

Getting it down is not a problem, but getting it up again sometimes requires a tug?



Mike in his full on James Harriot selfie

Does your Chimaera have a less than frantic fenêtre? If you are in a similar position then you need to sort out your windows.

Before starting this, both windows went down all the way, albeit gradually. The driver's window would go up, but take a while, and the passenger's window would not get past about an inch up without either revving the engine or assisting it by pulling it up past this point.

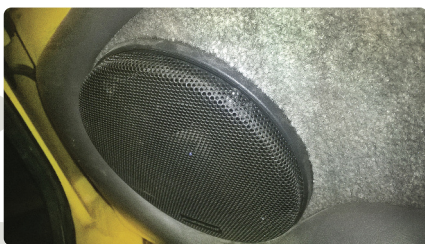
This will take you through what I did to sort out mine. All it takes are some basic tools and time. Although I did this on my 1995 Chimaera it is probable that the same solution would also work on other models.

Before going any further, I should say that if you have any objection to touching fibreglass, or worse, an allergy to it, then do not attempt this yourself as you can almost be guaranteed to get some fibreglass abrasions and possibly cuts.

If you do decide to take this as inspiration and have a go at it yourself, it is nice to know that if it does not go to plan there is nothing that should prevent you at any stage from taking the car (*possibly with some bits in the boot*) to a specialist to get them to complete the job for you. Obviously at a price.

The tools needed are a Philips screwdriver, a 10mm spanner (*a ratchet spanner makes it a lot easier*), some rags/cleaning materials, silicon spray and grease. At one stage there is the drilling out of pop rivets to make life easier. This is not necessarily required, but if done, the equipment and parts to replace these will be needed. Although not necessarily a requirement, a magnetic pickup tool might also come in handy.

There has been some discussion on the various forums that suggest the problem is due to the design of the wiring and alternative ways of providing more power. I have an early (1995) Chimaera and the wiring for the windows is reasonably straightforward. Power is delivered to the up/down switch, which then, when the appropriate end is pushed, passes on the power to the window motor, reversing the power to the window motor when the opposite direction is requested. My own view is, if this was good enough when the car was built it should be good enough now with the proper maintenance.



When the speaker was free I gently moved it out to reveal the connections, which use spade connectors on mine; these were eased off.

The first stage is to remove the speaker. The method of getting to the speaker mounting screws will depend on the speakers fitted. In mine this involved gently removing the speaker grill with your fingers (*I had to use a multi meter probe to get one moving as it had not been moved since the speaker was installed*). In mine the grill was just kind of wedged in around its circumference and had no screws or similar to remove. Once the grill was removed, the four retaining screws mounting the speaker were easily spotted and removed.





The speaker was then free and immediately put into a plastic bag as the speaker is a large magnet which will pick up any metal when it is put down. Any metal picked up has the potential to damage the delicate parts of the speaker.



With the speaker removed you can see the window lift motor and the connections to it. In my case, the connection was via two blue wires in a rubbery plug going into a white plastic socket on the side of the metal motor body.

As previously mentioned, there is some discussion that the problem with the window lift mechanism is the resistance of the wiring and dirty connections, which result in not enough power getting to the motor. To test this I ran wires directly from the battery to the motor. This did improve the time taken to raise the window, but not by much, and the passenger still required a small tug. Not enough, in my view, to suggest that this was the problem, meaning the main problem must be elsewhere.

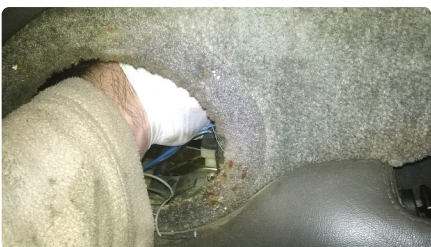


The next stage was to remove the door trim so that I could see what was going on, and to access the window parts. There are three bolts that are moulded into the non-carpeted part to the door trim. These go through the fibreglass door and are retained by penny washers and 10mm nuts. To get to them, make sure that the window is raised first, otherwise there is not enough room for you and your tools.



The first is about an inch and a half in front of the speaker hole and is the easiest to find.

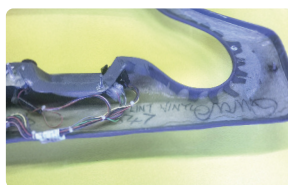
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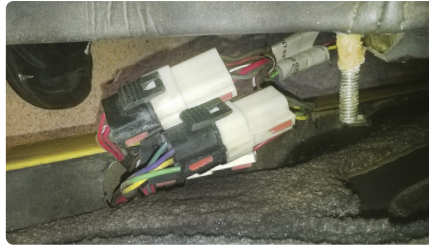
The second is behind the speaker hole and is roughly level with the bottom of it. It is practically below the mirror controls. This is harder to find as it is just past the window mechanism.



The last is a pain in the behind. It is just about an arm's length into the door. If you look at the driver's door with the cigarette lighter in it, the bolt is about an inch below it. To get to the last one insert your arm through the speaker hole. I was not able to do this unless I rolled up my sleeves which leaves skin, especially my forearms, susceptible to scratching (*hence the earlier warning*). I had to get my whole arm, including my elbow, into the door in true James Herriot style.



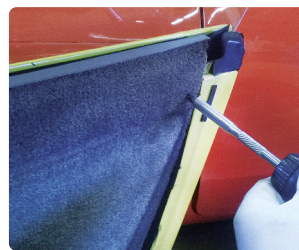
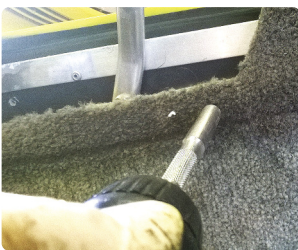
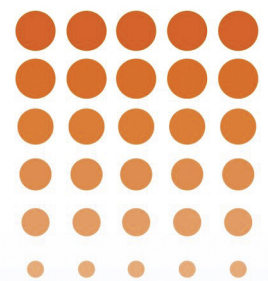
However it is not that straightforward when holding a spanner as well. My method was to sit on the floor with your back to the car and legs almost under the door, so that my shoulder was at speaker level, then insert my arm almost vertically into the speaker hole. When mainly in, I rotated my arm clockwise so that it went behind the window lifter bits, whilst inserting my elbow at the same time until my forearm was horizontal. My fingers were then in about the right place. From here on, it is an educated fumble while trying not to drop anything.



When all three nuts have been removed (*and you have managed to get your arm out of the door again*) there is a hidden screw that needs removal. This is behind the ashtray. The ashtray in my car was held in place by friction and was just eased out. When all the fixings have been removed (*and some probably dropped into the deepest recesses of the door*), this part lifts off by pulling the lower edge away from the bottom of the door so that the bolts are clear, then gently lifting the whole part up with an upward wriggling motion. If you decide to do the driver's door then there is an extra step which is to disconnect the electrical (*three in my case*) connections, making a note as to which pair back up. This part should now be free and should be safely stored.



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The next bit in the way is the carpeted panel. This is more straightforward, and in my car was held in place by four screws, partly hidden in the pile of the carpet, across the top. Once removed this also just lifted away.



Once the carpeted bit has been removed you will come across a clear plastic sheet which is lightly glued around the edges and covers the aperture in the door. With a little persuasion this can be pulled, intact, from the door.



Behind the clear plastic there is a thicker, black plastic sheet that is secured across the top by some light adhesive and three pop rivets with its bottom tucked into the door aperture.

This is tucked into the aperture and is there to protect the window lift electrics from moisture that gets into the door via the window channel. This needs to be moved out of the way for the next bit by pulling it out and flapping it up. To make life easy, I drilled the three rivets out and removed it. If you do leave it in place then you will need to improvise a method for holding it out of the way.



Before going any further, a bit of explanation is required. The window moves by a motor that acts on a sort of flexible bar that runs in a pipe that has a slit on one side. Via the slit, a carrier, which is also supported by a guide, is connected to the flexible bar. The carrier is fixed to the bottom of the window glass by a rubber sheet in a channel that is clamped to the bottom of the glass. To guide the glass there is a channel with some kind of felt lining it at the front and back of the door. It should be noted that I did not have to loosen or remove any of the glass mountings or guides. I have heard that that these can be a bit of a pain to realign if loosened or removed.



On visually inspecting the glass runners it could be seen that they were not very clean. The next question was how to clean them? During my research I found that the best thing to lubricate the window runners is silicon applied via a spray. As I was unable to find any reports advising not to do this, I felt that it was a safe approach. But the question of how to clean the channels was still present. I therefore gave them a good spray and, using cleaning towel, wiped them. A lot of dirt came off. I would have liked to use something more powerful to clean the guides, but the last thing that I wanted to do was to damage or unstick the felt in the guide rails. Therefore I resigned myself to spending time cleaning just using the silicone spray. This took a while: give it a spray, wipe, another spray, another wipe until the dirt finally stopped being apparent on the cleaning cloth. It was also now much easier to slide the cloth down the guide channel. This was then repeated on the other guide.

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Photographs courtesy of Mike Hardy

I then turned my attention to the lifter mechanism. As this is metal it was initially cleaned using cloth and WD40 to remove as much of the old grease as possible. The amount of gunk that came off this was also quite surprising. The pipe and lift rod was cleaned as much as possible in a similar manner. Everything was re-lubricated when it was as clean as I could get it. I also cleaned the electrical connections. If you do not have a needle file to get into the round connectors a galvanised nail works well.

Putting the door back together was the reverse of taking it apart. Before doing so, I took the opportunity to clean some of the areas that are tricky to normally get to such as the bottom of the door pockets. Putting the black thicker plastic back on was easy enough (*if you actually took it off*). Before putting the clear plastic back make sure that the black plastic sheet is pushed back in properly. It should go behind the motor and any electrics. As I had carefully peeled off the clear plastic sheet there was enough stickiness left to hold it in place. This allowed me to unpeel a bit at a time and apply new glue a section at a time. The carpeted section was easy to screw back on. The last section fits over the top of the carpeted section. This can be a bit of a pain and may take quite a bit of wiggling. Before fully aligning it, be sure to reconnect the electrics on the driver's side. At this point I checked all the electrics as you will be cursing if you forget anything and had done up the three retaining nuts back.



Time for a proper test. The driver's window appeared to show a significant improvement, but as I had not timed it an independent assessment was not available. Before starting on the passenger's window I videoed it, and this indicated that it took 32 seconds to go down and back up. It also required some manual assistance to get it going on the way up. After the cleaning and re-lubrication this dropped to less than 12 seconds without any intervention required. The driver's side is approximately the same speed. All in all, time well spent, with practically no money laid out (*in my case none at the time as I already had the spray, cleaning cloths and rivets*).

If you do this yourself the amount of time that it will take will depend to some extent on the state of the bits when you get to them, but as a guide it took just over an hour and a half per door, however I was also taking pictures while doing it. This time for the pictures was partly offset as I have taken one door apart before, which made it a little quicker as I know where my nuts are.

MIKE HARDY