

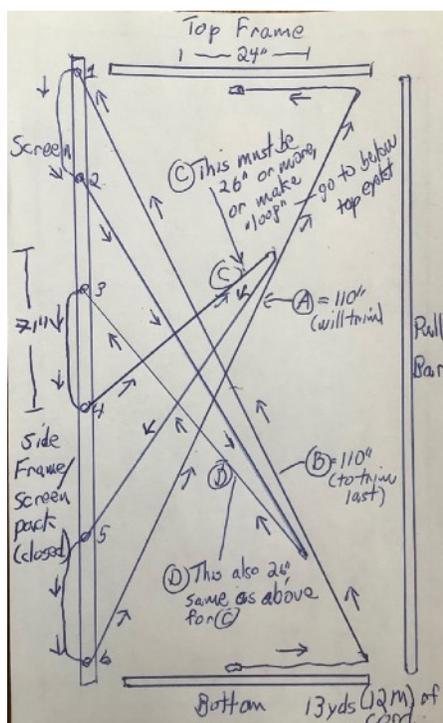
## Tab 400 Screen Door Cord Repair

This is my (vholow on the Tab Forum) attempt at an instructional guide for those who wish to repair their slide-out screen door by replacing the tensioning cord. The process is not especially difficult, but it did take me about 3 hours to complete, and that was for second time I did it. Still, for determined DIYers, this may be preferable to \$200 or more to purchase a new door of this type.

The vertical pleat fold-out door in my 2018 Tab 400 is made by Horrex, in the Netherlands. They have produced a pdf repair guide, available [here](#) (as of 1/2/21. Credit to MandoBiker, in [this Tab Forum Post](#) for this link.) Here is [an alternate source](#) for the guide. The problem with this guide, in my opinion, is that it makes little sense until you do the repair yourself. So what follows is my attempt to supplement the Horrex repair guide.

To do this repair, a 2.5mm (3/32") allen wrench/hex tool is needed for the cord tensioners, a drill and bit set to remove 2 rivets, a riveter and rivets to replace them, a large needle for threading the new cord, a #2 phillips head screwdriver, a square driver for the Tab-used trailer screws, adhesive tape, crimps, string (for temporarily securing the mesh pack) and 13 yards (12 M) of 1mm blind cord (or of something else).

First, some overview is helpful. For orientation purposes, the **front** of the door frame faces into the trailer. The screen mesh pack stores on the left when closed. By **closed**, I mean folded into the left frame, like a closed fan. The pull bar **opens** (deploys, like a vertical fan) the screen from left to right. The right side is where the trailer door latches. Regarding how the screen door works, it uses a single cord, which, starting from the bottom tensioner, goes around a pin or flange in the right bottom frame corner, then into the bottom of the pull bar and out the top. It is then woven through 6 horizontal sets of eyelets, counting down from #1 at the top. A loop is made between eyelet sets 2 and 3, which is pulled **downwards**, tight to the vertical part of the cord coming up from the bottom when the door is closed. The cord comes out eyelet set #6 and goes all the way up from the bottom of the pull bar, out the top and around a flange in the top right corner of the frame. Then it attaches to a tensioner in the top rail. A loop is made between eyelet sets 4 and 5, which is drawn **upwards** tight along the vertical part of the cord that came out at eyelet set 6, when the pull bar is in closed position. Opening the screen draws the loops and two verticals into the 6 eyelet sets of open screen mesh. Closing the pull bar draws everything back in side the vertical part of the pull bar closest to the mesh end. Here is my drawing of how the cord is threaded, with necessary lengths included.



**Steps:**

1. Remove the screen door from the trailer. It is fastened in with six square-bit screws through the metal frame on the rear side. Pull the left side into the trailer first (being careful of the thermostats on the right). Note that the bottom rail of the screen door fits on top of the trailer metal threshold plate.
2. It is helpful to label the outside of the 4 pieces of screen frame, indicating front, back, left, right, top, bottom. It is also good to take pictures of each step.
3. Remove the top rail from the two sides, by removing two screws from the vertical frame pieces, but leave the corner pieces attached to the top rail (for orientation). Cut the cord a couple of inches from the top rail tensioner, but leave the tensioner in place for now (also for orientation). Note: the top right corner piece includes a flange which the cord wraps around prior to entering the top of the pull bar. This fin, or flange, is a major stress point on the cord. My cord broke on the bottom right flange, suggesting to me that wrapping the cord around something more round, both for the top and the bottom tensioners, would be better. I replaced the flanges with stainless steel sheaths mounted between fender washers, held in place by a bolt and nylon lock nut. Here is a picture of my top right replacement, with the locknut towards the front of the frame.



4. Remove the bottom rail from the two sides. It is held in place by 2 rivets on each corner, one on the vertical piece, one on the horizontal bottom rail of the frame. Only remove the rivets on the bottom rail, for 2 reasons. First, there is no need to remove the rivets in the vertical pieces, and second, the bottom rail is aluminum, which is much easier to re-rivet than the plastic verticals, and can tolerate the rivet removal/replacement better. To remove the rivets, select a drill bit slightly larger in diameter than the hole in the center of the rivet, and drill through it. The goal is to drill out the rivet shank, hidden inside the bottom rail, and detach it from the flat rivet flange-end you can see on the bottom of the rail. Use progressively slightly larger drill bits, until the pieces separate.

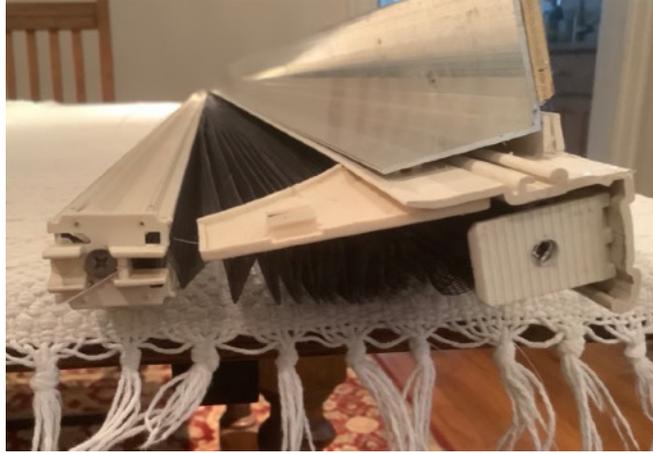
Here is the bottom left (the mesh pack side, but upside down, so the “rear” of the door is on top), showing the corner rivets. The second image shows a drilled rivet and separated pieces. The separated rivet shank is still visible in the plastic corner insert.



Here are 2 images of the right bottom corner, with the flange for the cord that attaches to the tensioner before going up through the pull bar replaced by a roller, to better difuse the pulling tension. Note that the locknut is on the rear side of the bottom track, so the front side, with just a phillips head showing, looks more finished. The 1/4” of threaded bolt on the rear side fits flush to the trailer threshold.



5. Remove the mesh pack from the top of the left side frame, and the cord from the top of the pull bar. The picture below is of the bottom left, with the pull bar cap left in place. Note the orientation of the pull bar end cap, with the more open, slotted side facing the mesh pack. The top will reinstall with the same orientation.



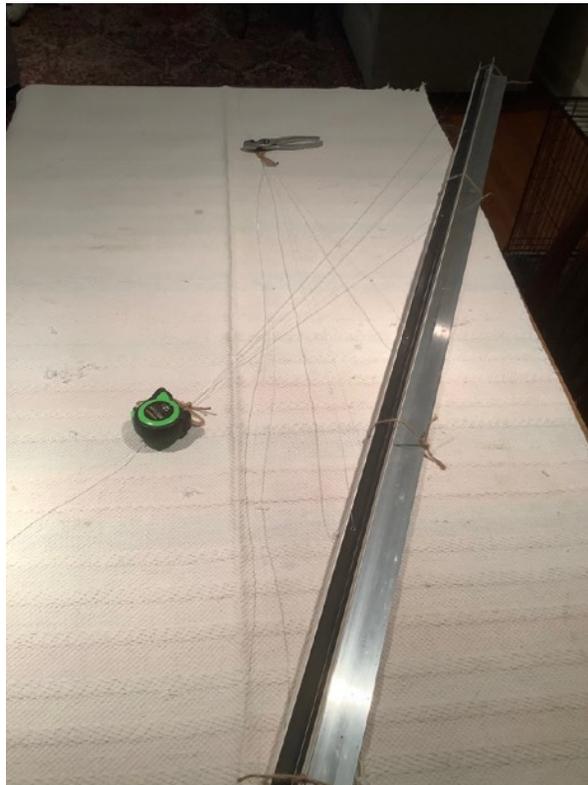
6. Tie the mesh pack on both ends and between eyelets 2 and 3 and 4 and 5. Then thread it with the new cord. If you want to replace the original cord with a similar product, [here is a link](#) to 1mm black braided nylon on Amazon, courtesy of MandoBiker. I used a similar product the first time I repaired the screen door. The problem, as I see it, is that the edges of the holes in the screen through which the cord is threaded can be sharp enough to abraid and ultimately break the cord. Also, as noted, the top and bottom rail fins, where the cord is pulled tight to the two tensioners can also tear the cord apart. So after my replacement lift cord broke, I decided to use 60lb test, 0.7mm monofilament fishing leader; the sort of line used in sea fishing. It is smooth, abrasion resistant, very strong, and unobtrusive in this application. [Here is a link](#) to it on Amazon. I am happy with it, but I will have to report back to the forum with an update if it ever breaks. The drawing at the beginning of these instructions shows the cord path. Below are examples.



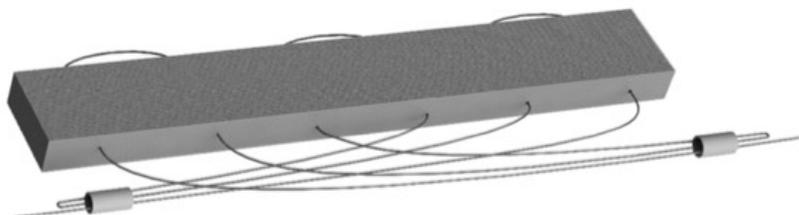
7. The beginning cord length, going into eyelet 1 (the top one), should be 110" (you can trim a little off when finishing), and the end length, emerging from eyelet 6 (the bottom one) should be the same, 110." Also, the shorter loop lengths, emerging from eyelets 3 and 4, need to be at least 26" (a couple of inches longer than the 24" needed when the screen is open (deployed)). The short sides of the two loops can be longer than 26," but must not go past the top and bottom eyelets (1 and 6), when crimped to the beginning and ending lengths, while drawn tight to the closed mesh pack.

8. When you have all of the cord lengths in place, tape the backs of the loops, between eylets 1 and 2, 3 and 4, and 5 and 6. I used freezer label tape, which I cut to be narrower (the edges of it cannot go past the side of the mesh or they may jam when you reinsert the mesh in the left-side frame. The tape keeps all of the lengths in place, so they don't pull unevenly when using the door, and so they don't shift before you finish assembly.

9. Reinstall the mesh pack in the left-side frame, and re-tie it to keep it tightly closed.



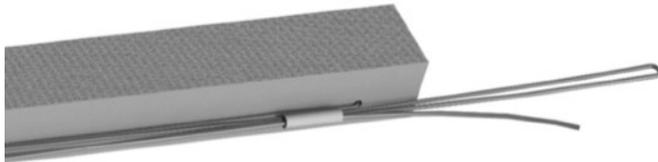
10. The next step is to crimp the loops. Here is a link to the [crimps](#) needed (thanks again to MandoBiker), from Amazon. I highly recommend that a wire jewelry crimper be used to do the crimping. [Here](#) is an Amazon link to one. The crimps are small. The specialized tool allows them to be crimped down the middle, then folded over on themselves to be more compact and tubular instead of flat, and it makes them more tightly binding. Perhaps the most essential aspect of a successful repair is to have the various cord lengths correct, the mesh pack tightly closed, and the loops drawn tightly to the long exit lengths while crimping: The loop between eylets 2 and 3 goes down to the beginning length, tensioned in the bottom rail. The loop between 4 and 5 goes to the cord which comes out at eylet 6, goes up the pull bar and tensions in the top rail. Below is the Horrex manual drawing of the loop directions, but not the lengths (see my first drawing).



Here are the Horrex instructions for loop length/placement (or make the loops shorter, as described above).

Pull on the cords so they are all tight when the cord connector is placed against the mesh pack at the last hole on both sides.

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Here is a picture of a finished crimp, folded on itself with the crimping tool:



11. Cut the small crimped loop off. Note: I was concerned the edges of the crimps were sharp and could catch or abraid cord in the pull bar so I put a little caulk on them, since it is soft and flexible. Re-install the right-side edge of the mesh in the pull bar, with the 2 long cords and crimped loops threading into the space in the pull bar beside the mesh end.

12. Replace the pull bar top end cap. Place the 4 pieces of frame loosely together. Thread the new cord on the tensioners. The cord goes from the left, still-tied mesh pack across to the right, around the fin or roller then to the tensioner, which should be in the middle of the top and bottom rails, respectively, once it is tensioned. If you use monofilament, use a good fisherman's knot or glue the knot to prevent slippage.

13. Re-install the 2 brushes on the bottom rail. Re-assemble the rails, then rivet the bottom. Note: the wooden entry-way of the trailer is a tight fit with the screen door frame. Rivets work well on the bottom rail because they are flat and you don't need access to the inner, shank side. Tension the top and bottom cord ends and reinstall the door, putting the right-side vertical in place and on top of the trailer metal threshold prior to the left side.