

**Weld Bonding (Excluding Door Skin)**

<b>1</b>		<p><b>Host Panel Preparation</b></p> <p>Using a grade 80 abrasive belt, remove remaining weld nugget material from host panel. Prep remaining mating flanges on host panel with a coarse Scotch-Brite™ Belt to remove all adhesive, corrosion and coatings.</p>
<b>2</b>		<p><b>Mating Flange Panel Preparation</b></p> <p>Remove Ecoat from replacement panel mating flange areas using Scotch-Brite™ Belt or Clean N Strip disc.</p>
<b>3</b>		<p><b>Clean</b></p> <p>Clean host panel and replacement panel mating flange areas with a VOC compliant surface cleaner.</p>
<b>4</b>		<p><b>Dry Fit Panel</b></p> <p>Dry fit replacement panel and complete any necessary metal straightening at flanges areas.</p>
<b>5</b>		<p><b>Weld-Thru Primer</b></p> <p>Use Scotch-Brite™ Belt to prepare metal surfaces. Clean and apply weld-thru primer to all areas requiring MIG welding.</p>
<b>6</b>		<p><b>Spot Weld Surface Preparation</b></p> <p>Identify replacement spot weld sites and remove Ecoat using Scotch-Brite™ belt where spot weld tips will contact host and replacement panel. Remove panel once complete.</p>
<b>7</b>		<p><b>Pre-Assembly NVH Replacement</b></p> <p>If vehicle construction necessitates, apply NVH material or foams at original locations as required.</p>
<b>8</b>		<p><b>Apply Bonding Adhesive</b></p> <p>Apply adhesive to mating flange areas on host panel and replacement panel covering all bare metal areas. Apply additional bead of adhesive at mating flange areas.</p>
<b>9</b>		<p><b>Install Replacement Panel</b></p> <p>Install replacement panel to host panel. Clamp in place.</p>
<b>10</b>		<p><b>Spot Weld</b></p> <p>Spot weld while adhesive is uncured at prepared weld sites. Follow welder settings determined from test panel.</p>
<b>11</b>		<p><b>Adhesive Clean Up</b></p> <p>Remove clamps and tool excess adhesive squeeze-out from repair area prior to curing to seal the repair. <b>Note: Grinding to remove excess adhesive can expose bare metal, causing corrosion.</b></p>
<b>12</b>		<p><b>Post-Assembly Foam Replacement</b></p> <p>Apply foams at original locations as required.</p>

**⚠ WARNING**

Follow OEM and/or welder manufacturers' recommended procedure for making and testing welds. Before welding on a vehicle, test welds must be made to ensure proper weld quality and welding machine settings.

**Product List**

3M™ File Belt Sander, PN 28366



3M™ Cubitron™ II File Belt, grade 80+, PN 33446



Scotch-Brite™ Durable Flex Belt, CRS, PN 64475



Scotch-Brite™ Roloc™+ Clean N Strip XT Disc, PN 07470



Scotch-Brite™ Roloc™+ Clean N Strip TR Disc, PN 07466



3M™ Weld-Thru Coating II, PN 05917



3M™ NVH Dampening Material, PN 04274



3M™ Flexible Foam, 200mL, PN 08463



3M™ Panel Bonding Adhesive, 200mL, PN 08115; 200mL, PN 08116; 450mL DMS, PN 58115; 50mL, PN 38315



3M™ SMC/FRP Panel Adhesive, 200mL, PN 08219



3M™ Rigid Pillar Foam, 200mL, PN 08458



**Think About Your Health**

3M™ E-A-R™ Skull Screws™ Ear Plug, PN P1300



3M™ Half Facepiece Respirator, PN 07182



3M™ Lexa™ Protective Eyewear, PN 15200



# Protect Your Repairs

Corrosion protection is recommended for this type of repair.

Protect repairs with a self-healing, non-hardening formula

- 3M Cavity Wax Plus, PN 08852
- 3M™ Cavity Wax Plus Applicator Wand Kit, PN 08851



All OEMs recommend the application of internal anti-corrosion material during body repair, which includes cavity wax.

**Technical Information:** The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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Panel Bonding (Excluding Door Skin)		
<b>1</b>		<p><b>Host Panel Preparation</b></p> <p>Using a grade 80 abrasive belt, remove remaining weld nugget material from host panel. Prep remaining mating flanges on host panel with a coarse Scotch-Brite™ Belt to remove all adhesive, corrosion and coatings.</p>
<b>2</b>		<p><b>Replacement Panel Preparation</b></p> <p>Remove Ecoat from replacement panel mating flange areas using Scotch-Brite™ Belt or Clean N Strip disc.</p>
<b>3</b>		<p><b>Clean</b></p> <p>Clean host panel and replacement panel mating flange areas with a VOC compliant surface cleaner.</p>
<b>4</b>		<p><b>Dry Fit Panel</b></p> <p>Dry fit replacement panel and complete any necessary metal straightening at flanges areas. Remove panel in preparation for adhesive application.</p>
<b>5</b>		<p><b>Weld-Thru Primer</b></p> <p>Use Scotch-Brite™ Belt to prepare metal surfaces. Clean and apply weld-thru primer to all areas requiring MIG welding.</p>
<b>6</b>		<p><b>Pre-Assembly NVH Replacement</b></p> <p>If vehicle construction necessitates, apply NVH material or foams at original locations as required.</p>
<b>7</b>		<p><b>Apply Bonding Adhesive</b></p> <p>Apply adhesive to mating flange areas on host panel and replacement panel, covering all bare metal areas. Apply an additional bead of adhesive at mating flange areas to ensure proper bond line thickness.</p>
<b>8</b>		<p><b>Install Replacement Panel</b></p> <p>Install replacement panel to host panel. Clamp in place and make required welds on rear vertical seams, cosmetic joints, or where otherwise recommended by the directions for use, or the OE manufacturer. Follow recommended adhesive clamp times.</p>
<b>9</b>		<p><b>Adhesive Clean Up</b></p> <p>Tool excess adhesive squeeze-out from repair area prior to curing to seal the repair. <b>Note: Grinding to remove excess adhesive can expose bare metal, causing corrosion.</b></p>
<b>10</b>		<p><b>Post-Assembly Foam Replacement</b></p> <p>Apply foams at original locations as required.</p>

Product List	
3M™ File Belt Sander, PN 28366	
3M™ Cubitron™ II File Belt, grade 80+, PN 33446	
Scotch-Brite™ Durable Flex Belt, CRS, PN 64475	
Scotch-Brite™ Roloc™+ Clean N Strip XT Disc, PN 07470	
Scotch-Brite™ Roloc™+ Clean N Strip TR Disc, PN 07466	
3M™ Weld-Thru Coating II, PN 05917	
3M™ NVH Dampening Material, PN 04274	
3M™ Flexible Foam, 200mL, PN 08463	
3M™ Panel Bonding Adhesive, 200mL, PN 08115; 200mL, PN 08116; 450mL DMS, PN 58115; 50mL, PN 38315	
3M™ SMC/FRP Panel Adhesive, 200mL, PN 08219	
3M™ Rigid Pillar Foam, 200mL, PN 08458	

Think About Your Health	
3M™ E-A-R™ Skull Screws™ Ear Plug, PN P1300	
3M™ Half Facepiece Respirator, PN 07182	
3M™ Lexa™ Protective Eyewear, PN 15200	

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Protect repairs with a self-healing, non-hardening formula

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- 3M™ Cavity Wax Plus Applicator Wand Kit, PN 08851



All OEMs recommend the application of internal anti-corrosion material during body repair, which includes cavity wax.

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Door Skin Removal		
<b>1</b>		<p><b>Pre-Cleaning</b> Pre-wash/clean vehicle prior to disassembly (power wash undercarriage area at repair).</p>
<b>2</b>		<p><b>Parts Removal</b> Remove associated trim and parts. Use molding removal tool to remove and save side moldings and emblems.</p>
<b>3</b>		<p><b>Hem Flange Grinding</b> Use grade 60 fiber-backed abrasive disc to grind outer edge and separate door skin from door frame.</p>
<b>4</b>		<p><b>Hem Flange Spot Weld Removal</b> Use grade 36 file belt to remove any spot welds attaching hem flange to door frame. <b>Use caution when grinding to only grind top panel and avoid cutting into host/interior panel.</b> Separate hem flange material from backside of door.</p>
<b>5</b>		<p><b>Door Skin Spot Weld Removal</b> Use grade 36 file belt to remove any spot welds attaching door skin to door frame. <b>Use caution when grinding to only grind top panel and avoid cutting into host/interior panel.</b></p>
<b>6</b>		<p><b>Door Skin Removal</b> Separate door skin from door frame. Use a putty knife to help separate skin from adhesive and NVH material on intrusion beam. Heat may be used when required for softening. (Maintain original NVH material whenever possible.)</p>

Product List	
<p>3M™ Car Wash Soap Concentrate, 1 gallon, PN 38377</p>	
<p>3M™ All Purpose Cleaner and Degreaser Concentrate, 1 gallon, PN 38350</p>	
<p>3M™ Side Molding and Emblem Removal Tool, PN 08978</p>	
<p>3M™ Disc Sander, PN 28408</p>	
<p>3M™ Cubitron™ II Abrasive Fibre Disc, grade 60+, 5 in., PN 33415</p>	
<p>3M™ File Belt Sander, PN 28366</p>	
<p>3M™ Cubitron™ II File Belt, grade 36+, PN 33443</p>	

Think About Your Health	
<p>3M™ E-A-R™ Skull Screws™ Ear Plug, PN P1300</p>	
<p>3M™ Half Facepiece Respirator, PN 07182</p>	
<p>3M™ Lexa™ Protective Eyewear, PN 15200</p>	

**3M™ Weld-Thru II**  
**Part Number**  
**05917/60-9801-0777-9**

A sprayable, weldable, corrosion-resistant coating designed to prevent corrosion from forming between two weldable metal surfaces.

**PURGE AFTER EACH USE**

**Directions for use:**

1. Remove all paint, rust, oil, and grease from the area to be coated. Surface must be bare metal that is clean and dry.
2. Shake can of 3M™ Weld-Thru II for one minute after agitator is heard. Shake frequently during use.
3. Hold can 10-12 inches from surface to be coated. Press actuator tip firmly and use steady and even strokes when spraying.
4. Apply two light coats (1 mil dry thickness) on both mating surfaces. Allow solvents to flash between coats. Coating must be dry to the touch (normally 5-10 minutes at room temperature) before parts can be MIG welded. If using a resistance spot welder, allow 15-20 minutes of dry time before welding.
5. Invert can and spray to **purge nozzle**.
6. Grind weld with a 3M™ GREEN CORPS™ fibre disc, being sure to remove any exposed 3M™ Weld-Thru II prior to applying plastic filler or other top coat.

**General Corrosion Protection:**

In non-cosmetic areas where plastic filler is not to be used, you may apply 3-4 coats of 3M™ Weld-Thru II to the weld areas after grinding. When dry, top coat the weld area with 3M™ Rust Fighter-I (PN 08892), a 3M™ Undercoating product, or primer and paint.