

© D. Jensen 2006	REPLACEMENT OF XK8 CONVERTIBLE REAR WINDOW REGULATOR	V. 1.0 September 2006
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The Fine Print: The following is a summary of my experience replacing the rear quarter window regulator on my California-based '01 XK8, VIN NA11439, with 54,750 miles. Some of the steps described may not be applicable to your car due to its year of manufacture or other details. I have worked on cars for many years so I have a reasonable understanding of their operation and safety issues that must be addressed. I accept no responsibility or liability for potential misstatements in this write-up or the manner in which the write-up is used. Please follow all normal safety precautions when performing this work.

While raising the top on my '01 XK8 convertible recently, I heard a loud "pop" from the right-rear seat area and saw that the rear quarter window was no longer operating. I could hear the drive motor cycle down and stop, and then cycle up and stop as I toggled the "Roof" switch. I also heard the sound of a cable flopping around.

I reviewed the XK8/XKR Jag-lovers archives, but found no discussion of this type of repair. I then reviewed the removal procedure described on the Jaguar JTIS CD. Under "Rear Quarter Window Regulator Motor Vehicles with Convertible Top (86.25.11), the second step is "Remove convertible top. Refer to 76.86.15." YIKES! This seemed to confirm my initial concerns that replacement would be hard, time consuming and probably expensive. As it turned out, it is not necessary to remove the top, thus saving many hours of labor. As I went about the replacement, I took photos and made notes, as presented below, that supplemented the JTIS descriptions. These may be helpful to anyone who has to perform this repair, or wants to realign their rear quarter windows, since there are several steps called for in the instructions that are not necessary or are not fully described. While this is probably not a common failure, the San Diego Jag dealer had the regulator on the shelf so it must have happened a few times before to XK8s in the area.

Special Tools

None, as long as you consider star (Torx) bit drivers normal tools. Every tool I needed was in my DIY tool inventory.

Parts

While I probably could have repaired the regulator given enough time and a good machine shop, I wanted to get the car back on the road as soon as possible. I also didn't want to repeat this repair if my fix failed at a later date. Thus I opted to buy the replacement regulator for \$294 (before tax) (see Fig. 1). This unit did not include new glass or seals, which I didn't need. Jaguar apparently no longer sells just the regulator alone so the cost of a replacement unit with glass and seals can be expected to be significantly more.

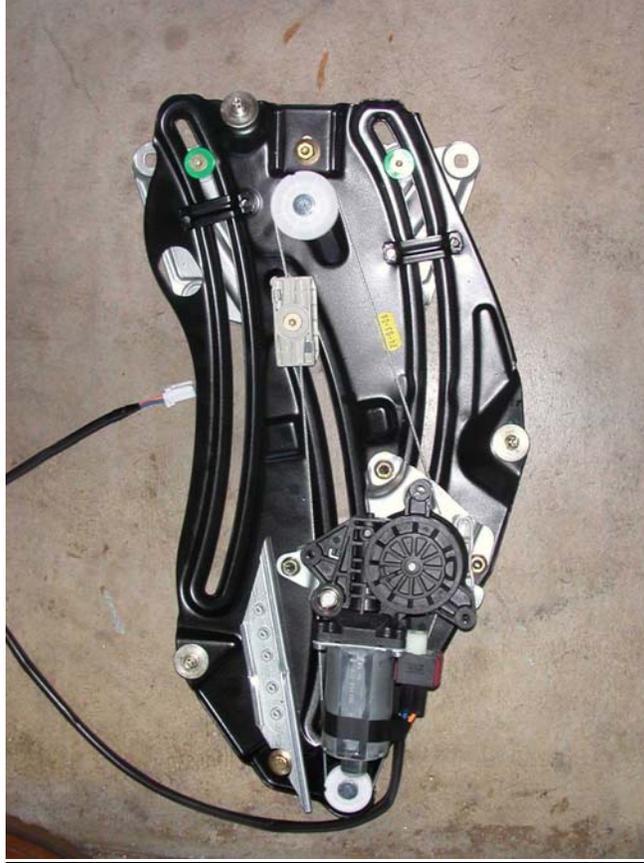


Fig. 1 New window regulator

Disassembly

Since the Jag manual was a bit confusing in spots, I adopted my own sequence of steps from the steps described in various sections. I have included references to the applicable sections of the JTIS CD below. Note that even with the instructions below, it is important to have the JTIS (or ALLDATA[®]) writeups before starting this work since they provide details that I don't repeat herein.

1. Lower the top and remove the rear quarter capping (see Fig. 2) (Sec. 76.40.33, Steps 1 - 4). The capping on my car is different than that found on earlier XK8s that do not have the integral passenger position sensor. First lift the seat-belt capping up and off the "B" post seat-belt bracket and unbolt the bracket with a T-50 star driver (see Fig. 3). Since the seat-belt bracket is held in place on the bolt by a rubber o-ring, the bracket will remain on the loosened bolt. There is, however, a wave washer that is not retained and will need to be set aside until reassembly. It is not necessary to loosen the lower end of the seat belt because the rear quarter trim panel does not need to be removed from the car.

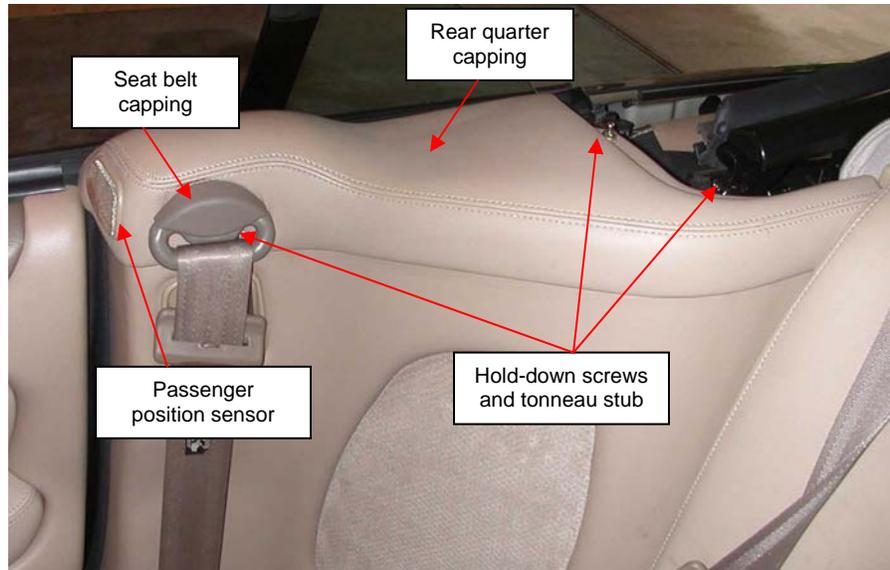


Fig. 2 Rear quarter capping



Fig. 3 Seat belt bracket

2. Remove (a) the screw covered by the seat belt bracket, (b) the screw on the rear of capping, and (c) the 9-mm tonneau-cover fastener. Lift the capping off and disconnect the lead to the airbag passenger sensor, if your car has one. Note that there was a tang on my capping that keeps its front edge in place (see Fig. 4). I didn't realize this when I removed the capping, but fortunately I didn't break it off during removal. It was a bit tricky to reinstall the capping later due to the need to ensure the tang was positioned in its hole in the B post. Earlier XK8s have a screw where the passenger position sensor is located and thus may not have the tang.

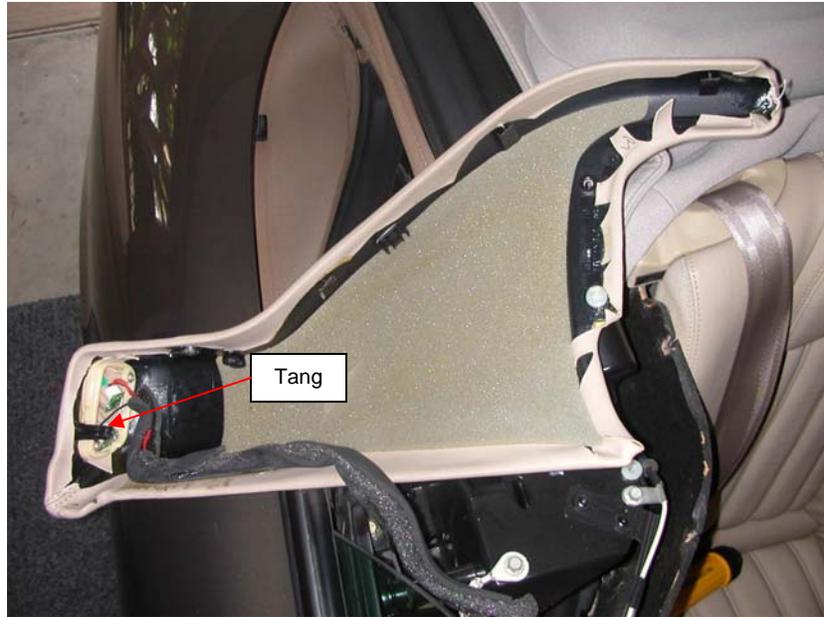


Fig. 4 Underside of rear quarter capping showing tang

3. Remove the rear seat cushion (Sec. 76.70.37) and squab (seat back) (76.70.38). These steps are straight forward, as described in the manual. The seat is held in place by two 10-mm nuts with integral washers covered by plastic caps. The squab is held in place by two screws (see Fig. 5).

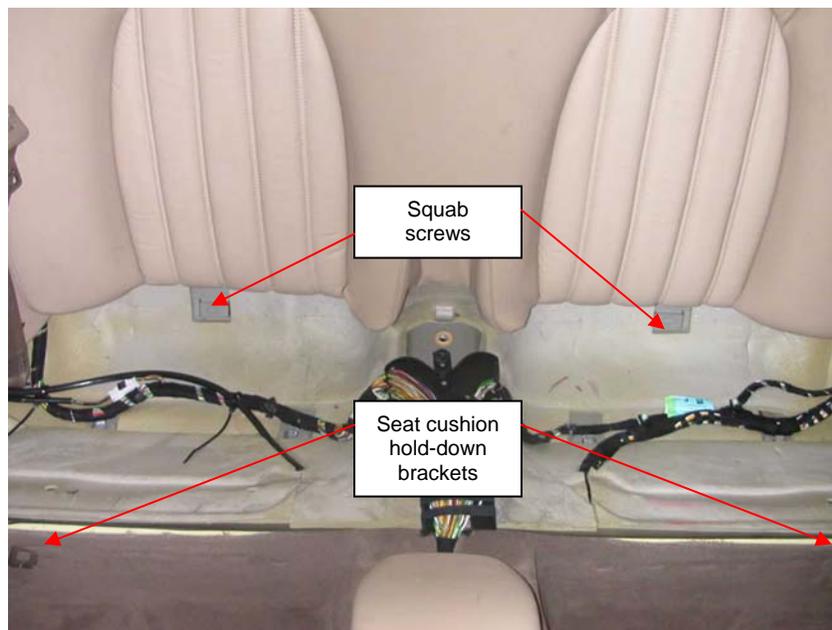


Fig. 5 Squab following removal of cushion

4. Remove the seat belt guide at the top of the squab (Fig. 6) and lift the squab up and out (Fig. 7).



Fig. 6 Seat belt guide on seat back



Fig. 7 Rear seat area with squab removed

5. Remove the rear quarter casing by freeing the two clips at the front edge (see Fig. 8) and pulling the casing forward along with the rear tang located in a positioning hole in the body. Position the casing toward the center of the car and out of the way (see Fig. 9). As noted earlier, it is not necessary to remove the seat belt that passes through it.



Fig. 8 Clips on front edge of rear quarter casing

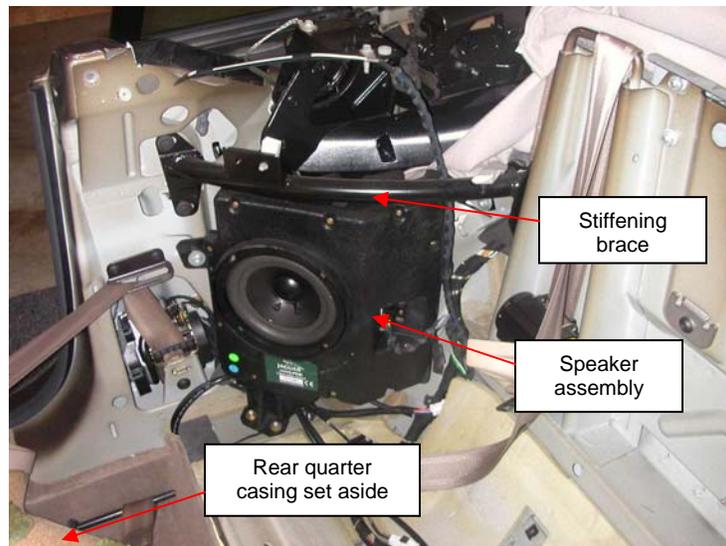


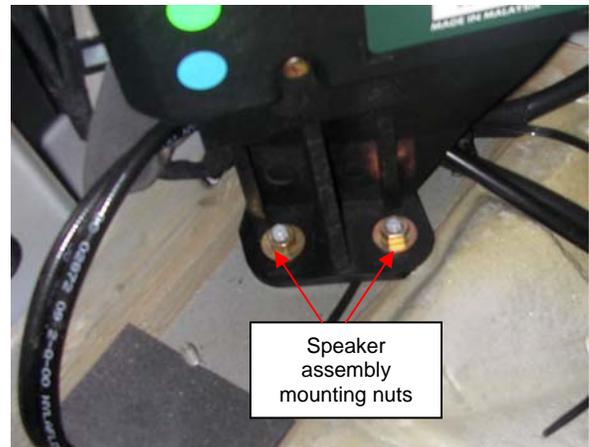
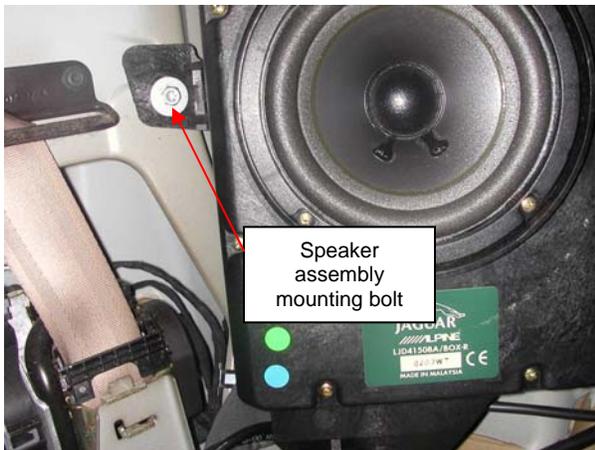
Fig. 9 Rear quarter with casing removed

6. Remove the four 13-mm bolts holding the stiffening brace (not introduced until the 1999 model year and not discussed in the instructions, but mentioned in "You & Your XK8" by Nigel Thorley, Haynes Publishing, 2006) in place (see Fig. 10). Note that the longer, anodized bolt threads into the hole that runs parallel to the squab back (not shown).



Fig. 10 Stiffening brace

7. Disconnect the rear speaker harness multiplug (one vs. two described in the instructions) (Sec. 86.50.12). Remove the two 10-mm bolts and two 10-mm nuts holding the rear speaker assembly in place (see Figs. 11a and 11b) and remove the assembly.



Figs. 11a and 11b Rear speaker mounting points

8. Note the location of (a) the window regulator, visible through the opening in the body and the clear, molded-plastic water shedder (see Fig. 12), and (b) the three adjusters/nuts. The lower nut/washer is held in place by silicone seal to ease installation (a big help). Remove the black, circular tape cover to gain access to the middle adjuster/nut. The top adjuster/nut is accessible as is. Note that the convertible top hydraulic actuator sits on a boss (not visible in photo) at about the midpoint of the actuator. It is not held in place by a fastener. Be sure to reposition it on the boss during reassembly.

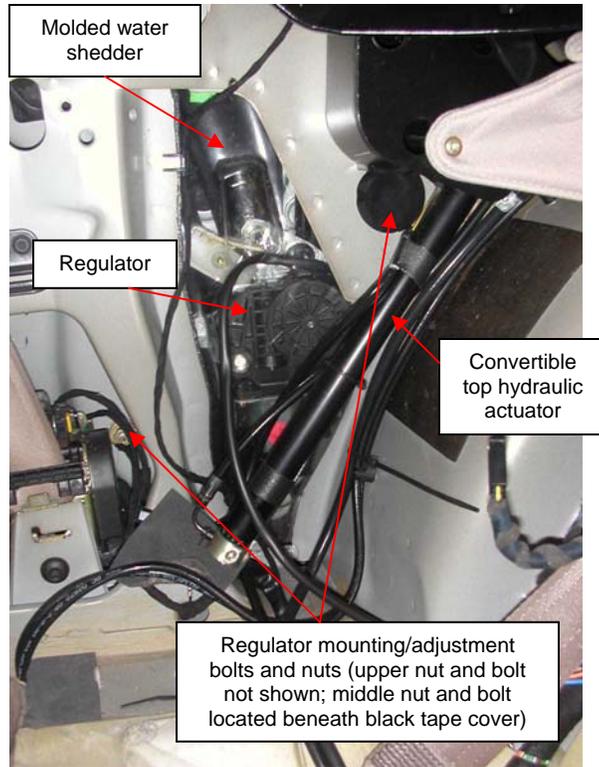


Fig. 12 Regulator as mounted

9. Remove (a) the window inner seal by extracting the four “fir tree” fasteners on the front of the seal (Sec. 76.40.33) (see Fig. 13) using a flat-bladed screwdriver and (b) the screw securing the rear of the seal (see Fig. 14, which also shows the convertible top mounting bracket). Then remove the two 8-mm bolts holding the inner seal carrier in place (Sec. 86.25.11) (not shown).

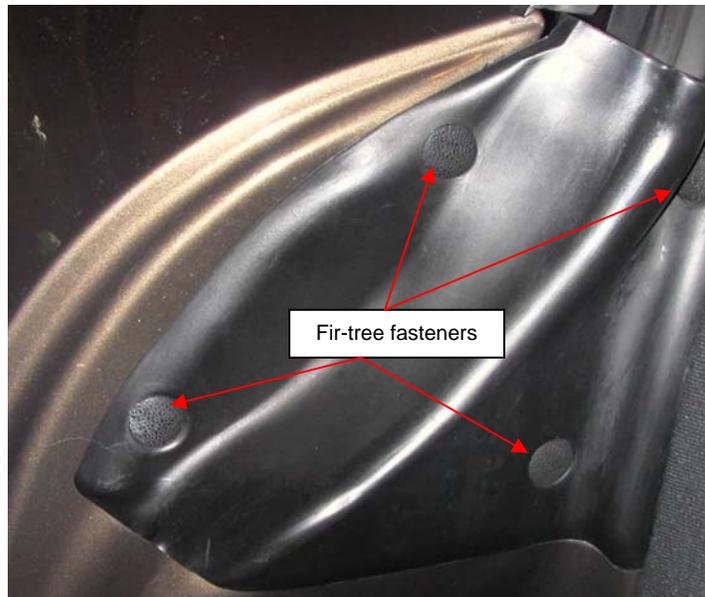


Fig. 13 Fir tree fasteners at front of window inner seal

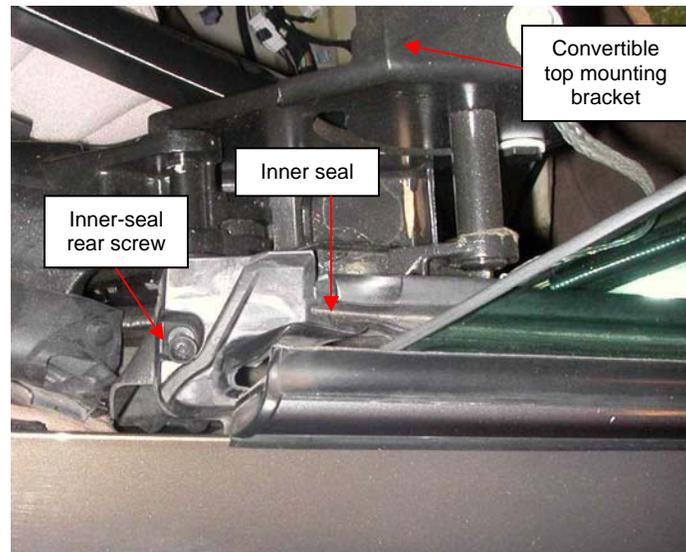


Fig. 14 Window inner seal and convertible top mounting bracket

10. Remove the outer seal by pulling up (see Fig. 15). I did not need to use a knife as called for in the manual.



Fig. 15 Window outer seal

11. Remove the outer-seal carrier bracket by removing the three T-30 bolts. The forward one is tricky to remove since it is close to the glass and difficult to get the Torx bit positioned correctly. I used a parrot head pliers to loosen it and then removed it by hand.

12. Remove the alarm antenna and bracket (Sec. 76.86.15, Steps 12 and 13) (see Fig. 16). While not strictly necessary, these both appear to be fragile items that are best moved out of the way. I also removed the ground strap as well.

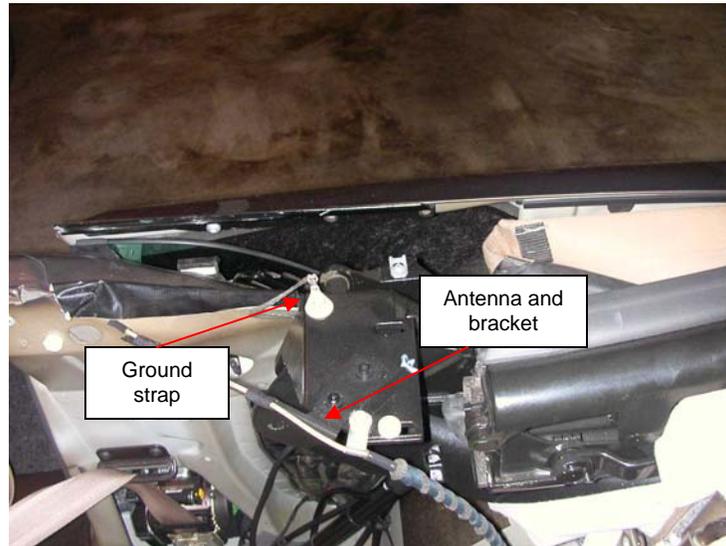


Fig. 16 Alarm antenna, support bracket and ground strap

13. Apply several layers of duct tape or similar protective material to the fender surface to prevent possible scratches (see Fig. 17). Disconnect the battery negative ground strap, loosen the top of the trunk right-hand liner, and turn the convertible top hydraulic pump valve fully counter clockwise (Sec. 76.86.15, Steps 15 and 16). Manually raise the top to a partially closed position. This provides improved access to the convertible top mounting-bracket cover-plate screws, bracket (see Fig. 14 above), and bracket mounting bolts (see Fig. 18).

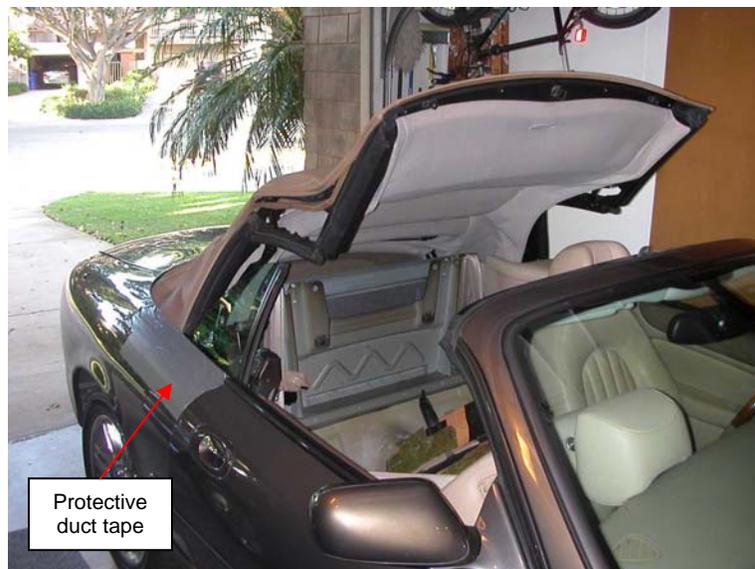


Fig. 17 Roof partially closed to allow access to top bracket cover and mounting bolts

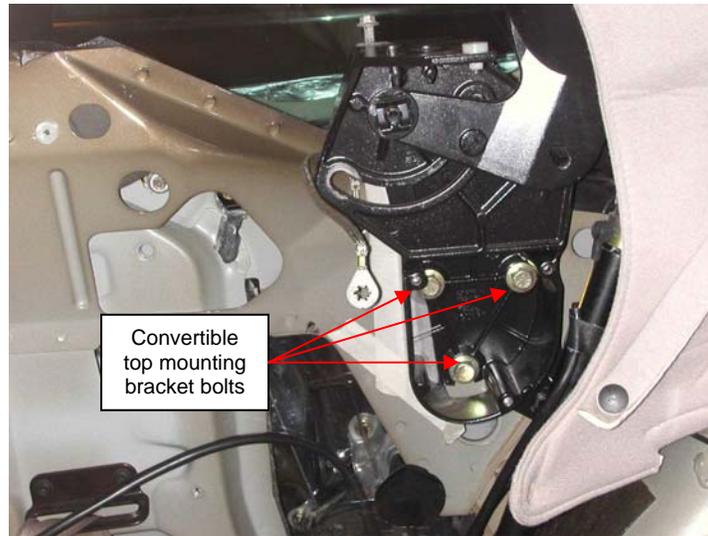


Fig. 18 Convertible top mounting-bracket bolts

14. Remove the upper and middle nuts holding the regulator in place and undo the lower nut (it will remain in place because the attached washer is held to the body by silicone sealer) (Sec. 86.25.11, Steps 12 and 13) (see Fig. 12 above). Route the feed link and multiplug connector through the water shedder. Once loose, push the regulator outward to free the adjustment bolts from their holes. As I inferred from the Jag instructions re removal of the top, I could not remove the window/regulator due to interference between the regulator motor and the convertible top bracket (see Fig. 19).



Fig. 19 Window/regulator partially removed

15. Thread the upper adjuster bolt fully outboard (see Fig. 19). This eases removal in the regulator in the limited space available. The small piece of protective duct tape in Fig. 20 sits on the protruding portion of the convertible top bracket that causes the interference if the bracket is not first loosened and pushed inward.

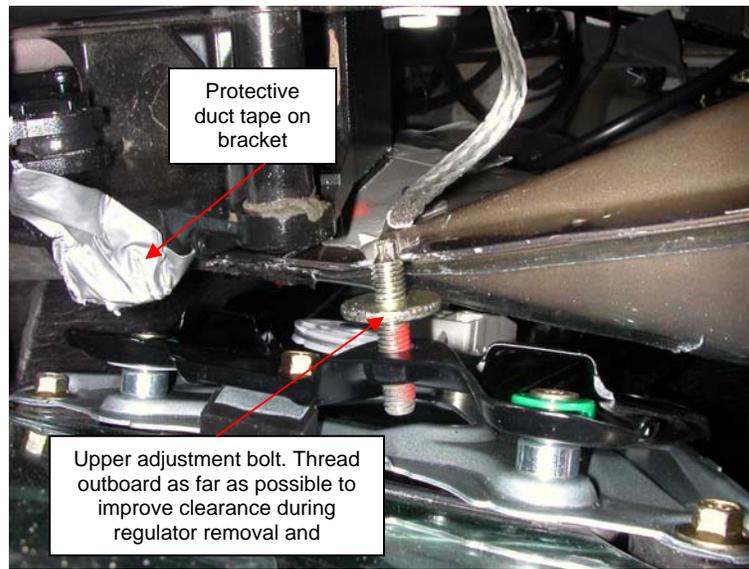


Fig. 20 Close up of upper adjuster bolt

16. The next step is the real time saver. Remove the three bolts holding the convertible top bracket in place. Then push the bracket inward enough to provide clearance for the window/regulator assembly. As you might imagine, I breathed a large sigh of relief when the assembly came up and out.
17. Upon examination, the cause of the failure was evident (see Fig. 21). The plastic slide that secures both ends of the drive cable had split, allowing one end of the cable to come free (accounting for the loud "pop" since the cable is very tightly wound) and preventing further movement. Note that the slide is of two-piece construction plus pivot (not evident in the photo) and has fairly complex internal features that could be replicated, but not easily.

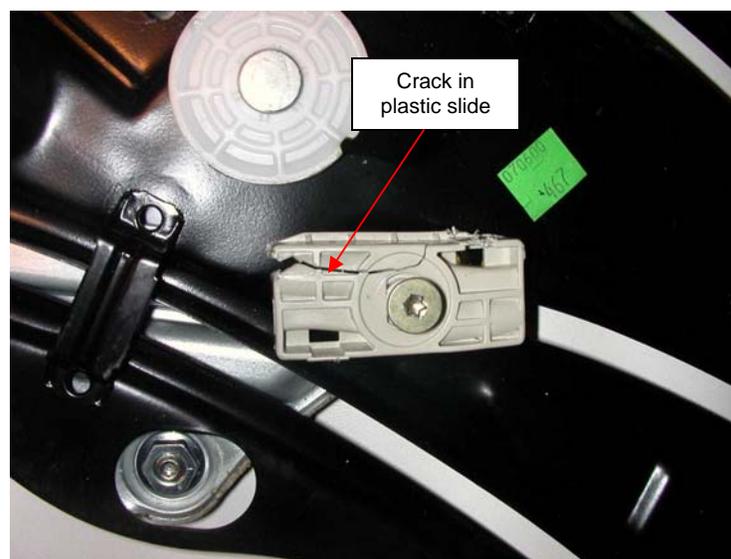


Fig. 21 Failed plastic slide

18. Remove the two bolts securing the glass to the old regulator (if the glass is not included as part of the new unit) and attach it to the new unit.
19. Reinstall the window/regulator in the reverse manner of removal, with one added step, adjustment of the window stop (see below). Positioning the adjusting bolts in their holes on the body proved easier than I thought. Position the regulator in the approximately correct location and then locate the bottom adjuster in the nut/washer attached to the body. Thread the other two nuts of the adjustment bolts. Adjust the unit as described in Sec. 86.25.11, Steps 10 – 22. This adjustment took me about 30 minutes of fiddling to get it right.
20. One item not mentioned in the manual and that I overlooked at first was adjustment of the window stop on the new regulator (see Figs. 22a and 22b). As received, the stop on the new regulator did not allow the window to rise to a fully closed position in the convertible top rubber seal, leading to wind noise and water leaks. A check of my failed regulator showed the stop had been at its uppermost position, whereas the new unit was at its midpoint. As expected, making this adjustment addressed both the wind noise and water ingress issues.



Figs. 22a and 22b View of window stop and adjustment bolt

21. Proceed to reinstall the remainder of items removed.