

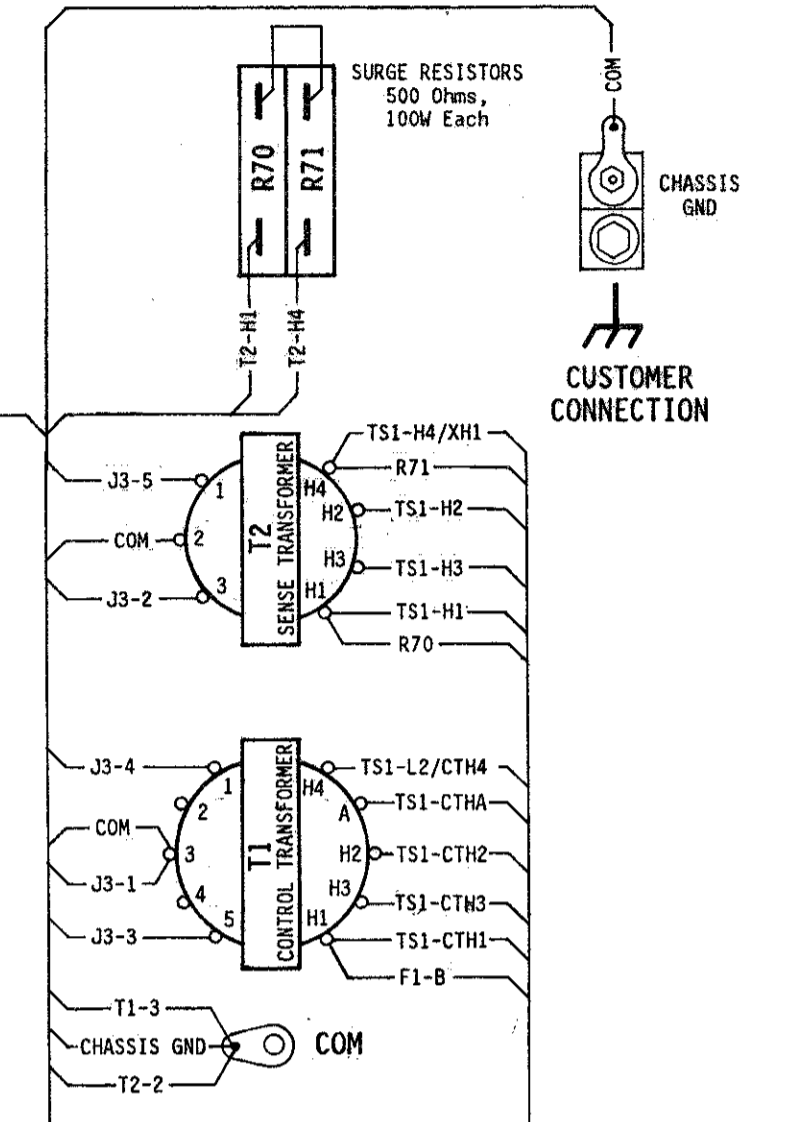
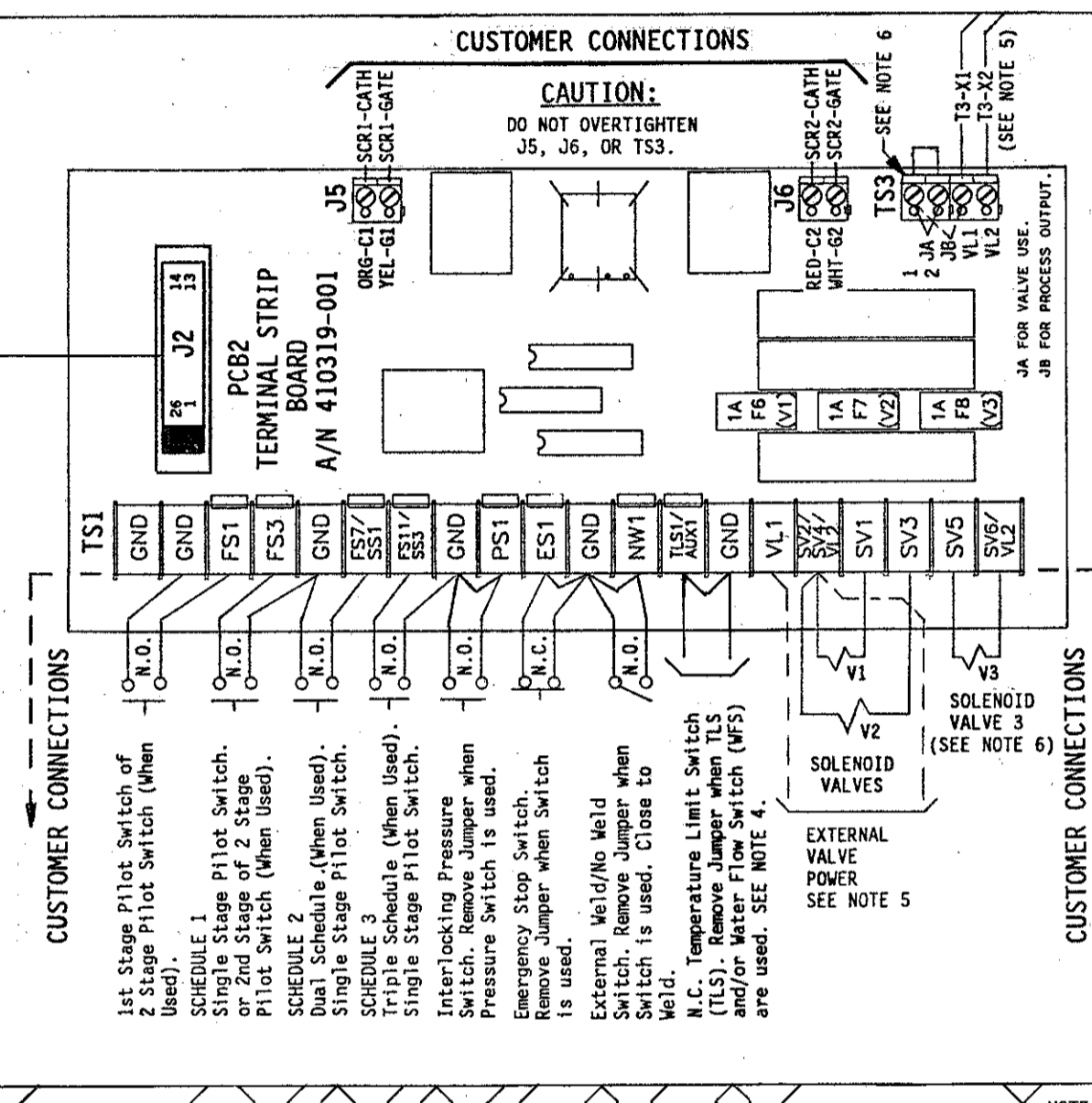
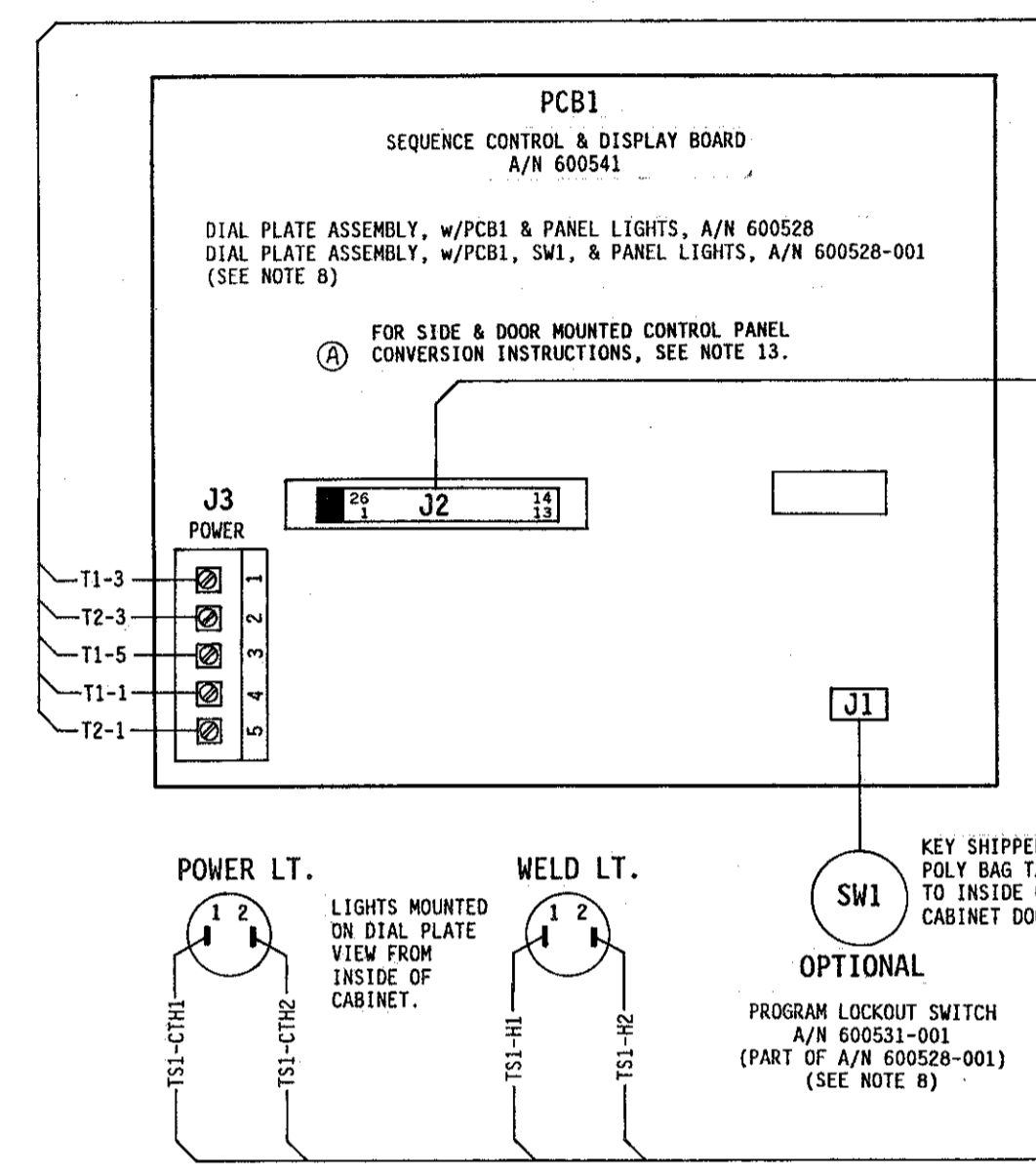
CAUTION - READ MANUAL & ALL NOTES BEFORE INSTALLING OR OPERATING CONTROL. SEE NOTE 1.

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.

WATER HOSE BURST HAZARD
Cooling water must be flowing when power is on. Water hose can burst and damage controls.

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

QTY.	DESIG.	PART NO.	DESCRIPTION
1	PCB1	600528-001	Assem., Dial Plate, w/Sw. Assem., EN1000, Consisting of: Assem., Dial Plate, w/Sw. Assem. & Keylock, EN1000, Consist. of:
1	SW1	600541	Assem., Switch, Keylock, Momentary, SPST
1		600531-001	11 Illustrated Panel, Dial Plate, EN1000
1		515104	Panel, Display Window, Red Filter, EN1000
1		565003	Hole Plug, 3/4" Diam., Black
1	PWR.LT.	305001	Lamp, Neon, Red, 230V
1	WLD.LT.	305002	Lamp, Neon, Clear, 230V
1	J2-J2	322326	Assem., Harness, Ctrl Bd. to Term. Bd.
1	J3	322325-014	Assem., Harness, Power, EN1000



QTY.	DESIG.	PART NO.	DESCRIPTION
1	TS1	335034	Terminal Strip, 10 Pin, (Part of J3 Harness)
1	T1	310001	Transformer, Control, (Part of J3 Harness)
1	T2	310002	Transformer, Sense, (Part of J3 Harness)
1	T3	311007	Transformer, Valve, 150VA
1	T3	311021	Transformer, Valve, 150VA, 575V
1	T3	311022	Transformer, Valve, 500VA, EN1000
1	T3	311022	Transformer, Valve, 250VA
2	R70, R71	225016	Resistor, Power, Surge, 500 Ohm, 100W (For 575V)
1	R74	600048	Assem., Resistor, Power, 2000 Ohm, 10W.
1	F1	308010	Fuseholder, 1 Pole, Mini, 600V
1	F1	307024	Fuse, Control, 1/4A, FNQ-R-1/4 or KLRD-1/4
1	F6, 7, 8 (PCB2)	307022	Fuse, 1 Amp, Slow Blow, 2AG, (Part of 410319-001)
1	(R70, R71)	325024	Assem., Wire, Surge Resistor, 18 Ga., Black
2	(T3)	325149	Assem., Wire, Valve Transformer, 22 Ga., Black
1	PCB2 (PCB2)	346004	Lug, Screw, Chassis GND, 2/0 Wire
1		510236	Assem., Strip Board, EN1000, External Firing Plate, Mounting, Terminal Strip Board
1		550014	Vault Closing Door Mechanism, "D"/T/LS/LF" Cabinet
1		510247	Cabinet, Control, Style "D"/T", w/CB
1		510248	Door, Cabinet, Control, Style "D"/T"
1		510257	Cabinet, Control, Style "LS/LF", w/CB
1		510258	Door, Cabinet, Control, Style "LS/LF"
1		700105	Manual, EN1000
1		421183	Logic Diagram, EN1000 Control
1		421210-011	Wiring Diagram, EN1000-SCR, "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 & TSI. As shipped unless otherwise specified. For 230 VAC Operation - Use Jumper #2 on T3 & TSI. For 575 VAC Operation - FACTORY WIRE ONLY. SEE VIEW "A". Replace T3 with P/N 311017. Wire per View "A". Use Jumper #1 between H2 & H3 on TSI. Use Resistor R74 (2000 Ohm, 10 Watt) in place of Jumper #1 between CTH2 & CTH3 on TSI. For 115 VAC or 380 VAC Operation - CONSULT FACTORY.
 - For Single Stage Pilot Operation** - Connect pilot switch to TSI-FS3 & TSI-GND. No jumpers required across TSI-FS1 & TSI-GND.
 - For Two Stage Pilot Operation** - Connect 1st stage pilot switch to TSI-FS1 & TSI-GND. Connect 2nd stage pilot switch to TSI-FS3 & TSI-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- (SCR): When used, connect customer provided Normally Closed (N.C.) Temperature Limit Switch (TLS) across TSI-TLS1/AUX1 & TSI-GND and remove jumper between TSI-TLS1/AUX1 & TSI-GND.
 - When external valve power is supplied to the control. Remove and insulate leads TSS-VL1 & TSS-VL2 on the Terminal Strip Board (PCB2), from T3-X1 & T3-X2. Connect external AC power supply (24-240 VAC) to TSI-VL1 & TSI-SV2/SV4/VL2. CAUTION: Do not overtighten TSS.
 - VALVE 3 OUTPUT USAGE:** TSI-SV5 & TSI-SV6 (Valve 3) can be used for either a Valve output or a Process output. When TSI-SV5 & TSI-SV6 is used as a Valve output use Jumper "A" on TSS. When TSI-SV5 & TSI-SV6 is used as a Process output use Jumper "B" on TSS. CAUTION: Do not overtighten TSS.
 - WARNING:** Use of Jumper "B" bypasses control relay contacts to allow a process output without an initiation. SEE MANUAL.
 - Connect TSI-L2/CTH4 to L2/H2 side of Welding Transformer Primary.
 - When Optional Program Lockout is specified by customer. Dial Plate A/N 600528-001 replaces A/N 600528. Add switch P/N 600531-001 and remove Hole Plug P/N 565003.
 - EN1000- (SCR): Remove all connections from previously existing firing circuits to L1, L2/H2, & H1 also SCR Gate leads & SCR Cathode leads. All previously existing surge Resistor or Rectifiers must be disconnected prior to installation of this control. CAUTION: On PCB2 Terminal Strip Board, Do NOT overtighten J5 & J6.

- 13. To convert the 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 the closing of cabinet door. When mounting Control Panel on side of cabinet, use clamp to secure J3 harness wires.
 - CAUTION: When changing the position of the Control Panel, be sure harness wires do NOT interfere with the closing of the cabinet door. Wires may pinch in between door & cabinet and cause damage to wiring.

- CAUTION - CONTROL WIRED FOR 460 VAC OPERATION - UNLESS OTHERWISE SPECIFIED.**
- SEE NOTE 2
- For 460 VAC Operation - Use Jumpers #1.
For 230 VAC Operation - Use Jumpers #2.
For 575 VAC Operation - FACTORY WIRE ONLY.
Jumper #1 is used between H2 & H3
Jumper #1 between CTH2 & CTH3 is removed & replaced by resistor, R74 (2000 Ohm, 10 Watt).
For 115 VAC or 380 VAC Operation - CONSULT FACTORY.
- NOTE:** PRIOR TO 10-1-00, FUSE F1 WAS P/N 307018, 6/10A, TYPE BBS 6/10.

NOTICE

FOR SERVICE ON THIS CONTROL

Contact Your Machine Dealer Or

ENTRON CONTROLS INC.

DIRECTLY: (630) 682-9600

465 EAST RANDY ROAD

CAROL STREAM, IL 60188

FAX # (630) 682-3374

REV.	DATE	DESCRIPTION	BY	DATE
1	4-2-96	...	DEC	DEC
2	7-7-96	...	DEC	DEC
3	7-7-96	...	DEC	DEC
4	7-7-96	...	DEC	DEC
5	7-7-96	...	DEC	DEC
6	7-7-96	...	DEC	DEC
7	7-7-96	...	DEC	DEC
8	7-7-96	...	DEC	DEC
9	7-7-96	...	DEC	DEC
10	7-7-96	...	DEC	DEC

ENTRON CONTROLS INC.

SCALE DATE DRAWN BY CHK'D BY APPROVED BY

4-2-96 DEC DEC

TOLERANCE UNLESS SPECIFIED

ANGLES: ± 1/2°

DECIMALS: ± .010

FRACTIONS: ± 1/64

DATE: 2-7-02 DEC

WIRING DIAGRAM, EN1000- (SCR), "D", "T", "LS", or "LF" CABINET

NEXT ASSM/USED ON: 421210-011

DRAWING NUMBER: 421210-011

REV: B

NO CIRCUIT CALIBRATION OR ADJUSTMENT EVER REQUIRED.