• Multiple Weld/Multiple Current
• Up to 8 user-defined schedules
• Internal or external schedule selection
• Retraction option with maintained or momentary inputs
• 4 inputs and 4 outputs
• Seam and Roll-Spot

- Squeeze Delay
- Pulsation
- Upslope
- 2 weld intervals for Preheat/Postheat
- Counter with optional lock-out for electrode maintenance
- 2 stage foot switch
- Interlock output
- Can be used for coated materials
- Half Cycle
- Repeat and Non-Repeat
- Valve Control Relay
- Easily programmed

Exclusive ENTRON two year warranty
**COMPONENT ORDERING INFORMATION**

### Timer
730006-001

### Firing Board
730006-002
730006-003 with 24-120VAC Valve Buffer

### 24 VDC Power Supply
730006-004 with SYNC Universal Voltage
730006-009 with SYNC 480 Volt
730006-010 with SYNC 240 Volt

### Contactors
730006-005 – 300A
730006-006 – 1200A
EN(X)-300
EN(X)-1200

### Accessory Kit
730006-007
Kit to assist system integrators with implementing EN50 Series designs. Includes precautionary labeling, fuses and hardware to mount the EN50 Timer, Firing Board, Power Supply and Contactors.

### EN50 DEMO Control
730006-008

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601 High Tech Court
Greer, SC 29650
(864) 416-0190
FAX (864) 416-0195
www.entroncontrols.com
e-mail: info@entroncontrols.com

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T. J. SNOW CO., INC.
1-800-NOW-SNOW
http://www.tjsnow.com
**EN50 Basic Weld Timer & Components**

**Specifications**

Date: January 2008  
Supercedes: November 2007

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**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Welding Parameters x 8</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Squeeze Delay:</td>
<td>0 to 99 cycles</td>
<td></td>
</tr>
<tr>
<td>Squeeze:</td>
<td>0 to 99 cycles</td>
<td></td>
</tr>
<tr>
<td>Upslope:</td>
<td>0 to 99 cycles</td>
<td></td>
</tr>
<tr>
<td>Weld1:</td>
<td>0 to 99 cycles</td>
<td></td>
</tr>
<tr>
<td>Heat1:</td>
<td>0 to 99%</td>
<td></td>
</tr>
<tr>
<td>Cool1:</td>
<td>0 to 99 cycles</td>
<td></td>
</tr>
<tr>
<td>Weld2:</td>
<td>1 to 99 cycles</td>
<td></td>
</tr>
<tr>
<td>Heat2:</td>
<td>0 to 99%</td>
<td></td>
</tr>
<tr>
<td>Pulses:</td>
<td>1 to 9</td>
<td></td>
</tr>
<tr>
<td>Cool2:</td>
<td>0 to 99 cycles</td>
<td></td>
</tr>
<tr>
<td>Hold:</td>
<td>0 to 99 cycles</td>
<td></td>
</tr>
<tr>
<td>Off:</td>
<td>0 to 99 cycles</td>
<td></td>
</tr>
<tr>
<td>Mode:</td>
<td>Non-Repeat/Repeat</td>
<td></td>
</tr>
</tbody>
</table>

**Counter** (Configuration Types 03, 05, 06, 07 and 10 only)

- Actual count: 0 to 9999
- End count: 0 to 9999
- At end of count: Stop/Continue

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Mode</th>
<th>Operation</th>
<th>Schedules</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 Spot</td>
<td></td>
<td>Simple spot welding with no other functions</td>
<td>8</td>
</tr>
<tr>
<td>01 Spot with 2 Stage Foot Switch</td>
<td>Spot welding with 2 Stage Foot Switch</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>02 Spot with Retraction</td>
<td>Spot welding with an input and output for controlling gun position</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>03 Spot with Counter</td>
<td>Spot welding with an output that activates when count is reached</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>04 Spot with 2 Stage Foot Switch &amp; Retraction</td>
<td>A combination of types 01 and 02</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>05 Spot with Counter &amp; Retraction</td>
<td>A combination of types 02 and 03</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>06 Spot with 2 Stage Foot Switch &amp; Counter</td>
<td>A combination of types 01 and 03</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>07 Spot with 2 Stage Foot Switch, Retraction &amp; Counter</td>
<td>A combination of types 01, 02 and 03</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>08 Spot with Half Cycle</td>
<td>Spot welding using only one half cycle weld duration</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>09 Spot with Half Cycle &amp; 2 Stage Foot Switch</td>
<td>A combination of types 08 and 01</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>10 Spot with Half Cycle &amp; Counter</td>
<td>A combination of types 08 and 03</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>11 Roll-Spot</td>
<td>Spot welding with an output to operate motor-driven welding wheels during Off time between sequences</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>12 Seam</td>
<td>Uses seam wheels, motor drive and continuous or modulated current to provide seam weld</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

All Types except 05 have Interlock output to be used with ENTRON Welder Interlocks

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**Configuration** (cont.)

- Retraction: None, Maintained, Maintained Inverted, Momentary, Momentary Inverted
- Frequency: 60/50 Hz

**Environmental**

- Operating Temperature: 32°F to 122°F
- Storage Temperature: -13°F to 158°F
- Operating Humidity: up to 80% (relative)
- Storage Humidity: 10% to 90%

**Dimensions of Timer (only)**

- Height: 4.75”
- Width: 6.25”
- Depth: 1.25” + .75” for connector
- Weight: 1.5 lbs.

**Power Requirements**

- Voltage: 24 VDC
- Line frequency: 50/60 Hz
- Current: < 500 mA (all outputs off)

**I/O Ratings**

- Inputs: < 10 mA @ 24 VDC
- Outputs: ≤ 500 mA @ 24 VDC
- WELD OUT: 5 kHz; 1:10 mark/spacer; first pulse 24 V; subsequent pulses > 15 V
EN50
Basic Weld Timer & Components

The EN50 Basic Weld Timer is a compact, robust unit which, when combined with these components, provides basic control for resistance welding. Offering reliability which ensues from simplicity, programming of control is quick and easy.

**Firing Board**

*730006-002 or 730006-003 with 24-120VAC Valve Buffer*

Rated for 580 VAC isolation
2V 200 mA each gate output
Valve Output 24-120 VAC at 1A

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**Contactors**

All SCR Contactors complete with temperature limit switch and rated for use at 575 VAC.

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**Accessory Kit**

*730006-007*

Kit to assist system integrators with implementing EN50 Series designs. Includes precautionary labeling, fuses and hardware to mount the EN50 Timer, Firing Board, Power Supply and Contactors.

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**EN50 DEMO Control**

*730006-008*

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**24 VDC Power Supply**

*730006-004 with SYNC Universal Voltage*

190-580 VAC in
24 VDC 2A out
Sync output 24 VAC at 10%

*730006-009 with SYNC 480 Volt*

340–540 VAC in

*730006-010 with SYNC 240 Volt*

180–273 VAC in

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**Demand Current vs. Percent Duty Cycle**

For 30 Cycle Conduction Time

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**T. J. SNOW CO., INC.**
1-800-NOW-SNOW
http://www.tjsnow.com

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