

## 2010 MV Agusta Brutale 1090

Installation Instructions



### **PARTS LIST**

- Power Commander
- 1 USB Cable
- 1 CD-ROM
- 1 Installation Guide
- 2 Power Commander Decals
- 2 Dynojet Decals
- 2 Velcro
- 1 Dual Velcro
- 1 Alcohol swab
- 1 O2 Optimizer
- 2 4" zip ties

## THE IGNITION MUST BE TURNED OFF BEFORE INSTALLATION!

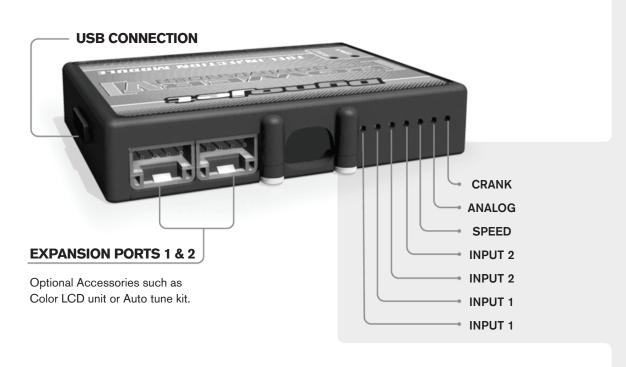
YOU CAN ALSO DOWNLOAD THE POWER COMMANDER SOFTWARE AND LATEST MAPS FROM OUR WEB SITE AT: www.powercommander.com

## PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION



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

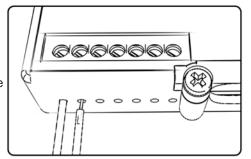
# POWER COMMANDER V INPUT ACCESSORY GUIDE



### 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 -

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 Input 1 by default)

Shifter-

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 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-

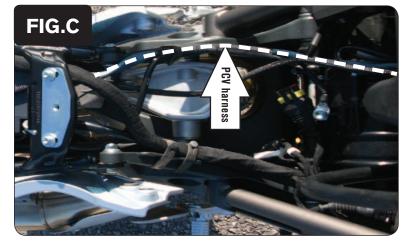
This input is for a 0-5v signal such as engine temp, boost, etc. Once this input is established you can alter your fuel curve based on this input in the control center software.

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 seat.
- 2 Remove the fuel tank and the lower right side panel.
- 3 Secure the PCV in the tail section using the supplied velcro.
- 4 Route the wiring harness from the PCV along the left side of the tail and go towards the engine.

Attach the ground wire from the PCV to the negative side of the battery (Fig. B).

Route the PCV harness along the left side of the frame. Use the stock wire ties to secure the PCV harness in place.

24-005 www.powercommander.com 2010 Brutale 1090 PCV - 3



7 Unplug the stock wiring harness from each fuel injector (Fig. D).



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

PCV harness:

ORANGE - cylinder #1

YELLOW - cylinder #2

GREEN - cylinder #3

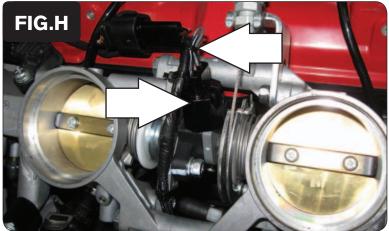
BLUE - cylinder #4



9 Locate the bike throttle position sensor in between the 2nd and 3rd throttle bodies (Fig. F).



10 Route the set of 3 pin TPS connectors of the PCV harness under the fuel rail and throttle body connecting bolt and up to the bike's TPS (Fig. G).



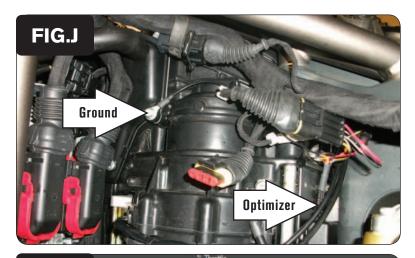
Plug the PCV connectors in line with the bike's TPS. Use the 2 smaller zip ties to secure the wiring harness to the throttle bodies at the pointed locations (Fig. H). Check the throttle movement to ensure there isn't any interference.



12 Unplug the stock O2 sensor from the wiring harness (Fig. I).

This connection is under the fuel tank and can be found by tracing the wires coming out of the exhaust.

24-005 www.powercommander.com 2010 Brutale 1090 PCV - 5



% Throttle											
	FIG	K	2	5	10	15	20	40	60	80	100
			0				0	0	0	0	0
	750	0	0				0	0	0	0	0
1	000				0		0	0	0	0	0
1	250						0	0	0	0	0
1	500			8			0	0	0	0	0
1	750						-8	-10	-15	-3	-15
2	000						1	1	4	8	-15
2	250		8		8		1	1	-5	-10	-13
2	500						1	4	-10	-11	-19
2	750						1	1	-5	0	-15
3	000						1	1	4	4	-5
3	250		8	8	8		2	2	-5	-3	-6
3	500	0	8	8	8	8	2	5	-1	1	-9
3	750						2	6	1	-1	-6
4	000			8		8	2	6	-3	0	-9
4	250						2	2	-5	1	-2
4	500	0	8	8	8		2	0	4	2	-6
4	750						0	-1	-2	4	-2
5	000						0	-1	-2	4	0
5	250			8	8		0	-1	-2	1	-3
5	500				8		-8	0	-1	1	-11
<b>5</b> 5	750	0			8		-8	-1	4	0	-6
Σ 5 1 6	000						-8	-2	-5	-3	-11
6	250	0	8	. 8	8	3	-8	-3	-5	-6	9
6	500	0	0	0	3	-7	-7	-2	4	-6	15
6	750	0	0	0	0	-7	-6	0	-5	-8	-4
7	000	0	0	0	4	-6	-7	-1	-5	-12	-8
7	250	0	0	0	-8	-9	-8	-1	-6	-11	1
7	500	0	0	0	-9	-10	-8	-3	-6	-8	-5
7	750	0	0	0	-6	-8	-7	-3	-5	-5	-8
8	000	0	0	0	-6	-7	-8	4	-3	-5	-6
8	250	0	0	0	4	-7	4	-1	-2	-6	-8
8	500	0	0	0	4	-7	-3	-2	0	-8	-9
8	750	0	0	0	0	-5	-1	-3	0	-6	-9

- Plug the O2 Optimizer in line with this connector and secure the ground wire of the O2 optimizer to the engine case bolt.
- 14 Secure the Optimizer in place using the supplied Velcro.

#### Notes:

- The O2 Optimizer will control the closed loop area of the motorcycle. The closed loop area is 0-14% throttle and 0-6250rpm. The module is designed to achieve an AFR target of around 13.6:1. If you desire a different AFR call tech support at 1-800-992-4993
- Make sure to input a value of 8 in the GREY area of your map shown (except 0% throttle). If you are using an Auto tune module do NOT input target AFR values in this same area.
- The light on the O2 Optimizer will blink while the O2 sensor is heating up. The unit is NOT working until the light goes solid GREEN.

24-005 www.powercommander.com 2010 Brutale 1090 PCV - 6