[POWER COMMANDER V]

2013-2014 Yamaha FJR1300

Installation Instructions

PARTS LIST

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

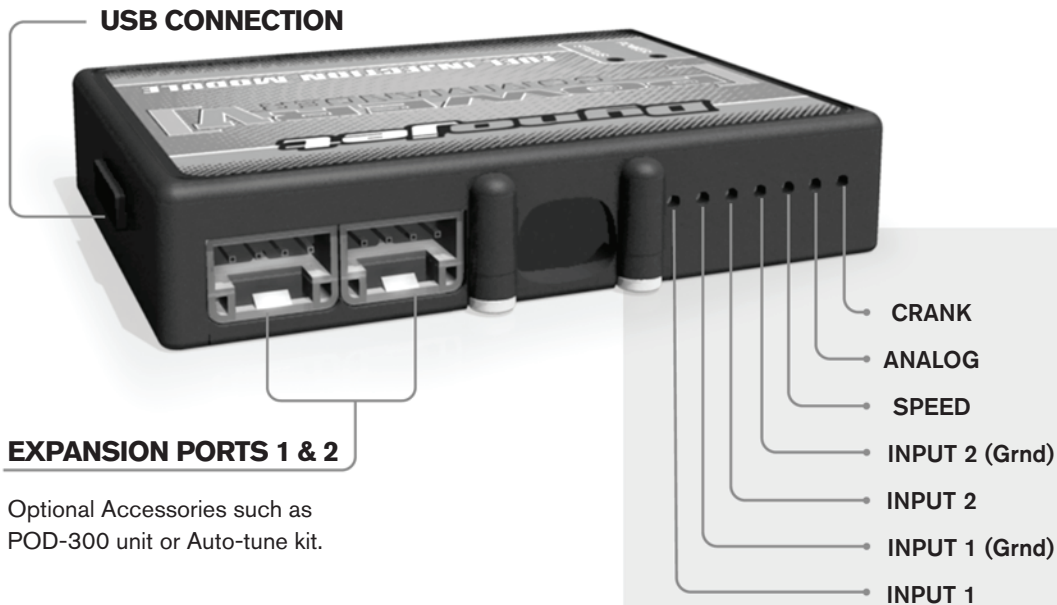## THE IGNITION MUST BE TURNED OFF BEFORE INSTALLATION!

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

PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION

Dynojet

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POWER COMMANDER V
INPUT ACCESSORY GUIDE

ACCESSORY INPUTS

USB CONNECTION

EXPANSION PORTS 1 & 2

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

CRANK
ANALOG
SPEED
INPUT 2 (Grnd)
INPUT 2
INPUT 1 (Grnd)
INPUT 1

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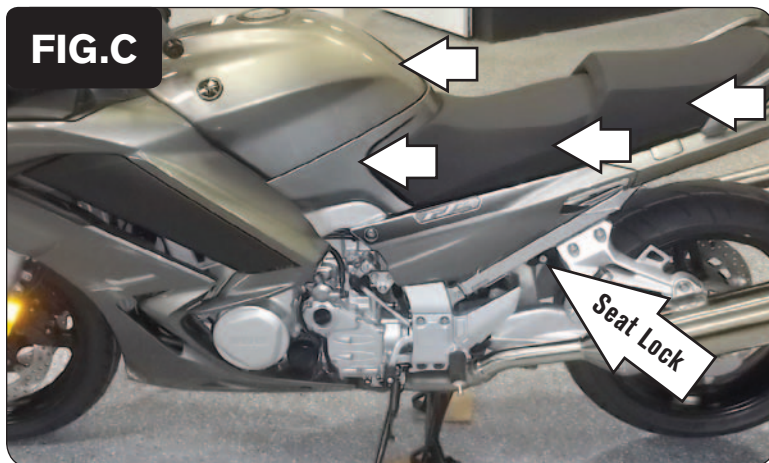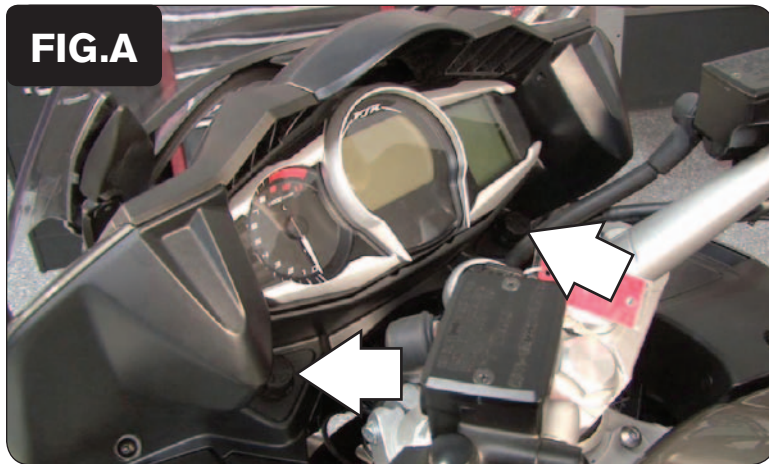
Speed- If your application has a speed sensor then you can tap into the signal side of the sensor and run a wire into this input. This will allow you to calculate gear position in the Control Center Software. Once gear position is setup you can alter your map based on gear position and setup gear dependent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

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.

FIG.A

FIG.B

FIG.C

Seat Lock

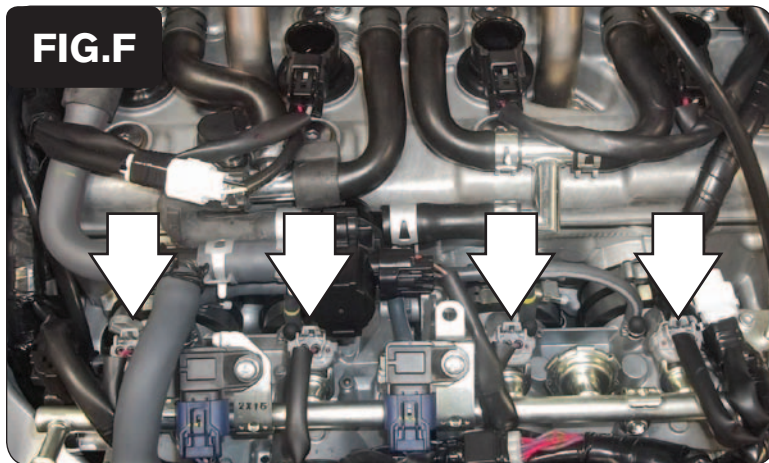**To see a video demonstration of this installation visit our channel (DynojetResearch) on YouTube.**

1   Remove both of the headlight adjuster knobs (Fig. A).

2   Turn the bike's key switch on and open the glove compartment on the left side of the bike.

3   Remove the panel surrounding the gauge cluster.

4   Remove the battery cover from the right side of the bike to access the bike's battery (Fig. B).

5   Remove the rider and passenger seats.

6   Remove the plastic panel at the back of the fuel tank and directly in front of the rider seat.
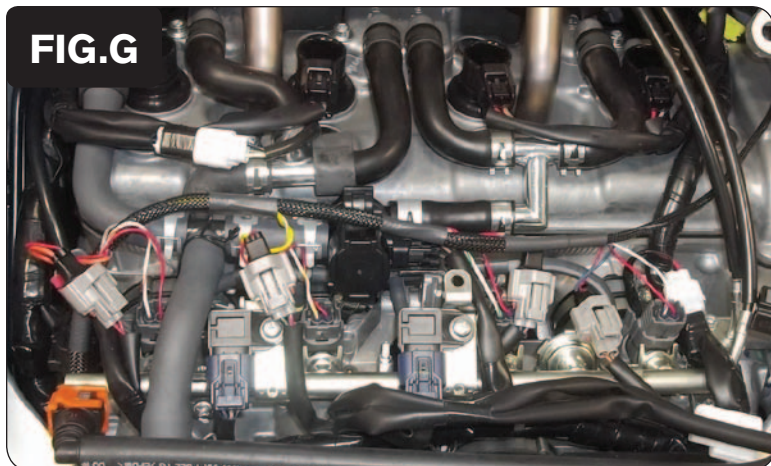
7   Remove the fuel tank (Fig. C).

FIG.D

8   Remove the cross-member bracket under the fuel tank and the heat shield (Fig. D).

FIG.E
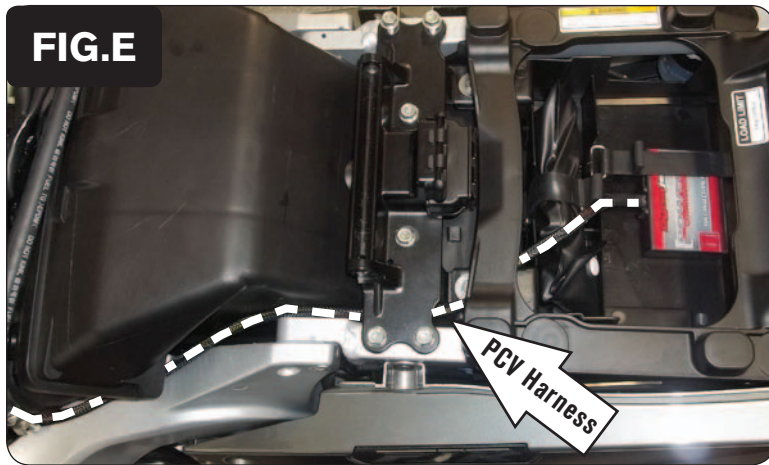
9   Use the supplied Velcro strips to secure the PCV module in the compartment beneath the rider seat.

Clean the surface with the supplied alcohol swab prior to applying the Velcro.

10   Route the PCV harness forward toward the engine following inside the left side frame rail. Route the harness under the bracket for the fuel tank (Fig. E).

PCV Harness

FIG.F

11   Unplug the stock wiring harness from each fuel injector (Fig. F).

FIG.G

FIG.H

FIG.I
PCV Harness

Posi-Tap
1 Insert Hot Wire
2 Tighten
3 Strip Leads
4 Insert & Tighten

12   Plug the PCV harness in-line of each fuel injector and the stock wiring harness for each injector (Fig. G).

The pair of PCV harness leads with ORANGE colored wires will connect in-line with the cylinder #1 (left most) fuel injector.

The pair of PCV harness leads with YELLOW colored wires will connect in-line with the cylinder #2 fuel injector.

The pair of PCV harness leads with GREEN colored wires will connect in-line with the cylinder #3 fuel injector.

The pair of PCV harness leads with BLUE colored wires will connect in-line with the cylinder #4 (right most) fuel injector.
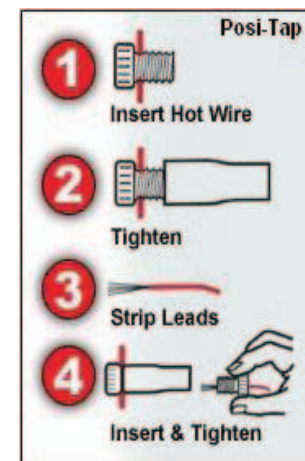
13   Locate and unplug the stock connector for the bike's Throttle Position Sensor.

*The TPS is located on the left side of the left most throttle body.*

14   Use the supplied Posi-tap to attach the unterminated GREY wire of the PCV harness to the stock WHITE wire of the bike's TPS.

15   Plug the stock TPS connector back onto the TPS (Fig. H).

16   Route the remainder of the PCV harness with the 6mm ring lug towards the forward right corner of engine, under the frame rail, and up to the top of the bike's battery (Fig. I).

This ring lug will need to be routed under the frame and into the battery compartment, where it will be secured to the negative terminal of the bike's battery. You can follow alongside the stock battery wires. A long stemmed hooked scribe will be helpful to hook onto the ring lug at the bottom of the battery compartment. Then you can pull the ring lug up to the top of the battery.

FIG.J

Ground

FIG.K

Unplug

FIG.L
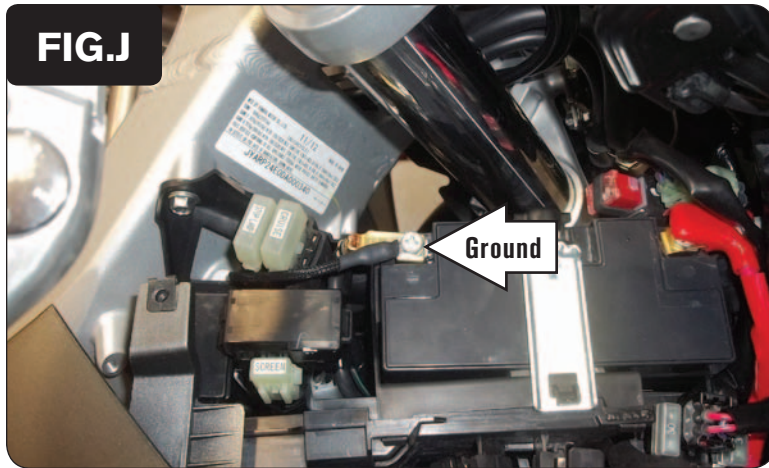
17   Secure the ring lug to the negative (-) terminal of the bike's battery (Fig. J).
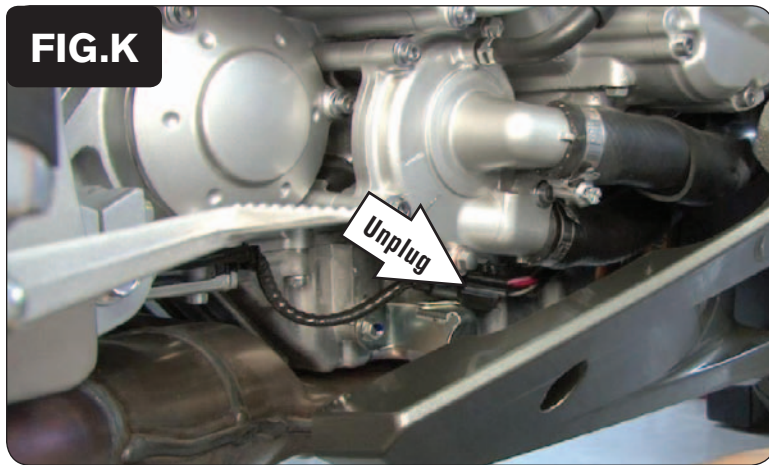
18   Remove the fairing bolt at the bottom rear of the right side fairing.

19   Locate and unplug the stock wiring harness from the bike's O2 sensor (Fig. K).
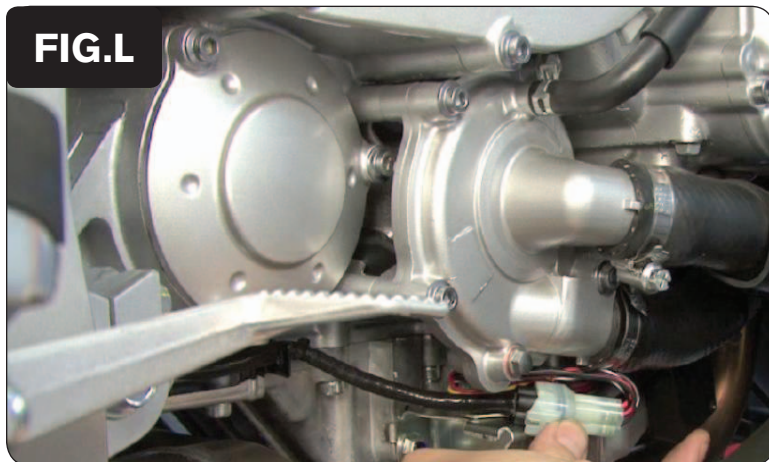
20   Plug the supplied Dynojet O2 Optimizer in-line of the stock O2 sensor connectors; and tie the O2 Optimizer to the stock wiring harness where it is free from the hot exhaust (Fig. L).

Optional Inputs:

Temperature input - GREEN/WHITE wire on coolant pipe above the valve cover or at ECU.

12v source for Auto-tune - BLUE wire of tail light connector

Tuning Notes:

The O2 optimizer for this model controls the stock closed loop area. This area is represented by the highlighted cells shown in Figure M. 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 input specific values in each individual cell of this highlighted area. A blanket fuel change of 8-12 will do fine for all cells in this range for most bikes with mild or no modification. If using the Auto-tune system do NOT input values in this area of your Target AFR table.

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

This bike uses a throttle by wire system, so conventional tuning can not be performed for all RPM and throttle ranges.

The GREY wire from 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 resetting only the closed position after the bike has completely warmed up. Use the arrow (<) key next to the Minimum Voltage setting to perform this step and then click OK. Do not try to set the Maximum Voltage setting unless you are on a dyno and in gear.

	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	0	0	0	0	0	0	0	0	0
1500	0	0	0	0	0	0	0	0	0	0
1750	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0
2250	0	0	0	0	0	0	0	0	0	0
2500	0	0	0	0	0	0	0	0	0	0
2750	0	0	0	0	0	0	0	0	0	0
3000	0	0	0	0	0	0	0	0	0	0
3250	0	0	0	0	0	0	0	0	0	0
3500	0	0	0	0	0	0	0	0	0	0
3750	0	0	0	0	0	0	0	0	0	0
4000	0	0	0	0	0	0	0	0	0	0
4250	0	0	0	0	0	0	0	0	0	0
4500	0	0	0	0	0	0	0	0	0	0
4750	0	0	0	0	0	0	0	0	0	0
5000	0	0	0	0	0	0	0	0	0	0
5250	0	0	0	0	0	0	0	0	0	0
5500	0	0	0	0	0	0	0	0	0	0
5750	0	0	0	0	0	0	0	0	0	0
6000	0	0	0	0	0	0	0	0	0	0
6250	0	0	0	0	0	0	0	0	0	0
6500	0	0	0	0	0	0	0	0	0	0
6750	0	0	0	0	0	0	0	0	0	0
7000	0	0	0	0	0	0	0	0	0	0
7250	0	0	0	0	0	0	0	0	0	0
7500	0	0	0	0	0	0	0	0	0	0
7750	0	0	0	0	0	0	0	0	0	0
8000	0	0	0	0	0	0	0	0	0	0
8250	0	0	0	0	0	0	0	0	0	0
8500	0	0	0	0	0	0	0	0	0	0
8750	0	0	0	0	0	0	0	0	0	0
9000	0	0	0	0	0	0	0	0	0	0
9250	0	0	0	0	0	0	0	0	0	0
9500	0	0	0	0	0	0	0	0	0	0

FIG.M