

## **Door Panel Removal/Aftermarket Wood Trim Replacement Mercedes 107SL**

Copyright © 2005 Steve Loboyko. All rights reserved. Not to be provided with or sold with any product without prior permission. Provided "as is" and as a guide only. Responsibility for your safety and your car is entirely left to you, the reader.

### **Introduction**

Removing the door panels from this car is very simple.

Removing the door panels from this car without damaging or destroying parts is somewhat more complicated, and this document will concentrate on doing just that. I put this together during the installation of what I believe to be Eris (European aftermarket) burl trim strips on the doors. During the process, I also installed a new inner window seal, which you might consider doing if yours have deteriorated.

There is no information in this document on repairs or adjustments to the doors themselves.

Note that these procedures were written around a 1986 560SL US model; there may be some differences in earlier or later years, but they are probably not very great.

### *Nomenclature*

In this document, LH=Left hand; RH=Right hand, facing from the driver's seat; driver and passenger sides refer to US cars; "leading" means towards the front of the car and "trailing" means towards the back of the car.

### **Tools Required**

Doing this will require a few tools that you may not have, namely, vinyl wedges for removing panels. I have seen metal tools for this purpose sold at local auto shops, but I would not use these alone because of the very strong possibility that they will mark up, scratch, or even tear parts. I picked up a decent set of three on eBay for \$30.00; It is possible to get "genuine MB" or their equivalents for a little more, and those are usually sold in sets of two. If you are frugal, it might be possible to make these out of wood (pine might be too soft and oak might be too hard). In any event, all bets are off on your being able to do these tasks damage-free without such tools or their equivalent.

Other than the above-mentioned wedges, the usual set of Philips screwdrivers, needlenose pliers, and so on will suffice here. A note, however; some of the screws involved are very, very tight (they had been Locktited at the factory) and the use of cheap, misshapen screwdrivers will probably result in stripped heads and a great deal of swearing on your part. This is a pet peeve of mine. Specifically, a good #3 Philips is crucial here. A very small straight-blade screwdriver will also be useful. You may choose to use Locktite in replacing some of the screws. Safety glasses will be a good idea especially if your look under and between the panel and door. I managed to get some dirt or foam debris in my eye, and I'm not generally an overly careful person!

For installing the trim strips, a drill with 5/16" bit, a razor blade, a marker, nail polish or paint, and a ruler will be needed.

The most critical tool is YOU. Remember to think, and never "force" anything on, off, or "to fit". Measure twice, cut/drill once.

## Preparation

You will need a place to work that is clean and large enough to hold the panel. You will need this area to be soft and scratch-free (carpeting, for example). The chrome/polished parts you will remove can easily be scratched and you need a soft place to store them while performing this task.

Make sure you park the car in a place where you can swing the door open entirely. The doors should not be in the locked position at anytime during this procedure; the windows should be entirely down.

## Steps for Removal:

### Door Handle

#### *Driver's Door*

The trim plate in front of the screw needs to be removed. It is very, very tricky to pull up on an edge of this without damaging it, and it has no MB part #; damaging it will probably require replacement of the entire handle trim. It is made of vacuum-plated plastic. Very carefully lift an edge at the bottom and pop it out, revealing the screw. Remove the screw underneath using a #3 Philips. It will be tight, having been Locktited.

#### *Passenger's Door*



Use the wedge to get behind the chrome trim around the door pull, and pull it back, revealing the screw. Remove the screw underneath using a #3 Philips. It will be tight, and you will be able to pull the chrome part back only barely enough to get to the screw. Do not damage the pull handle with the chrome trim during this task.

### *Both Doors*

Under the handle, there is another screw; remove this with a #3 Philips. Yes, this one is very tight also, having been Locktited. Note that the door handle will continue to be attached to the door. There is no other screw; the door handle is attached to the door panel from behind the panel and a hook holds this to the door.

Note that there is a small aluminum trim piece on the leading part of each door handle. This is not screwed in but held in by pressure. Remove these and be very careful with them! They are aluminum and VERY flimsy.

### **Chrome Trim**



On the leading edge of the door, there is a chrome trim piece held with three small screws. Note that this is a piece of polished metal or chrome, and it can be scratched easily, so proceed with caution. Remove the screws, starting from the bottom. The lowest one is difficult to get at and both of my doors had the screw installed improperly at an angle by the factory. These were very tight and required a very short and small screwdriver driven by a pair of pliers.

After removal, store the plate with the screws on a scratch-free surface.

On the rear edge of the door, there is another chrome trim piece held with three screws. Note that the two bottom screws are shorter.

It is very important that you slide this panel downward without scratching its surface on the chrome piece above it. The MB manual suggests the use of a thin piece of cardboard under it to prevent scratching, cutting a notch for the door-mounted piece above this plate.



With this in mind, remove the screws and carefully slide in a downwards direction to remove.

After removal, store the plate with the screws on a scratch-free surface.

Note that in my pictures, I have an aftermarket piece of lower chrome covering the remainder of the inside of the door. This is not a stock feature of the car, and as sold was not really designed to fit 86-89 models due to some changes made in the door. I did manage to grind them into fitting reasonably well, however.

Remove the chrome piece near the door latch, held with two screws. After removal, store the part with the screws on a scratch-free surface.



Remove the trim around the door lock and pull by sliding it forwards and out. You may have to lift the handle slightly.

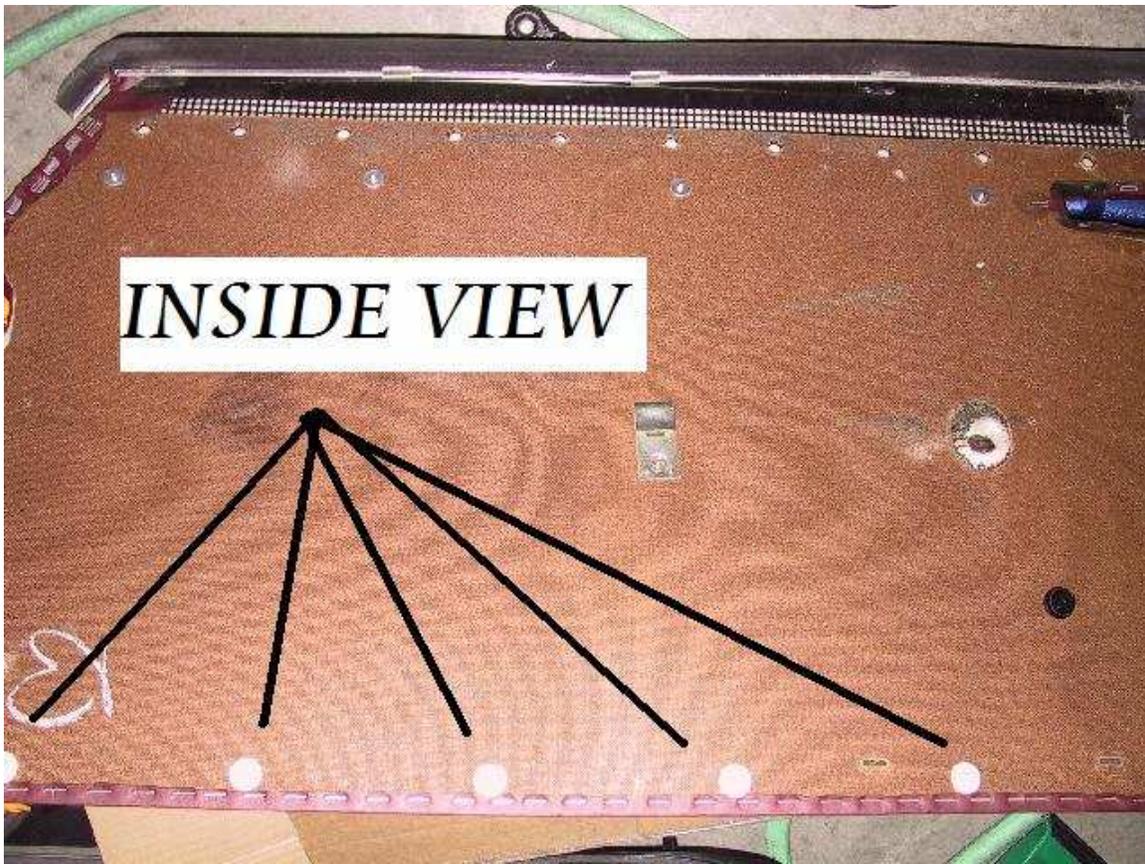
#### **Door Pocket**

First, remove the single screw holding the door pocket. The door pocket will continue to be attached to the door panel.

#### **Door Panel**

These are held in with white "pop-in" clips that are used in many cars. It is very important that they are removed cleanly and without damaging the part that holds them into the panel itself. Doing this improperly will result in damage to the panel, possibly even breaking it entirely.

Using your wedges (and the photo below), locate the six pop-in clips. Surround each one with your wedges (you may have a wedge that actually surrounds it) and pop upwards just enough and no more to pop it. Continue sliding the wedges until you have removed all six.



If your car is old, (well, older than mine, anyway) you can damage the pop-in clips even if you are careful because the plastic (probably Nylon) gets brittle with age. If you break one, it is probably not a big deal as long as it is not on the end. If you break more than that, replace it. I've seen these sold in many auto shops; they are not entirely unique to Mercedes.

If you have popped one out of it's door panel hole, it is possible to put it back in and have it hold. If you have followed the above procedure ,the hole it was in has probably not been seriously damaged.

There is a single spring clip on the rear edge of the door; this is very easy to pop. It remains attached to the door panel. Pop this out.

At this point, the bottom of the door panel should be free; however, there are two hooks midway-height of the door that continue to hold it to the door.

In addition, there are clips at the top of the door hold the panel and the inner window seal to the door itself. It is here that the use of the plastic wedges becomes obviously critical.

Before proceeding, note the photo (on the next page) of the inner door seal being curled downwards against the window. you may need to straighten this slightly before proceeding. Note its position carefully. Also, it will be useful to remove (with the wedge, these items are chrome-plated plastic and easy to damage) the chrome triangles at the left and right mirrors. The passenger side is easy to entirely remove by popping out and removal; the left is not. I was able to perform these tasks without removing the handle; I taped up the triangular part as far out of the way as possible.



As shown in the photo, use the wedges to pull up and out as shown, to remove the panel and

associated clips which also hold the inner window seal. Proceed slowly along the entire length of the panel. You should be able to tell that the panel is no longer at the same height as the door; it should also be possible to see the clips out of the lip that they were attached to.

At this point, you can proceed with panel removal. pull upwards on the trailing edge of the panel first (to remove the hook near the door handle; it may be useful to pull up on the door handle itself; **once it is loose**, pull up on the leading edge of the door to remove the other hook. The panel is now removed.

### **Inspection and Cleaning**

With a microfiber cloth, clean/wax and polish all chrome and vacuum-plated parts, including the top edge of the door.

Inspect your door panel(s). I have read that the foam behind the vinyl deteriorates, and my car was not immune to this, particularly on the passenger side. Note the condition of the panel itself. It appears to be made from "beaverboard", which is a water sponge and your panel may be deteriorating from water damage. It is possible to get vinyl skin replacements and replacements for the board itself. My wood was good, but the vinyl was showing a bit of age and wrinkles; I decided not to replace the skin at this time. If you should do this, note the number of staples and glue involved on the back of the panel! Also note that replacing "the board" involves more than just the board - the top metal "curve" underneath needs to be attached, and quite a few cutouts, hooks, etc.

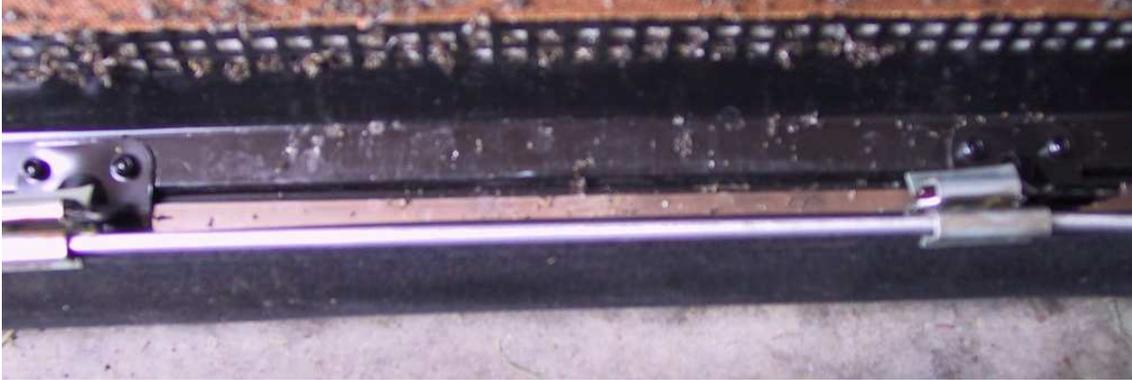
Without soaking the panel in any way, the panel can be cleaned with your usual vinyl cleaning/treating solutions.

Vacuum the door and panel, cleaning any "crumbs" of deteriorated foam, etc. Clean out the door pocket!

This would be a good time to lubricate any door components, and if necessary, reseal the door bag. It is important that the door bag be sealed, to keep moisture from electrical components. It is also a factor in reducing noise.

### **Inner Window Seal Replacement**

I inspected my inner seals; the rubber was in fairly good shape, although the "fuzzy felt" was not as good. I happened to have some window seals that I had almost forgotten about, items that had been erroneously sent from a dealer, so I installed them. Noting the positions of the clips as shown on the next page (important), I removed and replaced the seal and the associated clips. It is worthy of additional note that the clips are attached at the edge of the black metal part the of door panel, and there are no clips towards the leading edges of the doors. Put the seal in exactly the same position as shown in relation to the door; the trailing part is designed to stick out. It will be curled inward during installation.



### **Somewhat Imperfect Trim Strip Installation**

If you are not interested in this part, you can skip to the "panel reinstallation" part of the document. This details the installation (and difficulties thereof) of installing the (Eris?) European aftermarket trim onto the door panels.

As received, they looked OK in bubble wrap but were not protected in any other way. I immediately put masking tape over the wood surface. I would have rather used duct tape and cleaned the gummy part off later, duct tape being more protective from installation dings, etc but this is all that I had handy. Of course, in the fine tradition of these products, there were no installation instructions, in any European or other languages, which, no doubt, saves them a great deal of money (and these are very expensive).

They are constructed of wood over an aluminum channel, with threaded barrel inserts into the aluminum for fastening to the panel, screws and washers included. One of the barrel inserts was very loose, so I superglued it.

Obviously, there are LH and RH pieces; fit to determine which is which, as they are not marked.

### **Measurement/Installation**

This was problematic. Assuming that they are to go over the puffy strip above the door handle, I assumed that they are to go to the edge of the door. I got 1 7/8" from the edge of the chrome door latch insert to the wood. This is a critical measurement, and you should read this entire section to fully understand why.

I measured the holes by painting nail polish (a critical item in your tool box in my opinion) on the ends of the inserts and applying it to the vinyl, again, keeping a critical eye on the end, and keeping it centered in the heat-sealed area. Then, I drew lines above and below the marks. I cut out the area where the nail polish was, because I did not want to catch the vinyl skin in the drill, possibly tearing the vinyl from the board or stretching it. I drilled 5/16" holes.

I then applied the trim strip, and screwed it together with the large washers only (I didn't feel the smaller ones were critical). I did NOT tighten them very tightly, given the loose insert that I had to repair.

At this point, I was careful not to overly flex the door panel in its length because I didn't want to take a chance in cracking the wood.

After installing the panel (see below), I wasn't very happy with the ends at the trailing edge of the door. I think that the original intent was that the "end" somehow should go under the chrome door

cap. However, this would have distorted its surroundings. Possibly one was to "cut out" the vinyl (which I think is very risky) underneath the trim. In any event, I'm fairly happy with the results. They look good, but I'm not sure if they are \$200 worth of looking good.



It is POSSIBLE that these wood strips were designed for 450/380SL doors, which were shaped very slightly differently than 560SL doors. In my case, I wish that the wood strips tapered off towards the rear, or possibly I may in the future cut the very ends off and paint the end after filling them with plastic wood filler.

### **Panel Reinstallation**

The "lip" of the door panel and its relationship with the inner seal is critical. You MUST get this part over and clipped onto the metal FIRST before pressing the assembly down over the "top" and the front and rear hooks. This is tricky, and very difficult to describe. You will probably think you have succeeded until you realize that you didn't hook the rear hook. All three areas absolutely require proper attachment, and all three areas need to be simultaneously hooked properly. Expect this to take several tries.

AFTER you have determined that both left and right hooks are in their holes, and that the top is straight and aligned, with no rubber peeking over the top, you may press down on the top evenly until all hooks are fully engaged. Do not proceed until this is completed.

The trailing end of the window seal needs special attention. It is designed to curl inwards into the door. Making certain that the metal in the seal is NOT going to contact the window, curl the seal inwards, verifying that no part of it will interfere with installation of the chrome trim.

Check the window for proper operation, with no binding.

Press in the trailing edge metal clip, located towards the rear middle of the door.

Using a mallet or the wedge to spread out the force, pop in all of the pop-in fasteners.

Reinstall the screw holding the door pocket.

Reinstall the chrome piece above the door pocket. ***Note that these screws are NOT to be overtightened to the point that the trim piece is distorted.***

Reinstall the chrome plastic pieces for the mirrors, if removed; take extra care as they are made out of plastic.

Reinstall the chrome trim piece at the rear of the door; it is a good idea to make a "mask" for it out of thin cardboard or paper so that it is not scratched as it is slid under the fixed door chrome piece. ***Note that the screws are NOT to be overtightened to the point that the trim piece is distorted.***

Reinstall the door handle screws. These were originally Loctited, which might be a good idea to re-do. Don't forget to reinstall the aluminum trim piece above the leading door handle end. An interesting note here; my passenger pull handle was always a bit loose. Even after serious retightening, it still was. I made "washers" out of metal strap using a nibbler to allow the screw to put more pressure on the part; this solved the problem.

Reinstall the trim over the screws. The driver's piece will only install one way. Neither should require more than your fingers to install and pop in.

## **Conclusion**

So, that's it! This was a lot of detail for an apparently simple task, but there really is a lot that can go badly and a lot that is not immediately obvious.