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INSTRUCTIONS A-9E

Instructions for installing (domed) bubble Windows in Cessna 208 series airplanes

CESSNA MODELS: 208, 208B

GENERAL:

- These instructions are intended for the removal and installation of GLAP domed cabin windows as shown on GLAP drawing W-2917.
- Use Common sense, always use safety equipment such as eye protection, gloves, etc.
- **Please Read and understand all of these instructions and become familiar with the aircraft prior to an attempted installation. If you are not confident or are not comfortable installing these windows, please contact a certified mechanic or A&P to install these windows. Or return these windows (please refer to GLAP return policy).**

MATERIALS & TOOLS REQUIRED:

- Any of the following GLAP part number(s):
- W-2917-2, W/T-2917-2, W/G-2917-2, W/XT-2917-2, SC-W/T-2917-2, SC-W/G-2917-2, SC-W/XT-2917-2
  W-2917-4, W/T-2917-4, W/G-2917-4, SC-W/T-2917-4, SC-W/T-2917-4, SC-W/G-2917-4, SC-W/XT-2917-4
  W-2917-6, W/T-2917-6, W/G-2917-6, SC-W/T-2917-6, SC-W/T-2917-6, SC-W/G-2917-6, SC-W/XT-2917-6.
- Sealant - Pro-Seal 890 with 890A Accelerator, Presstite # 579.6, silicone sealant - I.E. GE 100% Silicone, Dow Corning 100% or pure silicone, or other approved sealant - not supplied.
- Quality Masking tape (IE 3M 233+ Green Masking tape).
- Water Soluble marker.
- 20 Rivets (reference Cessna 208 maintenance manual)
- (Alternate) (20) 5-40 or 6-32 Screws (check for appropriate screw length) and (20) 5-40 or 6-32 locking Nuts.
- - If Using Rivets a 1/8" body drill with a #30 oversize drill for the window.
  - If using 5-40 screws a 1/8" Body drill with a #27 oversize drill for the window.
  - If Using 6-32 screws a #27 body drill with a 5/32 oversize drill for the window.
- Standard drill bit set.

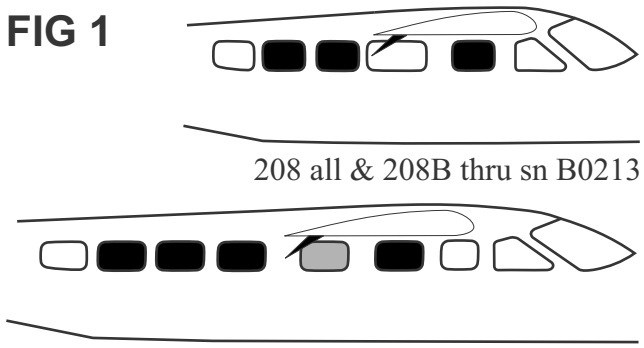
REMOVAL PROCEDURE

1) Chose the desired location the window is to be installed in the aircraft.
   NOTE: Before proceeding, ensure the dome of the window will not interfere with FLAP OPERATION, DOOR OPERATION or any other standard operation of the aircraft.
2) If original window is to be saved, cover window with a quality masking to protect from scratches.
   Suggestion: Use a drop cloth or similar to protect interior.
3) Remove upholstery trim from around window by removing upholstery attaching screws.
4) Using a standard drill bit, drill out all window attaching rivets (from desired window only) and remove the retainer ring to remove window. DO NOT DISCARD RETAINER RINGS.
5) Remove Window from inside Cabin.
6) Remove and clean any old sealant from fuselage around window opening retainer rings.

INSTALLATION PROCEDURE:

1) Inspect new window for scratches or damage from shipping, reapply masking or re-mask window.
2) Keep window covered to protect from scratches. However remove enough masking around the edge to expose the edge of the window to where it will make contact with the fuselage. Use a quality masking tape (IE 3M 233+ Green painters tape) to mask the window where the window meets the skin of the aircraft, make sure the tape is not trapped under the skin of the aircraft when installed. Also mask the fuselage around the window opening to protect the paint from any sealant.
3) This window may be installed in the following window positions behind the crew entry door on either side of the aircraft)
   208 & 208B thru sn 208B0213 - 1st, 3rd or 4th position, or in the cabin door or cargo doors window positions.
   208B0214 & UP - 2nd, 4th, 5th or 6th position or in the cabin door or cargo door window positions.
   If the window is installed in the 3rd window position of the 208B (sns B0214 & after), **prior to installation**, care should be taken to determine that the domed window DOES NOT INTERFERE WITH FLAP OPERATION. (Please refer to FIG 1)
   NOTE: Also determine that the dome does not interfere with DOOR OPERATION or any other standard operation of the aircraft

FIG 1



208 all & 208B thru sn B0213

208B sns B0214 & UP

4) Ensure window and cabin skin are dry and free from foreign material, debris, old sealant and solutions.

5) Install bubble (domed) window in the aircraft from the inside of the aircraft.
NOTE: There should be minimal clearance between the edge of the window opening skin of the aircraft and the bubble portion of the window. Ensure the window is square in the window opening. When installed, if the dome of the window is a tight fit **Do not force window through opening**. As required, slightly file the window opening to make clearance for the domed portion of the window.

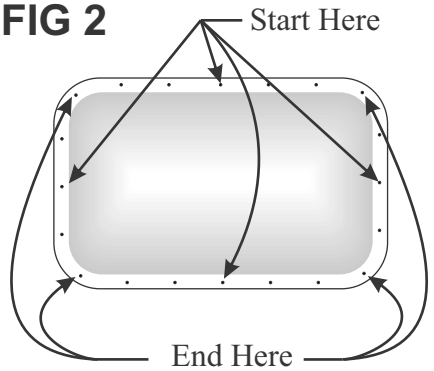
6) Use a Water soluble marker and mark the top of the window.

7) Use the holes in the fuselage to locate the holes in the new window using the specially sharpened acrylic drill bit. **Do not push too hard when drilling**, and Be careful not to allow drill chuck to rub on window. A piece of acrylic (I.E. the old window) may be used as a backer to keep the drill from chipping the window as the drill exits through the new window.

NOTE - If Rivets or 5-40 screws are to be used, use the 1/8" plastic drill to make pilot holes through window at this time.
- If 6-32 Screws are desired, and holes in fuselage and retainers are too small for 6-32 screws use a #27 drill in the fuselage skin and retainers to accommodate the screws. Use the #27 specially sharpened plastic drill for the window pilot holes.

Drilling Suggestion: With someone holding the window from the inside, from the outside drill the center hole on the front or rear sides of the window (do not drill your partner's fingers). After the first hole is drilled, use a temporary screw and nut to keep window located in place (only finger tight is necessary) drill another hole opposite side from the first hole and install another screw and nut. Drill the top center and bottom center, and install screws and finger tight nuts. Working your way towards the window corners (Ref FIG 2) drill a few more holes and then install screws and nuts in every 2nd or 3rd hole until all holes are drilled. **Check that screws are not too long but long enough include retainer and the nuts, screw must extend slightly past the nut for the locking portion to work properly.**

FIG 2



8) Remove window from aircraft and clean any debris from drilling process.

9) Oversize Holes in window:
- For Rivets, oversize window holes use the #30 plastic drill.
- For 5-40 screws oversize holes use the #27 plastic drill.
- For 6-32 screws oversize holes use the 5/32 plastic drill.

NOTE) Clean plastic debris from window after drilling holes.

10) Apply Pro-Seal 890 with 890A accelerator around outer periphery of window in a bead 0.85 inches wide. Other sealants may be used such as 100% silicone or other approved sealant.

11) Position window in cabin opening. Using the mark placed on the window in step 6 orientate the window the same as when it was drilled.

12) If Rivets are desired: Install rivets through cabin skin and window.
-a) Install retainer rings on rivet shanks.
-b) Buck rivet shanks just enough to swell the rivet slightly.
NOTE: Be careful not to make contact with window dome when bucking rivets).
-c) Go to step 13

12 alt) If screws are desired: Install screws through cabin skin and window.
-a) Install retainer rings on screws.
-b) install nuts (If holes are large in retainer, an appropriate washer may be used)

13) Clean any sealant that may have oozed from installation (Do not use chemicals that will damage the window or paint)

14) Install upholstery trim around cabin window with attaching screws.

15) Remove remaining protective cover and from window and from fuselage. Remove any drop cloths.

16) Fill out the necessary paperwork - I.E. 337 form, Logbook entry etc.

NOTES

- The window may be sealed with 100% or pure silicone sealant (i.e. GE pure or 100% Silicone or similar) or other approved sealant from the outside if required - mask the window and the skin of the aircraft to aid in cleanup.
- Please allow an appropriate cure time for sealant to cure before flight, IE 24 hours for Silicone.
- There may be a negligible change in airplane performance when the domed windows are installed.
- On some serial number aircraft it may be necessary to slightly modify the interior trim panels and/or skin of the aircraft for a good appearance.
- For Continued Airworthiness, follow standard Cessna procedures in the POH or maintenance manuals. When window is no longer desired or requires replacement, a standard "flat" window may be installed or another GLAP STC'd Bubble (Domed) cabin window may be installed. If rivets or 5-40 screws were used or no special modifications should have been made to the aircraft to install or remove the domed window. If 6-32 screws were used, Larger rivets may be required to install a flat window (6-32 screws and nuts may also be used) .
- There is no change in weight or balance.

SUPPLEMENT

USE WITH GLAP INSTRUCTIONS A9E

DOMED CABIN WINDOWS

SECTION 1
GENERAL

Special domed cabin window replacements of the flat style windows are manufactured by Great Lakes Aero Products, Inc., 915 Kearsley Park Blvd. Flint, MI 48503.

These windows are available in clear, or any tinted color and are available in 2", 4" or 6" (approximate) bubble depths. The bubble allows a more vertical sight line. For example the 6" allows almost vertical observation down the side of the aircraft fuselage, the 4" allows less vertical sighting and the 2" allows the least of these three styles of bubble.

The domed windows are made from the same materials as the original flat windows, therefore the same care when washing, cleaning and handling should be taken as with the original window. Reference the POH or service manual for windshield and window care.

The bubbled or domed windows are installed in the same manner as the standard window. . When the window is removed an original flat window may be installed or another GLAP domed window may be installed, no special or unusual modifications to the aircraft should have been made to install the domed window.

SECTION 2
LIMITATIONS

There are no changes in aircraft limitations when domed windows are installed in the airplane.

SECTION 3
EMERGENCY PROCEDURES

There are no changes in emergency procedures when domed windows are installed in the airplane.

SECTION 4
PERFORMANCE

There may be a negligible change to the airplane performance when domed windows are installed.