

VADDER Expansion Tank

Installation instructions



Figure 1

Package contents (unless custom configuration has been requested),
Fig.1

- 1x Expansion tank
- 1x 3" flat bracket
- 1x 18" hose
- 2x hose clamps
- 1x nylon fill neck
- 1x nylon fill cap
- 1x 5/16"-18 0.75" long hex SS bolt
- 1x 5/16"-18 nylock SS nut
- 1x 1/4"-20 1" long SS hex bolt

- 1x ¼"-20 SS nut

Tools needed:

- Floor jack and jackstands or vehicle lift
- Sockets: 10mm, 11mm,
- 10mm, 11mm, 13mm wrenches,
- adjustable wrench
- Plastic push pin fork shown below,



- Plastic funnel
- Can of black spray paint (optional), RustOleum industrial grade recommended

Consumables needed:

- WD-40
- Dexcool antifreeze (or water + Redline Water Wetter)

Note: use plenty of WD-40 on all Stainless bolts and all 12AN fittings, this is very important: Stainless and Aluminum threads are prone to galling when installed dry.

Begin with raising the car securely with jack stands on each side. Battery doesn't need to be disconnected. Remove all push pins on the bottom of the bumper (red), **do not remove any bolts on the belly pan**, the two exposed Christmas tree push pins and the 4 hidden Christmas tree push pins marked with an arrow.



Figure 2



Figure 3

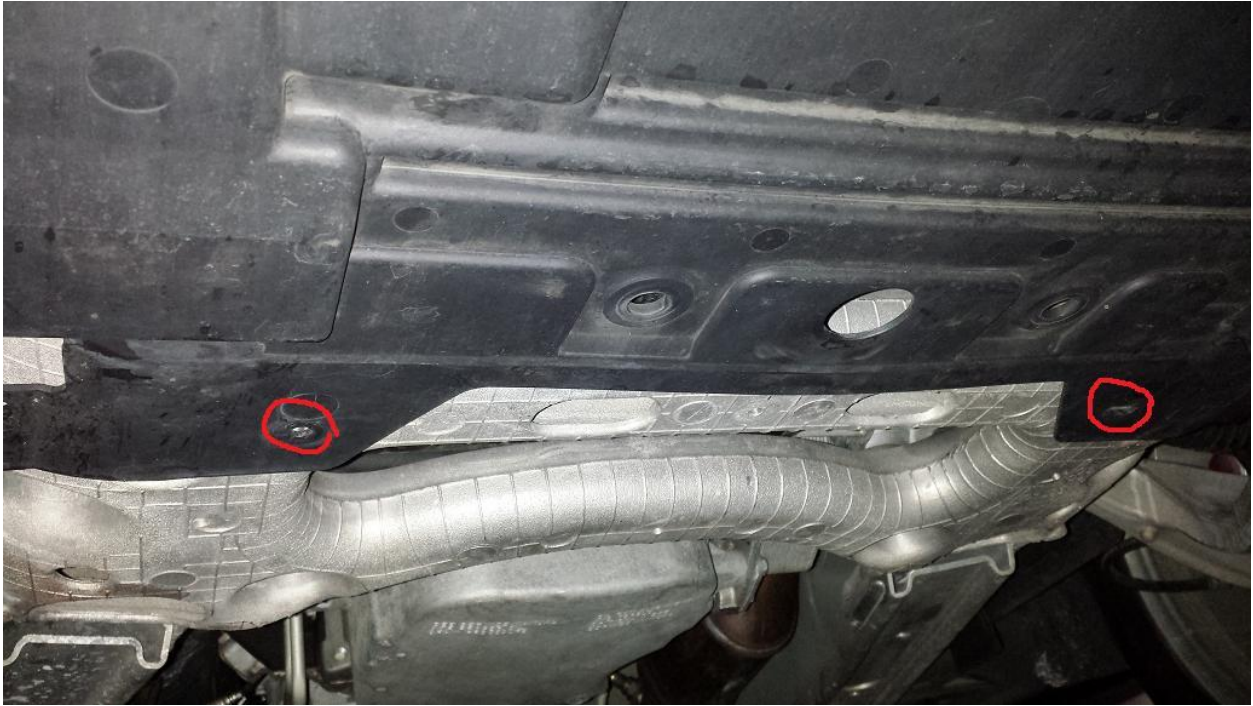


Figure 4

There are also 4 more push pins (not shown) on each side of the belly pan, connecting it to the under fender panels, take them out as well. The belly pan should come out at this point. Now remove the two push pins on each side and then pry out the inner fender panel out to reach the two hidden 10mm bolts and take them out. Hold the edge of the bumper and pull it out to unsnap each side.



Figure 5

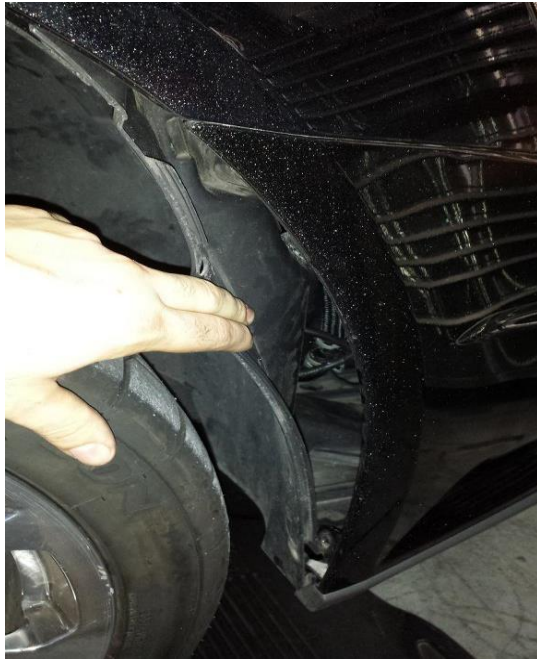


Figure 6

Figure 7



Figure 8

Unscrew the marked in red pins and remove the trim panel (Fig. 9).

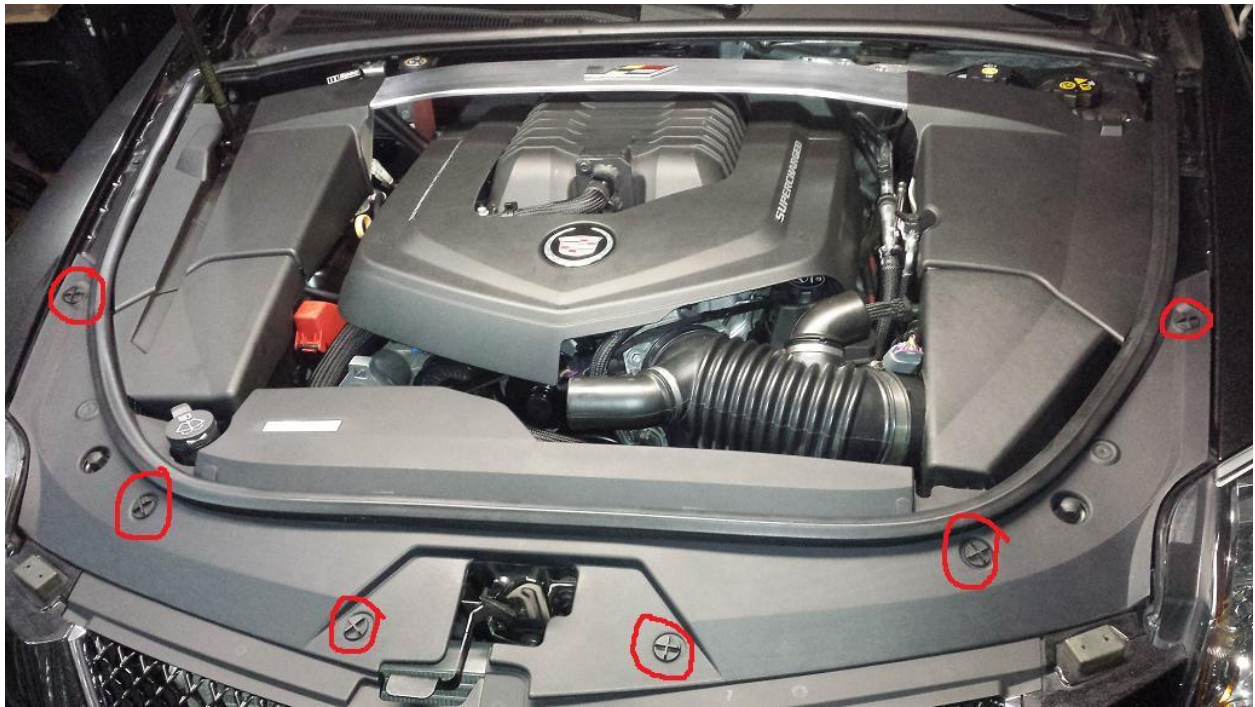


Figure 9

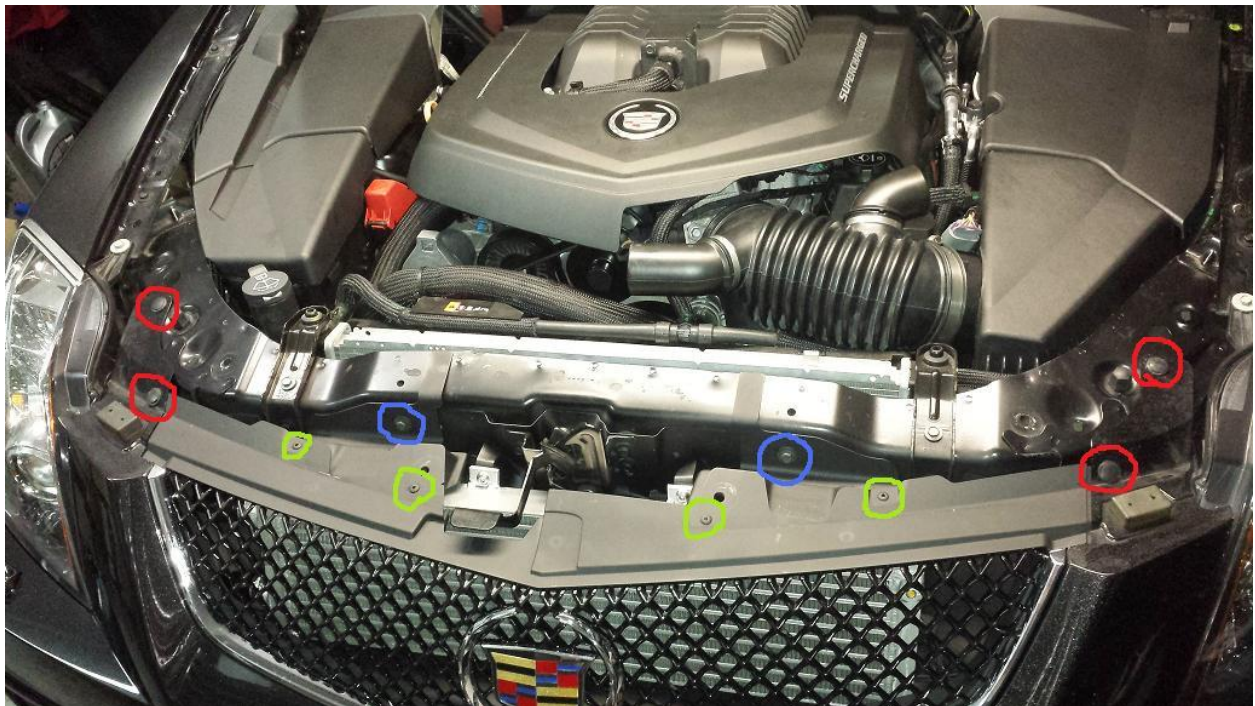


Figure 10

Once you remove the 4 red push pins the bumper will be ready to be removed, slowly pull it away from the car and disconnect the fog lights and headlight washers. There will be two hidden Christmas tree push pins on each side of the lower grill, have your fork tool ready so you can reach down there and pry them out if you haven't done it from the bottom. The headlight washer hoses need to be disconnected from the washers because the one-way valves are installed close to them. The washer fluid will leak out otherwise.

Remove the passenger side headlight, remove the ¼-20 bolt and nut from the tank and temporarily hang the tank on the front headlight stud and connect the tank hoses.



Next locate the harness just behind the tank. Some cars will have 1 nylon harness fastener, some will have 2. Drop the ¼-20 bolt through the hole shown on the picture and stick a piece of masking tape on top to temporarily hold it in place.



Now pull out the side bumper cover bracket and cut it as shown below.



Install the bracket back on the car.



Now pull the tank out of the headlight stud and reinstall the headlight. Turn the steering wheel all the way to the right and remove the inner fender. Install the

tank by inserting it on the headlight stud first and then slide it up on the ¼-20 bolt.

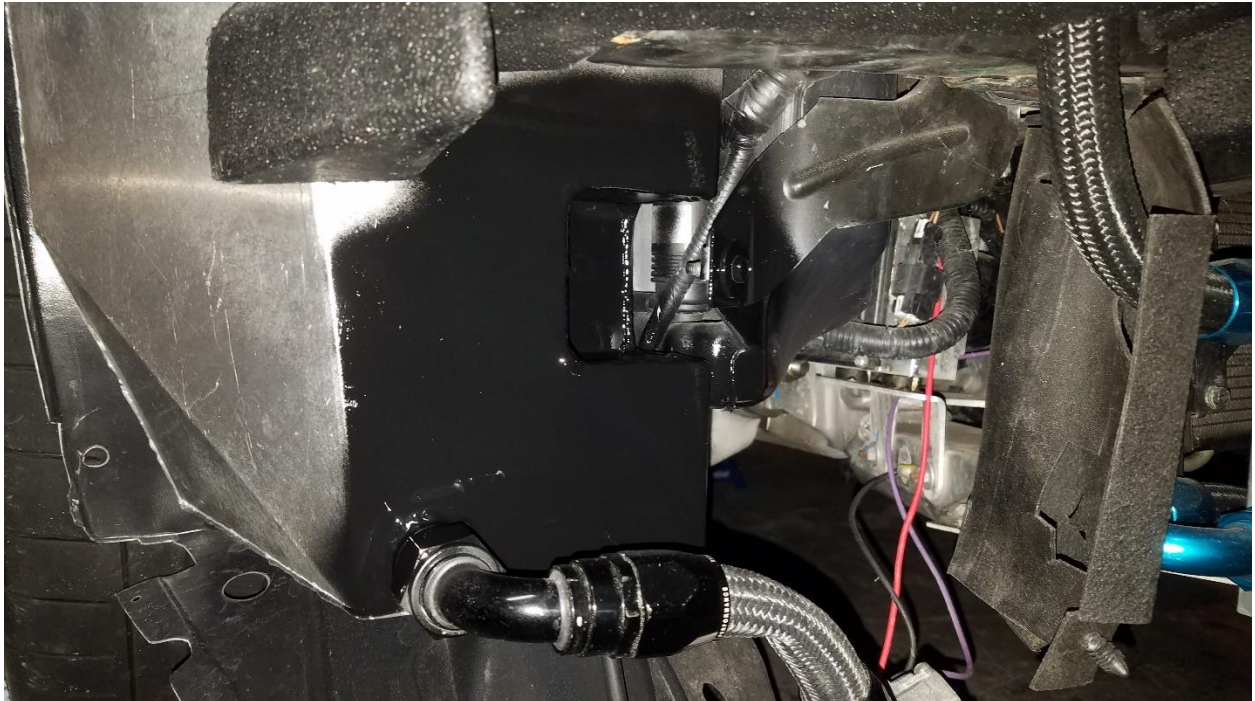


Tighten the ¼-20 bolt first, followed by the nut on the headlight and finally the 3" side bracket bolts.





Optional: if you have an aftermarket fog light bucket, which exposes the expansion tank, you may want to paint the front of the tank in flat black.



Fill up procedure

Note: Do not reinstall the bumper cover before the HX system is filled and checked for leaks.

Fill the tank as much as it will initially take and start the intercooler pump, run the pump for 1min and turn it off, top the tank off and install the cap. Do not tighten the cap down too much, it is purposely left without a gasket so air goes in and out to allow for fluid expansion and contraction. The ideal fluid level is at the bottom of the fill hose. If you fill it completely on a cold engine, fluid will be pushed out once the engine warms up and this will set the proper level automatically.
