# BMW E31 – 8 SERIES

52 - SEATS

UNDER SEAT REPAIRS

Slow weekend forces me to bloviate about matters trivial.

Lots of folks have described the dreaded "uneven seat rising" problem, which really is nothing more than a seat drive cable shortening over time inside it's plastic guide sheath. Here are some pictures that might help in seeing where the components are located, and some shortcuts/accumulated learning to ease access to these parts.

If you're going to remove your seatback (not necessary, but loads of fun), the arrows in the picture below indicate the catch points of the headrest trim "elbow". First, run the seat full "down" and start by inserting an ice-pick into the very small hole indicated by the **black** arrows will release these catches. The catch denoted by the **red** arrow does not have a hole. You carefully spread the trim pieces apart and insert a flat-bladed screwdriver and firmly press. Pieces should split and release the rear shell.


Lock Tabs
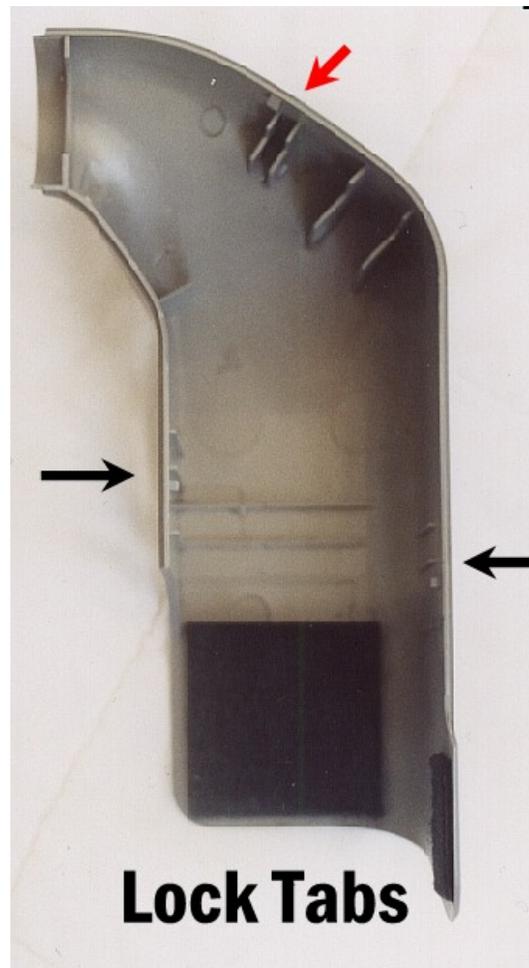
Here's a shot of what's under the seat, looking forward on the driver's side. Don't worry about mixing up the connectors - they are colour- and shape-keyed (thanks, BMW). Notice that LONG seat rail pin - you've got to lift the heavy seat up sufficiently to free these pins (there are two on either rail) from their locating holes in the body. Tough gymnastic manoeuvre. Each seat is approximately 70 lbs.
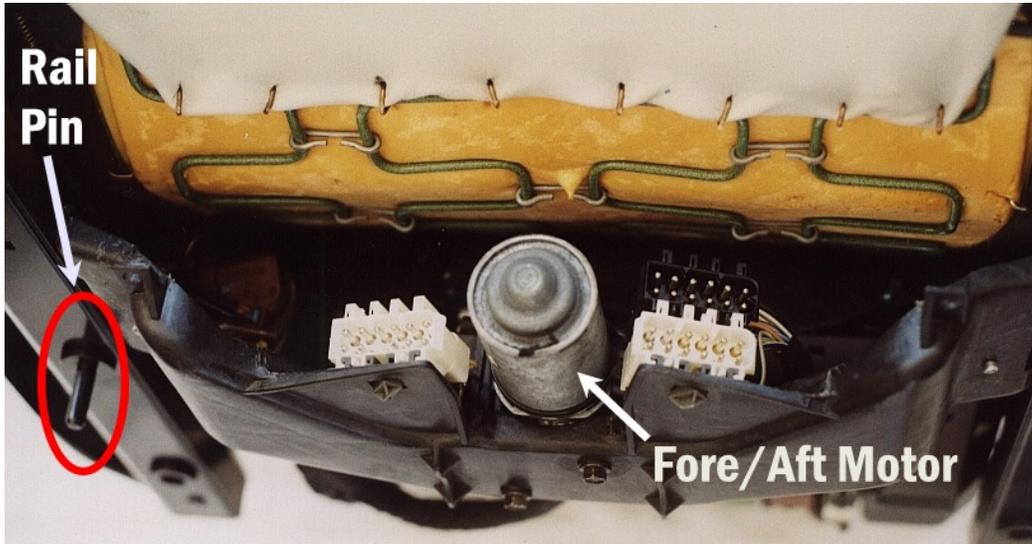
Below is the height adjustment components. This view is directly under the front of the seat, looking rearward. The motor drives two cables emerging from both ends, and retained by a series of lock-plates held in place by two hex screws. The drive cable, contained inside the plastic guide sheath, is a wound piano-wire affair, and shortens over time, retracting the cable from its drive socket inside both motor ends.

Also, here's where the seat/mirror memory module for both seats and outside mirrors resides (under driver's seat only). Lot of electrical terminations here. I always check and reseat the connectors when I have access to this area.
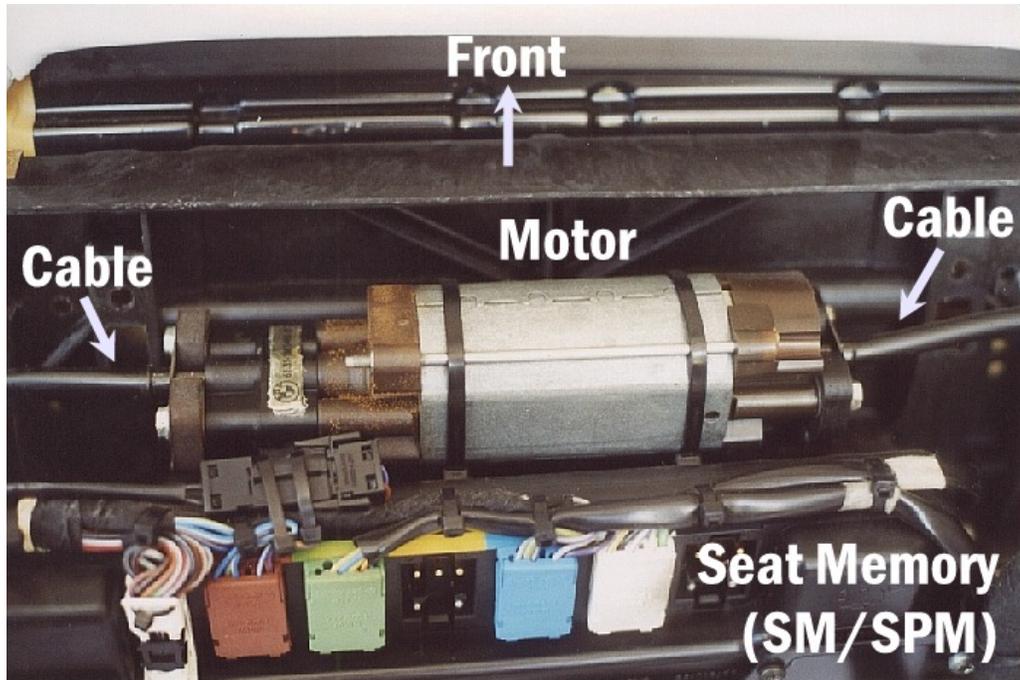
Below is another shot from one end of the height adjusting motor. It's hard to see here, but there is an inner and outer retaining plate holding each cable into the drive sockets on each end. Removing the hex screws will release both plates and allow you to extract the cable. Also, note the crimp fitting.
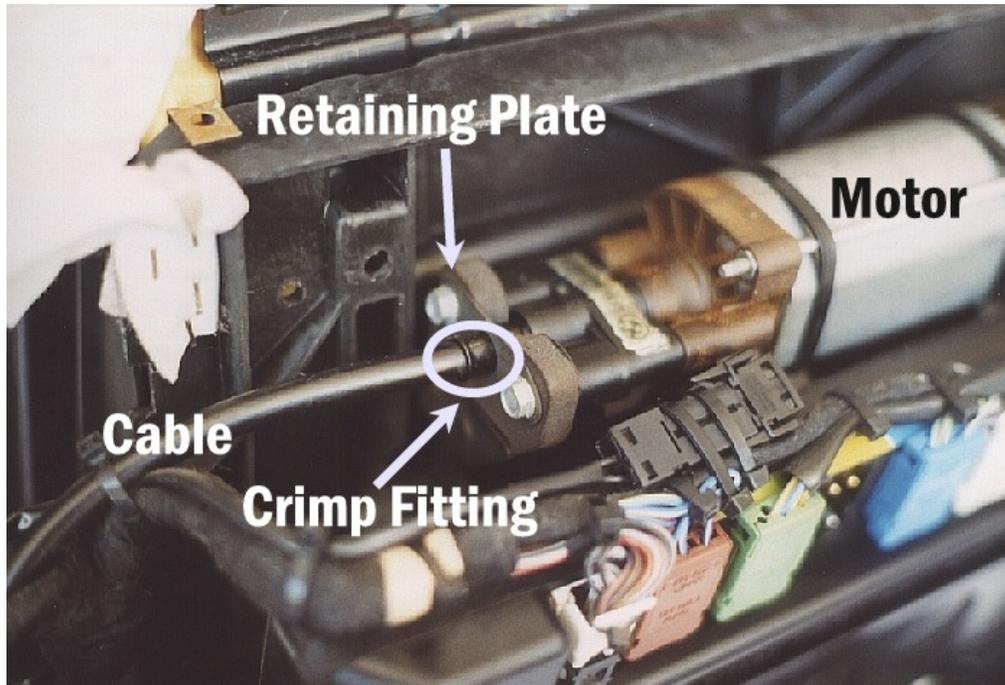

Here's a picture of the retaining plates released and the cable removed. Once removed, you can prise off the crimp connector, extract the drive wire, and remove a short section of the plastic guide sheath with a Dremel cutting tool. Reinsert the drive cable, reattach the crimp fitting and re-crimp, and reinsert the cable assembly into the motor and secure. Net savings: About $400 USD. Sorry, don't have any shots of the drive cable or pictures cutting the sheath back.
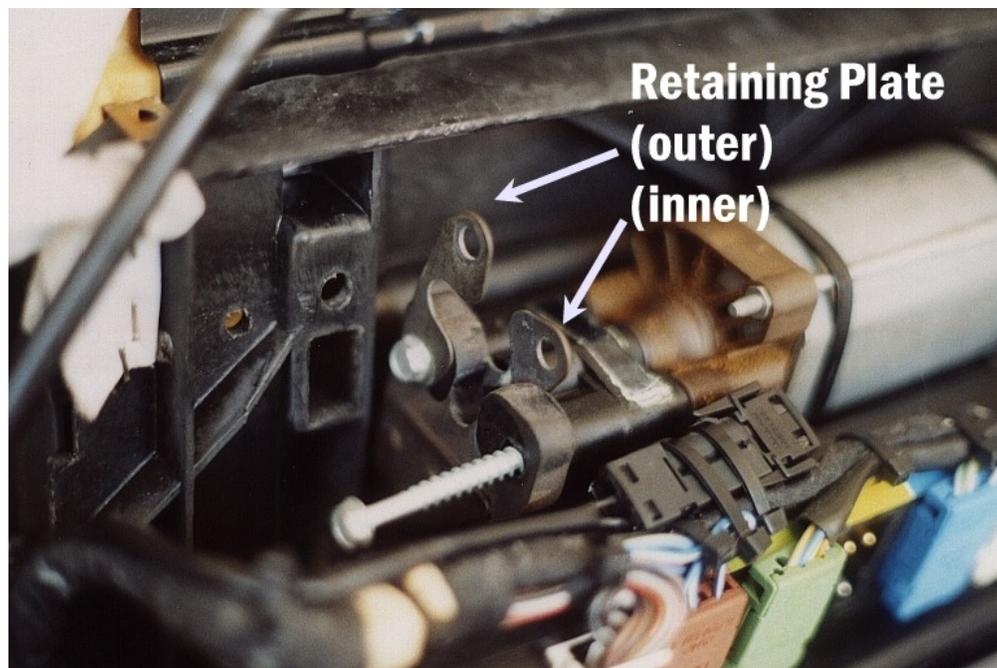
Those drive cables run back to two gearboxes mounted at the pivot point of the seatback, which in turn drive one of the most complicated scissor-jack setups I've seen in a long time. The quality of metalwork back here is amazing. Here's a picture of the gearboxes looking from the left rear forward on the driver's seat. There are identical pairs on the other side. Note the seatbelt takeup reel and the two relays for the lumbar support and seat heating. Lot going on back there!
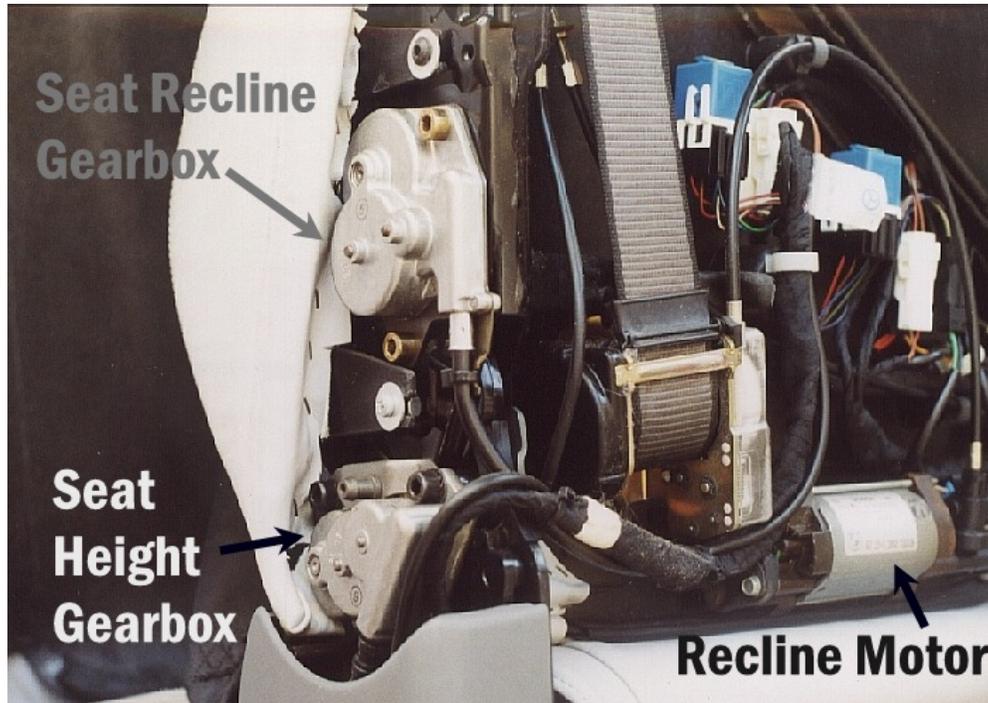
Finally, when you recline the seatback, a mechanical linkage raises the headrest. Here you'll see a clever feature: As the headrest lowers and seatback reclines, the seatbelt tension increases through this compensating cable driven by the recliner motor. It winds a stiffening spring inside the seatbelt takeup reel to ensure a constant belt tension. Cool, huh?
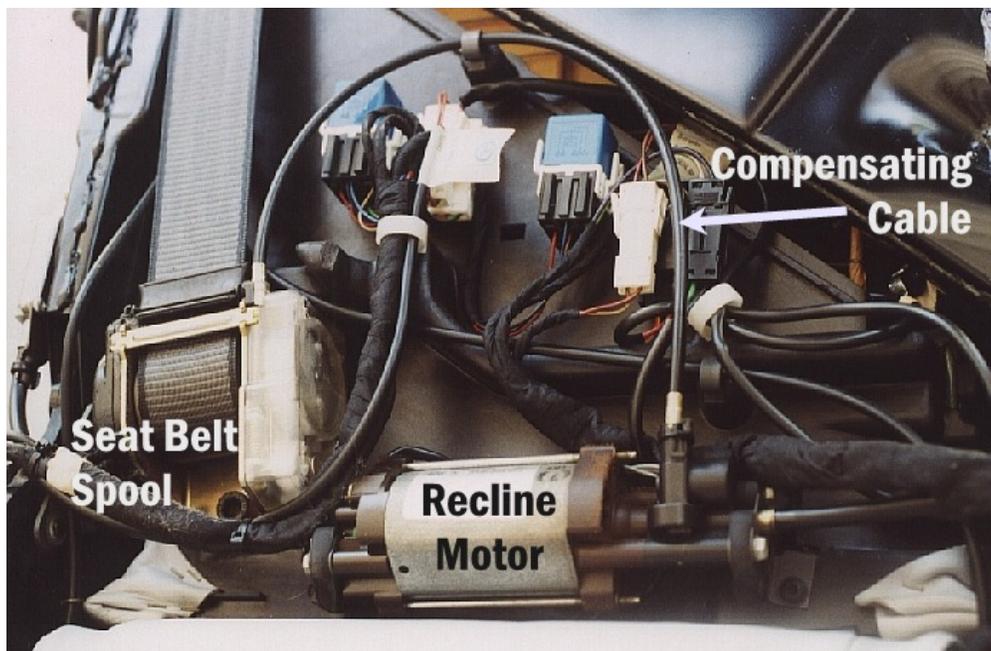
So, there you have it. For those of you already familiar with this, my apologies for boring you. For you newbies, I hope you get a better insight into the incredible engineering and quality that went into building the E31. While nothing is simple in these cars, they are remarkably well thought-out and constructed.