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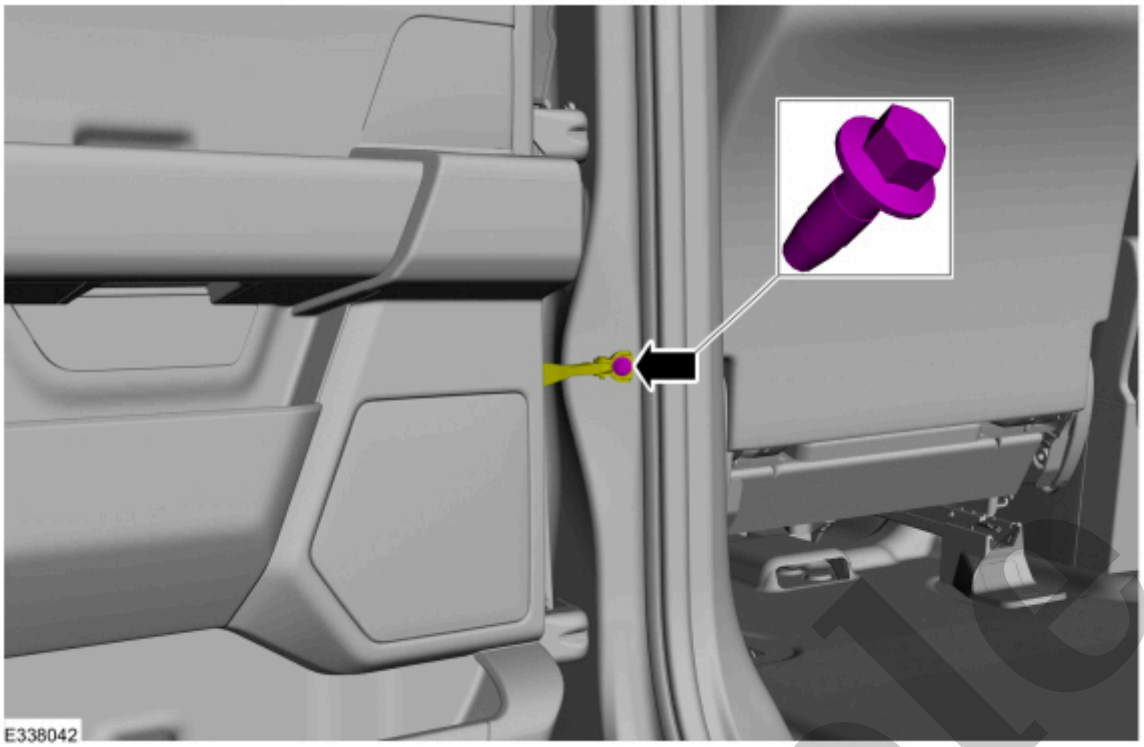
2000 FORD Econovan OEM Service and Repair Workshop Manual

Go to manual page



Click here to learn about symbols, color coding, and icons used in this manual.

2. Remove the rear door speaker.

   Refer to: Rear Door Speaker(415-00 Information and Entertainment System - General Information, Removal and Installation).

3. Remove the nuts.

   Torque : 80 lb.in (9 Nm)

1. To install, reverse the removal procedure.

- Is the repair economically feasible.
- Retention/integrity of the original joint.

In addition, sectioning or partial panel replacement must meet standardized guidelines or approved procedures in the model specific workshop manual for a sectional replacement solution in the damaged area.

For additional information, refer to: Body Panel Sectioning

(501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, General Procedures).

Depending on the damaged area, the following points need to be considered when determining whether to perform a partial repair or complete replacement:

- Sectioning cuts should be as short as possible.
- Feature lines and panel margins must meet original manufacture design.

  For additional information, refer to: Body and Frame(501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation).

  .
- Inner reinforcement panels must not limit the straightening work.
- Inner reinforcement profiles in the pillar areas must allow for separation.
- Partial replacements on structural frame sections must be allowed for the specific vehicle being repaired. If no procedure exists, it must be assumed no sectioning is allowed.
- The large surface welding seams at the connections must be restored.

Advantages of Partial Replacement

A partial replacement repair offers many advantages for a professional repair of accident damage:

- Repairs can be made both in the outer panel area (e.g. side frame) and in the inner areas (e.g. structural member, trunk floor).
- The repair can be limited to the actual damaged area.
- Reduction of repair costs, as aggregates and other components can usually remain in the vehicle.

Complete Replacement

In a complete replacement, the original connections are largely reused.

Impact of Insufficient Repair Quality

501-25 Body Repairs - General Information	***2022 F-150***
Description and Operation	***Procedure revision date: 09/30/2014***

Impact of Insufficient Repair Quality

Body repairs usually require a significant level of intervention in the existing body shell structure. The corrosion protection, seals and NVH (noise, vibration and harshness) components are destroyed and must be replaced.

To prevent the vehicle quality from being compromised due to a poor quality repair, all repairs must be inspected during and after the accident repair.

NOTE

Logs of the acceptance of individual operations are a useful tool for quality assurance. A comprehensive final inspection should be carried out.

In the process, the entire repair sequence must be split into meaningful sections, with the creation of check points to which particular attention must be paid.

The following are some recommended checkpoints sequences:

- During and after body work.
- Final assembly, ancillary components, functional tests.
- Vehicle delivery.

After completion of the body repairs, the following areas should be checked:

- Inspection for functionality of mechanical and electrical components.
- Vehicle must be restored to pre-accident manufacturers design condition.

Plastic Repairs

501-25 Body Repairs - General Information	***2022 F-150***
Description and Operation	***Procedure revision date: 09/3/2020***

Plastic Repairs

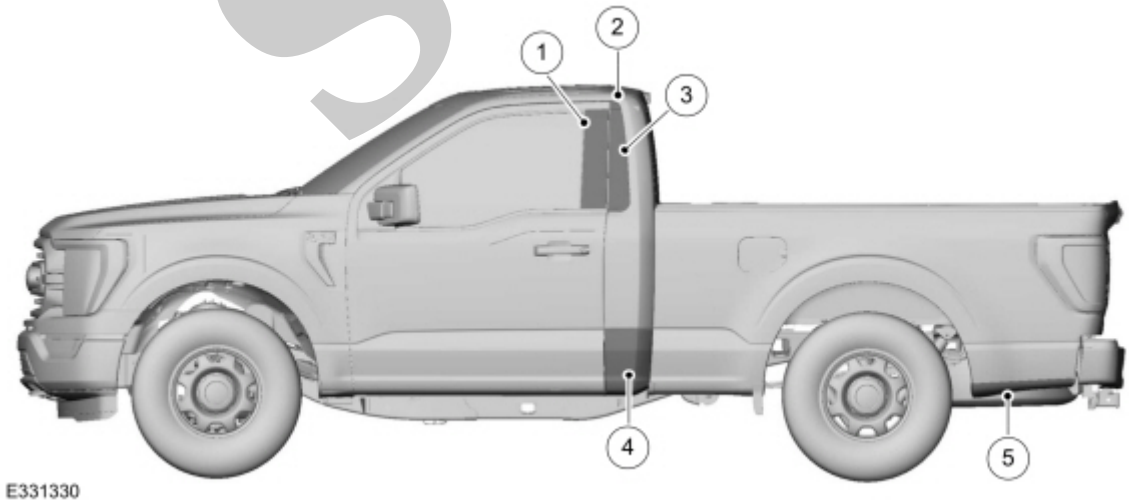
Plastic Components

The following illustration is not all-inclusive of trim levels available. The actual trim level of the vehicle will determine the viability of carrying out a plastics repair. Typically components with moulded-in color or a textured finish are not considered repairable components.

Exterior Plastic Components

NOTE

Regular cab shown, SuperCab and SuperCrew cab similar.



Thermoplastic compounds are manufactured by a process that is reversible. Thermoplastics can be remolded repeatedly by reheating. This characteristic of thermoplastics makes plastic welding a possible repair alternative. A repair of thermoplastic compounds is still possible through the use of a 2-part adhesive and filler repair materials and reinforcements as needed. Thermoplastics are widely used in interior trim components, wheel flares, body side cladding and bumper covers.

Polyolefin

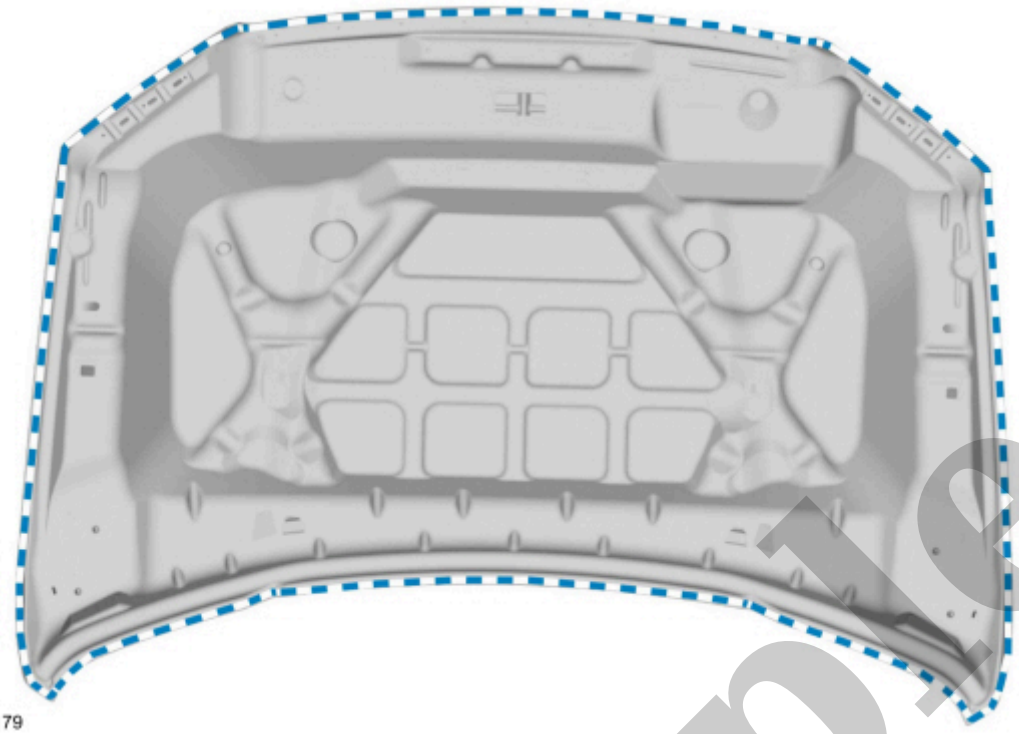
Polyolefins fall into the family of thermoplastics with one unique characteristic: an oily or waxy feel to the material when sanded or ground. Polyolefin lends itself very well to remolding through the use of heat. Because of this, components made of this material lend themselves well to the possibility of plastic welding. Most adhesive repair materials and paint will not bond to the surface of a polyolefin unless an adhesion promoter specially formulated for plastic is first applied to the exposed raw surface. Otherwise, polyolefins are repaired like most other thermoplastics. Polyolefins are used in bumper covers, fan shrouds and wheel housings.

Proper identification of the various types of plastic is necessary to select the appropriate repair method(s) to carry out high quality plastic repairs.

For additional information, refer to: Plastic Repairs

(501-25 Body Repairs - General Information, General Procedures).

Hood Sealer



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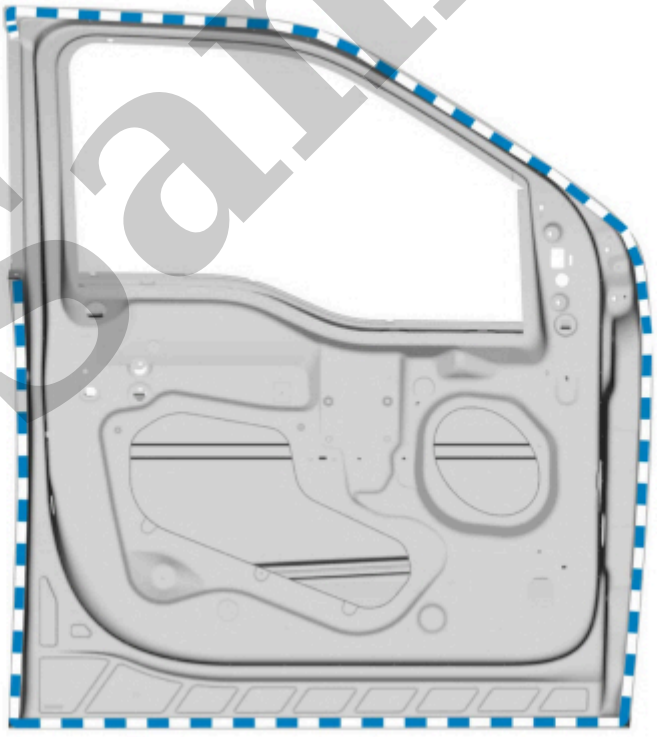
Front Door Sealer



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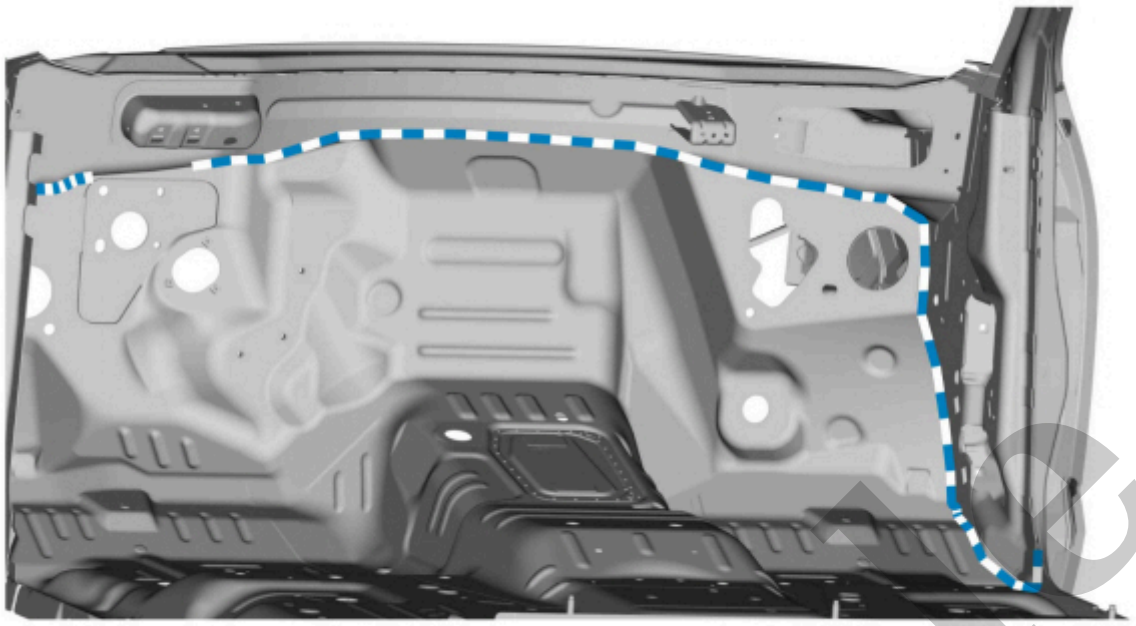
SuperCab Rear Door Sealer



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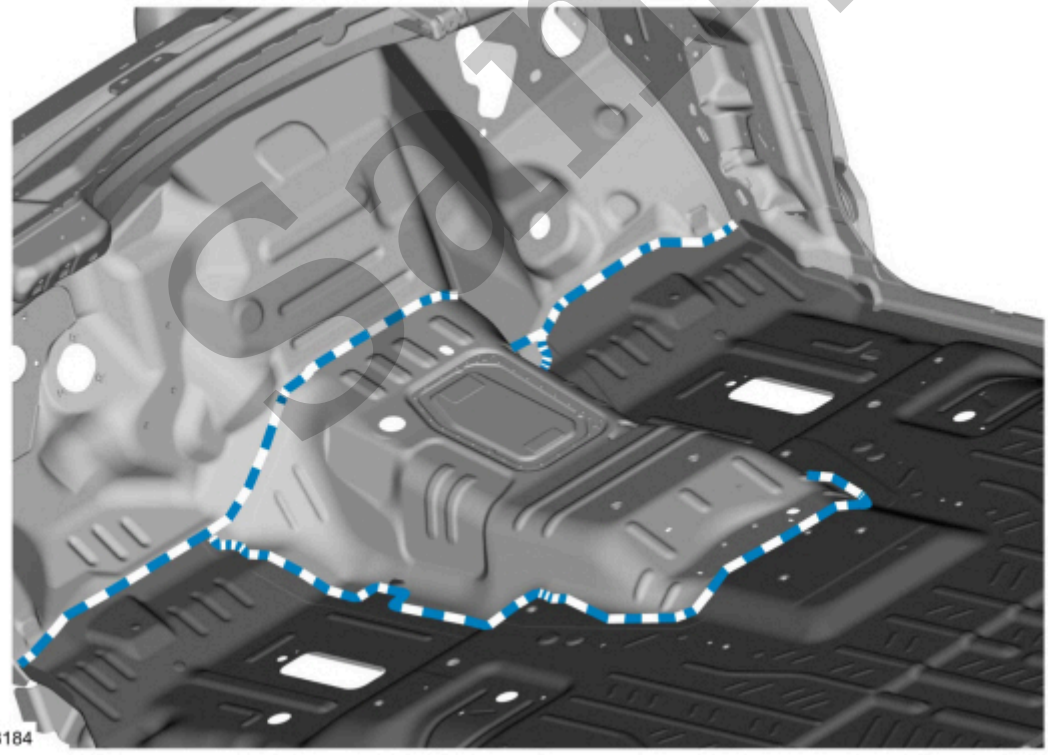
Floor and Transmission Tunnel to Dash Panel Sealer



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Body Side and Rear Panel to Floor Sealer

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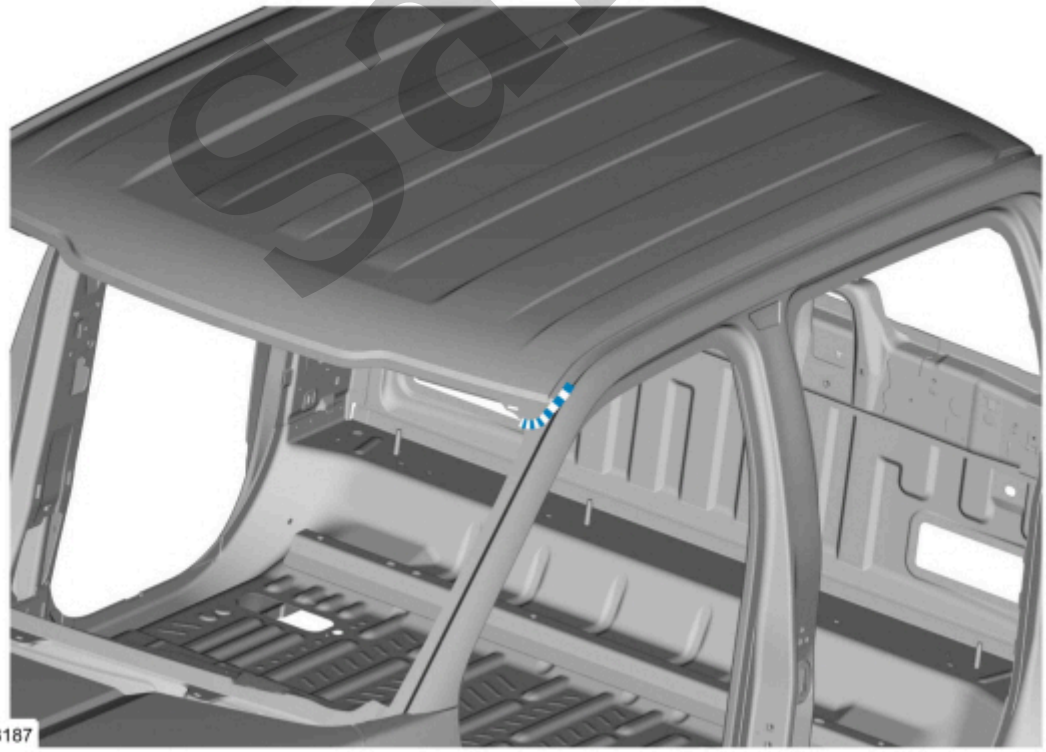
Front Roof Corner Sealer

NOTE

SuperCrew cab shown regular cab and SuperCab similar.



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