

Z06 Rear Muffler and Butterfly Valve Vacuum Assembly Installation

Part I: Bumper Removal (author: codename Bil Doe)

Tools Needed:

- T15 torx
- 7mm socket wrench
- 8mm socket wrench
- 10mm socket wrench
- flathead screwdriver



This is the picture after everything is reassembled but it serves as a starting point.

- Make a checklist of all bolts removed and then lay them out in their respective positions off to the side just to make it easier during re-installation.

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- Jack up and support the car.
- Remove the rear wheels and taillights.
- Lay out the tail lights from left to right. I noticed that they didn't fit well in the wrong hole.
- Use a T15 torx for each tail light screw (One screw per light on the top).

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- Remove the two 3" long plastic screws that attach the cover to the foam bumper. These are located behind the license plate and have square heads but you can use a flathead screwdriver to remove.

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- Remove 3 of the bolts on the back half of the fender liner. This will give you enough access to pull the liner out a little and reach the 3 lower nuts connecting the rear bumper to the quarter panel.
- There are 5 bolts total holding the bumper to each quarter panel along a black rail on each side. Use a 10mm socket wrench to remove the lowest bolt. The lowest is a nut/bolt combo and the second and third up are just nuts. The third is much higher than the first two (mid way up the quarter panel) so it takes a little more of a reach to get to.

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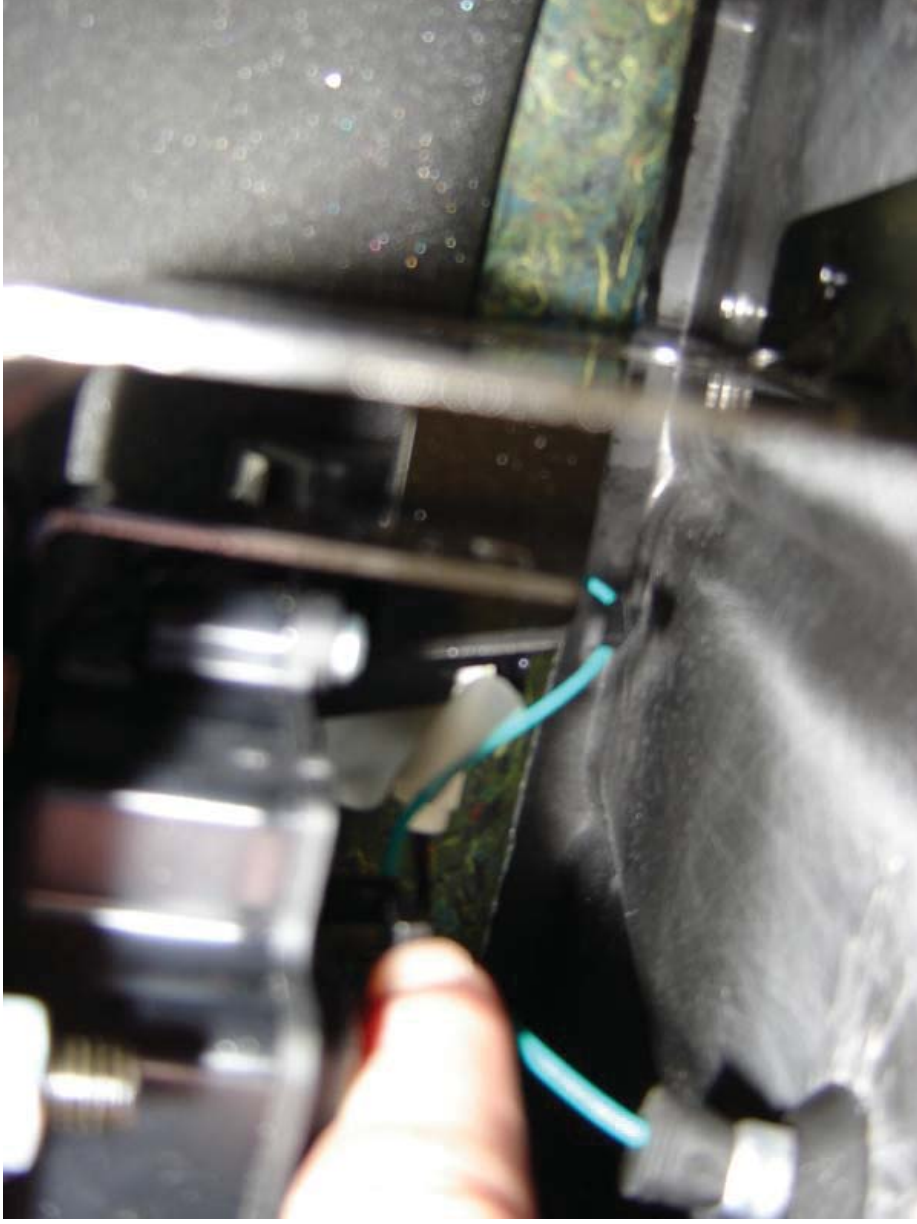
- Remove the 4th and 5th bolts easily through the outer tail light holes. They are very easy to see and are within 4" of each other. You can also see the side marker light that must be disconnected further below.

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- Using a 7mm socket, remove (8) hex head screws attaching the bumper to the car where it wraps under to the left and right of the mufflers. There are (4) screws per side.
- **VERY IMPORTANT!!!** Using a 10mm wrench with an elbow joint, remove the (2) bolts that hold the center of the bumper to the frame. The bolts are above the muffler tips and hold two metal L-brackets. There is a plastic washer between the L-bracket and the body so make sure not to lose this! (It's much easier to take these two bolts rather than the two screws holding each L-bracket to the bumper)

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DO NOT DRILL OUT THE RIVETS ON THE MANUAL TRUNK RELEASE LOCK!

Free the manual trunk release lock by disconnecting the cable from the inside. To do this, pop the trunk and pull the carpeting away from the lock mechanism. There are two plastic xmas tree pins holding the carpet down on each side of it. Though the picture is fuzzy, you will see where the cable end sits in a plastic u-shaped arm.

- Pull the arm to the passenger side of the car while sliding the cable end toward the driver's side and (with a little stretch) you will have enough to slide it out.
- Open the two metal "arms" hugging the excess cable and push the rubber grommet gently through the hole to the rear bumper.

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With a T15 torx, remove the 6 torx screws across the inside of the top bumper. You will need to pop the hatch/trunk to do perform this step. Don't worry, the bumper won't fall as it rests on a lip and you have to lift it off the lip to remove it.

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- As far as I can remember, these are the connectors which must be disconnected to remove the bumper.
- **Note:** the wiring harness does not have to be unclipped from the bumper. It all can go as one piece saving a lot of time reinstalling.
- To access these connections, you will have to lift the bumper off the top lip and hold it while disconnecting. I made this a little easier by resting it temporarily on the muffler tips.
 - a) Disconnect the two side marker lights in each quarter panel. There is just enough flexibility/room to remove these without loosening the panel.
 - b) Disconnect the reverse lights on the bottom corners of the bumper
 - c) Disconnect the 3rd brake light (I don't remember if this is connected to the harness that spans the length of the bumper or not
 - d) Disconnect the main plug on the right side of the bumper. It is connected with a plastic hold down at the end of the ground strap inside the bumper. The ground strap is obvious so just follow it to the end until you see the connector. You can see the main plug on the right in this picture. It's coming through the rear with a thick rubber grommet to seal out moisture.

Total time with removal/installation and addition of muffler parts + 2 trips to the store was 5 hours as a one-person job.