Things you will need:-

SA430 mirrors (mirror covers are interchangeable)	
Door switch pack Black	61 31 6 951 929
Door switch pack Beige	61 31 6 951 930
Door switch pack Grey	61 31 6 951 931
Door switch pack Brown 61 31 6 951 932	
10x pin contacts	61 13 0 005 198
10x bushing contacts	61 13 0 005 197
2x 3 pol connector	61 13 6 931 929

15 - 20 meters of medium gauge wire (might sound a lot but it's better to have too much than not enough)

Cable ties

Scotch locks or solder and soldering iron plus tube wrap, how you make the wire taps are up to you.

The SA430 mirrors have a mini controller inside the mirror housing, control codes are sent to the mirrors from the KGM body module across the LIN bus, the controller then responds and adjusts the mirror glass, heats the glass, dims the glass, folds the mirrors and switches on the puddle lights. For the electro chrome glass to work the interior mirror receives a control code from the RLS (rain/light sensor) to dim the glass, at the same time this code is sent down to the KGM module and then to the mirror controller which then activates the electro chrome glass.

The LIN bus mirrors only have three cables:-

Green for LIN bus communications

Red for live

Brown for ground

First start by removing the door panel trim, remove the glove box and foot well trim, carefully pull out the tweeter trim and put to one side.

You can see the mirrors are held to the door by three torx head bolts, these bolts are quite tight if they have not been removed before, it's a good idea to get someone to hold the mirror while you undo the bolts.

Undo the 4 pin mirror connector and then unscrew the torx bolts securing the mirror, the mirror may need to be wiggled out of its housing, pull of the rubber bung grommet and keep safe, once done put the mirror to one side, go back to the 4 pin mirror plug and cut it off, wrap the 4 cables with insulation tape and tie out of the way with cable ties.

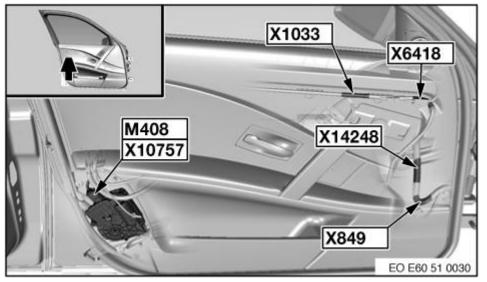
Ok dealing with the driver's side first:-

The control codes for the door switch block are sent over the LIN bus.

Put a pin contact into pin 2 of the 3 pol connector and then run a length of cable to the white/blue cable pin 3 of the door switch block connector, tap the wire and cover as appropriate.

Put a pin contact into pin 1 of the 3 pol connector and make a new line of cable and tap into the red/blue/yellow cable pin 1 of the switch block connector and cover as appropriate.

Put a pin contact into pin 3 of the 3 pol connector and make a new line, you can do this one of two ways, pin 3 is for ground, any brown line will do or you can put a spade on the end of the cable and run it down to the earth point in the door X849 (see pic)



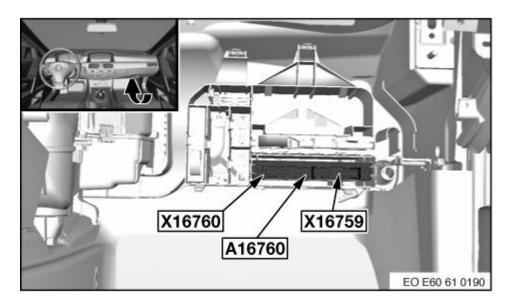
Fit the driver's door mirror and fit the rubber grommet, remember to put the foam padding back as well, screw in the three torx bolts and connect the new connector.

Now for the passenger side:-

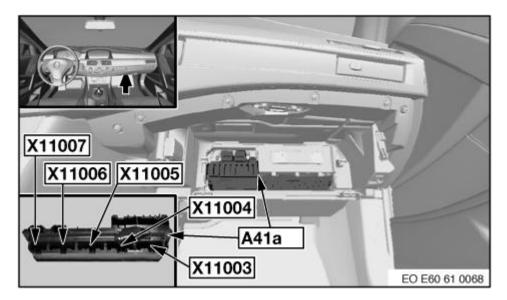
There's no LIN bus line in the passenger door so a new line is needed all the way to the KGM module.

Fit a pin contact to pin 2 of the 3 pol connector and make a new line of cable, remove the rubber boot covering the door bulk head connector, there's a bolt holding the door side secure, undo the bolt and carefully pull the plug out, as it was a long time since I did this job my memory is a little hazy on how the connector is setup but basically you need to connect pin 16 on both sides of the

connector, once done run another new line from pin 16 on the bulk head side to pin 14 X16760 of the KGM module (see pic)



Put a pin contact into pin 1 of the 3 pol connector and make a new line of cable, run this new line to pin 26 of the door bulk head connector and do the same as you did with pin 16 (join them on both sides of the connector), on the bulk head side run a another new line from pin 26 to pin 7 F32 of X11005 (see pic), tap into this line.



Put a pin contact into pin 3 of the 3 pol connector and make a new cable line, run this line in the same manner for ground as you did for the driver's side.

Fit the passenger side mirror in the same manner for the driver's side, connect up the new connector and tidy up the cables for both doors then re-fit the trim and door panels.

Now for the communications line for the electro chrome glass:-

The mirror support housing splits apart, using a small screw driver prise apart the cover, be very very careful here, I cannot stress this enough, the place where the RLS is attached to the screen is very weak and too much movement will crack the screen.

The easiest way to do this is to pop out the "airbag" badge and unscrew the torx bolt securing the A pillar trim on the passenger side, carefully pull the trim from its clips, be careful of the airbag.

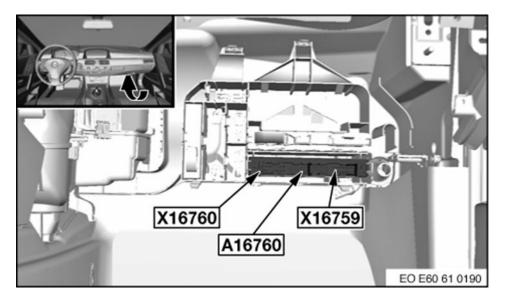
Undo the cross head bolts holding the both of the sun visors to the roof, take out the dome light and Bluetooth/voice control mic panel, the roof lining should now come down enough to run the new lines.

There's a 10 pin connector at the front of the mirror support base:-

Put a pin contact into pin 5 and a pin contact into pin 4 of the 10 pin connector.

Make two new lines for these new contacts and then feed them through the rubber grommet and along the left side of the roof, run them down the a pillar and make sure they are <u>under</u> the airbag, push the cables into the edge of the dash board and carefully pull the cables through the side of the dashboard.

Disconnect X16759 of the KGM module (see pic) and fit two pin contacts to pins 44 and 45, now connect pin 44 to pin 5 and pin 4 to pin 45.



Now code the KGM and CAS modules for SA430.

Re-fit all trim after verifying the mirrors function properly.

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Is the function for key folding mirrors and is found in the KGM module.