FI CON TYPE-e Instruction manual

Product number	05-04-0114		Adaptation model	Monkey125	(JB02-1000001 ～)
				Monkey125 Thailand model	(MLHJB02)

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.

■ feature

■ Can be attached to a genuine ECU with a couplar on.
■ Various 3D correction maps for our special engine parts are initialy set and can be easily upload with personal computer or smartphone.
 The built-in map can be finely adjusted for each opening throttle and engine speed.
■ Fuel control adjusting can be made while monitoring your PC or smartphone with bluetooth.

● Please read carefully before use

◎ The use of ignoring the instructions that are written in the instruction manual, if an 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.
◎ Repair parts should apply in repair part number. Addition, any questions, please contact us to purchase.
◎ During installation, it prepares the tool or the like, do the work with care in accordance with the mounting procedure.
 In addition, this manual and Honda genuine service manual are intended for those who have a basic skills and knowledge.
 If no experience of mounting, etc., who preparation of such a tool is insufficient, we recommend that it is your request to the shop with a technical credit.
◎ The computer or smartphone require the following conditions.
・Windows 7/8/10 (Without RT/MOBILE)
 You must be connected to the internet to install our software (free).
 Your computer has built-in Bluetooth or external Bluetooth adapter.
 Microsoft Windows Bluetooth drivers can be connected.
・iOS iPhone4s or later, iPad 3rd generation or later iOS9 or later.
 Please get our application and purchase the data though AppStore.
 After installing the FI CON TYPE-e app (free), you need to purchase various model data within the app.
・Andoroid Andoroid OS 4.2.2 or later. Bluetooth function bailt.
 You need to connect to Google play to install our app and purchase model data.
 After installing the FI CON TYPE-e app (free), you need to purchase various model data within the app.

● Precautions on usepurchased dealer.

◎ Not compatible parts
H.I.D kits and LED headlights kit made other than Takagawa. :The ballast / inverter (voltage converter) generates high-voltage noise that adversely affects the digital circuit, and may cause product failure or malfunction.
Do not use an performance ignition device (ignition coil or plug wire) as it may cause malfunction or product failure due to increased radiation noise associated with increased ignition voltage. It is possible to use it with Takagawa's hyper ignition coil. Do not use other performance generator or similar products, it may cause a malfunction due to insufficient power generation or voltage waveform.

◎ This product is not waterproof / drip-proof. If rain or water is applied, water may enter the main unit and cause malfunctions.
 Be careful when rain or washing. If water gets into the main unit, stop using it immediately.
◎ The outer case of this product is made of resin. To prevent deterioration, moto cover is ideal on the bike for a store or long time parking.
 If left on under severe conditions such as in hot weather, deterioration or deformation of resin or rubber parts may be considered.
◎ Never disassemble or modify the products.
 We will not accept inspections and repairs if you disassemble it.
◎ Please do not give a strong shock or transmit a strong impact. There is a risk of irreparable failure or damage to the main unit case due to internal parts falling off or breaking due to impact.
◎ If there is stubborn dirt, clean it slowly with a small amount of neutral detergent in water.
 Do not use volatile substances (such as thinner or alcohol) or compounds may cause deterioration of the resin part or cloud the panel.

⚠ **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. Please go to protect your hands when you work. (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.)

◎ 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

Number	Product content	Quantity	Item Number
1	FI CON TYPE-e	1	————
2	Cable tie, 150mm	3	00-00-0135 (10 pcs)
3	Cushion 2	1	00-00-0299

※ 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.

■ Mounting procedure ※ Please refer to the Genuine Service Manual for detailed mounting methods and specified torques that are not specifically described.

■ Introduction
This product is developed on the assumption that the genuine PGM-FI system is operating without any problems.
If there is a problem or malfunction in the PGM-FI system itself, it may not operate properly or perform properly even if this product is installed, and it may cause other parts to malfunction, including this product. Make sure that there is no problem with the PGM-FI system before installing and using it.
In addition, work by using a maintenance stand like a horizontal a safe place, start then fully stabilized to the vehicle.

⚠ NOTE
The contents of the exterior parts removal work in this manual are only an overview with details omitted. If you are unfamiliar with the exterior removal work, please take to motorcycle shop to do the work. Be sure to follow the instructions and procedure specified torque follow the manufacturer's genuine service manual.
Also be careful to not damaged any parts when the exterior is removed.

■ List of FI CON TYPE-e function

・Preset MAP
You can select 10 preset fuel adjustment maps that have been set according to the engine specifications. You can easily change the settings using your PC or smartphone.

・Fuel injection duration adjustment
It can be adjusted between a maximum increase value of 5000 μ s and a maximum decrease value of 7500 μ s on each 500rpm engine speed and every 5% throttle opening angle.

・Simultaneous monitor with engine temperature display function
The dedicated software for PC or smartphone has a simultaneous monitor function In addition to the tachometer screen and throttle opening graph screen that are very convenient for setting, the fuel injection rate of the engine temperature injector is also digitally displayed.

・Real search function
Connect to a PC or smartphone with the engine started. Information of the running engine is reflected on the screen of the computer or smartphone at the same time. The reading speed / throttle opening is reflected in the mass of the fuel map graph, and that high-lighted to make the adjustment point clear and very convenient for setting.

・Rev limit function
You can set the Maximum engine speed. It's other than that limiter-cut, it can be set even at low speed. It can be used effectively when you don't want to increase the engine speed, such as tuning engine rev measures and break-in.

・Pit lane limiter function
In addition to the above rev limit function, if you do not want to increase the engine speed such as pit lane speed regulation etc., the limiter can be operated only when the "ON" by connecting the additional bottom switch (to the white lead in the spiral tube of the main unit and grounding the body)
※ Please provide extending wire to the switch.

・Tachometer output lead wire.
1 revolution, 1 pulse, 5 volts is output in purple lead wire in the spiral tube of the main unit.
※ When installing, the bracket harness needs to be modified.

・Digital acceleration pump
This product monitoring the speed of the accelerator opening by TPS signal. When the rider wants quick acceleration and the throttle is opened quickly, injection asynchronously the increase injection other than that set value. The similar function as the「acceleration pump」of the racing carburetor.

⚠ Warning
As a rule, settings should be made in a factory equipped with a chassis dynamometer O₂ sensor. Never setting with your smartphone while you riding.
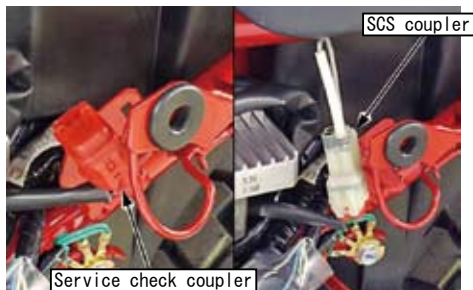
⚠ NOTE
The contents of the exterior parts removal work in this manual are only an overview with details omitted. If you are unfamiliar with the exterior removal work, please take to motorcycle shop to do the work. Be sure to follow the instructions and procedure specified torque follow the manufacturer's genuine service manual.
Also be careful to not damaged any parts when the exterior is removed.

○ If DTC is stored in the engine control unit, the engine control unit cannot be initialized, so delete the DTC.
○ If DTC is not saved, please start from the item of 「Reset throttle opening sensor」. ※ DTC = diagnostic trouble code

■ How to delete the saved DTC

① Turn off the main switch and remove the side cover.

② Remove the service check coupler and coupler cover, and short-circuit the service check coupler terminals using a special tool.
When there is no dedicated tool, short-circuit the blue and green wire in the red coupler using the lead wires on hand.
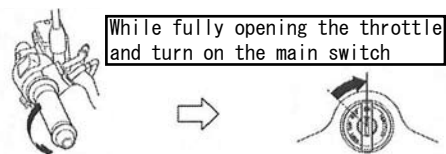SCS coupler : Honda genuine parts number 070PZ-ZY30100

SCS coupler
Service check coupler

③ Turn on the main switch.
※ If the PGM-FI warning light stays on in this state, the DTC is not saved, go to next step 「Engine Control Unit Initialization」
If the PGM-FI warning light lit up for 0.3 seconds and then turns off and then starts blinking, which means DTC is saved.
Please perform next step.

④ Disconnect the SCS coupler or lead wire from the service check coupler.

⑤ Reconnect the service check short coupler or lead wire to the service check coupler within about 5 seconds after the PGM-FI warning light turns on (reset reception flashing pattern)

⑥ When the PGM-FI warning light turns off and starts blinking (completion pattern) The saved DTC has been deleted successfully.
※ Be sure to short the service check coupler or lead wire while the PGM-FI warning light is on. If the procedure is incorrect, the PGM-FI warning light will turn on after turning off (expired pattern) In this case, turn off the main switch and try again. Please note that the self-diagnosis memory will not be erased if the main switch is turned OFF before the PGM-FI warning light starts flashing.
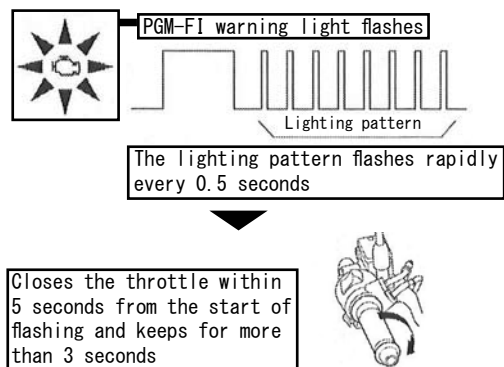
■ Engine control unit initialization.

① Turn off the main switch and remove the seat.

② Remove the cover of the service check coupler and short-circuit the service check coupler terminal using a special tool.
If you don't have special tool, short-circuit the coupler using the lead wire on hand.
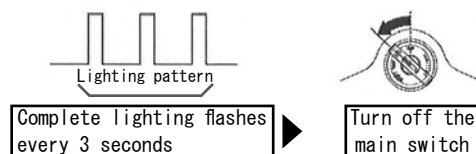SCS coupler : Honda genuine parts number 070PZ-ZY30100

③ While fully opening the throttle and turn on the main switch.

While fully opening the throttle and turn on the main switch

④ PGM-FI warning light turns on and starts flashing rapidly.
Close the throttle grip within 5 seconds after the flashing starts and hold for 3 seconds or more.
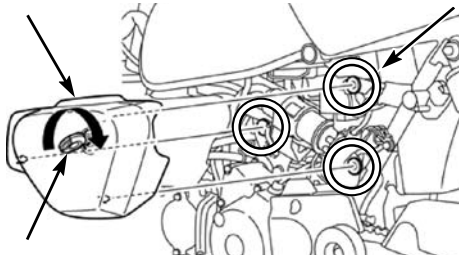

PGM-FI warning light flashes
Lighting pattern
The lighting pattern flashes rapidly every 0.5 seconds

Closes the throttle within 5 seconds from the start of flashing and keeps for more than 3 seconds

⑤ When initialization of the engine control unit is complete, the PGM-FI warning light will flash every 3 seconds. When the completion is confirmed, turn off the main switch.
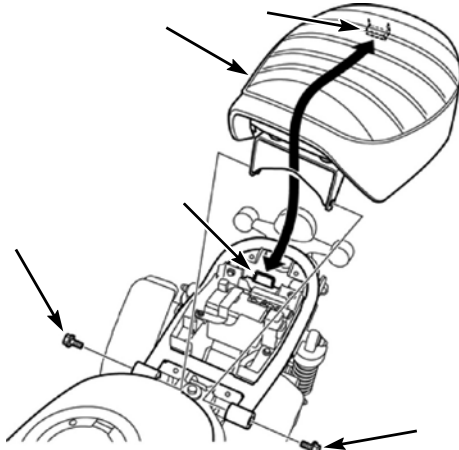

Lighting pattern
Complete lighting flashes every 3 seconds
Turn off the main switch

※ If the PGM-FI warning light does not start flashing rapidly, turn off the main switch and repeat the above procedure.
※ If you can't redo the procedure, double check that the DTC is not stored in the engine control unit.
※ If the DTC is not saved and you cannot repeat the procedure, It may failed of the control unit, replace the engine control unit with a good one and repeat the procedure.

⑥ Attach the dummy coupler to the service check coupler.

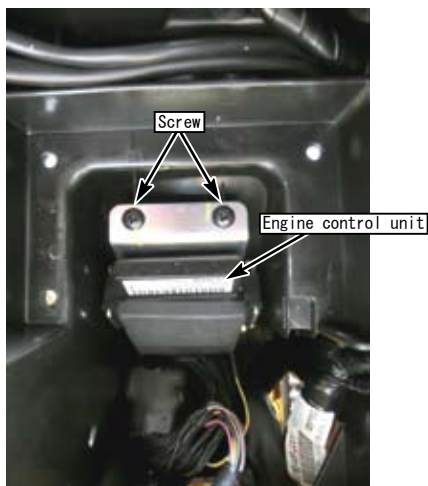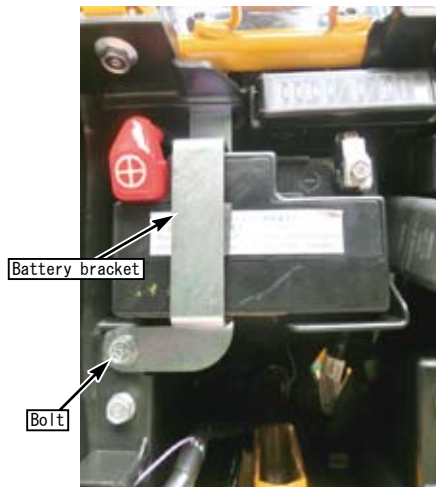⑦ Rotate the idle air screw based on the standard method and adjust to the specified engine idling speed.

○ Remove the side cover.

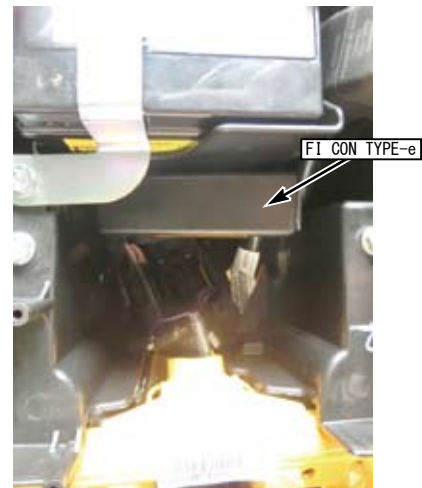○ Remove the seat and remove the battery terminal.

○ Remove the battery bracket and battery, and remove the engine control unit.
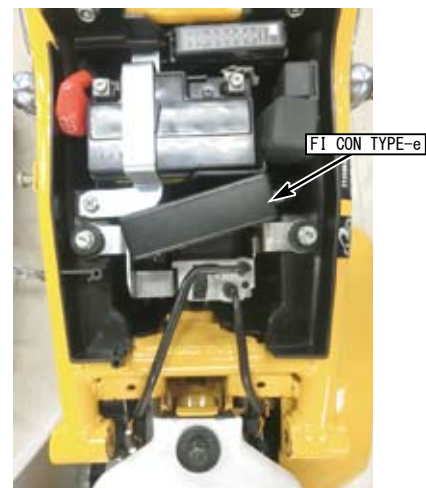
Battery bracket

Bolt

Screw

Engine control unit

○ Place and connect the FI CON TYPE-e between engine control unit and the main harness.

○ Assemble the removed parts in reverse order and install FI CON TYPE-e with reference to the image.
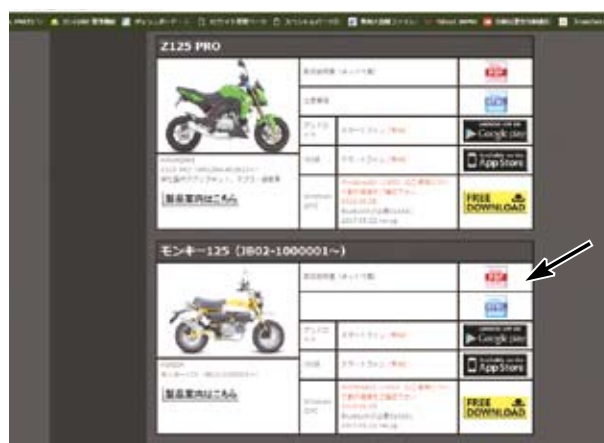For standard specifications

FI CON TYPE-e

For ABS specifications

FI CON TYPE-e

SPECIAL PARTS TAKEGAWA

■ Mounting procedure　※Please refer to the Genuine Service Manual for detailed mounting methods and specified torques that are not specifically described.
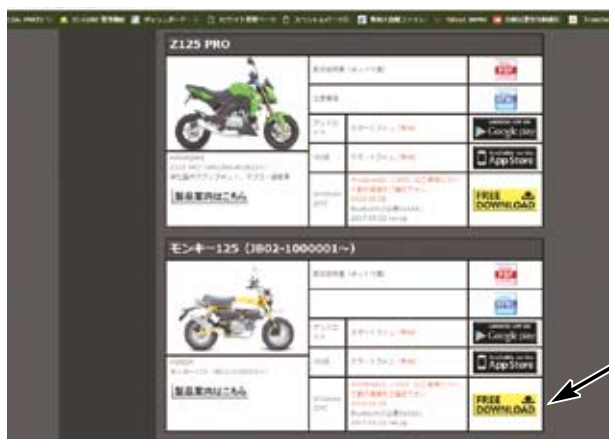
■ How to use FI CON TYPE-e

※ Please download the smartphone app from our website.
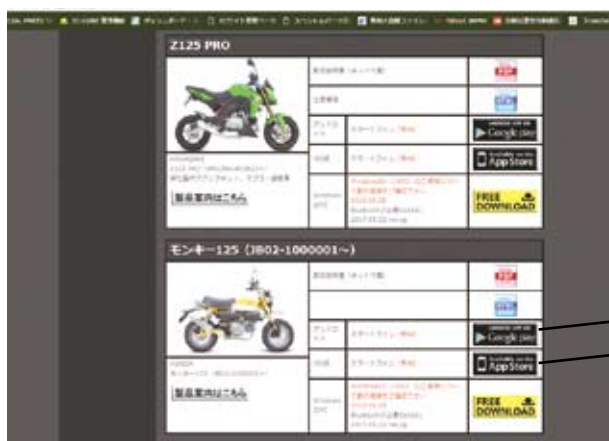※ You can download PDF file manual.

・Software for operating FI CON TYPE-e on a PC can be downloaded from our website(free) (http://www.takegawa.co.jp).

　Please refer to the download manual (P7-15) for installation.

・You can download the app for operating FI CON TYPE-e on your smartphone from our website (http://www.takegawa.co.jp) (In-App Purchases)
※ App download links to external site.

Android

ios

This software and the application correspond to English display. Please set the language setting of your computer, Android, iOS terminal to English.

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TAKEGAWA

Information on the require operating system is available on our website.
http://www.takegawa.co.jp/user_data/fi_con.php#ficon_e

· Download the FI CON-TYPE-e app, open the app and tap 「Other」→「Select model」at the bottom of the screen to select the desired model.
※ Model selection will be charged. No refund will be given if you purchase wrong model.

■Bluetooth settings on a PC

· Explains how to communicate with FI computer TYPE-e with Bluetooth.

※When using a PC without Bluetooth function, you need to purchase and add Bluetooth adapter, however some adapters cannot be connected to FI TYPE-e, please cehck before you buy it.

※The screen may vary depending on the type of OS.

　Fully open the throttle and turn on the main switch. (Be sure blue tooth is working condition.)

　For vehicles equipped Honda genuine immobilizer alarm, hold the accelerator fully open and turn the key ON → OFF → ON within 3 seconds and check that the PGM-FI warning light is flashing.

　The bike PGM-FI warning light will start flashing when the FI CON TYPE-e is installed correctly.

※Since FI CON TYPE-e exchanges data wireless, it comes with a safety device that can communicate by emitting radio waves only when 「turn on the key with the throttle fully open」so that other people can not access it.

　When starting with normal key ON, no third party can access FI CON TYPE-e because it does not emit radio waves.

　(The motorcycle's PGM-FI warning light flashes only when emitting radio waves.)

　In addition, during communication, you can only connect to 「one unit」, so you cannot connect from another PC or smartphone when communicating.

　If you change the data, you can use it with confidence because it will not emit radio waves once the key is turned off.

Select the Bluetooth device from the control panel.

Select to display the screen for the left photo.
※If there is already some Bluetooth registration, it will be displayed on the screen.

When the wizard screen opens, select 「Completion of setup and device can be found」and press the Next button.

SPECIAL PARTS
TAKEGAWA

■Continuation of Bluetooth settings on a PC

When a new FI CON TYPE-e device is found, select it and press Next.
※If you have multiple Bluetooth devices set up or there are them nearby, they will be searched together when searching, so multiple devices will be displayed on the screen.Be sure to select FI CON TYPE-e.

Add Bluetooth Device Wizard screen will open.
Select 「Use passkey specified in manual」.
An input space will appear on the right side of the screen.
Enter 「1234」 and press Next

← Enter the number 「1234」

When the device is added, the following screen will be displayed.
Note 「Outgoing COM Port」 on the screen.
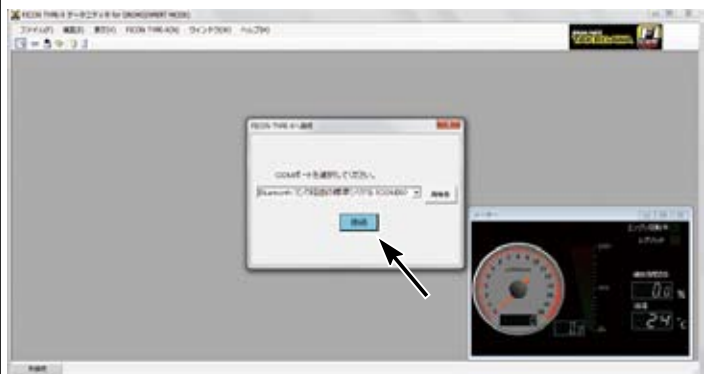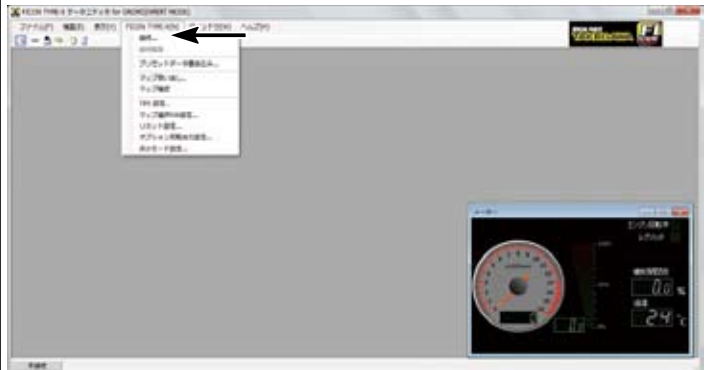Ex: 「COM11」 Press to Done.

When completed, the following screen appears.
Press 「COM Port」 on the upper tag button to check the outgoing COM port.
Note of it.

This completes the Bluetooth settings.

■Check the software startup and Bluetooth function

Launch the software and select 「Connect」 from 「FI CON TYPE-e」 on the screen.
If the previous 「COM port」 is not selected, please select it again from the drop-down list.
When communication starts, the real search function works and the opening angle is displayed when the throttle is moved even the engine is not started.

※Tachometer and other functions will start when the engine is started.
※Once disconnected, you can connect from another PC or smartphone.
※From the next time, if the engine is started with the key on and throttle is fully open, its possible to connect even after starting engine.
※If the connection is canceled unexpectedly due to radio interference, turn off the key once and start from the beginning. (Because the security function of FI CON TYPE-e may not be able to reconnect)
※Please be careful at your own risk when connecting and rewriting data while the engine is running.
※When using an external Bluetooth adapter attached to a USB connector on a PC with no built-in Bluetooth, it works only with the Windows standard Bluetooth driver.

Some bluetooth adaptor cannot be used, they operate with different drivers.
If you are using a USB Bluetooth adapter, please use the Bluetooth device and Bluetooth driver on the standard Windows control panel.
Do not use driver software supplied from the manufacturer.

※If you are using Windows VISTA, be sure to update to SP2 (Service Pack2).
※There is no direct data link function between smartphone and PC. When exchange data, please go through FI CON TYPE-e.
※There is a limit to the number of partners (Android devices or PCs) that can be paired in total due to the specifications of the Bluetooth adapter.
Bluetooth communication will not be connect if the number of pairing is exceeded.
The communication is not possible even pairing may appear to have been possible.When shipped from factory, it can be paired with 8-9 units. If you are unable to communicate via Bluetooth, please contact us for refresh the product. (apply fee)

SPECIAL PARTS TAKEGAWA

■Bluetooth settings on an Android smartphone.

Install the operation app on your smartphone from GooglePlay.
Device settings for Android smartphones are performed in the following order:

⚠ NOTE
The display may vary depending on the device and version. Please refer with the instruction manual of your device.
Requires Android version 2.3 or higher. Please purchase after confirming that your Android device is compatible.
Android devices that do not have a built-in Bluetooth cannot be connected.
When connecting for the first time during pairing and after pairing, keep the distance from FI CON TYPE-e within 30 cm.
If many errors occur during device search, pairing or normal connection, turning WiFi off once or reinstalling the application may be solved.

Information on the require operating system is available on our website.
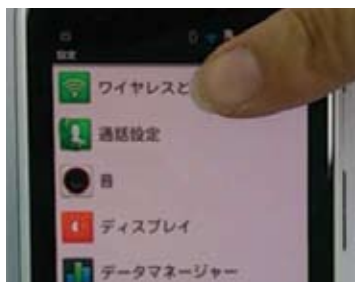http://www.takegawa.co.jp/user_data/fi_con.php#ficon_e

■Blue tooth pairing
With the throttle fully open, turn on the key and check that the PGM-FI warning light is flashing.
For equipped Honda genuine immobilizer alarm, hold the throttle fully open and turn the key ON → OFF → ON within 3 seconds and check that the PGM-FI warning light is flashing.

Select the settings on the main screen of the smartphone and chose 「Wireless & Network」.

※The title may differ depending on the model and manufacturer.
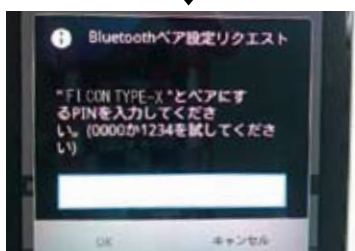Example: Wireless and network
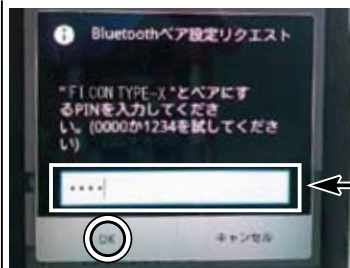
Select Bluetooth.

Enter Bluetooth settings.

Select 「FI CON TYPE-e Pair this device」 as displayed.

※If the device is not displayed, please scan the device or check Bluetooth again.
※Although this photo is displayed as FI CON TYPE-X in the image, it will be displayed as FI CON TYPE-e.

Selecting a Bluetooth pair request and enter a PIN.

Enter the number specified in (xxxx) and press OK.

Enter the number 「1234」

Press the 「FI CON TYPE-e」 icon on the main screen of the smartphone to launch the app.

The main page is displayed.

※When communication starts, the tachometer changed bright white and you can start engine.
※If you twist the throttle without starting the engine, the TPS monitor (next to the tachometer) will act and you can check the connection status.
※When connecting for the first time during pairing and after pairing, keep the distance from FI CON TYPE-e within 30 cm.
※Once disconnected, you can connect from another PC or other smartphone.
※If you are unable to connect to FI CON TYPE-e, exit the app once, cancel the pairing, restart the main unit and pair again to connect.
※There is no direct data link function between smartphone and PC. When exchanging data, please go through FI CON TYPE-e.
※There is a limit to the number of partners (Android devices or PCs) that can be paired in total due to the specifications of the Bluetooth adapter.
Bluetooth communication is not possible when the number of pairing is exceeded.
The communication is not possible even pairing may appear to have been possible. When shipped from factory, it can be paired with 8-9 units. If you are unable to communicate via Bluetooth, please contact us for refresh the product. (apply fee)

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■Bluetooth settings on an iOS smartphone.

Install the operation app on your smartphone from App Store.

⚠ NOTE

The display may vary depending on the device and version. Please refer with the instruction manual of your device.
Compatible with iOS6.0.1 or higher.
iPhone 4s and earlier models, iPad 3rd generation and earlier models can NOT connect even if the OS is upgraded, because they don't support Bluetooth LE. Please purchase after confirming that your iPhone device is compatible.
When connecting for the first time during pairing and after pairing, keep the distance from FI CON TYPE-e within 30 cm.
If many errors occur during device search, pairing or normal connection, turning WiFi off once or reinstalling the application may be solved.

Information on the require operating system is available on our website.
http://www.takegawa.co.jp/user_data/fi_con.php#ficon_e

■Blue tooth pairing

With the throttle fully open, turn on the key and check that the PGM-FI warning light is flashing.
For equipped Honda genuine immobilizer alarm, hold the throttle fully open and turn the key ON → OFF → ON within 3 seconds and check that the PGM-FI warning light is flashing.

Turn on Bluetooth(If Bluetooth is already turned on, skip step).

機内モード
Wi-Fi　オフ ＞
Bluetooth　オン ＞ ← Select Bluetooth.
モバイルデータ通信　オフ ＞
インターネット共有　オフ ＞

Bluetooth ← 「ON」
Bluetoothをオンにすると位置情報の正確性と近くのサービスが向上します。
Turn 「ON」 Bluetooth.

Bluetooth
デバイス
検索中...
検出可能

※If you turn 「ON」 Bluetooth, do not tap it even if it appears on the device at the bottom of the screen.

■Connection with FI CON-TYPE-e
With the throttle fully open, turn on the main switch and check that the PGM-FI warning light is flashing.

Press the 「FI CON TYPE-e」 icon on the main screen of the smartphone to launch the app.

Select the center icon 「Operation status」 at the bottom of the main screen.

← Tap.

Tap the above arrow next to 「Driving Status」.

FICONに接続 ← Tap.
"Fへ切替
キャンセル

Tap to display the selection menu. Tap Connect to FI CON.

キャンセル　FICONを選択
FICONを探しています

Tap to display the selection menu. Tap the detected FI CON TYPE-e.

FICON-X ●●●●●● ←

Tap.
※Although photo displayed as FI CON TYPE-X in the image, it is displayed as FI CON TYPE-e

If nothing is displayed If you are not sure that the vehicle's PGM-FI warning light is flashing, turn off the main switch, fully open the throttle and turn on the main switch.

When connection is completed, TPS (throttle opening) and oil temperature are displayed on the operation status screen. The engine speed is also displayed when the engine is started.

To disconnect FI CON TYPE-e, tap FI CON disconnection from the menu button on the operation status screen.

※Tachometer and other functions will activate when the engine is started.
※Please be careful at your own risk when connecting and rewriting data while the engine is running.
※There is no direct data link function between smartphone and PC. When migrating data, please go through FI CON TYPE-e.
※If you are unable to connect to FI CON, exit the application, turn off the power of the main unit, restart and reconnect.

SPECIAL PARTS TAKEGAWA

How to correct the throttle position sensor (TPS) error and synchronize with FI controller.
※The following FI CON represents "FI CON TYPE-e" and "FI CON TYPE-X". ※TPS = Throttle position sensor

FI CON reads engine speed / TPS values and signal speed from various sensors. However, the output signal from the TPS of vehicle is slightly different for each motorcycle. (There are individual differences in signals when fully closed or fully open.)
In this case, even if you try to adjust the fuel in response to TPS, depending on the individual motorcycle, for example, it may be full open, but read a different point from the full open signal, etc.
Therefore, when connecting to a PC (or smartphone), correct the actual throttle position 0% to 100% so that the output voltage is synchronized with the throttle position data of the FI controller. With this function, the data created on the software is fully reflected in the actual bike. The TPS value to be corrected is stored in the FI CON main unit, so it can be done once with either a PC or smartphone. (Adjust the values when fully closed and fully open.)
When there is a problem with the wiring connection, the check function of this software will give you warning. See below for details.
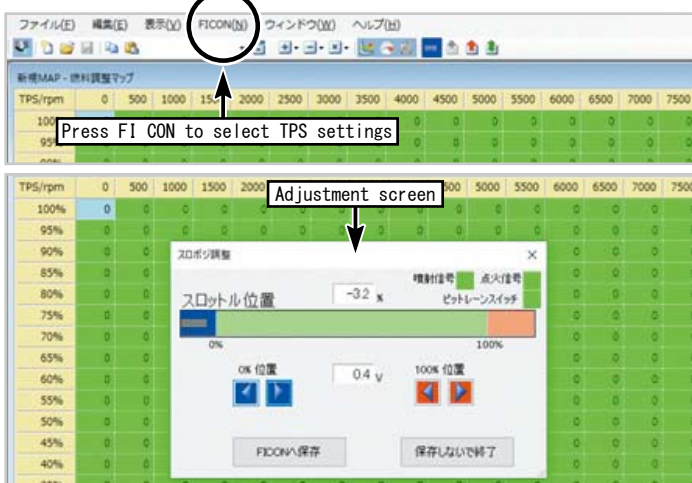
⚠ NOTE　Do not start engine while in the TPS error correction, because throttle must be fully opened (only the key is on).
It is dangerous to work with the engine started. Please note. (please refer the section for "how to connect via Bluetooth")
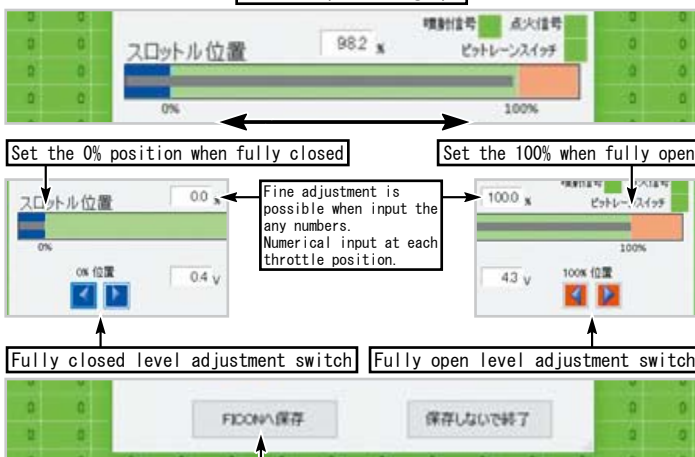
■TPS error correction on PC
Start the PC with the FI CON installed, start up the software, and connect the PC and FI CON.

Next, press FI CON at the top of the software and select 「TPS setting」 at the bottom of the displayed. The adjustment screen is displayed when the PC and FI computer are connected(picture below). If the computer and FI computer are not connected, the connection screen is displayed.

Press FI CON to select TPS settings

Adjustment screen

While looking at the throttle position graph on the screen, try to fully close to open the throttle. The gray highlight moves to the left and right in conjunction with opening and closing the slot.
Adjust the level adjustment switch so that the values match at the 0% and 100% positions. Finally, be sure to press the "Save to FI CON" button. It will not be reflected unless saved.

Throttle position graph

Set the 0% position when fully closed　Set the 100% when fully open

Fine adjustment is possible when input the any numbers.
Numerical input at each throttle position.

Fully closed level adjustment switch　Fully open level adjustment switch

⚠ NOTE　After adjustment, be sure to click the "Save to FICON" button.
It will not be reflected unless saved.

⚠ Important Note　If the FI CON is not wired correctly, the following screen will appear and software will warn.

Each signal light is black.
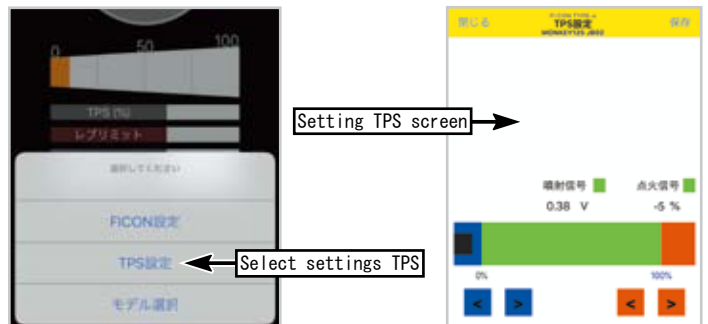High lighted green when normal
Gray highlight is not displayed

■TPS error correction on smartphones (example: iOS)
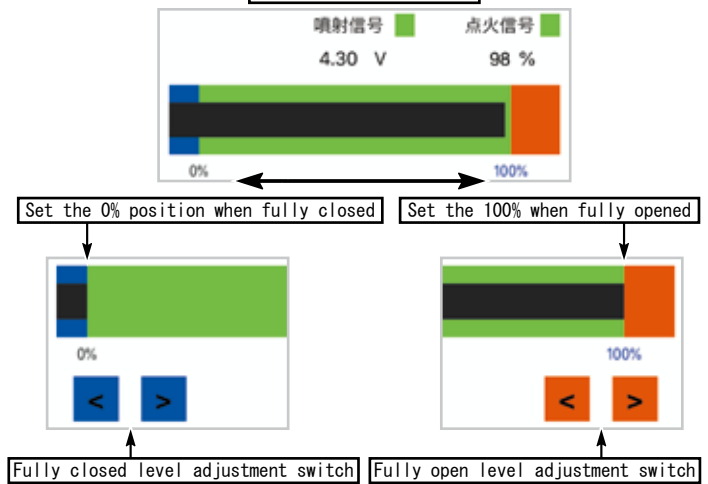Open the app from a smartphone with the FI CON installed and connect the PC and FI CON.

Select 「Setting TPS」 (bottom right of the app.)
When the smartphone and FI CON are connected, the "TPS settings" screen will be displayed. (see bottom left photo) If the smartphone and FI CON are not connected, the connection screen is displayed.
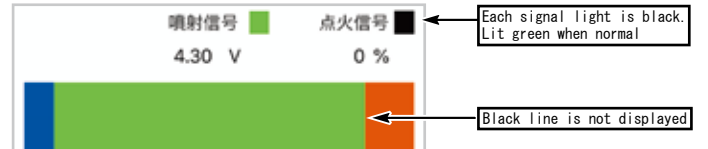

Setting TPS screen
Select settings TPS

Try to fully close to fully open the throttle while waching the throttle position graph on the screen. The highlighted black moves from side to side in conjunction with opening and closing of the slot.
Adjust each value with the level adjustment switch as match at the 0% and 100% positions. Please press "Save" when you done.
It will not be reflected unless saved.

Throttle position graph

Set the 0% position when fully closed　Set the 100% when fully opened

Fully closed level adjustment switch　Fully open level adjustment switch

⚠ NOTE　Please press the "Save" button (on the upper right.) when you done.
It will not be reflected unless saved.

⚠ Important Note　If FI CON is not wired correctly, app will warn you the screen below displayed.

Each signal light is black.
Lit green when normal
Black line is not displayed

SPECIAL PARTS TAKEGAWA

● Android
・Select 「Create New Map」 from the menu button at the bottom right of the screen.
・The preset data selection screen is displayed. Select the MAP by referring to the MAP selection table by engine specification.

・When creating a new MAP, select 「DEFAULT ZERO」 on the preset data selection screen.
※ 「DEFAULT ZERO」 will not change the injection time of the stock ECU.
※ The display screen may slightly different depending on the model.

● iOS
・Select 「Create New Map」 from the menu button (in the upper right of the screen).
・The preset data selection screen is displayed. Select the MAP by referring the MAP selection table by engine specification.

・When creating a new MAP, select 「DEFAULT ZERO」 on the preset data selection screen.
※ 「DEFAULT ZERO」 will not change the injection time of the stock ECU.
※ The display screen may slightly different depending on the model you are using.

⚠ Note　Before riding, please check each part for any looseness in the screws, etc. If there is any looseness, make sure to retighten with the specified torque. (It may cause parts to fall off.)
⚠ Warning　Make sure that the engine is started in a well-ventilated place. Do not start the engine in a closed place. (Avoid a risk of carbon monoxide poisoning.)

■ MAP selection table by engine specification
The following setting table is when all our parts are installed. Please note that this is a setting that has been tested at our company, so it may not always be the best setting due to external factors such as individual vehicle, outside air temperature, altitude, rider weight.

	MAP name	Engine specifications
1	Normal/HighComp 125cc + SPORTS CAM + TAKEGAWA MUFFLER	Normal/HighComp 125cc + Sports Cam + TAKEGAWA Muffler
2	Normal/HighComp 125cc + AIR FILTER + TAKEGAWA MUFFLER	Normal/HighComp 125cc + Air filter + TAKEGAWA Muffler
3	Normal/HighComp 125cc + SPORTS CAM + AIR FILTER + TAKEGAWA MUFFLER	Normal/HighComp 125cc + Sports Cam + Air filte + Injector (G-1) + TAKEGAWA Muffler
4	Normal/HighComp 125cc + SPORTS CAM + BIG THROTTLE + TAKEGAWA MUFFLER	Normal/HighComp 125cc + Sports Cam + Big throttle + Injector (G-1) + TAKEGAWA Muffler
5	e-Stage 143cc + SPORTS CAM + TAKEGAWA MUFFLER	e-Stage 143cc + Sports Cam + TAKEGAWA Muffler
6	e-Stage 143cc + SPORTS CAM + AIR FILTER + TAKEGAWA MUFFLER	e-Stage 143cc + Sports Cam + Air filte + Injector (G-1) + TAKEGAWA Muffler
7	e-Stage 143cc + SPORTS CAM + BIG THROTTLE + TAKEGAWA MUFFLER	e-Stage 143cc + Sports Cam + Big throttle + Injector (G-1) + TAKEGAWA Muffler
8	S-Stage/eco 181cc + SPORTS CAM + TAKEGAWA MUFFLER	S-Stage/eco 181cc + Sports Cam + Injector (G-1) + TAKEGAWA Muffler
9	S-Stage/eco 181cc + SPORTS CAM + AIR FILTER + TAKEGAWA MUFFLER	S-Stage/eco 181cc + Sports Cam + Injector (G-1) + Air filte + TAKEGAWA Muffler
10	S-Stage/eco 181cc + SPORTS CAM + BIG THROTTLE + TAKEGAWA MUFFLER	S-Stage/eco 181cc + Sports Cam + Big throttle + Injector (G-1) + TAKEGAWA Muffler

※ 「Air filter」 in the above figure is (03-01-0011) air filter kit to be used with the normal air cleaner box removed. Its different from Power filter kit (03-01-0009).
※ The above MAP list is as of January 11, 2020. If updated, it may be different from the MAP list of software and application.
※ Software and apps may be updated to support new engine parts. Our webpage FICON is shown in the update history at the bottom of the list page.

■ Adjustment of idling speed

・Start the engine and let it warm up for 20 minutes.
・Check engine idling speed.
・If the idling speed is not specified, turn the idle air screw
 (indicated by the arrow on the left side of the throttle body) to
 adjust it to the specified idling speed.
・For stock throttle body: approx. 1300rpm ～ 1500rpm
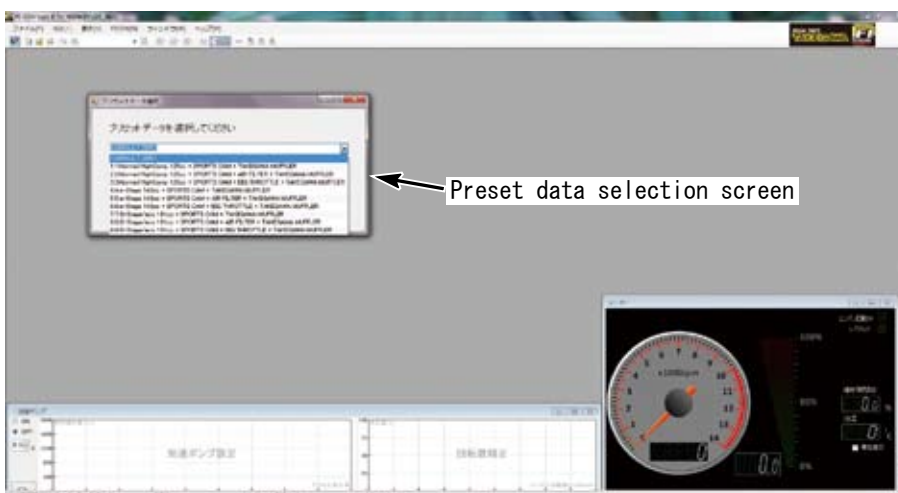・Takegawa big throttle body, approx. 1500rpm ～ 1700rpm

⚠ Note
When turning the idle air screw, remember how much it was turned
from the original position so that it can be back to the original
position and adjust little by little. Never turn more than 1/4 turn
(90 degrees) at a time.After adjusting the screw each time, let
it idle for more than 10 seconds and check the engine speed again
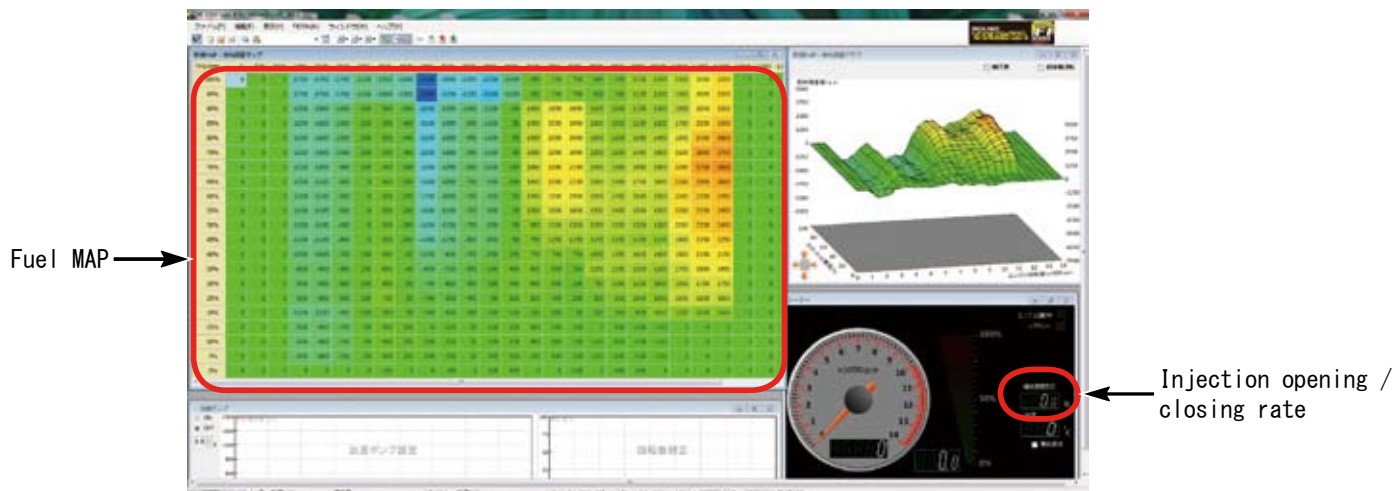after the engine speed has stabilized.

■ Select preset data

● PC
・Select 「New」 from 「Menu」 (at the top left of the screen)
・The preset data selection screen is displayed. Select the MAP by referring to the MAP selection table by engine specification.

Preset data selection screen

・When creating a new MAP, select 「DEFAULT ZERO」 on the preset data selection screen.
※ 「DEFAULT ZERO」 will not change the injection time of the stock ECU.

■ FI CON TYPE-e operation

Fuel MAP

Injection opening / closing rate

・Fuel MAP
 FI CON TYPE-e can be adjusted between a maximum increase value of 5000 μs and a maximum decrease value of 7500 μs.

・Injection opening / closing rate
 Shows the rate of injector operating time in one revolution.
 We recommend to the upper limit is 95%. 96% or more will cause the injector failed.

■ Mounting procedure ※ Please refer to the Genuine Service Manual for detailed mounting methods and specified torques that are not specifically described.

■ Create new data

Fuel adjustment Set the MAP acceleration pump. Read and operate correctly when setting as necessary.

⚠ Warning

Various settings needs higher knowledge, for expert use only. If you have any problem or question about the contents, please do not work on your own, consult a dealer with skilled mechanics.

Basically, setting should be done in a factory equipped with a chassis dyno-meter and O₂ sensor.

Never perform setting with your smartphone while driving. It is very dangerous.

● PC

Introducing the necessary functions for setting. Please note that some items may not exist due to the MAP being created.

Some menus will not appear if Edit MAP is not selected. The menu that appears depends on the type of MAP you are editing.

File
Select the 「File」 switch (at the left end of the upper row) to display the following items.

New
Used when creating a new MAP from 0.

Open
Select the files created and saved in the past.

Data information
Displays information about the MAP you are currently viewing and editing.
There is also a memo function.

Save
Overwrite and saves the currently displayed MAP.

Save As
Save the currently displayed and edited MAP with a different name.

Close
Close only fuel MAP.

Recently used maps
Display recently used (edited) MAP.

Exit
Exit FI Con TYPE-e software.

Edit
When you select 「Edit」 (second switch from the left) the following items appear.

Undo
Undo what you just edited (up to 10 processes).

Redo
If the 「Undo」 function returns too much, one step will be taken.

Copy
Left button and drag with cursor to copy specified range.

Paste
Paste the copied part.

Setting value
Recalls the value entered arbitrarily in the specified value input area at the top of the screen. (Multiple registration possible)

Increase
Increase the value of the dragged part with the right button.

Decrease
Decrease the value of the dragged part with the right button.

Magnification
Increase or decrease the numerical value of the dragged and right button according to the magnification
※ Highlighted by left mouse button and use the the 「right button」 to function quickly.

View
When you select the 「view」 switch (3rd from the left), the following items appear.

Graph
When unchecked, the 3D graph on the right is not displayed.

Meter
When the check is removed, the 3D tachometer / TPS meter at the lower right is not displayed.

acceleration pump
If the check is removed, the lower acceleration pump graph will not be displayed.

FI CON TYPE-e
When you select 「FI CON TYPE-e」 (4th switch from the left), the following items appear.

Connection
Used when connecting to FI Con TYPE-e with key ON.

Disconnect
Used when disconnecting.

Recall
While connected to FI Con TYPE-e, the data inside FI Con TYPE-e is extracted.

Write
Transfer (write) edited MAP etc. to FI Con TYPE-e and reflect it.

Check
Check if the MAP currently displayed is the same as the MAP in FI TYPE-e.

Rev limit setting
Enter the rev limit speed to prevent further rotation.
Also set the limiter cut function.

TPS setting
Set to synchronize the TPS output value with FI Con TYPE-e.

Window
When you select 「Window」 (5th switch from the left), the following items appear.

Screen layout initialization
If you changed the size or position of the MAP or meter on the screen, restore it.

New map- Fuel adjustment map
If you have stacked the screen, the checked item will come to the top.

Meter
If you have stacked the screen, the checked item will come to the top.

New map- Fuel adjustment graph
If you have stacked the screen, the checked item will come to the top.

New acceleration pump-acceleration pump
If you have stacked the screen, the checked item will come to the top.

Help
Select the 「Help」 switch (on the right to display) to show the following items.

Version information
Product and version information.

■ Edit fuel adjustment map

Setting with a PC

● When setting based on the currently used map
　Launch PC software and connect to FI CON TYPE-e.
　Select 「FI CON TYPE-e」 → 「Call」 (in the upper menu) display the current injection map.
※ Editing data will be discarded.

　Modify the map if necessary. Upload to FI CON when you are done.
　Select 「FI CON TYPE-e」 → 「Write」 in the upper menu to up load.
※ If you do not write to FI CON TYPE-e, the number will not be reflected.

● How to start setting based on the main injection MAP of preset data
　Select preset data from the top menu 「File」 → 「New」.
※ Editing data will be discarded.
※ When 「DEFAULT ZERO」 is selected, all settings will be default values (genuine maps).

　Select the base MAP and modify it if necessary.
　When setting is completed, select 「FI CON TYPE-e」 → 「Write」 in the upper menu and write.
※ If you do not write to FI CON TYPE-e, the number will not be reflected.

3D fuel map
You can change the size by grabbing the window frame.
Drag the graph to move it in three dimensions.

Engine tachometer
Throttle opening position meter
Injector open / close rate display
Engine temperature(oil temperature gauge)

Select the desired range with the cursor and right click to select the increase / decrease ratio and change the value.
Or enter the value directly by double-click.
Adjustable between maximum increase value 5000 μs to maximum decrease value 7500 μs.
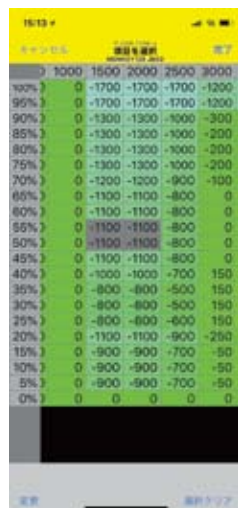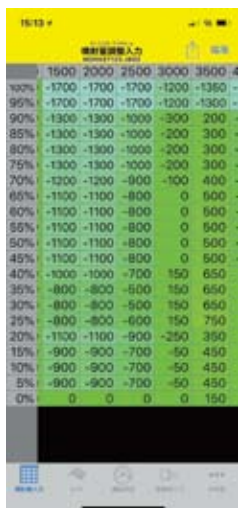Check the 「injection opening / closing rate」 displayed on the meter of the operation software or operation application, and do not to exceed 95% even at high rotations.

How to set with a smartphone

● When start to setting based on the currently used map data
Tap 「Input injection amount」 (at the bottom of the screen) and tap the menu button (in the upper right).

Tap 「read from FI CON」, connect to FI CON TYPE-e, open the map, tap 「Edit」 in the upper right, and tap the part that needs to be edited on the map
Tap 「Clear selection」 or tap the part that does not need to be edited. Tap 「Change」 if you want.

Enter increase/decrease value.
Enter a number and tap one of 「decrease」, 「increase」 or 「Fuel adjustment value」 at the bottom of the screen.
The value entered on the「decrease」 map value is subtracted.
The value entered on the 「icrease」 map will be added.
The number entered in 「Fuel adjustment value」 is entered directly on the map.

SPECIAL PARTS TAKEGAWA

■ Acceleration pump setting / engine speed correction

● Acceleration pump setting
　When the throttle is turned on suddenly, in order to avoid a temporary decrease in fuel adjustment, a single boost injection is performed asynchronously.
　Increase value is up to 2000 μs with acceleration pump. The setting is determined by the throttle opening speed(time) and the change rate of opening.
　The time can be set in the range of 0.1 to 0.9 seconds in increments of 0.1 seconds.
※ When set to 0.9 seconds, the acceleration pump will operate even if the throttle is operated very slowly.
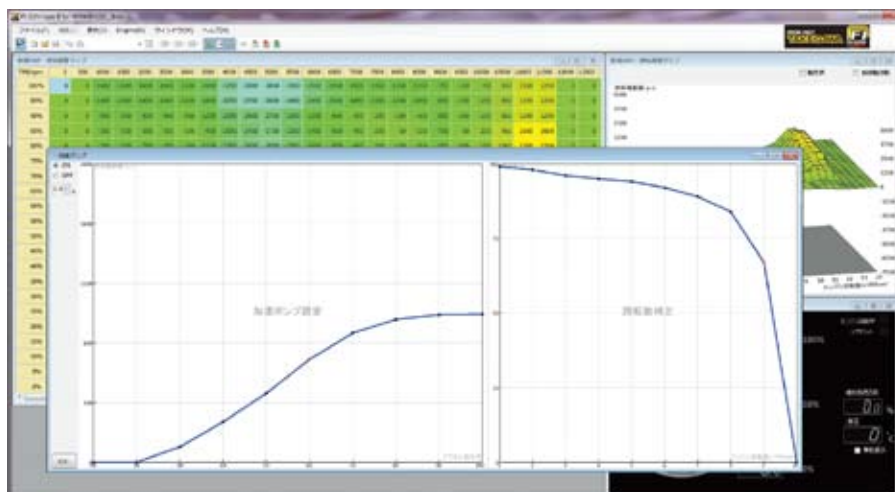　Set the injection amount.
　Sets the influence rate due to the speed of the acceleration pump. Usually, the higher the rotation speed, the lower the influence rate.
　If necessary, change the value by clicking directly on the part you want to change.

● Engine speed correction
　Correct the acceleration pump for each engine speed.
　When the engine is running at low speed, it requires the set injection quantity. At high speed, the injection quantity is not necessary than that at low speeds, so correction is required.

Setting with a PC

How to set with a smartphone

Tap and select「Accele pump」(at the bottom of the screen).
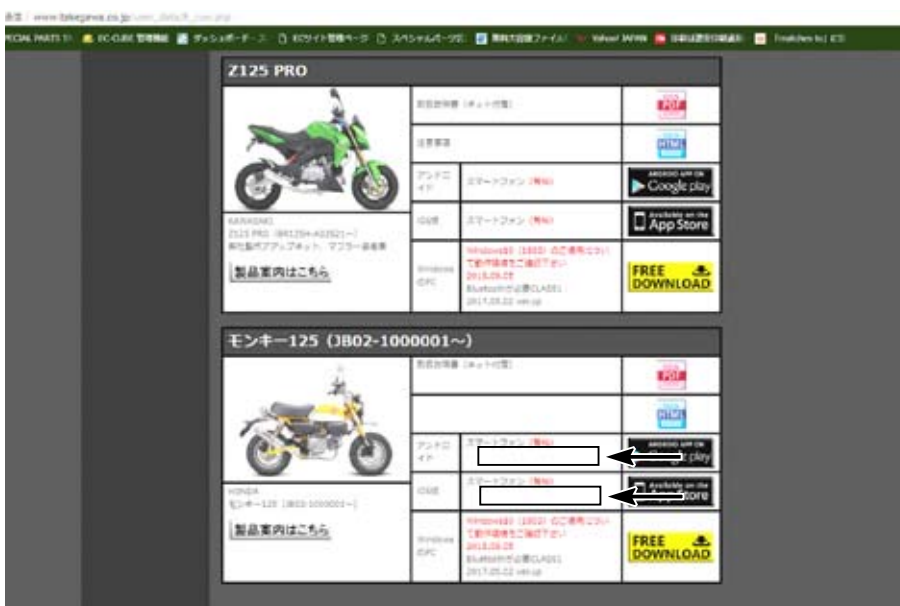To change the value, tap to enter the value input screen.

■ Mounting procedure　※ Please refer to the Genuine Service Manual for detailed mounting methods and specified torques that are not specifically described.
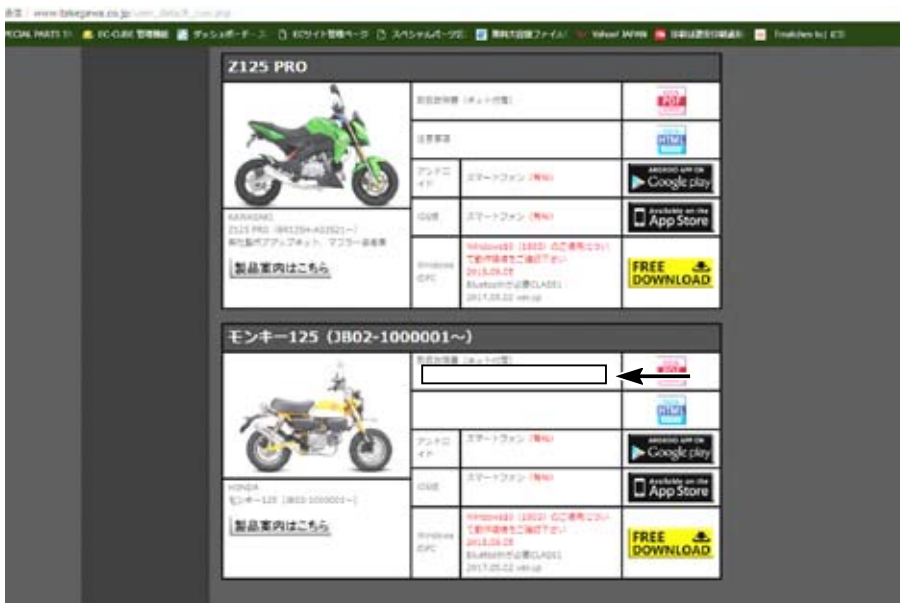
■ Update

・By selecting the update history of INDEX (at the top of the page), you can see the update history (at the bottom of the page).

・If there is any change or correction to the fuel MAP, we will guide you through the contents within the arrow mark.

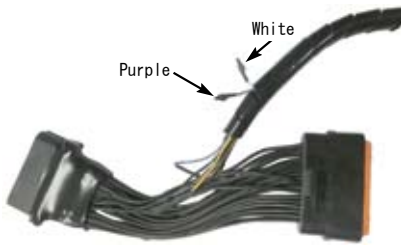・If there is any change or correction to the fuel MAP, we will guide you through the contents within the arrow mark.

Other functions

■Body harness

You can use more convenient functions by using the white and purple wire inside the spiral tube.

White

Purple

Pit lane limiter function (white)

This function is mainly used for speed limit in the pit lane of the raceway.

The pit lane limiter can be used the light green wiring (by removing the shrink tube)and connecting it to a switch (separately prepared) and connecting it from the switch to the body ground. ※Please prepare the wiring for extending the switch separately.

⚠ Note
Be careful of shorts-circuit when processing. The body will be damaged if short-circuited.
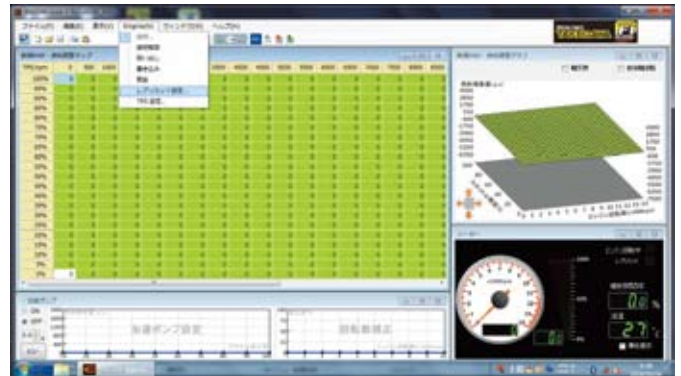
Setting with a PC

Select 「Rev limit setting」 from the upper 「FI CON TYPE-e」

Select the pit lane limiter function ON / OFF and enter the pit lane limit speed.
※The rev limit can also be adjusted. The pit lane limiter and rev limit, each are separate functions.

How to set with a smartphone

Tap 「Other」 → 「FI CON Settings」 (at the bottom right of the screen)

Select the pit lane limiter function ON / OFF and enter the pit lane limit speed.
※You can also adjust the rev limit.
The pit lane limiter and rev limit, each are separate functions.
■Reference
In the case of Monkey 125 with stock transmission, it will be 40km / h
@ 7500rpm(approx)
Please check before actual use.

選択してください ← Please Select

FICON設定 ← FI CON setting

TPS設定 ← Setting TPS

モデル選択 ← Select MODEL

キャンセル ← Cancel

リミッターカット

レブリミット　　　00rpm
－　＋

ピットレーンリミッタ

ピットレーンリミット　00rpm
－　＋

キャンセル　FICONを選択

FICONを探しています

SPECIAL PARTS TAKEGAWA

● Tachometer output service wire
・A purple wire and connect it to the tachometer. (by removing the shrink tube) Table below for compatible products that have been confirmed as of September 2021.

Product number	Product content
05-05-0027	Square LCD Speed & Tachometer SQLST1
05-05-3210	Medium DN Tachometer T2 (White LED)
05-05-0078	φ 48 Small DN Tacho & Thermometer
05-05-0035	φ 48 Small DN Tachometer
05-05-0080	φ 48 Small DN Tachometer 12500RPM (with rev indicator)
05-05-0053	Medium LCD Speed & Tachometer (MLCD ST1)
05-05-0004	Blue LED electrical Tachometer
05-05-0014	Black & Green electrical Tachometer
05-05-0061	Super Multi TFT Meter

※ Information and specifications as of September 2021. Subject to change without notice.

・Please check the tachometer instruction manual when installing. Need separate bracket harness.