

## Items Supplied >

- 1 – Fi2000CL Fuel Injection Module
- 1 – Zip Tie, (1): 3/16" x 8"
- 2 – Zip Tie, (2): 3/16" x 6"
- 1 – Velcro Strip

## Application(s) >

Yamaha V-Star 950/Tourer 09-13

## Instruction Manual >

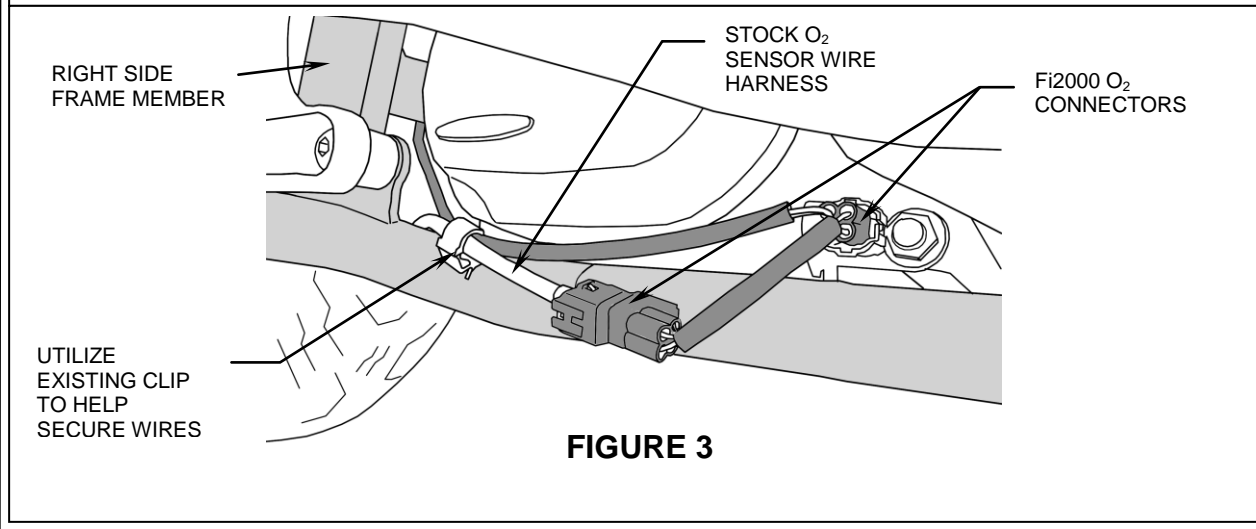
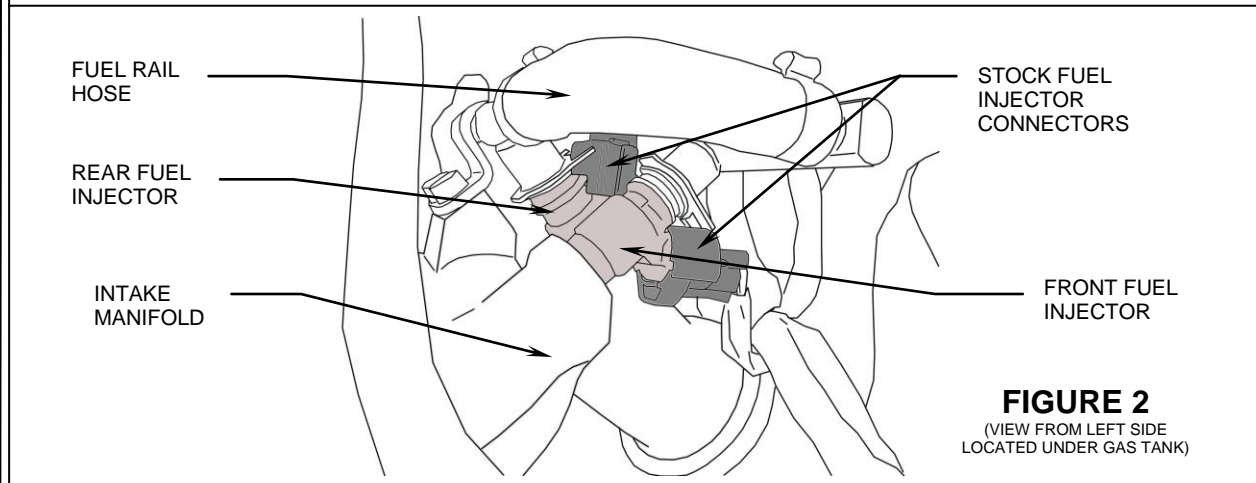
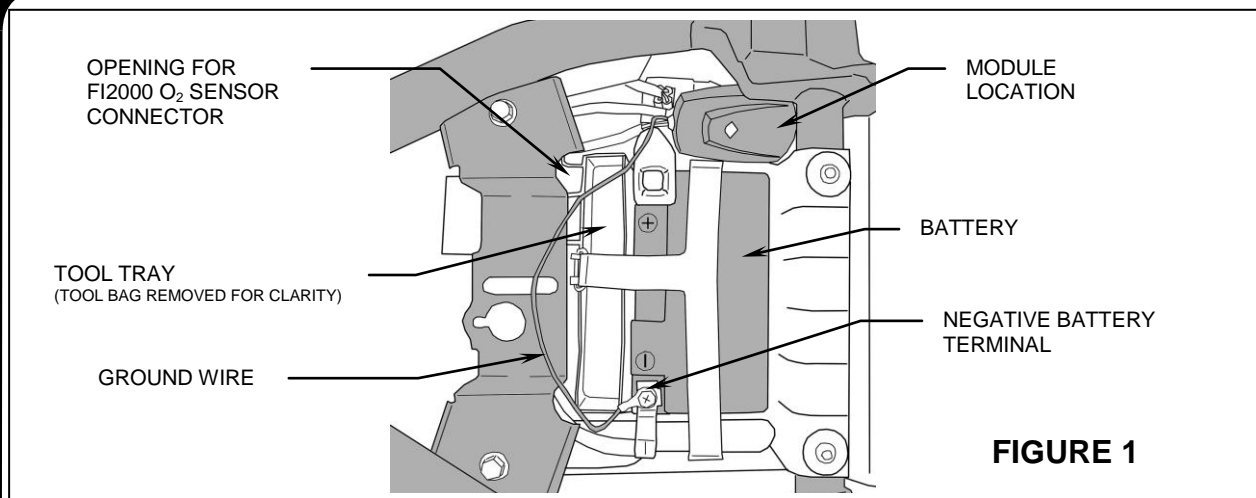
92-1775CL

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**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. Route the second harness with the O<sub>2</sub> connector through the designated space/hole next to the battery tray until the connector ends appear out of the bottom of the motorcycle, See Figure 1. Unplug the stock O<sub>2</sub> connector that is mounted above the right side lower frame rail. Replace this connection with the corresponding Fi2000 O<sub>2</sub> male and female connectors into the stock connectors, see Figure 3. Zip tie loose wiring to the frame away from the exhaust pipes.
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 4. If your motorcycle has a slip-on muffler installed change the pot settings to those shown in Figure 5. 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.

**\* 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.**



## ADVANCED TUNING

Your Cobra® Fi2000 fuel injection module has been tested and preset for best function and rideability on a motorcycle with aftermarket aircleaner and Cobra exhaust. The Fi2000 does however, have 3 important adjustments that allow you to tune the module for optimum performance, especially if you have performed other changes to your motorcycle. These adjustments also allow you to resolve drivability issues if our stock settings are not exactly right for your bike. Make sure your motorcycle is up to normal operating temperature (15 minutes of riding should be sufficient) before making any adjustments. Remove the door exposing the pots shown in Figure 4 or 5 depending on configuration.

**GREEN LED POT (left pot)** – With the Closed Loop function of this module you do not need to adjust this setting, leave it at 2.5. Without a closed loop system this adjustment would affect idle and cruise fuel. If you had cruising issues, this is where you would try a different setting. Generally, surging and uneven running while cruising is a lean fuel condition, so adding a small increase in fuel by turning this adjustment clockwise with a small flat blade screwdriver a 1/2 of a position would help. The bike would need to be Test-driven to feel an improvement and only the setting would need to be increased until the surge went away. Also, backfiring or popping on trailing throttle is generally a lean symptom (or an exhaust gasket leak). The same small increases as above would be tried just until the backfiring would disappear.

**YELLOW LED POT (middle pot)** - this adjustment affects acceleration and power fuel. If you have a hesitation or bogging on acceleration, this is where you would try a different setting. Aftermarket air cleaner assemblies generally lean out fuel mixtures, so try small clockwise increases until a smooth acceleration returns. 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 don't feel any improvement.

**RED LED POT (right pot)** - 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.

## TUNING NOTES

Typically 2 into 1 or our speedster exhaust system require one additional position, on the yellow and red pots, over slip-ons or staggered duals. On high performance motors, slip-on mufflers do not flow well enough and create fuel setting problems and detonation. Cobra recommends the installation of any of its complete exhaust systems.

### Aftermarket Full Exhaust

Default Pot Settings:

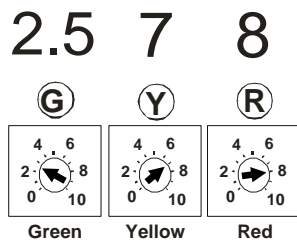


FIGURE 4

### Aftermarket Slip-on Muffler

Default Pot Settings:

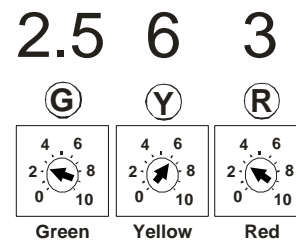


FIGURE 5