



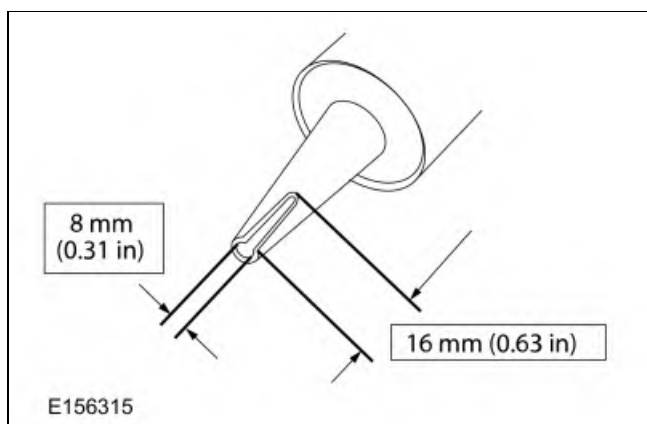
Apply primer to the RIM encapsulation according to the manufacturer's instructions to the new fixed glass. Allow at least 10 minutes to dry.  
 Material: Sika® Aktivator PRO / Dow® BETAPRIME®, 5504G / Sika® Primer-207



9.



Cut the urethane adhesive applicator tip to specification.  
 Material: Sika Tack® MOVE.IT



10.



**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.

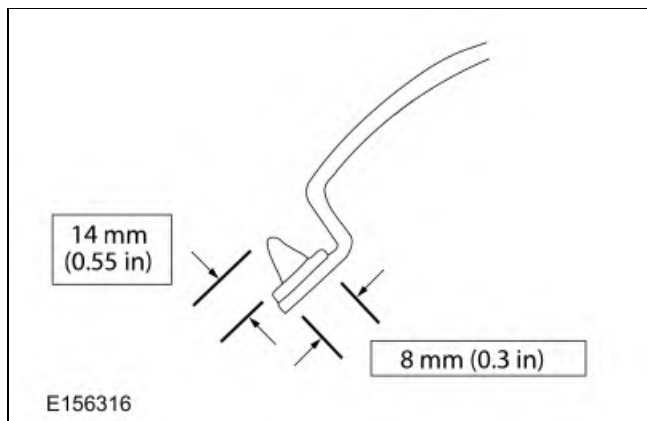
Apply a urethane adhesive bead.

1. Start and end at the original overlap points to prevent air and water leaks.
2. 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 Tack® MOVE.IT

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



#### Vehicles without RIM encapsulated glass

11. **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)



**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

13. **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.



**NOTE:** This step only applies to reusable fixed glass.

Apply primer according to the manufacturer's instructions to the fixed glass anywhere the urethane adhesive was completely removed. Allow at least 10 minutes to dry.

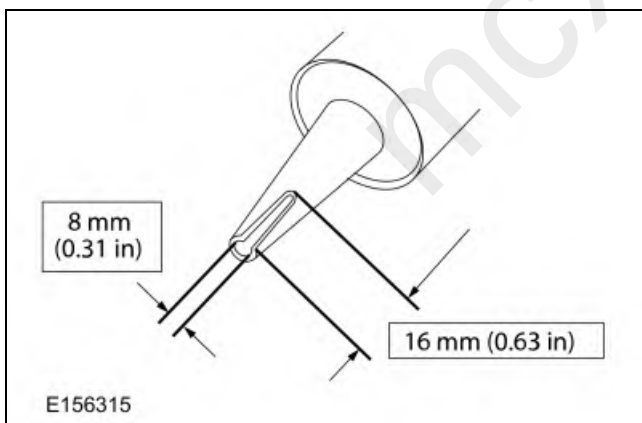
Material: Sika® Aktivator PRO / Dow® BETAPRIME®, 5504G / Sika® Primer-207



Cut the urethane adhesive applicator tip to specification.

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

Material: Sika Tack ASAP Urethane Adhesive



**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.

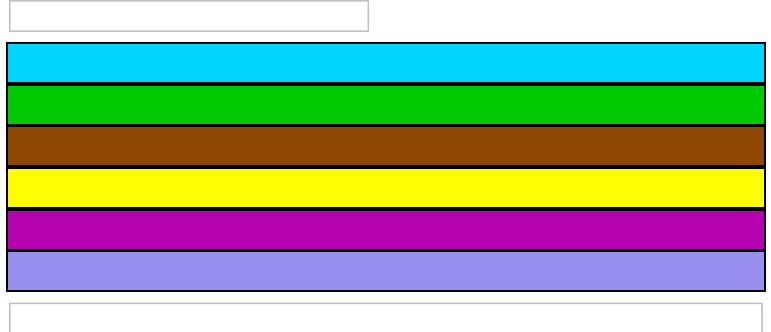
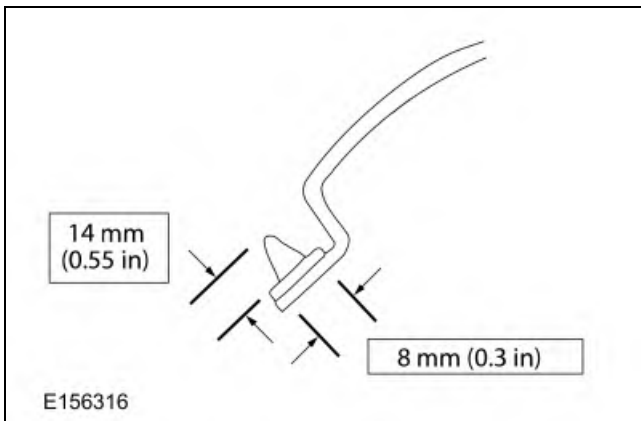
1. Start and end at the original overlap points to prevent air and water leaks.
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Use the General Equipment: Power Caulk Gun

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.



#### All vehicles

17. **NOTICE: The door windows must be left open during the adhesive curing time.**

Open the vehicle windows to prevent the air pressure of closing doors from compromising the urethane adhesive bond.



18.

**WARNING: Improper curing of the urethane adhesive may adversely affect glass retention, which is important for restraint system performance during a crash. Carefully follow the urethane adhesive manufacturer's curing instructions. Do not drive the vehicle until the urethane adhesive seal has cured. Failure to follow these instructions may result in serious injury to vehicle occupant(s) during a crash.**

**NOTE: If equipped, the adhesive strip backings must be removed from the A-pillar mouldings before 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.
19. 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)
  20. Install any removed components as needed.
  21. If equipped, carry out the IPMA (image processing module A) camera alignment.  
Refer to: Lane Keeping System - System Operation and Component Description (419-07 Lane Keeping System, Description and Operation).



## Heated Window Grid Wire Repair

### Materials

| Name                                                                                       | Specification |
|--------------------------------------------------------------------------------------------|---------------|
| Motorcraft® Ultra-Clear Spray Glass Cleaner<br>ZC-23                                       | ESR-M14P5-A   |
| Motorcraft® Rear Window Defroster Repair<br>PM-11                                          | WSB-M4J58-B   |
| Motorcraft® Lacquer Touch-Up Paint<br>PMPC-19500-XXXXA, PMPM-19500-XXXXG, PMPP-19500-XXXXA | ESR-M2P100-C  |

### Inspection

1. Using a bright lamp in the vehicle, inspect the grid wire from the exterior. A broken grid wire appears as a brown spot.
2. Run the engine at idle. Activate the rear window defrost switch. The indicator light should come on.
3. Working in the vehicle with a voltmeter, contact the broad red-brown stripes of the rear glass window (positive lead to B+ side and the negative lead to ground side). The meter should read 10-13 volts. A lower voltage reading indicates a loose ground connection.
4. Contact a good ground point with the negative lead of the meter. The voltage reading should not change.
5. With the negative lead of the meter grounded, touch each grid line of the heated rear window glass at its midpoint with the positive lead. A reading of approximately 6 volts indicates the line is good. A reading of 0 volt indicates the line is broken between the midpoint and the B+ side of the grid line. A reading of 12 volts indicates the circuit is broken between the midpoint of the grid line and ground.
6. Pinpointing the exact position of the break can be accomplished (if the voltmeter reads 0 volt when the midpoint of the grid line is touched with the positive lead of the voltmeter) by moving the positive lead of the voltmeter toward the B+ side of the grid line and touching the grid line until the voltmeter reads 12 volts. If the voltmeter reads 12 volts when the midpoint of the grid line is touched with the positive lead of the voltmeter, simply move the positive lead of the voltmeter toward the ground connection of the grid line and touch the grid line until the voltmeter reads 0 volt.

### Repair

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.

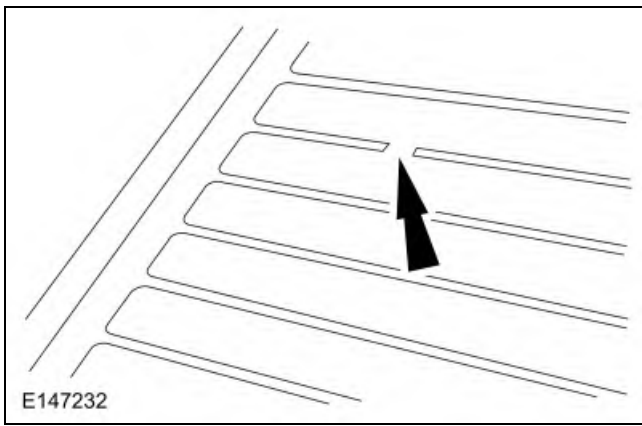
Bring the vehicle up to a room temperature of at least 16°C (60.8°F) or above.

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).



5. **NOTE:** If the brown layer is not broken or missing, apply only the silver grid repair compound to the break. If both the brown and silver layers of the antenna or heated window grid are broken or missing, apply a coating of the lacquer touch-up paint across the break in the grid line prior to applying the rear window defroster repair compound. Do not overlap the silver grid line with the paint. Several applications may be necessary to achieve a color match.

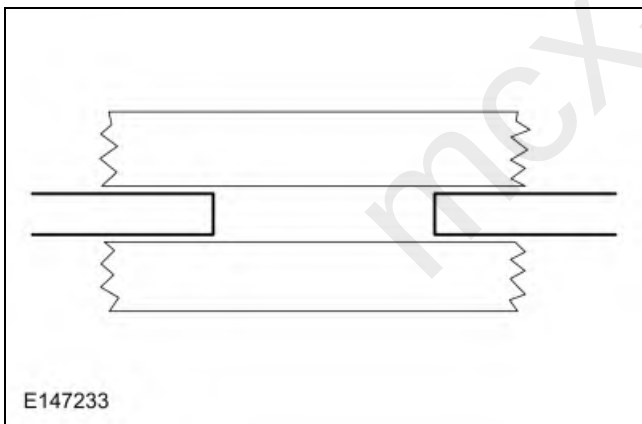
**NOTE:** Allow at least 5 minutes of drying time between applications for the touch-up paint or the silver repair coating. Applying fewer coats or not allowing adequate drying time between coats produces repaired resistance that is greater than Original Equipment Manufacturer (OEM) resistance, resulting in poor defrost performance and excessive localized heating.

Apply the repair coating to the antenna or heated window grid break area in several smooth, continuous strokes. Extend the silver repair coating at least 6.35 mm (0.25 in) on both sides of the break area. Apply a minimum of 6 applications of the grid repair compound.

Polypropylene Film Fine Line Tape (commercially available)

Material: Motorcraft® Rear Window Defroster Repair / PM-11 (WSB-M4J58-B)

Material: Motorcraft® Lacquer Touch-Up Paint / PMPC-19500-XXXXA, PMPM-19500-XXXXG, PMPP-19500-XXXXA (ESR-M2P100-C)



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.