

2022 CHEVROLET CORVETTE SERVICE MANUAL

- **SEARCH**

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Body Side Inner Panel Reinforcement Replacement (Coupe)

Materials

- Structural Adhesive Aluminum Panel Bonding
- Structural Rivet (SR2 5X) Fastener Specifications
- Countersunk Structural Rivet (CR2 3X) Fastener Specifications
- RPR Makers Special Tools
- Countersink Cutting Tool Special Tools

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 body side inner panel reinforcement is 5000 series stamped aluminum sheet. Aluminum
6. Note:

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

Left show, 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). [1X] Fastener Specifications
13. Click here for full size
14. Note:

Record the number and location of spot welds for installation of structural rivets.
15. Note:

Do not damage or cut attaching panels and reinforcements.

16. Note:

Drill through top layer only.

17. Remove spot welds (1). [8X]

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

19. Note:

Record the number, location and length of aluminum MIG welds for installation.

20. Note:

Do not damage or cut attaching panels and reinforcements.

21. Remove MIG welds (1) using a cut off wheel or equivalent tool. [8X]

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

23. 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.

24. Apply heat to release adhesive (1).

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

26. Apply heat to release adhesive (1).

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

28. Note:

Excessive prying force may damage surrounding structure.

29. Remove body side inner panel reinforcement (1) from vehicle.

30. Note:

Do not damage body structure when removing adhesive.

31. Remove remaining adhesive from body structure.

Installation Procedure

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

2. Note:

Temporarily install replacement part.

3. Position body side inner panel reinforcement (1) on vehicle using three-dimensional measuring equipment and clamp into place.

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

5. Note:

The 6.7 mm (17/64") holes used for rivet installation.

6. Note:

Drill holes in the original spot weld location as noted in removal.

7. Drill 6.7 mm (17/64") holes (1). [5X]

8. Drill 6.7 mm (17/64") holes (2). [3X]

9. Note:

Prepare rivet holes for countersunk structural rivet.

10. Using countersink cutting tool, countersink the holes (2). [3X] Special Tools

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

12. Remove body side inner panel reinforcement (1) from vehicle.

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

14. Note:

Aluminum body RPR markers are used to mark clearance holes for flow drill screws.

15. Install aluminum body RPR markers on the vehicle. [1X] Special Tools

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

17. Install body side inner panel reinforcement (1) on vehicle.

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

19. Locate and mark clearance holes (1) using aluminum body RPR markers. [1X]

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

21. Remove body side inner panel reinforcement (1) from vehicle.

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

23. Drill 7 mm (9/32") clearance holes (1) on body side inner panel reinforcement at marked locations. [1X]

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

25. Note:

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

26. Note:

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

27. Note:

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

28. Note:

Only remove E-coat where adhesive will be applied.

29. Note:

Ensure all bare metal is covered.

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

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

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

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

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

35. Install body side inner panel reinforcement (1) on vehicle using three dimensional fixturing equipment and clamp into place.

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

37. Note:

Install structural rivets in direction shown in illustration.

- 38. Install structural rivets (1). [SR2 5X] Fastener Specifications
- 39. Install countersunk structural rivets (2). [CR2 3X] 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). [1X]
- 43. [Click here for full size](#)
- 44. Note:

Duplicate the number, location and length of aluminum MIG welds as noted in removal.

- 45. Install MIG welds (1) using Pulse MIG welder. [8X] Aluminum
- 46. Remove excess adhesive.
- 47. Seal structural rivets with seam sealer. Anti-Corrosion Treatment and Repair
- 48. Apply the sealers and anti-corrosion materials to the repair area as necessary. Anti-Corrosion Treatment and Repair
- 49. Paint the repaired area. Basecoat/Clearcoat Paint Systems
- 50. Install all related panels and components.
- 51. Enable the SIR System. SIR Disabling and Enabling