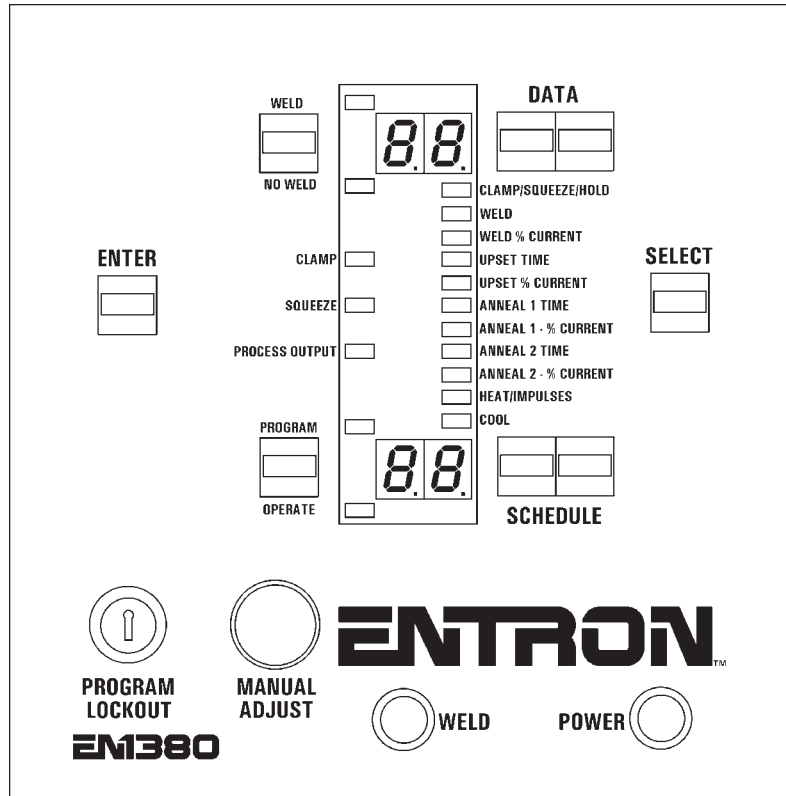


# ENTRON™

## Controls for Resistance Welding EN1380

### Butt or Flash Weld Controls with Anneal Sequence



- ***Specific Applications***

Designed specifically as a dedicated microprocessor Butt or Flash Welding Control with associated Anneal Sequences.

- ***Dedicated Initiations for Welding and Annealing***

- ***Optional Manual Adjust of Current during Anneal Sequences***

- ***Simple to Program***

Push buttons and a three-step procedure make easy work of programming any welding schedule.

- ***Two Year Warranty***

A two year warranty is offered on all ENTRON parts and assemblies. Expert phone support and application service are available at no cost.

#### Features

- Available with Air and Water Cooled Contactors
- Flash Weld Sequence Initiation
- Anneal Sequence Initiation
- External Emergency Stop
- Uses familiar front panel Flash/Butt Weld terminology
- Power and Weld Indication Lamps
- Automatic Voltage Compensation
- One Schedule stores both Weld and Anneal sequences
- Dedicated Clamp, Squeeze, and Process Output Valves
- Optional Program Lockout Switch

#### Capabilities

- Program only necessary parameters
- Ideal for retrofit applications
- Accomplish difficult Upset welds with flexible Upset sequences
- Stores 50 Unique Weld Schedules
- Beat/Anneal 2 Heat sequences with Pulsation
- Butt Welding with Pulsation
- Configuration available for various Single Phase Operating Voltages
- Dynamic Automatic Power Factor Equalization
- Provides same functionality as older ENTRON models EN280, ENA150, ENA300 and EN380 Flash/Butt and Annealing Controls

***Exclusive ENTRON two year warranty***

# EN1380 Series Controls

Butt or Flash Weld with Anneal Sequence • Multiple Schedule/Multiple Sequence Controls

Date: February 2007 Supercedes: November 2001

## SPECIFICATIONS

### Absolute Count: Push Button Data Entry with Display

Clamp/Squeeze/Hold:	0 to 99 cycles, 50/60 Hz
Weld (Beat mode):	01 (Beat Operation)
Weld (Time mode):	02 to 99 cycles (Non-Beat Operation)
Weld Percent:	0 to 99%
Upset Time:	0 to 99 cycles, 50/60 Hz
Upset Percent:	0 to 99%
Anneal 1 (Beat mode):	00
Anneal 1 (Non-Beat mode):	1 to 99 seconds
Anneal 2:	0 to 99 seconds
Anneal 2 Percent:	0 to 99%
Heat Count:	0 to 99 cycles, 50/60 Hz
Cool Count:	0 to 99 cycles, 50/60 Hz

Digital Phase Shift Current Control, 10 to 99% in 1% current steps, all weld/upset/anneal current functions  
It is NOT necessary to program functions NOT required, program only functions required

### Additional Features

87° First Half Cycle Delayed Firing, Anti-Saturation Circuit	Error Code/Fault Outputs
Dynamic Automatic Power Factor Equalization	Emergency Stop Circuit
Dynamic Automatic Voltage Compensation, $\pm 20\%$ of Nominal Line	Interlocking Pressure Switch Circuit
Valve Transformer: 150VA 230/460-115V in "E", "D" & "T" Cabinets	Flash Weld Sequence Initiation
50VA 230/460-115V in "S" Cabinet	Anneal Sequence Initiation
Single Valve output standard on all controls	Dedicated Clamp and Squeeze Output Valves
Available with Air Cooled or Water Cooled Contactors	Operational Lights: Power On & Weld Current
All SCR contactors complete with Temperature Limit Switch	Indicator Lights for all Functions on Display Panel
Manual Current Adjustment (optional) allows full range of current adjustment during weld sequence	

The EN1380 Series Control is a microprocessor based resistance welding control. This control has been designed specifically for Flash Welding or Butt Welding with Upset and Annealing sequences. One outstanding feature (optional) of the EN1380 control is its ability to allow the operator concurrent adjustment during an initiated sequence (during Anneal time). Pilot initiation connections are dedicated for independent sequencing of Weld and Anneal sequences.

- Store up to 50 UNIQUE SCHEDULES
  - Every parameter of each schedule individually accessible
  - Each schedule can store 11 distinct and totally different parameters
  - All schedules retained in memory with power off
  - It is NOT NECESSARY to program functions not required
- Additional Standard Features:
  - Priority Heat Select
  - Contactors Failed Detection (Circuit breaker with shunt trip—optional)
- Control can be INTERFACED with external Programmable Logic Control (PLC);  
Advanced interfaces available
- Dedicated Clamp and Squeeze Output Valves
- Meets or exceeds RWMA/NEMA standards



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