

## **Motor Guard's Solution** **Sheet Metal Repair**

With today's high cost of labor and replacement sheet metal, demands for efficient, cost effective restoration of damaged panels is at an all time high. Previous methods of repair involved drilling through the steel to make an attachment. Welding the holes closed after repair was labor intensive and often caused warpage of the steel. Covering an open hole with body filler often violated the car manufacturer's rust through warranties. Automotive repair technicians worldwide, recognize the Motor Guard Magna-Spot Stud Guns as the state of the art method for sheet metal repair.

The Motor Guard Magna-Spot 1000 and 1500 series kits incorporate a new low heat transformer specially designed for the high-strength uni-body vehicles. With plenty of power to attach studs, rivets or shrink imperfections, these welders virtually eliminate "Burn Through", a common problem associated with other models. Proper electrical connection is essential to achieving proper heat for a good weld. Be sure to attach the welder to an electrical outlet that can supply proper current. If the use of an extension cord is necessary it is imperative that it be at least a 14 gauge three conductor wire. Use of an inferior cord will cause a "cold weld" and possible safety problem.

When preparing to use the Magna-Spot Stud Welder, insert the appropriate tip and tap firmly to insure proper contact. When changing the tip, use pliers or a wrench to remove as it may be very hot. Grind the metal to a clean condition to insure proper connection. Grind the surface to a clean, bright finish without over grinding and damaging the integrity of the steel. Insert the pin or rivet in the tip and press firmly against the steel until the outer ring of the Magna-Spot Stud Welder touches the steel. Depress the trigger for 1/2 second to 1 second. Do not remove the welder from the surface until the trigger is released. A proper weld should discolor the metal approximately 1/4 inch around stud or rivet.

Once the pin is properly attached to the surface, attach the Slide Hammer or T Puller to the pin approximately 1/2 inch away from the surface. Apply constant pulling pressure to the pin while tapping the steel with an appropriate body hammer. If additional force is needed to remove a more severe dent, gently use the slide on the slide hammer or additional tools that could be use are the Magna Clamp. You can also use the Magna Claw and the Magna Wire for pulling long creases. Use heavy wire cutters to remove the stud from the surface. Place the blades of the cutter between the surface and the head of the pin. Grip firmly and twist the cutters back and forth. This removes the head of the pin from the surface, leaving a cleaner surface requiring less sanding or grinding, and retaining the integrity of the steel surface.

The shrinking attachment on the Magna-Spot Stud Gun allows the technician to accurately restore the surface. An "oilcan" or low spot on the surface can be removed by applying heat with the shrinking tip. Depress the trigger for 1/2 second at multiple points around the perimeter of the imperfection. Next apply a cold compress to shrink the steel back to it's original condition. To remove a "high spot" on the surface, place tip directly on the top of the spot and heat for 1/2 second. If heat does not totally remove the high spot, hammer gently while still warm.

The Magna-Spot Stud Welder offers the ability to weld studs or rivets as well as shrink imperfections. Made in the U.S.A., it offers an unsurpassed Five Year Warranty, lightweight tool that is tough enough to withstand the harsh environment of the collision repair facility.