

Items Supplied >

- 1 – Fi2000R Fuel Injection Module
- 2 – Zip Ties, (2): 3/32" x 6"
- 3 – Velcro Strip

Application(s) >

Kawasaki Vulcan 2000 04-10

Instruction Manual >

92-1964

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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. Before installing the Fi2000R it is recommended that the gas tank be low on fuel.

1. Remove the right side cover, passenger and main seats. Remove the triangular chrome cover on the left side of the engine by removing one Phillips screw, then pull away.
2. Underneath the triangular cover there are three electrical connectors in a row, unplug all three (*HINT*: pull prong on upper part of each connector outward with thin screwdriver), and free the wires from the bracket, see Figure 3. Next, remove the bolt (12mm head), at the rear of the fuel tank and ease the fuel tank back until it releases from the rubber attachments at the front.
3. Lift the fuel tank enough from the rear so access is gained to the fuel line quick disconnect on the left side directly behind the three connectors that were previously disconnected. The quick disconnect has orange tabs which need to be pushed halfway through the connector then the fuel line may be pulled downward and disconnected. Next, disconnect the vent line(s) at the rear of the tank and lift the fuel tank clear of the cycle. Place it safe location.
4. Temporarily position the Fi2000R on top of the battery box and route the harness forward, underneath the seat mount bracket, along the right side of the top frame tube and through the existing wire-harness securing clamps and rubber tank cushion.
5. The black vacuum hose above the cylinder heads on the right side of the cycle may need to be temporarily disconnected to gain access to the injector connectors. Locate and remove the two gray fuel injector connectors from the injectors by squeezing the locking tab and pulling. *PAY ATTENTION* to front and rear connector positions. Now, starting with the front injector, install the matching gray female Fi2000R connector, (gray connector furthest from the module) on to the injector until it locks into place, see Figure 2. Repeat this process with the rear injector and other gray female Fi2000R connector. Re-connect the original front and rear gray female Kawasaki connectors into the corresponding black male Fi2000R connectors and position the harness so it does not interfere with other hoses
6. Remove the bolt (8 mm head), from the right-side frame tube directly in front of the seat mount bracket and attach the Fi2000R ground wire, see Figure 3. Velcro the Fi2000R module onto the plastic to the rear of the shock, see Figure 2. Position the fuel tank back on cycle and reconnect the three connectors previously disconnected. Prior to installing all bolts, seats, and side covers verify your connections electronically. ---- Instructions continued to next page!

** 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.*

7. Remove the door from the Fi2000R module to expose the LED's. Verify the wire connections by, (1), turning the ignition on while watching the 3 LED's. They will all light up for a few seconds, and then go off. This is correct. If there are no lights visible, make sure the side stand is up, bike is in neutral, clutch is in and handlebar engine switch is set to run. If there are still no lights visible, re-check that all connectors are fully engaged and the ground wire is connected correctly. (2), after achieving a steady light from all three LED's, start the motorcycle; the green light should now be the only LED on. If all three LED's are still on after start up, verify the injector connectors are correctly attached. Reattach the access door when finished and install remaining components.

NOTE: Make sure the ignition is turned off before changing any connection.

ADVANCED TUNING

The Fi2000R has the ability to efficiently tune the EFI system on your motorcycle for slip-on or full exhaust systems. It comes pre-set from the factory for popular brand name slip-on mufflers. Both dyno testing and on-road exhaust gas analysis have been used to develop the best base settings for drivability and power. Not all slip-on mufflers flow exactly the same. Some eliminate power valves and others don't. Some are made with street baffles, other with race or competition baffles. Full exhaust systems offer even greater variation in construction, features and performance. The Fi2000R has the ability to tune the EFI system on your motorcycle to any of these exhausts by applying a logical and systematic approach to altering the base settings supplied with your Fi2000R. These suggestions should be followed step by step and help you achieve success.

**** Only attempt adjustments on a fully warmed motor ****

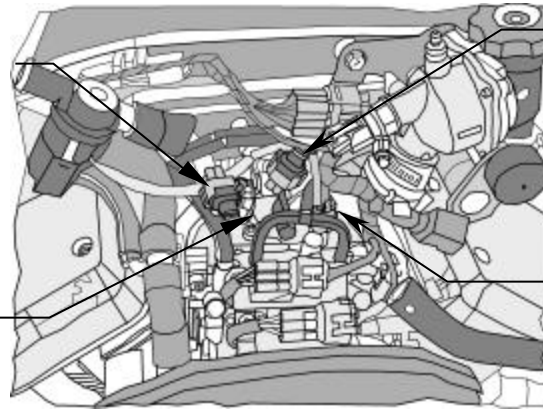
1. Start with the base setting, even if you have a full exhaust system. Adjust and test only *ONE* adjustment pot at a time until you are happy with the result, see Figure 4.
2. Start with the left hand or green light pot. This adjustment works either from idle or above idle (varies with bike) to a R.P.M. of about 5000 (also varies with bike) while the bike is driven at a steady throttle or slowly increasing throttle. This is the cruise range and is where the emissions leanness creates issues like choppy on-off throttle application, surging, and backfiring on trailing throttle.
3. Turn this pot back to zero, and make one position increases until you feel the best performance in this range. Do this test a few times to make sure you have it right.
4. The middle or yellow pot is an engine load- triggered fuel adding adjustment. A rapid increase of the throttle at any R.P.M. will add additional fuel and as long as that predetermined load is present, fuel will continue. As engine loads increase in higher gears the acceleration fuel will stay on longer and be more effective. Starting with the base setting, test ride the motorcycle in 4th or 5th gear and perform moderately fast roll-on throttle from a repeating standard R.P.M. or speed. Increase the pot one position at a time and stop as soon as you don't feel any improvement.
5. The right hand or red pot is for the fuel setting required when the engine is maximizing its R.P.M. and power delivery. This pot is similar to the main jet in a carburetor. It will take a combination of a minimum R.P.M. and a predetermined amount of engine load to initiate this fuel. The straightaway on a racetrack or an inertia dyno are the best places to set this pot. Full exhaust systems of high quality construction increase flow characteristics and will increase fuel demands over our base settings. Also, air filters specifically designed for higher than stock airflow can create need for higher fuel setting. Try an additional one-position pot setting at a time.
6. Camshaft changes can alter an engine's volumetric efficiency and create a greater demand on the engine's fuel system than the Fi2000R may have the ability to adjust for.

TROUBLE SHOOTING

If you have any problems refer to: Step 7, in the installation body of these instructions.

Original rear female harness connector for rear injector with male connector from Fi2000R harness

Fi2000R female connector to rear injector



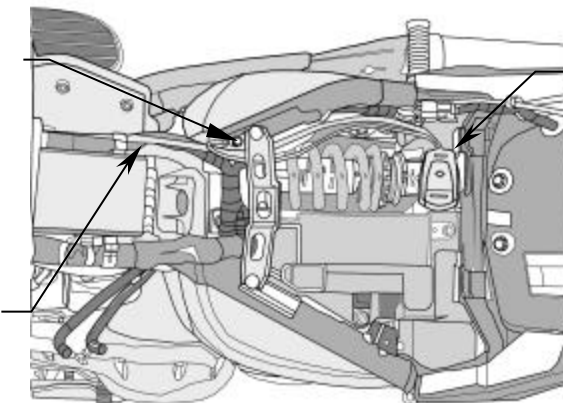
Original female harness connector for front injector with male connector from Fi2000R harness

Fi2000R female connector to front injector

FIGURE 1

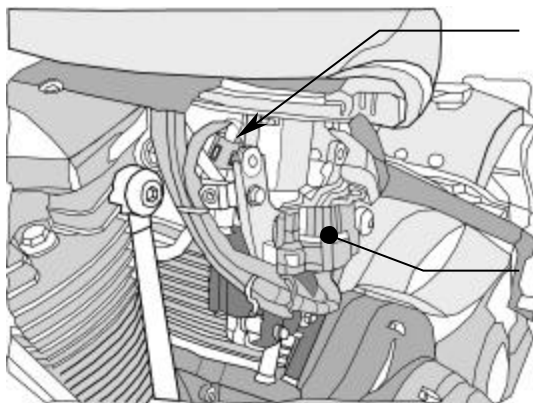
Fi2000R ground wire connected to bolt (8 mm head) in frame tube

Fi2000R harness routing along stock harness location



Fi2000R installation location with Velcro

FIGURE 2



Quick disconnect fuel fitting

Location of three connectors to be disconnected to enable tank removal

FIGURE 3

Default Pot Settings:

3.0 5 0

G

Y

R



Green

Yellow

Red

FIGURE 4