

RX8 Gauge Pod DIY

The idea of this mod was to install some gauges in a way to look “stock” rather than aftermarket. My intention was to be able to have a clean install which I can remove and return to stock if needed.



I've attached some photos to this document and a video of the working gauges can be found here:
<https://youtu.be/BZhNLdHVKW4>

Used Items:

- **52mm ProSport Premium Series Gauges (Amber/White). (Oil Temp, Oil Pressure & Water Temp)**

I chose to use these specific gauges because I read decent reviews about them, had previous experience with their products & know an official supplier so I got a great deal. The following helped my choice: They have a warning function (flash and sound, I keep the sound off for street use because it is annoying on start-up), they have a day and night mode which matches the RX8 cluster almost perfectly, the font used is very similar to that of the RX8 cluster, they are tinted and look clean when the car is off, they have silver rings around the face which is similar to that on our side air-con vents & the trim on the radio. All in all, added to the “stock” look with sufficient accuracy for street use.



Figure 1: prosportgauges.com

- **ProSport Oil Filter Adaptor Plate**

I was considering different options for the oil pressure source, but decided to go with the good old adaptor plate for ease of installation + ease of removal if I ever wanted to do that. Likewise, ordered it from ProSport. I was considering the Racing Beat Adaptor Plate, however I don't live in the US and as a result the price was 4x that of the ProSport. More importantly, the ProSport sensors use 1/8" NPT fittings, whilst the Racing Beat Adaptor Plate provides one 1/8" and one 3/8" which would have meant adding more adaptors to make it work (I added 2x 1/8" sensors).



Figure 2: prosportgauges.com

- **Racing Beat Water Temperature Adapter**

Pretty self-explanatory. Our convenient coolant hoses are thinner than most cars so “universal” adapters don't work. The racing beat one is great quality and easy to install; it involves cutting

so if I ever want to go back to stock, I have to purchase a replacement hose however those are insanely cheap. Note: the RB Adapter fitting is 3/8", whereas the ProSport sensors are 1/8" NPT and I had to use a brass fitting (pictured below).



Figure 3: racingbeat.com

- **2nd Hand Centre Dash Trim**

Of course I wasn't brave enough to try this out on my own Dash Trim so I got a 2nd hand one. Working on this means you get perfect fitment and once again.... Can go back to stock easy.

- **Some piping from the local hardware store**

Used to model the gauges/their position

- **Masking Tape, Fiberglass, Resin, Sand Paper (various), car filler/bog, primer**

- **Dupli-Color Custom Wrap Matte Carbon**

The texture and colour produced by this item is almost identical to the OEM finish. I have had it in the car for over a year now, left it in the hot Australian sun, and it's still going strong.



1. I found some 90 degree pipe connectors for a 50mm pipe. These connectors are actually slightly bigger than 50mm and are perfect for modelling the 52mm gauges. I cut these in two (i.e making 2x 45 degree halves from one connector), measured them out and superglued to each other. As you can see, I went for a staggered fitment/look – Note this is for a Right Hand Drive. I also super-glued some 50mm pipe cut-outs underneath the front of each “gauge” which were used to roughly model the shape. I didn’t take a good photo of this, but the desired effect is seen later on.



2. The next step involved a lot of masking tape. I used tape to make the shape I was looking for. This involved a lot of layers and small cut-outs, but it also meant the pipes would be removed easily.



3. Fiberglass. There are plenty of tutorials online on how to fiberglass, so I won't go into detail. Mix the resin with a hardener, cover masking tape in resin using a brush, layer small strips of fiberglass over the shape and repeat. Don't forget to use a mask and gloves. I think I used 2 layers of fiberglass. Once dry (I waited a day), pop the fiberglass shape off the mould and use a dremel to cut out the shape drawn in step 2.



- At this point, I decided that more support was needed between each “gauge”. I covered the two red areas highlighted in the photo in step 3 with masking tape again, turned the pod upside down and filled it up with lots of fiberglass and resin. This is the end result:



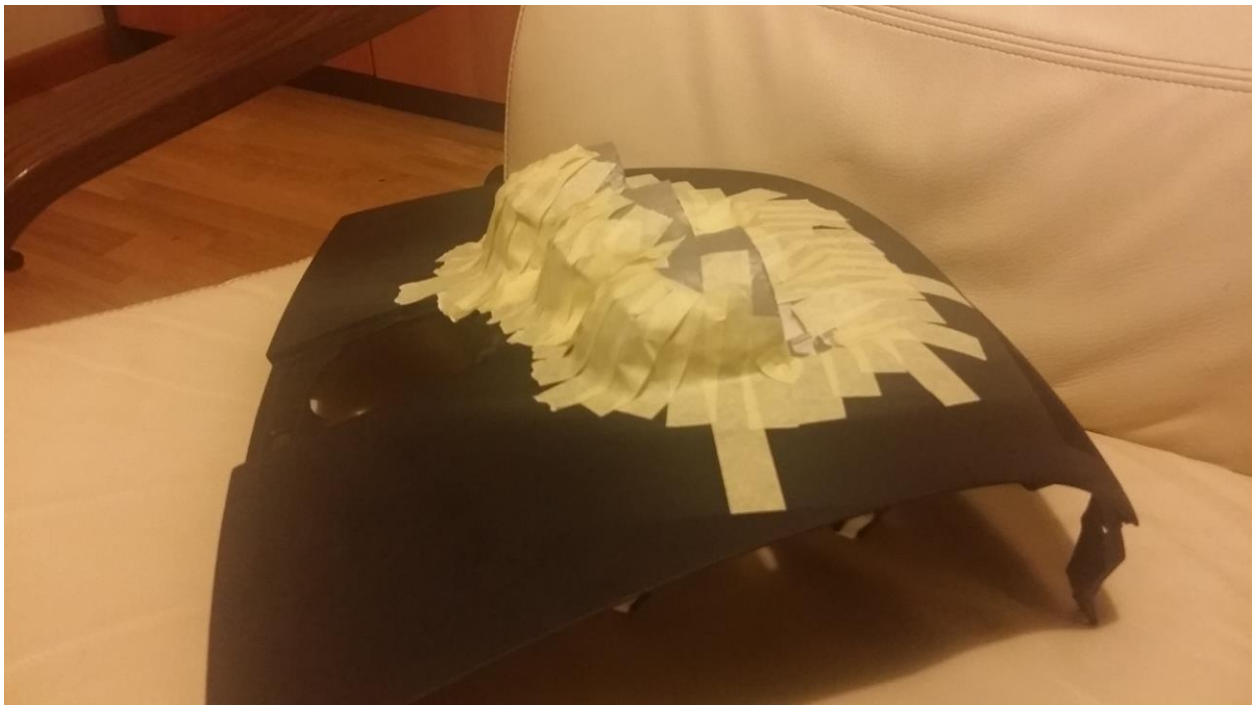
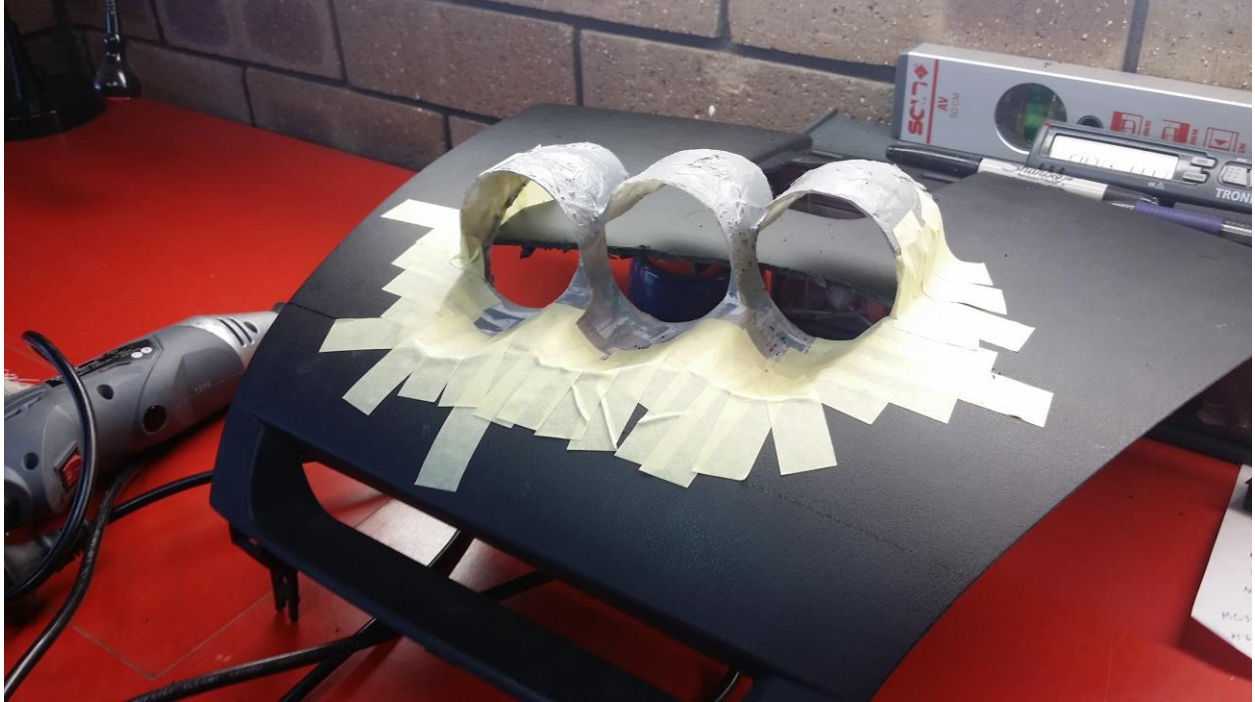
- Bog/filler time. I started adding a bit of car filler at a time to help shape the pod. This was followed by sanding, spraying with primer, sanding again and repeating. At this point you don't need to have the shape perfect. When you're happy with it, give it a trim to get rid of any rough edges.



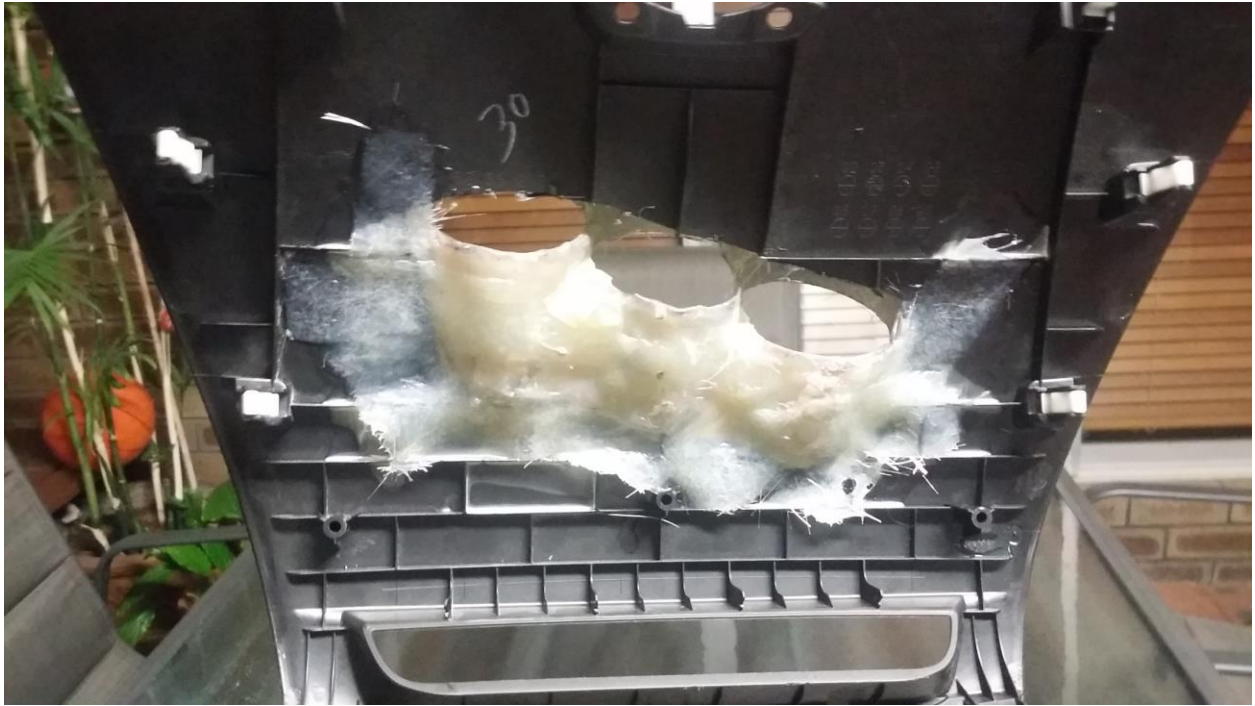
6. Time to cut into your dash trim. This feels wrong on so many levels, but having a spare to work on definitely helps. I positioned the pod in step 5 over my rough area for my car (will be dependent on the driver, height, angle preference etc.). You can also see that there is no fitment issue with the factory Bose speaker in the centre.



7. Use masking tape again to shape and fit your gauge pod into place. At this point it is crucial to sue the masking tape on the top of the dash trim and make sure you don't leave any gaps. All the fiberglass will be added at the bottom side of the trim piece so that the height of the actual trim doesn't change and fitment remains perfect.



8. As in the previous steps, apply fiberglass. Add a lot to ensure strength. It won't look pretty, but you won't be looking at it. When dry and masking tape is remove, it will look like so:



9. Once you have your shape, give everything a quick sanding, including the trim piece. Then add your bog/filler. Also add a thin layer of filler to the trim piece in order to smooth it out and remove the texture.



10. Sand, add filler, sand, add primer (helps see imperfections). Repeat



11. Don't forget to test fit your gauges. They should be loose. I cut out 3x 1cm long rings from 50mm diameter pipe then sanded the inside down until the gauge fit tightly. Glued/fiberglass-ed/bogged these rings to the front of each hole and continued with the sanding. Unfortunately I forgot to take photos of this, but you can see the final product in the next step. Also, don't add too much filler over the trim pieces where it isn't needed – you don't want it sitting higher than the rest of your dash.
12. When happy with the shape/smoothness, give it one last wet-sand. I worked all the way to 1600 grit sand paper, and add your final layer of primer. When dry, give a very quick wet-sand with 1600 grit to smooth out/prep for final layer. At this point, your gauge pod should look like so:



13. Almost there! Pick your final colour. I used Dupli-Color Carbon Spray Wrap due to the color and texture similarity to the un-touched trim piece. These are seen below.







14. Once done, you basically have a custom DIY gauge pod, with stock fitment so just install it. There are plenty of DIY's around on how to remove the trim piece (this involved moving the radio out of the way). Likewise, there are a lot of DIY's on how to wire up gauges and install the sensors. Here is my finished product; installed, working and loving it. Hope this helps!

