

# INSTALLATION INSTRUCTIONS



# UNLEASH.

THE SMARTEST PERFORMANCE TUNING TECHNOLOGY

**Z-Fi** FUEL MANAGEMENT

**KAWASAKI NINJA 400/Z400 | 2018-2019  
F451**

## 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).



**Please note Map 1 consists of a Slip-on Fuel Map  
&  
Map 2 consists of a Full-System Fuel Map**

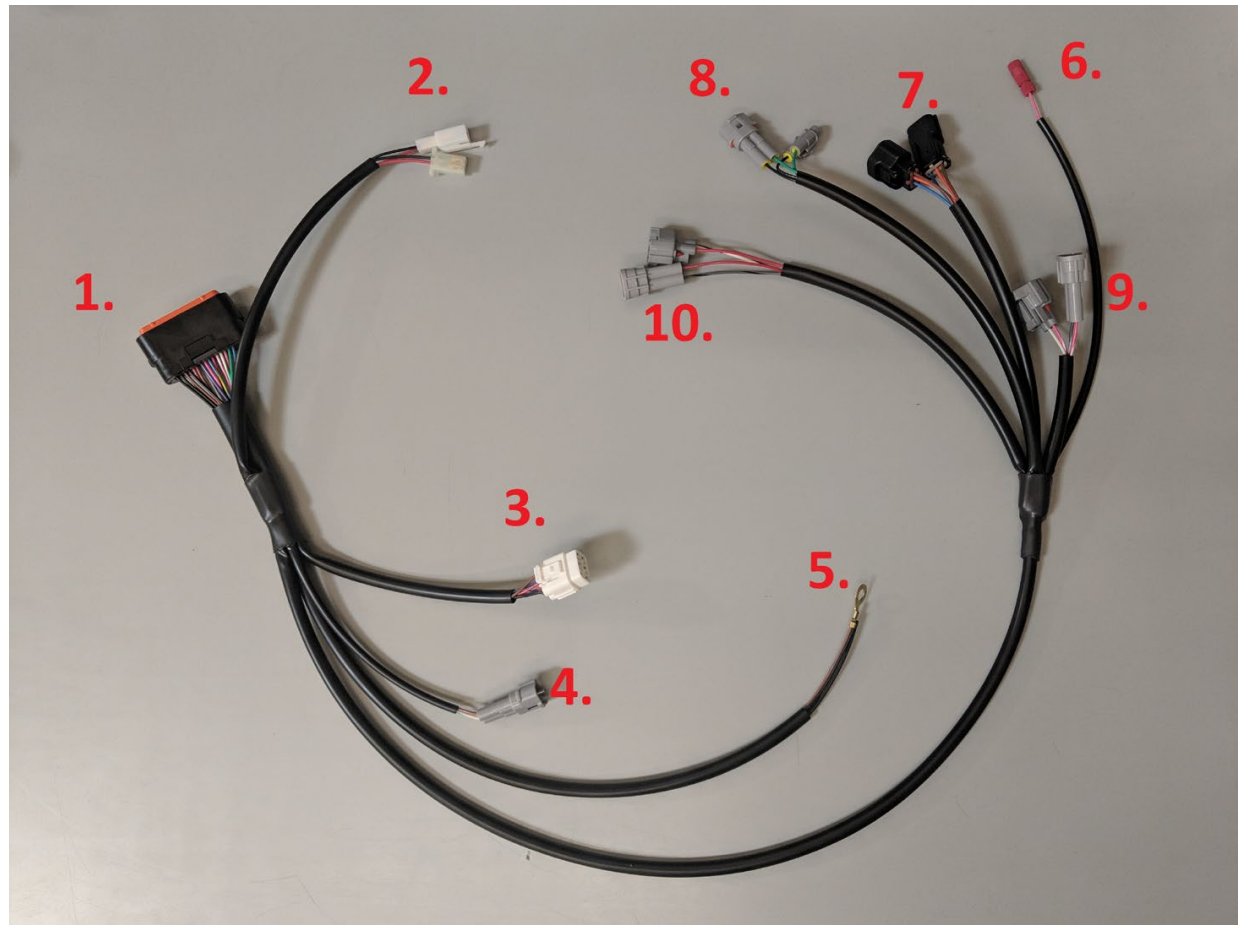
# 2>IDENTIFY

## INCLUDED PARTS

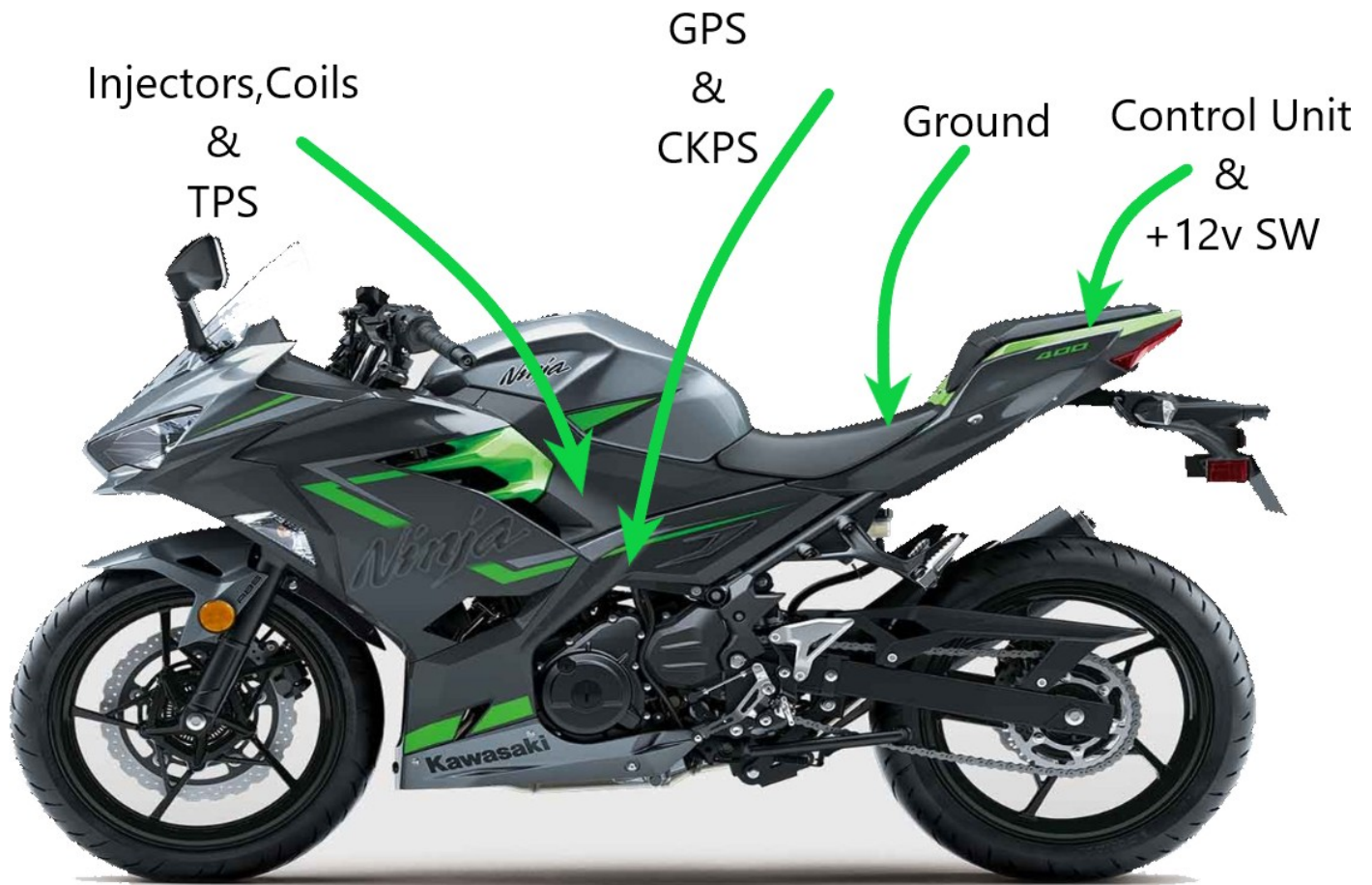
1. Z-Fi control unit
2. Fuel harness
3. O2 Stabilizer
4. USB cable
5. Zip ties
6. Velcro

## FUEL HARNESS

1. Main
2. +12v Sw. Power
3. ZAFM
4. Map Select
5. Ground
6. GPS
7. TPS
8. CKPS/RPM
9. INJECTOR 1
10. INJECTOR 2



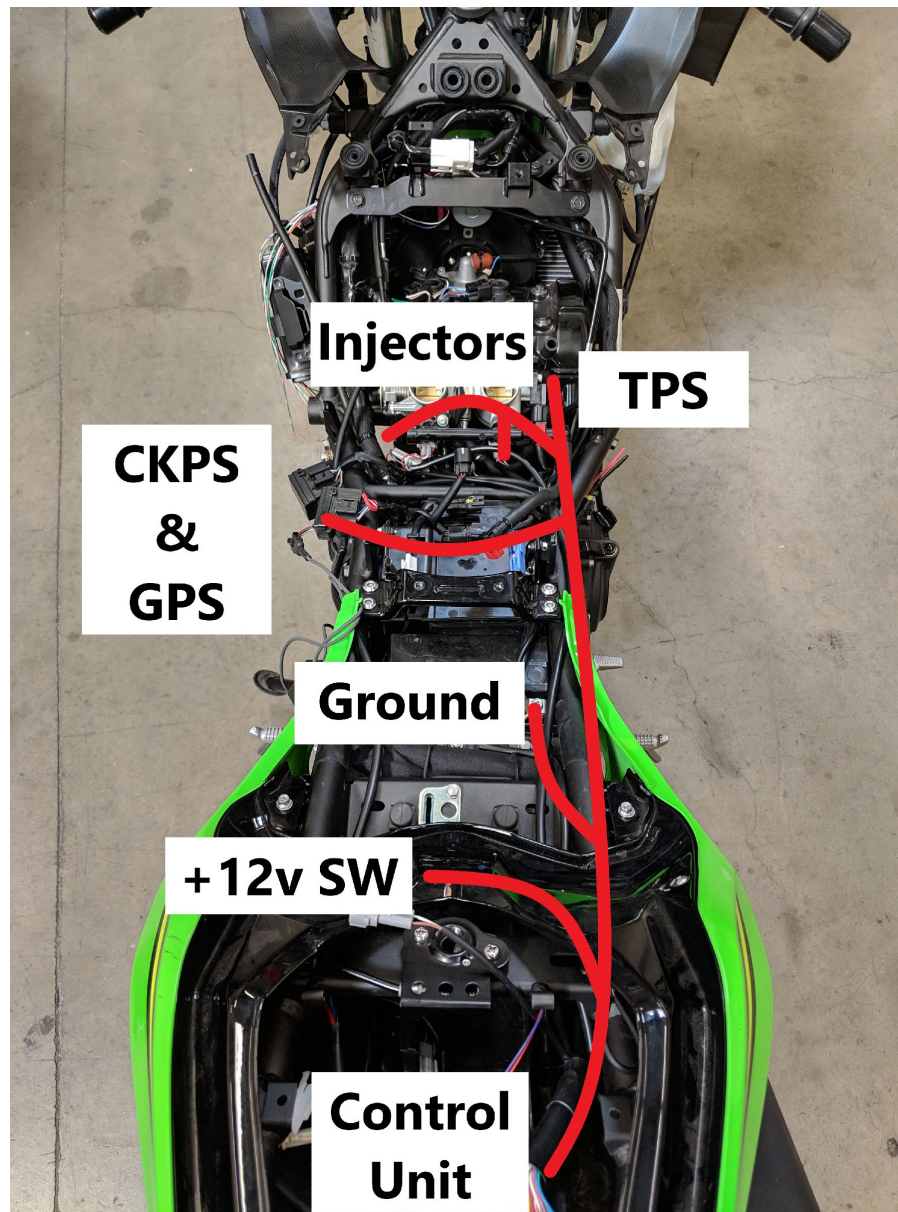
## 2>IDENTIFY (CONT.)



## 3>REMOVE

1. Seat
2. Left side panels
3. Right side panels
4. Fuel tank
5. Air Box

# 4>ROUTE

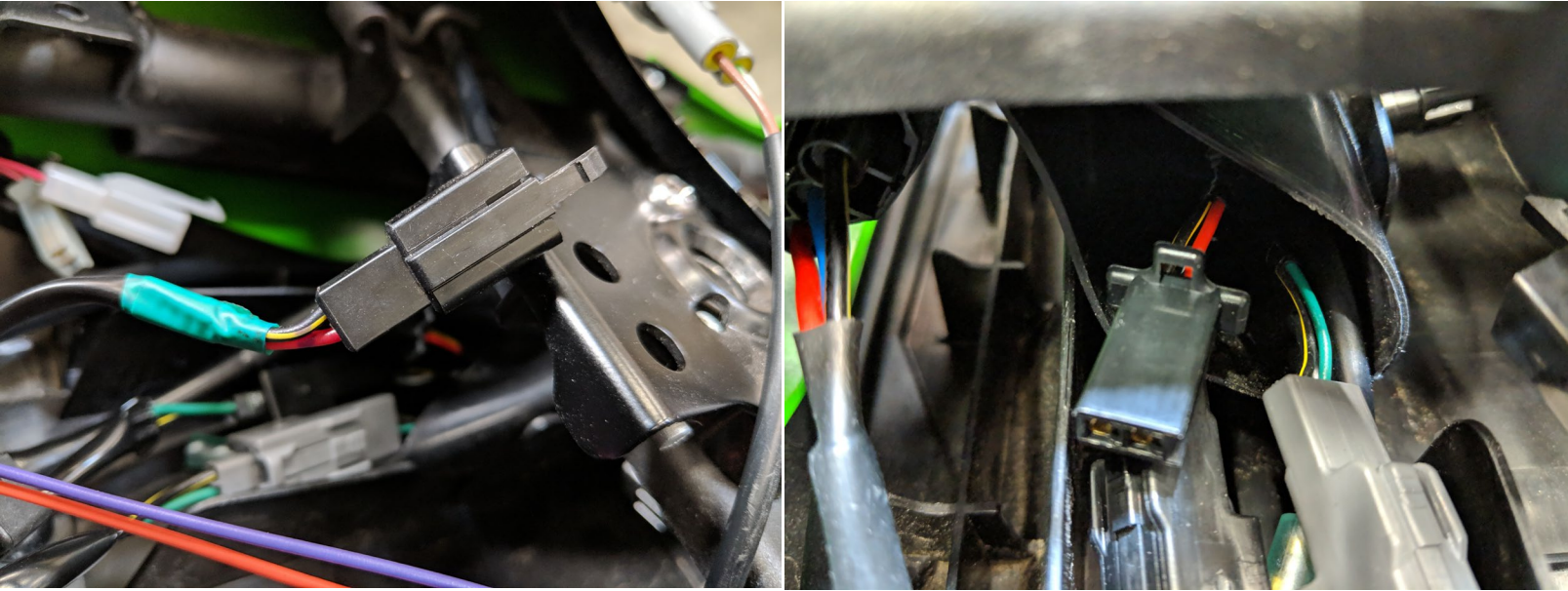


## FUEL HARNESS

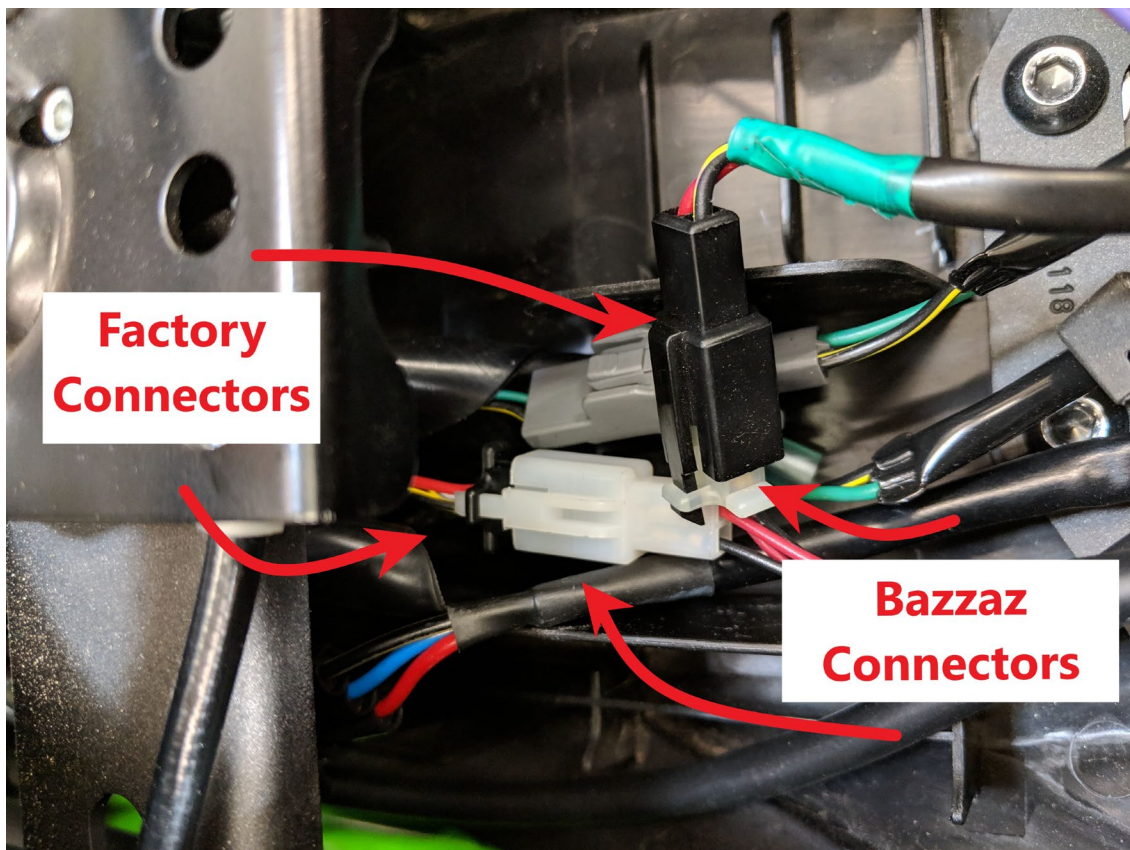
1. Begin routing the Bazzaz fuel harness along the right side of the fuel.
2. Route the Bazzaz Injectors, the Crank Case Position Sensor(CKPS) and the Gear Position Sensor right below the Air Box.
3. Route the Throttle Position Sensor (TPS) towards the right side of the throttle body.
4. Route the remaining connections towards where the battery is located behind the fuel tank and towards the tail section.  
Let the fuel harness hang in position.



# 5>CONNECT



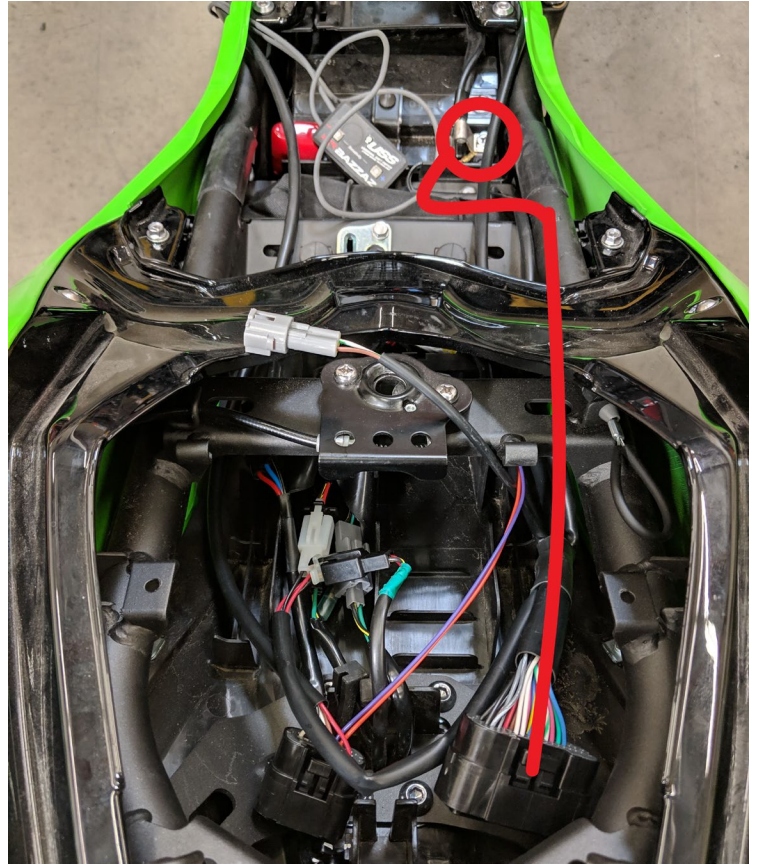
1. Locate the factory black two-pin tail light connectors in the tail section of the bike under the Rear Seat.
2. Pull back the black rubber boot to uncover the connectors.
3. Disconnect the factory connectors. The connectors have a **Black/Yellow & Red** wire on the tail end and a **Black/Orange & Red** wire on the harness side.
4. Connect the Bazzaz switched power connectors in-line with the factory connectors.
5. If the tail light has been removed for track days/other reasons, make sure that the bazzaz connector is connected to the OEM harness connector (**Black/Orange & Red**) and the other connector can be left unplugged.





# 6>GROUND

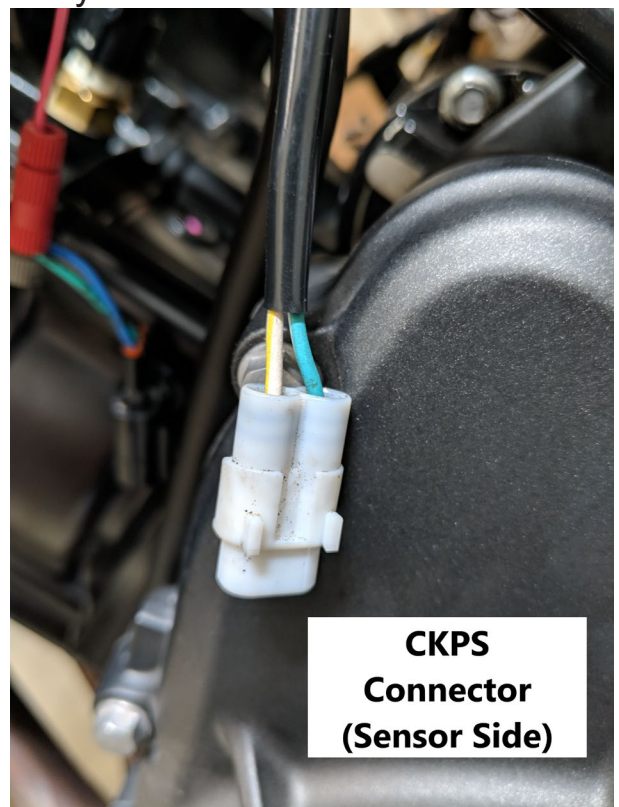
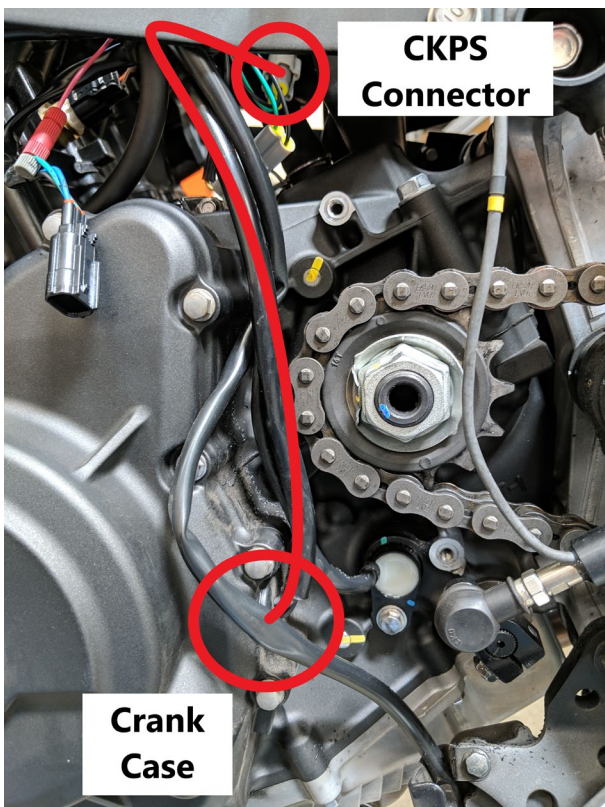
1. Locate the negative terminal on the battery under the seat section.
2. Remove the factory 10mm bolt.
3. Connect the Bazzaz ground lug with the negative terminal.
4. Replace factory bolt.



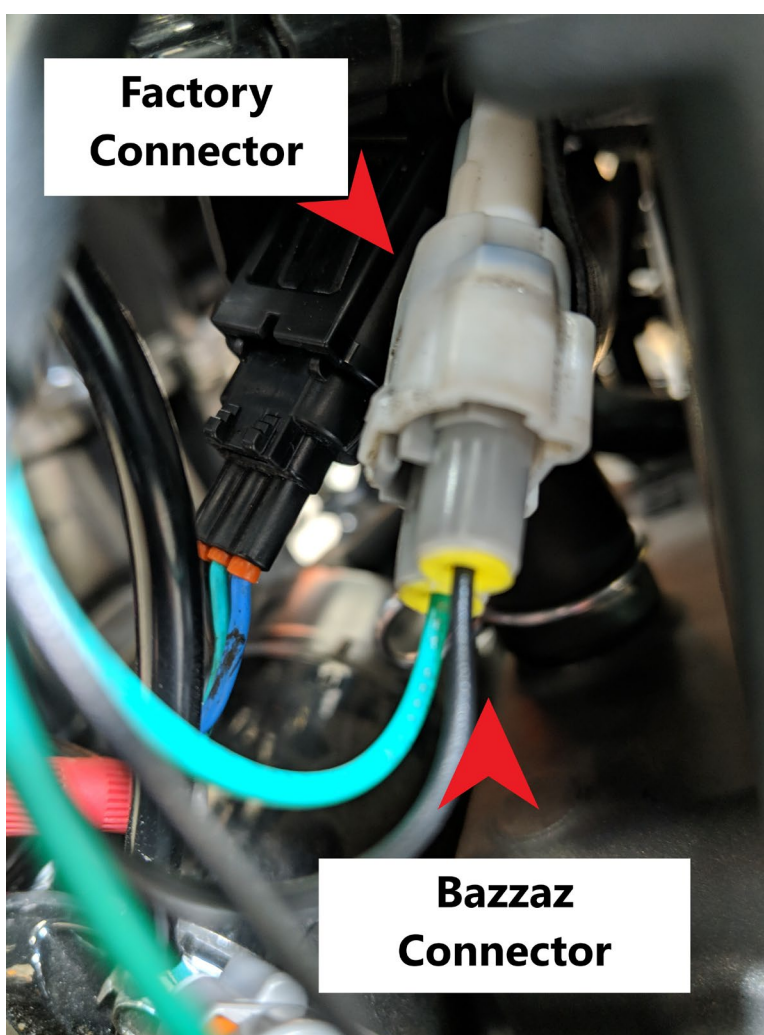
# 7>CONNECT

## 7.1

1. Follow the wires coming out of the crank case to locate the factory 2-pin CKPS connector.
2. The factory 2-pin CKPS connector has a **White/Yellow & Blue/White** wire from the sensor side, and a **YELLOW** and **YELLOW/BLACK** wire from the harness side. The connectors are hidden under a black rubber boot which has to be pulled back to access them.
3. Connect the Bazzaz connectors in-line with the factory connectors.



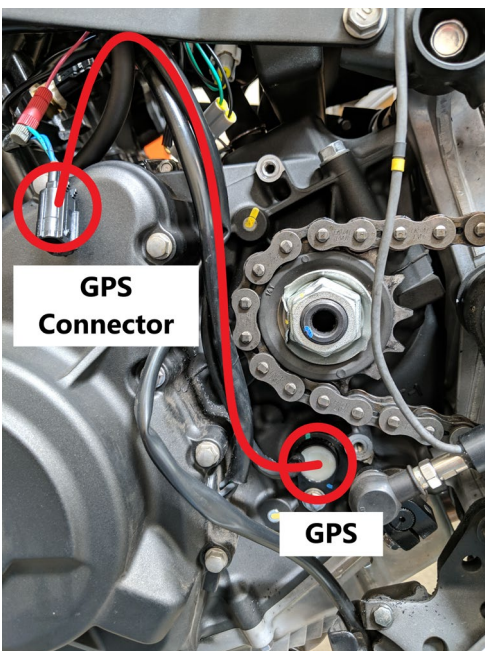




# 7>CONNECT (CONT.)

## 7.2

1. Locate the factory 3-Pin Gear Position Connector, which has a **BLUE**, **LIGHT GREEN** and a **GREY** wire.
2. To locate the connector, follow the wires from the Gear Position Sensor under the sprocket cover and follow to the rubber boot where the CKPS connector was located.





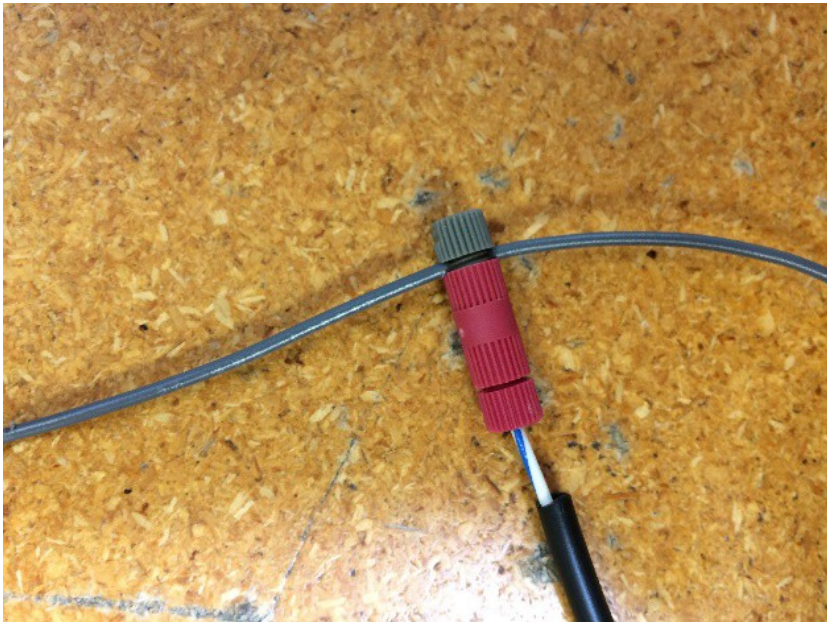
3. Use a POSI-TAP to tap onto the GPS Signal wire which is the middle **LIGHT GREEN** wire.
4. The instructions on how to use the POSI-TAP are below.

## Posi-Tap Installation Guide

- Step 1:** un-screw GREY/BLACK 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.

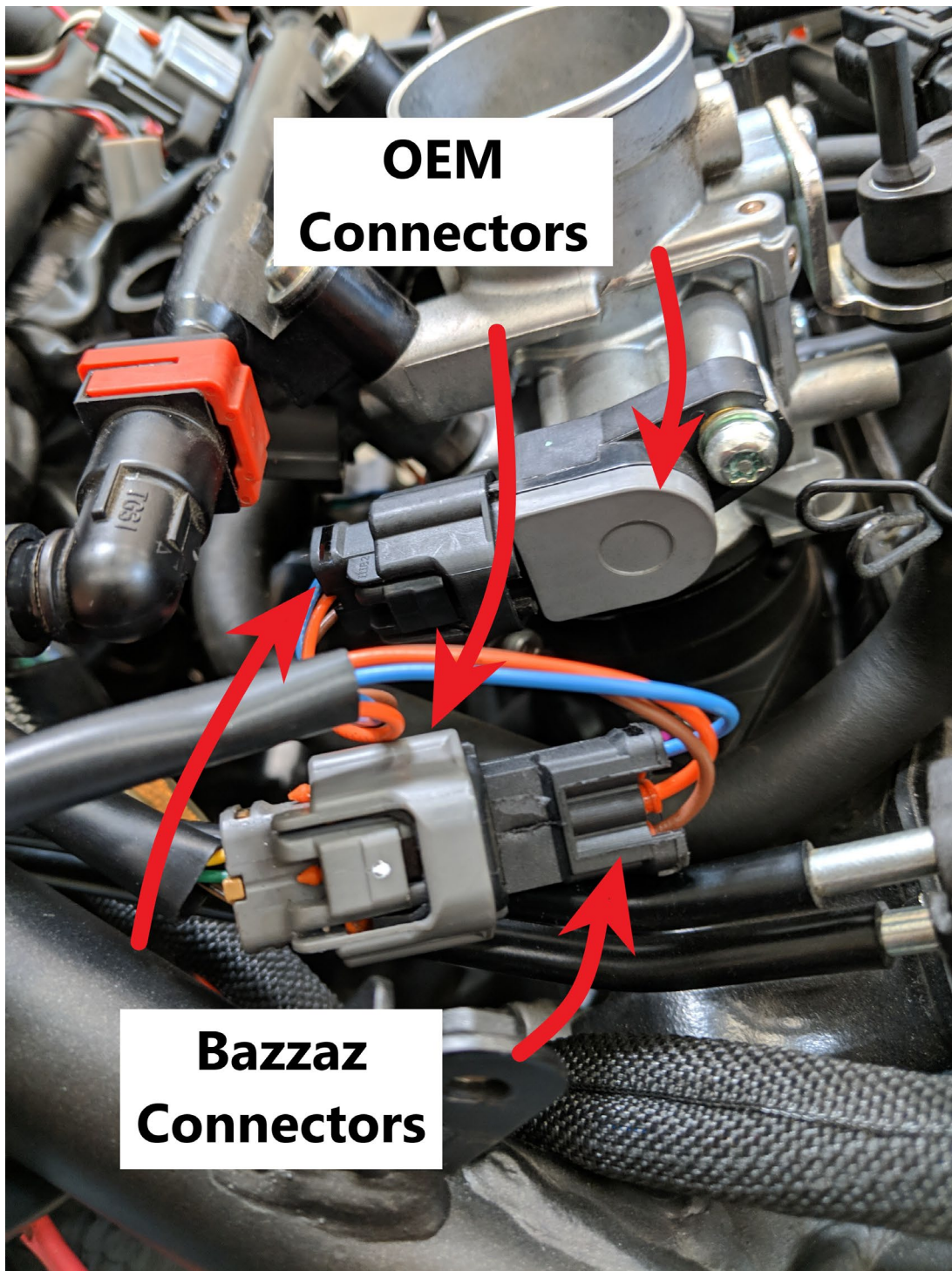




# 7>CONNECT (CONT.)

## 7.3

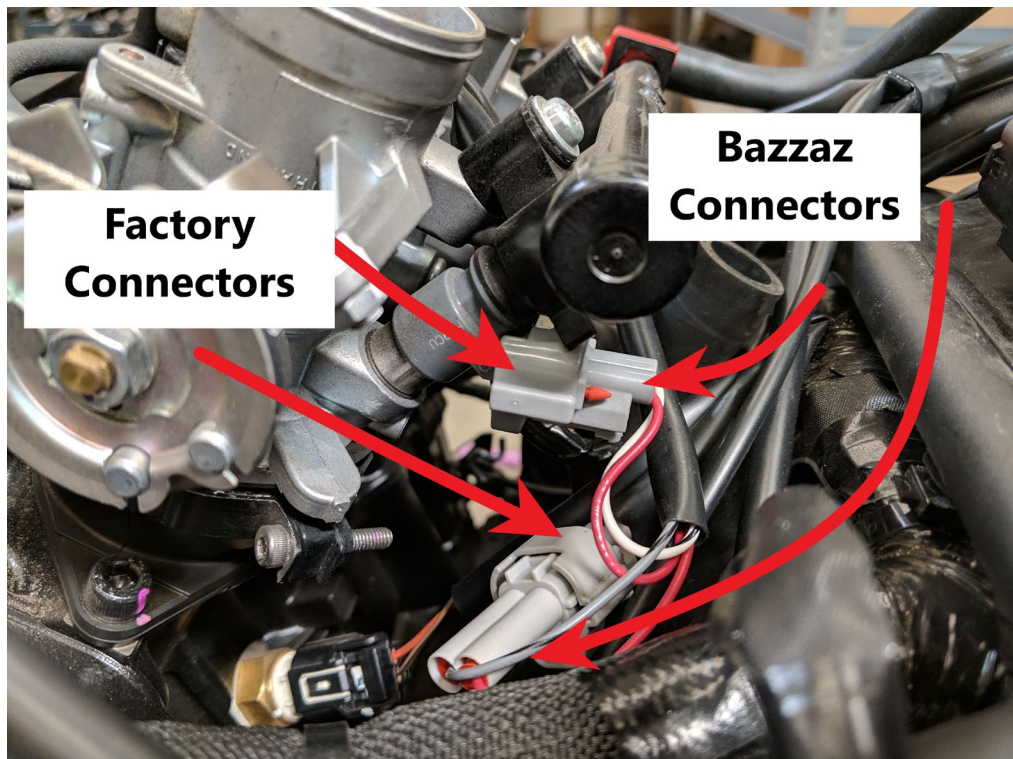
1. Locate the factory black three-pin TPS connector, located on the right side of the throttle body, which has a **YELLOW**, **GREEN** and **BROWN/BLACK** wire
2. Disconnect the factory TPS connector from the sensor.
3. Connect the Bazzaz connectors in-line with the factory connectors.



# 8>INJECTOR

## 8.1

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.





# 9>O2 STABILIZER

1. Find the stock AFR sensor, unplug it from the stock OEM harness. Stow it away neatly on the bike using zip ties.
2. The stock OEM harness would be a 4-pin connector with 2 **BLACK**, a **BLUE** and a **WHITE** wire.
3. Or remove the O2 sensor completely and install a bung plug.
4. Connect the O2 stabilizer to the OEM harness



# 10>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).**

# 11>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)



# 12>REINSTALL

1. After it is determined that everything is correct, reinstall the components removed in step 3.
2. Mount the Z-Fi TC control unit to the Tail Section of the bike and secure it with velcro.
3. Connect the main connector of the Bazzaz fuel harness into the control unit.

# 13>USE MAPS

The Bazzaz controller is capable of storing two maps.

Map 1 consists of Ninja 400 Slip-on Map

Map 2 is left empty.

Maps for FULL SYSTEM can be downloaded from our website.

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**

# 14>NEXT LEVEL

**\*\*Accessories purchased separately.**

## 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**

## MAP SELECT SWITCH

Switch maps on the fly with this handle-bar-mounted switch. Weatherproof toggle and easy installation.



**79.95**

## ZAFM SELF MAPPER

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**

## TC ACTIVE LIGHT

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**

**F451**