

**CAUTION - READ MANUAL & ALL NOTES BEFORE INSTALLING OR OPERATING CONTROL. SEE NOTE 1.
NO CIRCUIT CALIBRATION OR ADJUSTMENT EVER REQUIRED.**

⚠ DANGER

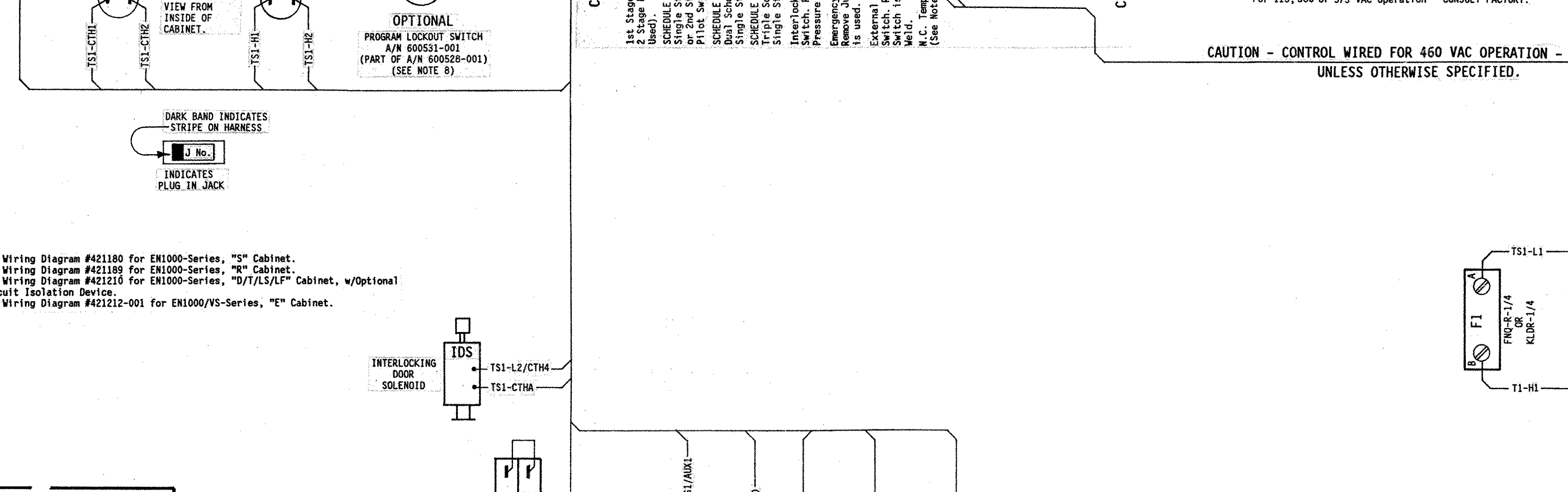
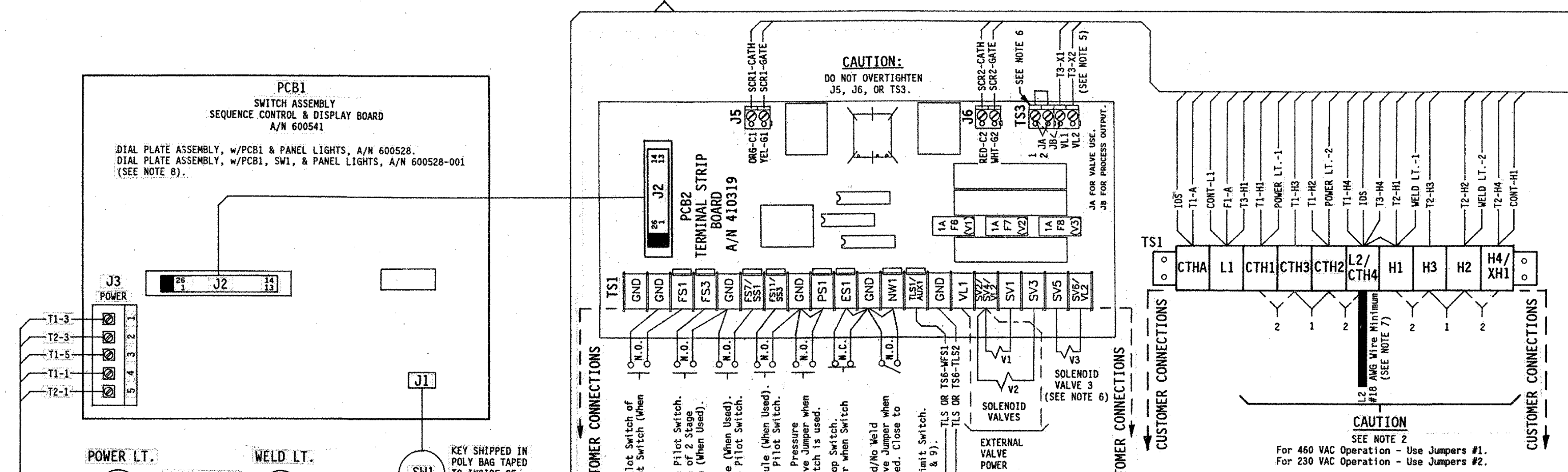
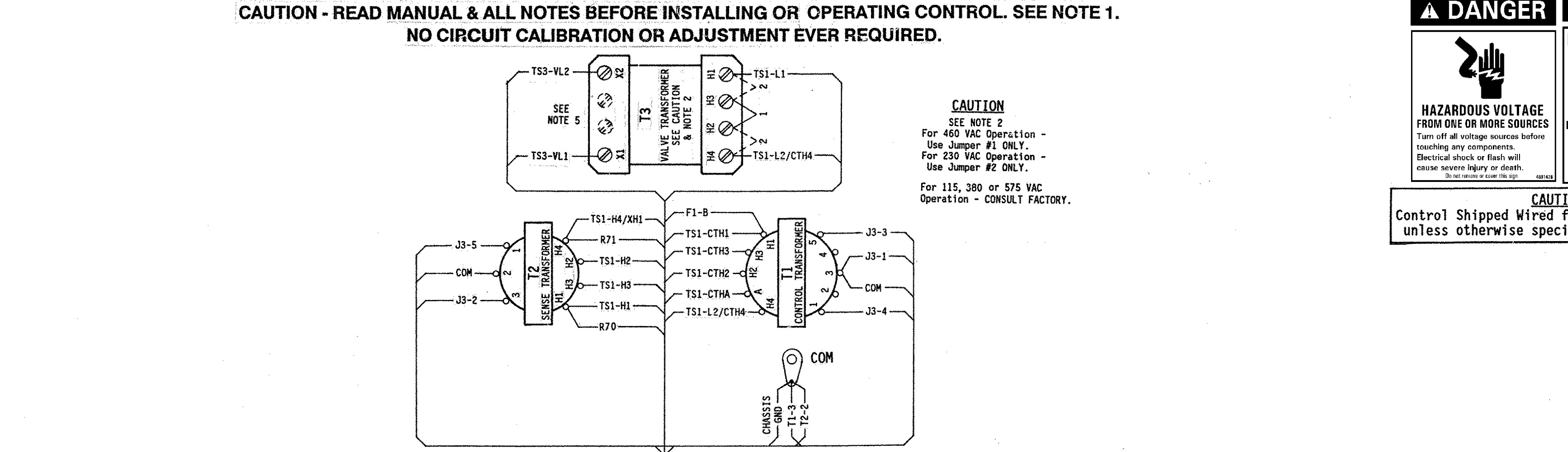
NOTICE

**HAZARDOUS VOLTAGE
FROM ONE OR MORE SOURCES**
Turn off all voltage sources before touching any components. Electrical shock or flash will cause severe injury or death.

**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

CAUTION
Control Shipped Wired for 460 VAC Operation unless otherwise specified - See Note 2.

CAUTION
SEE NOTE 2
For 460 VAC Operation - Use Jumper #1 ONLY.
For 230 VAC Operation - Use Jumper #2 ONLY.
For 115, 380 or 575 VAC Operation - CONSULT FACTORY.



4212-010

PARTS LIST - CONTROL SECTION				
QTY.	DESIG.	PART NO.	DESCRIPTION	
1	0	600528	Assem., Dial Plate, EN1000, Consisting of: Assem., Dial Plate, w/Key Switch, EN1000, Consisting of: Assem., Switch, Sequence Control & Display Board	
1	PCB1	600541	Assem., Switch, Sequence Control & Display Board	
1	0	600531-001	Assem., Switch, Keylock, Momentary, SPST	
1	1	540251	Illustrated Panel, Dial Plate, EN1000	
1	1	515104	Panel, Display Window, Red Filter, EN1000	
1	1	565003	Hole Plug, 3/4" Diam., Black	
1	1	305001	Lamp, Neon, Red, 230V	
1	1	305002	Lamp, Neon, Clear, 230V	
1	J2-J3	322303	Assem., Harness, Ctrl Bd. to Term. Strip Bd.	
1	J3	322327	Assem., Harness, Power, EN1000	

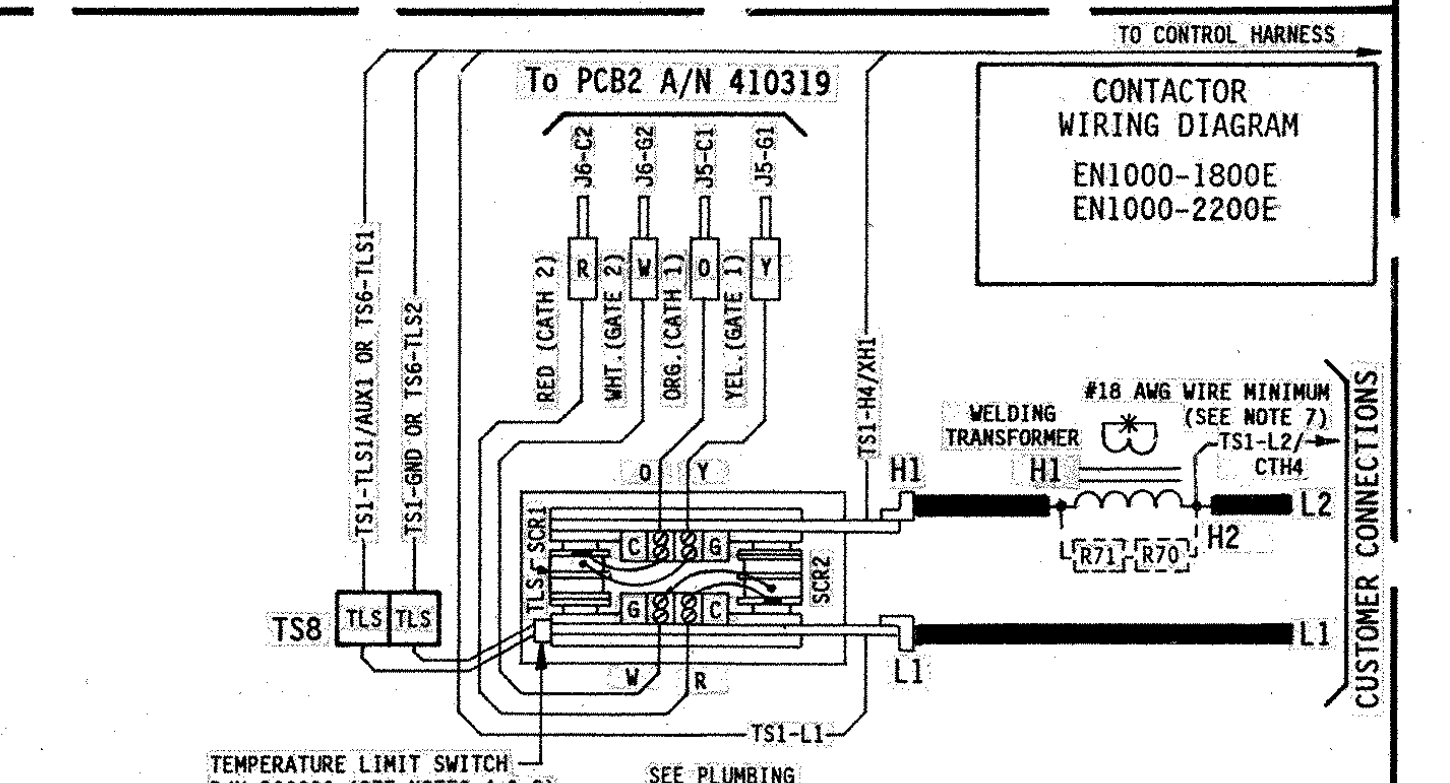
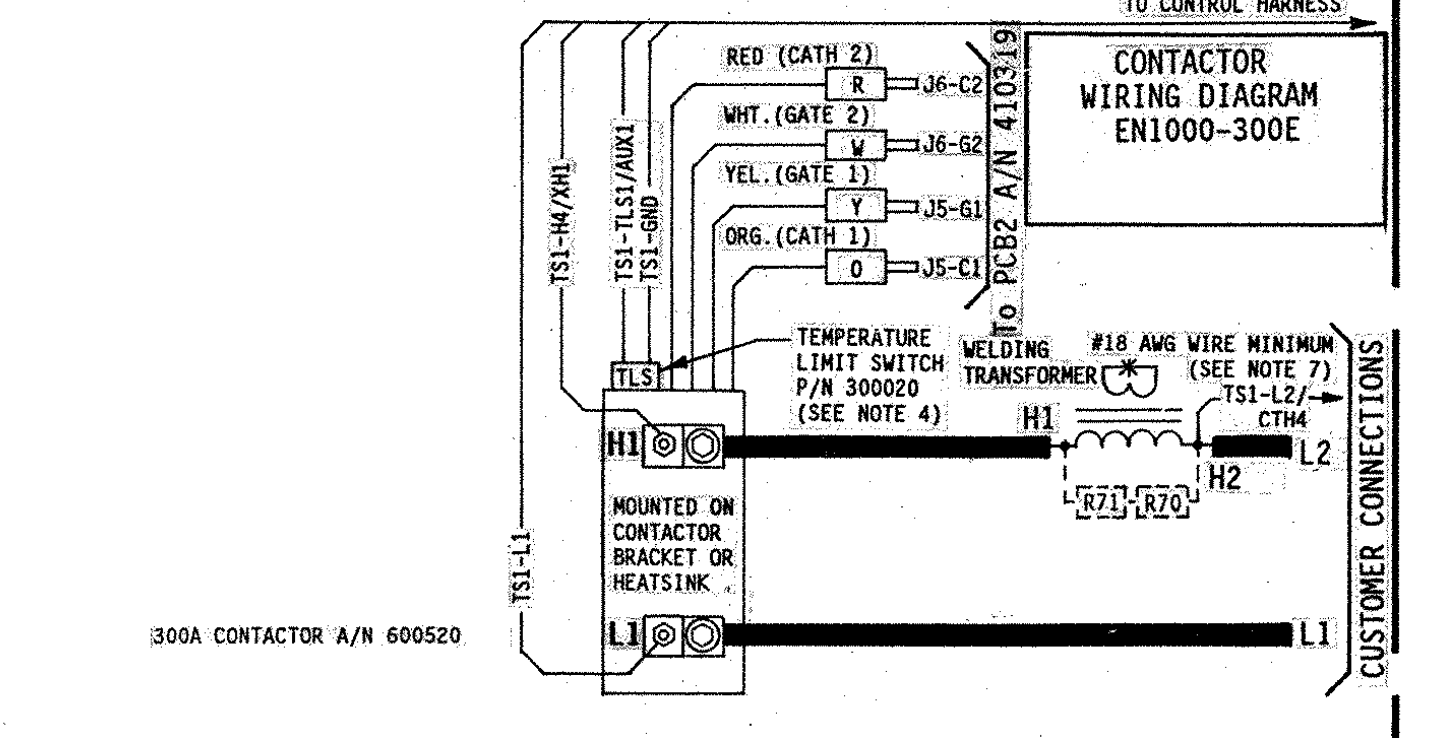
PARTS LIST - CONTACTOR SECTION

QTY.	DESIG.	PART NO.	DESCRIPTION	
1	1	TS1	Terminal Strip, 10 Pin, (Part of J3 Harness)	
1	1	TS6	Terminal Strip, 2 Pin, (Part of Contactor Assem.)	
1	1	TS6	Terminal Strip, 4 Pin, (For T15/WFS), (Shipped Loose)	
2	2	R70,71	Resistor, Power, Surge, 500 Ohm, 100W	
1	1	T1	Transformer, Control, (Part of J3 Harness)	
1	1	T2	Transformer, Sense, (Part of J3 Harness)	
1	1	T3	Transformer, Valve, 150 VA, 24 VAC	
1	1	T3	Transformer, Valve, 150 VA, 24 VAC	
1	1	F1	Fuseholder, 1 Pole, Mini, 600V	
1	1	F1	Fuse, Control, 1/4A, FRQ-R-1/4 or KLDR-1/4	
1	3	307022	Fuse, 1 Amp, Slow Blow, 2AG, (Part of 410319)	
2	1	325024	Assem., Wire, Surge Resistor, 18 Ga., Black	
2	2	325149	Assem., Wire, Valve Transformer, 22 Ga., Black	
1	1	600520	Assem., Contactor, Thyristor, Air, 300A, 460/575V, w/TL5	
1	1	600570	Assem., Contactor, Thyristor, Water, 1200A, 460/575V	
1	1	600533-005	Assem., Contactor, SCR, Water, 1800A, 460/575V, w/TL5	
1	1	600533-003	Assem., Contactor, SCR, Water, 2200A, 460/575V, w/TL5	
1	2	346002	Lug, Screw, 5/16" Bolt to 4/0 Wire, 1200A Contactor, L1 & H1	
1	1	PCB2	410319 Assem., PCB, Terminal Strip Board, EN1000	
1	1	346004	Lug, Screw, Chassis GND, 2/0 Wire	
1	1	525136	Bracket, Mounting, 1800/2200A Contactors	
1	1	525035	Bracket, Mounting, 300/600/1200A Contactors	
1	1	510236	Plate, Mounting, Terminal Strip Board	
1	1	300020	Switch, Temp. Limit, (N.C.), (Part of 300/1800/2200A Cont.)	
39	4	900045	Hose, 3/8" I.D.	
4	4	566010	Hose Clamp, 3/8" Hose	
2	1	600179	Assem., Water Fitting, 3/8" Hose	
1	1	600297	Assem., Water Flow Switch, 3/8" Hose, (Shipped Loose)	
1	1	10S	600044 Assem., Interlocking Door Solenoid	
1	1	314001	Coil Assem. Only, 10S	
1	1	510238	Cabinet, Control Style "E"	
1	1	510241	Door, Cabinet, Style "E"	
1	1	700120	Manual, EN1000	
1	1	421183	Logic Diagram, EN1000 Control	
1	1	421212-010	Wiring Diagram, EN1000-Series, "E" Cabinet, 24 VAC Valves	

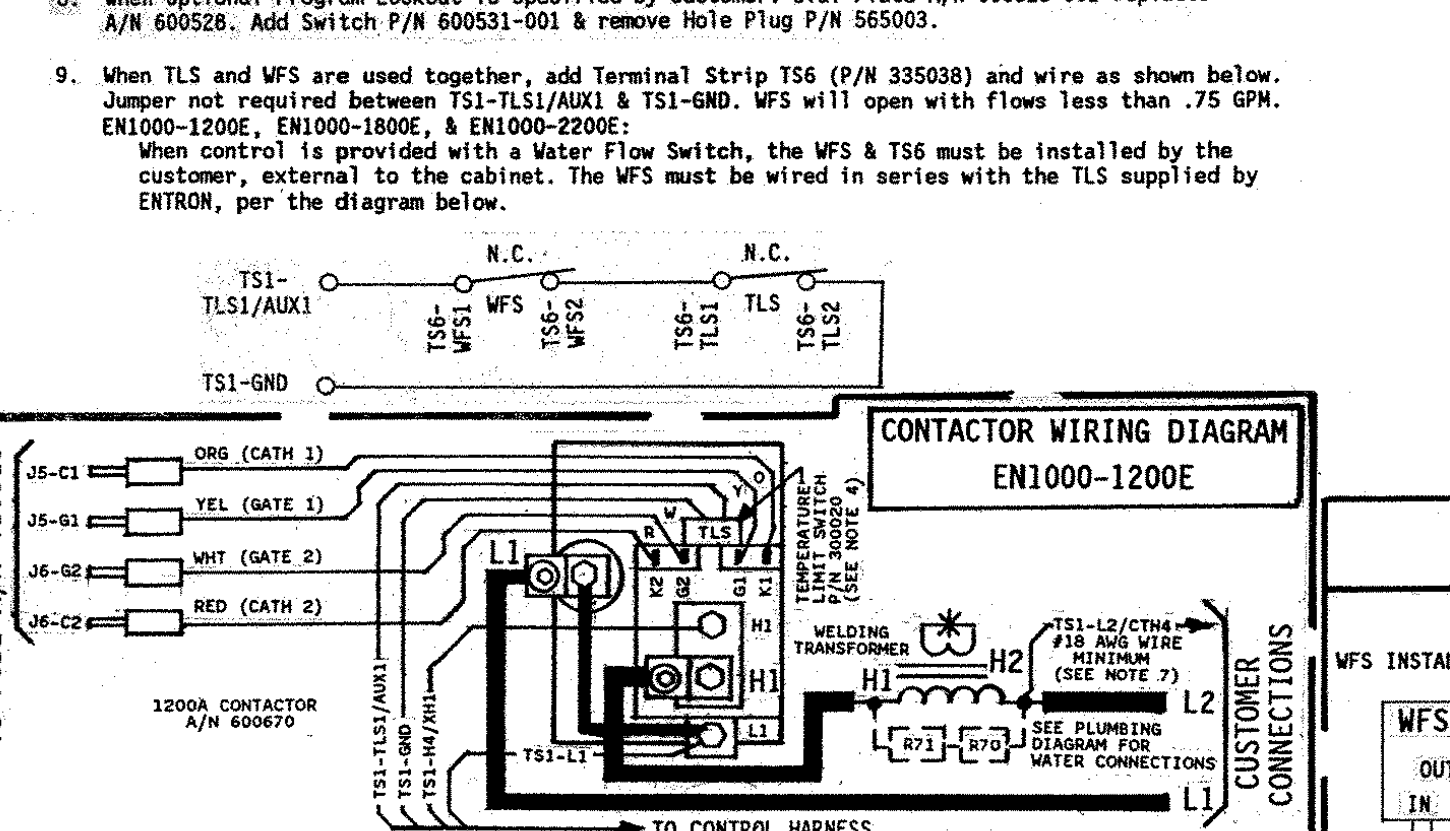
⚠ Optional Keylock when specified by customer. See Note 8. Pack Key in Poly Bag 900148 & attach to Door w/Yellow Tape 900116.

+ Optional Water Flow Switch (WFS) Assembly when specified by customer. When WFS is specified, add quantity one (1) Terminal Strip TS6. WFS & TS6 are customer installed. WFS & TS6 are shipped loose. See Notes 4 & 9. See Drawing #440449 for Customer Mounting & Knockout Detail "E" Cabinet.

MANUFACTURING INSTRUCTIONS:
See Drawing #440445 for Packing Instructions "E" Cabinet.
See Drawing #440448 for Label Locations "E" Cabinet.
SEE DRAWING #600550, #600550-001, #600550-002, or #600550-003 FOR MECHANICAL ASSEMBLY INSTRUCTIONS.



- NOTES:**
- It is recommended that control wiring (i.e.: initiation, pressure switch, etc.) be physically separated from the high voltage wiring (115 volts or higher).
 - For 460 VAC Operation - Use Jumper #1 on T3 & TS1. As shipped unless otherwise specified.
For 230 VAC Operation - Use Jumper #2 on T3 & TS1.
For 115, 380 or 575 VAC Operation - CONSULT FACTORY.
 - For Single Stage Pilot Operation - Connect pilot switch to T51-FS3 & T51-GND. No jumpers required across T51-FS1 & T51-GND.
For Two Stage Pilot Operation - Connect 1st stage pilot switch to T51-FS1 & T51-GND. Connect 2nd stage pilot switch to T51-FS3 & T51-GND.
For DUAL COUNT/DUAL CURRENT (Dual Weld/Dual Heat) or TRIPLE COUNT/TRIPLE CURRENT (Triple Weld/Triple Heat) or External Schedule Selection, SEE MANUAL.
 - EN1000-SERIES "E" Cabinet: ENTRON supplies Temperature Limit Switch (TLS) P/N 300020 and provides connections to T51-TLS1/AUX1 & T51-GND. Jumper not required between T51-TLS1/AUX1 & T51-GND. **NOTE:** TLS SCR will open at temperatures greater than or equal to 150°F.
 - When external valve power is supplied to the control. Remove and insulate leads TS3-VL1 & TS3-VL2 on the Terminal Strip Board (PCB2). (From T3-X1 & T3-X2). Connect external AC power supply (24-240 VAC) to T51-HL1 & T51-SV2/SV4/VL2. **CAUTION:** Do not overtighten TS3.
 - VALVE 3 OUTPUT USAGE: T51-SV5 & T51-SV6 (Valve 3) can be used for either a Valve output or a Process output. When T51-SV5 & T51-SV6 is used as a Valve output use Jumper "A" on TS3. When T51-SV5 & T51-SV6 is used as a Process output use Jumper "B" on TS3. **CAUTION:** Do not overtighten TS3.



CAUTION
WATER HOSE BURST HAZARD
Cooling water must be flowing when power is on. Water hose can burst and damage controls.
(Small red circle with 'E' logo)

REV	AUTH	DESCRIPTION	DATE	DRWN	CHK'D	BY	DATE
ENTRON CONTROLS INC							
		SCALE	DATE	DRAWN BY	CHK'D BY	APPROVED BY	
			9/15/12	DCS			
TOLERANCE UNLESS SPECIFIED				REVISED			
ANGLES: ± 1°				REV LTR			
DECIMALS: ± .010				DATE			
FRACTIONS: ± 1/64							
WIRING DIAGRAM, EN1000-SERIES, "E" CABINET, 24 VAC VALVES							
REV.	AUTH.	DESCRIPTION	DATE	DATE	DATE	DATE	
NEXT ASSM/USED ON				DRAWING NUMBER		REV	
				4212-010		orig	