1969 Corvette Windshield Install

Old windshield removed.

Frame sanded and painted

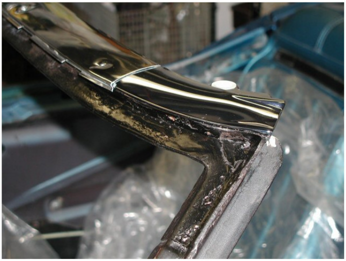
Ready for new Glass

The first thing to do is to get the old glass and all of the fragments, adhesive, and foam out and the windshield frame clean, rust free, and repaired.

Next, paint the entire frame, down to the cowl, with a good, rust inhibiting paint. PROTECT the surrounding area well as these "rust paints" are very messy and are nasty to remove!

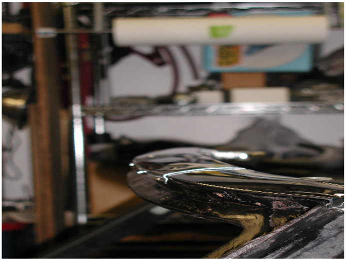
Supplies used on this job:

- Windshield
- Rubber windshield spacers (4 or more)
- RUBBER side reveal molding insulation tape
- Butyl Windshield "Tape" (3/8")
- Butyl Sealer
- Urethane Sealer
- Masking Tape
- "Sharpie" marker
- A helper to assist with the actual windshield placement in the frame



Dry Fit top molding

In order to get a good "feel" for how all of the components will fit together, you need to "dry fit" everything at least once. It is important to see how the various molding pieces fit together, how they need to be aligned, and what gaps are where. Particularly important is the spacing of the molding from the frame when EVERYTHING is all screwed together as this will give you the DEPTH the windshield should be in the frame. When done, the molding should just contact the glass all around. We'll get to actually doing that later.



Alignment Check

As you are "dry fitting", be very watchful of alignment of the various pieces. This picture shows the "straightness" of the transition between the corner and center moldings. The corner molding s are cast pieces and may require a little grinding/filing to fit your frame (no 2 frames are alike!!). Flat, continuous surfaces with even gaps is the goal.

Cleanup

After you have completed "dry fitting" and have all of the dimensions documented, you can go back and clean up anything that you noticed that you weren't happy with.

Alignment Check 2

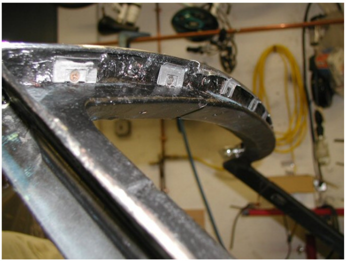
The Top Molding (Corners and Center) and the top Reveal Molding Clips must all be in place BEFORE the windshield is set.

Here is the rear view with the molding screws in place. Again, straightness and even spacing all around!

Reveal Molding Clip Screw Holes

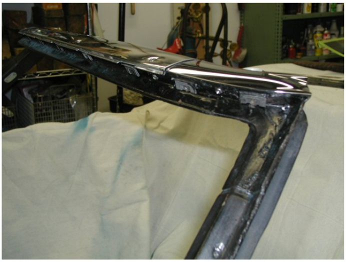
This picture is an attempt to show that some of the screw holes for the molding clips have "disappeared" as a result of the cleanup of the frame. You need to "find" the holes and clean them up - but don't open them up or the screws will strip - and you really can't use bigger ones here!

You may find that some of the old holes have broken screws in them. Try to back them out if you can, but in some cases, you might need to make a new hole right next to the old one.



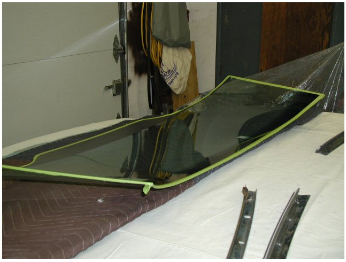
Now you need to get all of the molding clips securely in place. The screws are unique - very small, short phillips head. I found that I needed a new, sharp screwdriver and lots of pressure to keep the screwdriver well seated into the head. Another tip - the first couple of screws were a real bear to get in - very tight in the holes. For the rest of the screws, I used Tapping Fluid as a lubricant and it was amazingly better. Didn't strip ANY of the heads and I was able to tighten them well without major effort.

Reveal Molding Clips In Place



The top molding and clip installation is complete. Using the AIM as a guide, apply butyl sealant where indicated. Remember, you are sealing so that no water gets around the molding and into the car AND from running down the windshield frame. One of the biggest problems in our beloved cars is the deterioration of the "birdcage" as a resul of water following the windshield frame down and sitting at the base on the cowl.

Top Corner and Center Moldings In Place

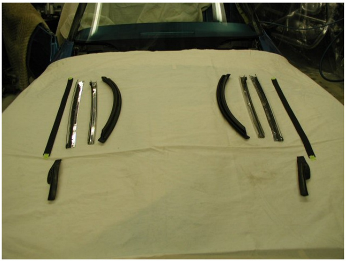


Next, we want to "dry fit" the windshield AND the moldings using the same screw holes, etc. that we used in the FIRST "dry fit" exercise.

Tape the entire edge of the new windshield to prevent nicks. The corners and edge of the glass are the most vulnerable (and fragile) parts at this stage. Once the windshield is in, they are protected.

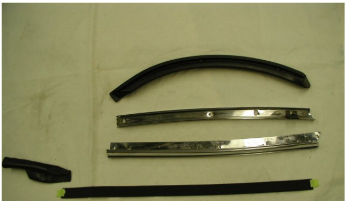
Tape the rubber spacers in place and note where you put them so you can put them back in the same place for final assembly.

Preparing for Windshield "Dry Fit"



These are the Molding, Sealing, ad weatherstrip components for each side. I previously spent a lot of time cleaning, straightening, and polishing the stainless steel pieces so they almost looked chromed. This is quite difficult to do when they are installed.

Reveal Molding Clip



This is a set of components. From top to bottom:

1. Weatherstrip (door window) - snaps into #2
2. Outer molding - holds #1
3. Inner (windshield reveal) molding
4. (Bottom Left) Pillar Post Seal

5 (Bottom Right) Foam Rubber molding insulation - goes between #3 and #4

You need to pay attention to the screw holes in these pieces. The outer piece (#2) has small and large holes. Assembly is as follows:

1. Take the paper backing off of the insulation (#5) and adhere it to the BACK of #2 (this will contact #3 when assembled.

Windshield Reveal and Side Molding Components

2. Apply butyl sealer to the inside forward edge of #3 so that it seal between the molding and the windshield frame AND between the molding and the glass

3. Screw #3 to the windshield frame using ONLY the holes for which there is a LARGE HOLE in #2 - this will let the heads of these screws come through #2

4. Screw #2 to the windshield frame - the screws further secure #3

5. After the entire job is done, put a smal bead of weatherstrip adhesive into the inner channel on #2 and snap the weatherstrip in. There is a screw at the top which goes through everything and holds the rubber [metal insert] top to the frame.

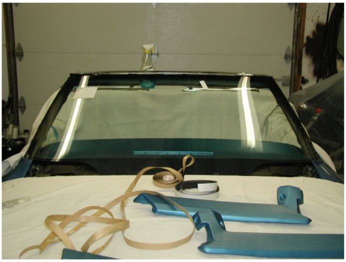
"Dry Fit"

As you "dry fit" the pieces, you will be adjusting molding placement (side to side and up and down) to get everything to fit together correctly - straight, even, and equal gaps.

This is where you might needs to modify the height of the rubber spacers so the windshield to molding contact (depth) is correct all the way around.

Once everything is all aligned and looks correct, use masking tape to hold the pieces so you can make several "alignment marks" with a "sharpie". This will help you get everything back in the same place without a lot of fiddling around. Believe me, you don't want to do too much moving around of peices when the butyl and urethane are on them!

I also put a few pieces of masking tape around the edge so it went from the windshield across the molding pieces all the way to the frame. I then sliced the tape between the glass and the molding and frame so the tape would also provide "alignment marks".



Do It!!!

Now put it all together. Here is the process I used:

1. Apply a 1/4" bead of Urethane Sealer around the windshield frame (and on the cowl). Placement of this bead should be about where the center of the 3/8" butyl tape will be placed.

2. Put a single run of the 3/8" "Butyl Tape" (the roll in the picture with the brown backing) around the windshield frame (and on the cowl) such that it is "inside" the frame all around, but so far in that it only touches the edge of the windshield. You want it pretty much "centered" between the inside edge of the windshield frame and the edge of the glass.

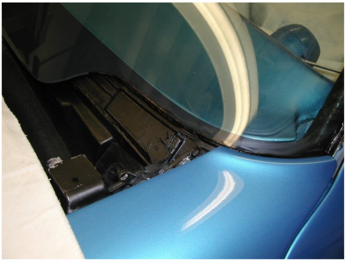
3. Apply a 1/4" bead of Urethane Sealer on top of the butyl tape

4. With you on one end and and your helper on the other, CAREFULLY set the glass on the sealer/tape. Although you previously trimmed the rubber spacers, DON'T push the windshield in to contact them yet.

5. Put the side and top reveal moldings in place and NOW push the glass in with the molding contacting it ONLY as far as needed to align the screw holes. The windshield is now at the proper depth so avoid any further pushing on it. NOTE: The next frame details the "sandwiching" of the side moldings. READ that thoroughly first.

6. Snap the TOP reveal molding in place, then the side reveal moldings (there are several pieces "sandwiched" togethere here - AIM shows it all) and put all side moolding screws in place.

FINALLY!! The windshield is now "set"!



Spacer and Seal

Here is a shot of the bottom of the installed windshield. There is a spacer there (which is what I wanted to show), but it is a little difficult to see. Also, you can see how the butyl ribbon and the urethane sealer are sort of melded together along the frame outline.

Windshield Bottom Rest (and wiper park stop)

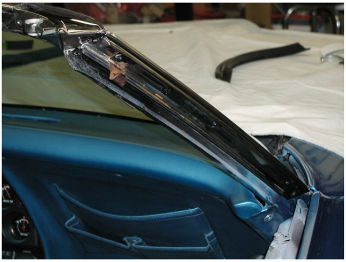
Another shot of the bottom of the windshield, which sits on the plate that also serves as a rest for the Windshield Wipers when they are aprked. The ridge that the glass sits in is lined with a strip of rubber that the glass rests on.

Bottom Pillar Post Seal Area

This is a shot of the bottom pillar post seal area which has been cleaned and prepped. The raggedy looking area at the top is bonding adhesive in typical condition (right from the factory!).

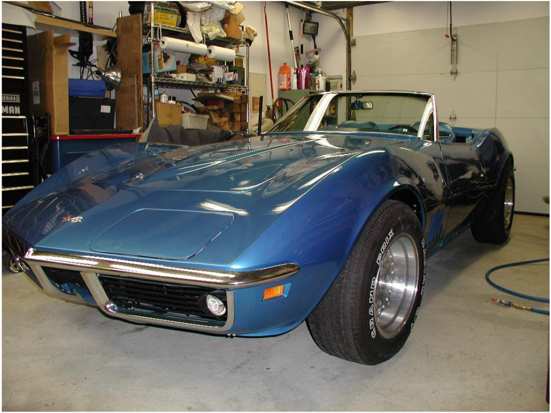
Bottom Pillar Post Seal

Bottom Pillar Post seal is now in place. That would be butyl sealer oozing out the side (to the right of the screw).



Pillar Molding

A shot of the "sandwiched" molding set. This shows how the pieces look all assembled, "glued and screwed". Just need to clean up and paint the window guide and glue the weatherstrip piece into the exposed channel. Again, using the AIM as a guide, the weatherstrip piece gets a bead of 3M Weatherstrip Adhesive.



Ain't She Purty!!!!