



APPLICATION NOTE 700126B

EN1000 BRAZING APPLICATIONS

Brazing operations differ from spot welding operations in that a much longer heating time may be required. This is because a much larger area must be raised to the melting temperature of the brazing material. Depending on the mass of the parts to be brazed, this time may vary from several cycles to several seconds.

The EN1000 Series Controls can be operated in two brazing modes: **AUTOMATIC** for short brazing times, and **MANUAL** which is most useful for long brazing times.

AUTOMATIC MODE

For the AUTOMATIC BRAZING mode, the EN1000 is initiated in the same manner as for SPOT welding. However, it must be programmed through the EXTENDED FUNCTIONS for BEAT INITIATION DURING SQUEEZE AND WELD, in accordance with instructions in Section 5.4.8 of Instruction Manual 700120. For convenience, these instructions are repeated here.

To program for BEAT DURING SQUEEZE AND WELD:

1. Put the control in PROGRAM mode.
2. Use SELECT to find **EF**.
3. Use the SCHEDULE push buttons to find **b.E**.
4. Use DATA push buttons and make **b.E.=02**.
5. Press ENTER.

In this mode, the initiation must be held closed for the time required to bring the parts to the required brazing temperature. If this time is longer than 99 cycles, two or more schedules must be CHAINED together. If the operator then opens the initiation, the brazing current turns off immediately and the sequence advances to HOLD time, and after HOLD time the electrodes retract. The control will terminate the weld sequence normally at the end of the programmed schedule if the initiation switch remains closed.

MANUAL MODE

For the MANUAL BRAZING mode, BEAT INITIATION DURING SQUEEZE AND WELD is also programmed as previously explained. In addition, set WELD/HEAT and IMPULSES to **99**, PERCENT CURRENT and VALVE MODE in accordance with job requirements, and all other parameters to **00**. Initiation switches are connected to Terminal Strip TS1 as shown in Figure 1.

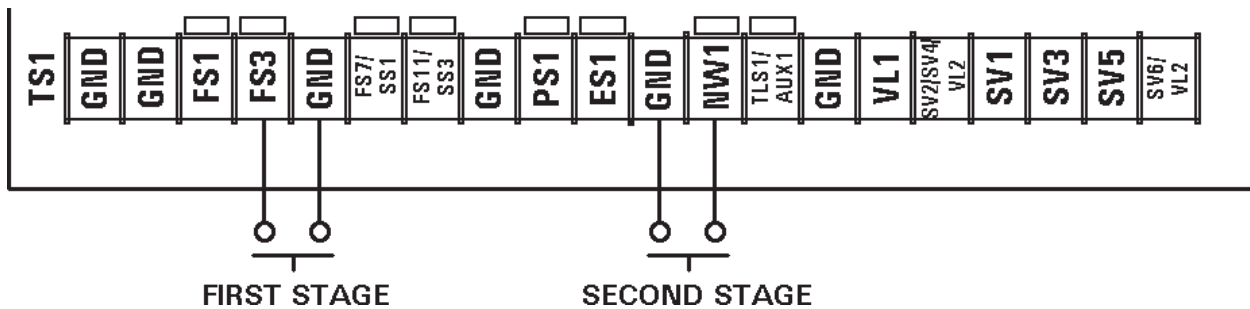


Figure 1. Two Stage initiation in BRAZING mode

Operation in this mode is as follows: When the First Stage is closed, the brazing electrodes close on the work. When the Second Stage is closed, brazing current comes on. If the Second Stage is opened, brazing current stops, but the electrodes stay closed. Current may be turned on and off in this manner as many times as desired by the operator. When the First Stage is opened, the electrodes retract.