

Refurbishing the Window Switch

© 2009 by Frederick Su. All rights reserved.
A bytewrite LLC publication.
www.stepbystepvolvo.com

Whether it is a window or sunroof switch, after a number of years the contacts within the switch corrode. Once that happens, you will no longer be able to open or close the windows or electrically operate the sunroof. New replacement parts are typically around \$40. Junkyard switches can be gotten for \$10 or less.

But it isn't that difficult to take the switch apart and clean the contact surfaces. Once apart, you will understand the ingenious design of the rocker switch.

Remove switch from the car. Test mechanical action of switch to get a feel for its spring loaded operation.

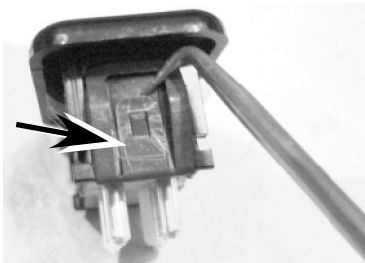


Figure 1. Use a small, flat-bladed screwdriver or a pick to pry loose the retaining spring clip (arrow) on short sides of the switch housing.

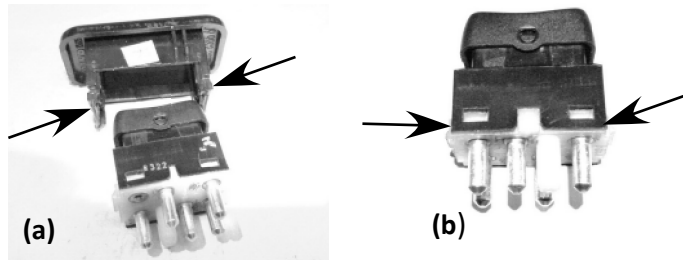


Figure 2. (a) Gently pry up black plastic (arrows) on short sides and pull switch mechanism out of the housing. (b) Pry white terminal block free from black plastic rocker switch by raising edges of locking tabs (arrows) on long sides. Holding everything over a small container (so as to not lose the ball bearings), pull white terminal block free from rocker switch.

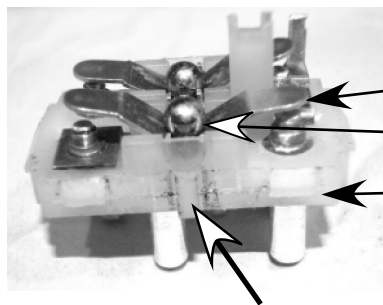


Figure 3. middle ridge

Disassembled, there are 6 parts:

- 2 leaf springs
- 2 ball bearings
- 1 white terminal block
- 1 black plastic rocker switch

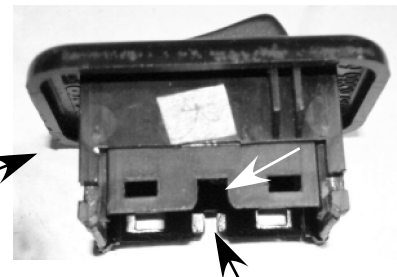


Figure 4. Note wide notch (white arrow) and narrow notch (black arrow) of rocker switch. When reassembling, middle ridges (see **Figure 3**) on sides of white terminal block align to these notches.

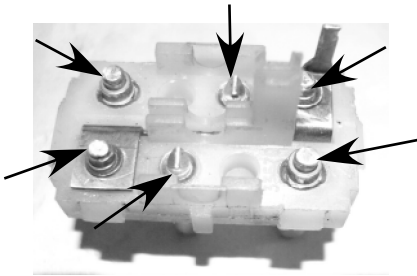


Figure 5.

Sand or use a Dremel tool to lightly grind the 6 contact surfaces (arrows, **Figure 5**) on the white terminal block. Do the same for end nubs on bottom of each leaf spring (dark arrows, **Figure 6**). Check area denoted by white arrows in **Figure 6**, and lightly sand, if needed. The usual problem surfaces are denoted by dark arrows in both figures. These surfaces are prone to corrosion, causing switch failure.

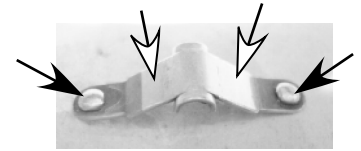


Figure 6.

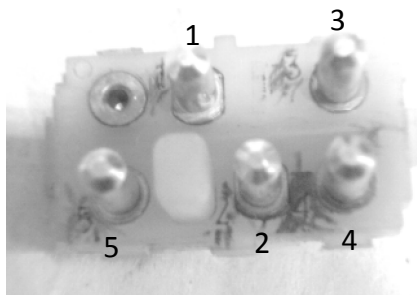


Figure 7. Bottom view of white block showing the male terminal leads. Normally, these leads are in good condition, but you may wish to lightly sand them.

Now you're ready to reassemble the switch. Lay everything out per **Figure 3**. Align the spring loaded cylinders of the rocker switch (**Figure 8**) to sit on top of the ball bearings. Also note the narrow ridge between the cylinders. I believe this ridge sits between the plastic "tower" legs on the white terminal block (curve, **Figures 8 & 9**). Also make sure the narrow nub on side of terminal block aligns to the narrow notch of the plastic switch housing (**Figure 4**). Then, as a matter of course, the wide nub on opposite side of the terminal block aligns to the wide notch in black plastic switch.

Push both parts together firmly, snapping them in place.

Now test the mechanics of the switch. You should feel the tension of the spring loaded action, just like it was before you took everything apart.

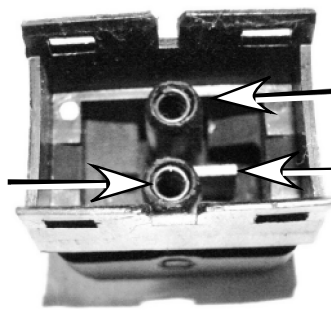


Figure 8. The underside of the plastic rocker switch. Note the two spring loaded cylinders (lone arrows). They sit on top of the ball bearings.

ridge sits astride here ... between 2 legs of tower

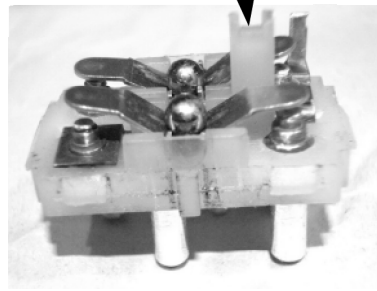


Figure 9.

Complete reassembly by pushing switch into its housing and then locking the parts together with the two retaining spring clips of **Figure 1**.

To run electrical tests and to understand the basic physics of the switch, see "Physics of the Window Switch."