

## Items Supplied >

- 1 – Fi2000 Fuel Injection Module
- 1 – Velcro Strip
- 1 – Ziptie 8"
- 1 – Ziptie 14"

## Application(s) >

HARLEY DRESSER 2010-2013

## Instruction Manual >

692-1615CL

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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. It is recommended to have the motorcycle positioned on the kickstand with the handlebars at a forty-five degree angle to the left to aid in accessing components for Fi2000 module installation. Remove both left and right side saddlebags, being careful not to scratch chrome or paint.
2. Remove right side cover and seat to expose engine ECU and oxygen sensor connectors.
3. Loosen and remove the bolt securing the instrument bezel to the rear of the fuel tank. Remove the plastic shroud at rear of fuel tank, partially covering fuel tank bolts, see Figure 1. Remove the two bolts securing rear of fuel tank. At the front of the fuel tank remove the rubber covers which are installed on the fuel tank's front bolts. Loosen the bolts only 1-2 turns, **do not remove**.
4. Be sure handlebars are at a forty-five degree angle to the left, to prevent instrument bezel from making contact with ignition lock. Locate a small piece of wood or plastic approx. 2 –3" tall and raise the rear of the fuel tank up and secure in place with the block, this will allow access to the fuel injector connectors.
5. Place the Fi2000 case and harness on top of the engine ECU in the under-seat area, See Figure 2. Route the main fuel injector harness towards the right frame rail and place the harness between the frame rail and existing wire loom sheath. Route connectors up the main frame rail under the fuel tank to the fuel injectors between the cylinder heads.
6. Disconnect the stock front female injector connector and mate a pair of the Fi2000 connectors to the front injector by installing the Fi2000 female connector on to the front injector and stock front female connector to Fi2000 male connector. See Figure 3.
7. Mate the other pair of connectors to the rear injector in the same manner as the front injector, See Figure 3.
8. Now locate the oxygen sensor connectors along the right rear frame rail where the right side cover was removed. Route the Fi2000 oxygen sensor harness to this area. Be sure to route it under the upper frame rail. Unplug the light tan set of stock connectors and mate the corresponding male and female Fi2000 connectors to them. Repeat for black set of oxygen sensor connectors. Make sure all connectors seat firmly, see Figure 4.
9. Attach the ground wire from the Fi2000 to the negative battery terminal. Velcro the Fi2000 case to the top of the stock ECU. See Figure 2.
10. Secure the oxygen sensor connectors to the frame with the longer supplied ziptie, see Figure 4. Use the shorter supplied ziptie to secure the fuel injector harness to the existing wire loom.
11. Remove the block elevating the fuel tank and lower the tank back into place, be sure the injector harness does not get pinched between the tank and top frame rail.

**\* 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.**

12. Before reinstalling the fuel tank bolts and the seat, verify your connections. Remove the door from the Fi2000 box to expose the LED's. The pot settings on the Fi2000 must be set to match the proper intake and exhaust configuration - Refer to Figure 5 and the **Advanced Tuning** section below to determine the proper configuration. Once the proper pot setting have been chosen set the pot dials using a small flat blade screwdriver.
13. 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 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.
14. Once proper Fi2000 operation has been verified, reinstall the bolts securing the fuel tank, along with the plastic sheath and instrument bezel bolt. Be sure to tighten the bolts on the front of the fuel tank and reinstall the rubber covers. Install the right side cover along with the left and right saddlebags and seat.

## 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 slip-on mufflers. If your motorcycle has a different intake and exhaust configuration please choose the appropriate pot setting in Figure 5, and change the pot dials to these settings. Remove the door to expose the pots shown in Figure 5. 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. 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 1.0. 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.

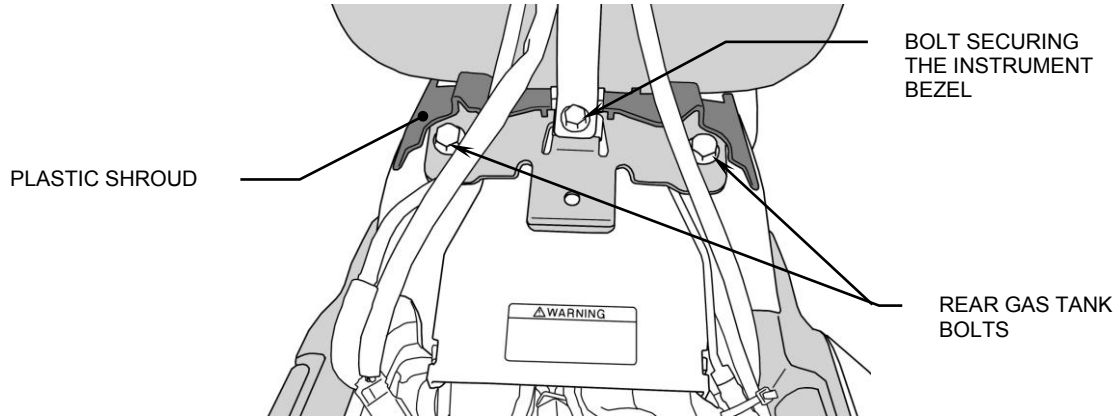
## TUNING NOTES

Typically our 2 into 1 and speedster exhaust systems require one additional increase, on the yellow and red pots, over slip-ons or staggered duals.

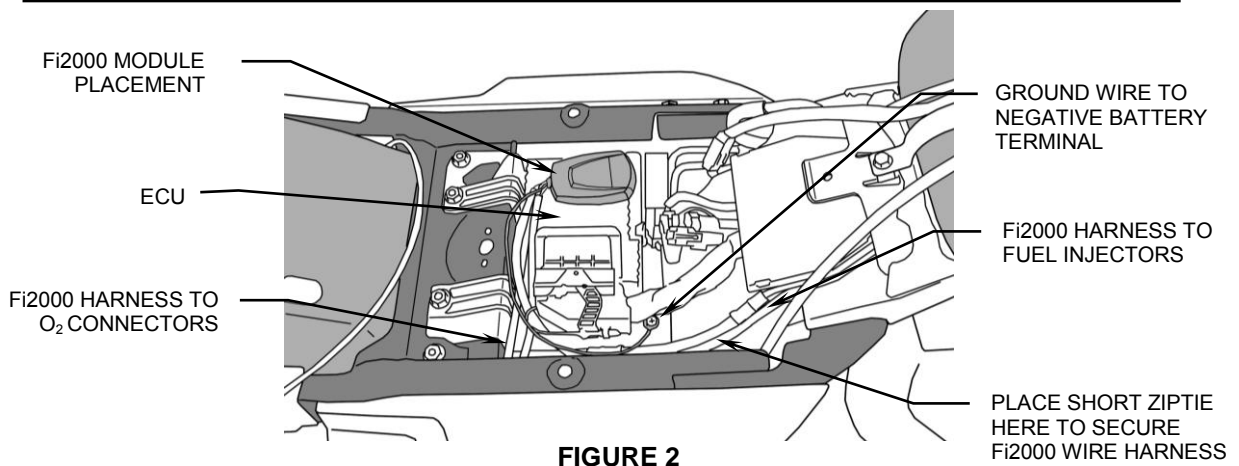
On high performance motors, slip-on mufflers do not flow well enough and create fuel setting problems and detonation. Cobra recommends the installation of any of its complete exhaust systems.

## TROUBLE SHOOTING

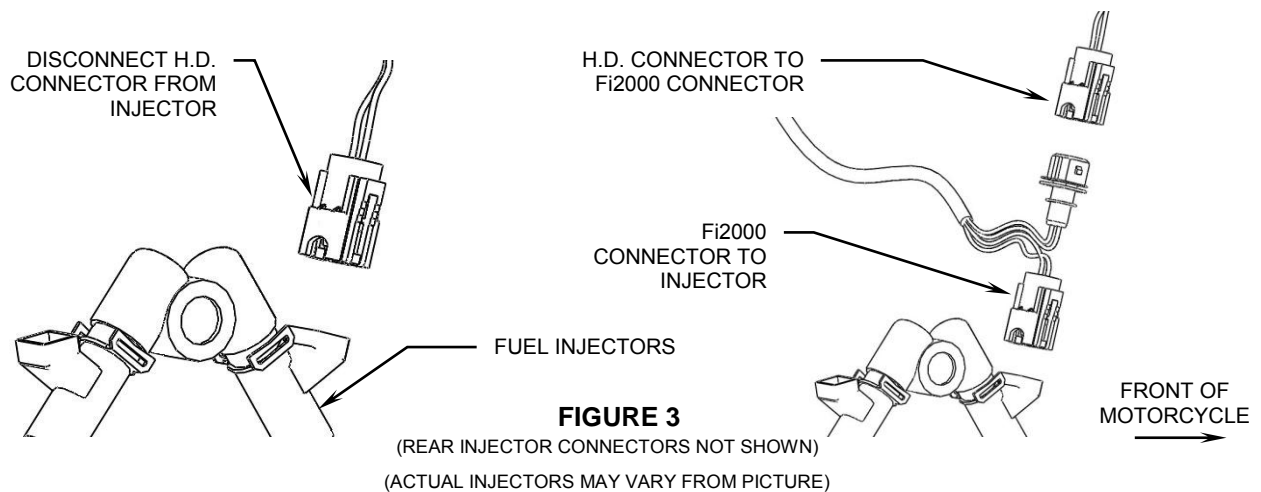
If you have any problems refer to Step 13 in the main body of the instructions.



**FIGURE 1**

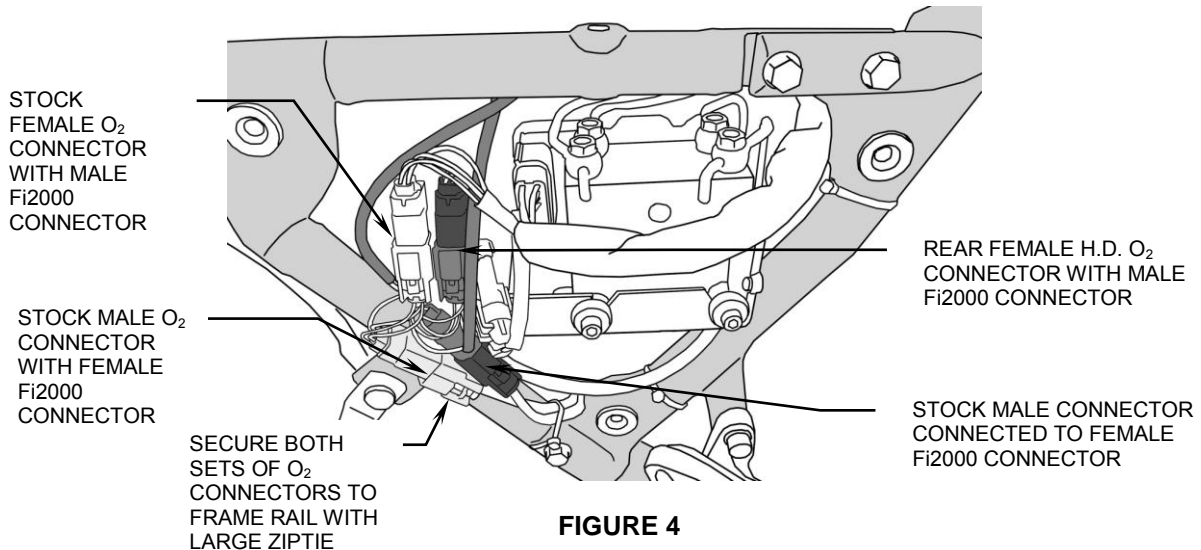


**FIGURE 2**



**FIGURE 3**

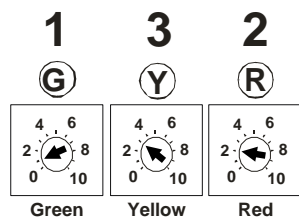
(REAR INJECTOR CONNECTORS NOT SHOWN)  
 (ACTUAL INJECTORS MAY VARY FROM PICTURE)



**FIGURE 4**

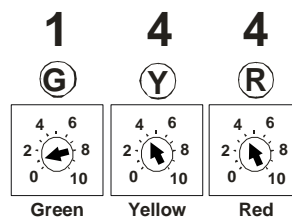
### Stock w/ Slip-on Mufflers

Default Pot Settings:



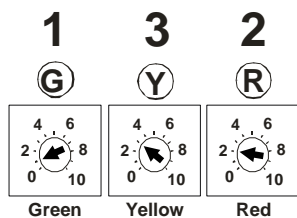
### Aftermarket Air Cleaner, Slip-on Mufflers

Default Pot Settings:



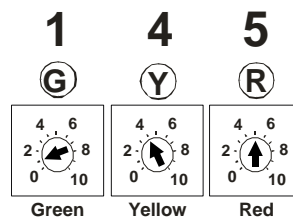
### Stock w/ Full Exhaust

Default Pot Settings:



### Aftermarket Air Cleaner, Full Exhaust

Default Pot Settings:



**FIGURE 5**

Fi2000 Default pot setting