

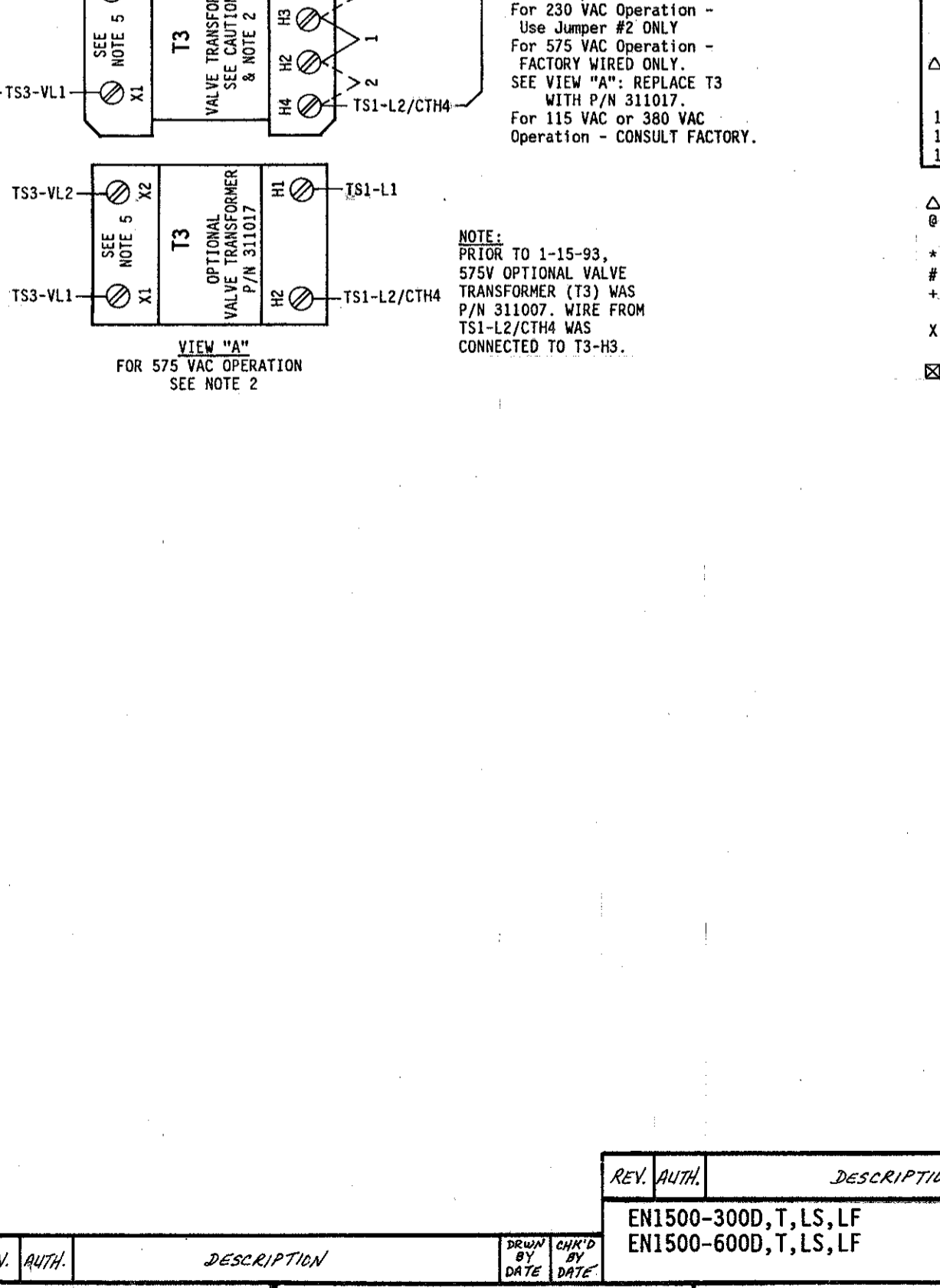
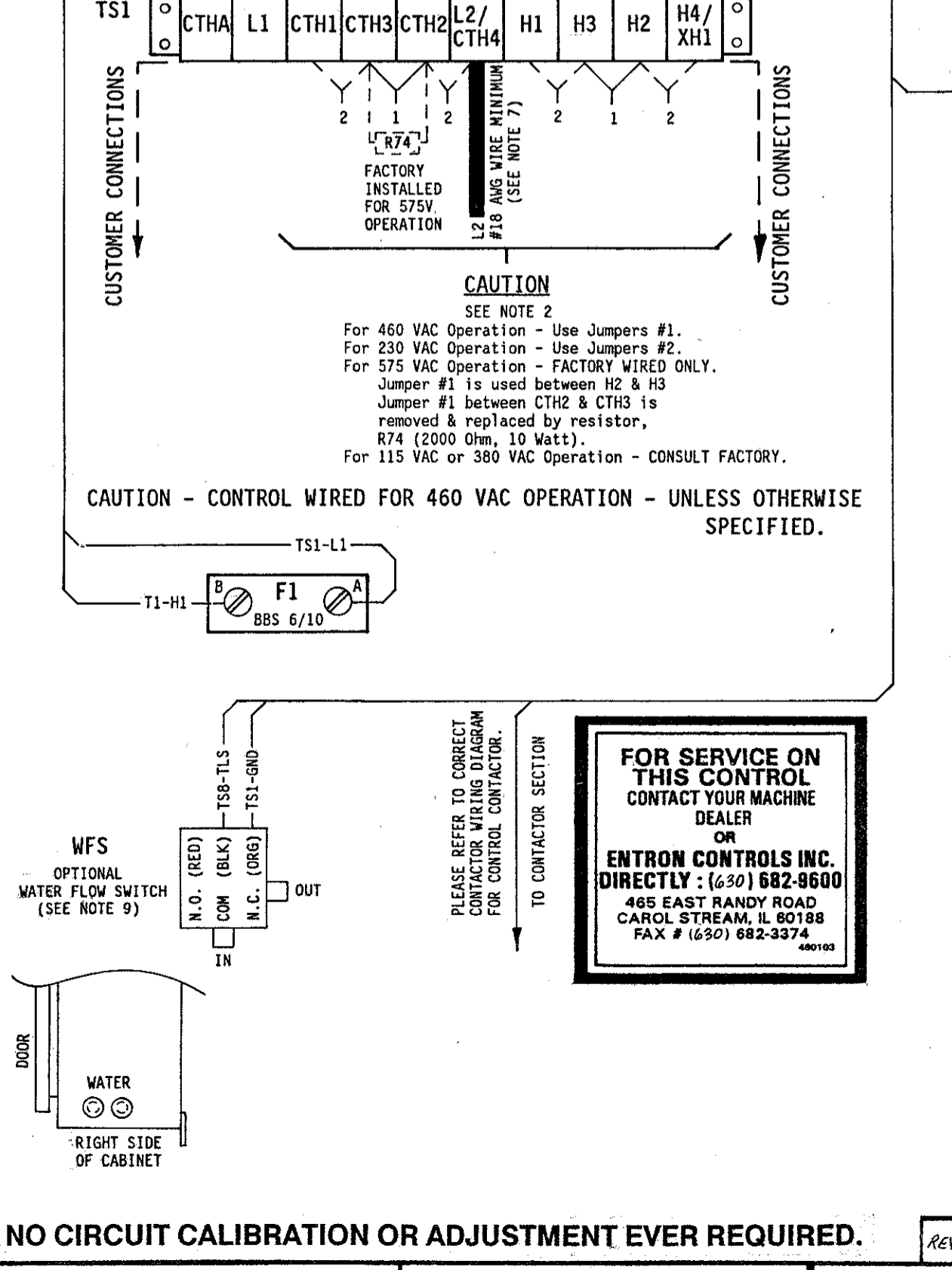
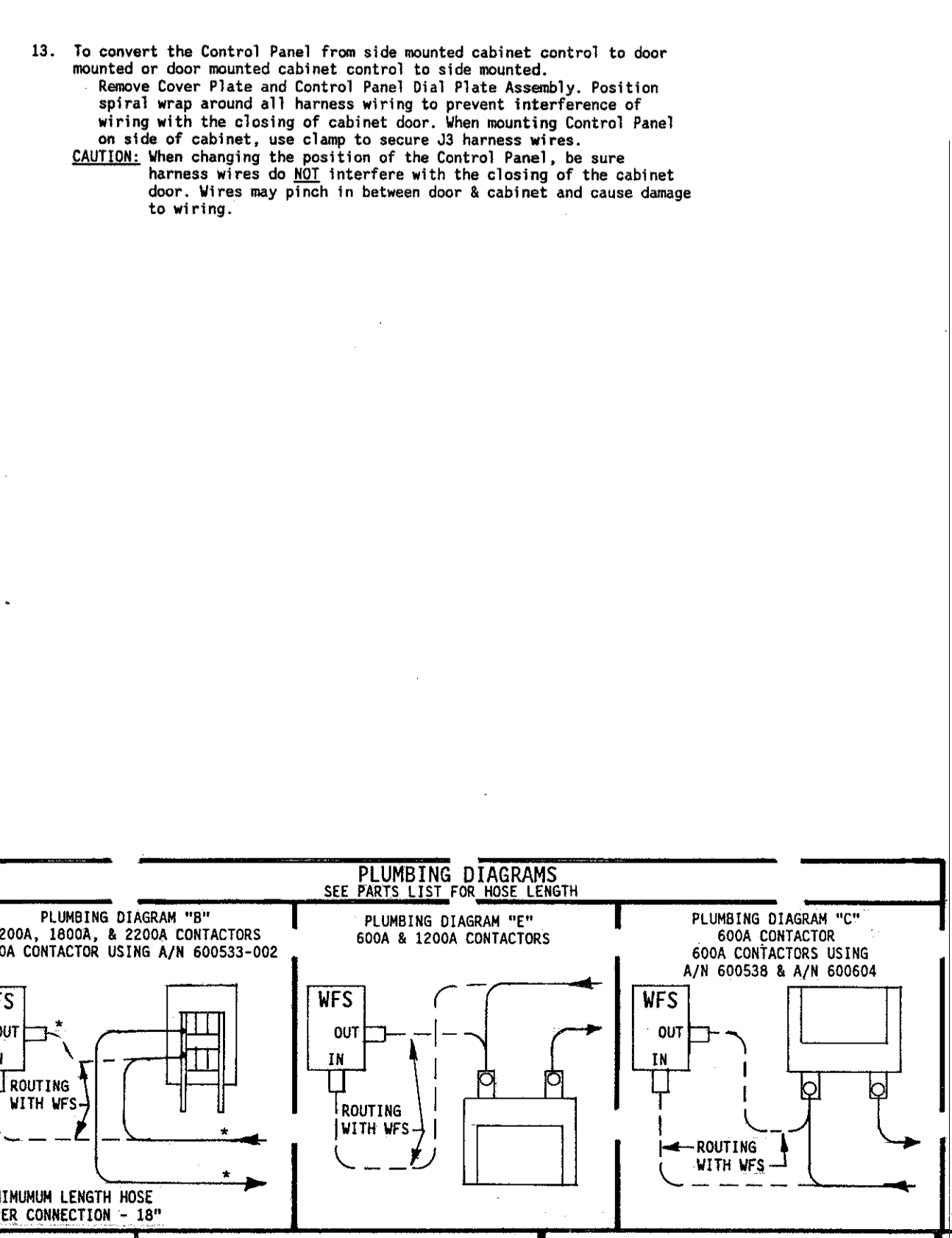
421359

PARTS LIST - CONTROL SECTION			
QTY.	DESIG.	PART NO.	DESCRIPTION
1	0	600635	Assem., Dial Plate, w/Sw. Assem., EN1500, Consisting of: 600635-001
1	0	PCB1	Assem., Switch, Sequence Control & Display Board
1	0	600531-001	Assem., Switch, Keylock, Momentary, SFST
1	1	540288	Illustrated Panel, Dial Plate, EN1500
1	1	515104	Panel, Display Window, Red Filter, EN1500
1	1	565003	Hole Plug, 3/8" Diam., Black, (For Keylock Switch Hole)
1	1	565013	Hole Plug, 3/8" Diam., Black, (For Rotary Board Hole)
1	0	PCB11	Optional Assem., PCB, Rotary Input Board
1	0	319008	Knob, Skirted Round, w/o Indicator, Black
1	0	322447	Assem., Harness, Ctrl Bd. to Rotary Input Bd., 7" Long
1	1	PWR.LT.	Lamp, Neon, Red, 230V
1	1	305002	Lamp, Neon, Clear, 230V
1	1	J2-J2	Assem., Harness, Ctrl Bd. to Term. Bd.
1	1	J3	Assem., Harness, Power, EN1500

PARTS LIST - CONTACTOR SECTION

QTY.	DESIG.	PART NO.	DESCRIPTION	
1	1	TS1	Terminal Strip, 10 Pin, (Part of J3 Harness)	
1	1	TS7	Terminal Strip, 2 Pin, (Part of 1800/2200A Cont. Assem.)	
1	1	TS8	Terminal Strip, 2 Pin, (Part of J3 Harness)	
1	1	T1	Transformer, Control, (Part of J3 Harness)	
1	1	T2	Transformer, Sense, (Part of J3 Harness)	
1	1	T3	Transformer, Valve, 150VA	
1	1	TS	Transformer, Valve, 150VA, 575V	
2	2	R70,71	Resistor, Power, Surge, 500 Ohm, 100W	
1	1	600048	Resistor, Power, 2000 Ohm, 10W, (For 575V)	
1	1	F1	Fuseholder, 1 Pole, Mini, 600V	
1	1	307018	Fuse, Control, 6/10A, BBS 6/10	
1	1	T1	Fuse, 1 Amp, Slow Blow, 2AG, (Part of 410319)	
1	1	TS3-2	Assem., Wire, Surge Resistor, 28 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	600610	Assem., Contactor, Thyristor, Water, 600A, 460/575V	
1	1	600508	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	1	341040	Standoff, Insulator, 600/1200A Thyristor Contactor, L1	
1	1	325114	Assem., Wire, Contactor-L1 to Lug L1, 600/1200A Contactor	
1	1	346004	Lug, Screw, 5/16 Bolt to 2/0 Wire, 600A Thyristor Contactor, H1	
1	1	346011	Lug, Screw, 1/4 Bolt to 2/0 Wire, 600A Thyristor Contactor, L1	
1	1	346002	Lug, Screw, 5/16 Bolt to 250 MCM 4/0 Wire, 1200A Cont., L1 & H1	
1	1	1	346004	Lug, Screw, Chassis GND, 2/0 Wire
1	1	1	410319	Assem., PCB, Terminal Strip Board, EN1500
1	1	1	510236	Bracket, Mounting, Terminal Strip Board
1	1	1	525035	Bracket, Mounting, 300A Thyristor Contactor
1	1	1	525136	Bracket, Mounting, 1800/2200A Contactors
1	1	1	525137	Plate, Mounting, 600/1200A Contactor
1	1	1	300020	Switch, Temperature Limit, (N.C.), (Part of 300A Contactor & 1800/2200A Contactor Assem.)
X	X	X	900045	Hose, 3/8" I.D.
4	4	4	56610	Hose Clamp, 3/8" Hose
2	2	2	600179	Assem., Water Fitting, 3/8" Hose
1	1	1	600297	Assem., Water Flow Switch, 3/8" Hose
1	1	1	550014	Vault Closing Door Mechanism, "D/T/LS/LF" Cabinet
1	1	1	510247	Cabinet, Control, Style "D/T", w/CB
1	1	1	510248	Door, Cabinet, Control, Style "D/T"
1	1	1	510247-005	Cabinet, Control, Style "D/T", w/CB, Modified for 300A Cont.
1	1	1	510257	Cabinet, Control, Style "LS/LF", w/CB
1	1	1	510258	Door, Cabinet, Control, Style "LS/LF"
Δ	Δ	Δ	C/B	Circuit Breaker, Pole, Amp, V, (See Note 12)
1	1	1	700150	Manual, EN1500
1	1	1	421358	Logic Diagram, EN1500 Control
1	1	1	421359	Wiring Diagram, EN1500-Series, "D/T/LS/LF" Cabinet

- 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 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 115 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. For DUAL COUNT/DUAL CURRENT (Dual Weld/Dual Heat) or TRIPLE COUNT/TRIPLE CURRENT (Triple Weld/Triple Heat) or External Schedule Selection, SEE MANUAL.
 - EN1500-SERIES, "D/T/LS/LF" Cabinets: ENTIRON 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 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 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. CAUTION: Do not overtighten TS3.
 - WARNINGS: Use of Jumper "B" bypasses control relay contacts to allow a process output without an initiation. SEE MANUAL.
 - Connect TS1-L2/CTH4 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 600635-001 replaces A/N 600635. Add Switch P/N 600531-001 and remove Hole Plug P/N 565003.
 - When TLS and WFS are used together, add WFS P/N 600297 & Terminal Strip TSB P/N 335017. Wire as shown below. Jumper not required between TS1-TLS1/AUX1 & TS1-GND. WFS will open with flows less than .75 GPM.



MANUFACTURING INSTRUCTIONS:

- See Drawings #51512, #51514, #600552, & #600591 for Mechanical Assembly Instructions of EN1500 "LS/LF" Cabinet.
- See Drawing #440190-001 for Mechanical Layout of "LS/LF" Cabinet Rear Panel.
- See Drawing #440093 for Crating Instructions of "LS/LF" Cabinet.
- See Drawing #600562 for Mechanical Layout/Assem. of EN1500 "D/T" Cabinet.
- See Drawing #440366 for Inner Pack & Use Carton #650016 for "D/T" Cabinet Packing Instructions.
- See Drawing #440437 for Circuit Breaker to L1 Contactor Cable connections.
- See Drawing #600526 for Layout/Assem. of Front Panel.

REV	AUTH	DESCRIPTION	DATE	CHK'D BY	APPROVED BY
1		ORIGINAL RELEASE			
2		REVISION			

ENTRON CONTROLS INC.

SCALE	DATE	DRAWN BY	CHK'D BY	APPROVED BY
1/8"	10-14-98	DEC	DEC	DEC

TOLERANCE UNLESS SPECIFIED: ANGLES: ± 1/2°; DECIMALS: ± 0.010; FRACTIONS: ± 1/64

REV	AUTH	DESCRIPTION	DATE	CHK'D BY	APPROVED BY
1		WIRING DIAGRAM, EN1500-SERIES, "D", "T", "LS", or "LF" CABINET			
2		NEXT ASSM/USED ON			
3		DRAWING NUMBER			
4		REV			

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