Instructions

ULTRAWELD® UltraShot®

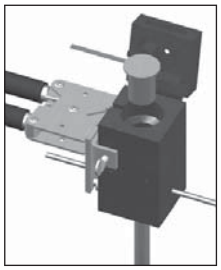
- Always follow the Welding and General Safety Instructions included with this mold.
- Always follow the Conductor Preparation Instructions included with this mold specific to the connection to be made.

Ultraweld® UltraShot® Welding Procedures

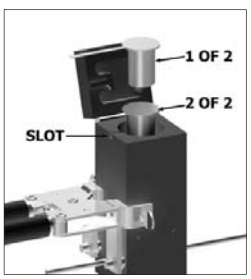
1. Check mold tag for conductors to be welded and proper weld metal cartridge size to use.
2. Make sure all surfaces and conductors are clean, dry and are the proper sizes for the mold's application per mold tag.
3. For the initial connection, torch dry the mold with a hand operated propane torch.

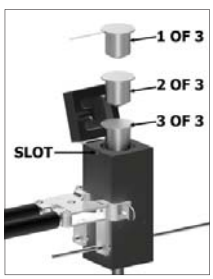


4. Position mold onto conductor(s). See front of the other instruction sheet included with this mold for positioning of conductors into mold. Lock mold with handle clamps or frame, which ever is the case. Note that Handle Clamp adjustments may be made by removing adjusting screw and turning eye bolt 180° clockwise to tighten or 180° counter clockwise to loosen.
5. If using UltraShot®, drop the weld metal cartridge into the mold with the igniter exiting the mold through the slot in the top of the mold. Ensure the lid is closed tightly.
   Note: UltraShot® weld metal US500, US750, US1000 and US1500 are made up of two or three cartridges. To use, cartridge(s) without an igniter should be dropped into the mold first. The cartridge with an igniter should be on top and should be exiting the mold through the slot in the top of the mold. Ensure the lid is closed tightly.



Step 5

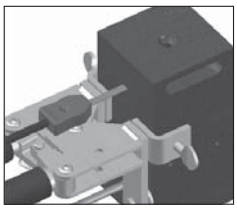




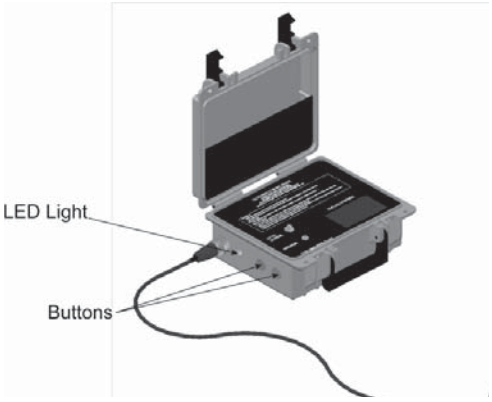
Step 5 Notes

6a. Before igniting, verify conductor positioning and that mold is closed completely.

6b. Slide the igniter lead connecter over the end of the igniter. Push connector until the igniter bottoms out inside the connector.



6c. Simultaneously push and hold both buttons on the side of the USCONTROLLER until the reaction is initiated and then release the buttons. Note that the LED light on the side of the USCONTROLLER will illuminate while both buttons are pressed. Do not hold buttons for more than 5 seconds. Should the reaction not occur, wait 30 seconds and remove the UltraShot® cartridge and insert another cartridge. If it fails to ignite again, it is likely that the controller needs to be recharged.



6d. After ignition, remove igniter lead immediately.

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Ultraweld® UltraShot® Welding Procedures

Continued

7a. If using Ultraweld tubes, insert disk in the bottom of the mold crucible, concave side up.



7b. Pour the weldmetal (clear cap side) into the mold crucible on top of the disk.



7c. Open starting powder side (orange cap) and put approximately two-thirds of the starting material on top of the weld metal. Close the lid and put the remaining material on top of the lid near the hole.





7d. Ignite starting material with a flint igniter.



8. Wait approximately 30 seconds before opening mold to permit metal to solidify.

Flint Igniter



9. To clean the mold, use a MCBRSH1 natural bristle brush before making next weld. On horizontally split molds, use end of mold cleaning spade, a small diameter rod or screw driver to remove slag from tap hole. Caution should be used when cleaning molds to avoid burns from contact with hot mold.



Do Not Use Wire Brush to Clean Mold!

USCONTROLLER



Battery Type:

- This ignition unit contains a lead-acid battery which is sealed and maintenance free.

Battery Charging:

- To properly charge this Deep Cycle AGM battery only use the dual stage charger provided with the USCONTROLLER unit.
- Never run the battery to a point where it is completely discharged.
- The dual stage charger provides a trickle charge so it is impossible to over-charge and damage the battery.
- Charge before each use to achieve optimum performance.