

Fi2000

Items Supplied >

- 1 – Fi2000R Fuel Injection Module
- 5 – Zip Ties 6"
- 1 – Velcro Strip

Application(s) >

HARLEY SPORTSTER

14-18

Instruction Manual >

692-1622CL

Page 1 of 3

Read all instructions carefully and completely before installing your new Fi2000R module. It is recommended that a qualified mechanic or technician install this product.

1. Remove the seat and open left side cover, (first pull top of cover outward, then bottom of cover will swing downward for access). Remove the bolt at the rear of the fuel tank and prop the tank up as high as possible without striking the front of it on triple clamp to gain access to fuel injectors.
2. Locate the factory connector on each fuel injector, squeeze on both sides and pull them away from the injectors.
3. Velcro the Fi2000 module to the side of the battery so that the module housing is no higher than the top of the battery, see Figure 1.
4. Feed the Fi2000 wire harness up along the left side of the frame, resting in the plastic main harness guide so the connectors end up in the injector area. The fuel injectors can rotate on their base, rotate them towards the left side, as far as they will go to allow Fi2000 connector to fit on injector. Do not force them any further then they will rotate.
5. Using the Fi2000 injector harness labeled front, mate the Fi2000 female connector onto the front fuel injection connector, (it may look a little different then the stock female Harley connector.) Plug the male Fi2000 connector into the original female Harley connector. Repeat using the other pair of connectors for the rear injector. Make sure to keep the correct orientation for the front and rear injectors and connector harnesses, see Figure 2.
6. It is now time to install the oxygen sensor harnesses. Locate the rear O₂ connector that is resting directly on top of the battery, see Figure 1. Unplug it, and plug the corresponding Fi2000 connectors from the shorter harness into the Harley connectors and place both sets of connectors in the original mounting spot.
7. Now route the longer O₂ harness up along the upper frame rail next to the injector harness from Step 4, and forward to the left front frame down tube. Locate the front O₂ sensor connectors clipped to the left front frame rail and continue the front Fi2000 O₂ harness to here, see Figure 3. Unplug the factory connection and plug the corresponding Fi2000 connectors into the matching Harley connectors. Use the factory U-clip to hold the connections to the frame down tube. Tuck both sets of connectors down low, with the exposed wires facing downward, ziptie the O₂ harness along the frame rail and behind the tank with 6 inch zipties.
8. Attach the ground wire to the negative battery terminal.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES.

9. Before re-installing the seat and left side cover, verify your connections. Remove the door from the Fi2000 box to expose the LED's. Verify the wire connections by (1) turning the ignition on, prior to starting, and see if all three LED's are on steady. If you have no light, your ground connection (BLACK wire) has not made proper contact or your front injector connection is not complete. (2) After achieving a steady light from all three LED's, start the motorcycle, wait 15 seconds and let it idle, 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 door when finished. **Note:** Make sure the ignition is turned off before changing any connection.
10. Lower the fuel tank and reinstall bolt securely, be sure no wires' harnesses are pinched as fuel tank is lowered down. Re-install the seat and close left side cover, be sure the plastic lugs of the cover seat correctly.

ADVANCED TUNING

Your Cobra® Fi2000 fuel injection module has been tested and preset for best function and rideability on a motorcycle with aftermarket air cleaner and Cobra slip on mufflers. 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 to expose the pots shown in Figure 4.

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. 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 as above until a smooth acceleration returns.

RED LED POT (right pot) - this adjustment is the top end or power fuel adjustment. Just like the main jet in a carburetor, it starts to control fuel as you demand maximum power from your bike and takes over completely above 4000 R.P.M. As performance gains are added to your motorcycle, such as big bore kits, camshafts, flowed cylinder heads, etc., each component will increase the fuel demand of the system. With the red pot turned to its maximum (10) position, the Fi2000 will cope with nearly 100 R.W. horsepower. An all-stock motor will only require a 2 position. You can generally, if you are using quality performance engine upgrades, in a sensible combination equate the numbers evenly from 2 up to 10 based on horsepower gains.

TUNING NOTES

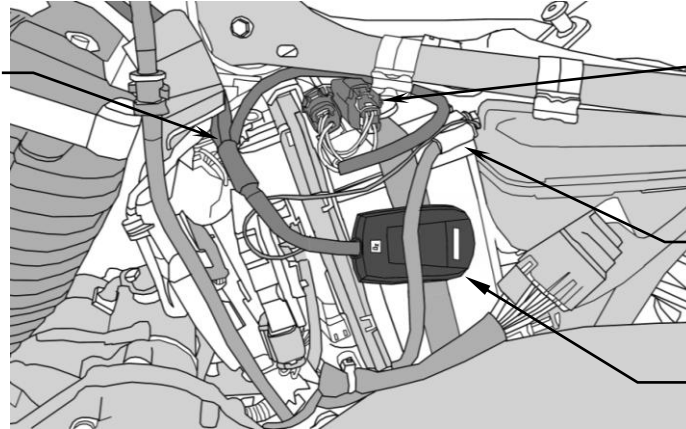
Typically 2 into 1 or our speedster exhaust systems require one additional position, on the yellow and red pots, over slip-ons or staggered duals. On high performance motors, slip-on mufflers do not flow well enough and create fuel setting problems and detonation. Cobra recommends the installation of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

TROUBLE SHOOTING

If you have any problems refer to Step 9 in the main body of the instructions.

Fi2000 HARNESSES
ROUTED TO FUEL
INJECTORS & FRONT
O₂ SENSOR
CONNECTOR

FRONT OF
MOTORCYCLE
←



REAR O₂ SENSOR
CONNECTED WITH
REAR Fi2000 O₂
HARNESS

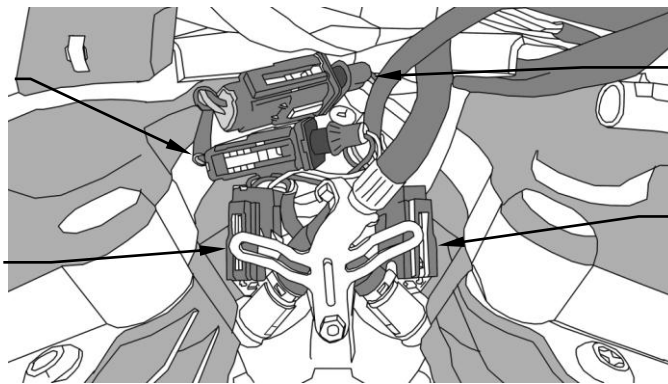
GROUND WIRE
CONNECTED TO
NEGATIVE BATTERY
TERMINAL

Fi2000 MODULE

FIGURE 1

ORIGINAL FRONT FEMALE
H.D. INJECTOR
CONNECTOR WITH MALE
Fi2000 CONNECTOR

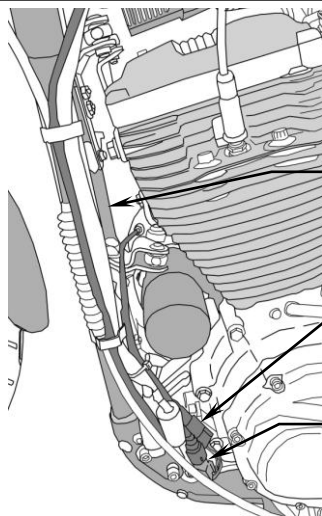
FRONT Fi2000 INJECTOR
CONNECTOR ON FRONT
INJECTOR



ORIGINAL REAR FEMALE
H.D. INJECTOR
CONNECTOR WITH MALE
Fi2000 CONNECTOR

REAR Fi2000 INJECTOR
CONNECTOR ON REAR
INJECTOR

FIGURE 2



LEFT FRONT
FRAME DOWN
TUBE

Fi2000 HARNESS
WITH O₂ SENSOR
CONNECTOR

STOCK HARNESS
WITH Fi2000
FEMALE HARNESS
CONNECTOR

FIGURE 3

POT SETTINGS
**Aftermarket Aircleaner w/
Slip-on Mufflers**
Default Pot Settings:

2 3.0 2.5

(G)

(Y)

(R)



Green



Yellow



Red

FIGURE 4