



Thank you for choosing the Trinity Stage 5 Tuner. This controller is usable only for the following fuel injected models:

- Yamaha YFZ 450 (2009-2014)

This product is capable of handling the fuel needs for your vehicle from stock, to pipes and air intakes, and beyond. This is an Electronic Jet Kit. Like jet kits in the past the more you modify the more responsibility you take in getting your fuel curve right.

### Product Features:

- **Plug and Play Installation** – Minutes to install. Base Settings are preset.
- **NO Computer Needed, NO Dyno Required** – Make adjustments on the vehicle with the engine running.
- **Simple Push Button Adjustment Interface**
- **Water-Resistant**

### Product Note:

**DO NOT TURN ALL THE SETTINGS UP TO 8. The higher the setting DOES NOT mean more power. You are making fuel adjustments where the proper fuel tuning will achieve the best power and torque.**

#### IMPORTANT – PLEASE READ CAREFULLY

Some vehicles modifications with Trinity products must not be used on public roads and in some cases may be restricted to close course competition. Those products not identified as US EPA legal are intended for off-road or marine applications only. Not intended for use on emission controlled vehicles.

#### WARRANTY:

This product is warranted for 2 years from original date of purchase against defects in materials or workmanship. The customer must provide a valid proof of purchase to obtain the benefits of the warranty. Any modifications of the controller (cut wires, soldered wires, extensive abuse, etc.) will void the warranty. Please contact the manufacturer to obtain a RMA number in order to return the product.

**INSTALLATION - Please call technical support for any installation questions.**

1. Make sure your vehicle is cold before starting the installation.
2. Remove the seat.
3. Locate the fuel injector at the back of the gas tank. The injector will have a grey connector plugged onto it.
4. Disconnect the factory fuel injector connector. Connect the EFI fuel injector connectors in line with the factory fuel injector connector and the factory fuel injector.
5. After connecting the EFI box check all the wire connections to ensure proper connection. To do this just pull on the connections to make sure they are properly locked in.
6. Determine a location for the EFI unit. Suggested location is in the storage compartment under the seat. Use the supplied Velcro patch to mount the controller.
7. Route the harness to the chosen mounting location. Use the supplied zip ties to secure the harness in place.  
**IMPORTANT: Make sure all connections are firmly secure and allow a little slack at the connections to prevent engine vibration from damaging/breaking a wire on the harness.**
8. Connect the EFI BLACK ground lead to the negative terminal of the battery along with the factory ground lead.
9. Make sure you can view the EFI and **START** your vehicle. **DO NOT SIMPLY TURN THE KEY ON.** The LEDs on the EFI will energize and may scroll back and forth for several seconds. With a proper installation the EFI will stop scrolling the LEDs and go to a steady or slow flashing GREEN LED to the far left. With an improper installation the LED display will consist of a flashing GREEN and a flashing RED LED. This occurs when the EFI is not receiving a proper injector signal. Re-check the wire connections for any defects.  
**IMPORTANT: The flashing GREEN and RED LEDs is common for a proper installation during deceleration because the stock fuel map may shut off the fuel injectors during this process.**
10. Replace removed parts in reverse order to complete the installation.

## TUNING ADJUSTMENTS

**IMPORTANT: Your controller already comes pre-programmed with our recommended stage 1 settings. We highly suggest installing the controller and going for a test ride before making any adjustments.**

The controller has five (5) programmable features available. To begin this process press the MODE button and to enter each successive mode, just press the MODE button again. The unit comes with pre-programmed settings which should match the recommended starting settings on the following page.

Tuning for mode 1 - **GREEN** – Fuel addition during cruise/steady throttle.

This adjustment deals with adding fuel during all steady throttle conditions. A flashing **green** LED should appear somewhere on the LED display. A setting of 0.5 is running on the stock map.

Tuning for mode 2 – **YELLOW** - Fuel addition during acceleration

Tuning for this mode depends greatly upon your individual bike and can vary widely from the base setting. After market high flow exhaust systems and high flow air filters "MAY" cause you to tune differently from the base settings. This combination could have a setting difference as great as three yellow LED's. Note that this adjustment is only for hard acceleration. A flashing **yellow** LED should appear somewhere on the LED display. A setting of 0.5 is running on the stock map.

Tuning for mode 3 – **RED** - Fuel addition during full throttle

This adjustment deals with adding fuel during full throttle and heavy load conditions to achieve the peak horsepower. This mode could vary widely from the base settings depending on the set up of your vehicle and could have a difference as great as three red LED's or more. A flashing **red** LED should appear somewhere on the LED display. A setting of 0.5 is running on the stock map.

Tuning for mode 4 – **YELLOW / BLUE** - Represents an adjustment for when the yellow fuel engages

This mode "MAY" vary from the base settings depending on the set up of your bike. The lowest LED setting (1) represents the lightest load to switch on the yellow fuel and the highest LED setting (8) represents the heaviest load to switch on the yellow fuel. A flashing **yellow** LED should appear somewhere on the display along with a solid **blue** LED on the right.

Tuning for mode 5 – **RED / BLUE** - Represents an adjustment for when the full throttle fuel engages

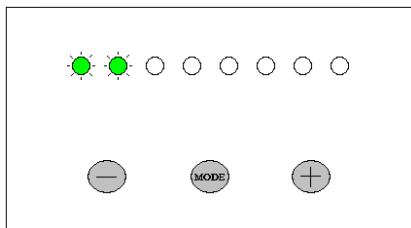
The base setting for this mode will rarely have to be changed. The red LED should be engaged during the full throttle period. The lowest LED setting (1) represents the lightest full throttle load to switch on the red fuel and the highest LED setting (8) represents the heaviest full throttle load to switch on the red fuel. A flashing **red** LED should appear somewhere on the display along with a solid **blue** LED on the right.

## CONTROLLER FUNCTIONALITY

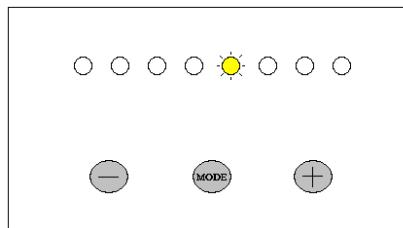
- To program your controller the vehicle must be running in order to supply power to the box.
- If at any time you stay in an adjusting mode for longer than five (5) seconds without pressing any buttons, the controller will exit adjusting mode and will return to the ready state.
- Settings are saved for all modes after the controller exits back to the ready state.
- Settings in each mode are adjusted by pressing the PLUS (+) and MINUS (-) buttons located on the right and left side of the MODE button. For easy reference the LED's are numbered 1 through 8. However, the LEDs can be adjusted to the following positions: 0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8. For example, in a particular mode, if LED 4 is flashing then the LED display is set to 4 in that mode. If the PLUS (+) button is pressed once then LEDs 4 and 5 will flash simultaneously and the LED display is set to 4.5. If the PLUS (+) button is pressed once again, only LED 5 will flash and the LED display is set to 5. The LED display can also be set to 0.5 by pressing the MINUS (-) button and scrolling the colored LED to position 1 and then pressing the (-) button once more until the LED in position 1 is flashing twice as fast as normal.
- Always make sure your vehicle is at normal operating temperature when making tuning adjustments.

## RECOMMENDED BASE SETTINGS – STAGE 1

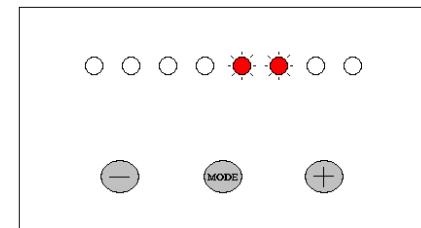
MODE 1 – GREEN – 1.5



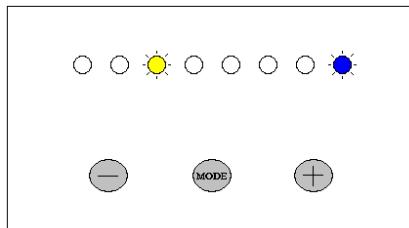
MODE 2 – YELLOW – 5



MODE 3 – RED – 5.5



MODE 4 – YELLOW/BLUE – 3



MODE 5 – RED/BLUE – 4

