

[POWER COMMANDER V]

2009 Harley Davidson V-rod 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 Velcro® Strip
- 1 Alcohol Swab
- 2 O2 eliminators

**The ignition MUST be turned
OFF before installation!**

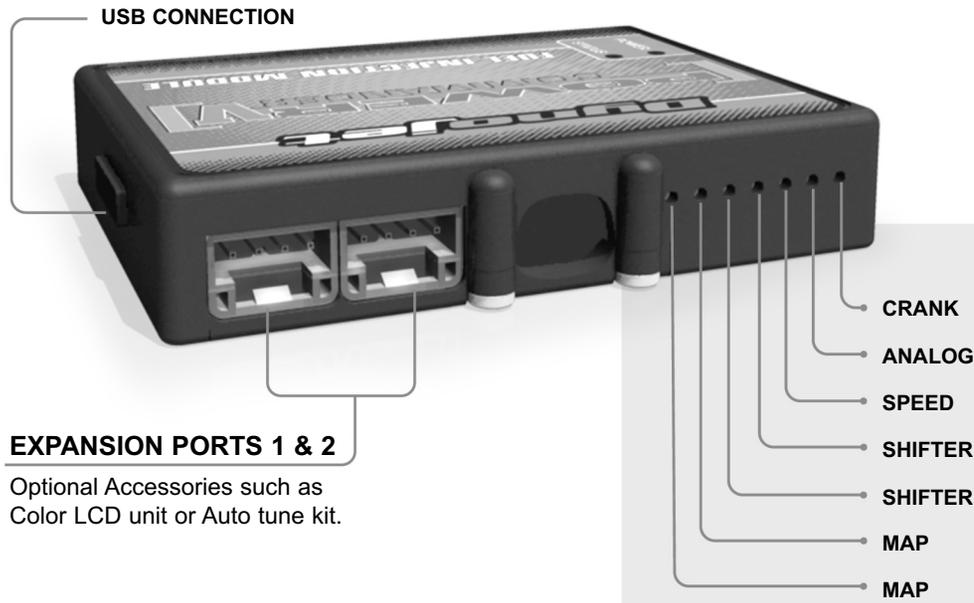
YOU CAN ALSO DOWNLOAD THE
POWER COMMANDER SOFTWARE AND
LATEST MAPS FROM OUR WEB SITE AT:
WWW.POWERCOMMANDER.COM

PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION

Dynojet

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POWER COMMANDER V INPUT ACCESSORY GUIDE



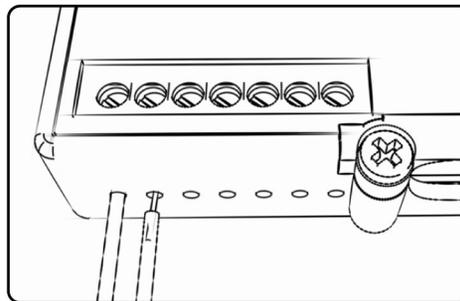
EXPANSION PORTS 1 & 2

Optional Accessories such as Color LCD 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: It may help to tin the wire with solder before inserting



ACCESSORY INPUTS

Map -

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 switch is "CLOSED" Autotune will be activated.

Shifter-

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-

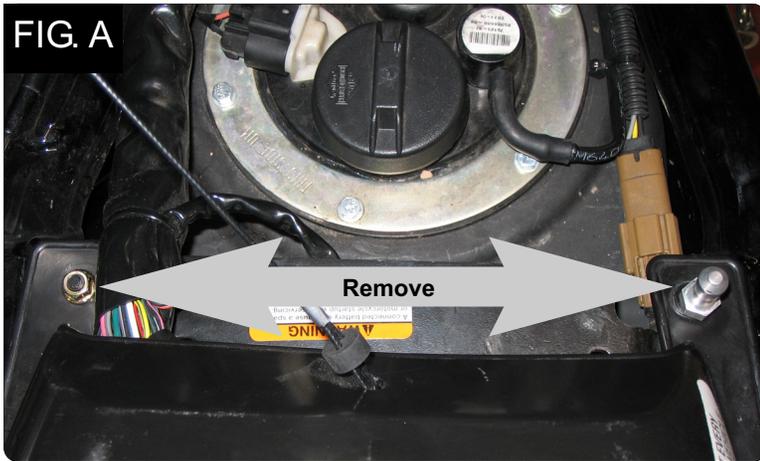
If your application has a speed sensor then you can tap into the signal side of the sensor and run a wire into the SPEED input. This will allow you to calculate gear position in the Control Center Software. Once gear position is setup you can alter your map based on gear position and setup gear dependent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

Analog-

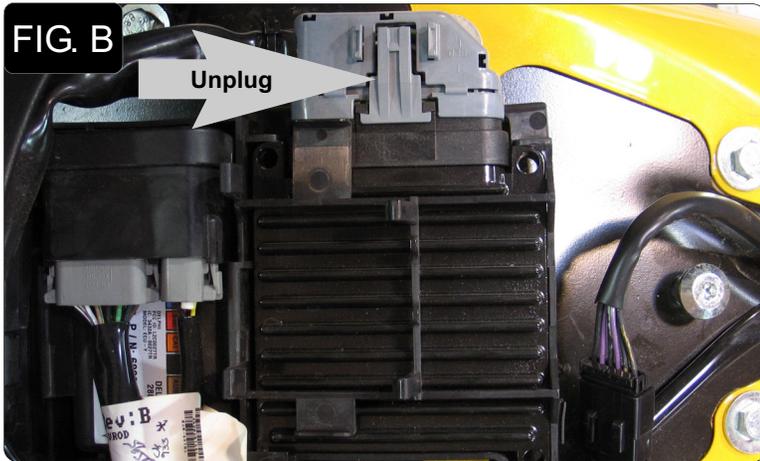
This input is for a 0-5v signal such as engine temp, boost, etc. Once this input is established you can alter your fuel curve based on this input in the control center software.

Crank-

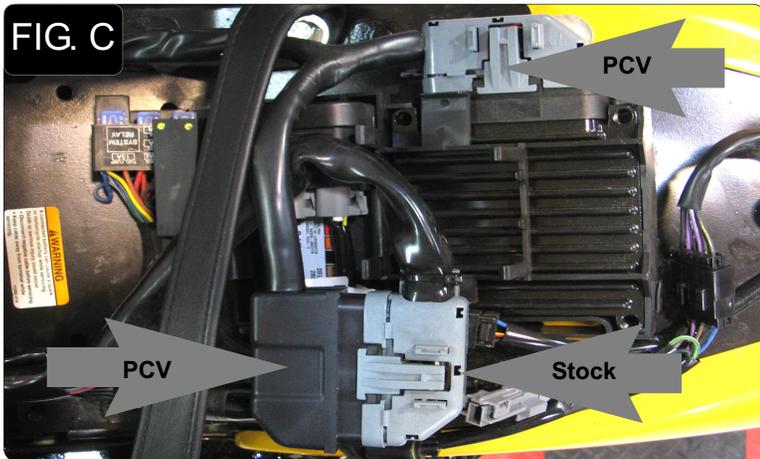
Do **NOT** connect anything to this port unless instructed to do so by Dynojet. It is used to transfer crank trigger data from one module to another.



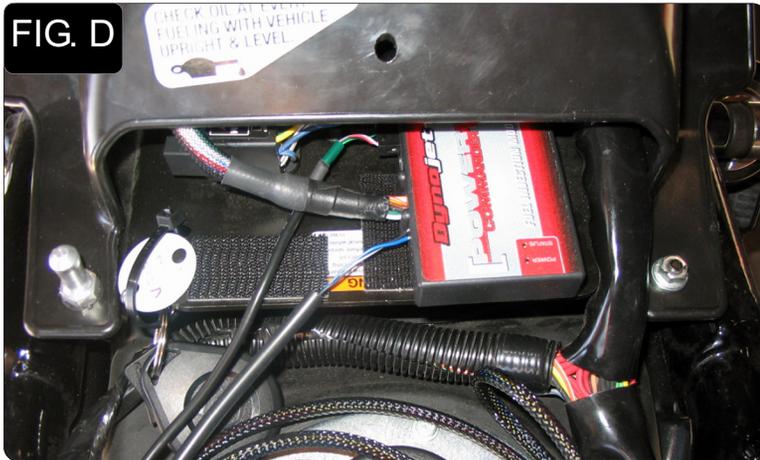
- 1 Open the main seat compartment.
- 2 Remove the rear seat by removing the two nuts (Fig. A).



- 3 Unplug the stock wiring harness from the ECM (Fig. B).

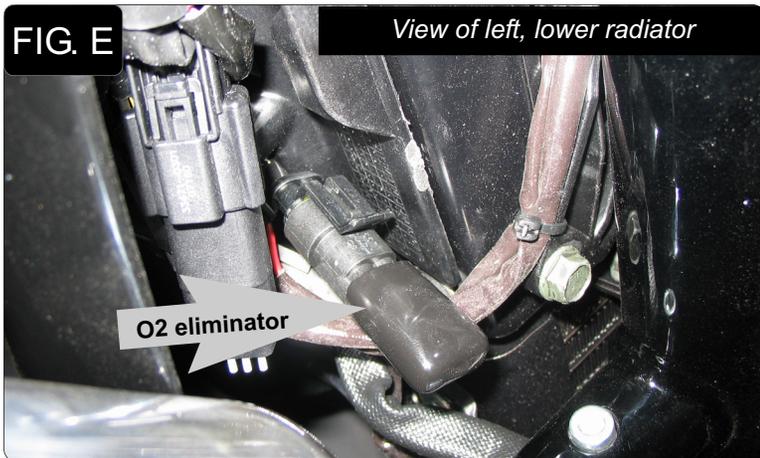


- 4 Connect the PCV wiring harness in-line of the stock harness and ECM (Fig. C)



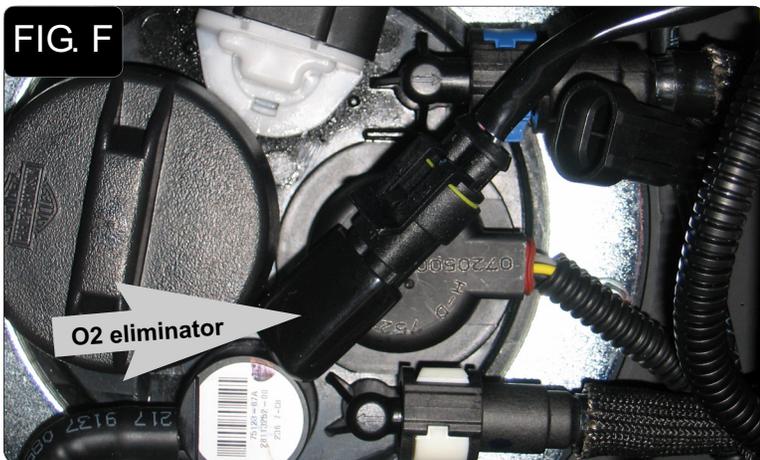
- 5 Install the PCV near the fuse box (Fig. D).

Use the supplied velcro to secure the PCV in place. Make sure to clean both surfaces with the alcohol swab before attaching.



- 6 Locate the front O2 sensor connection (Fig. E). To locate this connection you will need to remove the bolt for the left hand side radiator cover and pull outwards.
- 7 Unplug the stock O2 sensor from the main wiring harness and connect the Dynojet O2 eliminator in place of. The stock O2 sensor will not be connected to anything at this time.

If using the Autotune kit remove the stock O2 sensor from the exhaust and install the Dynojet O2 sensor in its place.



- 8 Locate the rear O2 sensor connection (Fig. F). This connection is under the main seat near the fuel tank.
- 9 Unplug the stock O2 sensor from the main wiring harness and connect the Dynojet O2 eliminator in place of. The stock O2 sensor will not be connected to anything at this time.

If using the Autotune kit remove the stock O2 sensor from the exhaust and install the Dynojet O2 sensor in its place.

- 10 Reinstall seats.

FIG. G



FIG. H

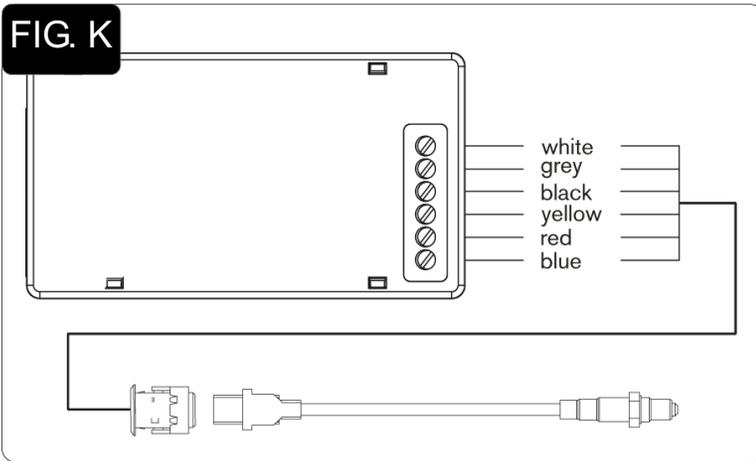


FIG. J

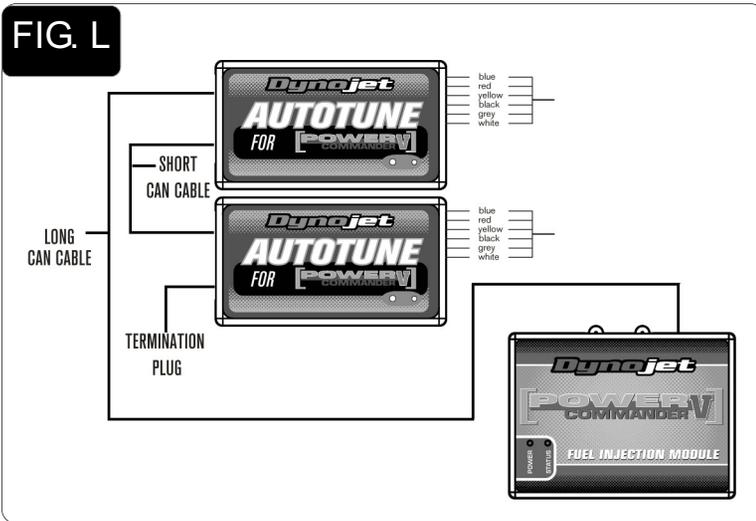


Follow these instructions when installing the Autotune kit (part #AT-100)

- 1 Lift the main seat up. Remove the cosmetic cover over the air box.
- 2 Using the supplied velcro install the Autotune modules as shown in Figure G. **Make sure the velcro does not cover the designation of the unit on the back (AT #1 or AT#2). The modules are coded to the front and rear cylinders.**
- 3 Remove the right hand side cover by the steering stem (Fig. H).
- 4 Remove the rubber plug for the diagnostic connector. Using the special V-rod extension lead plug one end of the lead into the stock diagnostic connector (Fig. J).
- 5 Route the Autotune harness along the right side of the airbox and plug the other end into the Autotune kit.

FIG. K

- 6 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 module AT#1. Wire the harness to the module per Figure K. The harness can be cut to length if desired.
- 7 Repeat step 4 for the rear cylinder. Wire the harness to Autotune Module AT#2. The harness can be cut to length if desired.

FIG. L

- 8 Use the short CAN bus cable to connect one Autotune module to the other. It does not matter what ports are used.
- 9 Use the longer CAN bus cable to connect one of the Autotune modules to the PCV. It does not matter what ports are used.
- 10 Install the CAN termination plug into the open port of the Autotune module.
- 11 Secure the harnesses in place as to not contact the exhaust.
- 12 Reinstall the side cover.

Go to www.powercommander.com for maps and software updates.