POWER COMMANDER V

FUEL AND IGNITION

2007-2011 Harley Davidson Softail Deluxe & Heritage

Installation Instructions

These instructions do not cover the Crossbones model

PARTS LIST

1	Power Commander
1	USB Cable
1	Installation Guide
2	Power Commander Decals
2	Dynojet Decals
2	Dual lock Velcro® Strips
1	Alcohol swab
2	Zip ties
2	O2 Optimizers
1	ECM tray

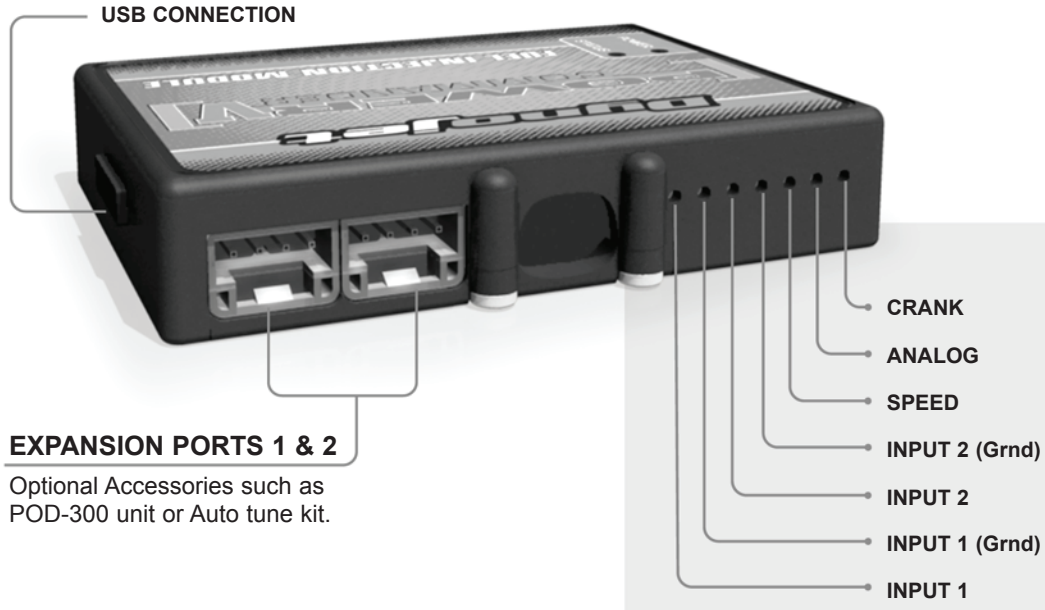
The ignition MUST be turned OFF before installation!

THE LATEST POWER COMMANDER SOFTWARE AND MAP FILES CAN BE DOWNLOADED FROM OUR WEB SITE AT: www.powercommander.com

PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION

Dynojet 2191 Mendenhall Drive North Las Vegas, NV 89081 (800) 992-4993 www.powercommander.com

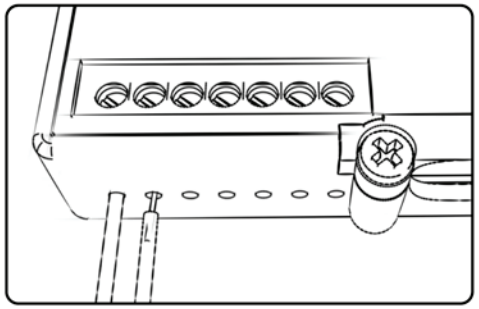
POWER COMMANDER V
INPUT ACCESSORY GUIDE



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 is 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.

FIG.A

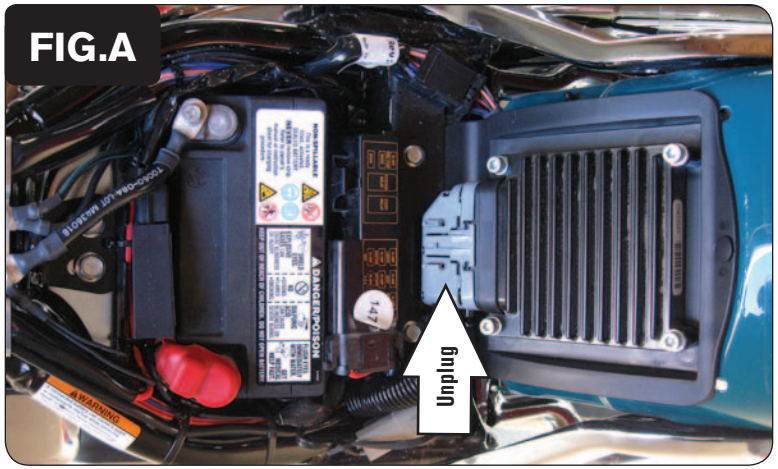


FIG.B

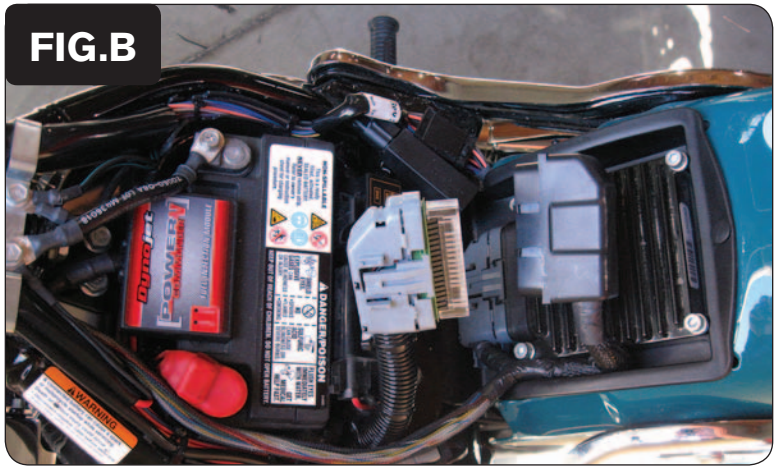
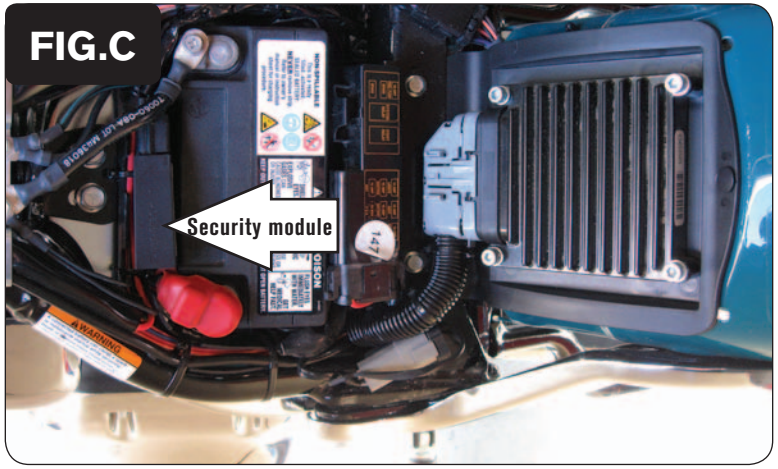


FIG.C



1 Remove the seat.

2 Unplug the stock wiring harness from the ECM (Fig. A).

3 Remove the 4 bolts that hold the ECM to the tray and remove the ECM.

4 Remove the tray from the rear fender.

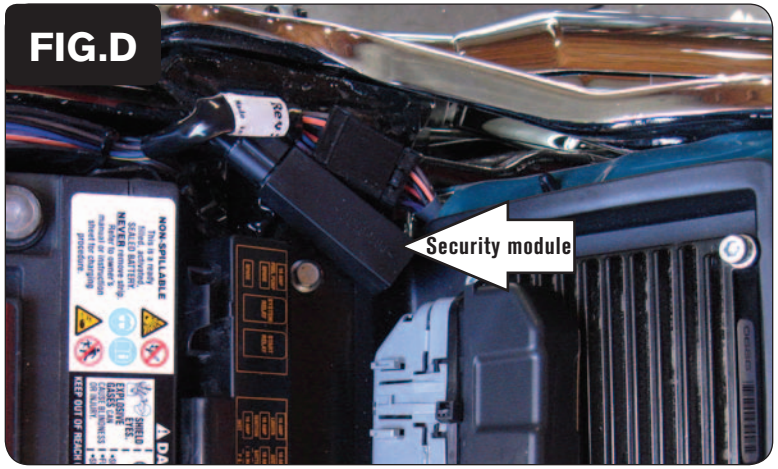
5 Install the Dynojet ECM tray to the rear fender.

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

7 Place the BLACK PCV to GREY stock connector on top of the ECM. Secure these connectors to the ECM using the supplied zip tie.

8 Remove the security module from the top of the battery (Fig. C). This unit slides to the right of the bike.

FIG.D



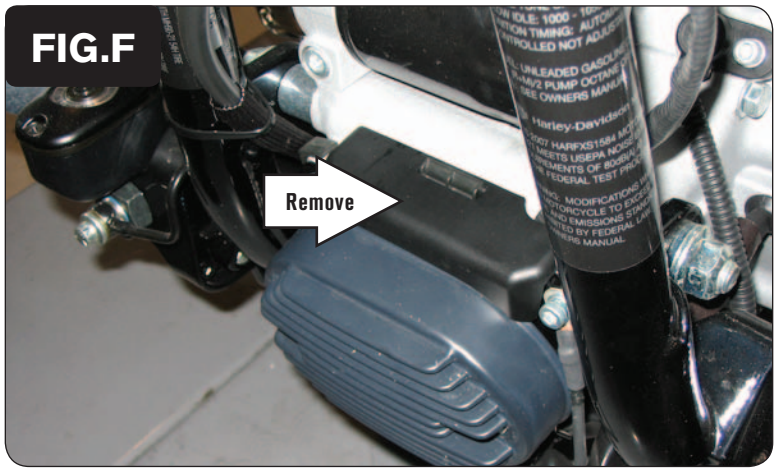
9 Move the security module to the right side of the bike. Use a zip tie to secure the module to the tail light connector (Fig. D).

FIG.E

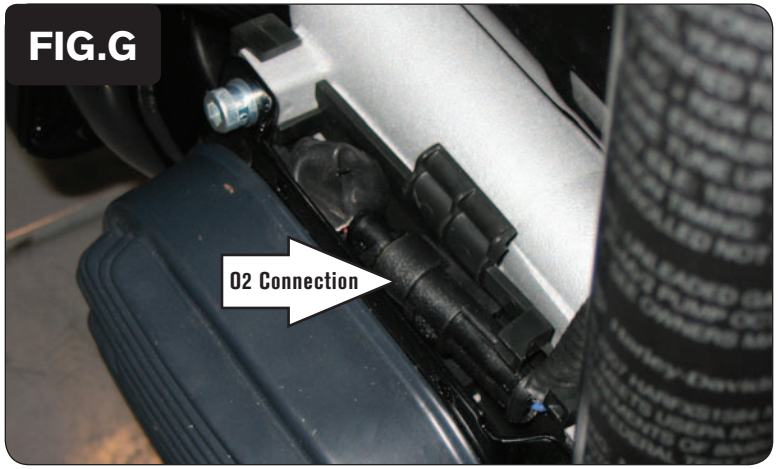
10 Using the supplied Velcro secure the PCV to the top of the battery (Fig. E).

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

FIG.F



11 Remove the cosmetic cover on the front of the bike to access the O2 sensor (Fig. F).



12 Unplug the front O2 sensor from the stock wiring harness.

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

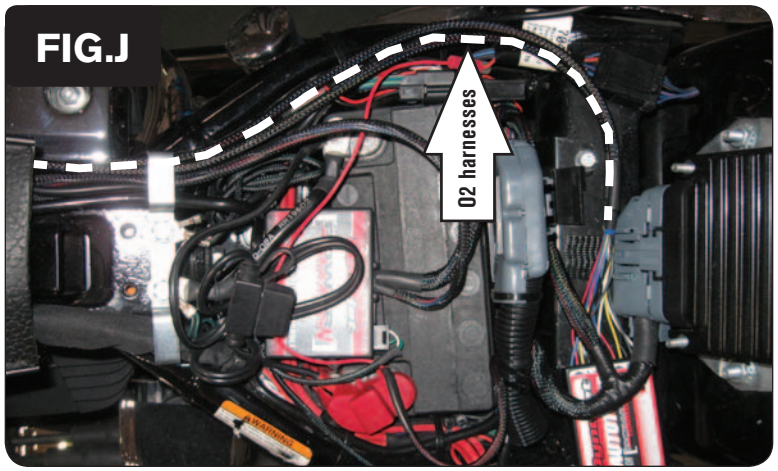
The stock O2 sensor will not be connected to anything at this time. If using the Auto-tune kit (part #AT-100) remove the stock sensor and replace with the Auto-tune's wideband O2 sensor.

14 Reinstall the cover.

15 Unplug the rear O2 sensor from the stock wiring harness. This connector is located under the right hand side of the oil tank.

16 Plug the Dynojet O2 Optimizer into the stock wiring harness (Fig. H).

The stock O2 sensor will not be connected to anything at this time. If using the Auto-tune kit (part #AT-100) remove the stock sensor and replace with the Auto-tune's wideband O2 sensor.



<u>Follow these instructions when installing the Auto-tune kit (part #AT-100)</u>

1 Remove the seat.

2 Connect the longer O2 sensor harness to the front Dynojet O2 sensor. Route the harness along the frame and go around the right hand side of the battery.

3 Repeat step 2 for the rear O2 sensor using the shorter harness.

FIG.K

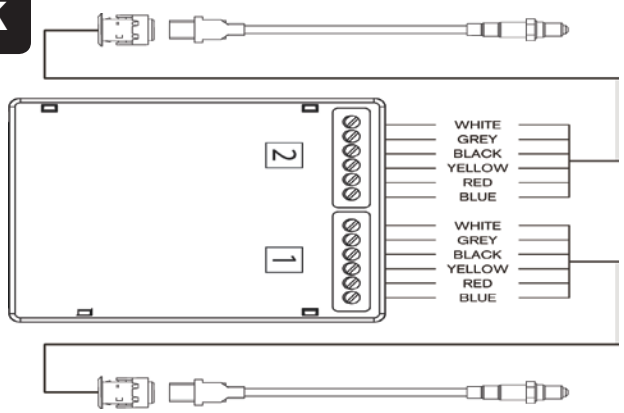


FIG.L

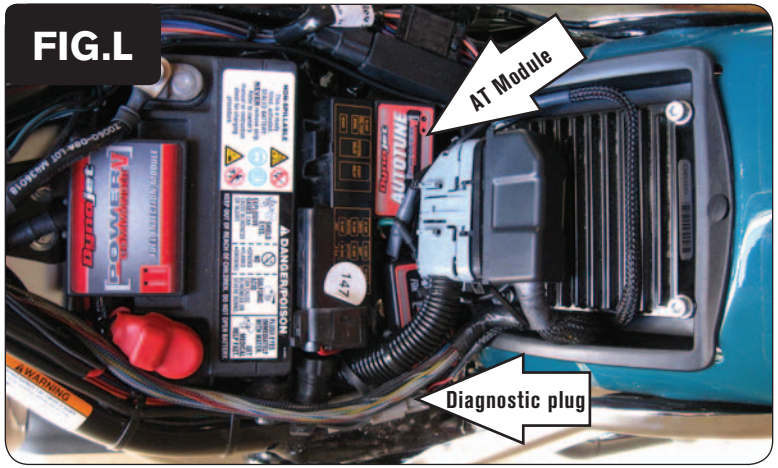
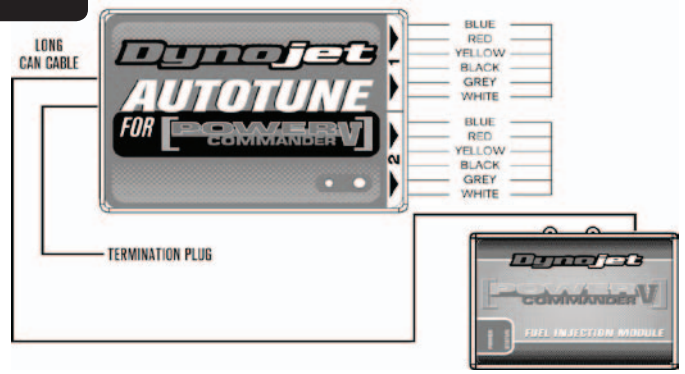


FIG.M



4 Connect the front O2 sensor harness to sensor input #1 on the Auto-tune module per Figure K. The harness can be cut to length if desired.

5 Connect the rear O2 sensor harness to sensor input #2 on the Auto-tune module per Figure K. The harness can be cut to length if desired.

6 Remove the rubber plug from the stock diagnostic plug. Connect the power lead from the Auto-tune module into the diagnostic plug (Fig. L).

7 Secure the module to the frame using the supplied Velcro.

8 Use the CAN bus cable to connect one Auto-tune module to the PCV. It does not matter what ports are used.

9 Install the CAN termination plug into the open port of the Auto-tune module.

10 Secure the harnesses in place as in Figure L. Make sure the O2 sensor harnesses do not contact the exhaust.

Check www.powercommander.com for maps and software updates.