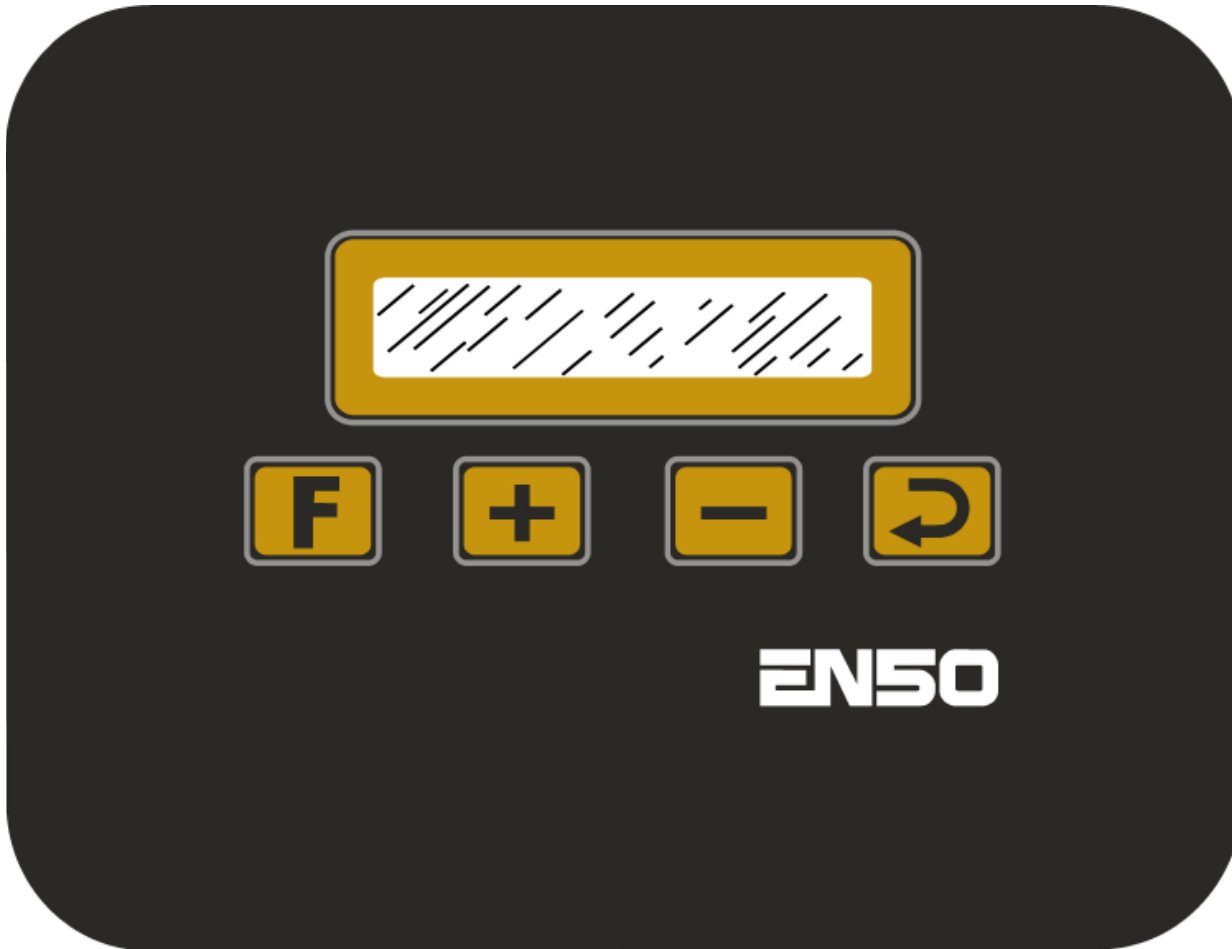


ENTRON™

Controls for Resistance Welding

EN50

Basic Weld Timer & Components



Actual Size

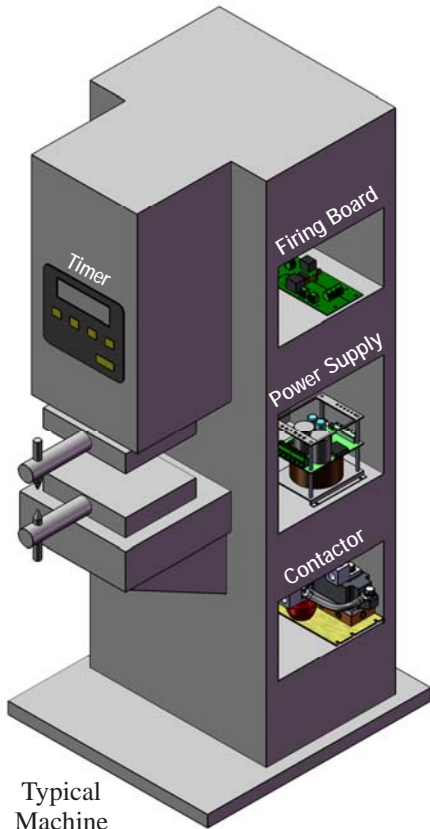
- *Timer for use with Remote Contactor*
- *Compact Unit Provides Basic Control and Programming Features*
- *Versatile*
- *Simple to Install and Use*
- *Available with 300 and 1200 Amp Contactors*
- *Provided in Kit Form*

Features

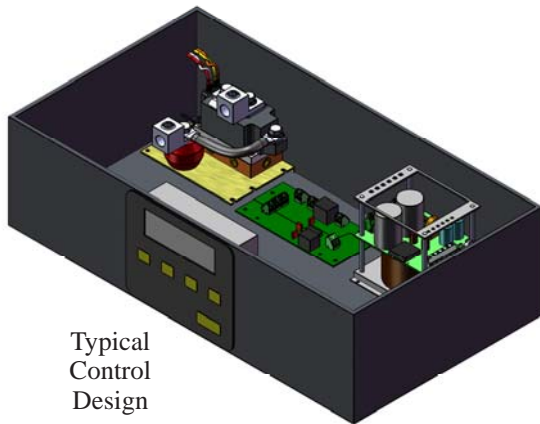
- Multiple Weld/Multiple Current
- Up to 8 user-defined schedules
- Internal or external schedule selection
- Retraction option with maintained or momentary inputs
- 4 inputs and 4 outputs
- Seam and Roll-Spot
- Squeeze Delay
- Pulsation
- Upslope
- 2 weld intervals for Preheat/Postheat
- Counter with 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



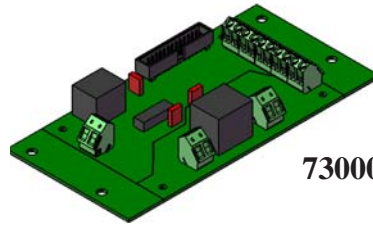
Typical Machine Design



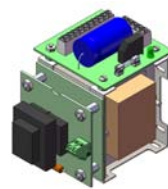
Typical Control Design



Timer
730006-001



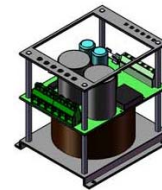
Firing Board
730006-002
730006-003 with 24-120VAC Valve Buffer



730006-009 with SYNC 480 Volt

730006-010 with SYNC 240 Volt

24 VDC Power Supply



730006-004 with SYNC Universal Voltage



EN(X)-300



EN(X)-1200

Contactors

730006-005 – 300A
730006-006 – 1200A



Accessory Kit
730006-007

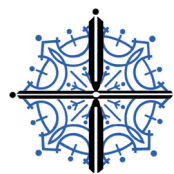
Kit to assist system integrators with implementing EN50 Series designs. Includes precautionary labeling, fuses and hardware to mount the EN50 Timer, Firing Board, Power Supply and Contactors.



EN50 DEMO Control
730006-008

ENTRON™

ENTRON Controls, LLC.
601 High Tech Court
Greer, SC 29650
(864) 416-0190
FAX (864) 416-0195



T. J. SNOW CO., INC.

1-800-NOW-SNOW

<http://www.tjsnow.com>

ENTRON™

EN50 Basic Weld Timer & Components Specifications

Date: January 2008

Supersedes: November 2007

SPECIFICATIONS

Welding Parameters x 8

Squeeze Delay:	0 to 99 cycles
Squeeze:	0 to 99 cycles
Upslope:	0 to 99 cycles
Weld1:	0 to 99 cycles
Heat1:	0 to 99%
Cool1:	0 to 99 cycles
Weld2:	1 to 99 cycles
Heat2:	0 to 99%
Pulses:	1 to 9
Cool2:	0 to 99 cycles
Hold:	0 to 99 cycles
Off:	0 to 99 cycles
Mode:	Non-Repeat/Repeat

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

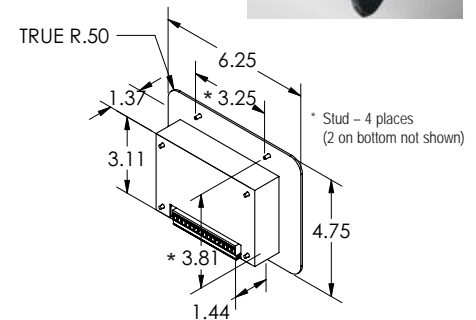
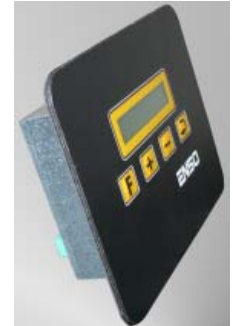
Configuration

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

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

Timer

730006-001



Configuration (cont.)

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

Environmental

Operating Temperature:	32° to 122° F
Storage Temperature:	-13° 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/space; first pulse 24 V; subsequent pulses > 15 V

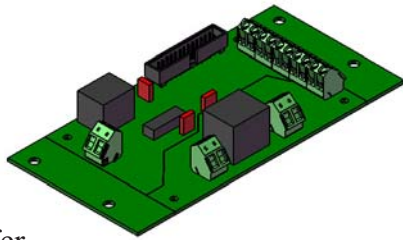
EN50

Basic Weld Timer & Components

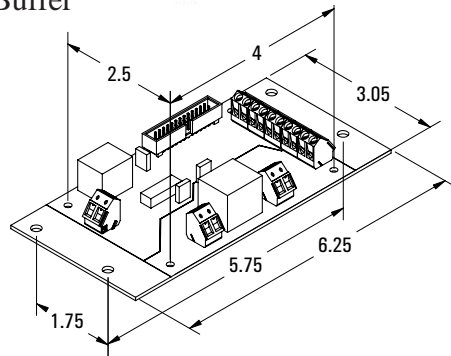
The EN50 Basic Weld Timer is a compact, robust unit which, when combined with these components, provides basic control for resistance welding. Offering reliability which ensues from simplicity, programming of control is quick and easy.

Firing Board

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



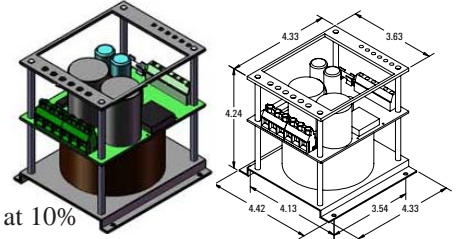
Rated for 580 VAC
isolation
2V 200 mA each gate
output
Valve Output 24-120
VAC at 1A



24 VDC Power Supply

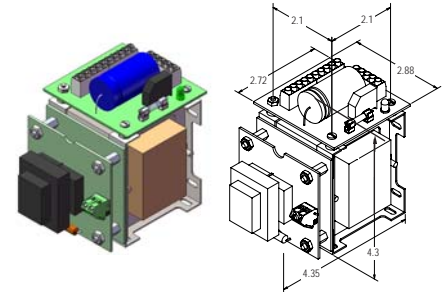
730006-004 with
SYNC Universal
Voltage

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

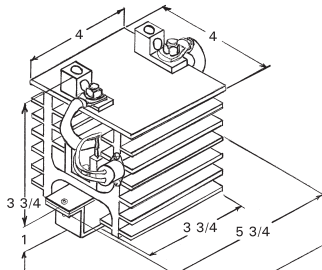


730006-009 with
SYNC 480 Volt
340-540 VAC in

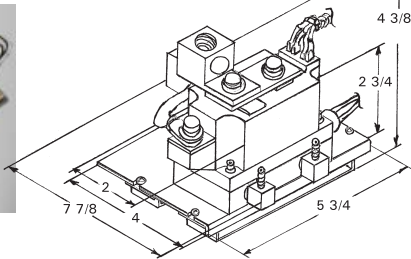
730006-010 with
SYNC 240 Volt
180-273 VAC in



730006-005
EN(X)-300

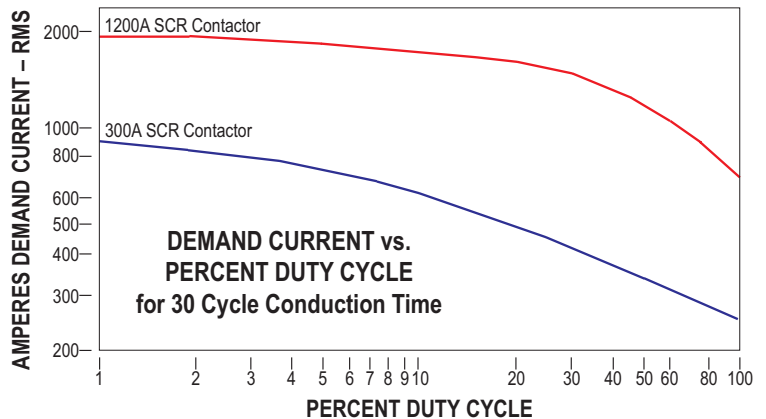


730006-006
EN(X)-1200



Contactors

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



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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