

DODGE CHALLENGER REAR DIFFUSER INSTALLATION INSTRUCTIONS

Tools Needed:

- Friend/helper
- 5/32" allen head wrench
- 7/16" socket + ratchet wrench OR open end wrench
- 1/4" or 5/16" drill bit
- Masking tape
- Pencil
- Rivnut installation tool w/ 1/4"-20 insert
- Flat head screwdriver or clip remover
- Ruler or measuring tape

Included in Center Diffuser Only Kit:

- (1) Center Diffuser
- (4) 1/4"-20 x 1" Stainless steel countersunk bolts
- (4) 1/4"-20 x 1.25" Stainless steel countersunk bolts
- (4) 1/4"-20 nuts (to help with installation)
- (6) 1/4"-20 Zinc NYLOC nuts
- (6) 1/4" Stainless steel small washers
- (6) 1/4" Black countersunk washers
- (4) 10mm nylon spacers
- (2) 5mm nylon spacers

Additionally Included in Functional Add-On Kit:

- (1) Functional add-on piece
- (5) 1/4"-20 x 0.75" Stainless steel countersunk bolts
- (5) 1/4"-20 Zinc NYLOC nuts
- (5) 1/4" Stainless steel small washers
- (5) 1/4" Black countersunk washers
- (2) 1/4"-20 x 4" Stainless steel hex head bolts
- (2) M8-1.25 x 100mm Stainless steel hex head bolts
- (2) M8 washers (5/16" ID, 1.25" OD)
- (2) M8 lock washers (5/16" ID)
- (2) 1/4" ID, 1" OD washers
- (2) 1/4" lock washers
- (2) 3" aluminum spacers
- (3) 1/4"-20 (7/16" hole size) steel jack nuts

Additionally Included in Outer Pieces Kit:

- (2) Outer pieces - a left & right
- (6) 1/4"-20 x 1" Stainless steel countersunk bolts
- (6) 1/4"-20 Zinc NYLOC nuts
- (6) 1/4" Stainless steel small washers
- (6) 1/4" Black countersunk washers

We'll start by explaining the center diffuser, then the functional piece, then the outer pieces.

Steps:

- 1.) Begin by raising and securing the rear of the car with jack stands, or use a lift!
- 2.) Place masking tape onto the rear valence as shown.



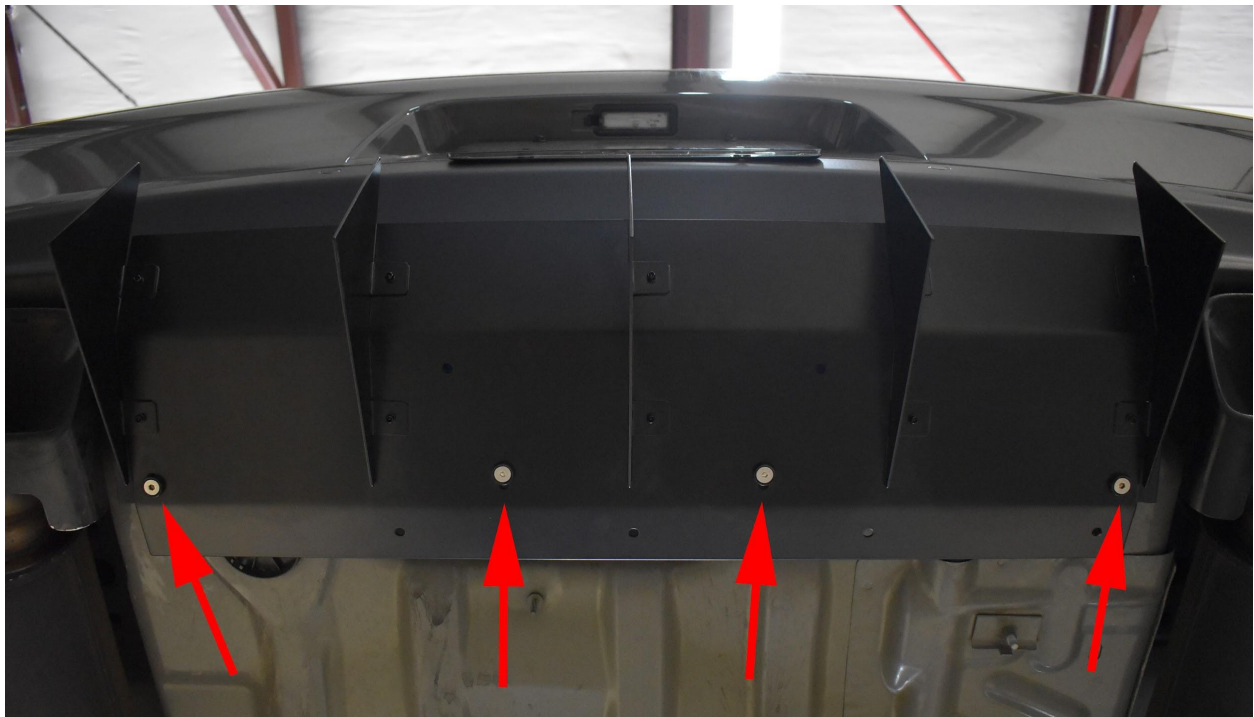
- 3.) Identify and remove the 4 pop clips that hold the center of the rear valence. Use your flat head screwdriver or clip remover.



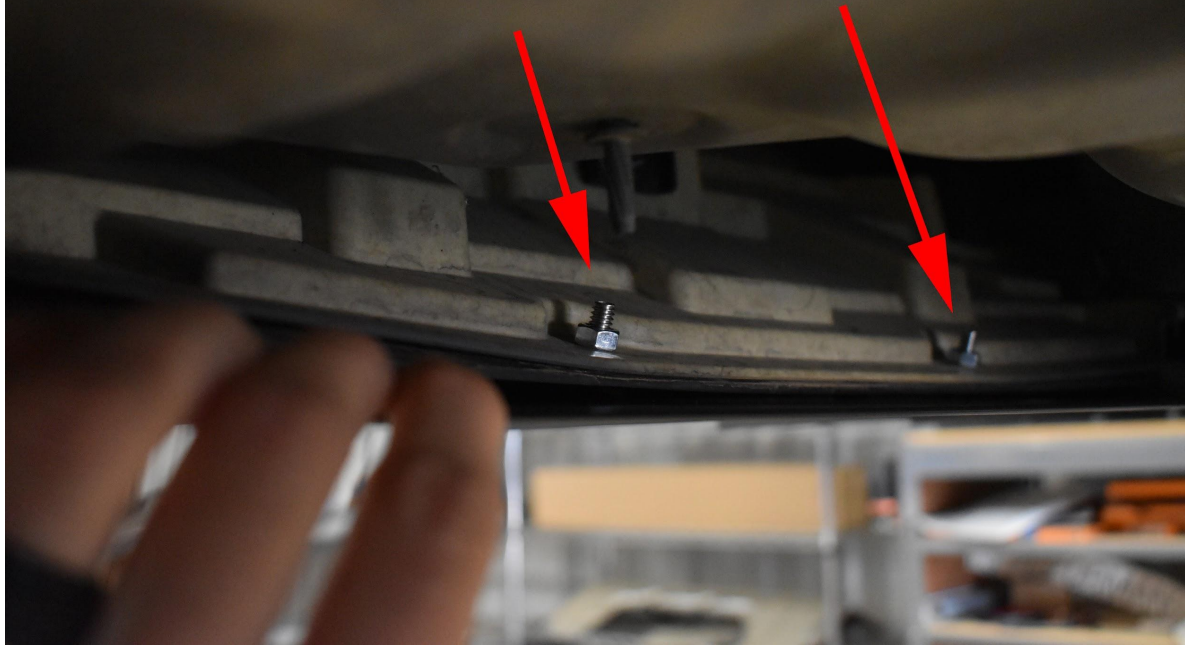




4.) Loosely install the center diffuser into those four holes. Use the supplied $\frac{1}{4}$ "-20 x 1" long countersunk bolts and black washers, with $\frac{1}{4}$ " washers and nuts (non-nyloc) on top.



Center 2 shown



4.) Pull the entire diffuser toward the back of the car and push it up against the rear valence. Then use your pencil (we used a sharpie) to mark the two holes between the fins.





5.) Remove the diffuser. Measure the marked holes to make sure they are even from the bottom of the valence. Then drill them out with a $\frac{1}{4}$ " or $\frac{5}{16}$ " drill bit. ONLY drill through the plastic valence pieces, not the cardboard-like piece above. Remove the tape.





6.) Install the diffuser into the two holes just drilled. Securely tighten. But 1st, *this is important:*
→ If you purchased **ONLY THE CENTER** and no functional piece you will be using the ¼”-20 x 1” long bolts & 5mm spacers between the diffuser and rear valence.
→ If you purchased **THE CENTER AND FUNCTIONAL PIECE** you will be using the ¼”-20 x 1.25” long bolts and 10mm spacers between the diffuser and rear valence.
For both: Use countersunk washers under the bolt heads, and ¼” SS washers and SS nyloc nuts on top.

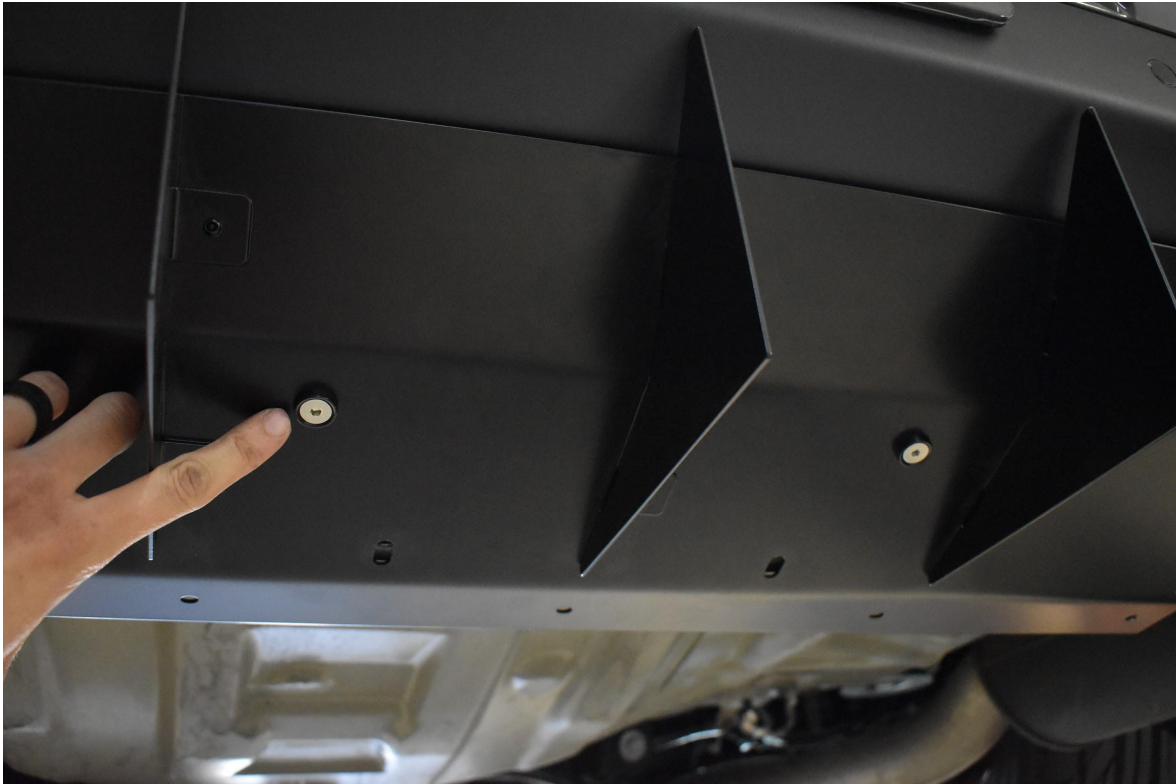
Non-functional: 5mm spacers



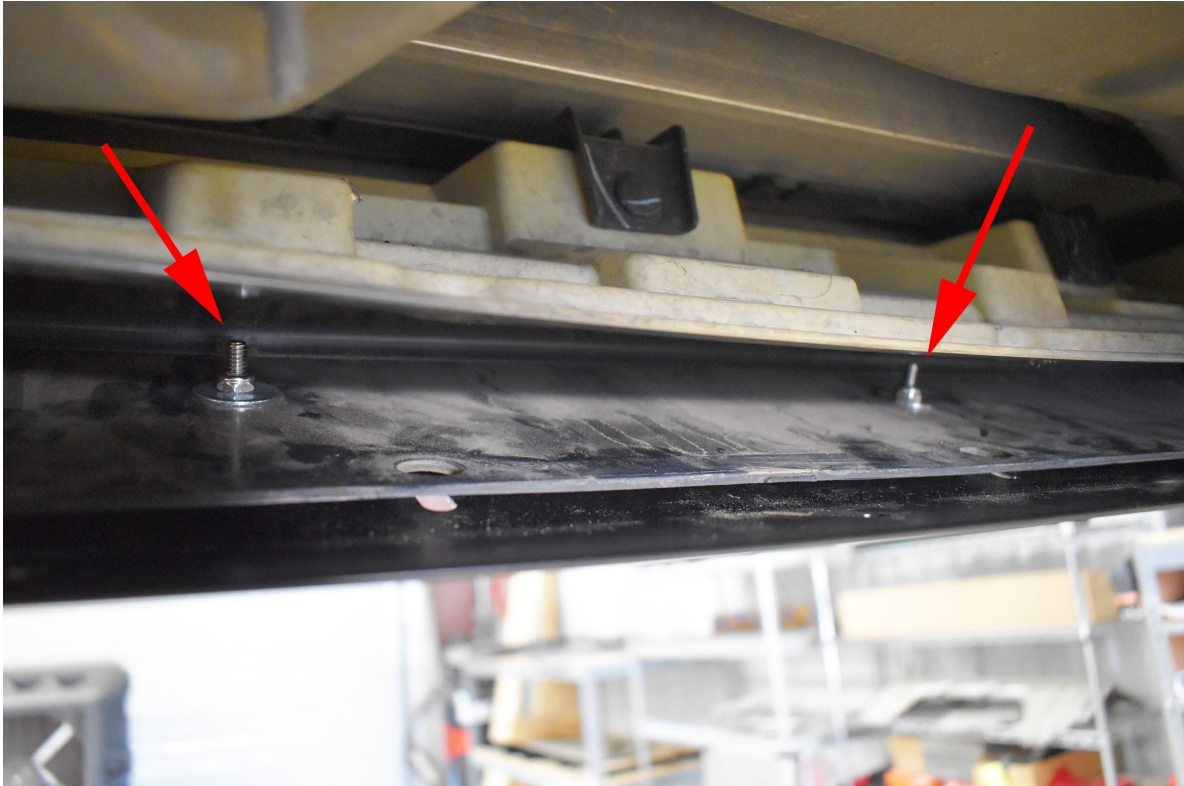
Functional: 10mm spacers



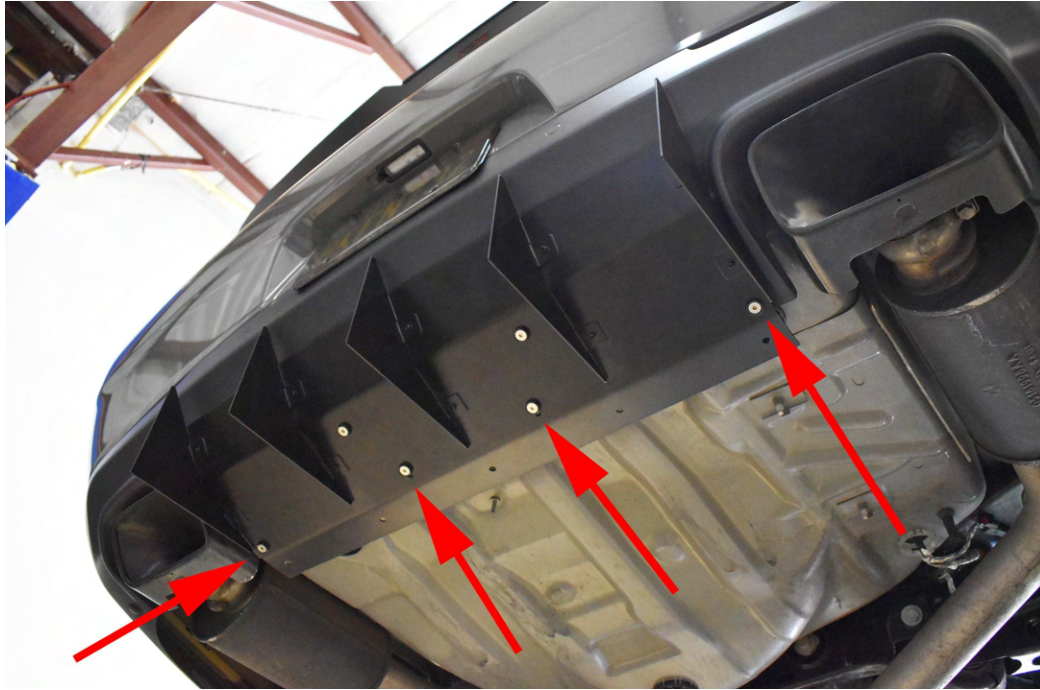
Bolts on bottom:



Bolts on top:



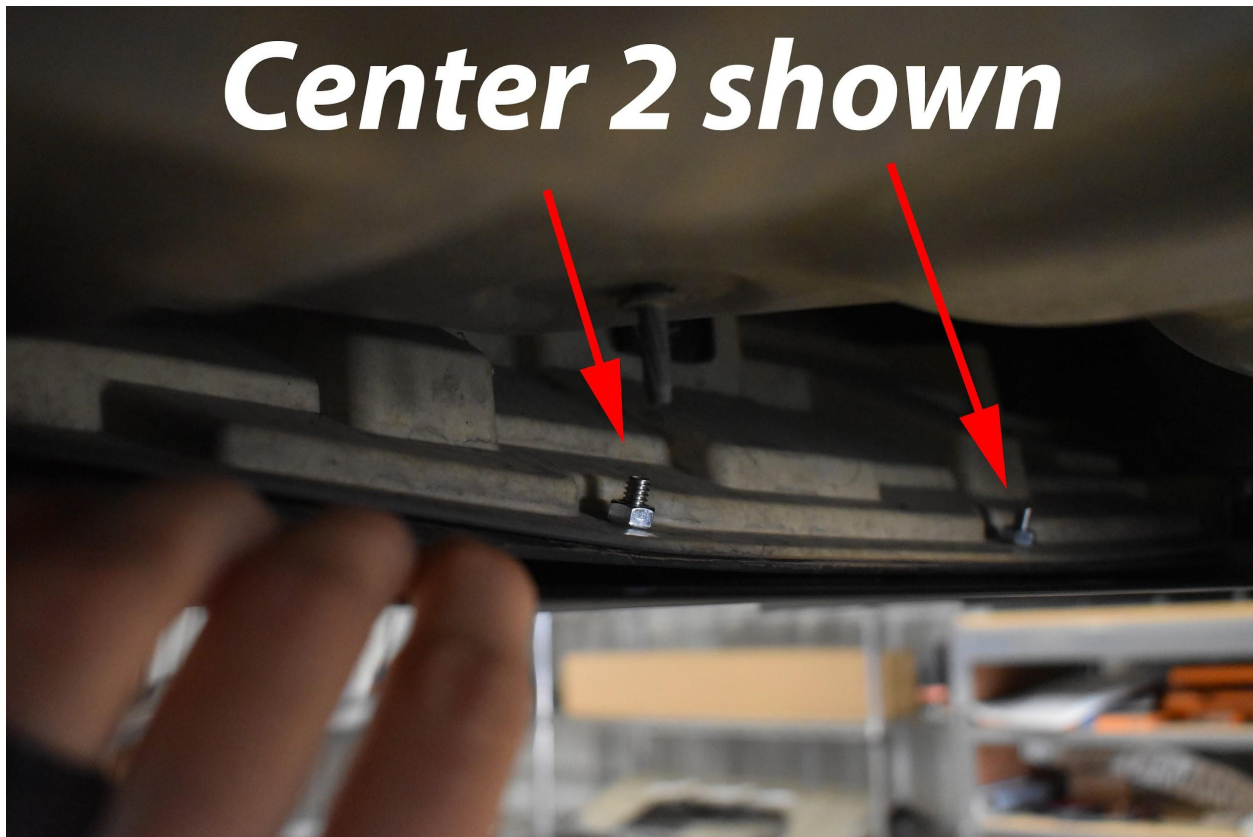
7.) Install the diffuser into holes where the 4 pop clips were. For the outer two use the ¼"-20 x 1.25" long bolts with countersunk washers on bottom, **10mm spacers** in between, and ¼" stainless steel washers and NYLOC nuts on top. The center two use the 1" long bolts and no spacers. SPACERS ARE USED TO KEEP THE DIFFUSER MORE LEVEL.



Outer holes:



Inner holes:



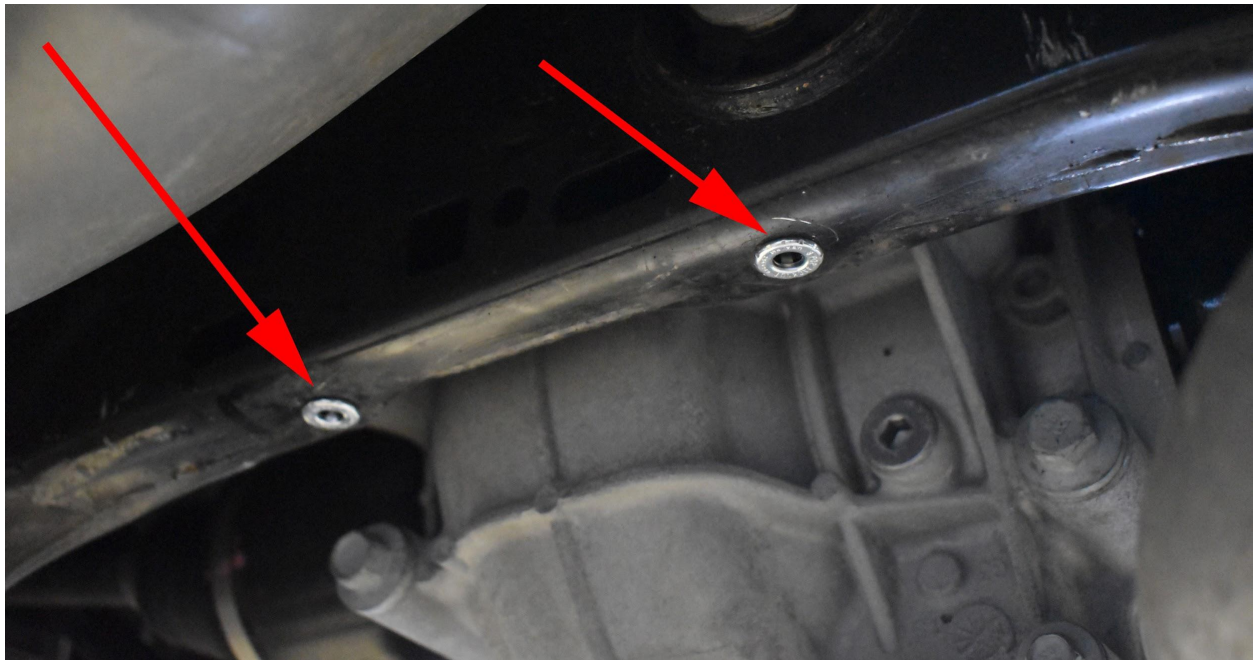
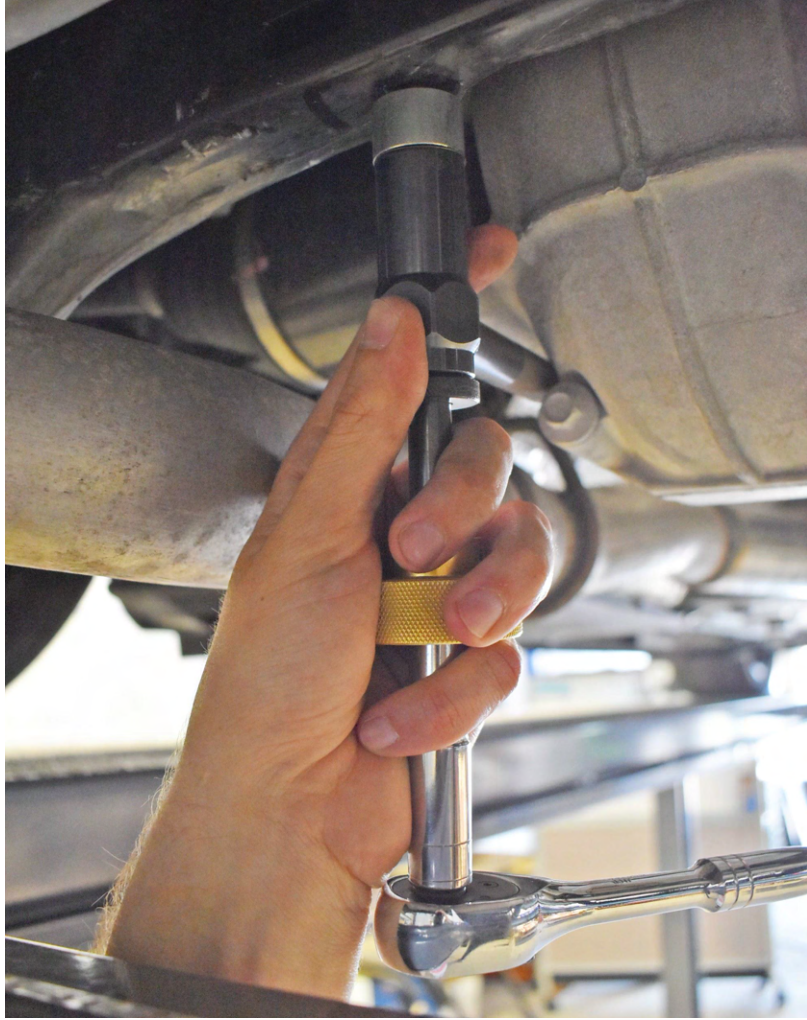
8.) If you only purchased the center diffuser you are done! If you purchased the functional piece or outer pieces keep reading.

9.) To install the functional piece identify whether or not the two holes in the subframe (behind the differential) are threaded.

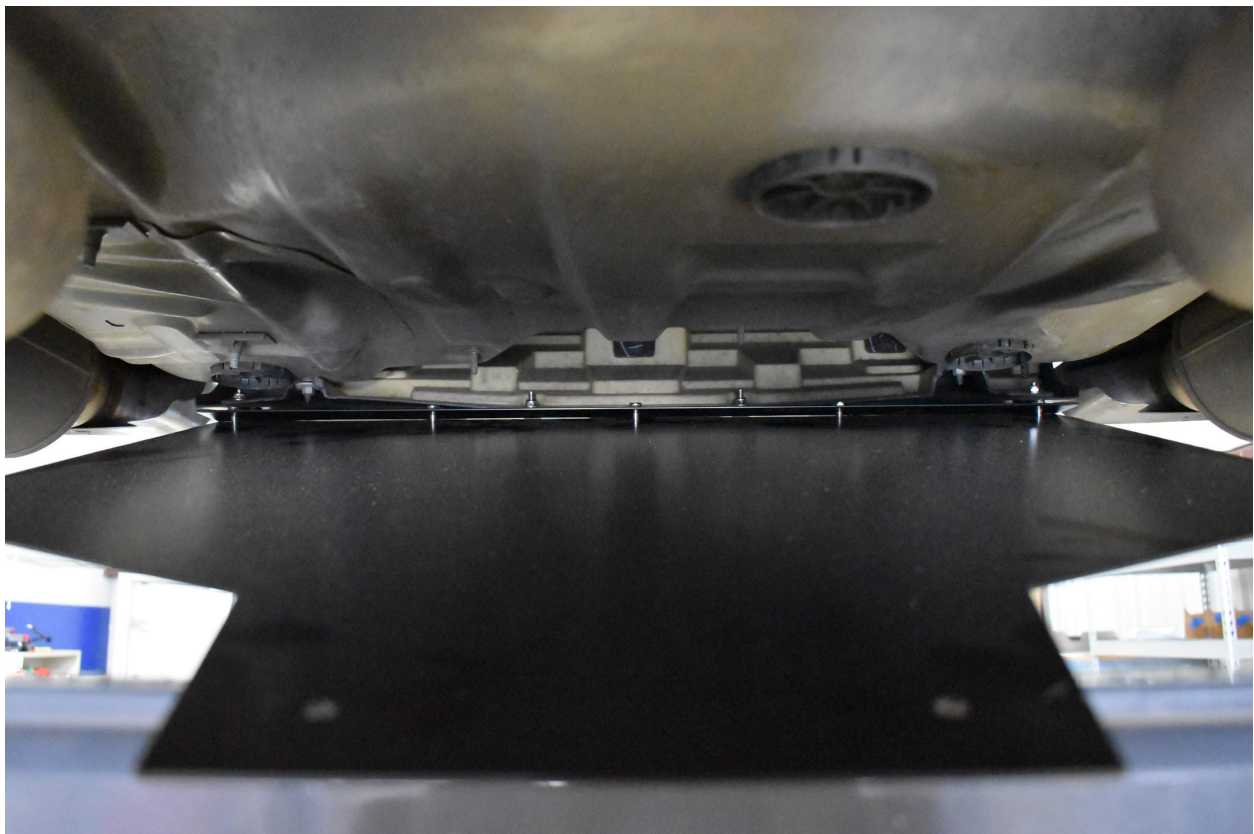
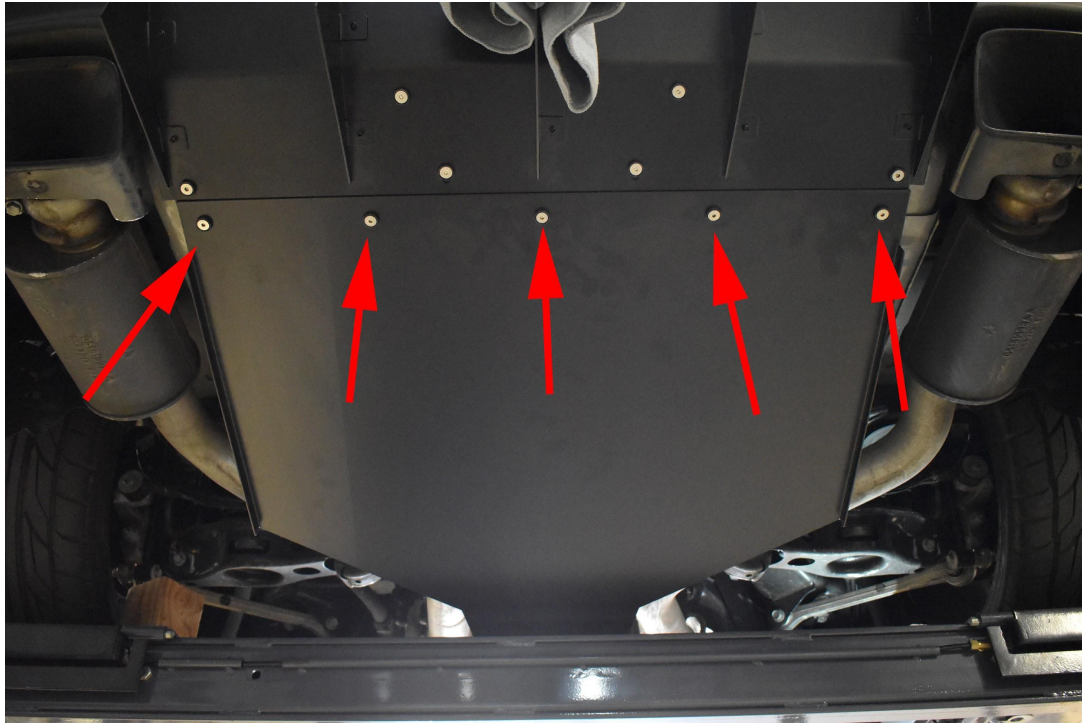
If they are NOT threaded you will need to use your rivnut tool and $\frac{1}{4}$ "-20 threaded insert to install the supplied jack nuts into the holes. Do NOT over tighten the jack nuts. Tightening too much will break them in half. If you need help installing jack nuts use online sources. You can actually feel the top of the jack nut through another subframe hole to make sure it has been securely appropriately.

If the holes ARE threaded then move to the next step.





10.) With help from a friend install your functional piece onto the center diffuser. Use $\frac{1}{4}$ "-20 x 0.75" long bolts pointing upward with $\frac{1}{4}$ " stainless steel washers and nyloc nuts on top. Face the folds on each side downward. Securely tighten.



11.) Install your functional piece onto the subframe.

→ If you installed jack nuts use ¼"-20 x 4" long bolts with ¼" lock washers and 1" OD washers under the heads. Use the supplied 3" spacers in between the functional piece and subframe. Snug so the lock washers close → do not over tighten.

→ If your holes are threaded use M8-1.25 x 100mm long bolts with ¼" lock washers and 1" OD washers under the heads. Use the supplied 3" spacers in between the functional piece and subframe. Tighten securely.



12.) If you only purchased the center diffuser and functional piece you are done! If you purchased the outer pieces, keep reading.

13.) To install the outer pieces place masking tape onto the area shown on both sides of the car.



14.) Remove the pop clips on each side found at the outer rear valence using your flat head screwdriver or clip remover.





15.) Loosely install your outer pieces into those holes. Use $\frac{1}{4}$ "-20 x 1" long bolts with countersunk washers under the heads, and $\frac{1}{4}$ " stainless washers and nyloc nuts on top.



16.) Align the front of the outer piece with the back of the rear fender and use your fingers to hold it tight. You want the folded portion to follow the body lines. Mark the two holes on both sides and assure the holes are in the same spots on both sides of the car. Re-mark if they aren't.



17.) Remove the outer pieces and drill into your valence at the marked spots with a 1/4" or 5/16" drill bit (our old version had 4 holes, not 2, ignore that!!)



18.) Remove the tape and install your outer pieces with 1/4"-20 x 1" bolts, countersunk bolts, countersunk washers, and 1/4" washers and nyloc nuts on top. Securely tighten.



19.) Assure all bolts are securely tightened and YOU ARE DONE. If you have any questions feel free to contact us. ENJOY!

