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1989 FORD Bronco OEM Service and Repair Workshop Manual

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- The fixed glass is the windshield glass and equipped with a camera bracket.
- The fixed glass is the windshield glass and equipped with adhesive mouldings.

NOTE

Fixed glass may have locating pins that vary in location. It may be necessary to cut these pins with a utility knife.

Remove the fixed glass.

Use the General Equipment: Power Fixed Glass Removal Tool

Use the General Equipment: Cold Knife

Use the General Equipment: Knife

4.



WARNING

Repair any corrosion found on the pinch weld. The pinch weld is a structural component of the vehicle. Corrosion left unrepaired may reduce the structural integrity of the vehicle. Failure to follow this instruction may result in serious injury to vehicle occupant(s).

NOTICE

New or reused fixed glass must be installed within 2 hours of cutting the urethane adhesive. Exposed cut surfaces of urethane become oxidized and inactive beyond 2 hours, reducing the effectiveness of the repair bond.

NOTE

Avoid scratching the pinch weld. Repair all minor scratches or exposed metal on the pinch weld following manufacturer's instructions for the product being used. Use the same brand primer and

Apply primer as necessary.

1. Apply primer to those areas only previously primed with primer.

Material : Sika® Aktivator PRO / Dow® BETAPRIME™ 5504G / Sika® Primer-207

2. If the clearcoat layer was damaged on the pinch weld but not extending into bare metal, apply primer to those areas only.

Material : Sika® Aktivator PRO / Dow® BETAPRIME™ 5504G / Sika® Primer-207

7. NOTE

This step only applies when installing a new fixed glass.

Clean the inside of the new fixed glass with glass cleaner.

Material : Motorcraft® Ultra-Clear Spray Glass Cleaner / ZC-23 (ESR-M14P5-A)



8.



NOTE

This step only applies when installing a new fixed glass.

Apply primer according to the manufacturer's instructions to the new fixed glass. Allow at least 10 minutes to dry.

Material : Sika® Aktivator PRO / Dow® BETAPRIME™ 5504G / Sika® Primer-207

9. NOTE

This step only applies to reusable fixed glass.

Visually inspect and remove remaining urethane adhesive from the glass leaving a thin layer to bond with the new urethane adhesive bead.

[Click here to learn about symbols, color coding, and icons used in this manual.](#)



NOTICE

Make sure the urethane bead is uniform to prevent air and water leaks.

NOTE

The fixed glass must be installed within 10 minutes of applying the urethane adhesive.

NOTE

Use a power caulk gun that applies the urethane adhesive with less effort and a continuous bead.

Apply a urethane adhesive bead.

1. Start and end at the original overlap points to prevent air and water leaks.

2. **NOTE**

Take care in applying urethane on vehicles without peripheral moldings as urethane expulsion could become an appearance issue.

Apply a urethane adhesive bead 14 mm (0.551 in) high and 8 mm (0.314 in) wide on top of the existing trimmed urethane adhesive bead on the pinch weld.

Use the General Equipment: Power Caulk Gun

Material : Sika® SikaTack® MACH 60 / Sika® SikaTack® MACH 30 / Dow® BETASEAL™ Express

Material : Sika Tack ASAP Urethane Adhesive

3. Make sure there are no gaps in the bead.

installing the fixed glass.

NOTE

If replacing the windshield glass and equipped with a camera bracket, it must have locating pins and spacers to ensure correct alignment. Do not use a replacement windshield glass, without locating pins and spacers.

Install the fixed glass to the vehicle.

1. Install the fixed glass, pressing firmly by hand to ensure a good bond.
 2. Secure the fixed glass in the correct position with tape until the urethane adhesive has cured.
15. If necessary, remove excess uncured urethane adhesive from the interior and exterior surface of the fixed glass.

Material : Motorcraft® Ultra-Clear Spray Glass Cleaner / ZC-23 (ESR-M14P5-A)

16. Install any removed components as needed.
17. If equipped, carry out the IPMA (image processing module A) camera alignment.

Refer to: [Lane Keeping System - Component Location](#)(419-07 Lane Keeping System, Description and Operation).

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1. NOTE

The antenna and heated window grid line material is not embedded into the glass, but is baked to the glass surface and consequently can be scraped off. An undamaged grid line has small ridges that project above the surface of the glass and can easily be felt when running a fingernail across them. Antenna and heated window grid lines that have been razor bladed will feel smooth when a fingernail is dragged across the affected area. Inoperative heated window grid lines may appear to the eye to be undamaged due to residue remaining on the glass and require diagnosis with a voltmeter or 12V test lamp.

Bring the vehicle up to a room temperature of at least 16°C (60.8°F) or above.

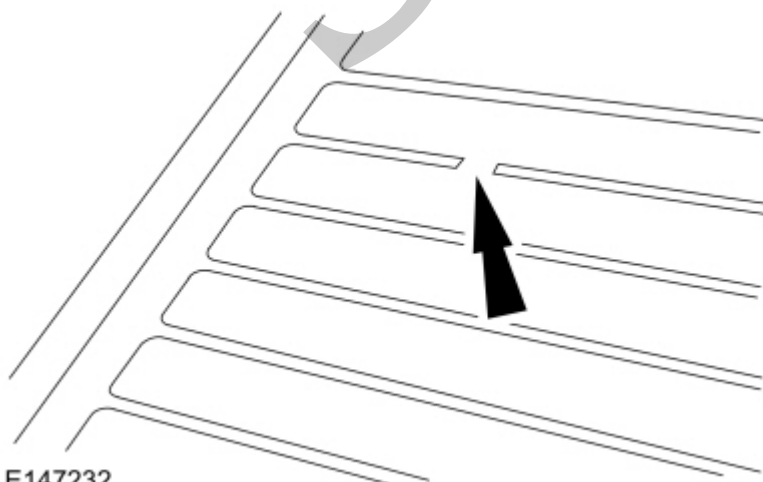
2. NOTICE

Do not use scrapers, sharp instruments or abrasive window cleaners on the interior surface of the rear window glass as this may cause damage to the antenna and heated window grid lines.

Clean the entire antenna and heated window grid line repair area with glass cleaner and 0000 steel wool to remove all dirt, wax, grease, oil or other foreign material.

Material : Motorcraft® Ultra-Clear Spray Glass Cleaner / ZC-23 (ESR-M14P5-A)

3. Mark the location of the antenna or heated window grid break on the exterior of the rear window glass.
4. Using a polypropylene film fine line tape, mask the area directly above and below the antenna or heated window grid break extending the tape 26 mm (1.0236 in) beyond the concern area in both directions. The break area should be at the center of the mask. Polypropylene Film Fine Line Tape (commercially available).

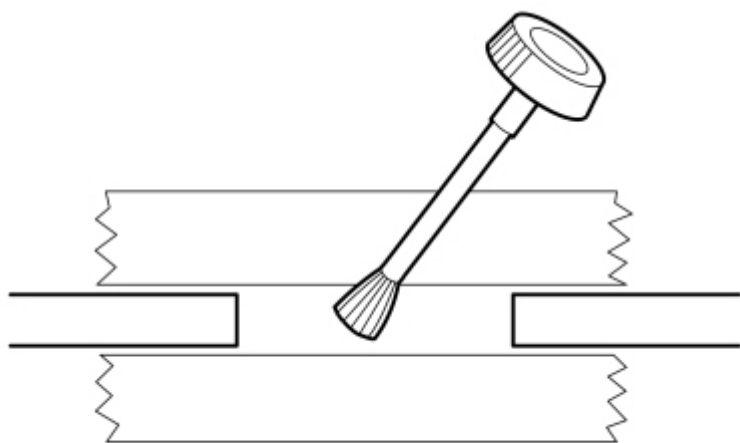


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6. **NOTE**

The repair coating air dries in approximately one minute and can be energized after 5 minutes. Optimum adhesion occurs after approximately 24 hours.

Allow the repair area to dry completely and remove the mask.



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[Click here to learn about symbols, color coding, and icons used in this manual.](#)

7. **NOTICE**

Be careful not to damage the antenna or heated window grid line with the razor blade. If this occurs, additional repair may be necessary.

Remove any excess repair compound above or below the antenna or heated window grid line with a razor blade.

8. **NOTE**

The interior side of the antenna or heated grid lines are not painted, but due to the silver tarnishing tend to change the grid to a gold or brown color. The repair area will be bright silver and also tarnish over time to match the rest of the antenna or heated window grid.

Test the system for normal operation.

NOTE

Depending on the original terminal location, and whether the terminal is covered by pillar trim, determines where to locate the new terminal. Some grid line bus bars may only allow the placement of the terminal above or below the original tab location due to space limitations. For most vehicle applications, the replacement tab location covers the original tab location, but still allows the replacement tab to attach to the bus bar on good conductive material.

Place the replacement terminal type A over the original tab location, making sure the conductive areas of the terminal will be on a good conductive area. Do not place the terminal tab foot on the original location, which does not have conductive material.

4. Hold the terminal in place with an item such as a regular lead pencil at a 90 degree angle from the terminal (Holding at other than a 90 degree angle may allow the terminal to slip when the solder liquefies).

NOTE

The new terminal has pre-applied solder, flux and temperature-sensitive paint. The paint provides a visual indication when the terminal has reached the correct temperature to melt solder on the terminal. When the correct temperature is achieved, the temperature paint liquefies and changes color.

Place the soldering gun tip on the top of the terminal, but not on the painted areas of the tab. Energize the soldering gun and watch for the painted area of the terminal to liquefy and change color. The paint should liquefy in approximately 25-45 seconds after heating. As soon as the paint color completely changes on either side of the terminal, de-energize the soldering gun and continue to hold the terminal in place with the soldering gun and pencil for an additional 30 seconds.

6. Remove the soldering gun and pencil from the terminal. Allow the terminal to cool for another 2 minutes before attaching the wiring lead to the terminal.
7. Attach the electrical lead connection to this terminal, turn on the heated rear window and verify the operation.

5. **NOTE**

All of the remaining steps must be carried out within 30 seconds from start to finish.

Lift and hold the window control switch until the door window stalls in the fully closed position for 2 seconds.

6. Release the window control switch.

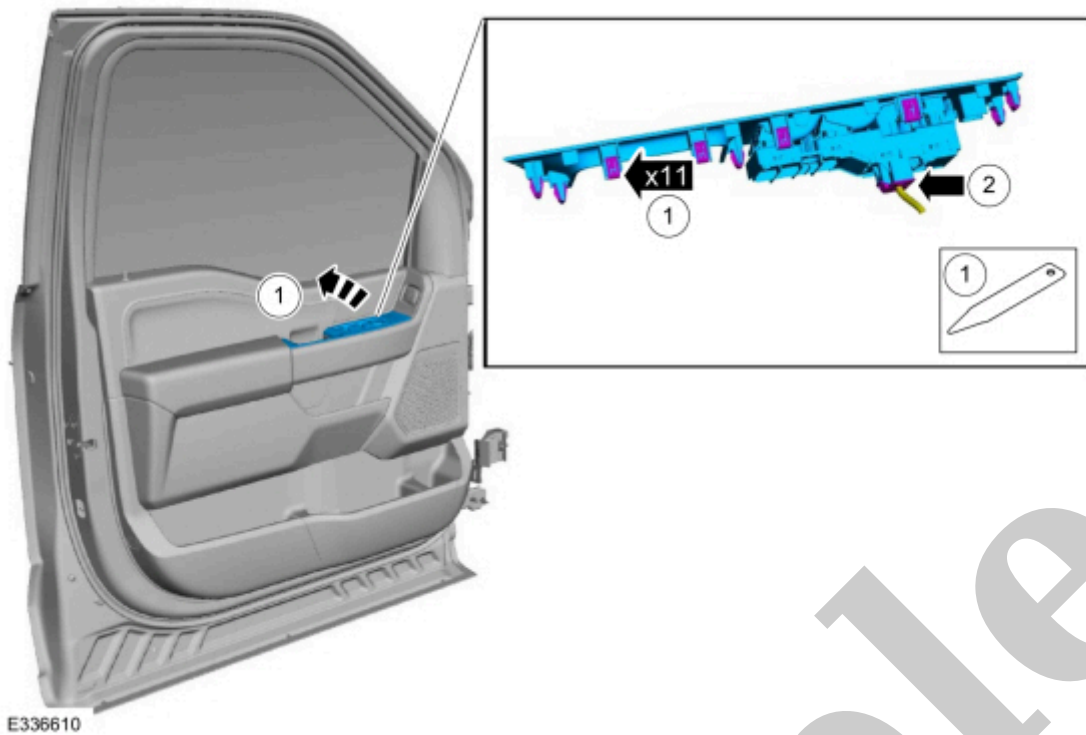
7. Press and hold the window control switch until the door window stalls in the fully open position for 2 seconds.

8. Release the window control switch.

9. Lift and hold the window control switch until the door window stalls in the fully closed position for 2 seconds.

10. Test for correct window operation by carrying out the one-touch down and one-touch up features.

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2. NOTE

This step is only necessary when installing a new component.

Remove the driver door window control switch.

1. Remove the screws from driver door window control switch.
2. Remove the driver door window control switch from the bezel assembly.