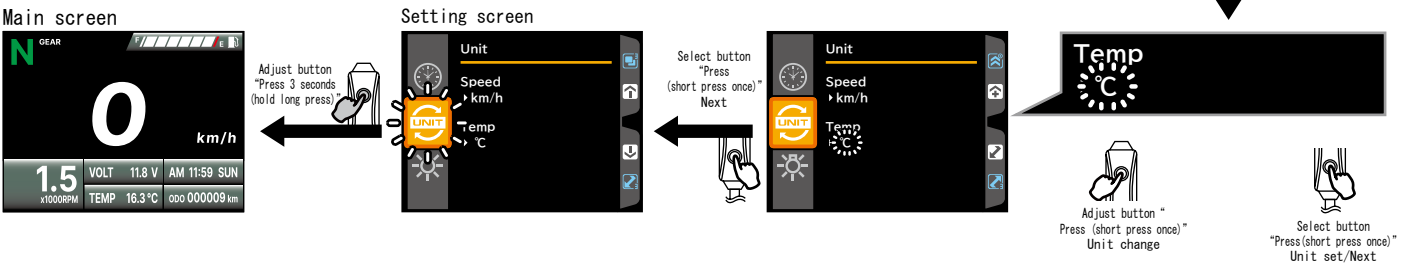
2

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note: The "SETUP" will be displayed before the settings screen.
 On the setting screen, short press the select button (scroll down) place to "Unit".
 "Unit" is displayed, press/hold (3 seconds) the select button to enter the function setting screen "Unit" (speed/temperature settings).



When you enter the function setting screen, the Speed km/h or MPH display will blink.
 Set the speed unit.
 To change (flashing) km/h and MPH, press the adjust button briefly.
 To set, press the select button briefly.
 Once setting is complete, move to the next item, "Temp". (Temperature).

Caution
 Select km/h or MPH



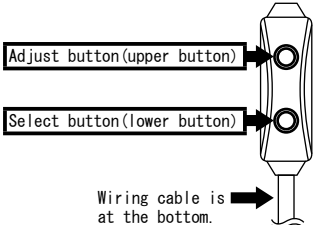
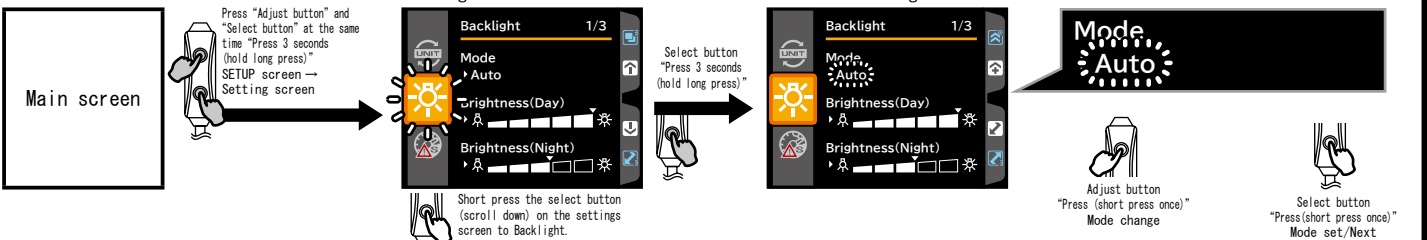
When select "Temp", the °C (Celsius) or °F (Fahrenheit) will blink.
 Set the temperature unit here.
 Short press adjust button to switch °C or °F.
 To set, press the select button briefly.
 Settings is completed and return to the settings screen.

Caution
 Select °C or °F

③ Backlight

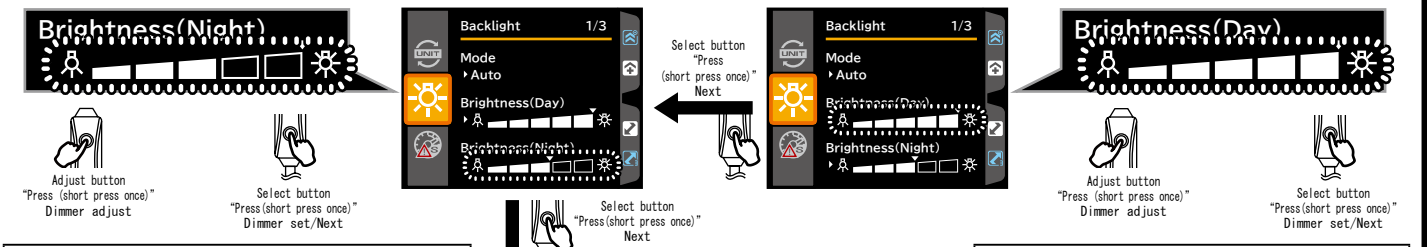
3

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Backlight. Backlight is displayed in the title, press/hold(3 seconds) the select button to move function setting screen.



At the function setting screen, enter the item Mode. "Auto", "Day", or "Night" will flash. Set the display mode of the LCD backlight. To change each flashing mode, press the adjust button briefly. To set, press the select button briefly. The settings are complete and move to next item, Brightness (Day).

Backlight display
 Auto: Switches automatically adjusting the brightness (by environment)
 Day mode in bright environments.
 Night mode in dark environments.

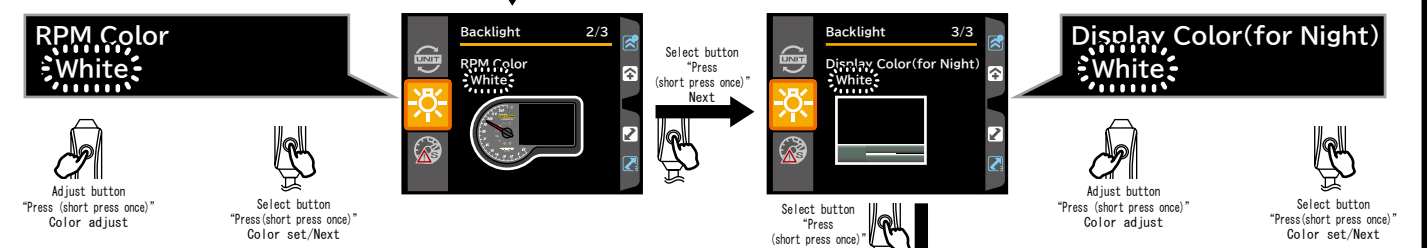


When entering Brightness(Night), dimmer adjust will blink. Set the dimmer adjust in Day mode. Day mode can be adjusted in a range of 1 to 5 steps. Adjust the dimmer by short press the adjust button. Set by a short press of the select button. Setting is complete and move to the next item, RPM Color.

Night mode dimmer adjust range
 : 1 to 5 steps. 1 steps: 20%

When entering Brightness(Day), dimmer adjust will blink. Set the dimmer adjust in Day mode. Day mode can be adjusted in a range of 1 to 5 steps. Adjust the dimmer by short press the adjust button. Set by a short press of the select button. Setting is complete and move to the next item, Brightness (Night).

Day mode dimmer adjust range
 : 1 to 5 steps. 1 steps: 20%

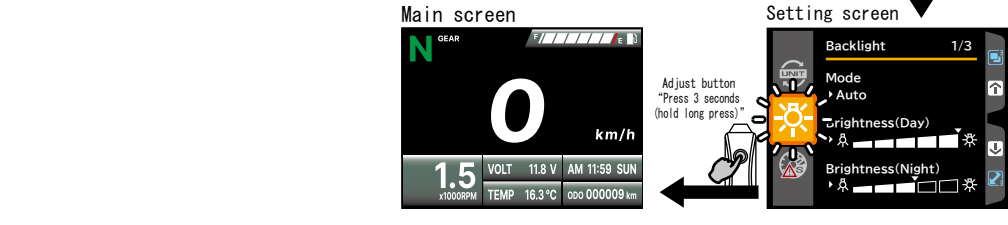


RRPM Color (change illumination color of tachometer needle), the color display (White) will flash. Select the color. To change the color, short press the adjust button. To confirm, short press the select button. Setting is complete and move to the Display Color (for Night).

Color lineup
 : White, Red, Orange, Green, Blue, Yellow
 Note: color of the illustration LCD will also changes.

Display Color (for Night) (LCD screen color change) The color display (White) will blink. Select the color of the LCD screen here (White: no color) To switch colors, short press the adjust button. Set the press the select button briefly. Setting is completed and return to the setting screen.

Color lineup
 : White, Red, Orange, Green, Blue, Yellow
 Note
 Color of the illustration LCD will also changes. * White: no color



④ Overspeed (Speed warning settings)

4

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Overspeed. Overspeed is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.

Main screen

Press "Adjust button" and "Select button" at the same time "Press 3 seconds (hold long press)" SETUP screen → Setting screen

Setting screen

Overspeed
 Set 060km/h
 Speed Warning Display OFF

Select button "Press 3 seconds (hold long press)"

Short press the select button (scroll down) on the settings screen to Overspeed.

Function setting screen

Overspeed
 Set 000km/h
 Speed Warning Display OFF

Adjust button "Press (short press once)" Number change

Select button "Press (short press once)" Number set/Next

Enter the function setting screen, Speed of 100 digit will blink. Enter the speed you want to be warned. To change the flashing 100's digit, press the adjust button briefly. Fast-forward number changes by holding down the adjust button. To set the number, short press the select button. Switch to the next 10's digit and blink. Enter numbers as same method. Last 1's digit (short press the select button), the setting is complete and move on to the next item, Speed Warning Display.

Setting range: 30 ~ 360km/h ※ Note: If set outside the range, the display will be set 30km/h or 60km/h. (19 ~ 225MPH)

Speed warning display (flashing red)

Warning speed : 120km/h
 Warning display : ON

Setting screen

Overspeed
 Set 060km/h
 Speed Warning Display OFF

Adjust button "Press 3 seconds (hold long press)" Main screen

Select button "Press (short press once)" Next

Function setting screen

Overspeed
 Set 060km/h
 Speed Warning Display OFF

Adjust button "Press (short press once)" Warning display change

Select button "Press (short press once)" Display set/Next

When entering the Speed Warning Display, the OFF or ON will flash. Set whether to on/off display the LCD screen. Changes by short press the adjust button. Set the number, press the select button briefly. Set is completed and return to the settings screen.

⑤ Shift Light (Rev (RPM) warning setting)

5

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Shift Light. Shift Light is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.

Main screen

Press "Adjust button" and "Select button" at the same time "Press 3 seconds (hold long press)" SETUP screen → Setting screen

Setting screen

Shift Light
 Steady 09000 RPM
 Fast Flash 08000 RPM

Select button "Press 3 seconds (hold long press)"

Short press the select button (scroll down) on the settings screen to Shift Light.

Function setting screen

Shift Light
 Steady 00000 RPM
 Fast Flash 08000 RPM

Adjust button "Press (short press once)" Number change

Select button "Press (short press once)" Number set/Next

Enter the function setting screen, set 10000 digit of the rev (RPM) speed will flash. Enter the number of RPM to be warned. To change the flashing 10000 digit, press the adjust button briefly. Fast-forward number changes by holding down the adjust button. To set, press the select button briefly. Enter numbers as same method. Set the last 100 digit (short press the select button), the setting is complete and you will move on to the next item, "Fast Flash" (RPM preliminary warning).

Setting range: 1000 ~ 20000RPM Setting unit: 100RPM
 ※ If set outside the range, 1000RPM or 20000RPM will be displayed.

RPM warning display (icon display)

RPM warning : 9000RPM

Setting screen

Shift Light
 Steady 09000 RPM
 Fast Flash 08000 RPM

Adjust button "Press 3 seconds (hold long press)" Main screen

Select button "Press (short press once)" Next

Function setting screen

Shift Light
 Steady 09000 RPM
 Fast Flash 00000 RPM

Adjust button "Press (short press once)" Number change

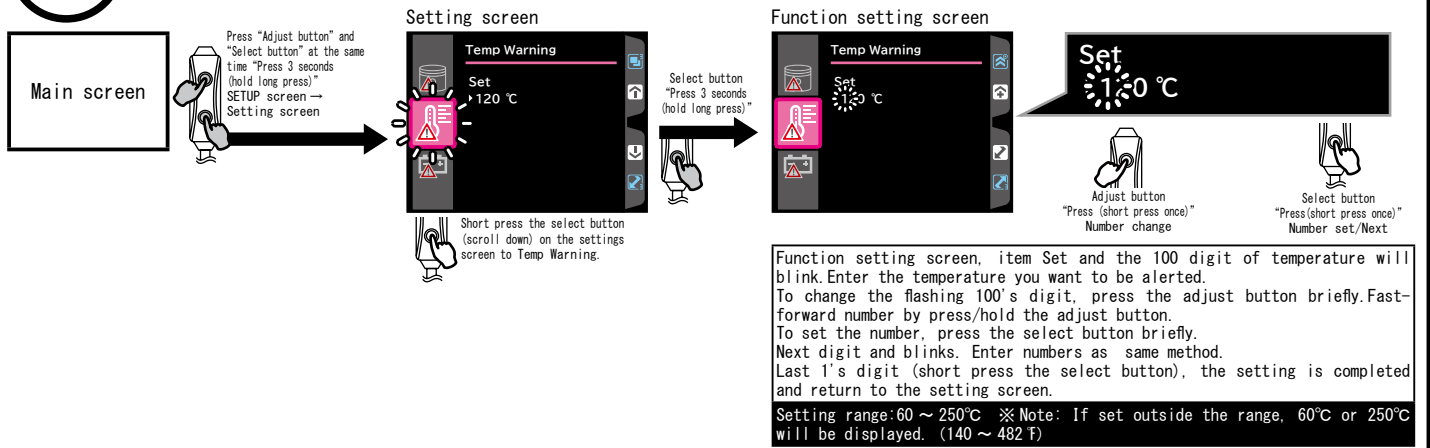
Select button "Press (short press once)" Number set/Next

When enter Fast Flash (preliminary RPM warning) is 10000 digit will flash. Enter the preliminary RPM warning. To change the flashing 10000 digit, press the adjust button briefly. Fast-forward number changes by hold the adjust button. Set number by short press of the select button. Switch to the next 1000's digit and blink. Enter numbers as same method. Set the last 100 digit (short press the select button), the setting is completed and return to the setting screen.

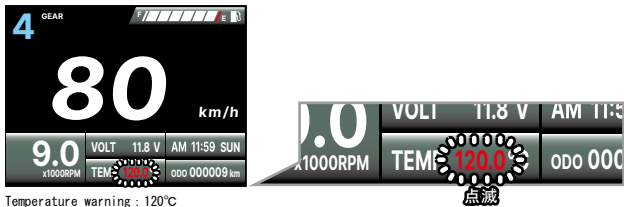
⑥ Temp Warning (Temperature warning settings)

6

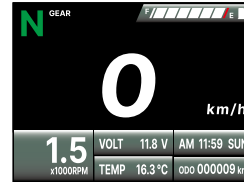
From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Temp Warning. Temp Warning is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.



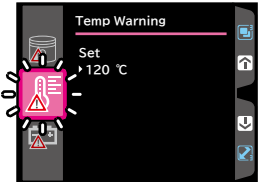
Temperature warning display (flashing red number)



Main screen



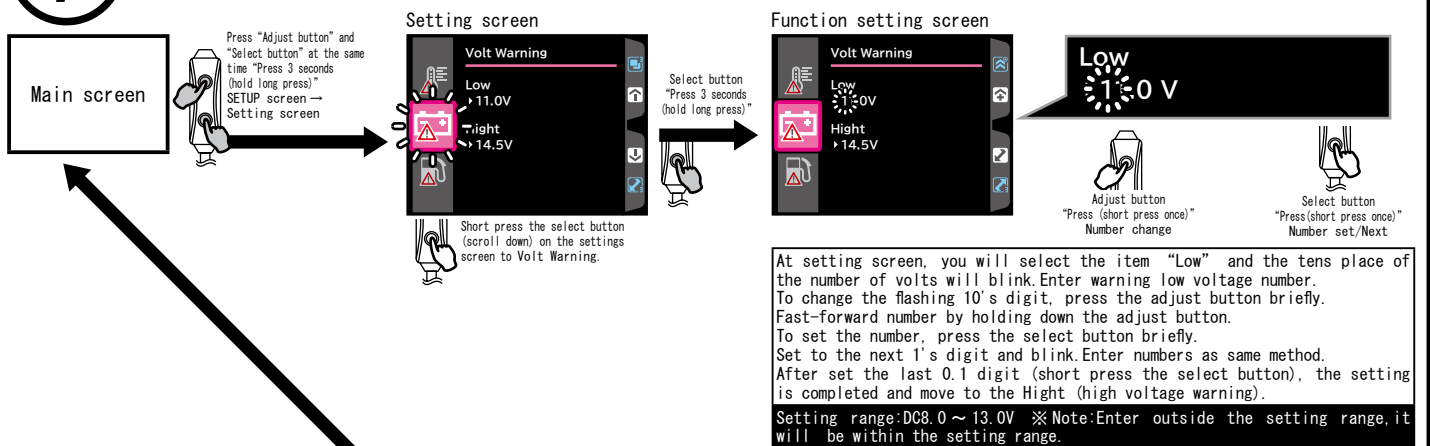
Setting screen



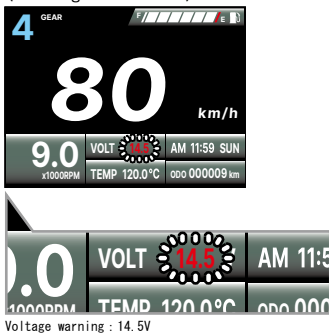
⑦ Volt Warning (Voltage warning setting)

7

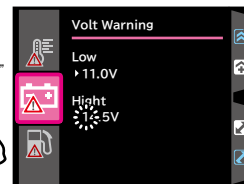
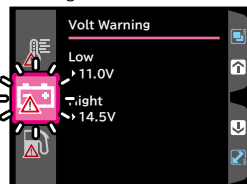
From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Volt Warning. Volt Warning is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.



Voltage warning display (flashing red number)



Setting screen



When select High (high voltage warning), the tens digit of the volt number will flash. Enter warning high voltage. To change the flashing 10's digit, press the adjust button briefly. Fast-forward number changes by holding down the adjust button. Set the press the select button briefly.
 Once set, it will switch to the next 1's digit and blink. Enter numbers as same method.
 Set the last 0.1 digit (short press the select button), and return to the setting screen.

Setting range: DC13.1 ~ 18.0V
 ※ Note: Enter outside the setting range, it will be within the setting range.

⑧ Low Fuel Warning (Low Fuel Warning setting)

8

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Low Fuel Warning. Low Fuel Warning is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.

Main screen → Press "Adjust button" and "Select button" at the same time "Press 3 seconds (hold long press)" SETUP screen → **Setting screen**

Setting screen → Short press the select button (scroll down) on the settings screen to Low Fuel Warning.

Function setting screen → Adjust button "Press 3 seconds (hold long press)" Scale change; Select button "Press (short press once)" Scale set/Next

Setting screen → Select button "Press (short press once)" Next

Main screen → Adjust button "Press 3 seconds (hold long press)"

Function setting screen, select the item "Low Fuel Warning" and the scale will flash. Enter warning low fuel. To change the blinking scale, press the adjust button briefly. To set the scale, press the select button briefly. Set (short press the select button), the setting is completed and you will be return to the settings screen.
 Setting range: 0/6 ~ 3/6

※ Caution
 Prior to setting the "low fuel warning", make sure that the fuel is empty and the meter is showing as empty.

⑨ Oil Change (Trip 0) (Oil change warning setting)

9

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Oil Change (Trip 0). Oil Change (Trip 0) is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.

Main screen → Press "Adjust button" and "Select button" at the same time "Press 3 seconds (hold long press)" SETUP screen → **Setting screen**

Setting screen → Short press the select button (scroll down) on the settings screen to Oil Change (Trip 0).

Function setting screen → Adjust button "Press 3 seconds (hold long press)" Display change; Select button "Press (short press once)" Display set/Next

Setting screen → Select button "Press (short press once)" Next

Set → Adjust button "Press (short press once)" Number change; Select button "Press (short press once)" Number set/Next

Function setting screen, move to Function and ON or OFF will flash. Set the oil change warning display. To change the flashing display, press the adjust button briefly. Set the press the select button briefly. Once you decide (short press the select button), the setting is complete and you will move to the next item, Set the distance.

When select "Set" (specified distance), the 10000 digit will blink. Enter the distance wish to warn. To change the flashing 10000 digit, press the adjust button briefly. Fast-forward number changes by holding down the adjust button. Set the number, press the select button briefly. It will switch to the next 1000 digit and blink. Enter numbers as same method. Set the last 100 digit (short press the select button), the setting is completed and return to the setting screen.
 Setting range: 500 ~ 16000km
 ※ Note
 Enter outside the setting range, it will be within the setting range.

Oil change (interval) warning display

赤数字表示

⑩ ABS Warning (ABS warning settings)

10

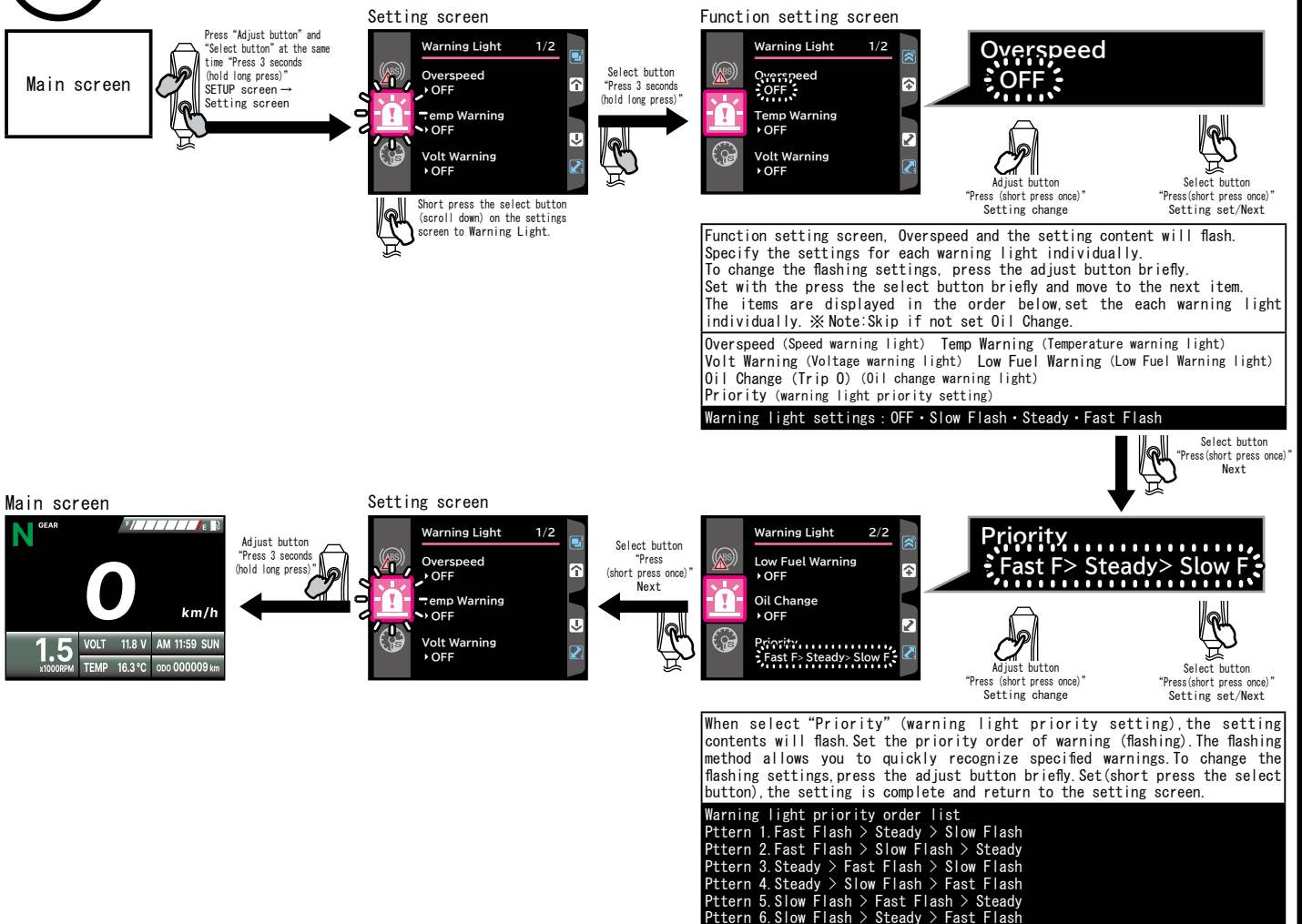
From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time. Note:The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to ABS Warning. ABS Warning is displayed in the title, press/hold(3 seconds) the select button to move function setting screen.



⑪ Warning Light (Warning light settings)

11

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time. Note:The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Warning Light. Warning Light is displayed in the title, press/hold(3 seconds) the select button to move function setting screen.



⑫ Speedometer (Speed display settings)

12

■ Tire Circumference and Sensor Point settings. (Please follow the installation manual for the bracket/harness kit, (specified model)) Measure the outer tire dimension (circumference). Measure with reference "How to measure tire outer circumference" in the illustration below. After the measurement, apply the number to the following formula to calculate. This gives the value of the Tire Circumference. Then, enter the various sensor points and complete the settings.

■ How to set the stock (genuine) speed sensor.

For a vehicle that reads the number of teeth of the drive gear of the transmission to display the speed.

Calculate by applying the number to the following formula, and obtain the number for input to the meter. The required number are tooth of drive and driven sprocket gear and "tire circumference".

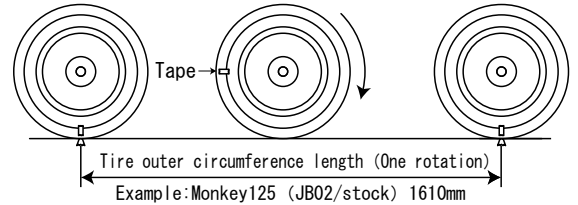
■ Let the drive sprocket (tooth) as "A" and the driven sprocket (tooth) as "B".

Example: Monkey125 (JB02 stock) Drive sprocket (A): 15T, Driven sprocket (B): 34T

How to measure the tire outer circumference: Set the mark at the near air valve, and measure the distance that the tire has rotated once, using that as the starting point. ※ When you change the tire size, be sure to change the setting as well.

■ Let the tire circumference as "C"

C
Tire outer circumference (mm)
Example: 1610mm



The value can be calculated from the following formula. The number (bold) "Speed signal length (Tire Circumference)", which is the number to be input to the meter.

$$\frac{\text{A}}{\text{B}} \times \text{C} = \text{Speed signal Length (mm)}$$

A: Drive sprocket (Example: 15T (JB02/stock))
B: Driven sprocket (Example: 34T (JB02/stock))
C: Tire outer circumference (mm) (Example: 1610mm)
Result: Speed signal Length (Example: $\approx 710\text{mm}$ (JB02/stock))

■ Number of signals of stock speed sensor. (Sensor Point)

(Example) Vehicles that use the C2 gear (2nd gear on counter shaft) of the CT125 transmission to display the speed. In this case, enter the number of teeth on the C2 gear (2nd gear on counter shaft) of stock transmission (read by the genuine speed sensor.) The number in the bold frame is the value of "number of signals" and is the value to be input to the meter.

Sensor Point
P
Number of points to pick up the signal
Example: 31P (JB02)

At the main screen, press and hold the "adjust button" and "select button" at the same time for 3 seconds (to go to the setting screen). The SETUP screen is displayed (before the setting screen). On the setting screen, press the "select button (short press once)" to scroll down and set it to "Speedometer". While "Speedometer" is displayed and press the "select button" for 3 seconds to enter the function setting screen.

When you enter the function setting screen, then you go to the "Tire Circumference" and the number (1k level) will blink. Enter the value of "speed signal length" (from calculate by formula). To change the blinking number, press the "adjust button (short press once)". To set, press "select button (short press once)". After confirm it, press "select button (short press once)" the set and move to the next level. After input all numbers, press "select button" to complete the setting, and move to "Sensor Point" (input number of signals). ※ Input is not completed/confirmed yet.

Setting range: 300mm ~ 2500mm Setting unit: 1mm

When you enter the "Sensor Point" (signal count input screen), the tens digit blinks. Enter the number of "drive gear teeth" here, the "Sensor Point" (read by the stock speed sensor). To change the blinking tens digit, press the "adjust button (short press once)". To set the number, press the "select button (short press once)". Once set, the next digit will switch and blink. After the 1st level is set, Press "select button (short press once)", then setting is completed and back to the setting screen.

※ Input is not complete/confirmed yet.

Press the "adjust button" for 3 seconds" on the setting screen to return to the main screen. This complete/confirms the settings.

Setting range: 01P ~ 40P

※ Precautions regarding setting confirmation

After entering the number and selecting the function, be sure to press and hold the "adjust button" for 3 seconds on the setting screen to return to the main screen. This is "complete/setting confirmation" and the setting is stored in the meter.

Caution: If you do not perform this operation and turn off the key, the new settings will not be stored and will be back to previous settings.

Monkey125 (JB02) / GROM (JC61/JC75)
Note: For SP Takekawa speed sensor kit and 5-speed cross mission kit

Calculate method by "stock" drive/driven sprockets, circumference of the "stock" tire, enter to the meter.

Note: even if the sprocket has been changed.

SP Takekawa speed sensor will be setting by display unit when sprocket or cross(close) mission is installed.

12 Speedometer (Speed display settings)

12

■ Tire Circumference and Sensor Point settings.

Measure the outer tire dimension (circumference). Measure with reference "How to measure tire outer circumference" in the illustration below. After the measurement, apply the number to the following formula to calculate. This gives the value of the Tire Circumference. Then, enter the various sensor points and complete the settings.

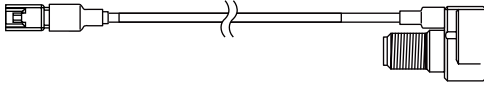
■ JIS cable speed sensor

The maximum engine speed of JIS cable speed sensor is 4200rpm \approx 180km/h equivalent.

Note: More than 180km/h, use a metal reaction speed sensor. Maximum meter display 360km/h.

Insert all the way into the meter cable connection, then tighten the cable lock nut. Please use pliers to securely tight lock nut. Please check periodically to make sure there is no looseness after installation.

JIS cable speed sensor (Cord length : 300mm)

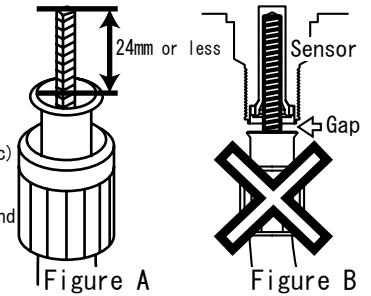


■ Note: Cable modification may be required for import and some domestic models. (if not JIS spec)

※ Measure the amount of cable protruding from the cable outer (Figure A).

If it exceeds more than 24mm, please cut that part.

Caution: If it is bottomed out as shown (Figure B), the rotating parts will be severely worn and the accurate speed will NOT be recognized.



■ JIS cable type speed sensor, speed signal length setting and speed signal number setting.

■ For all model using stock tires and meter gear, the meter setting is 714 mm and 6 signals.

Note: JIS standard specified that the meter cable rotation speed is 60 km/h at 1400 rpm (converted 714 mm, 6 signals).

Note: Using a wheel and meter gear as a set from other model, standard correction value is 714mm and 6 signals.

■ Caution: speed correction is required if the tire circumference changes (with stock meter gear).
When wheel size up. When changing tire size.

■ How to set JIS cable speed sensor

■ How to find speed correction value 1

■ Calculate from the meter gear and the circumference of the modified tire.

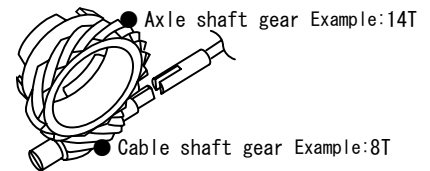
※ Caution: Care of damage during disassembly. Please be very careful when working. Enter the values to the formula below to calculate (to be input the meter).

■ Cable shaft side in the meter gear box is "Number A",
and the gear on the accelerator shaft side is "Number B".

Example : Monkey (Stock)

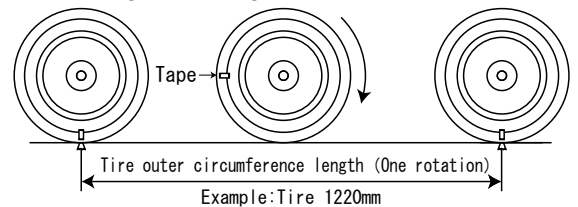
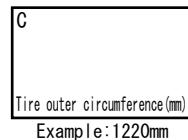
Cable shaft gear (Number A) : 8T Axle shaft gear (Number B) : 14T

■ Inside the meter gear box



How to measure the tire outer circumference: Set the mark at the near air valve, and measure the distance that the tire has rotated once, using that as the starting point. ※ When you change the tire size, be sure to change the setting as well.

■ Let the tire circumference as "C"



The value can be calculated from the following formula. The number (bold) "Speed signal length (Tire Circumference)", which is the number to be input to the meter.

$$\begin{array}{|c|} \hline \mathbf{A} \\ \hline \text{Cable shaft gear} \\ \hline \text{Example: 8T} \\ \hline \end{array} \div \begin{array}{|c|} \hline \mathbf{B} \\ \hline \text{Axle shaft gear} \\ \hline \text{Example: 14T} \\ \hline \end{array} \times \begin{array}{|c|} \hline \mathbf{C} \\ \hline \text{Tire outer circumference (mm)} \\ \hline \text{Example: 1220mm} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Tire Circumference} \\ \hline \text{Speed signal Length} \\ \hline \text{Example: } \approx \mathbf{697\text{mm}} \\ \hline \end{array}$$

■ The speed signal setting (number of signals) will be 6.

■ How to find speed correction value 2

■ Method to stock tires and modified tires. Measure the circumference of each tire.

Enter the values to the formula below to calculate the value (to input the meter).

■ The changed tire circumference is "Number A" and the stock tire circumference is "Number B".

Example: The changed tire circumference (Number A) : 1220mm The stock tire circumference (Number B) : 1250mm

The value can be calculated from the following formula. The number (bold) "Speed signal length (Tire Circumference)", which is the number to be input to the meter.

$$\begin{array}{|c|} \hline \mathbf{A} \\ \hline \text{The changed tire} \\ \text{circumference} \\ \hline \text{Example: 1220mm} \\ \hline \end{array} \div \begin{array}{|c|} \hline \mathbf{B} \\ \hline \text{The stock tire} \\ \text{circumference} \\ \hline \text{Example: 1250mm} \\ \hline \end{array} \times \mathbf{714} = \begin{array}{|c|} \hline \text{Speed signal Length} \\ \hline \text{Example: } \approx \mathbf{697\text{mm}} \\ \hline \end{array}$$

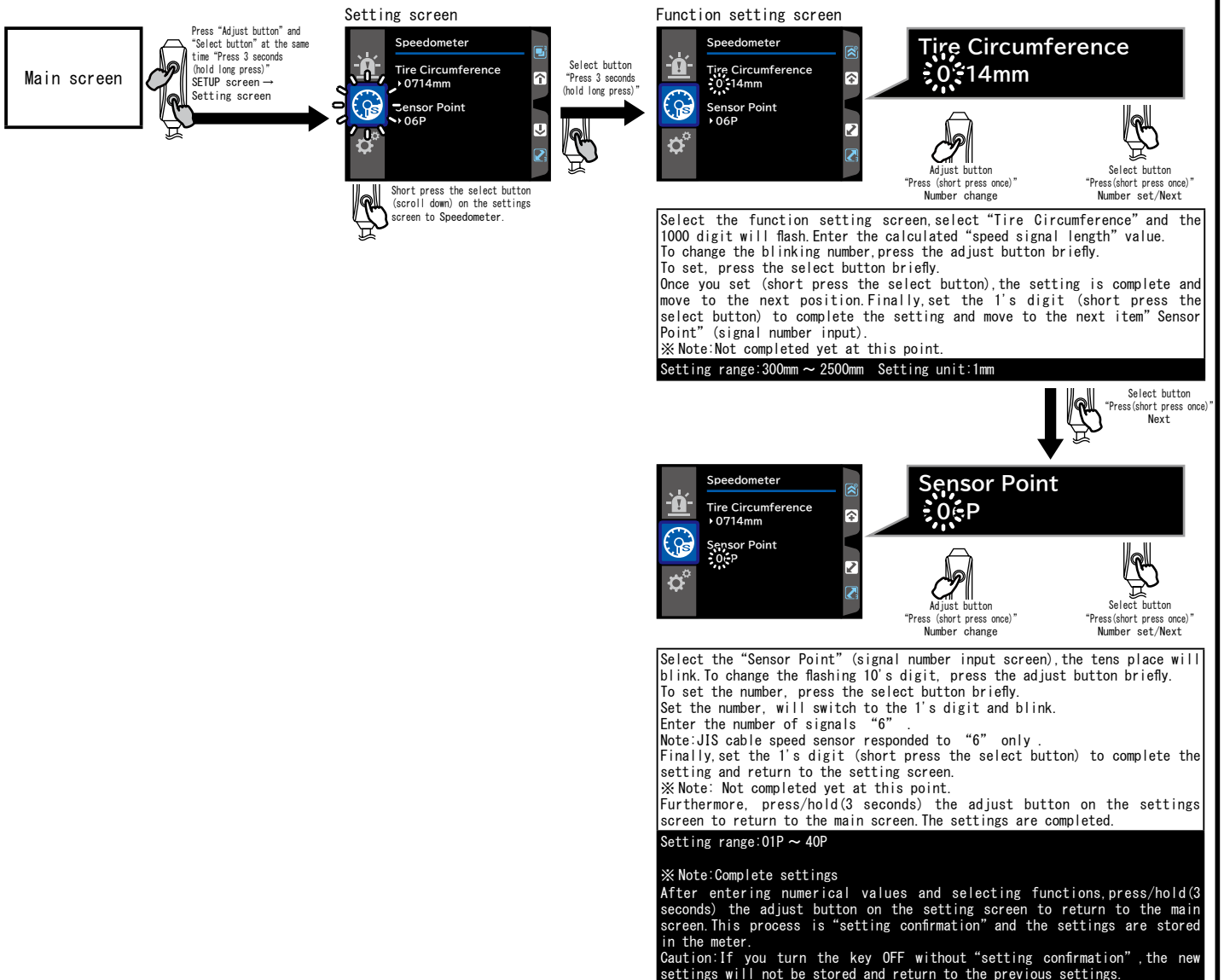
■ The speed signal setting (number of signals) will be 6.

12 Speedometer (Speed display settings)

12

How to set the JIS cable speed sensor (cont.) Meter input method.

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time. Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Speedometer. Speedometer is displayed in the title, press/hold(3 seconds) the select button to move function setting screen.



12 Speedometer (Speed display settings)

12

- Speed signal length and sensor point settings.

How to set the metal reaction speed sensor (Optional parts).

- Metal reaction type speed sensor, measure the required value and enter it into the meter.

Setting values required to input to the meter.

Tire circumference (number of speed signal length)

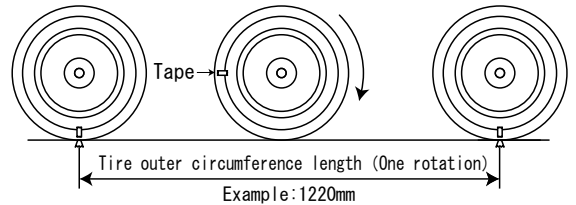
Number of signals (Bolts that pick up the signal of the metal-reactive speed sensor)

- Refer to the figure (right) for how to measure the tire circumference.

Tire circumference
(Speed signal length)

(mm)

Example: 1610mm



- Signal of metal reaction type speed sensor.

SP Takegawa "Metal reaction speed sensor" (optional) picks up the signal with a disc bolt or sprocket bolt. Enter the number of bolts to pick up the signal. The numbers (bold frame) signals and input into the meter.

Sensor Point

P

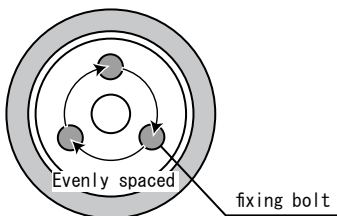
Number of bolt to pick up the signal.

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time. Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Speedometer. Speedometer is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.

About the number of signals
For front: number of brake disc bolts, For rear: number of sprocket bolts. Need to securely fix the metal reaction speed sensor in the appropriate position (each bolt). Please refer the installation method of the metal reaction type speed sensor below.

Example of sensor installation (detailed figure below)
① Make sure that the signal space are even.
Accurate speed cannot be displayed with irregular space.
② Note:
Pick up a signal with a hex socket bolt, please set it at the center of the bolt.
Note
If the sensor reaction part can not placed in the right place, create a reaction part by a small piece of iron such as washer with epoxy bond etc.

Check the metal reaction by checking LED lamp on the metal reaction speed sensor is lit or not, then adjust the set position.
*Note: The number of lights on/off is not the number of signals.
Number of signals: please enter the number of bolts (or the number of reaction parts created).



Enter the Sensor Point (signal number input screen), the tens place will blink. Enter the number of signals to be reacted to metal-reactive speed sensor (bolts to pick up the signal). To change the flashing 10's digit, press the adjust button briefly. To set, press the select button briefly. Set the number then move to the 1's digit and blink. Finally, set the 1's digit (short press the select button) to complete the setting and return to the setting screen. *Note: Not completed yet at this point. Furthermore, press/hold (3 seconds) the adjust button on the settings screen to return to the main screen. The settings are completed.

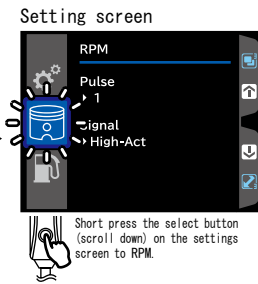
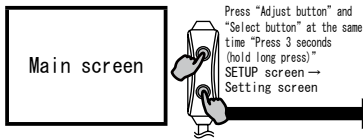
Setting range: 01P ~ 40P
*Notes on confirm settings
After entering numerical values and selecting functions, be sure to press/hold (3 seconds) the adjust button for on the setting screen to return to the main screen. This process will confirm the settings and the settings will be stored in the meter. Caution: If you turn the key OFF without performing this step, the new settings will not be stored and will return to the previous setting.

14 RPM (Tachometer input setting)

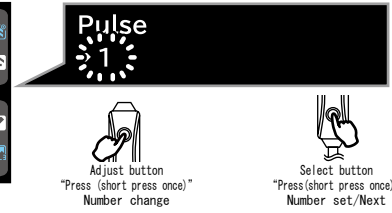
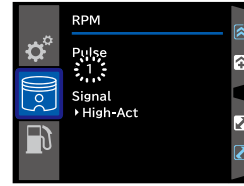
14

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time. Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to RPM. RPM is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.

Tachometer signal input. Set the connection method, RPM signal frequency by the models. Please refer to the various settings in "RPM signal input" below and connect the RPM code and input the number of signals.



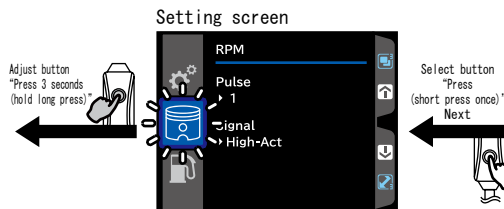
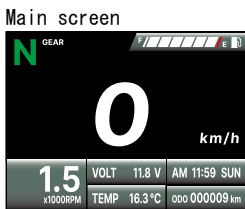
Function setting screen



RPM signal number setting	Number of firings
P0.5	2-rotation 1-ignition
P1	1-rotation 1-ignition
P2	1-rotation 2-ignition
P3	1-rotation 3-ignition
P4	1-rotation 4-ignition
P5	1-rotation 5-ignition
P24	1-rotation 25-ignition

After connecting the RPM cord and confirming the signal number by referring to "RPM signal input" below, enter the signal number in the tachometer input setting. When you enter the function setting screen, enter the item Pulse and the number will flash. Enter the RPM signal number. To change the blinking number, press the adjust button briefly. To set, press the select button briefly. The settings are complete and move to next item, Signal.

RPM signal number setting range: P0.5 P1 ~ P24



At the function setting screen, enter the Signal and "Hi-Act" or "Lo-Act" will flash. Choose the RPM signal type. To change the flashing settings, press the adjust button briefly. To set, press the select button briefly. Short press the chose button, return to the setting screen. ***Note:** Not completed yet at this point.

RPM signal type setting: Hi-Act Lo-Act

***Note:** Complete settings

After entering numerical values and selecting functions, press/hold (3 seconds) the adjust button on the setting screen to return to the main screen. This process is "setting confirmation" and the settings are stored in the meter.

***Caution:** Turn the key OFF without performing the above steps, the new settings will not be recoded and return to previous the settings.

RPM signal input

1. Do not use the aftermarket parts that may have a negative effect.

- Increasing the spark also ignition noise accordingly. Modifications to ignition coils, plug cords, plug caps, racing plugs (non-resistance type), aftermarket CDIs, etc. may have a major negative effects.
- Deterioration of ignition system parts also contributes to increased ignition noise. Be careful about deterioration and wetting on the surface of the plug cord.

2. Please perform wiring work with care about these condition.

There are many ways to pick up the signal. Try the recommended methods in this order. Find the lowest negative effects as possible (low signal voltage, low noise) within the range where the tachometer operates normally.

Please set the connection, RPM signal frequency, and type by the models.

RPM signal Setting of the number of signals per crankshaft rotation. number setting: When the settings not match, the display shows exactly half, double, triple, etc.

RPM signal Chose the type of loading program that matches your connection method. type setting: By switching, the same connection method may work properly.

[A connection] [B connection] [C connection] RPM 信号入力 (3 types)
*For details of connection method, please see the following pages.

[A connection] Plug cord surface (See P24)
[B connection] Ignition coil primary side (See P24)
[C connection] Loading the pickup pulse (See P25)

The connection method may varies depending on the ignition type of the motorcycle.

How to find ignition types

Know type of ignition system, will help you find the right connection method. There are 3 type of Ignition system. Note: Point type ignition system are not compatible with this product.

★ : certain conditions
△ : May be different

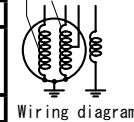
C. D. I. ignition Common in non-battery model and small size carburetor model.

Basic system	There is an ignition coil in the stator, and the power is stored in the CDI and ignited.
How to find	★ DC12V power supply (key ON) is not connected to CDI ★ There is an ignition coil in the stator (right wiring diagram) △ Most flywheels have only one protrusion.
Connection method	[A connection] [B connection] [C connection]

12V Monkey/Ape, both carburetor type.

For ignition

For lights and instrument



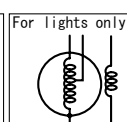
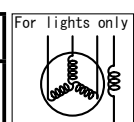
Ignition coil Ignition coil is wrapped with extremely thin copper wiring of about 0.1 mm, and the outer is often protected with a heat-resistant sheet. Lighting coils are wrapped with copper wiring of about 0.8 to 1 mm.

DC-C. D. I. ignition method Common in older carburetor models.

Basic system	The raised battery power to a high voltage using a boost circuit and ignited. Commonly known as "battery ignition"
How to find	★ DC12V power is connected to CDI ★ There is no ignition coil in the stator (right wiring diagram) △ Most flywheels have only one protrusion.
Connection method	[A connection] [B connection] [C connection]

KSRI10 · CYGNUS-X (carburetor type) · AddressV125 (GK7). etc

★ : certain conditions
△ : May be different

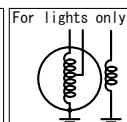
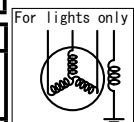


Transistor ignition system Common in injection models and mid to big carburetor models.

Basic system	Transistor controls the supply of battery power to the ignition coil and ignites it.
How to find	★ DC12V power supply is connected to the ignition coil. ★ There is no ignition coil in the stator (right wiring diagram) △ There are often multiple flywheels protrusions.
Connection method	[B connection] [C connection]

GROM · Monkey125 (JB02) · Super Cub · CT125 · Monkey (F1) · Ape50 (F1) · CYGNUS-X (F1) · AddressV125 (GK9). etc

★ : certain conditions
△ : May be different



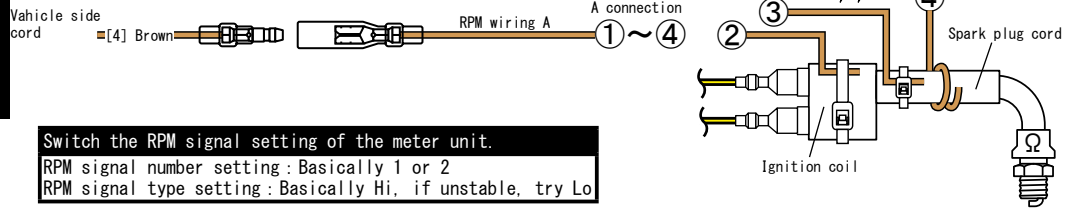
⑭ RPM signal input

14

RPM signal input [A connection] Wiring method

C. D. I. ignition **DC-C. D. I. ignition method** Please see the previous page for how to find type of ignition systems.

[A connection]



Switch the RPM signal setting of the meter unit.
RPM signal number setting: Basically 1 or 2
RPM signal type setting: Basically Hi, if unstable, try Lo

- | | |
|-----------------|--|
| Small | ① Attach the wiring on the near frame or body panel, it will be read by the antenna. |
| ↑ | ② Attach the wiring about 20mm along the surface of the ignition coil and secure it with a tie wrap, etc. |
| Signal strength | ③ Align about 20mm to 30mm along the plug cord and secure with a tie wrap, etc.
Note: longer the length, the stronger the signal. |
| ↓ | ④ Wrap it around the plug cord and pick up the signal with the electricity generated.
Note: more you wrap stronger the signal. |
| Large | In most cases, wrap it around 3 times by method ④ can be read correctly. |

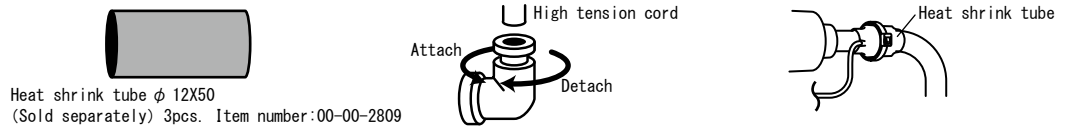
Troubleshooting

- The needle moves stable, but it indicates lower or higher than the actual value.
→ The "RPM signal count setting" may not be correct. Note: If it doesn't match, it will indicate exactly double or half the value.
- The needle does not go up at all, or the goes down at high speeds. → Try ways to make the signal stronger.
- The needle value that is higher than the actual value. The needle swings away. → Try to weaken the signal (signals too strong)
- ※ Note: Adjustments are unlikely to introduce subtle numerical errors. It is clear whether values can be displayed or not.

Temporarily secure RPM wiring A with insulating tape, etc., and check operation by rev the engine lightly.

⚠ Warning Do not test ride with attached the RPM wiring temporarily.

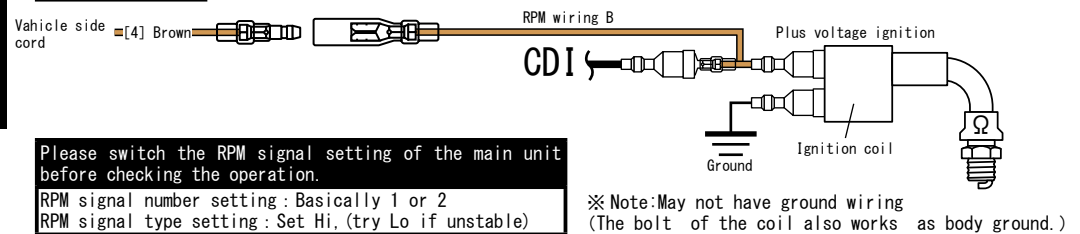
- RPM signal input by [A connection] ③ or ④, please wrap heat shrink tube (sold separately) to complete the process.
- Remove the plug cap from the plug cord.
- Wrap heat shrink tube over RPM wiring A and shrink by hair dryer etc.
(Shrinkage temperature: 90°C or higher, shrinks to approximately 50% of the inner diameter)
- Please securely secure the RPM wiring with a zip-tie not to fall. • Finally, firmly attach the plug cap.



RPM signal input [B connection] Wiring method

C. D. I. ignition **DC-C. D. I. ignition method** **Transistor ignition system** Please see the previous page for how to find type of ignition systems.

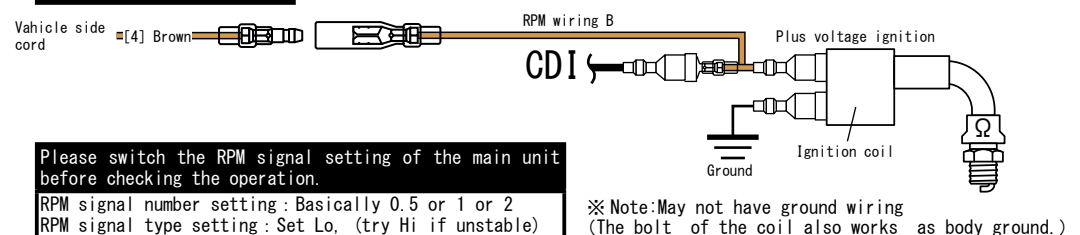
C. D. I. ignition [B connection]



Please switch the RPM signal setting of the main unit before checking the operation.
RPM signal number setting: Basically 1 or 2
RPM signal type setting: Set Hi, (try Lo if unstable)

※ Note: May not have ground wiring (The bolt of the coil also works as body ground.)

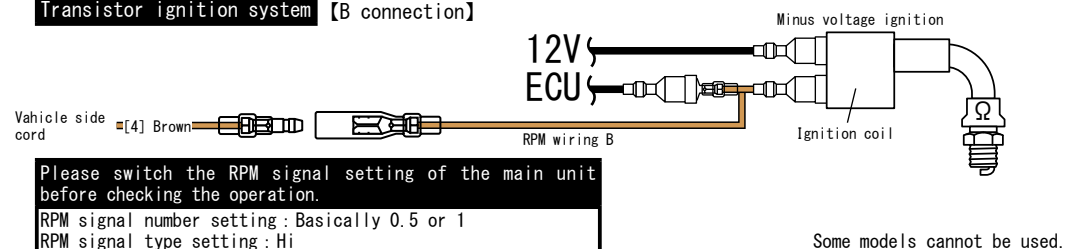
DC-C. D. I. ignition method [B connection]



Please switch the RPM signal setting of the main unit before checking the operation.
RPM signal number setting: Basically 0.5 or 1 or 2
RPM signal type setting: Set Lo, (try Hi if unstable)

※ Note: May not have ground wiring (The bolt of the coil also works as body ground.)

Transistor ignition system [B connection]



Please switch the RPM signal setting of the main unit before checking the operation.
RPM signal number setting: Basically 0.5 or 1
RPM signal type setting: Hi

Some models cannot be used.

Troubleshooting

- The needle moves stable, but it indicates lower or higher than the actual value.
→ The "RPM signal count setting" may not be correct. Note: If it doesn't match, it will indicate exactly double or half the value.
- The needles doesn't go up at all. → Please check whether the "RPM signal type setting" is correct.
- The needle points higher than the actual value. The needle swings away. → Please check whether the "RPM signal type setting" is correct.
- ※ Note: Adjustments are unlikely to introduce subtle numerical errors. It is clear whether normal values can be displayed or not.
- Tachometer needle jumps. → RPM wiring B is touching the ignition coil.

14 RPM signal input

14

**RPM signal input
[C connection]
Wiring method**

C. D. I. ignition

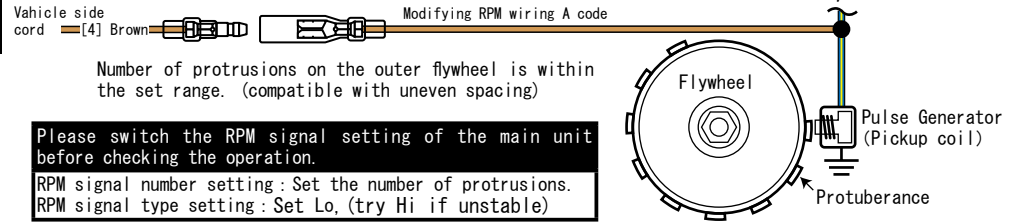
DC-C. D. I. ignition method

Transistor ignition system

Please see the previous page for how to find type of ignition systems.

Prior to connect, please check whether the number of protrusions on the outer the flywheel is within the setting range of the meter. Setting range : 0.5, 1, 1.5, 2, 2.5, 3, 4, 5, 6, 9, 10, 11, 12, 17, 18, 23, 24

[C connection]

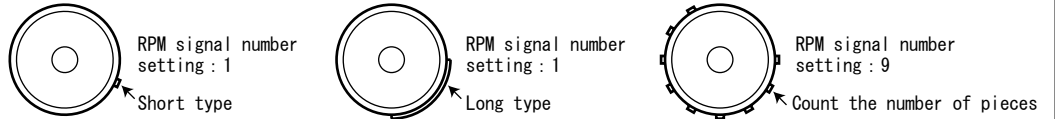


Number of protrusions on the outer flywheel is within the set range. (compatible with uneven spacing)

Please switch the RPM signal setting of the main unit before checking the operation.

RPM signal number setting : Set the number of protrusions.
RPM signal type setting : Set Lo, (try Hi if unstable)

Example: RPM signal frequency setting



Troubleshooting

- The needle is stable, but it indicates a value that is lower or higher than the actual value. → "RPM signal setting" may not be correct. Note: If doesn't match, it will indicate exactly double or half the value.
- The needle doesn't go up at all. → Please check the "RPM signal type setting" is correct.
- The needle indicates higher than the actual value. Or needle swings away. → Please check the "RPM signal type setting" is correct.

Reference information Common questions. ※ This information is advice and does not dictate how you connect.

Vehicle name	Engine specs	Ignition	Connection	Meter setting
12V Monkey	Carburetor	C. D. I.	Common for all	A connection (A-④ 3 Roll)
12V Gorilla	Carburetor	C. D. I.		B connection (Black/Yellow code)
Ape50/100	Carburetor	C. D. I.		C connection (Blue/Yellow code)
XR50/100 Motard	Carburetor	C. D. I.		

Vehicle name	Engine specs	Ignition	Connection	Meter setting	
Monkey (F1)	Injection	Full transistor	Common for all	Not available for A connection	
Ape50 (F1)	Injection	Full transistor		B connection (Pink/Blue code)	0.5 - Hi
GROM ※1	Injection	Full transistor			
Monkey125 (JB02)	Injection	Full transistor			
CT125 (JA45)	Injection	Full transistor			
Ape50 TYPE D	Injection	Full transistor			

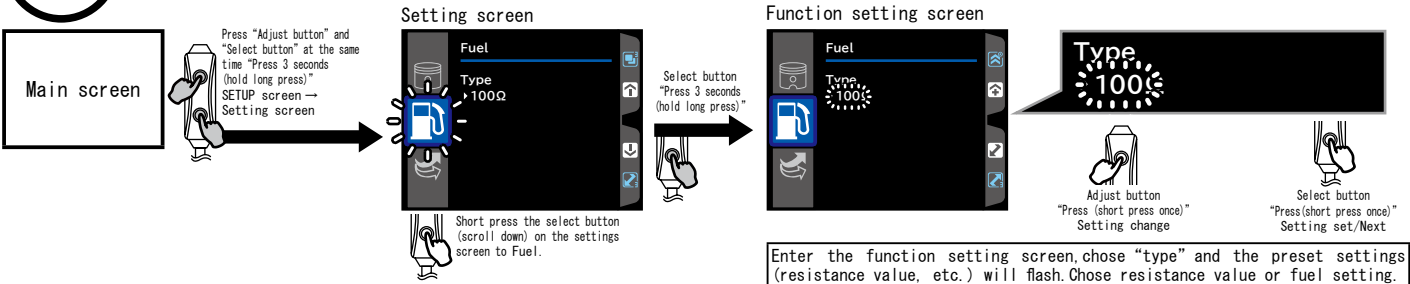
※1 When using a sub-wiring for GROM, the pulse line inside and the setting is "2 - Hi"
"B connections" specified in the table are only available when using the general-purpose sub wiring.

Vehicle name	Engine specs	Ignition	Connection	Meter setting
KSR110	Carburetor	DC-CDI	C connection (Blue/Yellow code)	1 - Hi
CYGNUS-X (F1)	Injection	Full transistor	B connection (Red code)	0.5 - Hi
Address V125 GK7	Injection	DC-CDI	A connection (A-④ 3 Roll)	0.5 - Hi
			B connection (Black/Blue code)	0.5 - Lo
Address V125 GK9	Injection	Full transistor	B connection (Blue code)	0.5 - Hi

15 Fuel (Fuel settings) Know the resistance value of the stock fuel tank, etc.

15

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time. Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Fuel. Fuel is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.

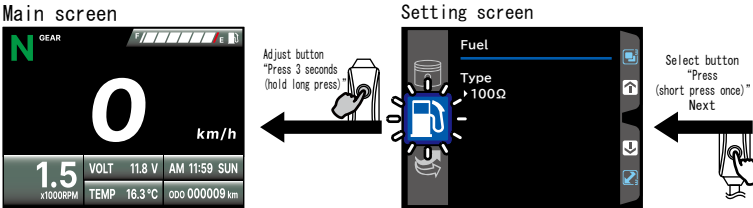


Enter the function setting screen, chose "type" and the preset settings (resistance value, etc.) will flash. Chose resistance value or fuel setting. To change the flashing settings, press the adjust button briefly. To set, press the select button briefly. Set the resistance value or OFF and confirm (short press the select button), will return to the setting screen. "Custom" is set, it will switch to the Fuel-Custom screen.

Preset resistance values and fuel settings.
100 Ω 250 Ω 270 Ω 390 Ω 510 Ω 1200 Ω SW Custom OFF

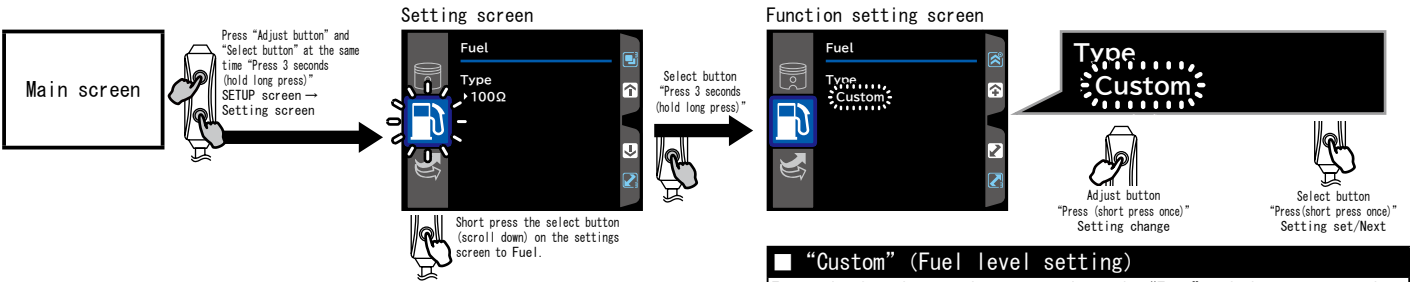
⚠️ Problem with the fuel display, please check this resistance value.

⚠️ Note: Complete settings
After entering numerical values and selecting functions, press/hold (3 seconds) the adjust button on the setting screen to return to the main screen. This process is "setting confirmation" and the settings are stored in the meter. Caution: If you turn the key OFF without "setting confirmation", the new settings will not be stored and return to the previous settings.



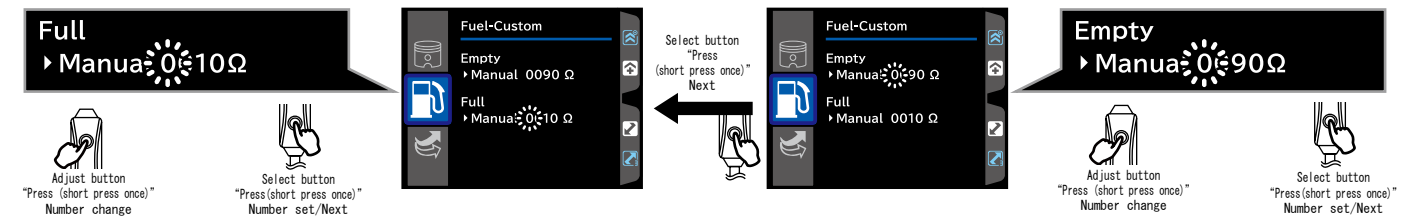
Custom Manual Setting

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time. Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Fuel. Fuel is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.



"Custom" (Fuel level setting)

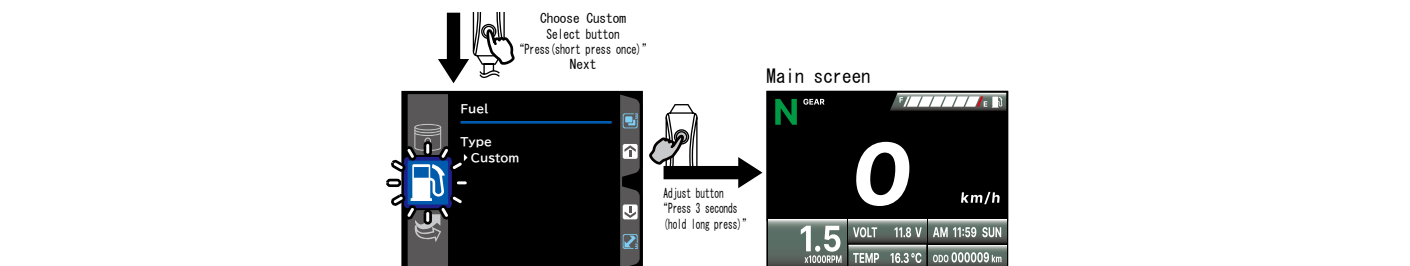
Enter the function setting screen, chose the "Type" and the preset settings (resistance value, etc.) will flash. Short press the adjust button, at "Custom" then short press the select button. Now you enter the Fuel-Custom (fuel level setting) At user settings, it is necessary to know the resistance value from the service manual of the specified models.
⚠️ Connect the fuel gauge sensor wiring.



At "Full" (full tank), short press the select button "Auto" change to "Manual" and the 1000 digit will blink. Enter the resistance value when the fuel is full. Change the numbers by short press the adjustment button. When you finish entering the last 1's digit and confirm it (short press the select button), will return to the setting screen.

⚠️ Note: Complete settings
After entering numerical values and selecting functions, press/hold (3 seconds) the adjust button on the setting screen to return to the main screen. This process is "setting confirmation" and the settings are stored in the meter. Caution: If you turn the key OFF without "setting confirmation", the new settings will not be stored and return to the previous settings.

Switch to the "Fuel-Custom" (fuel level settings) screen, the "Empty" will appear and "Auto" will flash. User settings, by short pressing the select button, "Auto" will change to "Manual" and the 1000's digit will blink. Enter the resistance value when the fuel is empty. Change the numbers by short press the adjust button. To set, short press the select button. After enter the last 1's digit and confirm your set (short press the select button), will move to the "Full".



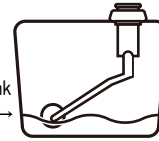
15 Fuel (Fuel settings) Setting in Custom Auto

15

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time. Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Fuel. Fuel is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.

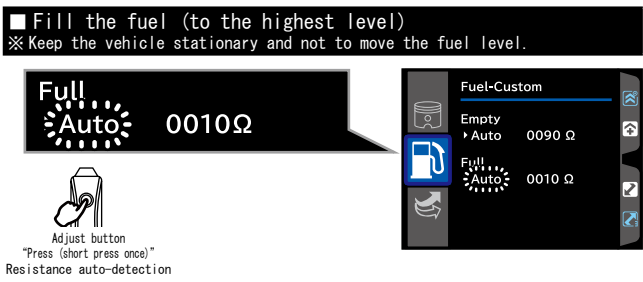
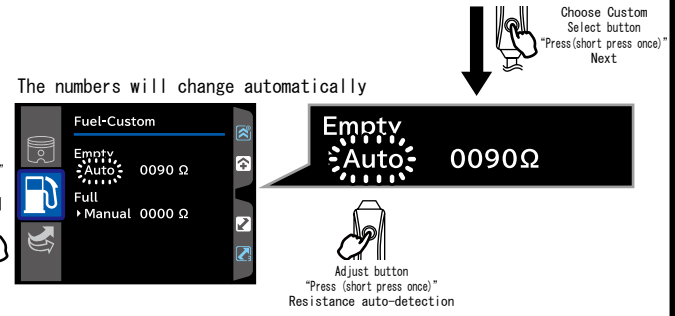
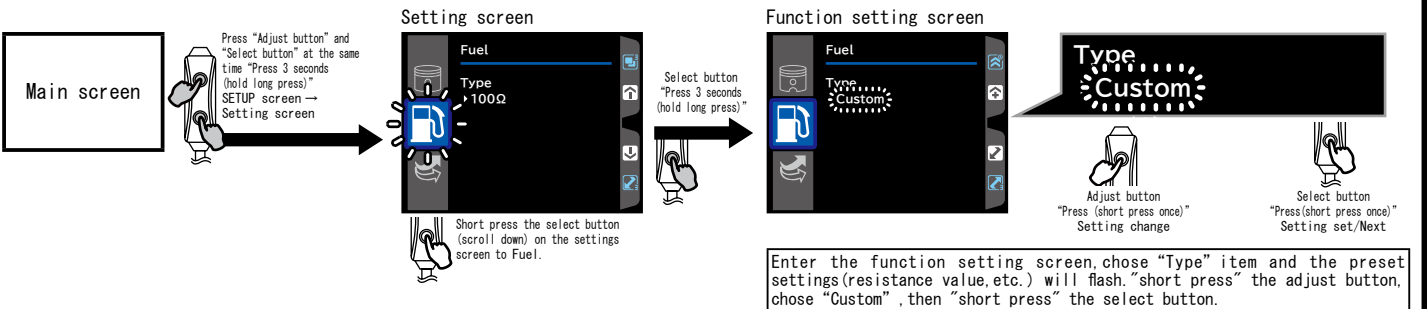
"Fuel level resistance auto-detection setting"

Note
 Fuel level resistance auto-detection setting need to know the capacity of the fuel tank and the total fuel distribution (%) for setting. Must have fuel sensor (genuine) that is compatible with our meter in the fuel tank. ※ May not be compatible with custom fuel tanks.



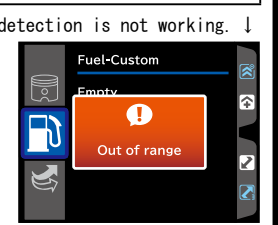
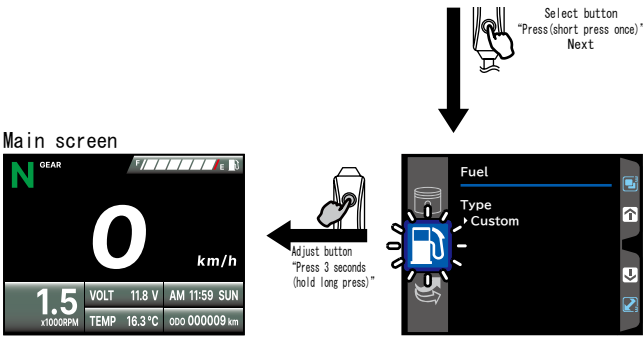
Fuel level in the tank lowest level →

Make to a lowest level of fuel. ※ Keep the vehicle stationary and not to move the fuel level.



Fuel-Custom (fuel level user settings) screen, the "Empty" item will appear and "Auto" will flash. Now configure the fuel level resistance auto-detection. Conditions at this point. ※ Fuel must be lowest. If the fuel level is not low, "Full" will not be detected automatically and "Out of range" will be displayed. Please check actual fuel level of the tank. ※ Fuel gauge sensor wiring is connected. Note: Wiring is not connected, resistance auto-detection will not work. Press the adjust button "shortly" while "Auto" is flashing, and the resistance value will be automatically displayed on the right side. Short press the select button 5 times to move to "Full".

"Auto" will flash when you move to "Full". "short press" the adjust button, the resistance value will be automatically displayed on the right side. Confirm (short press the select button), return to the setting screen. ※ Note: Complete settings After entering numerical values and selecting functions, press/hold (3 seconds) the adjust button on the setting screen to return to the main screen. This process is "setting confirmation" and the settings are stored in the meter. Caution: If you turn the key OFF without "setting confirmation", the new settings will not be stored and return to the previous settings.

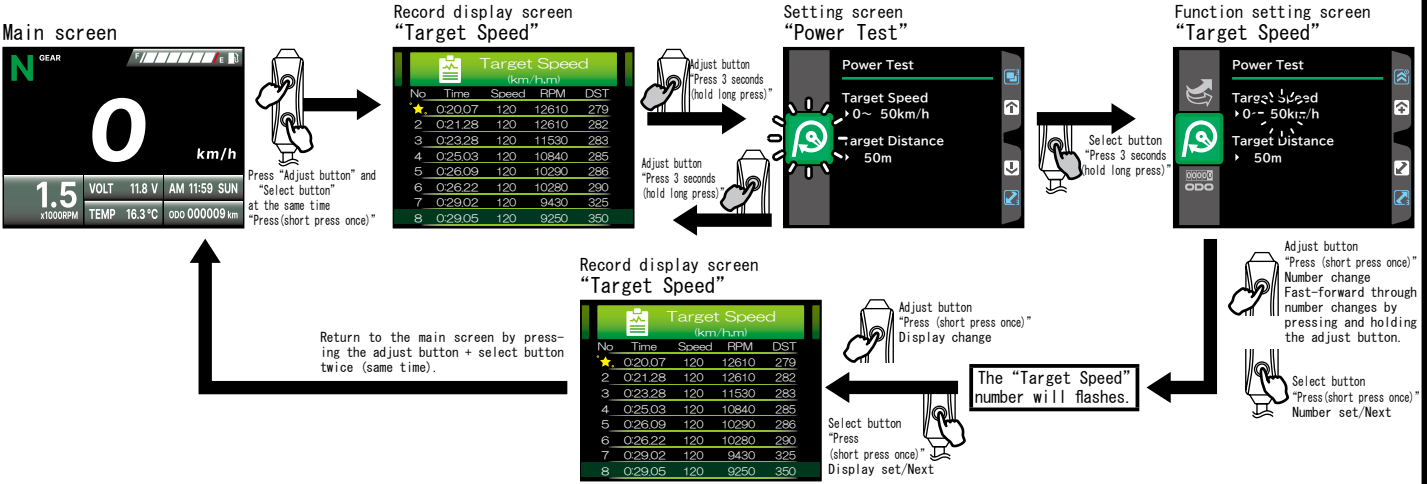


Target speed test (measuring time and distance to specified speed).

⚠ Caution: Do not perform the target speed test on public roads.

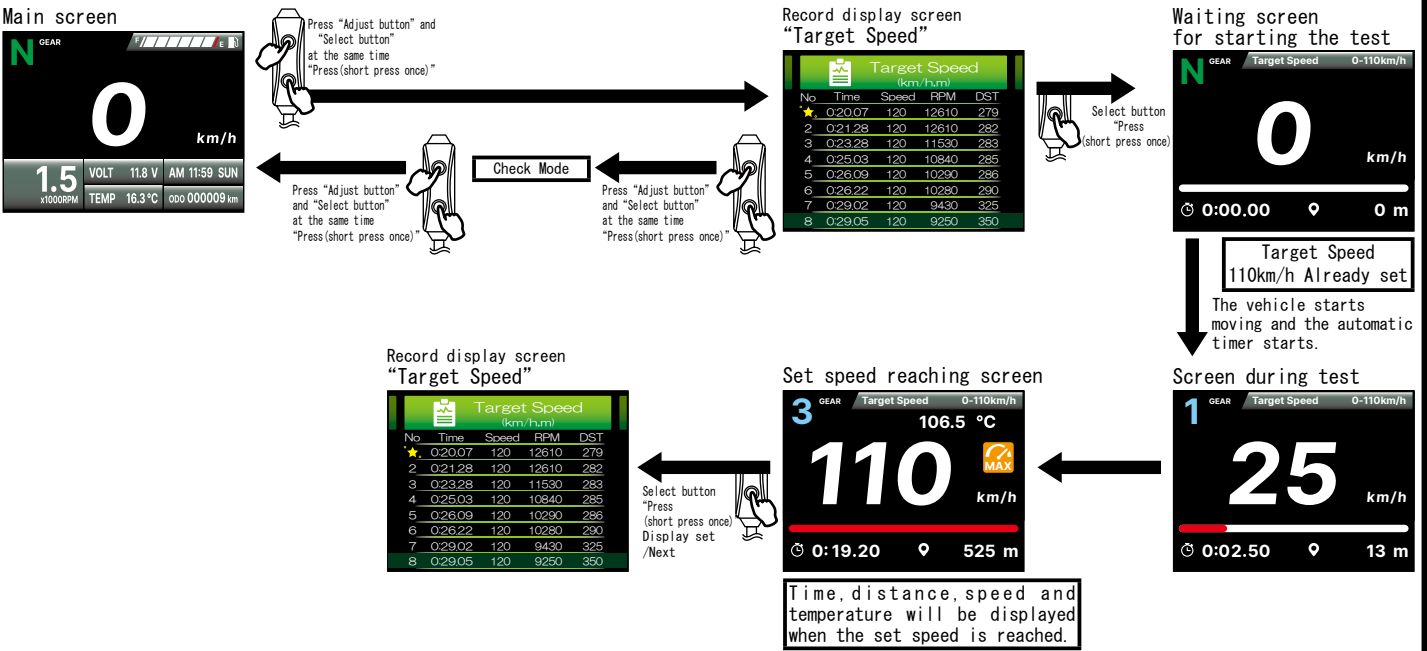
- Set the target speed before performing the target speed test. Please see ① for details.
- How to set target speed Setting range: 30 ~ 360km/h

On the main screen, "short press" the adjust button + select button (same time), "Target Speed", hold pressing the adjust button for 3 seconds to go to the SET UP/Power test. Hold pressing the select button for 3 seconds to enter the function setting screen, and set the specified speed for "Target Speed" using the short press of the adjust button. Fast-forward through number changes by pressing and holding the adjust button. To confirm, press the select button "shortly" and move to the next item. After determining the display method (short press the select button), press/hold the adjust button for 3 seconds to return to "Target Speed". From "Target Speed", press the adjust button + select button (at same time) twice to return the main screen.



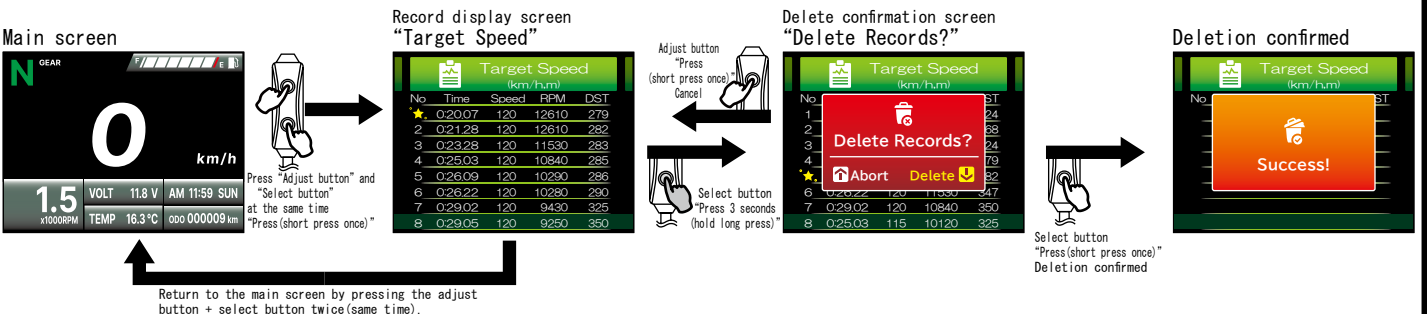
How to start/end target speed test measurement.

- To perform a target speed test, press the adjust button + select button short press (same time) from the main screen to switch to "Target Speed". By "short press" the select button on the "Target Speed" screen, switch to the test screen. The test screen will be ready to start the test, and the timer will automatically start when the vehicle moves. Start the vehicle and once the set speed is reached the time, distance, speed and temperature will be displayed.
- Automatic timer: Measurement starts automatically when the vehicle starts moving (tires moves), and ends automatically when the vehicle stops.



Record management of target speed test measurements.

- The target speed test record will be displayed in the "Best" on the function setting screen. For the best record, a ★ (star mark) is displayed in the No.
 - Delete target speed test records ✕ All target speed test record data will be deleted.
- To delete test records, from the main screen short press the adjust button + select button (at same time) to the recording screen "Target Speed". Hold pressing the select button for 3 seconds at "Target Speed", "Delete Records" (do you want to delete the records?) will be displayed, hold pressing the select button for 3 seconds, all Target Speed recorded data will be deleted. Not to delete, short press the adjust button, chose Abort (cancel), and return to the recording screen "Target Speed". From the recording screen "Target Speed", press the adjust button + chose button twice to return to the main screen.



Target distance test (measuring time and speed to specified distance) method.

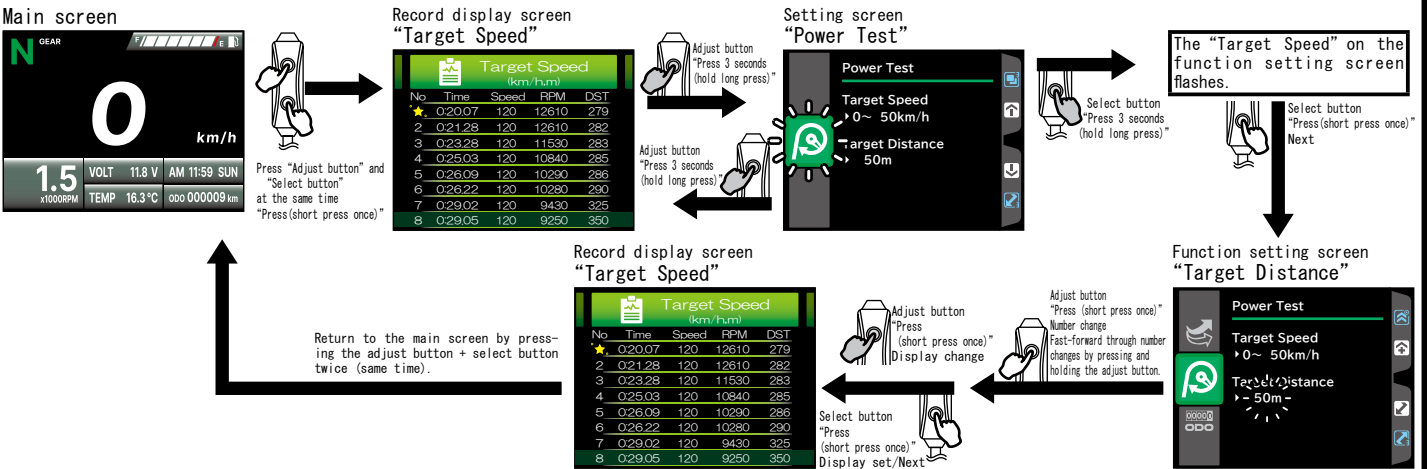
⚠ Caution: Do not perform the target distance test on public roads.

■ Set the target distance before performing the target distance test. See ① for details.

■ How to set target distance 50 ~ 1500m Minimum Unit:50m

On the main screen, "short press" the adjust button + select button, and on the displayed recording screen "Target Speed", hold pressing the adjust button for 3 seconds to go to the SET UP screen (setting screen) "Power test". Hold pressing the select button for 3 seconds to enter the function setting screen. The "Target Speed" will blink, short press the select button to move "Target Distance". Set the specified distance for "Target Distance" with a "short press" of the adjustment button. Fast-forward through number changes by hold pressing the adjustment button. To set, short press the select button.

To confirm, short press the select button then hold pressing the adjust button for 3 seconds to return to the "Target Speed". From "Target Speed", press the adjust button + select button (same time) to return to the main screen.

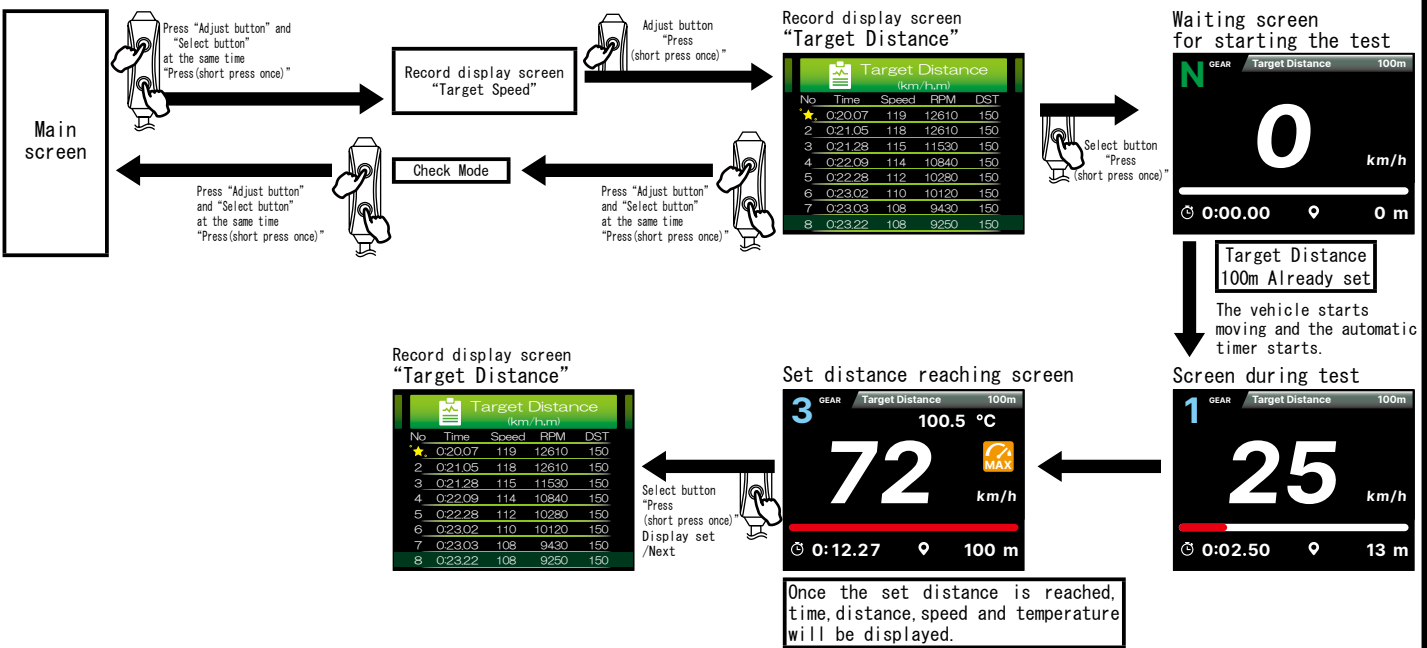


How to start/end target distance test measurement.

■ To perform a target speed test, short press the adjust button + select button (same time), from the main screen to "Target Speed" on the recording screen. To move "Target distance", short press the adjustment button on the "Target Speed" screen. By "short press" the select button, will switch to the test screen. The test screen will be ready to start the test, and the timer will automatically start when tire moves.

Start the vehicle and once the set distance is reached, time, distance, speed and temperature will be displayed. From "Target Distance", press the adjust button + select button (same time) to return to the main screen.

■ Automatic timer: Measurement starts automatically when the vehicle starts moving (tires start rotating), and ends automatically when the vehicle stops.



Record management of target distance test measurements.

■ The target speed test record will be displayed in the "Best" setting on the function setting screen.

For the best record, a ★ (star mark) is displayed in the No.

■ Delete target distance test records ✖ All target distance test record data will be deleted.

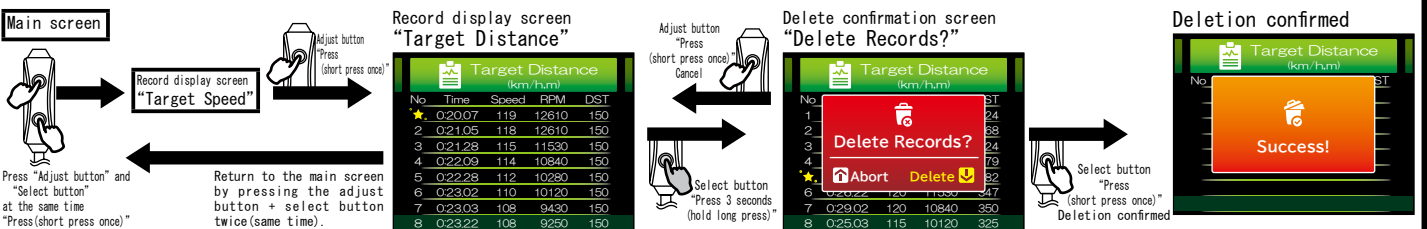
To delete test records, short press the adjust button + select button from the main screen to switch to the recording screen "Target Speed".

Move to "Target Distance" by short press the adjustment button on the "Target Speed" screen.

"Target Distance" is displayed, press/hold the select button for 3 seconds, "Delete Records" (do you want to delete the records?), press the select button briefly by chose Delete, all Target Speed recorded data will be deleted.

Not to delete, short press the adjustment button and select Abort (cancel) to return to the recording screen "Target Distance".

From the recording screen "Target Distance", press the adjust button + chose button twice (same time) to return to the main screen.

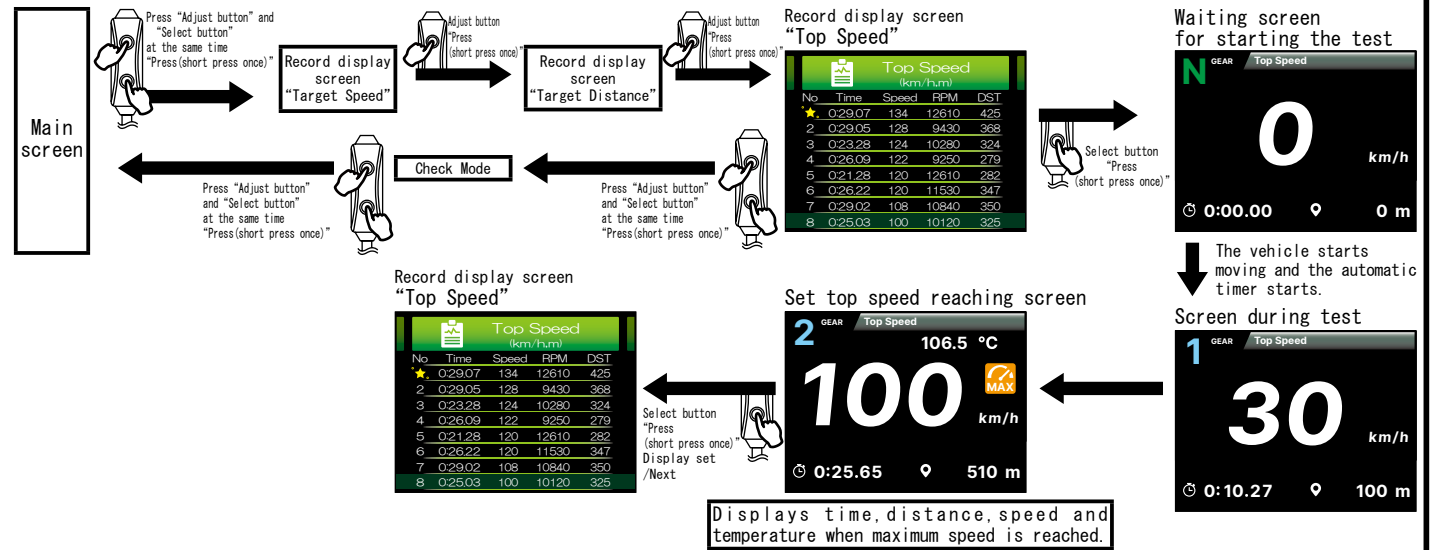


TOP speed test (measuring maximum speed) method.

⚠ Caution: Do not perform the top speed test on public roads.

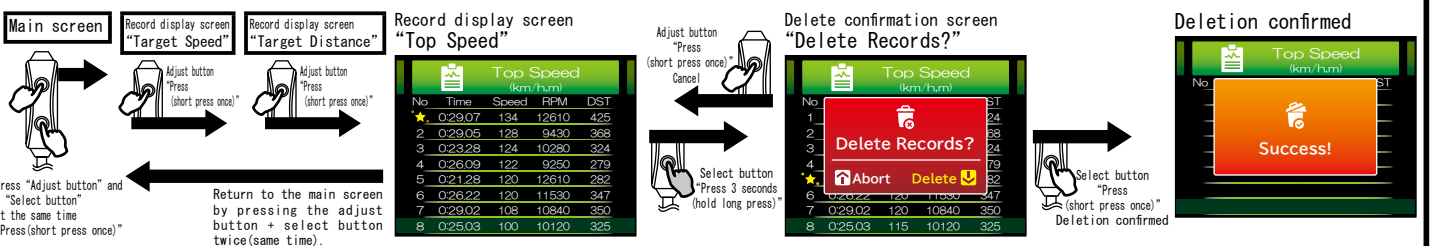
How to start/end top speed test measurement

- To perform the top speed test, press the adjust button + select button (same time) from the main screen to switch to "Target Speed" on the recording screen. Move to "Top Speed" by short press the adjustment button twice on the "Target Speed" screen. Short press the select button, will switch to the test screen. The test screen will be ready to start the test, and the timer will automatically start when the vehicle moves. When the vehicle starts running and reaches maximum speed (accelerator OFF), time, distance, speed, and temperature are displayed. From the recording screen "Target Speed", press the adjust button + select button twice (same time) to return to the main screen.
- Automatic timer: Measurement starts automatically when the vehicle starts moving (tires start rotating), and ends automatically when the vehicle stops.



Management of fastest test measurements.

- The highest speed test record will be displayed in the "Best" setting on the function setting screen. For the best record, a ★ (star mark) is displayed in the No.
- Delete top speed records: *All top speed record data will be deleted. To delete the maximum speed test, press the adjust button + select button (same time) from the main screen to switch to the recording screen "Target Speed". Move to "Top Speed", short press the adjustment button twice on the "Target Speed" screen. At "Top Speed", hold pressing the select button for 3 seconds. "Delete Records" (Do you want to delete the records?) will be displayed. Press the select button briefly. By chose Delete, all Target Speed recorded data will be deleted. Not to delete it, short press the adjust button, chose Abort (cancel), and return to the recording screen "Target Speed". From the recording screen "Target Speed", press the adjust button + select button twice same time to return to the main screen.

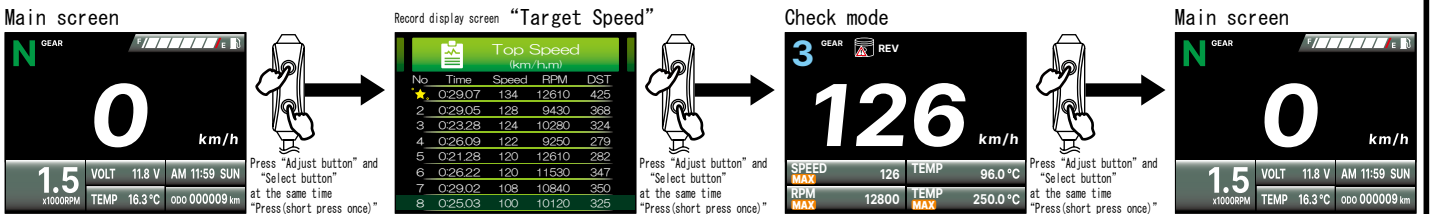


Check mode (check maximum speed, maximum rotation speed, maximum temperature)

⚠ Caution: Do not perform the Check mode on public roads.

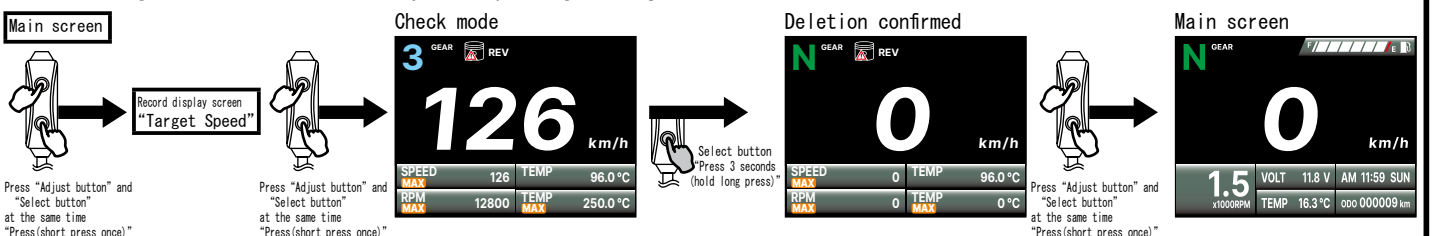
How to check "check mode"

- To check the "check mode", press the adjust button + select button same time from the main screen to switch to "Target Speed" on the recording screen. On the "Target Speed" screen, short press the adjust button + select button same time to switch to "check mode". In check mode, maximum speed, maximum rotation speed, and maximum temperature are displayed. After confirming the check mode, return to the main screen by short press the adjust button + select button same time.



How to reset "check mode"

- Reset will delete all check mode data. To reset the check mode, press the adjust button + select button (same time) from the main screen to switch to the "Target Speed". On the "Target Speed", short press the adjust button + select button same time again to switch to "check mode". At "check mode", hold pressing the select button for 3 seconds to reset the check mode data. After resetting, return to the main screen by "short pressing" the adjust button + select button (same time).



16 A/F Ratio(Air fuel ratio meter)

16

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note:The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to A/F Ratio.A/F Ratio is displayed in the title, press/hold(3 seconds) the select button to move function setting screen.

※ SP Takekawa A/F sensor and O₂, need a sensor boss (sold separately).
 ※ Installation of O₂ sensor boss,drill a hole in the exhaust pipe and welding O₂ sensor boss.

Main screen

Press "Adjust button" and "Select button" at the same time "Press 3 seconds (hold long press)"
 SETUP screen → Setting screen

Setting screen

A/F Ratio
 Function OFF
 If turn on AFR function, Thermometer will turn off.

Short press the select button (scroll down) on the settings screen to A/F Ratio.

Function setting screen

A/F Ratio
 Function OFF
 If turn on AFR function, Thermometer will turn off.

Adjust button "Press (short press once)" Setting change
 Select button "Press (short press once)" Setting set/Next

When you enter the function setting screen, chose "Function" and ON/OFF will flash. Chose the display of air-fuel ratio meter settings. To change the flashing settings, press the adjust button briefly. To set, press the select button briefly. Setting is completed and return to the setting screen.

Caution will display on the function setting screen. If turn on AFR function, Thermometer will turn off. When the air-fuel ratio meter is turned on, the temperature meter will automatically turn off.

※ The temperature meter and air-fuel ratio meter cannot use same time. You have to choose either functions. Also, the meter wiring can be connect only one sensor. Cannot be installed both same time.

17 Power Test(Power Test setting)

17

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note:The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to Power Teat.Power Teat is displayed in the title, press/hold(3 seconds) the select button to move function setting screen.

Main screen

Press "Adjust button" and "Select button" at the same time "Press 3 seconds (hold long press)"
 SETUP screen → Setting screen

Setting screen

Power Test
 Target Speed 0~50km/h
 Target Distance 50m

Short press the select button (scroll down) on the settings screen to Power Test.

Function setting screen

Power Test
 Target Speed 0~50km/h
 Target Distance 50m

Adjust button "Press (short press once)" Setting change
 Select button "Press (short press once)" Setting set/Next

Enter the function setting screen, chose "Target Speed" and the number will flash. Set the target speed. To change the blinking number, press the adjust button briefly. To set, press the select button briefly. The settings are complete and move to next item, Target Distance.
 Setting range: 30 ~ 360km/h

Target Test

0 ~ 50km/h

Adjust button "Press (short press once)" Setting change
 Select button "Press (short press once)" Setting set/Next

Target Distance

50km/h

Adjust button "Press (short press once)" Number change
 Select button "Press (short press once)" Number set/Next

Move to "Target Distance" and the number will flash. Set the target distance. To change the blinking number, press the adjust button briefly. To set, press the select button briefly. Setting is completed and return to the setting screen.
 Setting range: 50 ~ 1500m

The recording screen is displayed by "short press" the adjust button + select button (same time) on the main screen. "Target Speed", "Target Distance" and "Top Speed" can be switch by "short press" of the adjustment button.

18 ODO (Running distance (odometer))

18

From the main screen to switch to the settings screen press/hold (3 seconds) the adjust button and select button at the same time.
 Note: The "SETUP" will be displayed before the settings screen. Short press the select button (scroll down) on the settings screen to ODO. ODO is displayed in the title, press/hold (3 seconds) the select button to move function setting screen.

Main screen

Setting screen

Press "Adjust button" and "Select button" at the same time "Press 3 seconds (hold long press)" SETUP screen → Setting screen

Short press the select button (scroll down) on the settings screen to ODO.

When you enter the setting screen ODO, you can check the distance (of after installing meter) in the Total item.

Note: the total distance (odometer) display cannot be erased or adjusted. Display range: 0 ~ 999999km

Enter the function setting screen by hold pressing the select button for 3 seconds.

Main screen

Setting screen

Adjust button "Press 3 seconds (hold long press)"

Select button "Press (short press once)" Next

Function setting screen

Adjust button "Press (short press once)" Setting change

Select button "Press (short press once)" Setting set/Next

Hold pressing the select button for 3 seconds to enter the function setting screen ODO. Enter the desired distance.

Note: user mileage input

Warning: The total distance (odometer) display cannot be erased or adjusted. You can enter the distance you want to display and check the added distance.

When you enter the function setting screen, chose "Set" and the 100000 digit will blink. Enter the desired distance. To change the blinking number, press the adjustment button shortly. To set, press the select button briefly. Once you set, short press the select button, the setting is complete and you will move to the next level. Once you set the last 1's digit (short press the select button), the setting is complete and you will return to the setting screen.

Display range: 0 ~ 999999km
 It will be automatically added to the entered distance as you running.

Troubleshooting

■ These symptoms is not a malfunction of the meter. Please check before repair it.

The power is on but the meter does not work.	<ul style="list-style-type: none"> There is no electricity at the meter. <ul style="list-style-type: none"> → Please check the wiring is securely connected. Check the poor wiring and fuses are not blown. → DC12V is required for meter power supply. It will not work if the battery is weak, old or damaged. TFT meter does not turn on but stock meter turns on. → The backup fuse may be blown.
Incorrect information on the Meter display.	<ul style="list-style-type: none"> Check the battery voltage (must have DC12V).
Speedometer does not display or does not display correctly.	<ul style="list-style-type: none"> Possibility a problem the speed sensor connection. <ul style="list-style-type: none"> → Check the speed sensor is connected correctly. Check the speedometer settings.
Tachometer does not display or does not display correctly.	<ul style="list-style-type: none"> Check the RPM wiring is connected correctly. Please check the spark plug is "Register" type. Check the RPM settings.
Temp meter does not display or does not display correctly.	<ul style="list-style-type: none"> Check the temp sensor is connected correctly. Check the temp meter setting. Check the O₂ sensor/wiring is connected to the meter harness. Check the air-fuel ratio meter setting is turned ON (displayed). When turned ON, the temp meter will automatically turn OFF (not showing).
Air-fuel ratio meter does not display or does not display correctly.	<ul style="list-style-type: none"> Check the O₂ sensor and wiring is connected correctly. Check the air-fuel ratio meter settings. When temp sensor is connected, the display will remain at 17.5. Reconnect the O₂ sensor and check again. If the wiring is disconnected (inside of wiring) or the O₂ sensor is malfunctioning, check the meter display briefly with the key turned on. Wait few minutes, then the display shows "A/F--", this phenomenon indicates wiring may be disconnected (or not connected correctly), or the O₂ sensor may be malfunctioning.
Fuel gauge does not display or displays an "error".	<ul style="list-style-type: none"> Check the fuel tank. Connection problem in the harness. → Check the wiring is connected correctly. Check the fuel gauge settings.
The clock is not functioning properly.	<ul style="list-style-type: none"> Check the meter settings. Check the wiring is not reversed. → Check positive wiring (red) is connected to the battery (DC12V) and the positive wiring (black/key ON power supply) is connected to the main switch (DC12V).
Meter indicator is not displayed.	<ul style="list-style-type: none"> Connection problem in the harness. → Check the wiring is connected correctly.
Shift indicator is respond slow.	<ul style="list-style-type: none"> Check the speed setting and the gear position setting is correct. The teeth of the front sprocket or rear sprocket was changed after setting the gear position. → Please set again.
Meter indicator lights up when key is OFF.	<ul style="list-style-type: none"> When the key is turned off each indicator lamp on the meter may light up momentarily. (this is not a malfunction).
When the backlight setting is set to AUTO, the lighting changes frequently.	<ul style="list-style-type: none"> "Auto" steted, the display will switch from Day to Night if there is a shadow (roadside trees, under elevated tracks) even during bright morning and afternoon hours. It doesn't malfunctioning.

※ If these symptoms occurs (after checking), please contact your retailer.

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If this document hard to read, please download it from our website.



Meter Bracket & Harness Kit(For Super Multi TFT Meter) Instruction manual

Product number 05-06-0029

Adaptation For motorcycle with DC12V battery.

Thank you very much for purchasing our products.

Thank you so you will comply with the following matters at the time of use. Before installation, please check your always kit contents. If there is a point of notice event, Please contact us the dealer of purchase.

◎ If the description, such as photos or illustration different with this part.

☆ Please read carefully before use ☆

◎ The use ignoring the instructions that are written in the manual, if the accident or damage has occurred, we can not assume any responsibility for compensation.

◎ This product installation and use, when a problem occurs to after market goods, guarantee other than this product, also can not assume any in any such matters.

◎ If it was the case or mounting that has been processed like a product, it will not be covered under warranty.

◎ It is not possible to inquire of the combination of other manufacturers.

◎ This product is the above-mentioned vehicle exclusive goods. Is not possible attached to the other vehicle. Please note.

◎ Do not use gasoline or thinner (or any solvent) cleaning this product. There is a risk of deterioration of rubber and plastic parts.

◎ If you have any questions, please contact your local Takegawa dealer.

◎ Product may have edges or protrusions. Be sure to wear working gloves.

(Please wear work gloves when working, even if a photo in this article show without work gloves.)

◎ This product is a standard bracket kit for installing the Super Multi TFT meter on applicable models. The sub-harness and small parts come with this kit are general purpose parts for DC12V models. (Caution: SP Takegawa mini regulator can not be used with this products)

◎ This product cannot be used to meters other than Super Multi TFT Meters.

◎ Product and programs are subject to change and improvement without notice.

Even with the same product number, the operation and screen may slightly differ depending on the production time.

◎ Caution: Some vehicles, when replacing the sprocket, the error code such as "ABS" may come on but it cannot be erased.

(even speed display setting is changed)

~ feature ~

The Super Multi TFT meter can be attached to the DC12V models with a custom bracket and sub-wire included in the kit.

Using a rubber mount prevents vibration to the meter body.


This custom meter can be equipped a great many functions such as rotation speed, gear position, thermometer, battery voltage display, tire outer diameter correction, power test function, etc. (in addition to speed, odd / trip meter)

You can change the display and set the function with an external switch.

Since the meter comes with a stick temperature sensor, you can detect oil temperature with the adding SP Takegawa magnet drain bolt.

 Note: Super Multi TFT Meter

Do not use LED, H.I.D. headlights or fog lamps kit made by other than our companies at the same time. Some ballast / inverter (voltage converter) generates high-voltage noise that adversely affects the digital circuit, resulting in product failure or malfunction.

 Note: setting the gear position

To set the gear position, both the speed signal and the engine speed signal must be input to the Super Multi DN meter.

Therefore, it is require to learn gear display by chassis dynamo, free roller or actual driving.

We recommend learning gear display by chassis dynamo or free rollers for safety reasons.

Do not learn gear display on driving in the city because there are many traffic lights and traffic in the city.

When performing in actual driving, select a safe place with good visibility and check the surroundings.

 Caution When the handling of ignoring this display, property damage and human shows the assumption of what injury.


■ When performing the work, etc., be sure during the cold (when the engine and the muffler is cold). (It may cause burns.)

■ When performing the work, it should be made to prepare the tools for the job. (Breakage of parts, it may cause injury.)

■ Do the work must always specified torque using a torque wrench. (Damage of bolts and nuts, and cause of dropout.)

■ The product and the frame, might have edges or protrusions. When working, please wear work gloves to protect your hands. (It may cause injury.)

■ Be sure to each part inspection before operation, check the loosening of the threaded portion, be sure to securely tighten the specified torque if there is loose. (It may cause detachment of the parts.)

 Warning When the handling of ignoring this display people died, shows the contents of the serious injury possibility is assumed.

■ During operation, when an abnormality occurs, immediately stop the vehicle in a safe place, please stop running. (It may lead to an accident.)

■ When performing the work, do the work safely stabilize the vehicle in a horizontal location.

(There is a risk of injury vehicle collapsed while working.)

■ Inspection, maintenance, the instruction manual or, inspection methods such as service manuals, to protect the way, should be done correctly. (unsuitable inspection and maintenance, there is a risk that result to an accident.)

■ When carrying out the inspection and maintenance, etc., if found damaged parts, replace the damaged parts to avoid possible to reuse the parts. (There is a risk that lead to accidents Continued use.)

■ Plastic bags of product packaging, you can either be stored in a place that is out of reach of children, it should be discarded. (When the children or wearing, there is a risk of suffocation.)

■ Do not operate the switch while driving. (It may lead to an accident.)

■ On Monkey 125, changed from stock sprocket teeth, an error will occur in the display of the genuine speedometer. (Will show error code.)

Also, the ABS warning light will light up and ABS will not work. To fix these problems, a vehicle speed signal correction unit is required.

We do not sell vehicle speed signal correction units.

◎ Please note. Performance up, the design change, the product and the price in the cost up, etc. are subject to change without notice.

◎ Please be informed that we shall be held harmless against any claim against us whatsoever arising out of use of the products in racing and the like.

◎ Keep this manual stored until this product is discarded.

SPECIAL PARTS
TAKEGAWA

CONTACT Address : 3-5-16 Nishikiorihigashi Tondabayashi Osaka JAPAN

TEL: +81-721-25-1357 FAX: +81-721-24-5059 e-mail: english@takegawa.co.jp URL: http://www.takegawa.co.jp

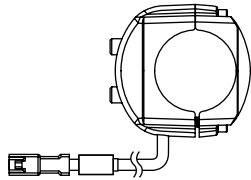
Please contact with your name and country name provided. (Only English please)

Product content

① Meter body



② External switch

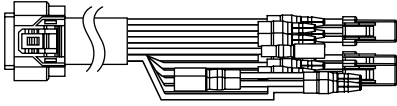


③ Rubber strip

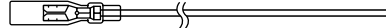


■ Super Multi TFT Meter			
Number	Product content	Quantity	Item Number
1	Meter body	1	—
2	External switch	1	00-05-0380
3	Rubber strip	1	

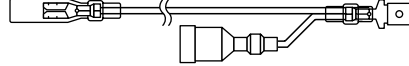
④ SUB harness



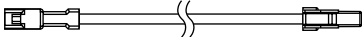
⑤ RPM code A (2000mm)



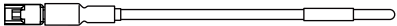
⑥ RPM code B (550mm)



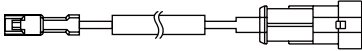
⑦ Temperature sensor connection cord (900mm)



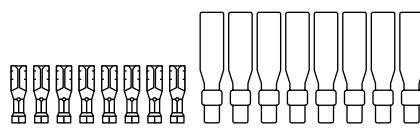
⑧ Stick temperature sensor (~ 250°C)



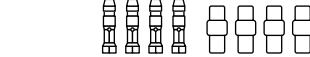
⑨ O₂ Sensor Connection cord (1200mm)



⑩ Female connector set (φ 3.5)



⑪ Male connector set (φ 3.5)



⑫ Heat shrink tube (φ 12x50)

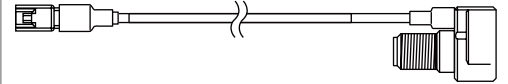


⑬ Cable tie 300mm



JIS cable type speed sensor set (05-06-0036)

⑭ JIS cable type speed sensor



⑮ Socket cap screw (M4x16)



⑰ Nut M4



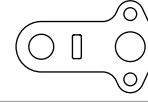
⑯ Spring washer for M4



⑱ washer for M6 (6x16x1.0)



⑲ Speed sensor bracket, Flat type



⑳ Speed sensor bracket, 90 degree bend type



㉑ Cable tie 200mm

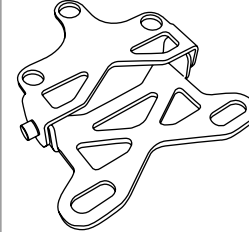


■ Bracket Kit (05-06-0029)

Number	Product content	Quantity	Item Number	in packs of
4	Sub harness	1	—	—
5	RPM code A (2000mm)	1	00-05-0350 (1.4m)	1
6	RPM code B (550mm) for IG connection	1	090-00-0063	1
7	Temperature sensor connection cord (900mm)	1	07-04-0556	1
8	Stick temperature sensor (~ 250°C)	1	07-04-0555	1
9	O ₂ sensor connection cord (1200mm)	1	00-05-0201 (non-waterproof/2.0m)	1
10	Female connector set (φ 3.5)	8	—	—
11	Male connector set (φ 3.5)	4	—	—
12	Heat shrink tube (φ 12x50)	1	—	—
13	Cable tie 300mm	2	—	—
14	JIS cable type speed sensor	1	05-06-0036	1
15	Socket cap screw (M4x16)	2		2
16	Spring washer for M4	2		2
17	Nut M4	2		2
18	Washer for M6 (6x16x1.0)	1		1
19	Speed sensor bracket, Flat type	1		1
20	Speed sensor bracket, 90 degree bend type	1		1
21	Cable tie 200mm	2		2
22	H1 bracket	1		1
23	Cushion rubber	3		3
24	Tapping screw (M4x12)	3	3	
25	Washer for M4 (5.3x13x1)	3	3	
26	Custom washer for M8	2	2	
27	Aluminum (stepped) spacer for M8 (8.5x12x12.5)	2	2	
28	Socket cap screw (M8x45)	2	2	
29	Custom washer for M6	2	2	
30	Aluminum (stepped) spacer for M6 (6.5x10x10)	2	2	
31	Socket cap screw (M6x40)	2	2	
32	L wrench (3mm)	1	1	

H1 bracket set

㉒ H1 bracket



㉓ Cushion rubber (Assembled to H1 bracket)



㉔ Tapping screw (M4x12)



㉕ Washer for M4 (5.3x13x1)



㉖ Custom washer for M8



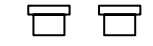
㉗ Custom washer for M6



㉘ Aluminum (stepped) spacer for M8 (8.5x12x12.5)



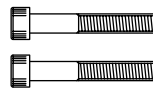
㉙ Aluminum (stepped) spacer for M6 (6.5x10x10)



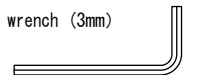
㉚ Socket cap screw (M8x45)



㉛ Socket cap screw (M6x40)



㉜ L wrench (3mm)



※ Please order in the repair parts are always repair part number.

If it is not the part number order, you may not be able to order. Please be forewarned.

It should be noted, In the case of parts that can not be separately shipment, please order a set part number.

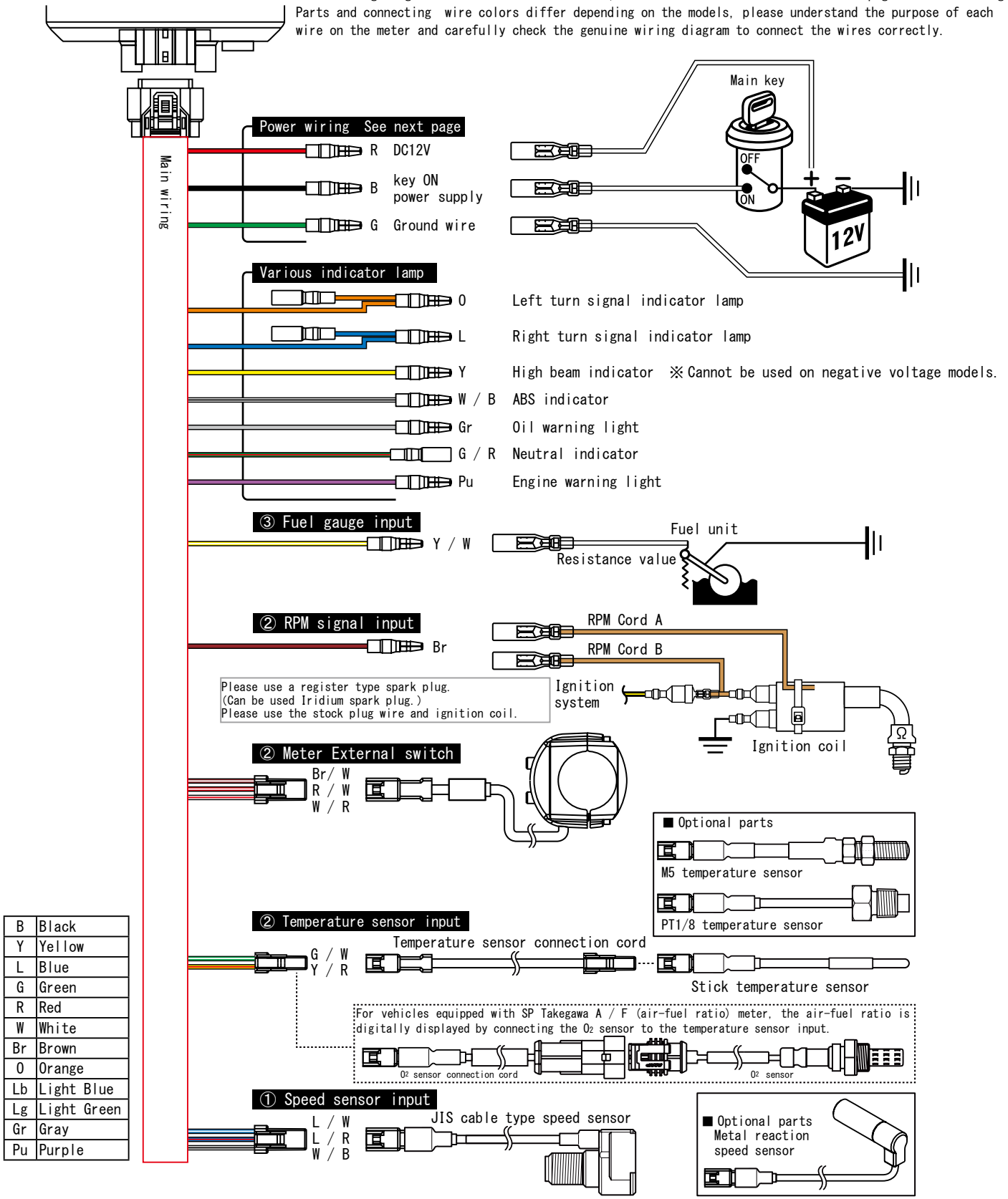
※ Repair parts may differ slightly from the kit contents in terms of shape, etc.

There is no problem to use it. Please be forewarned.

※ The repair parts for the ⑨ O₂ sensor connection cord are different from the kit accessories and are non-waterproof.

Main harness diagrams

Basic wiring diagram often found on mini bikes, etc. Please check more on the details page for each wiring. Parts and connecting wire colors differ depending on the models, please understand the purpose of each wire on the meter and carefully check the genuine wiring diagram to connect the wires correctly.



B	Black
Y	Yellow
L	Blue
G	Green
R	Red
W	White
Br	Brown
O	Orange
Lb	Light Blue
Lg	Light Green
Gr	Gray
Pu	Purple

[Meter body]

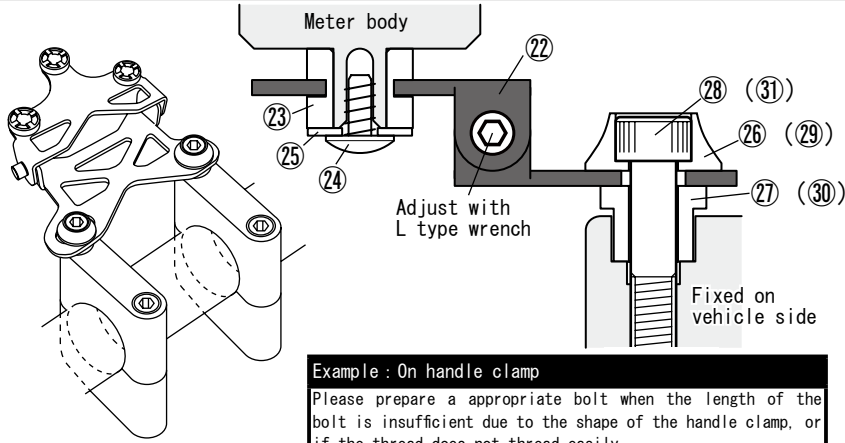
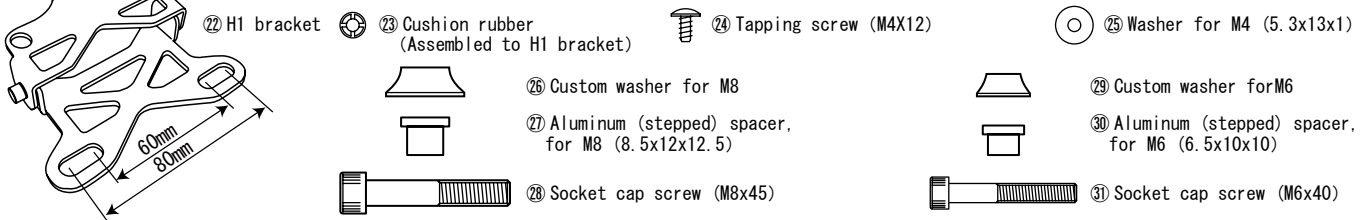
The basic power source for this product is DC12V from battery, therefore in order to support the power supply of mini bikes, which tend to be unstable, the circuit design has high durability against overvoltage. In addition, the minimum operating voltage is set low to improve operating stability during idling. The main voltage range of the meter is DC8V ~ 24V, but the LCD character density and backlight will become dim near the lowest operating voltage. Used a flash memory type that does not require a built-in battery, various records are maintained for a long time even when the power is turned off. The wiring color and connector are small size (φ 3.5) as Honda models. Wiring may be modified by the models.

[Prohibition of driving on public road with headlights off / Racing or safety parts removed]

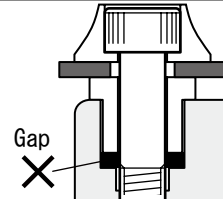
Riding with the lights off by simply modifying by cutting wire of "always-on" headlights models, the unused power will increase the voltage of the entire car body. Continue to ride in this conditions, the battery may deteriorate due to overcharging or regulator may malfunction due to excessive strain. Run at higher engine speeds than normal, negative effects will be stronger especially modified engines. If your headlight burns out, stop driving immediately, if you absolutely have to continue running, use high beam (and adjust the optical axis). At this situation, please drive at a low rpm as much as possible. Removing all safety parts on a racing vehicle requires specialized knowledge and replacement or additional parts.

How to install the meter bracket (H1 type) and precautions

The included H1 bracket SET is general purpose parts used by your own custom way. Please use as your needs.



Caution

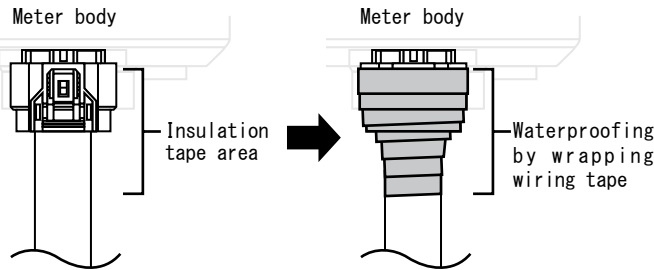


Check that there is no gap at the bottom of the collar as shown in the picture. Caution: Any gaps may cause bolts to come loose.

Caution: Installing a handle pipe clamp, etc., is very dangerous to drive with the wrong fixation.
 Caution: We will not be responsible for any compensation in the event of product failure, damage, accidents, or damage caused by improper installation by the customer.

Connection to the meter body

Refer to the photos and illustrations below, connect the ① meter body and the ④ sub harness, and covered by insulating.



Caution

If not covered by tape, water may get inside the wire and may cause the meter to malfunction.

Attach the headlight case, headlight unit, and exterior in reverse order.

Caution

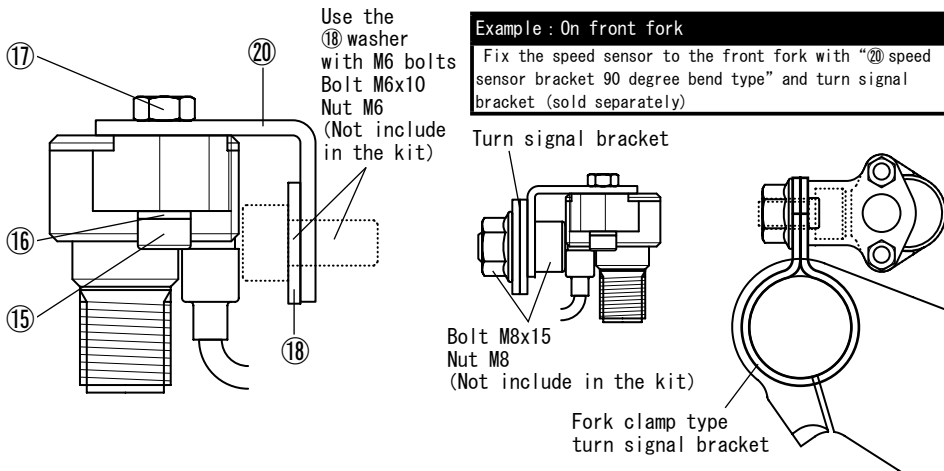
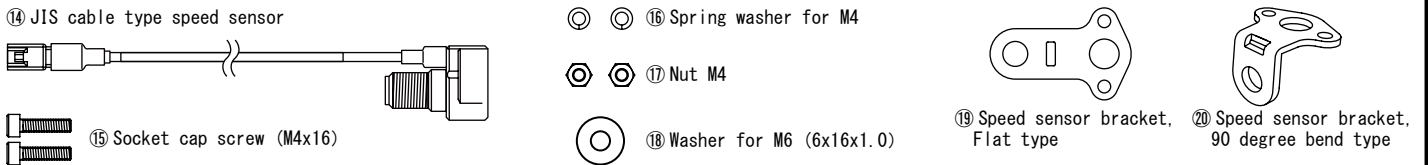
Be careful not to pinch the meter harness in the headlight case. It may cause disconnection or poor contact.

Place external switch

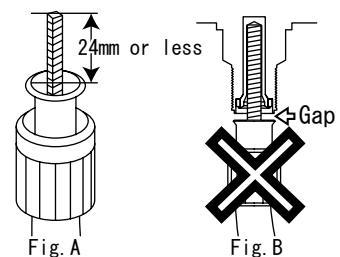
Attach the external switch and rubber strip connected to the meter harness to the handle pipe.
 ※ The external switch is waterproof, but do not expose it to water directly with a high pressure washer, etc.

How to install the JIS cable type speed sensor and precautions

The meter unit and speed sensor are separate pieces. Comes with two types of speed sensor bracket that can be used for general purposes.



Caution



This product uses a JIS standard cable insertion, but modification of the cable may be required on some models. Measure the amount of cable protruding from the outer cable (Fig. A). Exceeds more than 24mm, please cut that part.

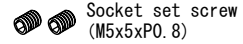
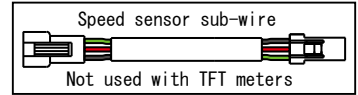
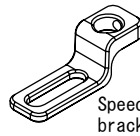
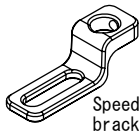
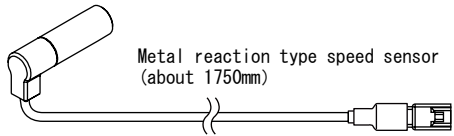
Caution: Figure B (Pushed upwards), the rotating parts will wear out severely and it will NOT be possible to accurately recognize the speed.

Optional parts How to install the metal reaction type speed sensor and precautions

■ Metal reaction type speed sensor set (about 1750mm) Item Number:05-06-0035

Please modify the bracket or make your own and set the metal reaction type temperature sensor.

Metal reaction type speed sensor set contents



The hexagon socket (included) screw is inserted into the speed sensor bracket and used to secure the metal-reactive temperature sensor. Please use the set screw within the metal part of the sensor. The sensor can be installed on either front or rear wheel. Please make your own way.
 Note: Prepare a bolt 5mm longer than the thickness of the bracket when fix by the M8 or M10 speed sensor bracket and other bracket together. Leave enough free play in the cord at the moving part and securely secure both sides with zip-tie etc., so that the movement of the moving part does not put strain on the base of the cord (sensor side, connector side).

Warning Not recommend tightening with the axle shaft as the bracket (may not be strong enough to handle the tightening torque).

■ Sensor installation example (Detailed diagram)

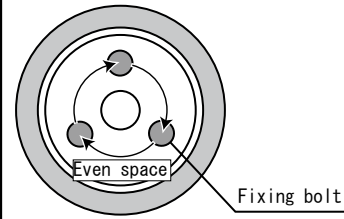
① Make sure that the signal intervals are evenly spaced. Accurate speed cannot be displayed with irregular space intervals.

② When picking up a signal with a hex socket bolt, please set it at the center of the bolt.

■ Note

If the sensor reaction part is not in the right place, create a reaction part by put a small piece of steel (washer etc) with epoxy bond.

Please check the metal reaction by checking by LED lamp on the metal reaction speed sensor is lit or not, and make fine adjustments to the set position. ※The number of lights lit on and off is not the number of signals. Please enter the number of bolts as the number of signals.



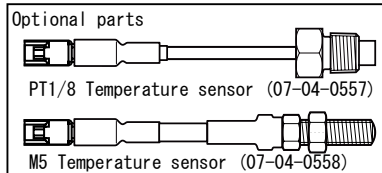
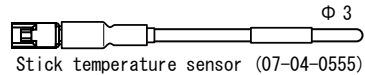
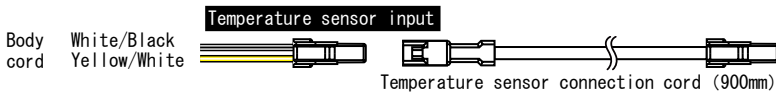
About temperature sensor input

Connect Temperature sensor cord and extension

- Thermometer measuring range: 0 ~ 250°C
- To measure oil temperature, sensor adapter (optional) are required.
- Please see optional parts in our catalog.
- The temperature sensor can be used as an outer air temperature meter by fixing the sensor to an appropriate position.

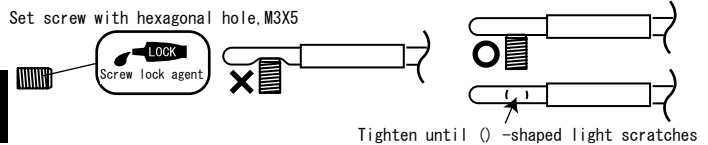
Please fix the wiring to the frame and body harness using wiring tape and zip-tie so that it will not break due to interference caused by steering operation or rubbing due to running vibration and contact with hot engine parts.

When the sensor is not connected (disconnected), the value will show as[- - -, -°C]



The optional drain bolt and set screw included with the adapter are used to secure the stick temperature sensor. Apply a small amount of screw locking agent to the set screw to prevent it from falling off.

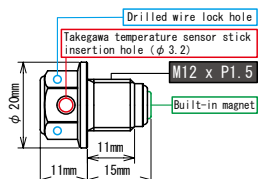
If it breaks, it will be act same as a broken or shorted cord.
 Display at disconnection: [- - -, -°C]
 Display at short circuit: [250.0°C]



Note If the sensor part is deformed greatly by tightening the set screw too much, the internal electronic components may be damaged.

Thermometer optional parts

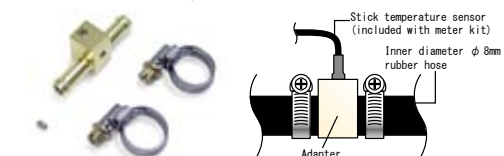
- Drain bolt with magnet (M12xP1.5)



A strong magnetic drain bolt will picks iron powder in the engine oil. As a result, iron powder in the oil is reduced and the engine oil's inherent stable lubrication performance can be demonstrated. In addition, Takegawa aluminum drain bolts have a safety wire lock hole and a stick temperature sensor insertion hole. The temperature at the drain bolt can be measured by attaching the stick temperature sensor to the drain bolt and connecting it to our Super Multi DN meter. The drain bolt body is made from billet aluminum and colored anodized. Color: Silver, Black, Blue, Red.

- The magnet is firmly fixed with "swage"
- Can be interchangeable with various genuine drain bolts.

- Oil thermometer adapter



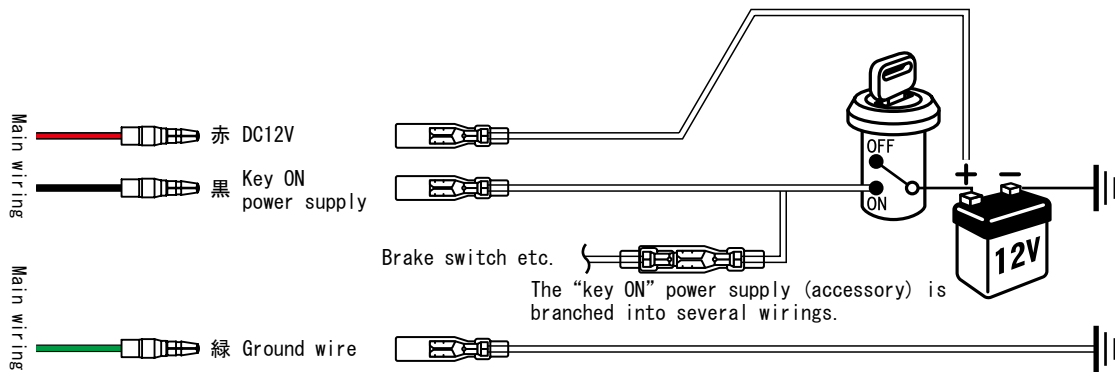
Adapter with stick temperature sensor insertion hole for rubber hose (inner diameter φ 8mm) oil cooler kit. Place this adapter between the rubber hose connecting the oil outlet and the oil cooler, the temperature at the oil line (adapter part) can be measured. Since the temperature sensor is not in contact with oil directly, its temperature at the adapter part, but you can see it as a reference of oil temperature. By connecting the stick temperature sensor attached to this product, you can check the temperature on the LCD screen in the meter.

Product content	Product number
Drain bolt with magnet : M12 P1.5	Silver 02-09-0022 Blue 02-09-0024 Black 02-09-0023 Red 02-09-0025
M12 Sealing washer	00-00-0140
Inner diameter φ 8mm Oil cooler hose adapter	07-04-0521

Power wiring

■ Basic wiring diagram often found on mini bikes, etc. Parts and connecting wire colors differ depending on the models. please understand the purpose of each wire on the meter and carefully check the genuine wiring diagram to connect the wires correctly.

■ DC12V Connect to power supply Connect the black wire of the main wiring to the "key ON" (DC 12V) wiring" .



The meter turns on when the key is turned on (engine stopped).

■ Standard wiring color

※Wiring color may vary depending on model.

Manufacturer	Key ON power color	Ground wire color
HONDA	Black Red / Black	Green
YAMAHA	Brown	Black
SUZUKI	Orange	Black / White
KAWASAKI	Brown	Black / Yellow

※ The mini-regulator cannot be installed with this meter.

[What is DC power supply?]

= DC power supply. Battery power source, voltage is relatively stable from the key is turned on (engine stopped) to the engine is running. Voltage is around 12.5~13V when the key is on, and around 12.5 ~ 14.5V while running (general usage)

※ AC power, type of vehicles uses more power/voltage when the engine starts (mostly in headlights and taillights).

[Connection precautions]

If the power does not turn (with the key ON), is battery deterioration or incorrect wiring. Use a completely deteriorated battery, it will not only cause overvoltage at high speeds, but also cause the genuine regulator to malfunction due to excessive load.

[Note]

With the engine off, turn on the brake lights and turn signals. If the blinking speed is abnormal, the battery is weak.

Indicator lamp wiring

Parts and connecting wire colors differ depending on the models.

please understand the purpose of each wire on the meter and carefully check the genuine wiring diagram to connect the wires correctly.

■ The wiring method (may be different depending on the model).



■ Warning light Red LED (lights up with negative connection) use as water temperature warning light, etc.



■ Engine warning light Yellow LED (lights up with negative connection) use it for engine check light, FI warning light, etc.



■ ABS lamp Yellow LED (lights up with negative connection) Use for ABS models.



■ Warning light Red LED (lights up with negative connection) You can use it by specifying the warning function.

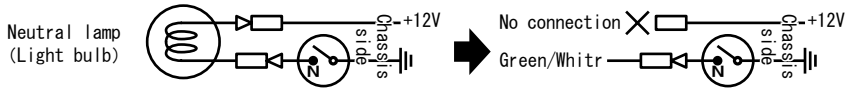
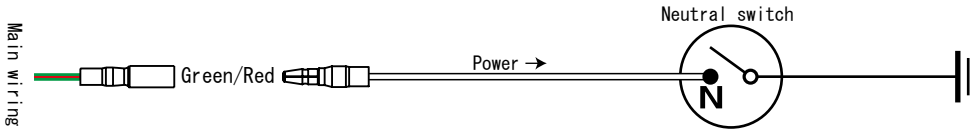
Indicator lamp wiring

Basic wiring diagram often found on mini bikes, etc. Parts and connecting wire colors differ depending on the models. please understand the purpose of each wire on the meter and carefully check the genuine wiring diagram to connect the wires correctly.

■ Reference example for lighting an LED. the wiring method (may be different depending on the model).

N

■ Neutral lamp Green LED (lights up with negative connection)
Connect the green/red wire to the conductive to ground when gear in neutral.

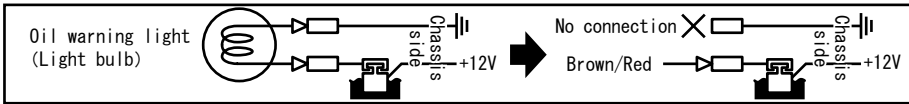
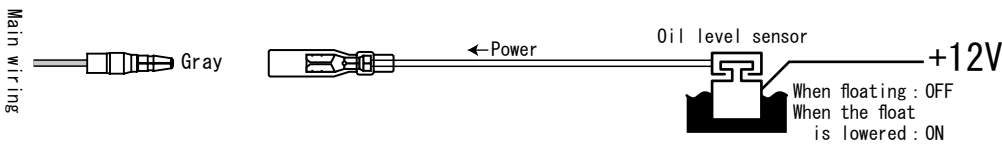


■ Standard wiring color	
※Wiring color may vary depending on model.	
Manufacturer	wiring color
HONDA	Light Green / Red
YAMAHA	Light Blue
SUZUKI	Blue / Black
KAWASAKI	Light Green

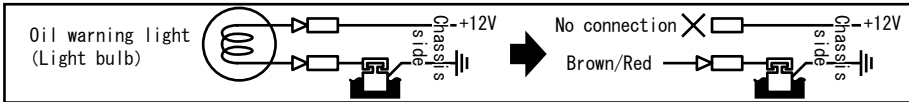
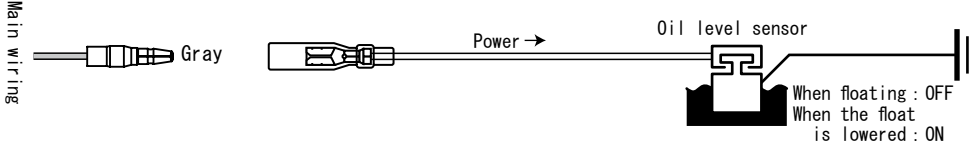
⚡

■ Oil warning light Red LED (Lights up with either positive or negative connection)
There is a slight time lag between sensing the signal from the sensor and the indicator turning on and off.

■ Example of use as an oil warning light (positive connection) YAMAHA 2-stroke scooters, etc. (wiring color: gray)
Connect the gray wire to the warning wire +12V(when conductive).



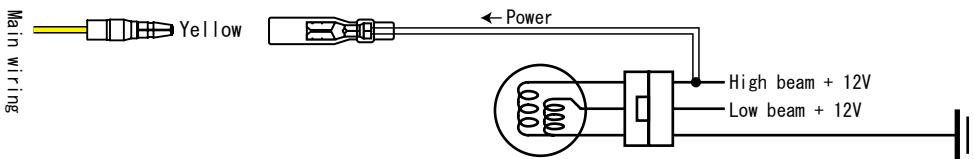
■ Example of use as an oil warning light (negative connection) Most common
Connect the gray wire to ground wire warning(when conductive).



■ Standard wiring color	
※Wiring color may vary depending on model.	
Manufacturer	wiring color
HONDA	Green / Red
YAMAHA	Black / Red
SUZUKI	Blue / White
KAWASAKI	Black / Red

⚡

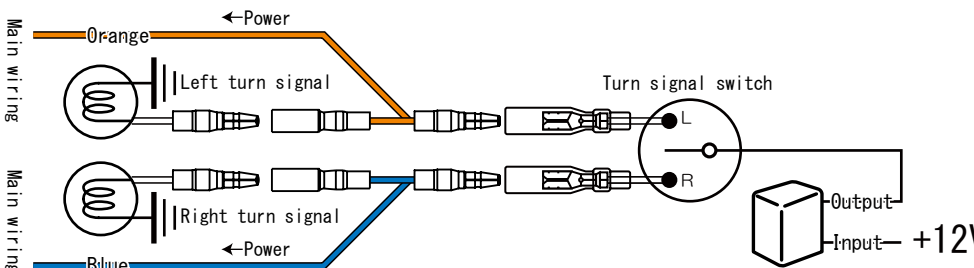
■ High beam indicator Blue LED (lights up with positive connection)
Please also connect the yellow wire to the high beam wiring.



※ Negative voltage(only) headlights model can NOT be used high beam indicator.
Unusable also Honda injection models such as Monkey (FI) and Ape (FI) .
These models use the generated AC positive for charge the battery, and the negative AC the headlights and taillights.
(The headlights will turn on when the engine starts.)

↔

■ Turn signal indicator Green LED(lights up with positive connection)
Please insert each wire into the turn signal(positive). Orange: Left turn signal Blue: Right turn signal



■ Turn signal relay		
Standard wiring color		
※Wiring color may vary depending on model.		
Manufacturer	Wiring color reference	
HONDA	Orange	Light Blue
YAMAHA	Dark Brown	Dark Green
SUZUKI	Black	Light Green
KAWASAKI	Green	Gray

(Example: Ape(battery-less), XR100M etc.)
※ The indicators may not work properly on AC models.

Please refer to the meter instruction manual.

RPM signal input

1. Do not use the aftermarket parts that may have a negative effect.

- Increasing the spark also ignition noise accordingly.
Modifications to ignition coils, plug cords, plug caps, racing plugs (non-resistance type), aftermarket CDIs, etc. may have a major negative effects.
- Deterioration of ignition system parts also contributes to increased ignition noise.
Be careful about deterioration and wetting on the surface of the plug cord.

2. Please perform wiring work with care about these condition.

There are many ways to pick up the signal.
Try the recommended methods in this order.
Find the lowest negative effects as possible (low signal voltage, low noise) within the range where the tachometer operates normally.

Please set the connection, RPM signal frequency, and type by the models.

RPM signal Setting of the number of signals per crankshaft rotation.
number setting: When the settings not match, the display shows exactly half, double, triple, etc.

RPM signal Chose the type of loading program that matches your connection method.
type setting: By switching, the same connection method may work properly.

[A connection] [B connection] [C connection] RPM 信号入力 (3 types)
※ For details of connection method, please see the following pages.

[A connection] Plug cord surface (See P24)
[B connection] Ignition coil primary side (See P24)
[C connection] Loading the pickup pulse (See P25)

The connection method may varies depending on the ignition type of the motorcycle.

How to find ignition types

Know type of ignition system, will help you find the right connection method.
There are 3 type of Ignition system. Note: Point type ignition system are not compatible with this product.

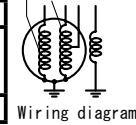
★ : certain conditions
△ : May be different

C. D. I. ignition Common in non-battery model and small size carburetor model.

Basic system	There is an ignition coil in the stator, and the power is stored in the CDI and ignited.
How to find	★ DC12V power supply (key ON) is not connected to CDI ★ There is an ignition coil in the stator (right wiring diagram) △ Most flywheels have only one protrusion.
Connection method	[A connection] [B connection] [C connection]

12V Monkey/Ape, both carburetor type.

For ignition
For lights and instrument



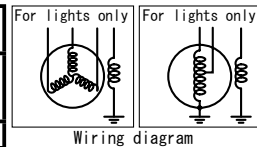
Ignition coil
Ignition coil is wrapped with extremely thin copper wiring of about 0.1 mm, and the outer is often protected with a heat-resistant sheet. Lighting coils are wrapped with copper wiring of about 0.8 to 1 mm.

DC-C. D. I. ignition method Common in older carburetor models.

Basic system	The raised battery power to a high voltage using a boost circuit and ignited. Commonly known as "battery ignition"
How to find	★ DC12V power is connected to CDI ★ There is no ignition coil in the stator (right wiring diagram) △ Most flywheels have only one protrusion.
Connection method	[A connection] [B connection] [C connection]

KSR110 · CYGNUS-X (carburetor type) · AddressV125 (GK7). etc

★ : certain conditions
△ : May be different

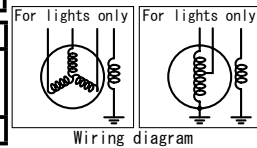


Transistor ignition system Common in injection models and mid to big carburetor models.

Basic system	Transistor controls the supply of battery power to the ignition coil and ignites it.
How to find	★ DC12V power supply is connected to the ignition coil. ★ There is no ignition coil in the stator (right wiring diagram) △ There are often multiple flywheels protrusions.
Connection method	[B connection] [C connection]

GROM · Monkey125 · CT125 · Monkey (F1) · Ape (F1) · CYGNUS-X (F1) · AddressV125 (GK9). etc

★ : certain conditions
△ : May be different

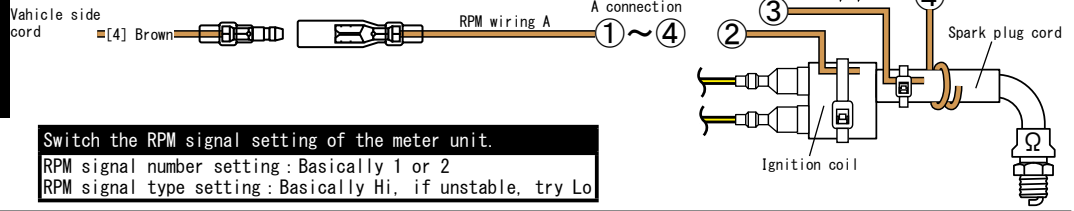


RPM signal input

RPM signal input [A connection] Wiring method

C. D. I. ignition **DC-C. D. I. ignition method** Please see the previous page for how to find type of ignition systems.

[A connection]



Small	↑
Signal strength	
	↓
Large	

- ① Attach the wiring on the near frame or body panel, it will be read by the antenna.
- ② Attach the wiring about 20mm along the surface of the ignition coil and secure it with a tie wrap, etc.
- ③ Align about 20mm to 30mm along the plug cord and secure with a tie wrap, etc.
Note: longer the length, the stronger the signal.
- ④ Wrap it around the plug cord and pick up the signal with the electricity generated.
Note: more you wrap stronger the signal.

In most cases, wrap it around 3 times by method ④ can be read correctly.

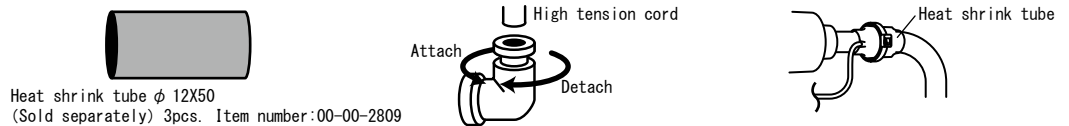
Troubleshooting

- The needle moves stable, but it indicates lower or higher than the actual value.
→ The "RPM signal count setting" may not be correct. Note: If it doesn't match, it will indicate exactly double or half the value.
- The needle does not go up at all, or the goes down at high speeds. → Try ways to make the signal stronger.
- The needle value that is higher than the actual value. The needle swings away. → Try to weaken the signal (signals too strong)
- ※ Note: Adjustments are unlikely to introduce subtle numerical errors. It is clear whether values can be displayed or not.

Temporarily secure RPM wiring A with insulating tape, etc., and check operation by rev the engine lightly.

⚠ Warning Do not test ride with attached the RPM wiring temporarily.

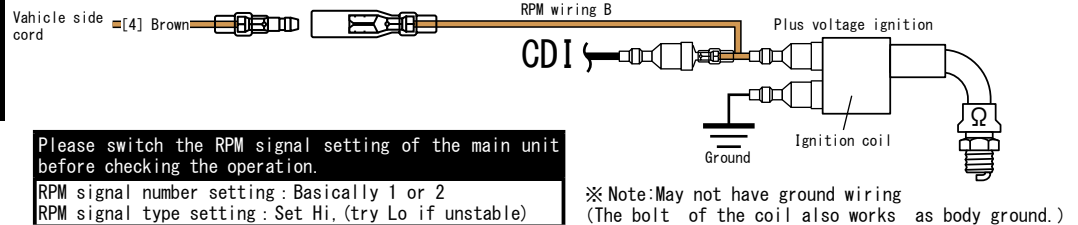
- RPM signal input by [A connection] ③ or ④, please wrap heat shrink tube (sold separately) to complete the process.
- Remove the plug cap from the plug cord.
- Wrap heat shrink tube over RPM wiring A and shrink by hair dryer etc.
(Shrinkage temperature: 90°C or higher, shrinks to approximately 50% of the inner diameter)
- Please securely secure the RPM wiring with a zip-tie not to fall. • Finally, firmly attach the plug cap.



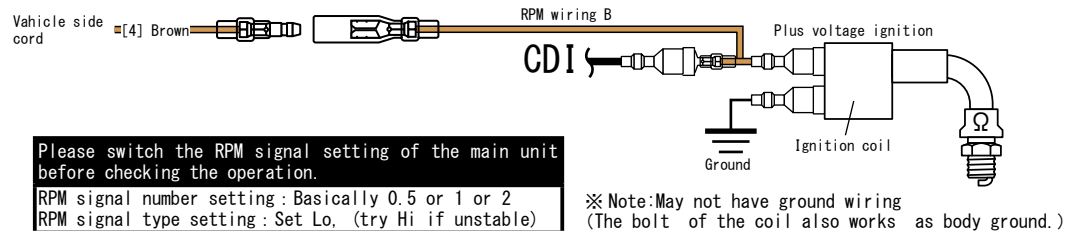
RPM signal input [B connection] Wiring method

C. D. I. ignition **DC-C. D. I. ignition method** **Transistor ignition system** Please see the previous page for how to find type of ignition systems.

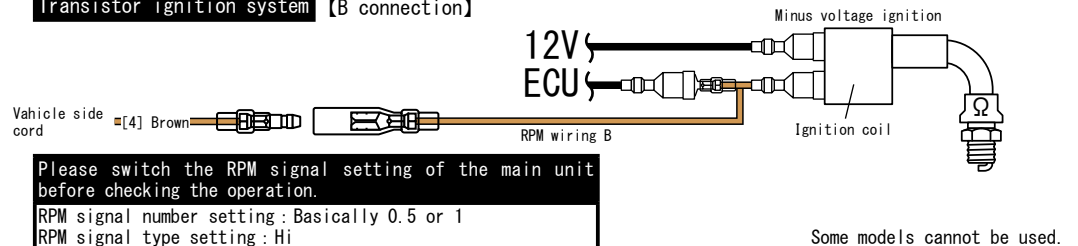
C. D. I. ignition [B connection]



DC-C. D. I. ignition method [B connection]



Transistor ignition system [B connection]



Troubleshooting

- The needle moves stable, but it indicates lower or higher than the actual value.
→ The "RPM signal count setting" may not be correct. Note: If it doesn't match, it will indicate exactly double or half the value.
- The needles doesn't go up at all. → Please check whether the "RPM signal type setting" is correct.
- The needle points higher than the actual value. The needle swings away. → Please check whether the "RPM signal type setting" is correct.
- ※ Note: Adjustments are unlikely to introduce subtle numerical errors. It is clear whether normal values can be displayed or not.
- Tachometer needle jumps. → RPM wiring B is touching the ignition coil.

RPM signal input

RPM signal input [C connection] Wiring method

C. D. I. ignition

DC-C. D. I. ignition method

Transistor ignition system

Please see the previous page for how to find type of ignition systems.

Prior to connect, please check whether the number of protrusions on the outer the flywheel is within the setting range of the meter. Setting range : 0.5, 1, 1.5, 2, 2.5, 3, 4, 5, 6, 9, 10, 11, 12, 17, 18, 23, 24

[C connection]

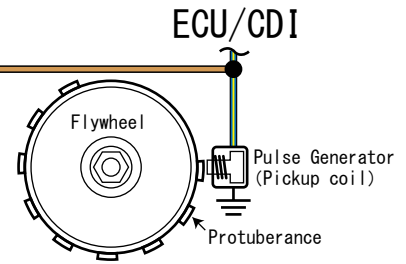
Vehicle side cord — [4] Brown

Modifying RPM wiring A code

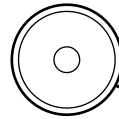
Number of protrusions on the outer flywheel is within the set range. (compatible with uneven spacing)

Please switch the RPM signal setting of the main unit before checking the operation.

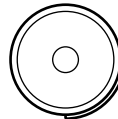
RPM signal number setting : Set the number of protrusions.
RPM signal type setting : Set Lo, (try Hi if unstable)



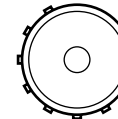
Example: RPM signal frequency setting



RPM signal number setting : 1



RPM signal number setting : 1



RPM signal number setting : 9

Count the number of pieces

Troubleshooting

- The needle is stable, but it indicates a value that is lower or higher than the actual value. → "RPM signal setting" may not be correct. Note: If doesn't match, it will indicate exactly double or half the value.
- The needle doesn't go up at all. → Please check the "RPM signal type setting" is correct.
- The needle indicates higher than the actual value. Or needle swings away. → Please check the "RPM signal type setting" is correct.

Reference information Common questions. ※ This information is advice and does not dictate how you connect.

Vehicle name	Engine specs	Ignition	Connection	Meter setting	
12V Monkey	Carburetor	C. D. I.	Common for all	A connection (A-④ 3 Roll)	1 - Hi
12V Gorilla	Carburetor	C. D. I.		B connection (Black/Yellow code)	1 - Hi
Ape50/100	Carburetor	C. D. I.		C connection (Blue/Yellow code)	1 - Hi
XR50/100 Motard	Carburetor	C. D. I.			

Vehicle name	Engine specs	Ignition	Connection	Meter setting	
Monkey (F1)	Injection	Full transistor	Common for all	Not available for A connection	
Ape50 (F1)	Injection	Full transistor		B connection (Pink/Blue code)	0.5 - Hi
GROM ※1	Injection	Full transistor		C connection (Blue/Yellow code)	9 - Lo
Monkey125	Injection	Full transistor			
CT125	Injection	Full transistor			
Ape50 TYPE D	Injection	Full transistor			

※1 When using a sub-wiring for GROM, the pulse line inside and the setting is "2 - Hi"
"B connections" specified in the table are only available when using the general-purpose sub wiring.

Vehicle name	Engine specs	Ignition	Connection	Meter setting
KSR110	Carburetor	DC-CDI	C connection (Blue/Yellow code)	1 - Hi
CYGNUS-X (F1)	Injection	Full transistor	B connection (Red code)	0.5 - Hi
Address V125 GK7	Injection	DC-CDI	A connection (A-④ 3 Roll)	0.5 - Hi
			B connection (Black/Blue code)	0.5 - Lo
Address V125 GK9	Injection	Full transistor	B connection (Blue code)	0.5 - Hi

If the meter is malfunctioning, please refer to the troubleshooting section in the meter's manual.

