## Aluminum Repair Procedures

### Glass

### Windshield Removal and Installation

1. **Glass Removal**
   - Apply interior surface protection. Remove wiper blades and cowl panel. Remove windshield molding. Cut urethane with the appropriate tool. Remove glass.

2. **Dry Set Glass**
   - Clean the pinchweld area of all loose pieces of urethane. Dry fit the glass. Use masking tape to mark proper alignment by applying two pieces of tape along the top edge of the glass, perpendicular to the pinchweld. Cut the masking tape and remove the glass.

3. **Pinchweld Inspection & Preparation**
   - Close-cut the old urethane down to a thickness of 1mm–2mm. Clean with water and a clean cloth. Apply primer to any bare metal scratches if necessary and allow to dry for 5–10 minutes.

4. **Clean and Prepare the Glass**
   - Clean glass with glass cleaner and a clean cloth.

5. **Apply Primer to the New Windshield**
   - Check the expiration date on the primer. Shake the primer can well. Apply a continuous layer of primer to the new windshield and allow to dry for 5–10 minutes.

6. **Apply Urethane & Install Windshield**
   - Check expiration date on urethane. Cut nozzle to desired width and shape. Apply a bead of new urethane to the old urethane on the pinchweld at an application angle of 90°. Paddle all joints/gaps in one direction.

7. **Tape Removal**
   - Remove all tape before delivering the vehicle. For best results remove it in a slow, uniform motion. Remove it in the direction of the painted surface to the windshield, and remove the tape at an angle of approximately 135° to the surface. Tape removal works best if the temperature is above 60°F.

8. **Reinstall Moldings and Panels**
   - Reinstall moldings and interior panels as needed. Reconnect electronics. Remove excess urethane. Keep vehicle out of service until the urethane builds strength per manufacturer recommendations.

### Product List

- 3M™ Precision Masking Tape, 2 in. width, PN 06528
- 3M™ Single Step Primer, 30mL can, PN 08682
- 3M™ Urethane Primer Daubers, PN 08688
- 3M™ Glass Cleaner, 19 oz. aerosol, PN 08888
- 3M™ Fast Cure Auto Glass Urethane, 450mL Flex Pack, PN 08689; 10.5 fl. oz. cartridge, PN 08690
- 3M™ Flex Pack Heavy Duty 450mL Applicator Gun, PN 08991
- 3M™ Specialty Adhesive Remover, 1 qt. can, PN 38984; 15 oz. aerosol, PN 38987
- 3M™ E-A-R™ Skull Screws™ Ear Plug, PN P1300
- 3M™ Half Facepiece Respirator, PN 07182
- 3M™ Virtua™ Protective Eyewear, PN 11326

### Think About Your Health

- 3M™™™ Flex Pack

### Additional Information

- Visit 3MCollision.com for more SOPs and videos

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*Note: The products and process for this repair are the same as standard procedure.*
Individual Product Instruction and Safety Information

For individual product instructions and applicable precautions see product labels and associated literature for the individual product at 3MCollision.com

For product material safety data sheets see 3MCollision.com

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