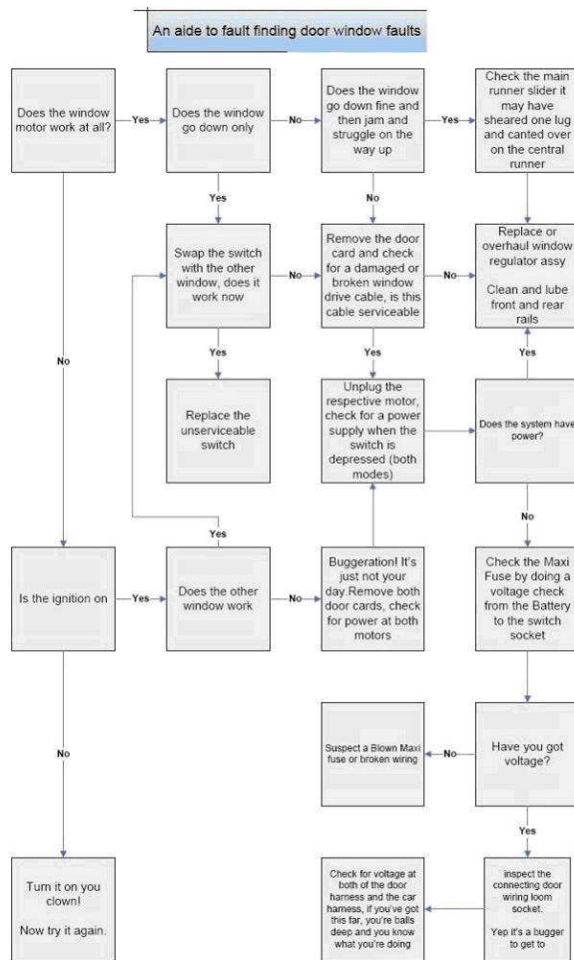


*This is a collection of a series of postings on LEC by Specky
Some formatting has been altered to make it more readable.*



Removal and Refitting of the window regulator

Warning the window is heavy and has the ability to crush and possibly decapitate your little pinkies should you not take safety precautions.

Have some kitchen roll handy for later...you'll see why

Getting access before removal

1) Open the car door



- 2) Remove the door cheater (the black triangle), it will just pull off from the top point, it's held in place a plastic equivalent to Velcro. In true Lotus style the Velcro won't separate but the glue holding the Velcro will dis-bond.



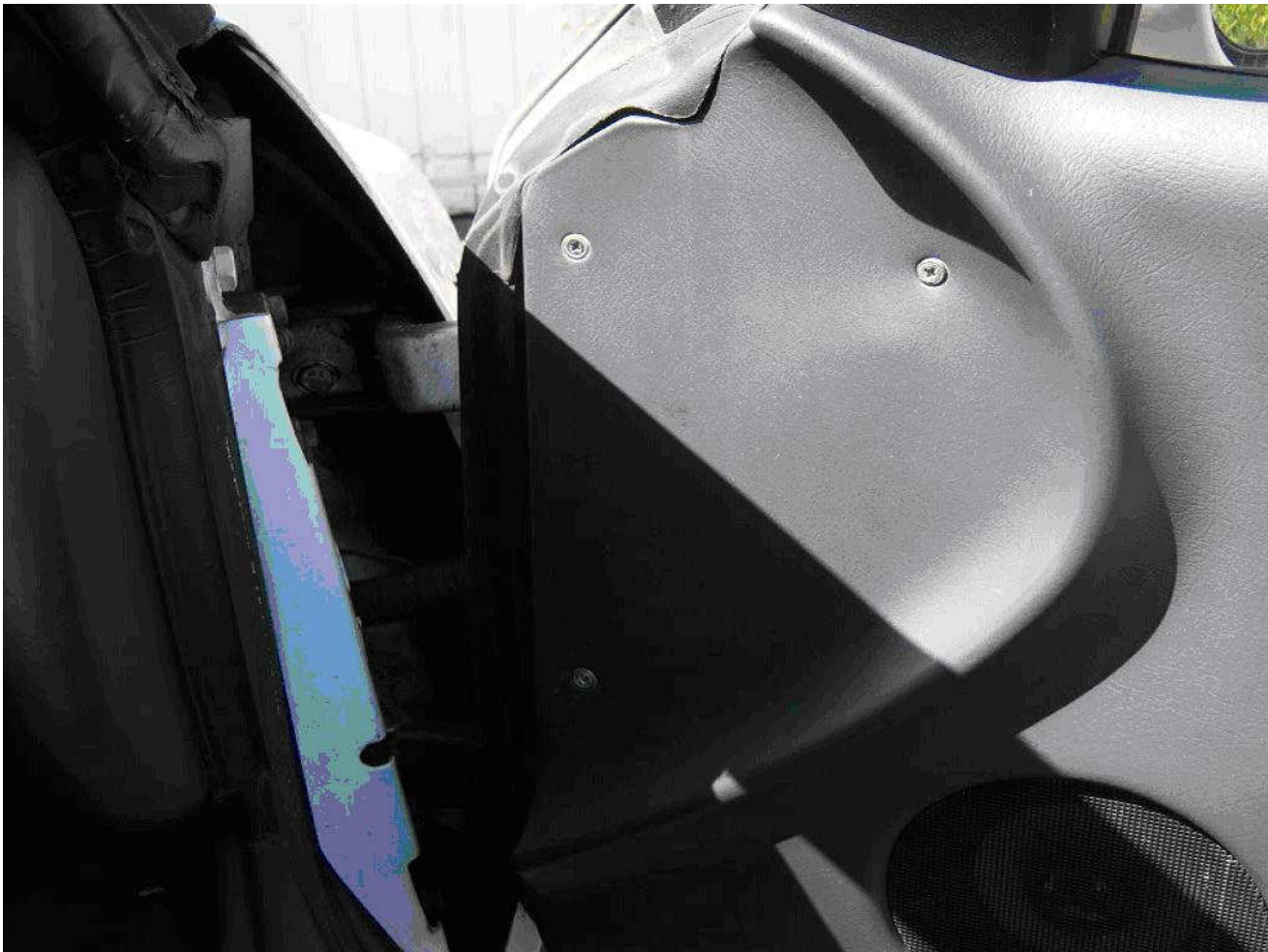
3) Remove the door card insert, [that's the red stripy bit](#). It's normally a case of just teasing off the insert, but over the years all manor of adhesives may have been used.



4) This will reveal either two or four screws, remove them them.



5) Remove the screws in the front of the door card, two or three screws depending on which door cards are fitted to your car.



6) Remove the red clip on the door lock plunger and remove the plunger upwards.

This will give access to another screw which holds on the door card door lock plunger escutcheon in place.

Remove that screw, remove the lock plunger escutcheon.

Don't be disheartened if you have just snapped the little red locking tab.

They are available from Lotus for a couple of pound Pt No A100B6151H

They are also available from Vauxhall Pt No V0090286850

(Plunger and clip Pt No V0090252695)



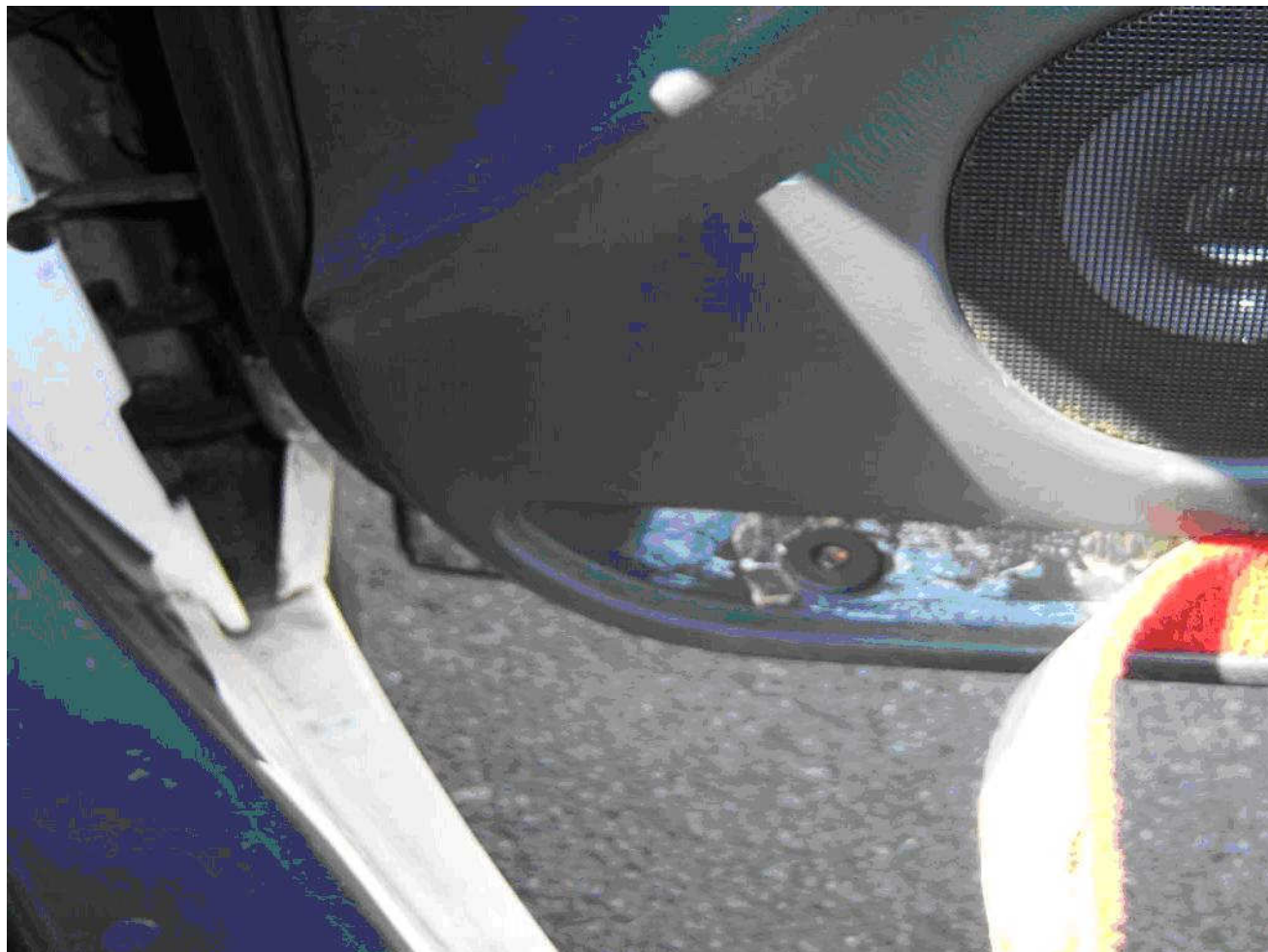
7) Remove the screw on the trailing edge of the door card



8) Remove the door card handle escutcheon, this will reveal two more screws, remove them.



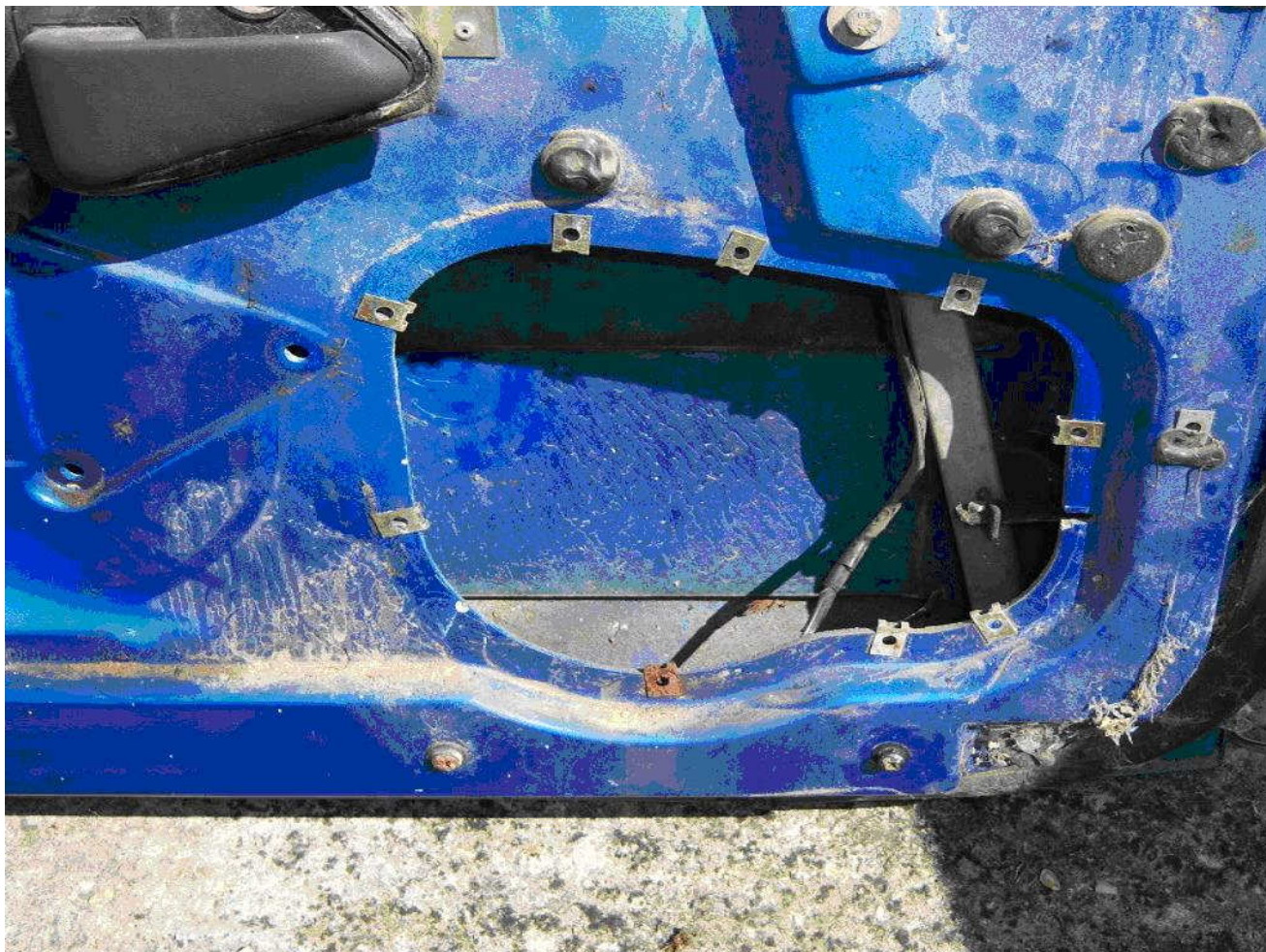
9) Gentle tease back the door card carpet to reveal several hidden bolts



10) Remove the door card

(No pictures needed)

11) Remove the speaker and expose the aperture



12) Remove the other two black plastic covers

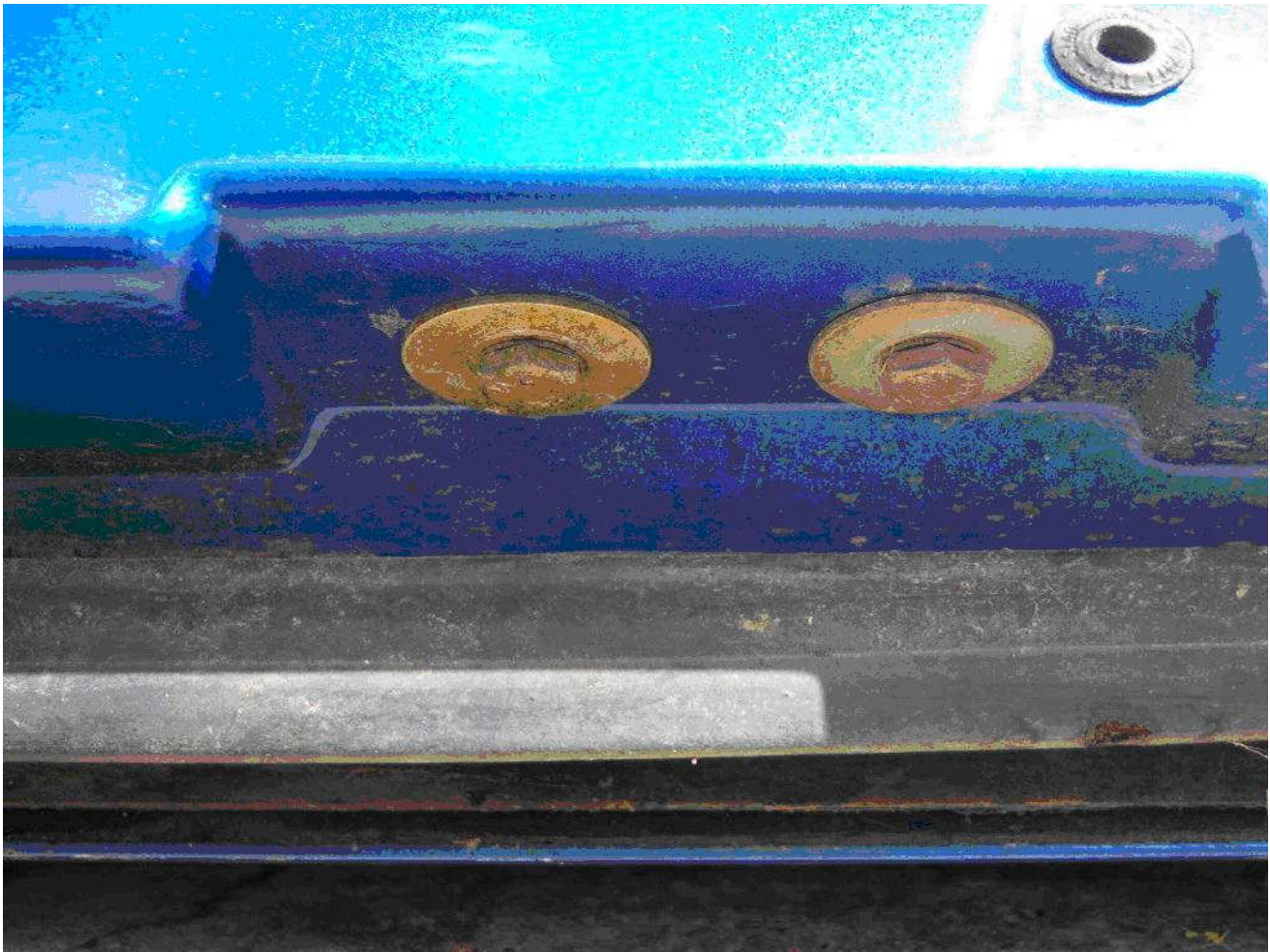




13) This [short video](#) is what your aiming to do next, the regulator removal.....

Regulator removal, step by step...

- 1) At the base of the regulator runner there is a bracket, remove the inner bolt and the two bolts underneath the door and extract the bracket



2) the pesky bracket

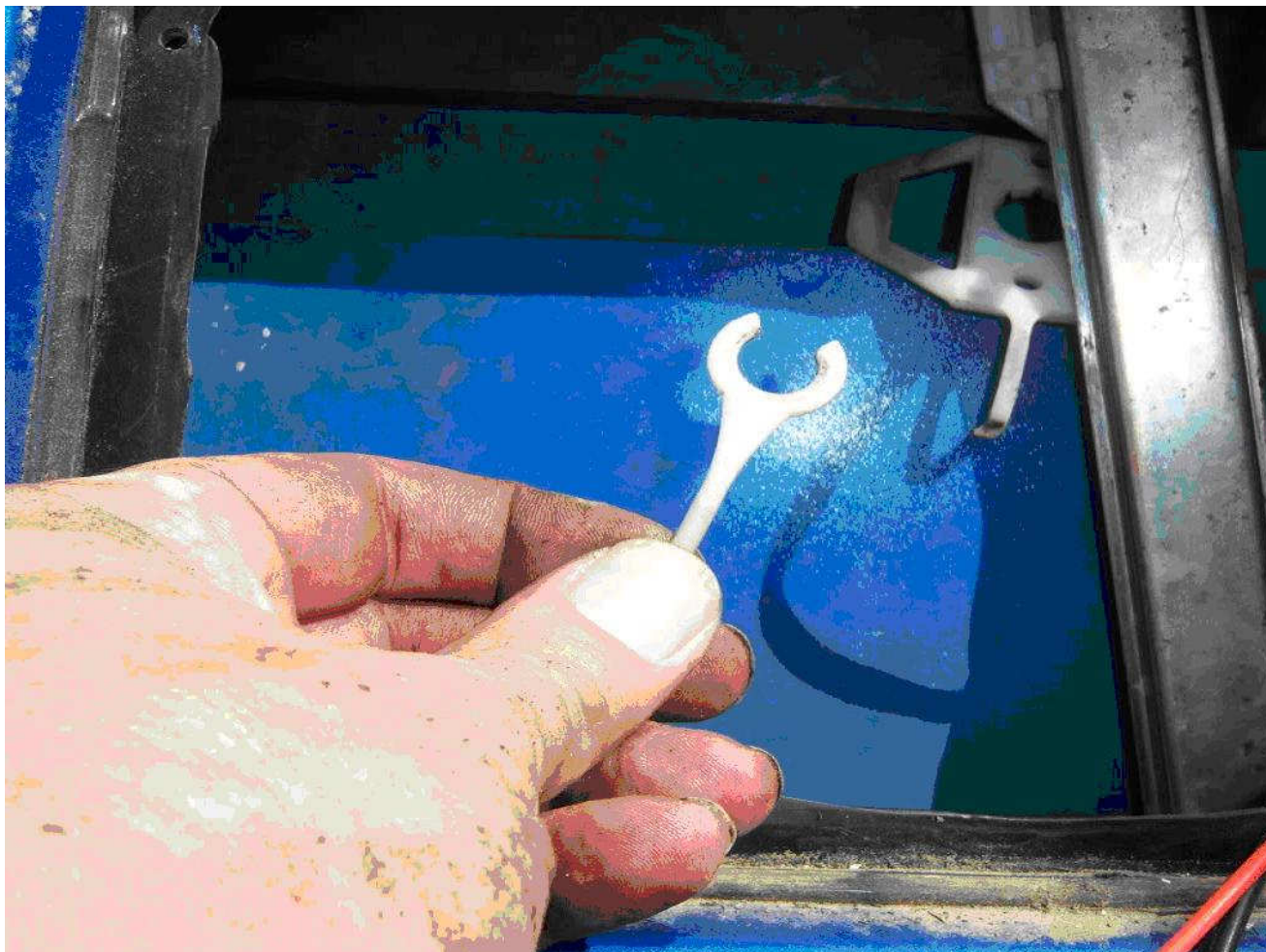


3) Try and get the main slider/butterfly assembly to just above the door reinforcing cross member by using the car electric and a helping hand.

Normally the window will go down, but will require a helping hand to go up.

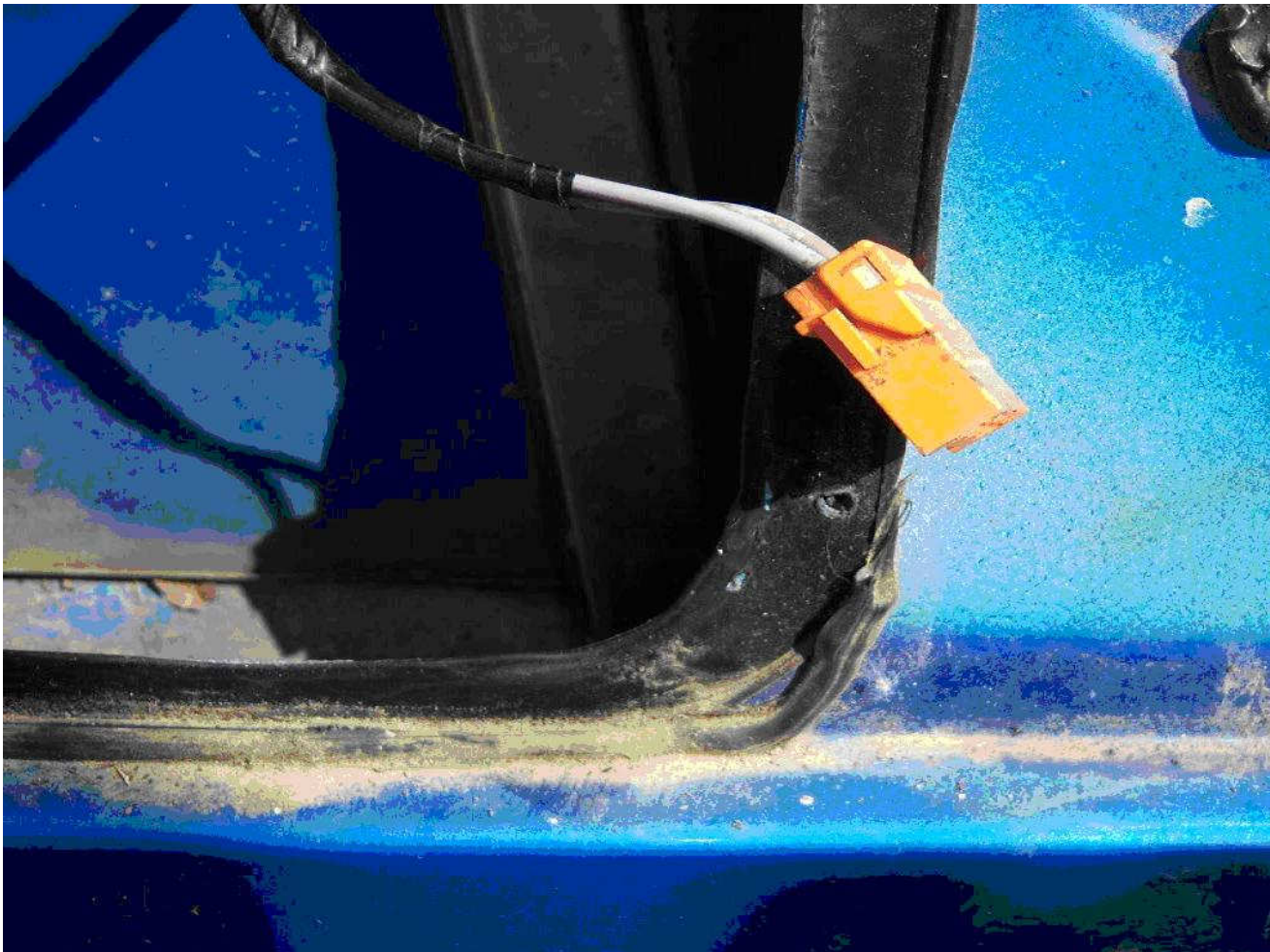
Remove the C-Clip and pop the butterfly off, remove them clear of the door.

There's a high probability the butterfly clip is now beyond repair, a new lotus item is NO LONGER available Pt No A100B6271S



4) Pull the window all the way to the top of the door, insert some sort of safety device to hold the door glass fully up (The Kitchen roll), or get the better half to hold the window up. If this glass falls down it's gonna hurt.

5) disconnect the orange electric plug which goes onto the regulator



6) Remove the upper nut and washer on the slider runner, and then three nuts and washers in the center of the door

21) you should now be at a stage to undertake the regulator removal.
The trick is to move the bottom rearwards and then move it upwards,
you should then be able to pop out the top bolt out of the inner door skin,
lower the assembly down to the bottom of the door...
and simply squash it down a little bit and slide the full unit out of the speaker aperture.

[Here's the Video again](#)

Now that you've rebuilt the regulator...
I know, that is another project that will get done soon.

Test the Regulator on the bench.....and then on the cars electrics

Don't bother fitting the unit properly, just slave it in on the outside of the door.

and just in case,
[Here's a video](#)

Refitting

Refitting is simply the reverse.... it's not to far off to tell the truth.

But here are few photographs and pointers to get you going on your way.

Sorry if it teaching some people to suck eggs, but here goes...

Make sure you have the correct regulator for the correct door, they're handed.

Slave in the regulator and test the unit before you actually fit the item.

Leave the slider a squidge below the mid position, you'll have car electrics to move the slider should you require

Make sure the door glass is fully up...safety first and all that..kitchen roll...friend...

The next bit is all about orientation...

1) Make sure you have the correct regulator for the appropriate door, orientate yourself...

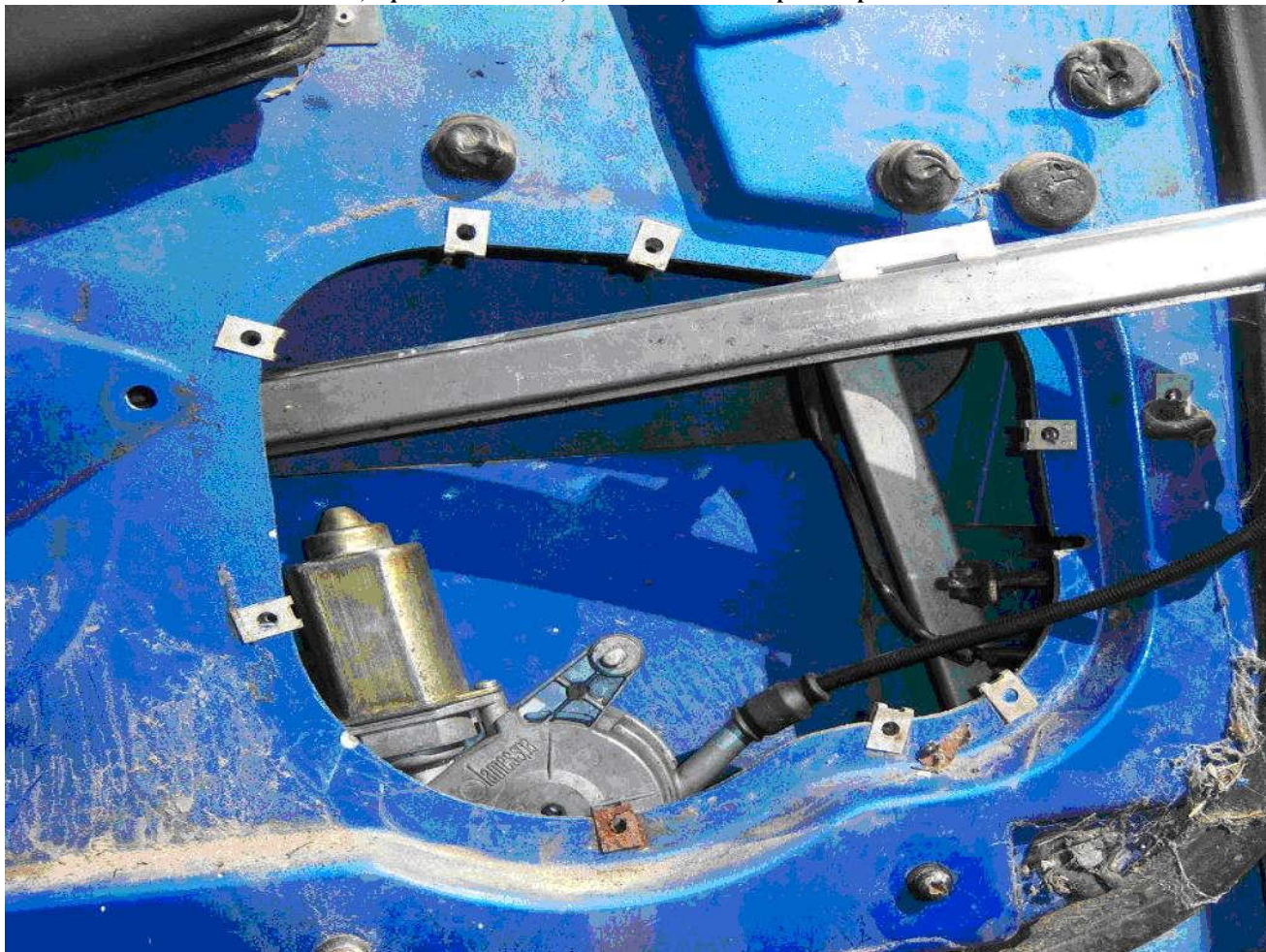
Bolts facing inboard, slider facing outboard



2) rotate the unit clockwise 90 degrees



3) Squash it down a bit, and slide it in via the speaker aperture



4) Slide the regulator assembly rearwards



- 5) Tilt the unit to about 45 degrees (maybe higher) and slide the top bolt through the inner skin from a point just forward of the hole, be aware you may catch the bottom of the glass. lift the trailing edge higher than 45 degrees it'll give you more room to play with.**



6) once the top bolt is in place the unit can be rotated to the vertical (replace the top and middle nuts)

7) Then it's as you would expect...lower the window onto the slider fit the butterfly and circlip

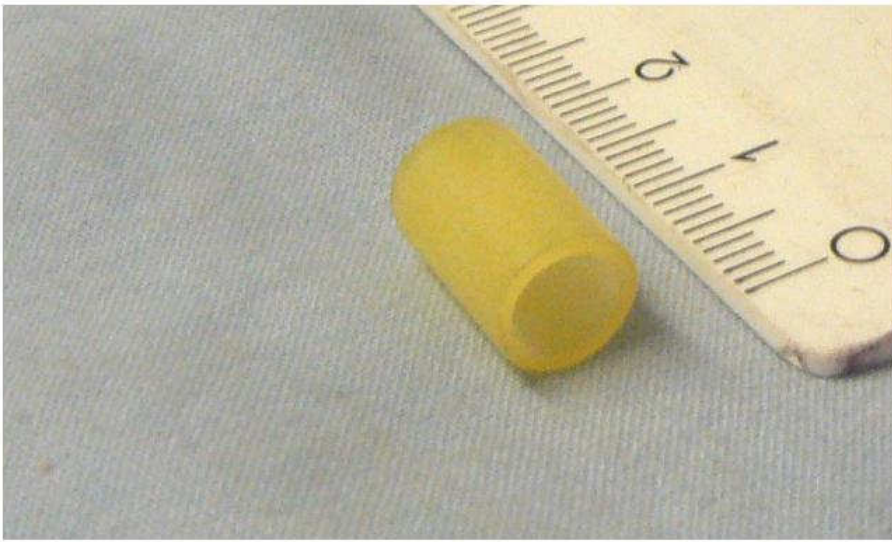
8)The next part to be careful of is refitting the lower bracket, you will have the ability to make the door glass strike the door cross member (not good), so take your time and set the window up correctly. (basically if you move the bottom of the regulator runner in and out, the window will move in sympathy all be it in reverse along the top edge in)

9) make sure your window runs free and easy and doesn't foul the hood before you rebuild the door card.

And just in case.... [Here's a video](#)

Dave Pink's Slider Rollers:

I didn't have enough of the 'rollers' which go in the slider blocks (I had only retrieved 6, out of the eight required) - and one was extremely worn (to the point of being a "U" shape, not an "O" shape), whilst the others were deformed.



Photograph of roller, door glass guide to channel

At this point, I decided that it would benefit from a new set, but when I looked at the usual suspects websites, I was horrified that they were £2.59 each (+P&P and VAT), so a set of 8 was going to cost me just shy of £30 delivered.

Having decided that a few bits of plastic weren't worth that much, I looked into what material they are made from, and decided that it was some form of semi-rigid tubing, with a diameter of 8mm.

A check of t'internet gave me lots of options, and I started off looking at Nylon, Delrin and others, before settling on a length of 8mm diameter PTFE rod. This was chosen as it is extremely hard wearing, slippery and easily machined.

It arrived this morning, so I cut a length off with a stanley knife (really easy to cut), fitted it in a spare slider block, and found that it was too wide a diameter to go into the window channel (being a rod, not a tube, it didn't compress).

Not having access to a simple lathe, I improvised by setting a drill into a bench stand (read 'Vice' 😊), cutting a 4" length of rod and mounting it in the chuck. A 'tool rest' was made from a bit of spare 2" x 2" timber, screwed to the bench about 20mm below the material, and it took about 20 seconds with a standard wood chisel to turn the rod down to a smaller size.

Trial and error decided that the size required is 7.2mm, and I ended up with a lot of undersized ones until I found a size which I'm happy with, and then made 9 others the same.



The pic shows a length of 8mm rod (which is actually nearer to 8.5mm) the new solid rollers, and some of the old knackered ones.

I bought 2 x 300mm lengths of rod from [ebay](#) for £4.40... ordered it yesterday afternoon, arrived this morning - can't get better than that!

Only actually needed one (even with the trial and error bits!) - but it'll come in handy for something, no doubt.