

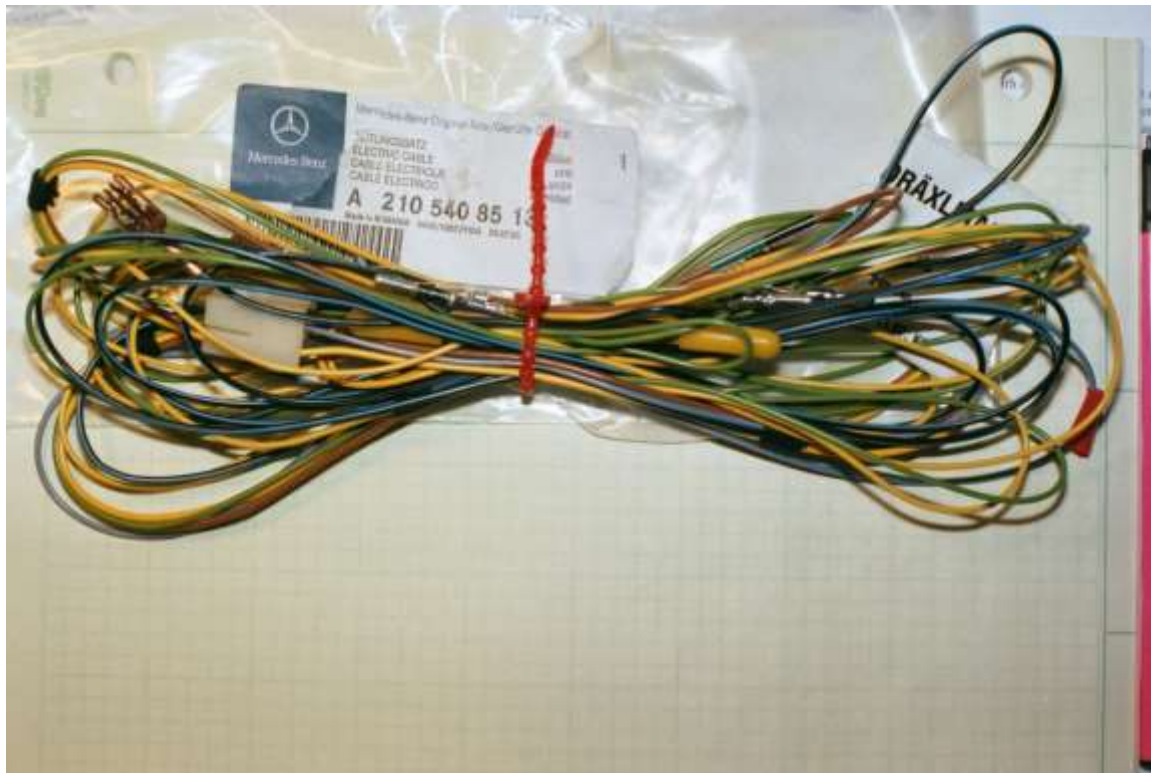
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W210 E Class Folding Mirror Modification

Originally installed in 2002. Revised write up completed September 5, 2013.

Step 1 - New Switch and Wiring Harness

I installed the correct wiring harness first, as this involved removing both front seats, as well as several trim panels. The part number is A210 540 85 13 (see photo).



Step 2 – New Wiring Harness Connections

There are a number of electrical connections to be made with the harness:

- a. fuse block (located in engine compartment)
- b. motor wiring for each front door (two pins each side)
- c. switch on center console (connector for this is part of the harness)
- d. switch illumination
- e. ground

I started from the front (the fuse box connection) and worked toward the rear from there, then across the interior of the car from left to right. The last connections made were at the base of the passenger-side door.

I don't have a photo of the fuse block connection in the engine compartment. It is made to the terminal marked for the folding mirrors. Remove the trim pieces in the driver's side footwell to access the wire channel leading into the engine compartment.

The connection for switch illumination will be made in Step 4. The ground connection is made in Step 6.

Here's a photo (below) of the motor connection for the passenger-side door – which was the final connection made. The driver's side is essentially identical. The connection is made by slipping the two pins into the black connector located in the wiring channel beneath the door opening. The green and yellow wires seen looping into the back of the connector are the two leads from the new harness. These two new wires match up directly to the green and yellow wires in the mating (female) connector that are already in the car (fortunately) and that run up to the connector for each outside mirror.



Step 3 – Installing the Harness

The new harness is routed rearwards from the driver's door motor connection, then under the driver's seat (in the black plastic channel) towards the center console.

The photo below shows the center console removed, but the carpet has not been moved out of the way yet.



Step 4 – Switch Illumination Connection

Once the carpet is moved out of the way, you have full access. As the new wiring is placed in the channel, make the solder connection for switch illumination. It's a blue and gray wire, and is terminated with the other wires of the same color (all these wires provide power for illuminating various switches on the console or dash).



Step 5 – Center Console

The six-pin connector (white plastic) is routed forward toward the gear selector, and will be mated with the control switch later. I did this part last, since it involved making an additional hole in the center console wood trim.

There will be three wires remaining to be connected at this point: one yellow, one green, one brown. The green and yellow wires provide the power to the passenger-side mirror, and are run under the passenger seat. The brown is the ground, and has a connector attached.

Sorry for the blurry image. Rotate it 90 degrees clockwise to orient it properly. It shows the wire channel that starts at the center console and continues under the front passenger seat. The green and yellow wires are routed in the channel toward the door. You'll be making the ground connection under the passenger seat too, just in front of the channel.



Step 6 – Ground Connection

The connection to ground about to be made:



Step 7 – New Switch

The new switch: part number A210 820 20 10



Step 8 – Modifying the Mirror Assemblies

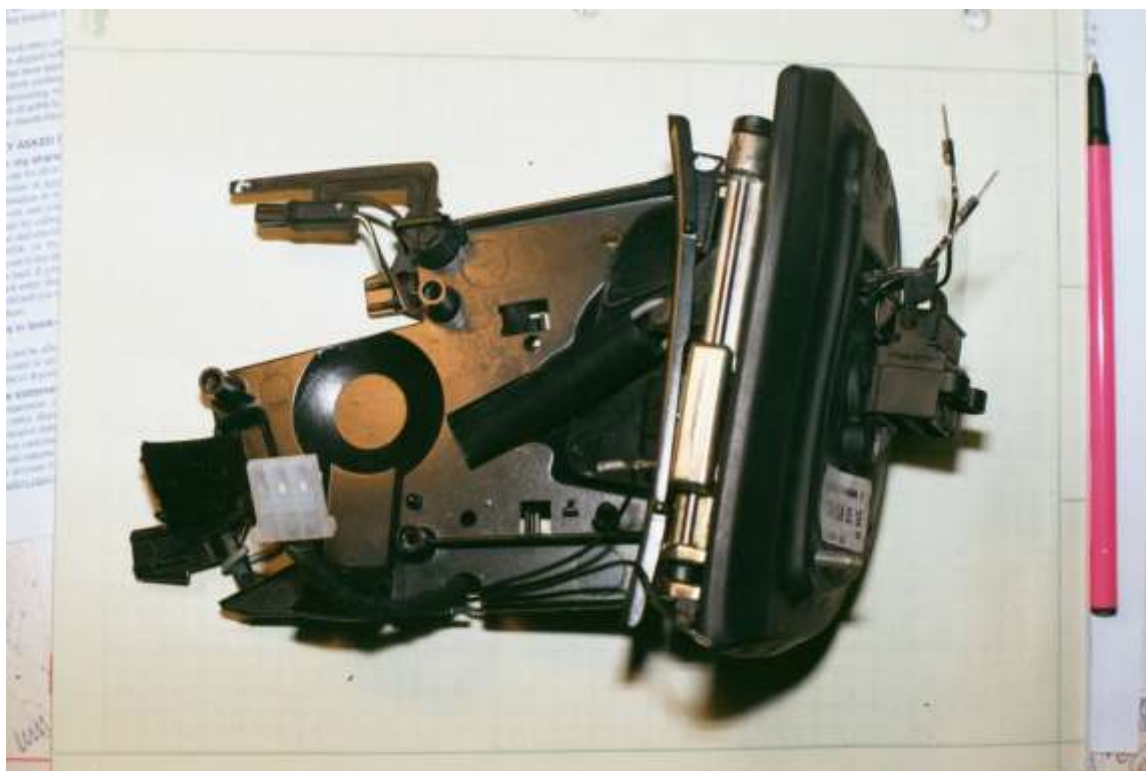
The first part of this process is removing the mirror outer cover. It's not difficult, once you've located the tab holding the mirror cover in place. Press the tab with a thin screwdriver to release the mechanism, and slide the cover off.

Then detach the whole thing by unscrewing the three screws holding it in place.

The old unit (driver's side):



The driver's side folding mirror frame, as I received it from Mike:



Same item, viewed from the front:



In order to maintain all the functions of my existing mirrors (power adjustment, heating, memory, blinker), I re-used the main wiring harness from the old mirrors. You have to modify this wiring to make it longer. If you don't, the folding action will try to stretch the wiring (you don't want that!).

Modifying the wiring was the longest single part of the whole job! It helps to know how to handle a soldering iron!

Lengthening the wires for mirror glass heating and blinker:



The modified wires to the blinker connector:



The lengthened wiring for the mirror glass adjustment mechanism:



And the connector reattached to the mirror glass adjustment motor:



I retained all the connector pins from my old harness. They are fairly easy to remove from the connector, and it was a lot easier to feed them through the new plastic mounting gasket that way.



Once they've been pulled through, seal the penetration with silicone sealant, and re-insert the connector pins into the connector. The image below shows the connector body with the two folding-motor leads (yellow and green) already inserted. Mike was kind enough to have terminated the leads for me before shipping the new assemblies.



The completed connector, now attached to the mirror assembly.



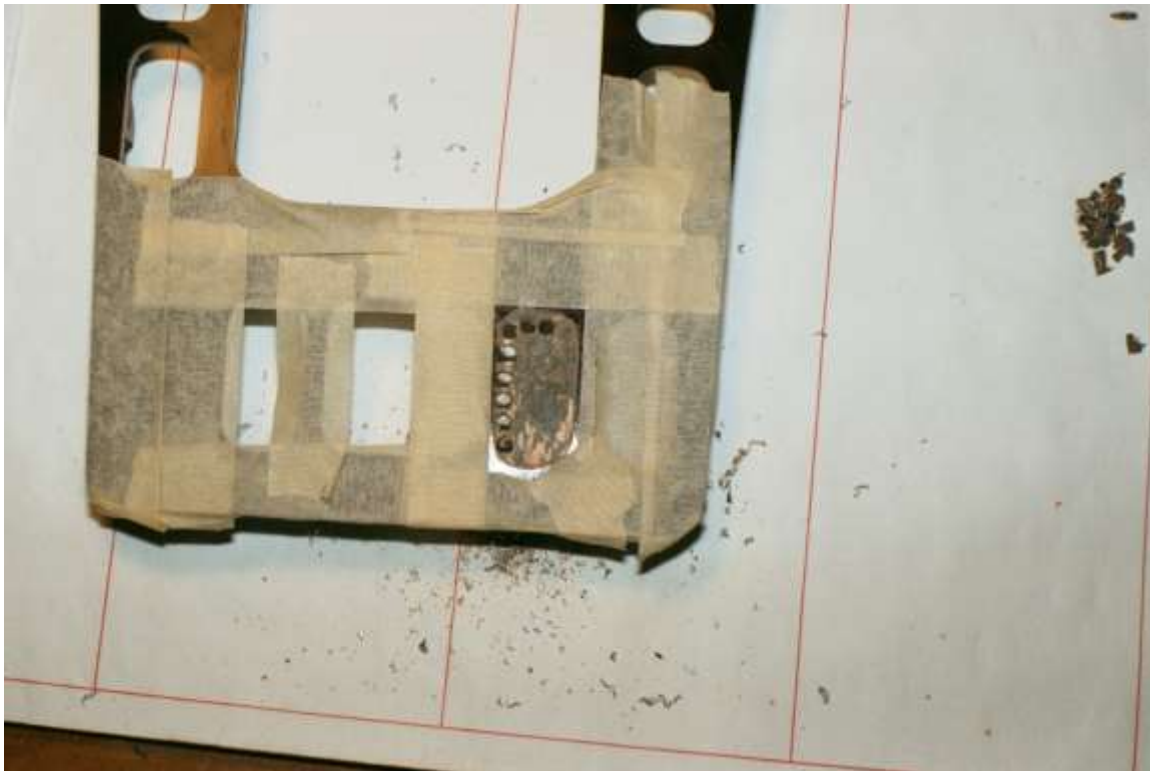
The completed passenger-side unit being installed:



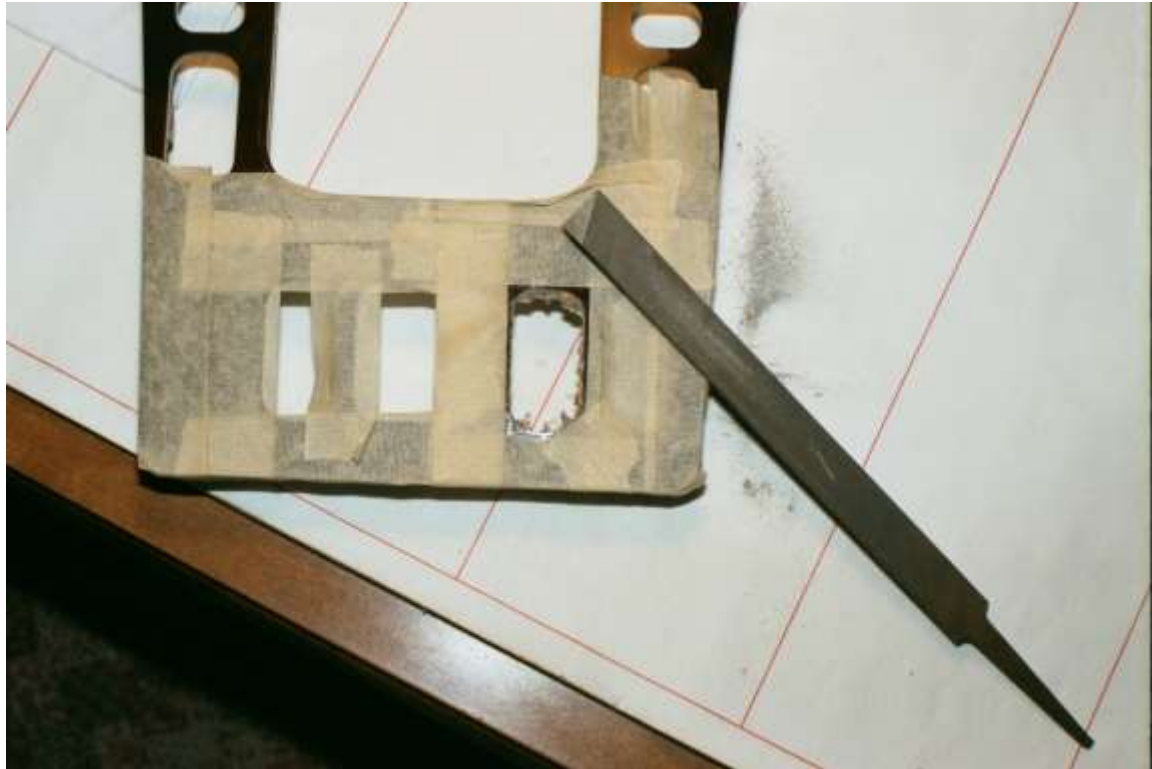
Step 9 – Adding the Switch

Here are a set of photos showing how I modified the center console for the new switch. The real key to doing this is having patience...and a steady hand. The results are not perfect, but then again I saved \$\$\$ compared with buying a factory-made unit with the appropriate cutouts.

Drilling the first few holes:



The opening made. Time to file...carefully!



The finished switch mounting (the rear window sun shade switch was also a retrofit).



FINISHED!!

The completed project....

This photo shows the new passenger-side unit, in the folded position (without the mirror cover):

