Jetprime user manual version V.1.1.3.0



# Installation manual Jetprime programmable power module

This document supports the current version of the Jetprime power module and all subsequent versions until this document is replaced by a new edition.



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## **Description of the Jetprime power module**

The Jetprime is installed downstream of the stock control unit and before the throttle body assembly using the supplied cable harness. In this way the data sent by the stock control unit can be modified as required.

With the Jetprime it is possible to change the carburation ratio regardless of the original factory setting by changing the time interval in which the injectors remain open during the intake stroke.

Very often on all production bikes there are limits and standards which are necessary to guarantee the compliance with emission regulations and to adjust the engine to perform well under any condition.



For this reason the performance can be improved in relation to the pressure and temperature of your actual location whether for example you are at sea level or up in the mountains, two opposites just to give you an idea. An add-in such as the Jetprime is also essential should you decide to add to your motorcycle an after market exhaust system and a race air filter as both require an optimum carburetion to achieve the best possible performance.

The power module is programmed via the USB connection on a PC Computer using a simple and intuitive method: instead of using the classic table of numerical values which can be found in all commercially available programmable power modules, the Jetprime is programmed by simply creating a 2D carburetion chart.

Featuring a Plug and Play system, the Jetprime is connected to the injectors, the IAT sensor and to the 12v power from the iginition (this is to avoid there is no power absorption when the engine is turned off). The choice of using the IAT sensor is strategic and is necessary to change the ignition timing without giving any risk of causing damage to the engine should the settings be either incorrect or too high.

Once you have synchronized a reading of the engine's revs using the supplied software, you will then be able to create your own personal carburetion mapping by simply using the arrow cursors on your keyboard.

The software interface at first glance is very simple and intuitive showing the ratio between the engine's revs (from 0 to 12,000 rpm for the Jetprime and from 0 to 17,000 rpm for the Jetprime 4 cylinder version) and the carburation scale, which can be increased by up to +30 or decreased to a minimum of -10 in respect to its reference axis.

# **Program interface**



- 1. Displays the COM (Virtual port) or USB (HID) port currently selected.
- 2. Button used to search for the Jetprime power module.
- 3. Reads the engine revs (if the control unit is connected to the bike).
- 4. Power module ROM read/write status bar.
- 5. Writes the injection curve to the power module ROM.
- 6. Reads the ROM to load the injection curve to the software.
- 7. Modifies the rev divider. Required to align the engine revs with the software tachometer dial (14). The power module ROM must be updated (Button 5) to make any changes to the rev divider effective.
- 8. Percentage value (positive or negative) for the generation of a flat profile.
- 9. Button to generate a flat profile on the injection curve based on the value set (8).
- 10. Displays the directory location for the profile loaded using the "Load Profile" button (12).
- 11. Used to save the profile generated to the PC.
- 12. Used to load a previously saved profile from the PC.
- 13. Closes the program.
- 14. Software tachometer dial displaying the number of engine revs.
- 15. Window to create or modify the injection Map.

## Installation and use

#### Software download

Download the Jetprime software from http://www.jetprime.it

The Jetprime software is compatible with Windows XP, Windows Vista, Windows 7, Windows 8 and Windows 10 operating systems.

1. To install the software on Windows XP run the installer by double-clicking on the file.



JetPrime\_installer- .exe Type: Application

2. To install the software on Windows Vista and subsequent operating systems, right-click with your mouse on the installer file and select "**run as administrator**".



3. Once installation of the Jetprime software has been completed, click on "Close".

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# Change language software

To change the language of the software in English, follow the path as shown in the picture.



#### HID control unit preliminary operations

- 1. Connect the Jetprime power module to a USB port on your PC (it is recommended to always use the same USB port each time you connect).
- 2. Run a search for the power module using the "Search for Jetprime" button (page 4, ref. 2).
- 3. Once you have received confirmation that a connection has been established between the software and the power module, you can now start to adjust an injection curve.

## **Creating an injection curve**

- 1. Before creating an injection curve it is recommended to carry out a preliminary bench test to analyse the stoichiometric ratio which is to be corrected.
- 2. Start the communication between the Jetprime power module and the bike's own control unit using the "RPM Monitor" button (page 4, ref. 3).
- 3. Check the software tachometer dial and modify the engine revs divider using the buttons "RPM Divider" (page 4, ref. 7). Confirm any modifications by pressing "Update profile on Jetprime" (page 4, ref. 5).
- 4. To generate a flat profile by increasing or decreasing the initial carburation percentage, use the button "Flat Profile Value" (page 4, ref. 8). Confirm the generation of the profile using the "Generate Flat Profile" button (page 4, ref. 9).
- 5. After analysing the stoichiometric ratio, you can modify the injection Map using the PC arrow keys or your mouse.
- 6. Load the injection Map to the power module ROM by pressing "Update Profile on Jetprime" (page 4, ref. 5).
- 7. Once you have carried out all the necessary tests, save the corrected injection curve to the PC using the button "Save Profile" (page 4, ref. 11).

N.B.: All the changes made to the software will ONLY come into operation AFTER the ROM has been updated by pressing "Update Profile on Jetprime" (page 4, ref. 5)

# Known bugs

#### Please note:

With a monitor resolution of 1920 x 1080 pixels, the software will not allow the use of the arrow keys to modify the injection curve.

#### Solution:

The injection curve can still be modified by selecting and moving the reference points with your mouse.

# **Client notes**



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