

# [POWER COMMANDER V]

**2006-2009 Aprilia Tuono**

**Installation Instructions**



## **PARTS LIST**

- 1 Power Commander
- 1 USB Cable
- 1 Installation Guide
- 2 Power Commander Decals
- 2 Dynojet Decals
- 4 Velcro strips
- 1 Alcohol swab
- 1 Posi-tap
- 1 O2 Optimizer

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

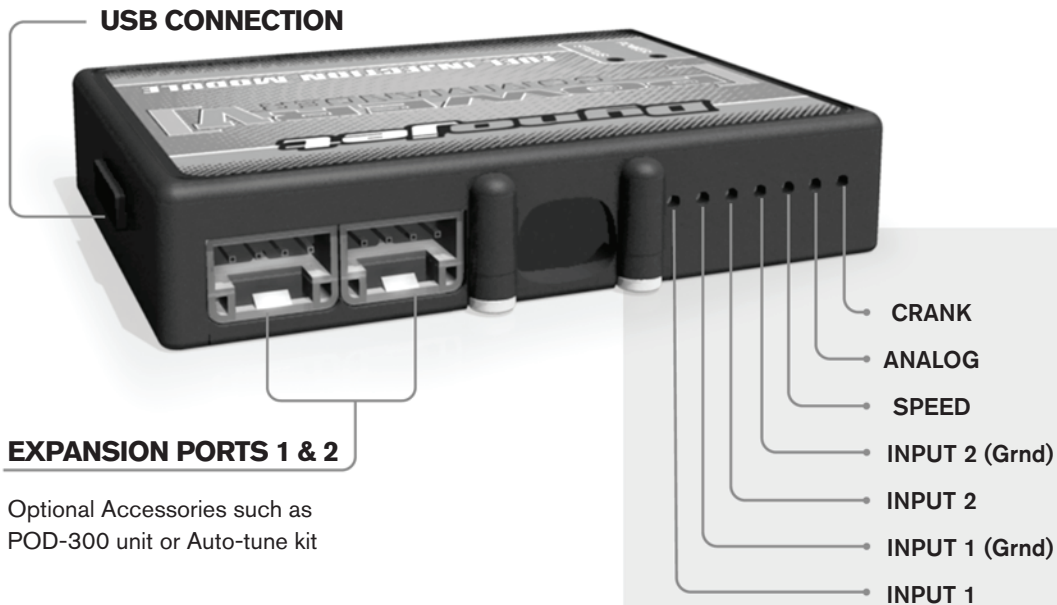
THE LATEST POWER COMMANDER  
SOFTWARE AND MAP FILES CAN BE  
DOWNLOADED FROM OUR WEB SITE AT:  
[www.powercommander.com](http://www.powercommander.com)

**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)

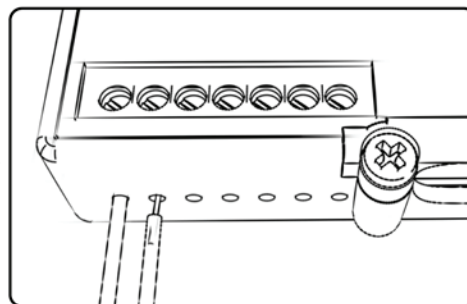
# POWER COMMANDER V INPUT ACCESSORY GUIDE



## 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-

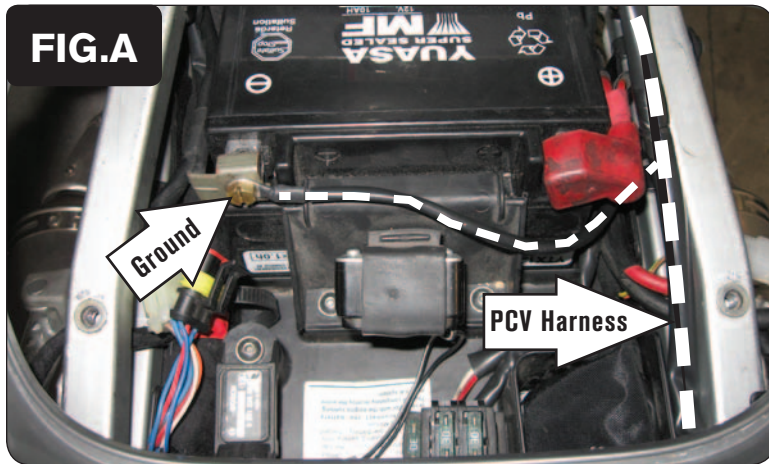
If your application has a speed sensor then you can tap into the signal side of the sensor and run a wire into this input. This will allow you to calculate gear position in the Control Center Software. Once gear position is setup you can alter your map based on gear position and setup gear dependent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

### Analog-

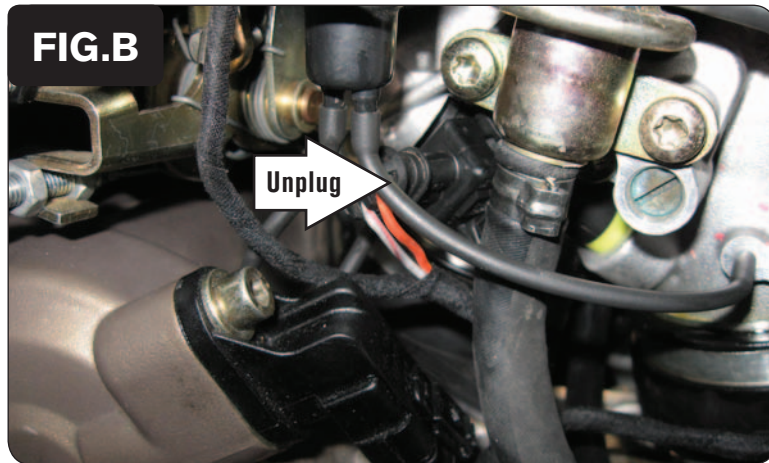
This input is for a 0-5v signal such as engine temp, boost, etc. Once this input is established you can alter your fuel curve based on this input in the control center software.

### 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.



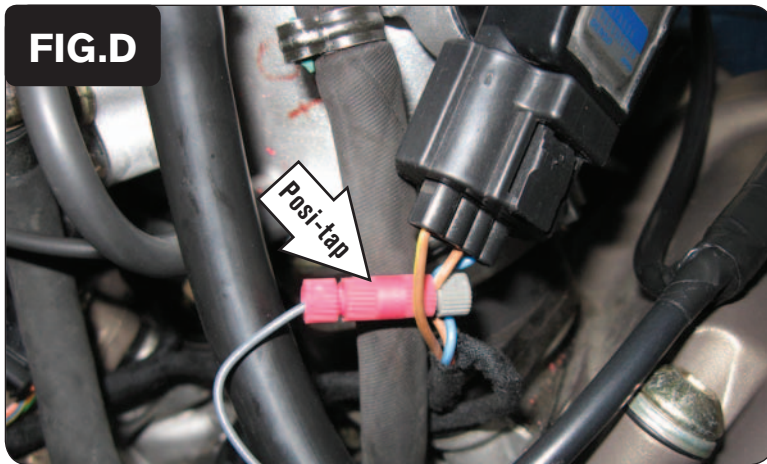
- 1 Remove the seats.
- 2 Prop the front of the fuel tank up.
- 3 Lay the PCV in the tail section and route the PCV wiring harness forward along the right side of the frame and towards the engine.
- 4 Attach the PCV ground wire with the small ring lug to the negative (-) terminal of the bike's battery (Fig. A).



- 5 Unplug the stock wiring harness from the rear fuel injector (Fig. B).  
*This connection is on the left side of the throttle body.*

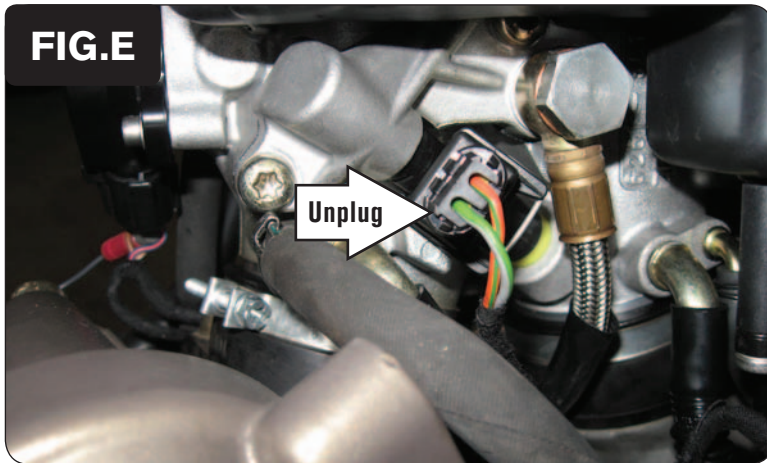
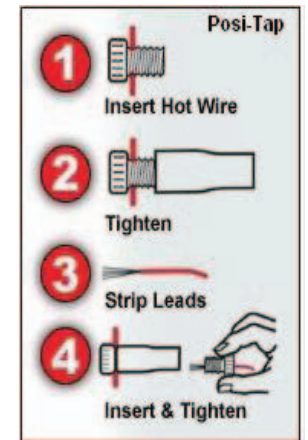


- 6 Plug the pair of PCV leads with YELLOW colored wires in-line of the stock wiring harness and the rear fuel injector (Fig. C).



- 7 Use the supplied Posi-tap to attach the single GREY wire of the PCV to the stock BROWN/WHITE wire of the bike's Throttle Position Sensor wiring harness (Fig. D).

*The TPS is located to the left, rear of the throttle body.*

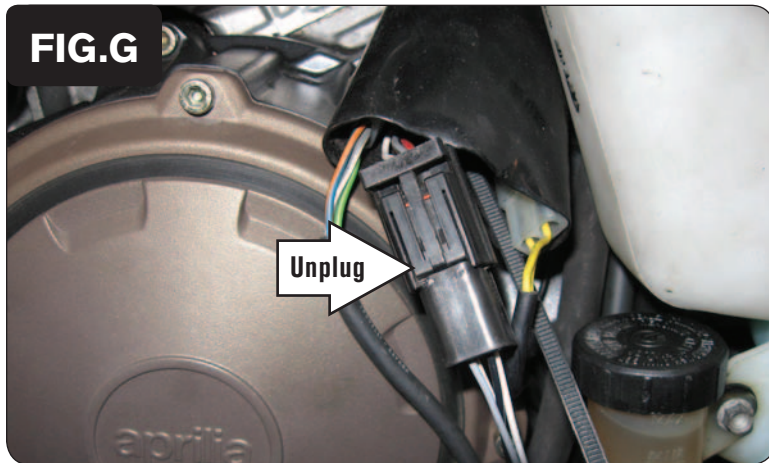


- 8 Route the ORANGE colored wires from the PCV to the right side of the throttle body.
- 9 Unplug the stock wiring harness from the front fuel injector (Fig. E).

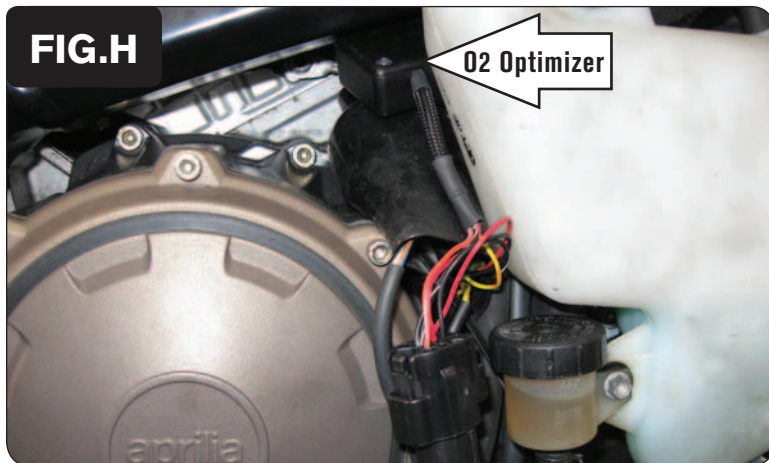
*This connection is on the right side of the throttle body.*



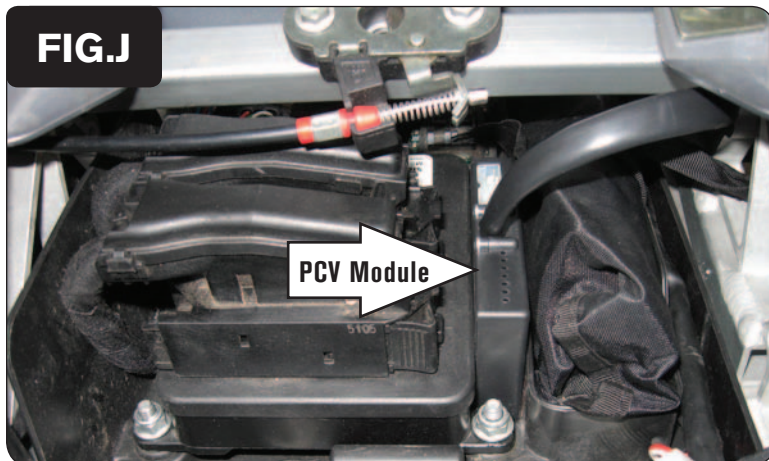
- 10 Plug the pair of PCV leads with ORANGE colored wires in-line of the stock wiring harness and the front fuel injector (Fig. F).



- 11 Locate the stock O2 sensor connection behind the right hand side fairing.
- 12 Unplug the stock O2 sensor from the wiring harness (Fig. G).



- 13 Plug the supplied O2 Optimizer in-line of the stock O2 sensor and stock wiring harness (Fig. H). With the supplied Velcro, secure the O2 Optimizer in place.



- 14 Secure the PCV module in the tail section using the remaining Velcro (Fig. J).  
*Clean all surfaces with the supplied alcohol swab prior to applying the Velcro adhesive.*
- 15 Reinstall all of the removed bodywork, the fuel tank, and the seats.

**FIG.K**

|      | 2 | 5 | 10 | 15 | 20 | 40 | 60 | 80 | 100 |
|------|---|---|----|----|----|----|----|----|-----|
| 1000 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 1250 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 1500 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 1750 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 2000 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 2250 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 2500 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 2750 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 3000 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 3250 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 3500 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 3750 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 4000 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 4250 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 4500 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 4750 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 5000 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 5250 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 5500 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 5750 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 6000 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 6250 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 6500 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 6750 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 7000 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 7250 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 7500 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 7750 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 8000 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 8250 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 8500 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |
| 8750 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0   |

Tuning Notes:

The supplied O2 Optimizer for this model controls the air/fuel ratio in the stock closed loop range. This range is represented by the highlighted cells shown in Figure K. The O2 Optimizer is designed to achieve a target AFR of 13.6:1. To use this O2 Optimizer you must retain your stock O2 sensor (even if using Auto-tune).

It is not necessary to alter the values in this highlighted range of your fuel table/tables. If using the Auto-tune system do NOT input values in this range of your Target AFR table/tables.

The O2 Optimizer will blink while the sensor is being heated up. The unit is not functioning until the light is lit up solid.