

LF170 Inset Grill Project

Part One.

Instructions on how to modify your Discovery 3 Grill to accept 2 x Lightforce 170 spotlights.

By Bodsy (Ian)

These instructions are an indication of how I have attempted this. Neither I or Martin, owner of DISCO3.CO.UK take any responsibility for anyone who uses this guide and for any damage that may or may not be incurred directly or indirectly as a result of this guide.

So, Take one Discovery 3 and add a little splash of Bravado, some big blocks of icy weather, a soupcon of intrepidation and a newly acquired Dremmel ☺.

Wait until Valentines day is over, SWMBO in a good mood and announce that you're popping out to do something to the Disco.....

And there you have it, the beginnings of the LF170 Inset Grill Project.....

Equipment required

- Spare front Grill (or some more brave pills than I have...)
- 1 x Pair Lightforce 170 spotlights (or similar)
- 1 x 620/650mm length of Angle aluminium
- Drill/ Assorted Drill bits
- Torx head T30 bit
- Dremmel & 'bits'
- Screwdrivers
- Hammers (always needed regardless of the task....)
- Cups of Coffee
- Comedic Russian Styled hat to be worn at all times

So, having decided on what layout of lights to have on your grill, make a template to use when marking/cutting out the spotlight holes in the grill

Using a Compass (borrowed off of the kids) make a 175mm circle in some thick board or thin wood.

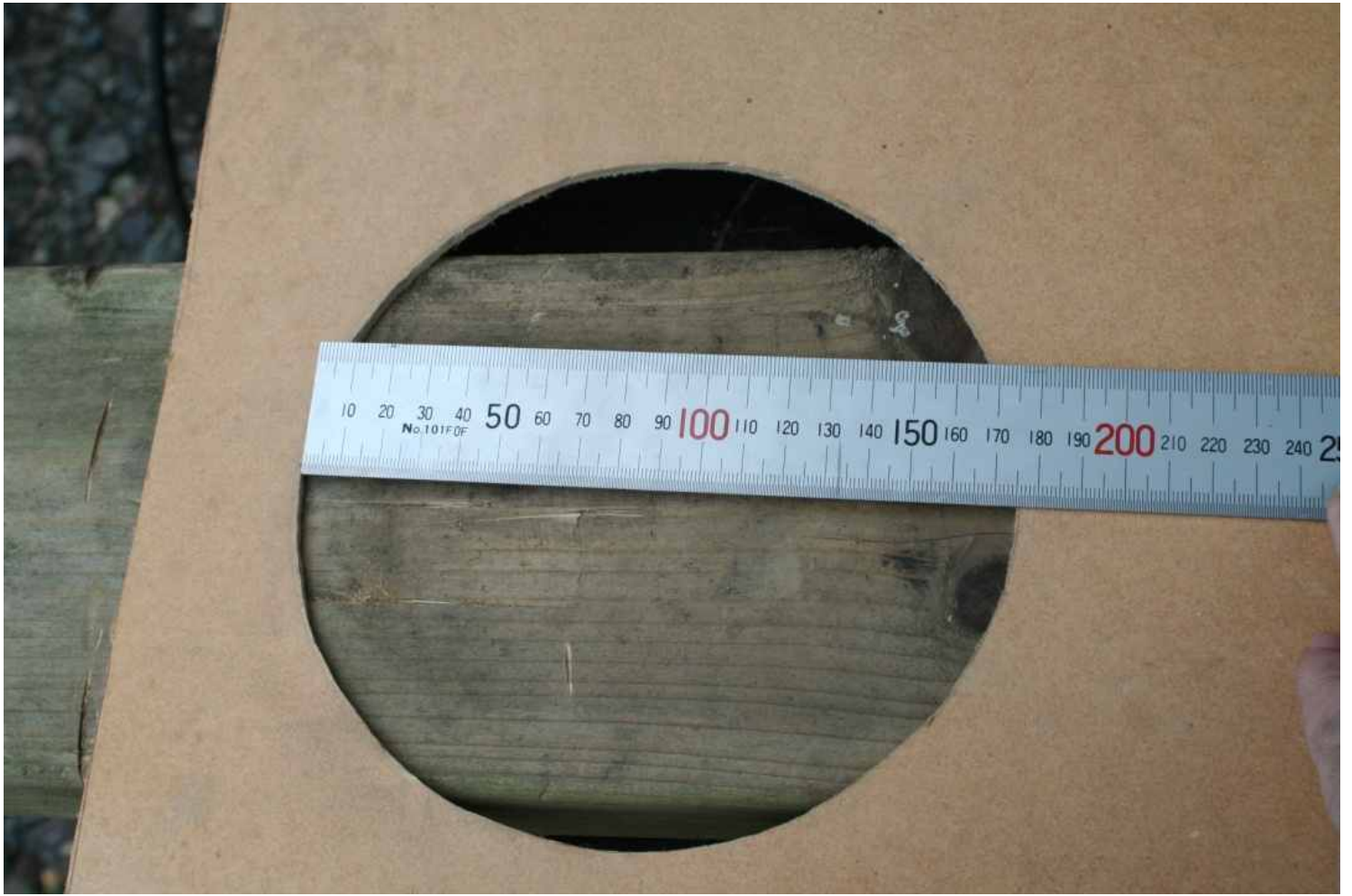


If you have a rotary cutter that will cope with 175mm diameter hole, then use that, otherwise whatever tools you have to hand to fudge it into a circular cut. I used the Dremel kit I had for Christmas ☺.

Results in a hole! Then sand the edges to get a smooth circle.

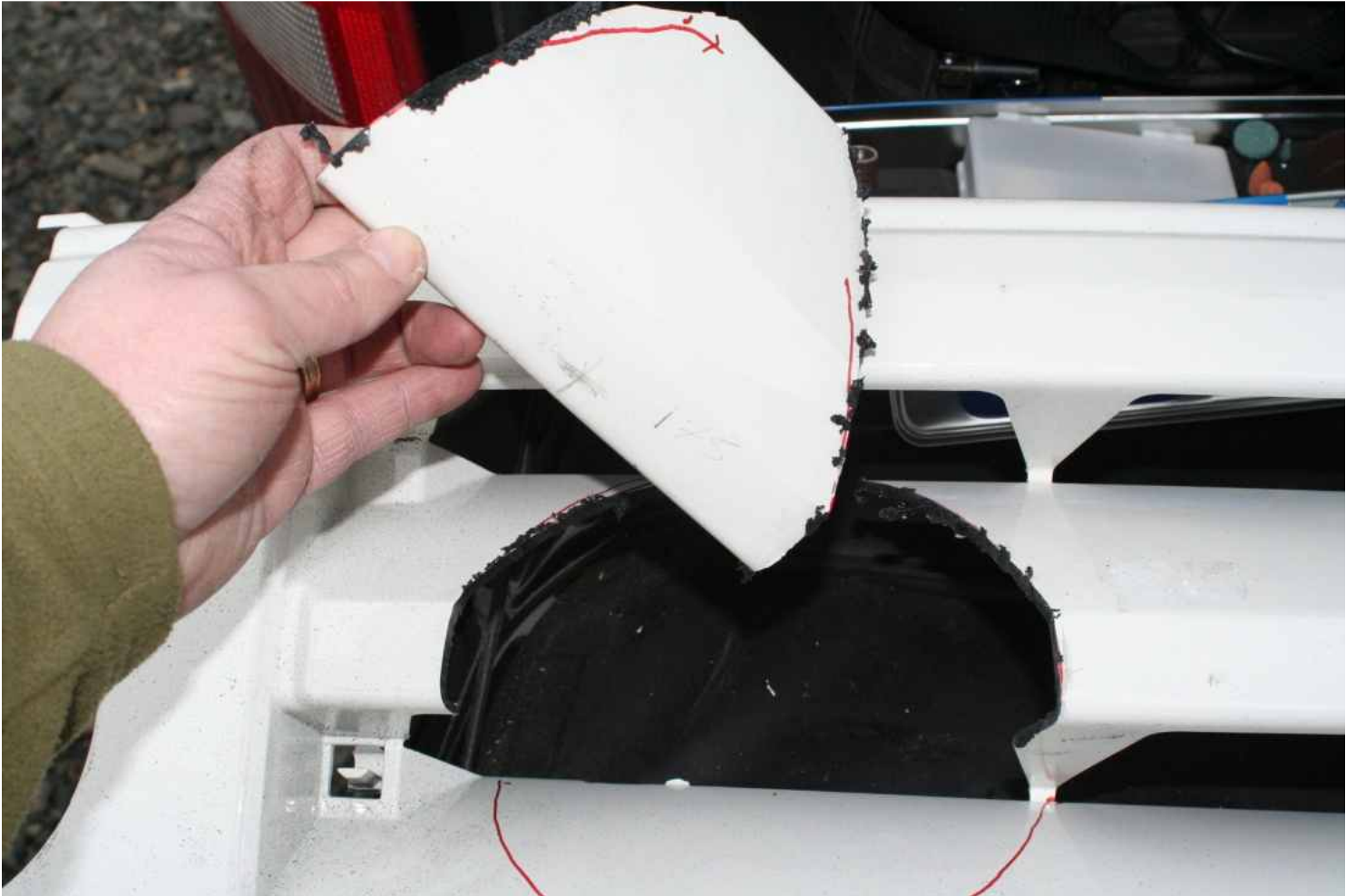


Check it is the Dia you planned it to be! (should be 175mm)

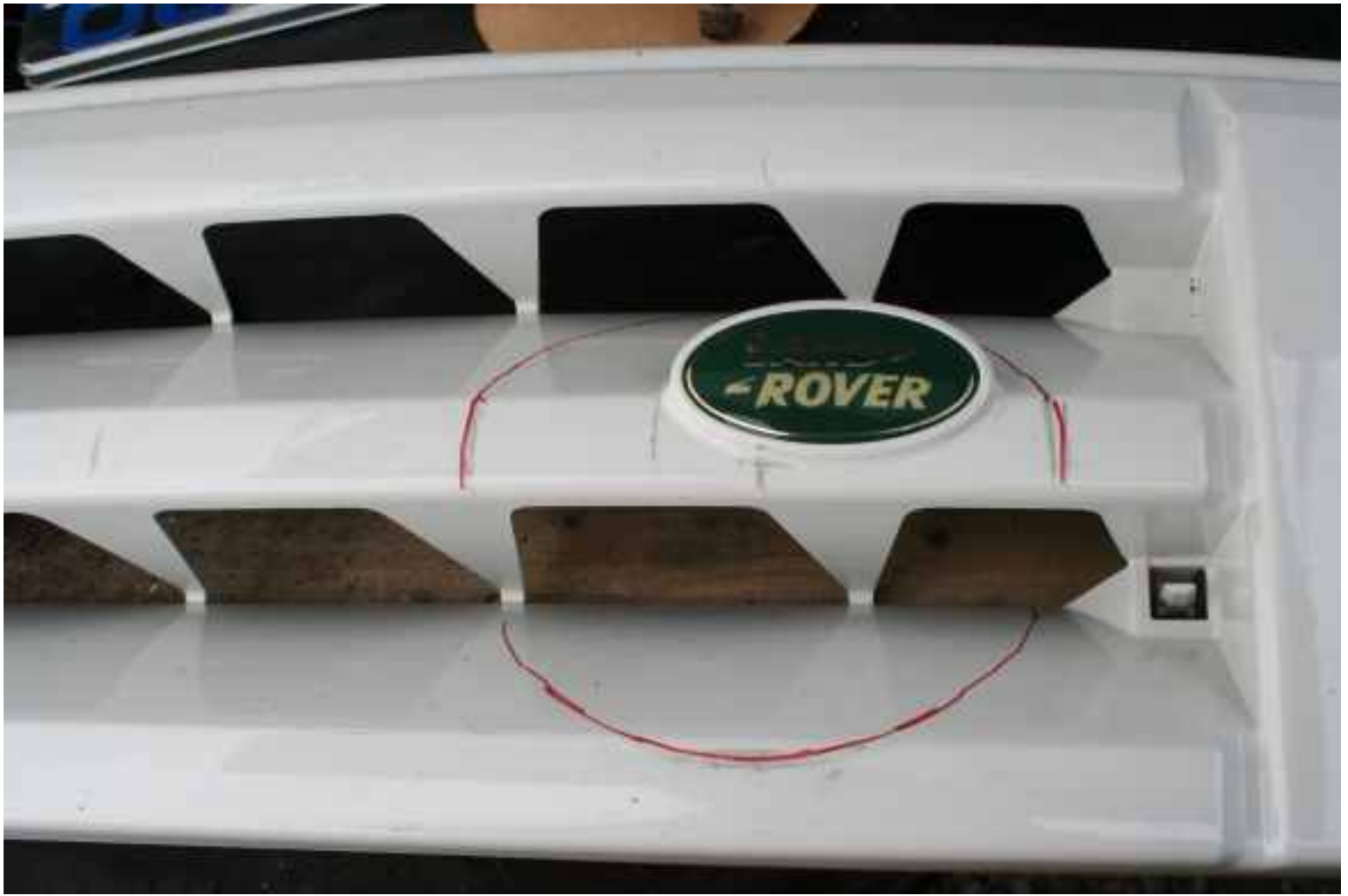


Then place onto the grill you have laid out and (I used) a permanent pen, like the ones for CD writing.

When you've marked it out, be prepared to make the first cut!



Then do the other side.



OMG What have I done!!!! Big holes and everything!!!



Trim the cuts you've made, with the sanding bit on the Dremmel.



Test fit the spotlights & do some fine fettling to ensure the fit is loose enough (but not too loose!) It's unlikely to be perfect, but once it's re-sprayed, it'll look pretty good.



So there you have the grill ready.

Now onto the front of the car. For those of you that haven't removed the grill before, there's some clips that you need to lift up and some that you need to push down.



Push down where the green arrows are, Lift up where the red arrows are.

Then the grill removes easily to reveal the radiator.



Whilst here, I checked which horn didn't work, it was the one pictured. Just as well as it needs to be removed as the position of my spotlights means that they wouldn't fit with it there.

The plastic shroud I've circled above, needs to be removed to fit the Aluminium angle iron.

It's removed simply with two plastic fasteners, then lifted off.



You're then left with this.....



This is where the angle ally will be bolted to.

Remove the horn with a 10mm socket. The electrical connection is removed with the aid of a screwdriver to lift the locking circlip.



Part Numbers can be seen on the horn.



Needed to remove the horn bracket which is a real PITA! I used a 4mm Allen key (pictured in place) although after removing the offending PITA bolt, I found that it was a T30 Torx bolt.



My first piece of Angle Ally (Brought all the way over from Ireland by christyler) Was unfortunately too short for my spot configuration. So if anyone needs some 500mm wide to do theirs, I have a piece ☺.



Needed 620mm for my configuration, so some scouting around the neighbours pile of scrap ally and he came up with a suitable piece.



So the angle ally will need to be bolted to the vehicle, I've decided on three bolt holes. It's a real pain to get the holes drilled in the vehicle, so I opted to drill using a small 2.5mm bit first, before using the 6mm bit. I could have used a smaller first bit, but wanted something that wouldn't snap so easily as a 1mm bit. The angle is a real pain to get the hole in.



I then used the 6mm bit, again trying to be careful as the angle is not the easiest and damage can be done to the bumper if you are not careful.



I then drilled some slotted holes in the Angle Ally as I wasn't sure what height I needed it to be at for the lights, so can adjust it to a reasonable extent when in place.





Then with it in place (but not fixed in place)



Test Fitting the White Grill & LF170's also taped the LR logo in the middle where I hope it will be able to be grafted on later in the installation.



To remove the green LR logo from the mounted bit, I used the Screw as my favoured removal method. This way it doesn't damage the edge & is nice and clean for when I fit the Black RRS Supercharger badge.



So, I need to have 3 x 6mm nut & bolts to fit the Angle ally. Then I think I'll need some shortened bolts for the LF170's to then fit on top of the ally.

So Part 2 will be the completion of the lights install & then I'll get onto the wiring.

Part 3 will probably be the grafting of the central LR logo as well as the respray to Java Black

If you have any amendments or think I should make anything clearer, then please let me know.

Bodsy