

NOTES:

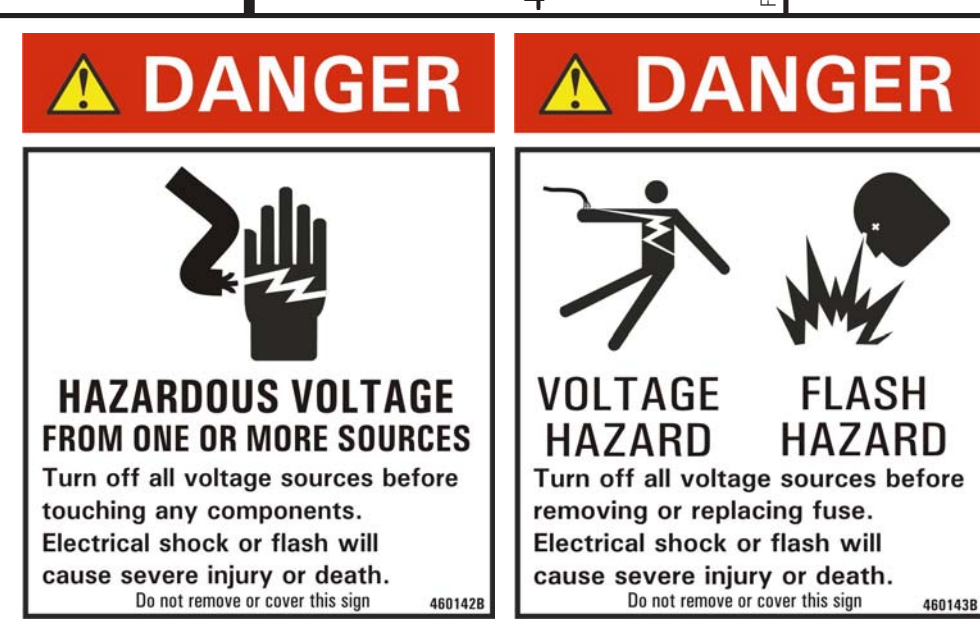
- It is recommended that control wiring (i.e.: initiation, pressure switch, etc.) be physically separated from high voltage wiring (120 volts or higher).
- For 480 VAC Operation - Use Jumper #1 on T3 & TS1. As shipped unless otherwise specified.
For 240 VAC Operation - Use Jumper #2 on T3 & TS1.
For 575 VAC Operation - FACTORY WIRED ONLY. SEE VIEW "A".
Replace T3 with P/N 311017. Wire per View "A". Use Jumper #1 between H2 & H3 on TS1.
Use Resistor R74 (2000 Ohm, 10 Watt) in place of Jumper #1 between CTH2 & CTH3 on TS1.
For 120 VAC or 380 VAC Operation - CONSULT FACTORY.
- For Single Stage Pilot Operation** - Connect pilot switch to TS1-FS3 & TS1-GND. No jumpers required across TS1-FS1 & TS1-GND.
- For Two Stage Pilot Operation** - Connect 1st stage pilot switch to TS1-FS1 & TS1-GND. Connect 2nd stage pilot switch to TS1-FS3 & TS1-GND.
- ENTRON supplies Temperature Limit Switch (TLS) P/N 300020 and provides connections to TS1-TLS1/AUX1 & TS1-GND. Jumper not required between TS1-TLS1/AUX1 & TS1-GND.
NOTE: TLS SCR will open at temperatures greater than or equal to 150° F.

- When external valve power is supplied to control, remove and insulate leads TS3-VL1 & TS3-VL2 on Terminal Strip Board (PCB2) from PS4-9 & PS4-12. Connect external DC power supply (5-60 VDC) to TS1-VL1 & TS1-SV2/SV4/VL2.
CAUTION: Do not overtighten TS3.
- VALVE 3 OUTPUT USAGE:**
TS1-SV5 & TS1-SV6 (Valve 3) can be used for either a Valve output or a Process output.
When TS1-SV5 & TS1-SV6 is used as a Valve output, use Jumper "A" on TS3.
When TS1-SV5 & TS1-SV6 is used as a Process output, use Jumper "B" on TS3.
WARNING: Use of Jumper "B" bypasses control relay contacts to allow a Process output without an initiation. SEE MANUAL.
- Connect F2-A to L2/H2 side of Welding Transformer Primary. (Factory wired on controls supplied with Circuit Isolation Device).
- When Optional Program Lockout is specified by customer, Dial Plate A/N 600574-005 replaces A/N 600574-004. Add Switch P/N 600531-001 & remove Hole Plug P/N 565003.
- When Options are required contact factory for compatibility.

NO CIRCUIT CALIBRATION OR ADJUSTMENT EVER REQUIRED.

- To convert Control Panel from side mounted cabinet control to door mounted or door mounted cabinet control to side mounted:
Remove Cover Plate and Control Panel Dial Plate Assembly. Position spiral wrap around all harness wiring to prevent interference of wiring with closing of cabinet door. When mounting Control Panel on side of cabinet, use clamp to secure J3 harness wires.
CAUTION: When changing position of Control Panel, be sure harness wires do NOT interfere with closing of cabinet door. Wires may pinch in between door & cabinet and cause damage to wiring.
- CURRENT TRANSFORMER (T4) CONNECTIONS:**
Wire per view "B". Current transformer coil (T4) shown installed on L1, may be installed on H1. Wires from current transformer (T4) to J12 should be kept as short as possible.
SECONDARY CURRENT SENSOR (S6) & (S10) CONNECTIONS:
Wire per view "D". Secondary Current Coil (S6) & (S10) may be used in place of current Transformer (T4). Add J12-J12 Harness A/N 322475

CAUTION - READ MANUAL & ALL NOTES BEFORE INSTALLING OR OPERATING CONTROL. SEE NOTE 1.



CAUTION
Control Shipped Wired for 480 VAC unless otherwise specified - See Note 2.



PARTS LIST - CONTROL SECTION

QTY	DESIG.	PART NO.	DESCRIPTION
1		600574-004	Assem., Dial Plate w/Sw. Assem., EN1001, Consisting of:
@		600574-005	Assem., Dial Plate w/Sw. Assem. & Keylock, EN1001, Consisting of:
1	PCB1	600572	Assem., Switch, Sequence Control & Display Board
1	SW1	600531-001	Assem., Switch, Keylock, Momentary, SPST
1		600735	Assem., Dial Plate, EN1001
1		565003	Hole Plug, 3/4" Diam., Black
1	POWER LT.	305001	Lamp, Neon, Red, 240V
1	WELD LT.	305002	Lamp, Neon, Clear, 240V
1	J2-J2	322560	Assem., Harness, Control Board to Terminal Strip Board
1	J3	322558	Assem., Harness, Power, EN1000/EN1001

PARTS LIST - CONTACTOR SECTION

QTY	DESIG.	PART NO.	DESCRIPTION
1	1	TS1	Terminal Strip, 10 Pin (Part of J3 Harness)
#	#	TS7	Terminal Strip, 2 Pin
1	1	T1	Transformer, Control (Part of J3 Harness)
1	1	T2	Transformer, Sense (Part of J3 Harness)
1	1	T3	Transformer, Valve, 150VA
*	*		Transformer, Valve, 150VA, 575V
Δ	Δ	T3	Transformer, Valve, 250VA
Δ	Δ	T3	Transformer, Valve, 500VA
2	2	R70, 71	Resistor, Power, Surge, 500 Ohm, 100W
*	*	R74	Resistor, Power, 2000 Ohm, 10W (for 575V)
3	3	F1, 2, 3	Fuseholder, 1 Pole, Mini, 600V
3	3	F1, 2, 3	Fuse, Control, 1-1/4A, FNQ-R-1-1/4 or KLDR-1-1/4
3	3	F6, 7, 8 (PCB2)	Fuse, 1 Amp, Slow Blow, 2AG (Part of 410319)
1	1	(R70, 71)	Assem., Wire, Surge Resistor, 18 Ga., Black
1	1		Assem., Contactor, Thyristor, Air, 300A, 480/575V, w/TLS
1	1		Assem., Contactor, Thyristor, Water, 1200A, 480/575V
1	1	340109-003	Assem., Heat Sink, Straight 3/8" Hose Barbs, 1-1/2" Ctrs.
SEE CHART T4	SEE CHART		Assem., Transformer, Current, 200:5, P2
SEE CHART T4	SEE CHART		Assem., Transformer, Control, 500:5, P5
SEE CHART T6	SEE CHART		Assem., Transformer, Current, 1000:5, P10
SEE CHART S6	SEE CHART		Secondary Current, 6" Coil Rogowski
SEE CHART S10	SEE CHART		Secondary Current, 10" Coil Rogowski
SEE CHART J12-J12	SEE CHART		Assem., Harness, Secondary Current, Rogowski Coil
1	1	PS4	Power Supply, 24 VDC
1	1		Lug, Screw, Chassis GND, 2/0 Wire
1	1	PCB2	Assem., PCB, Terminal Strip Board with DC Outputs
1	1	TLS	Switch, Temperature Limit, (N.C.)
1	1		Hoffman, Padlocking Handle
1	1		Cabinet, Control, Style "C", w/CB
1	1		Door, Cabinet, Control, Style "C"
1	1		Rear Panel, Cabinet, Control, Style "C"
Δ	Δ	C/B	Circuit Breaker, Pole, Amp, V (see Note 9)
Δ	Δ		Thru Door Operator, Circuit Breaker
1	1		App. Note, DC Valve Outputs
1	1		Manual, EN1000/EN1001
1	1		Logic Diagram, EN1000 Control
1	1		Wiring Diagram, EN1001-Series, "C" Cabinet, w/DC Outputs

@ Optional Keylock when specified by customer. See Note 8. Pack Key in Poly Bag 900148 & attach to Door w/Yellow Tape 900118.

Supplied when optional Shunt Trip (ST), 120V is specified.

* Substitution or addition of parts when 575V control is specified.

Δ Optional, see Note 9.

For Optional Water Flow Switch, see Manual 700149 and A/N 600632.

MANUFACTURING INSTRUCTIONS:
See Drawing 600747 for Enclosure Assembly Instructions
See Drawing 600749 for Layout/Assembly Instructions

NOTICE

FOR SERVICE ON THIS CONTROL

Contact Your Machine Dealer Or
ENTRON CONTROLS LLC.
DIRECTLY: (864) 416-0190
601 HIGH TECH COURT
GREER, SC 29650
FAX# (864) 416-0195

ORIGINAL RELEASE

REV	AUTH	DESCRIPTION	DATE	CHKD BY	DATE

ENTRON

SCALE	DATE	DRAWN BY	CHKD BY	APPROVED BY
	6/12/12	DCS		

TOLERANCE UNLESS SPECIFIED

ANGLES	DECIMALS	FRACTIONS	REV LTR	REVISED	APPROVED BY
± 1/2"	± .010	± 1/64			

WIRING DIAGRAM, EN1001, "C" CABINET, WITH DC VALVE OUTPUTS

NEXT ASSMUSED ON	DRAWING NUMBER	REV
	421499-002	orig