

2022 CHEVROLET CORVETTE SERVICE MANUAL

- **SEARCH**

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

Front Crossmember 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 front crossmember is 6000 series aluminum extrusion. Aluminum
6. Disable the SIR system. SIR Disabling and Enabling
7. Remove all related panels and components.
8. Remove the sealers and anti-corrosion materials from the repair area as necessary. Anti-Corrosion Treatment and Repair
9. Click here for full size
10. Remove flow drill screws (1). [4x] Fastener Specifications
11. Click here for full size
12. Note:

Left shown, right similar.
13. Note:

Do not damage or cut attaching panels and reinforcements.
14. Mark cut line on front crossmember (1).
15. Mark two cuts lines on front crossmember (2).
16. Using reciprocating saw or equivalent tool cut through front crossmember at marked locations.
17. Click here for full size
18. 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.

19. Note:

Left shown, right similar.

20. Apply heat to release adhesive (1).

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

22. Note:

Excessive prying force may damage attaching panels.

23. Note:

Left shown, right similar.

24. Separate remaining sections of front crossmember (1) from casting by drawing walls of panel toward each other.

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

26. Note:

Left shown, right similar.

27. Remove remaining section of front crossmember (1) from vehicle.

28. Note:

Do not damage body structure when removing adhesive.

29. Remove remaining adhesive from body structure.

Installation Procedure

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

2. Note:

Temporarily install replacement part.

3. Position front crossmember (1) on vehicle using three-dimensional measuring equipment and clamp into place.

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

5. Note:

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

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

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

8. Remove front crossmember (1) from vehicle.

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

10. Note:

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

11. Note:

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

12. Note:

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

13. Note:

Only remove E-coat where adhesive will be applied.

14. Note:

Ensure all bare metal is covered.

15. Note:

Left shown, right similar.

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

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

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

19. Install front crossmember (1) on vehicle and clamp into place.

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

21. Note:

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

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

23. Remove excess adhesive.

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

25. Note:

Insulation tape applique must be replaced when installing new front crossmember.

26. Install new insulation tape applique (1).

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

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

29. Install all related panels and components.

30. Enable the SIR System. SIR Disabling and Enabling