

## Electronic Jet Kit™ Instructions



# Aprilia



**Thank you for choosing the Techlusion Electronic Jet Kit, the TFI. The TFI is usable for sequential fuel injection 2 cylinder Aprilia motorcycles \*\*.**

**\*\* Aprilia: 2004-05 RSV/ 2001-04 RST/ 2006 Tuono**

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

**This product is a great 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](http://www.dobeckperformance.com) will help you obtain better high horsepower tuning.**

**Note: If your model is equipped with a O2 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**

**Due to the complexity of the newer motorcycles, dealer install may be required. If you have any questions about this installation please call tech support.**

### INSTALLATION PREP

- **Install Time:** 30-45 minutes
- **Recommended Tools:** Needle nose pliers  
Wire strippers with crimp  
Small screwdriver
- **Required Tools for:** Disconnecting the negative terminal of the battery  
Removing your seat and/or side cover and/or bags

## **INSTALLATION**

**(For any and all help during install or tuning please call us(8-5M.T. m-f), 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 at 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. **Be sure to check the wires are not in direct contact with any sharp edges, exhaust and/or other objects that could result in long term wearing and/or damage.**
7. **Connect the TFI ground lead to the negative terminal of the battery along with the factory ground lead.**
8. **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.**
9. **Start the motorcycle. The TFI is programmed "not" to add fuel at idle. This "may" cause all the LED's to flash at idle, this is normal. Some models "may" have a solid green LED at idle, this is also normal. If just the green or red LED's flash after startup or no LED's are visible or bike doesn't start, confirm/check connections and retry. If still a problem call tech support at 877-764-3337.**

## Tuning

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**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 (RPM drops 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 (bottom to mid range fuel). Anytime the yellow 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 ½ clock position at a time until the bike says too much (hesitation) then back off 1 clock position, if worse go opposite direction. 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. The yellow pot adds its fuel below 70% of maximum RPM.

**Red LED pot(3<sup>rd</sup>):** Main jet fuel adjustment (top end fuel). It adds about 2.5 points of main jet fuel with every clock position. For example, one clock position is the same as 150 to 152.5 main jets. Fine tuning: Start with the suggested setting and then add ½ clock position at a time until the bike says too much (hesitation) then back off 1 clock position, if worse go opposite direction. The red pot adds its fuel above 70% of maximum RPM.

**RPM pot(4<sup>th</sup>):** All V-twins. Sets the RPM that the red pot fuel (main jet fuel) turns on. One clock position is roughly 1000 RPM. This pot should be set to about 70% of redline. (For example: Suzuki M109R redlines at 5800 RPM and 4000 is roughly 70% of redline which would be 4:00 o'clock). Some dual plug systems (Kawasaki, Suzuki) need to double the RPM clock position to have the same results. Verify setting by raising the RPM in neutral, look for green and yellow LED to shut off and the red LED to turn on at the chosen RPM or refer to suggested settings if you have no tachometer.

## TROUBLESHOOTING

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### Motorcycle

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 drops when adding fuel) then you "may" have one or more of these problems.

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

(Order from most common to least common)

## POOR MILEAGE

### Solution:

1. Check your green pot setting. This setting is generally responsible for 90% of your mileage. In the hundreds of installs performed, we have never gone beyond the 4:00 setting. Try backing down the green setting slightly. You can slightly lower the yellow and red settings also.
2. RPM pot adjusted too low\*\*. Make sure the red LED is turning on no lower than 70-75% of the maximum rpm.
3. Make sure your engine passes the 2000-RPM test at the beginning of the troubleshooting chapter.

If you still have mileage issues call tech support for further assistance.

\*\* : Some engine setups can dictate a higher or lower setting on the RPM pot.

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

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

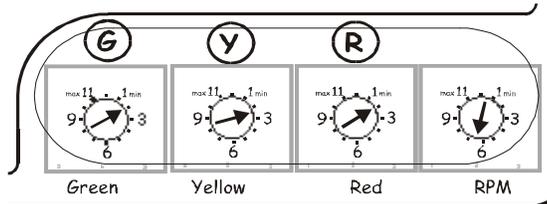
## RECOMMENDED SETTINGS

### Adjustments

The dials are to be adjusted like a wall clock. Range is from 1:00 –11:00.

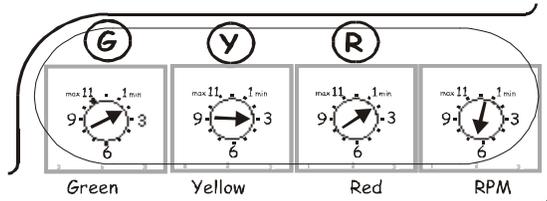
#### Aprilia 2004-05 RSV

\*:o2 sensor not present,  
disconnected or bypassed



#### Aprilia 2001-04 RST

\*:o2 sensor not present,  
disconnected or bypassed



#### Aprilia 2006 Tuono

\*:o2 sensor not present,  
disconnected or bypassed

