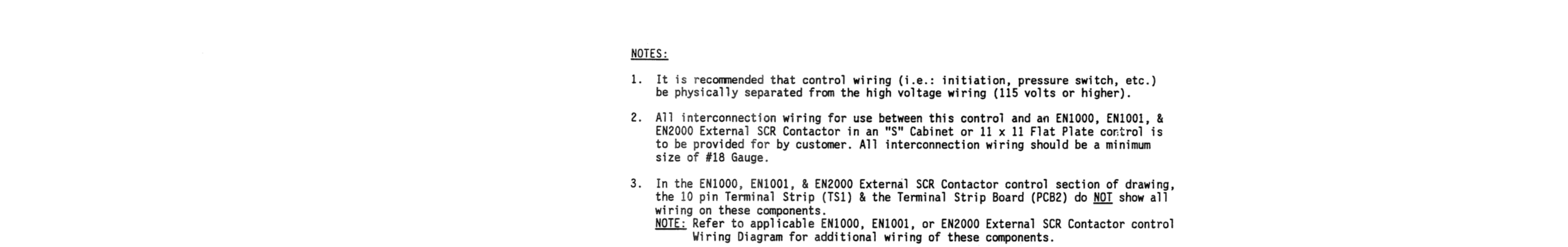
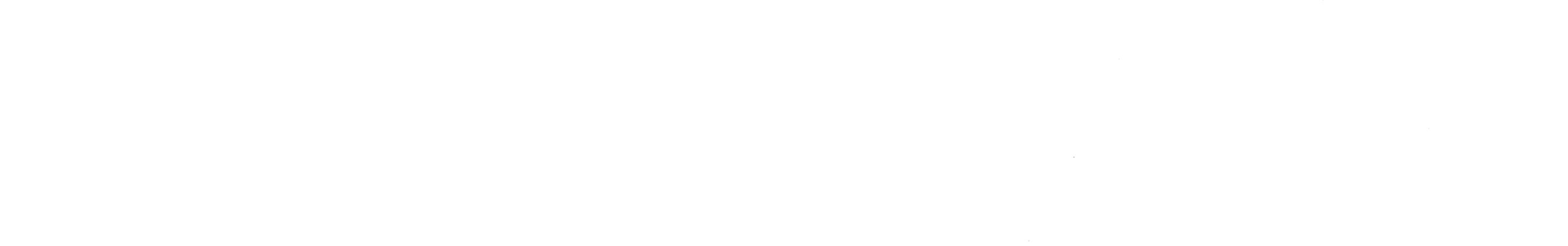
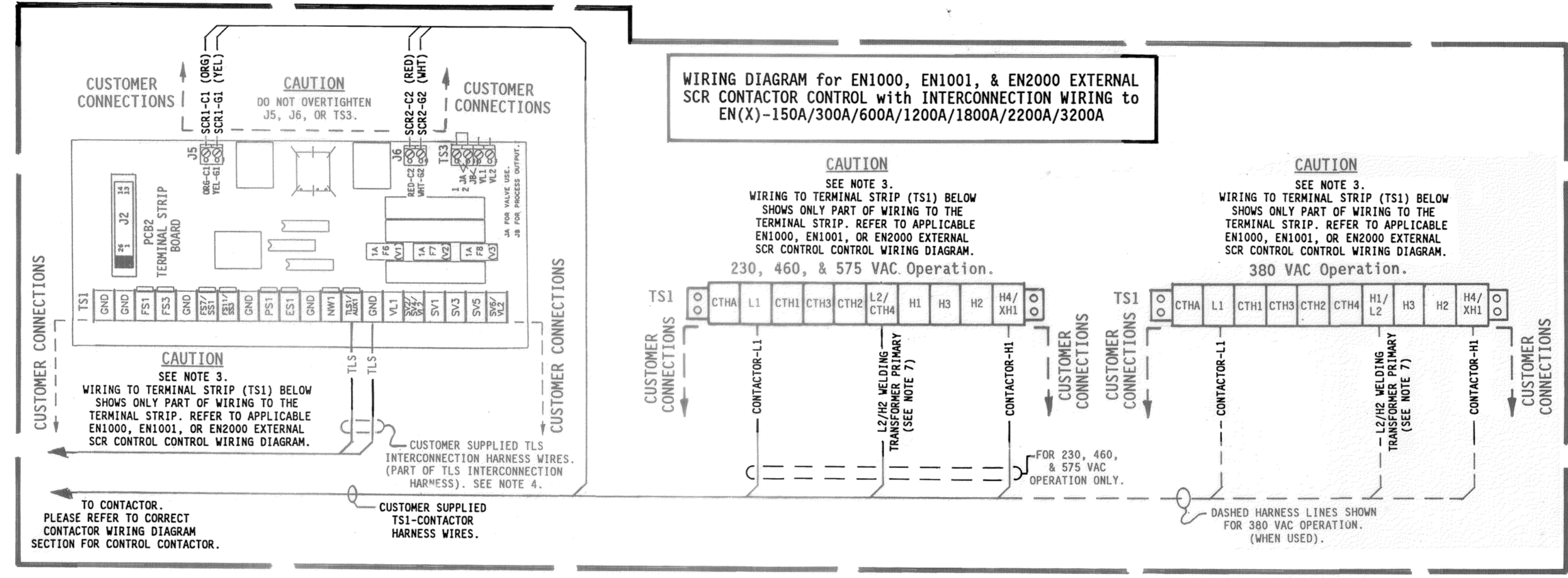


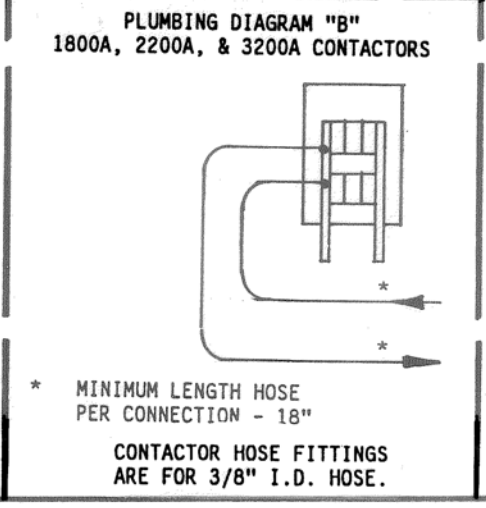
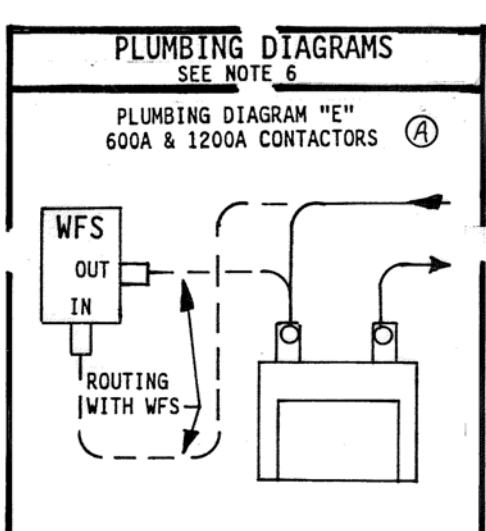
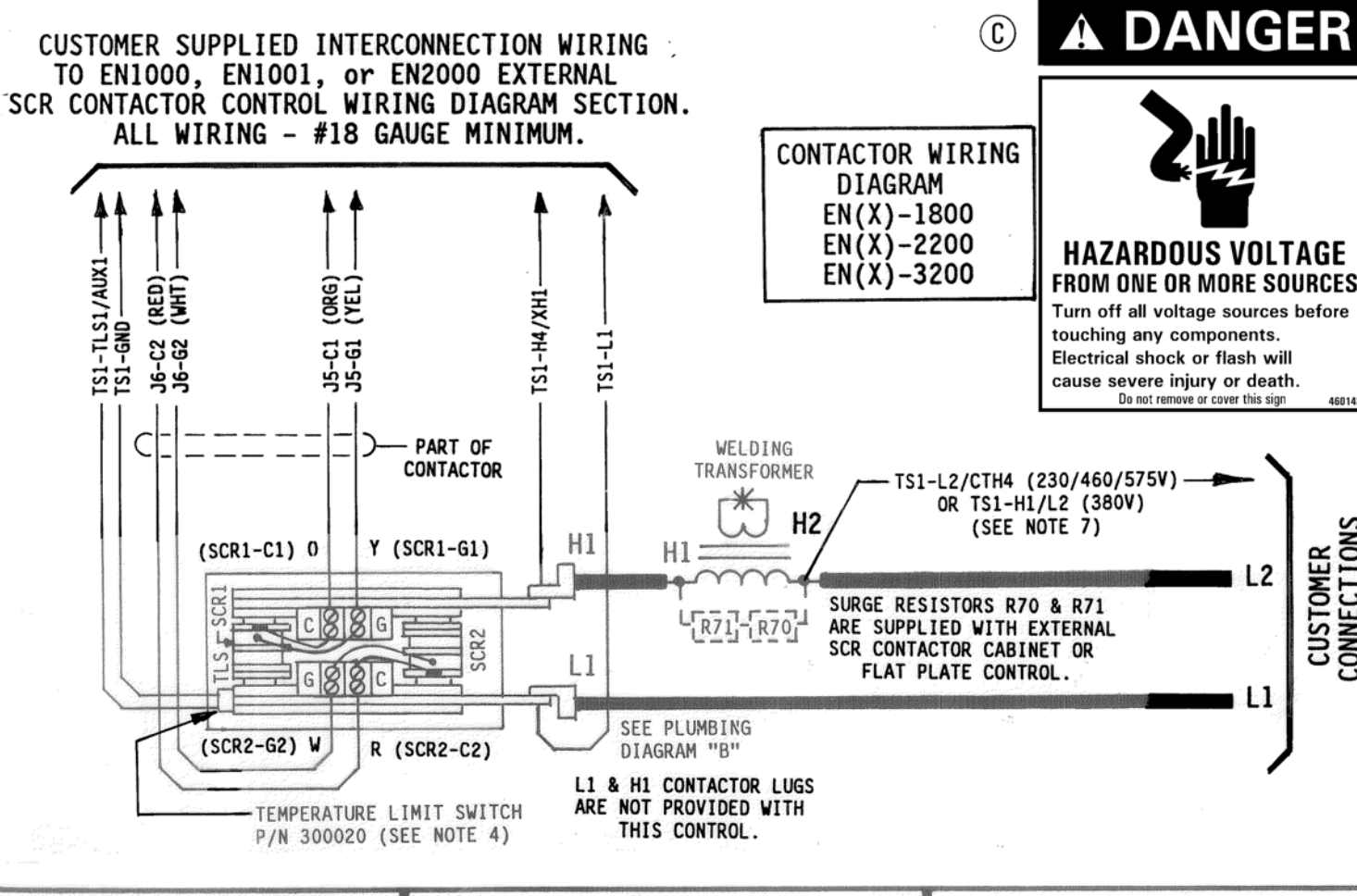
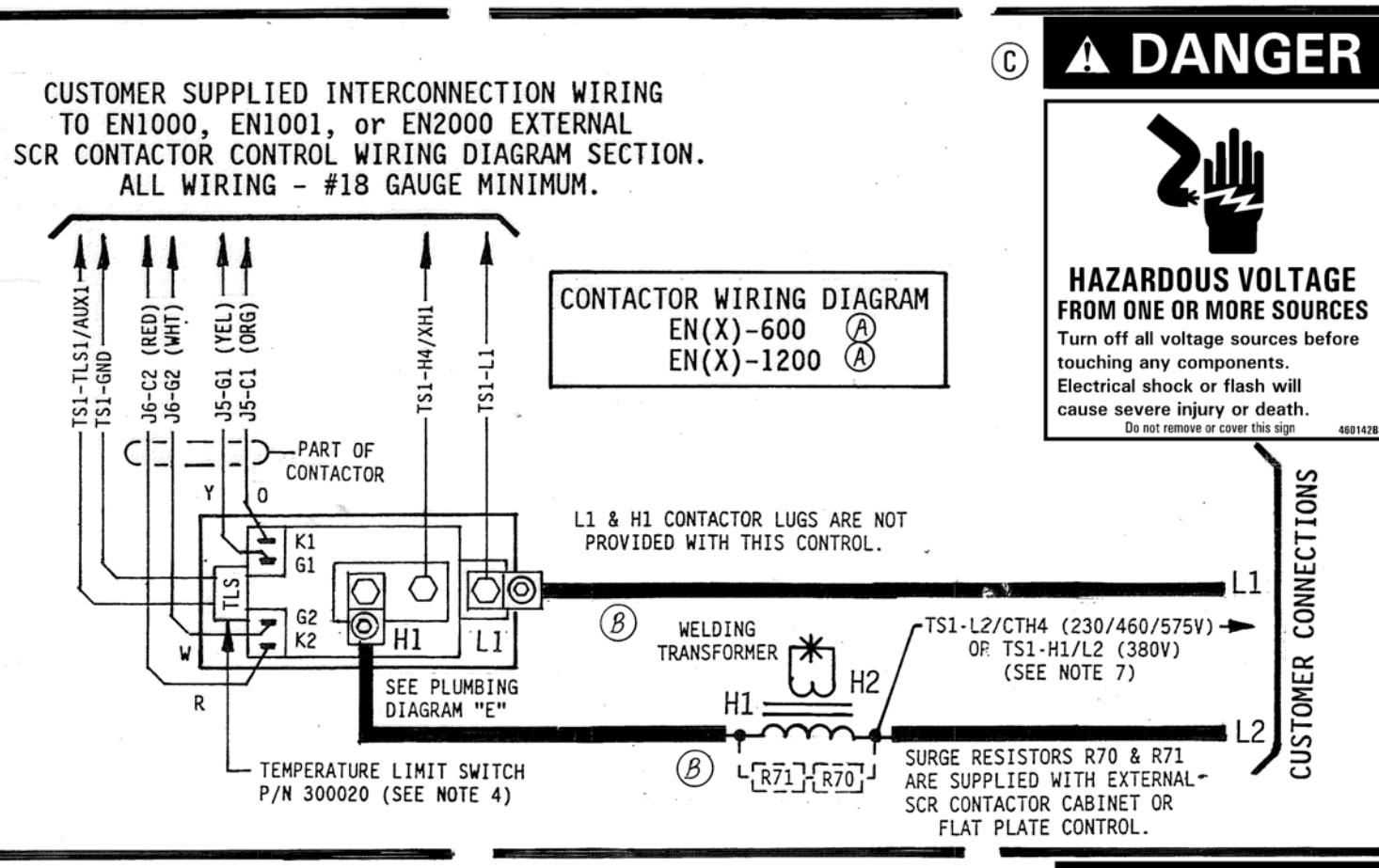
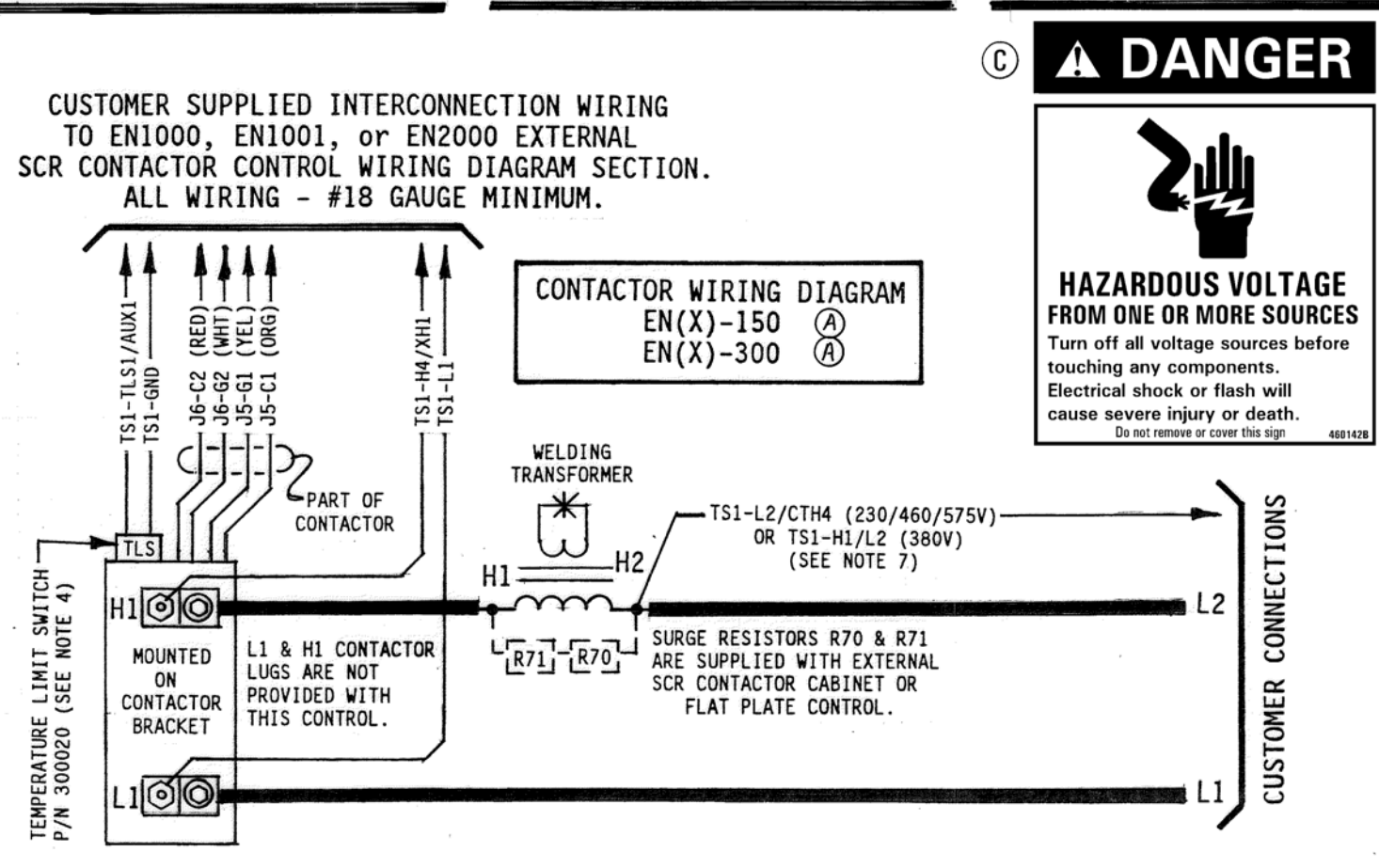
PARTS LIST		EN(X)-3200	EN(X)-2200	EN(X)-1800	EN(X)-1200	EN(X)-600	EN(X)-300	EN(X)-150	DESIG.	PART NO.	DESCRIPTION
1	1	1	1	1	1	1	1	1		600613-001	Assem., Contactor, Thyristor, Air, 150A, 460/575V, w/TLs
1	1	1	1	1	1	1	1	1		600520-007	Assem., Contactor, Thyristor, Air, 300A, 460/575V, w/TLs
1	1	1	1	1	1	1	1	1		600610-004	Assem., Contactor, Thyristor, Water, 600A, 460/575V, w/TLs
1	1	1	1	1	1	1	1	1		600598-006	Assem., Contactor, Thyristor, Water, 1200A, 460/575V, w/TLs
1	1	1	1	1	1	1	1	1		600533-010	Assem., Contactor, SCR, Water, 1800A, 460/575V, w/TLs
1	1	1	1	1	1	1	1	1		600533-011	Assem., Contactor, SCR, Water, 2200A, 460/575V, w/TLs
1	1	1	1	1	1	1	1	1		600533-012	Assem., Contactor, SCR, Water, 3200A, 460/575V, w/TLs
1	1	1	1	1	1	1	1	1		530021	Plate, Mounting, 1800/2200/3200A Contactors, (Part of 1800/3200A Contactors)
1	1	1	1	1	1	1	1	1		530034	Plate, Mounting, 1200/3200A Contactors, (Part of 1200/3200A Contactors)
1	1	1	1	1	1	1	1	1		510222	Bracket, Mounting, 150/300A Contactors, (Part of 150/300A Contactors)
1	1	1	1	1	1	1	1	1		525035	Bracket, Mounting, 150/300/1200A Contactors, (Part of 150/300/1200A Contactors)
1	1	1	1	1	1	1	1	1	TLs	300020	Switch, Temperature Limit, (N.C.), (Part of Contactor)
1	1	1	1	1	1	1	1	1		557084	Screw, Hex Socket Head Cap, #10-32 x 1" Long, (Part of 150/300A Contactors)
1	1	1	1	1	1	1	1	1		557085	Screw, Hex Socket Head Cap, #10-32 x 1-1/2" Long (Part of 600/1200A Contactors)
1	1	1	1	1	1	1	1	1		557026	Lockwasher, #10 Medium Split, Brite (Part of 600/1200A Contactors)
1	1	1	1	1	1	1	1	1		525035	Bracket, Mounting, 150/300 Contactors
1	1	1	1	1	1	1	1	1		525136	Bracket, Mounting, 600/1200/1800/2200/3200A Contactors
1	1	1	1	1	1	1	1	1		557003	6-32 x 1/4 PHMSM, PHJ, Brite
1	1	1	1	1	1	1	1	1		557015	#6 x 3/8 OD x 3/64 THK. Flat Washer, Brite
1	1	1	1	1	1	1	1	1		557017	#6 Medium Split Lock Washer, Brite
1	1	1	1	1	1	1	1	1		557136	6-32 X 1/2 Socket Head Cap Screw
1	1	1	1	1	1	1	1	1		421385-001	Wiring Diagram, EN(X)-150A/300A/600A/1200A/1800A/2200A/3200A

All interconnection wiring for use between this control and an ENTRON External SCR Contactor Firing Control is to be customer provided. This control does NOT provide Hose Clamps, Hose, Water Flow Switch (WFS), Contactor-L1 Screw Lug, or Contactor-H1 Screw Lug. These components MUST be provided for by customer.

MANUFACTURING INSTRUCTIONS:
For 600/1200A Contactors, mount the Contactor to Plate P/N 530021 with quantity four (4) screws P/N 557085 & four (4) Lockwashers P/N 557026 using the Contactor mounting holes provided on plate.



NOTES:
1. It is recommended that control wiring (i.e., initiation, pressure switch, etc.) be physically separated from the high voltage wiring (115 volts or higher).
2. All interconnection wiring for use between this control and an EN1000, EN1001, & EN2000 External SCR Contactor in an "S" Cabinet or 11 x 11 Flat Plate control is to be provided for by customer. All interconnection wiring should be a minimum size of #18 Gauge.
3. In the EN1000, EN1001, & EN2000 External SCR Contactor control section of drawing, the 10 pin Terminal Strip (TS1) & the Terminal Strip Board (PCB2) do NOT show all wiring on these components. NOTE: Refer to applicable EN1000, EN1001, or EN2000 External SCR Contactor control Wiring Diagram for additional wiring of these components.
4. EN(X)-150A/300A/600A/1200A/1800A/2200A/3200A: When Temperature Limit Switch (TLS) is used, TLS wires connect to TS1-TLS1/AUX1 & TS1-0ND. Customer supplied interconnection wiring for TLS should be physically separated from all other interconnection wiring. Jumper not required between TS1-TLS1/AUX1 & TS1-0ND on Terminal Strip Board (PCB2). Refer to applicable EN1000, EN1001, or EN2000 External SCR Contactor Wiring Diagram for TLS Jumper on Terminal Strip Board (PCB2). NOTE: TLS SCR & Thyristor will open at temperatures greater than or equal to 150°F.
5. EN(X)-150A/300A/600A/1200A/1800A/2200A/3200A: Remove all connections from previously existing firing circuits to L1, L2/H2, H1, & also SCR Gate leads & SCR Cathode leads. All previously existing Surge Resistors or Rectifiers must be disconnected prior to installation of this control. CAUTION: Do NOT overtighten J5 & J6.
6. ENTRON does NOT supply Water Flow Switch (WFS), Hose Clamps, or Hose for any Water Cooled Contactors. See applicable Plumbing Diagram for typical routing of the hoses to the Water Cooled Contactors. NOTE: All Contactor Hose Fittings are for 3/8" I.D. Hose.
7. Refer to EN1000, EN1001, or EN2000 External SCR Contactor Wiring Diagram for wire connection from TS1-L2/CTH4 (230/460/575V) or TS1-H1/L2 (380V) to L2/H2 side of Welding Transformer Primary.



DANGER
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. Do not remove or cover this sign.

NOTICE
FOR SERVICE ON THIS CONTROL
Contact Your Machine Dealer Or ENTRON CONTROLS LLC. DIRECTLY: (864) 416-0190 601 HIGH TECH COURT GREER, SC 29685 FAX# (864) 416-0195

REV	AUTH	DESCRIPTION	DRWN	CHK	BY	DATE
E	DCS 6/20/13	IN P/L. ADDED MOUNTING PLATES & HARDWARE FOR ASSEMBLY.	DCS 6/20/13			
D	ECN 2937	IN P/L 600520-007 WAS 600520-003	DPH 07/22/08			
C	ECN 2937	IN P/L 600598-006 WAS 600598-004. RMVO "6001200" FROM 530021 DESCRIPTION AND FROM HEADER. ADDED TO P/L 530034 & 530025. UPDATED LABELS TO CURRENT REV.	DPH 02/28/08			
B	ECN 2624	IN ORIGINAL FOR ENTRON W/TLs TO WELDING TRANSFORMER CONNECTION FROM TS1-1 TO WELDING TRANSFORMER L1 WAS FOR-H1 TO CUSTOMER CONNECTION L1.	DEC 4-01	DEC 8-01		
A	ECN 2883	IN ORMS ADDED 180/2200A XTOR W/D. 600/1200A XTOR W/D. & PLUMBING DIAGRAM "E".	DEC 1-20-99	DEC 1-20-99		

ENTRON CONTROLS INC			
SCALE	DATE	DRWN BY	CHK'D BY
AH	12-8	DEC	DEC
TOLERANCE UNLESS SPECIFIED ± .010			
ANGLES: ± 5°			
DECIMALS: ± .010			
FRACTIONS: ± 1/64			
WIRING DIAGRAM EN(X)-150A/300A/600A/1200A/1800A/2200A/3200A without CABINET			
NEXT ASSM/USED ON		DRAWING NUMBER	
		421385-001	
		REV E	

EN(X)-150	EN(X)-300	EN(X)-1200	EN(X)-1800	EN(X)-2200	EN(X)-3200
1	1	1	1	1	1