

Rear Window Switch and More

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To answer some questions and to tell my tale of rear windows, I will recap my Sunday afternoon in detail. If this doesn't pertain to you, delete. I tried to explain, to the best of my memory, every step because when I read others explanations of work, they seem simple until you actually try to do it. EXAMPLE: "To remove differential gears remove a few screws and bolts and hit it with a hammer and it should come right out. Installation is the reverse"

The rear window (electric) has been giving me problems since I purchased the '77 Chero WT in March of '98. So on Sunday, I decide to get down and dirty with it. I lowered the glass, opened the gate, removed the access panel and then referred to the TSM for more complete instructions.

First you need to raise the glass by (1) flipping the safety switch open on the drivers (left) side of the tailgate and put something under the glass to support it as you raise it. (The gate is in the horizontal position) I used a plastic trash can with a blanket over the lid. Then, when the glass is about half way up, you stick a flashlight and your head in the access hole to try to figure out how you are going to get those little round retainer clips off of the regulator arms. So, the best way I found was to first stick your hair into the greasy gears and regulator arms and look at the clips upside down and use two screwdrivers to pry them off until they pop off and disappear only to be found later. (30 minutes to get to this point)

Pull the regulator arm "pins" out of the channel and pull the glass completely out. Again, remembering to support the glass because it will snap off if unsupported. I began to take out the large headed screws that hold the window mechanism into the rear tailgate. However, I noticed that you can remove the top 3 screws easily, but the mechanism gears have to be positioned just right to remove the remaining screws through the holes in the mechanism gears, so operate the working switch until the holes line up with the screws. A note on the screws: there is a threaded bushing and a lock washer on the end of the screws (under the mechanism) and the whole screw-bushing assembly stays connected to the window mechanism. Once the screws are out/loosened, the mechanism comes out by sliding to one side and then out the other way. But, as I do this, I pull one of the wires out of the key switch. (more on that later)

Once the mechanism is somewhat out, disconnect the wires going into the motor.

THIS NEXT STEP IS VERY IMPORTANT, DON'T SKIP THIS STEP OR YOU MAY BE SEVERELY INJURED!!!!!!!!!!!!

Before removing the motor from the window mechanism, ***YOU MUST REMOVE THE TENSION ON THE REGULATOR ARMS BECAUSE THEY ARE SPRING LOADED AND WANT TO TAKE YOUR ARM OFF.*** (OK, maybe not that bad, but I'm sure they would hurt you pretty good)

The TSM says to stick a bolt into the gears, head side down so it doesn't fall out. I didn't know which way it was going to rotate, so I stuck one on either side of the two meshing gears so they could not rotate in either direction. If and when you get in there, you'll see what I am talking about. Then remove 3 bolts and the window motor comes right off. The motor locks the regulator arms in position when it is connected.

I cleaned off as much of the old peanut butter looking sticky grease from everything, took apart all of the connectors and cleaned them with sandpaper wrapped around a skinny screwdriver and then took out the keyed switch that I ripped a wire out of.

To do this, you need to lay down in some previously spilled oil and remove the cover and cylinder from the outside and then remove some screws from the inside and then it slides out from behind its hiding place.

As I look at the switch wires, I notice that two are pressed in and one is screwed in (of course, I ripped out one of the pressed in wires) So, while I'm there, I remove the screw and proceed to de-corrode the conducting metal and the screw. To do this incorrectly, grab the small screw in some needle nose pliers and squeeze it so that it eventually shoots out and gets lost on the floor somewhere.

After a little solder work and some wire brushing every connection is clean and all the wires are back where they should be. With the motor still disconnected, I used a digital voltmeter to test power in/out for the switches. I glanced at the wire diagram, but resorted to common sense. As other people have written, the dash switch and the keyed switch are independent. The only thing that links them is the safety switch on the drivers side (left) of the tailgate. This switch keeps you from accidentally raising the glass when the gate is down. The keyed switch has power in, and two power outs depending on up or down position. Put one probe on a ground (black wire in group that connects via a bolt and nut at bottom inside of gate where wires enter gate) and one on each of the connector outputs and test for power. Around 12 V at source, good: 12 V out on one and 0 V on other with switch in one position and vice versa: I conclude that the switch is good.

Next I try the connector that goes into the motor. Have somebody sit in the drivers seat and operate the switch. With one probe on ground and one probe on one of the two female fittings in the connector you should measure around 12 V. Then move the switch in the opposite direction and move the probe to the second female fittings in the connector, you should measure around 12 V again.

2 hours to get to this point.

I reinstall the motor to the window mechanism, remove the safety bolts in the meshed gears, install your keyed switch (inside and outside), reconnect the electrical for the switch, position the window mechanism in the access hole, reconnect the motor electrical connector, install the window mechanism with the screw-bushing things, slightly lower the glass to attach the regulator arms and re-install the clips (MAJOR PITA) that you found in the gate when everything was out. Then completely lower the glass using either switch and realize that nothing has improved. Then go sit in a chair and smoke, drink, pray, meditate, curse, O.D., or do whatever it is you do to ease your anger, non-violent please.

But just before I resort to meditation, I remember a write-up on the IFSJA web page about adjusting the tracks in the tailgate.

Loosen 4 bolts, 2 per side, on the sides of the tail gate approximately in the middle (inside to outside), close the gate and operate the window up and down. "POP" I think that the channel just adjusted itself. Open up the gate just enough to tighten the bolts and not misalign the channels. Close the gate and TA DA!!!!!! IT WORKS GREAT!!!!

So, what could have taken 5 minutes, took 3 long, greasy, expletive-ridden, many-cigarette-butts-on-the-floor, 2-empty-cans-of-adult-type-beverages-on-the-floor, grueling hours.

One thing that I noticed is that the motor doesn't work unless it is connected to the mechanism and installed in the tailgate. I think that it is grounded through the case of the motor. I was a little worried when I tested the motor when it wasn't installed and it didn't work at all.

Difficulty factor: 1-2 bananas Anger factor: 3-4 bananas (because of the @#\$%ing retaining clips)

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