

STOL CH 801

AIRCRAFT FINISHING - WINDOWS

SECTION 1

“INSTALLATION OF THE WINDSHIELD AND WINDOWS”

Windshield and top window installation:

1. Install the top window stabilizer 8F21-1 and 8F21-2
2. Install the top window
3. Install the windshield to overlap over the top window.

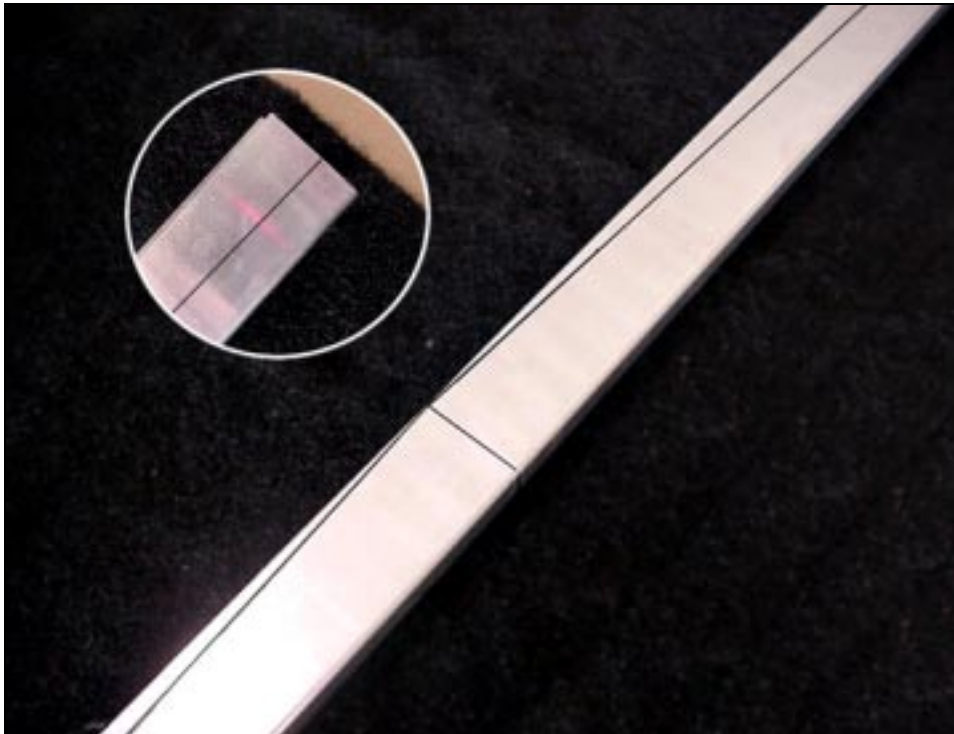
Rear Window installation

- The rear windows can be installed with the wings bolted to the fuselage
- The flaperon control rod cover 8C6-6 must first be drilled and clecoed to the fuselage
- Remove cover 8C6-6 and door post trim 8C5-11
- Try out windows referenced on rivet line for 8C6-6



file w1-1

The window stabilizer is first installed to the cross (diagonal) cabin frame tube. The window stabilizer is made up of two channels: the lower stabilizer 8F21-1 and the top stabilizer 8F21-2.



file w1-2

Trim 8F21-2: Approx. 45 mm. at the center (the width of the channel) and the height of the $\frac{3}{4}$ " tube of the cabin frame at both ends.



file w1-3

Trim both sides of the channel.



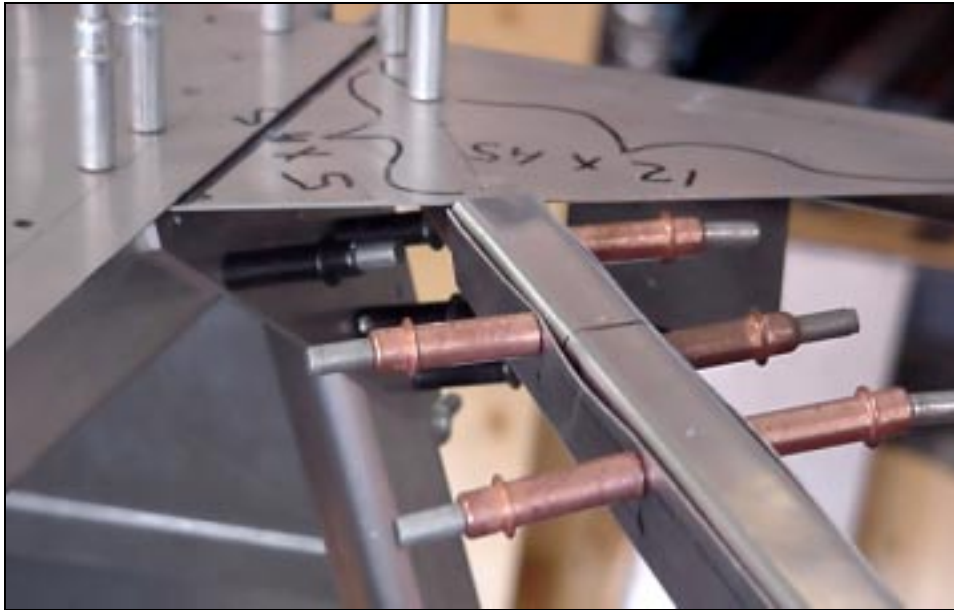
file w1-4

Crimp the top stabilizer 8F21-2 to follow the curvature of the trimmed lower stabilizer 8F21-1. Approx. 80 mm. between crimps.



file w1-5

The tip of 8F21-2 (top) fits inside the tip of 8F21-1 (bottom).



file w1-6

The ends of 8F21-2 are positioned flush with the fuselage.

Rivet 8F21-1 to the cabin frame: A4, pitch 180.

The top stabilizer 8F21-2 fits into the lower stabilizer 8F21-1, and is riveted to the lower stabilizer: rivet 8F21-2 between the crimps: 13 x A4 (pitch 80)



file w1-6a

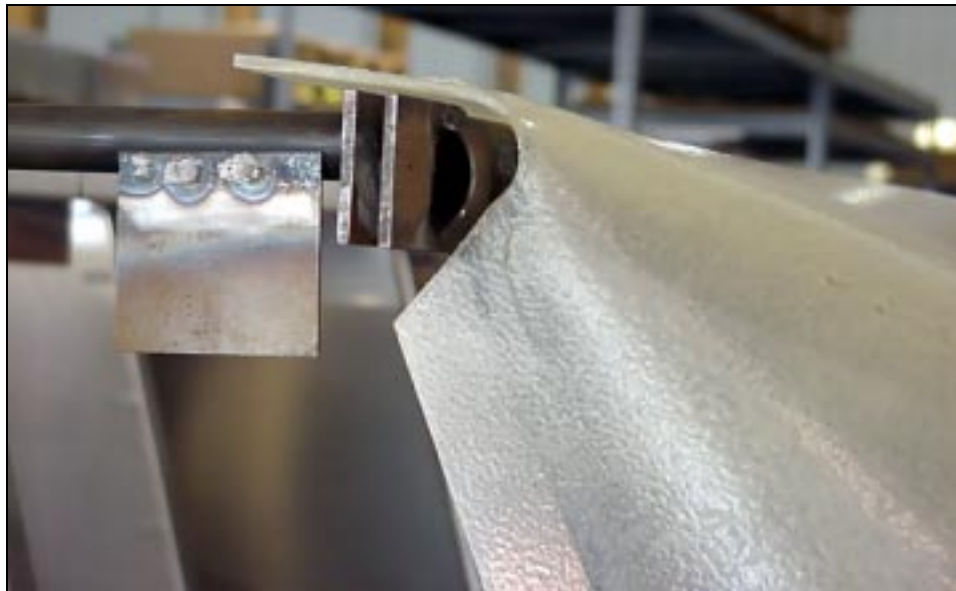
Foam tape is applied to the top of the stabilizer to cushion the top window.



The windshield is supplied with a protective rubberized coating on both sides of the formed acrylic windshield.

file w1-7

The formed windshield.



file w1-8

Position the formed windshield on the fuselage assembly (there is no trimming necessary along the front).



Use a handheld grinder with a cutting wheel to trim the windshield.

file w1-9

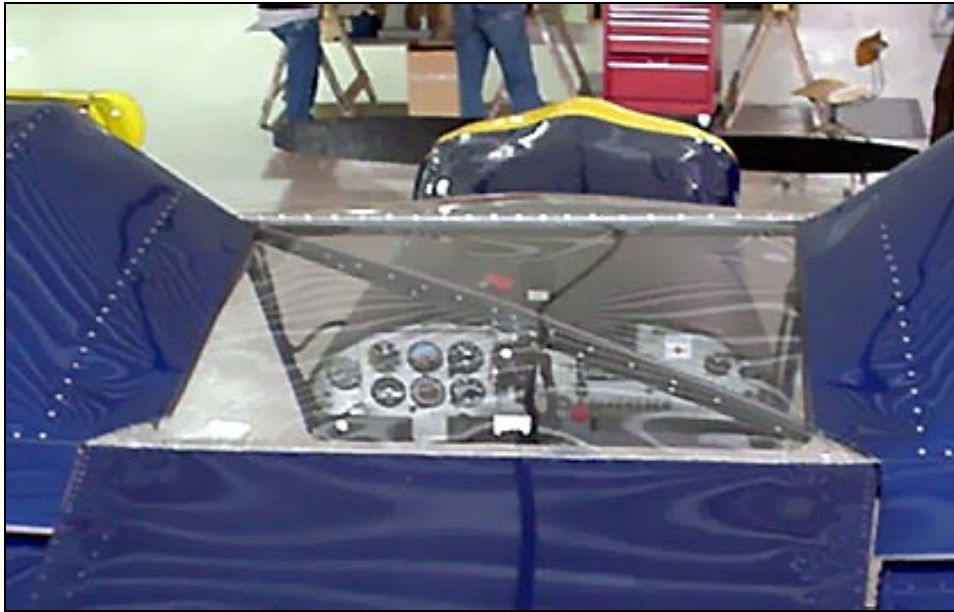
Trim windshield to go around the front of the cabin frame.



Trim the windshield to size before drilling the screw holes.

file w1-10

Trim the top and sides of the windshield.



file w1-11

The top window 8F22-3 (view from rear).

The windshield overlaps on top of the top window. The top window is secured to the airframe with screws along the front of the windshield into the 1 3/8" steel cabin frame tube. The sides of the top window are screwed into the 3/4" cabin tube frame. The back of the window is riveted to the fuselage top skin.

Install the top window and the windshield with the wings removed.



file w1-12

The top fuselage skin overhangs past the top channel 8F5-3 for attachment to the rear of the top window.

The top window (view from inside, right seat).

(Note: on the pictured factory prototype the diagonal was installed from front-left to rear-right).

(The right side of the photo is the front of the aircraft).

Peel back the protective layer. With a grease pencil mark the center lines of the tube on the windshield and layout the pitch. With a sharp #40 drill bit, drill through plexiglass and steel tube of the cabin frame. Cleco.



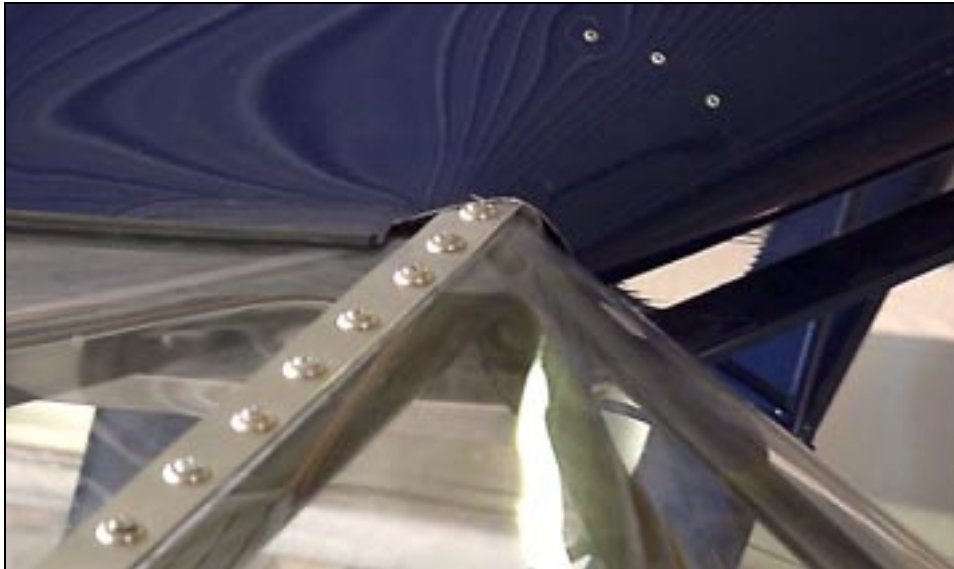
file w1-13

Remove the windshield from the aircraft and open up the drilled pilot holes to $\frac{1}{4}$ " using a "unibit."



file w1-14

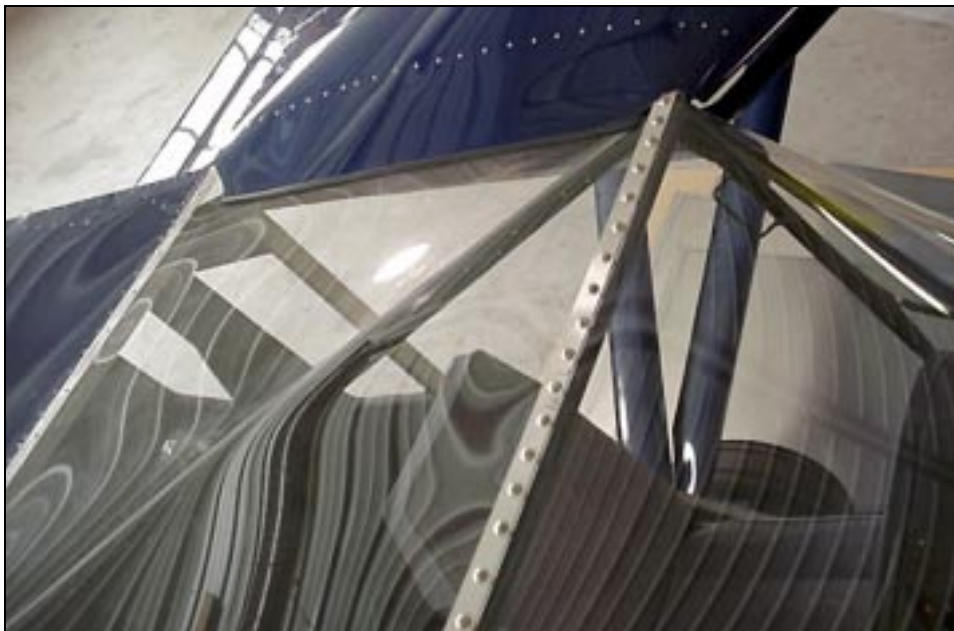
Cut plastic bushings from the $\frac{1}{4}$ " poly tube used for the brakes lines. Bushing length: $\frac{1}{8}$ ". Insert the bushing in the $\frac{1}{4}$ " holes.



The top window – detail of the front left (pilot's) side from top.

file w1-15

The top windshield trim 8F22-8 is positioned over the overlap of the windshield with the top window.
Secure with 10R x $\frac{3}{4}$ " OHA oval head screws with SNW-2012 finishing washers.
Pitch: 50 mm.



file w1-16

The top window and windshield – detail of the left (pilot's) side

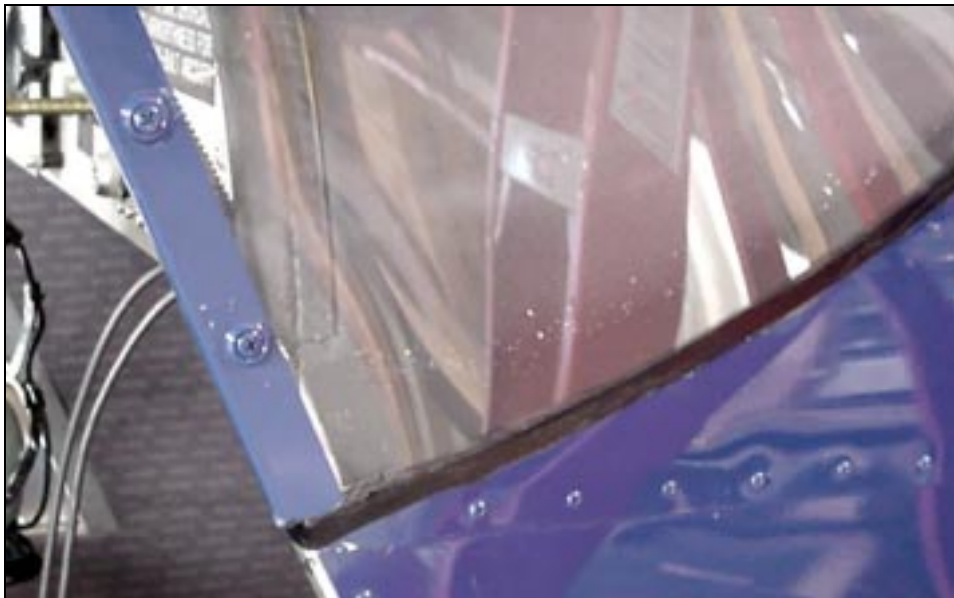


The front windshield and the top window – detail of the front right (passenger) side – view from top front.

Before final assembly, seal the between the overlap of the top window and windshield with a silicon sealer to keep rain out.

file w1-17

Seal the corners of the windshield with a silicon sealer.



Detail view of the windshield – right side (passenger) bottom corner of the windshield.

file w1-18

Side channel 8F22-7 overlaps the side of the windshield and is secured with screws to the cabin frame. SNST-18P screws with SNW-2012 finishing washers. Pitch: 80 mm.

Silicon caulking is used to seal the front of the windshield – joining the bottom edge of the windshield to the top skin 8F14-4.



file w1-19

The top window – detail of the side channel and siliconed front seal.



file w1-20

Detail view of the front of the windshield with silicon caulk sealer. The front of the windshield is positioned behind the rivet line through the firewall.



file w1-21

Detail of Rear Windows (right side) and the flaperon control.

The flaperon control rod cover 8C6-6 is installed to clear the flaperon vertical control rod 8C9-2.



file w1-22

The flaperon control rod cover 8C6-6



file w1-23

Rear Windows (view from the left side)

The rear back window is positioned and sized:

- 40 mm. above cabin side extrusion.
- 40 mm. forward of 8F5-9.
- 130 mm. from the top of the side skin



file w1-24

Rear Windows (right side).

The height of the rear front window is positioned and sized:

- Top: 170 mm. from the top of the front side skin.
- Bottom: 600 mm. from the top of the front side skin.

The front rear window:

- Front edge of window is riveted through the door post trim 8F5-11
- The top is riveted to gusset 8F2-6
- The rear edge of the front rear window is riveted to the flaperon control rod cover 8C6-6
- The bottom of the window is riveted to the upholstery trim angle



Rear Windows
(left side)

file w1-25

The bottom of the rear windows are riveted to the upholstery trim angle. Similar trim angles are used on the back rear window (top, bottom and rear), with the front of the back rear window riveted to the flaperon control rod cover 8C6-6.

The flaperon control rod cover 8C6-6 is a tapered channel: The wide end (75 mm.) is at the bottom with the narrow end (40 mm.) at the top.

Note: The upholstery fabric was glued to the flaperon control rod cover 8C6-6 before it was riveted to the fuselage.



Rear Windows (right
side)

file w1-26