

# INSTALLATION INSTRUCTIONS



# UNLEASH.

THE SMARTEST PERFORMANCE TUNING TECHNOLOGY

**ZFI** FUEL MANAGEMENT

**KTM DUKE / RC 390 | 2017-2019  
F546**

## 1>READ

### WARNINGS > INSTALLING



- We strongly suggest that an experienced technician install this product.
- Read through all instructions before beginning installation.
- This document is intended for use by qualified technicians.
- This is not a replacement for the factory Engine Control Unit (ECU).
- Refer to a factory service manual for more specific stock component identification/location information and removal/assembly procedures.

### WARNINGS > USING



- Use only in race or other closed-course applications and never on public roads.
- Z-Fi products are not certified by the California Air Resource Board (CARB) for use on CA public lands.

### GETTING HELP



- Factory support is available in the US at 909-597-8300.
- For fastest support outside of the US, find your local importer at [bazzaz.net](http://bazzaz.net).

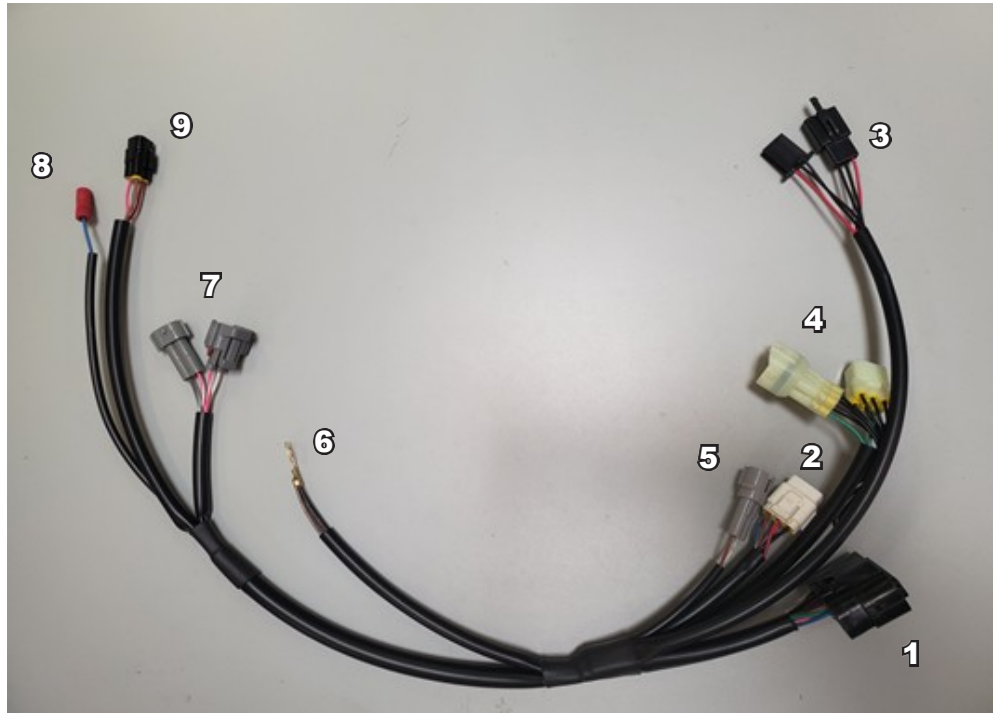
# 2>IDENTIFY

## INCLUDED PARTS

1. Z-Fi Control Unit
2. Fuel harness
3. O2 Stabilizer
4. Speed Amplifier
5. USB cable
6. Swingarm stickers
7. Velcro
8. Zip-Ties

## FUEL HARNESS

1. Main
2. ZAFM
3. +12v SW Power
4. CKPS
5. Map Select
6. Ground
7. Injector
8. TPS
9. Speed



## POSI-TAP

### Step 1:

un-screw grey locking tab



### Step 2:

Slide grey locking tab over desired wire to "tap" into



### Step 3:

Re-Apply grey locking tab to the mating red connector. Firmly, finger tighten

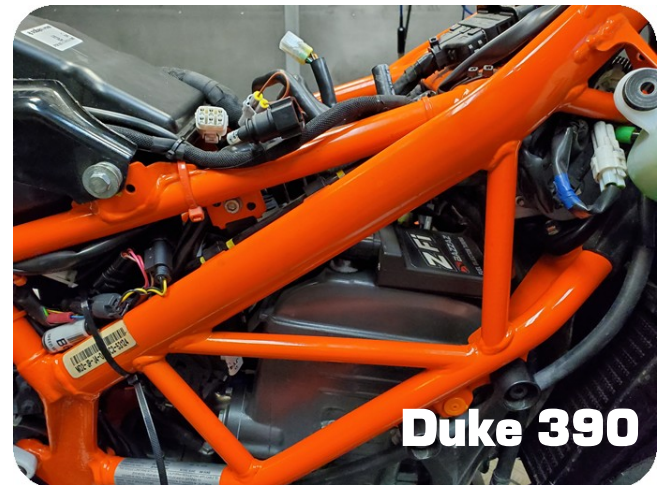


# 3>REMOVE

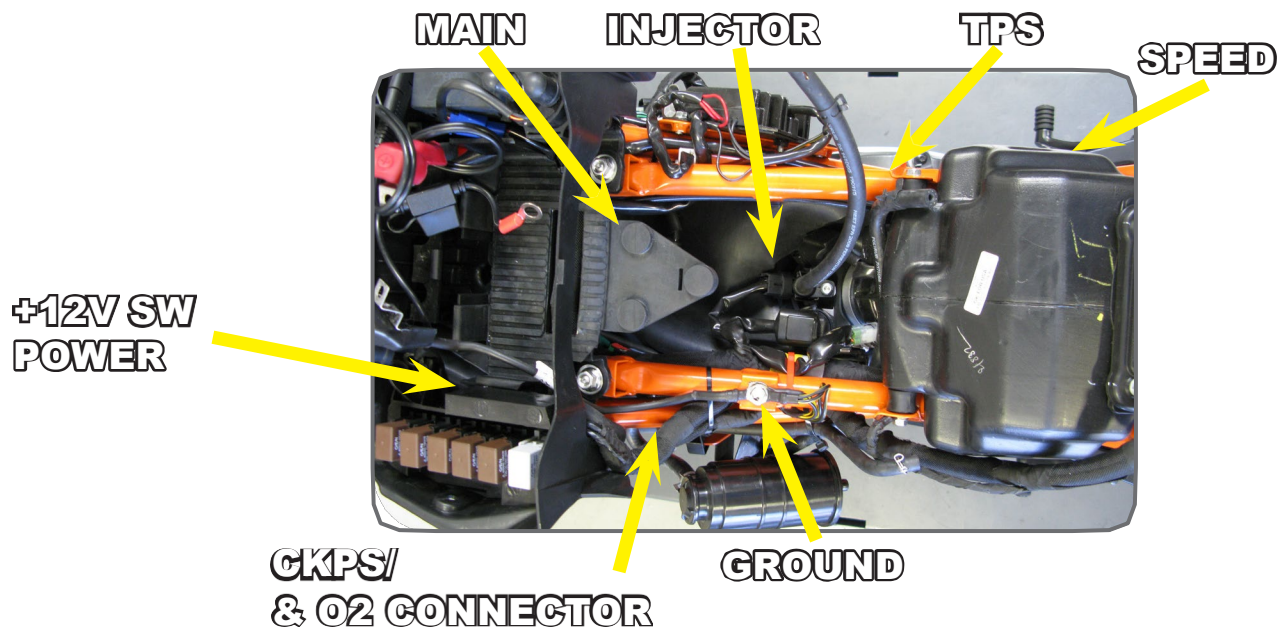
1. Rider seat
2. Passenger Seat
3. Right and left side fairing
4. Fuel Tank

# 4>SECURE

1. The Bazzaz control unit will be installed beneath the fuel tank near the ABS module.



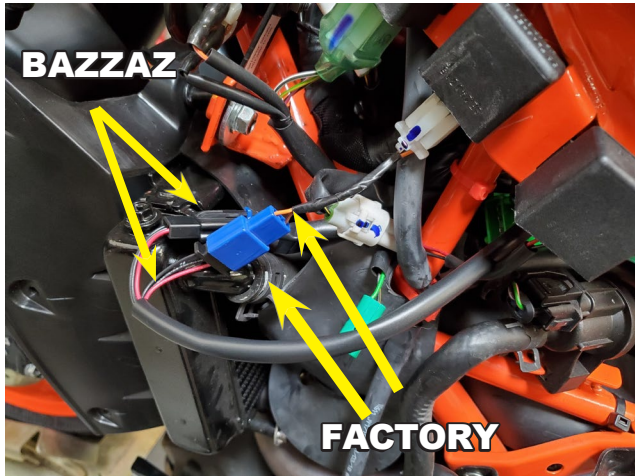
2. Connect the Bazzaz fuel harness and begin to route the harness towards the air box along the left hand side of the bike and begin to cross over towards the right hand side. (Same for both RC390 & Duke 390)



# 5>CONNECT

## 5.1

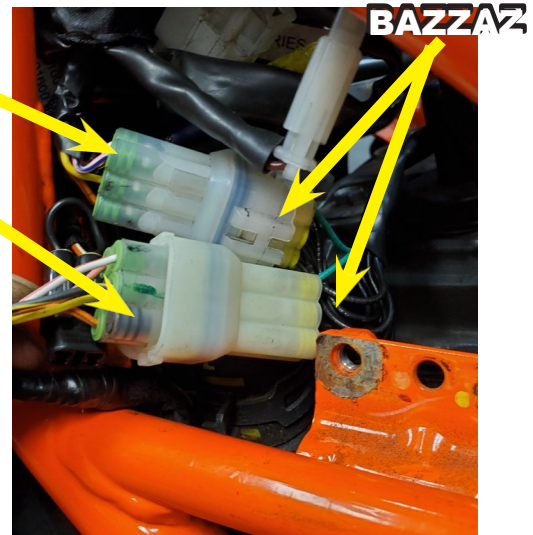
1. Locate the factory 3 pin blue connector which can be found on the left hand side of the bike on the outside of the frame.
2. Disconnect the factory 3 pin blue connector and install the Bazzaz +12v SW connectors inline.
3. You can find the same connector near the left side horn on the Duke 390.



## 5.2

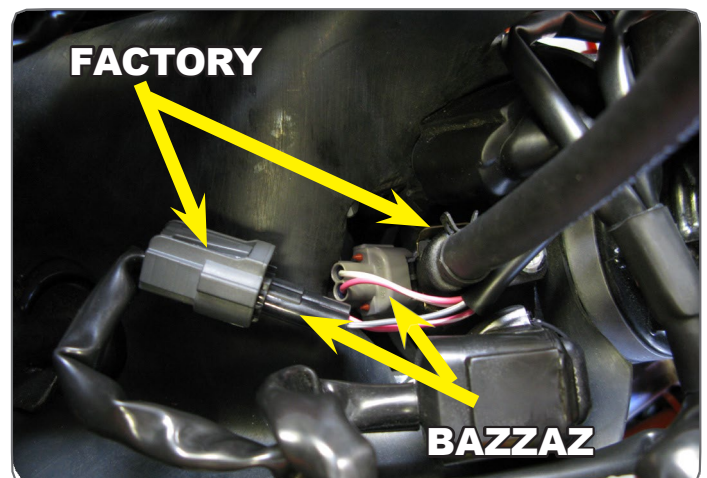
1. Locate the factory 6 pin CKPS connector which can be found on the left hand side of the bike just inside of the frame.
2. Disconnect the factory CKPS connector and install the Bazzaz connector inline.

FACTORY



## 5.3

1. Locate the factory injector connector which can be found on top of the throttle body.
2. Disconnect the factory injector connector and install the Bazzaz injector connectors inline.



# 5>CONNECT (CONT.)

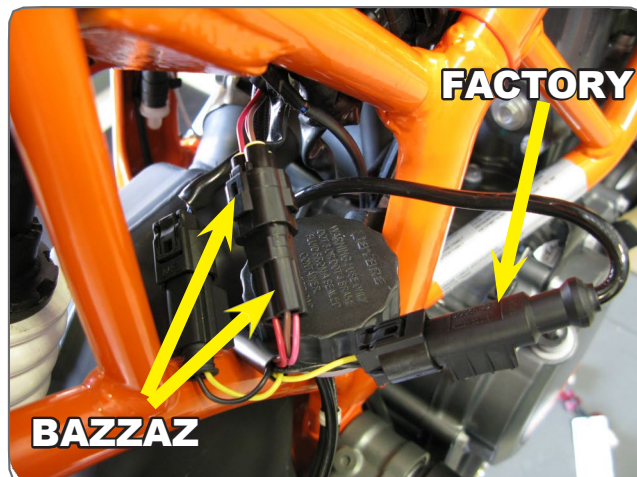
## 5.4

1. Locate the factory 6 pin TPS connector which will be found on the right hand side of the bike directly on the side of the throttle body.
2. Locate the factory TPS wire which is a Green / Yellow wire.
3. Separate the green / yellow wire of the factory TPS connector away from the other wires.
4. Use the provided Posi-tap to connect to the wire.
5. Refer to instructions above on how to use the Posi-taps.



## 5.5

1. Locate the factory rear wheel speed sensor connector which can be found on the right hand side of the bike above the rear brake fluid reservoir.
2. Disconnect the factory speed sensor connector and install the Bazzaz speed amplifier inline.
3. Connect the Bazzaz speed sensor connector to the speed amplifier.



# 5>CONNECT (CONT.)

## 5.6

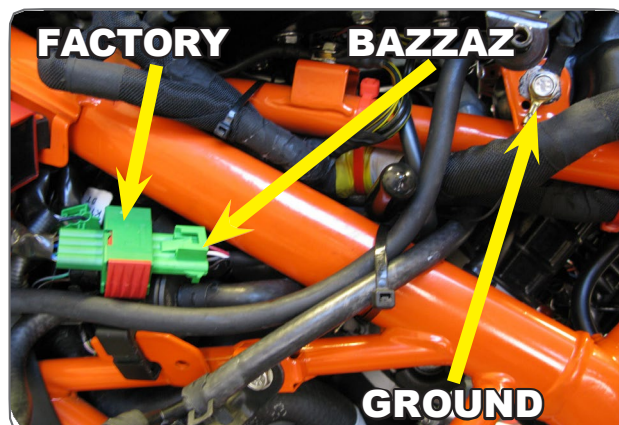
1. Locate the factory ground location on the left hand side of the bike on top of the frame rail.
2. Remove the factory 10mm bolt and install the Bazzaz ground with the factory grounds.
3. Retighten the factory 10mm bolt.



# 6>O2 ELIMINATION

## 6.1

1. Locate the factory green 4 pin O2 sensor connector which can be found on the left hand side of the bike near the factory CKPS connector.
2. Disconnect the factory O2 sensor and install the Bazzaz O2 stabilizer.
3. Locate a factory ground and connect the O2 stabilizer's ground.



# 9>SECURE



Use the supplied cable ties to secure the harness neatly along the routing path **free of any moving or hot components (which could cause damage or failure of the system).**



# 10>CHECK



1. In order to check that the system is installed correctly, download the Bazzaz Z-Fi Mapper software at [bazzaz.net](http://bazzaz.net).
2. Plug the USB cable into the control unit and computer.
3. Locate and open the Z-Fi Mapper software.
4. Check that the pre-programmed map matches the model of your bike on the fuel map page within the software. You can switch from map 1 to map 2 by unplugging the map select jumper on the Bazzaz fuel harness. Map 1 will be pre-programmed; depending on your model, there may be a pre-programmed map in the map 2 slot. If map 2 is blank, stock ECU settings are used. Make sure that the jumper is left plugged in or unplugged, depending on which map you choose.
5. Start the vehicle and begin to check that the following inputs read correctly on the fuel map page.
  - RPM - Make sure that the RPM is reading near what the vehicle is idling at.
  - GPS - The vehicle should read neutral (or whichever gear it is in). For motorcycles that use a Gear Position Sensor, the bike does not need to be running to do this. For motorcycles that use a speed sensor, the wheel must be spinning to read gear properly. This can be checked on a dynamometer or by using a rear stand. Use caution when testing componentry.
  - TPS - When throttle is applied, the TPS should read accordingly. Fly-

## **Also use software to:**

- View and/or make adjustments to fuel maps
- Activate Z-AFM self mapper (sold separately)
- Save and load new fuel maps
- Re-calibrate throttle position sensor after throttle modifications
- View diagnostics for troubleshooting
- Change quickshift settings
- Make traction control adjustments



If any problem is found, please carefully follow through the installation steps again.



If problem still persists, please contact Bazzaz tech support

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# 11>REINSTALL

After it is determined that everything is correct, reinstall the components removed in step 3.

# 12>USE

## MAPS

The Bazzaz controller is capable of storing two maps.

Map 1 consists of KTM Duke/RC 390 Slip-on Map

Map 2 consists of KTM Duke/RC 390 3/4-system Map

Switch maps by connecting or disconnecting the map select jumper supplied with the kit.

Or use the optional handlebar-mounted switch to switch maps on the fly (sold separately).



**MAP 1**



**MAP 2**



# 13>NEXT LEVEL

## MAP SELECT SWITCH

Purchased separately.

Switch maps on the fly with this handlebar-mounted switch.

Weatherproof toggle and easy installation.

**79.95**



## ZAFM

## SELF MAPPER

Purchased separately.

Build race-level fuel maps for your specific modifications, fuel type, engine, and atmospheric conditions simply while riding.

O2 sensor mounts into exhaust and control box easily plugs in to any Bazzaz Z-Fi product.

**299.95**



# MAP SELECT/ TC ADJUST SWITCH

Purchased separately.

Switch maps on the fly with this handlebar-mounted switch. Quickly adjust traction control settings using a 10-point dial. Weatherproof toggle and easy installation.

**129.95**



# TC ACTIVE LIGHT

Purchased separately.

Illuminates when traction control is engaged. Helpful in determining when and where traction control is being actuated.

**79.95**





**THE SMARTEST PERFORMANCE TUNING TECHNOLOGY**



Proudly made in the  
**United States**

**F546**