

# [POWER COMMANDER V]

**2010-2012 MV Agusta F4 1000**

**Installation Instructions**



## **PARTS LIST**

- 1 Power Commander
- 1 USB Cable
- 1 Installation Guide
- 2 Power Commander Decals
- 2 Dynojet Decals
- 4 Velcro strips
- 1 Dual Lock strip
- 1 Alcohol swab
- 2 4" Zip-ties
- 3 8" Zip-ties
- 1 O2 Optimizer
- 1 Secondary Fuel Module
- 1 6" CAN Link Cable
- 1 CAN Termination Plug

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

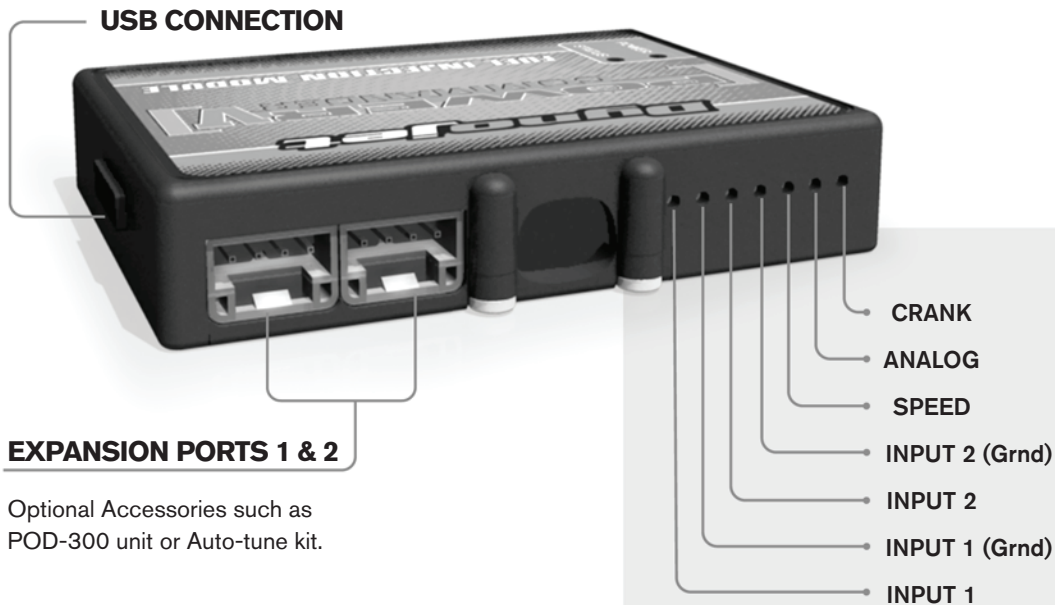
THE LATEST POWER COMMANDER  
SOFTWARE AND MAP FILES CAN BE  
DOWNLOADED FROM OUR WEB SITE AT:  
[www.powercommander.com](http://www.powercommander.com)

**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-

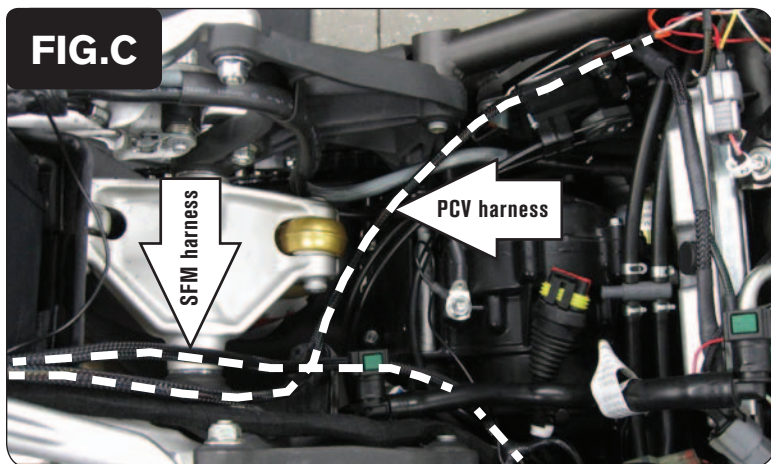
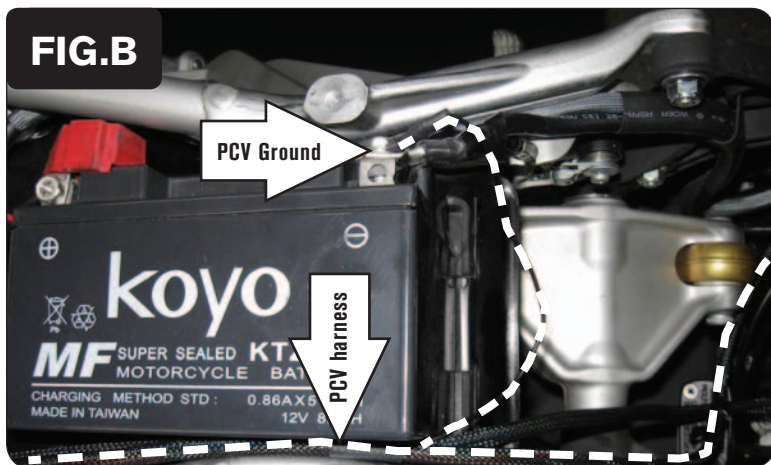
If your application has a speed sensor then you can tap into the signal side of the sensor and run a wire into this input. This will allow you to calculate gear position in the Control Center Software. Once gear position is setup you can alter your map based on gear position and setup gear dependent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



*It is recommended that this installation be performed by a skilled technician.*

- 1 Remove the seat.
- 2 Remove the fuel tank and the lower right side panel.
- 3 Secure the PCV and SFM modules in the tail section using the supplied velcro. Connect the 2 modules together with the CAN link cable and install the CAN termination plug into one of the modules.

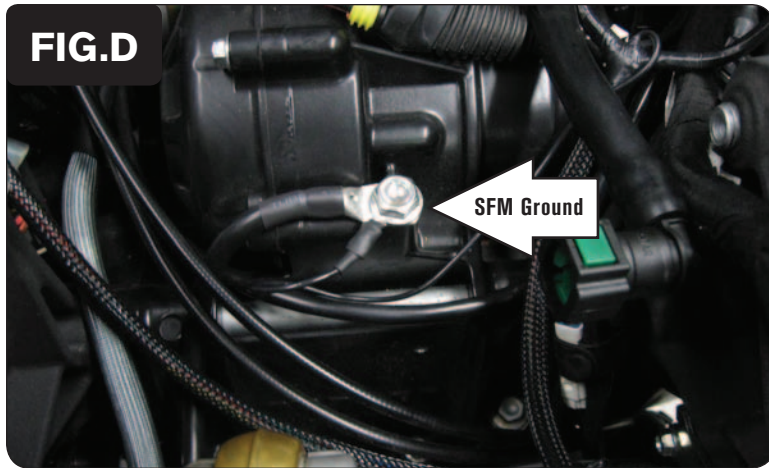
*It does not matter which ports you use.*

*Clean both surfaces with the supplied alcohol swab prior to applying the velcro.*

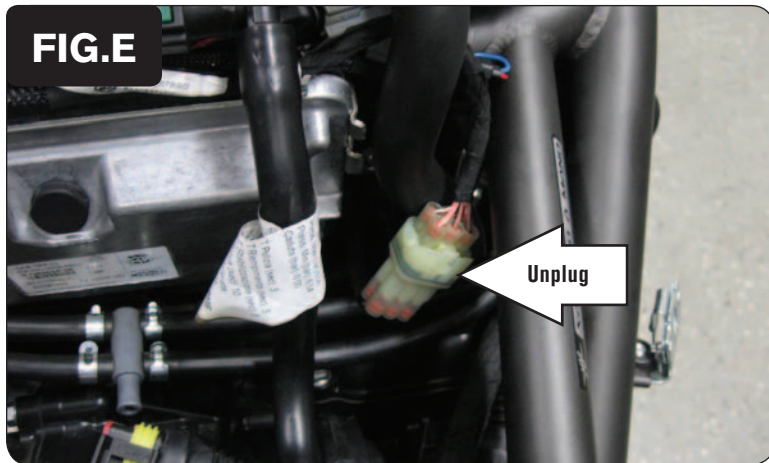
- 4 Route the wiring harness from the PCV and SFM along the right side of the tail and go towards the engine (Fig. A).
- 5 Attach the ground wire from the PCV wiring harness with the small ring eyelet to the negative (-) terminal of the bike's battery (Fig. B).

- 6 Route the PCV harness along the right side of the tail, across the inside, and up the left side of the frame. Keep the SFM harness on the right side of the bike (Fig. C). Use the stock wire ties to secure the PCV & SFM harnesses in place.





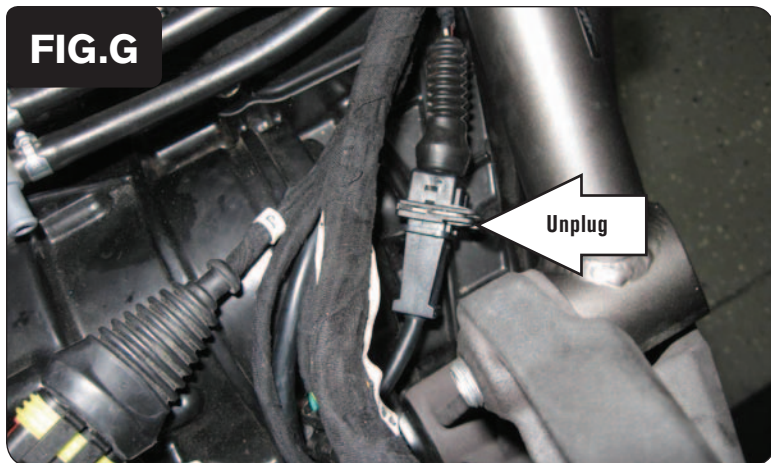
- 7 Attach the ground wire from the SFM wiring harness with the small ring eyelet to the stock ground bolt on top of the engine case (Fig. D).



- 8 Locate the clear 6-pin connectors inside of the frame on the right hand side of the bike (Fig. E).



- 9 Plug the SFM connectors in-line with the bike's clear 6-pin connectors (Fig. F).



- 10 Locate the bike's crank position sensor connectors inside the right hand side of the frame (Fig. G).

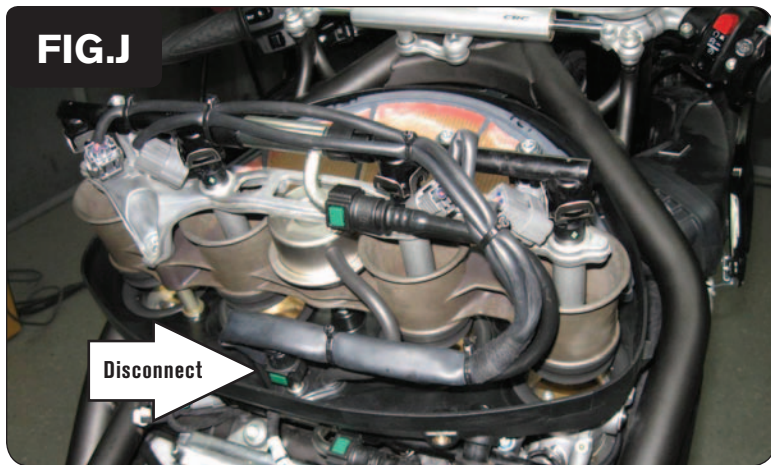


- 11 Plug the matching PCV connectors in-line with the bike's stock crank position sensor connectors (Fig. H).

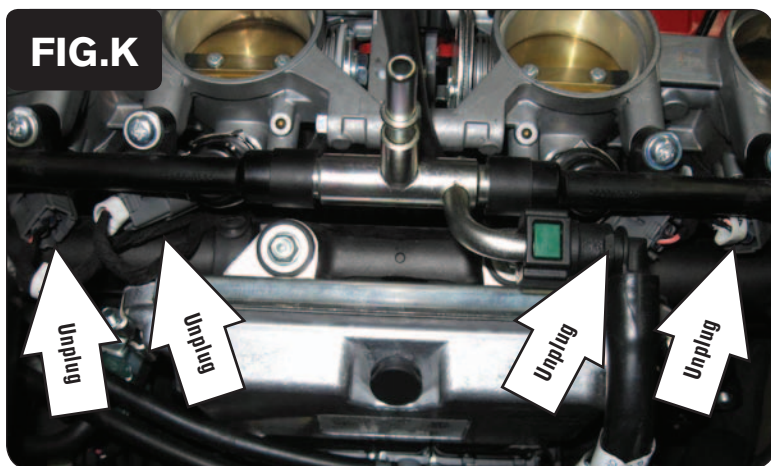


- 12 Remove the entire airbox assembly. Start by taking off the top cover.

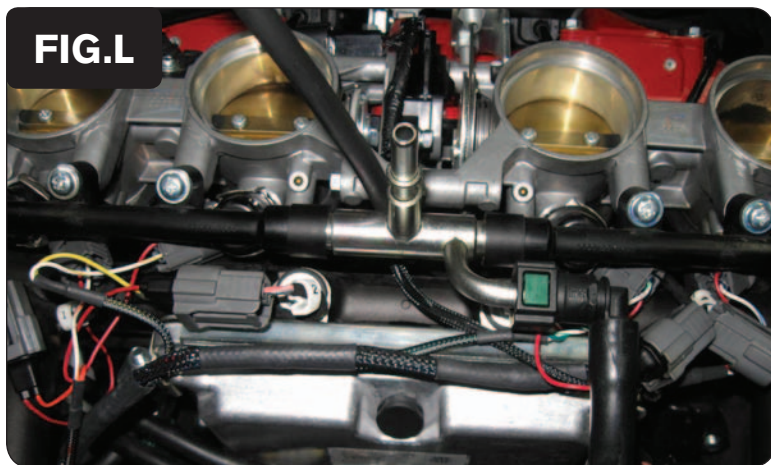




- 13 Once the airbox cover is removed, take the air filter out of it and disconnect the intake ducts from the front sides of the airbox. Disconnect the fuel line and electrical connectors at the bottom rear of the airbox (Fig. J). The entire airbox assembly should be able to lift off of the throttle bodies at this point.



- 14 Locate and unplug the lower primary fuel injectors (Fig. K).



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

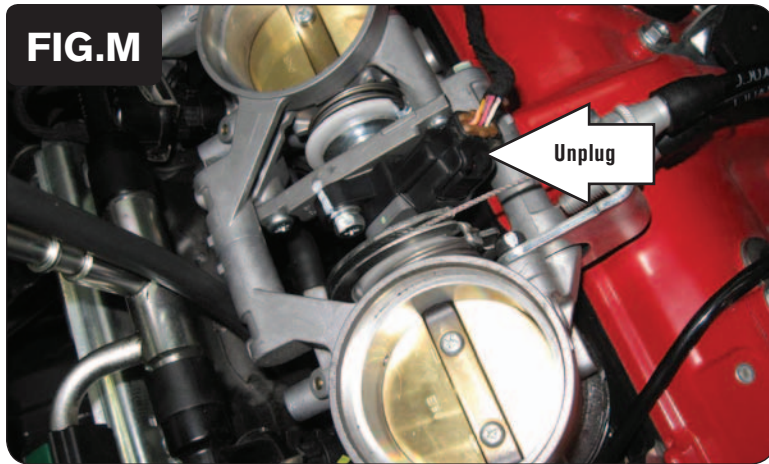
*PCV harness:*

*ORANGE - Cylinder #1*

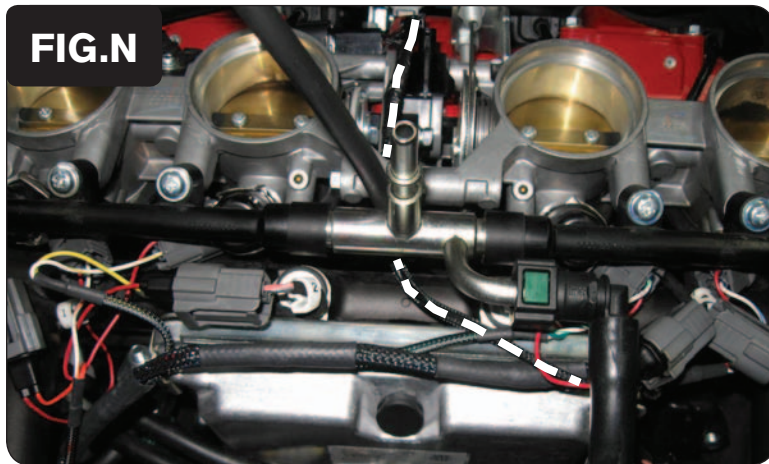
*YELLOW - Cylinder #2*

*GREEN - Cylinder #3*

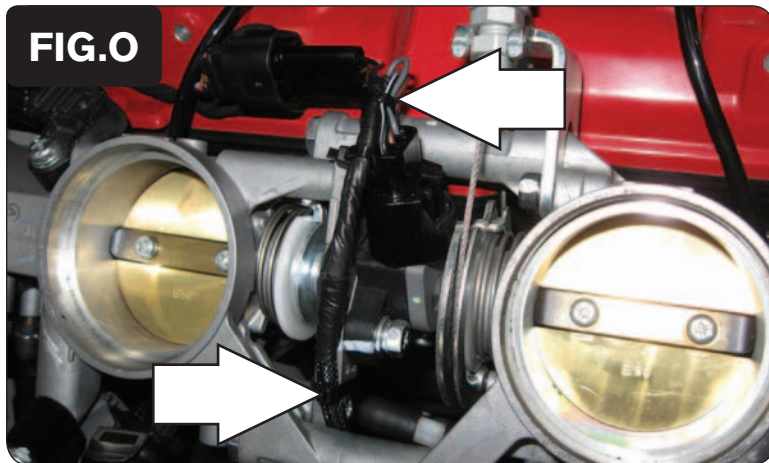
*BLUE - Cylinder #4*



- 16 Locate and unplug the bike's throttle position sensor located between the 2nd and 3rd throttle bodies (Fig. M).

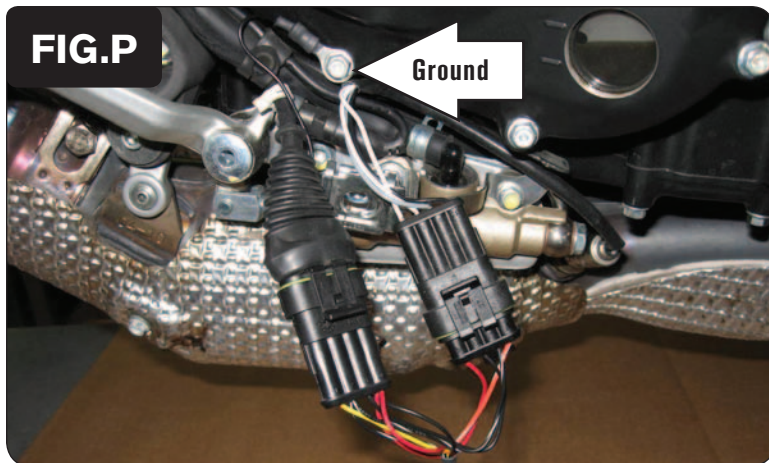


- 17 Route the set of 3-pin TPS connectors of the PCV harness under the fuel rail and throttle body connecting bolt and up to the bike's TPS (Fig. N).



- 18 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. O). Check the throttle movement to ensure there isn't any interference.





- Locate and unplug the bike's stock O2 sensor connectors by tracing the wires coming out of the O2 sensor behind the lower right side panel. Plug the supplied O2 Optimizer in-line with these stock connectors and secure the ground wire of the O2 Optimizer to the engine side cover bolt. Use the remaining zip ties to secure the O2 Optimizer and wiring free and clear of any hot or moving parts (Fig. P).

|      | % Throttle |   |   |    |     |    |     |     |     |     |
|------|------------|---|---|----|-----|----|-----|-----|-----|-----|
|      | 0          | 2 | 5 | 10 | 15  | 20 | 40  | 60  | 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          | 8 | 8 | 8  | 8   | 0  | 0   | 0   | 0   | 0   |
| 1500 | 0          | 8 | 8 | 8  | 8   | 0  | 0   | 0   | 0   | 0   |
| 1750 | 0          | 8 | 8 | 8  | 8   | -8 | -10 | -15 | -3  | -15 |
| 2000 | 0          | 8 | 8 | 8  | 8   | 1  | 1   | -4  | 8   | -15 |
| 2250 | 0          | 8 | 8 | 8  | 8   | 1  | 1   | -5  | -10 | -13 |
| 2500 | 0          | 8 | 8 | 8  | 8   | 1  | -4  | -10 | -11 | -19 |
| 2750 | 0          | 8 | 8 | 8  | 8   | 1  | 1   | -5  | 0   | -15 |
| 3000 | 0          | 8 | 8 | 8  | 8   | 1  | 1   | -4  | -4  | -5  |
| 3250 | 0          | 8 | 8 | 8  | 8   | 2  | 2   | -5  | -3  | -6  |
| 3500 | 0          | 8 | 8 | 8  | 8   | 2  | 5   | -1  | 1   | -9  |
| 3750 | 0          | 8 | 8 | 8  | 8   | 2  | 6   | 1   | -1  | -6  |
| 4000 | 0          | 8 | 8 | 8  | 8   | 2  | 6   | -3  | 0   | -9  |
| 4250 | 0          | 8 | 8 | 8  | 8   | 2  | 2   | -5  | 1   | -2  |
| 4500 | 0          | 8 | 8 | 8  | 8   | 2  | 0   | -4  | 2   | -6  |
| 4750 | 0          | 8 | 8 | 8  | 8   | 0  | -1  | -2  | 4   | -2  |
| 5000 | 0          | 8 | 8 | 8  | 8   | 0  | -1  | -2  | 4   | 0   |
| 5250 | 0          | 8 | 8 | 8  | 8   | 0  | -1  | -2  | 1   | -3  |
| 5500 | 0          | 8 | 8 | 8  | 8   | -8 | 0   | -1  | 1   | -11 |
| 5750 | 0          | 8 | 8 | 8  | 8   | -8 | -1  | -4  | 0   | -6  |
| 6000 | 0          | 8 | 8 | 8  | 8   | -8 | -2  | -5  | -3  | -11 |
| 6250 | 0          | 8 | 8 | 8  | 8   | -8 | -3  | -5  | -6  | 9   |
| 6500 | 0          | 0 | 0 | 3  | -7  | -7 | -2  | -4  | -6  | 15  |
| 6750 | 0          | 0 | 0 | 0  | -7  | -6 | 0   | -5  | -8  | -4  |
| 7000 | 0          | 0 | 0 | -4 | -6  | -7 | -1  | -5  | -12 | -8  |
| 7250 | 0          | 0 | 0 | -8 | -9  | -8 | -1  | -6  | -11 | 1   |
| 7500 | 0          | 0 | 0 | -9 | -10 | -8 | -3  | -6  | -8  | -5  |
| 7750 | 0          | 0 | 0 | -6 | -8  | -7 | -3  | -5  | -5  | -8  |
| 8000 | 0          | 0 | 0 | -6 | -7  | -8 | -4  | -3  | -5  | -6  |
| 8250 | 0          | 0 | 0 | -4 | -7  | -4 | -1  | -2  |     |     |
| 8500 | 0          | 0 | 0 | -4 | -7  | -3 | -2  | 0   |     |     |
| 8750 | 0          | 0 | 0 | 0  | -5  | -1 | -3  | 0   |     |     |

### Tuning Notes:

- The O2 Optimizer will control the closed loop area of the motorcycle. The closed loop area of the map tables is 0-14% throttle and 0-6250 RPM and is represented by the selected range of cells in Figure Q. The module is designed to achieve an AFR target of around 13.6:1. To use this O2 Optimizer you must retain your stock O2 sensor (even if using Auto-tune).
- Make sure to input a value of 8 in this range of your Fuel table/tables (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.

*There are two wires (WHITE and BLACK/WHITE) coming out of the SFM harness (near the enclosure) that will not be used. Simply tie these wires up and out of the way.*