

Saab 900 Convertible Top Replacement

as performed March 2007 on a 1991 900 turbo
by M.D.O., Hillsborough NC

Background

This guide was written as a supplement to the instructions that thesaabsite.com includes with the top. The author is a customer who performed his first convertible top replacement documented here. The author is not a mechanic, but he considers himself a decent shade tree mechanic. So take what is given here with some caution because it may not be correct. The intent is to provide something helpful and interesting to assist other shade tree mechanics.

Tools/Supplies

You will need a power stapler. I bought a 14 Amp electric stapler (Arrow ETFX50) off-the-shelf at Home Depot for under \$50 and was happy with that. Upholstery shops use pneumatic guns which are probably lighter and can get in tight spaces better. But for this job, the electric staple gun is fine.

You will also need stainless staples. This delayed my job for almost two weeks because I could not get the right size stainless staples locally. Arrow stainless staples are labeled Monel which is a brand name for a stainless alloy. Monel or any stainless will do. I ordered the staples from Amazon.

Measuring the staples as my old top came off revealed that mine required 1/4" and 1/2" staples. Most everything is 1/2". The only places where you use 1/4" staples are to:

- staple the wind stop under the front bow and
- staple the padded support straps to intermediate bows

One box of each size of staples is more than enough.

You will need one tube of "gorilla snot". This is really sticky yellow glue, pretty much like contact cement but I would get this glue to be sure it is done right. You want 3M Super Weatherstrip and Gasket Adhesive 08001. I used about 3/4 of one 5 oz tube for my entire job. Upholstery shops have a special 3M convertible top adhesive but it is only sold in 5 gallon buckets (Top and Trim Adhesive, 3M part number 08046) and they dispense it with a pneumatic gun. That may be marginally better, but as you get into this job you will see the gorilla snot is about the same.

You definitely need 3M Adhesive Remover and some good disposable gloves. Wear the gloves whenever applying adhesive or using the adhesive remover. You need the adhesive remover handy for when the adhesive gets where you don't want it.

I did the job in a basement where it was ~63 degrees F for most of the job. Others have told me that some tops instruct you to lay the top out in the sun on a hot day before you install it. The weather was not conducive in my case for that, but I think it turned out fine. Somebody else said

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that the experts use a steamer to install tops. These techniques may be for different types of tops because again I did not do this and got a good result.

Materials

I purchased the lower cost Stayfast top, rear glass, and headliner. I wondered if the quality of these items would be acceptable because the Stayfast items are substantially lower cost than the German or Sonnedeck ones. Having installed this, I think the Stayfast workmanship and materials are fine. I ended up with some slight wrinkles at the shoulders of the last bow. Maybe if I bought the German top the seam that runs the length of the top would have been more accurate and there would not be any slack. But my car is not a show car and I think Stayfast was the right choice for me.

Time Required and Method

You will notice I did not follow all the steps in order, not sure if that is the best way. The whole job took me a little more than a month working a few evenings here and there with the car in the basement. If I had a dedicated helper and we worked long, focused days this job could have been done in one intense weekend. But I have kids, had to do taxes, had a cold, was doing a kitchen renovation kitchen, was studying for an exam, and lots of other things going on at the same time. I think it is better to let a job like this take time because it lets the glue fully dry between steps. It also gives you time to evaluate the difficult points and make better decisions.

Top Design

The top, rear glass section, and headliner are all separate parts. My top and rear glass section were completely worn out and required replacement. My headliner could have remained but I figured for 15% more and a complete (and maybe easier?) job, I would replace it also. Turns out it is no hassle to leave the headliner in place to replace the top and rear glass. So I'm on the fence about whether it was a good idea to replace the headliner. It looks better but who notices a headliner?

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Before Photos



Figure 1: Tears on sides of old top



Figure 2: Rear glass separated from old top plus another hole on side



Figure 3: Torn/faded headliner of old top

After Photos



Figure 4: There is a little slack I was unable to eliminate in the seams near the corners of rear bow, but this is minor. If it bothers you, buy the German top.



Figure 5: My window ended up being mounted a bit too low — my fault. The gloss vinyl above the window should really be hidden below the top fabric, but this is minor.



Figure 6: New headliner

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Disassembly

The instructions are pretty good here, so I'll just include some photos to guide you.



Figure 7: Removing fasteners connecting headliner to rear bow (not required unless replacing headliner)



Figure 8: Removing wind stop and main top from front bow

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Figure 9: Drilling out pop rivets that hold the side cables at the front corners of the top. I started with 1/8" and finished with 9/64, then used a dental like tool to clean out the old rivet parts from back side of the hole. There is some black caulking that gets messy here – use adhesive remover to clean your hands and tools.



Figure 10: Removing weather strips from above the rear quarter windows. The holes above and below the coil spring are where torx screws were; I have not yet removed the two cap nuts toward the upper right of this photo.

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Figure 11: Removing the headliner from the front bow.



Figure 12: Accessing wing nut in trunk that holds down the rear of the side spoiler.

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Figure 13: Removing trim strip across the top of the rear bow. Be careful because this will be reused.



Figure 14: Side spoiler removed, ready to remove the top from the sides. Notice the large number of staples.

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Figure 15: Another shot before final removal of the old top. I did not trust my memory of how things were layered back here so I took lots of pictures to be sure it went back together correctly.



Figure 16: Measuring old glass section to be sure new glass is installed in proper position. Note the support strap (upper right of photo) that goes between the glass section and the main top.

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Figure 17: Top, rear glass section, and headliner now removed.



Figure 18: Removing aluminum strips that hold top fabric to second and third bows.

Assembly



Figure 19: Stapling in rear window section.



Figure 20: Stapling in bottom of rear window section. Keep the extra fabric (to right of staple gun in this photo) until you absolutely must trim it in case you mess up.

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Figure 21: Here is my mistake that caused the gloss black vinyl to be shows at the top of the window (see After photos) -- I cut away the excess fabric before it was absolutely required. Also later I found the scissors shown in Figure 34 were a better tool for cutting than the xacto knife shown here.



Figure 22: With top centered, install the retaining strips for the 2nd and 3rd bows.

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Figure 23: Painting to mitigate corrosion of aluminum front bow.



Figure 24: Trimming front of headliner. This must be fairly precise because no excess can protrude beyond the retaining strip at the first bow.

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Figure 25: Installing headliner retaining strip onto front bow. It also has gorilla snot on its back side.



Figure 26: Securing headliner to rear bow. Note drop cloth to protect rear seat from gorilla snot and glove to protect my hand.



Figure 27: Using coat hangar to pull side cable into sleeve.



Figure 28: Sheet metal screw that replaced pop rivet for side cable.

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Figure 29: Soap marks across fabric at front bow to identify how to glue under front bow when top opened for gluing. I have three marks because it took me three marking efforts before it was right. You need a helper for this marking step.



Figure 30: I glued the middle first (between the two spots of making tape) , let that dry, then checked the fit before I glued the outsides. Use lots of glue on the front bow because the staples do not hold well.

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Figure 31: Checking fit with just middle of front bow glue dry.

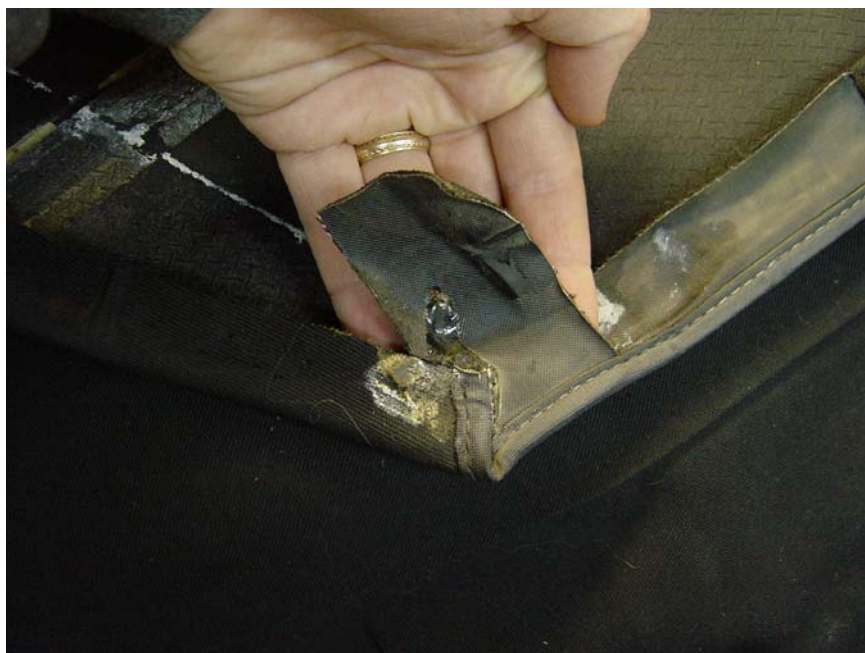


Figure 32: This shows how the original top fit into the front bow. Notice how it creates a pocket. You will have to create something similar with the replacement top.

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Figure 33: Now the whole length is glued, checking fit again before cutting away excess fabric.



Figure 34: Cutting away excess fabric under front bow. Note the style of scissors (OXO with Off Ramp from Lowes) — these were perfect for this job.

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Figure 35: Stapling wind stop under front bow (staples go under the flap). These staples do not hold well so use adequate glue.



Figure 36: Wind stop secured, tucking under weather strip; ready to screw weather strip back down.

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Figure 37: Snake the defroster wire thru the fabric. Note the Velcro for the headliner is partially hidden under the stapled area. This is another indicator I had the rear window section too low, but at this point I had already trimmed the excess fabric so I added self adhesive Velcro above the original Velcro.



Figure 38: Trim the flaps that are glued into the rear quarter window channels.



Figure 39: Attach springs at corners behind the rear windows.



Figure 40: Stapling new top on rear. Note using a few staples now to check fit.

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Figure 41: Here is a problem -- the tension of the new top when closed caused the rear window and the support strap above it to be loose. You can't know whether this will happen to you, just anticipate the top fitting will take extra time. I disassembled the rear section to retension the rear window and support strap.



Figure 42: Here I have folded the top forward to access and retension the rear top assembly.



Figure 43: Installing rear trim strip over the staples.



Figure 44: Installing side spoiler section. I was lucky, in my vehicle the middle threaded stud was simply that -- no nut to locate deep inside the body.

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Figure 45: Gluing top to quarter window area.



Figure 46: Stapling top to rear bow. It is critical the staples be in a straight line here so they will be hidden under the trim.



Figure 47: Last step of trim installation. I wanted to reuse the screw holes in the bow from the prior installation, but found that too difficult to locate. Installing the screws in new locations seemed to work pretty well.

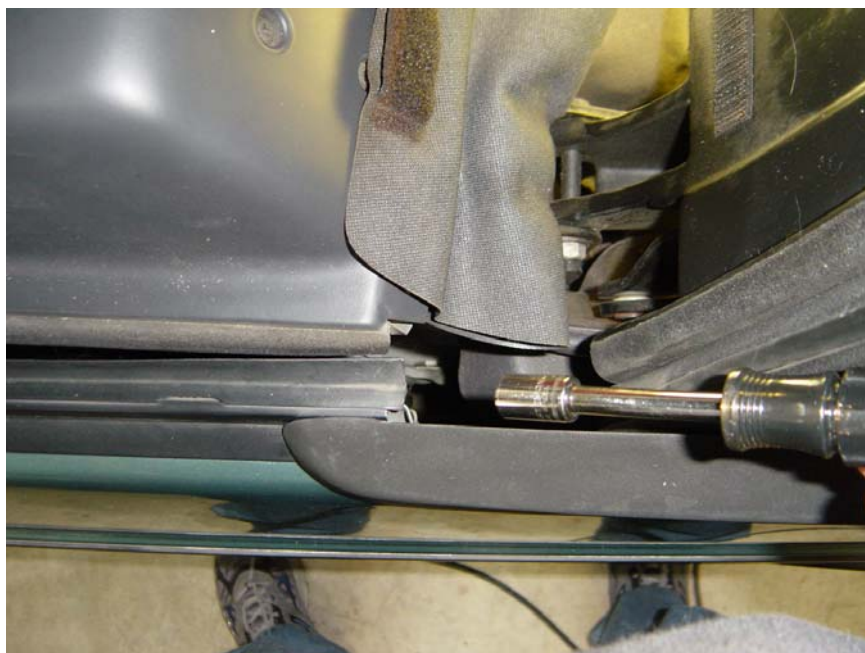


Figure 48: The nut that holds the front of the spoiler section is accessed with the top down thru this clearance. Don't drop anything down there – this area goes to the bottom of the panel. You need long skinny arms to retrieve your screw driver if it falls.

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Results



Figure 49: Done! At the time of writing I have driven the car for a month and no problems.