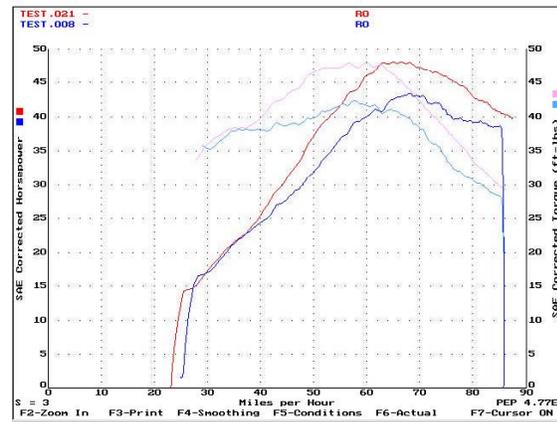




Electronic Jet Kit™ Instructions



#1 - General Instructions

THIS MODULE REQUIRES DISABLING THE O2 SENSOR

-The TFI fuel injection module has been designed as an open loop fitment application for all BMW singles and twins. The advantage of this design includes a lower cost to you, and is our recommended products when aftermarket exhaust or air intakes are installed. The R259 unit that we offer is for stock configuration BMW twins with oxygen sensor left intact.

-The TFI looks at the fuel injection map the same way the factory does and adjusts the map in the same way the factory does. Therefore, our product doesn't work well with any other aftermarket adjustments that you may have on your bike. Please remove any other systems, downloads or EPROM's that are installed. (Any of BMW's 650 factory downloads are okay)

-Before installing this product is sure you have a basic understanding of certain components and features of your motorcycle. If you are not aware of where the factory electronic control module (ECU) and the battery and the oxygen sensor are located, we seriously recommend that you have your dealership install this product. We have designed this product to be very consumer friendly, with easy hook-up and adjustment, but you are still working on very sophisticated equipment that requires at least basic mechanical knowledge.

-The product is supplied with factory style injector connectors. Take your time and ensure that you have made good, solid connections. Do not tug or pull on the connectors without supporting the wire with your other hand. If you are in doubt of which connector to connect to (as some wire connectors are similar and confusing) visit our website or call us for clarification.

-The accompanying model spec page is designed to be only a GUIDELINE for ease of installation. Wire colors and typical pot settings have been tested and approved by our technicians. REMEMBER, these are typical settings and may not be optimum for your bike. Unless otherwise noted, these settings are for stock motorcycles or with slip-on exhaust only. Air intake modifications, baffle removal and brand-to-brand exhaust systems will all affect your pot settings. If you are not happy with our typical settings, then reset the pots to zero and follow our #4-basic adjustment and #5-tuning for peak performance. The TFI only adds fuel; so with all three-fuel pots turned fully counter clockwise, your bike should run exactly the same as without the product installed. If this is not the case, STOP, verify that you are connected to the bikes fuel injector and what you unplugged is for the O2 sensor.

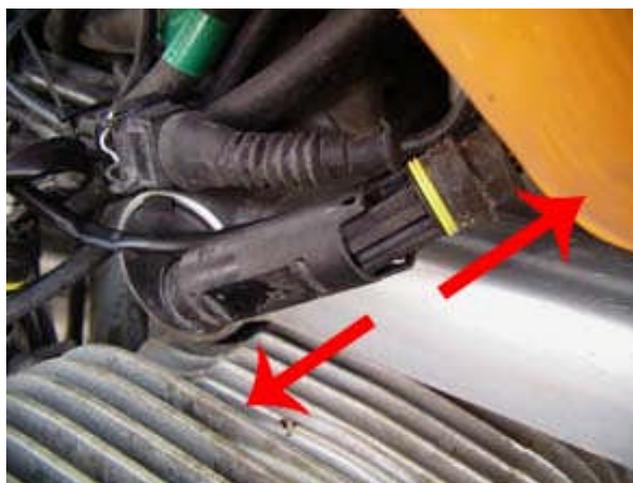


Fig 1



Fig 2

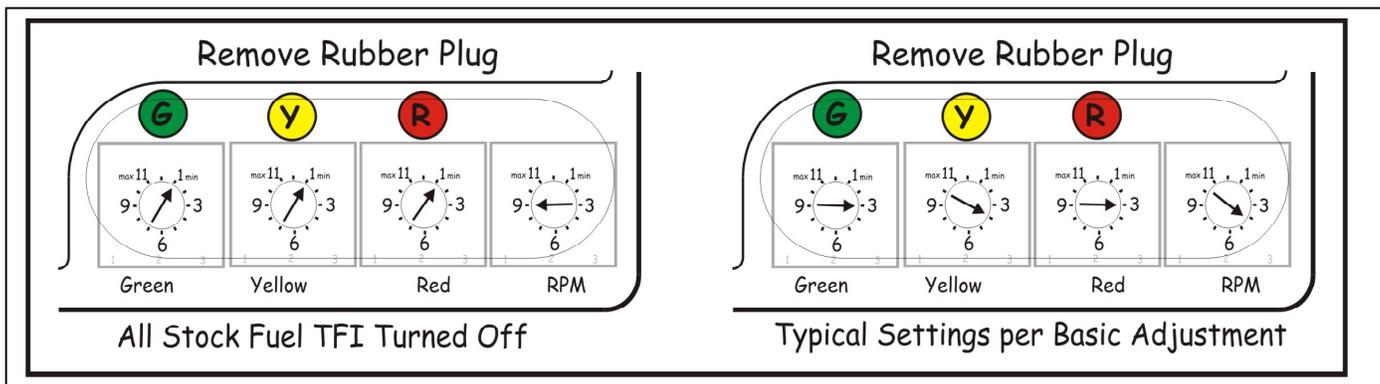
#2 - Mounting

R1100/R1150- remove the seat and side panels, depending on model. Unplugging the oxygen sensor male/female plug which is located on the right side of the steering neck, will generally require unbolting the fuel tank and moving it backwards far enough to get access to the connector. (Fig 1) With care, the fuel lines should not have to be disconnected. The O2 connector is cable tied to the frame and a simple depress of the locking tabs (1150's) or unscrewing the locking ring (1100's) will disconnect the plug. We offer optional sealing plugs (part # 9030 for 1150's and #9031 for 1100's) to prevent dirt/moisture from entering these plug ends, or you can improvise your own method. Now, unplug the injector found on the right side of the bike (Fig 2), then plug the TFI's connector to the injector and plug the bike's injector connector to the TFI's male connector. Place the TFI with Velcro to the lid of the airbox and route the along the stock wire harness and secure with zip-ties. The black wire (TFI) to ground (BMW) bottom of throttle body.
Go to section #3

R1200 C -remove the right hand chrome air filter cover. Release the brake fluid reservoir from its mount. Follow the oxygen sensor wire from the exhaust to the connector, which is mounted to the back of the brake fluid reservoir with cable ties. Cut the cable ties and then by depressing the locking tabs, gently pull the connector apart. We offer optional sealed plugs (part # 9030) to prevent dirt/moisture from entering these open ends, or you can improvise your own method of sealing. Use supplied cable ties to reposition plug ends. Velcro the TFI unit to the top of the airhorn and route wires down towards the right fuel injector. Attaching the TFI to the injector is done in the same way as the R1100/R1150 (Go to R1100/R1150). The black TFI wire should be routed to the 5mm allen screw that secures the airbox to the frame. **Go to section # 3.**

F650 – Remove the front left hand oil tank cover to gain access to the fuel injector connector. Unplug the injector connector and plug the TFI's female end onto the injector and plug the bike's connector to the male TFI connector. Then locate O2 sensor in the exhaust header and follow the sensor lead to its connector and unplug (Fig 1).

Go to section #3



#3 – Troubleshooting

-Remove the rubber access plug on top of the unit and look for the 3 LED's. If the box has been installed correctly, the green light should flash when you turn on the key (power), and should go to steady green when you start and idle the bike. If you have no lights when you power up the motorcycle, then either the red wire (power) or the black wire (ground) don't have solid connections.

-The TFI unit has built in fault detection if you incorrectly hook up any of the other wires. It uses the green and/or red LED's, so that if the green light is flashing after the bike is started (it is normal for the green light to flash when the motorcycle is key on but not running), There is also a flashing yellow feature that stays on for a period of time at start-up, indicating the delay in acceleration fuel for factory cold start operation. This is normal and should end between 5 and 20 seconds.

-If, after starting the motorcycle, the red light is on steady, the RPM cross-over pot is in the wrong position. Temporarily turn that pot (lower left) to the 9 o'clock position and verify that the green light is now on.

Note: Perform these tests only while the engine is idling. Any of the lights can and will flash during acceleration and deceleration and this is normal.

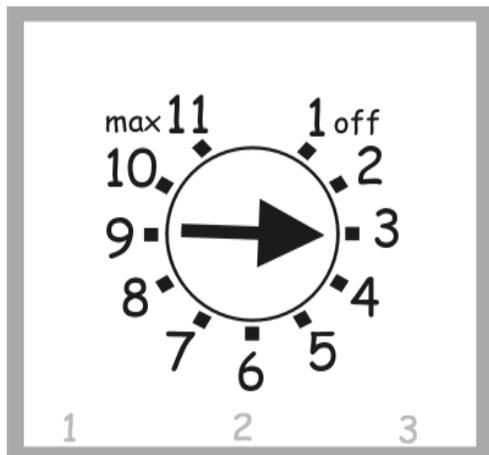
#4 - Basic Adjustment

GREEN FUEL POT (functions like a fuel mixture screw on a carburetor) adjusts for the motorcycle's fuel requirement during light throttle operation from idling through highway cruising and steady throttle. To adjust this pot, make sure the bike is up to a full operating temperature, then while in neutral, pick a fast idle where it is not easy to hold a steady R.P.M. (about 1800-2000 R.P.M.), then slowly and evenly turn the green pot while listening to the exhaust note. You should hear the exhaust sound change from an irregular, uneven note to an even and smooth one. You may also see an increase in R.P.M. If you continue to turn the pot past this point to where the idle R.P.M. starts to drop, you can then return the pot setting back to a point half way between where the idle first smoothed out to the idle fall off point.

YELLOW FUEL POT- (accelerator pump feature) adds fuel on top of the green fuel pot setting whenever the throttle is opened rapidly. You should start with this pot at the same setting you found worked best on the green.

RED FUEL POT-(functions like a main jet on a carburetor). Adjusts top end fuel to maximize performance when air intake or internal engine modifications have been performed. Most manufacturers of current bikes get the top end fuel right and most settings will require no additional fuel to be added in this area unless modifications have been done.

RPM SWITCH POT-adjusts at what R.P.M. the green and yellow fuel addition stops, and the red fuel setting takes over. This adjustment can be achieved by either picking a R.P.M. that is 800-1000 above where you normally cruise at on the highway, or take redline, divide by 2 and add 1000 (i.e. $9000 \times .5 + 1000 = 5500$). Each o'clock position of this pot equals 500 R.P.M., so 4,500 rpm is 9 o'clock. Verify this setting by revving up the bike in neutral and watching the green light change to red at the set R.P.M.



When we discuss pot settings, the position of the arrow as it relates to the face of a clock determines it's location. **(Ignore any numbers actually on the face of the pot)**

1 o'clock is minimum setting or off
11 o'clock is maximum setting
3 o'clock is the setting shown

#5 - Tuning for Peak Performance

GREEN FUEL POT- the suggested set up for this adjustment is the same as basic adjustment. However, if you are experiencing surging at cruise speeds or over-sensitive on-off throttle you could try a **SLIGHT** increase (clockwise) on this pot. Also, if your bike is popping or backfiring on deceleration, and you have eliminated any possible air leaks in the exhaust, then you could also try a **SLIGHT** increase in this pot. In both cases, the smallest amount of screw turning increase that you can notice is all that is required and only increase until the problem goes away. In relation to carb tuning, a half clock position of this pot equals a one groove move on the needle.

YELLOW FUEL POT- this setting requires road test comparisons to optimize your acceleration. After you are completely happy with your green pot setting, test ride your bike in 2nd or 3rd gear, rolling on the throttle briskly and noticing the rate of acceleration. Increase the yellow pot one clock position and repeat the roll-on test using the same gear and starting speed. If you notice an improvement, increase the pot setting again and re-try the test again. Stop as soon as you feel no improvement in performance and return to the last setting where you noticed an improvement.

RED FUEL POT- this setting is the hardest to achieve by road testing, You can increase the setting one clock position and run the bike up to redline in 2nd or 3rd gear from an R.P.M. higher than your cross over pot setting (see section #4). If there is a noticeable improvement in power try an additional clock position and re-try your road test. Stop as soon as you feel no difference and return to the last setting where you noticed an improvement. In relation to carb tuning, a one clock position move of this pot equals a one main jet size change.

Important: On some bikes, when our base settings don't seem functional, and our green fuel pot basic setup doesn't respond, please verify that you have good throttle body synchronization. As BMW uses cables that will stretch and lose adjustment, this is a major issue with lower R.P.M. drivability on BMW twins.



#6 - Gas Analyzer Setup

GREEN FUEL POT- holding the throttle at a steady R.P.M. in neutral, slightly above the stock idle speed, look for and adjust the green fuel pot to achieve a 2.5 to 3.0 percent on carbon monoxide (CO) gauge. Ensure you give the gas analyzer sufficient time to stabilize and give a steady reading (many automotive analyzers are very slow)

YELLOW FUEL POT- once you have set the green pot, you must be on some type of a load dyno and perform roll-on throttle acceleration up to 4000 R.P.M. Again, wait for the delay but you are looking for a reading of 5 to 6 percent CO. Adjust the yellow fuel pot to that setting.

RED FUEL POT- again on the dyno, perform both roll on and all gear runs, starting at the R.P.M. you Picked for cross over fuel, watching for the maximum CO level achieved and adjust the red fuel pot to 6 to 7 percent CO. An all-gear run may show half to 1 percent leaner than a roll-on and that is normal.



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**

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Setup1030-0703

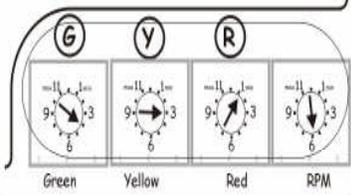
BMW F650

Injector Wires

TFi Blue wire connects to:
Injector Harness Yellow/Blue

Power Wire

TFi Red wire connects to:
Injector Harness Green/Blue



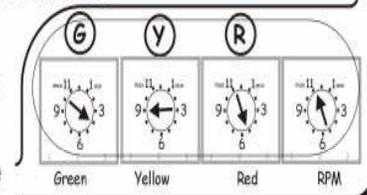
BMW R1100S w/Aftermarket Exhaust

Injector Wires

TFi Blue wire connects to:
Injector Harness Yellow/White

Power Wire

TFi Red wire connects to:
Injector Harness Green/White



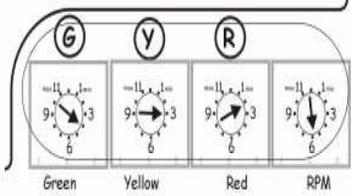
BMW F650 w/Aftermarket Exhaust

Injector Wires

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Injector Harness Yellow/Blue

Power Wire

TFi Red wire connects to:
Injector Harness Green/Blue



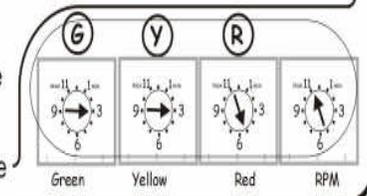
BMW R1150

Injector Wires

TFi Blue wire connects to:
Injector Harness Yellow/White

Power Wire

TFi Red wire connects to:
Injector Harness Green/White



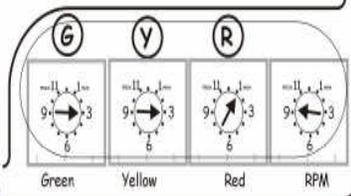
BMW R1100

Injector Wires

TFi Blue wire connects to:
Injector Harness Yellow/White

Power Wire

TFi Red wire connects to:
Injector Harness Green/White



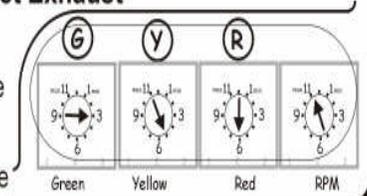
BMW R1150 w/Aftermarket Exhaust

Injector Wires

TFi Blue wire connects to:
Injector Harness Yellow/White

Power Wire

TFi Red wire connects to:
Injector Harness Green/White



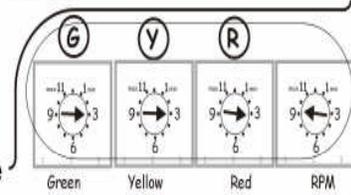
BMW R1100 w/Aftermarket Exhaust

Injector Wires

TFi Blue wire connects to:
Injector Harness Yellow/White

Power Wire

TFi Red wire connects to:
Injector Harness Green/White



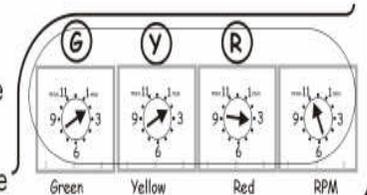
BMW R1200C

Injector Wires

TFi Blue wire connects to:
Injector Harness Yellow/White

Power Wire

TFi Red wire connects to:
Injector Harness Green/White



BMW R1100S

Injector Wires

TFi Blue wire connects to:
Injector Harness Yellow/White

Power Wire

TFi Red wire connects to:
Injector Harness Green/White

