

## Waterproofed Front Indicators

Allan Tunstall

Many people have written useful articles for the 289 Register newsletters and I have used them to some good effect on my car. I wondered what I had done differently during my build that could be of use to others and I think the waterproofing of the front indicators may not have been done, or in any case been documented before.

Before I sent my car for painting I was making the usual modifications, changing the rear lights to L542s and in my case changing the front orange L594 (Beehive) lights to the white winged L539s. On talking to other 289 Register members one thing they told me was that these front indicators always fill up with water when it rains or even when you wash the car.

As I had no idea if this was the case or not, I listened to what they were saying and at the same time thought about how exposed the wiring and the front indicators were to the weather from the inside of the wheel arch. My particular L539s (replicas) did not have a particularly good seal where the wires entered the body of the lamp and I thought this was a potential problem. I also thought about how the headlamps are installed into an assembly shell (with screws for headlamp adjustment) which keeps the bulbs and wiring protected away from any wet weather.

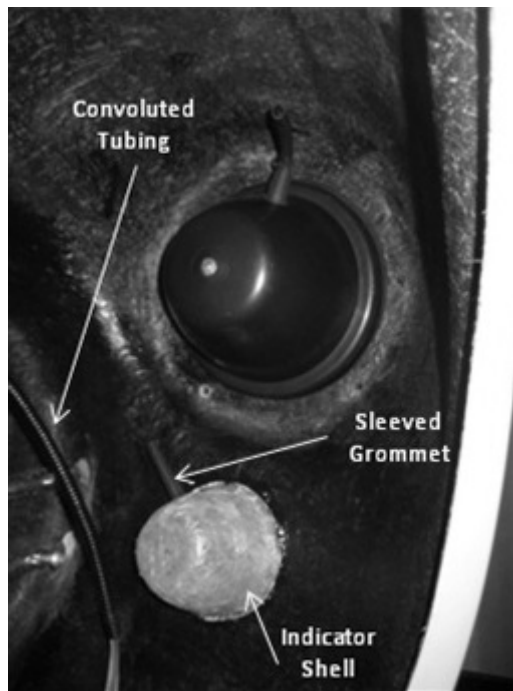
As a trained electrical engineer I thought that if the indicators were installed in a similar shell they would have similar protection and so avoiding potential future electrical failures due to water ingress. So the plan was to find/make a suitable shell that I could attach to the car body into which the L539s would be fitted.

I eventually decided to make my own shells from fibreglass which was easily formed using a suitable mould. The mould I found that was the correct shape and size came from a Marks and Spencer individual chocolate pudding (mmmm delicious). This mould had the added advantage that no fibreglass release agent was needed due to the type of plastic it was made from.

Three layers of fibreglass were all that was needed and each shell was completed in about 20 minutes. I made sure the outside was smooth as possible to avoid cutting my fingers when it all dried. Now I am no expert in the use of fibreglass but tackling this job was an easy introduction to the joys of fibreglassing.

Once the shell was dry, I drilled and fitted a long sleeved rubber grommet for the wiring to pass through into the shell. I chose a long sleeved grommet as these would slide inside the flexible convoluted tubing which I was using to protect the wires on the inside of the front wings and with a little sealant would ensure they were weatherproof.

Each shell was attached to the body using Tiger Seal (PU Adhesive Sealant) and then coated extensively with black underbody sealant to ensure a complete waterproof finish.



*View from inside front wing*

The above picture shows the shell with sleeved grommet fitted. This fits inside the convoluted tubing to provide a good seal. Another piece of convoluted tubing was fitted over the headlamp grommet and spliced into the indicator tubing, the joints sealed with PU Sealant. All wiring is now sealed inside the tubing and the shells.

I had some nitrile rubber strip lying around the garage that I use for making various seals/gaskets so I then made up new front rubber gaskets to replace the sponge seal provided for the lens to body seal . To date there has been no sign of any water inside my front indicators.

*Alan Tunstall*