

[POWER COMMANDER V]

2014 Honda Valkyrie

Installation Instructions



PARTS LIST

- 1 Power Commander
- 1 Secondary Fuel Module
- 1 USB Cable
- 1 Installation Guide
- 2 Power Commander Decals
- 2 Dynojet Decals
- 4 Velcro strips
- 1 Alcohol swab
- 1 Posi-tap
- 1 O2 Optimizer (left)
- 1 O2 Optimizer (right)
- 1 CAN Termination plug
- 1 CAN Link Cable

THE IGNITION MUST BE TURNED OFF BEFORE INSTALLATION!

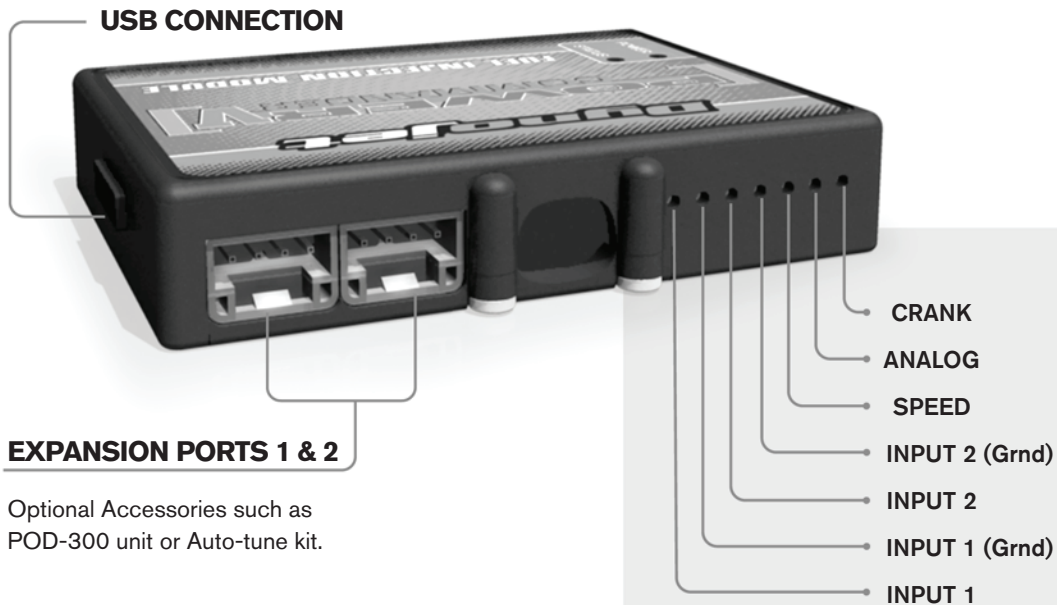
THE LATEST POWER COMMANDER SOFTWARE AND MAP FILES CAN BE DOWNLOADED FROM OUR WEB SITE AT:
www.powercommander.com

PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION

Dynojet

2191 Mendenhall Drive North Las Vegas, NV 89081 (800) 992-4993 www.powercommander.com

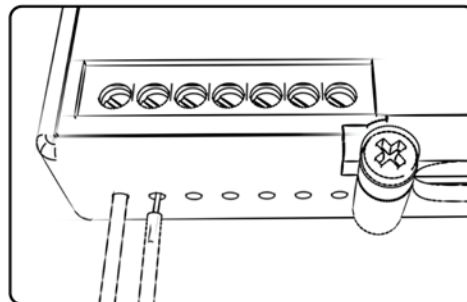
POWER COMMANDER V INPUT ACCESSORY GUIDE



Wire connections:

To input wires into the PCV first remove the rubber plug on the backside of the unit and loosen the screw for the corresponding input. Using a 22-24 gauge wire strip about 10mm from its end. Push the wire into the hole of the PCV until it stops and then tighten the screw. Make sure to reinstall the rubber plug.

NOTE: If you tin the wires with solder it will make inserting them easier.



ACCESSORY INPUTS

Map -

(Input 1 or 2) The PCV has the ability to hold 2 different base maps. You can switch on the fly between these two base maps when you hook up a switch to the MAP inputs. You can use any open/close type switch. The polarity of the wires is not important. When using the Autotune kit one position will hold a base map and the other position will let you activate the learning mode. When the switch is "CLOSED" Autotune will be activated. (Set to Switch Input #1 by default.)

Shifter-

(Input 1 or 2) These inputs are for use with the Dynojet quickshifter. Insert the wires from the Dynojet quickshifter into the SHIFTER inputs. The polarity of the wires is not important. (Set to Switch Input #2 by default.)

Speed-

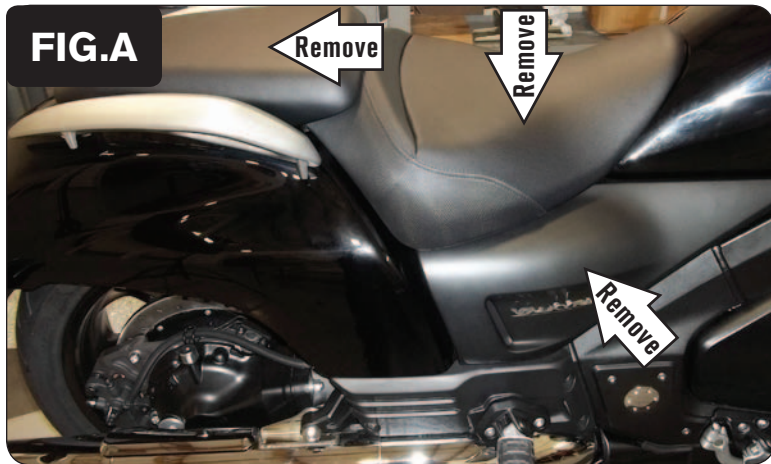
If your application has a speed sensor then you can tap into the signal side of the sensor and run a wire into this input. This will allow you to calculate gear position in the Control Center Software. Once gear position is setup you can alter your map based on gear position and setup gear dependent kill times when using a quickshifter.

Analog-

This input is for a 0-5v signal such as engine temp, boost, etc. Once this input is established you can alter your fuel curve based on this input in the control center software.

Crank-

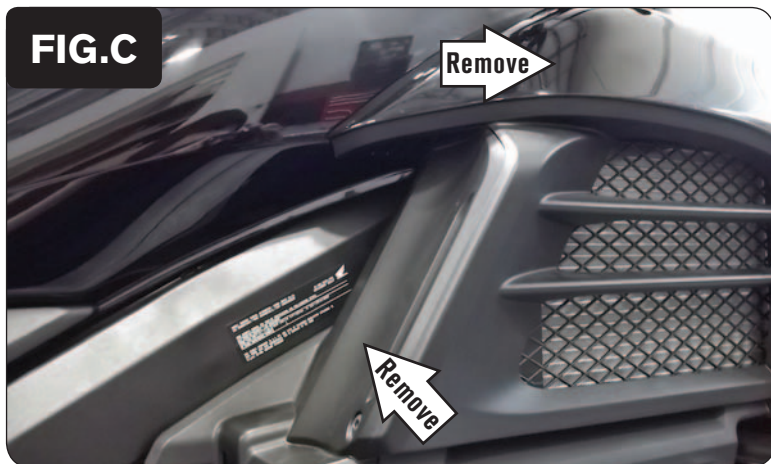
Do **NOT** connect anything to this port unless instructed to do so by Dynojet. It is used to transfer crank trigger data from one module to another.



- 1 Remove both seats.
- 2 Remove the side covers below the rider's seat on both sides of the bike (Fig. A).



- 3 Loosen the upper front cowl panel (Fig. B).

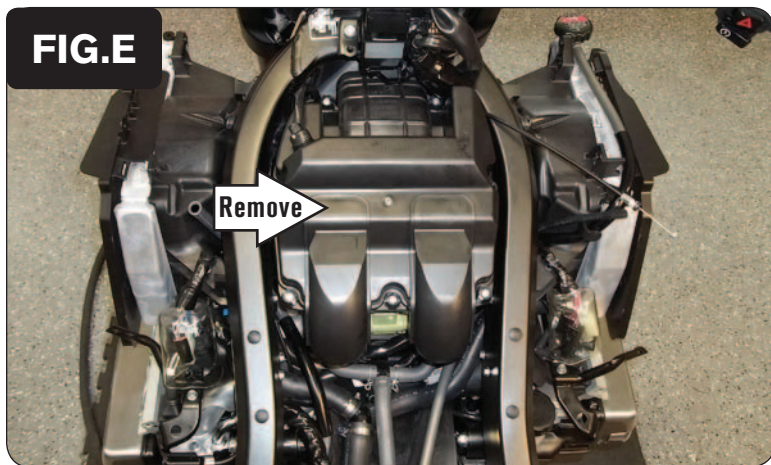


- 4 Remove the bodywork surrounding the radiators on both sides of the bike (Fig. C).

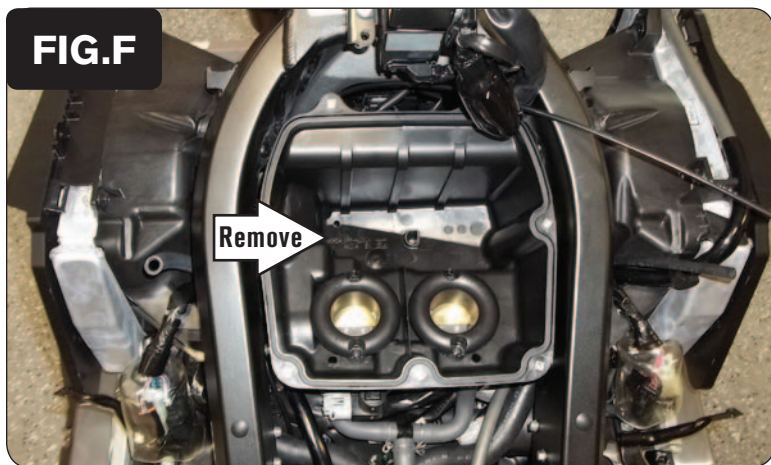
Start with the panels at the rear. Remove the single bolt. Then pop them out from the bottom. The left side will have a cable to disconnect. Then remove the 3 bolts behind those panels. Remove the stainless bolt at the top. Remove all of the push pins on the inside.



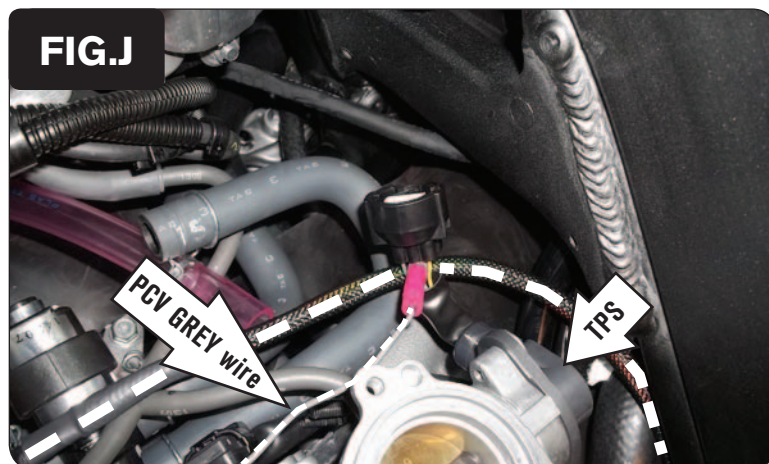
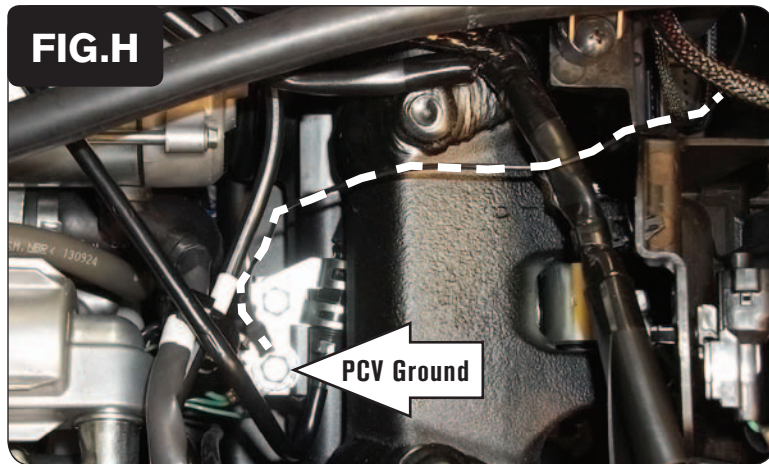
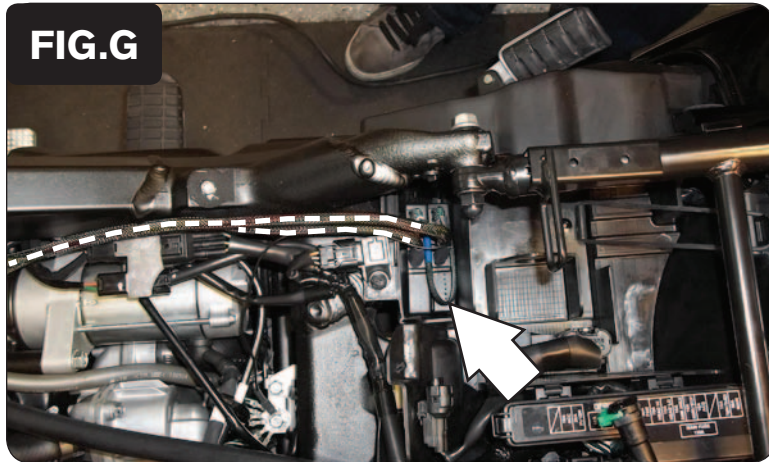
- 5 Remove the bezel surrounding the fuel filler door.
- 6 Remove the fuel filler door assembly (Fig. D).
Disconnect the cable from under the front of it.



- 7 Remove the fuel tank.
- 8 Remove the airbox lid (Fig. E).



- 9 Remove the air filter and the air box.



10 Using the supplied 6" CAN Link Cable, link an available expansion port on the PCV module to an available expansion port on the SFM module.

11 Plug the supplied CAN Termination Plug into the other expansion port on the SFM module.

This is a critical piece that is often overlooked. This is a small BLACK hard plastic electrical component. This is NOT just a rubber dust cover.

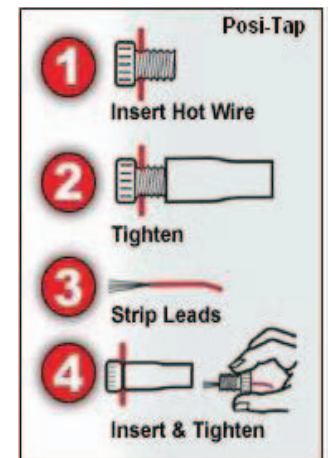
12 Store the modules in the small compartment under the seat on the right side.

13 Route both of the wiring harnesses forward along the inside of the right frame rail (Fig. G).

14 Secure the ground wire of the PCV wiring harness with the small ring lug to the common ground on the frame just rear of the engine (Fig. H).

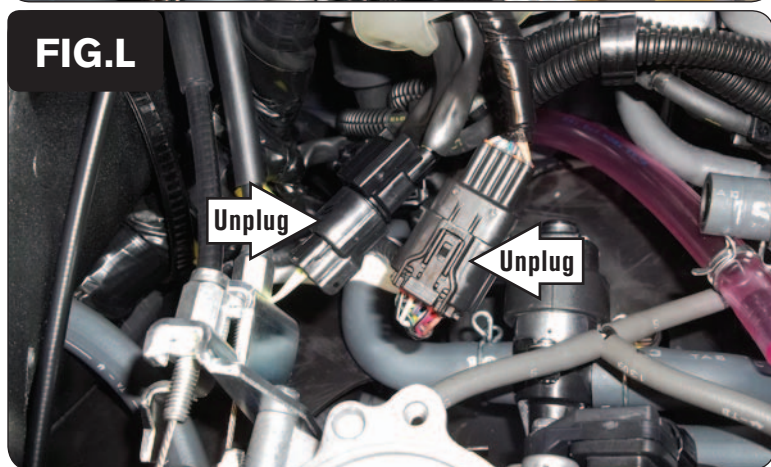
15 Unplug the stock electrical connector from the Throttle Position Sensor on the right hand side of the throttle bodies.

16 Using the supplied posi-tap, attach the single unterminated GREY wire of the PCV wiring harness to the stock LIGHT BLUE wire (middle wire) of the TPS connector (Fig. J).

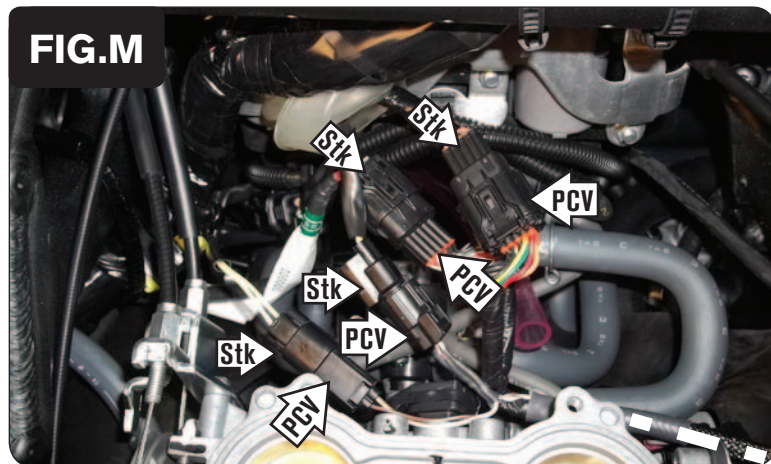




17 Plug the stock TPS connector back on to the TPS (Fig. K).



18 Inside of the CLEAR rubber boot just in front of the throttle bodies, locate and unplug the pair of BLACK 10-pin connectors for the bike's left side fuel injectors; and unplug the pair of BLACK 2-pin connectors for the bike's Crank Position Sensor (Fig. L).



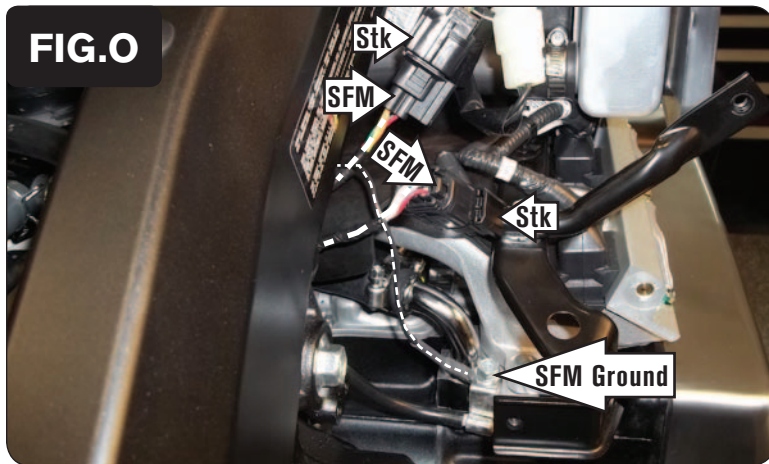
19 Plug the pair of 2-pin connectors on the PCV wiring harness in-line of the stock Crank Position Sensor connectors.

20 Plug the pair of 10-pin connectors on the PCV wiring harness in-line of the stock left side fuel injector connectors (Fig. M).

21 Store all of the connectors in this area back inside of the stock CLEAR rubber boot.



- 22 Inside of the CLEAR rubber boot just rear of the radiator on the right side of the bike, locate and unplug the stock pair of BLACK 4-pin connectors for the bike's right side fuel injectors (Fig. N).
- 23 Route the connectors on the SFM wiring harness under the frame and to this location.



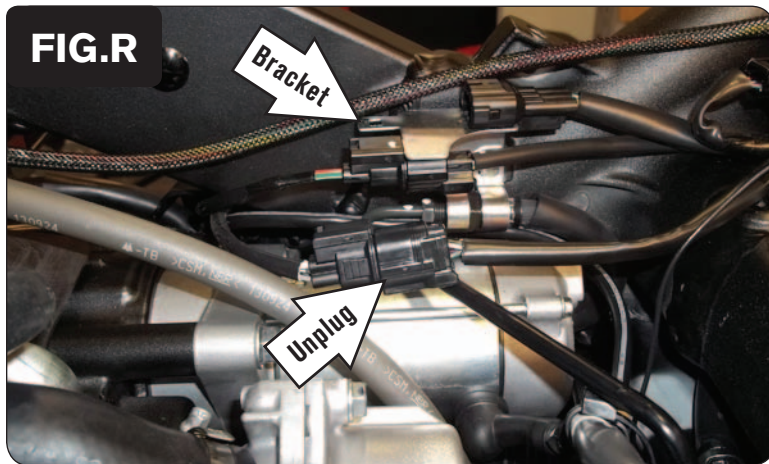
- 24 Plug pair of connectors on the SFM wiring harness in-line of the stock connectors for the right side fuel injectors.
- 25 Store the connectors back inside of the stock CLEAR rubber boot.
- 25 Secure the SFM ground wire with the small ring lug to the common ground at the rear of the right cylinder head (Fig. O).



- 26 Attached to the stock wiring harness on the left side of the bike just rear of the engine, locate and unplug the stock BLACK 4-pin connector for the left O2 sensor (Fig. P).

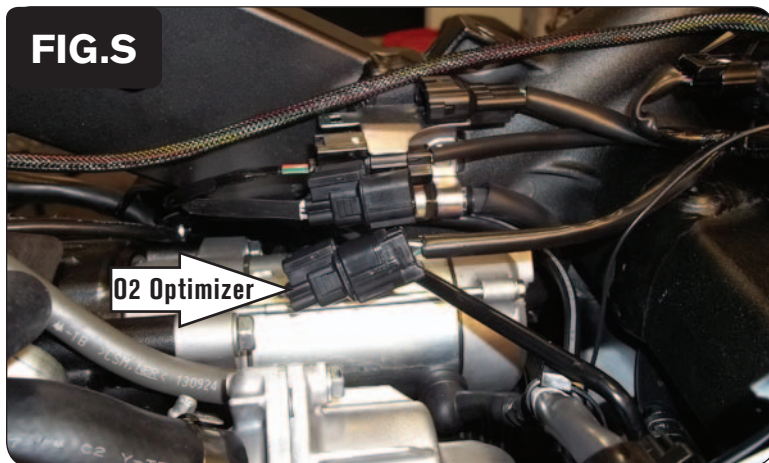


- 27 Plug the supplied Left O2 Optimizer (with the female pins) into the stock wiring harness in-place of the stock O2 sensor (Fig. Q).



- 28 On the right side of the bike just inside the frame and above the starter, locate and unplug the BLACK 4-pin connector for the right O2 sensor that is attached to the metal bracket (Fig. R).

This picture was taken with the connector removed from its mounting bracket.



- 29 Plug the supplied Right O2 Optimizer (with male pins) into the stock wiring harness in-place of the stock O2 sensor (Fig. S).

The stock O2 sensors will no longer be used. They can be removed from the exhaust if desired and if you have a way to plug the holes in the exhaust.

- 30 Reassemble the bike.

To see a video of this installation, visit our channel (DynojetResearch) on YouTube.