



2009-2014 BMW S1000RR
Z-Fi TC Installation Instructions
P/N T541

WARNING!

USE ONLY IN RACE OR OTHER CLOSED COURSE APPLICATIONS AND NEVER ON PUBLIC ROADS

Z-Fi products do not meet California CARB highway requirements

Parts List:

Z-Fi TC/QS Control Unit

Fuel Harness

Coil Harness

Shift Switch & Mounting Hardware

Download Z-Fi Mapper Software and its Instructions from website

Scotchlok (8)

Cable Ties

Velcro

USB Cable

Swingarm Stickers

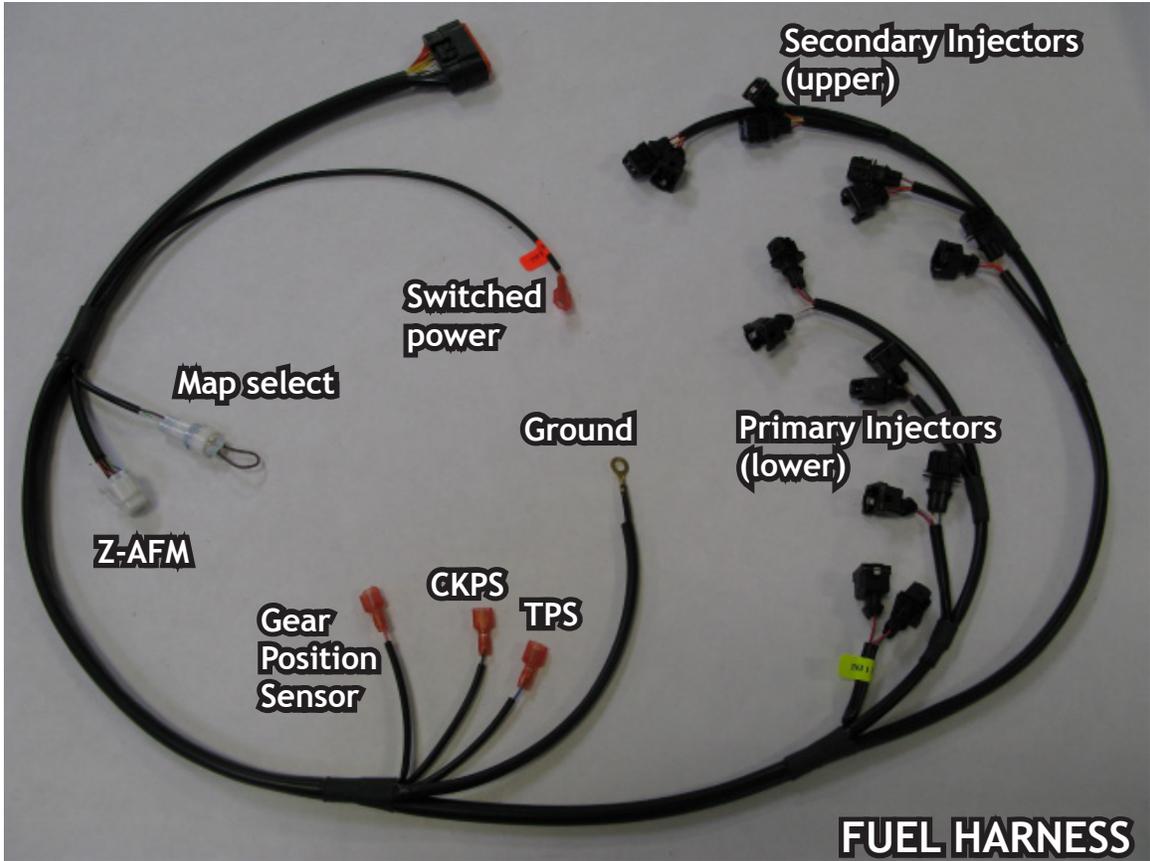


Read through all instructions before beginning installation. This is not a replacement for the ECU. This document is intended for use by qualified technicians. For more specific stock component identification and location information refer to a factory service manual.

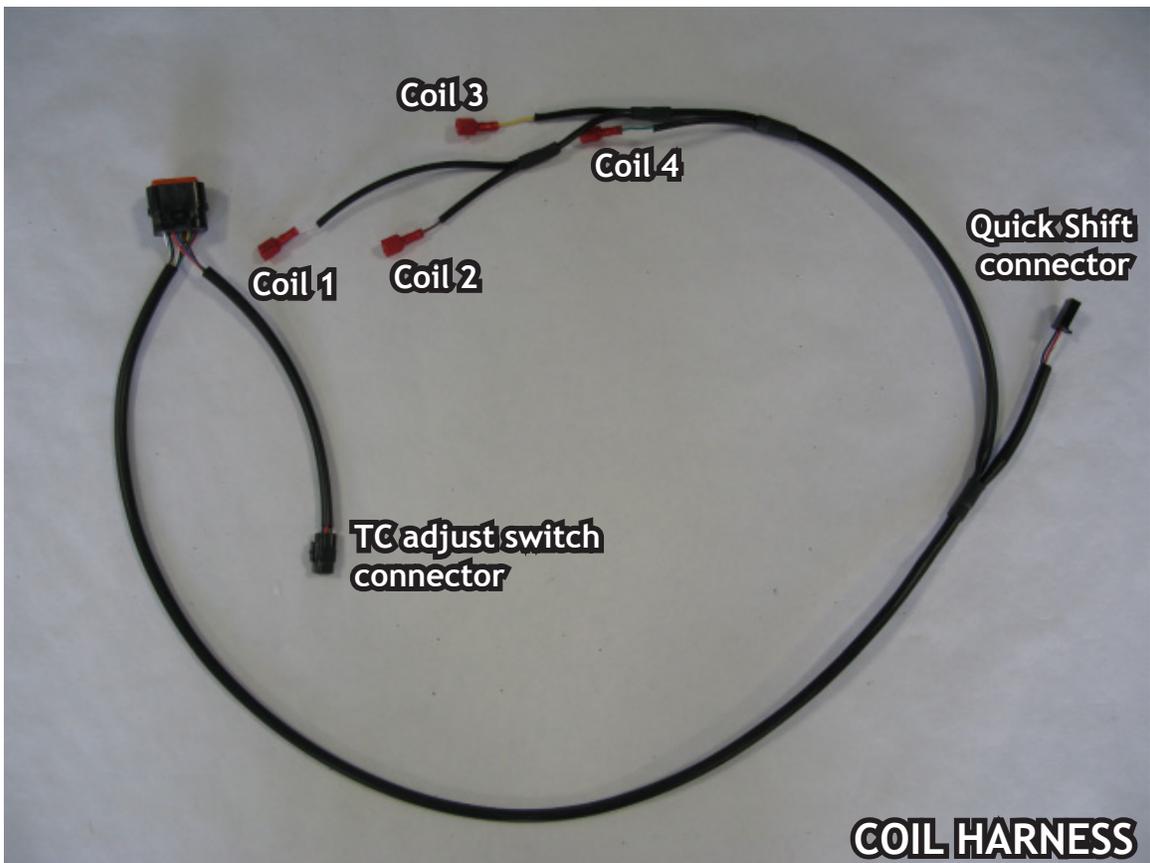
To create the ideal map(s) we recommend using the optimal Z-AFM self-tuning module

15330 Fairfield Ranch Rd., Unit E, Chino Hills, CA 91709 Phone (909) 597-8300 Fax (909)597-5580
www.Bazzaz.net

BAZZAZ HARNESS CONNECTOR IDENTIFICATION



FUEL HARNESS



COIL HARNESS

**WE STRONGLY SUGGEST THAT AN EXPERIENCED TECHNICIAN
INSTALL THIS BAZZAZ PRODUCT**

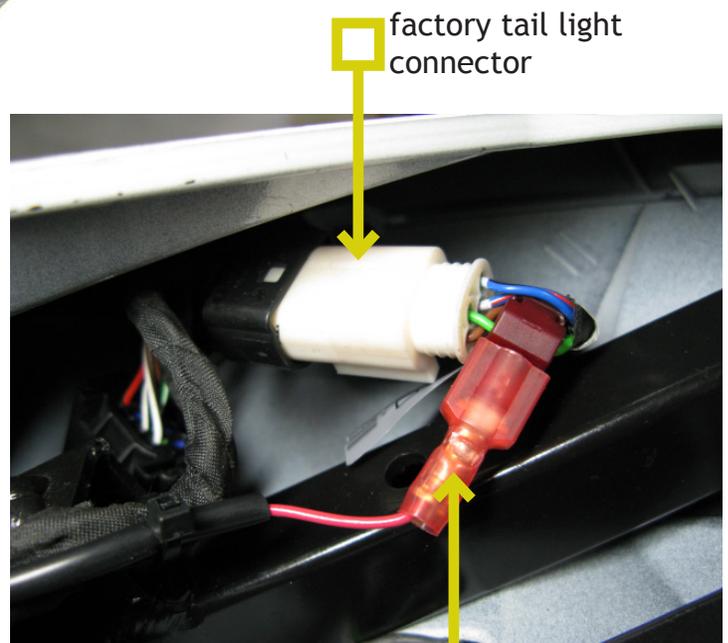
1. Begin the installation by removing the seats, fuel tank cover panel, fuel tank, right & left side fairings and air box.

Now remove airbox. Next remove mounting bolt for ECU and disconnect. The servo motor for the velocity stacks, located to the left of the ECU, may need to be removed in order to unplug. Remove air filter, and gently pull up on airbox, there are no clamps holding it onto the throttle bodies. Disconnect crankcase breather hose and lay airbox back, being careful not to kink the fuel hose.

2. In the tail section, under the passenger seat, attach supplied Velcro to the flat surface of the under tail in order to mount the control unit. Also locate the tail light connector found on the right side of the tail section which will be used for the Bazzaz power source. Attach the mating strip of Velcro to the backside of the Bazzaz control unit and secure the control unit in place inside the tail. At this time take the portion of the Bazzaz fuel and Bazzaz coil harnesses containing the control unit connectors and power connectors and route it under the area of the tail section that separates the rider and passenger seats, and into the rear tail. Connect the mating connectors into the Bazzaz control unit.

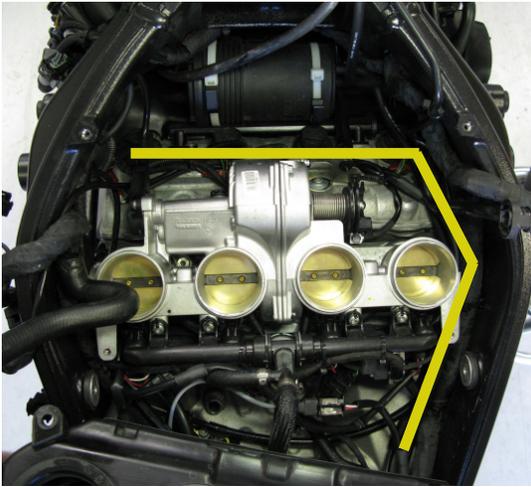
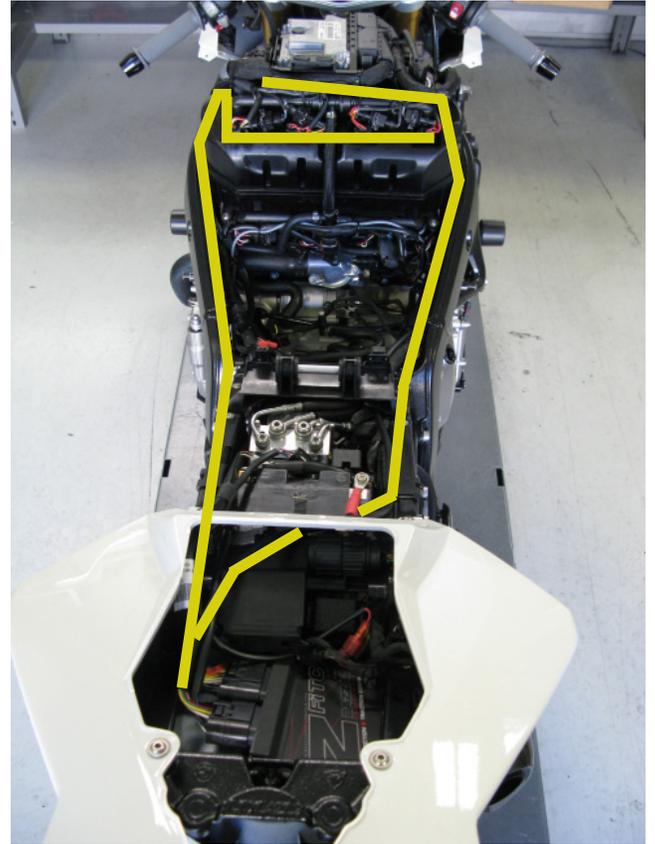


3. On the factory harness, locate the **green wire** of the tail light connector. Crimp a supplied scotch-lok connector onto the **green wire** and insert the mating T-tap connector of the Bazzaz harness identified on page one of these instructions as “Power” (**red wire**).



4. Route the remainder of the Bazzaz fuel harness along the left side of the bike under the tank mounting bracket and the remainder of the Bazzaz coil harness along the right side of the bike and under the tank mounting bracket. Both harnesses route into the engine area. It is possible to remove the tank mounting bracket, for ease of installation.

5. Continue to route the coil harness up the right side of the motorcycle, in between the throttle bodies and frame.



6. Next, you will need to unplug the factory coil connectors, trim sheathing back to 20-30mm, and install the scotch-lok connectors on the signal wire of each one. **Each connector has a green wire with a tracer (different color tracer for each coil), a brown wire, and a black wire with a tracer (different color tracer for each coil). The black wire with tracer is the signal wire on each coil.** After crimping scotch-lok connectors into place, install T-Tap connector on Bazzaz harness into their respective connectors.

Note: White wire on Bazzaz harness for coil 1, brown for coil 2, yellow for coil 3 and green for coil 4.

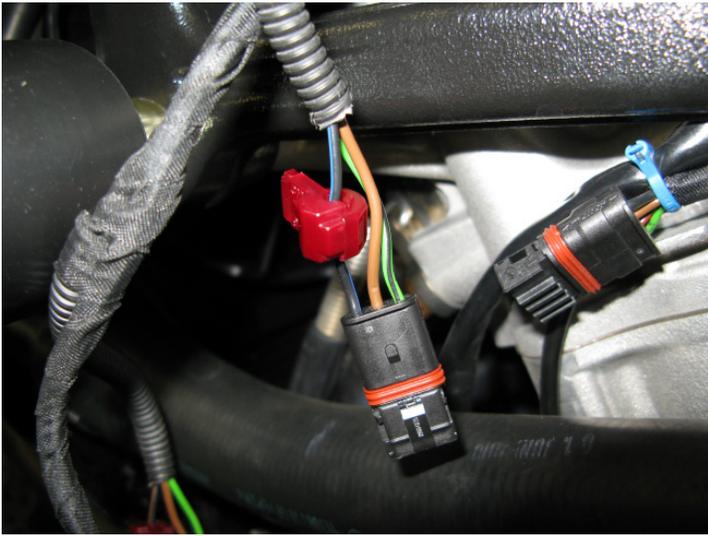
signal



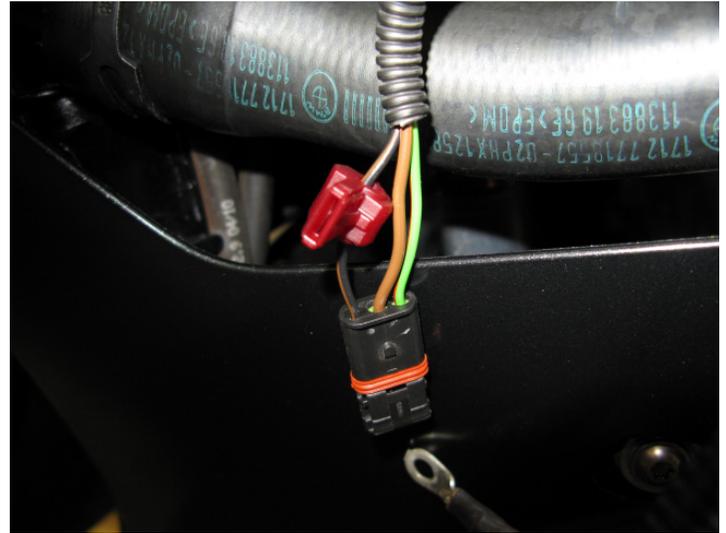
blk / red - coil 1



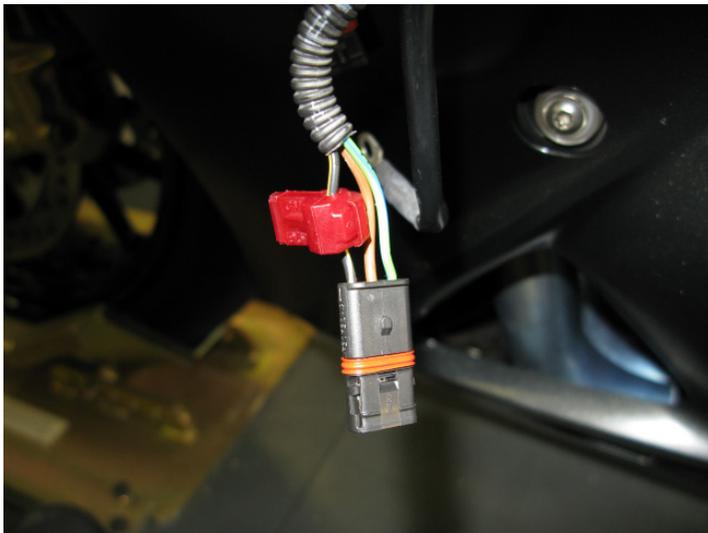
blk / blue - coil 2



blk / brown - coil 3



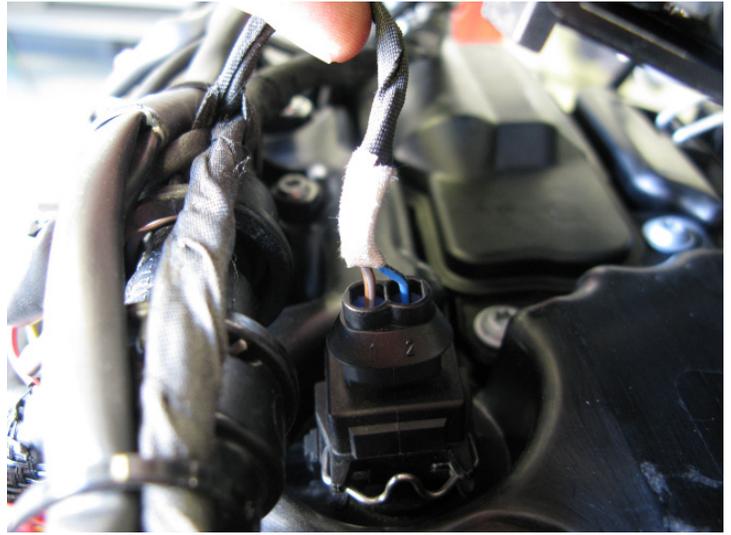
blk / yellow - coil 4



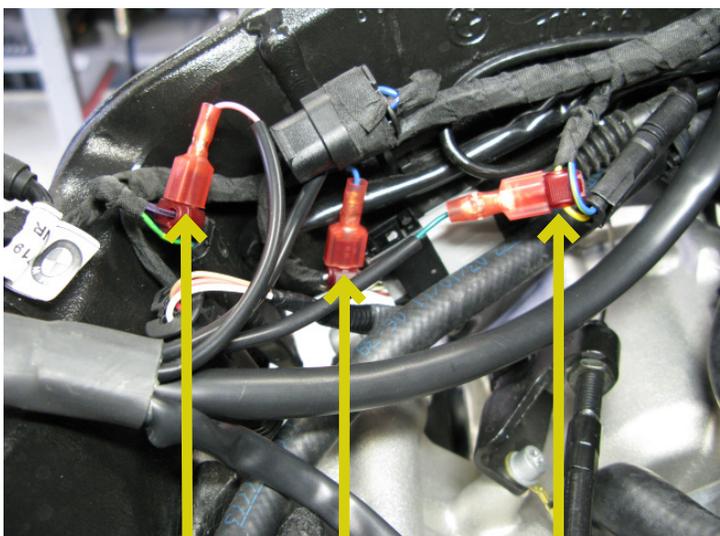
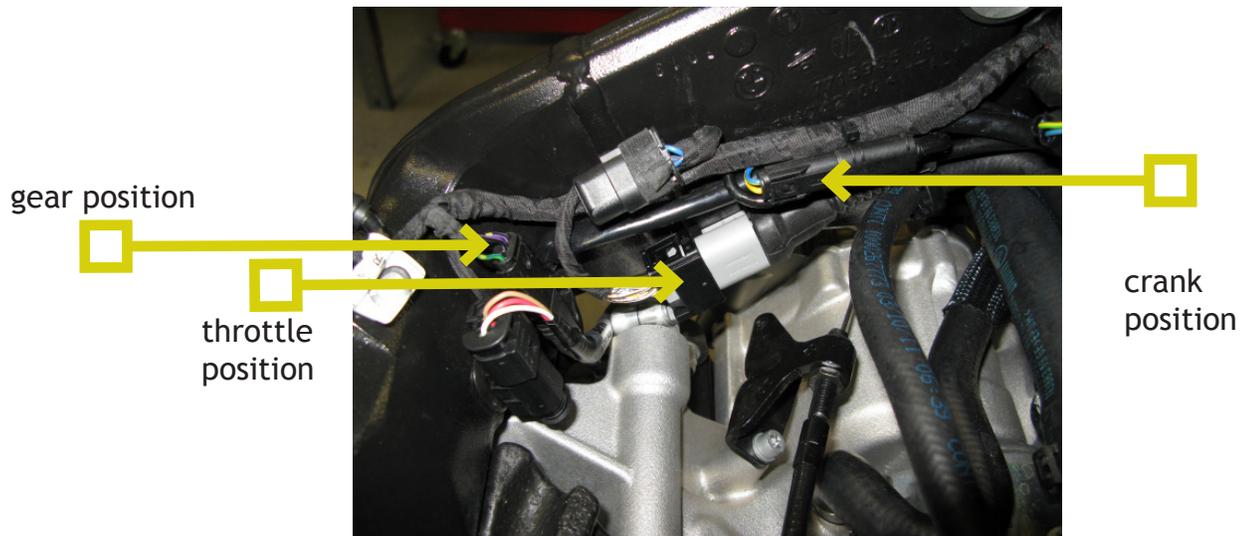
- 1
- 2
- 3
- 4

7. Reinstall airbox, being sure to route stock harness correctly. Then reinstall crankcase breather hose and push airbox down onto the throttle bodies. Next, if velocity stack servo was removed during disassembly reinstall it at this time. Now reinstall air filter and plug in all stock connectors except secondary injector connectors.

Note: Connector with white tape on lead is not an injection connector, it gets plugged into the intake air sensor underneath the ECU.



8. In the engine area identify the factory harness connections in which the Bazzaz fuel harness will be connected.



purple / black
white / gray
yellow

← The photo identifies the wire color for which a Bazzaz Scotch-lok connector must be crimped onto at each identified sensor.

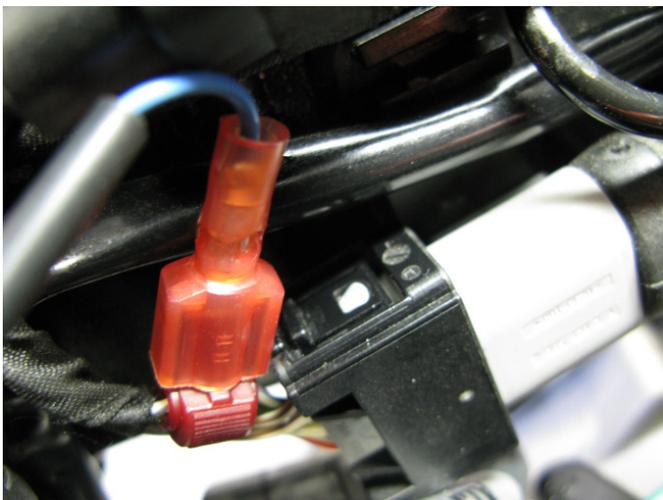
A) Crimp a supplied scotch-lok connector onto the **purple/black wire** of the factory gear position sensor connector. **Note: This connector contains two identical Purple/Black wires, be sure to connect the Bazzaz connector onto the middle wire in pin location 2.** Insert the mating T-tap connector of the Bazzaz harness containing the **pink wire**.



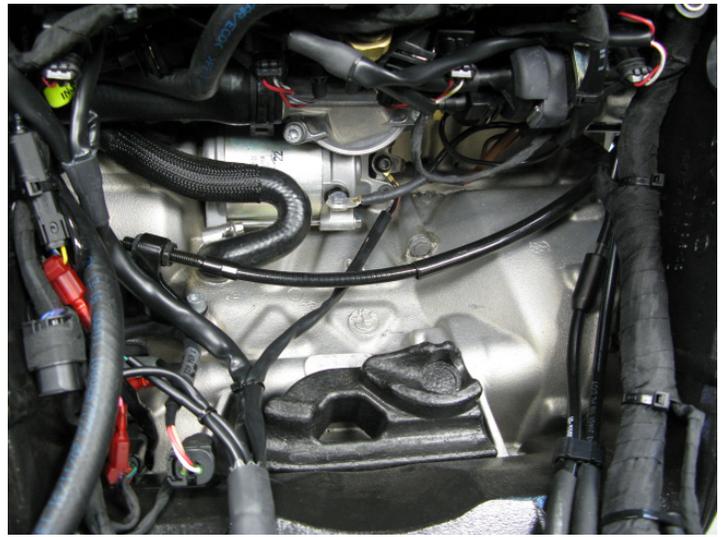
B) Crimp a supplied scotch-lok connector onto the **yellow wire** of the factory Crank Position Sensor connector. Insert the mating T-tap connector of the Bazzaz harness containing the **green wire**.



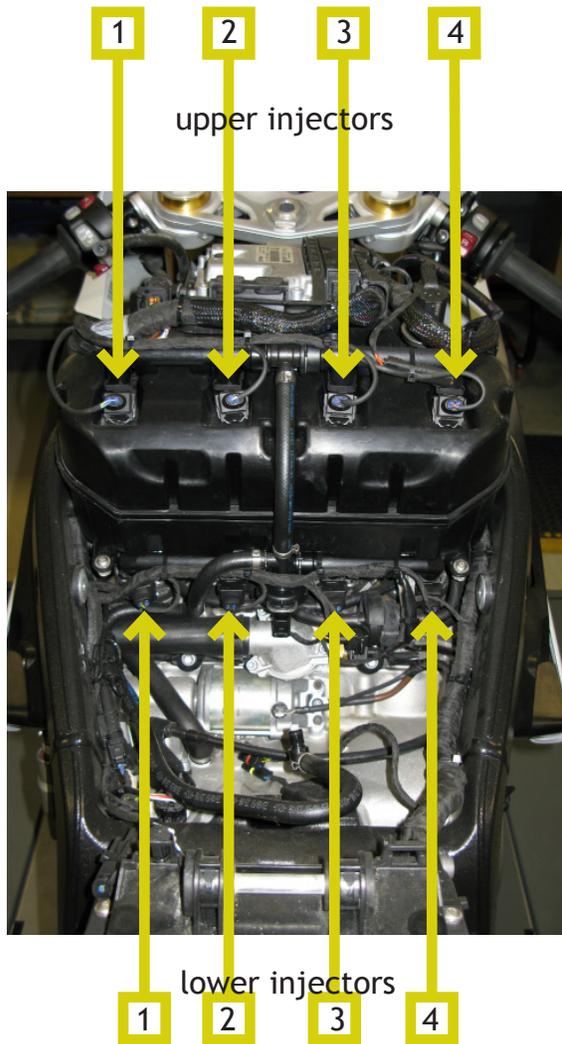
C) Crimp a supplied scotch-lok connector onto the **white/gray wire** on the factory Throttle Position Sensor connector at pin location 2. Insert the mating T-tap connector of the Bazzaz harness containing the **blue wire**.



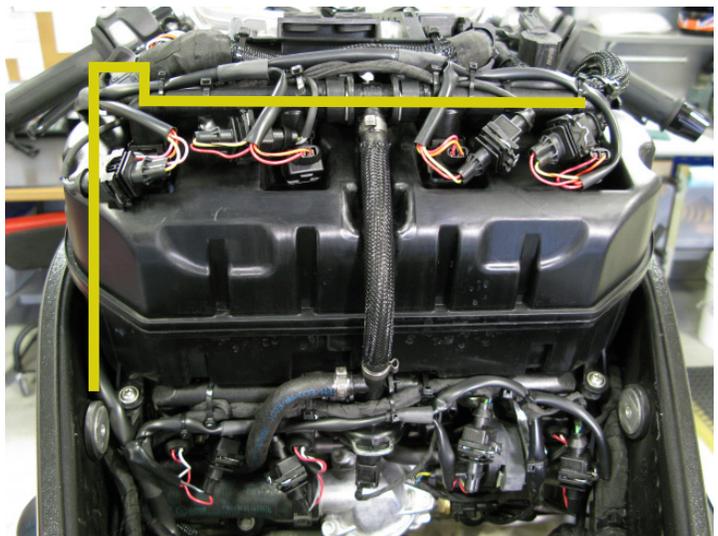
9. Attach the Bazzaz ground lug directly to the common ground on the engine which can be found near the starter motor mounts.



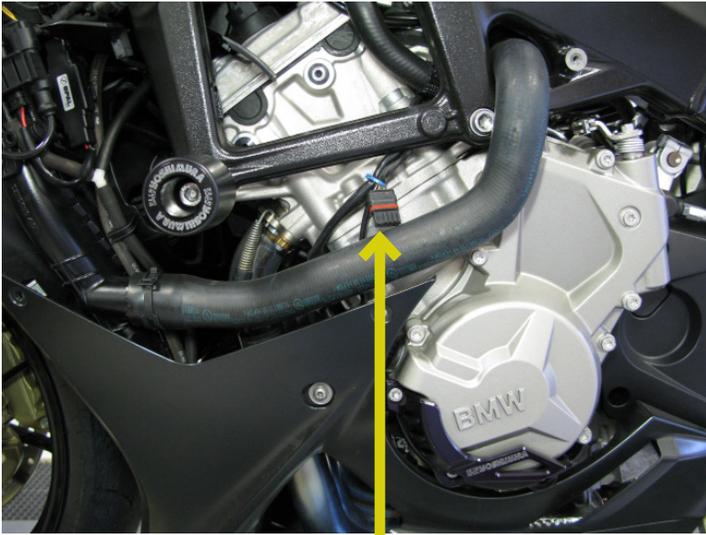
10. The BMW S1000RR is equipped with eight injectors, two per cylinder. The primary bank of injectors are located on the throttle bodies and the secondary bank is located atop the air box. The Bazzaz harness contains mating connectors to be installed in line with all eight injectors. The portion of the Bazzaz to be installed in line with the primary (lower set) injectors contains a Yellow sticker labeled “Inj 1 Lower”, disconnect the factory harness connector and install the mating Bazzaz connectors in line with the factory harness connector and injector. Repeat this process for the lower injectors of cylinders 2-4. Once all the primary injector connections have been completed, route the remaining portion of the Bazzaz harness up the left side and on top of the air box. Connect the Bazzaz harness in line with the secondary (upper set) factory harness injector connectors just as previously done with the lower injectors.



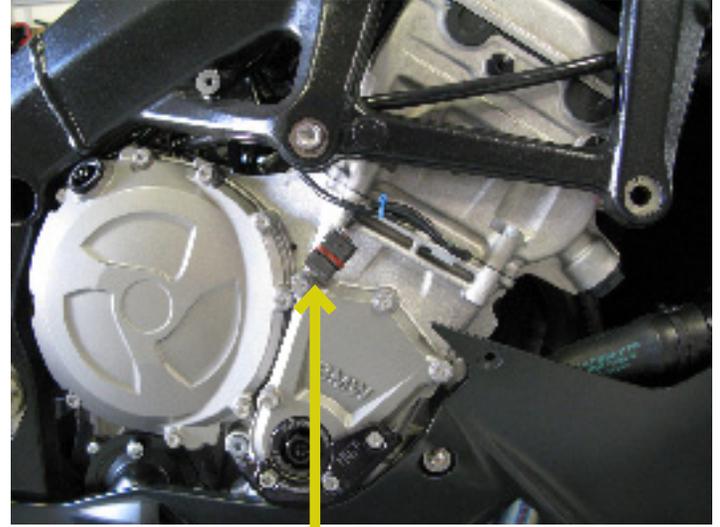
Bazzaz harness installed in-line with both lower and upper injectors. **Note: the routing of the Bazzaz harness in relation to the injectors flows from left to right on the motorcycle.**



11. Now that the Bazzaz system will control fuel delivery of the vehicle it is important to disable the factory O2 sensors in order to prevent the factory ECU from attempting to override the tuning changes made by the Bazzaz system. To do this simply locate and disconnect the two factory O2 sensors from the factory harness. These connections can be found on both sides of the engine behind the side fairings.

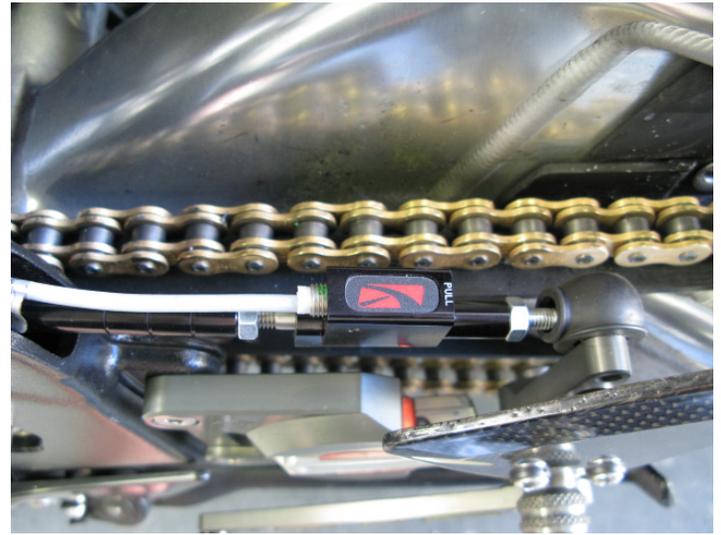
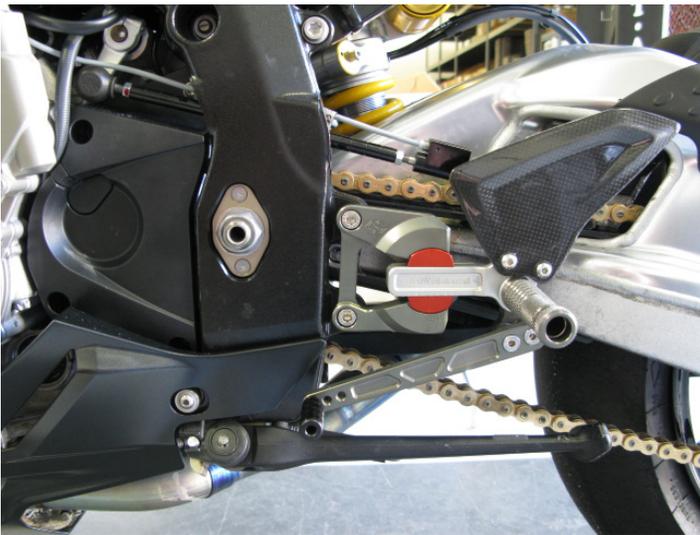


O2 sensor connector
(left side)



O2 sensor connector
(right side)

12. Now you will begin installation of the shift switch by removing the stock shift rod, shift switch and rear ball joint. Install supplied ball joint onto the rear shift lever and then the Bazzaz shift switch onto the ball joint. Next install the supplied shift rod in line with the front shift linkage and the Bazzaz shift switch. Secure components by tightening 10mm nuts. Route the shift switch sensor cable into engine compartment and connect it with mating connector on the Bazzaz coil harness. Secure shift switch cable away from any moving components as damage to the cable may cause shift switch sensor to fail.



13. To complete the installation, use the supplied cable ties to secure the Bazzaz and factory harnesses neatly along its routing path free of any moving or hot components (which could cause damage or failure of the system). If any problem is found, please carefully follow through the installation steps again. If problem still persists, please call Bazzaz tech support department at (909) 597-8300. After it is determined that everything is correct reinstall the components removed in step one and the installation will be complete.

*The Bazzaz Z-Fi controller is capable of storing two maps. These maps can be selected through the use of a map select switch which can be mounted on the handlebar for easy access and can be purchased separately. Or these maps can be selected by connecting or disconnecting the map select jumper supplied with kit. When the map select jumper is connected the control unit is operating using **Map 1**. When the map select jumper is disconnected the control unit is operating using **Map 2**.*

Note: Upon installing the system, verify you have selected the proper map to correspond with your model. The controller supplied with this kit has been pre-programmed with two enhanced fuel maps. Map 1 is intended for use on the '09-'11 S1000R and Map 2 for the '12-'14 S1000R.

You are able to load and unload maps as needed via the Z-Fi Mapper software.

