

[POWER COMMANDER V]

FUEL AND IGNITION

2008-2013 Arctic Cat Thundercat 1000 / XT

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
- 2 Zip ties

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

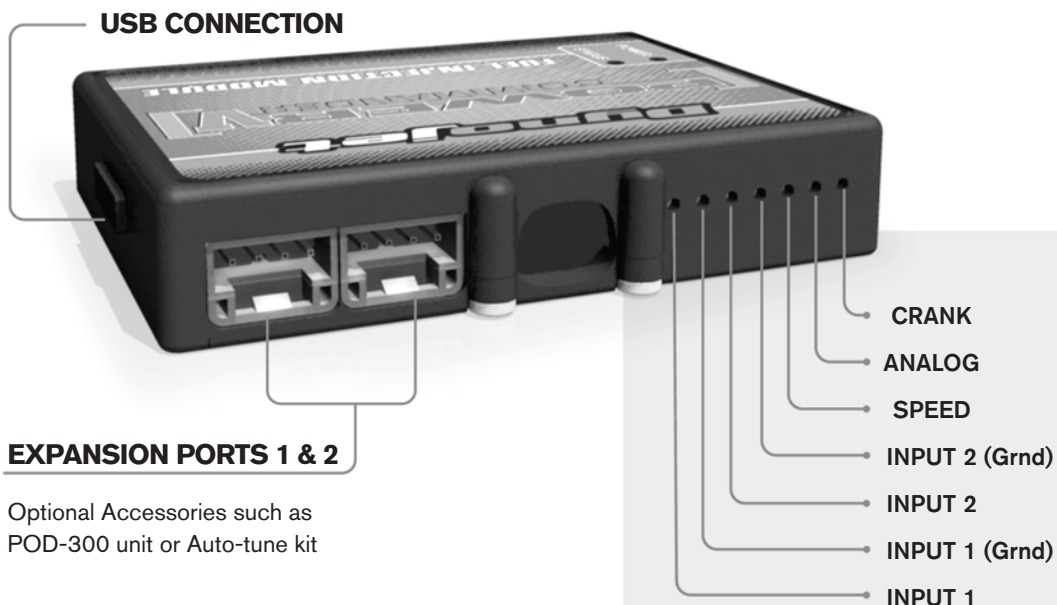
THE LATEST POWER COMMANDER
SOFTWARE AND MAP FILES CAN BE
DOWNLOADED FROM OUR WEB SITE AT:
www.powercommander.com

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



Optional Accessories such as
POD-300 unit or Auto-tune kit

Wire connections:

To insert 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.

FIG.A



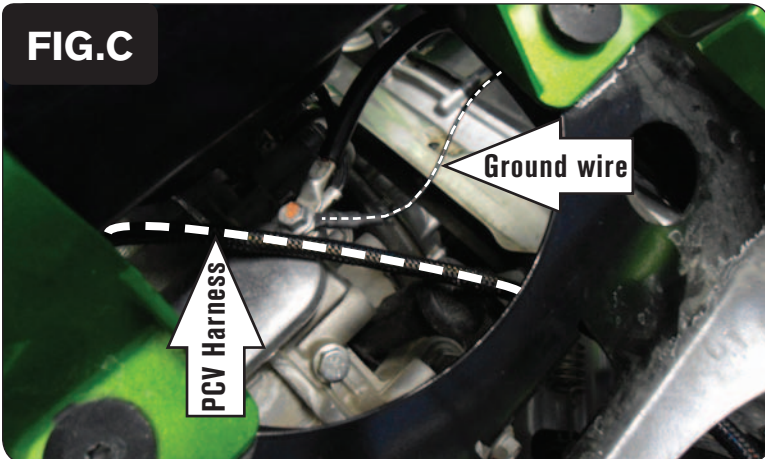
- 1 Remove the seat.
- 2 Remove the right hand and left hand side panels.
- 3 Remove the tool kit (Fig. A).

FIG.B

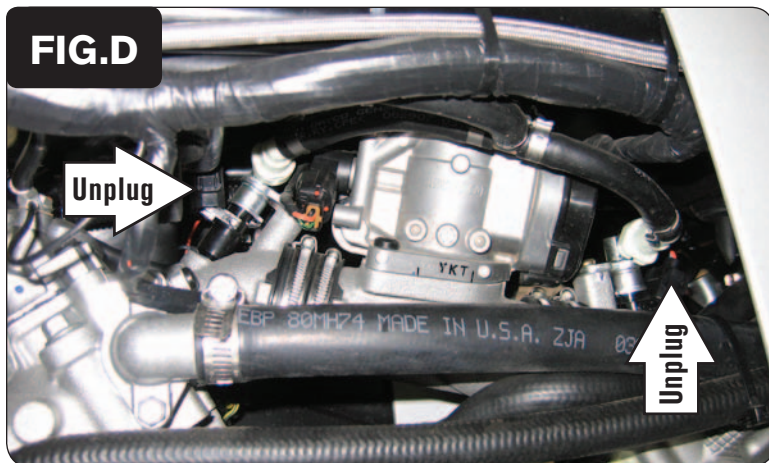


- 4 Using the supplied Velcro, secure the PCV module to the top of the air box at the location shown in Figure B.
Make sure to clean both surfaces with the supplied alcohol swab before attaching the Velcro.
- 5 Route the PCV wiring harness under the frame spar and out the left hand side of the vehicle as shown in Figure B.

FIG.C



- 6 Attach the ground wire from the PCV to the common grounding bolt on top of the engine as shown in Figure C.



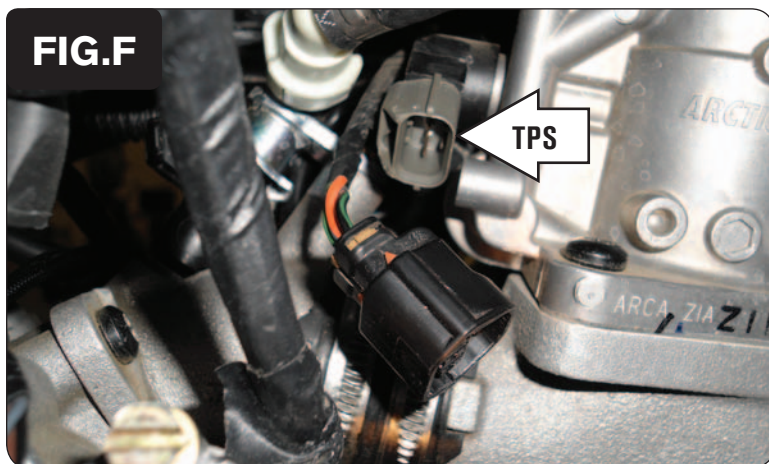
- 7 Route the PCV harness down the left side of the vehicle going towards the engine.
- 8 Unplug the stock wiring harness from the front fuel injector and rear fuel injector (Fig. D).



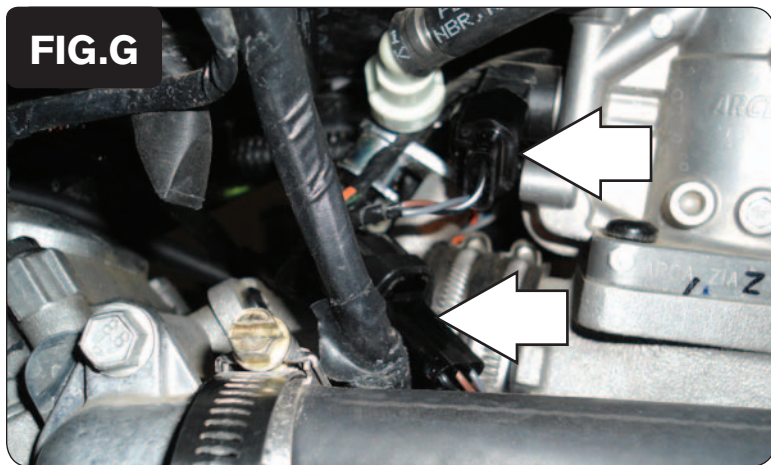
- 9 Attach the connectors from the PCV wiring harness to both fuel injectors and the stock wiring harness connector for both fuel injectors as shown in Figure E.

The pair of PCV leads with ORANGE and WHITE/ORANGE wires should be connected in-line of the FRONT cylinder fuel injector and stock wiring harness.

The other pair of PCV leads with YELLOW and WHITE/YELLOW wires should be connected in-line of the REAR cylinder fuel injector and stock wiring harness.



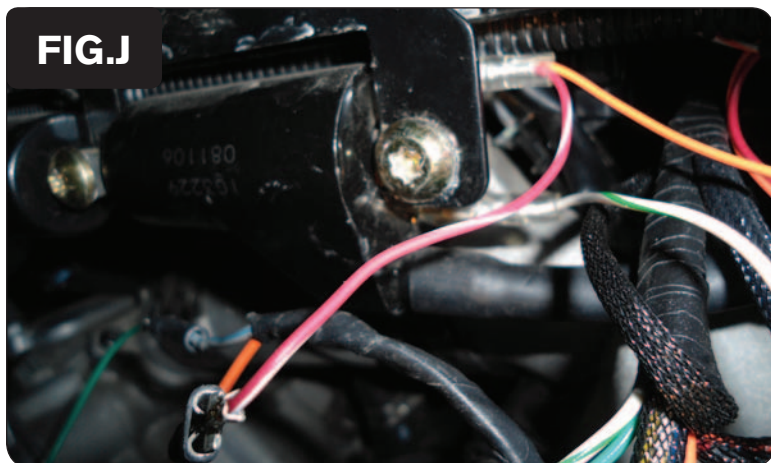
- 10 Locate the Throttle Position Sensor connector.
The TPS connector is located on the right hand side of the throttle body.
- 11 Unplug the TPS connector as shown in Figure F.



- 12 Plug the pair of 3-pin PCV connectors in-line of the TPS and the stock wiring harness as shown in Figure G.



- 13 Locate the ignition coil for the rear cylinder on the left hand side of the quad.
- 14 Unplug the two spade quick connectors from the ignition coil as shown in Figure H.



- 15 Attach the female spade quick connector with the RED/WHITE wire from the PCV wiring harness to the upper coil terminal and the male spade quick connector with the RED/WHITE wire from the PCV wiring harness to the upper coil terminal stock connector as shown in Figure J.
- 16 Attach female spade quick connector with the WHITE/BLUE wire from the PCV wiring harness to the lower coil terminal.
- 17 Attach the male spade quick connect with the BLUE wire from the PCV wiring harness to the stock lower female spade connector.

FIG.K

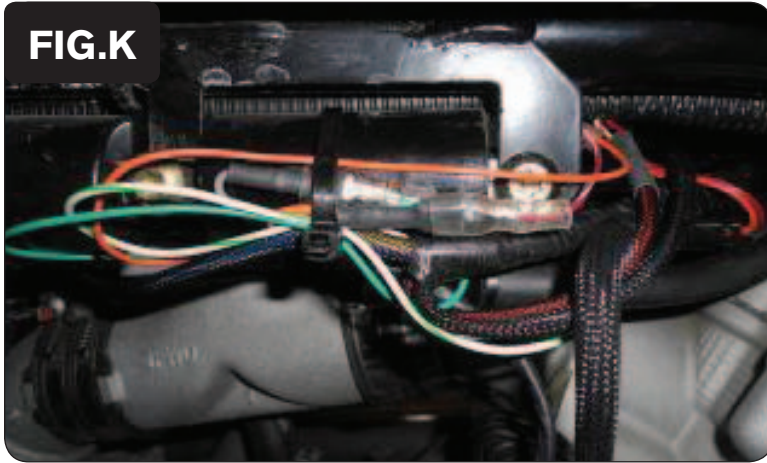
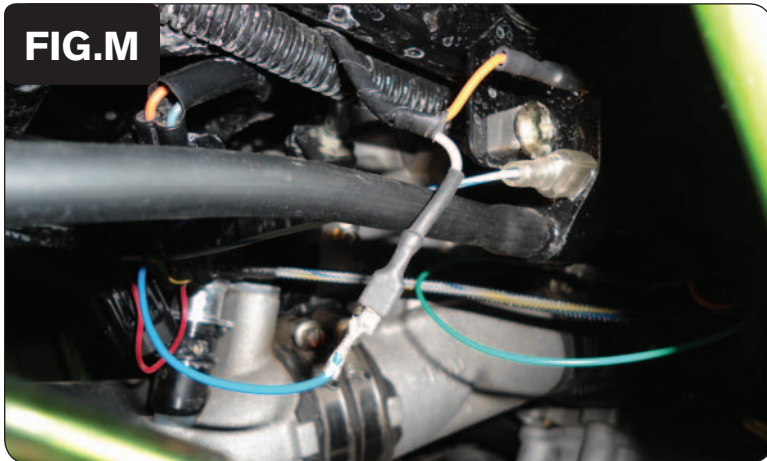


FIG.L



FIG.M



18 Zip-tie these wires to the coil as shown in Figure K.

19 Locate the stock Crank Position Sensor connectors.

The stock crank position sensor connectors are located on the left side of the vehicle.

20 Unplug the stock Crank Position Sensor connectors.

21 Plug the connectors from the PCV wiring harness in-line of the stock Crank Position Sensor connectors and shown in Figure L.

22 Locate the ignition coil for the front cylinder near the front fuel injector connector.

23 Unplug the lower spade connector from the front ignition coil.

24 Attach the female spade quick connector with the WHITE/GREEN from the PCV wiring harness to the lower coil terminal.

25 Attach the male spade quick connector with the GREEN wire from the PCV wiring harness to the stock lower spade as shown in Figure M.

26 Zip-tie the loose wires to the Front Ignition Coil.

27 Reinstall the side panels, the tool kit, and the seat.