

[POWER COMMANDER V]

FUEL AND IGNITION

2012-2013 Ducati Diavel

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

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

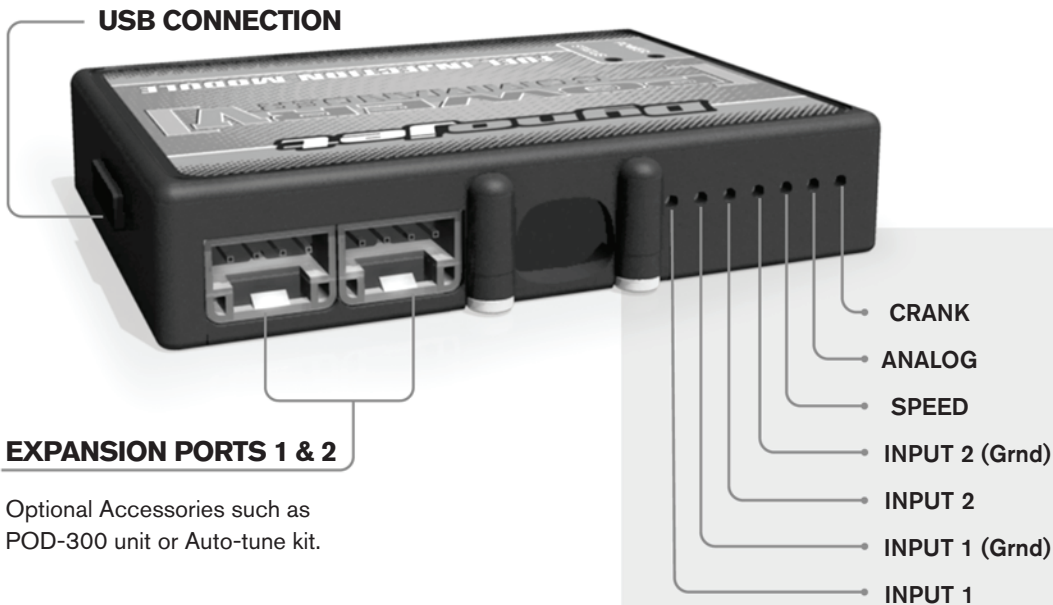
THE LATEST POWER COMMANDER
SOFTWARE AND MAP FILES CAN BE
DOWNLOADED FROM OUR WEB SITE AT:
www.powercommander.com

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.

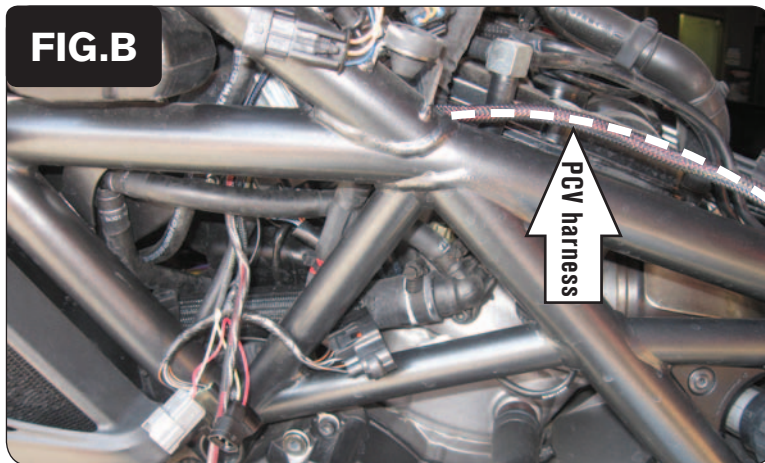
Crank-

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.

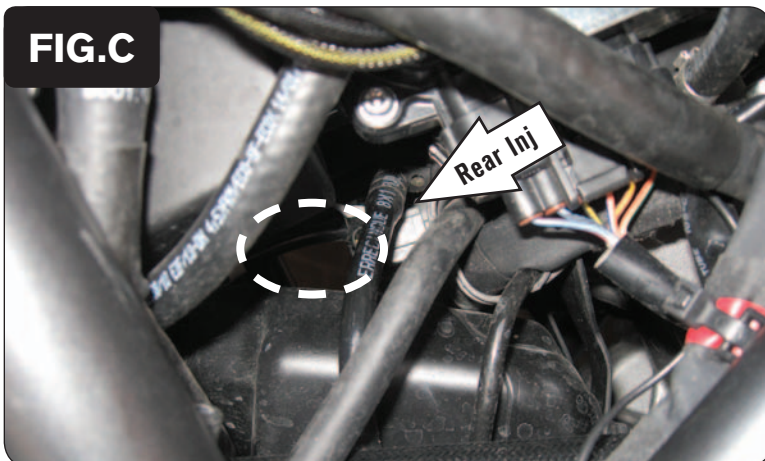


It is recommended that this installation be done by a trained well equipped mechanic as the injectors are very difficult to access without specific tools.

- 1 Remove the main seat.
- 2 Remove the fuel tank cover and side fairing from both sides of the motorcycle (Fig. A). You will need to remove both instrument clusters to remove the fuel tank cover.
- 3 Remove the fuel tank or prop it up to access the area around the air box.



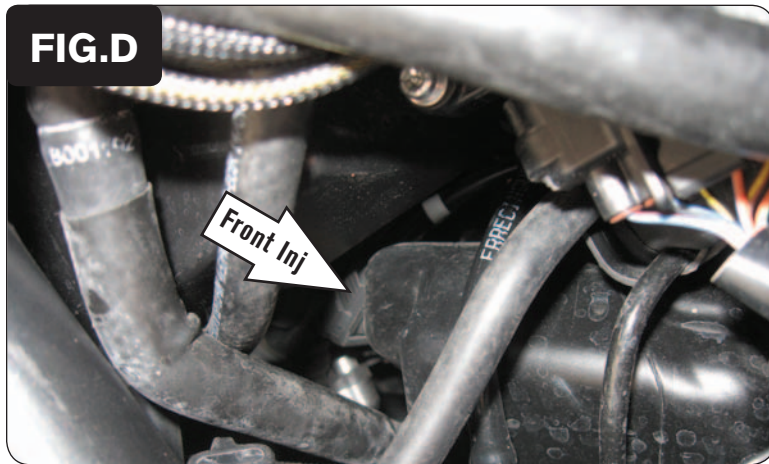
- 4 Lay the PCV in the tool kit area under the seat and route the harness going along the left hand side of the frame (Fig. B). Route the harness on the inside of the frame and come out near the rear throttle body.



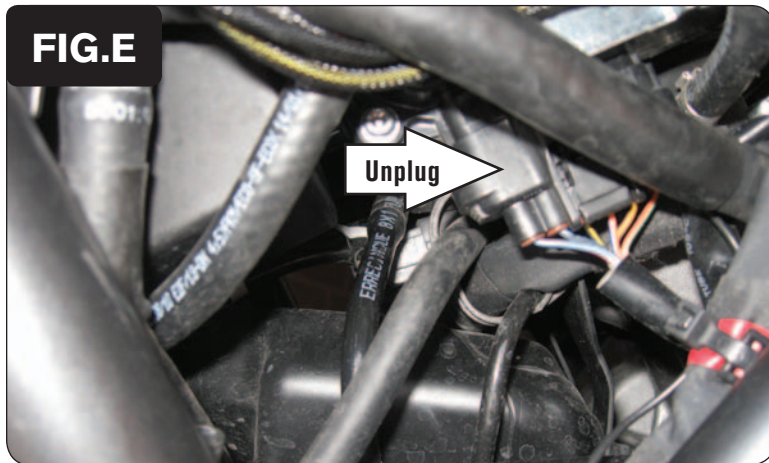
- 5 Route the 3-pin connectors (has tape on them) over to the right side of the engine going thru the opening in front of the rear injector (Fig. C).
- 6 Unplug the stock wiring harness from the rear fuel injector.

Using a long pic tool you can lift UP on the release tab and pull the connector off the injector.

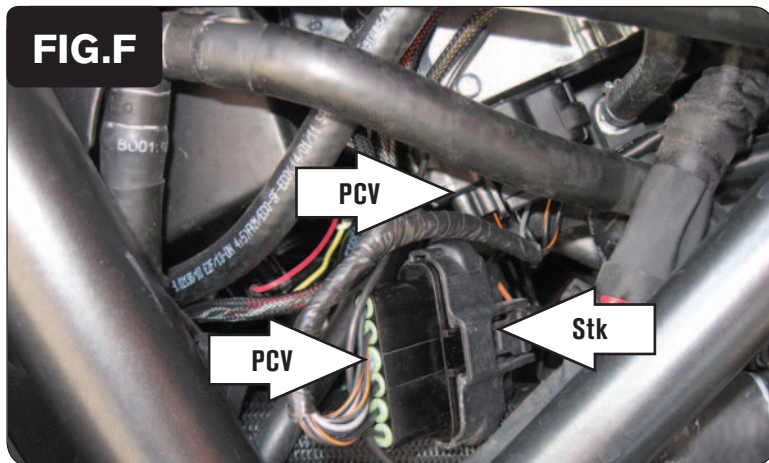
- 7 Plug the pair of PCV leads with YELLOW colored wires in-line of the rear fuel injector and the stock wiring harness.



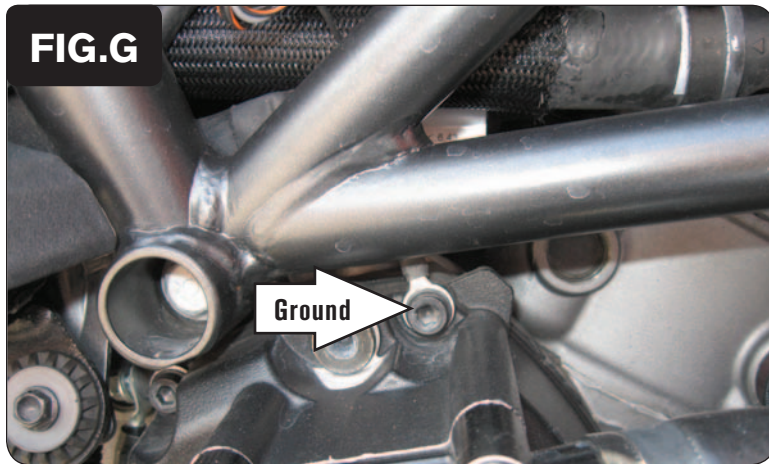
- 8 Unplug the stock wiring harness from the front fuel injector (Fig. D).
- 9 Plug the pair of PCV leads with ORANGE colored wires in-line of the front fuel injector and the stock wiring harness.



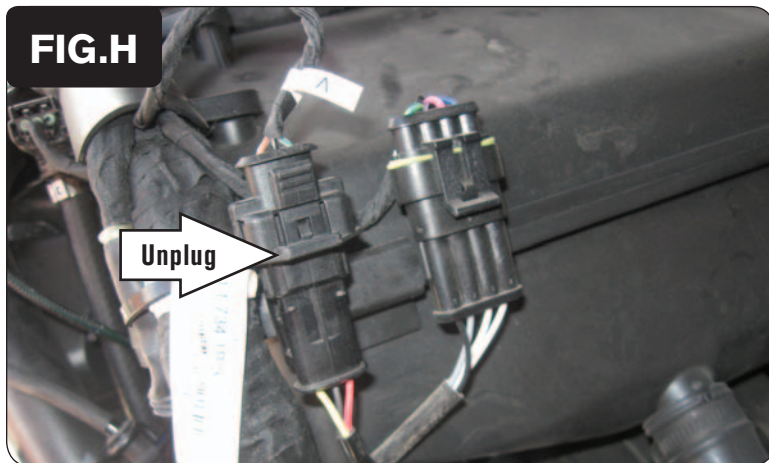
- 10 Unplug the Throttle Position Sensor connector from the main wiring harness (Fig. E).
This connection is located on the left side of the rear throttle body.



- 11 Plug the PCV in-line of the TPS and the stock wiring harness (Fig. F).

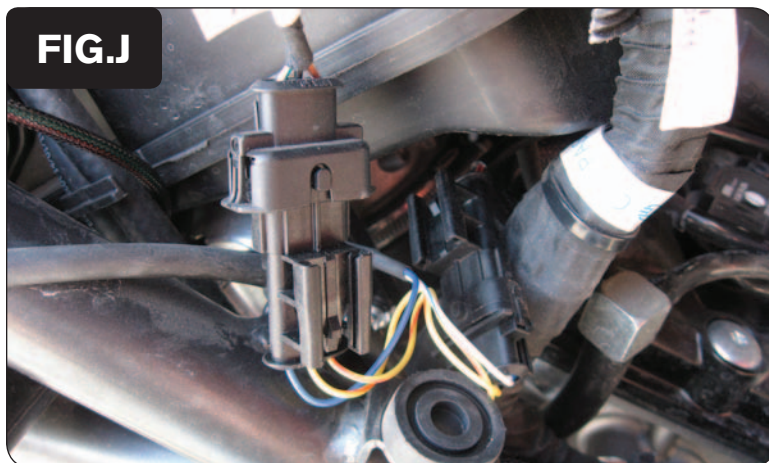


- 12 Attach the ground wire of the PCV with the small ring lug to an engine case bolt on the left side (Fig. G).



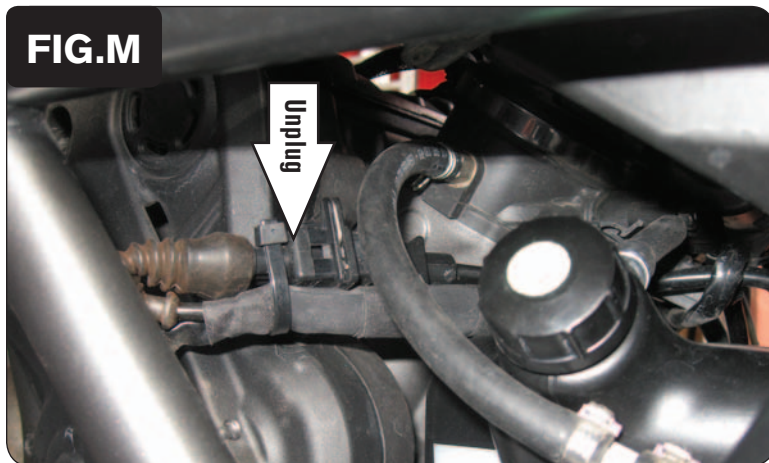
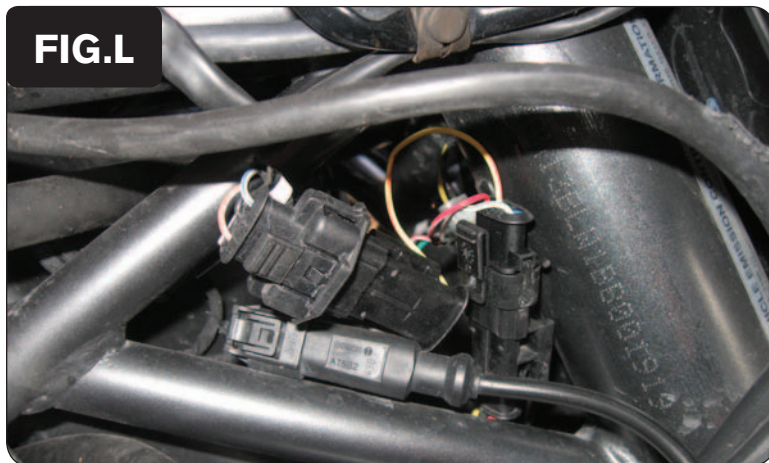
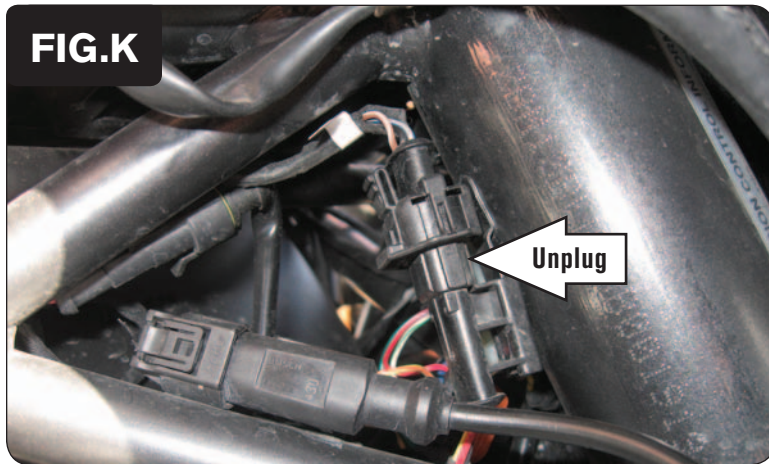
- 13 Remove the rear coil connection from its mounting tab. Unplug this connection (Fig. H).

This connection is located to the rear, left of the air box.



- 14 Plug the pair of PCV leads with BLUE colored wires in-line of the stock rear ignition coil connectors (Fig. J).

Both sets of connectors will now sit to the left, underside of the air box.



- 15 Route the GREEN wires of the PCV along the left side of the air box going towards the steering stem.
- 16 Locate and unplug the front ignition coil connectors (Fig. K).

These connectors are located to the rear of the steering neck on the right side.

- 17 Plug the pair of PCV leads with GREEN colored wires in-line of the stock rear ignition coil connectors (Fig. L).

- 18 Locate and unplug the stock Crank Position Sensor connectors (Fig. M).

This connection is located on the right side of the engine.

- 19 Plug the pair of matching PCV connectors in-line of the stock Crank Position Sensor connectors.

This is the pair of PCV connectors that were routed to the right side of the bike during Step 5.

FIG.N



- 20 Secure the PCV in the area under the seat using the supplied Velcro (Fig. N).
Clean both surfaces with the supplied alcohol swab prior to applying the Velcro adhesive.
- 21 Reinstall the fuel tank, the seat, and all of the bodywork.

Tuning Notes:

This bike uses a fly-by-wire throttle control system. So conventional tuning can not be performed for all RPM and throttle ranges.

The throttle position input for the PCV is attached to the throttle blade angle sensor of the throttle bodies which is NOT directly correlated to the throttle grip position. Because of this, when setting the throttle position in the PCV software we recommend on resetting only the closed position after the bike has completely warmed up. Use the arrow key (<) next to the MIN VOLTAGE setting to perform this step, and then click OK. Do not try to set the MAX VOLTAGE setting.

The stock fuel curve can NOT be adjusted in the stock closed loop engine range, when the stock o2 sensors are active (0-15% throttle and 0-5500 RPM).

To access gear dependent features of the PCV, the gear position must be input to the PCV through the optional analog input on top of the module (see page 2). The bike's gear position sensor signal wire can be accessed on a WHITE 3-pin connector under the rear of the fuel tank. It would be the YELLOW/GREEN wire of this connector. The connector should also have a BLACK/BLUE wire and a BROWN/RED wire.