

Toyota Fortuner Snorkel Installation

I bought the snorkel from 4x4direct.co.za and after reading up a lot on what I needed to do, I decided to give it a go. To be honest, if you've only changed a tyre before or drilled some holes to hang picture frames, think twice about this and have a friend handy, it was the scariest thing I've ever done to a car!

First things first, we need to get some supplies.....

Metal Hole saw – 98mm (Builders Warehouse)
Drill Bit – 8mm and 6mm (Builders Warehouse)
Silicone – Automotive (Builders Warehouse)
Primer – any reputable primer will do, I got white
Duco – get this from any panel beater
Duct Tape
Any colour paint for marking the holes
Metal file
Ear butts for applying primer and duco
extra rivits if you did what I did....:-)

A few notes on the hole saw, I purchased the 98mm but after measuring the size on the snorkel I found it needed 103.5mm and then I had to cater for the paint as well, so the hole ended up being 105mm. It's a lot of filing from 98mm to 105mm. I would rather have gone for the 102mm and then filed to the correct size

First we need to remove the D4D as it's in the way, this was tricky as the stuff they used sticks like You know what I mean, be careful not to scratch the paint and I ended up using the wife's nail polish remover to get rid of the glue. I'm not sure if this was the correct thing to do but don't see any damage to the paint.

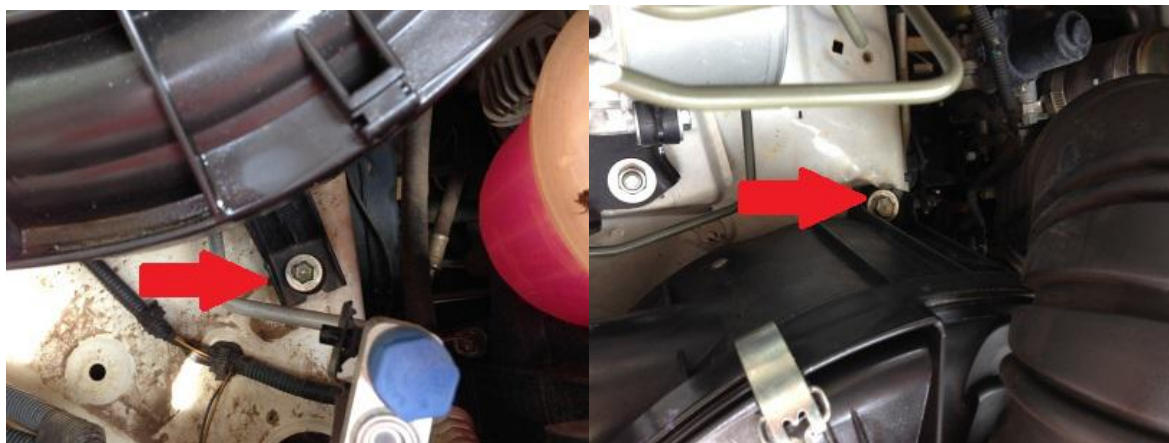


At this stage I would recommend removing the air filter as the clips that hold the plastic cover under the arch in place can be accessed and not damaged.

Unclip the 3 clips holding the filter cover in place and loosen the air pipe, removing the air filter cover completely. There are wires attached to the cover so the cover can be laid to one side. Please take care in storing the actual filter and not expose it to dirt etc as we'll be putting it back at the end of surgery!



Remove the 2 bolts on either side of the air filter



Remove the air filter housing. You will now notice the clips I mentioned before, these can be removed with long nose pliers by squeezing the little fins on the corners and pushing it down. There are 4 of them and take care when they fall out the bottom as to where it goes else you'll have to replace them. Also note on the inside of the fender where they were as this will help in re-assembly

Remove the rest of the screws on the fender and push the plastic guard to one side. I unfortunately don't have a picture of this but can be seen in these instructions, <http://www.4x4direct.co.za/blog/toyota-hilux-vigo-shape-2005-present-snorkel-fitment/>

Please take care when removing the cover as the clips where the screws were is a bit tricky, you can stick your hand in there and lift the lip and the cover will just slide out.

Remove the mini snorkel. Take note not to just try and rip it out, it's got a bolt that needs to come out first

Let's start with the fun part, put some duct tape where you're going to fit the template and then put the template on top of that. Align the template on the door and also on the top of the fender. Notice the gap between the template and the front of the indicator. As described by other instructions the template is a bit on the short side and we need to cater for that. The 8.5mm holes on the template are completely wrong. Maybe there's some cad whiz that can correct this for us.

I first drilled a pilot hole before using the hole saw. Take care when starting with the hole saw's drill, it punches through and then all hell breaks loose, bouncing on the body if you're not careful.

At this stage I was feeling nauseous and was contemplating what I'm going to tell the wife and the insurance company.....after a few beers.....





I tried to insert the snorkel and found the hole to be about 7mm too small and started filing the edges until it fitted. I made sure that the S pipe fitted neatly and aligned to both the inner and outer holes.

Now for the other 8.5mm holes. I used an 8mm bolt that was lying around and cut it so it would just stick out when fitted on the snorkel. I then painted it and fitted the snorkel again ensuring I leave a mark on the template. I did this for all 6 holes. Please ensure that when you do this to also align the top of the snorkel every time and also stick some duct tape to protect the paint on the up beam.

I used the below two holes as a starting point and ensured the top fitment of the snorkel, with the bracket on, to the beam, aligned every time.

You can now screw in the lugs, measure and file. After this I applied 2 coats of anti-rust and the duco.

After this exercise I aligned the top of the snorkel to the up beam, marked the 3 holes, removed the snorkel and drilled to my heart's content. I used a 6mm drill as the rivets is 5mm and I needed to cater for the undercoat and duco. Please notice how close the hole are to the window. The bracket is almost aligned with the beams edge. This ensures that the fitment bolts on the snorkel doesn't touch the door when opening. A word of caution here, when riveting the bracket to the beam ensure it's the right side up, luckily woman has an eye for detail and I only had to drill out one rivet. The lettering on the bracket should face upward. The bracket also shouldn't lay flat on the beam and I had to lift it a bit while riveting it down.



The small end of the S pipe needs to slide over the air filter pipe so I first applied a huge amount of silicone to the inside of the S pipe and then putting it in place while the filter was still loose

Bolt the air filter housing down and ensure the S pipe is aligned to the outer hole. I then applied more silicone to the inner S pipe and made sure it was squeezed in everywhere. It's not that neat as my pumpkin hands wouldn't fit nicely in there and I couldn't find a volunteer from the 2 onlookers that was there

I then applied again huge amounts of silicone on the outer S pipe, body and snorkel piece. I also siliconed the fitment holes. I fitted the snorkel with only the 2 outer bolts and putting in the lugs and nuts for the middle 4 in from the inside of the fender. Please take care when doing this as if you drop one it's a goner. You will notice that when you start tightening all the nuts the body will shape to the snorkel.

Rivet the bracket onto the beam ensuring some silicone was applied. Tighten the bracket on the top of the snorkel and fit the snorkel head. If you wondered what the rubber pipe in the box was for, it's for the petrol vehicles.

Here's some pictures of the snorkel head and bracket assembly, I didn't close the slits on the snorkel as this is apparently there to disperse water. Please note to use one of the clamps provided. The other 2 clamps are for petrol vehicles.

