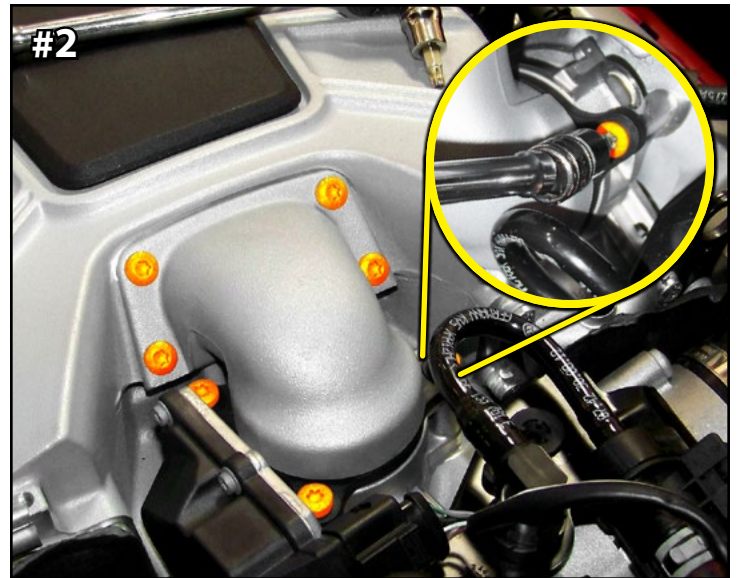


Section 1: Removing the OEM Bypass Elbow

1. Remove the plastic beauty cover at the rear of the engine by lifting upwards on the front of the cover to pop the plastic tabs from the clips (arrows).
2. Loosen and remove the six bolts which secure the air bypass elbow to the intake manifold and the throttle body (highlighted in **ORANGE**).
 - Access to one bolt is partially blocked by a rigid plastic hose, you can lift the rubber block that supports the hose off of its black metal support bracket and lift the hose to access the bolt.
3. Once all seven bolts have been removed from the bypass elbow you can:
 - Lift it upwards and out of the engine compartment.
 - Immediately cover the throttle and intake manifold openings with a clean cloth.
 - Pull the OE elbow adapter (highlighted in **ORANGE** in the photo) out of the bypass elbow and set it aside.

NOTE: The adapter is a push fit that slides into a sealing o-ring in the throat of the elbow, it helps to twist the adapter as you pull it off.



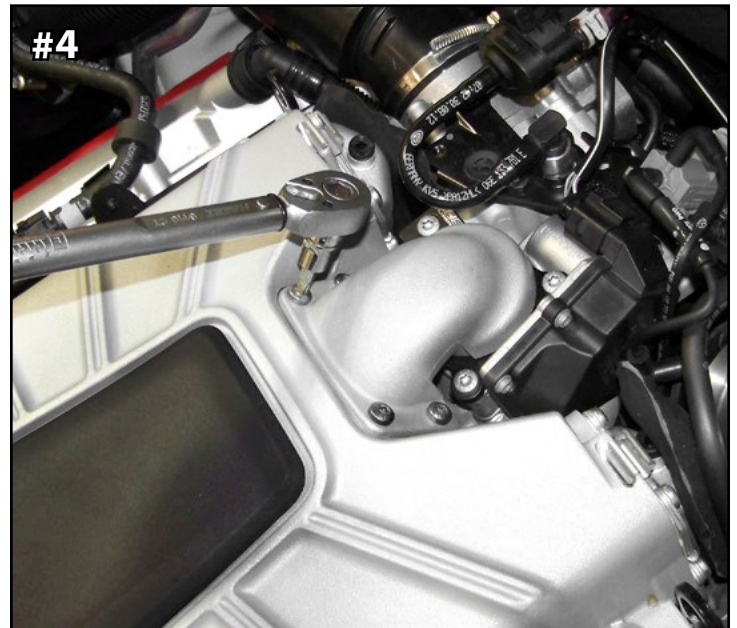
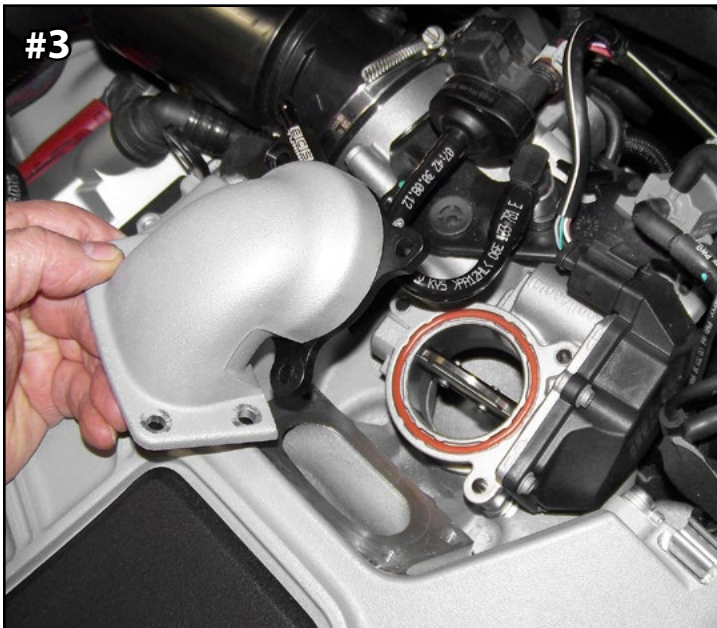
Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.



Skill Level 1:
Easy

Section 2: Installing the New Boost Tap

1. The ECS boost tap has two available vacuum ports. Apply a drop or two of threadlocker onto the nipple and plug threads.
 - Temporarily slide a length of tight-fitting hose over the nipple for added leverage and screw the nipple in by hand.
 - If you aren't using both vacuum ports, tighten the plug until it is snug using a 3mm hex key.
2. Insert the boost tap into the hole in the bypass elbow, make sure the sealing o-ring is pliable and intact.
 - It may help to twist the boost tap slightly as you push it all the way into the elbow.
 - Rotate the boost tap in the elbow until the nipple points to nine o'clock with the intake face of the elbow sitting flat on a table as shown in the photo, you can fine tune the position when the elbow is reinstalled.
3. Reinstall the elbow into place, then thread in the four short Torx bolts into the holes in the intake manifold by hand. Rotate the boost tap as needed to align the bolt holes with those in the throttle body, then thread in the remaining Torx bolts by hand.
4. The bolts must be tightened in the following order:
 - Torque the four manifold bolts to 10Nm (7.5 ft-lb).
 - Torque the three throttle body bolts to 10Nm (7.5 ft-lb).



Section 3: Routing the Vacuum Hose

1. The photo below shows two vacuum hoses connected to the boost tap. When routing the hose from the boost tap be sure to keep it away from any moving or hot components which could damage it.
2. If you need to route the hose underneath the vehicle you can route it downward behind the engine, securing it along the way with zip ties, then out from below the vehicle. From here you can lower the underbelly panels and route the hose next to the brake & fuel lines.
 - One might choose this routing to supply engine vacuum to a **valved exhaust system**.
3. If you need to route the hose inside the vehicle you can pierce a hole through a factory grommet, then the hose can be pulled through the grommet and into the cabin. One possible way to achieve this would mean removing the rain tray and the ECU, then through the grommet which is located underneath the ECU box.
 - One might choose this routing to supply engine vacuum to a **boost gauge**.

