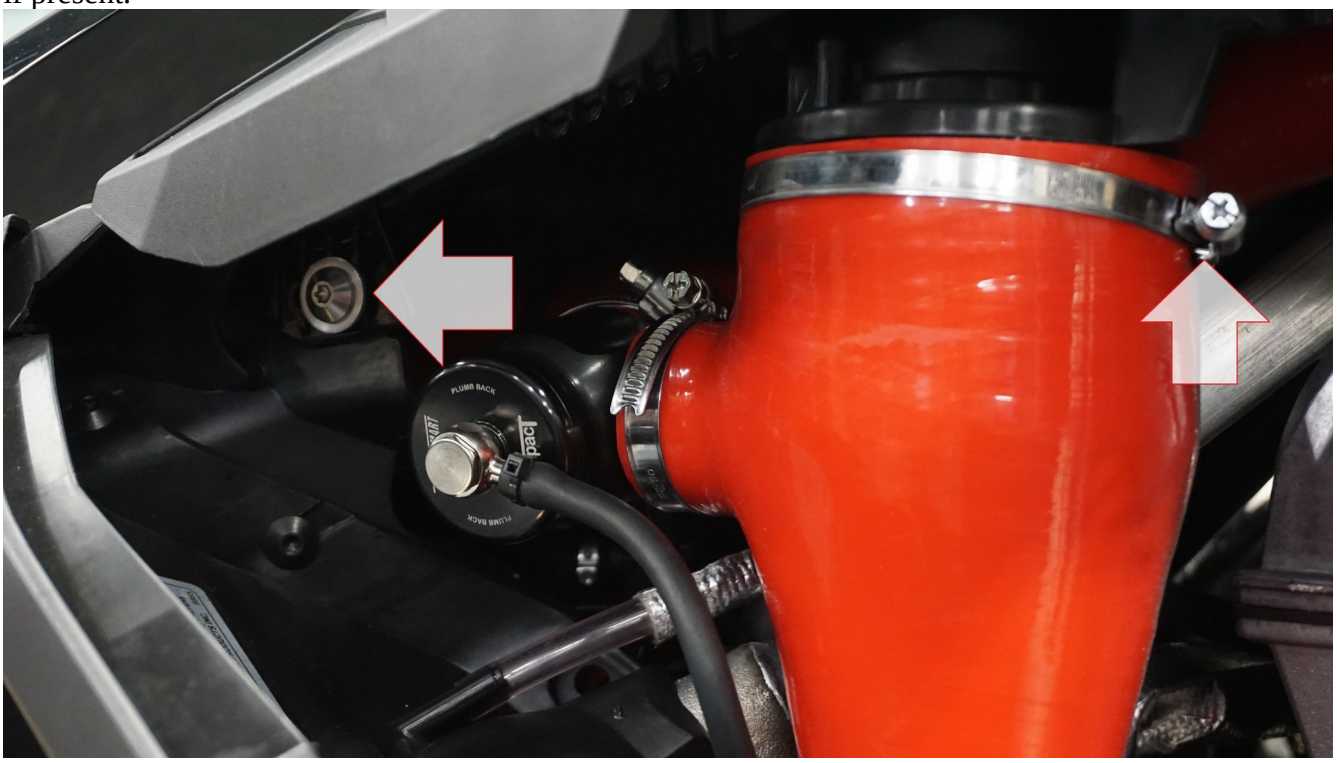
900ACE Turbo Stage 2 Installation Guide

CHARGE TUBES

#1. Unplug the battery.

#2. Disconnect then remove the instrument panel.

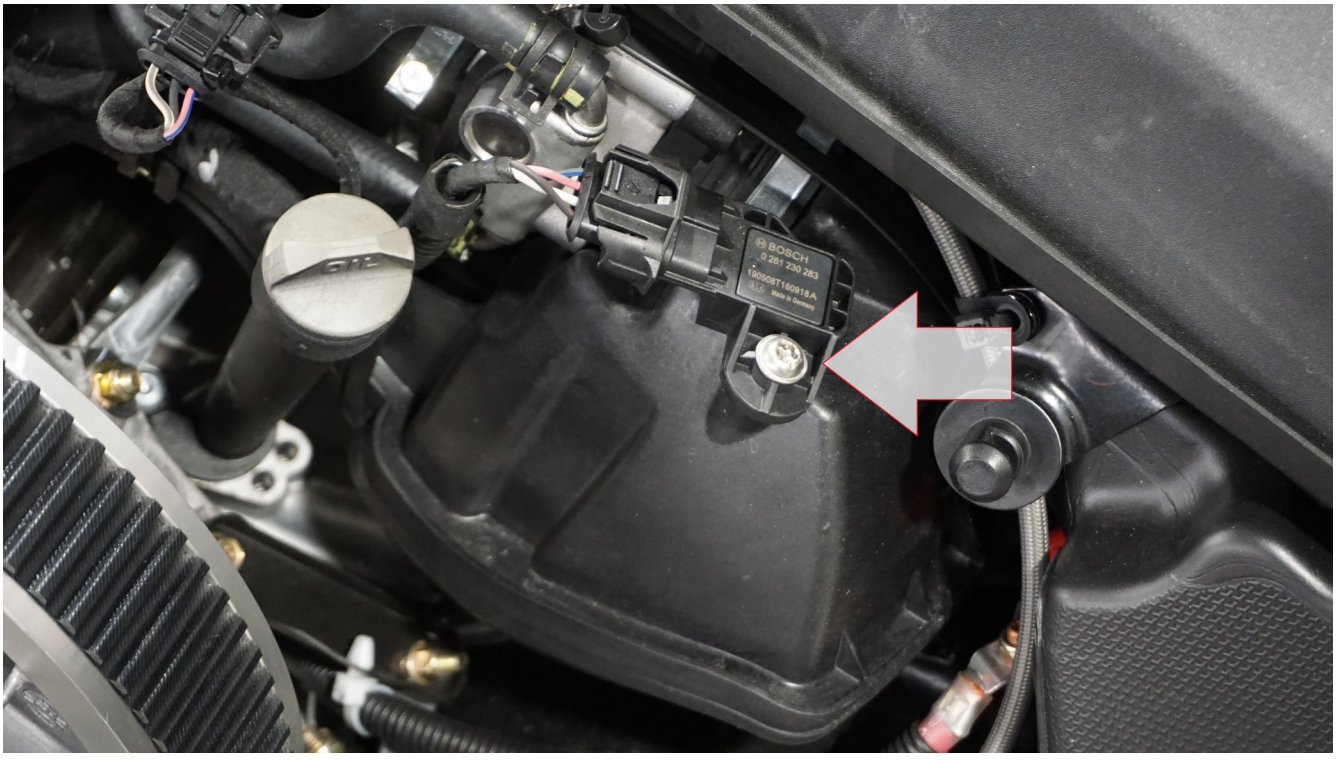
#3. Remove the hood and the air intake. Do not forget to disconnect the front lights and optional lights if present.



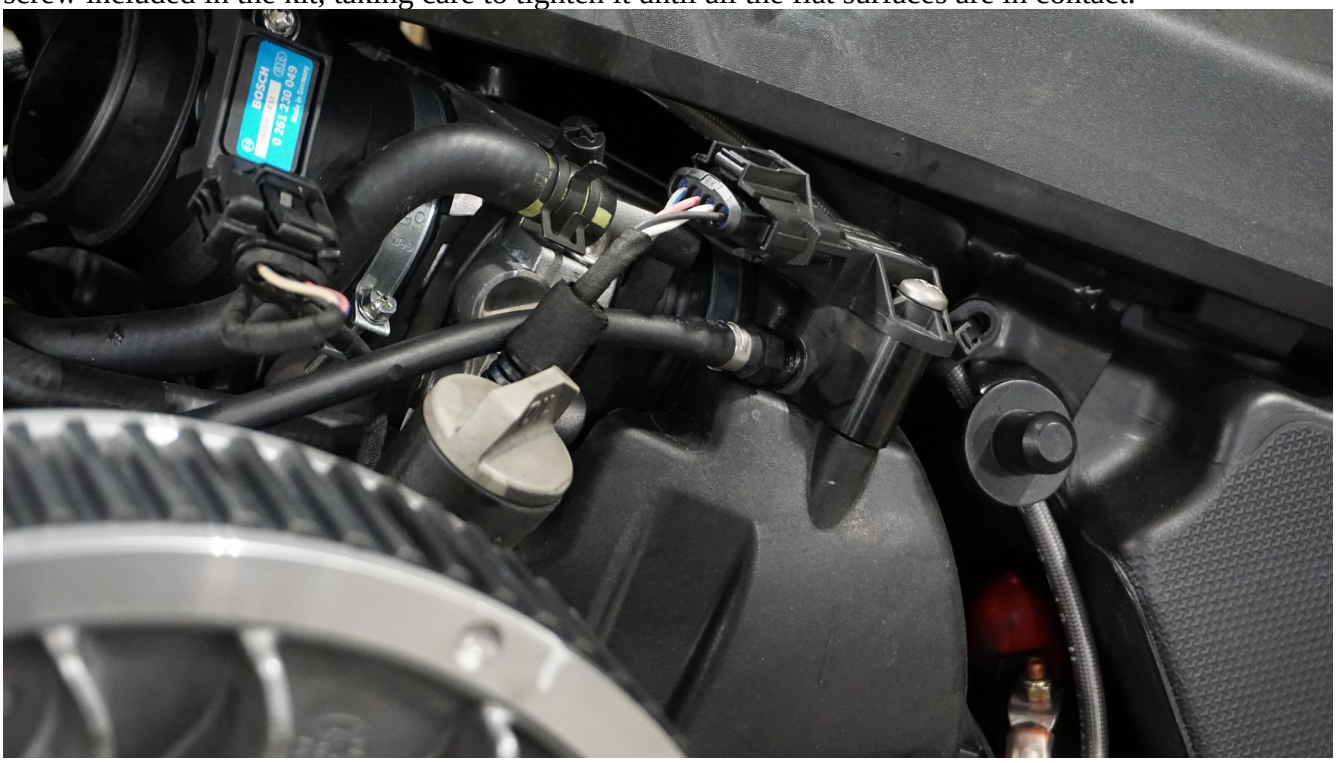
#4. Remove all pipe collars with a 7mm socket for the turbo.

#5. Remove the turbo air inlet and all piping that attaches, taking care to leave the white plastic fitting of the Wastegate solenoid vent.

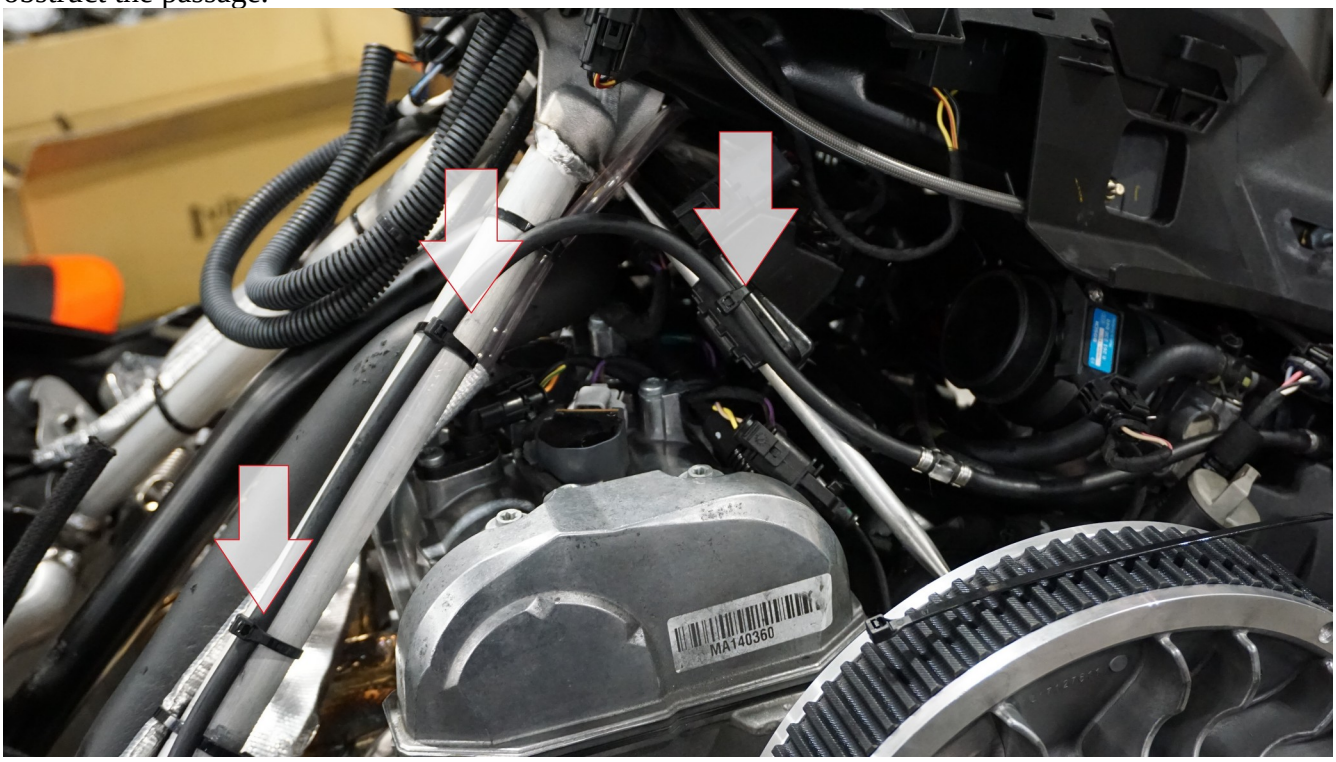
#6. Remove the manifold absolute pressure sensor with a Torx T-30 screwdriver



#7. Install the spacer between the intake manifold and the manifold absolute pressure sensor with the screw included in the kit, taking care to tighten it until all the flat surfaces are in contact.



#8. Attach the vacuum hose with the zip ties provided, taking care not to tighten too hard so as not to obstruct the passage.



WASTEGATE

#9. Remove the lock from the Wastegate located at the end of the actuator rod.

#10. Remove the two nuts on the back of the Wastegate with a 10mm socket for the top one and a 10mm wrench for the bottom one.

#11. Remove the two bolts from the bracket which holds the Wastegate in place by placing it on its side.

#12. Remove the Wastegate with the bracket.

#13. Insert the new Wastegate supplied by Precision EFI with the port pointing upwards in the bracket. **Do not touch the adjustment of the Wastegate.**

#14. Reinstall the Wastegate bracket on the turbo by placing the Wastegate on its side.

#15. Tighten the Wastegate on the bracket using an 11mm or 7/16 wrench for the bottom nut and an 11mm socket for the top nut.

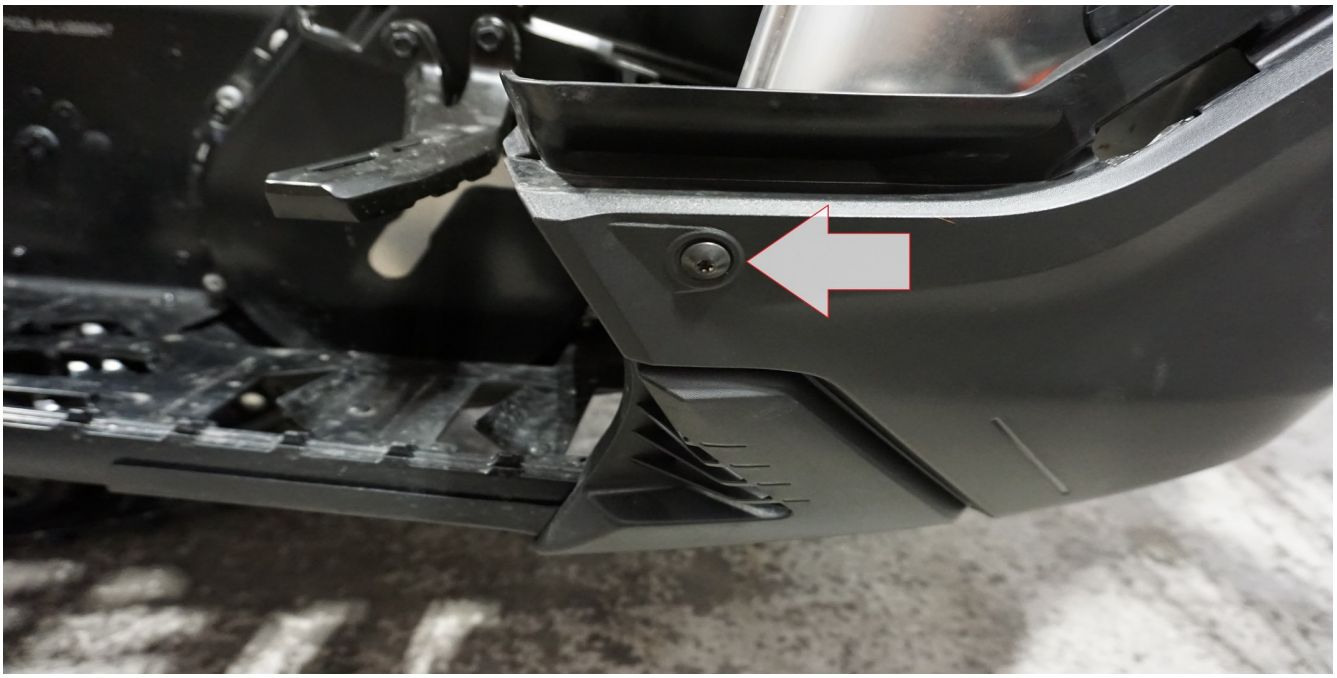
#16. Install the actuator rod on the Wastegate flap.

#17. Reinstall the safety lock on the Wastegate actuator rod.

#18. Install the hose on the Wastegate port and tighten the ‘Pinch Clamp’ using some ‘Cutter’ or ‘Oetiker’ pliers.

EXHAUST

#1. Loosen the bolt on the side panel with a Torx T-25 type socket to leave enough space for the exhaust to be removed.



#2. Loosen the 10mm bolt located on the side of the exhaust.

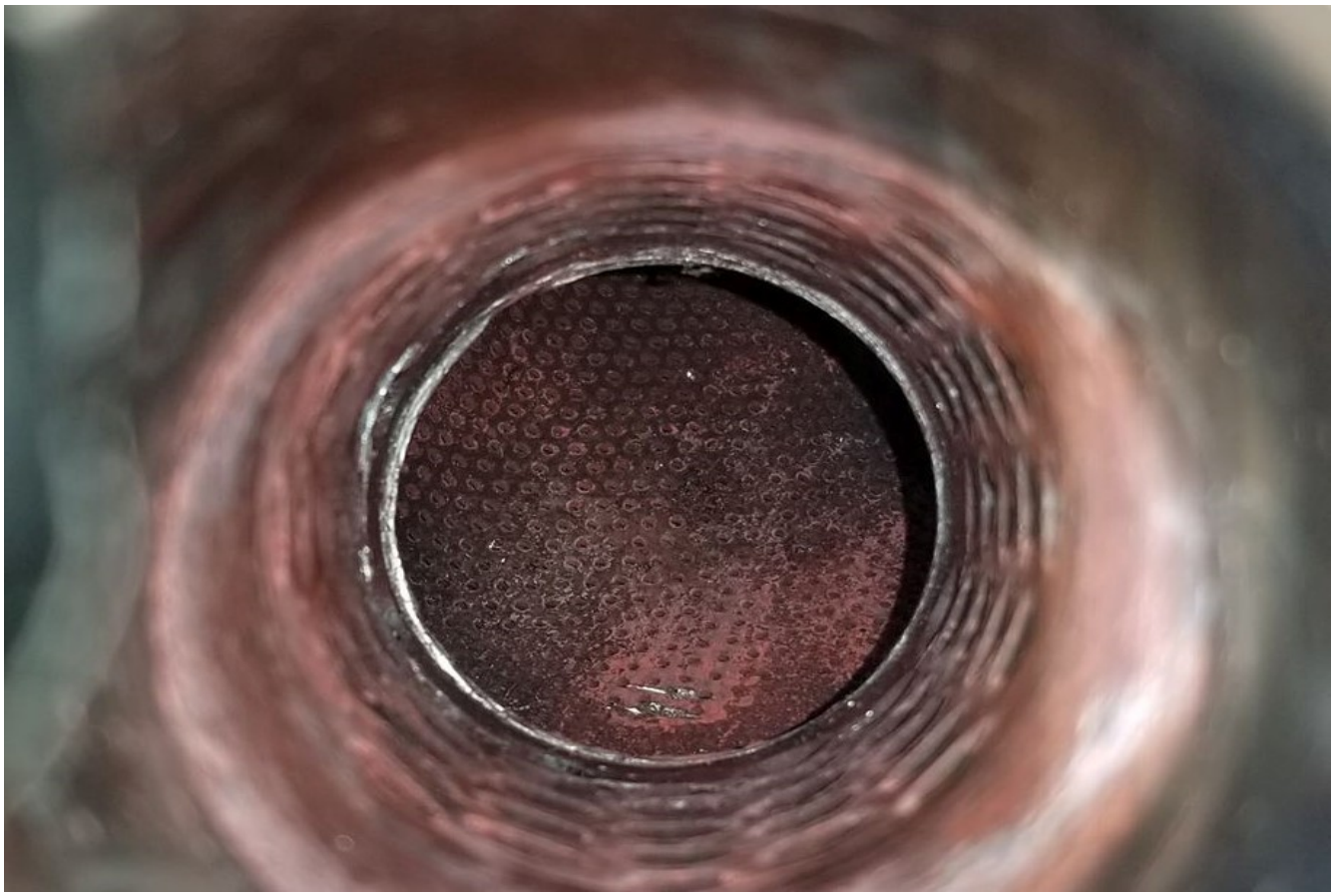
#3. Cut the plastic tie that holds the oxygen sensor wire, disconnect and unscrew the sensor with a 22mm wrench.

#4. Remove the two springs holding the exhaust to the ‘Downpipe’.

#5. Remove the exhaust.

#6. Remove the three 13mm bolts that attach the ‘Downpipe’ to the turbo and remove the ‘Downpipe’

#7. Drill the restriction in the original exhaust using a holesaw (See photo).



#8. Repeat the installation steps backward for reassembling the ‘Downpipe’ and the original exhaust, **Don’t forget to drill the restriction in the original exhaust**.

FUEL SYSTEM

#1. Loosen the retention nut on top of the plastic of the fuel tank.

#2. To remove the pastic from above the tank, remove the two 8mm nuts and take care to disconnect all the connectors attached to it.

#3. Remove the 4 Torx T-40 bolts, the two ‘clip-bolts’ from the seat with a 13mm socket and the two bolts that attach the two sides of the ‘Pyramid-Frame’ to the steering column.

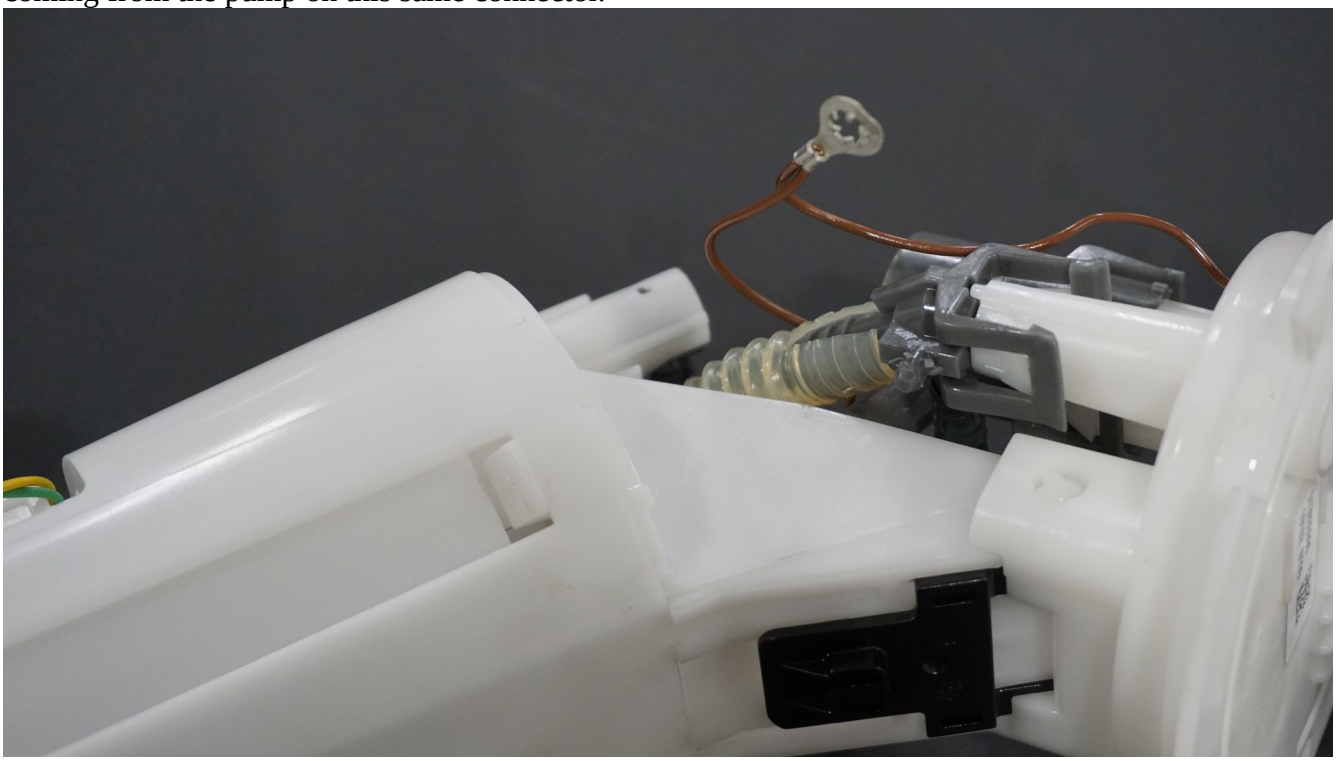
#4. Remove the fuel tank vent pipe and the two 10mm bolts on each side of the fuel tank.

#5. Pull slightly on the fuel tank to expose the connector and the fuel supply pipe, taking care not to put too much tension on the pipe, unscrew the 8mm bolt and disconnect the pipe and the connector.

#6. Remove the C-clip from the fuel supply unit, pull and with a small pick or a flat screwdriver, release the diaphragm from the one-way valve located under the fuel supply unit. Empty the contents and dry the unit.

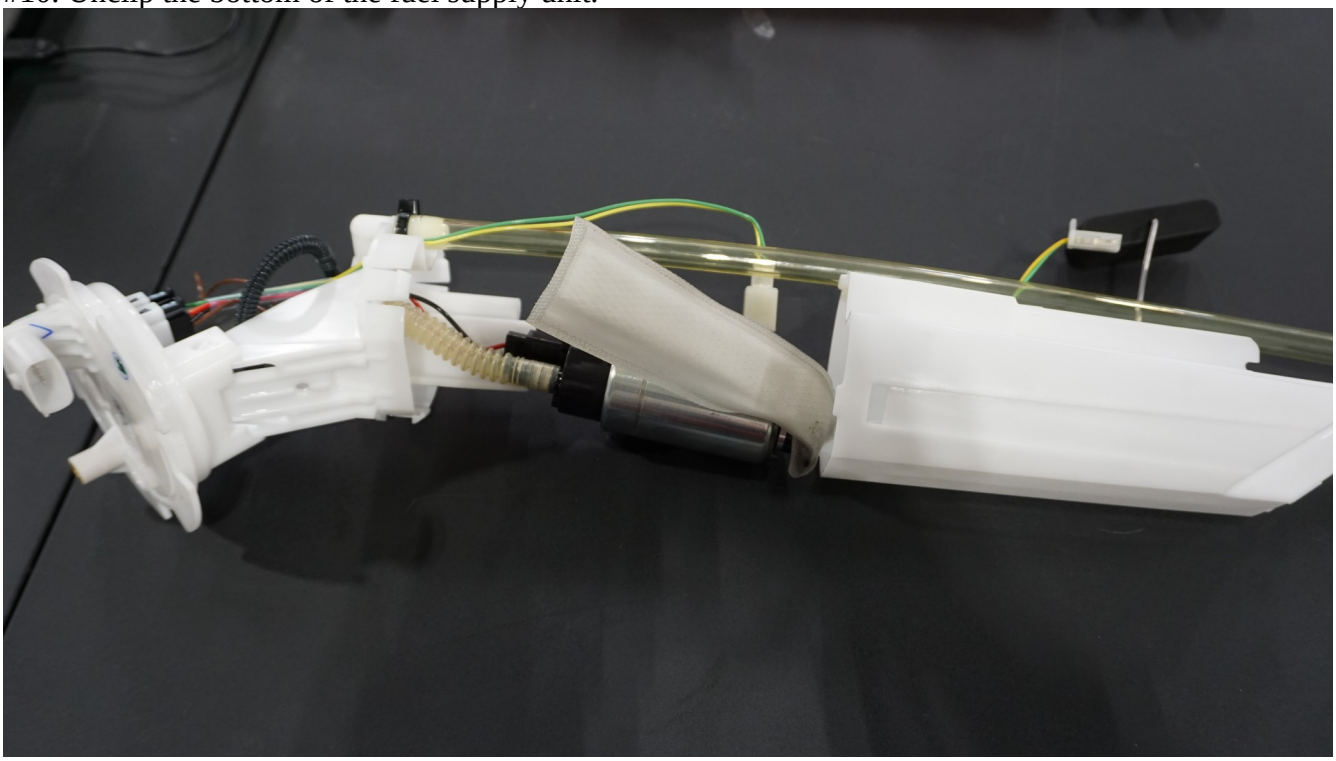
#7. Remove the O-Ring from the fuel supply unit.

#8. Remove the ground from the gray plastic quick connect. Cut or if dry, slightly heat the supply pipes coming from the pump on this same connector.



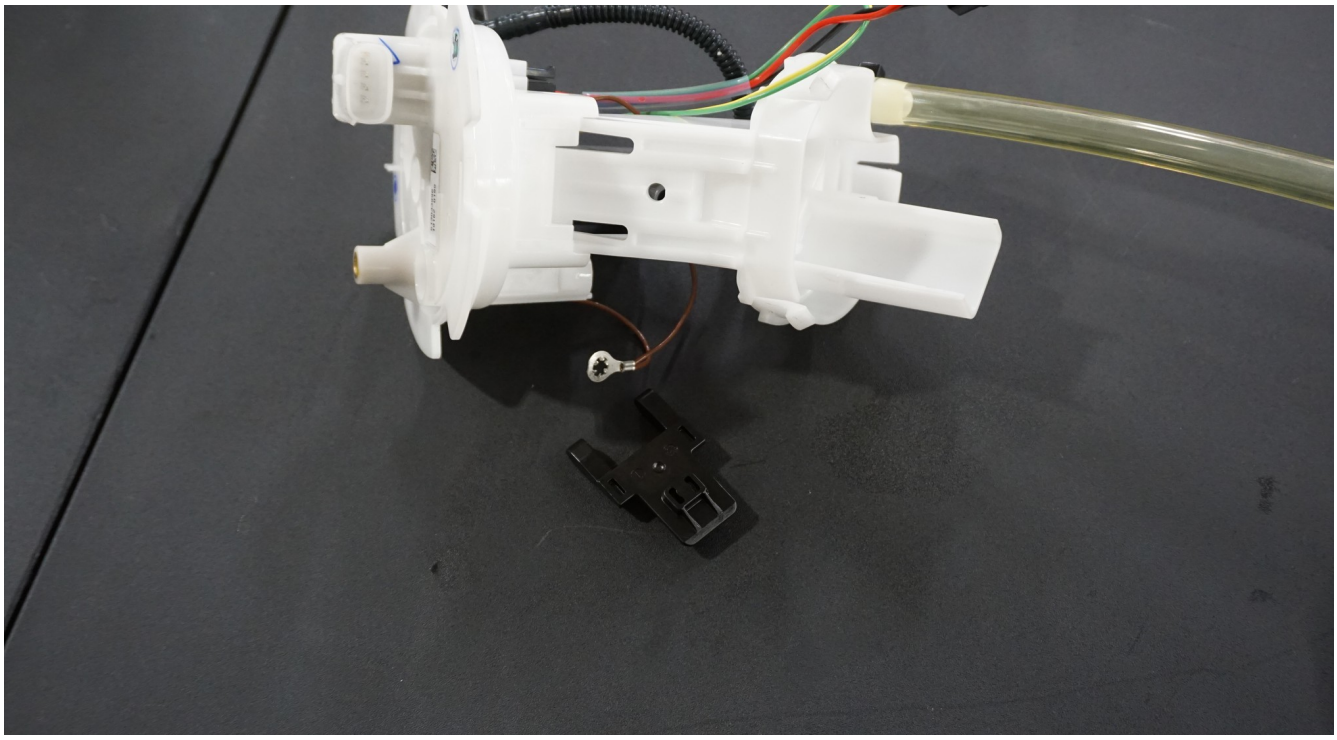
#9. Disconnect the fuel level sensor connector.

#10. Unclip the bottom of the fuel supply unit.

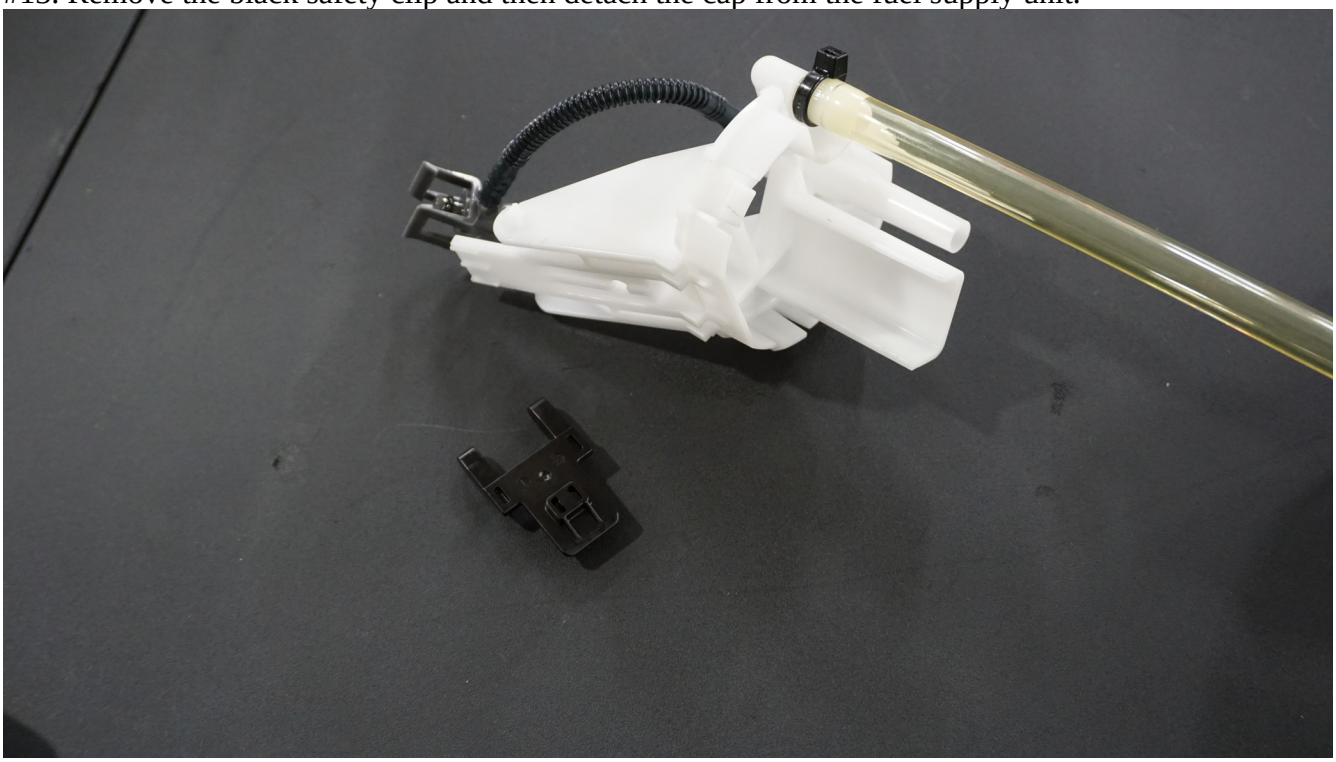


#11. Disconnect the fuel pump and remove the strainer. Remove the fuel pump.

#12. Disconnect the quick connect from the original cap. During disassembly there will be a small spring with a piece of black plastic which serves as a one-way valve. **Do not keep the valve and the spring when reassembling the fuel supply unit.**



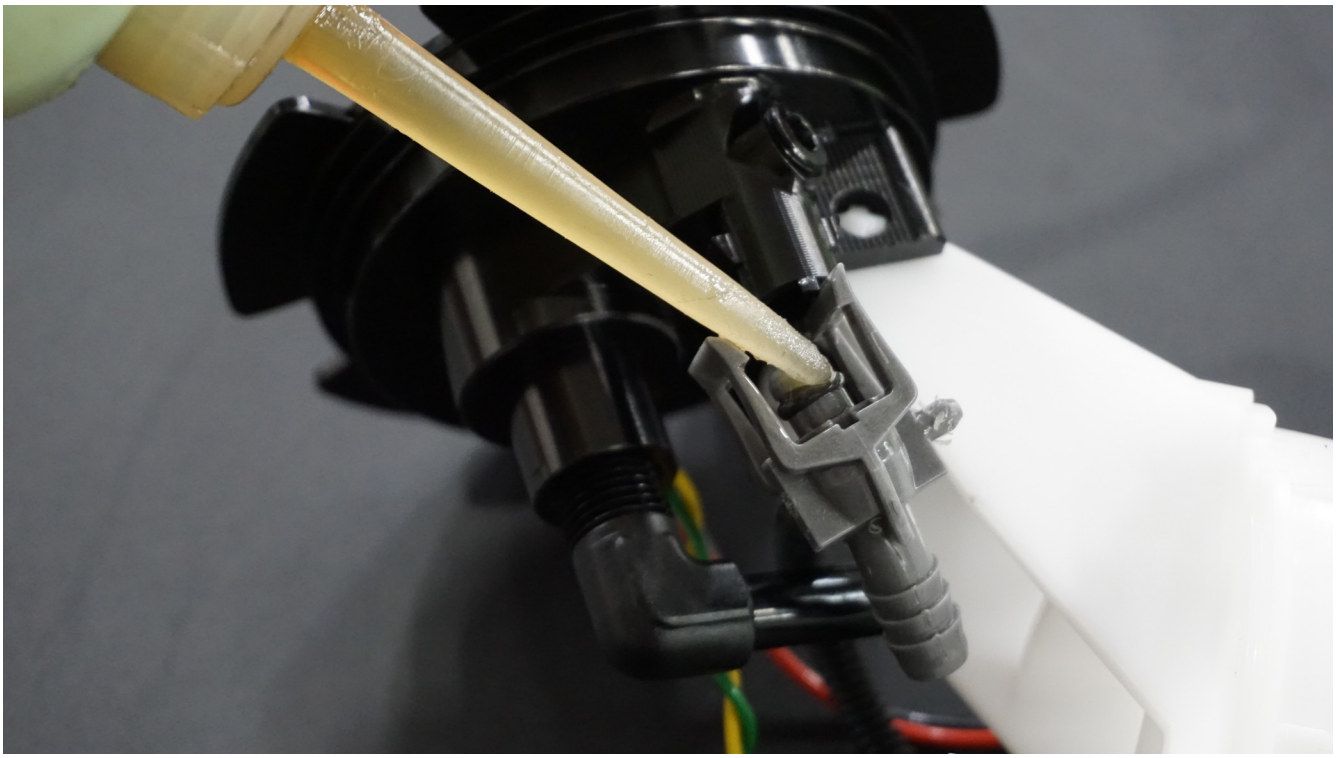
#13. Remove the black safety clip and then detach the cap from the fuel supply unit.



#14. Take the new cap supplied by Precision EFI and assemble the upper part to it. Replace the safety clip.

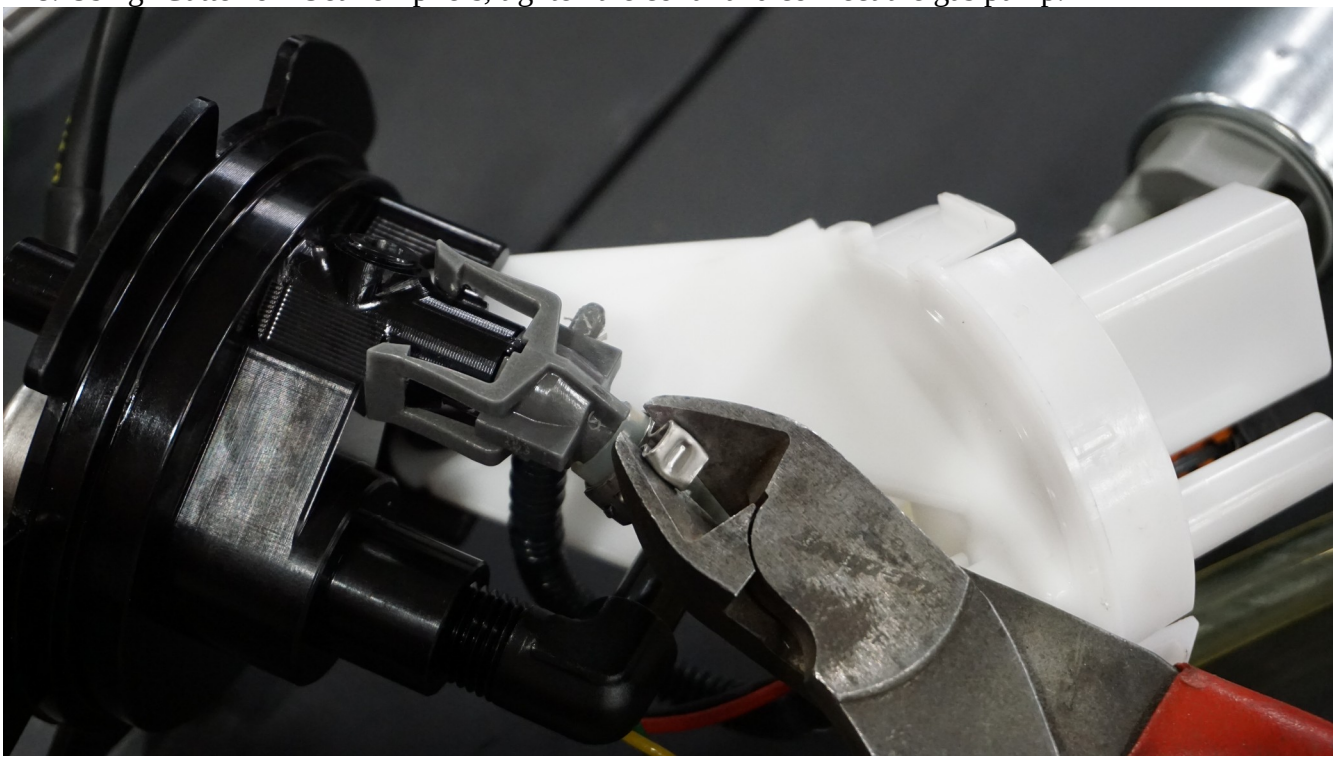
#15. Lubricate the O-Ring before clipping the fuel hose, taking extreme care not to crush and / or cut the O-ring. It must be installed with great vigilance.

#16. Insert the connector into the hole.



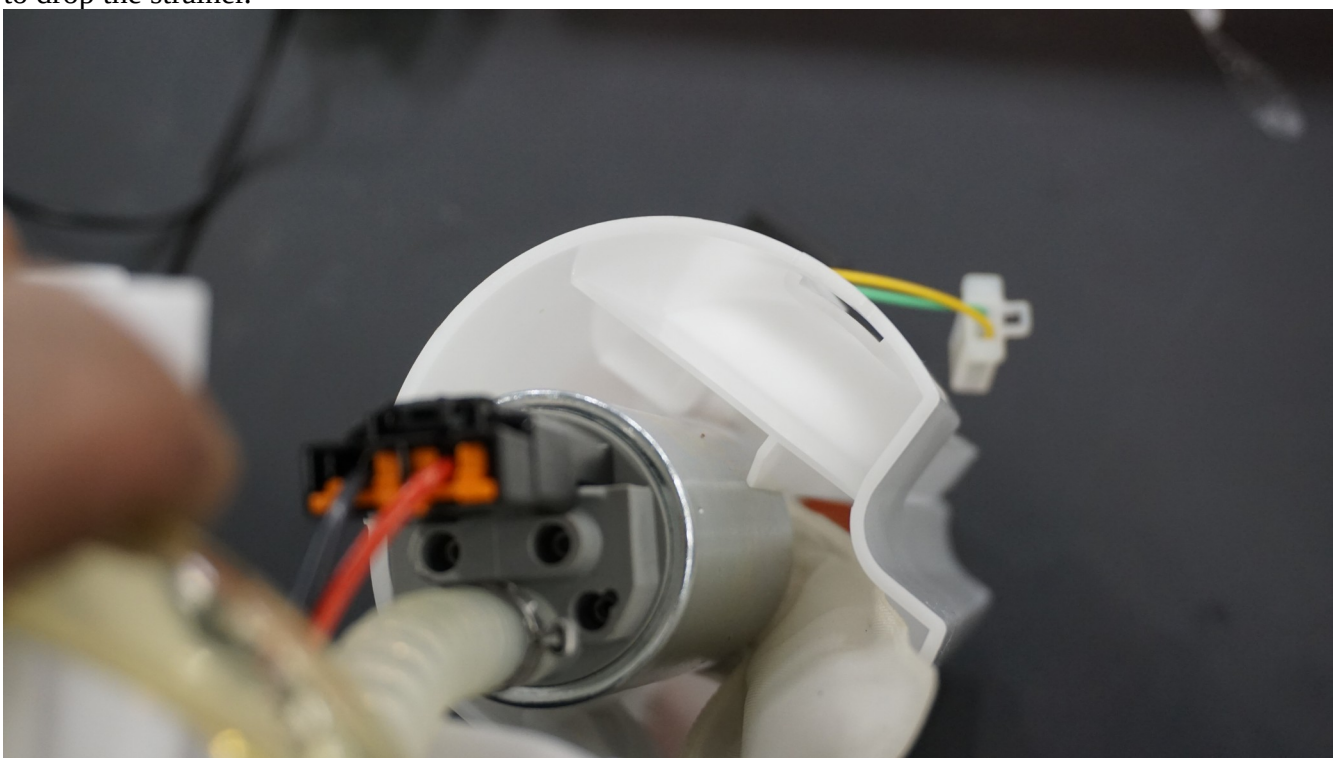
#17. Slightly heat the fuel pipe then insert on the original gray end fitting taking care to align the connector side in the space provided for this purpose.

#18. Using ‘Cutter’or ‘Oetiker’ pliers, tighten the collar and connect the gas pump.

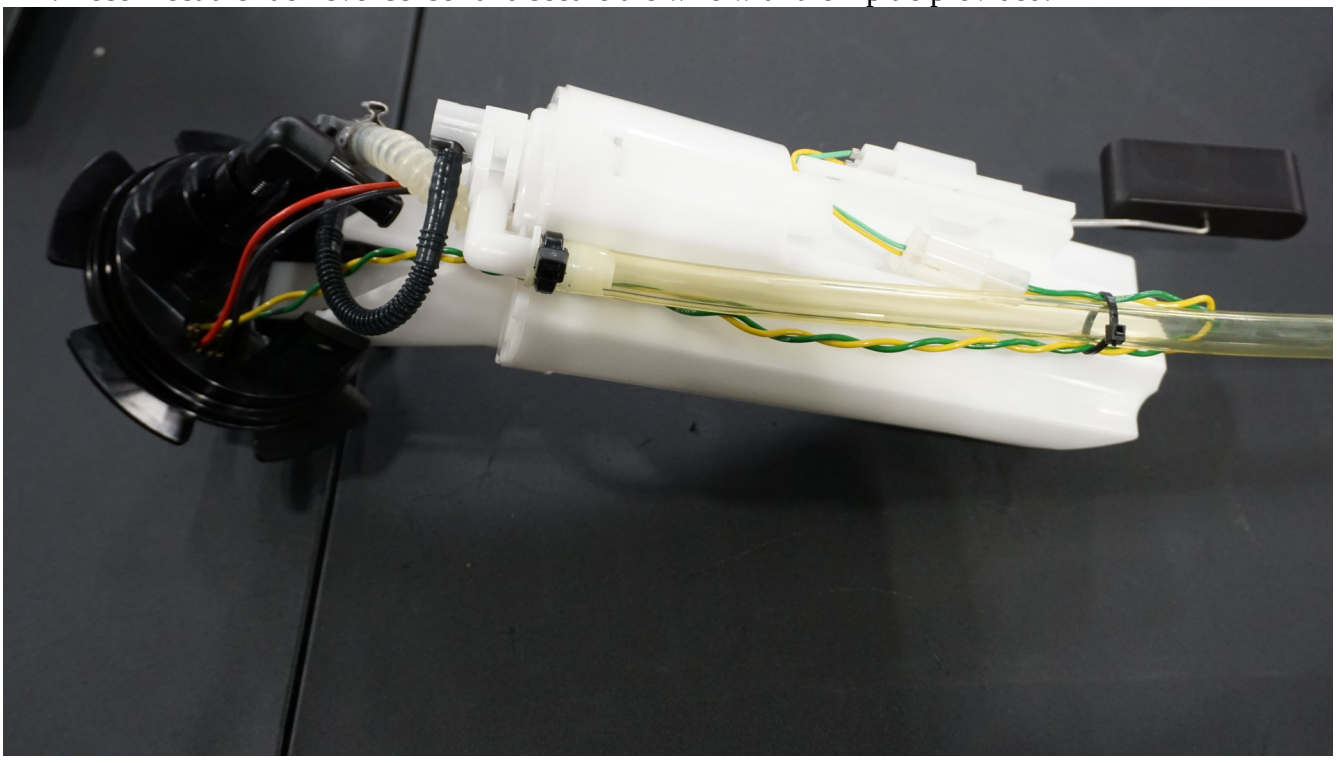


#19. Reinstall the original strainer.

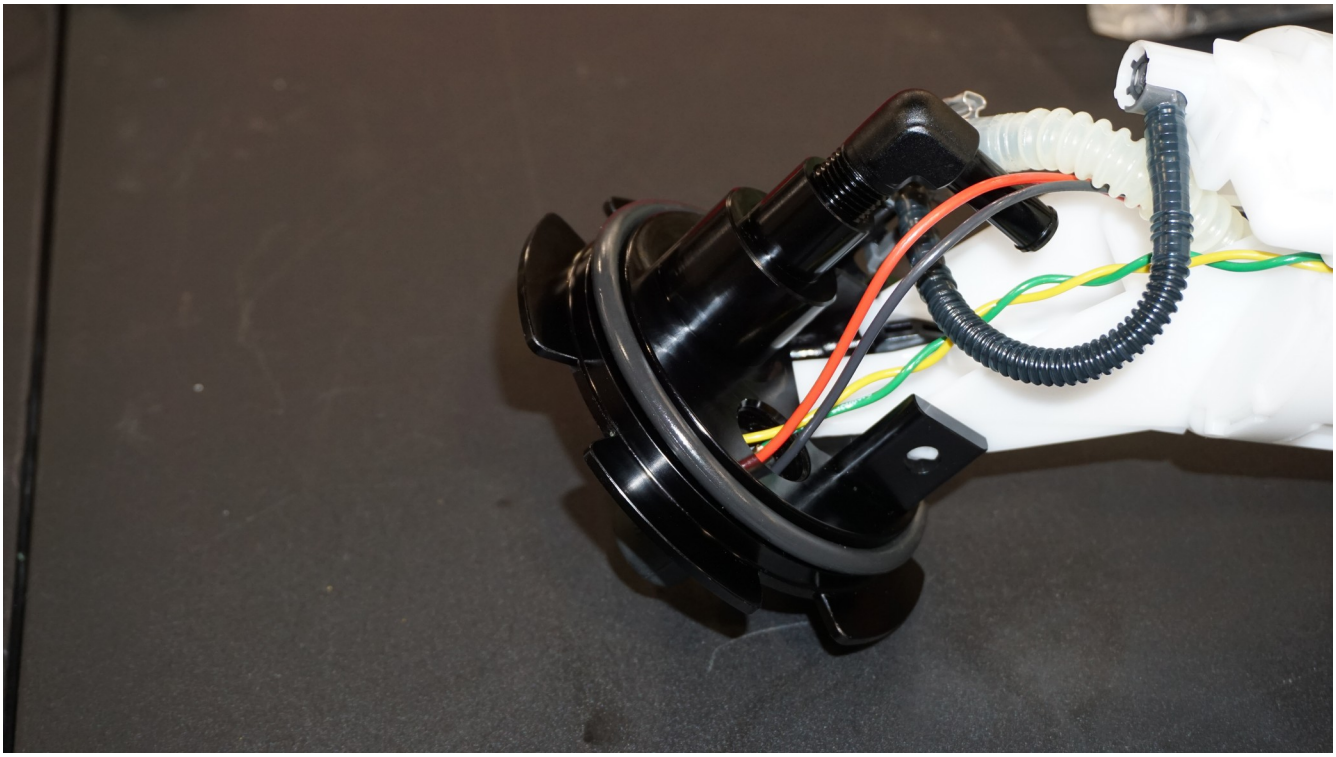
#20. Slide the fuel pump into the space provided at the bottom of the fuel supply unit, being careful not to drop the strainer.



#21. Reconnect the fuel level sensor and secure the wire with the zip tie provided.



#22. Reinstall the O-Ring and lubricate it well.

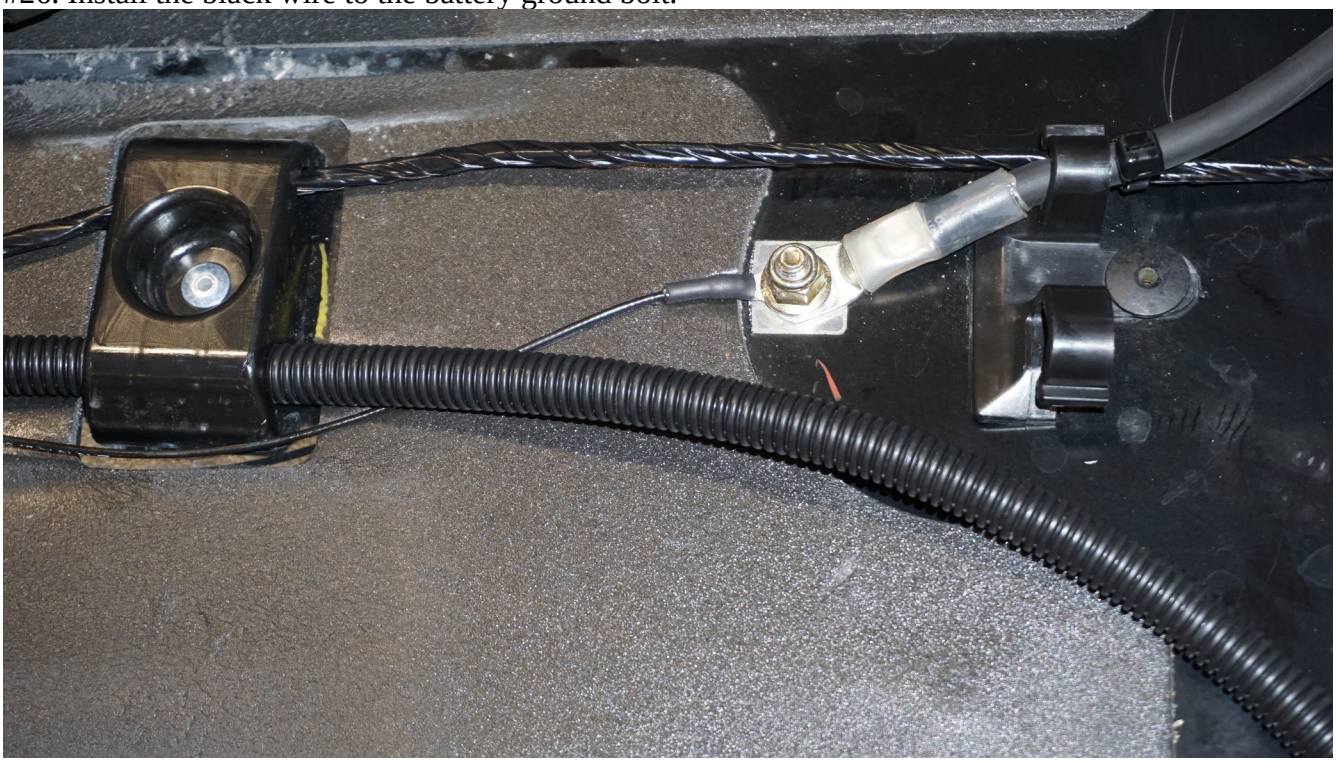


#23. When reinstalling the fuel supply unit, make sure that the cap is in a perpendicular position with the hole in the fuel tank and push straight.

#24. Put the fuel tank in the supine position and let it sit for a few minutes. Inspect for sign of leak. If there is a leak, repeat the operation and during this time install the wiring portion.

#25. Unscrew the 10mm nut and install the red wire terminal on the battery side of the starter solenoid.

#26. Install the black wire to the battery ground bolt.

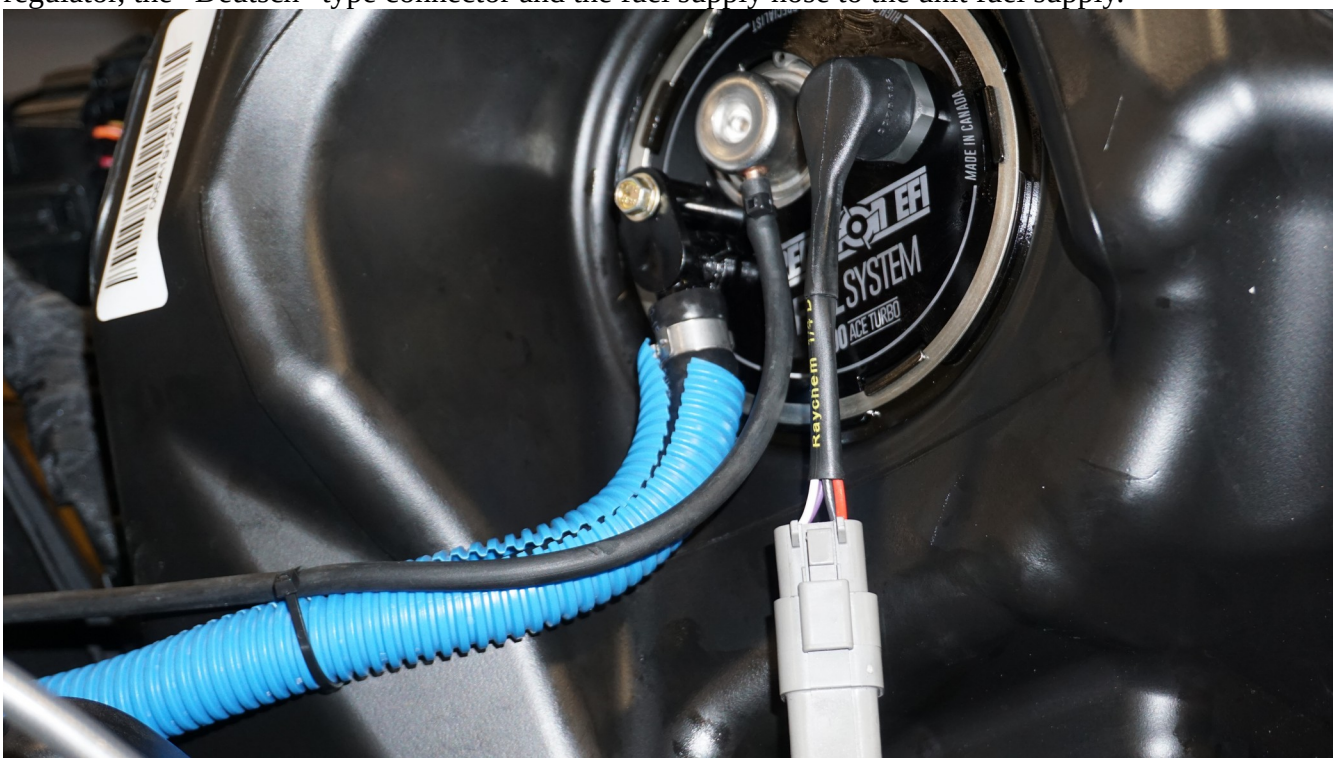


#27. Attach the fuse box to the bolt on the Reverse Actuator bracket by passing all of the wires under the engine cooling piping.

#28. Connect the connector of the original fuel pump to the fuse box (Black).

#29. Be sure to attach the 1/8” tubing which comes from the spacer of the manifold absolute pressure sensor, making sure not to obstruct the passage and that the latter is not in contact with any moving parts of the snowmobile. (Jack Shaft, Intake manifold, etc.).

#30. Replace the fuel tank and make sure to properly connect the 1/8” vacuum hose to the pressure regulator, the “Deutsch” type connector and the fuel supply hose to the unit fuel supply.



#31. Proceed in the same steps as disassembly in reverse order for the re-installation of the fuel tank.

CHARGE TUBES

#1. Reinstall the turbo air inlet with the original collar without fully tightening for later adjustment and be sure to reconnect the boost solenoid vent and the crankcase vent.

#2. Set up the charge tubes with the correct collars then position the pipes connecting to the throttle body and intercooler to the ‘Blow-off Valve’ in place in the direction shown in the photo. Use the collar # 24 for the turbo, the two # 28 for the intercooler and the # 32 for the intake valve.

#3. Tighten all ‘Murray’ collars to exactly 50 in-lbs (5.1 Nm).

#4. Install the zip tie that holds the boost solenoid on the charge tube.

#5. Connect the vacuum hose to the ‘Blow-off Valve’ and secure everything.

#6. Make sure all the connectors are securely connected and then carry out a visual inspection to be sure that all the wires are secure and that everything is installed in accordance with the instruction manual.

#7. Reinstall the cover and remember to connect the turbo air inlet.

#8. Reconnect the lights and the instrument panel.

#9. Reconnect the battery.

#10. Program ECM with your Precision EFI Flash Tool.