

Items Supplied >

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

Application(s) >

HARLEY DYNA

2008-2009

Instruction Manual >

692-1610CL

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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 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 Fi2000R module in the area underneath the seat, do not attach it to the motorcycle, route the fuel injector harness forward up the left side of the frame using the plastic harness protector and across to the right side just ahead of the rear cylinder head, See Figure 1. Route the forward set of connectors under the upper motor mount.
4. Attach the Fi2000R module's forward injector plug, with the grey and red wires to the front injector. Take the original female HD connector and insert the corresponding Fi2000R male connector, with the brown and red wires, into it, refer to Figure 2.
5. Attach the Fi2000R module's rear female injector plug, with the blue and red wires, onto the rear injector. Then take the original female HD connector and insert the corresponding male Fi2000R connector, with the green and red wires, into it, refer to Figure 2.
6. Remove the right hand battery cover, route the black ground wire from the Fi2000R through the gap just under the frame and to the rear of the battery box. Attach the ring terminal to the negative post of the battery.
7. It is now time to install the oxygen sensor harnesses. Cut the factory zip-tie holding the rear fender wire harness to the ECU bracket and pull that harness up and out of the way, see Figure 1. Reach down and pull the remaining wiring up and out of the space between the battery box on the right and the ECU electrical box on the left. Feed the longer of the two oxygen sensor harnesses down between the rear fender and the frame. Pull the harness from underneath and route it just ahead of the swingarm, then down just behind the rear master cylinder so that the harness ends up coming out at the bottom of the bike. Route the O₂ sensor harness forward along the right frame rail and stock harness with the Fi2000 O₂ connectors ending up by the front of the engine.

*** 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. Ziptie the O₂ sensor harness to the main wire harness on the frame rail.
9. Remove the two Allen bolts holding the voltage regulator onto the lower front frame, see Figure 3. Let it drop down, then directly behind that is a black plastic panel. Hinge that panel down to access the plugs behind it. Locate the front oxygen sensor connection, slide it off its holding pin and unplug the connector. Plug the Fi2000 O₂ sensor harness male connector into the O₂ sensor female connector and slide them back onto stock plastic panel location. Mate the stock male harness connector with the female Fi2000 connector, double up any slack and secure with zip ties to rightside framerail. Reinstall the panel and the voltage regulator.
10. Locate the black waterproof connector in the wire harness bundle that was tucked down into the open area under the seat, see Figure 1. Unplug the female connector that comes from the rear oxygen sensor, and mate it with the male connector from the shorter Fi2000 O₂ sensor harness. Mate the stock male connector with the female Fi2000 connector.
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 Velcro pad down between the back of the battery and the ECU on the flat area of the frame. Apply the mating Velcro to the back of the Fi2000R and attach, see Figure 1. Replace the rear fender wire harness above the Fi2000R.
13. Re-install the seat, air cleaner assembly and gas tank mounting bolts.

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 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 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 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 main body of the instructions.

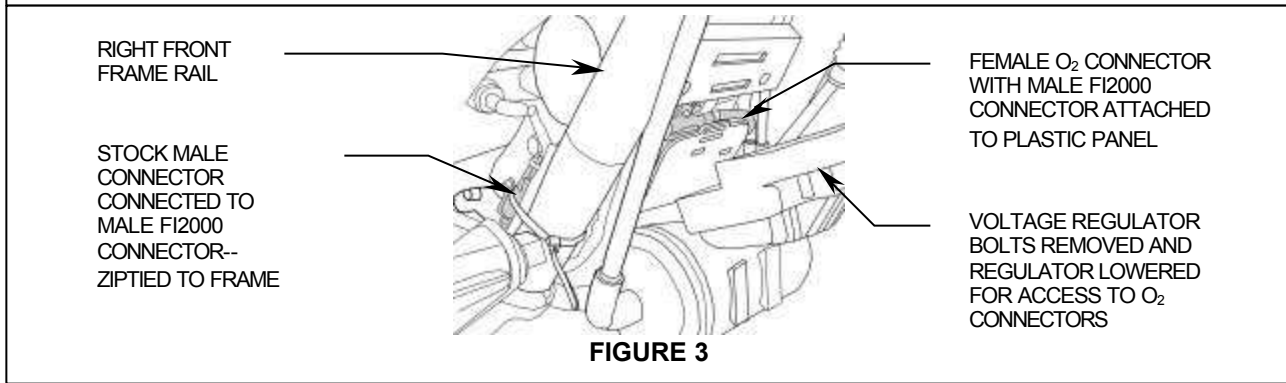
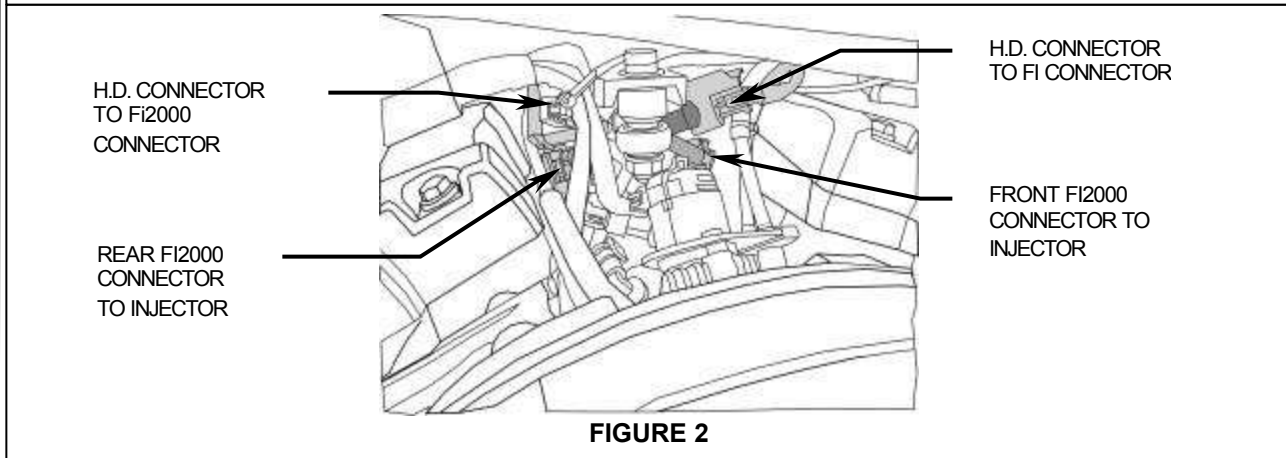
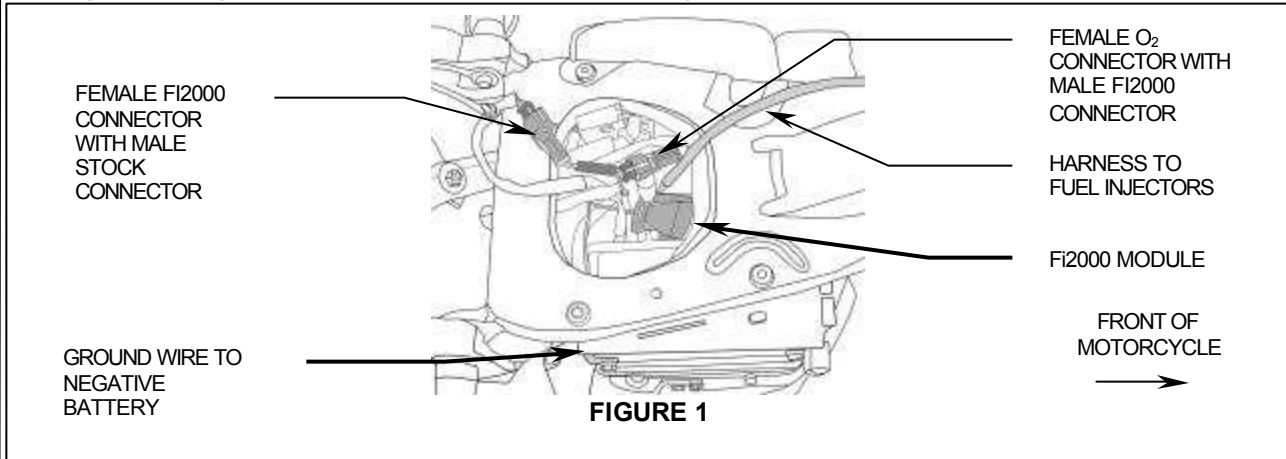
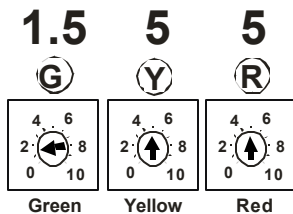


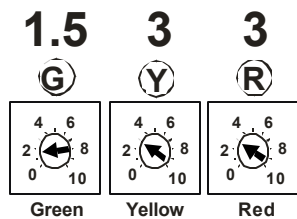
FIGURE 4

Fi2000 Default pot setting

Aftermarket Air Cleaner, Exhaust Default Pot Settings:



Aftermarket Exhaust Only Default Pot Settings:



All Stock Default Pot Settings:

