

## *Fitting a protective front mesh grill to an sw20*

This article describes a cheap and easy project for the sw20, which can also make an improvement to the look of the front of the car.



After having to fit a new airconditioner condenser core due to impact damage I was looking to find a way to protect it, and I discovered that it was relatively easy to fit a protective mesh in front of the core, sliding it in diagonally from the top.

Although my car is an Australian delivered 1990 model, I would expect this should also work with the later generations, as the front panels are basically the same. My car has factory fitted driving lights, so the mesh only needed to cover the area between the driving lights.

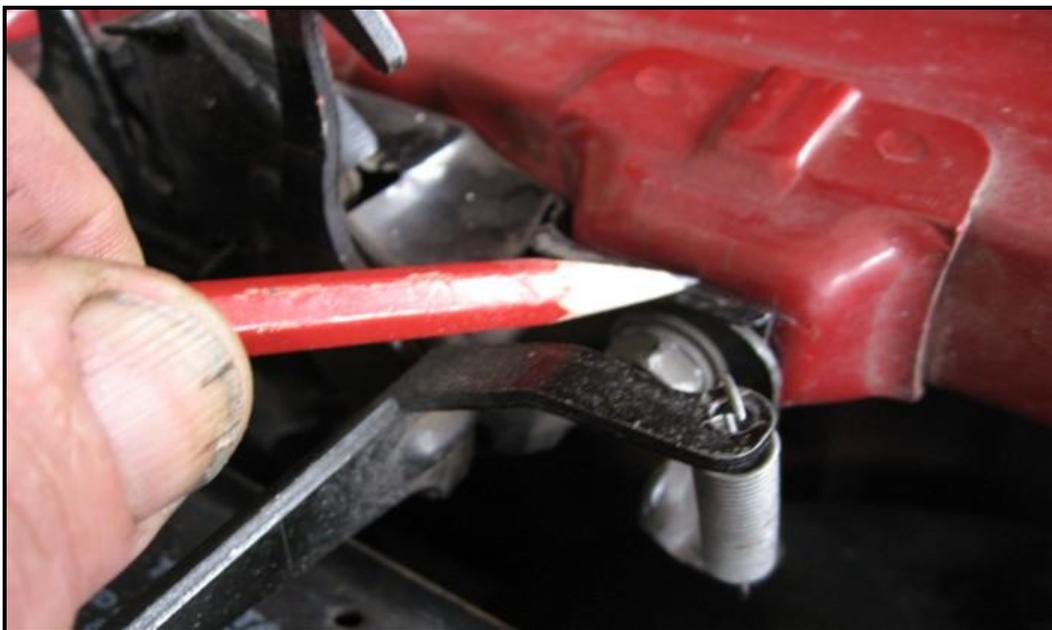
On cars with no driving lights, you could follow the same procedure as described here, but you would need to fit extra mesh panels on either side, hiding the joins behind the vertical grille bars to make a neat finished job.

What you'll need for the job: Aluminum expanded mesh, which you can get in various colors (or paint it your own color) from most auto accessory shops. I used the SAAS brand, which comes in a cardboard pack, and costing about thirty dollars.

Copper wire: Buy 2 meters of 2-core cable used for house light switch wiring from any hardware store, and strip the insulation off.

Tools needed: tin snips, scissors, long nosed pliers, wire strippers, a large flat bladed screwdriver, a 12mm open-ended ring spanner.

The job is much easier to do with the front of the car raised slightly. I used car ramps, but you could use jack stands. Anyway remember safety is very important, if you are raising the front of the car make sure it is secure, handbrake on, chock rear wheels, etc.



The first step. Open the front trunk and remove the front part of the rubber molding, (it just pulls off), and let it hang over into the trunk. This will allow you to remove the plastic trim that covers the top of the radiator, lift an edge and slide in a large screwdriver underneath the cover close to the first plastic clip and twist, It should just

pop out. Repeat for the other clips. When all clips are out, you can take the cover off with a bit of flexing to clear the bonnet safety catch.

Next step. Undo 2 bolts and remove the driver's side radiator top bracket. Now remove the bonnet catch, but first mark it with a pencil, so it will go back in exactly the same position to allow the bonnet to close properly. Then, together with the cable and bracket, let it dangle over into the trunk out of the way.

Next step. Carefully open the pack with the mesh. Don't damage the cardboard packing, as you can use this to make a trial template to rehearse fitting the mesh. Now carefully measure the rectangular opening to be covered by the mesh. Allow a little bit extra so it will sit behind the panels. The exact dimensions I decided on were 685 mm long x 155 mm high.

Then, using a straight edge and a square, mark out the shape on the cardboard with a pencil, and cut it out with the scissors.

You'll also need to cut a small notch in the top right hand corner to accommodate the towing eye. I cut out approx 25mm wide x 45mm high.



The next step is really a rehearsal for the main event.

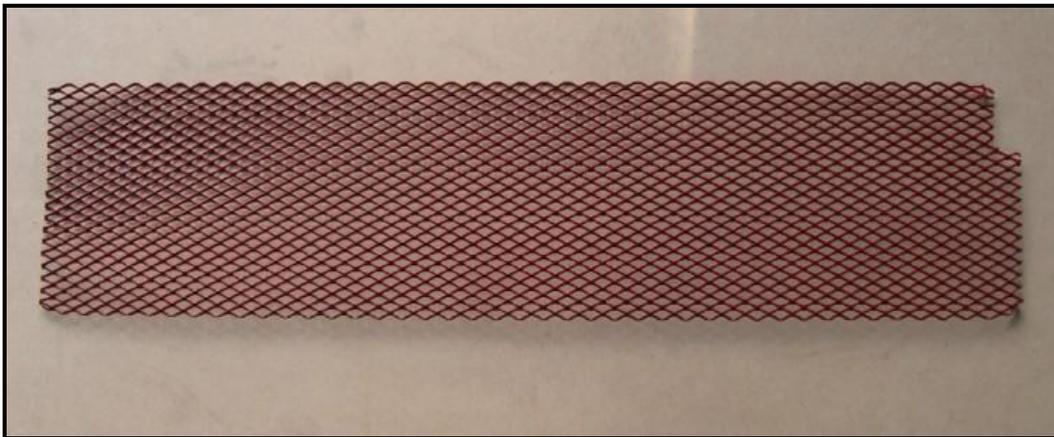
Being very careful not to damage the a.c. or radiator core, carefully slide the cardboard template in from the top on the driver's side, going down and across, maneuvering it into position until you reach an obstruction. This should be the passenger's side horn. You need to flex the template so that it goes around the front of the horn. Push it in further. The next obstruction will be the towing eye. Flex the template back so that it passes behind the towing eye just far enough to allow the drivers side to drop down.

Move it into place and check that it fits ok, especially around the towing eye. If not, take it out and trim it, and repeat the procedure until you are satisfied your template fits ok.

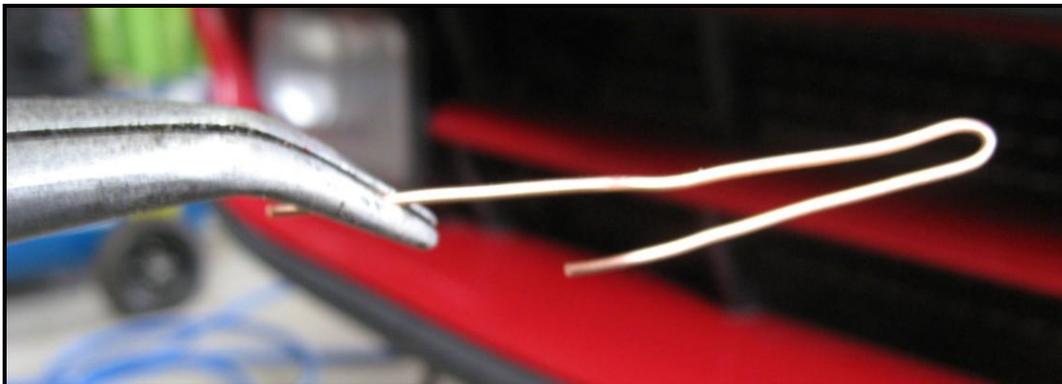
The next step is the main event. Before actually cutting the mesh you'll need to decide which way up you want it, because the mesh will be more visible and hide the radiator core better, one way compared to the other, as you will see if you rotate it.

I chose to have it more visible (see first picture) as I thought it looked better compared to the other way.

Lay your template on top of the aluminum mesh and carefully mark and cut the mesh to the same shape (if you have cut the template too small you can allow for this when cutting the mesh). You are now ready to fit it to the car. With the help of your long nosed pliers carefully slide in the cut mesh, the same way as you did with the cardboard template.



Although it will be stiffer than the cardboard, it should go in ok. Remember, in front of the horn and flex it back to the rear of the towing eye, to allow the driver's side end to drop down. Needless to say, be very careful not to damage your a.c. or radiator core. When you have it located ok you only have to fasten it in place with the copper wire.





On the sw20 grille there are two groups of five vertical bars which have a fixed core covered by a trim that fits over the top. Remove the trim pieces from the *lower five bars* by reaching in and spreading the rear, which will allow you to take them off.

Cut suitable lengths of copper wire, put a bend in the middle as in the pic, and using long nosed pliers slip them behind the mesh at the bottom of all 5 bars. Pull back, twitch it around and cut off the excess wire, then push the trim pieces back on to cover the wire. You should be able to hide it completely.

That takes care of the bottom. Now for the top. Toyota has provided four tiny cotton reels just perfect for the purpose. (They are actually fasteners for the front bar) You can fit the copper wire behind the mesh and twitch it around these to secure the top of the mesh. The wire should be unnoticeable tucked away under there.

The only thing left to do now is to replace the radiator top bracket, bonnet catch, and radiator top plastic cover plate. When you refit the rubber sealing strip be sure it is fully seated back down. Then make sure the bonnet closes properly, and then you're finished.

My preference was to paint the mesh satin black to look unobtrusive behind the vertical grille bars, and in case you're wondering, I have not noticed any difference to the radiator cooling with the mesh fitted.

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