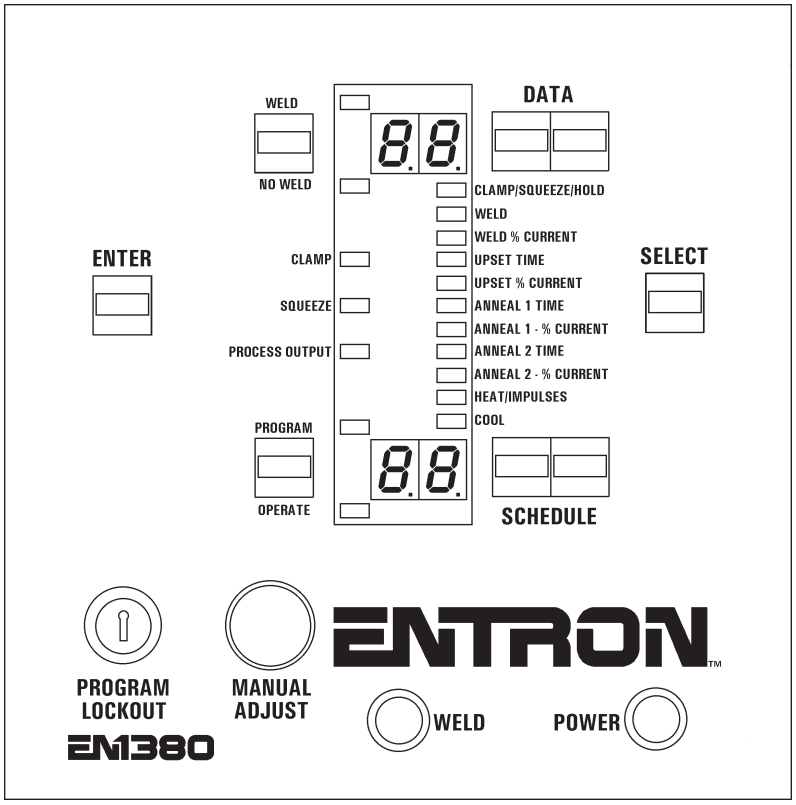
Controls for Resistance Welding

EN1380

Butt or Flash Weld Controls with Anneal Sequence



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

- ***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.

Exclusive ENTRON two year warranty

EN1380 Series Controls

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

Date: April 2014 Supercedes: February 2007

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

Dynamic Automatic Power Factor Equalization

Dynamic Automatic Voltage Compensation, ±20% of Nominal Line

Valve Transformer: 150VA 230/460-115V in "E", "D" & "T" Cabinets
50VA 230/460-115V in "S" Cabinet

Single Valve output standard on all controls

Available with Air Cooled or Water Cooled Contactors

All SCR contactors complete with Temperature Limit Switch

Error Code/Fault Outputs

Emergency Stop Circuit

Interlocking Pressure Switch Circuit

Flash Weld Sequence Initiation

Anneal Sequence Initiation

Dedicated Clamp and Squeeze Output Valves

Operational Lights: Power On & Weld Current

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
  - Contactor 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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