Fi2000®

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Items Supplied >

1 – Fi2000 Fuel Injection Module
1 – Zip Tie, (1): 3/16" x 8"
1 – Velcro Strip

Application(s) >

Yamaha V-Star 950/Tourer	09-19
Yamaha Bolt	13-19

Instruction Manual > **92-1775**

Cobra® recommends the use of the Closed Loop Module 92-1775CL or 92-1775CL-50 if your motorcycle will continue use of the Oxygen Sensors in your exhaust System. This Fi2000 is intended for motorcycles that will not utilize Oxygen Sensors in the fuel management system.

Read all instructions carefully and completely before installing your new Fi2000 module. It is recommended that a qualified mechanic or technician install this product. Before installing the Fi2000 it is recommended that the gas tank be low on fuel.

1. Remove the seat. Remove the allen bolts securing the rear of the fuel tank, prop the tank up securely to allow access to the fuel injector connectors.
2. Position the Fi2000 module in the designated area under the seat, see Figure 1. Then feed the Fi2000 harness with the injector connectors forward until reaching the intake manifold area.
3. Locate the stock fuel injector for the front cylinder under the fuel tank on the left side of the motorcycle, see Figure 2. Unplug the stock connector and using the forward pair of Fi2000 injector connectors plug each male and female connector into the corresponding stock connectors. Repeat for rear fuel injector using the rear pair of Fi2000 injector connectors. Tuck the connectors and harness wires out of the way and lower the fuel tank.
4. Check that the O_2 sensor connector mounted above the right side lower frame rail is disconnected from the actual O_2 sensor. Zip tie loose wiring to the frame away from the exhaust.
5. Velcro the Fi2000 module to the top of the white fuse box, see Figure 1. Attach the ground wire from the Fi2000 to the negative post. Before reinstalling the seat, verify connections.
6. Remove the door from the Fi2000 module to expose the LED's. **NOTE:** The Fi2000 base pot settings come preset from the factory for the V-Star 950 with aftermarket air cleaner and full exhaust installed, shown in Figure 3. If your motorcycle has a slip-on muffler installed change the pot settings to those shown in Figure 4. Verify the wire connections by, (1), turning the ignition on 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. (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 the remaining components. **NOTE:** Make sure the ignition is turned off before changing any connections.

**** For California riders we offer Air Resources Board approved Fi2000 ARB units with Executive Order number D-633-2. All other Fi2000 models are not legal for street use in California. Visit COBRAUSA.COM to choose the correct Fi2000 for your vehicle.***

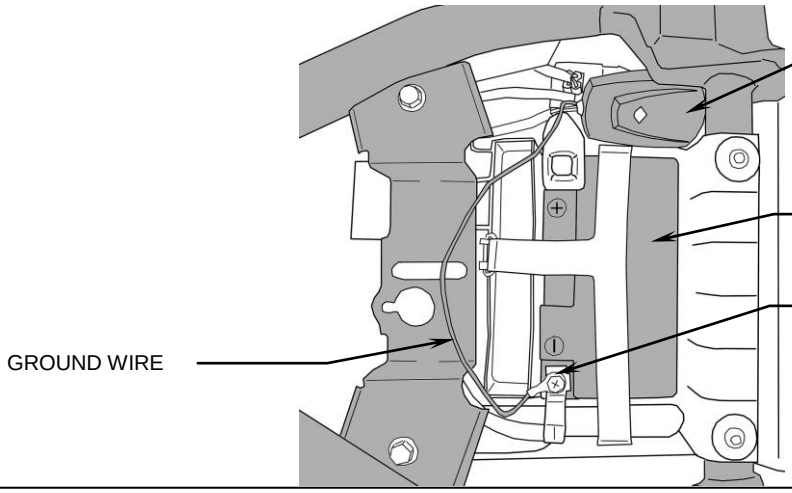

FIGURE 1

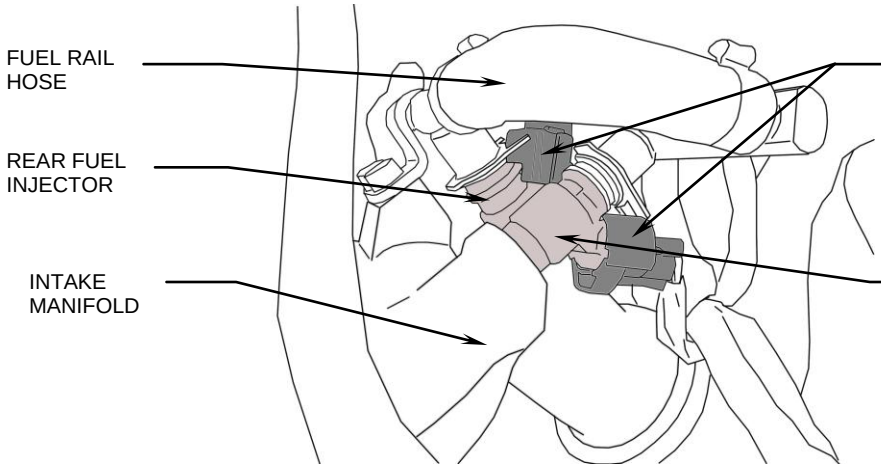

FIGURE 2
(VIEW FROM LEFT SIDE LOCATED UNDER GAS TANK)

Aftermarket Full Exhaust
Default Pot Settings:

2.5 7 7

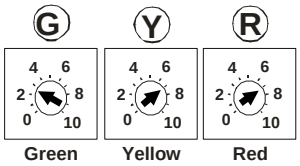

FIGURE 3

Aftermarket Slip-on Muffler
Default Pot Settings:

2.5 6 6

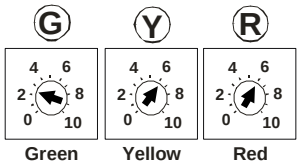

FIGURE 4

ADVANCED TUNING

The Fi2000 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 full exhaust systems but can be modified for 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, other with race or competition baffles. Full exhaust systems offer even greater variation in construction, features and performance. The Fi2000 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 Fi2000. These suggestions should be followed step by step and help you achieve success.

**** Only attempt adjustments on a fully warmed motor ****

1. Start with the base setting, even if you have a slip-on muffler. 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 right.
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^{th} or 5^{th} 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 don't 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 Fi2000 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.