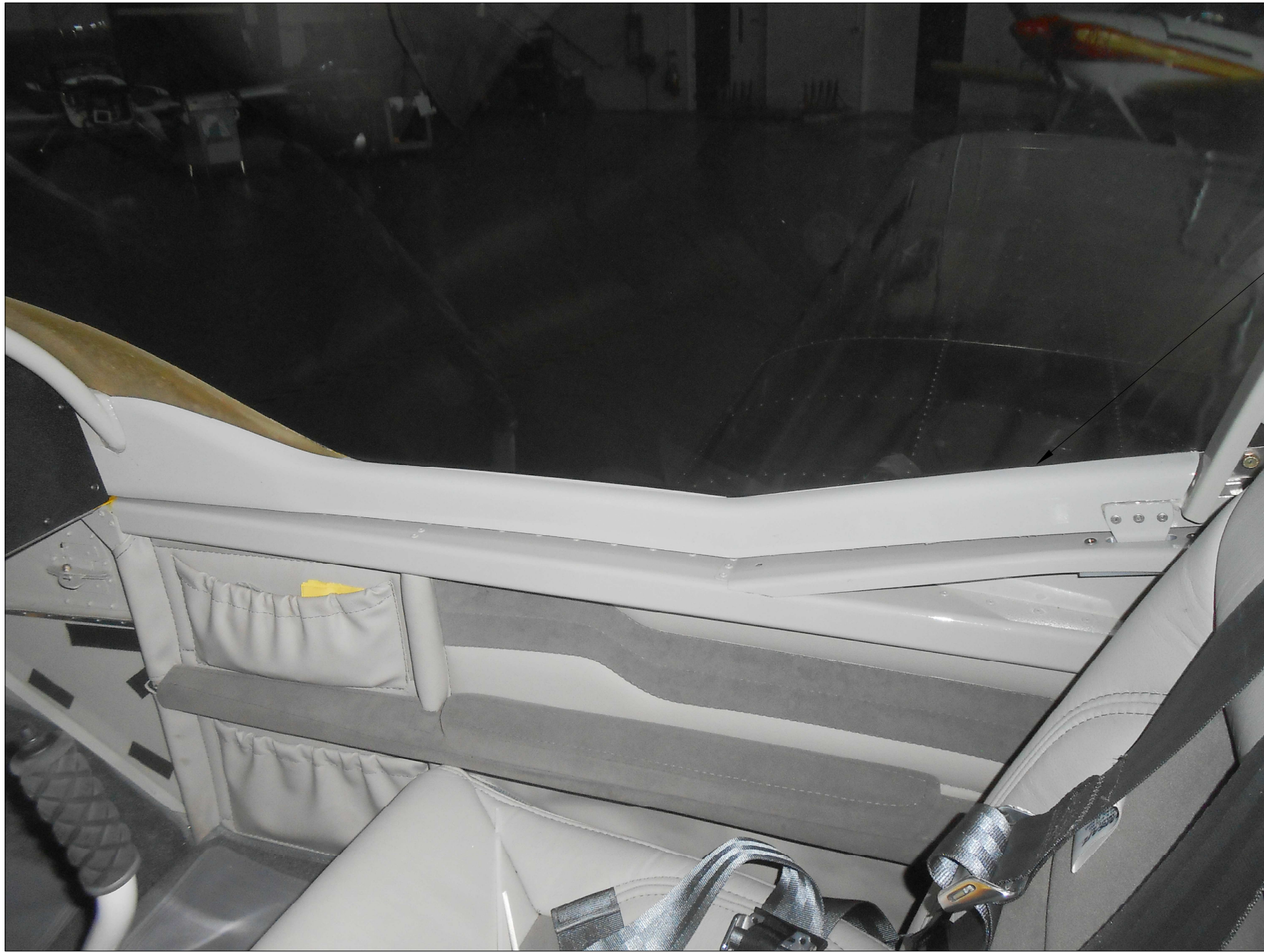


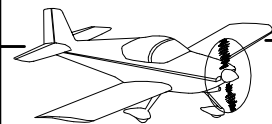
# ***SECTION 41A: CANOPY FRAME MOLDING***



CA-00010 MOLDING

**NOTE: Special materials needed include silicone adhesive.**

DATE OF COMPLETION: _____
PARTICIPANTS: _____
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**NOTE: The function of the CA-00010 Molding is to improve the interior esthetics of the RV-12 cabin. This molding hides from view the functional but unattractive square aluminum tubing structure and the line of nut and screw heads.**

Step 1: Cover the inside canopy surface with protective (masking or duct) tape at least one inch wide adjacent to the base aluminum.

Step 2: Use a set of hand shears (tin snips) to trim the upper edge of the CA-00010 Molding approximately 1/8" wide of the trim line. The trimmed edge need not be smoothed at this point. Because of variances in canopy installations, a trim allowance is appropriate at this time, subject to later fitting and re-trimming.

Step 3: Rough cut the notch for fitting over the canopy frame C-1206 Guide Plate at the aft end of the canopy frame. See Figure 1. Several attempts at cutting and filing will be required to achieve a close fit. Closer trim of the aft end of the canopy edge can be done in conjunction with the notch trimming. It may be necessary to rough trim the front of the molding so that it lays in place well enough to check a good fit of the aft end.

Step 4: Once the aft end fits well around the guide plate, clamp in place and check the fit over the entire length. A couple more clamps can be added near the center and the front. See Figure 2. The primary concern is that the upper edge of the molding matches the contour of the canopy base. Also, check to see how much more edge trim (sanding) will be required to attain a passive fit as shown in the section drawing Figure 3. The amount of trim may vary over the length of cover. Each individual canopy frame may vary a bit, so the marked trim line may not apply to all installations.

**NOTE: The "elbow" angle of RV-12 canopy base frames varies slightly, so the molding may not perfectly align with the frame. If this is the case "Heat Warp" the molding slightly to affect a closer fit. To Heat Warp, stabilize the molding with clamping blocks. See Figure 4. Carefully apply heat with a heat gun to the "elbow" bend area of the molding. When the molding softens sufficiently to yield slightly, apply pressure in the desired direction. When a good fit has been achieved, move the heat and hold the position until it cools to room temperature. Remove clamping blocks and check fit on the canopy frame. Repeat if necessary.**

Step 5: Plan on numerous fitting and edge sanding cycles to get a good fit over the entire length. As clamps are applied, watch closely to see if fiberglass is flexing as clamp pressure is applied. This means that the edge at that point is contacting, and needs more sanding. When the cover is clamped in place, check for edge clearance with a thin feeler gage or a strip of copy paper. The ideal is a light contact or a very slight gap.



**FIGURE 4: HEAT WARPING**

Step 6: When fitting of the upper edge has been completed, clamp the molding in place and mark the lower edge overhang for trimming. This may either be trimmed flush with the lower edge of the frame, or with an overhang to minimize the gap between the canopy and fuselage deck.

**NOTE: Painting the molding is similar to other RV-12 fiberglass components. This molding had been coated with a primer during manufacture to minimize surface pinholes. The surface needs to be lightly sanded ( #320 or #400 grit paper) to scuff the shiny surface and promote paint adhesion. If pinholes are present on the surface, fill with Smooth Prime or similar.**

Step 7: The molding can be painted either before or after bonding to the canopy frame. If the installation is a retro-fit, it is best to paint the molding before bonding to avoid masking of the entire canopy. The esthetically optimal approach would be to paint the cover and the entire non-transparent portions of the frame and inside canopy a common color. The simpler approach is that of painting the molding to match the frame paint, and accept the un-finished appearance of the inside fiberglass of the forward canopy assembly. See Figure 5.

**NOTE: The molding may be bonded to the canopy frame with a clear Silicone Adhesive. Prototype installations were bonded with DAP® Clear Transparente All-Purpose Adhesive Sealant. There are no doubt other adhesives, silicone or otherwise, that would work satisfactorily. However, experience has shown that some Silicone "Sealants" do not exhibit good adhesive properties -- the "Adhesive" label is important. Be careful not to smear the silicone adhesive on any surface that is to be painted later. Silicone residue prevents paint adhesion and is very difficult to completely remove.**

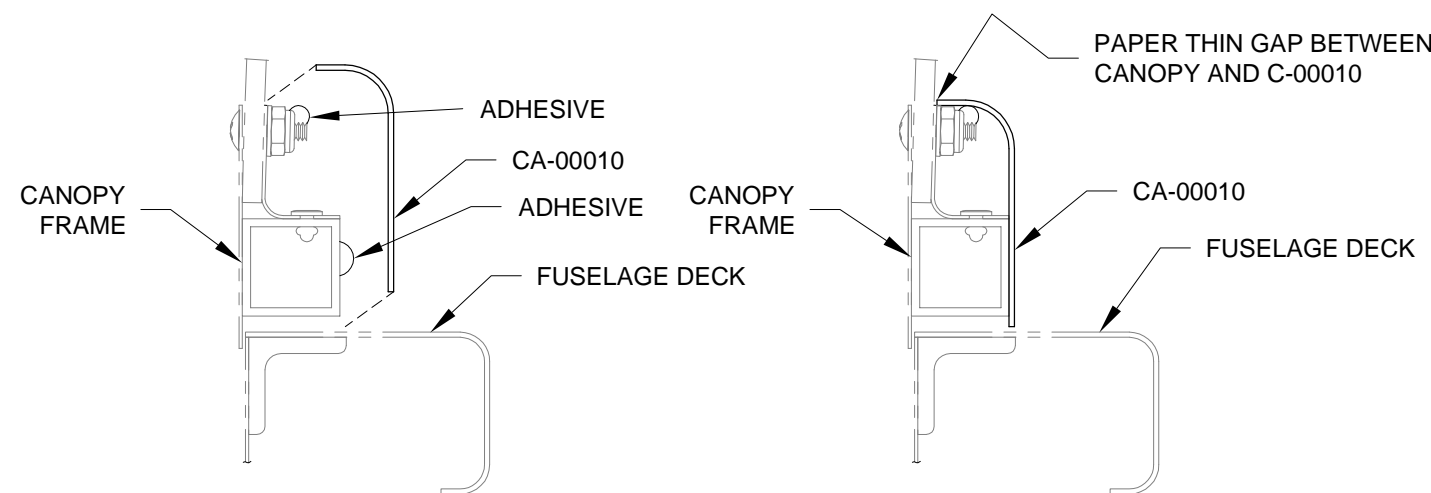
Step 8: When the molding is ready for installation (trimmed, painted, etc.) apply a bead of adhesive to the canopy frame as shown in Figure 5. Small dabs of adhesive may also be applied to some or the entire canopy attaching bolts/nuts as shown, but this is not necessary and may not be effective depending on the proximity of the molding to the nuts. Carefully press the molding onto the adhesive and apply even pressure with alligator clamps. It is suggested that a thin wooden or plastic clamp strip be used to provide a more uniform clamping pressure over the length of the molding. Quite possibly some adhesive will ooze out around the bottom of the cover. Wait until it cures and cut it away with a razor knife, to avoid wiping excess silicone adhesive on surfaces that are to be painted.)



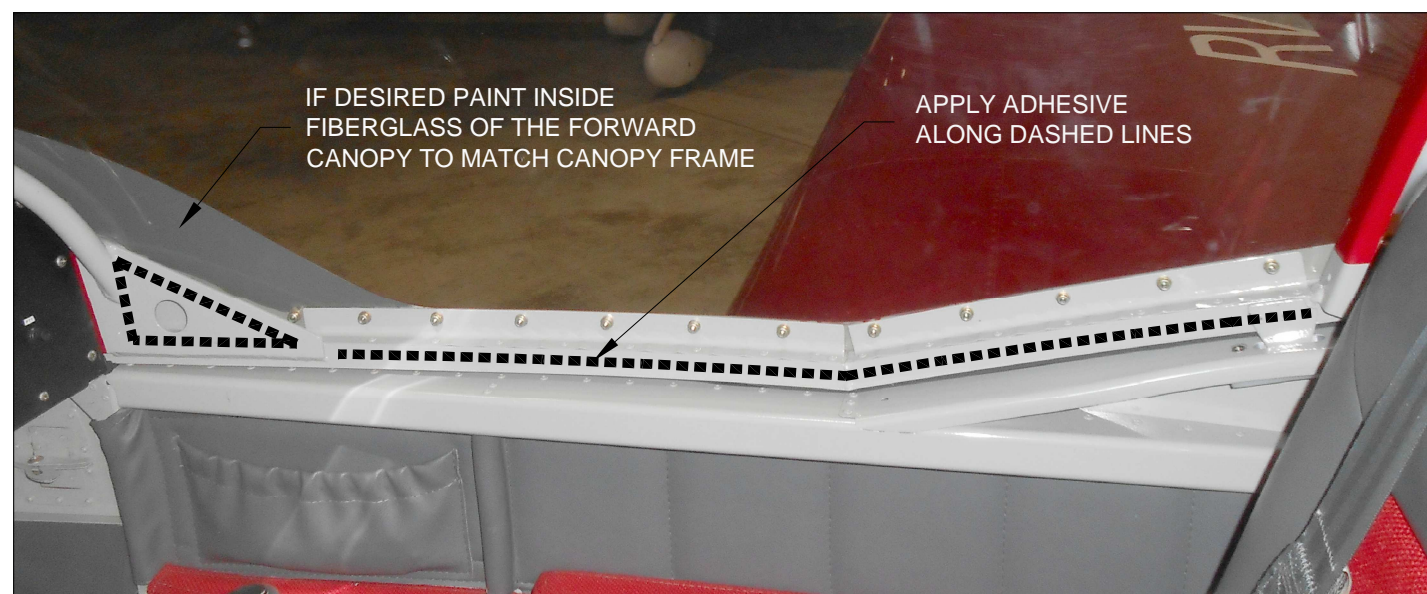
**FIGURE 1: TRIMMING AFT END OF MOLDING**



**FIGURE 2: MOLDING CLAMPED IN PLACE**



**FIGURE 3: CROSS SECTION VIEW**



**FIGURE 5: CANOPY FRAME**