

Items Supplied >

- 1 – Fi2000 Fuel Injection Module
- 4 – Zip Ties 4"
- 3 – Zip Ties 6"
- 1 – Zip Tie 8"
- 1 – Velcro Strip

Application(s) >

HARLEY V-ROD

2012-2017

Instruction Manual >

692-1618CL

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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. Lift rider seat up, to gain access to radiator reservoir area.
2. Remove simulated tank shroud by turning Dzus fastener and lifting tank cover up from rear and pulling rearward to expose air box and wire looms. Remove left front decorative frame cover to expose wire harnesses between frame rails.
3. Place Fi2000 in under-seat area, run fuel injector connector harness up right side frame rail between top right frame rail, and radiator overflow tank, see Figure 1. At the rear of the airbox, route the harness below the airbox, and downward next to the inner radiator hose. Unplug both stock fuel injector connectors, on the front and rear injectors between the engine cylinders, see Figure 2. These are disconnected, by depressing the metal springs that are on the end of each female connector. The stock female connectors are marked "F" and "R", noting which connector goes to the front and rear injector, be sure to pay attention to this. Now connect the male Fi2000 connector labeled "FRONT" on the black sheathing to the front female H.D. connector. Plug the other Fi2000 male connector into the stock rear female H.D. connector. Then plug the female Fi2000 connector labeled "FRONT" on the black wire sheath onto the front stock H.D. injector. Plug the other Fi2000 female connector onto the rear injector. Tuck all connectors neatly under injectors. Route harness next to water pump hose and along existing harness on frame rail. Pull slack out of harness leaving a little extra near injector connectors. Secure harness to water pump hose using (1) 8 inch zip tie and along right upper frame rail towards seat, using (3) 4 inch zip ties to existing harness.
4. Locate the rear oxygen sensor connector and follow the harness up to the under-seat area behind the radiator overflow tank. Pull the stock connectors up from behind the overflow tank and disconnect, see Figure 3. The shorter Fi2000 oxygen sensor harness with male and female connectors will plug into each of these stock male and female connectors. Tuck the connectors back underneath the bracket behind the radiator overflow tank.
5. Route the long front oxygen sensor harness along the upper left frame rail next to existing harnesses and continue forward under connectors which were exposed under the cover removed in Step 3. Remove the buttonhead socket screw from the bottom of the left radiator shroud to allow shroud to be pulled outward, Figure 4, to expose the light gray front O₂ sensor connectors. Continue routing harness down next to vacuum line and then outward towards left radiator shroud, see Figure 5. Disengage connectors and mate corresponding male and female connectors from motorcycle to Fi2000, see Figure 6. Tuck the connectors back between the frame rail and shroud neatly.

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

6. Install (3) 6" zip ties to secure front O₂ sensor harness to existing wire loom along left upper frame rail. Use (1) 4" zip tie to secure harness to vacuum line. Reinstall buttonhead socket screw at bottom of left radiator shroud. Use blue medium strength thread locker to ensure screw stays tight.
7. Remove hex nut securing plastic shroud near seat cable, see Figure 1. Place ground terminal on stud and tighten nut securely.
8. Remove the backing from the Velcro and attach the Fi2000 to the frame cross member as shown in Figure 1.
9. Verify the wire connections by (1) turning the ignition on, prior to starting, and see if all three LED's are on steady and then go off after 3 to 4 seconds. If you have no light, your ground connection (BLACK wire) has not made proper contact or the injector connections are 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. Reinstall left decorative frame cover removed in Step 2, and tighten screws securely.
11. Reinstall the simulated fuel tank cover and tighten Dzus fastener. Lower the seat and be sure all hardware is tightened to factory specifications.

ADVANCED TUNING

Your Cobra® Fi2000 fuel injection module has been tested and preset for best function and rideability on a motorcycle with stock aircleaner and stock mufflers. Remove the door to expose the pots shown in Figure 7. The Fi2000 does have 3 important adjustments that allow you to tune the module for optimum performance, especially if you have performed other changes to your motorcycle such as aftermarket air cleaner or exhaust. 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.

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. 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 and full exhaust systems require one additional increase, on the yellow and red pots, over slip-ons or staggered duals.

TROUBLE SHOOTING

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

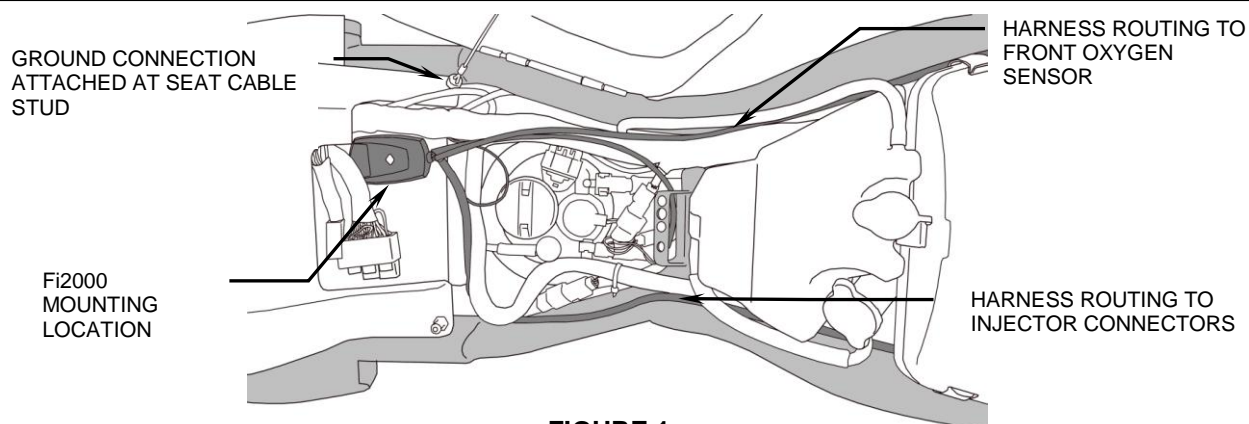


FIGURE 1

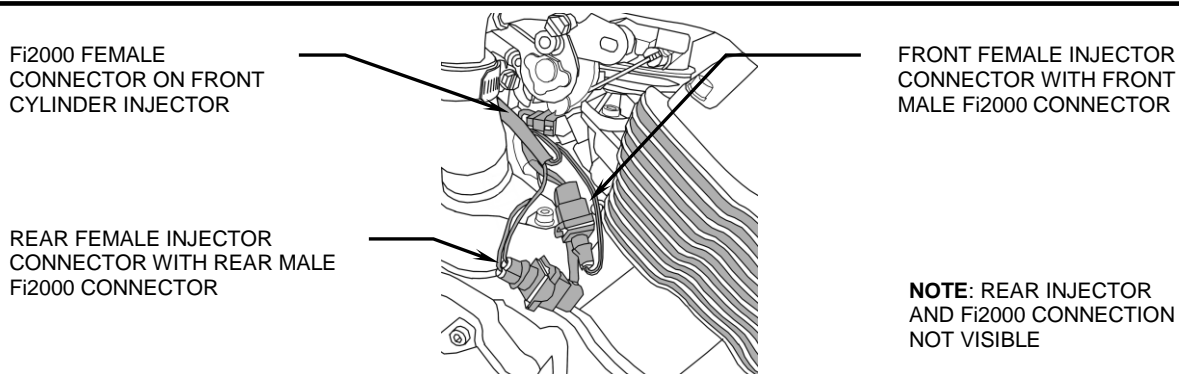


FIGURE 2

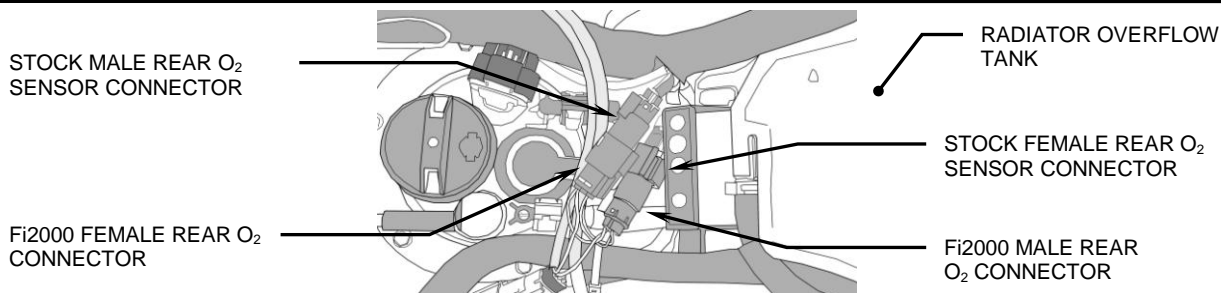
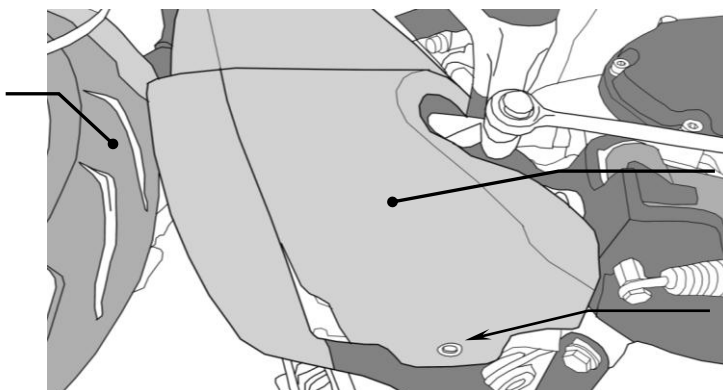


FIGURE 3

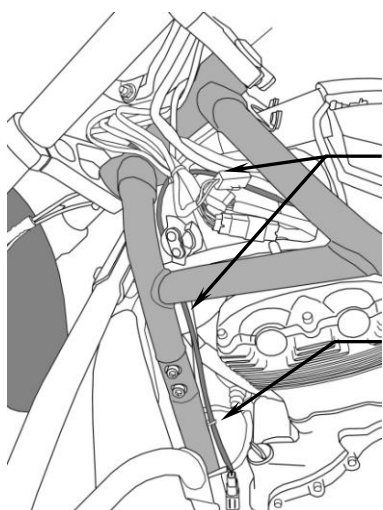
FRONT TIRE



LEFT SIDE RADIATOR SHROUD

BUTTONHEAD BOLT REMOVED

FIGURE 4



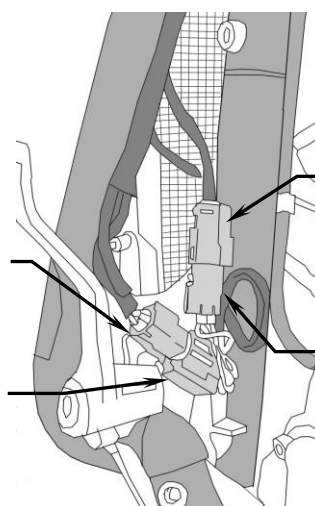
FRONT Fi2000 O₂ HARNESS ROUTING

LOCATION FOR 4" ZIPTIE TO VACUUM LINE

FIGURE 5

STOCK MALE FRONT O₂ SENSOR CONNECTOR

Fi2000 FEMALE FRONT O₂ CONNECTOR



STOCK FEMALE FRONT O₂ SENSOR CONNECTOR

Fi2000 MALE FRONT O₂ CONNECTOR

FIGURE 6

Stock

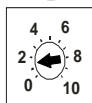
Default Pot Settings:

1.5 2 2

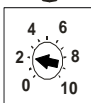
(G)

(Y)

(R)



Green



Yellow



Red

FIGURE 7