Fi2000®

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www.fi2000r.com

Items Supplied >

1 – Fi2000R-CL Fuel Injection Module
1 – Zip Tie 6" narrow
5 – Zip Tie 8" narrow
1 – Velcro Strip

Application(s) >

Suzuki C50 2009
50 State Models Outside of California

Instruction Manual > **92-1827CL**

ATTENTION: THIS Fi2000 MODULE IS NOT TO BE SOLD OR USED IN THE STATE OF CALIFORNIA FOR ON HIGHWAY USE. CALIFORNIA APPLICATIONS MUST USE PART #: 92-1827-CL-50.

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 both seats; remove the instrument bezel. Next, remove the fuel tank by removing the bolts and lifting the tank enough to gain access to the 4 pin brown wire connector and dry brake fuel line. Unplug the wire connector by pressing the tab inwards. Disconnect the dry brake fuel line by depressing the two gray tabs. Remove the fuel tank.
2. Temporarily position the Fi2000 module by the battery, and route the fuel injector connector wire harness forward into the notch in the plastic cover, see Figure 1. Continue routing the harness under the frame at the rear of the fuel tank, and continue it up past the left side of the throttle body assembly.
3. Locate the MAP sensor on the left side of the air intake boot. Slide the steel sensor mount out of the intake boot to allow access to the front fuel injector, underneath the boot, see Figure 2.
4. Disconnect the stock front injector connector by pressing on the tab at the rear of the connector. On the Fi2000 harness locate the longer set of connectors. Now connect the female Fi2000 matching connector to the injector and then connect the stock female connector to the corresponding male Fi2000 connector. Reinstall the map sensor. Route the Fi2000 harness so that it is fixed in the retaining hook near the air intake boot, to keep the harness clear of the throttle linkage, see Figure 2.
5. Locate the rear injector connector on the throttle body housing disconnect it and mate the corresponding male connector from the rear portion of the Fi2000 harness to it, see Figure 3. Mate the Female Fi2000 connector onto the injector. When finished, make sure the wire harness does not foul any throttle cable linkage. Install one 8" zip tie to secure the harness as shown in Figure 1.
6. Route the Oxygen sensor harnesses down between the right side of the battery and right frame rail. The longer harness must be routed on the inner side of the fuel pump and behind the rear exhaust headpipe to the bottom of the frame and along the lower right frame rail, toward the front right footpeg mount, see Figures 4, 5 and 6. Be sure to route the longer (front) harness over the tops of the frame cross tubes, as show in Figure 6, to protect it from damage, should the frame ever bottom out.
7. Disconnect the rear oxygen sensor connectors, shown in Figure 4 and mate the corresponding male and female Fi2000 Oxygen sensor connectors to them. Be sure to tuck the connectors back away from the rear headpipe. Zip tie this harness to the frame rail behind the fuel pump, using an 8" zip tie.

** Cobra recommends you always wear a helmet while riding. Please never operate your motorcycle while under the influence of alcohol and/or drugs. Enjoy the new look of your motorcycle and please ride safely.*

8. Locate and disconnect the front oxygen sensor connectors tucked behind the right front rider footpeg, see Figure 5. Mate the corresponding male and female Fi2000 oxygen sensor connectors to them. Be sure to tuck the connectors back behind the footpeg mount, and free from any brake linkage or brake light switch movement, zip tie in place using the supplied 6" zip tie.
9. Zip tie and secure the oxygen sensor harnesses along the bottom frame rail, as shown in Figure 5 and 6 using the remaining 8" zip ties.
10. Connect the Fi2000 ground wire (black), to the negative post of the battery and attach the Fi2000R module to the top of the plastic panel with the supplied Velcro, see Figure 1. Reinstall the fuel tank by reconnecting the brown four-pin connector and dry brake fuel line to the fuel tank. Before reinstalling the seats verify all connections are made properly.
11. Remove the door from the Fi2000 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, then go off. This is correct. If you don't see lights, make sure the side stand is up, bike is in neutral, clutch is in and handle bar engine switch is set to run. If you still have no lights, 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 you have attached the injector connectors correctly. Reattach the access door when finished and install seat. **Note:** Make sure the ignition is turned off before changing any connection. Once confirmed the module is working properly, reinstall the instrument bezel and other remaining components including the seat.

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 the stock settings are not exactly optimized 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 to expose the pots shown in Figure 7.

GREEN LED POT (left pot) – With the Closed Loop function of this module you do not need to adjust this setting, leave it at 3.0. 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 4th or 5th 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.

Continued to next page!

ADVANCED TUNING CONTINUED:

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.

TROUBLE SHOOTING

If you have any problems refer to Step 11 in the installation body of these instructions.

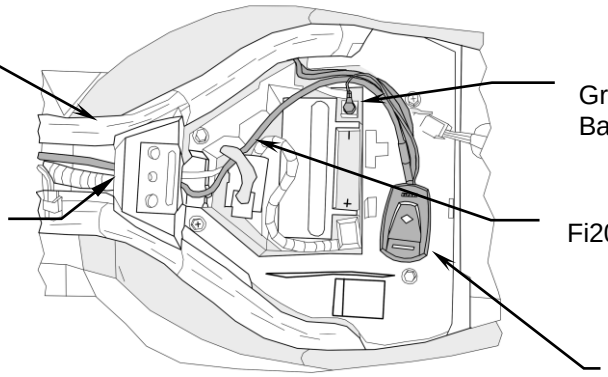

FIGURE 1

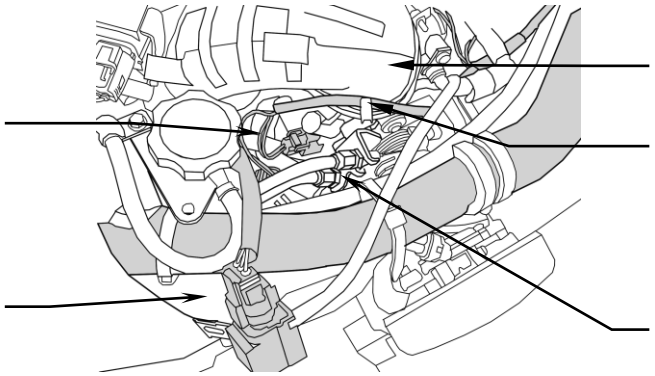

FIGURE 2

(Fuel tank removed for access to injector connector locations)

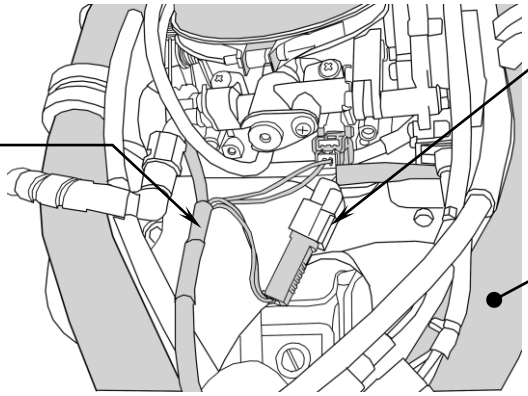

FIGURE 3
(Fuel tank removed for access to injector connector locations)

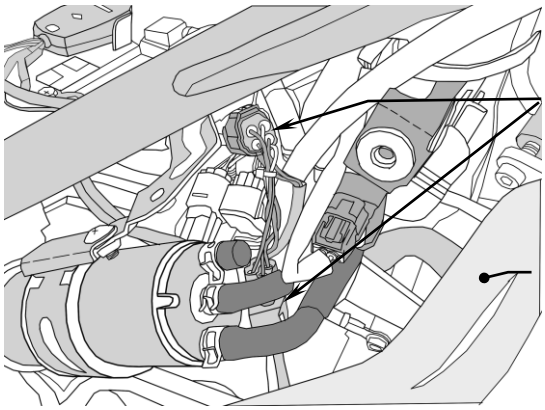

FIGURE 4

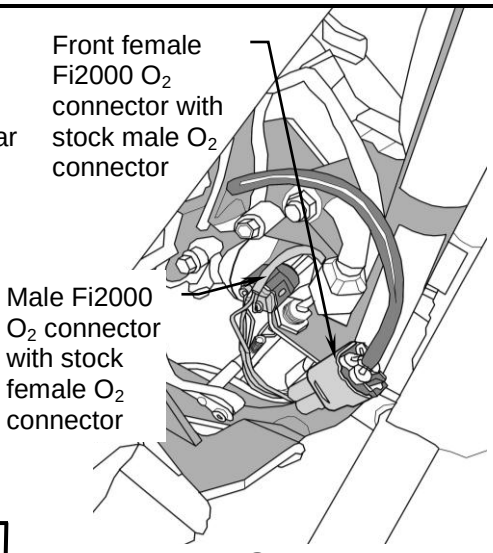

FIGURE 5

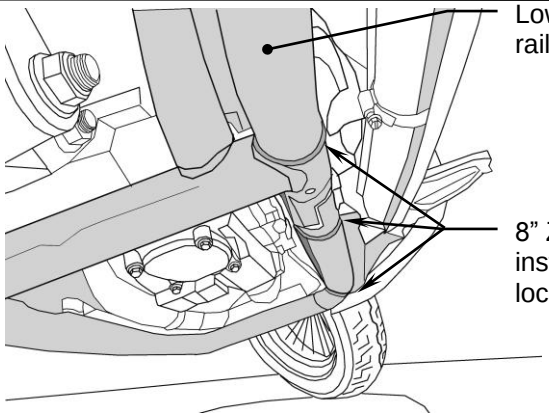

FIGURE 6

Default Pot Settings:

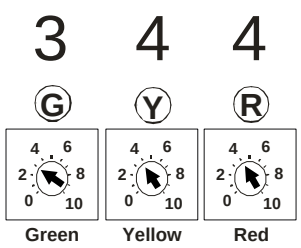

FIGURE 7