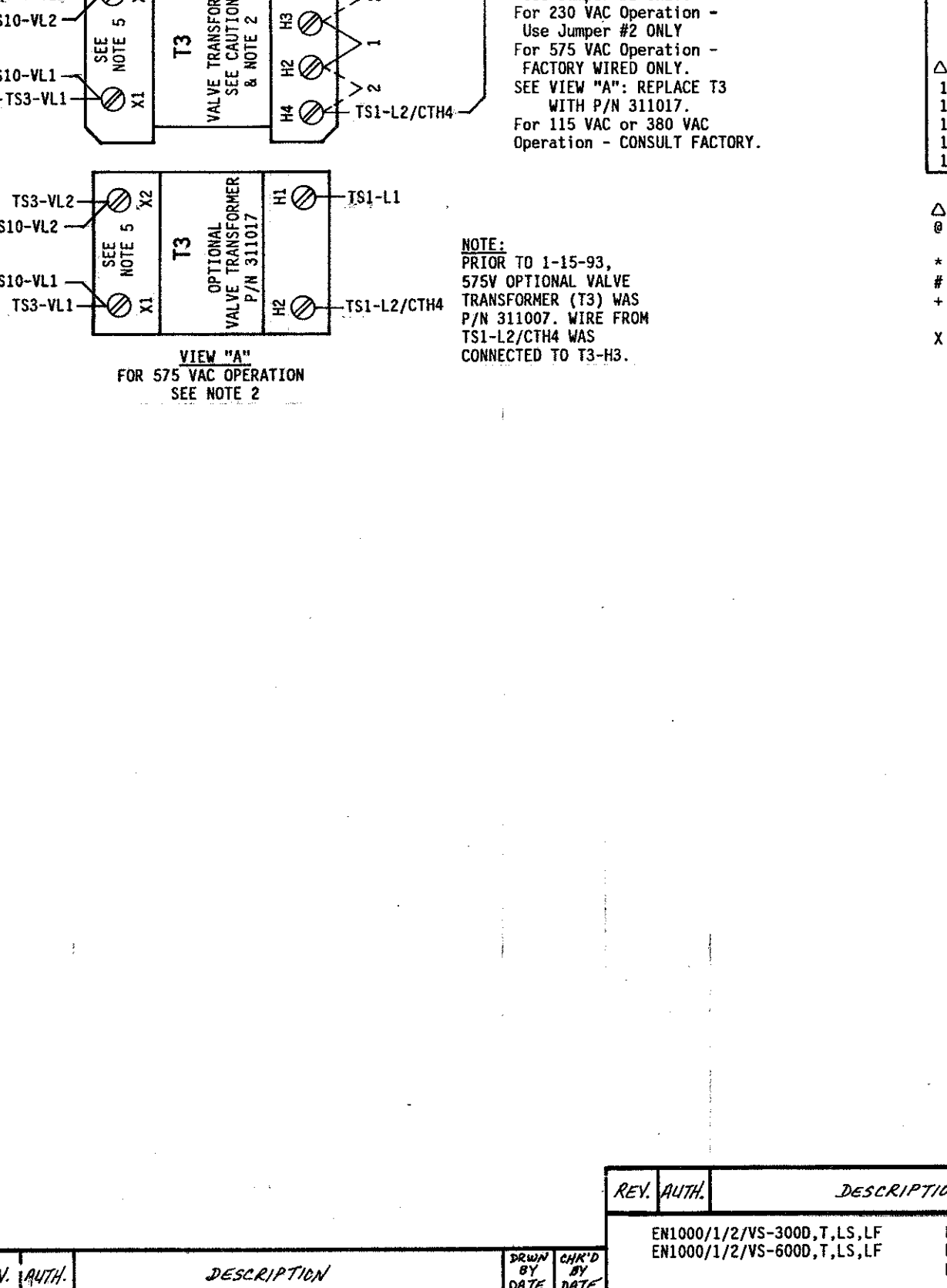
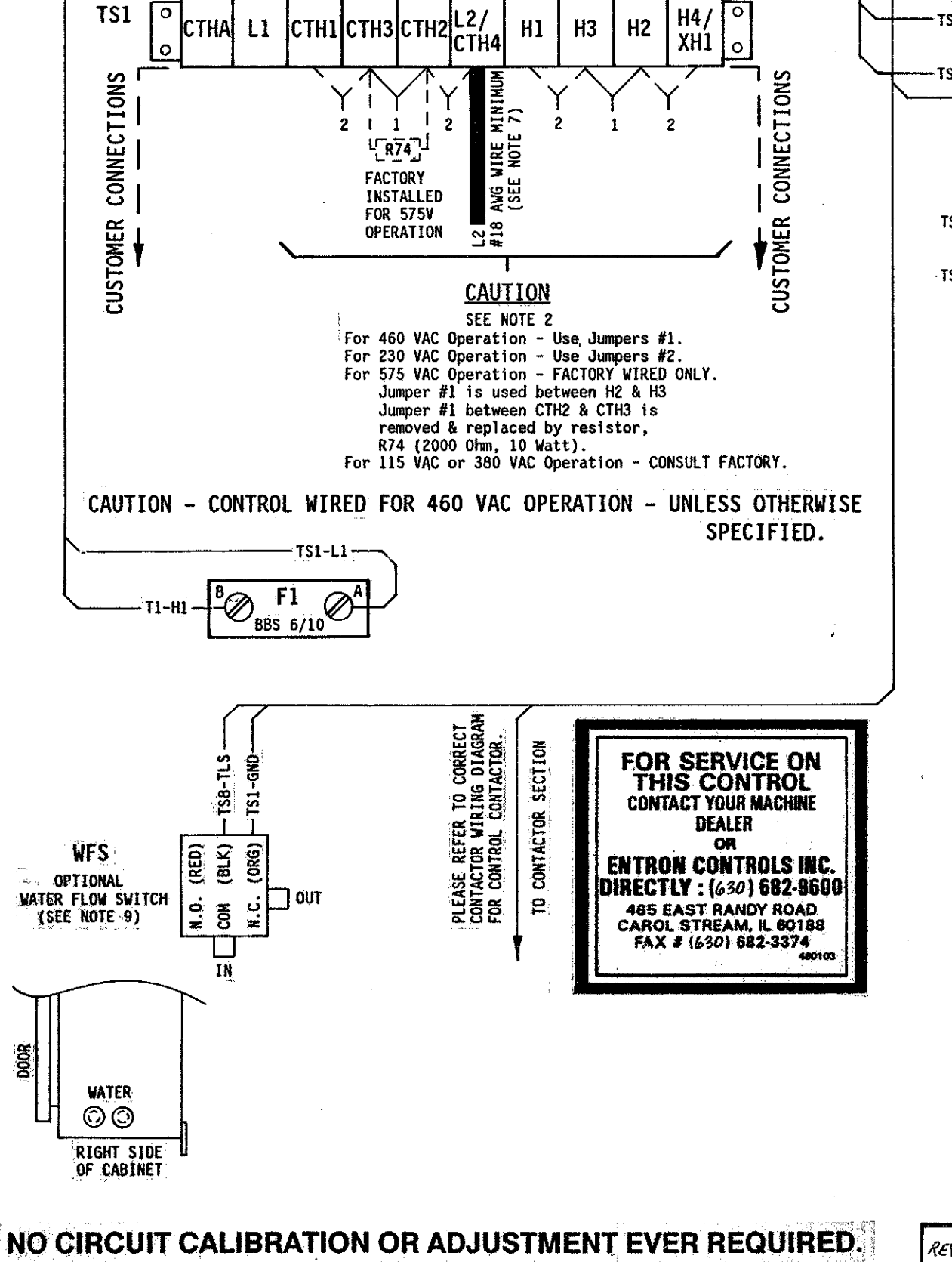
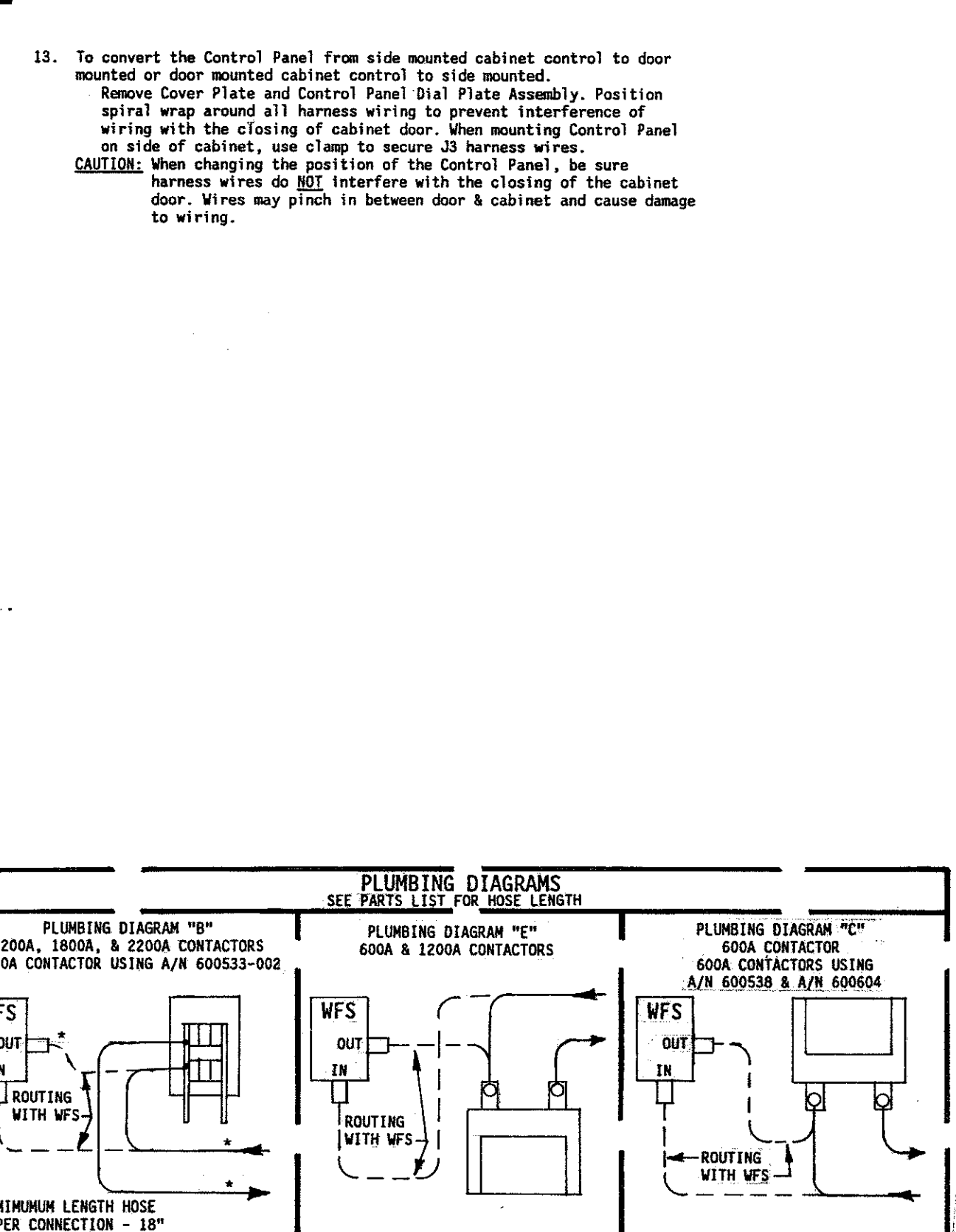


PARTS LIST - CONTROL SECTION

QTY.	DESIG.	PART NO.	DESCRIPTION
1	0	600528	Assem., Dial Plate, w/Sw. Assem., EN1000, Consisting of: Assem., Dial Plate, w/Sw. Assem. & Keylock, EN1000, Consisting of: Assem., Switch, Sequence Control & Display Board
1	0	600541	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	32233-002	Assem., Harness, Ctrl Bd./Term Strip Bd./Valve Select Bd. Assem., Harness, Power, EN1000
1	1	324444	Assem., Harness, Valve Select Bd. to Valve Transformer

- 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 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-F1 & 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 MAN/J.L.
 - EN1000-SERIES "D"/T/LS/LF" Cabinet: 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 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 USAGE: TS1-SV1 & TS1-SV2/SV4/VL2 can ONLY be used for Solenoid Valve. Valve 2 and 3 are used to Disable SCR1 & SCR2 for 1/2 Cycle Operation. See Application Note 700114 for more information.
 - 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 600528-001 replaces A/N 600528. Add Switch P/N 600531-001 & remove Hole Plug P/N 565003.
 - When TLS and WFS are used together, add WFS P/N 600297 & Terminal Strip 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.



PARTS LIST - CONTACTOR SECTION

QTY.	DESIG.	PART NO.	DESCRIPTION
1	1	335034	Terminal Strip, 10 Pin. (Part of J3 Harness)
1	1	335044	Terminal Strip, 2 Pin
1	1	335017	Terminal Strip, 2 Pin
1	1	310001	Transformer, Control. (Part of J3 Harness)
1	1	310002	Transformer, Sense. (Part of J3 Harness)
1	1	311002	Transformer, Valve, 150VA
1	1	311017	Transformer, Valve, 150VA, 575V
2	2	R70, R71	Resistor, Power, Surge, 500 Ohm, 10W (For 575V)
1	1	600048	Assem., 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	307022	Fuse, 1 Amp, Slow Blow, 2AG, (Part of 410319-004)
1	1	(R70, R71)	Assem., Wire, Surge Resistor, 18 Ga., Black
1	1	325149	Assem., Wire, Valve Transformer, 22 Ga., Black
1	1	600520	Assem., Contactor, Thyristor, Air, 300A, 460/575V, w/TLS
1	1	600610	Assem., Contactor, Thyristor, Water, 600A, 460/575V
1	1	600558	Assem., Contactor, Thyristor, Water, 1200A, 460/575V
1	1	600533-005	Assem., Contactor, SCR, Water, 1800A, 460/575V, w/TLS
1	1	600533-003	Assem., Contactor, SCR, Water, 2200A, 460/575V, w/TLS
1	1	341040	Standoff, Insulator, 600/1200A Thyristor Contactor, L1
1	1	325174	Assem., Wire, Contactor-L1 to Lug L1, 600/1200A Thyristor Cont.
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 Contactor, L1 & H1
1	1	410328	Assem., PCB, Valve Select 1 of 7
1	1	346004	Lug, Screw, Chassis GND, 2/0 Wire
1	1	410319-004	Assem., PCB, Terminal Strip Board, EN1000/1/2
2	2	510236	Plate, Mounting, Terminal Strip Board & Valve Select Board
1	1	525035	Bracket, Mounting, 1800/2200A Contactors
1	1	525136	Plate, Mounting, 600/1200A Contactors
1	1	300020	Switch, Temperature Limit, (N.C.). (Part of 300A Contactor & 1800/2200A Contactor Assem.'s)
X	X	900045	Hose, 3/8" I.D.
4	4	566010	Hose Clamp, 3/8" Hose
2	2	600179	Assem., Water Flow Switch, 3/8" Hose
1	1	600297	Assem., Water Flow Switch, 3/8" Hose
1	1	550014	Valve Closing Door Mechanism, "D"/T/LS/LF" Cabinet
1	1	510247	Cabinet, Control, Style "D"/T", w/CB
1	1	510248	Door, Cabinet, Control, Style "D"/T"
1	1	510247-005	Cabinet, Control, Style "D"/T", w/CB, Modified for 300A Cont.
1	1	510257	Cabinet, Control, Style "LS/LF", w/CB
1	1	510258	Door, Cabinet, Control, Style "LS/LF"
1	1	C/B	Circuit Breaker, Pole, Amp, V. (See Note 12)
1	1	700114	Application Manual, EN1000/1/2 Control
1	1	700110	Instruction, Valve Select 1 of 7
1	1	700105	Manual, EN1000
1	1	421183	Logic Diagram, EN1000 Control
1	1	421210-021	Wiring Diagram, EN1000/1/2/VS-Series, "D"/T/LS/LF" Cabinet

- MANUFACTURING INSTRUCTIONS:
- See Drawings #515112, #515114, #600552, & #600591 for Mechanical Assembly Instructions of EN1000 "LS/LF" Cabinet.
 - See Drawing #440150-001 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 EN1000 "D"/T" Cabinet.
 - See Drawing #440056 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.

OPTIONAL KEYLOCK WHEN SPECIFIED BY CUSTOMER. SEE NOTE 8. PACK KEY IN POLY BAG 900148 & attach to Door w/Yellow Tape 900118.

- Substitution or addition of parts when 575V control is specified.
- Supplied when optional Shunt Trip (ST), 115V is specified.
- Optional Water Flow Switch Assembly & TSB. An additional Thirty-Six inches (36") of hose, P/N 900045 and two (2) hose clamps, P/N 566010 are to be supplied. See Note 9.
- For all contactors in "D"/T" cabinet supply 59" of hose. For all contactors in "LS/LF" cabinet supply 60" of hose.

FOR SERVICE ON THIS CONTROL CONTACT YOUR MACHINE DEALER
ENTRON CONTROLS INC.
 DIRECTLY: (630) 682-9600
 465 EAST RANDY ROAD
 CAROL STREAM, IL 60188
 FAX: (630) 682-9374

ENTRON CONTROLS INC.

SCALE	DATE	DRAWN BY	CHK'D BY	APPROVED BY
10-7-98	DEC 98			
TOLERANCES UNLESS SPECIFIED				
ANGLES: ± .5°		REVISED		
DECIMALS: ± .010		REV LTR	DATE	APPROVED BY
FRACTIONS: ± 1/64				
WIRING DIAGRAM, EN1000/1/2/VS-SERIES, "D", "T", "LS", or "LF" CABINET				
NEXT ASSM/USED ON		DRAWING NUMBER		
		421210-021		

REV.	AUTH.	DESCRIPTION	SHOW CHG'D DATE	CHK'D DATE
		EN1000/1/2/VS-3000, T,LS,LF		
		EN1000/1/2/VS-18000, T,LS,LF		
		EN1000/1/2/VS-6000, T,LS,LF		
		EN1000/1/2/VS-22000, T,LS,LF		

NO CIRCUIT CALIBRATION OR ADJUSTMENT EVER REQUIRED.