

## **FUEL AND IGNITION**

2015-2018 Kawasaki Vulcan S

Installation Instructions



### **PARTS LIST**

- 1 Power Commander
- 1 USB Cable
- 1 Installation Guide
- 2 Power Commander Decals
- 2 Dynojet Decals
- 2 Velcro strips
- 1 Alcohol swab

# THE IGNITION MUST BE TURNED OFF BEFORE INSTALLATION!

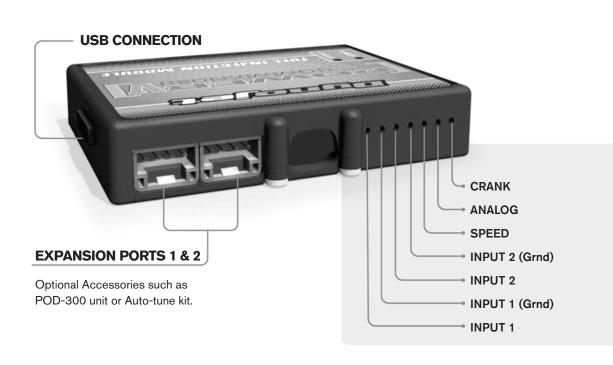
THE LATEST POWER COMMANDER
SOFTWARE AND MAP FILES CAN BE
DOWNLOADED FROM OUR WEB SITE AT:
www.powercommander.com

# PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION



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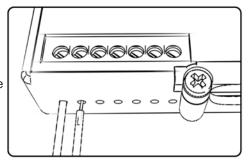
# POWER COMMANDER V INPUT ACCESSORY GUIDE



#### 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 is 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.



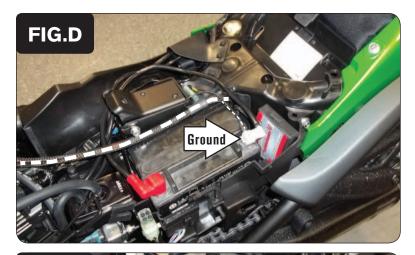
1 Remove the seat, the left side panel, the key switch cover. Remove the left and right side knee panels (Fig. A).

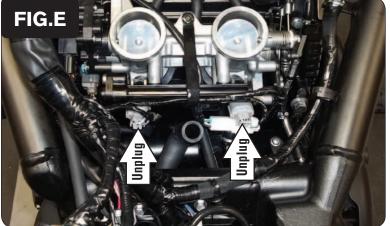


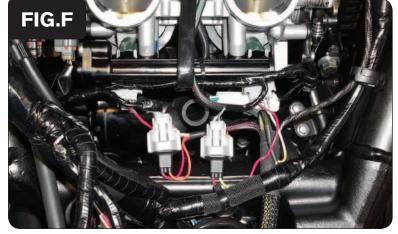
- 2 Remove the right side cover located rear of the engine. Remove the right side radiator side cover.
- 3 Remove the fuel tank (Fig. B).



Remove the ECU and loosen the stock wiring from the airbox. Remove the airbox (Fig. C).



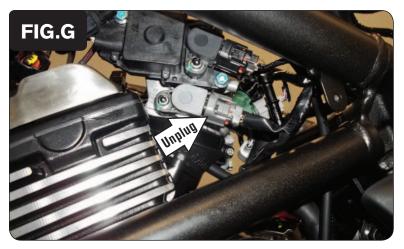




- 5 Store the PCV module under the seat, just rear of the battery (Fig. D). The supplied Velcro can be used to secure the module. Clean both surfaces with the supplied alcohol swab prior to applying the Velcro adhesive.
- 6 Secure the PCV ground wire with the small ring lug to the negative (-) terminal of the bike's battery.
- 7 Route the PCV wiring harness forward towards the engine.

8 At the rear of the throttle bodies, unplug both fuel injectors (Fig. E).

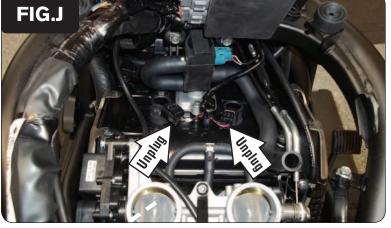
- 9 Plug the pair of PCV leads with ORANGE colored wires in-line of the LEFT fuel injector and the stock wiring harness.
- 10 Plug the pair of PCV leads with YELLOW colored wires in-line of the RIGHT fuel injector and the stock wiring harness (Fig. F).



On the left side of the throttle bodies, unplug the lower primary Throttle Position Sensor with the stock GREY connector (Fig. G).



Plug the PCV wiring harness in-line of the lower primary Throttle Position Sensor and the stock wiring harness (Fig. H).



13 Unplug the stock wiring harness from both ignition coils at the top of the engine (Fig. J).







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- Plug the pair of PCV leads with GREEN colored wires in-line of the LEFT Ignition Coil and the stock wiring harness.
- Plug the pair of PCV leads with BLUE colored wires in-line of the RIGHT Ignition Coil and the stock wiring harness (Fig. K).

Unplug the stock Crank Position Sensor connectors located on the right side of the bike near the radiator cap (Fig. L).

- Plug the pair of PCV leads with BROWN colored wires in-line of the stock Crank Position Sensor connectors (Fig. M).
- Make sure the wiring harness is free and clear of any hot or moving parts. Use wire ties to secure the wiring harness where necessary. Reinstall the airbox, the ECU, wiring harness, the fuel tank, body work, and the seat.

### **Optional inputs:**

**Speed -** PINK wire of speed sensor located behind the c/s sprocket cover

**Engine Temperature -** ORANGE wire of cylinder temp sensor

12v source for Auto-tune - RED wire of 3-pin connector for tail light - under seat