

## Items Supplied >

- 1 – Fi2000R FUEL INJECTION MODULE
- 1 – 6" #18 ZIP TIE
- 1 – VELCRO STRIP

## Application(s) >

SUZUKI M109 2006 & UP

## Instruction Manual >

92-1845

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**Read all instructions carefully and completely before installing your new Fi2000R module. It is recommended that a qualified mechanic or technician install this product. Before installing the Fi2000R it is recommended that the gas tank be low on fuel.**

1. Remove the seat. Remove the bolt on the fuel tank console and slip the console free of the mounting pins. Remove the bolt from the rear of the fuel tank and lift the back of the fuel tank up enough to unplug the wire connector (brown in color). Now by pushing the two blue tabs on the fuel line quick-disconnect at the base of the fuel tank, pull the fuel line free of the tank. Remove the fuel tank, taking care to keep the console clear as you lift it away.
2. Loosen the two air filter boot clamps securing the boots to the main air intake housing. Remove the two bolts that retain each air filter housing, then pull the air filter housings free from the motorcycle.
3. Unplug the factory fuel injector connector on the right side and attach the matching Fi2000R connector from the longer Fi2000R harness onto the right side injector. Plug the original injector harness connector into the black Fi2000R connector and tuck that connector up and out of the way, so that the air intake boot may be re-installed, see Figure 2. Repeat this procedure for the left side injector, see Figure 1.
4. Re-install the air filter housings, routing the left side harness up and over the air intake boot, then tighten the air boot clamps. Ziptie the Fi2000R harness to the main bike harness and Velcro the Fi2000R control module as shown in Figure 3.
5. Attach the black ground wire to the negative post of the battery. Re-install the fuel tank. Before reinstalling the seat, verify connections.
6. Remove the door from the Fi2000R module to expose the LED's. Verify the wire connections by, (1), turning on the ignition while watching the 3 LED's. They will all light up for a few seconds, and then go off. This is correct. If there are no lights visible, make sure the side stand is up, bike is in neutral, clutch is in and handlebar engine switch is set to run. If there are still no lights visible, re-check that all connectors are fully engaged and the ground wire is connected correctly.

**Continued to next page!**

*\* It is recommended that you always wear a helmet while riding. Please never operate your motorcycle while under the influence of alcohol and/or drugs. Enjoy the new power of your motorcycle and please ride safely.*

6. Cont. (2), After achieving a steady light from all three LED's, start the motorcycle; the green light should now be the only LED on. If all three LED's are still on after start up, verify the injector connectors are correctly attached. Reattach the access door when finished and install remaining components. **NOTE:** Make sure the ignition is turned off before changing any connection.

### ADVANCED TUNING

The Fi2000R has the ability to efficiently tune the EFI system on your motorcycle for slip-on or full exhaust systems. It comes pre-set from the factory for popular brand name slip-on mufflers. Both dyno testing and on-road exhaust gas analysis have been used to develop the best base settings for drivability and power. Not all slip-on mufflers flow exactly the same. Some eliminate power valves and others don't. Some are made with street baffles, others with race or competition baffles. Full exhaust systems offer even greater variation in construction, features and performance. The Fi2000R has the ability to tune the EFI system on your motorcycle to any of these exhausts by applying a logical and systematic approach to altering the base settings supplied with your Fi2000R. These suggestions should be followed step by step and help you achieve success.

#### **\*\* Only attempt adjustments on a fully warmed engine \*\***

1. Start with the base setting; see Figure 4, even if you have a full exhaust system. Adjust and test only *ONE* adjustment pot at a time until you are happy with the result.
2. Start with the left hand or green light pot. This adjustment works either from idle or above idle (varies with bike) to a R.P.M. of about 5000 (also varies with bike) while the bike is driven at a steady throttle or slowly increasing throttle. This is the cruise range and is where the emissions leanness creates issues like choppy on-off throttle application, surging, and backfiring on trailing throttle.
3. Turn this pot back to zero, and make one position increases until you feel the best performance in this range. Do this test a few times to make sure you have it correct.
4. The middle or yellow pot is an engine load- triggered fuel adding adjustment. A rapid increase of the throttle at any R.P.M. will add additional fuel and as long as that predetermined load is present, fuel will continue. As engine loads increase in higher gears the acceleration fuel will stay on longer and be more effective. Starting with the base setting, test ride the motorcycle in 4<sup>th</sup> or 5<sup>th</sup> gear and perform moderately fast roll-on throttle from a repeating standard R.P.M. or speed. Increase the pot one position at a time and stop as soon as you do not feel any improvement.
5. The right hand or red pot is for the fuel setting required when the engine is maximizing its R.P.M. and power delivery. This pot is similar to the main jet in a carburetor. It will take a combination of a minimum R.P.M. and a predetermined amount of engine load to initiate this fuel. The straightaway on a racetrack or an inertia dyno are the best places to set this pot. Full exhaust systems of high quality construction increase flow characteristics and will increase fuel demands over our base settings. Also, air filters specifically designed for higher than stock airflow can create need for higher fuel setting. Try an additional one-position pot setting at a time.
6. Camshaft changes can alter an engine's volumetric efficiency and create a greater demand on the engine's fuel system than the Fi2000R may have the ability to adjust for.

### TROUBLE SHOOTING:

**If you have any problems refer to: Step 6, in the installation body of these instructions.**

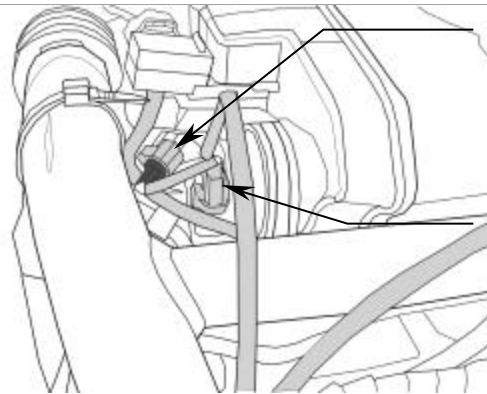


FIGURE 1: LEFT SIDE INJECTOR

MALE FI2000R  
CONNECTOR  
ATTACHED TO  
FACTORY FEMALE  
CONNECTOR

FEMALE FI2000R  
CONNECTOR  
ATTACHED TO  
FUEL INJECTOR

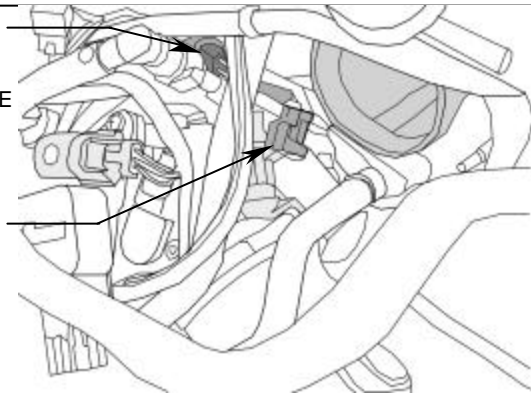


FIGURE 2: RIGHT SIDE INJECTOR

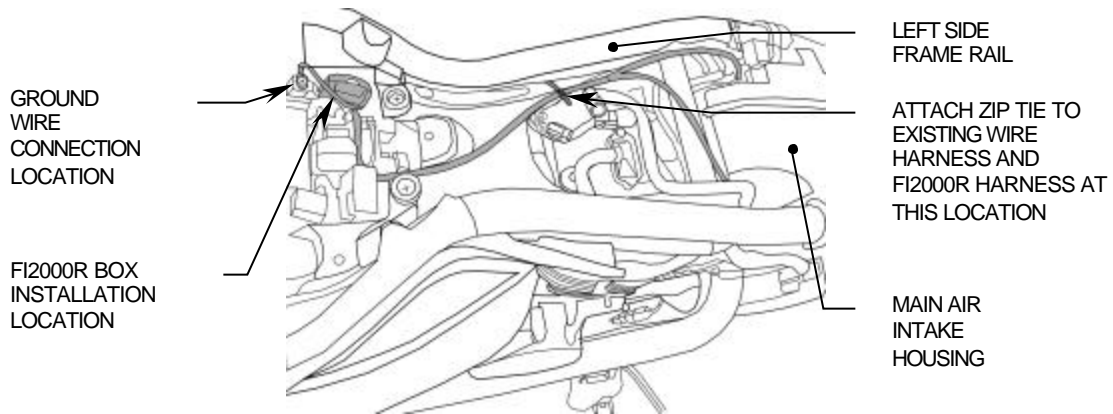


FIGURE 3: Fi2000R ECU & HARNESS INSTALLATION LOCATION AND ROUTING

Default Pot Settings:

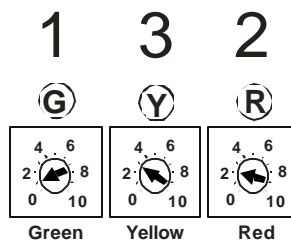


FIGURE 4