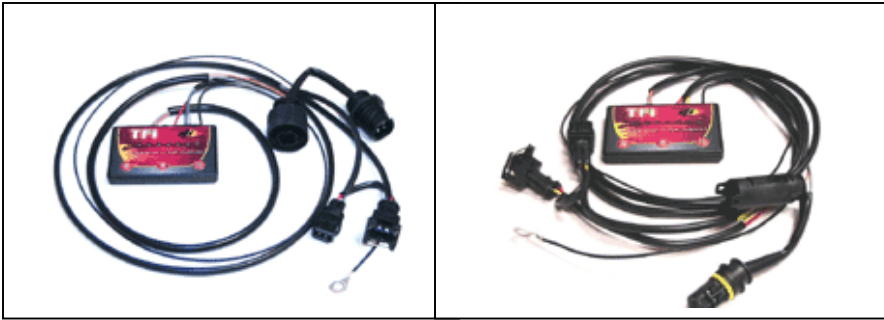


## Electronic Jet Kit™ Instructions



Thank you for choosing the Techlusion Electronic Jet Kit. The TFI is usable for the following BMW Fuel injected models:

- R1150 all (push type plug)
- R1100S (push type plug)
- R1200C (push type plug)
- R1000GS, RT, R (twist plug type)

This product is a great fit for stock bikes with exhaust and intake mods.

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 [Dobeckperformance.com](http://Dobeckperformance.com) will help you obtain a better tune.

### INSTALLATION PREP

- Install Time: 60 minutes
- Required Tools for: Disconnecting the negative terminal of the battery  
Loosening and propping up the fuel tank (RT models only)

**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.**

## Electronic Jet Kit™ Instructions



1. Before installing the TFI you must first disconnect the negative lead from the battery.
2. Determine a safe location for the TFI unit. Dobeck Performance recommends mounting on the air box or beneath the seat with the supplied Velcro attachment. For initial tuning the box can be mounted where it can be seen and adjusted by the rider.
3. For installation make sure that your motorcycle is cold.  
On all RT Models:
  - You must remove the left and right body panels refer to your BMW service manual.
  - locate and disconnect the fuel line under the right hand side of the fuel tank using the quick disconnect feature on the fuel fitting if equipped. *Refer to the appropriate BMW service guides on removing the fuel tank.* Remove the rear fuel tank mounting bolt and slowly lift up the fuel tank (Figure 1).  
For all other models remove the rear fuel tank mounting bolt and lift up the fuel tank without disconnecting the fuel line.
4. Locate the oxygen (O<sub>2</sub>) sensor. The O<sub>2</sub> sensor can be found by tracing the wiring of the sensor in the exhaust to the connector (Figure 2). Run the female and male connector from the TFI box along the OEM wiring loom or along the frame of the motorcycle (the more care you provide doing this the fewer problems you are likely to experience in the future.)
5. Disconnect the factory O<sub>2</sub>-sensor plug (Figure 3). Fit the male and female plugs of the TFI unit into the OEM connector (Figure 4). Depending on the year and model of your bike unplugging may done two ways:
  - R1150 all, R1100S, 1200C – Push Type (Figure 6)
  - R1100GS, RT, R - Twist Type (Figure 7)
6. Locate the fuel injector connector on the right hand side of the bike (Figure 1.) and disconnect. As with the O<sub>2</sub> sensor, plug the TFI plug into the existing wiring (Figure 4). On the TFI unit locate the black (ground wire) attach to the frame or ideally to the negative pole of the battery.
7. At this point use zip ties to secure the wiring from the TFI unit to the frame or OEM wiring loom. Avoid chafing or squashing the cables and wires. NOTE (Do not attach zip ties to close to the injector and avoid creating sharp bends in the cable.) Reassembly of the bike is the opposite of the disassembly.
8. After completing the installation of your TFI unit, restart the computer system on the bike with the following procedure:
  1. Detach the ground (negative) lead from the battery.
  2. Reattach the lead.
  3. Turn ignition to "ON", but do not start the bike.
  4. Open the throttle fully three times, from the very beginning to the end of the throttle rotation.
  5. Turn off the ignition. The bikes computer has now been reset.
9. Now the bike can be started. The TFI unit will start in a few seconds The LED's will light up green; you will see an 8 second light sequence from side to side. This is the TFI's "check" mode. Note: once you have adjusted the settings you do not need to wait for the "Check" mode you can ride immediately.
10. You are now ready to make adjustments and "dial in" the TFI unit.

## Electronic Jet Kit™ Instructions



### Tuning the TFI unit

#### Note:

If the machine is not running smoothly prior to installation of the TFI unit the machine should be checked for possible problems and should be sorted out first prior to install. TFI does not solve problems other than reduce surging; increase ridability; and performance. An authorized BMW service department prior to working should deal with all other issues before installing your new TFI.

1. After connecting the 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*.
2. Be sure to check the wire harnesses are not in direct contact with any sharp edges, high heat, exhaust and/or other objects, which could result in long term, wear or damage shortening the life of your TFI unit.
3. Start the bike up and in approximately five seconds the lights inside the TFI will energize and be visible. With a proper installation, the TFI will have a continuous lighting sequence where the lights come on from left to right and then back again and repeats this display until the bike is fully warmed up. Then it will stop scrolling the lights and go to a steady green light to the far left and "MAY" have a flashing blue light to the far right. With an improper installation the light display will consist of a flashing green and a flashing red light. This occurs when the TFI is not receiving a proper injector signal. Recheck the wire connections for any defects. *(The flashing green and flashing red lights is common for a proper installation during deceleration because the stock fuel map shuts off the fuel injectors during this process.) You may see a flashing green and red lights while you are decelerating, this is normal because the stock mapping turns off the injectors during deceleration.*
4. At this point you are ready to adjust the TFI to the base settings supplied with the unit. The first thing to do is ensure that the proper code was supplied by checking that the six programmable features are 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 base settings these settings should match the recommended starting settings on PG 8.
  - a. The **first mode** represents an additional amount of fuel added during light load steady throttle cruise/idle. A flashing **green** LED should appear somewhere on the LED display.
  - b. The **second mode** represents an additional amount of fuel added during acceleration. A flashing yellow light should appear on the left side of the light display.
  - c. The **third mode** represents an additional amount of fuel added during full throttle. A flashing red light should appear on the left side of the light display.
  - d. The **fourth mode** represents the lower limit of the O2-sensor range. A flashing **green** light should appear on the left side of the display along with a flashing **blue** light on the right.
  - e. The **fifth mode** represents upper limit of the O2-sensor range. A flashing **yellow** LED should appear somewhere on the display along with a flashing **blue** LED on the right.
  - f. The **sixth mode** represents an adjustment for when the red fuel engages. A flashing **red** light should appear on the left side of the display along with a flashing **blue** light on the right.

## Electronic Jet Kit™ Instructions



If each mode is present then the proper code exists and you are ready for making manual adjustments. If you failed to enter a mode, try going through the sequence again and be sure to only press the MODE button once quickly in between each step.

5. You are now ready to manually program each mode. Consult the base settings supplied with the unit or you can look up the most up-to-date settings by going to our website <http://www.dobeckperformance.com>.

*To set the TFI, the bike must be running in order to supply power to the box.*

*If at anytime you stay in an adjusting mode for longer than 15 seconds without pressing any buttons, the TFI will exit adjusting mode and will return to the ready state.*

*To save settings at a particular mode press the MODE button which goes to the next adjustable mode or wait for the TFI to exit back to the ready state.*

The settings are adjusted by pressing the PLUS and MINUS buttons located on the right and left side respectively of the MODE button. To start adjusting, first press the MODE button the desired amount of times to reach the mode you wish to adjust. Pressing the PLUS button signifies an increase of 0.5 for the mode setting. Similarly, pressing the MINUS button signifies a decrease of 0.5 for the mode setting. The range of settings for each mode is 0 to 8. Light settings of 0 or 0.5 are essentially the same and are displayed by the very left light blinking at a faster rate than normal. When entering into green/blue, yellow/blue, or red/blue modes, a flashing blue light will appear on the very right. For light settings of 7.5 and 8 within these modes, the very right light will flash back and forth between the respective mode's color and blue. To see a visual display of adjusting settings go online to [dobeckperformance.com](http://dobeckperformance.com)

6. Your TFI should now be properly programmed and you are now ready to tune your bike.

*Always make sure your bike is at normal operating temperature when making tuning interpretations.*

## Electronic Jet Kit™ Instructions



Tuning for mode 1 – The green mode- "Cruise Mode". This setting regulates the general area in which the oxygen (O<sub>2</sub>) sensor controls the fuel to air mixture. This is the "cruise" in your ride or riding without heavy acceleration. This setting does not typically need to be adjusted from our stock setting, with the exception of minute adjustments for start up in extremely cold conditions.

Tuning for mode 2 – The yellow mode- "Acceleration". This setting regulates the fuel amount added during hard acceleration or a high speed riding. The yellow mode continues until the "blue red mode" (see next mode below) turns on. The yellow mode insures that there is no delay in throttle response between the green cruise mode and the red mode. This mode is tuned depending on the bike and the abovementioned after market modifications.

Tuning for mode 3 –The red mode- "Full Throttle". This setting regulates the fuel amount added during full throttle operation.

Tuning for mode 4 – The blue-green mode- "Lower O<sub>2</sub> sensor limit". This regulates the starting pulse width that the O<sub>2</sub> sensor controls. You can check function by increasing engine revolutions in small increments while in neutral to 2500 rpm. With base settings the blue LED should start at 1700 to 1800 rpm if the blue light does not appear, make sure that the base settings for the blue green area have been entered properly.

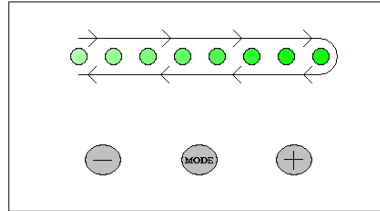
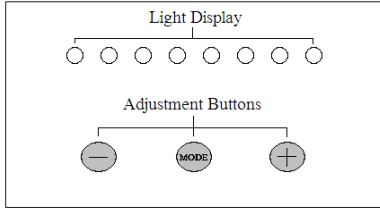
Tuning for mode 5 – The yellow blue mode "Upper O<sub>2</sub> sensor limit" regulates the upper pulse width that the O<sub>2</sub> sensor controls (the area between 5-55 mph normal riding conditions). The unit is set on the TFI and should need little adjustment (if any) from the stock settings.

Tuning for mode 6– The red blue mode- "Beginning of full throttle" controls the point where red "full throttle " turns on. The base settings are set to allow this at 5000-5500 rpm. If altered or the mode kicks in at a lower rpm you will not gain notable performance and fuel mileage will suffer. If moved to a lower light setting the red fuel will turn on at a lower RPM and may no gain notable performance and mpg will suffer.

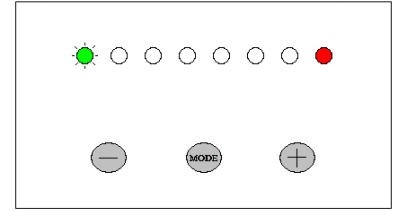
# Electronic Jet Kit™ Instructions



## Startup

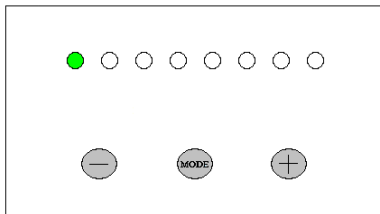


Display at startup, the LED light up green and have an 8 second light sequence from side to side.

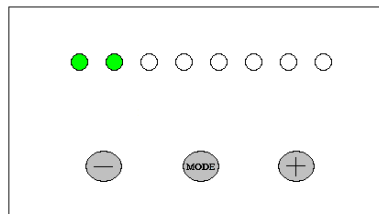


**Fault Warning**  
The green LED light blinks, while the red LED is lit. This means the TFI is connected but is not receiving an injector signal

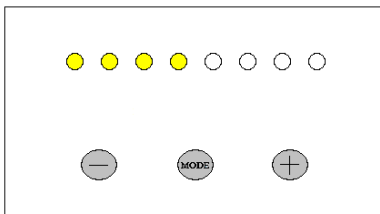
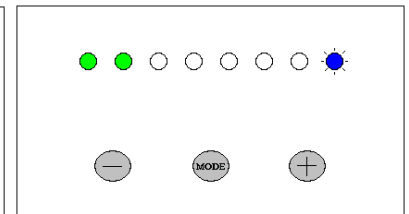
## Operating Modes



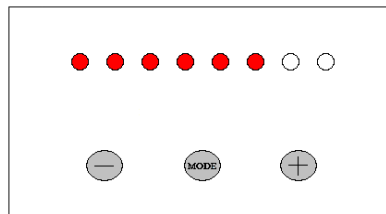
**Idle**  
The green LED will be on steady.



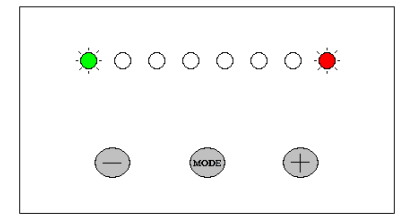
**Normal Driving and "Cruise" mode**  
During normal riding first one green Led lights up then depending on load more will light up. During cruise mode the blue LED will blink as well.



**Accelerator Pump**  
Under acceleration a steady yellow lights up, more light up with increased load.

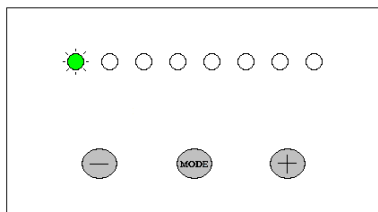


**Full Throttle Fuel**  
Red LED's light up during full throttle riding and increase with load

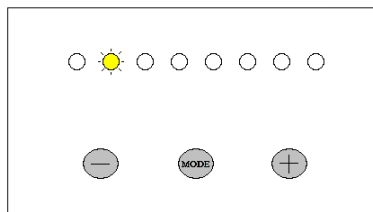


**Deceleration**  
The green + red LEDs on both ends flash back and forth showing that the injectors are off.

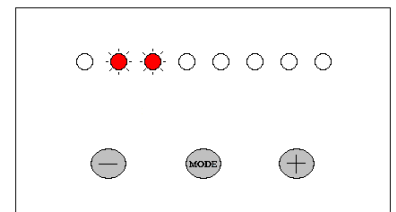
## Base Settings



**Base setting Green = 1.0**  
Press the "Mode" button for the green "Cruise" mode. **Press the plus/minus button to adjust to the base setting.**

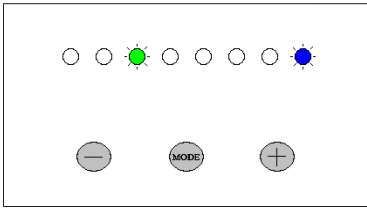


**Base setting Yellow = 2,0**  
Press the "Mode" button for the yellow light "Acceleration" mode. **Press the plus/minus button to adjust to the base setting.**

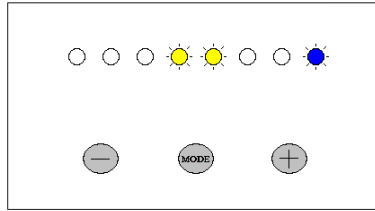


**Base setting Red = 2,5**  
Press the "Mode" button for the red "Full Throttle" mode. **Press the plus/minus button to adjust to base setting.**

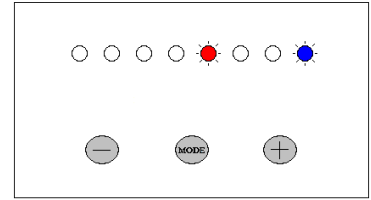
# Electronic Jet Kit™ Instructions



**Base setting Blue-Green = 3,0**  
Press the "Mode" button for the blue-green "Lower O2 Sensor Limit" mode. Press the plus/minus button to adjust to base setting



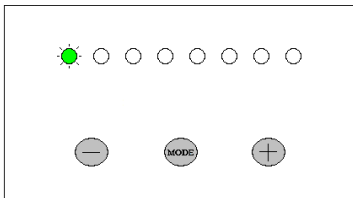
**Base setting Blue-Yellow = 4,5**  
Press the "Mode" button for the blue-yellow "Upper O2 Sensor Limit" mode. Press the plus/minus button to adjust to base setting



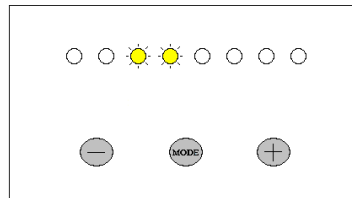
**Base setting Blue - Red = 5.0**  
Press the "Mode" button for the blue-red "Beginning of Full Throttle: mode. Press the plus/minus button to adjust to base setting

For full system and High flow Air Filters Dobeck Performance recommends the following base settings:

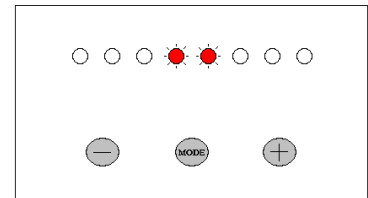
## Settings



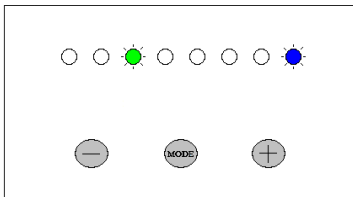
**Base setting Green = 1.0**  
Press the "Mode" button for the green "Cruise" mode. Press the plus/minus button to adjust to the base setting.



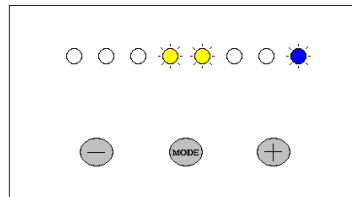
**Base setting Yellow = 3,5**  
Press the "Mode" button for the yellow light "Acceleration" mode. Press the plus/minus button to adjust to the base setting.



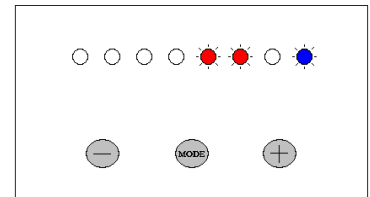
**Base setting Red = 4,5**  
Press the "Mode" button for the red "Full Throttle" mode. Press the plus/minus button to adjust to base setting.



**Base setting Blue-Green = 3,0**  
Press the "Mode" button for the blue-green "Lower O2 Sensor Limit" mode. Press the plus/minus button to adjust to base setting



**Base setting Blue-Yellow = 4,5**  
Press the "Mode" button for the blue-yellow "Upper O2 Sensor Limit" mode. Press the plus/minus button to adjust to base setting



**Base setting Blue - Red = 5.5**  
Press the "Mode" button for the blue-red "Beginning of Full Throttle: mode. Press the plus/minus button to adjust to base setting



Electronic Jet Kit™ Instructions



Figure 1



Figure 2

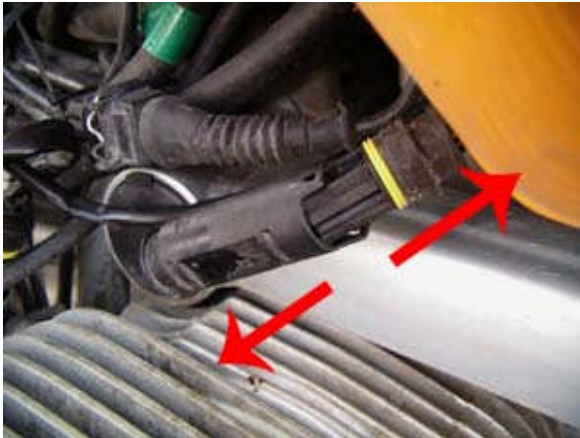


Figure 3



Figure 4



Figure 5

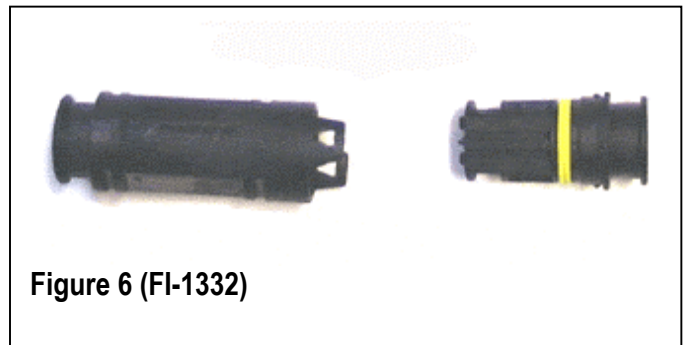


Figure 6 (FI-1332)

Electronic Jet Kit™ Instructions



**2-year Unlimited Mileage Warranty**

Techlusion 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 with an equivalent product at no charge, except for postage, to the original retail purchaser.

\*\*\*\*\***IMPORTANT**\*\*\*\*\*

**To obtain the benefits of this warranty, the retail purchaser must 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**