

## Electronic Jet Kit™ Instructions



**Thank you for choosing the Techclusion Electronic Jet Kit. The TFI is usable for all 2007-08 Sportster model fuel injected Harley Davidson's.**

**This product is a great fit for stock bikes with all exhaust and intake mods. It is also capable of handling the fuel needs of cubic inch 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 [Dobeckperformance.com](http://Dobeckperformance.com) will help you obtain better high horsepower tuning.**

**ATTN: The 1251HPST kit has double the fuel range of the standard version (1251ST) it is designed to give the tuner the ability to add far more fuel than usual for high horsepower, high compression engine setups.**

**Photo installs for many applications available at [www.dobeckperformance.com](http://www.dobeckperformance.com) through the support forum.**

### TOOLS REQUIRED

- **This is about a 60-minute install time.**
- **The tools required to disconnect the negative terminal of the battery.**
- **The tools required to remove your seat and side cover (if necessary).**
- **The tools required to loosen & prop up the fuel tank.**
- **The tools required to gain access to the front O2 sensor connection (if necessary).**
- **Last but not least a small screwdriver.**





## 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. We suggest left side top of battery under the frame.
3. Making sure that your motorcycle is cold (be sure to disconnect the fuel line using the quick disconnect feature on the fuel fitting, **DO NOT UNSCREW THE FITTING**) and remove the rear tank mounting bolt (under the seat) loosen and lift up the fuel tank (make sure not to come in contact with the steering with the front of the fuel tank when propping it up). You will need something to hold the fuel tank up (block of wood or a towel) from the frame to gain access to the injectors.
4. Underneath the fuel tank you will locate the fuel injectors. (See the service manual for help if needed) The injectors are mounted in O rings. This allows them to be rotated in the throttle body without further disassembly. From the left side of the bike, rotate the injectors toward you enough to gain access to the locks on the injector connectors.
5. Disconnect the factory injector connectors from the fuel injectors and replace with the TFI injector connectors from the TFI unit. The stock rear injector lead is tagged with a label (REAR) and **MUST** connect, through the TFI harness, to the rear injector. When completed, rotate the injectors to locate the connectors to a near vertical position, to provide clearance for the fuel hose.  
**It is a good idea to make sure there is a little slack in the harness to prevent engine vibration from damaging/breaking the wiring at the connectors.**
6. The front factory O2 connector is cable tied to the left front frame downtube near the oil filter area. Follow the lead from the O2 sensor in the front exhaust pipe. Disconnect the sensor and plug the TFI bypass into the wiring harness. Cable tie the harness back to the frame tube as necessary.
7. The rear factory O2 connector is located on the frame behind the rear cylinder. Again, follow the lead from the rear O2 sensor, disconnect it and install the TFI bypass. The O2 sensors are no longer required.
8. Replace the fuel tank. (Making sure that all bolts are in place and fuel connections are correct).
9. Connect the TFI ground lead to the negative terminal of the battery along with the factory ground lead. (see owners' manual for help if needed)
10. 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 for a few seconds then go out, this is normal.
11. Start the motorcycle. The green LED should now be on steady and the yellow will flash rapidly for up to 15 seconds, and then go out. If the green or red LEDs continue flashing after startup please refer to the "**TFI**" section in the troubleshooting guide.



## Tuning

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

### Tuning 1995-2008 Harley kits

**Green LED pot(1<sup>st</sup>):** Air fuel mixture screw adjustment. With TFI installed and the bike fully warmed up, screwdriver in hand, locate the green LED and the pot right below it. Using the throttle raise the RPM to a high idle or about 2000-RPM. Once there, slowly turn the green pot clockwise from the 1:00 position (off) until you achieve the highest RPM and smoothest running sound (like a mixture screw on a carburetor). You should find the best setting between 2:30 and 4:00 o'clock. If you turn the green pot clockwise and the engine does not accept any more fuel (RPMs drop when adding fuel) you may have one or more of these problems (See troubleshooting **Motorcycle**).

**Yellow LED pot(2<sup>nd</sup>):** Acceleration fuel adjustment. Anytime the LED is on, this pot is adding fuel. In neutral raise the RPM slowly up through the mid range and see no yellow LED. However, opening the throttle quickly from idle you "should" see the yellow LED come on. Fine tuning: Start with the suggested setting and then add one clock position at a time until the bike says too much (hesitation) then back off 2 clock positions, if adding makes it worse go opposite direction. The yellow pot adds its fuel below 70% of maximum RPM. If no yellow LED there is not enough load to turn it on. At that point the street or dyno will be able to show the difference.

**Red LED pot(3<sup>rd</sup>):** Main jet fuel adjustment. It adds about 5 points of main jet fuel with every clock position. For example, one clock position is the same as 150 to 155 main jets. Fine tuning: Start with the suggested setting and then add one clock position at a time until the bike says too much (hesitation) then back off 1 clock position, if adding makes it worse go opposite direction. The red pot adds most of its fuel above 70% of maximum RPM.

**RPM pot(4<sup>th</sup>):** 1;Sets RPM that the red LED pot (main jet fuel) turns on. All Harley. One clock position is roughly 1000 RPM. This pot should be set to about 70% of redline. (For example: Harley Softail redlines at 5600 rpm and 4000 is roughly 70% of redline which would be 4:00 o'clock). Verify setting by raising the RPM in neutral, look for green and yellow LEDs to shut off and the red to turn on at the chosen RPM or refer to suggested settings if you have no tachometer.

2;Shuts off idle fuel. In some cases modified engines can produce a richer than normal idle mixture. 1:00 o'clock through 6:00 o'clock sets RPM that the red LED pot (main jet fuel) turns on. When the 4<sup>th</sup> pot is turned to 7:00 o'clock the software is instructed not to add fuel until 1250 RPM. Also, when setting the 4<sup>th</sup> pot at 7:00 o'clock the software automatically defaults to 4000 RPM (internally) to switch to the red LED pot (main jet fuel).



## Troubleshooting

### **TFI**

If the green LED is “flashing” by itself there is an incomplete connection with the injector connectors to the yellow & white leads from the TFI. If the red LED is flashing, there is an incomplete connection to the injector connectors with green & gray leads from the TFI. Please confirm that the connectors and wires are firmly in place.

### **Motorcycle**

(Order from most common to least common)

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.**

## Problem poor mileage

### **Solution:**

1. **Check your green pot settings. In the hundreds of installs performed, we have never gone beyond the 4:00 settings. Try backing down the settings slightly.**
2. **The RPM pot is adjusted too low. Make sure it's at least at the 4:30 setting, this means the main comes in at around 4500 rpm.**  
**Make sure your engine passes the 1800-RPM test at the beginning of the “Tuning” chapter.**

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

Some vehicles modifications with Techclusion 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.



These settings are a good starting point, for additional help with settings please call 877-764-3337

**High compression / Big bore**

Green      Yellow      Red      RPM



### 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**