

Fi2000

Items Supplied >

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

Application(s) >

HARLEY SOFTAIL 2007

Instruction Manual >

692-1607CL

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ATTENTION: All 2007 Harley SOFTAIL models manufactured before NOVEMBER 1, 2006 require an ENGINE CONTROL MODULE CALIBRATION update from a Harley Davidson Dealer; please reference Harley Davidson SERVICE BULLETIN M-1186. This Fi2000 is meant to function on all 2007 SOFTAIL models with this update and all 2007 SOFTAIL models manufactured after this date which should already have this update installed, check with your local dealer for verification.

Read all instructions carefully and completely before installing your new Fi2000 module. It is recommended that a qualified mechanic or technician install this product.

1. Remove the seat and air cleaner assembly, remove both front and rear gas tank mounting bolts. Prop the rear of the gas tank up approximately 2".
2. Locate the factory connector on each fuel injector. Depress the clip on the connector and pull the connector free and move it out of the way. **Note:** A pair of needle nose pliers and a long flat blade screwdriver helps with this job. If you need additional access to the fuel injector connectors, you can remove the Idle Air solenoid by removing the two 5/16" bolts holding it on and loosening the Torx #20 screw on throttle cable bracket. Make sure to use thread-locking compound when refitting the two 5/16" bolts and correctly position the o-ring when reattaching.
3. Lay the Fi2000 module in the area underneath the seat, do not attach it to the motorcycle, route the injector wire harness forward up the right side of the frame backbone, see Figure 1. Route the forward set of connectors under the upper motor mount.
4. Attach the Fi2000 module's forward injector plug, to the front injector. Take the original female H.D. connector and insert the corresponding Fi2000 male connector into it, refer to Figure 2.
5. Attach the Fi2000 module's rear female injector plug, onto the rear injector. Then take the original female H.D. connector and insert the corresponding male Fi2000 connector, into it. (See Figure 2)
6. It is now time to install the oxygen sensor harnesses. Remove the battery for access to the area underneath it and to aid in harness installation. To help installation, disconnect square connector at right rear corner of battery to help installation of O₂ sensor harnesses, see Figure 3. Route the two O₂ sensor harnesses down between the main harnesses going to the fuse box and the right rear corner of the frame in the battery area. The longer harness continues down past the rear of the transmission and the shorter harness comes forward under the bottom of the oil tank until it is visible in the cut out area where the battery sits. Unplug the factory O₂ sensor connection and plug in the corresponding male and female connectors.
7. Now route the longer harness up the right side of the frame rail. Following the factory harness and zip tie it to the harness in 3 locations.
8. Remove the 2 Allen bolts that secure the voltage regulator bracket to the block, and remove the rectangular cover over the top of this bracket. Ease the voltage regulator forward just enough to access the front O₂ connector. Unplug the connector and then plug the Fi2000 female connector into the original HD male connector. Replace this connection into the voltage regulator bracket and re-assemble onto the bike, making sure the Fi2000 wire exits the top of the cover just like the original wire went in.

** 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.*

9. Now plug the other Fi2000 connector into the oxygen sensor wire and zip tie this connection to the left frame tube in a location that will not allow the wires to touch the exhaust pipe, Figure 4
10. Reinstall the battery, attach the black wire to the negative post of the battery, see Figure 1.
11. Before re-installing the gas tank, seat and air cleaner assembly, 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.
12. Remove the backing from the Velcro and attach the Fi2000 as shown in Figure 1.
13. Re-install the fuel tank, seat and air cleaner assembly.

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 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 to expose the pots shown in Figure 3.

GREEN LED POT (left pot) - With the Closed Loop function of this module you do not need to adjust this setting leave it at 1.5. 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 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 on 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 main body of the instructions.

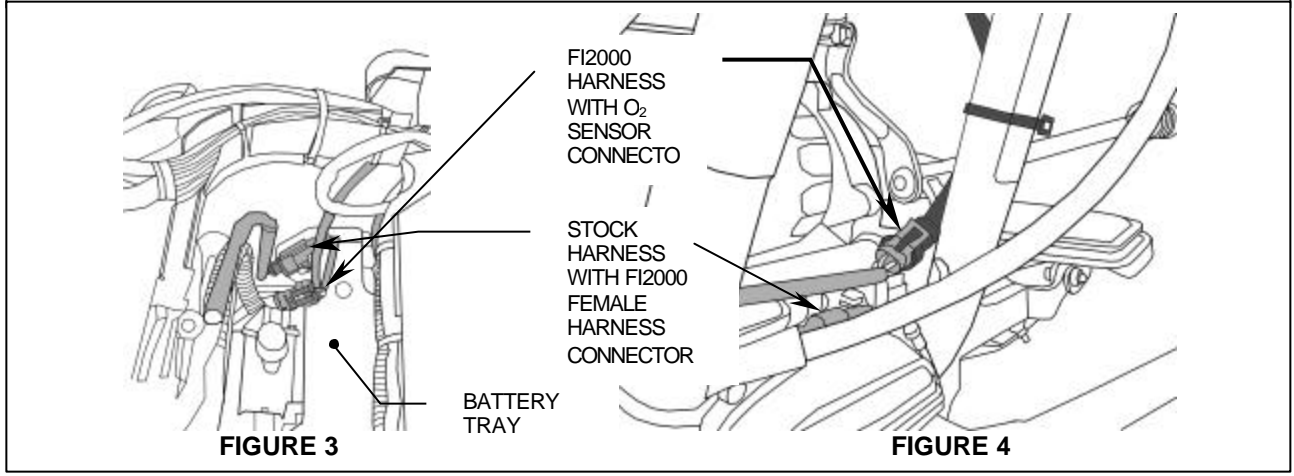
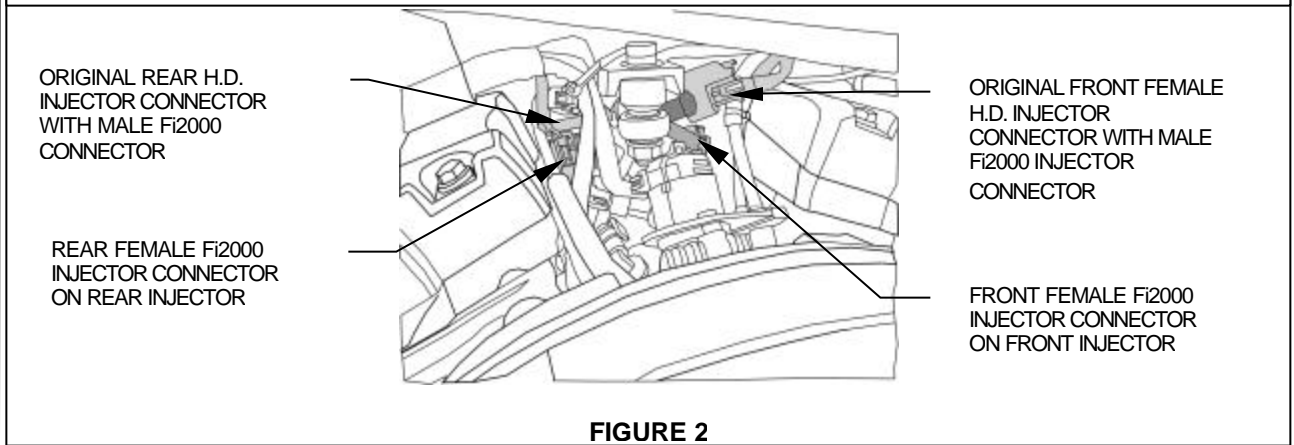
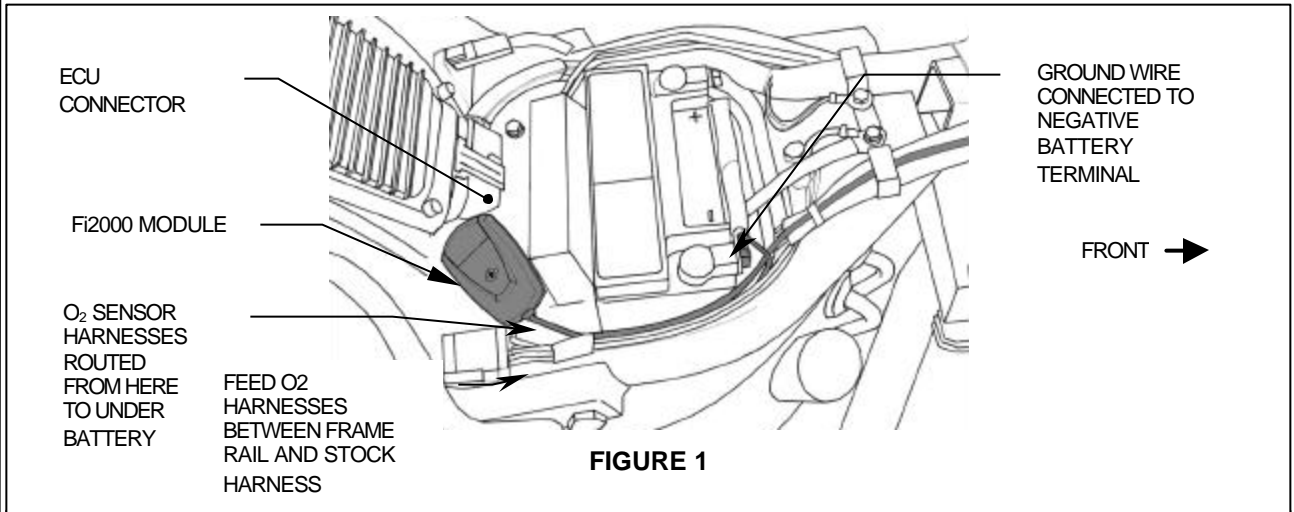
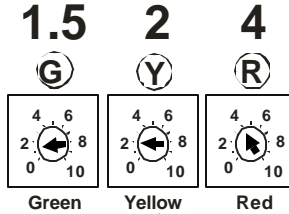


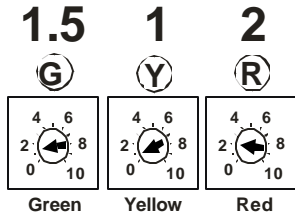
FIGURE 3

Fi2000 Default pot setting
Aftermarket Air Cleaner, Exhaust
Download: From Bulletin: M-1186

Default Pot Settings:



Aftermarket Exhaust Only
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Default Pot Settings:



All Stock
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Default Pot Settings:

