

1956 to 1962 Corvette Windshield Frame Glass Removal and Installation Part 1

1956 to 1962 Corvette Windshield Frame Glass Removal and Installation Part 1 - Disassembly



This is the procedure that I use to remove, disassemble, and replace the windshield glass on these early Corvettes. It is a time consuming task and requires patience, but only basic skills are needed to produce a properly fitted assembly. The most important part of this job is to take your time. Do not rush. It is also very important to remember that you are working with glass. Keep in mind that the most susceptible breakage area is the side wing of the glass where the side posts attach. Never stress this area. Also ensure that all screws must be a particular length and if improper hardware is used it may break the glass. The only hammer to be used when working with this assembly is a rubber mallet.

Tools Recommended:

Padded work table, minimum 5' width
Tape measure and rulers
String
Masking Tape & pencil or markers
Phillips & Slotted Screwdrivers
Various open end wrenches
Socket wrench, socket set & extensions, flex sockets and/or universal joints
Putty knives and/or blunt butter knives
Soap & Water solution and small paintbrush
3M Strip Caulk or equivalent
Rubber Mallet

Disassembly:

The first step is to remove the frame assembly from the car. There are a total of 12 fasteners holding the frame to the body. There are 2 nuts on each side post attached to integrated studs. These are attached to the door hinge pillar extension. There are 8 #12-20 (note NOT 1/4-20) nuts attaching the lower frame T-bolts under the dash.

The side post stud nuts are difficult to reach. The kick panels must be removed to access them. Using appropriate ratchet extensions, remove the nuts and washers if present. 1958-1962 is relatively easy using a ratchet extension and flex socket. 1956-1957 may require a little more ingenuity. It has been suggested to remove the Courtesy Lights and use a flex socket or universal joint with socket to gain access to the nuts.

The 8 T-bolt fasteners in the lower frame channel will be a challenge. There may be many obstructions to get at all of them. Note that there may be the original wiring harness clips also attached to the T-bolts under the dash area. Using your 7/16" wrenches and ratchet extensions, remove all 8 nuts. There are 2 on each side hidden in the crevices of the door hinge pillar extension. Others are hidden by defroster vents and other under-dash hardware. I find it easier to remove the seats and lay pads and pillows on the floor when i get under there.

Once all 12 fasteners are removed, from above both outside and inside the car, carefully pry the frame assembly in several places to free the frame from the body. There may be resistance due to old sealer so take your time and protect the paint and dash pad from damage. Open the doors wide. With a helper, lift and remove the frame assembly from the car, walking along the front to avoid the door posts and roof. It is heavy so be prepared for it's weight. There is a lower windshield frame to body rubber seal. It may stay attached to the body or may come off with the frame, or both. You can get under it with your putty knife to free it up. There may be sealer on both sides so be prepared for that.

Rest the frame assembly on your padded work table with the front face of the glass down. Here you will see the loose fitting eight T-bolts protruding from the lower frame channel. Note that this channel also has the lower reveal trim attached. Keep in mind that this is an assembly and will be removed as an assembly. It must also be attached as an assembly later in the rebuilding process.



If you are replacing the glass, skip this step. If you are re-using the glass and just replacing hardware or the rubber seal, use masking tape on the glass at various frame channel and side post endpoints and mark them in ink for later reassembly. Mark the endpoints of the frame channels, post inner flange tabs, and other various points. It's also recommended to place some marks on the glass and upper/lower channels for alignment.

Begin disassembly by removing the small screws securing the posts to the lower frame channel. These may be Phillips or Slotted. The post is a special casting and the tab where the screws are located is prone to breakage. See this link for information if these tabs are broken on your assembly, [HERE](#).

Note that this post has had the tab replaced as there are 3 screws holding it to the post body. One channel attach screw has been removed, the other at the bottom must also be removed.



Both frame attach screws removed, and the trouble T-bolt you got at under the dash can be seen.



Continue to remove the other side post hardware. Keep track of all hardware for reassembly.

Now remove the 2 screws on each post up at the header frame. These are integrated toothed washer screws and are a special length.



Also remove the 4 small screws securing the header trim to the header frame. One is shown on the left.



Using a pry tool, carefully begin to separate the post from the lower channel. Pry it just enough to get the post moving from the rubber. Then move to the upper frame and carefully pry the post from that.

Work a little at a time, back and forth, to get the post away from the rubber. The post is heavy so be prepared for some weight when it comes off. Hold it firmly and pull it away from the rubber and lower channel area. The upper channel may be tight, so if needed, brush some soapy water solution around to help loosen it.





Once you get the post a bit free from the upper channel, carefully pull the end out and away from the rounded header trim. This metal to metal attach point may have some corrosion and rust so you may need penetrant to help free it up. This frame wasn't bad so it came out relatively easy.



Do the other side next. Here you can see the channel ends exposed and the mating area of the post. Keep in mind, if you send your posts out for re-chroming, make sure they are aware that they must NOT leave slag and extra plating in the channel slot of the post. Too much copper and plating build up in this area will cause much difficulty on reassembly. The same area to be protected from extra plating material is the side area where the lower stainless trim meets.

If you have problems in these areas after getting your pieces back from the chrome shop, you will have to grind material away for proper refitting. If you do, use plenty of masking tape built up in layers to protect the exposed areas of chrome.





Now begin to remove the lower frame channel trim assembly from the glass rubber seal. Carefully pry the ends away and remove the assembly from the glass. Keep track of the 8 T-bolts and remove them for later cleanup and reassembly. There will be 2 nut plates held into the channel ends with clay sealer.





Remove the upper header frame channel from the glass. There will be a nut plate at each end of the channel, used for those 2 integrated washer screws above, normally held in place with a clay-like non hardening sealer(dum-dum).



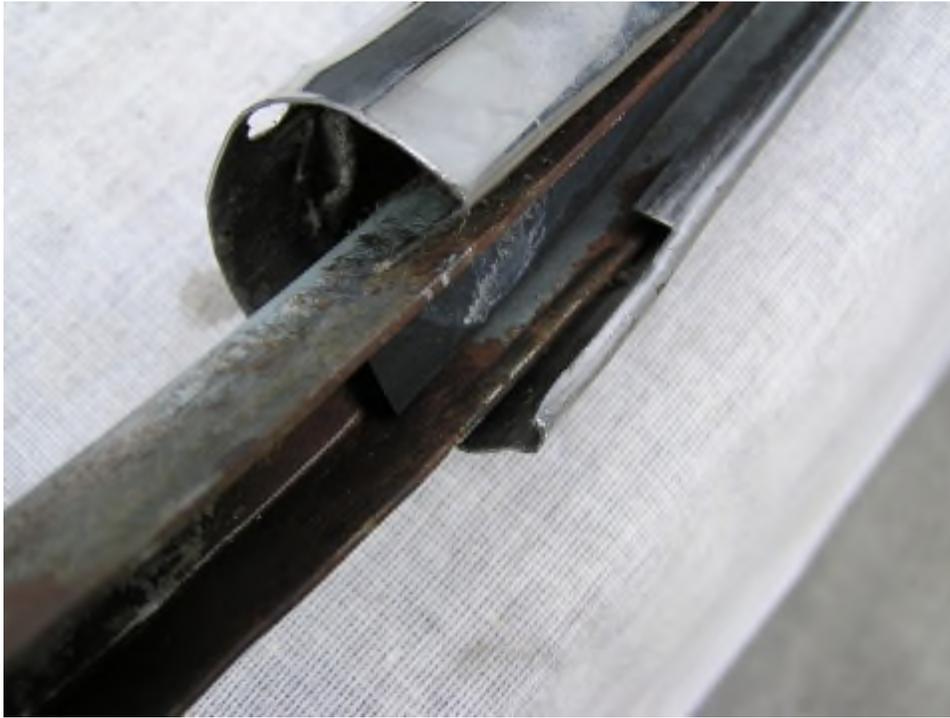




Here you can see how the header stainless trim is captured by the frame channel. This must be separated later for reassembly. The lower trim lip can be seen clipped over the channel edge. Tricky to remove, but doable with a procedure I use. More later on that.

Also note there is a foam "filler" inside the channel. It's glued in place and may be deteriorated on yours. Replacements available, or make your own. This is just a foam piece to fill the gap of the channel to the glass rubber seal.





You can mark areas of the frame channel ends before you peel the rubber away if you missed that earlier. I marked them here as I was only replacing the rubber glass seal on this assembly. I also marked the upper frame ends on the glass. You could mark center if desired.





Now that all of the hardware is removed, you can peel away the rubber from the glass. There may be old hard sealer there from original installation or a replacement shop. Clean everything up for reassembly later.

Some notes about replacement items:

1- Windshield glass. Present aftermarket suppliers provide glass slightly thinner than original glass. This may affect your overall fitting work when assembling the glass to the frame. Not a major problem, but I've found it doesn't seal as well with the larger opening in the rubber channel. For this reason I use a windshield glass liquid sealer on my assemblies. Not too much, just enough to fill the void at the edge of the glass.

2- Glass to frame rubber seal. As of January 2014, it was discovered that the supplier had a problem with the length of the rubber seal, causing wrinkles in the rubber at the inside corners of the dash. If you are uncertain, install the rubber on the glass and stretch it out from the bottom to the header area. If you appear to have about 3" too much rubber at the top and you get wrinkles in the lower inside corners, then you must not proceed. Contact your supplier for a updated replacement from the manufacturer, which typically is Corvette Rubber Company.

3- Screws. Make sure you NEVER use screws which are longer than stock. If you do you may break the glass as the screw hits the edge of the glass.

Disassembly steps are complete. Now on to reassembly.

http://home.comcast.net/~richmz/site/?/page/1956_to_1962_Corvette_Windshield_Frame_Glass_Removal_and_Installation_Part_1/

1956 to 1962 Corvette Windshield Frame Glass Removal and Installation Part 2

1956 to 1962 Corvette Windshield Frame Glass Removal and Installation Part 2 - Assembly



This is a continuation of Disassembly Procedure, Part 1 [HERE](#)

Assembly:

Start by finding the top and bottom centers of the glass if replacing it with new.

This can be done this way. Carefully rest the glass, bottom edge down, on a flat table or flat floor. Take a carpenters square, one flat edge on the table/floor, and use it to mark a spot on each side of the glass wings at the edge of the glass, a few inches up in the vertical direction. I like about 2 inches up. Do this on both sides. Now take your string and place it across the glass where you marked the glass, and mark the ends of the string. Don't stretch it, just keep taught. Remove it and fold the string in half and mark the center. Place the string back on the glass at your original marks and then mark the glass at the center point of the string.

You can also do the header channel this way with a higher measurement using the square.

Start to attach the rubber to the glass. I start at the bottom to get the lower inner tabs lined up to the marks I previously made. If you marked center of the glass, mark the center of the lower rubber by measurement method and then align the rubber and glass marks.



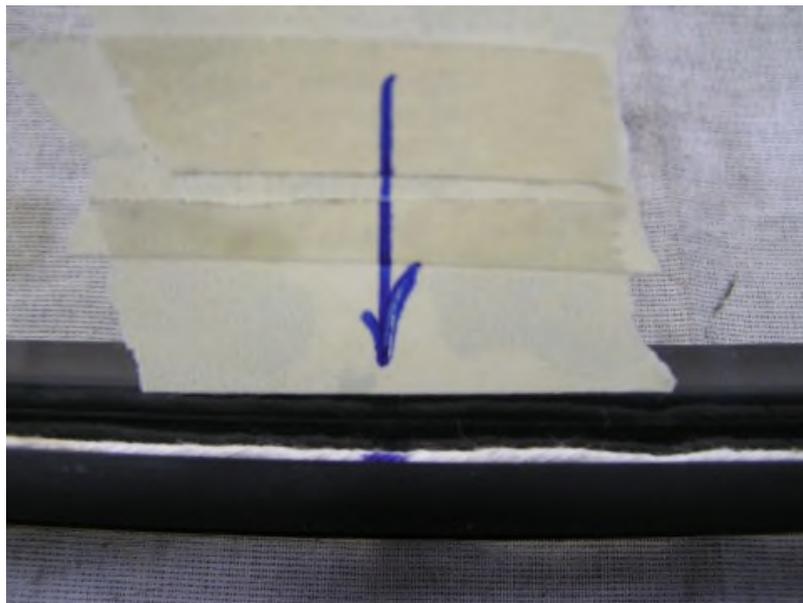
When installed, take your rulers to ensure the inner rubber flaps are in proper position. This is important to get them to fit over the inner chrome post flanges at the dash pad on both sides. I use 2 rulers, one on edge against the vertical glass edge, the other ruler to measure the edge of the flap. Get them both equal by moving the rubber as needed.

Mark the glass where the flap is for later so you can check it while assembling. Keep your eye on these marks as you work to get the final alignment correct. You can see my blue arrows I marked below.



Now mark the center of the glass if you haven't done that earlier. I used the string method on this one, starting and ending at the edges of the rubber flaps which were evenly spaced. Find string center by folding half way, then replace on the glass and mark the glass center. Also mark center of the lower frame channel and it's trim by using the tape measure to find center.





A note about the lower frame channel and outer stainless trim. It MUST be mated as an assembly before attaching to the glass. The trim cannot be attached later after assembly. It can be separated from the channel for polishing, replating the channel, etc.



Here you can see the narrow nut plates for attachment to the side post tabs. Use dum-dum clay sealer to hold them in place on each end of the frame channel.





Install the 8 T-bolts into their slots in the channel. Use some clay sealer around the heads and slots to hold in place and to seal moisture later. Note that the 2 end T-bolts are arranged in a different position from the other 6 due to the angle of the channel as it approaches the side post.

Also make sure your T-bolts don't rotate in the channel slots. If they do you will have difficulty tightening the nuts later, or removing the nuts at a later date. If they spin in the slots, get new ones, or modify the T-bolt squares to hold them in place better. Remember these are #12 threads, not 1/4" threads. If you're ever unsure

about thread size, or are missing a few when you put these back together, here's a little secret. Your generator Armature and Field posts use #12's. In a pinch you can steal a few of those to get the windshield secure.

Here I use a liquid sealer on the edge of the glass. I use it after the rubber is installed and lay in a small bead. Don't overdo it here as the rubber will slide off the glass, and make a mess as well.



Lay the glass on the table with the top edge down, and using your soapy water solution, liberally brush it on the entire lower surface of the rubber seal, particularly along the ribbed edges of the seal. Don't be shy with the amount. Soak it up good as it'll dry up a bit as you install the channel. I avoid oily products here as they wont dry and damage the rubber over time.



Lay the lower channel & trim assembly on the edge of the rubber and line up your center marks. Start to push it down at the center and push hard. use your rubber mallet to firmly and somewhat forcefully smack the channel onto the rubber. Keep your alignment marks together, and work your way over the entire channel with the mallet. There may be some areas where the channel does not fit over the ribbed edges of the rubber. Soap up that area and carefully push up the rubber into the channel with a blunt edged putty knife. Use caution here not to slip and jab the glass.





Now take some measurements of the edges of the lower channel to the flat table. Use your ruler and measure up to each edge. It should be very close on both sides. If not, recheck your glass & frame center lines. This is important for proper final assembly to get the rubber flaps and posts lined up.



When everything checks out, get some wooden blocks and rest the assembly bottom edge down, carefully keeping pressure away from the T-bolts. I use 5 blocks.



Now for a fun job, separating the header trim from the channel. You may think you can just pull the channel out the end of the tubular trim, but the angles of the ends prevent this.

Here is how I do it. You will need several putty knives and/or butter knives. Carefully raise and pry the edge of the inner trim flange away from the edge of the channel. This edge is held in by the trim inner flange. Place the side of your knife in the gap and slowly work the edges, sliding sideways away from each other. Continue to add knives along the edge while adding another knife horizontally to drive the edges apart. It takes lots of knives and patience to do this. I use a mallet to help drive the knife along the edges as I leapfrog more knives along the sides. Once you get to the end it will separate the 2 pieces without damage.





This usually takes about five minutes. The first time I ever did this back in the 1980's, it took about an hour, with cut hands and a bloody workbench, and I recall I damaged the trim at the ends. I learned the above method from a Corvette restorer from California at a later time and it's worked for me ever since.

Now you can prepare the upper channel frame for assembly. If needed, it's a good time to clean and paint it for protection. These are valuable pieces and typically rust in the ends that attach to the upper side posts.

Use the dum-dum clay sealer to hold the nut plates in position. Find your centers that you marked earlier and mount the channel onto the glass seal. Push down hard and use the rubber mallet if needed. Typically it fits on easier than the lower channel.

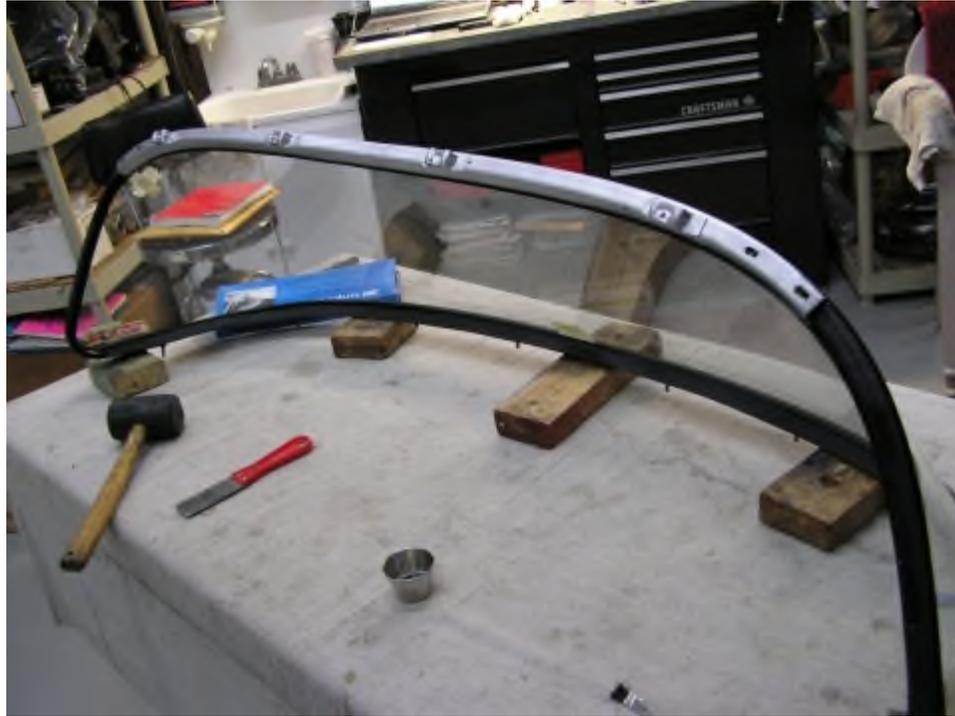




Also check the holes for the header trim mount screws. If enlarged, use pliers to squeeze the holes tighter. It's just soft steel and usually re-forms itself.



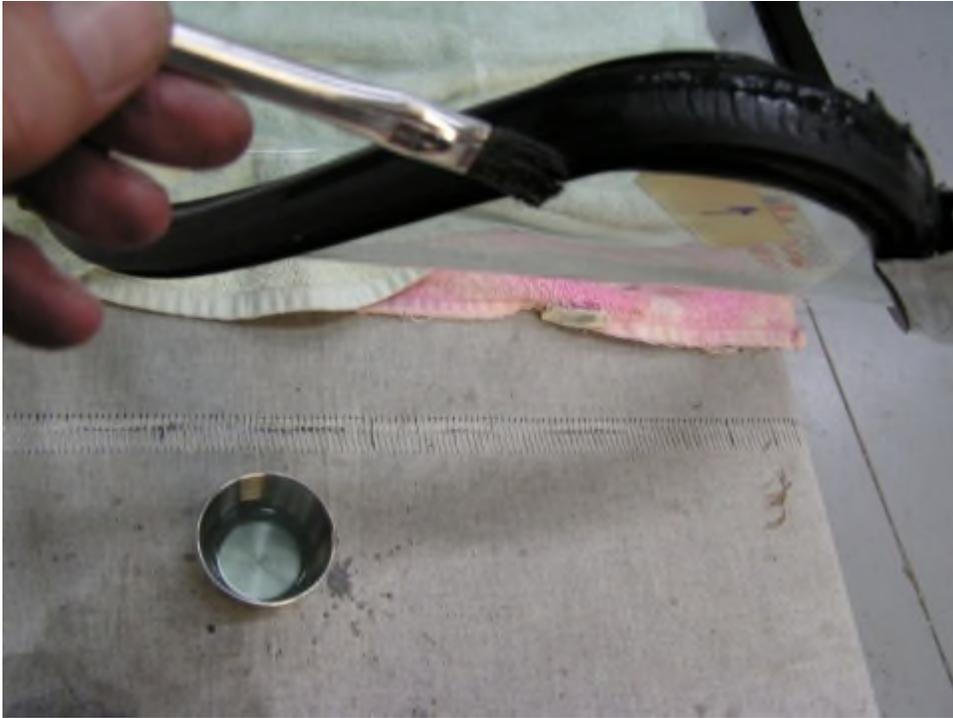
Use the soap solution and brush it on the entire rubber surface of the channel outline. Brush some on the channel too. Line up your end marks or centerline mark and install by pushing down and driving home with the rubber mallet. Now you may understand why the stainless header trim must be removed for this step.



Here you can see the threads of the upper post attaching nut plates. The dum-dum keeps them from falling but they can be moved around later via the access holes for the screws.



Prepare your side posts for installation. Clean any old sealer or dirt away from the attach points. Brush on soap solution to the rubber seal as well as inside the entire side post channel. Put plenty on the header channel ends. Start to insert the upper post channel into the upper frame channel end, while fitting over the rubber seal and into the lower post tab and lower frame channel. Work it all in a little at a time. Avoid the rubber mallet here as you're in dangerous territory of the side glass wings. Take your time, and push straight and firmly to get the post over the rubber and into the channel. This is by far the trickiest spot of the assembly.



Note here that the side of post will be fitting under the lower trim. Carefully get into position as you install the post. It will later snap over the lower lip of the post.



Line up then loosely attach the 2 screws holding the post tab to the lower channel. Note: DO NOT use sharp objects to line up the nut plates and tab or upper post holes. Use a blunt tool with a dull point. If you use a sharp tool it may hit the edge of the glass and break it.





Slide the side post upper end over the header channel. It may take some effort to get it lined up. Remember, patience is important here as this is the critical stage. You don't want to twist the glass by forcing the post too hard. Add more soap solution and firmly yet cautiously push the post over the rubber as well as the upper channel, the lower channel and the side trim areas. It all has to work in together slowly and carefully.



You now will have to line up the screw holes in the upper side post to the channel nut plates. Carefully use your blunt tool to locate the threads of the nut plate, and insert the Phillips screws. Loosely attach them. If they are too short, this is because the post is not far enough in the channel so grab the edge of the channel and post with one hand to get them closer. If this fails, use a temporary long screw just barely reaching the nut plate threads and pull on the head of the screw while screwing in the other screw. Remove your temporary long screw and install the proper screw. Slowly tighten the 2 screws until home. **DO NOT** over tighten. Then, loosen them both a few turns out for the a later step. Do the same procedures for the opposite side post installation.

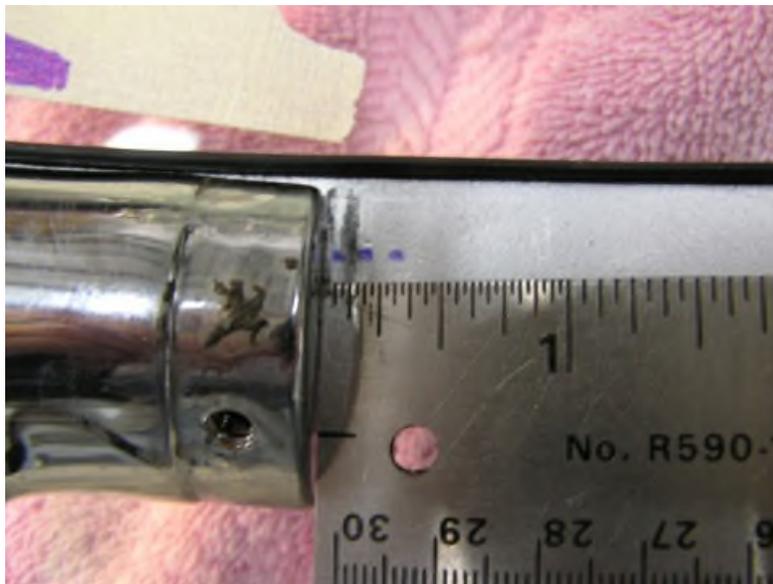
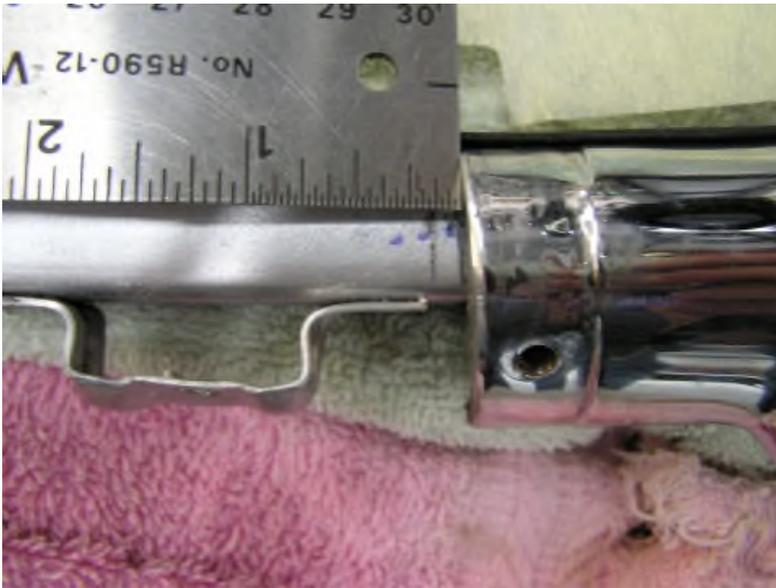


Take your upper header trim and place it adjacent to the edges of their final position. If both edges line up you're set for now. If not, place a pencil mark on each channel next to the post edge, equal to half of the distance of the overage. Carefully draw the posts inward until the difference comes in. This may require removing one channel screw and using your blunt tool to catch the edge of the channel slots (not the nut plates), and pull outward, or inward if needed. Once you have things lined up, then replace and secure the 4 upper screws tightly.



On this frame, I had about 1/4" too much spread of the posts. I marked each side 1/8" inward and brought each post end in to meet those marks.

View showing the opening is about 1/4" too wide.



After pulling inward, meeting the previous mark, now covered by the edge of the post.



Now the assembly can be mounted back on the car.

Place some dum-dum on the lower body seal in several places to hold it in position to the lower channel. It will fit over the 8 T-bolts as there are holes in it in those positions. Some reproduction seals have the 2 center holes in the wrong place. You may have to punch those holes out. Add some dum-dum to the T-bolt areas as well, surrounding and filling the slots in the channel. I also add it to the bottom of the side post end seals and studs, and in between the post tabs and lower seal. The more the better for reducing leaks. Place the side post end seals onto the bottoms. Typically 2 or 3 end seals are used. This may vary based on door post alignment. You may have to add more, but the holes can be cut as slots to allow insertion from the outside edges of the posts later. This is a trial and error process.





I leave the upper trim off until I'm happy with the results after mounting the assembly onto the car. if for any reason you need to disassemble the frame again, at least you won't have to deal with that header trim again. After that time I then squeeze the ends of the trim to reduce the diameter a bit to get a final tight fit over the post ends, then snap the trim over the header and attach with the 4 trim screws. Once it's on, it's committed to stay that way, so prepare it before installation. Also make sure that the nut plate threads for the Sun Visors, if equipped, are in good condition by testing the machine screws in the threads before attaching the header trim.

Another trick to help with reassembly on to the car: It was suggested for reinstallation of the stud nuts and washers, to use some dum-dum on the washers to get them to "stick" to the underside of the post pillar. Then you can concentrate on attaching the nut to the stud to get it started.

This can also be used for the washers of the T-bolt fasteners to hold them in place before the harness clips and nuts are attached. This would be especially helpful for those outer end T-bolt positions.



Back on the car, with nice alignment and looking pretty good.



Notice the wrinkle free inner corners and the equal alignment of the end flaps over the inner post chrome flanges. All of the prep work and planning helps make a very time consuming project a "one-time" treat when it's completed!



Good luck with your project and feel free to ask questions via my **CONTACT** Page.
Rich

[http://home.comcast.net/~richmz/site/?/page/1956 to 1962 Corvette Windshield Frame Glass Removal and Installation Part 2/](http://home.comcast.net/~richmz/site/?/page/1956%20to%201962%20Corvette%20Windshield%20Frame%20Glass%20Removal%20and%20Installation%20Part%202/)

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