

## 17.5 Optional Door Window

Trim the outside door skins flush with the tube inside the window area of the door frame. Figure 17.5.1. NOTE: If you have built and riveted your door previously, you will need to remove the top door skin.

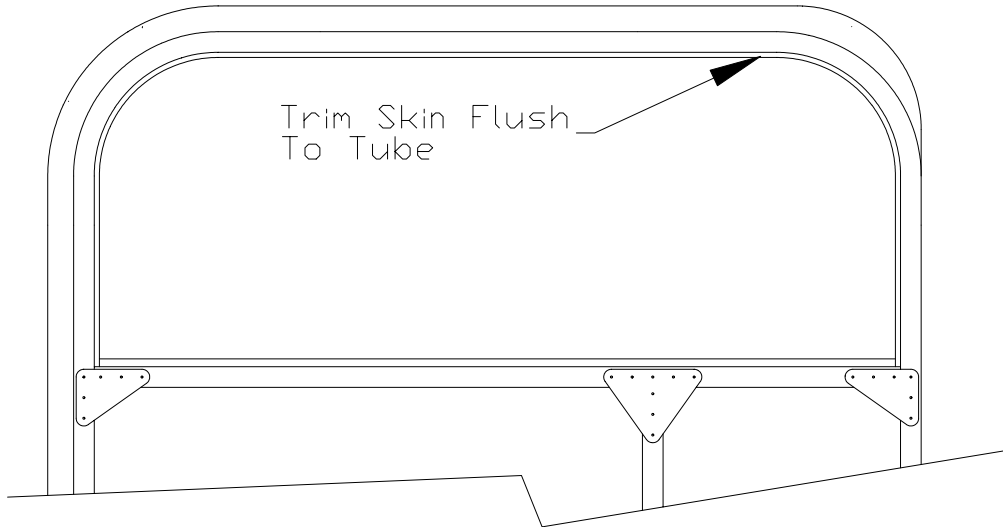


Figure 17.5.1

- 1) Fit the new window frames WI-01 inside the opening leaving a 1/8" space between them and the door frame. Insert a 3" long split piece WI-06 inside the WI-01 to splice the two pieces together. Split only one side of the WI-06 as shown in Figure.17.5.3
- 2) Drill #30 and rivet the inside and bottom side of the WI-01s to the WI-06 with two RV1410 rivets on each side of the splice. The top and outside will be done later.
- 3) Make two gussets to hold/tie the bottom corners of the WI-01 and WI-02 window frames together then rivet the gussets to the frame as shown with RV1410 rivets. Figure 17.5.2

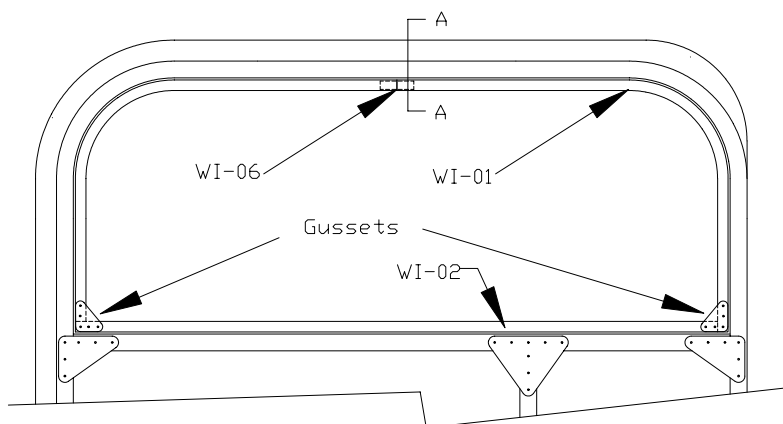


Figure 17.5.2

- 4) Cut a length of hinge slightly shorter than the length of the flat area on the top of the window frame.

- 5) Trim the window slightly smaller than the outside edge of window frame. NOTE: The window will sit on the frame.
- 6) Install the hinge on the top of the WI-01 window frames with RV4412 flush rivets using a 2” spacing. Leave room for the window and retainer. Figure 17.5.3

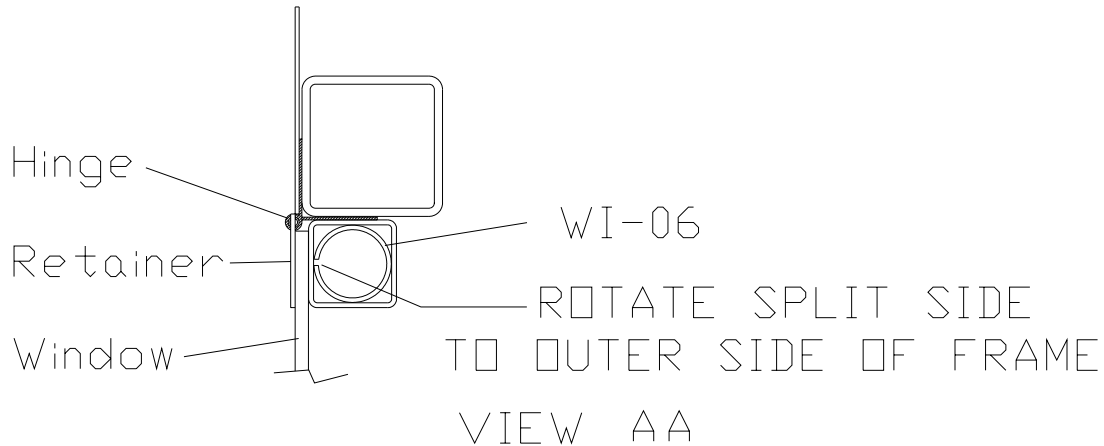


Figure 17.5.3

- 7) Trace the window frame onto the sheet aluminum provided, this will be your window retainer. Copy the rivet pitch you used on the door frame to the center of the traced area and drill #40.
- 8) Trim the outside edge of the window retainer 1/4” bigger on the sides and bottom than the area you traced. Time the inside window area flush with the inside edge of the window frame leaving a 1 7/8” radius in the bottom corners to match the optional fuselage side windows. Figure 17.5.4

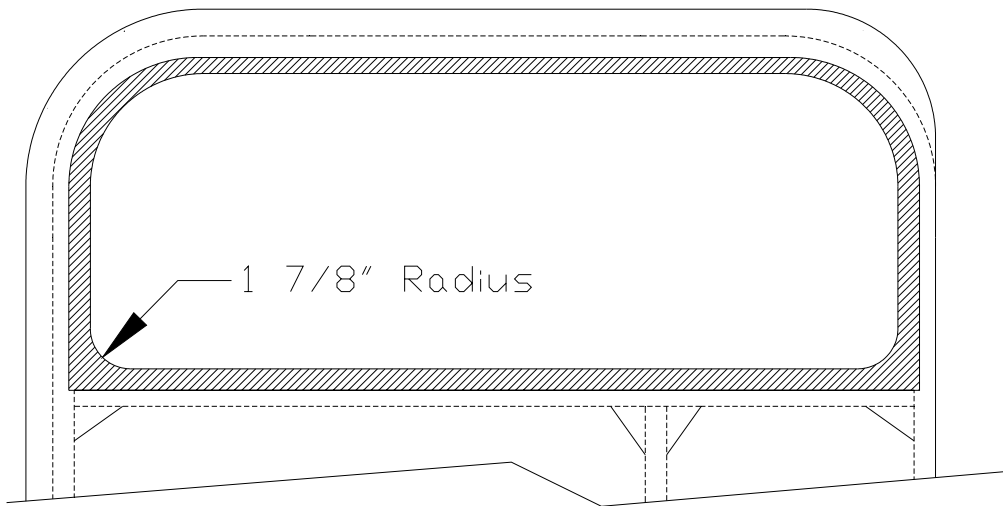
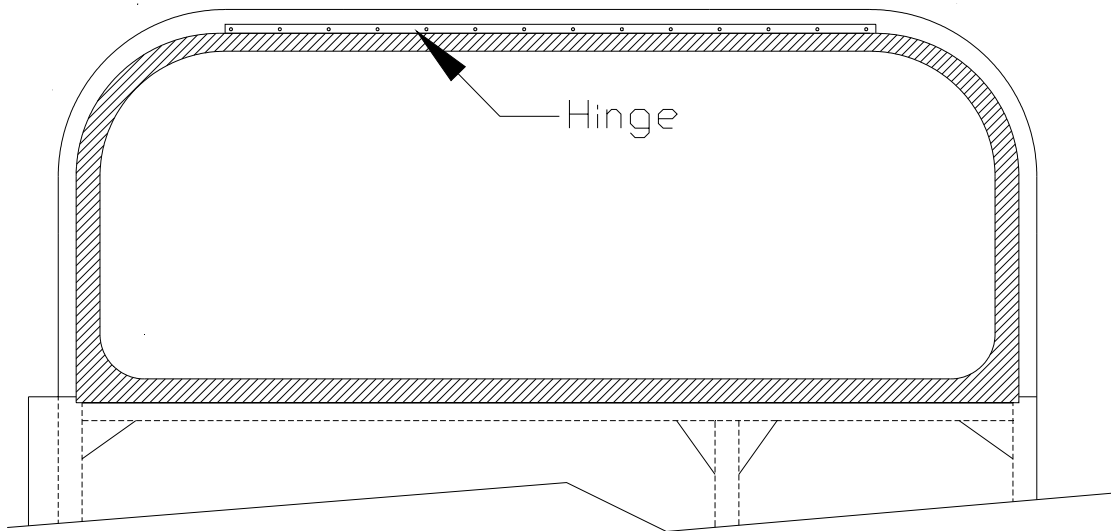


Figure 17.5.4

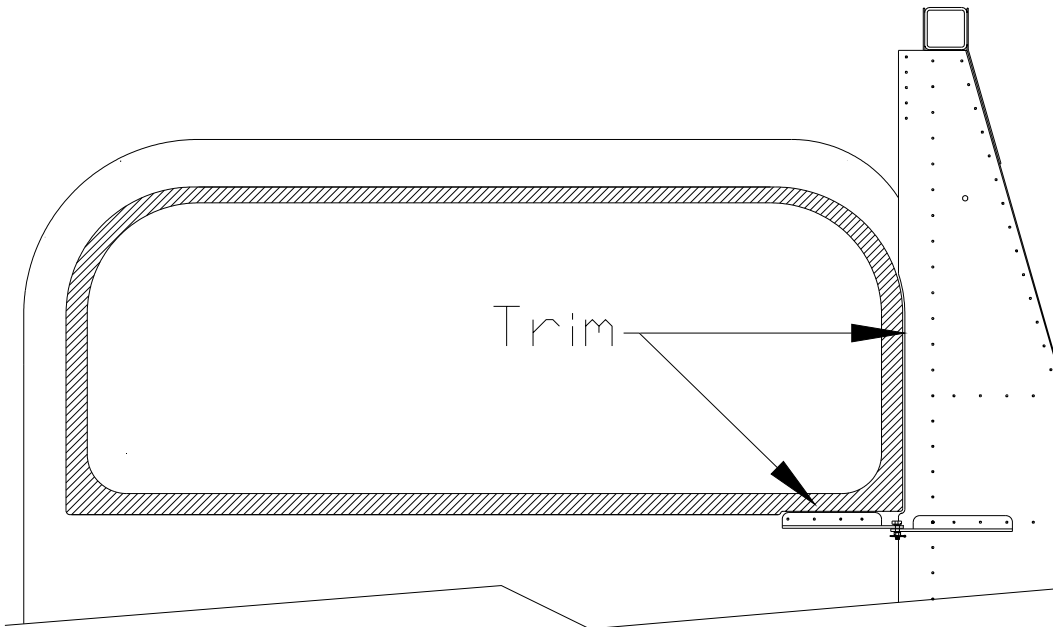
- 9) Use the window retainer as a drill guide and backdrill your window frame and window. NOTE: If you are using an acrylic window you must not use a regular drill bit to drill it. You will need to modify a drill bit to prevent cracking the window. (See Chapter 21)

- 10) Drill the window assembly out to #30 and rivet together with RV1410 rivets sandwiching the window between the window frame and retainer. NOTE: If using an acrylic window you must over size the rivet holes to prevent cracking.
- 11) Install the window by riveting the hinge flange to the door frame underneath the upper door skin with RV4412 rivets copying the rivet pitch you used to mount the hinge to the window frame. Make sure the window is centered before drilling. Note: If you can, use the holes you drilled previously for the top door skin and use it for a drill guide. Figure17.5.5

Figure 17.5.5



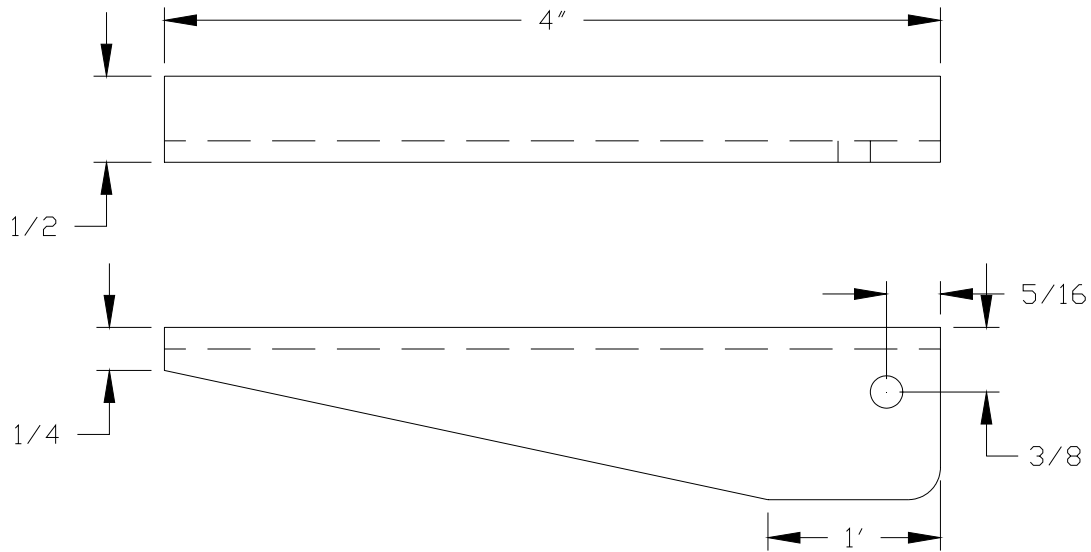
- 12) Reinstall the top door skin and hinge. You will have to trim the bottom corner of the window retainer to clear



the hinge and the back edge of Fus-333 to install the door on your aircraft. Figure 17.5.6

Figure 17.5.6

- 13) Make two window handles from WI-03 material and then drill a #11 hole as shown. Be sure to make one right and one left. Figure 17.5.7



L/H Shown R/H Opp.

Figure 17.5.7

- 14) Cut two 3/8" pieces of WI-04 material and drill a #11 hole through the center. This will be your handle bushing.
- 15) Drill a #11 hole in the center of the WI-02 tube through the door assembly. You may want to locate the hole slightly closer to the front of the window frame assembly. Then using an AN525-1032R15 screw, attach the handle to the window frame using the bushing you made to separate the handle from the window frame. Tighten the handle assembly lightly with an AN364-310 nut with a AN960-10 washer under the nut. Figure 17.5.8

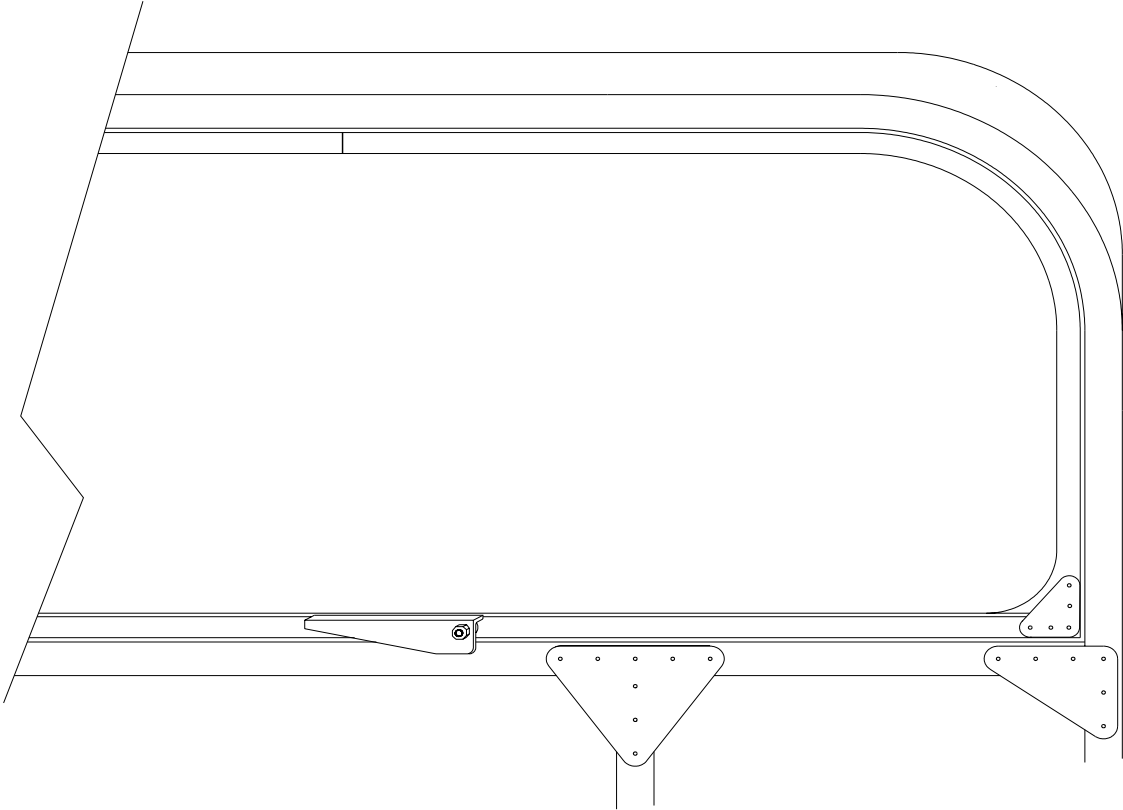


Figure 17.5.8