

POWER COMMANDER FC

2008-2014 Yamaha R6

Installation Instructions



Parts List

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

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

YOU CAN ALSO DOWNLOAD THE PCFC
CONTROL CENTER SOFTWARE AND
LATEST MAPS FROM OUR WEB SITE AT:
www.powercommander.com

PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION

Dynojet

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Position	Note
Position 1	2008-2009 Yamaha R6 Stock exhaust Stock or aftermarket air filter
Position 2	2010-2014 Yamaha R6 Stock exhaust Stock or aftermarket air filter

SELECTING THE MAP POSITION

The Dynojet Power Commander Fuel Controller (PCFC) comes loaded with up to ten maps. Using a #1 Phillips screwdriver, turn the map select dial to toggle between the loaded maps. Refer to the map position table for the maps included in your PCFC.

USING THE RPM RANGE DIALS

The Low, Mid, and High RPM Dials refer to the RPM range, in thirds, of your vehicle. Each dial allows +/- 10% fuel adjustment on top of what fuel changes are done in the map. With the dial facing straight up, there is no additional fuel change.

For example, if your vehicle revs to 6000 RPM:

- The low RPM dial will adjust 0-2000 RPM
- The mid RPM dial will adjust 2001-4000 RPM
- The high RPM dial will adjust 4001-6000 RPM

USING PCFC CONTROL CENTER

Take your tuning to the next level with the PCFC Control Center software.

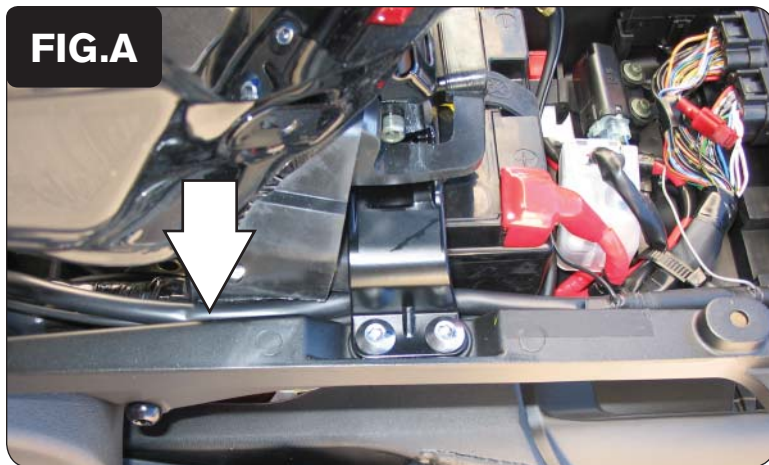
- 1 Using your web browser, navigate to www.powercommander.com.
- 2 Click Enter Race Ready.
- 3 Click Downloads.
- 4 Click Access Downloads for Power Commander FC.
- 5 Click the PCFC software Download button.
- 6 Open the zip folder.
- 7 Double-click the install file and follow the on-screen instructions to install the PCFC Control Center software. The PCFC Control Center software and maps will be stored in C:\Program Files\PCFC Control Center.
- 8 Return to the Downloads or Home page where you can enter the make, model, and year of your bike to check for and download additional maps.

LOADING ADDITIONAL MAPS

- 1 Connect the USB cable from the computer to the PCFC. Verify the cable is fully seated in the PCFC.
- 2 Run the Control Center software by double-clicking the program icon installed on your desktop or on your start menu.
- 3 Click Open Map File and select a map file.
- 4 Click Send Map. You can send the map to any of the ten map positions.

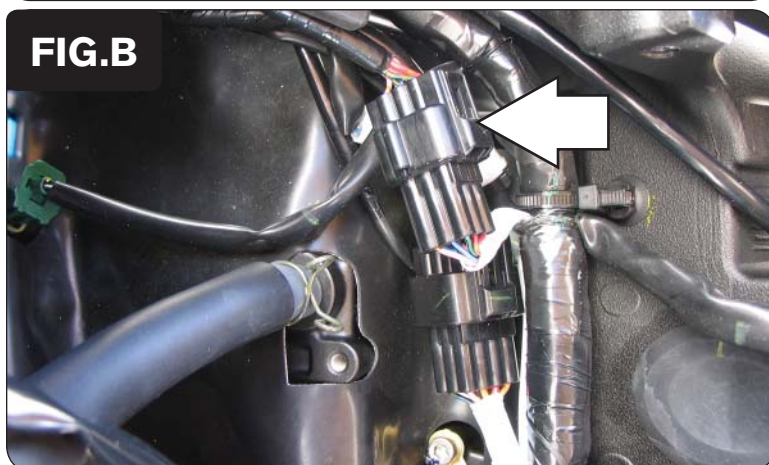
ALTERING MAPS USING SOFTWARE

The values in the map represent a percentage of fuel change over stock. A value of 10 in the map indicates at that throttle position and RPM range the vehicle will be 10% richer than stock. If the value is -10, then it would be 10% leaner than stock. You have the ability to fine tune your fuel curve by altering these values. The Control Center software allows a value of +250 to -100 in each cell.



- 1 Remove the main seat.
- 2 Lift the front of the fuel tank up and use something to keep it propped up.
- 3 Route the PCFC harness down the left hand side of the bike.
- 4 Route the PCFC harness underneath the fuel tank bracket as shown in Figure A.

Note: The bolts securing the fuel tank bracket will need to be loosened to allow room for the PCFC harness to fit underneath. Tighten these bolts after installation is complete.

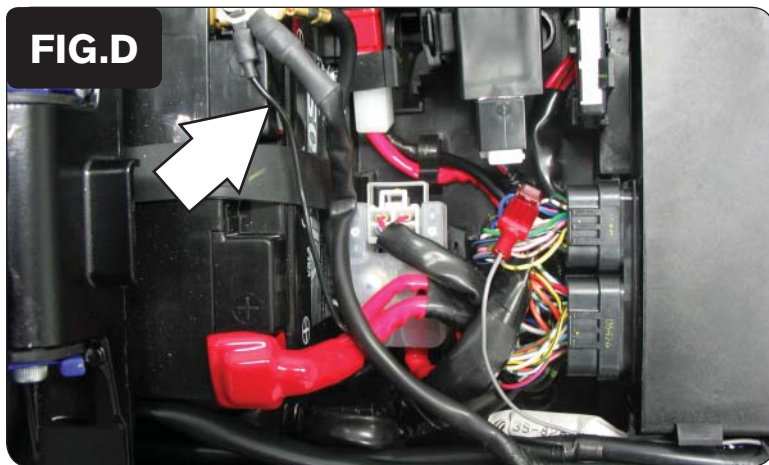


- 5 Unplug the 9-pin black connector from the throttle bodies to the main wiring harness as shown in Figure B.



- 6 Attach the PCFC connectors to the stock connector and wiring harness as shown in Figure C.

Verify these connectors are positioned so they do not interfere with the fuel line when the fuel tank is installed back into position.



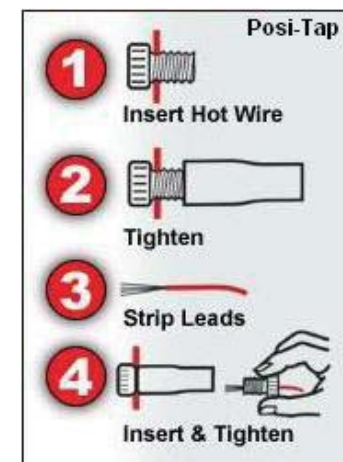
- 7 Attach the ground wire from the PCFC to the negative side of the battery as shown in Figure D.



- 8 Using the supplied posi-tap, attach the grey wire from the PCFC to the blue wire of the ECU as shown in Figure E.

This wire is from the smaller of the two ECU connectors in position 5.

Note: The wire location is numbered on the back of the connector.



- 9 Using the supplied velcro, secure the PCFC in the tail section of the bike as shown in Figure F.

Make sure to clean both surfaces with the alcohol swab before attaching.

It is recommended to route the PCFC harness underneath the sub-frame bracket.

FIG.G

- 10 Unplug the stock wiring harness from the O2 sensor as shown in Figure G.
The O2 sensor connector is a black 4-pin connector located under the fuel tank near the right hand side of the frame.
- 11 Route the PCFC 4-pin connectors to the location shown in Figure G.
- 12 Attach the 4-pin connectors from the PCFC to the stock wiring harness and O2 sensor.
- 13 Lower the fuel tank and verify the connectors and harness do not interfere with or get pinched by the fuel tank.
- 14 Reinstall the main seat.

FIG.H

	THROTTLE (%)									
	2	5	10	15	20	40	60	80	100	
1500	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0
2500	0	0	0	0	0	12	0	0	0	0
3000	0	0	0	0	0	7	3	0	0	0
3500	0	0	0	0	0	8	6	0	0	0
4000	0	0	0	0	0	12	13	0	0	0
4500	0	0	0	0	0	5	2	0	0	0
5000	0	0	0	0	0	10	4	0	0	0
5500	0	0	0	0	0	15	8	0	0	0
6000	0	0	0	0	0	13	12	-4	0	0
6500	0	0	0	0	0	8	9	-4	0	0
7000	0	0	0	0	0	4	1	-6	0	0
7500	0	0	0	0	0	3	1	-6	4	0
8000	0	0	0	0	0	1	2	-4	4	0
8500	0	0	0	0	7	6	0	12	0	0
9000	0	0	0	10	13	6	-3	13	4	
9500	0	0	0	10	11	7	-7	-20	-19	
10000	0	0	0	10	9	4	-10	-33	-43	
10500	0	0	0	10	9	4	-7	-20	-31	
11000	0	0	0	9	10	4	-3	-7	-7	
	0	0	0	9	9	5	-5	-3	-7	

The PCFC for this model controls the stock closed loop area. This area is represented by the highlighted cells shown in Figure H. The PCFC is designed to achieve a target AFR of 13.6:1. To use this PCFC you must retain your stock O2 sensor.

It is not recommended to alter the values in the highlighted area unless instructed to do so by a PCFC technician.

Note: For the closed loop area to work correctly, you must block the clean air injection system. Block the hose on the right side of the air box that leads to a valve sitting on top of the cylinder head cover.

Tuning Notes

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

The grey wire from the PCFC is attached to the throttle blade angle sensor of the throttle bodies which is not directly correlated to the throttle grip position. When setting the throttle position in the Top Tune software, we recommend on resetting only the closed position after the bike has completely warmed up. Use the arrow key (<) next to CLOSED to perform this step and then click OK. Do not try to set the OPEN position unless you are on a dyno and above 9000 RPM.

You will notice in the maps there are not detailed values below 7000 RPM at 100% throttle and below 5250 RPM at 60-80%. This is because the throttle blades will not open more than 60% below this RPM range no matter how much throttle input is given. Therefore this area can not be tuned.