

2022 CHEVROLET CORVETTE SERVICE MANUAL

- **SEARCH**

1. **Body Repair**
2. **Collision Repair**
3. **Repair Instructions**
- 4.

Rear Rail End Replacement

Materials

- Structural Adhesive Aluminum Panel Bonding

Removal Procedure

1. Click here for full size
2. Warning:

Refer to Approved Equipment for Collision Repair Warning.
3. Warning:

Refer to Collision Sectioning Warning.
4. Warning:

Refer to Glass and Sheet Metal Handling Warning.
5. Note:

The rear rail is 6000 series aluminum extrusion. Aluminum
6. Note:

Three dimensional fixturing equipment required for installation.
7. Note:

Left shown, right similar.
8. Disable the SIR system. SIR Disabling and Enabling.
9. Remove all related panels and components.
10. Remove rear compartment panel frame. Rear Compartment Panel Frame Replacement
11. Remove rear compartment panel. Rear Compartment Panel Replacement
12. Remove rear bumper impact bar. Rear Bumper Impact Bar Replacement
13. Remove the sealers and anti-corrosion materials from the repair area as necessary. Anti-Corrosion Treatment and Repair
14. Click here for full size
15. Remove flow drill screws (1). [4X] Fastener Specifications
16. Click here for full size
17. Remove flow drill screws (1). [4X] Fastener Specifications
18. Click here for full size
19. Note:

Do not damage or cut attaching panels and reinforcements.
20. Measure and mark cut line on rear rail assembly (1) leaving 25 mm (1 in) of original rear rail assembly.

21. Using reciprocating saw or equivalent tool cut through rear rail assembly (1) at marked location.
22. Remove rear portion of rear rail assembly from vehicle.
23. [Click here for full size](#)
24. Note:

Do not damage or cut attaching panels and reinforcements.

25. Mark a cut line on radius of rear rail assembly (1).
26. Mark a cut line on radius of rear rail assembly (2).
27. Using reciprocating saw or equivalent tool cut through rear rail assembly at marked locations.
28. [Click here for full size](#)
29. Note:

Excessive prying force may damage attaching panels.

30. Bend end of flange (1) outward approximately 13 mm (1/2") to access rear rail section.
31. [Click here for full size](#)
32. Warning:

When separating the aluminum panels during collision repair, be sure to adhere to the following precautions:

- Do not use an open flame
- Focus heat onto panel being replaced and do not exceed 200°C (392°F) for 3 consecutive minutes
- Use care not to damage adjacent panel while prying the panels apart

Failure to follow the precautions may lead to vehicle damage or personal injury.

33. Note:

Excessive prying force may damage attaching panels.

34. Apply heat to release adhesive (1).
35. Remove lower section of remaining rear rail (2).
36. [Click here for full size](#)
37. Note:

Excessive prying force may damage attaching panels.

38. Apply heat to release adhesive (1).
39. Remove upper section of remaining rear rail (2).
40. Note:

Do not damage body structure when removing adhesive.

41. Remove remaining adhesive from body structure.

Installation Procedure

Other List:graphic

1. Note:

Temporarily install replacement part.

2. Position rear rail on vehicle using three dimensional fixturing equipment and clamp into place.
3. [Click here for full size](#)
4. Note:

Locate pilot holes for flow drill screws at center of hole on attaching panels.

5. Drill 4.0 mm (7/32") pilot holes (1). [4X] Fastener Specifications

6. [Click here for full size](#)

7. Note:

Locate pilot holes for flow drill screws at center of hole on attaching panels.

8. Drill 4.0 mm (7/32") pilot holes (1). [4X] Fastener Specifications

9. [Click here for full size](#)

10. Remove rear rail from vehicle.

11. [Click here for full size](#)

12. Note:

Accurate and timely assembly methods must be used in order to meet proper bonding requirements.

13. Note:

Dry fit all parts with proper clamping devices prior to final assembly to ensure full understanding of the assembly process.

14. Note:

When using adhesive, ensure all necessary tools and materials are in place prior to final assembly.

15. Note:

Only remove E-coat where adhesive will be applied.

16. Note:

Ensure all bare metal is covered.

17. Clean and prepare mating surfaces on structure and replacement part according to adhesive manufacturer's recommendations. Aluminum Panel Bonding.

18. Apply structural adhesive on mating surfaces (1) of structure and new part according to adhesive manufacturer's recommendations. Aluminum Panel Bonding.

19. Bend flange back into position and clamp as needed.

20. [Click here for full size](#)

21. Install rear rail on vehicle using three dimensional fixturing equipment and clamp into place.

22. [Click here for full size](#)

23. Note:

Ensure screw is fully seated with a minimum torque of 5N-m (4 lb ft) and not stripped.

24. Install flow drill screws (1). [4X] Fastener Specifications

25. [Click here for full size](#)

26. Note:

Ensure screw is fully seated with a minimum torque of 5N-m (4 lb ft) and not stripped.

27. Install flow drill screws (1). [4X] Fastener Specifications

28. Remove excess adhesive.

29. Apply the sealers and anti-corrosion materials to the repair area as necessary. Anti-Corrosion Treatment and Repair

30. Paint the repaired area. Basecoat/Clearcoat Paint Systems

31. Install rear bumper impact bar. Rear Bumper Impact Bar Replacement

32. Install rear compartment panel. Rear Compartment Panel Replacement

33. Install rear compartment panel frame. Rear Compartment Panel Frame Replacement

34. Install all related panels and components.

35. Enable the SIR System. SIR Disabling and Enabling

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