# Electronic Jet Kit<sup>TM</sup> Instructions

# Yamaha Bikes





E-mail: info@dobeckperformance.com

Site: www.dobeckperformance.com

Thank you for choosing the Techlusion Electronic Jet Kit, the TFI. The TFI is usable for fuel injected 4 cylinder Yamaha motorcycles including:

2003-2013 FJR1300 2003-2013 YZF-R6/S 2002-2008 YZF R1 2004-2013 FZ6/R 2006-2013 FZ1

This product is a perfect fit for stock bikes with exhaust and intake mods. It is also capable of handling the fuel needs of big bore kits, light cams, and a variety of head porting.

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. Going to www.dobeckperformance.com will help you obtain better high horsepower tuning.

Note: If your model is equipped with a 02 sensor in the exhaust, you will need to disable it or leave the first dial (green) at the 1:00 o'clock position. Any questions call tech support @ 877-764-3337

#### **TOOLS REQUIRED**

- > This is about a 30-minute install time.
- ➤ The tools needed to disconnect the negative terminal of the battery.
- > The tools needed to remove your seat, fuel tank and/or side cover (if necessary).
- > The tools needed to gain access to the injectors (located at/or near the throttle bodies on the intake).
- > Last but not least a small screwdriver.

Due to the complexity of the newer motorcycles, dealer install may be required. Call for more details for installation or visit www.dobeckperformance.com for photo installs.

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Phone: 877-764-3337

Fax: 406-388-2455

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#### **INSTALLATION**

(at any time during install or tuning please call us for any and all help, we can't help if you don't call)

- 1. Before installing the TFI you must first disconnect the negative lead from the battery.
- 2. Determine a location for the TFI unit. Suggested locations are as follows: Under the seat, behind a side cover or tail section.
- 3. The TFI comes with a harness with injector connectors that match the factory injector connectors.
- 4. Locate the factory fuel injectors (see owners manual if you are not sure).\*\*

  \*\*: Some models are equipped with two sets of injectors (primary and secondary) the unit is designed to interface with the primary injectors. If the TFI harness does not match your injectors do not proceed and call tech support @ 877-764-3337
- 5. Disconnect the factory injector connectors from the fuel injectors and replace with the TFI injector connectors from the TFI unit, basically unhook the factory injector connector and plug the matching TFI connector (female) to the injector and then connect the factory injector connector to the TFI connector that simulates the injector (male). There is no order to hook up the TFI harness to the factory harness just make sure the original factory connector goes to its' original cylinder. It is a good idea to make sure there is a little slack in the harness to prevent engine vibration from damaging/breaking a wire on the connectors.
- 6. Connect the TFI ground lead to the negative terminal of the battery along with the factory ground lead.
- 7. With the rubber plug removed from the TFI, turn the motorcycle key switch to the "ON" position. As the bikes electrical system goes through initial start up mode you may see LED's flashing on the TFI.
- 8. Start the motorcycle. The green LED should now be on steady and the yellow will flash rapidly for about 15 seconds, and then go out. If the green or red LED's continue flashing after startup please check all connections and retry, if there is still a problem call tech support @ 877-764-3337.

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# **Tuning**

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Green light pot (1<sup>st</sup>): Air fuel mixture screw adjustment. To set this pot, make sure the motorcycle is up to a full operating temperature, then while in neutral, pick a fast idle that is not easy to hold a steady rpm any where between 2500-3000 rpm, hold the throttle absolutely steady at that spot and then slowly and evenly turn the green pot clockwise from its minimum setting (1:00 o'clock), while listening to the exhaust sound. You should hear the exhaust sound change form an irregular and uneven tone to an even and smooth tone. You may see an increase in rpm as you increase fuel, if you continue to increase fuel past this point to where the rpm's start to fall back away, then stop and start returning the pot screw back to a point half way between where the exhaust note first smoothed out and the point where the highest rpm starts to fall away.

Yellow light pot (2<sup>nd</sup>): Accelerator pump adjustment. Anytime you see the light on, it means that this pot is adding fuel. You will notice that you can take the RPM slowly up to 3000 in neutral and see no yellow light. By whacking the throttle wide open quickly you should see the yellow light come on. Try to add as much as you can until the bike says it is too much then back off two clock positions. The yellow pot adds most of its fuel below 9000 rpm.

Red light pot (3<sup>rd</sup>): Main jet adjustment. It adds about 4 points of a main jet for every clock position. For example, one clock position is the same as 124 to 128 main jet. All we can say about setting up this pot is to use the base setting that comes closest to your bike's modifications. Then use the same method you used, in setting up your carbureted bikes or refer to the (Full Throttle) section.

RPM switch pot (4<sup>th</sup>): All (except Harley/Metric V-twins/ Metric Triples) Sets the rpm that the green fuel turns off. This adjustment is achieved by setting the pot to 4:30 o'clock for 600cc and above multi cylinder sport bikes. Each clock position of this pot equates to about 1000 rpm's, so 4,500 rpm's would be half way between 4 and 5 o'clock. Verify this setting by revving the bike in neutral and watching for the green light to go out at the chosen rpm.

#### TROUBLESHOOTING

First it is important that you understand that all modern day fuel injected bikes have a big advantage over carbureted bikes. Fuel injected bikes all have the same exact fuel curve and is corrected everyday by the on board weather station. Nothing is leaner than a stock fuel injection map. So with our box on and the bike fully warmed up, if you slowly turn on the green pot and the engine does not accept any more fuel (RPM's drop when adding fuel) then you have one or more of these problems. Solution:

- 1. Engine not fully warmed up.
- 2. A vacuum leak on the intake.
- 3. High lift cams affecting map at light loads and low RPMS.
- 4. The loss of TPS and ECU sync.
- 5. Cylinder head temp sensor malfunction.

(Order from most common to least common)

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# Problem poor mileage

#### **Solution:**

- 1. Check your green pot settings. In the hundreds of installs performed, we have never gone beyond the 4:00 setting. Try backing down the settings slightly. Also, make sure your engine passes the 2500-3000 RPM test at the beginning of the "Tuning" chapter.
- 2. The RPM pot is adjusted too high. Make sure it's no higher than the 5:00 setting, this means the green should turn off at around 5000 rpm. Verify this setting by slowly revving the bike in neutral and watching for the green light to go out at the chosen rpm.

If you still have mileage issues call tech support at 877-764-3337

#### **FULL THROTTLE**

Simply add or subtract fuel with the red light pot to determine if the problem is better or worse. This lets the engine dictate additional adjustments or call tech support @ 877-764-3337.

Some vehicles modifications with Techlusion Inc. 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.



# 2-year Unlimited Mileage Warranty

Techulsion warrants that this product carries a warranty for 2-years from date of purchase against original defects in materials and workmanship. Should this product fail to perform for either of the above reasons, Techlusion will repair or replace it wih an equivalent product at no charge, except for postage, to the original retail purchaser.

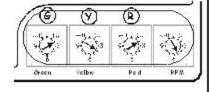
first call 1-877-764-3337 to obtain a Return Authorization Number, then send the product with proof of purchase and postage prepaid to:

> Dobeck Performance 157 Progressive Dr. Belgrade, MT 59714

# YZF-R6/S

GRN: 2:00 YEL: 4:00

RED: 2:00 RPM: 4:30

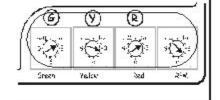


#### YZF-R1

GRN: 2:00 YEL: 3:30

RED: 2:00

RPM: 4:00



#### **FJR 1300**

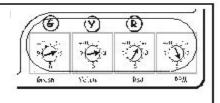
GRN: 2:30

YEL: 2:30 RED: 1:00

RPM: 5:00

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