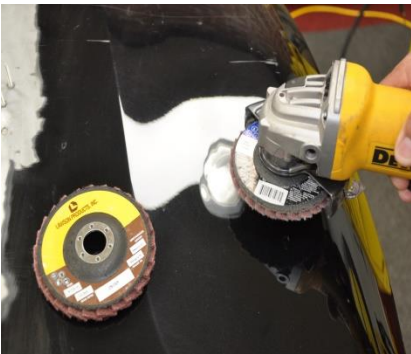


## Best Practices for Applying Weld-on Aluminum Studs

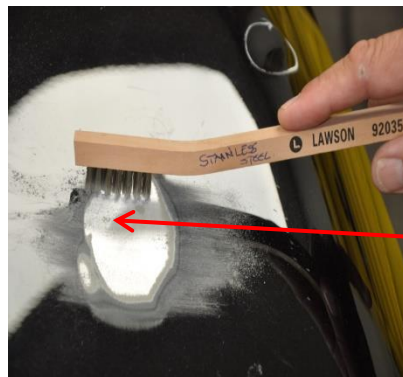
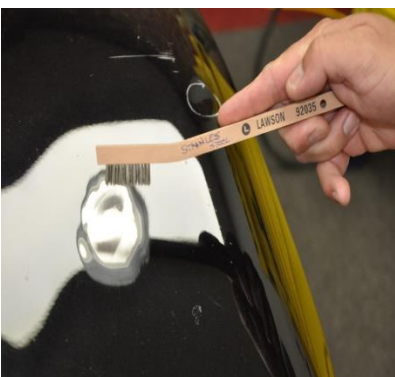
- Gather all tools necessary including OEM Data.
- Wear appropriate PPE.
- Identify the repair area and mark.



- Remove finish in area that will be repaired. Use 80 grit DA (nothing courser) or Scotch-Brite™ Roloc™ Surface Conditioning Disc (I prefer a flap disc).



- Scrub repair area with a small stainless steel brush to remove the Aluminum Oxide.



Note the  $Al_3O_2$

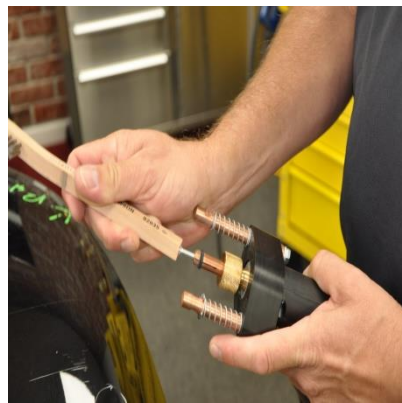
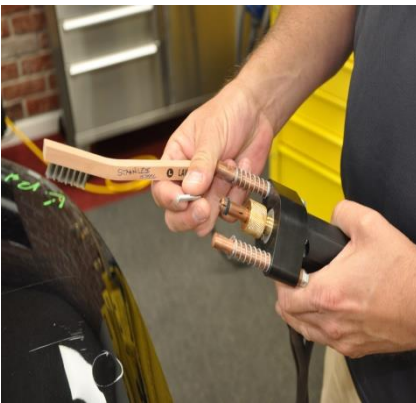
- Clean the area again with a good Wax & Grease Remover.



- **Test one aluminum-silicon stud and one aluminum-magnesium pin to the repair area and choose the one the sticks the best (pull using the hand puller).**



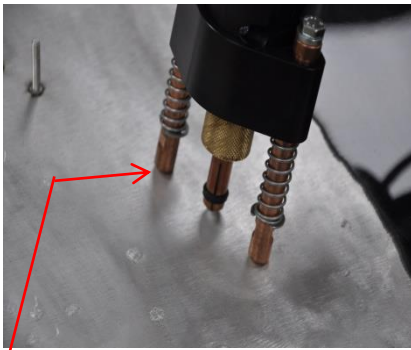
- **Place the selected pin into the gun. DO NOT PRESS THE PIN INTO THE GUN WITH YOUR FINGER. The oil from your finger will have an effect on how well the pin sticks. Use the end to the wooden brush to set the pin.**



- **Heat the repair area with a heat gun or small hand torch. Start from the outside and move in a circular pattern toward the center of the dent (to relax the aluminum molecules) . If you are**

using a torch, keep the heat around 400 degrees Fahrenheit (use a non-contact thermometer) to prevent annealing the aluminum. Clean again, clean with a small stainless steel brush followed by a Wax & Grease Remover.

- Affix the stud to the repair area, making sure that the gun is perpendicular to the panel.



**Not Perpendicular**

Note gap between gun and panel



**Perpendicular**

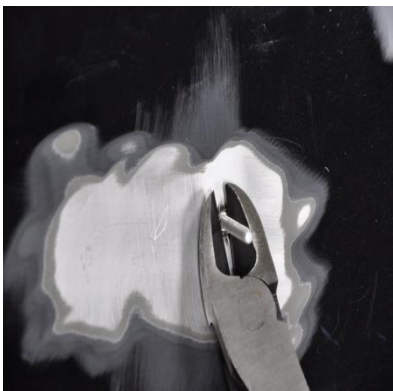


Note that there was no contact on half of stud



Note that there is full contact by circular aluminum ring (black)

- Remove pin using a side cutter.



- **Remove the remaining part of the aluminum stud with a vixen file or an 80 grit DA sander or a special aluminum flap disc. The flap disc in my opinion is the best option.**



- **Follow that with a very fine flap disc or scotch-brite rolox.**



- **Clean again with a stainless steel brush and a Wax & Grease Remover.**
- **Roll on a coat of epoxy primer (see Best Practice on Epoxy Primer).**
- **Finish the repair process.**

*This document is courtesy of Kent Automotive's Partners in Profitability Program*

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