

[POWER COMMANDER V]

FUEL AND IGNITION

2016-2017 Honda CB500 / CBR500R

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
- 1 Posi-tap
- 1 O2 Optimizer
- 1 Zip tie

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

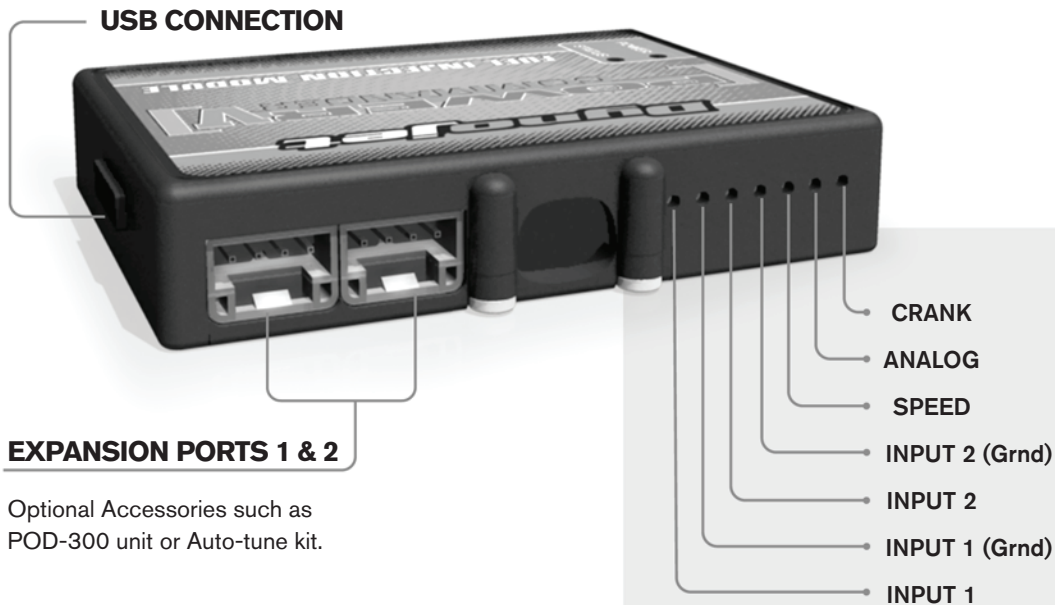
THE LATEST POWER COMMANDER
SOFTWARE AND MAP FILES CAN BE
DOWNLOADED FROM OUR WEB SITE AT:
www.powercommander.com

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 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) 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. (Set to Switch Input #2 by default.)

Speed-

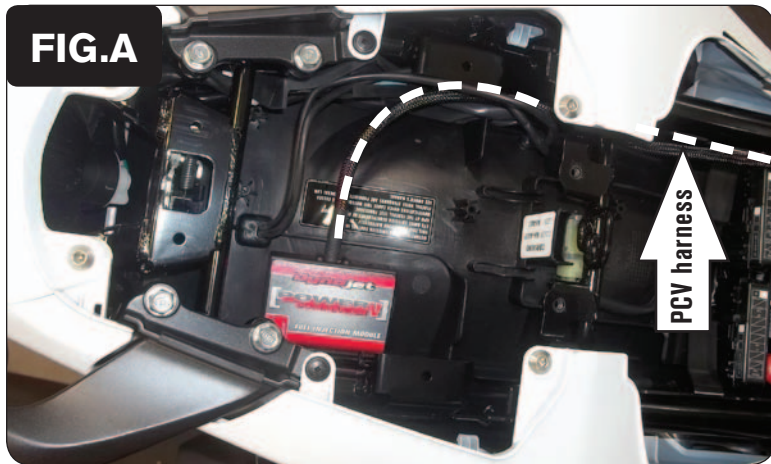
If your application has a speed sensor then you can tap into the signal side of the sensor and run a wire into this input. This will allow you to calculate gear position in the Control Center Software. Once gear position is setup you can alter your map based on gear position and setup gear dependent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

Analog-

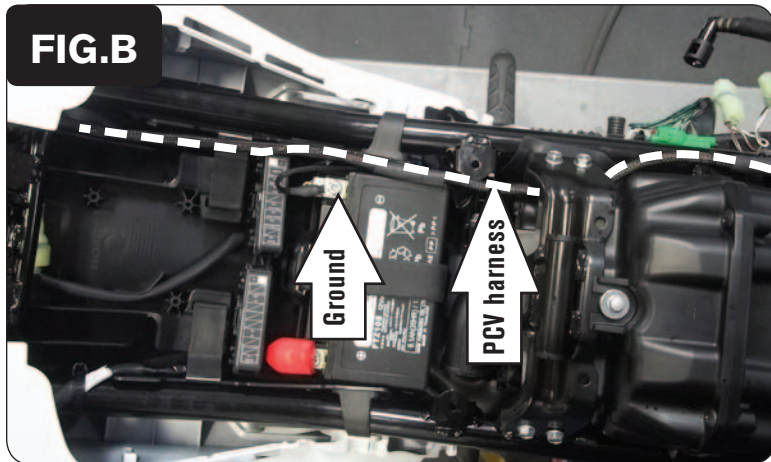
This input is for a 0-5v signal such as engine temp, boost, etc. Once this input is established you can alter your fuel curve based on this input in the control center software.

Crank-

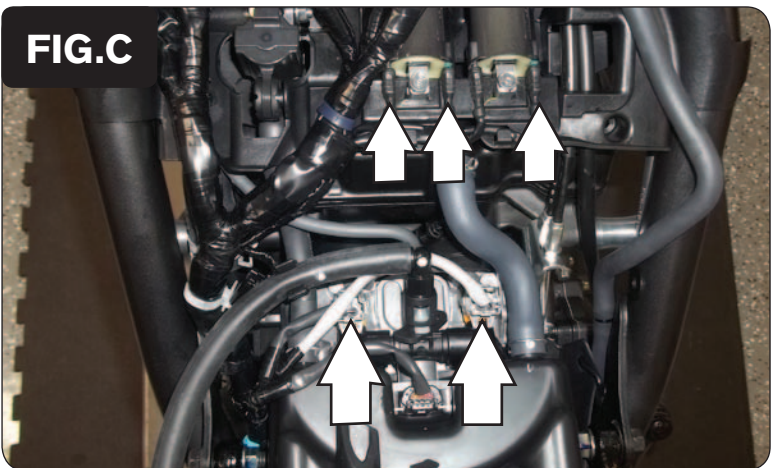
Do **NOT** connect anything to this port unless instructed to do so by Dynojet. It is used to transfer crank trigger data from one module to another.



- 1 Remove the main seat, passenger seat and both side panels.
- 2 Remove the right hand fairing.
- 3 Prop the fuel tank up.
- 4 Lay the PCV in the tail section temporarily and route the harness down the left side of the tail section (Fig. A).



- 5 Attach the ground wire from the PCV to the negative terminal of the bike's battery (Fig. B).
- 6 Route the PCV harness to the inside of the fuel tank bracket.



- 7 Unplug the stock wiring harness from each fuel injector (Fig. C).
- 8 Unplug the stock wiring harness from the ignition coils (Fig. C).

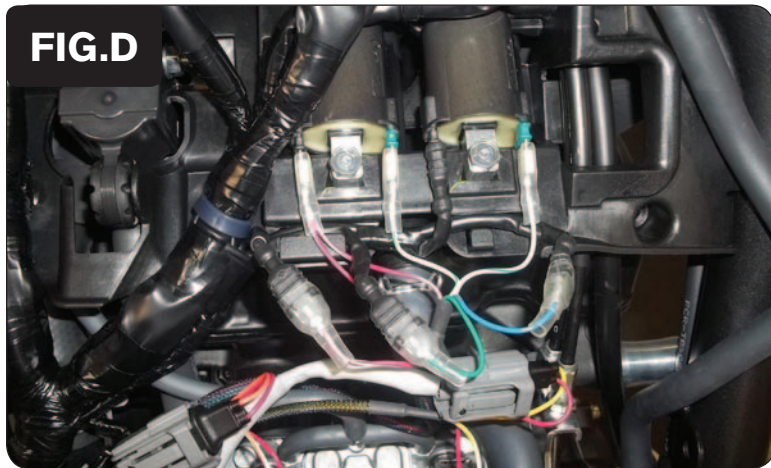


FIG.D

- 8 Plug the PCV wiring harness in-line of the stock wiring harness and ignition coils (Fig. D).

The pair of PCV coil leads with GREEN colored wires will go in-line with the #1 (left) coil.

The pair of PCV coil leads with BLUE colored wires will go in-line with the #2 coil.

The pair of PCV injector leads with RED colored wires will go in-line with the 12v side of either coil. This is designated by the BLACK marking on the stock coil.

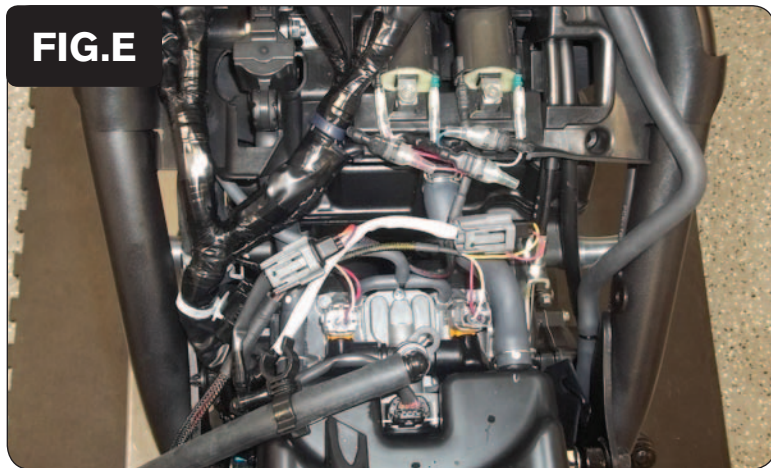


FIG.E

- 9 Plug the PCV wiring harness in-line of the stock wiring harness and fuel injectors (Fig. E).

The pair of PCV leads with ORANGE colored wires will go in-line with the #1 (left) injector.

The pair of PCV leads with YELLOW colored wires will go in-line with the #2 injector.



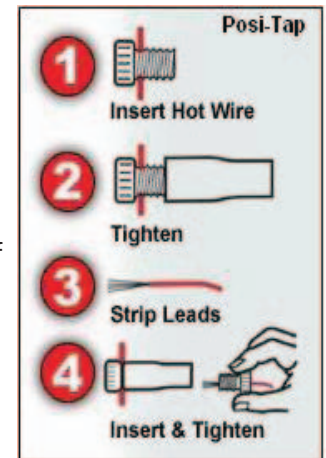
FIG.F

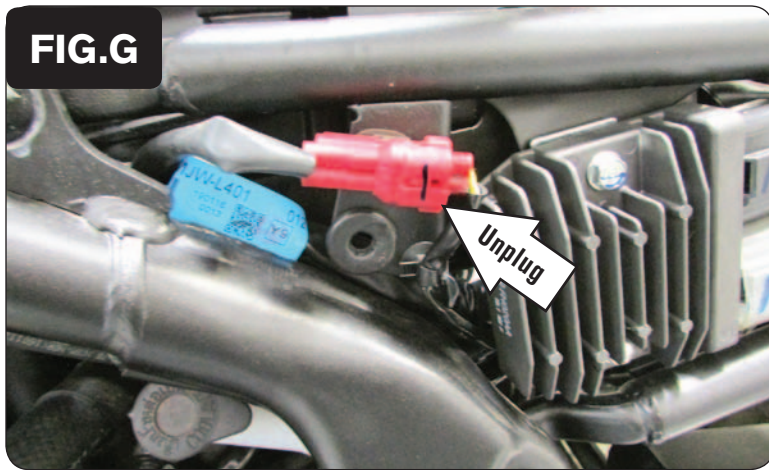
- 10 Unplug the stock wiring harness from the Throttle Position Sensor.

This connection is on the left side of the throttle bodies.

- 11 Use the supplied Posi-tap to attach the GREY wire of the PCV to the RED/YELLOW wire of the stock TPS connector (Fig. F).

- 12 Plug the stock connector back on to the TPS.



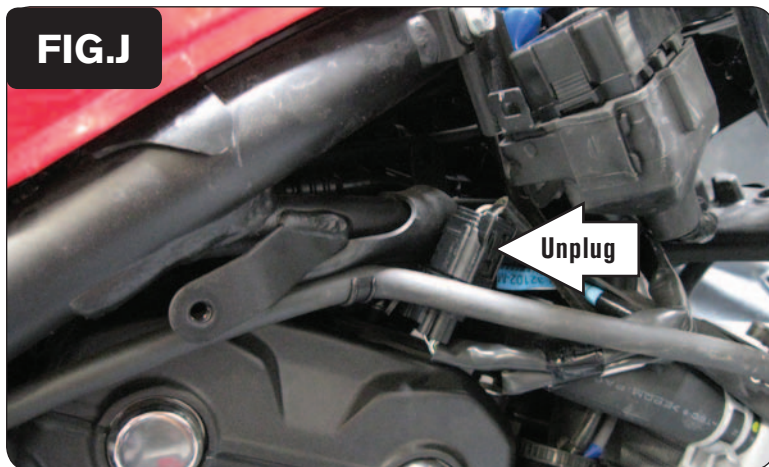


- 13 Unplug the stock Crank Position Sensor connector (Fig. G).

This is a RED 2-pin connector located on the left side of the sub-frame.

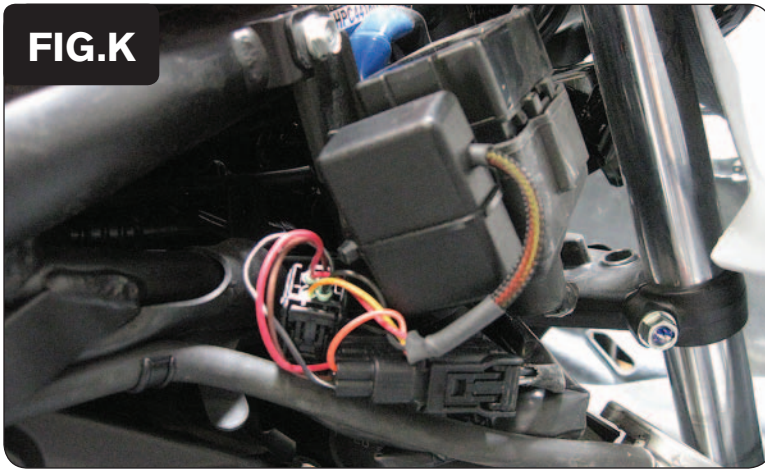


- 14 Plug the PCV in-line of the stock CPS connectors (Fig. H).



- 15 Locate the stock O2 sensor connection near the upper, right corner of the radiator. Unplug this connection (Fig. J).

This is a BLACK 4-pin connector. You can follow with wires coming out of the exhaust to this connection.



- 16 Plug the Dynojet O2 Optimizer in-line of the stock O2 sensor and wiring harness.
- 17 Secure the Optimizer to the fuse box using the supplied zip tie (Fig. K).
- 18 Reinstall all of the bodywork.

NOTE:

The O2 Optimizer included with this PCV controls the closed loop area. To use the O2 Optimizer the stock O2 sensor must remain in the exhaust and active (even if using Auto-tune). The closed loop area is represented by the highlighted cells shown to the left. The O2 Optimizer is setup to achieve an AFR of 13.6:1. This can be adjusted by altering the dip switches that are located behind the back panel of the O2 Optimizer. Call Dynojet for more information if needed 1-800-992-4993.

If you are using the Auto-tune do NOT input Target AFR values in the closed loop area.

	0	2	5	10	15	20	40	65	80	100
500	0	0	0	0	0	0	0	0	0	0
750	0	0	0	0	0	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0
1250	0	0	0	0	0	0	0	0	0	0
1500	0	0	0	0	0	0	0	0	0	0
1750	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0
2250	0	0	0	0	0	0	0	0	0	0
2500	0	0	0	0	0	0	0	0	0	0
2750	0	0	0	0	0	0	0	0	0	0
3000	0	0	0	0	0	0	0	0	0	0
3250	0	0	0	0	0	0	0	0	0	0
3500	0	0	0	0	0	0	0	0	0	0
3750	0	0	0	0	0	0	0	0	0	0
4000	0	0	0	0	0	0	0	0	0	0
4250	0	0	0	0	0	0	0	0	0	0
4500	0	0	0	0	0	0	0	0	0	0
4750	0	0	0	0	0	0	0	0	0	0
5000	0	0	0	0	0	0	0	0	0	0
5250	0	0	0	0	0	0	0	0	0	0
5500	0	0	0	0	0	0	0	0	0	0
5750	0	0	0	0	0	0	0	0	0	0
6000	0	0	0	0	0	0	0	0	0	0
6250	0	0	0	0	0	0	0	0	0	0
6500	0	0	0	0	0	0	0	0	0	0
6750	0	0	0	0	0	0	0	0	0	0
7000	0	0	0	0	0	0	0	0	0	0
7250	0	0	0	0	0	0	0	0	0	0
7500	0	0	0	0	0	0	0	0	0	0
7750	0	0	0	0	0	0	0	0	0	0
8000	0	0	0	0	0	0	0	0	0	0
8250	0	0	0	0	0	0	0	0	0	0
8500	0	0	0	0	0	0	0	0	0	0
8750	0	0	0	0	0	0	0	0	0	0
9000	0	0	0	0	0	0	0	0	0	0