



**Info - Squeeze Type Resistance Spot Welding/Equipment
#03-08-98-002A - (10/11/2004)**

Subject:

**Models: 2005 and Prior Passenger Cars and Trucks
2005 and Prior HUMMER H2**

This bulletin is being revised to add the 2005 model year and include new equipment offerings. Please discard Corporate Bulletin Number 03-08-98-002 (Section 08 - Body and Accessories).

This bulletin provides guidelines for repair shops that wish to use squeeze type resistance spot welding (or simply, spot welding) as an alternative to MIG plug welding when performing collision repair procedures. The process of spot welding for attaching body panels and components has been around for many years and is similar to the production welding process used in assembly plants. Spot welding may be applicable in similar situations that are currently MIG plug welded.

The following are some of the benefits of spot welding:

- Less heat or burn damage
- Less damage to corrosion protection
- Drilling of holes not required
- Replication of the production weld appearance

Applicable components for this technology may be panels or components with flanges that are accessible with arms and tips supplied by the equipment manufacturer. Welds from this equipment should be applied on a one-for-one basis, next to the production welds.

Here are some of the important factors in proper welding with this equipment.

Important: Proper use and safety training for each user of the equipment is a must.

- Use equipment from companies that are able to produce welds that meet industry standards for size and strength.

Equipment most likely to meet those standards at this time would be "inverter" technology and include the following suppliers (other suppliers may have comparable equipment):

- Pro Spot (PR2000)
 - Elektron (M100)
 - Blackhawk (WEL700)
 - Car-O-Liner (CR500)
 - For specific information about this and other equipment, call GM Dealer Equipment at 1-800-GM-TOOLS (1-800-468-6657).
- Ensure that the building power source is capable of meeting the equipment manufacturer's power requirement specifications.

For example, fuse 60 amp, 208-230 V single or 3-phase, using supply wire of sufficient gage to carry the current load. Consult with a qualified electrician for wiring assistance.
 - Prepare and perform sample welds for destructive testing made from similar materials. Perform this operation for each vehicle repaired and prior to actual repair.
 - Proper equipment maintenance
 - Proper weld tip alignment and maintenance
 - Ensure that metal flanges are clean and conform to each other

A more complete description of these practices and standards can be found in the following publications:

- SAE J-2667, Surface Vehicles Recommended Practice, <http://www.sae.org>
- AWS D8.7-88, Recommended Practices Automotive Weld Quality - Resistance Spot Welding, <http://www.aws.com>
- AWS D8.9-97, Recommended Practices for Test Methods for Evaluating the Resistance Spot Welding Behavior of Automotive Sheet Steels, <http://www.aws.com>

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