

## PROGRAMMING MANUAL

### PPV-MT10 PROGRAMMABLE EXUP CONTROLLER

#### Programming with HANDHELD PROGRAMMER

The **PPV-MT10** is a programmable controller designed to manage the operation of the EXUP valve in Yamaha MT-10 motorcycles and other compatible models. It provides riders with the ability to switch between the factory-original valve operation and a fully open mode, depending on their riding needs.

This controller is ideal for both street and track use allowing noise reduction and improved low-end torque during normal riding, while enabling maximum performance and unrestricted exhaust flow for racing environments. The PPV-MT10 supports both switch and push button input and also includes an option for permanently setting the valve to the open position.

The EXUP valve can be operated in two modes:

**Original Mode** – functions as intended by the manufacturer.

**Always Open Mode** – keeps the valve fully open at all times (ideal for track use).

#### Switch Operation

- When the switch is in the closed position, the servo operates in **Always Open Mode**
- When the switch is in the open position, the servo operates in **Original Mode**.

#### Push Button Operation

- Press and hold the button for more than 2 seconds to activate **Always Open Mode**.
- A short press returns the servo to **Original Mode**.

#### Permanent Open

- To permanently keep the servo in the open position (without using a switch or push button), connect the **brown** and **brown/white** wires together.

## TECHNICAL DATA

- recommended power supply voltage 12÷15 Volts
- maximum power supply voltage 17 Volts

### Features:

- operates with 5 wire EXUP servo
- operation selection with the switch or push button
- automatic detection of valve closed position
- programmable valve open position
- programmable valve position deviation
- detection of engine operation
- recall EXUP position
- switch or push button test function

PPV-MT10 can be programmed with handheld or PC-USB programmer.  
This manual explains how to program with the handheld programmer.

### **Important!**

Do not use excessive force when connecting or disconnecting the programmer unit!

## 1. HOW TO ENTER MENU

Connect **handheld programmer** to **PPV-MT10** and wait a few seconds for it to activate.

Press **ENTER** to enter menu.

Navigate through the menu by pressing **+** or **-** and make selection by pressing **ENTER**.

To exit the menu, select **Exit**.

## 2. MENU ORGANISATION

- |                        |   |
|------------------------|---|
| <b>Open Position</b>   | - set open position of EXUP valve           |
| <b>Deviation</b>       | - set EXUP valve position deviation         |
| <b>RPM detection</b>   | - enable/disable engine operation detection |
| <b>Recall EXUP</b>     | - recall EXUP position                      |
| <b>Switch position</b> | - switch/button test function               |
| <b>Exit</b>            |   |

### 2.1. Open Position

The EXUP valve position must be programmed to fully open position.

Check valve position by activating **Always Open Mode** using the switch or push button.

Enter menu and navigate to **Open Position** by pressing **+** or **-** and press **ENTER** to confirm.

Set open position by pressing **+** or **-** and press **ENTER** to confirm.

## 2.2. Deviation

Deviation defines how accurately the valve moves to calculated position. If the deviation is set too low, the servo motor position may become unstable – it will constantly make small adjustments to reach the exact position.

The default setting is  $\pm 0.1$  V, which is sufficient in most cases.

Enter menu and navigate to **Deviation** by pressing **+** or **-** and press **ENTER** to confirm.  
Set deviation by pressing **+** or **-** and press **ENTER** to confirm.

## 2.3. RPM detection

RPM detection means that the controller detects whether the engine is running, not the actual RPM value.

When RPM detection is enabled, the valve will automatically close if no RPM is detected.

Enter menu and navigate to **RPM detection** by pressing **+**, or **-** and press **ENTER** to confirm.

Enable, or disable RPM detection by pressing **+** or **-** and press **ENTER** to confirm.

## 2.4. Recall EXUP

**Recall EXUP** is useful when a push button is used instead of a switch.

When Recall EXUP is enabled, the controller remembers the servo position when the key is switched off and restores the last servo position when the key is switched on.

Enter menu and navigate to **Recall EXUP** by pressing **+** or **-** and press **ENTER** to confirm.  
Enable, or disable Recall EXUP by pressing **+** or **-** and press **ENTER** to confirm.

## 2.5. Switch position

It is a test function for checking the switch or push button position.

Enter menu and navigate to **Switch position**.

The second line on the display indicates the position of the switch or push button:

[0] = switch opened, or push button not pressed

[1] = switch closed, or push button pressed

## 3. MONITORING

Connect the programmer to the PPV-MT10 and wait a few seconds for the programmer to activate. The first information displayed on the programmer is the firmware version. After a few seconds, the display changes and shows the EXUP position:

- STANDARD = when servo is controlled by the motorcycle ECU
- OPENED = when servo is opened by PPV-MT10 controller