

# COBRA

## Items Supplied >

- 1 – Fi2000R Fuel Injection Module
- 2 – Zip Ties
- 1 – Velcro Strip

## Application(s) >

- |        |                            |
|--------|----------------------------|
| HARLEY | SOFTAIL 01-05              |
|        | DYNA 04-05                 |
|        | Fuel Injection -<br>Models |

## Instruction Manual >

692-1605

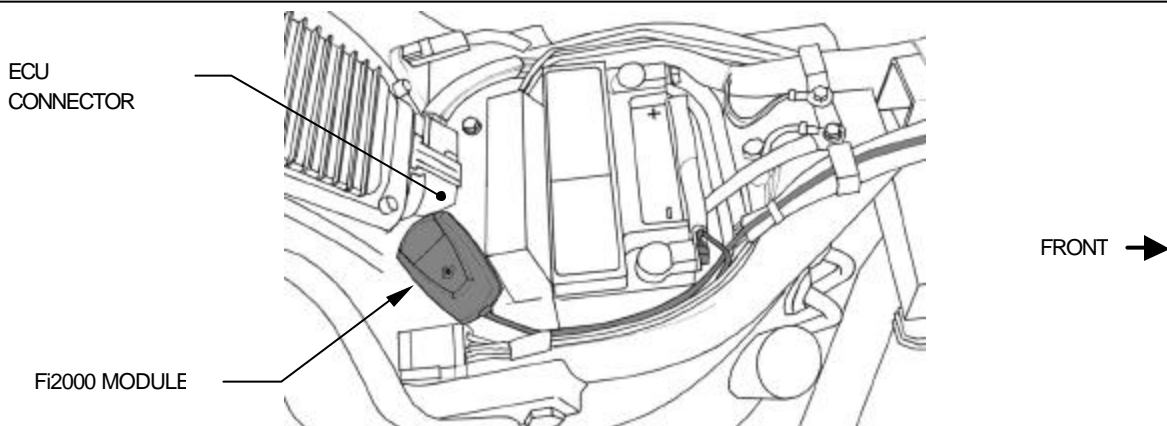
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**Read all instructions carefully and completely before installing your new Fi2000 module. It is recommended that a qualified mechanic or technician install this product.**

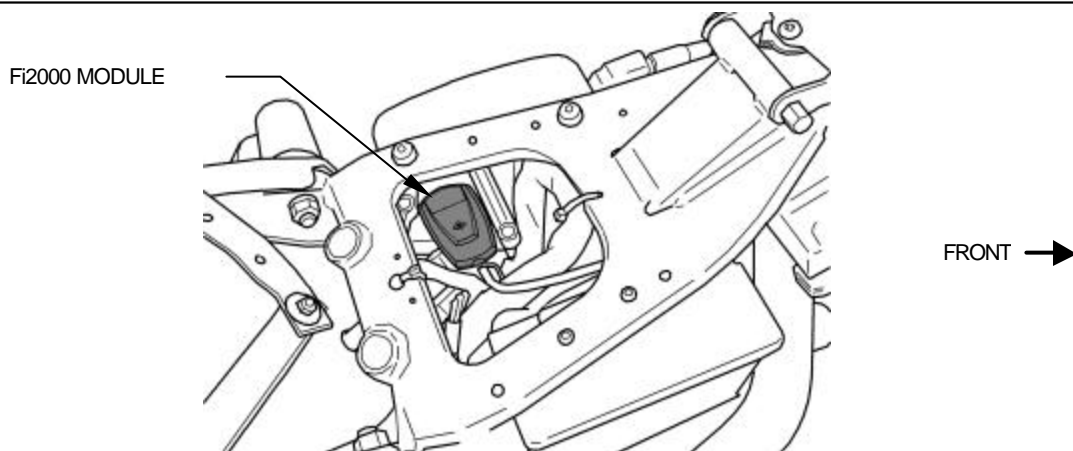
1. Remove the seat and air cleaner assembly.
2. Remove both front and rear gas tank mounting bolts.
3. Prop the rear of the gas tank up approximately 2”.
4. Locate the factory connector on each fuel injector. Depress the wire clip on the injector and pull the connector free and move it out of the way. **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 the throttle cable bracket. Make sure to use blue thread-locking compound when refitting the two 5/16” bolts and correctly position the o-ring when reattaching.
5. Lay the Fi2000 module in place, but do not attach it to the motorcycle at this time, run the wiring harness up to the manifold area behind the other wiring of the throttle body, (see Figure 1 for Softail and Figure 2 for Dyna.) Attach the Fi2000 module’s forward injector plug, with the grey and red wires to the front injector. Take the original HD connector and insert the corresponding Fi2000 connector with the brown and red wires, into it (refer to Figure 3.)
6. Attach the Fi2000 module’s rear injector plug with the blue and red wires to the rear injector. Then take the original HD connector and insert the corresponding Fi2000 connector with the green and red wires into it, (refer to Figure 3.)
7. Attach the black wire to the negative post of the battery on Softail models, (see Figure 1.) On Dyna models, route the black wire down behind the factory ECU until it appears below the coil/electrical box on the left side and attach to the upper ground lug on the frame, (see Figure 4).
8. 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.

*\* 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.*

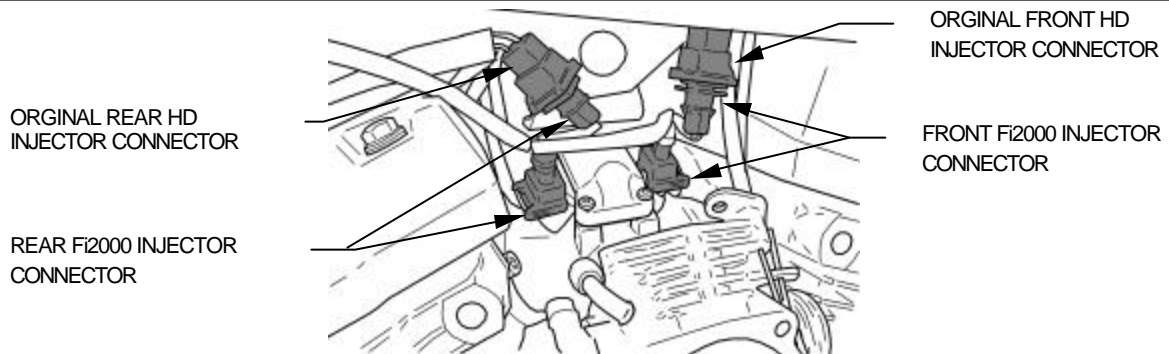
9. Route the Fi2000 wiring harness alongside the factory harness using the supplied zip ties, keeping it off the cylinder head or getting it pinched under the gas tank. Lower and re-attach the fuel tank.
10. Remove the backing from the Velcro and attach the Fi2000 as shown for Softail in Figure 1 and Dyna in Figure 2.
11. Re-install the seat and air cleaner assembly.



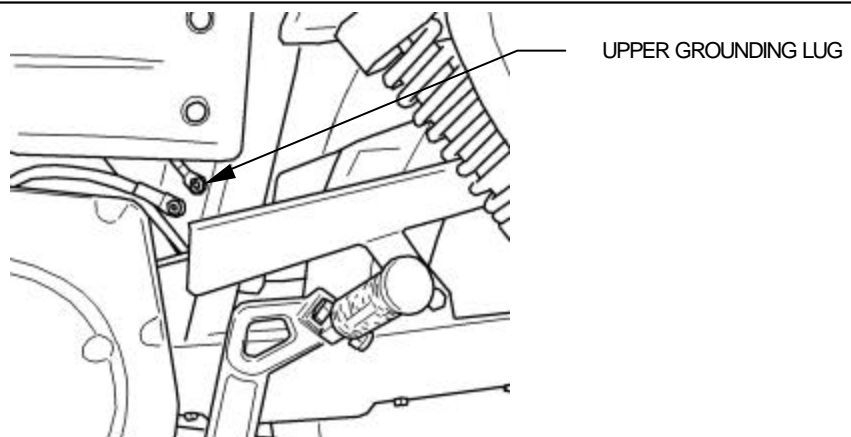
**FIGURE 1**  
(SOFTAIL 01 and 05)



**FIGURE 2**  
(DYNA 04 and 05)



**FIGURE 3**  
(SOFTAIL and DYNA w/Fi2000R installed with Air Injector Solenoid removed)



**FIGURE 4**  
(DYNA 04 and 05)

## 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.

## ADVANCED TUNING

Your Cobra Fi2000 fuel injection module has been tested and preset for best function and rideability on a stock motorcycle with a 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 5.

**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.

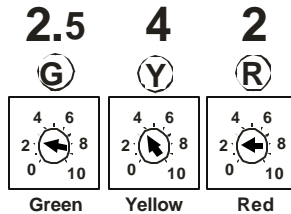
## TROUBLE SHOOTING

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

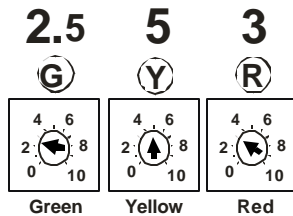
**FIGURE 5**

Fi2000 Default pot setting

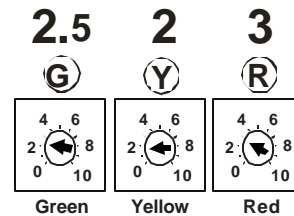
**All Stock  
No Downloads  
Default Pot Settings:**



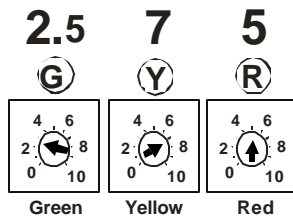
**Aftermarket Air Cleaner, Exhaust  
No Downloads \***  
Default Pot Settings:



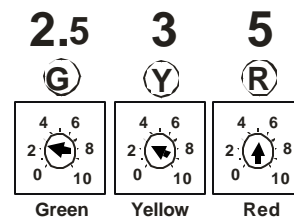
**Aftermarket Air Cleaner, Exhaust  
With #1 Download \***  
Default Pot Settings:



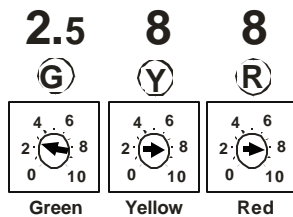
**Stage 2 Motor 95cu. In., Cam, Exhaust  
No Download \***  
Default Pot Settings:



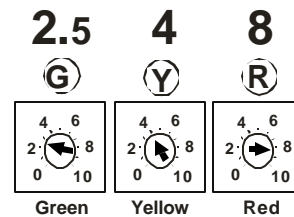
**Stage 2 Motor 95cu. In., Cam, Exhaust  
With #2 Download \***  
Default Pot Settings:



**Stage 3 Motor 80+ Hp  
No Download \***  
Default Pot Settings:



**Stage 3 Motor 80+ Hp  
With #2 Download \***  
Default Pot Settings:



\* If you have installed a '05 screamin eagle air cleaner system the pot settings will need to be set 1 position lower than shown. (Example: The green pot will need to be set at 1.5 instead of 2.5, etc...) You can identify the '05 screamin eagle air cleaner by the blue rubber rings.