BMW 2000 528iA Sport Passenger Window Regulator Remove & Replace

If possible, lower the window as far as possible before starting work. Then disconnect the negative cable from the battery terminal. Wait at least 30 minutes for any electrical components to drain before starting work on the door (if equipped with a door air bag).

Door panel before removal.

There is a screw in the air vent.

Close the vent to get better access to remove the screw.
Small light attached to the bottom of the door panel.

With a small flat blade screw driver or a trim tool, pull out from the end closest to the door hinges.

Disconnect the wires/connector from the back of the light.
Remove the screw for the door handle. There is a small round plug covering the screw. The bottom of the plug has a slot for a small flat blade screwdriver to pry it out.

Use a trim tool to pry out the door handle.

Use the trim tool at the latch end of the door and pry the door panel outward. This is one of the white plastic connectors. I found it easier to keep the white connector attached to the panel and remove it from the door.
Work down the side of the panel toward the bottom.

On this car there are 11 connectors – 8 white and 3 yellow. The yellow connectors are on the vertical edge of the panel at the hinge. On the latch end of the panel there is one spot where there are two connectors side-by-side (one is not along the perimeter of the panel). Lift up on the panel after all the connectors are loose. There are several metal clips along the top of the door at the window frame. There is a black plastic clip in the center of the door. It’s held in place by another metal clip. The panel may still be attached to the plastic clip is there’s any resistance. Keep working the panel.

The panel will still be attached by the wires for the window switch and the tweeter. Disconnect the wires for the tweeter from the module on the door. Remove the foam in the panel covering the hole for the window switch. The foam wraps around the wires. Just unwrap it as you pull it out. Then reach in and remove the connector to the window switch. The panel should now be free from the door.

This is the door with the panel removed. The black part which looks like an inner panel is the vapor barrier/sound insulation.
Here’s the back of the panel once it’s removed from the door.

This is the foam padding in the hole for the window switch. The green wire is connected to the tweeter.

Access to the window switch. Don’t try to remove the switch from outside of the door panel. It is difficult to get a flat blade screwdriver or even a trim tool under the switch housing. All you’ll do is mar the vinyl around the switch. Pull out the foam insulation and then push up from under the switch housing inside the door panel. I disconnected the wires and left the switch in the panel.
Using a trim tool, start at the latch end of the door on the outside and pry up on the trim strip. I have a Sport model with Shadowline trim. Others may be chrome.

Keep working the trim tool under the strip and work towards the front. Gently pull up on the back end of the trim piece as you work.

To remove the trim strip from the inside of the door, use a trim tool (or a flat blade screwdriver) and pry up from the center of the black metal clips. The large part of the clip is what attaches to the door panel. The center part attaches the trim strip to the door itself. Work from the back towards the front.
Interior trim strip removed.

Exterior trim strip removed.

Another view of the door with the glass still installed but both trim strips removed.
My car has air bags in the doors. It’s held in place by three 10mm bolts. These must be removed in order to remove the vapor barrier.

Close-up of the air bag connector.

It would appear that the cable for the door latch needs to be removed. It doesn’t.
There are several metal screws holding the speaker box and various electrical modules in place on the door. Remove the screws. You can disconnect the modules and speaker at the various connectors. I chose to leave mine connected and just hanging (make sure these are supported in some manner to provide strain relief for the wiring).

I similarly did not disconnect the air bag. I used a piece of string and tied it to the window frame. It’s a lot easier if you disconnect and remove the airbag. It is much safer and allows you to reconnect the battery to check adjustment and operation of the regulator. Before reconnecting the air bag you’ll need to disconnect the battery to avoid any potential for the bag deploying accidentally. The only catch is you’ll end up needing to reset the SRS light on the dash. That will take either a dealer or a specialized aftermarket tool which does the reset similar to the Peake CEL/code tool.
Now it’s time to remove the vapor barrier. It’s sort of a soft foam material held in place by black mastic. Mastic is rubbery and it will either stretch and tear or it will come off either the vapor barrier or the door. I used a trim tool to gently pry the vapor barrier and punch through the mastic. Be gentle so you don’t puncture the vapor barrier with the trim tool or tear it by exerting too much force while pulling it away from the door.

I started at the back end (latch) of the door and worked around the entire perimeter. It will take some time so just be patient.
Remove this plastic clip from the center of the door before removing the vapor barrier.

This is the back of the vapor barrier once it’s removed from the door. You can see the mastic around the perimeter at the edge.

When you remove the vapor barrier there will be a horizontal slot behind the interior door handle. The handle will fit through the slot. The vapor barrier will stretch enough to allow the handle to pass through. You can also see the right hand clamping jaw of the regulator. My glass was not attached as it had pulled put. The clamping jaw was also twisted in the frame. I placed the glass back in the jaw to show normal fitment.
Use a Torx to loosen the clamping jaw. This is the right side/back end of the regulator. The glass should be seated in the jaw but on my car the glass had moved. This view is not representative of how the glass should be seated.

This is the left side/front end of the regulator. Loosen this clamping jaw as well.

You can now remove the window glass. Stand on the outside of the door. The left side will start to move away from the window frame as you pull the glass up. The glass comes out fairly easily.
Glass has been removed.

This is the old regulator still in the door. Next step is to remove this and install the new one. I didn’t remove the old one until I had the replacement part in-hand so I could see how it was supposed to work and attach to the door.

The cable shroud for the right side is secured to the door frame with a cable tie.
There are other cable ties on the left but these hold the wiring harness for the window motor to the door frame.

Remove the wiring connector from the bottom of the window motor. There is a brass screw which holds a clip on the back of the regulator to the door. Loosen this to remove the clip. You can see the slot at the top of the clip where it is held in place on the regulator. The bottom part attaches to the black rail of the door frame. You can also see the wires for the window motor to the left.
The regulator is held in place on the door frame by three T27 torx screws at the top and two 10mm bolts at the bottom. Remove the top first and then the bottom. You can loosen the bottom bolts enough to remove the regulator for the door but you will need to use them on the new regulator.

Once out of the door, lay the regulator on the floor and remove the five T10 torx screws holding the motor to the regulator.

This is a top view of the motor in the old regulator.
Motor removed.

Motor installed in the new regulator.

Use the old bolts in the new regulator. It was very easy to install the new regulator in the door. Start with the left side going in and up first followed by the right side.
I reattached the air bag to the door frame to make it easier to work with the new regulator.

T27 torx for the top three screws.
Reattach the clip for the middle of the door frame rail. You can reach behind the frame to make sure it is clamped onto the rail properly.

New cable tie (use an 11” tie) to secure the cable shroud to the door frame and keep it out of the way of the window glass.

Put the glass on the door frame. Loosen the clamping jaws and work the glass into the bottom of the jaw. The white plastic “ears” on the outside of the metal clamping piece are used to adjust the window height. On a replacement regulator loosen these before attempting to place the glass in the clamping pieces. I did not adjust these prior to energizing the window motor and the glass was hanging up at a few places. The motor sounded strained and the regulator torqued a little. That was because the glass was out of alignment. The white plastic ears provide some of the horizontal alignment of the glass and the clamps provide the vertical and some horizontal adjustment. On my car the glass was seated at the bottom of the clamp cradled in the rubber piece between the clamping jaws. Once I had the glass properly aligned everything ran smoothly.
Install the trim pieces for the interior and exterior once the glass is in place.

Secure the air bag to the door frame with the three 10mm bolts (hand-tighten). Connect the battery and test operation of the window motor and regulator. Operation should be smooth up and down. If there seems to be binding make sure the glass is seated securely in the clamping jaws and the jaws are tightened. Also check to see that the white plastic ears on the outside of the clamping jaws are low enough to allow the glass to seat at the bottom.

When the glass is adjusted properly, disconnect the battery and wait at least 30 minutes (the book says 15 minutes) before reassembling the door. I don’t like the thought of an air bag going off at 600 mph next to my head so I make sure the electrical system is drained.

As they say in most workshop manuals “Assembly is the reverse of disassembly.”
Putting everything back together goes much faster than taking it apart. Install the vapor barrier and make sure all the holes for screws and bolts line up. It will take several tries to get it right. The door handle passes through the back of the vapor barrier. Attach the air bag to the door frame and tighten to 18nm (Newton-Meters). The book says to use new bolts so you’re on your own if you want to reuse the old ones. Attach the speaker housing and door lock module to the door frame with the screws.

Place the plastic clip over the metal clip in the middle of the door.

Plug the green speaker wires on the back of the interior door panel into the module to the left of the large speaker on the door frame. Attach the window motor switch wires to the switch and repack the foam insulation into the switch access hole. Pass the door handle through the panel and align the top of the panel with the interior window trim strip. At this point I pressed the door panel onto the frame to secure the white and yellow plastic connectors. Then I pressed the top of the panel into the clips at the top of the panel. This took me longer than expected because it’s awkward with the door handle and wires attached between the panel and the door when trying to line everything up. Once the panel is securely in place, attach the door handle with the screw and replace the black plastic cover/plug over the screw. Install the screw into the air vent.

Reconnect the battery and use both the driver’s door and passenger door window switches to make certain everything works.
I’m now off to order a new regulator for the driver’s side door…