

# COLLISION REPAIR INFORMATION

## FOR THE COLLISION REPAIR PROFESSIONAL

TITLE: WELDING ULTRA HIGH STRENGTH STEEL  
SECTION: STRUCTURAL BULLETIN #174  
MODELS: 2010 PRIUS -  
DATE: AUGUST 2009

---

Toyota has incorporated the use of Ultra High Strength Steel (UHSS) for rocker panel reinforcements in the body construction of the 2010 Prius. UHSS increases occupant cabin strength and rigidity. The strength rating for these UHSS components is 980 MPa (Mega Pascal), which has unique replacement welding requirements.

Welding specifications and steel strength ratings are documented in model-specific Collision Damage Repair Manuals. Because the use of UHSS is on the increase, always refer to vehicle-specific 'Structural Outlines' for locations of UHSS body components.

The following is an excerpt from repair manual recommendations on this topic.

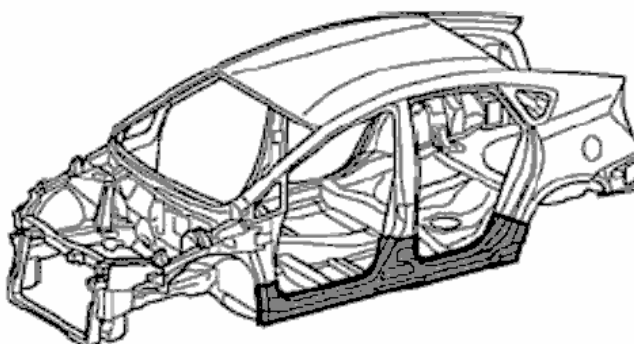
#1: For welding 980 MPa Ultra High Strength Steel when two panels are joined.

Squeeze-Type Resistance Spot Welding	Pressure	294 daN (660 lbf)
	Weld Current	10,000 Amps
	Weld Time	16 Cycles (0.27 Seconds)
Gas Metal Arc/Metal Inert Gas Plug Welding	Hole Diameter	10 mm (0.39 in.)
	Wire Type	AWS A5.18 ER70S-3
	Shielding Gas	75-80% Argon - 25-20% CO2

#2: For plug welding 980 MPa Ultra High Strength Steel when two or more panels are joined.

Gas Metal Arc/Metal Inert Gas Plug Welding	Plug Diameter	10 mm (0.39 in.)
	Wire Type	AWS A5.18 ER70S-3
	Shielding Gas	75-80% Argon - 25-20% CO2

Since some variations may be necessary, consult STRSW technical manual and fine-tune welders with visual and destructive tests for specific application.



**PLEASE ROUTE THIS BULLETIN TO YOUR COLLISION REPAIR CENTER  
MANAGER AND COLLISION REPAIR TECHNICIANS**

