Electronic Jet Kit™ Instructions

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

- 2007-08 R1200 GS/RT/ST/S

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 www.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

Some vehicle 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.

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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 placing the unit beneath the seat with the supplied velcro attachment. (Fig 4) For initial tuning the box can be mounted where it can be seen and adjusted by the rider.

3. For installation, make sure your motorcycle is cold. First remove the seat (Fig 1-A), the small side covers (GS) (Fig 2-A), and the side fairings (RT, ST) to gain access to both injector plugs (Fig 1-B). Disconnect the injector by depressing the metal bail.

4. The O2 connector can be found situated underneath both cylinders (Fig 1-C). To separate the O2 connectors, first the whole connector assembly needs to be pulled backwards from its mounting. This is done by carefully moving the little plastic latch and releasing the assembly (Fig 3). Then lift the safety latch of the connector to separate them.

5. Take the **longer** of the two leads from the TFI and run it to the right side injector and O2 connector. Now plug the TFI injector connector to the bike's injector and plug the OEM injector connector into the TFI's male connector. Repeat for the O2 sensor on the left side of the bike.

6. 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 too close to the injector and avoid creating sharp bends in the cable. Reassembly of the bike is the opposite of the disassembly.

7. The bike can now be started. The TFI unit will start up in a few seconds where the LED's light up green and scroll from side to side for approximately 5 seconds. This is the TFI's "check" mode. Note: Once you have adjusted the settings you do not need to wait for the "check" mode to finish. You can start riding immediately.

8. You are now ready to make adjustments and "dial in" the TFI unit.

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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. The TFI does not solve problems other than reduce surging, increase ride ability, and improve performance. An authorized BMW service department should deal with all other issues before installing your new TFI.

1. After connecting the box, check all wire connections to ensure proper connection. Do this by pulling on the connection to make sure the connectors 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 and/or damage to your TFI unit.

3. Start the bike up. In approximately five seconds, the lights inside the TFI will energize and become visible. With a proper installation, the TFI will have a continuous lighting sequence where green lights come on from left to right and then back again. Sequence repeats until the bike is fully warmed up. It will then 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.)*

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 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 which should match the recommended starting settings on pg 7.

    a. The first mode represents an additional amount of fuel added during light load steady throttle cruise/idle. A flashing green light should appear somewhere on the light display.
    b. The second mode represents an additional amount of fuel added during acceleration. A flashing yellow light should appear somewhere on the light display.
    c. The third mode represents an additional amount of fuel added during full throttle. A flashing red light should appear somewhere on the light display.
    d. The fourth mode represents the lower limit of the O2 sensor range. A flashing green light should appear somewhere on the light display along with a flashing blue light on the very right side.
    e. The fifth mode represents the upper limit of the O2 sensor range. A flashing yellow light should appear somewhere on the light display along with a flashing blue light on the very right side.
    f. The sixth mode represents an adjustment for when the red fuel engages. A flashing red light should appear somewhere on the light display along with a flashing blue light on the very right side.

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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 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 www.dobeckperformance.com.

To program 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 5 seconds without pressing any buttons, the TFI will exit adjusting mode and will return to the ready state.

To save settings for 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 www.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 adjustments.

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Tuning for mode 1 (Green mode) – “Cruise Fuel”. This setting regulates the general area in which the oxygen (02) sensor controls the fuel to air mixture. This area is refered to as “cruise" or riding without heavy acceleration.
This setting does not typically need to be adjusted from our stock setting, with the exception of minuet adjustments for start up in extremely cold conditions.

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

Tuning for mode 3 (Red mode) – "Full Throttle Fuel”. This setting regulates the fuel amount added during full throttle operation.

Tuning for mode 4 (Green-Blue mode) – "Lower O2 sensor limit”. This regulates the starting pulse width that the O2 sensor controls. You can check this function by increasing engine revolutions in small increments while in neutral to 2500 rpm. With entered base settings, the blue LED should start at 1700 to 1800 rpm. If the blue light does not appear, make sure the base settings for the green-blue mode have been entered properly.

Tuning for mode 5 (Yellow-Blue mode) – "Upper O2 sensor limit". This regulates the upper pulse width that the O2 sensor controls (area between 5-55 mph, normal riding conditions). The unit should need little adjustment from the base settings.

Tuning for mode 6 (Red-Blue mode) – "Beginning of Full Throttle". This controls the point where the red "full throttle" fuel turns on. The base settings are set to allow this at 5000-5500 rpm. If moved to a lower light setting the red fuel will turn on at a lower rpm, gaining no notable performance, but the fuel mileage will suffer.

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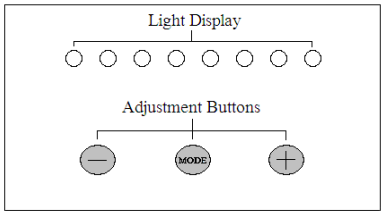
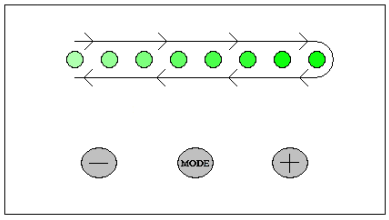
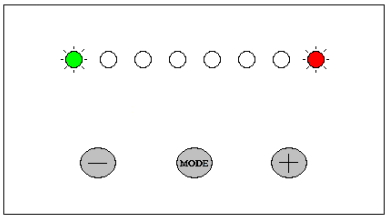
Startup



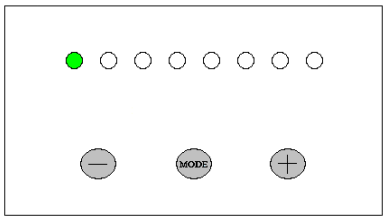


Startup Sequence- LED's light up green and scroll from side to side for approximately 5 seconds.

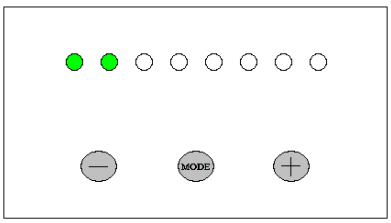


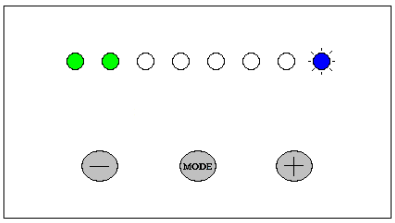
Fault Warning- The left LED blinks green and the right LED blinks red. This means the TFI is connected but is not receiving an injector signal.

Operating Modes

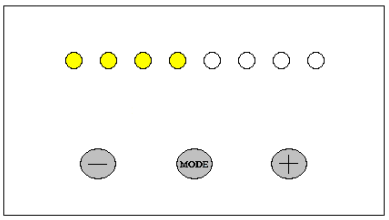


Idle- The left LED will be a steady green.

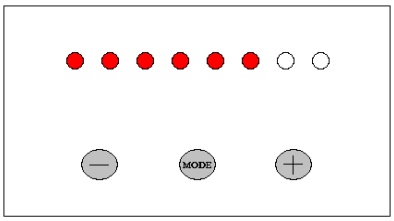




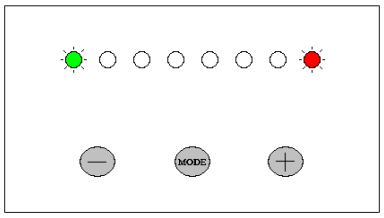
Normal Driving and "Cruise" mode-
During normal riding, the left Led lights up green and then depending on load, more LED's light up green from left to right. During the cruise mode the right LED may blink blue as well.



Accelerator Pump-
Under acceleration, LED's light up yellow and increase with load.

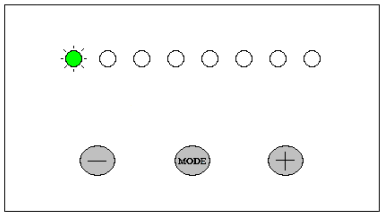


Full Throttle Fuel-
LED's light up red during full throttle riding and increase with load.

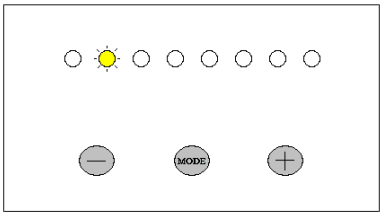


Deceleration-
The left LED blinks green and the right LED blinks red. This is showing that the injectors are off.

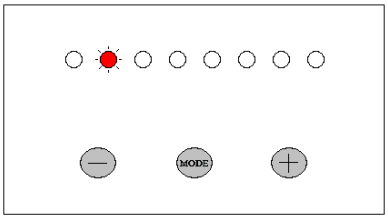
Base Settings



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



Base setting Yellow = 2.0
Press the "Mode" button to enter yellow "Acceleration" mode. Press the plus/minus button to adjust to the base setting.



Base setting Red = 2.0
Press the "Mode" button to enter red "Full Throttle" mode. Press the plus/minus button to adjust to base setting.

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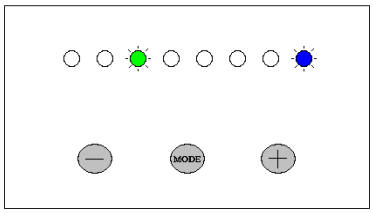
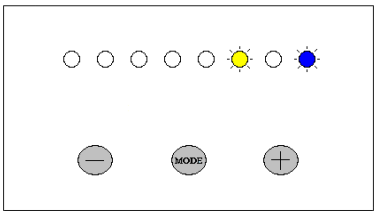
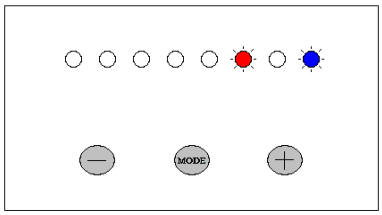


Base setting Green-Blue = 3.0
Press the "Mode" button to enter green-blue "Lower O2 Sensor Limit" mode. Press the plus/minus button to adjust to base setting.



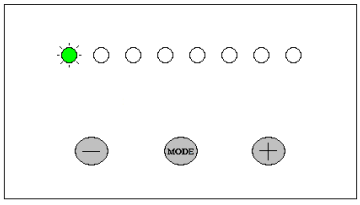
Base setting Yellow-Blue = 6.0
Press the "Mode" button to enter yellow-blue "Upper O2 Sensor Limit" mode. Press the plus/minus button to adjust to base setting.



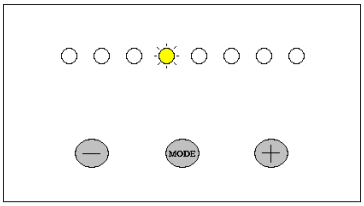
Base setting Red-Blue = 6.0
Press the "Mode" button to enter red-blue "Beginning of Full Throttle" mode. Press the plus/minus button to adjust to base setting.

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

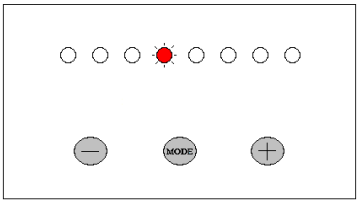
Settings



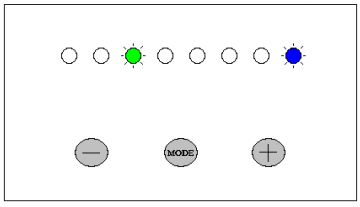
Green = 1.0
Press the "Mode" button to enter green "Cruise" mode. Press the plus/minus button to adjust to the base setting.



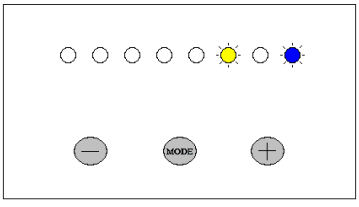
Yellow = 4.0
Press the "Mode" button to enter yellow light "Acceleration" mode. Press the plus/minus button to adjust to the base setting.



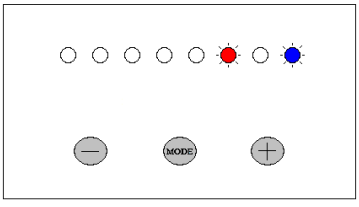
Red = 4.0
Press the "Mode" button to enter red "Full Throttle" mode. Press the plus/minus button to adjust to base setting.



Green-Blue = 3.0
Press the "Mode" button to enter green-blue "Lower O2 Sensor Limit" mode. Press the plus/minus button to adjust to base setting



Yellow-Blue = 6.0
Press the "Mode" button to enter yellow-blue "Upper O2 Sensor Limit" mode. Press the plus/minus button to adjust to base setting



Red-Blue = 6.0
Press the "Mode" button to enter red-blue "Beginning of Full Throttle: mode. Press the plus/minus button to adjust to base setting

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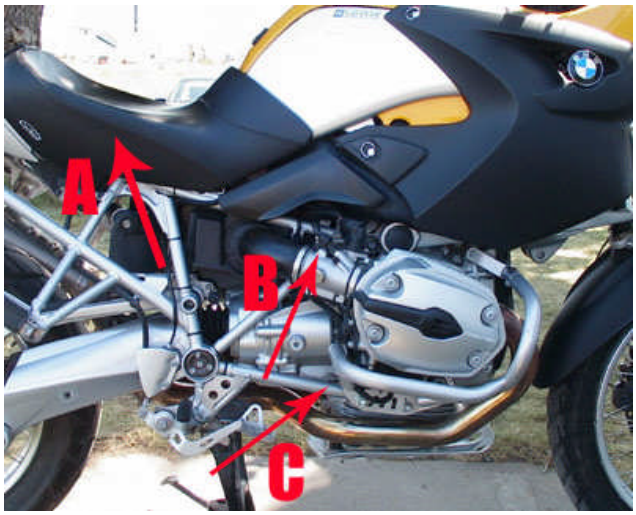

Figure 1

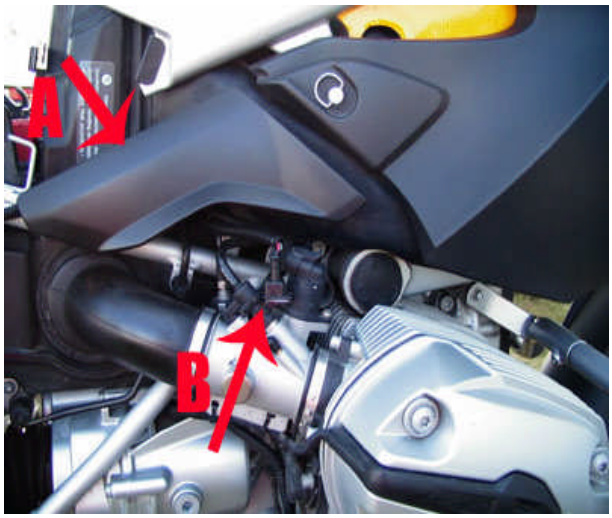

Figure 2

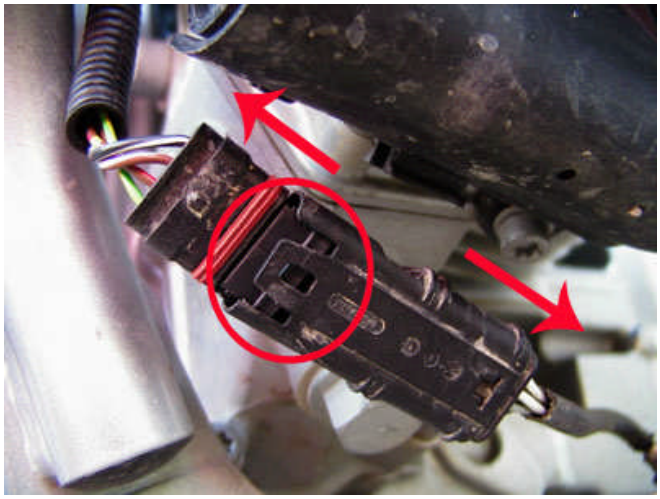
Figure 3

Figure 4

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.

****************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