



Repair Standards

01-018 – Composite Van – Top Rail Section

Disclaimer:

Only a certified and experienced person using suitable tools should complete the repairs described below. Repairs should meet or exceed manufacturer's minimum specifications and should be in agreement with all safety and ecological regulations.

Permissible upon return and does not require repair:

- Acceptable repairs.
- Scratches no more than 1/8" deep in top rail or top rail rivets.

Requires repair upon return:

- Cuts/cracks/breaks that are greater than 12" in length.
- There is 3/4" or greater bend in the rail.
 - This extent of a bend is the furthest that a rail can bend and therefore it will not return to its original size/appearance.
- The rail damage is greater than eight feet in length.
- A section is in the middle of the trailer, consisting of two splices.

Restrictions:

- A top rail section cannot be in the middle of the trailer.
 - This is considered a 3-piece rail, which is unacceptable
 - A 3-piece rail is a rail that has two splices.
- A top rail section can be up to, but not exceeding, 75% of the trailer length.
 - Damage that would require greater than 75% of the rail length to be sectioned needs to be replaced entirely.
- A top rail section from the front of the trailer must range 4' past the middle of the landing gear legs.
- In the case that both top rails and both bottom rails need to be sectioned, the top rails should be replaced and the bottom rails sectioned.
 - Sections should be centered between side posts and staggered, no less than, four feet on the bottom rail and, at least, one foot away from a splice or seam.
- If a rail is completely replaced, it needs to meet OEM design.
- In the case that there are multiple rail sections (top rail/bottom rail) including roof sections, the cuts need to be staggered by four feet.



- Splices in the bottom rail should be, at least, one foot from a panel splice/seam.
- Splices in the top rail should be, at least, six inches from a panel splice/seam.
 - The splice should also be in the middle of two roof bows.

Reinforcement Notes:

1. With the inner rail reinforcement being 12" long, and made of .062" galvanized steel, the reinforcement should be placed in the middle of the composite wall panel and the top rail.
 - 1) The splice should be positioned in the middle of two roof bows.
2. With the outer angled reinforcement being 12" long, and two 1/8" aluminum plates, the two plates should be placed on the lower leg and the upper vertical section.
3. Pre-drilled splice kits can sometimes be obtained through the trailer manufacturer.
4. **Splices must be, no less than, six inches in distance from a panel splice/seam and in the middle of two roof bows.**

Sectioning the Top Rail:

1. Be sure that the damaged area, to be sectioned, is flat and braced.
2. Be aware of any air or electrical lines along the railing and relocate lines, if needed, to make rail removal easier.
3. Take out the interior liner, roof liner and roof scuff liner cautiously, if needed.
4. Starting with the end nearest the damage cut and take out the railing that needs to be repaired.
5. Replace the damaged area with a new piece of railing, cut to size.
6. Mylar tape is not necessary on the galvanized steel reinforcement.
7. Sealant should be added in between the top rail and inner reinforcement
8. The top reinforcement should be positioned where the original rail and new rail join and placed in the middle of the top rail and composite wall panel.
 - a. Secure the lower leg of the top rail into place using the same rivets that are used to secure the composite panel to the top rail.
 - i. At least twelve (12) ¼" rivets should be used in the top vertical section of the splice.
 - b. Be sure that the rivets used are lengthy enough to secure the top rail, panel and plates.
9. Use matching rivets to secure the inner and outer plates.
10. The rail joint should be sealed and never welded.
11. Replace the interior liner and scuff liner, if removed in step 3.