

# [POWER COMMANDER V]

**2007 Harley Davidson Touring Models**

**Installation Instructions**



## **PARTS LIST**

- 1 Power Commander
- 1 USB Cable
- 1 CD-ROM
- 1 Installation Guide
- 2 Power Commander Decals
- 2 Dynojet Decals
- 2 Zip-ties
- 2 O2 Eliminators

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

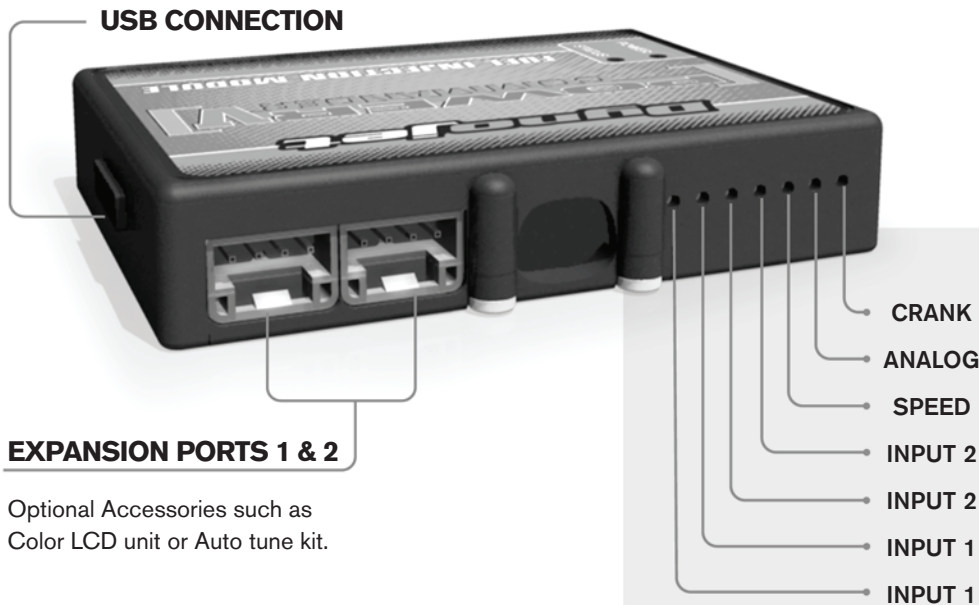
YOU CAN ALSO DOWNLOAD THE  
POWER COMMANDER SOFTWARE AND  
LATEST MAPS FROM OUR WEB SITE AT:  
[www.powercommander.com](http://www.powercommander.com)

**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.

### 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.

### Speed-

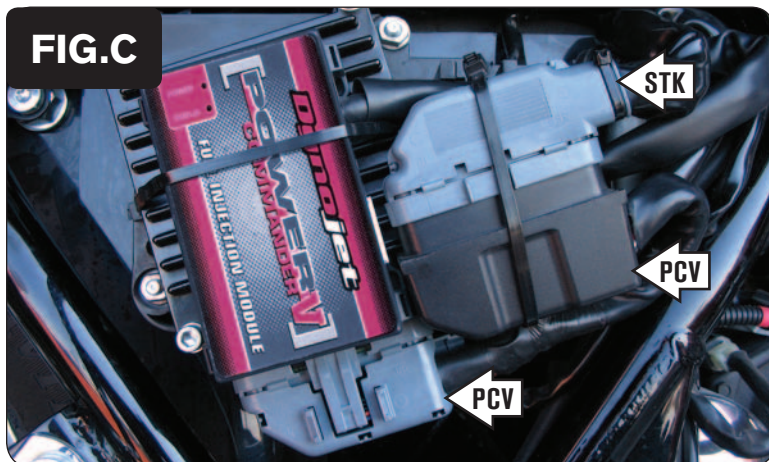
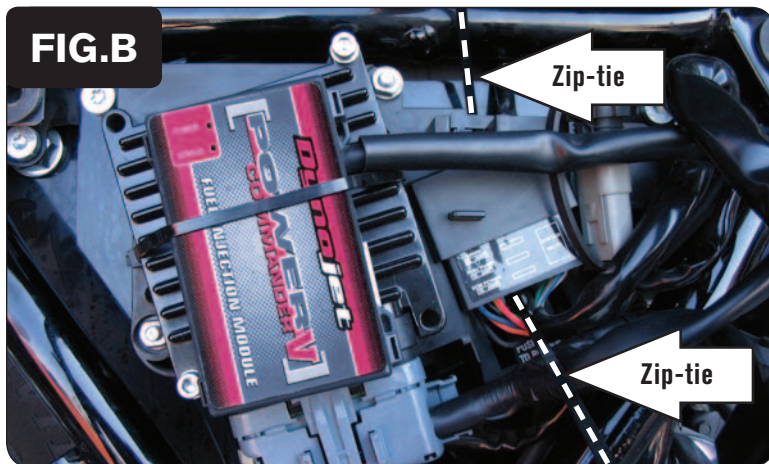
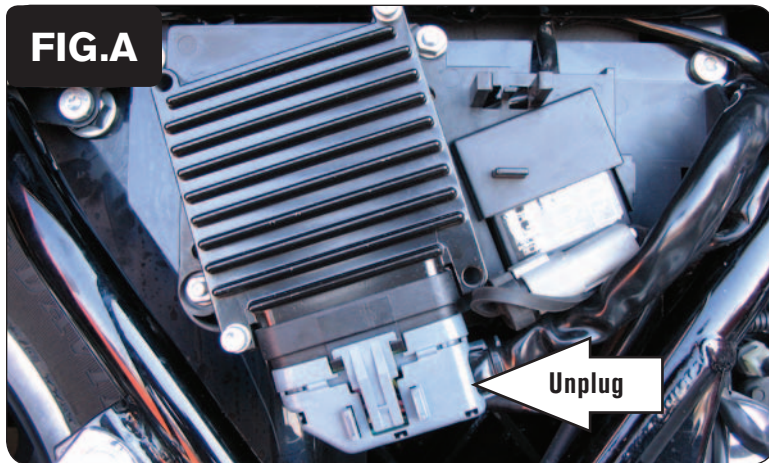
If your application has a speed sensor then you can tap into the signal side of the sensor and run a wire into this input. This will allow you to calculate gear position in the Control Center Software. Once gear position is setup you can alter your map based on gear position and setup gear dependent kill times when using a quickshifter. NOTE: Harley Davidson models have this feature enabled internally - do NOT use this input for HD models.

### 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.

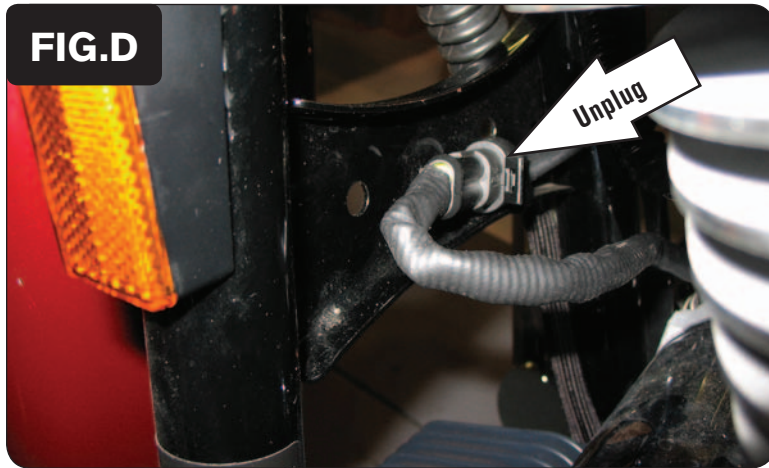
### Crank-

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 right hand side-cover.
- 2 Unplug the stock wiring harness from the ECM (Fig. A).
- 3 Attach the PCV to the front of the ECM, using the supplied zip-tie. Route the zip-tie behind the ECM.
- 4 Route a second zip-tie behind the relay assembly (Fig. B).
- 5 Plug the stock wiring harness into the BLACK connector of the PCV wiring harness.
- 6 Plug the GREY connector from the PCV wiring harness onto the stock ECM.
- 7 Secure the connectors in place using the zip-tie (Fig. C).
- 8 Reinstall the side cover.

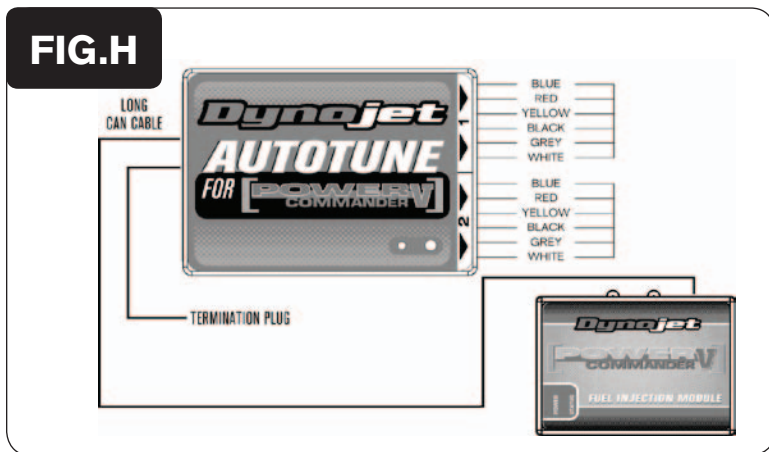
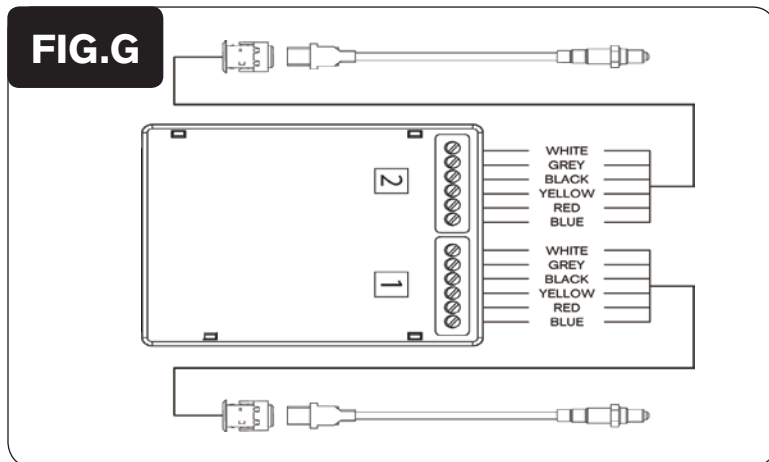
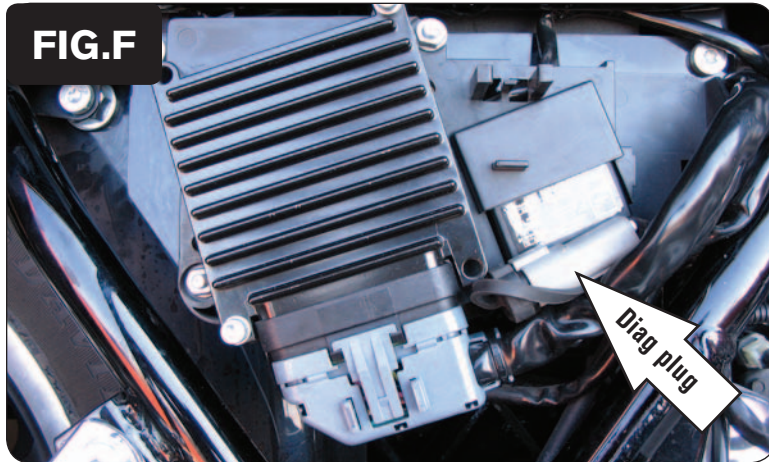




- 9 Disconnect the Front O2 sensor from the main wiring harness (Fig. D).  
*This connection is located on the frame forward of the front cylinder.*
- 10 Plug one of the Dynojet O2 eliminators into the stock wiring harness, in-place of the stock O2 sensor.



- 11 Disconnect the Rear O2 sensor from the main wiring harness (Fig. E).  
*This connection is located near the oil fill plug.*
- 12 Plug the other Dynojet O2 eliminator into the stock wiring harness, in-place of the stock O2 sensor.  
  
*The stock o2 sensors will no longer be used. They can be removed from the exhaust, if desired.*



**Follow these instructions when using the Auto-tune kit - (PN: AT-100)**

- 1 Install the wideband O2 sensors provided in the Auto-tune kit into the front and rear exhaust head pipes, using the existing bungs for the stock o2 sensors.
- 2 Remove the seat and the right hand side cover.
- 3 Remove the rubber plug for the stock diagnostic plug. Plug the power lead from the Autotune module into the diagnostic plug (Fig. F).
- 4 Using the supplied Velcro, install the Auto-tune module on top of the PCV module.

*Make sure the Velcro does not cover the designation of the sensor inputs on the back (#1 or #2). The inputs are coded to the front and rear cylinders.*

- 5 Connect the longer harness to the front O2 sensor. Route the harness along the front down tube and along the backbone of the frame to Autotune input #1. Wire the harness to the module per Figure G.

*The harness can be cut to length if desired.*

- 6 Repeat step 5 for the rear cylinder. Wire the harness to Autotune input #2.

*The harness can be cut to length if desired.*

- 7 Use the CAN bus cable to connect the Autotune module to the PCV. It does not matter what ports are used.

- 8 Install the CAN termination plug into the open port of the Autotune module. ***This is the BLACK plastic connector in the kit.***

- 9 Secure the harnesses in place as to not contact the exhaust or any other hot or moving parts.

- 10 Reinstall the seat and right hand side cover.

*From the PCV software, go to "Power Commander Tools" -> "Configure" -> "Features, Enables, and Input Selections" to enable the Auto-tune feature.*

Go to [www.powercommander.com](http://www.powercommander.com) for maps and software updates.