

# [POWER COMMANDER V]

**2008-2014 Yamaha Road Star**

**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
- 2 O2 Optimizers

**THE IGNITION MUST BE TURNED  
OFF BEFORE INSTALLATION!**

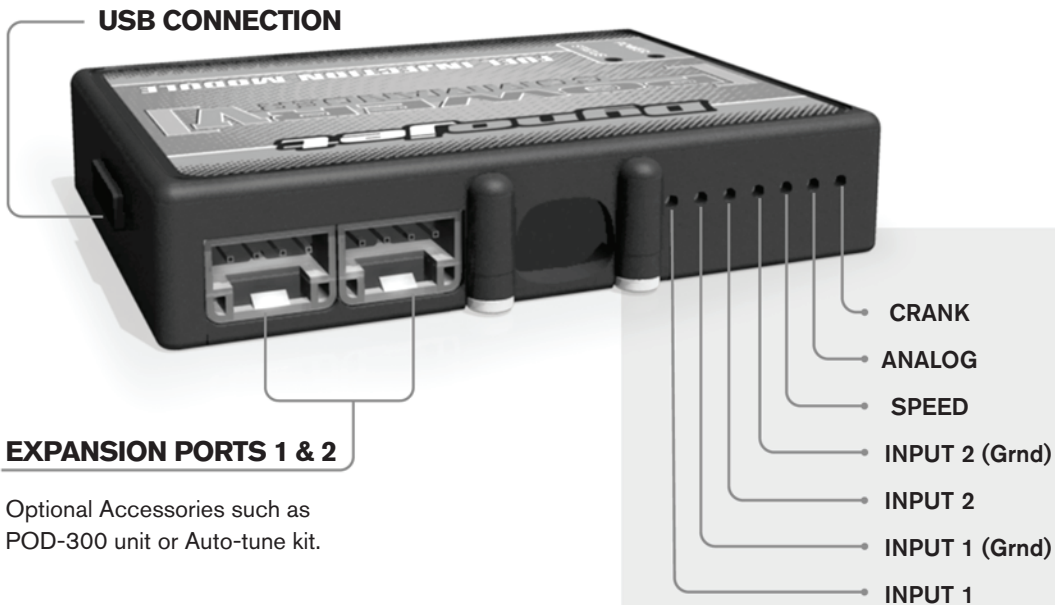
THE LATEST POWER COMMANDER  
SOFTWARE AND MAP FILES CAN BE  
DOWNLOADED FROM OUR WEB SITE AT:  
[www.powercommander.com](http://www.powercommander.com)

**PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION**

**Dynojet**

2191 Mendenhall Drive North Las Vegas, NV 89081 (800) 992-4993 [www.powercommander.com](http://www.powercommander.com)

# POWER COMMANDER V INPUT ACCESSORY GUIDE



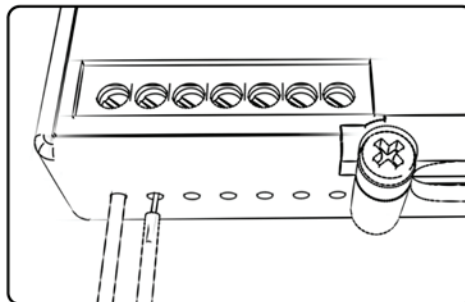
## EXPANSION PORTS 1 & 2

Optional Accessories such as POD-300 unit or Auto-tune kit.

## 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-

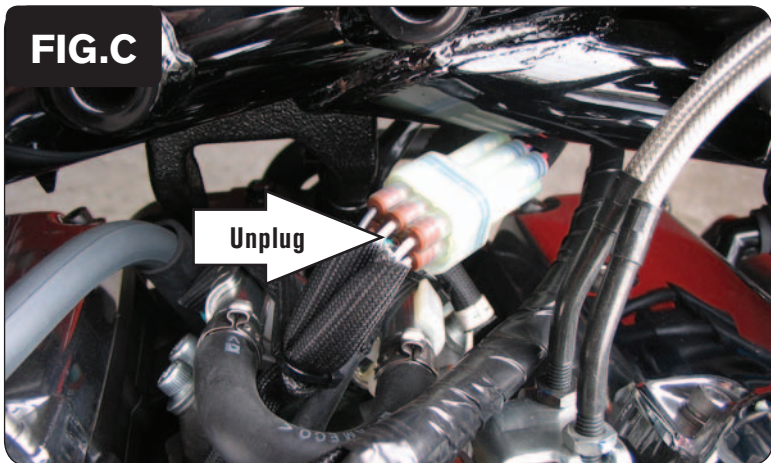
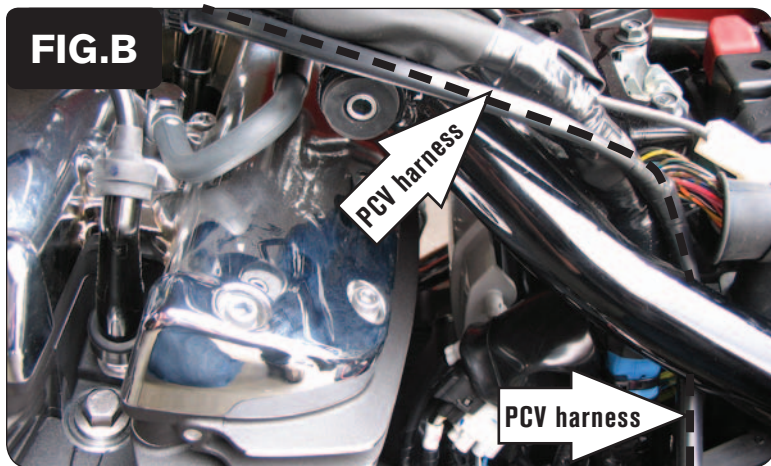
If your application has a speed sensor then you can tap into the signal side of the sensor and run a wire into this input. This will allow you to calculate gear position in the Control Center Software. Once gear position is setup you can alter your map based on gear position and setup gear dependent 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 the seat.
- 2 Remove the fuel tank.
- 3 Remove the right hand side air box (Fig. A).
- 4 Remove the left hand side cover.

- 5 Lay the PCV under the left hand side cover next to the fuse box.
- 6 Route the PCV harness behind the left hand frame tube and follow the main wiring harness towards the front of the bike (Fig. B).

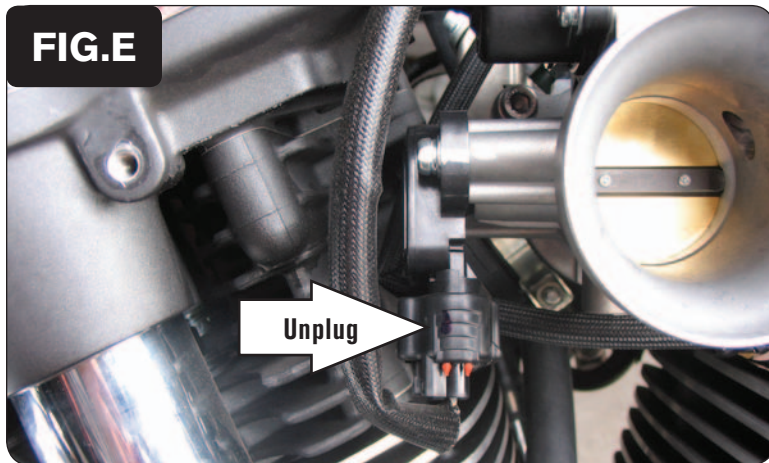
*Use the stock wire tie to secure the PCV harness in place.*

- 7 Locate the clear 6-pin connector under the main frame spar (Fig. C).  
Unplug this connector.

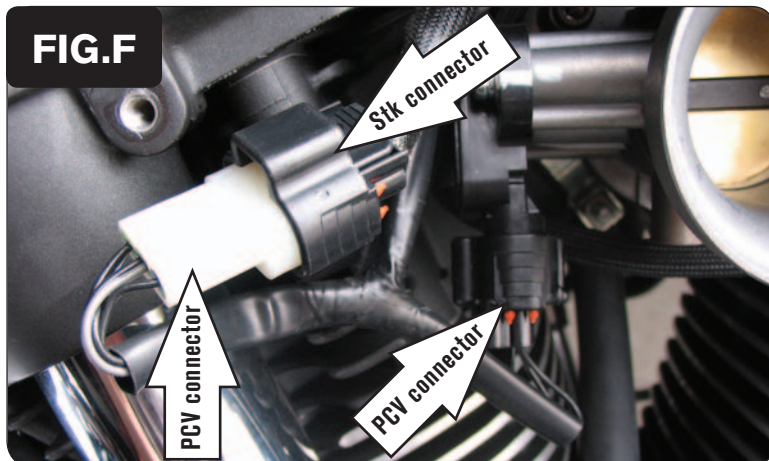




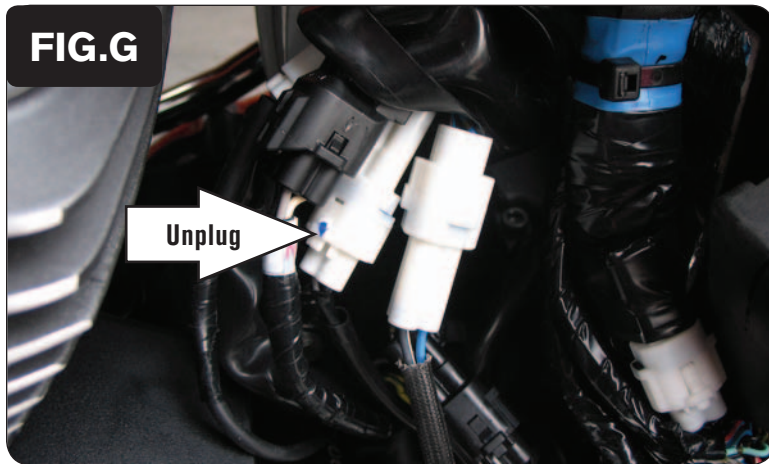
- 8 Plug the connectors from the PCV in-line of the stock wiring harness and the throttle bodies (Fig. D).



- 9 Locate the stock Throttle Position Sensor connector. This connector is on the right side of the bike to the rear of the throttle body.
- 10 Unplug this connector (Fig. E).

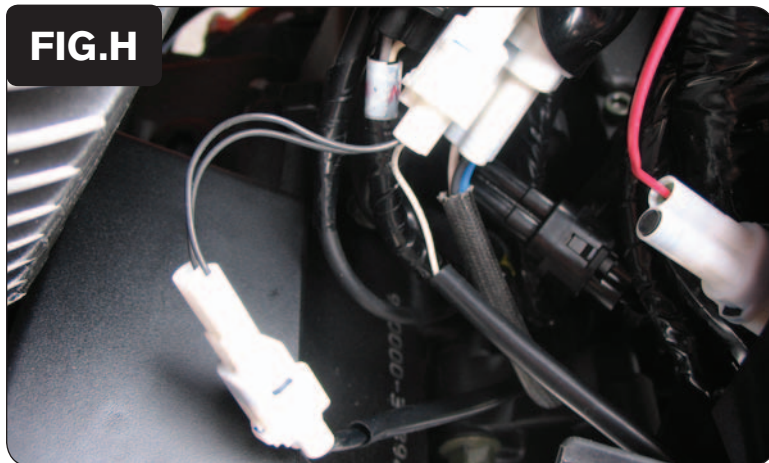


- 11 Plug the connectors from the PCV in-line of the stock TPS and stock wiring harness (Fig. F).

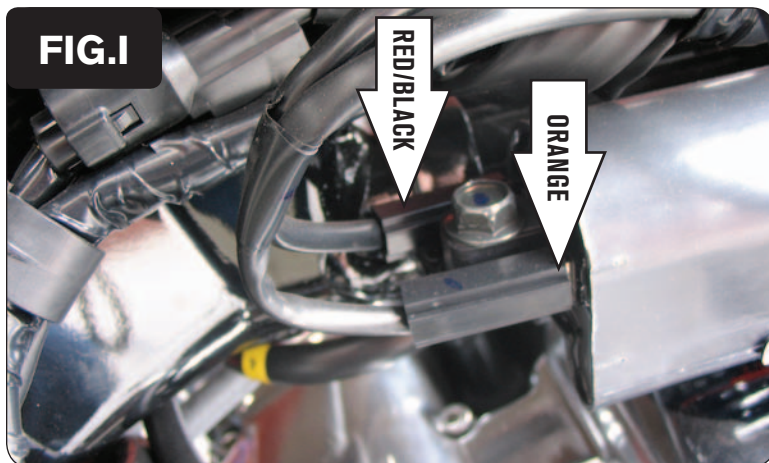


- 12 Locate the crank pickup coil connector (Fig. G). Unplug connector.

*This connector is a WHITE 2-pin connector with a GREY wire and a LIGHT GREY wire. It is located under the left hand side cover (Fig. G).*



- 13 Plug the PCV connectors in-line of the stock crank sensor connector and stock wiring harness (Fig. H)

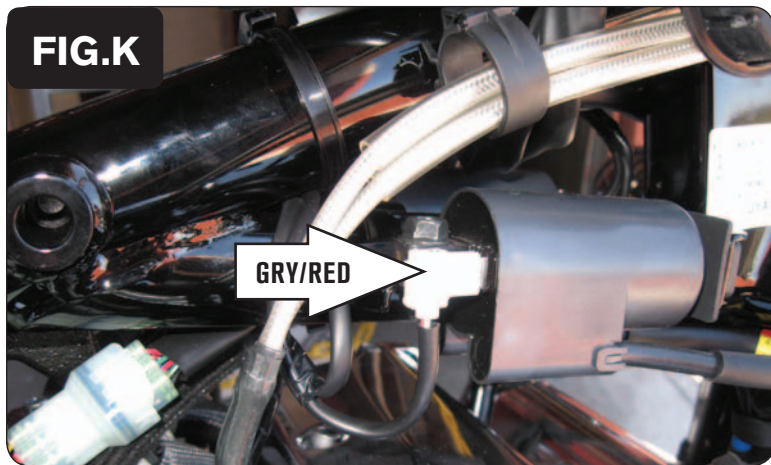


- 14 Locate the ignition coil for the rear cylinder on the left side of the frame.
- 15 Unplug the ORANGE wire of the stock wiring harness from the ignition coil.
- 16 Unplug the RED/BLACK wire of the stock wiring harness from the ignition coil (Fig. I).





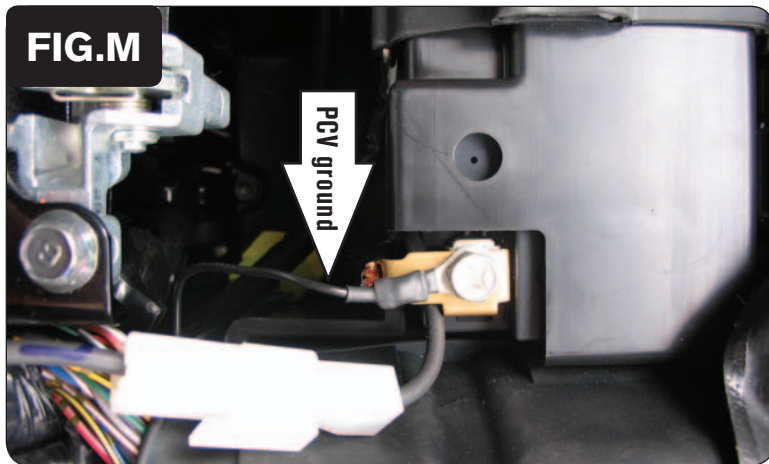
- 17 Plug the pair of BLUE colored wires of the PCV in-line of the stock ignition coil and stock ORANGE wire.
- 18 Plug the pair of RED colored wires of the PCV in-line of the stock ignition coil and the stock RED/BLACK wire (Fig. J).



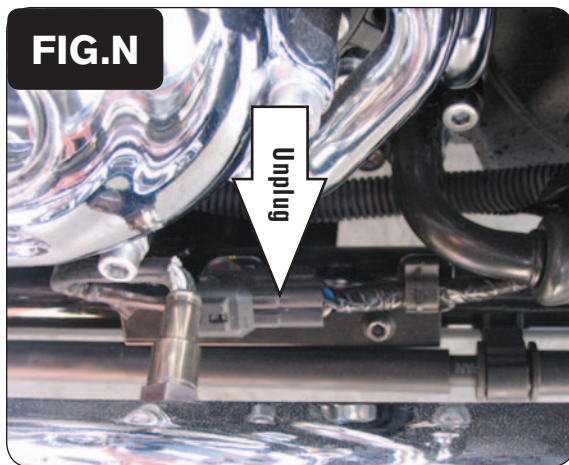
- 19 Locate the ignition coil for the front cylinder on the right side of the frame.
- 20 Unplug the GREY/RED wire from the ignition coil (Fig. K).



- 21 Plug the pair of GREEN colored wires from the PCV in-line of the ignition coil and the stock GREY/RED wire (Fig. L).



- 22 Attach the ground wire from the PCV to the negative side of the battery (Fig. M).



- 23 Unplug the O2 sensor from the front exhaust pipe (Fig. N).
- 24 Unplug the O2 sensor from the rear exhaust pipe (Fig. O). This connection is located under the right hand side cover.
- 25 Plug the Dynojet O2 Optimizers into the stock wiring harness in place of the stock sensors.

*The stock O2 sensors will no longer be connected to anything. They can be removed from the exhaust if you have a way to plug the hole.*



- 26 Secure the PCV under the left hand side cover using the supplied Velcro (Fig. P).

*Clean both surfaces with the supplied alcohol swab prior to applying the Velcro adhesive.*

#### Optional inputs:

**Speed input** - WHITE wire of WHITE 3-pin connector behind the left side cover (WHT-BLU-BLK)

**12v source for Auto-tune** - BLUE wire in 6-pin connector for tail light. Under seat to the left of the tool kit.