

2022 CHEVROLET CORVETTE SERVICE MANUAL

- **SEARCH**

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

Rear Rail Replacement (Assembly)

Materials

- Structure 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 “ front section is an aluminum high pressure casting and 6000 series aluminum extrusion assembly. 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 the sealers and anti-corrosion materials from the repair area as necessary. Anti-Corrosion Treatment and Repair
11. Click here for full size
12. Remove flow drill screws (1). [4X] Fastener Specifications
13. Click here for full size
14. Remove flow drill screws (1). [7X] Fastener Specifications
15. Click here for full size
16. Remove flow drill screws (1). [5X] Fastener Specifications
17. Click here for full size
18. Remove flow drill screws (1). [7X] Fastener Specifications
19. Click here for full size
20. Note:

Locate a cut line in the shaded area to create an access window.

21. Mark a cut line (1) in the shaded area.
22. Cut through the close-out panel at the marked location.
23. [Click here for full size](#)
24. Note:

The access window will be use to gain access to back side of rear rail casting.

25. Remove end section of close out panel (1).
26. [Click here for full size](#)
27. 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.

28. Apply heat to release adhesive (1).
29. [Click here for full size](#)
30. Note:

Excessive prying force may damage surrounding structure.

31. Apply heat to release adhesive (1).

32. [Click here for full size](#)
33. Note:

Excessive prying force may damage surrounding structure.

34. Apply heat to release adhesive (1).

35. [Click here for full size](#)
36. Note:

Excessive prying force may damage surrounding structure.

37. Apply heat to release adhesive (1).
38. Remove rear rail assembly (1) from vehicle.
39. Note:

Do not damage body structure when removing adhesive.

40. Remove remaining adhesive from body structure.

Installation Procedure

1. [Click here for full size](#)
2. Note:

Temporarily install replacement part.

3. Position rear rail assembly (1) on vehicle using three-dimensional measuring equipment and clamp into place.
4. [Click here for full size](#)
5. Note:

Drill pilot holes at locations of clearance holes.

6. Drill 4 mm (5/32") pilot holes (1) for flow drill screws if attaching to new components. [6X] Fastener Specifications

7. [Click here for full size](#)
8. Note:

If attaching to new components drill 4 mm (5/32") pilot holes for flow drill screws.

9. Drill 4 mm (5/32") pilot holes (1). [6X] Fastener Specifications
10. [Click here for full size](#)
11. Note:

If attaching to new components drill 4 mm (5/32") pilot holes for flow drill screws.

12. Drill 4 mm (5/32") pilot holes (1). [5X] Fastener Specifications
13. [Click here for full size](#)
14. Note:

If attaching to new components drill 4 mm pilot holes for flow drill screws.

15. Drill 4 mm pilot holes (1). [7X] Fastener Specifications
16. Remove rear rail assembly from vehicle.
17. [Click here for full size](#)
18. Note:

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

19. Note:

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

20. Note:

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

21. Note:

Only remove E-coat where adhesive will be applied.

22. Note:

Ensure all bare metal is covered.

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

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

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

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

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

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

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

30. Install rear rail assembly (1) on vehicle and clamp into place.

31. [Click here for full size](#)
32. Note:

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

33. Install flow drill screws (1). [6X] Fastener Specifications

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

35. Note:

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

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

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

38. Note:

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

39. Install flow drill screws (1). [5X] Fastener Specifications

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

41. Note:

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

42. Install flow drill screws (1). [7X] Fastener Specifications

43. Remove excess adhesive.

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

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

46. Install all related panels and components.

47. Enable the SIR System. SIR Disabling and Enabling

mcx30.com