

Work Instructions



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Editor: JStignani

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Commander Mid-Cab Window Retrofit

Parts needed: Select which size window is to be installed. First section lists parts common to all cabs.

Quantities are per-window, as not all windows will require this modification.

Note: Confirm that the correct part is ordered for the side of the cab being repaired.

Part #	Quan.	Description
8625121-001	1	Decal, Recall/TSB Label
NA	1	Lord 406 adhesive or equivalent
NA	1	3M 08310 Seam Seal or equivalent
NA	1	Polyurethane Activator
8620626-001	1	(RMI) GLUE-WINDSHIELD ADHESIVE, FLEXSEAL
TBD/unknown	12	Adhesive-backed Velcro™ (lineal feet, for one side panel).
NA	2	TRIM SNAP COVER & BASE (-001 black, -002 gray, 003 red/ruby)
Varies	1 stick	¼" staples
0142662(Fastenal)	2	8-32x1" TRX FH TCS F Phs (Torx FlatHead Thread-Cutting Screw Phosphate
0175214 (Fastenal)	12	8X3/4 PPHSMS A BO SS Trim Ring screws
0147953 (Fastenal)	2	#6-32 RECTNUT B clip-nuts
8618638-001 (Drivers side)	1	PANEL-SIDE CANOPY RAISED ROOF, NO WINDOW (-001 black, -002 gray, 003 red/ruby)
	OR	
8618639-001 (Officers side)	1	PANEL-SIDE, CANOPY RAISED ROOF, NO WINDO (-001 black, -002 gray, 003 red/ruby)

Large Window Installations (No EMS Cabinet)		
8623909-001	1	RETRO GLASS FIT LARGE MID COMMANDER
8624051-001	1	ASM-TRIM RING, MIDDLE, FIXED, LARGE
3100B3X3/32C	7	3/32" Bulb-Seal, with flange
8623433-001 RevB (Drivers side)	1	PLATE, GLUE RING, RETRO FIT GLUED IN GLASS, LARGE MID, LH
	OR	
8623434-001 RevB (Officers side)	1	PLATE, GLUE RING, RETRO FIT GLUED IN GLASS, LARGE MID, RH

Small Window Installations (With EMS Cabinet Installed beneath)		
8623464-001	1	RETRO GLASS FIT SMALL MID COMMANDER
8624052-001	1	ASM-TRIM RING, MIDDLE, FIXED, SMALL
3100B3X3/32C	5	3/32" Bulb-Seal, with flange
8623435-001 RevB (Drivers side)	1	PLATE, GLUE RING, RETRO FIT GLUED IN GLASS, SMALL MID, LH
	OR	
8623436-001 RevB (Officers side)	1	PLATE, GLUE RING, RETRO FIT GLUED IN GLASS, SMALL MID, RH

Work Instructions



Tools Needed:

Item	Tool
1	Caulk gun or applicator for adhesives.
2	Polymer-bladed putty knife or silicone spatula.
3	Autobody masking tape.
4	Shop rags or absorbent pads.
5	Degreaser/Wax remover
6	Squeeze-style bar clamps or equivalent (minimum four per retrofit ring).
7	Glass Handling Tool(s) (vacuum-cup handle, etc.)
8	Utility knife and blades
9	#2 Phillips screwdriver
10	9/64" drill bit
11	3M™ Foam Fast 74 Spray Adhesive
12	Staple gun

Best practices:

- Place masking tape before applying adhesives to guide positioning and adhesive control during glue-up.
- Make certain gluing surfaces are clean and dry before applying adhesive.



WARNING!

Work with adequate ventilation or wear a respirator to prevent inhalation of chemical fumes.



CAUTION!

The following steps must be followed to ensure a safe work environment:

1. Always wear adequate eye protection.
2. Wear disposable gloves to keep chemical cleaners and adhesives off skin.

IMPORTANT! In the field, this repair will only be performed due to a corrosion issue.

- All corrosion must be completely repaired and repainted before starting this procedure.
- The retrofit ring must be finish-painted before this procedure.
- Please provide “before” and “after” photos of corrosion and paint repairs during the initial report.
- Changing the window size requires new cab interior panels/parts. These should be ordered and verified for fit before beginning this repair.

Work Instructions



Retrofit Window Ring Installation Procedure.

Step 1. Prepare inside of cab wall and retrofit ring for adhesive application.

- a. Remove interior upholstery panel and old window trim ring to access the cab wall. Retain fastening snaps, padded covers and self-tapping screws for reuse.
 - i. Flat-roofed cabs will require removal of the AC Evaporator covers, and removal/reinstallation of condensate drains so that they drain to the B-pillar. Retain all fasteners for reinstallation later.
 - ii. Kickplates along bottoms of the panels will need to be loosened or removed first, in order to remove and replace upholstery panels. Retain these fasteners also, noting the lengths of screws from the respective holes; they need to be re-installed in approximately the same place on the new panel.
 - iii. Retain the old panels to guide preparation of replacements.
 1. The new window openings and plastic trim rings will be smaller.
 2. Repair technician will custom-fit panels cutting holes for the trim rings to fit the new windows.
 3. This fitting should be done only when the exact location of the new windows is defined (after **Step 4**).
 - iv. Confirm color match of panels and snap buttons (if replacements are necessary).
- b. Clean areas to be glued with wax & grease remover.
- c. Wipe clean and test fit.
- d. (Optional) Apply masking tape to aid in the placement of adhesive and positioning of the reducing ring.

Step 2. Apply a bead of Lord 406 adhesive (or equivalent) on both a vertical outer portion of the extrusion and a horizontal cross-member.

- a. Lord 406 has a working time window of 6-10 minutes; it must be positioned and clamped in this time.
- b. See **Figures 1 & 2** for placement of retrofit ring with Lord adhesive.

Work Instructions

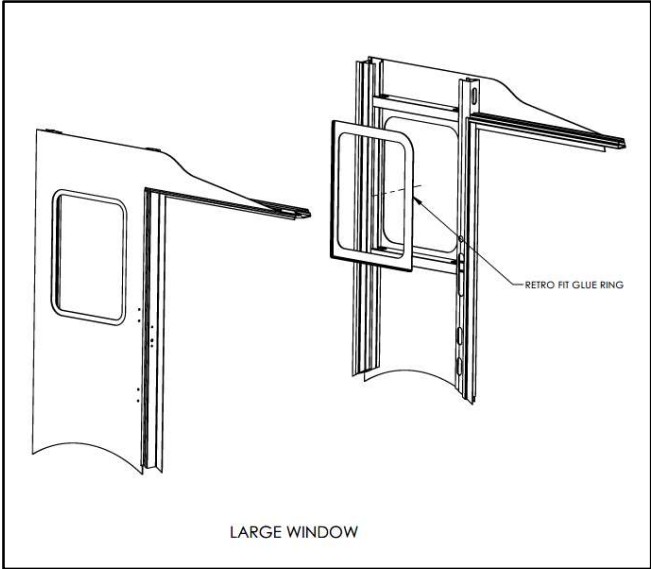


Figure 1. Large Window ring placement.

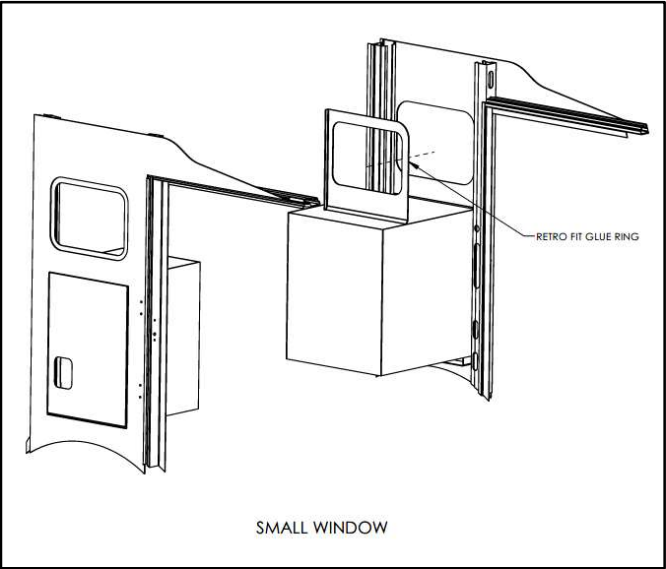


Figure 2 Small Window.

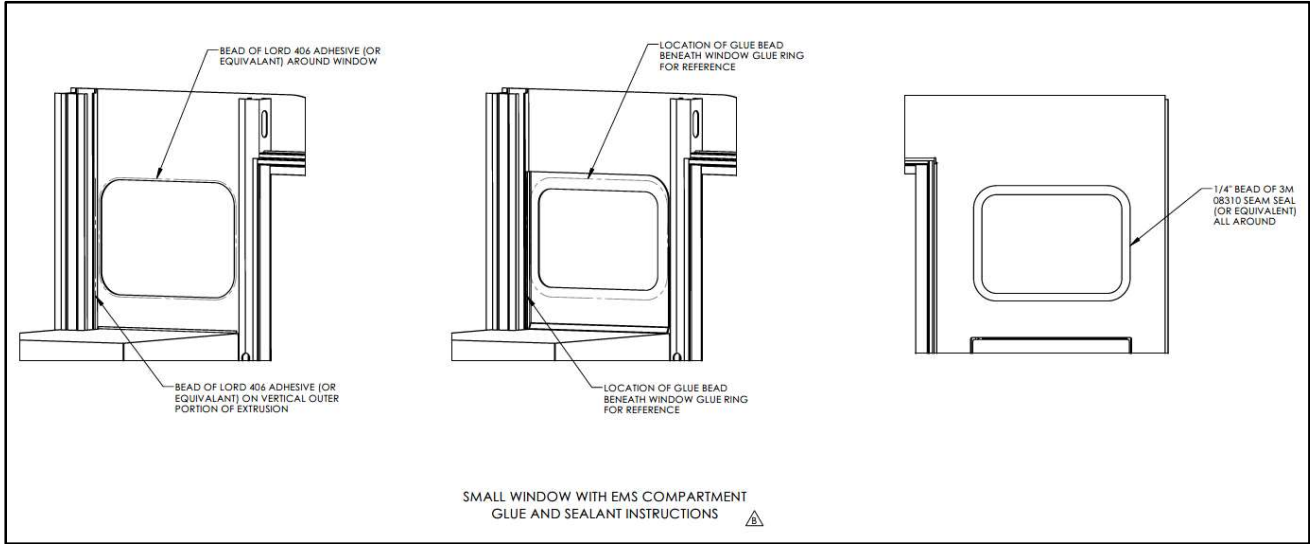


Figure 3. Small Window ring placement and glue instructions.

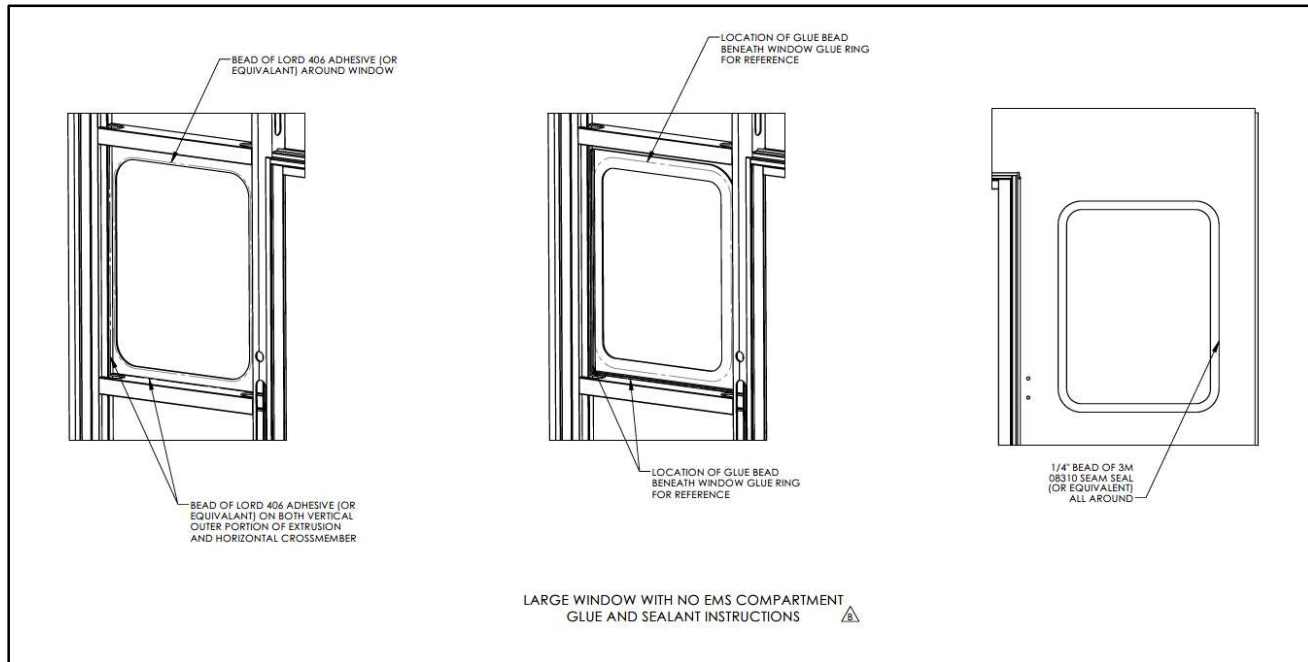


Figure 4. Large Window Retrofit and Glue-up Drawings.

Step 3. Clamp retrofit ring into position. Allow adhesive to set 15 minutes minimum.

Step 4. When the retrofit ring adhesive is set, apply a 1/4" bead of 3M seam seal to the ring's outer perimeter.

- a. Use a spatula or other methods to work it into position under the edges of the ring so the seam is water-tight, and tool it so it's not visible when finished. Clean any residue off paint.
- b. Use **Figures 3 & 4** for guidance.
- c. Working time for 3M 08310 Seam Seal is ten (10) minutes; cure-time is 15 minutes or more.

Step 5. Install the replacement interior panels.

NOTICE

If the cab has a flat roof, **read Steps 5b-vi-8, 5c, 5i, and 6a before proceeding.** The interior ceiling panels and AC condenser covers will need to be removed to gain access to the panels and will be replaced afterward.

NOTICE

Note that Rosenbauer ships full-size panels (1) to ensure that repair technicians have adequate material to work with, and (2) full panels are less fragile during shipment. They are side-specific; use care to order the correct side.

- a. Remove the old panel, retaining fastener hardware, and use it to plan the preparation of the new panels.
- b. Apply new adhesive-backed Velcro to match how it was used on the old panels.
 - i. This is used to hold the new panel in-position while marking the new window opening outline.

Work Instructions



- ii. This is done before beginning any cutting into the panel.
- iii. Note how the old panels were customized at the factory for guidance on how to modify the new ones.
- iv. If there are no EMS cabinets, insert the panel and carefully mark the window opening (and the floor kickpanel, if applicable).
- v. If the cab has EMS cabinets installed, the repair technician will need to determine (using the old panels) if the new panel can be fitted without removing panel material around or behind the EMS cabinet or not.
 1. Measure the cabinet dimensions and any other openings and translate the outline of the cabinet onto the back of the panel.
 2. New panel modifications will need to follow the cutting instructions below (see item vi).
 3. Multiple fitting attempts may be necessary, especially if there are multiple modifications in the original panel.
- vi. Layout initial cut guidelines that are 2-3" smaller on each side of each opening than actually required.
 1. This is to allow for fold-back of intact cover vinyl (see **Figures 5 & 6 below**).
 2. Keeping the vinyl cover intact, carefully cut out the foam from the back to almost the actual size of the opening desired, leaving about 1/8" of foam sticking out to soften the wrap-around edge of the vinyl cover (note lower right flap and protruding foam). See **Figure 5**.
 3. Apply spray adhesive according to label directions to the white cardstock panel backing and allow to dry to tackiness.
 4. Gently pull the thin corner strip into position, press into the adhesive, and carefully staple to hold while the adhesive cures.
 5. Carefully fold the adjoining flaps over the edge, keeping it smooth with a soft edge.
 6. Staple these flaps into position (**Figure 5**, lower left).
 7. For outside corners, (e.g. at bottom of a panel going around floor opening), see **Figure 6**, and secure the large flaps first, then the corner strip (reverse of inside corners).
 8. If a condensate tube opening is needed (**Step 5(c)(i)** below), treat it as a continuous inside corner.

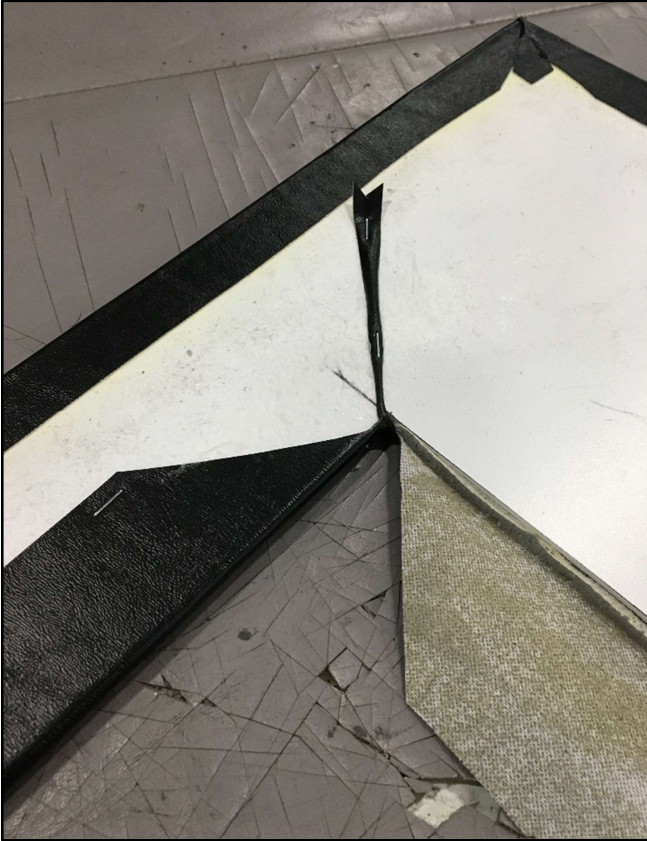


Figure 5. Showing in-process finishing of the inside corner of a panel opening. See Step 5b(vi)(1-4) for details. Per (Step 5b(vi)(4)), it is critical to secure the small strip in the corner first.



Figure 6. How to properly cut an outside panel corner for finishing. See Step 5b(vi)(6) for details.

- vii. Use masking tape or other temporary markings to show where to install the screw-snaps in the new panel. The new screw holes to attach the snaps should go through into the underlying frame.
- viii. It is not recommended to try and find the original holes used by these screws in the underlying aluminum frame. Drill new ones, taking care to avoid any wiring or tubing.
- c. If needed, cut holes in the new panels for the condensate drain tubing (flat-roof cabs only).
 - i. These holes must be cut accurately to ensure that the condensate tubes that go through them still drain correctly to the B-pillar without showing behind the evaporator covers.
 - ii. Start the drain hole cuts slightly higher and smaller than expected; you can enlarge them, but not the reverse. The evaporator cover **cannot** be lowered to hide over-cut.
 - iii. Use the vinyl flap finishing techniques described above in **Steps 5a-b**. Because of the dimensions involved, this will require careful planning before making any cuts.
 - iv. Confirm that condensate tubing is draining the AC evaporators correctly and is properly secured (middle vent section is secured upward) before screwing in the snaps.
 - v. Place the new panel into position; mark the window opening location on the back of the new panel. Do not secure the condensate tube yet.

Work Instructions



- d. Remove the panel, center the trim ring on the markings made in the previous step, then mark the cut-line.
- e. Cut out the opening for the trim ring and insert the ring, using black screws and screw-clips from the old trim ring into the new trim ring bezel holes to hold the trim ring into position in the panel assembly.
- f. Apply the Trimlock™ 3100 bulb-seal trim to the outer rim of the trim ring, taking care that the flange inside the mounting groove is on the outboard side of the trim ring. See the old ring for guidance, or **Figure 7** below. Press on firmly to seat it.
- g. Apply the adhesive-backed Velcro™ to the new panel to match what was installed on the old panel.
- h. Insert new panel/trim ring assembly into position, confirm fit. Make any necessary adjustments.
- i. Once fitted, if a flat cab roof required installing a drain hole in the panel, be certain to reconnect the AC condensate drain tube and tighten the hose clamps on the drain nipple. Otherwise, go to next step.
- j. Use pre-marked tape guides (**Step 5b (vii)**), to carefully drill new pilot holes and screw in the retaining snaps, then install the cover snaps.



Figure 7. Cross section of Trimlock™ 3100 bulb-seal. Red arrow points to flange that goes on the outer side of the ring.

Step 6. Re-using the original fasteners,

- a. Re-install the evaporator covers and ceiling panels if they were removed (flat-roofed cabs only). Be certain that the condensate drain tubes are covered by the curved portion of the evaporator covers.
- b. Screw the kickplate back into position along the bottom of the new upholstery panel. Screws should be hand-tight; do not strip the threads.

Step 7. The glass may be installed using standard glass installation techniques (see video link at <https://vimeo.com/531325364>).

- a. Pre-position strips of tape to hold the glass in place while the glass adhesive sets.
- b. Confirm that gluing surface on the trim ring paint is free of wax, grease, or dirt (grease & wax remover). Allow any cleaner solvent to evaporate.
- c. Apply activator to the fritted border of glass and gluing surface on the ring (per video).
- d. Apply glass adhesive (see video – link above).

Step 8. Place the glass into the opening, press it firmly into place and secure it with strips of tape.

- a. Make certain that the glass adhesive bead is sufficient to seal out any weather.

Work Instructions



- b. Remove any excess squeeze-out that protrudes from behind the glass before it sets.

Step 9. Complete any reporting or other documentation necessary (e.g. TSB sticker if applicable).

NOTICE

The Rosenbauer Bill of Materials for this truck should be updated to reflect the new size of window, as should Truck Info Database (TID).

☐ Service sign-off – Check box and sign: _____

Print Name: _____ Date: _____

(By signing this document, you are agreeing that the conditions of the document are true and correct to the standards of specific product and manufacturing plant.)