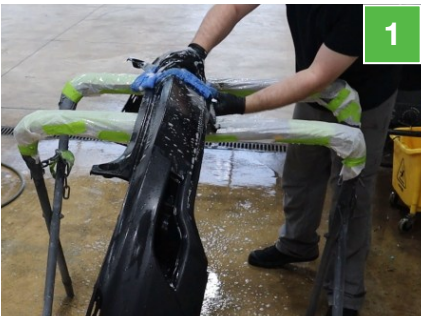


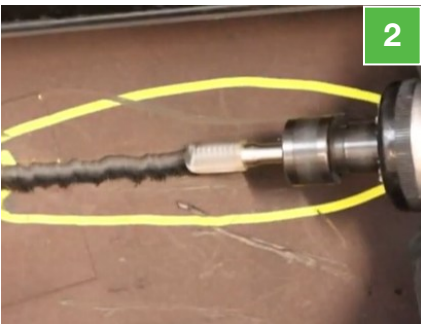
FUSE-WELDING PROCESS

Standard Operating Procedure

SOP4P03-EN-1125



- 1 Prep the Part**
- Wash both sides with soap and water (only use soap designed for automotive plastics).
 - Rinse with clean water and blow dry.
 - Sand the surface with 400 grit paper to remove all paint around the repair area. It is not necessary to remove all of the OE texture if present.



- 2 Fuse Welding (inside first)**
- Channel the tear 1/2 the depth of the plastic using the Burr Grinder.
 - Use Weld Support Tape to reinforce the opposite side while completing the repair.
 - Fuse weld the split. Select the appropriate heat setting on the welder, 1100-1200°F (600-650°C) for a 5 mm welding nozzle.
 - The welding strip should be held at a 90 degree angle to the surface of the part. The welder should be held so the nozzle is at a 45 degree angle to the welding strip and the surface of the part. The nozzle should be approximately 1/2 an inch (1.5cm) away from where the welding strip and base plastic meet.
 - Heat the base plastic and welding strip to approximately 325 to 350°F (162-177°C) for proper fusion. Apply downward pressure with your hand on the welding strip while directing heat at the point where the strip and base plastic meet. You should observe the welding strip and base plastic fusing together as you weld.
 - Multiple welds may be necessary depending on the shape of the split. Always start welding before the channel begins. Cool the weld with compressed air.
 - If the split goes to an edge, run a brace weld (T-weld) across the edge of the split.
 - The brace weld should run along the edge of the split, perpendicular to the split. This will help prevent the split from cracking if the bumper is flexed or stressed.
 - Repeat the process for the outside repair



- 3 Filing the repair**
- Use the Plastic Shaving File to ensure the repair area is level with the surface of the part.
 - File in a linear motion. The file will only cut in one direction, the direction the teeth are facing. Be careful not to damage or distort the style lines of the bumper.



- 4 Sand the Repair Area**
- Remove the file marks with the 6 inch sander and 180 grit on a medium speed. Be careful not to damage or distort the style lines of the bumper.
 - Use progressively finer grit paper to finish out the repair (180, 220, 320). Feather the paint around the repair area, making the transition from bare plastic to the existing paint as gradual as possible.



- 5 Final Inspection**
- Perform a thorough inspection of the repair area, and part as a whole, to ensure the quality of repair.
 - Ensure the style lines are restored properly.
 - Check again for any highs and lows or imperfections that may have been missed.

Check local VOC regulations to ensure compliance of all products in your area.
Always wear OSHA-required Personal Protection Equipment (PPE) to ensure your safety.

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Product List and Links

Step 1

Part	Product	Size
39398	Scuff & Clean	16 oz. Tube
77774	XXX Uni. Surface Cleaner	Qt.
SA6400	Velcro Grip Multi-Hole	6" DA

Step 2

Part	Product	Size
4P-83-011	Burr Grinder	Ea.
4P-20-031	Easy Weld Strips	
4P-20-043	Easy Weld Tri Rod	
4P-82-011	Welding Nozzle	
4P-60-050	Tab Repair Jig Kit	
4P-90-022	Weld Support Tape	Roll

Step 3

Part	Product	Size
4P-50-011	Plastic Shaving File - Flat	6 pc.
4P-50-022	Plastic Shaving File - Half Round	6 pc.

Step 4

Part	Product	Size
SA6180	Velcro Grip Multi-hole	6" DA
SA6220	Velcro Grip Multi-hole	6" DA
SA6320	Velcro Grip Multi-hole	6" DA



Watch and learn
Watch the video for this procedure and download additional resources at youtu.be/Ai7tPiwtr3g

