

# POWER COMMANDER FC

2009-2014 Yamaha R1

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

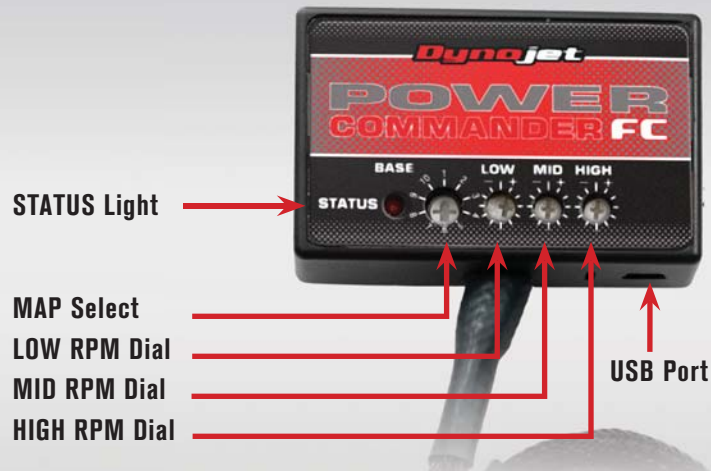
**THE IGNITION MUST BE TURNED  
OFF BEFORE INSTALLATION!**

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



Position	Note
Position 1	2009-2011 Yamaha R1 Stock exhaust Stock or aftermarket air filter
Position 2	2012-2014 Yamaha R1 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.

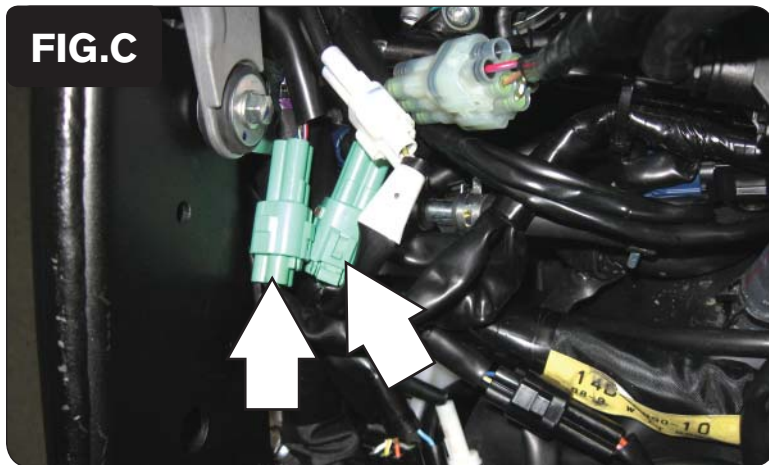
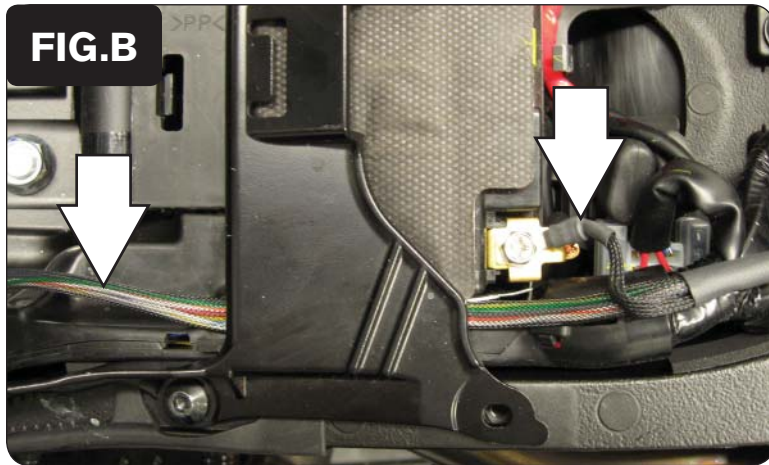
- 1 Using your web browser, navigate to [www.powercommander.com](http://www.powercommander.com).
- 2 Click Enter Race Ready.
- 3 Click Downloads.
- 4 Click Access Downloads for Power Commander FC.
- 5 Click the PCFC software Download button.
- 6 Open the zip folder.
- 7 Double-click the install file 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 Remove the inner fairing on the left hand side of the bike as shown in Figure A.

- 4 Lay the PCFC near the battery and route the PCFC harness down the left hand side of the bike.
- 5 Route the harness underneath the battery bracket as shown in Figure B.
- 6 Attach the ground wire from the PCFC to the negative side of the battery as shown in Figure B.

- 7 Unplug the 3-pin and 4-pin green connectors from the throttle bodies to the main wiring harness as shown in Figure C.

These connectors are located to the inside of the frame on the left side.

**FIG.D**



- 8 Attach the PCFC connectors to the throttle bodies and stock wiring harness as shown in Figure D.

**FIG.E**



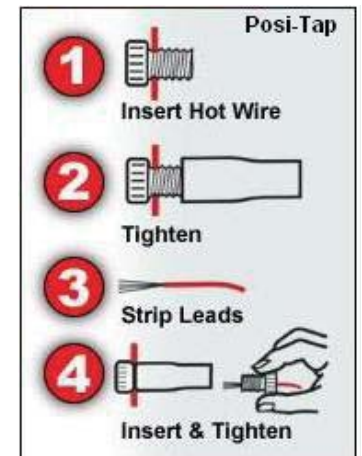
- 9 Unplug the wiring harness from the throttle position sensor (TPS) as shown in Figure E.

The TPS connector is located on the left side of the throttle bodies underneath the inner fairing that was removed earlier.

**FIG.F**



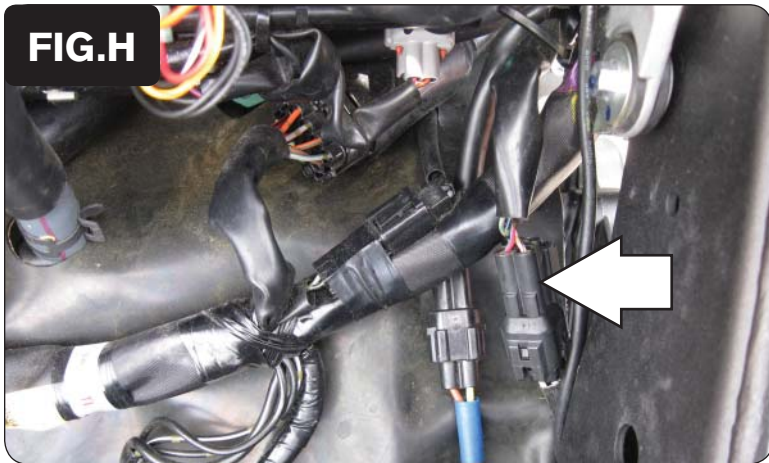
- 10 Using the supplied posi-tap, attach the grey wire from the PCFC to the white wire of the TPS wiring harness as shown in Figure F.
- 11 Attach the TPS back to the throttle bodies.





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

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



- 13 Locate the stock O2 sensor connector.

The O2 sensor connector is a black 4-pin connector located under the fuel tank near the right hand side of the frame.

- 14 Unplug the stock O2 sensor connection and plug the 4-pin connectors from the PCFC to the stock connector and harness as shown in Figure H.

- 15 Lower the fuel tank and verify the connectors and harness do not interfere with or get pinched by the fuel tank.

- 16 Reinstall the main seat.

	MAP 1 - CYLINDER 1,2									
	THROTTLE (%)									
	2	5	10	15	20	40	60	80	100	
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	6	3	-2	-3	
2500	0	0	0	0	0	4	-1	-6	0	
2750	0	0	0	0	0	4	-4	-14	1	
3000	0	0	0	0	0	0	-2	-15	1	
3250	0	0	0	0	0	6	4	-2	7	
3500	0	0	0	0	0	8	5	4	11	
3750	0	0	0	0	0	3	-1	-4	0	
4000	0	0	0	0	0	-1	-9	-5	-3	
4250	0	0	0	0	0	2	-2	1	-2	
4500	0	0	0	0	0	8	2	2	-5	
4750	0	0	0	0	0	9	4	4	-1	
5000	0	0	0	0	0	13	7	7	3	
5250	0	0	0	0	0	15	10	5	3	
5500	0	0	0	0	0	15	8	6	2	
5750	0	0	0	0	0	17	8	5	3	
6000	0	0	0	0	0	13	9	7	3	

The PCFC for this model controls the stock closed loop area. This area is represented by the highlighted cells shown in Figure I. 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.