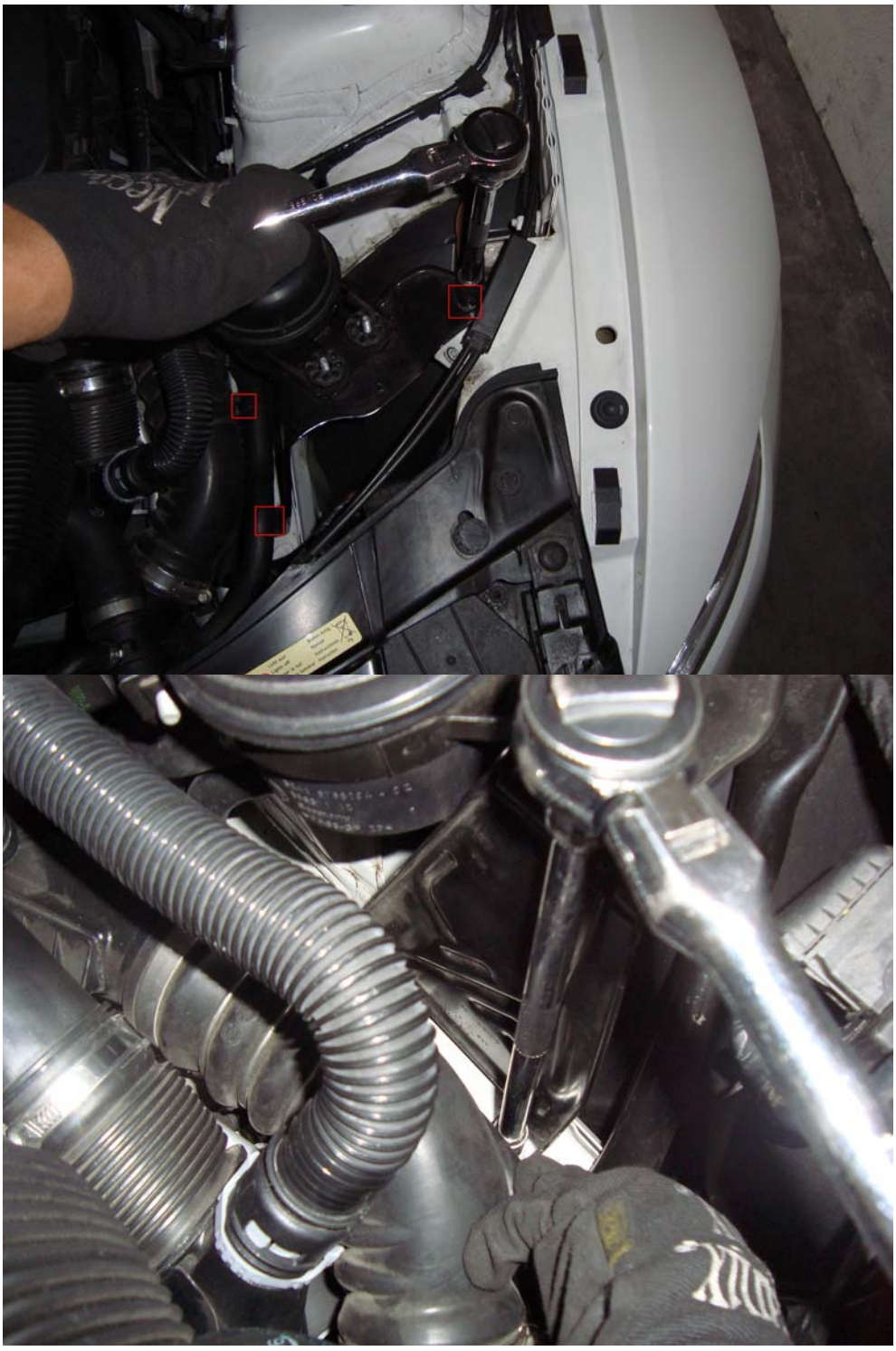
DUAL DIVERTER VALVE INSTALLATION INSTRUCTIONS

Tools:
10mm Socket
7mm Socket
1/4mm Socket
7/16mm Socket
T27 Torx Bit
T15 Torx Bit
Flathead Screwdriver

Step 1: Remove OEM Power Steering Bracket & Mount RR Power Steering Bracket

Use a 10mm socket to remove 2 nuts holding down the power steering fluid reservoir.

Use a 10mm socket and long extension to remove the three bolts holding down the OEM power steering bracket. Remove Bracket



Use a 10mm socket to remove the bolt clamp on the power steering reservoir

Slide the new RR bracket onto the power steering reservoir and use a 10mm socket to tighten. Mount as shown in the picture using a 10mm socket.

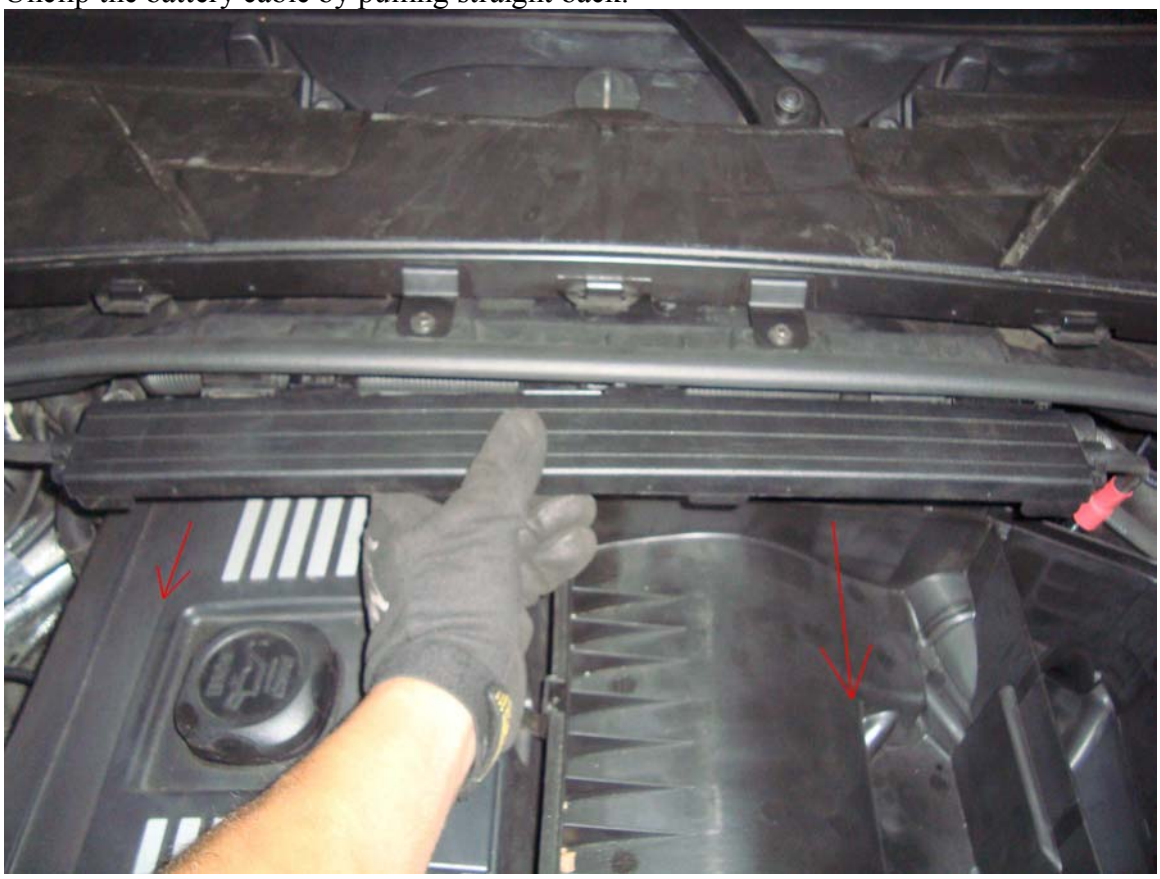
Step 2: Remove OEM Intake Box

Unclip the five metal clips on the OEM Intake Box to remove the cover. Remove cover by pulling towards the front of the car and lifting up. Remove Filter.

Detach hose from airbox by squeezing the base and lifting up. Then, detach the hose from the clip on the side of the airbox. Place out of the way.

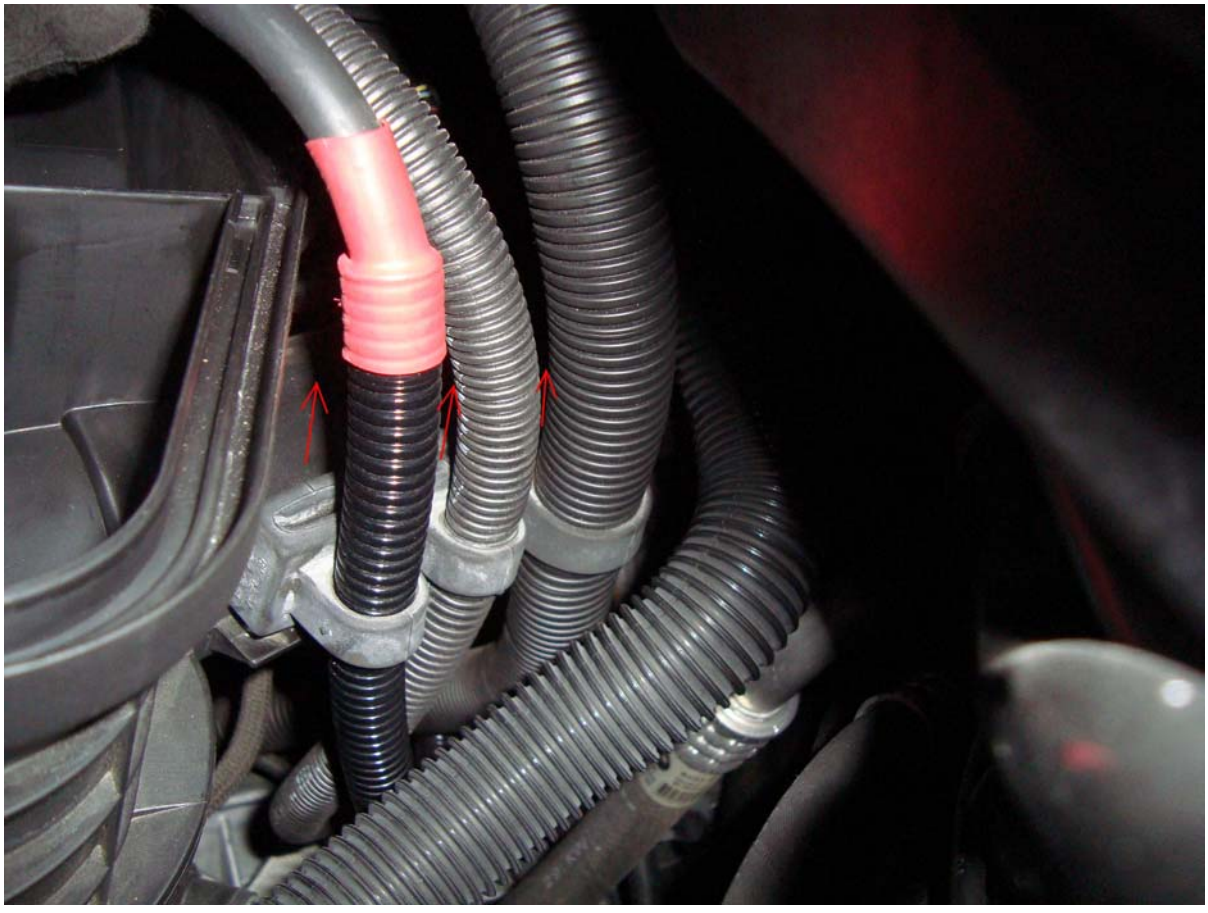
Use a 6mm socket to loosen the front clamp on the OEM Intake box

Unclip the battery cable by pulling straight back.



Use a 1/4mm socket to loosen the rear clamp on the OEM Intake box

Lift off the three rubber mounted wires on the side of the Intake.



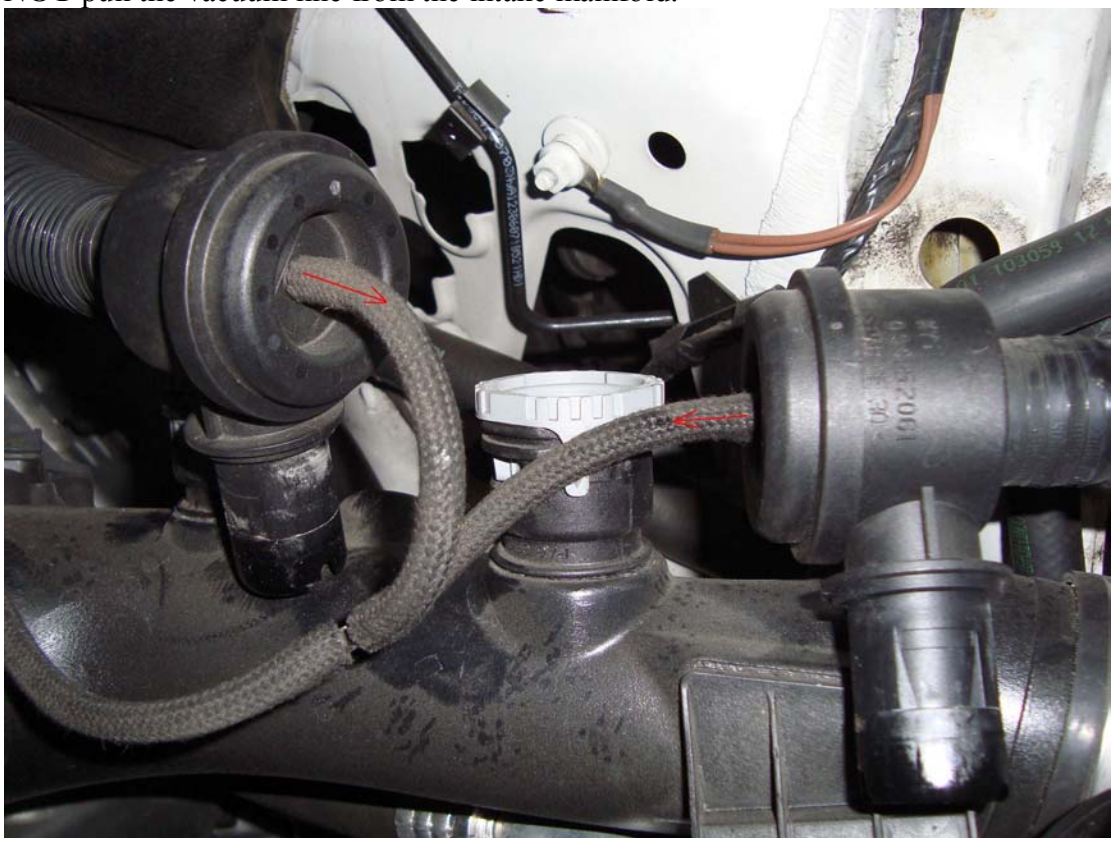
Release the snorkel from the OEM Intake box

Now the OEM Intake box should lift right off. There are three areas that have a plastic tab with a rubber grommet that mount the Intake in place – these will come off by lifting up.

Step 3: Uninstall Stock Diverter valve pipe and valves

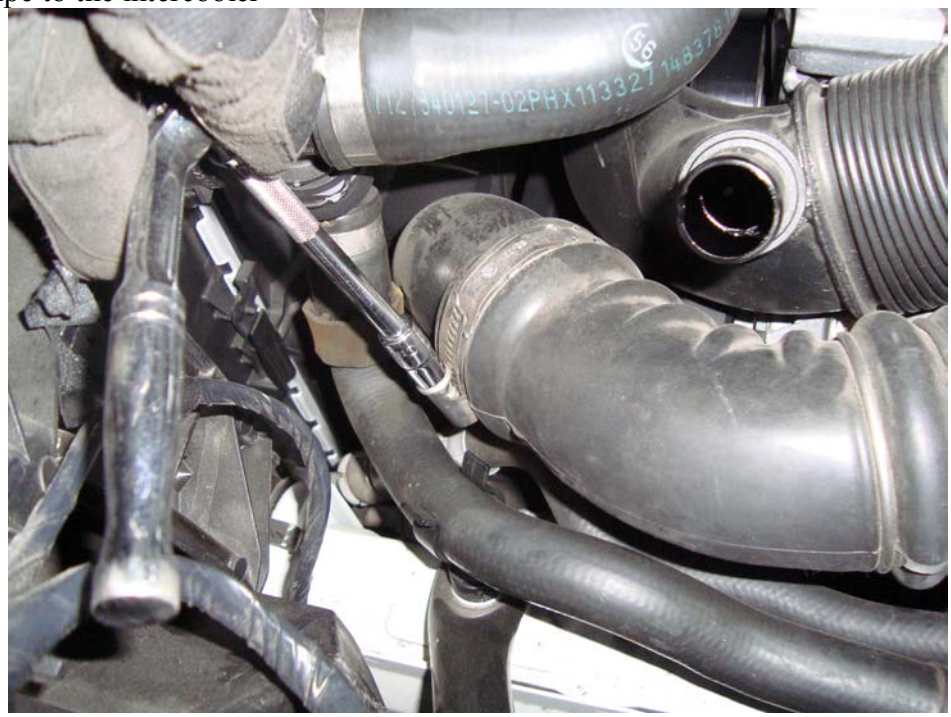
Rotate the clips on the stock DV connections to release them. There are four total – The 2 on the diverter valves themselves will turn clockwise and the 2 that connect to the intake charge pipe will turn counter-clockwise. Once the valves are unclipped you can pull them straight off.

Disconnect the vacuum lines from the stock diverter valves. Be very careful and **DO NOT** pull the vacuum line from the intake manifold.

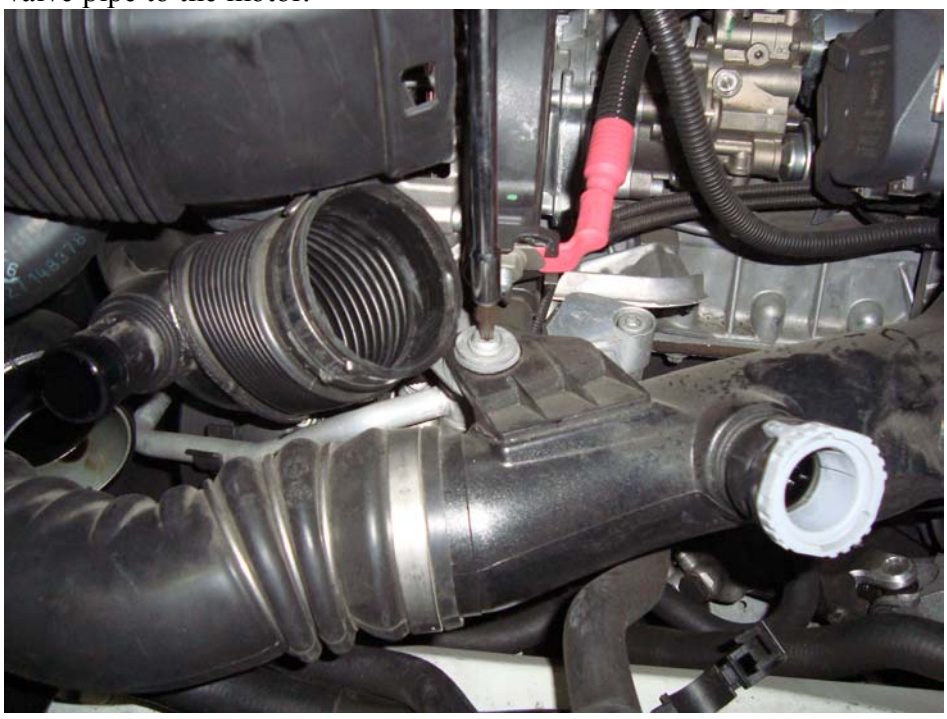


(135i Applications – Remove the module that is connected to the stock diverter valve pipe between the valves. Use a 7mm socket to loosen the hose clamp and slide it off. Pop it out of a rubber tab by lifting straight up - set it aside.)

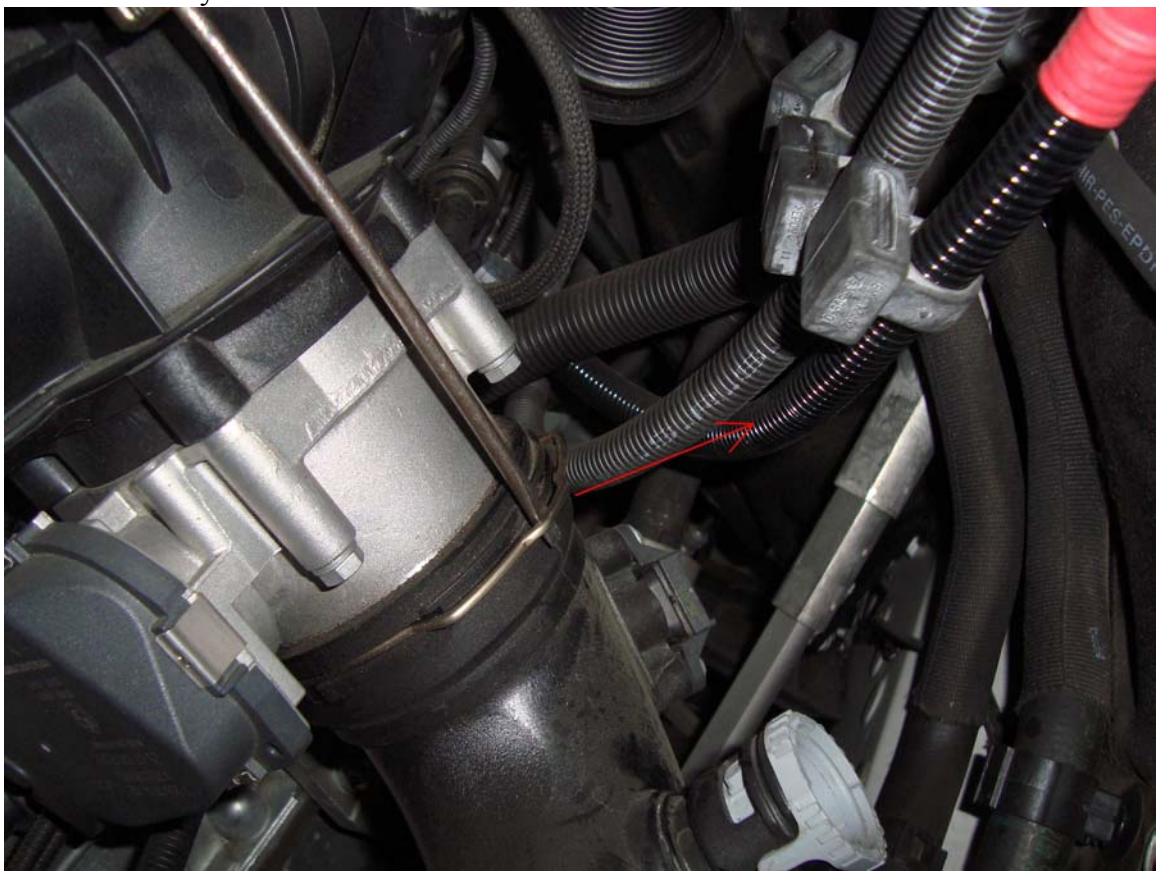
Use a 10mm socket and extension to loosen the hose clamp connecting the stock diverter valve pipe to the intercooler



Use a T27 Torx bit to remove the small bolt and rubber grommet that fasten the stock diverter valve pipe to the motor.



Use a flathead screwdriver to pop off the metal clip that fastens the diverter valve pipe to the throttle body.



Now the pipe is completely unbolted, but there is still an intake sensor to remove before completely pulling it off. Slide the diverter valve pipe off the throttle body being very careful not to pull on the sensor wire still connected. Use a flathead screwdriver to gently lift the tab on the back of the sensor and pull the wire connection straight off.

Now that the stock pipe is off, use a T15 torx bit to remove the 2 bolts which hold down the intake sensor – Remove the intake sensor.

Step 4: Assemble Riss Racing DDV pipe & Install

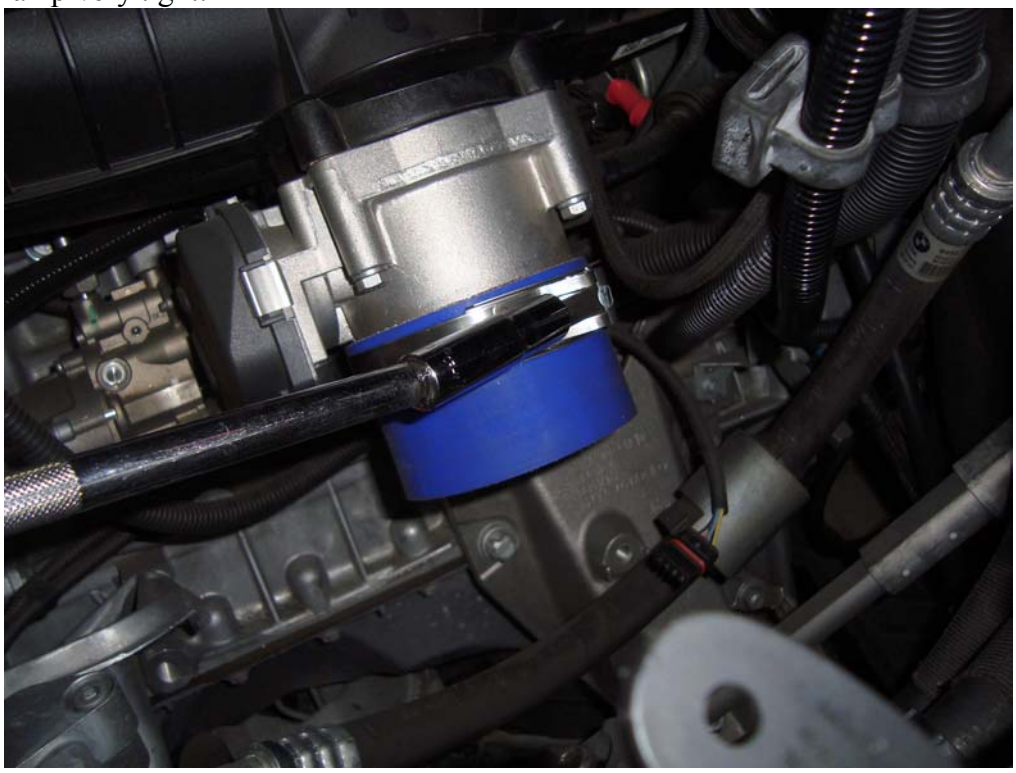
Connect the diverter valves to the pipe with the silicon fittings and clamps. Also, attach the rubber hoses with clamps and the vacuum lines. Use a 7mm socket to ensure that all of the clamps are very tight.

Grab the stock intake sensor and lubricate the O-ring before installing it in the RR pipe (motor oil works fine). Use a 10mm socket to tighten – Make sure the sensor is evenly flat on the pipe when tightening so you do not break the small connecting arms.

Install the small cap over the bung making sure that it is pressed down all the way and clamp it down tight. **Optional for 135 applications – reinstall stock module in later steps if preferred.**

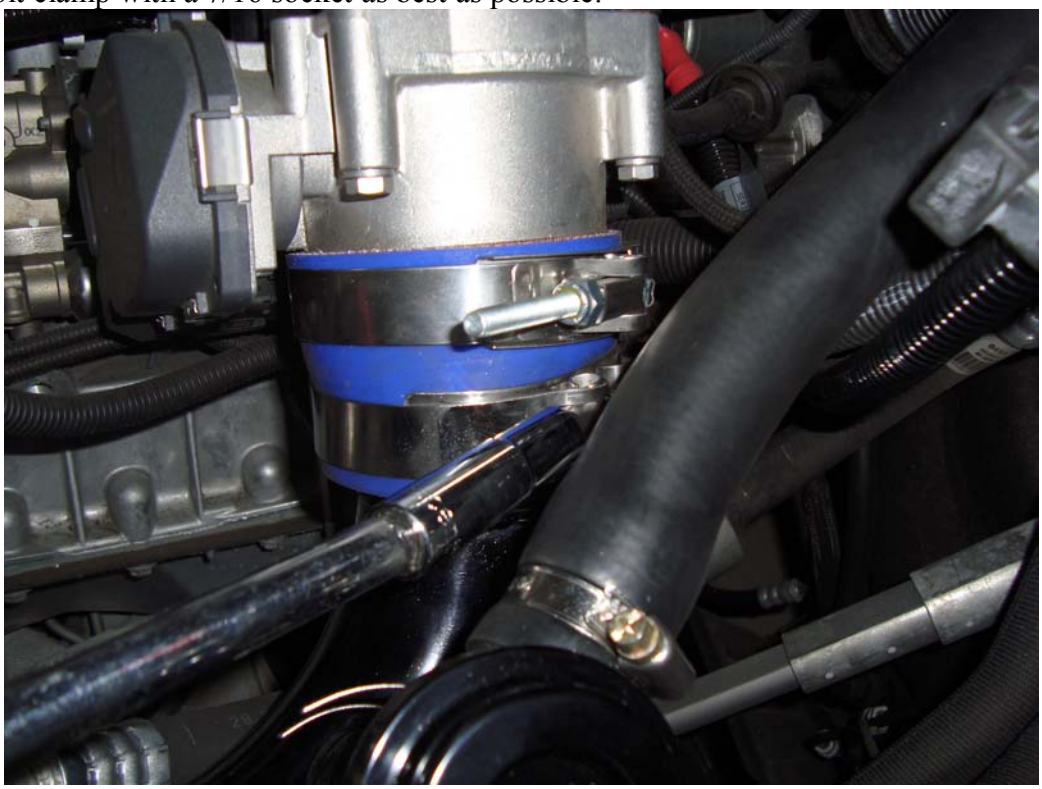
Install silicon fitting over intercooler pipe and use a 7/16 socket to tighten down a 2.5” T-bolt clamp very tight.

Install silicon fitting over throttle body and use a 7/16 socket to tighten down the 3.75” T-bolt clamp very tight.



Place the remaining T-bolt clamps on each of the silicon fittings and put the RR DDV pipe into place. Slide the silicon fitting connected to the intercooler pipe over the DDV pipe first. Use the 7/16 socket to tighten the T-bolt clamp as best as possible.

Push the DDV pipe into the silicon fitting connected to the throttle body and tighten the T-bolt clamp with a 7/16 socket as best as possible.



Place the rubber grommet and torx bolt that was removed earlier on the DDV pipe and use a T27 torx bit to tighten down.

135 applications can reinstall module at this point – make sure that it is clamped down tight with a 7mm socket. Slide the DV hoses onto the connections on the intake charge pipe with a clamp. Use a 7mm socket to make sure they are tight.

Connect the vacuum lines to the DVs and reconnect the intake sensor.

Reinstall the intake and you are done!

The valves come with the hardest springs already in place. If you would like to test out lighter springs it is very easy to do! The tops of the diverter valves simply hand tighten off and the spring can be interchanged. Higher boost = heavier spring