

## Connecting the MSX125 (after 2016 LED headlight model) ECU to the Enigma FirePlus Bluetooth version

Supported models of this manual

**ENIGMA type** ENIGMA FirePlus (FBD-330 / FBD-330 RTF / FBD-330 RTFW)

**Vehicle type** YAMAHA GROM / MSX125 (EBJ-JC61 1300000- )  
2016- LED Headlight model

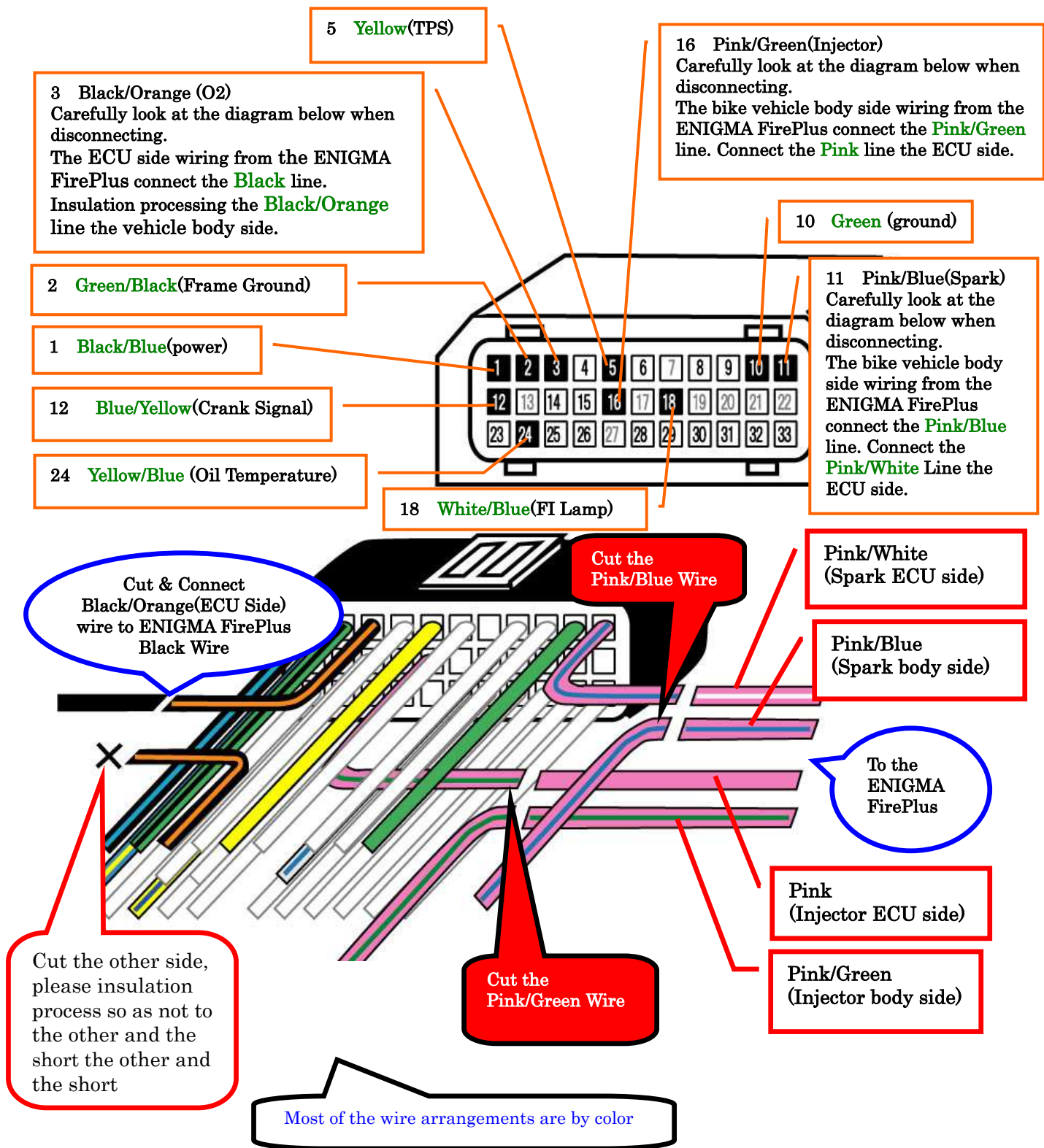
Installation should be done in a safe place. A basic knowledge of MSX125 maintenance is necessary. There is an ECU under the seat and remove gas tank side cover and rubber mount. Remove the 33pin coupler then the ECU. (This manual is after 2016 LED headlight model only. before 2015 projector headlight model is another manual)

Make an **interrupt connection** from the ENIGMA FirePlus wiring to the wiring on the coupler side. (AN interrupt connection can made without cutting but by making a branch in the normal connection) Do not use an electro tap on the interrupt wiring connection. It causes many connection issues that are problematic to the operation of the ENIGMA FirePlus. (Use solder or the like for improved reliability.)

If you use the RTF type, remove the coupler which is connected to the ECU, please connect the coupler that has come out from ENIGMA FirePlusRTF to the ECU and the vehicle body side. Please make sure that the lock sound is a "click".

**The wires from the ENIGMA FirePlus will be the fundamentally the same, or similar to that of the wires it will connect to from the bike. Please carefully follow the diagram below when making the connection. There are a total of 12 wires.**

- By cutting the No.11 Pin (pink / blue) wire of ECU (spark), the bike vehicle body side wiring from the ENIGMA FirePlus connect the pink / blue wire. Connect the pink / white wire the ECU side.
- By cutting the No.16 Pin (pink / green) wire of ECU (Injecttor), the bike vehicle body side wiring from the ENIGMA FirePlus connect the pink / green wire. Connect the pink wire the ECU side.
- By cutting the No.3 Pin (black / orange) wire of ECU (O2 sensor), the ECU side wiring from the ENIGMA FirePlus Connect the black wire. Insulation processing the black / orange wire the vehicle body side.
- Green / black line to be connected to the body earth (frame GND) or the No.2 Pin (green / black) wire of ECU or the minus terminal of the battery. Do not connect to the No.9 Pin and No.10 Pin (green) wire of the ECU .
- In order to prevent the reporting water from entering into the ENIGMA FirePlus inside from the base of the wiring from the ENIGMA FirePlus , it is recommended that you install in the lower wiring side in the vertical the ENIGMA FirePlus.
- The purple wire is a engine revolution output service cable and is not to be connected to the ECU.
- The white wire is a pit lane switch service and is not to be connected to the ECU.
- With harness type in the old FBD-330RTF, please reconnect the to have "white / blue" line out of the ENIGMA from 22 Pin of the ECU to the 18th pin. Wiring change the case of FBD-330RTFW you do not need.



Terminal that connects to the ECU is 1, 2, 3, 5, 10, 11, 12, 16, 18, 24 10 places of. Please check the above diagram

The purple line is the service output line. The ENIGMA FirePlus will output 5V each crank rotation. Most commercially available digital tachometers are supported. Exact values will be displayed if these cables are connected. They are useful to various applications. Do not short-circuit by taping when there is no need.

The white wire is a pit lane switch service and is not to be connected to the ECU. When you do not want to use this function, please tip of the wire is insulated with tape so as not to short against the metal part.

Please use the **GROM / MSX125** dedicated ENIGMA FirePlus dedicated app.

Other Vehicle dedicated apps cannot be used.

Please use the **GROM / MSX125** dedicated ENIGMA FirePlus PCsoftware. Other Vehicle, Other ENIGMA dedicated PCsoftwares, cannot be used.

There are 2 types of the ENIGMA FirePlus app (PC software): EASY mode and PRO mode.

In PRO mode, if you cannot create the ignition map yourself, the engine may not start, the rotation may not increase, or the engine may be destroyed in the worst case. If you are new to this, please use EASY mode.

The limiter has not been canceled after the wiring connection is complete. It can be easily canceled by communicating with the ENIGMA FirePlus operating appli/software on a smartphone or PC.

The ENIGMA FirePlus operating software for PC can be downloaded free from our website.

<http://www.dilts-japan.com>

## Installation of the pit lane limiter switch

"White wire" that has come out from ENIGMA is the wiring for the pit lane limiter switch installation. Pit lane limiter to the rotation of the constant engine speed to control the speed only when the external switch ON

You control. Do those who want to use this feature by performing the following tasks.

In general, to buy a handle mounting switch, which is commercially available, it should be placed in easy-to-use position.

(If you are installing to handle and place easy to operate location does not interfere with operation)

Switch is common thing that cuts in the "OFF" position to connect with the "ON" position.

Switch is not suitable to be connected only when you press. be careful.

Connect the white line the installation of the switch is out of the ENIGMA when finished.

Connect the white line to one of the terminals of the switch. The other is connected to ensure that "body earth".

**The most reliable of is to connect to the negative battery. Circuit will be burned down and unavailable when connecting to the positive wrong. Never done.**

This completes the installation of pit lane limiter switch with more work

**When you do not want to use the pit lane limiter function, please tip of the wire is insulated with tape so as not to short against the metal part.**