

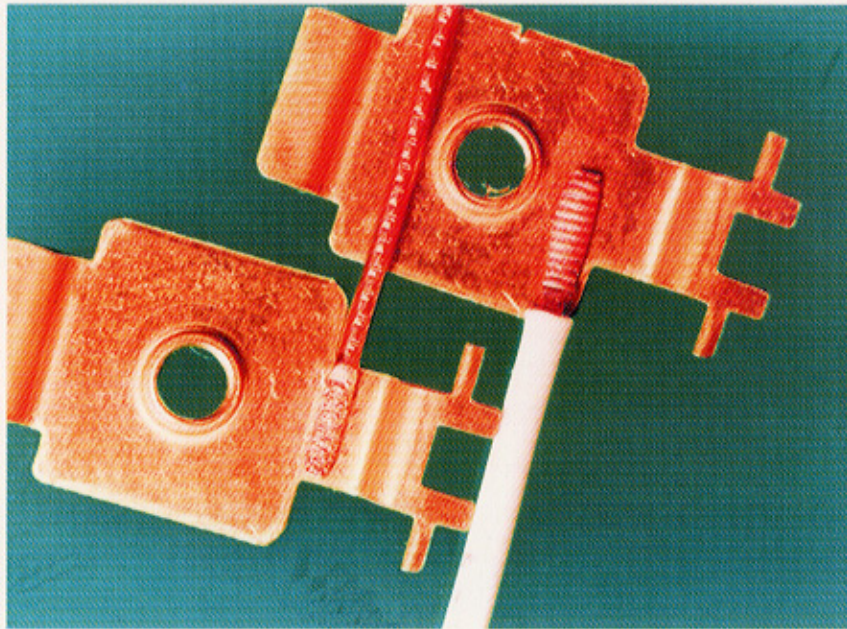


AMTECH[®]
WORLD LEADER IN
ULTRASONIC METAL WELDING

APPLICATIONS

APPLICATION BRIEF #23
SWITCH TERMINAL - 2/95

Termination of a Solid Copper Conductor to a Brass Terminal



View of Finished Welds (Note the Two Different Weld Patterns)

END USE: Switch assemblies

MATERIALS: 18 gauge copper wire and brass terminal.

PROCEDURE: A brass terminal is placed into a mask. The wire is then positioned within the pocket of the ultrasonic tip. The operator then initiates the weld cycle to bond the assembly in under one second.

EQUIPMENT: Ultraweld[®] 40 with a pocketed tip in a simple fixture. The weld is

produced in under 0.2 seconds by a 700 watt, 40 khz, 947 MW microprocessor controlled power supply.

ADVANTAGES: The customer was previously experiencing a high rate of rejects using resistance welders. The ultrasonic welding process provides an extremely reliable connection with tool life exceeding 100,000 cycles.

AMERICAN TECHNOLOGY, INC.