

VELA POP TOP STRUCTURAL ENHANCEMENT PROCEDURE

TSB Number:	304-002-2023		
Product:	Vela Pop Top		
Date: Original	May 25, 2023	Labor Rate:	2.0 hrs structural enhancement procedure 0.3 hr inspection only 1.0 hr per each crack repair
Revised	June 21, 2023		

NOTE: This document supersedes a version dated May 25, 2023. The document has been revised to update part numbers for Vela Pop Top Side Cover Piece kits in all colors.

Pre-installation Inspection

The following procedure for adding structural enhancement to the Vela Pop Top **ONLY** applies to V1.0 of the system. There is no action needed for the V1.5 Vela Pop Top.

To identify the version of pop top, look under the pop top canvas on the passenger side with the pop top in the raised position.

V1.0 - DOES need the enhancement procedure:

- Has no label under the pop top canvas on the passenger side with the pop top in the raised position OR;
- Has one (1) label under the pop top canvas on the passenger side with the pop top in the raised position.

NOTE: Units with one label with any of the below 17 serial numbers listed do **NOT** need the procedure.

V1.5 - Does NOT need the enhancement procedure:

- Has two (2) labels under the pop top canvas on the passenger side with the pop top in the raised position OR;
- Has one (1) label under the pop top canvas on the passenger side with the pop top in the raised position with following serial numbers:

3042231100630	3042213700020	3042227100057
3042230400045	3042231100055	3042231100073
3042230400040	3042231100092	3042231100093
3042213700003	3042231100064	3042231100056
3042210500130	3042230400041	3042230400048
3042213700014	3042231100076	

V1.0 DOES need the enhancement procedure performed.

V1.0 has no label OR one (1) label.

NOTE: Units with one label with any of the above 17 serial numbers listed do NOT need the procedure.

NO action is needed for V1.5.

V1.5 has two (2) labels OR one (1) label with any of the 17 serial numbers listed above.



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Purpose

This document identifies the procedure to provide structural enhancement to the V1.0 Vela Pop top using Vela Pop Top Side Cover Piece Kit. The procedure includes adding cover pieces to both sides of the pop top. The work will be performed one side at a time. After removal of the scissor arm and prior to the installation of cover piece the unit should be inspected for cracks. In the unlikely event there are cracks in the pop top structure, these will need to be repaired prior to installation of the cover pieces utilizing instructions in the Crack Repair section.

NOTE: For more information click the link for the related video: [Pop Top Enhancement](#)



Spacers For Cover Pieces

The back of the cover pieces have adhesive spacers attached. The spacers ensure the adhesive is applied at the correct depth. If one or more of the spacers becomes detached from the cover piece, they must be reattached prior to installation.



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Safety

Read and understand all instructions before installing or operating this product. Adhere to all safety labels. This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., the degree of difficulty, operation and ability of the individual performing the instructions. This manual cannot begin to plot out instructions for every possibility, but provides the general instructions, as necessary, for effectively interfacing with the device, product or system. Failure to correctly follow the provided instructions may result in death, serious personal injury, severe product and/or property damage, including voiding of the LCI limited warranty.

WARNING

The “WARNING” symbol above is a sign that a procedure has a safety risk involved and may cause death or serious personal injury and/or severe product or property damage if not performed safely and within the parameters set forth in this manual.

WARNING

Adhesives may cause:

- Skin irritation, redness and/or a burning sensation when in contact with bare skin. Use chemical resistant gloves.
- Eye irritation and possible temporary injury. Use safety glasses or a full face shield.
- Drowsiness or dizziness if inhaled. Use a personal respirator.
- A fatality if swallowed and entered into the airways. Do not induce vomiting. Call Poison Control.

- Avoid contact with eyes, skin, and clothing. Do not swallow. Wash thoroughly after handling. Avoid breathing vapor.

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
- Keep container tightly closed.
- Use only with adequate ventilation.

CAUTION

The “CAUTION” symbol above is a sign that a safety risk is involved and may cause personal injury and/or product or property damage if not safely adhered to and within the parameters set forth in this manual.

CAUTION

Always wear eye protection when performing service, maintenance or installation procedures. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the task.

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Vela Pop Top Side Cover Piece Kit Components

- Cover pieces - left and right
- Bolt, M6 X 1.0" - 10 each
- DAP Dynaflex Ultra adhesive (**for Installation of Cover Pieces only**)
- MS Henkel Teroson 939 (**for Crack Repair procedure only**)

Vela Pop Top Side Cover Piece Kits	
2023025826WHT	Cover Kit White
2023025826CHR	Cover Kit Charcoal
2023025826SIL	Cover Kit Silver
2023025826GRY	Cover Kit Gray
2023025826BLK	Cover Kit Black

Resources Required For Installation of Cover Pieces

- One or two people
- Vela Pop Top Side Cover Piece Kit items needed:
 - DAP Dynaflex Ultra adhesive
 - Bolt, M6 X 1.0" - 10 each
 - Cover pieces - left and right
- Temporary wooden supports, 35 ½" for front, 12 ½" for back
- Cordless or electric drill or screw gun
- Ratchet
- Appropriate sockets
- Swivel socket (or equivalent)
- Ratchet straps
- Duct tape
- Alcohol wipes (confirm compatibility with ABS material - test on small area if necessary)
- Caulk gun
- Chemical resistant gloves
- Safety glasses/face shield
- Respirator mask, if necessary
- Ladders and/or scaffolding of adequate height
- Flashlight, optional

Procedure

Removing Scissor Arm

NOTE: Before cleaning with alcohol, confirm the compatibility with ABS material - test on a small area if necessary.

NOTE: The pop top repair should be completed on one side at a time to maintain stability.

1. Place the temporary wood supports in place on one side of the pop top top, including the 35 ½" piece in the front and the 12 ½" piece in the back (Fig. 1).

Fig. 1



Fig. 2



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2. Install ratchet strap on the pop top top's metal side support frame and tighten (Fig. 2) to remove tension from the gas strut and spring.
3. Using 2 people, remove all 6 bolts on the upper section (Fig. 3).
4. Remove the 3 middle bolts from the lower section.
5. Using 2 people, support the scissor arm and remove 1 remaining bolt on each end of the lower section.
6. Compress the scissor arm a little further with the ratchet strap.
7. Using 2 people, slide the scissor arm forward and then pull the bottom edge out and down to remove and set aside (Fig. 4). (If the unit has an awning installed, more care is required for removal).

Fig. 3

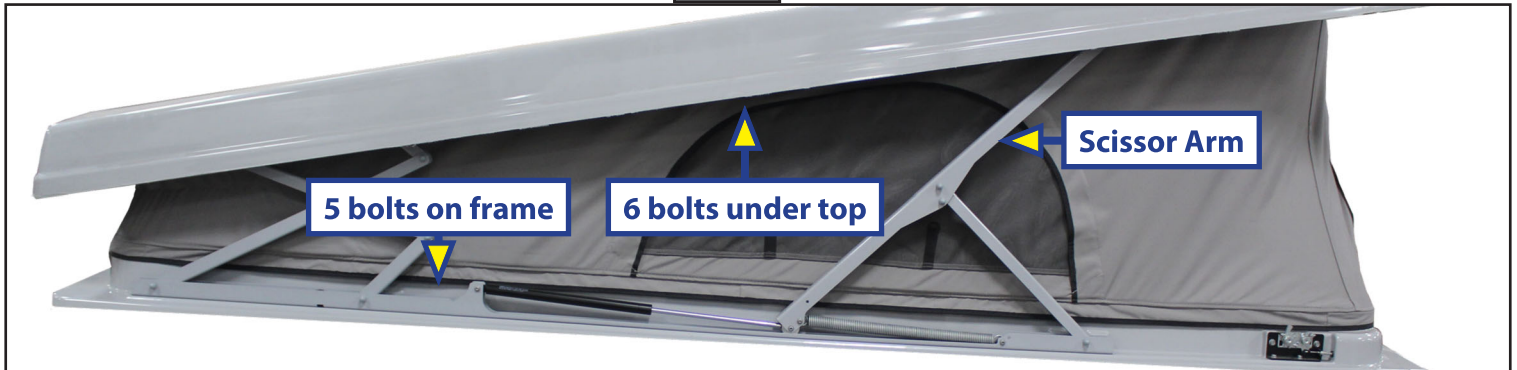


Fig. 4



8. Tape up the fabric skirt (Fig. 5) to allow access to the full side of the pop top base.
9. Inspect the pop top frame for cracks. In the unlikely event cracks are found, perform work according to Crack Repair section.

Fig. 5



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Adhesive/Sealant Cure Time

Complete cure time for DAP Dynaflex Ultra adhesive is 72 hours. Application temperature range is 5°C to 38°C / 40°F to 100°F.

If a crack repair using MS Henkel Teroson 939 is needed (see Crack Repair Section) prior to installing the cover piece:

- Cover piece and arm must **NOT** be fastened until at least 24 hours after MS Henkel Teroson adhesive is applied.
- After cover piece and arm are fastened, the pop top can be closed but **NOT** opened again until after an additional 48 hours. During this time, the vehicle can be moved outside, but should not be driven on the road.

If only the cover piece is being installed with NO crack repair needed:

- The pop top may **NOT** be closed until 24 hours after the DAP adhesive is applied.
- The pop top can only be opened again after an additional 48 hours. During this time, the vehicle can be moved outside, but should not be driven on the road.

NOTE: The unit with pop top **MUST** be stored inside for the first 24 hours of cure time. The preferred inside storage time is the full 72 hours. However, after the first 24 hours, the unit can be stored outside if the outside temperature is 5°C to 38°C / 40°F to 100°F and the weather will remain dry.

Frame Cover Piece Prep and Sealing Frame

1. Dry fit the cover piece on the pop top frame, making sure all holes line up with the frame contours and bolt holes (Fig. 6).

Fig. 6



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⚠ CAUTION

Ensure adhesive does not spread anywhere else on the frame, roof or to the pop top fabric.

2. Once the cover piece is properly situated, etch the location at each end of the frame (Fig. 6) with a sharp edge to prepare for final install. Set the cover aside.
3. Clean the entire surface of the pop top frame with alcohol wipes.
4. Starting right below the radius, begin applying a generous bead of DAP Dynaflex Ultra adhesive (Fig. 7A).
5. Seal around each contour (Fig. 7B).
6. Continue sealing around the perimeter of the frame (Fig. 8).

NOTE: If there is sealant on the frame from the original pop top installation, make sure to score along the original sealant before applying the adhesive.

Fig. 7

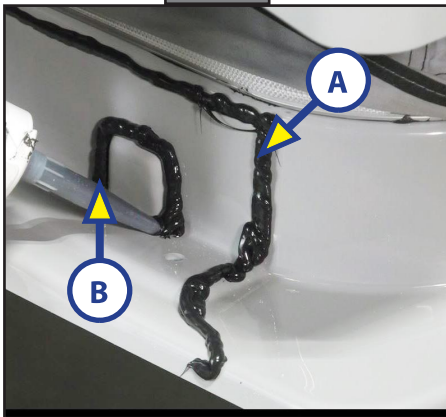


Fig. 8



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Installing Cover Piece

1. Using one or two people, install the cover piece over the frame (Fig. 9), aligning all contours and bolt holes with the holes in the cover, starting with the middle, bottom bolt hole.
2. Push firmly on the cover (Fig. 10). Adhesive will ooze slightly out of the cutouts and at the top.
3. Remove tape from fabric and gently lower the skirting over the sealant.
4. Completely seal the oval mounting holes for the bottom bolts with a silicone sealant (fig. 11).

Fig. 9



Fig. 10



Fig. 11



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Reinstalling the Scissor Arm

1. Compress the arms slightly with the ratchet strap to aid in re-installation.
2. Place the arm in the frame.
3. Install provided bottom bolts using M6 X 1.0" from Vela Pop Top Side Cover Piece Kit:
 - NOTE:** Make sure to wipe off any silicone sealant from the socket after each bottom bolt is installed.
 - A. Start with the bottom front and back bolts and tighten with the drill and socket until just snug. Do not over-tighten.
 - B. Use a socket and extension to start the middle 3 bolts.
 - C. Finish tightening the middle 3 bolts with a drill and a swivel socket until just snug. Do not over-tighten.
4. Pull the front of the scissor arm out toward you slightly while removing the ratchet strap.
5. Reinstall the ratchet strap on the back of the scissor arm (Fig. 12). Tighten the strap to raise the arm to make installing bolts easier.

Fig. 12

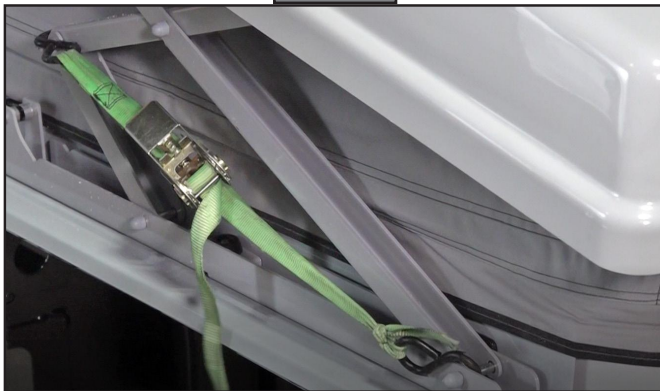


Fig. 13



6. Reinstall top bolts reusing existing hardware:
 - NOTE:** If the holes in the arm and frame do not line up, grasp the back of the roof and the scissor arm and push forward to line up the holes.
 - NOTE:** Wipe socket with an alcohol wipe as needed to remove sealant.
 - A. Install the front 2 bolts with the drill and socket.
 - B. Tighten the ratchet strap again to push the scissor arm up against the roof.
 - C. Install the back 2 bolts with the drill and socket.
 - D. Install the remaining bolts with a straight socket or the swivel socket.
7. Hand tighten all bolts - top and bottom - with a ratchet and socket until just snug. Do not over-tighten.
8. Remove ratchet strap.
 - NOTE:** Wipe off any excess sealant on the frame with an alcohol wipe.
9. Add sealant to the end of the cover piece at the back of the frame (Fig. 13).
10. Repeat install on the opposite side.

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Resources Required For Crack Repair

- Vela Pop Top Side Cover Piece Kit item needed:
 - MS Henkel Teroson 939
- Caulk gun
- Electric drill with small cutting bit or dremel tool with masonry bit
- Small cutting bit (i.e. masonry bit)
- Flat-edged scraper (squeegee)
- Alcohol wipes (confirm compatibility with ABS material - test on small area if necessary)
- Sandpaper
- Chemical resistant gloves
- Safety glasses/face shield
- Respirator mask, if necessary
- Ladders and/or scaffolding of adequate height
- Flashlight, optional

Crack Repair - If Needed

NOTE: Before cleaning with alcohol, confirm the compatibility with ABS material - test on a small area if necessary.

NOTE: Complete cure time for Teroson 939 is 72 hours. Application temperature range is 5°C to 40°C / 40°F to 105°F.

1. Clean the area with alcohol wipes.
2. Using an electric drill with a small cutting bit or a dremel tool with a masonry bit, create a channel along the entire length of the area to be repaired (Fig. 14).

NOTE: Do not cut all the way through the pop top frame.

Fig. 14



3. Lightly sand all repaired cracks and clean area with alcohol wipes.
4. Apply plenty of Teroson 939 sealant along the entire area to be repaired (Figs. 15 and 16).
5. Use a flat-edged scraper to remove any excess adhesive (Fig. 17 and 18).

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Fig. 15



Fig. 16

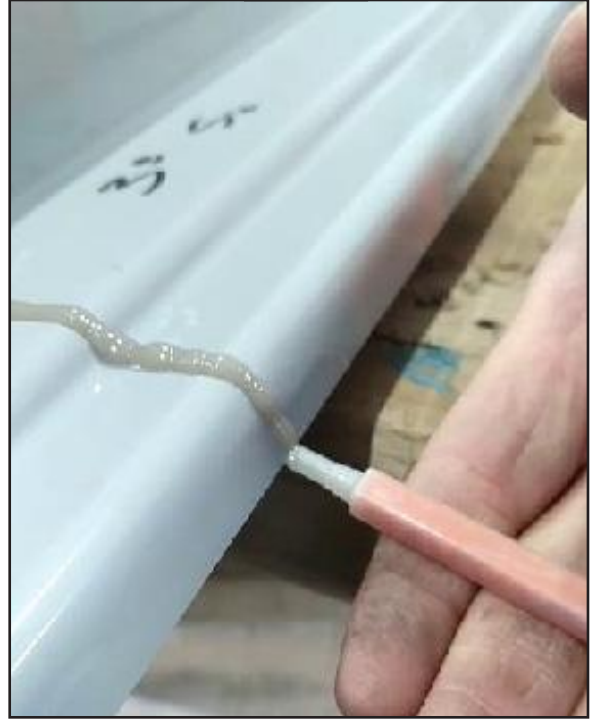


Fig. 17



Fig. 18



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