

Audi A6 C5 2.7T Front Fender Liner Louver Mod

Disclaimer: This is how I ended up modifying front fender liners to get better airflow over my intercoolers. The B5 S4 has a louvered liner, but not the A6 (only the RS6). This mod cost around \$25, plus a couple of hours worth of work. Don't blame me if this does not work or if it damages anything. You are doing this at your own risk!

Materials and tools:

- (1) Aluminium AC/Heat louver/grate from the Home Depot. I think it cost around \$5.
- (2) One can of Rust-Oleum truck bed coating.
- (3) Some 1/8 aluminium pop rivets and rivet gun.
- (4) Drill and bit for the pop rivets. Sorry I just eye-balled it so I don't know the size I used. It was a little smaller than the rivets and worked well to hold everything nice and "toyt".
- (5) A flat mouth pair of pliers. I only have a very small one, but I believe they make a much bigger one for ducting fabrication etc. That would be better, but not required.
- (6) Stanley knife with a nice new blade.
- (7) Straight-edge ruler or equivalent to use to cut the liner.
- (8) Tin snips
- (9) Vice or equivalent, used to make the bends. If you have access to a brake you are golden. If you do not have a vice, two straight pieces of wood would do the trick, as this aluminium is pretty thin and can easily be shaped like that.
- (10) Hammer might be handy.

Assumptions:

- (1) Your car is on jack stands and the two front wheels are removed. Obviously you could do them one at a time, with a jack.
- (2) The fender liner(s) were removed. (Torx screws and 10mm bolts)

Here's a pic of the supplies and tools:



STEP ONE – cutting the grate

Cut the AC louver/grate into 3 pieces. You will only be using the outside louvers, so cut as close to the center louvers so you have enough material on the side to bend. The idea is to bend the sides of the louver to raise it enough so it will not ever be able to come in contact with the wheel. In the pic below I had cut one of the sides already (top) and for the second one I am basically cutting the middle louvers off.



The completed cut (one side)



STEP TWO – bending the edges (creating the flanges)

If you are like me, and do not have access to a metal brake, there are two ways to get the bends done. With two pieces of wood or with a vice. I used both. Line the grate up to the edge of the bottom edge (table top in this case) and put the other piece of wood on top. While pressing down on the top use your other hand to bend the grate down to make a 90 degree bend. This can obviously also be done in a vice. Don't worry about distorting the grate fins, you can straighten them later.

Bend one – first side



Bend two – opposite side



Bend three & four – creating a 90 degree in the other direction. You will use this as a flange to rivet too. I did this in the vice, and used the pliers and hammer the make the bend nice and clean. Put about ½ of the side of the grate into the vice and bend it upwards. The idea is to create an outside bend, raising the fins. I hope these pics do a better job of illustrating what I am saying.

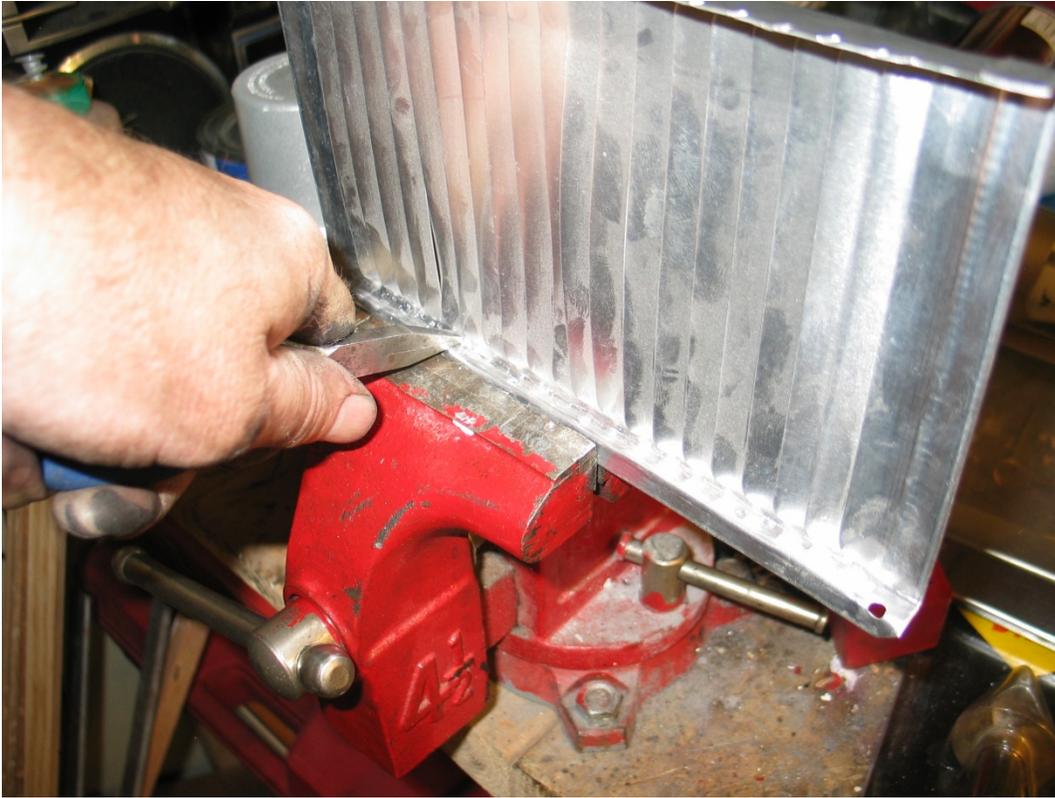
Halfway In the vice



Bend upward



Do the same on the entire length of the grate. As you can see a small vice requires two "trips"



Flatten the bend, by hand or with the hammer



Repeat on the opposite edge of the grate. I also created this flange on the top and bottom edges.

Now you should have a flange around the outside of the grate. If you put the grate down on a flat surface (flange down) the fins should not be touching the surface. ...or that is the idea.



STEP THREE – marking and cutting

Place the grate upside down (flanges facing upward) on the outside of the fender liner (wheel side). I placed mine in the location below. I found this to be the “flattest area” so it would work best in my opinion.



Mark the outline of the grate on the fender liner with an angled pencil. All the way around the grate so the hole would be the size of the grate.



Here's your outline for the hole. Not that visible but it will do.



Use a straight edge ruler and the Stanley knife to cut out the rectangular hole. Watch your fingers! The abs plastic is quite strong and you need to cut with some pressure. Don't let the knife get away from you! I came close once or twice! ;-)



Completed hole.



And with the grate from the back of the liner (inside of the fender)



I held the grate in place and drilled the first two holes. Popped two rivets in and continued all the way around.



Three more on each side and one at the bottom and you are all set. I also put a dolly under the rivets and hammered them down a little more with a punch, but this is not necessary if your rivets look "toyt". Mine did not all around. The top did not need a rivet as the liner bends and closes the gap just fine. Feel free to add one if you like.



STEP FOUR – straighten your fins

This is where the flat nose pliers work well. I lifted the fins and also pulled them to the side if the riveting distorted them too much.



STEP FIVE – paint (no pics)

Next slap a few coats of the bed liner on the inside and outside. I turned out doing the whole inside of the liner (wheel side) as it looked really nice being all black again. I put three coats on the fins so the road grime will hopefully not chip the black bed liner off.

STEP SIX – reinstall



Now do the other side and you are DONE!

Questions or suggestions? Massboykie@VAGLinks.com