

Convertible Top Plastic Window Repair DIY (long)

First piece of advice: If your window is delaminating, fix it right away. Mine got worse quickly.

Photo 1: Window beginning to delaminate



Photo 2: Window Delaminating – after a few weeks in the hot sun



My window was delaminated along almost the entire bottom edge, at both factory glue seams. (see Diagram 1) The factory construction consists of a folded and glued canvas, which is then glued to a window assembly. (The window assembly consists of the vinyl window with a fabric-and-zipper border sewn and glued to it.) This window assembly was intact for me, so I could use the fabric/zipper edge in my subsequent gluing and sewing.

Diagram 1. Window construction and failure cross-section

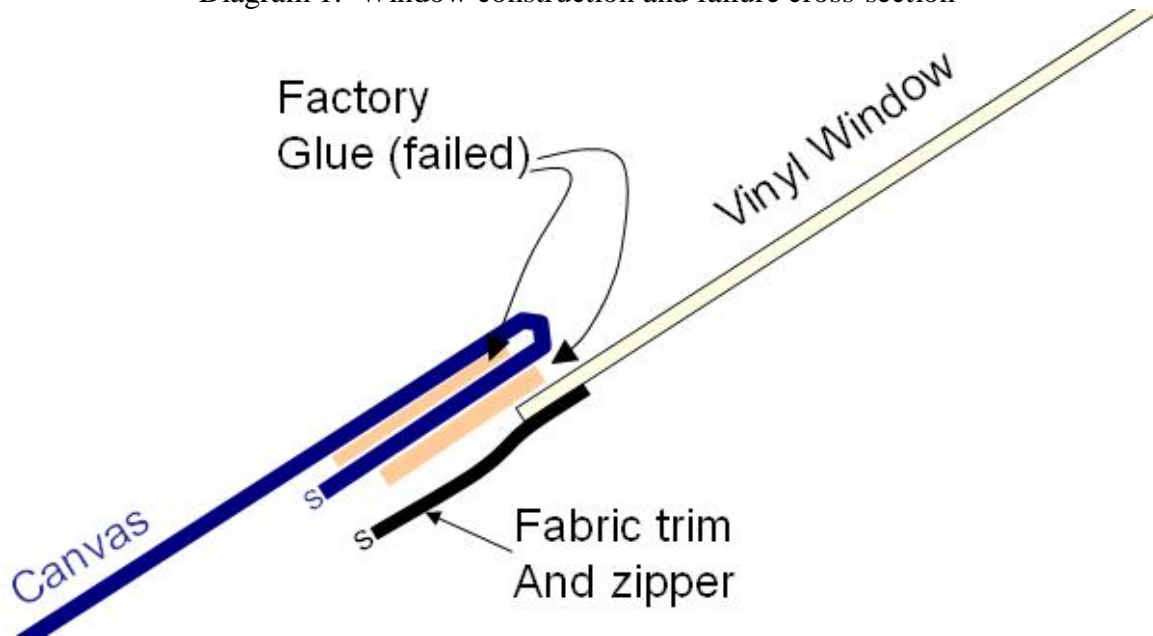
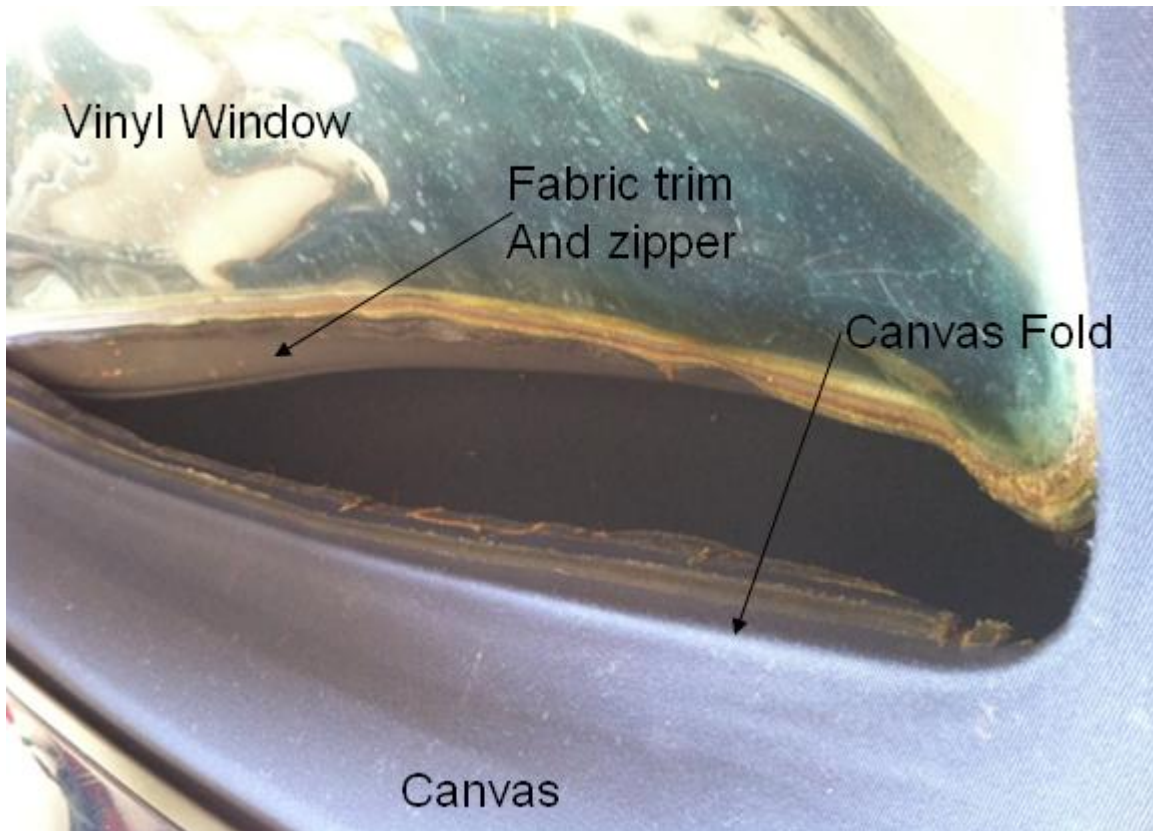


Photo 3: Window Delamination and Construction



WINDOW REPAIR DIY, 1999 Porsche 911 (996) Cabriolet

My basic steps were:

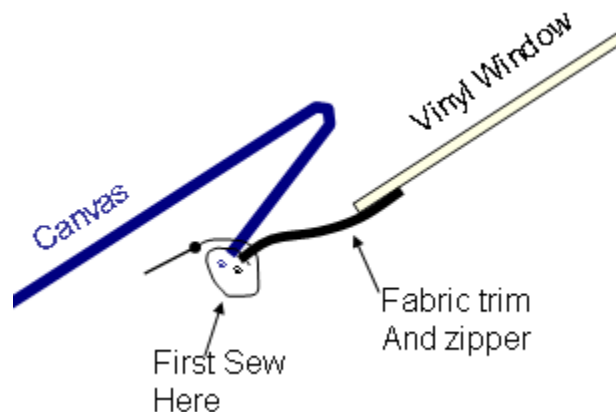
1. Remove old adhesive
2. Sew the back edge of the seam
3. Re-glue the canvas fold
4. Re-glue the canvas-to-window seam
5. Sew & reinforce the canvas-to-window seam
6. Silicone seal the canvas-to-window seam
7. Waterproof spray the top and sewn seam
8. Polish the window with plastic cleaner/polish

Detailed description of the steps above follows:

1. Remove Old Adhesive First, I removed as much residual glue as possible. I used a solvent based adhesive remover called [Goof Off Pro](#) (from Home Depot). I applied it with a tiny rag, and then used a plastic scraper to remove the glue. It only softens the glue slightly, so you have to do a lot of scraping. I didn't remove all the old glue; only the loose parts. Do not get this stuff on your window. :(Goof off worked marginally well on the old adhesive, but you might try something else, too.

2. Sew Back Edge of Seam I started by sewing together the very ends of the delaminated pieces (labeled "s" in Diagram 1), just to line up the entire seam properly. (see Diagram 2) You can get at this seam easily by opening the Cab top half-way, detaching the ball-and-socket end of the cables under the back of the canvas, and flipping the window up. A simple looping hand stitch, using upholstery thread only took a few minutes. (more about thread selection later)

Diagram 2: First Sewn Seam



3. Re-glue Canvas Fold Next, I re-glued the canvas back onto itself where the factory glue had failed. I used [Gorilla Glue](#) for this. (See Diagram 3.) Gorilla Glue is easy to work with, and strong when bonding fabric to fabric. Good clamping is the key for any gluing job. Make sure you have your clamping arrangement tested BEFORE you apply any glue. Some things to watch out for: Gorilla glue foams. Use a thin coating and spread it with a brush. It can be messy. Be sure to cover up anything you don't want to

get glue on. Gorilla glue dries stiff. Make sure you have the finished part clamped in its final orientation. I didn't, and it was a pain. I used large black binder clips (office supply store), but I ended up with a curve to the finished glued part, which made subsequent steps harder. Clamp it flat instead. For the second glue step, I used four 8" C-clamps from Harbor Freight tools, and four clamping boards (2 on each side). The boards have to be cut to just the right size to fit.

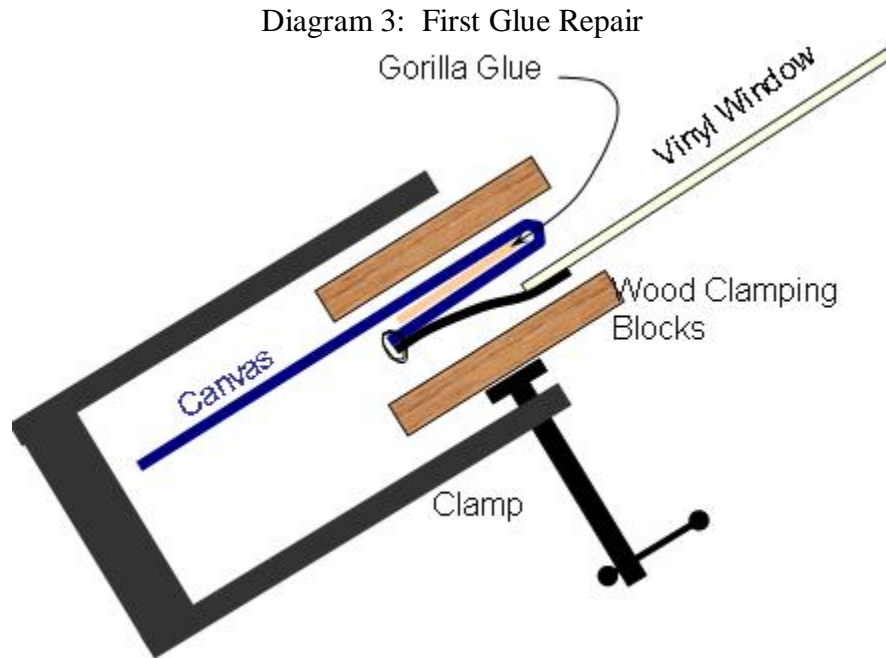


Photo 4: Glue clamp example



4. Re-Glue Window After drying for 24 hours, it's time to glue and clamp the canvas-to-window seam. This is the trickier seam, since it holds the window directly. I ended up

using an adhesive called [E-6000 by Eclectic](#), which I got at [Michaels](#) Craft Store. (It worked, but I considered other options.) Clamp the seam well, and quickly. Practice clamping before you actually do it, and have a partner. Here's what I didn't like about E-6000 glue: It's hard to work with. It skins over very quickly, so you have to work FAST. It also takes 24-48 hours to cure. (Full disclosure, I tried gluing this seam first, without steps 2 and 3. I couldn't line everything up fast enough, and the glue didn't hold. I made a big mess that I had to clean up) E-6000 glue is not UV resistant, but I found out later they make a UV-resistant version.

If I had to do it again, I would consider using the Gorilla glue on this seam, but I'd test its adhesion to vinyl. The UV-6800 version of E-6000 is an option. There's another [adhesive](#) I have also found, but too late for me to use. But, the **E-6000 seems to be holding**, so I'll never know if I made the best choice. I let the E6000 cure for 48 hours, still clamped.

It's important to do this with the convertible top partially deployed, to relieve stress on the window. Make sure you line up the seam well, so that the window will stretch tight without pulling apart when the top is fully deployed.

Diagram 4: Second Glue Repair

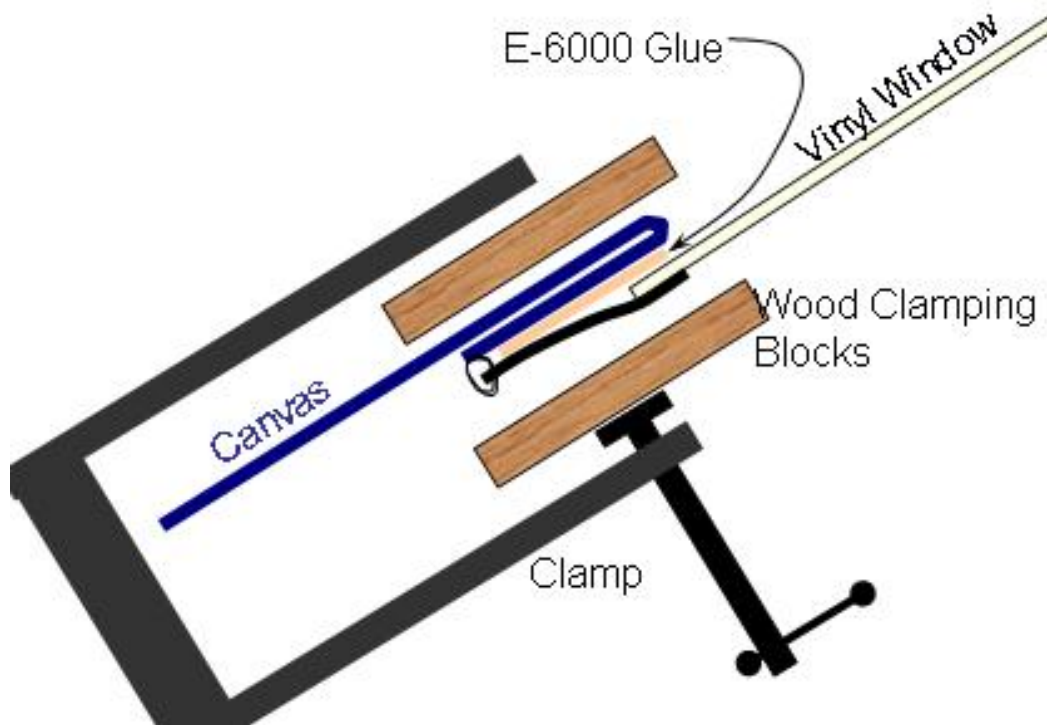


Photo 5: Glue clamp example detail. For the actual clamp job, I used longer boards.



5. Sew Window Seam Now comes the hard part: Sewing. I was worried that the glue seam wouldn't be strong enough, so I decided to reinforce it with a sewn seam. This is optional, but I wanted my repair to last. I used a sewing awl called the [Speedy Stitcher](#) that I got at [EMS](#) for \$12.00. I did much research on thread. Heavy duty thread from the craft store is not strong enough. #92 Nylon thread is nice to work with because it doesn't fray, but #92 Polyester thread is better for UV resistance. (The factory top is made of polyester). You could also use #138 thread, which is heavier. I used #92 polyester thread in navy blue from The [Thread Exchange](#). The needles that come with the Handy Stitcher are too heavy, but standard heavy duty sewing machine needles work fine. I used #18 sewing machine needles, but I would recommend the heavier #20 or [#22 needles](#). I broke 5 needles doing the job, but only punctured my finger twice. A few medium sized [standard needles](#) also came in handy. Use a running [lockstitch](#) (like a sewing machine creates). There are instructions on how to do this included with the handy stitcher. I've tried to show the stitch in my diagram.

Diagram 5: Final Stitching.

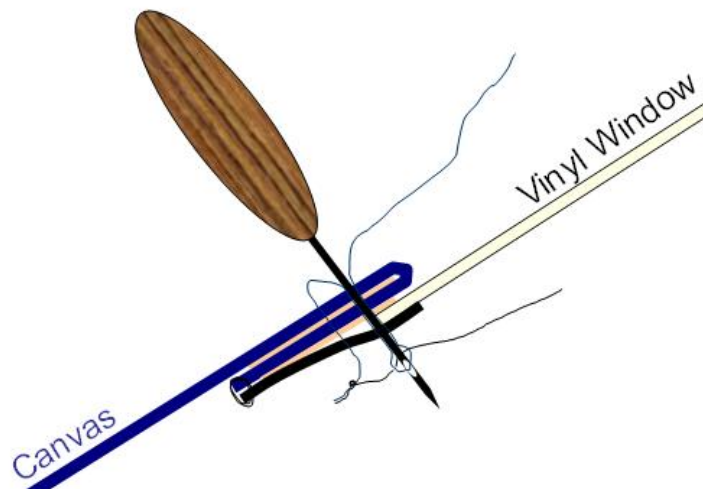


Photo 6: Sewing Canvas-to-Window Seam



The stitching around three-quarters of the window perimeter took me 8 hours, so this is not recommended for the faint of heart. I used a **3/16" stitch length**, and made the sewn line **1/4" from the edge of the folded canvas**. I used pre-marked masking tape to keep my stitches straight and evenly spaced.

I ended up sewing around just the bottom, and two sides of the window. The top of my window seems to be secure, so I decided not to sew it for now.

6. Silicone seal the canvas-to-window seam. I was worried about leaking where the thread had pierced the vinyl window, so I used 100% clear silicone adhesive caulk from home depot to seal the seam. I tried to apply the thinnest bead of silicone possible to the gap where the canvas fold meets the window. In hindsight, it doesn't look great. Next time, I'd use ultra-clear silicone, and use an even thinner bead.

Diagram 5: Silicone Bead

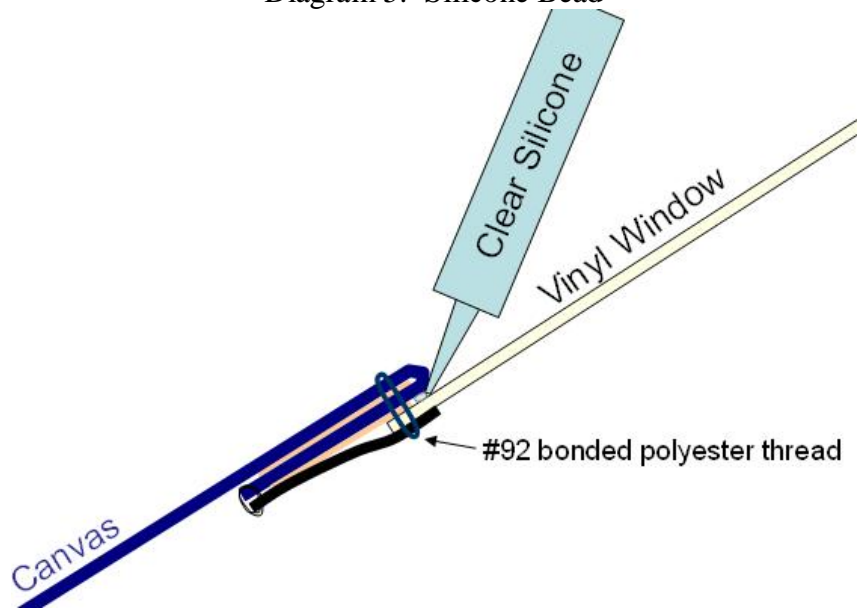


Photo 7: Silicone Bead



7. Waterproof spray the top and sewn seam. I used [Porsche Convertible Top Conditioner](#) waterproof spray. I applied 1 coat to the entire top (after masking off the paint and windows), then 3 or 4 coats to the sewn seam. Later, if I find that the thread holes are leaking, I'll try [Plastiseam Seam Sealer](#).

8. Polish the window with plastic cleaner/polish. I used [Meguiars PlastX](#) clear plastic cleaner and polish from Pep Boys on both sides of the plastic window. It works fine on removing any haze, but not great on deep scratches. It takes some elbow grease to use. I'll probably try a few more applications of the PlastX to see if I can improve the existing window scratches.

Not perfect, but not bad. Here's the final result:

Photo 8: Completed Convertible Top Window Repair

