

# INSTALLATION INSTRUCTIONS



# UNLEASH.

THE SMARTEST PERFORMANCE TUNING TECHNOLOGY

**ZFI TC** FUEL + QS + TRACTION CONTROL

**KAWASAKI Z650/NINJA 650 | 2017-2019  
T4461**

## 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 TC control unit
2. Fuel harness
3. Coil harness
4. Shift switch
5. Shift Rod
6. O2 Stabilizer
7. USB cable
8. Zip ties
9. Velcro



## FUEL HARNESS

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

## COIL HARNESS

1. Main
2. TC Active Light
3. Shift Switch
4. Coil

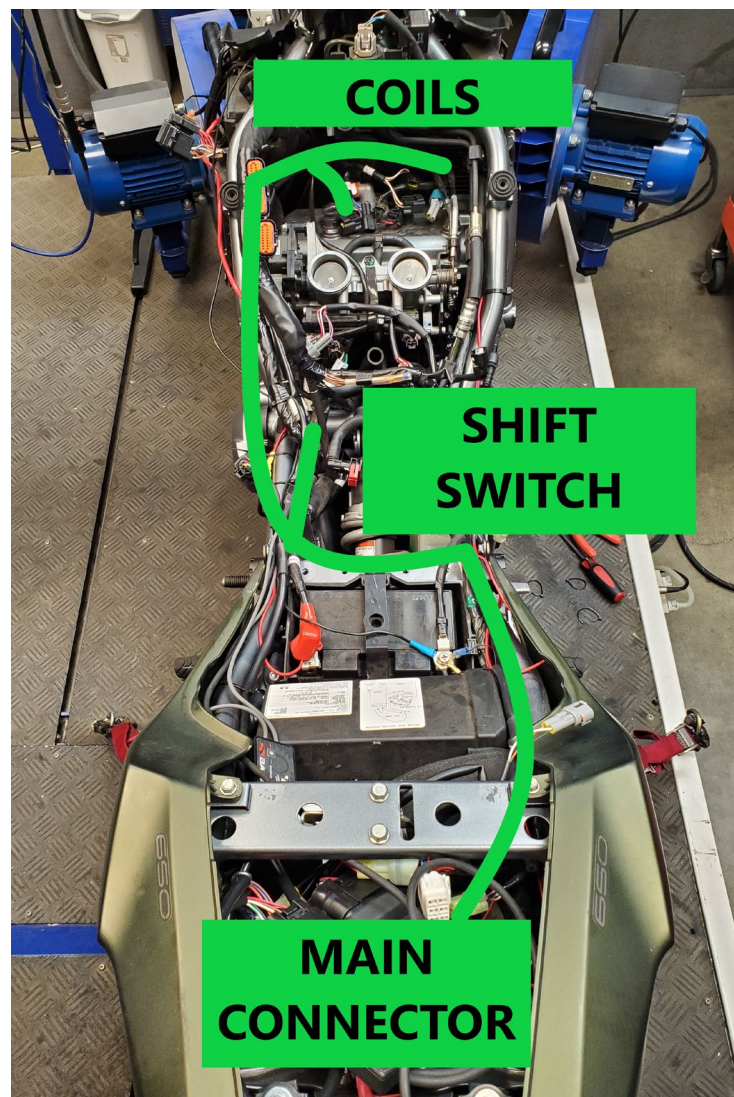
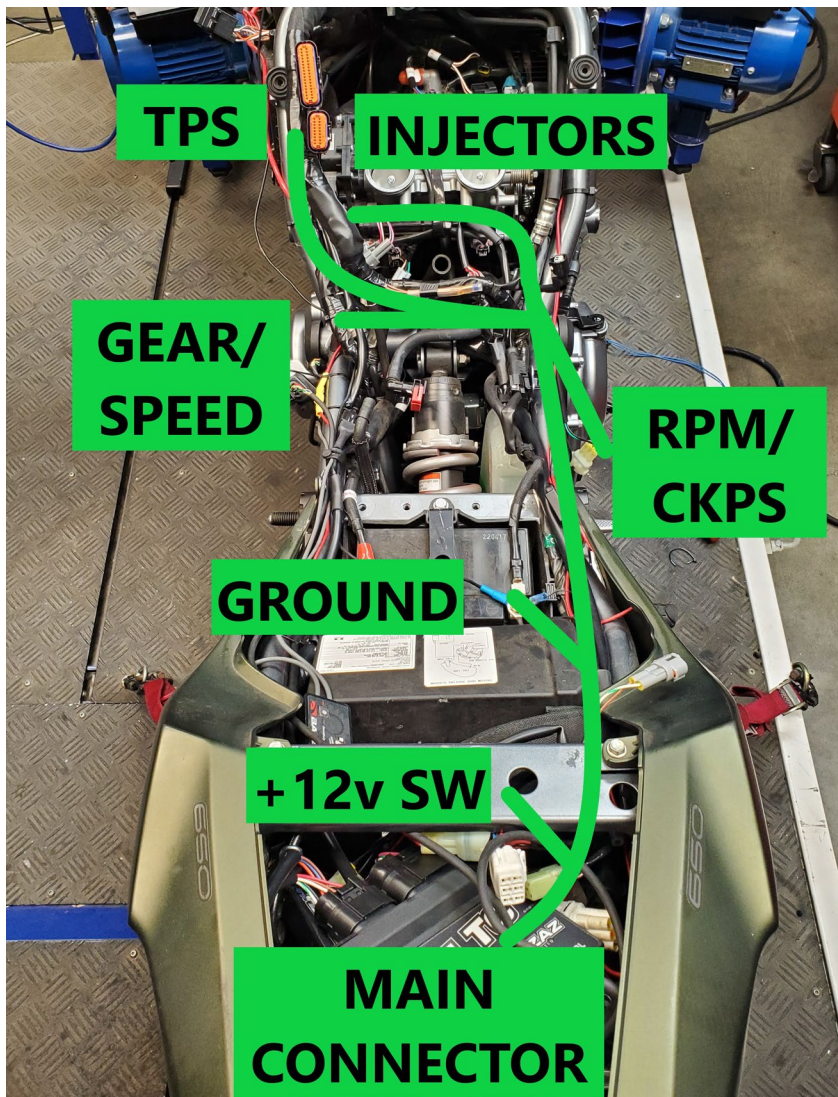


# 3> REMOVE

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

# 4> SECURE

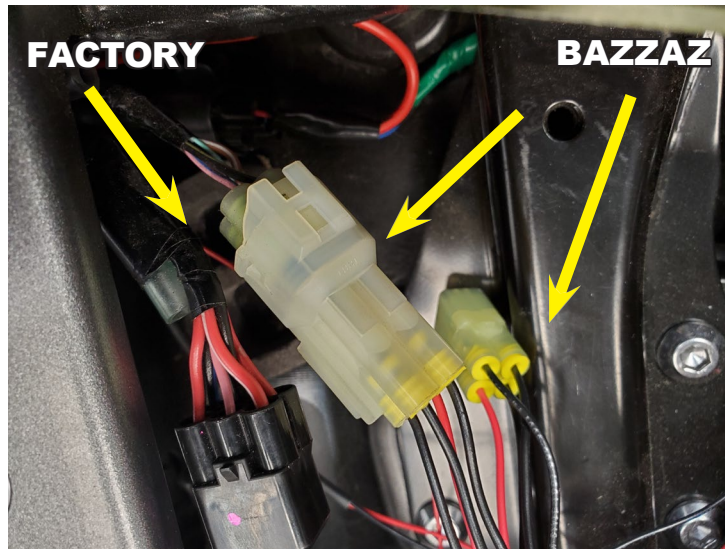
1. The Bazzaz control unit will be installed under the passenger seat section.
2. Connect the Bazzaz fuel harness and begin to route the harness towards the right side of the bike. Follow the stock harness towards the injectors.



# 5>CONNECT

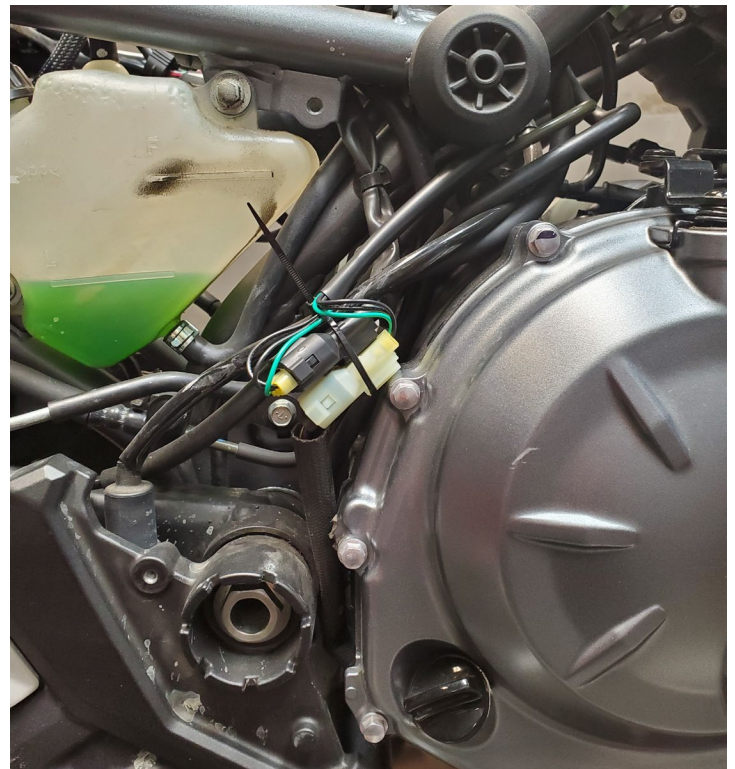
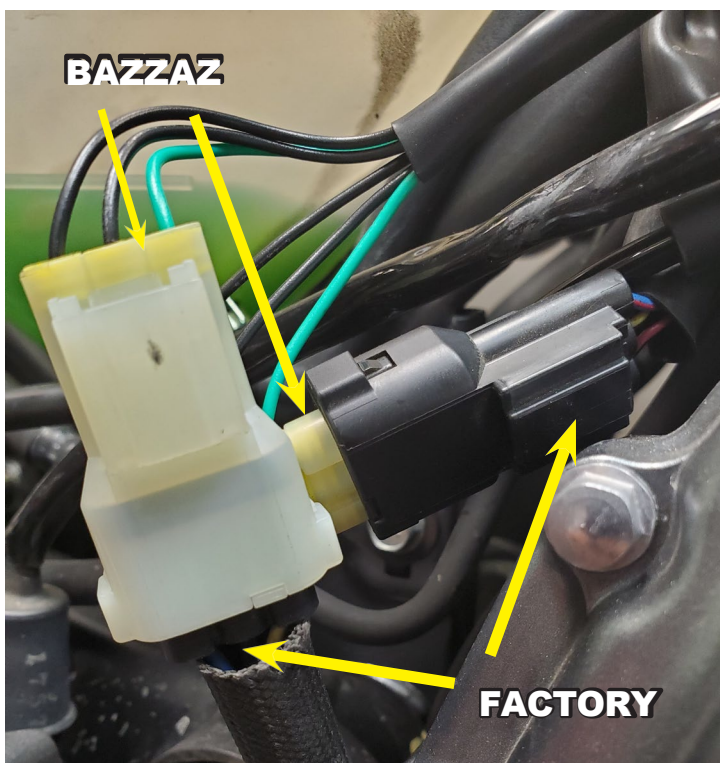
## 5.1

1. Locate the factory 4 pin diagnostic connector which can be found under the passenger seat section.
2. Remove the factory cap/cover of the diagnostic connector and install the bazzaz +12v SW connector. The other male end of the connection will act as the diagnostic port.



## 5.2

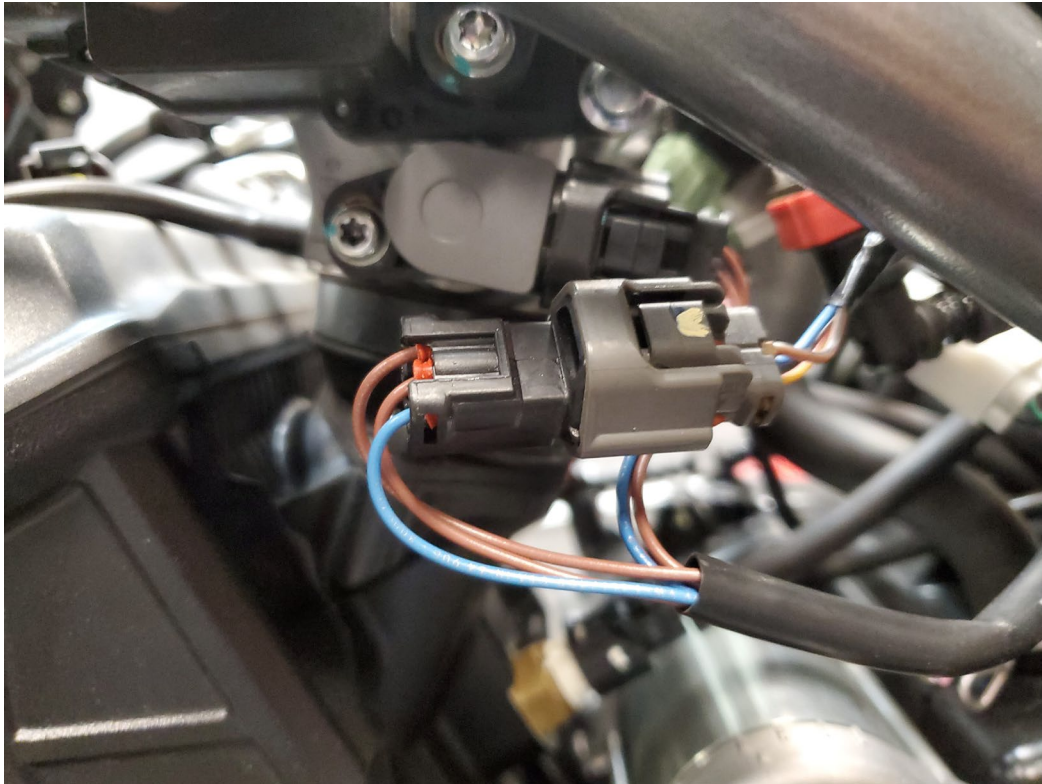
1. Locate the factory 3 pin CKPS connector which can be found on the right hand side of the bike near the crank case.
2. Disconnect the factory CKPS connector and install the Bazzaz connector inline.



# 5>CONNECT (CONT.)

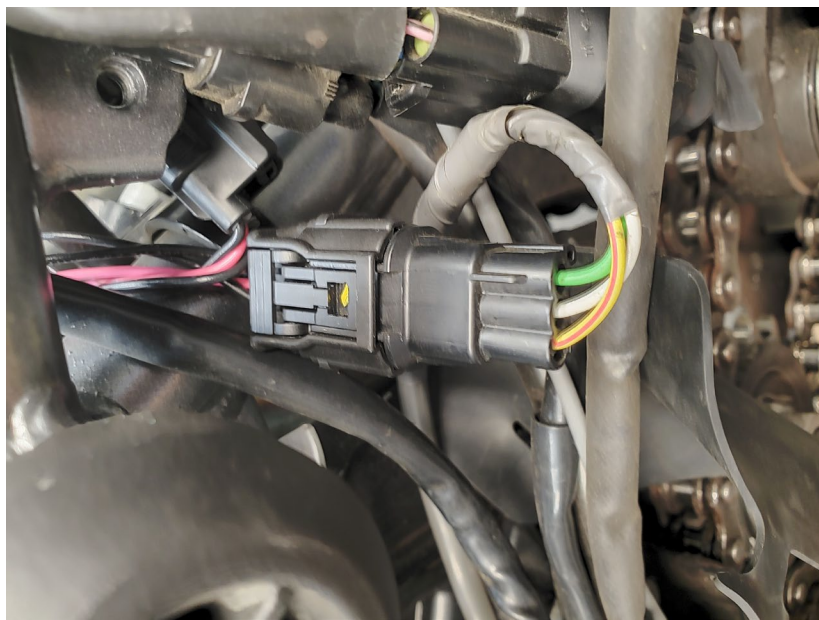
## 5.3

1. Locate the factory 3 pin TPS connector which will be found on the left hand side of the bike directly on the side of the throttle body.
2. Disconnect the factory TPS connector from the sensor.
3. Connect the Bazzaz connectors in-line with the factory connectors.



## 5.4

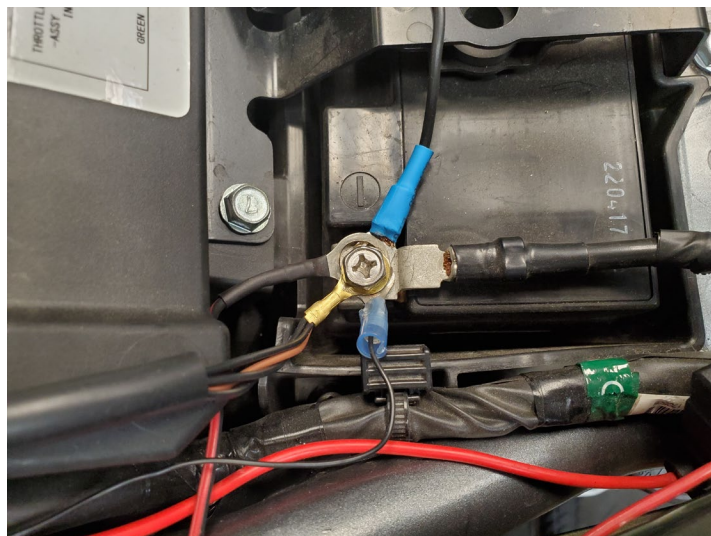
1. Locate the factory 3-Pin Gear Position Connector.
2. The connector is located right above the front sprocket cover.
3. Connect the Bazzaz connectors in-line with the factory connectors.



# 5>CONNECT (CONT.)

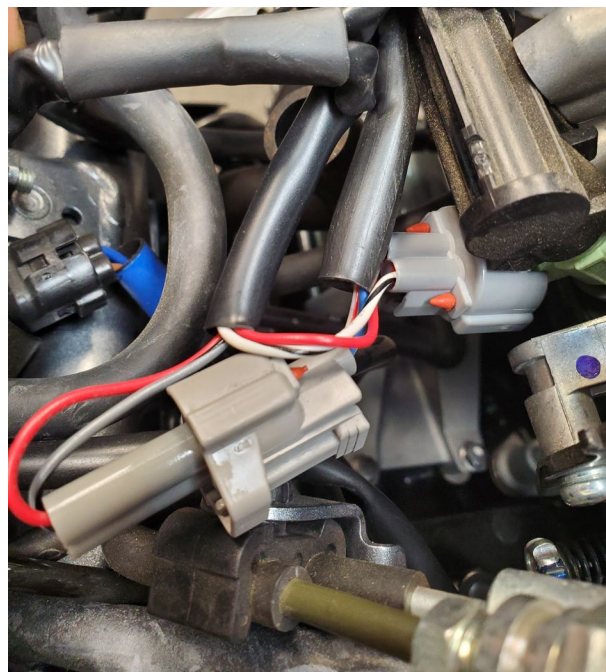
## 5.5

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.



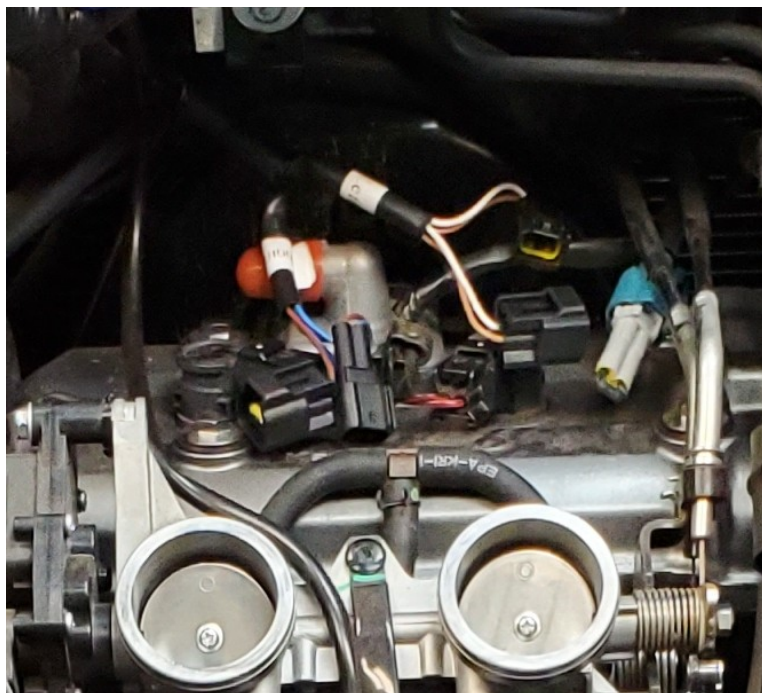
## 5.6

1. Locate the factory grey two-pin injector connector found on the throttle body, under the Air Box.
2. Disconnect the factory injector connector from the injector.
3. Install the Bazzaz injector connectors in-line with the factory connectors.



## 5.7

1. Locate the factory black two-pin coil connector found on top of the throttle body, under the Air Box.
2. Disconnect the factory coil connector from the coil.
3. Install the Bazzaz coil connectors in-line with the factory connectors.



# 6>O2 ELIMINATION

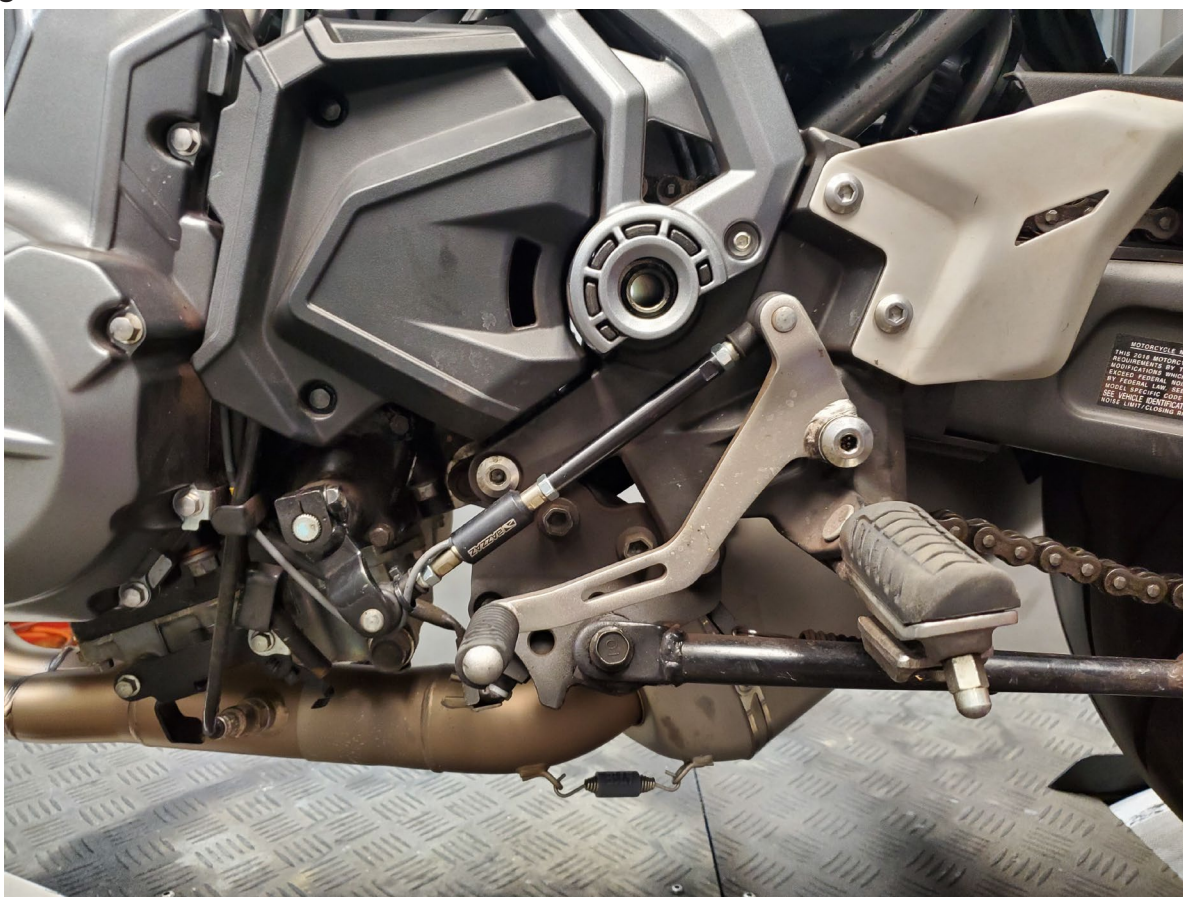
## 6.1

1. Find the stock AFR sensor, unplug it from the stock OEM harness. Stow it away neatly on the bike using zip ties.
2. Or remove the O2 sensor completely and install a bung plug.
3. Connect the O2 stabilizer in-line to the OEM harness



## 6.1 QUICKSHIFT

1. Shift Rod provided with the kit is for **STOCK SET-UP ONLY**. If after-market rear sets are installed, please measure the shift rod to the stock set-up and adjust the length accordingly.
2. The Shift Rod provided in the kit is 100mm is length. There are grooves allotted (10mm each) on the rod so that the length can be altered.
3. Route the Bazzaz shift switch connector to the mating connector of the Bazzaz coil harness and plug them in-line.



# 7>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).



# 8>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-by-wire models must be running to check TPS. Normal cable operated throttles can be checked with just the key on, not running.

## 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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- For fastest support outside of the US, find your local importer at [bazzaz.net](http://bazzaz.net)

## 9>REINSTALL

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

## 10>USE MAPS

The Bazzaz controller is capable of storing two maps.

Map 1 consists of Kawasaki Z650 Full System Map

Map 2 consists of Kawasaki Z650 Stock 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**

# 11>NEXT LEVEL

## MAP SELECT SWITCH

Switch maps on the fly with this handle- bar-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

Switch maps on the fly with this handle- bar-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**





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Proudly made in the  
**United States**

**T4461**