

# [POWER COMMANDER V]

## **2009 Harley Davidson XR1200**

### **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                 |
| 1 | Alcohol swab           |
| 2 | O2 eliminators         |

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

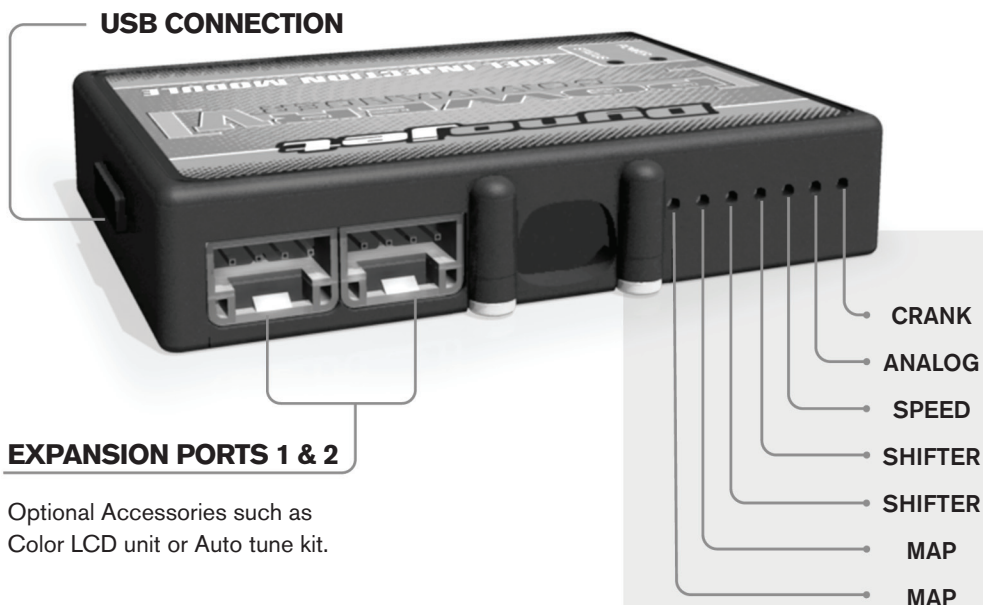
YOU CAN ALSO DOWNLOAD THE  
POWER COMMANDER SOFTWARE AND  
LATEST MAPS FROM OUR WEB SITE AT:  
[www.powercommander.com](http://www.powercommander.com)

**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

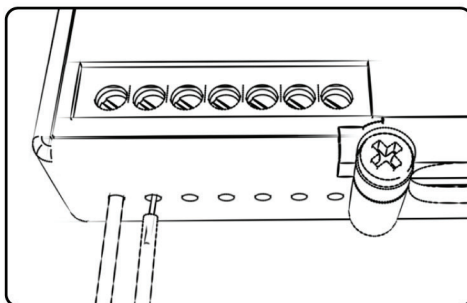


Optional Accessories such as  
Color LCD unit or Auto tune kit.

## 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: If you tin the wires with solder it will make inserting them easier.



## 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 the 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-

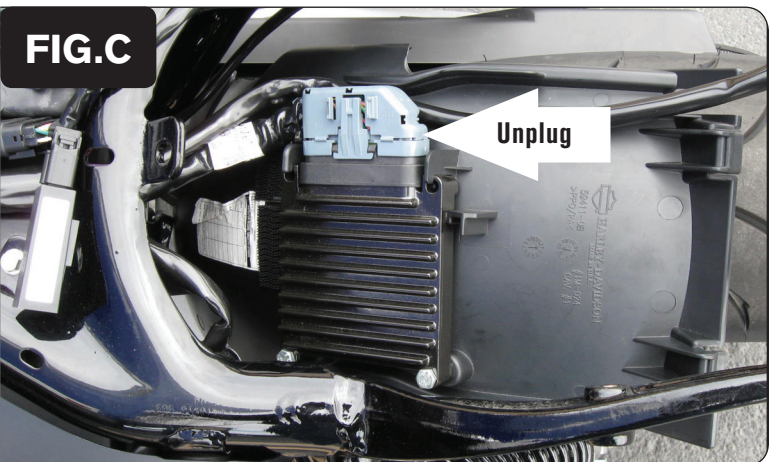
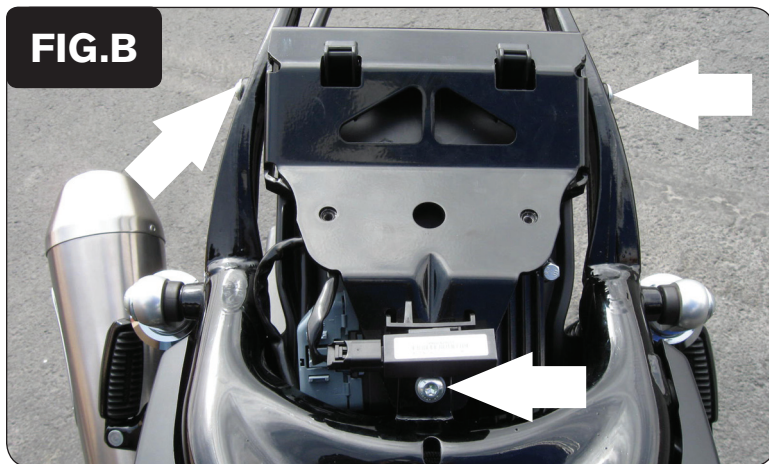
If your application has a speed sensor then you can tap into the signal side of the sensor and run a wire into this input. This will allow you to calculate gear position in the Control Center Software. Once gear position is setup you can alter your map based on gear position and setup gear dependent 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.

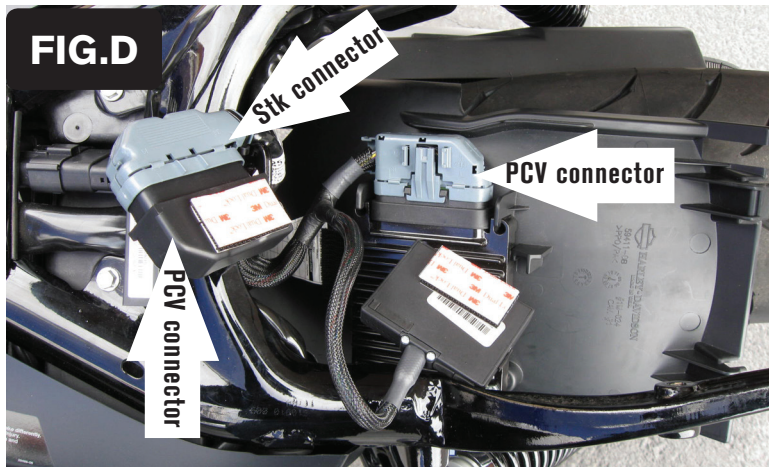
### Crank-

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.



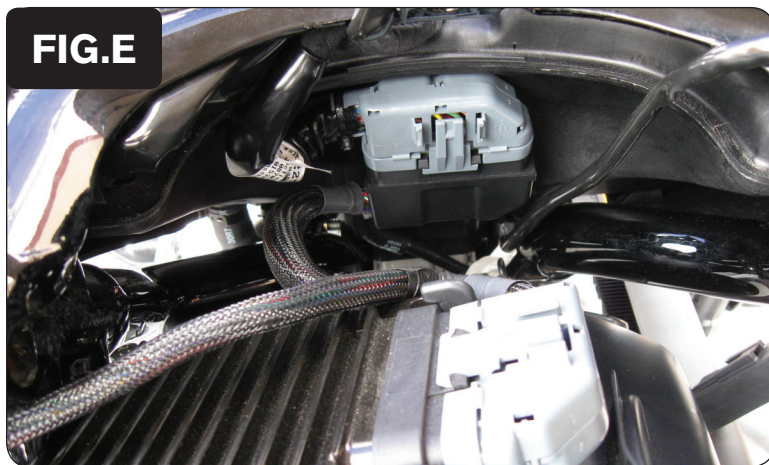
- 1 Remove the seats.
- 2 Remove the tail section by removing the 5 bolts (Fig. A).
- 3 Remove the bracket that holds the ECM tray to the frame by removing the 3 bolts shown in Fig. B. There is a fourth bolt at the bottom of the plastic tray located in front of the rear tire.  
Slide the plastic tray out of the bracket and remove the bracket
- 4 Unplug the stock wiring harness from the ECM (Fig. C)





- 5 Connect the PCV in-line of the stock wiring harness and ECM (Fig. D).
- 6 Using the supplied velcro attach a piece to the back side of the PCV/stock harness connection and another piece to the back of the PCV module.

*Make sure to use the alcohol swab to clean all surfaces before attaching*



- 7 Secure the PCV/stock harness connection as shown in Fig. E.



- 8 Secure the PCV module to the plastic tray just in front of the ECM (Fig. F).
- 9 Reinstall the plastic tray to the bracket and install the bracket.

*To make future adjustments to the PCV easier plug the USB cable into the PCV module and route the other end of the cable where it can be easily accessed.*



- 10 Locate the front O2 sensor connector and unplug it (Fig.G).

*This connector is located to the left side of the oil filter.*

- 11 Plug one of the Dynojet O2 eliminators into the stock wiring harness

*The stock O2 sensor does not need to be connected to anything. The sensor can be removed completely from the motorcycle if desired. If using the Autotune kit remove the stock sensor and install the Dynojet O2 sensor into the exhaust.*

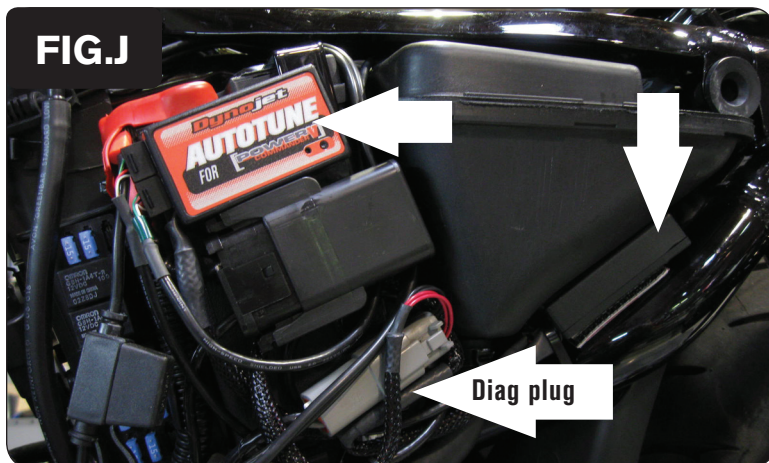


- 12 Locate the rear O2 sensor connector and unplug it (Fig.G).

*This connector is located in front of the oil tank.*

- 13 Plug one of the Dynojet O2 eliminators into the stock wiring harness

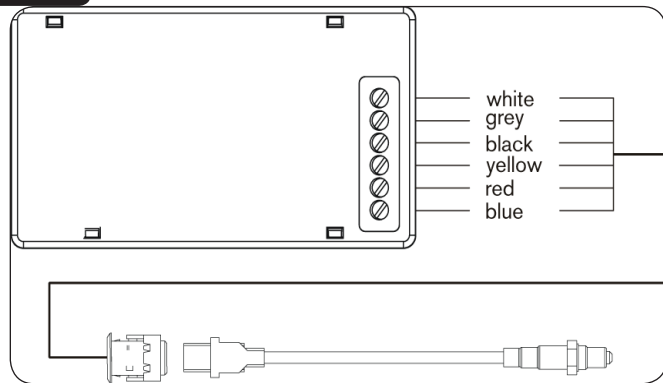
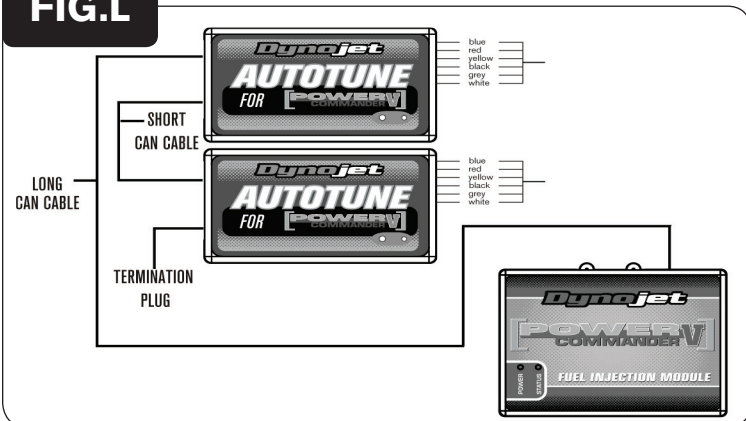
*The stock O2 sensor does not need to be connected to anything. The sensor can be removed completely from the motorcycle if desired. If using the Autotune kit remove the stock sensor and install the Dynojet O2 sensor into the exhaust.*



### **Follow these instructions when using the Auto tune kit - part #AT-100**

- 1 Remove the left hand side cover.
- 2 Using the supplied velcro install the Autotune modules as shown in Figure J.  
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 rubber plug for the diagnostic connector. Plug the lead from the Autotune kit into the stock diagnostic connector (Fig. J).



**FIG.K****FIG.L**

- 4 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.
- 5 Repeat step 4 for the rear cylinder. Wire the harness to Autotune Module AT#2. The harness can be cut to length if desired.
- 6 Use the short CAN bus cable to connect one Autotune module to the other. It does not matter what ports are used.
- 7 Use the longer CAN bus cable to connect one of the Autotune modules 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.
- 10 Reinstall the side cover.

In the PCV software go to Power Commander Tools - Configure - Auto tune to enable the unit.

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