

### Items Supplied >

- 1 Fi2000R Fuel Injection Module
- 3 Zip Ties 6"
- 2 Velcro Strips
- 2 Oxygen Sensor Eliminators

# Application(s) >

HARLEY SPORTSTER XL (except XL1200V 12-13) 07-13

## Instruction Manual >

92-1620R

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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.

- 1. Remove the seat and left side cover, (first pull top of cover outward, then bottom of cover upward to release from mounting tabs). 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. And by squeezing on both sides pull them away from the injectors.
- 3. Disconnect the main fuse block located on the battery hold down strap and then Velcro the Fi2000 module to the battery hold down strap so that the module housing is no higher than the top of the battery. Now use the extra Velcro pad to reattach the main fuse block, 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, (towards the horn), as far as they will go to allow Fi2000 connector to fit on injector. Do not force them any further then they will rotate. Mate the Fi2000 female connectors onto the fuel injection connectors, (they look a little different then the stock female Harley connectors.) Plug the male Fi2000 connectors into the original female Harley connectors, make sure to keep the correct orientation for the front and rear injectors and connector harnesses, see Figure 2.
- 5. It is now time to install the Oxygen Sensor Eliminator Modules. Locate the front O<sub>2</sub> sensor that is held onto the left front frame down tube by a black clip. Unplug the connection (you may have already done this if you are changing exhaust), and install one of the supplied O<sub>2</sub> eliminators. If you keep the oxygen sensor installed in your exhaust you will have to zip tie the sensor wire to the frame so it does not touch the exhaust pipe.
- 6. Locate the rear O<sub>2</sub> sensor connection that is directly behind the rear cylinder on the right side. Slide it down until it releases, unplug it and plug the other supplied O2 sensor eliminator into it. Reattach this connection to where it was detached. Ziptie the rear O<sub>2</sub> sensor wire out of the way if the sensor is being left in the exhaust.
- 7. Attach the ground wire to the ground lug on the backside of the primary chain case area. See Figure 1.

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<sup>\*</sup> 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.



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8. 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.

9. Re-install the seat and left side cover.

#### **ADVANCED TUNING**

Your Fi2000 fuel injection module has been tested and preset for best function and rideabilty on a motorcycle in stock form. 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) - this adjustment affects idle and cruise fuel. If you have cruising issues, this is where you would try a different setting. Generally, surging and uneven running while cruising is a lean fuel condition, so try adding a small increase in fuel by turning the adjustment clockwise with a small flat blade screwdriver a 1/2 of a position. Test-drive the bike to feel an improvement and only increase the setting until the surge goes away. Also, backfiring or popping on trailing throttle is generally a lean symptom (or an exhaust gasket leak). Try the same small increases as above just until the backfiring goes away.

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 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**

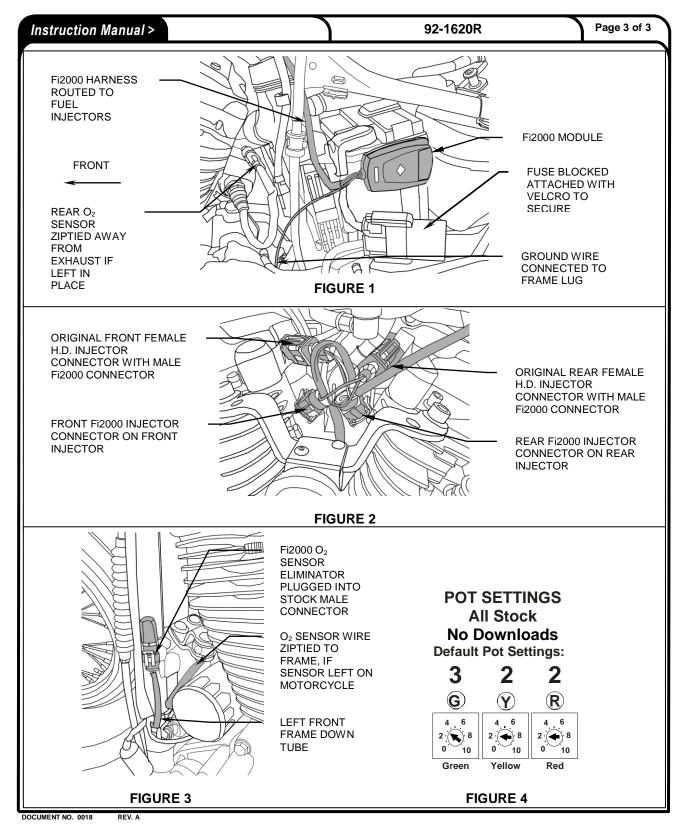
If you have any problems refer to Step 8 in the main body of the instructions.

Tech Support https://fi2000.com

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