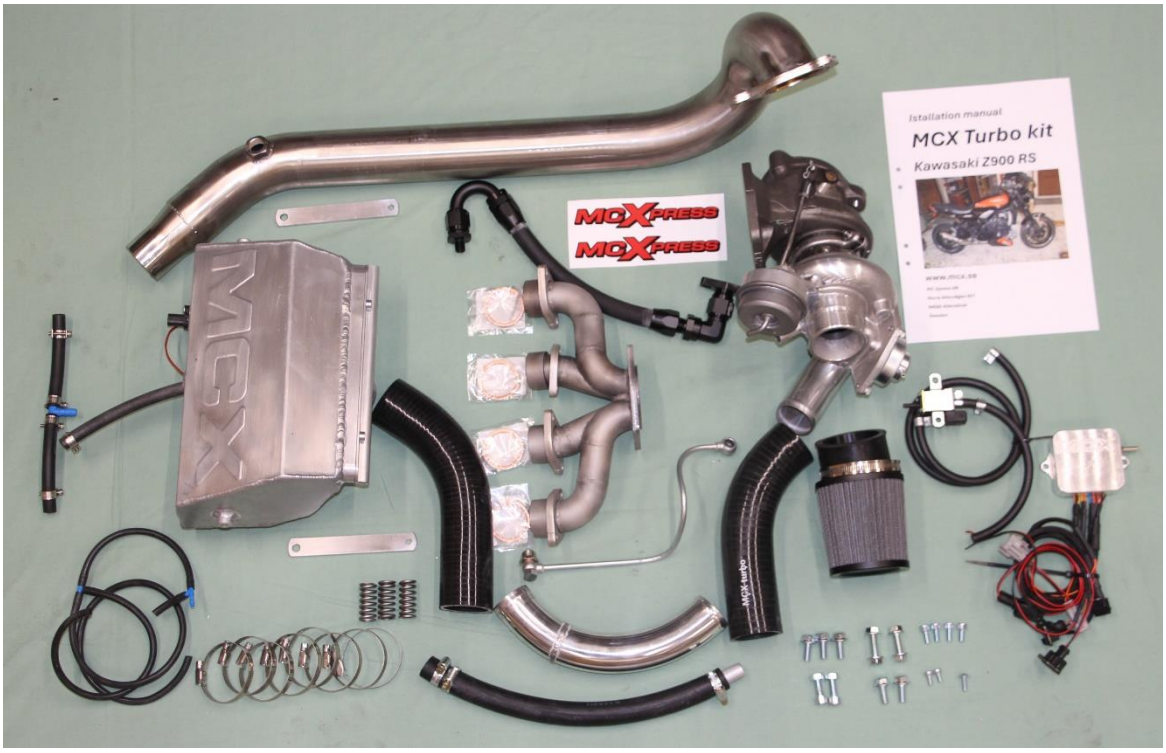
Kawasaki Z900 RS

MCX Turbo kit installation manual



MC Xpress -Supreme of the extreme !

Kawasaki Z 900 RS turbo kit

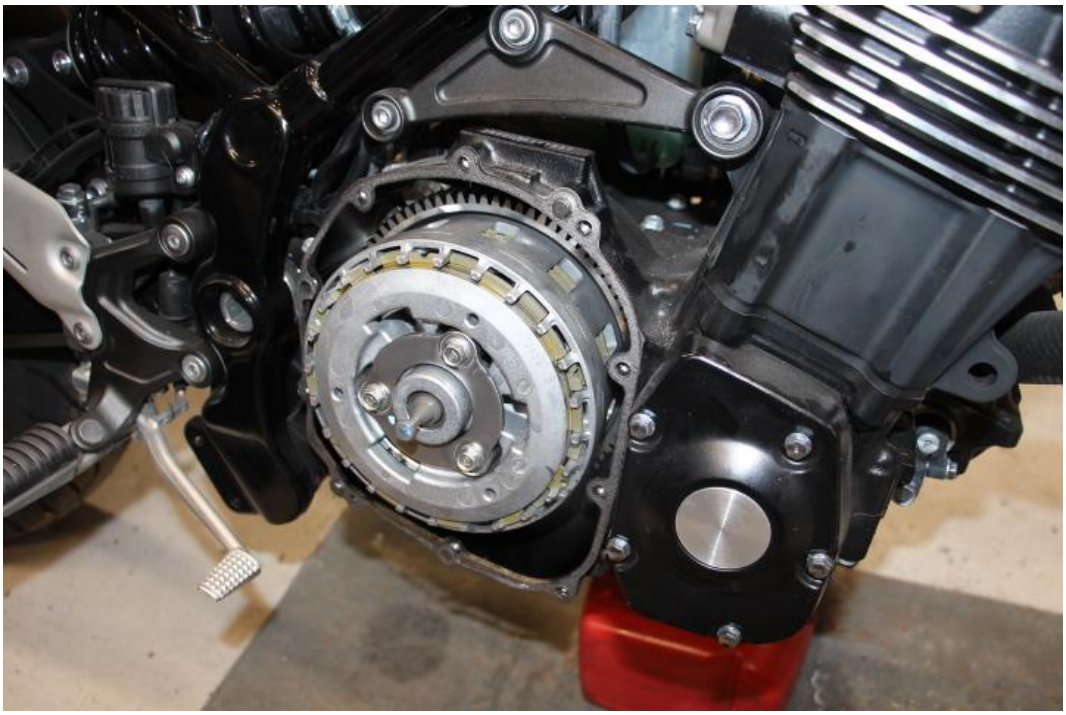
Thank you for choosing the MC Xpress turbo kit to your Kawasaki Z900.
The turbo kit is designed for racing use only.
The turbo kit is designed to give you the best performance possible together with reliability.
During the development work we have tried to keep the motorcycle as stock as possible to make the installation easy and to keep the bike as untouched as possible.
Read this manual before you start with the installation.
We hope you will get much joy with your new investment.
The turbo motorcycle is only recommended to be used by experienced riders and for racing use only.

- This turbo kit greatly enhances the performance of the vehicle it is installed upon!
- Professional training should be received by anyone that operates this modified vehicle.
- Installation of this upgrade kit may void any warranty that is provided by the vehicle manufacturer.
- A one (1) year warranty is provided on the parts only. This warranty does not cover any other parts even if the damage is caused by the installation of the turbo kit.
- MCXpress AB, its distributors, dealers, nor installers will not be held liable for any personal or physical damaged obtained in association with the installation or use of this product.

By installation or purchase of this product, the end user and or installer agree that the end user has been informed of this information.

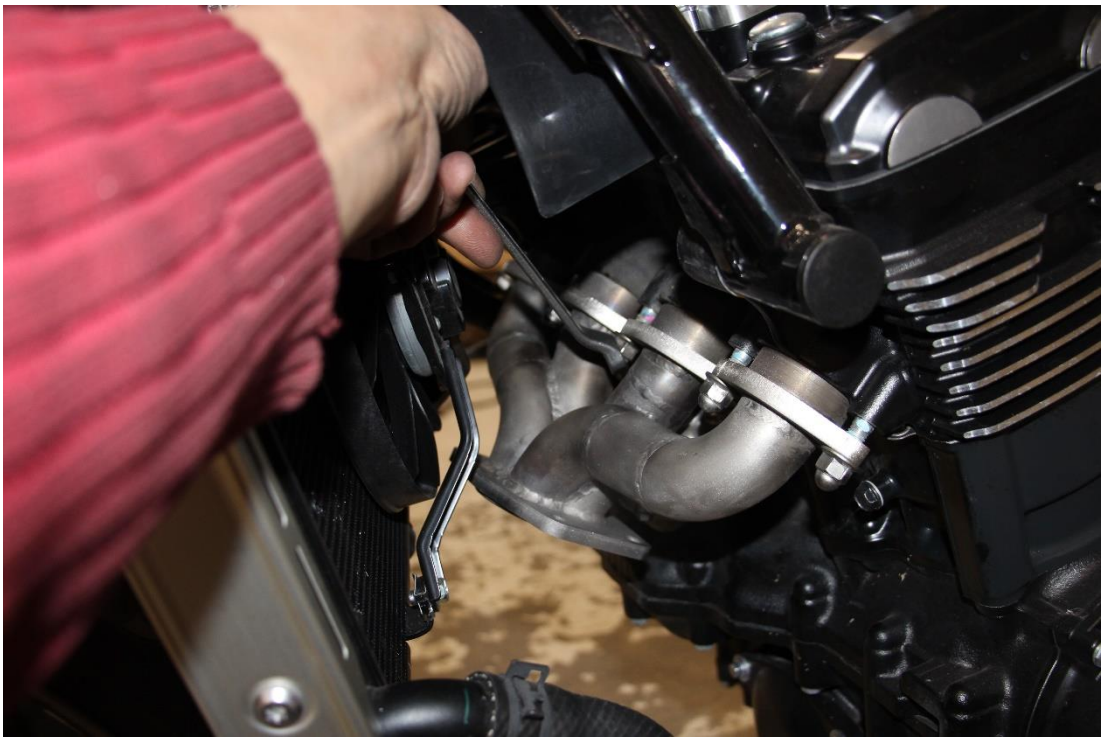
Begin the installation by taking off the seat, (lock up the seat by the ignition key from under), take off the fuel tank, the air intake filter box, and the exhaust system.

Drain the oil from the motor. You don’t have to drain the water coolant.



To make the clutch able to handle the extra torque that the turbo creates, the clutch must be modified with stronger valve springs.

Take off the clutch cover, and replace the 3 springs with the stiffer new ones supplied with the kit.



Install new exhaust gaskets and install the turbo exhaust headers.

Loosen the water radiator from the frame to make more space when installing the headers.

Install the turbo against the headers, but do not tighten the bolts so hard until you have installed the exhaust system.

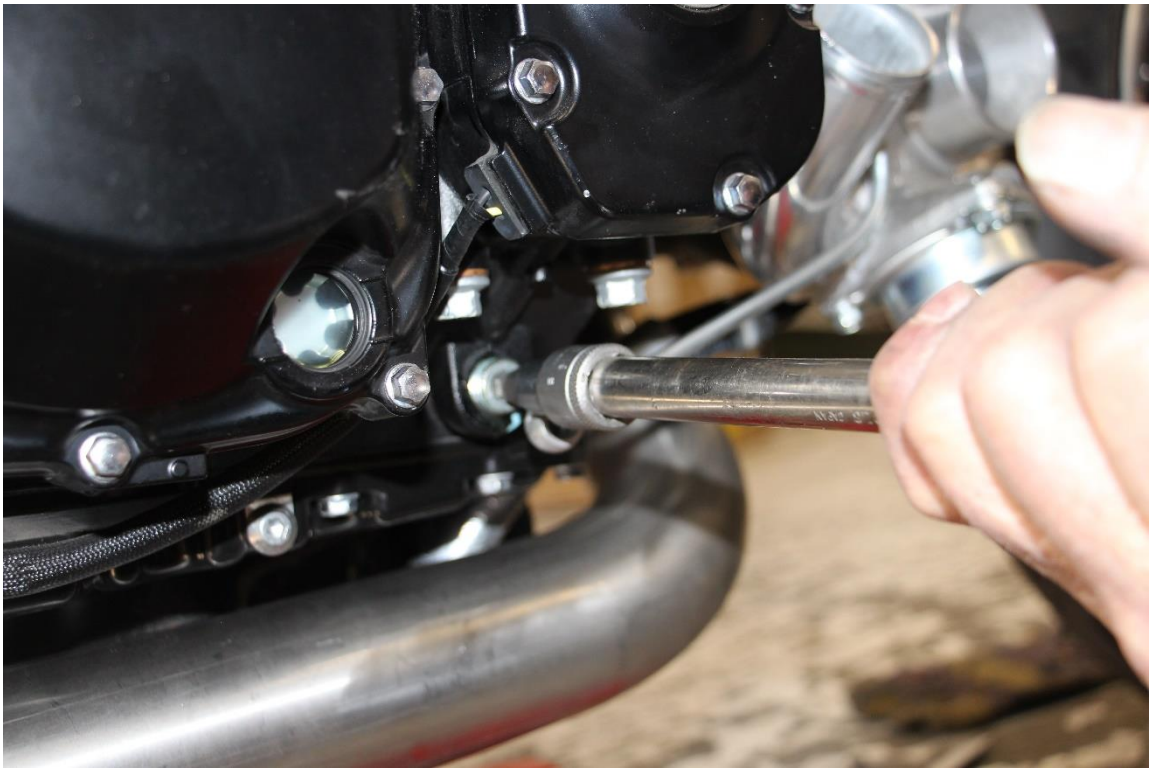
Install the oil return hose between the turbo and the oil pan.

Don’t tighten the banjo bolt too hard. Recommended tightening torque is 10 Nm.

Now you can fill the engine with oil .

Install the exhaust system. Use the stock rear muffler.

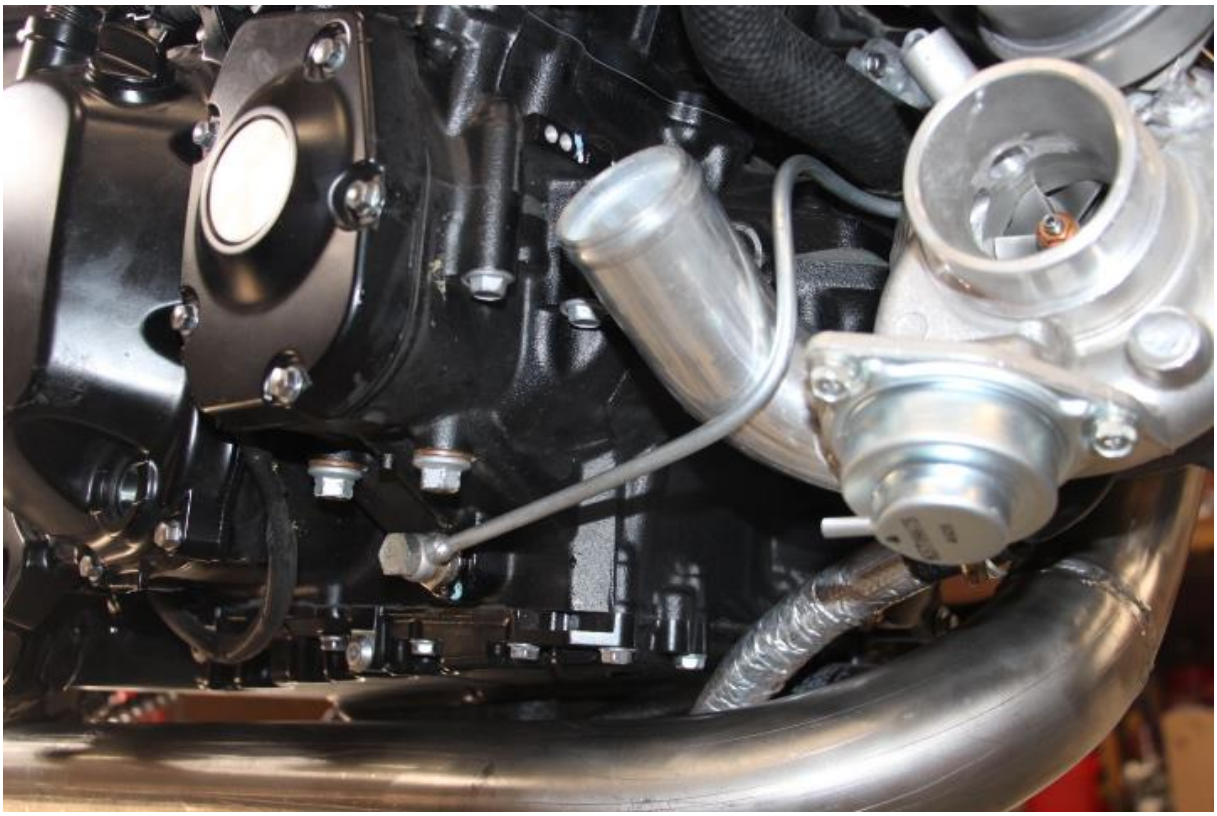
After the exhaust system is in place, hard tighten the turbo bolts to the exhaust manifold.



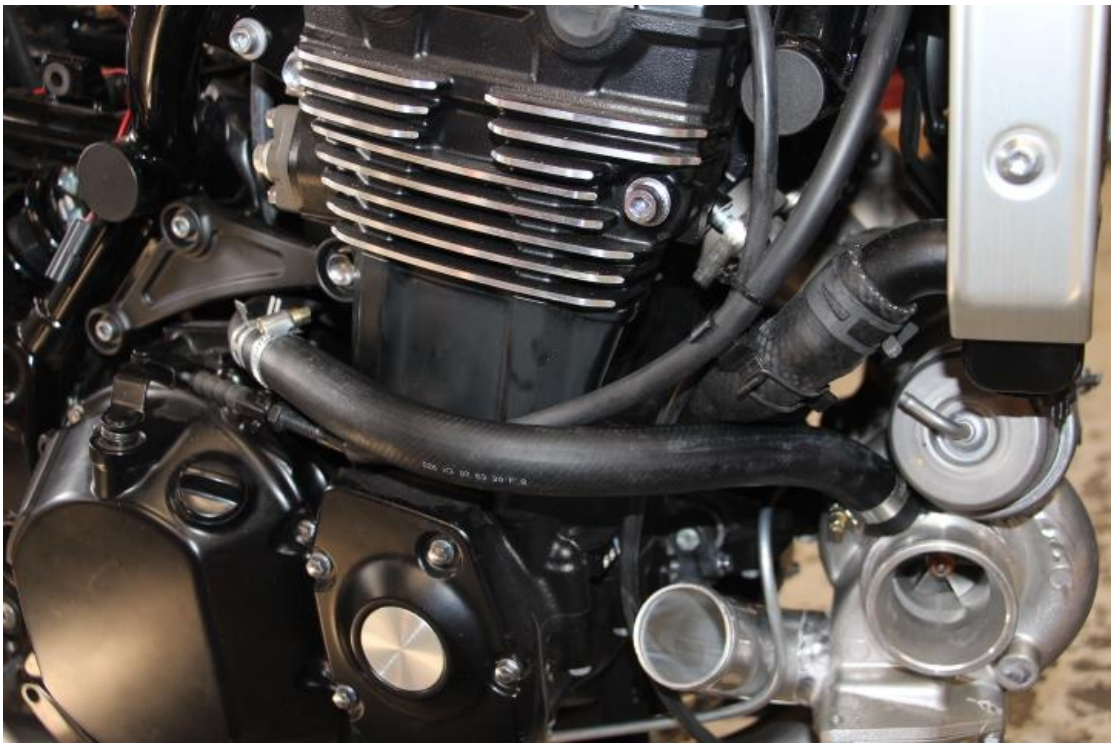
Now it´s time to install the oil tube going from the engine to the turbo.

Begin by removing this oil plug on the right side of the engine.

Install the new plug supplied with the kit. Use thread sealant.

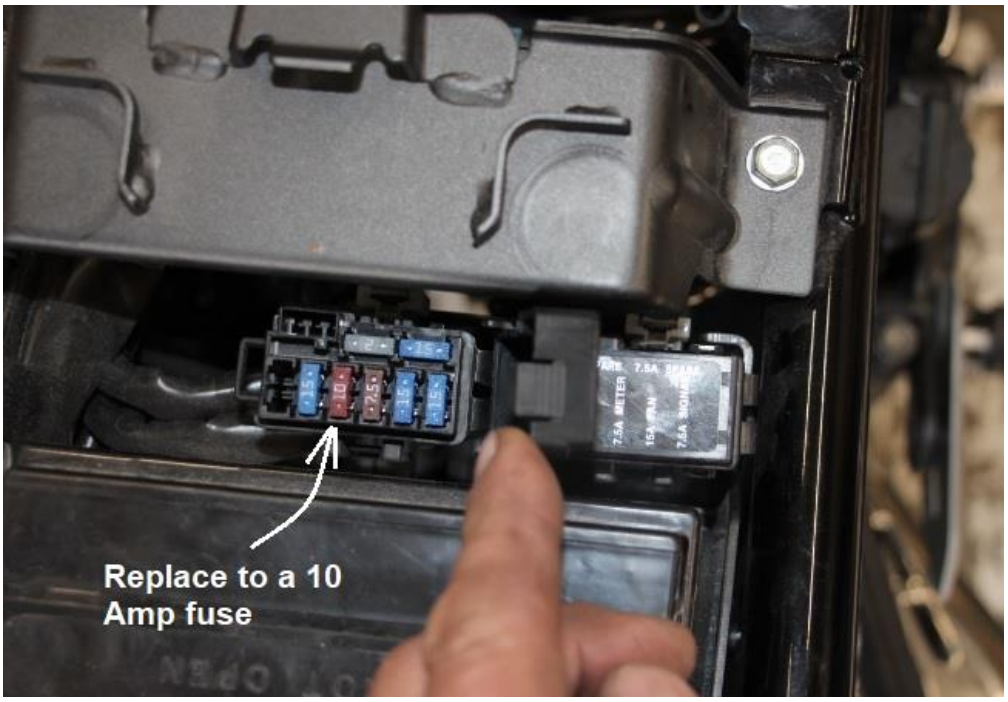


Install the oil tube, but before you do this, lubricate the oil inlet of the turbo with some motor oil so the turbo gets a fresh start of its life.

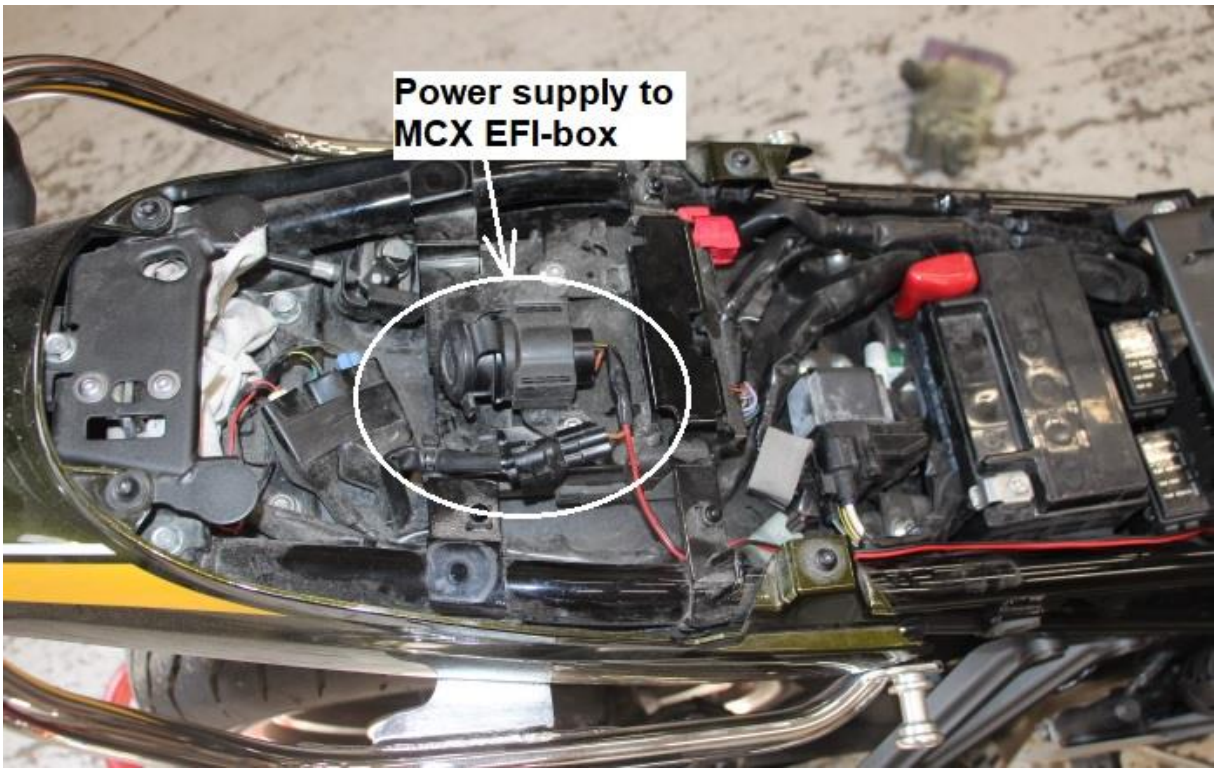


The engine ventilation that originally went into the air box must be re-routed to the air inlet of the turbo. Install the extension hose between the stock engine vent hose and the turbo.

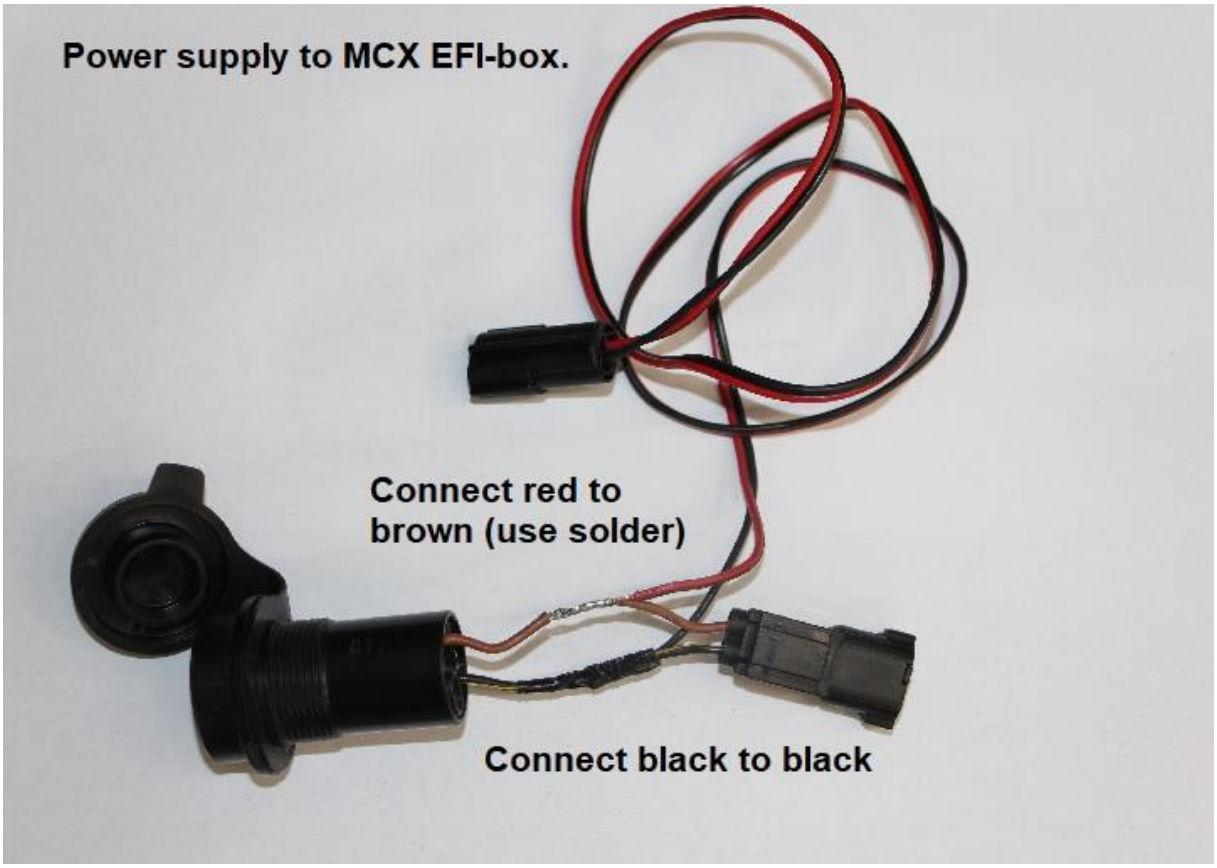
Preparing for the MCX EFI-box



Begin by replacing the “accessories” fuse with a 10 Apm fuse.



The +12 Volt and ground to the MCX EFI-box is taken from the accessories connector in the rear of the bike. Solder in the cable included with the turbo kit like the next picture.



Insulate carefully.

Plenum installation:

Open the stock air filter box and take out the stock rubber velocity stacks.

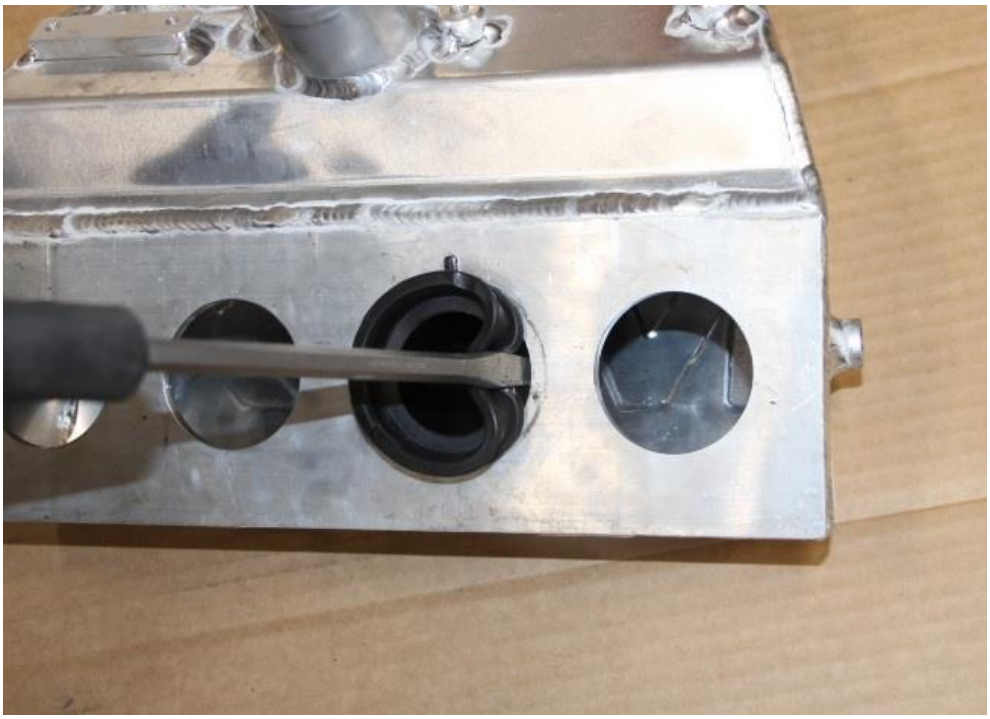
Install them into the new aluminum air filter box.

A tip to make it easier is to lubricate the stack like the picture.

You can also heat up the rubber stack carefully with a heat gun.

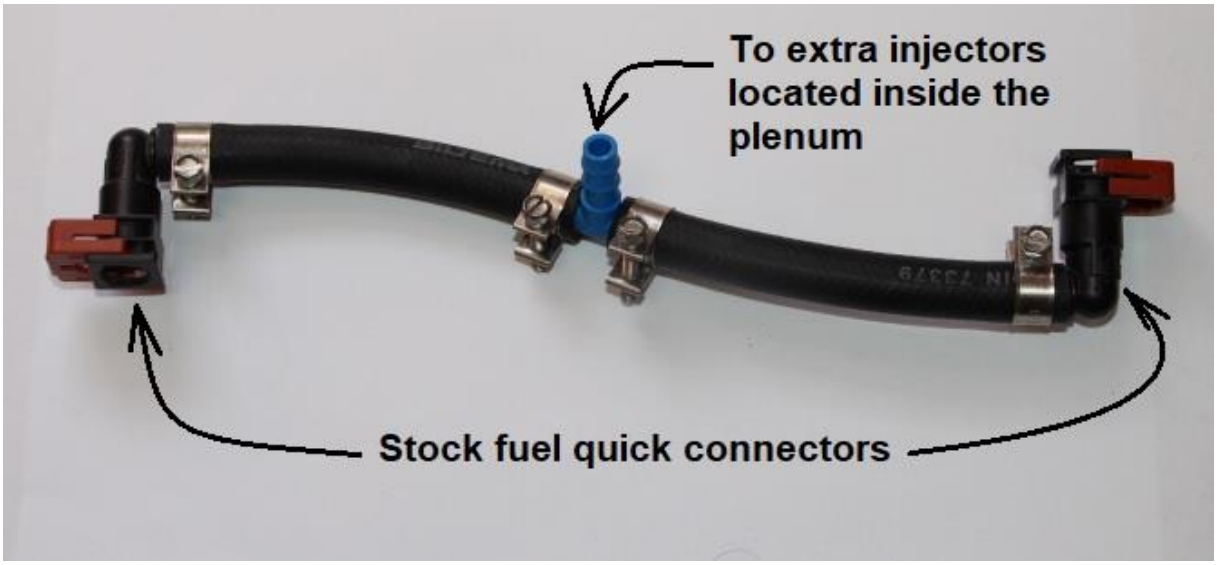
Make sure they fit properly on the inside of the box.

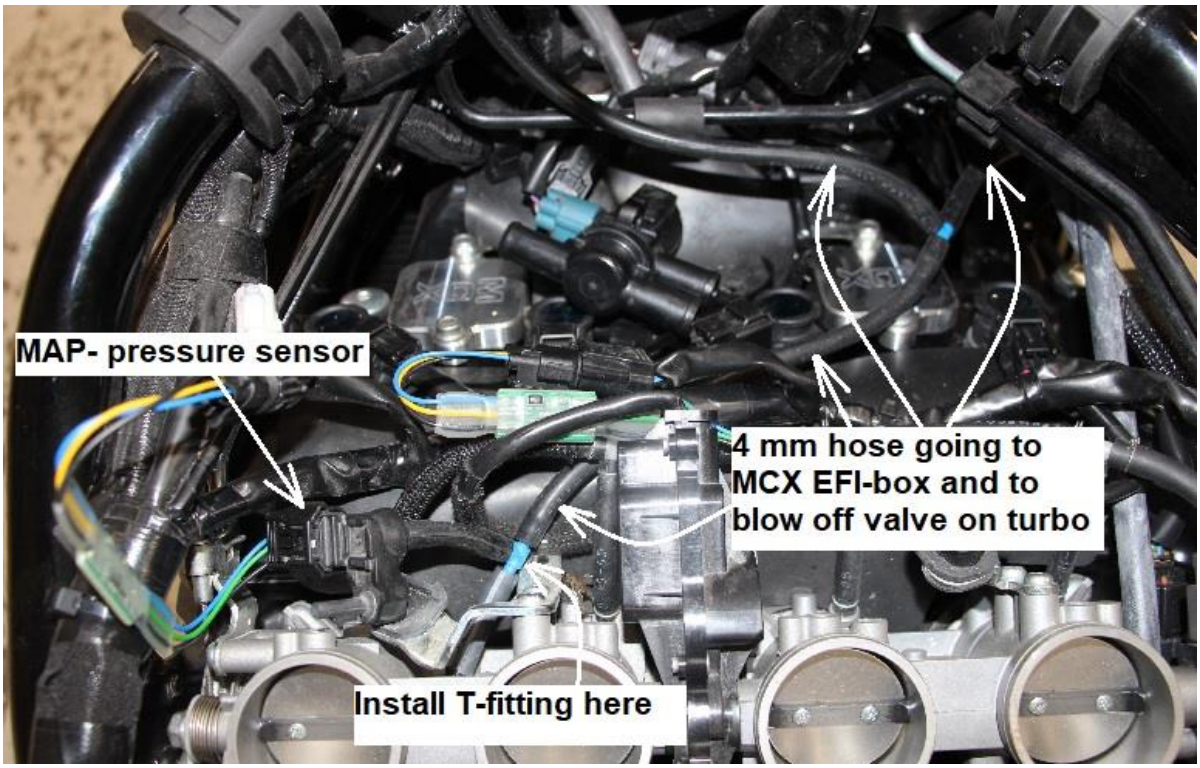
Use a big screw driver or similar to ensure the stack is in place also on the inside.



Install a new fuel hose between the fuel tank and the fuel rail.

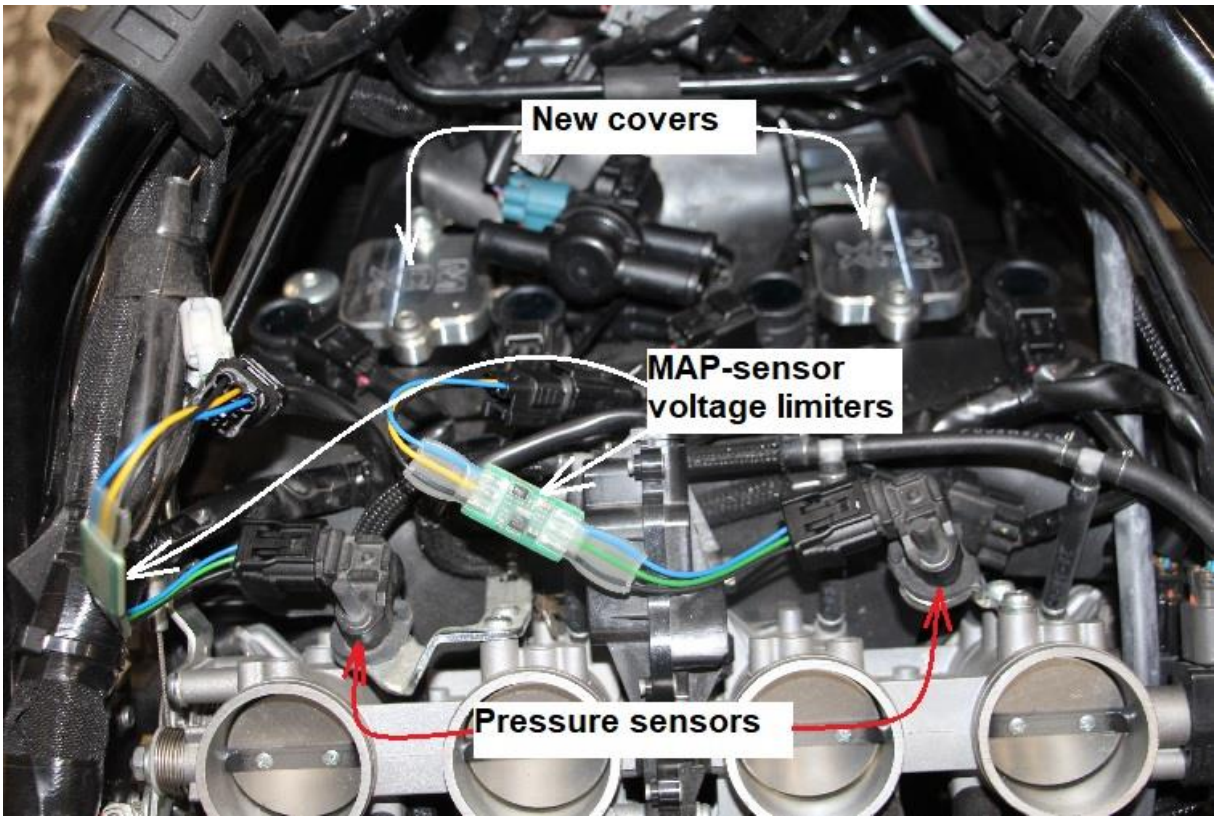
Re-use both fuel quick connectors, and install them on the new fuel hose.





Take off the small hose going to the left MAP-sensor. Be careful so you don't hurt the sensor.

Install the 4 mm hose kit to the hose you just took off, and connect the short hose to the sensor. The other two hoses shall later be connected to the blow off valve on the turbo and to the nipple on the MCX EFI-box.



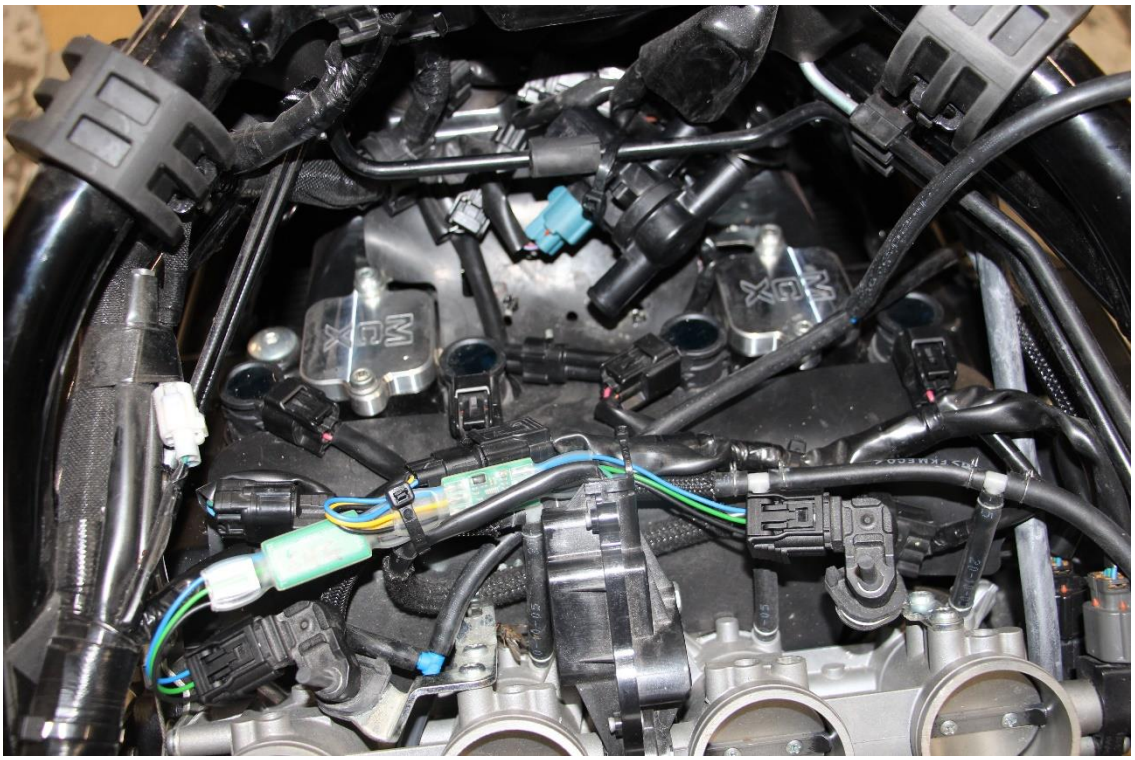
Install the new MCX covers on the valve train cover.

Remove the stock hoses from the old covers and the valve.

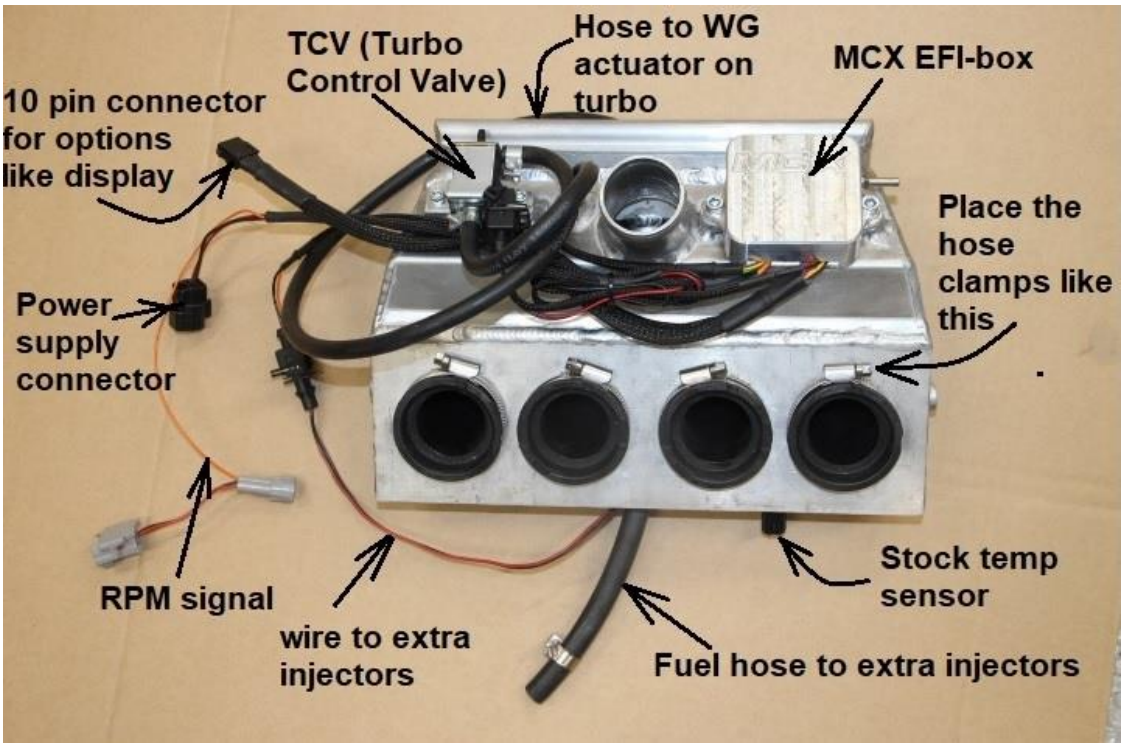
Strap the valve with cable ties.

There are two pressure sensors on the bike.

To avoid error codes when the turbo pressure comes, a MAP-sensor voltage limiter must be installed on each sensor.



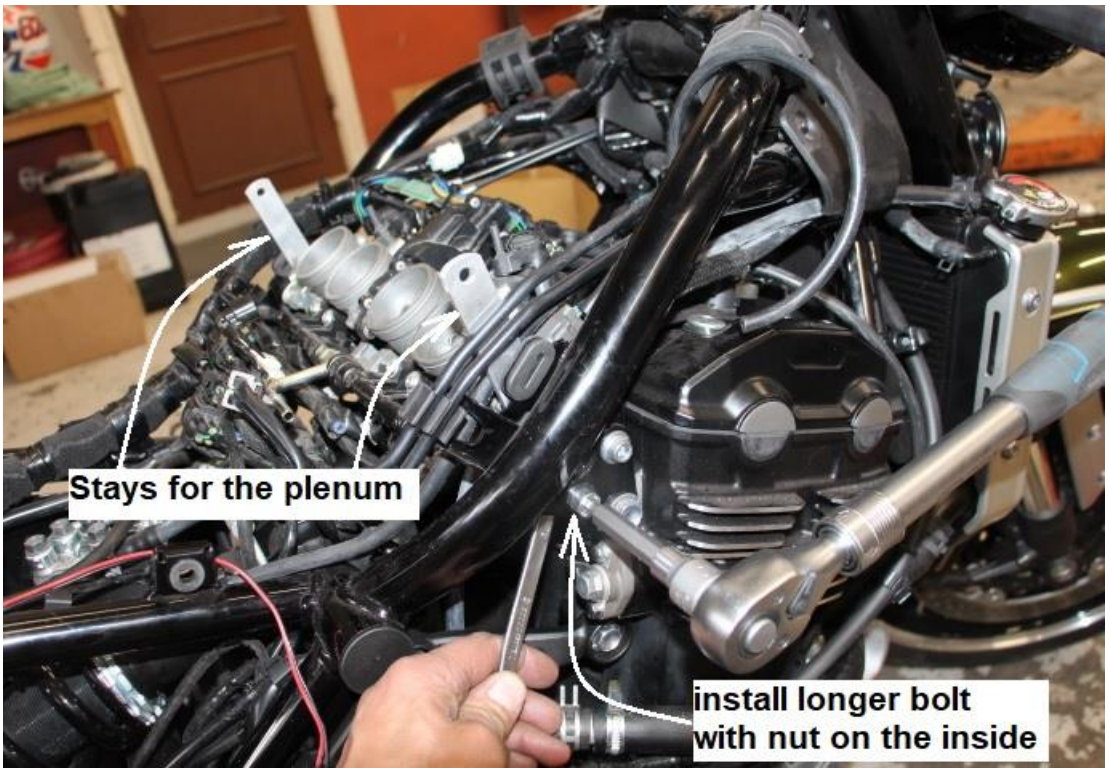
Strap the MAP-sensor voltage limiters nicely with cable ties.



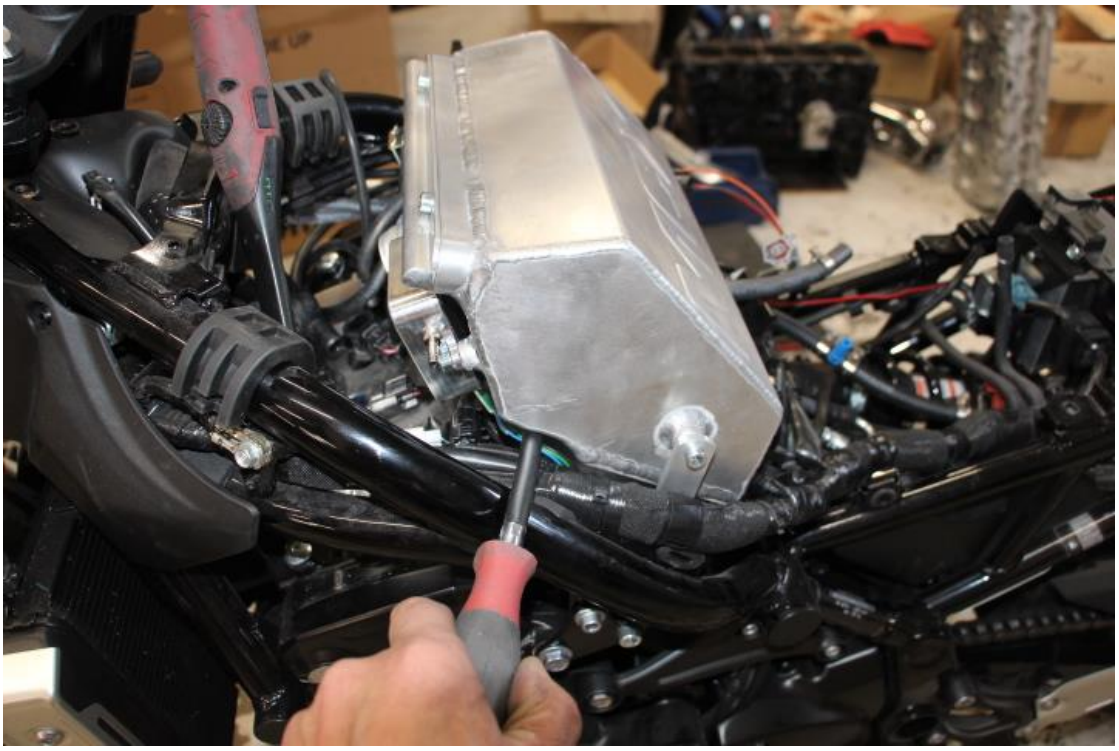
Prepare the plenum until it looks like this.

Install the MCX EFI-box to the plenum and plug in the connector to the extra injectors (orange/black wire from the MCX EFI-box.)

Install the TCV valve to the plenum, and plug in the connector (Black/red wire from the MCX EFI-box)



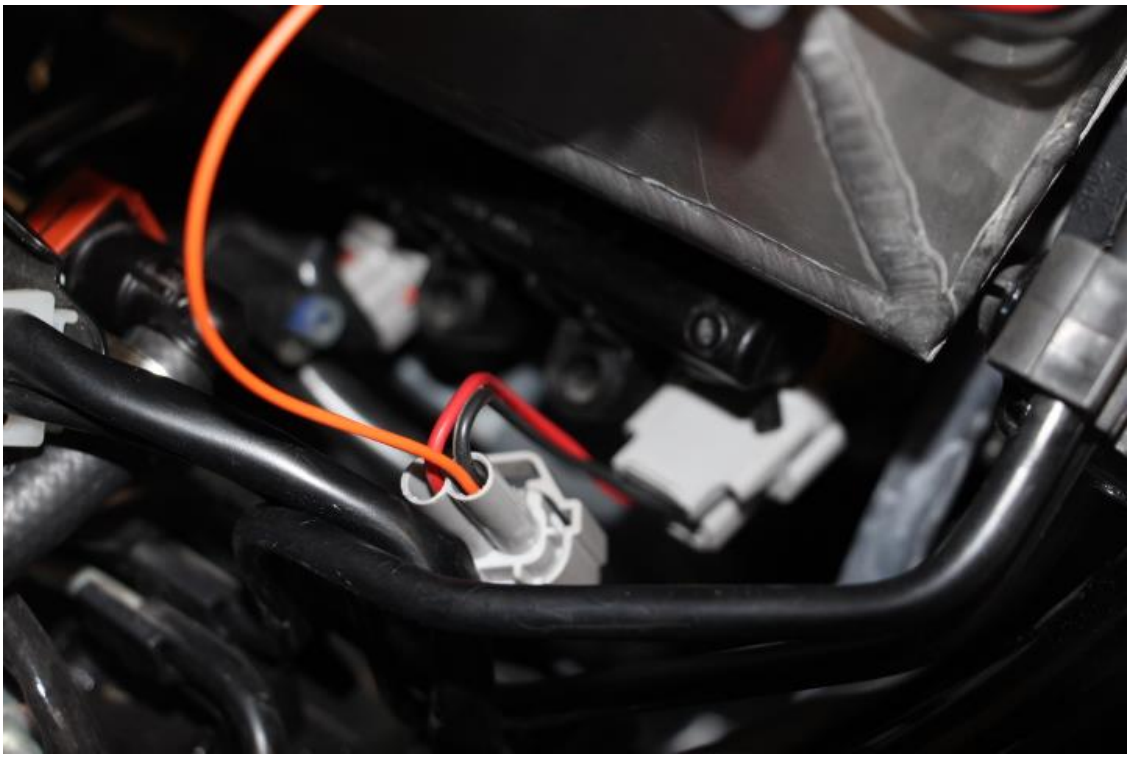
To prevent the plenum from blowing off caused by the turbo pressure, a stay on each side shall be installed. Replace the bolt to a longer one like the picture, and put a nut on the inside to secure the stay.



Install the plenum on top of the throttle body.

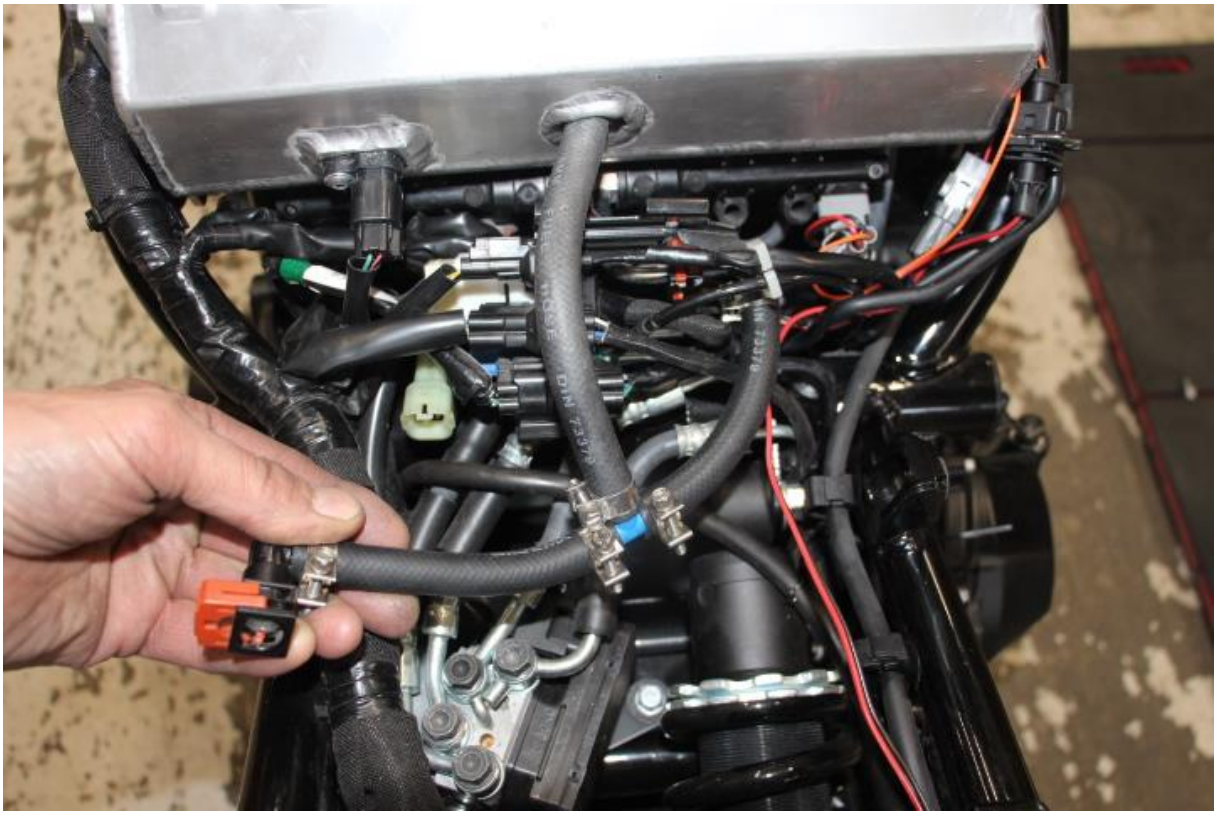
First tighten the upper stay bolts.

Then tighten the 4 hose clamps.



Connect the orange rpm signal wire to one of the stock injectors so the EFI-box get the rpm reading. (You can take the signal from any cylinder)

Also connect the power supply to the MCX EFI-box.



Connect the hose to the extra injectors inside the plenum.

Install the hose coming from the TCV valve located on the plenum to the waste gate actuator down on the turbo, and the small hose to the blow off valve under the turbo.

Make sure and strip the hoses so they are far away from the hot exhaust system.

Install the P2 hoses and tube going from the turbo to the plenum.

Install the fuel tank.

Put on the MCX turbo sticker under the Z900 RS emblem.

Fill up the fuel tank with 98 octane fuel. Lower octane can cause detonation and engine damages. Make sure oil is filled into the engine.

Start up the engine.

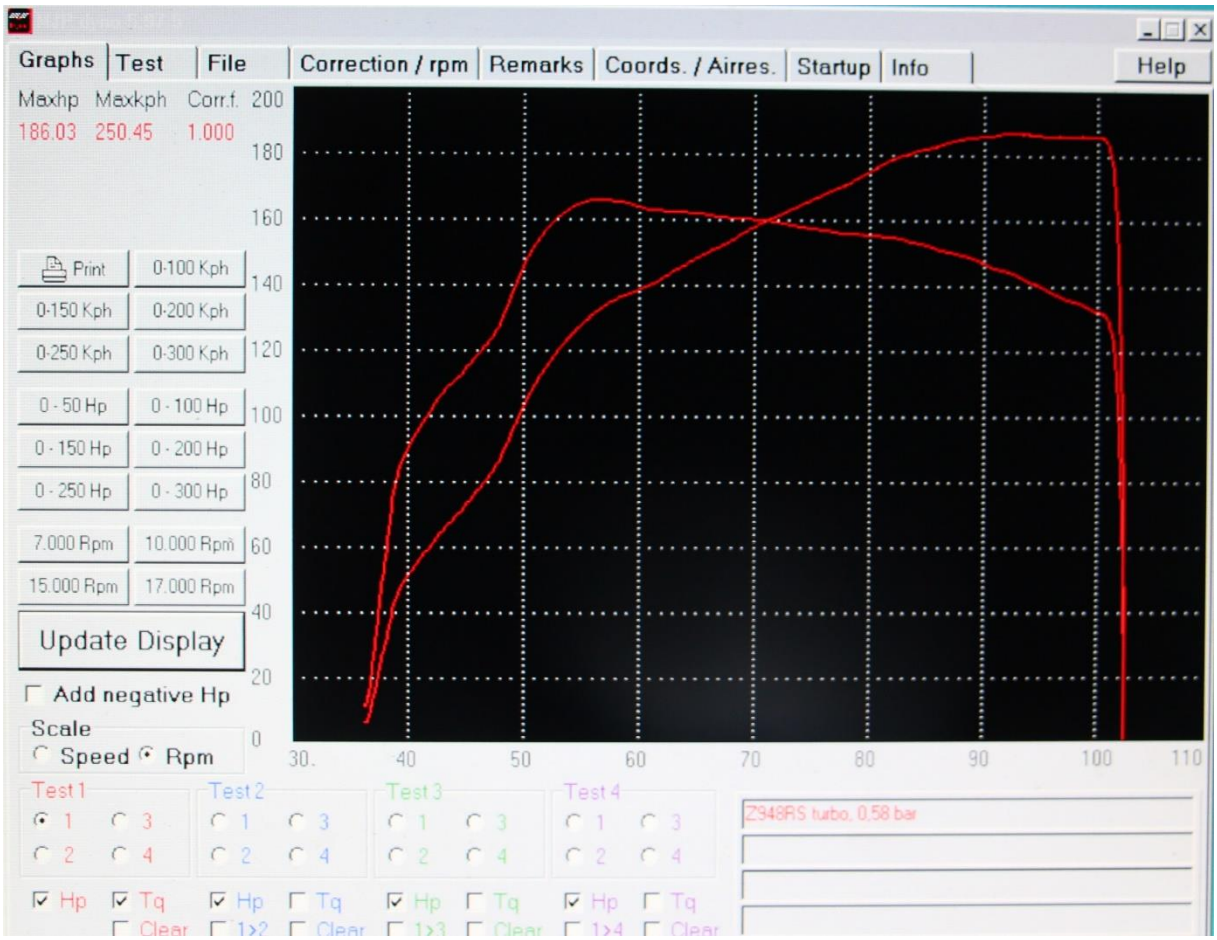
When driving the bike for the first time just after the installation, check the boost level.

This can be done by installing the MCX display, or by installing a boost gauge.

If you want to install a boost gauge, we recommend to put a T on the 4 mm hose going to the MCX EFI-box.

Recommended turbo pressure is 0,55-0,60 bar.

You can adjust the boost either with adjusting the boost table in the MCX EFI-box, or by adjusting the pre-load on the waste gate actuator rod.



At 0,6 bar, the power at the rear wheel is almost 190 hp.