

# [POWER COMMANDER V]

## FUEL AND IGNITION

**2016 Harley Davidson 110 cu.in. Dyna 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
- 2 Zip ties
- 1 O2 Optimizer front
- 1 O2 Optimizer rear

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

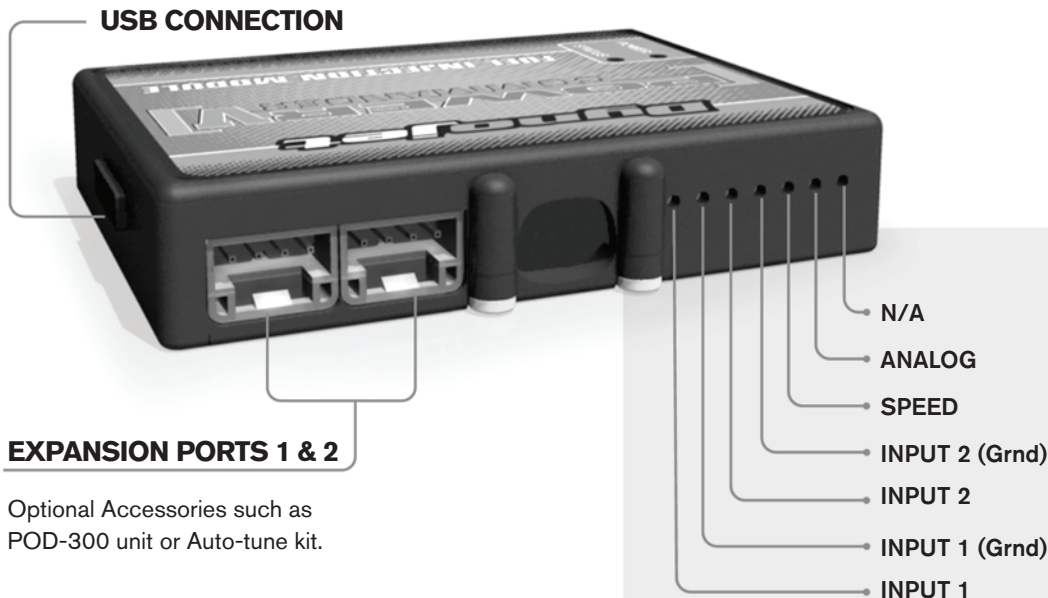
THE LATEST POWER COMMANDER  
SOFTWARE AND MAP FILES CAN BE  
DOWNLOADED FROM OUR WEB SITE AT:  
[www.powercommander.com](http://www.powercommander.com)

**PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION**

**Dynojet**

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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 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) Used for clutch-less full throttle upshifts. Insert the wires from the Dynojet quickshifter into either INPUT 1 or INPUT 2. The polarity of the wires is not important. (Set to Switch Input #2 by default.)

### Speed-

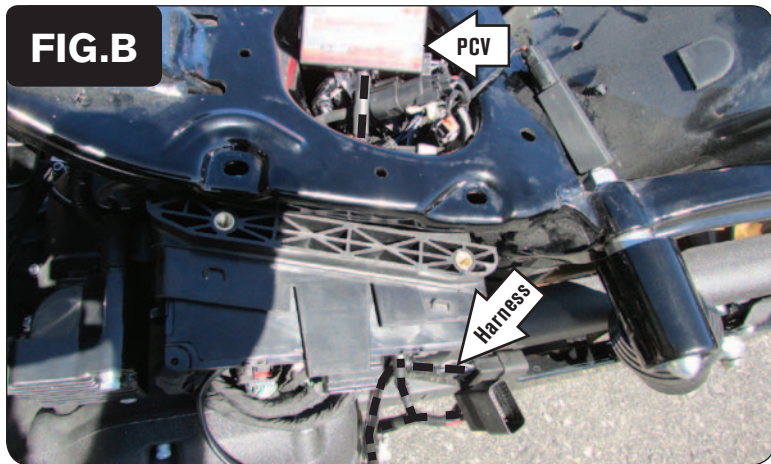
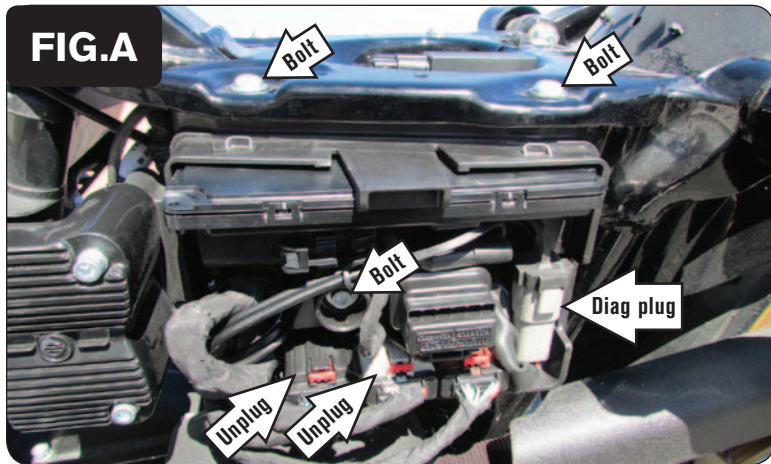
Not needed on Harley applications as the speed signal wire is built into the main wiring harness of the PCV.

### Analog-

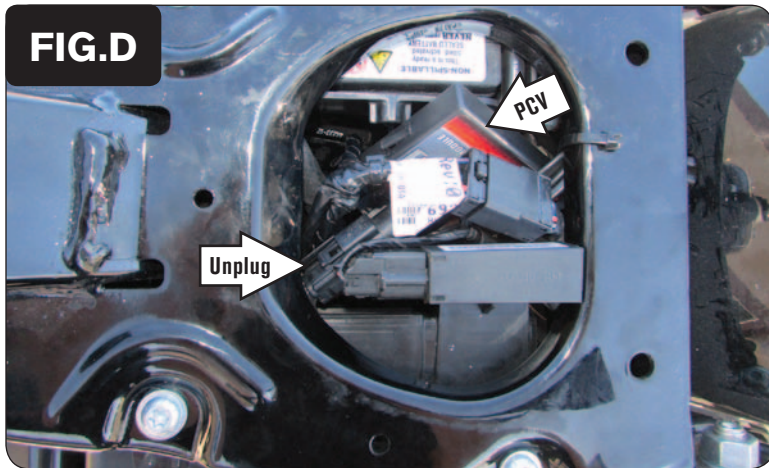
This input is for a 0-5v signal such as engine temp, boost, etc. Once this input is established you can alter your fuel curve based on this input in the control center software.

### Launch-

You can connect a wire to either input 1 or 2 and then the other end to a switch. This switch when engaged (continuity) will only allow the RPM to be raised to a certain limit (Set in the software). When released you will have full RPM.



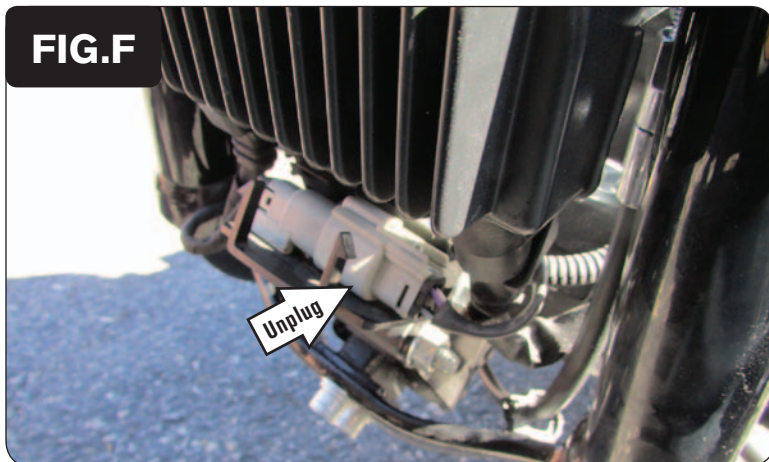
- 1 Remove the seat.
- 2 Remove the left hand side cover.
- 3 Unplug the stock BLACK and GREY connectors from the ECU (Fig. A).
- 4 Loosen the electrical box by removing the two bolts at the top and the 1 bolt through the side.
- 5 Route the PCV wiring harness from the hole in the frame under the seat, through the top of the electrical box into the left side cover area (Fig. B).
- 6 Plug the PCV wiring harness in-line of the ECU and the stock BLACK and GREY connectors (Fig. C).  
*These connectors are indexed such that the PCV can not be plugged in incorrectly.*
- 7 Resecure the electrical box by reinstalling the three bolts removed in step 4.
- 8 Use the zip ties to secure the extra connectors and PCV wiring harness as close to the electrical box as possible.  
*This will help the cover to go back on.*



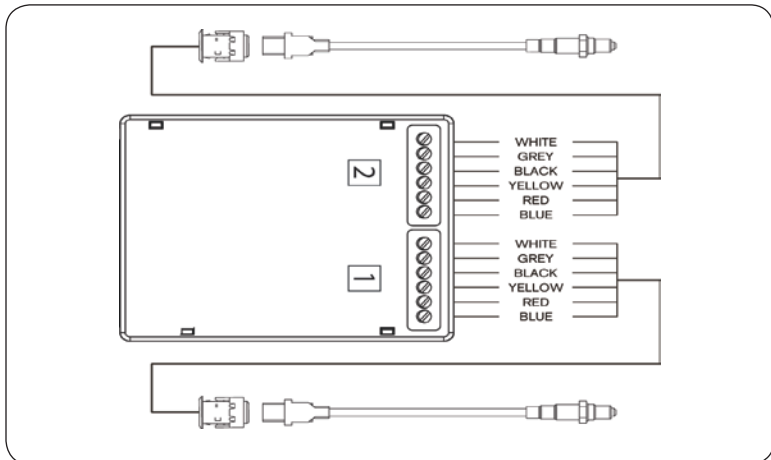
- 9 Store the PCV module below the seat in the hole of the frame.
- 10 Unplug the rear stock O2 sensor from the stock wiring harness (Fig. D).  
*This connector can be found in the same location.*



- 11 Plug the Dynojet O2 Optimizer (BLACK) into the stock wiring harness (Fig. E).  
*There is a BLACK Optimizer and a WHITE Optimizer in the kit. They are indexed so they can NOT be connected incorrectly.*



- 12 Unplug the front stock O2 sensor from the stock wiring harness (Fig. F).  
*This connector pair is located below the regulator/rectifier at the front of the engine.*



- 13 Plug the Dynojet O2 Optimizer (WHITE) into the stock wiring harness (Fig. G).

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

**IF INSTALLING THE AUTO-TUNE KIT FOLLOW THESE STEPS:**

- 14 Install the O2 sensors into the exhaust (see Auto-tune install guide).
- 15 Plug the wiring harnesses from the kit into each sensor and route the wires into the backside of the left box assembly (Fig. H).
- 16 Connect the CAN cable to the Auto-tune module.
- 17 Connect the wires from the O2 sensors into the Auto-tune module.  
*Make sure to wire the front O2 sensor into #1.*
- 18 Route the CAN cable up to the PCV and connect into one of the ports.
- 19 Connect the power harness from the Auto-tune to the diagnostic port.
- 20 Slide the Auto-tune module into the cavity below the Body Control Module.
- 21 Reinstall side cover and seat.