

Front Line Advice Bulletin

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Title: Mazda New Zealand Spot Welding Requirement for Panel Repairers

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Model(s): ALL

Category: Body

Mazda New Zealand Spot Welding Requirement for panel Repairers

Revised – Clarification that Plug welding is required for panel thickness over 3 mm, & examples where spot welding using STRSW is appropriate in place of plug-welding & additional notes.

The Mazda Body Shop Manual recommends the use of CO2 arc welding (plug welding) in place of the original spot welds where the combined panel thickness or cross-section is greater than 3 mm, as per the following instruction from the Mazda Bodyshop Manual.



Many Accident or Panel Repairers have invested in Squeeze Type Resistance Spot Welders (STRSW) that can replicate a factory spot weld.

In order to allow repairers who have invested in approved / certified STRSW welding systems use the equipment wherever possible during the repair of Mazda vehicles please apply the following:

Statements

- Where the Mazda Bodyshop Manual specifies Plug Welding and the combined panel thickness is <u>up to 3mm</u>, use of a STRSW is both possible and appropriate instead of the recommended plug welding. However, the spot welder MUST meet the standards or requirements specified on Page 2:
- GMA / MiG Plug welding is the ONLY acceptable welding method where the Panel thickness 3mm or above. (Continued on Page 2.)

- The welding system or unit MUST have been tested and approved / certified by Japanese, USA, or European automobile manufacturers.
- > Must be capable of welding multiple panels to at least 6mm thickness or cross-section.
- > Must produce welds equivalent to the OEM standard.
- Must be able to identify and advise when a spot weld has been successfully or unsuccessfully performed.
- > The repair must be carried out by trained and qualified personnel.
- Practice welds on the same thickness material and destructive testing must be completed before welding on the vehicle.
- Equipment must be maintained to manufacturers requirements and tips dressed or replaced as required.

NOTES:

- New panels fitted must have the same number or more spot welds applied during original manufacture. (Refer Mazda bodyshop manual - "Efficient Installation of Body Panels" for more information)
- Weld points that cannot be reached by a spot welder, CO2 Arc welds / plug welds must be applied.
- Single sided welders are NOT approved in place of two-sided welds / welders in any situation.

Clarification for use of STRSW equipment.

Mazda Bodyshop Manual - Plug Welding Instruction and examples.

Certain types of body repair instructions specify "Plug welding" is the required repair method.

Example A.

Outer Cabin Side Frame / Centre Pillar and Side Sill panels Installation / Replacement

Symbol Mark





(Continued on Page 3.)

Example B.

Rear Fender Panel Installation / Replacement



In cases such as examples (A & B), where "Plug Welding is specified in the Mazda Bodyshop Manual, the use of a STRSW is both possible and appropriate instead of the recommended plug welding; Where the STRSW meets the requirements outlined on Page 2 and the panel thickness is less than 3 mm.

For all repair guidelines, specifications and methods, please refer to the Mazda Workshop and Body shop manuals which can be accessed (by subscription and secure payment) via the following website:- <u>www.mazdamanuals.com.au</u>

Please share this advice with any Panel Repair shop repairing Mazda vehicles.

This information is valid from 05/08/2019 for 12 Months from the (revised) date of this bulletin.

Kind regards,

John Van der Velden NATIONAL SERVICE MANAGER