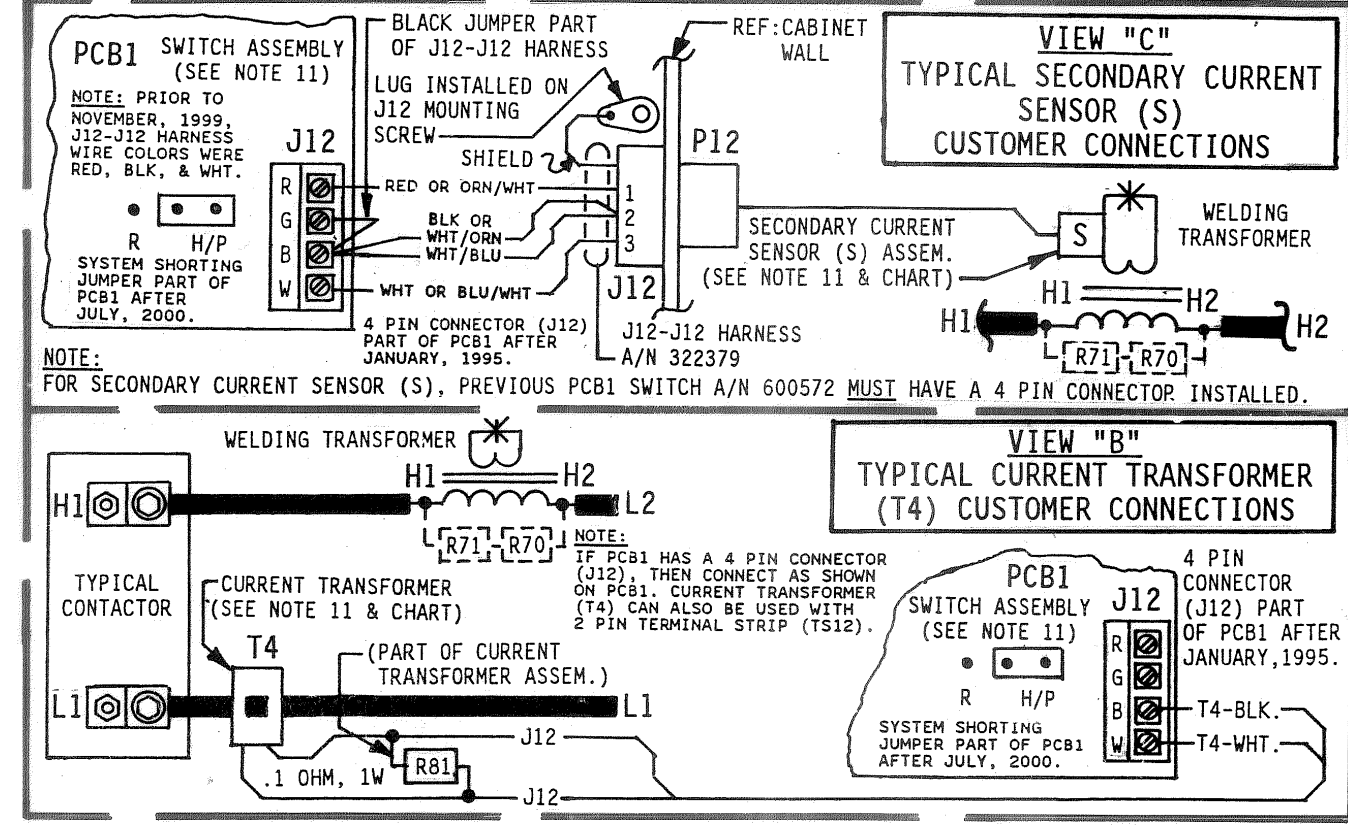


CAUTION - READ MANUAL & ALL NOTES BEFORE INSTALLING OR OPERATING CONTROL. SEE NOTE 1.
NO CIRCUIT CALIBRATION OR ADJUSTMENT EVER REQUIRED.

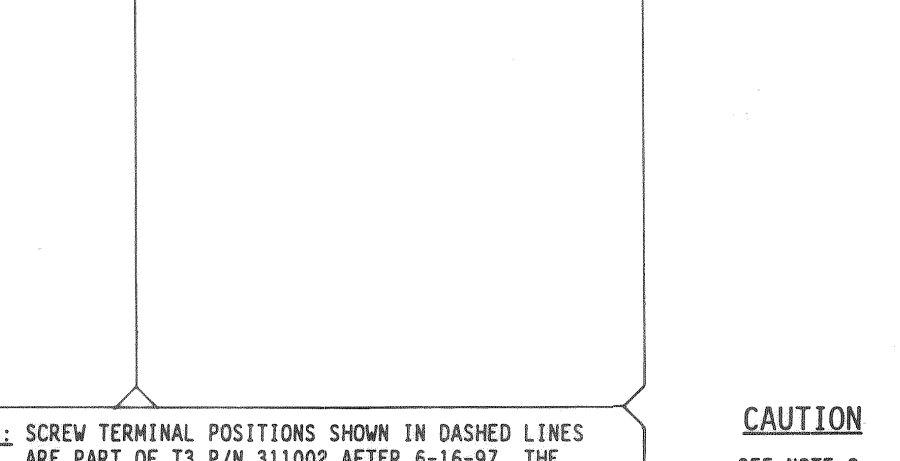
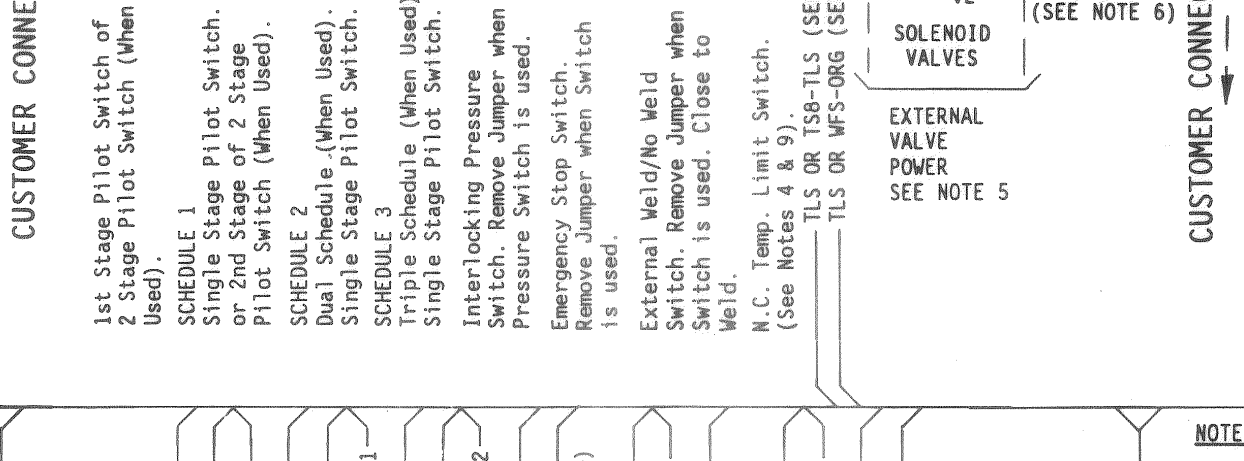
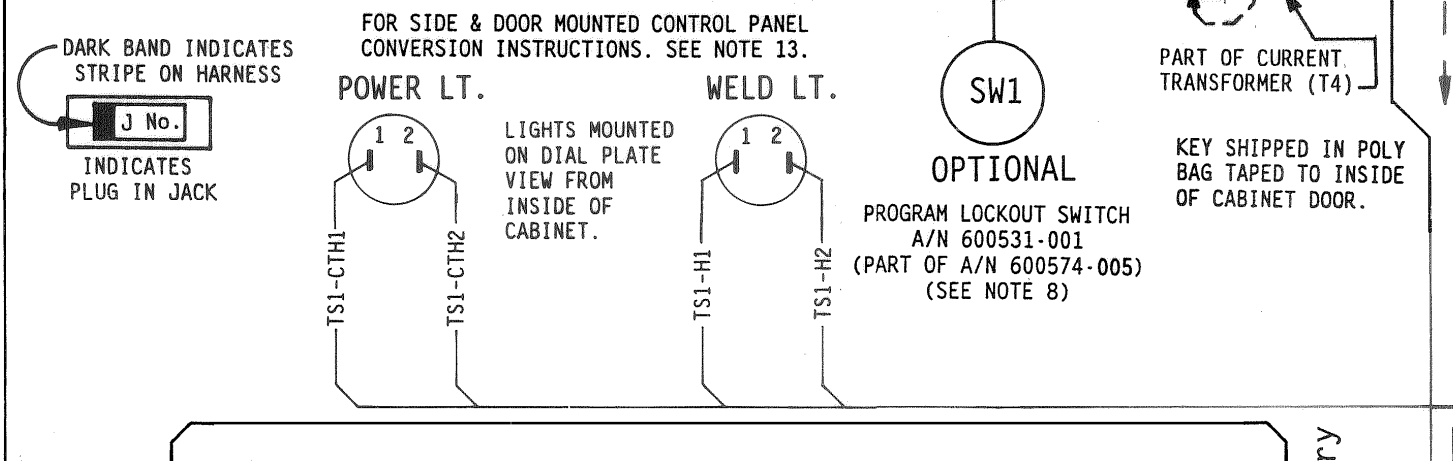
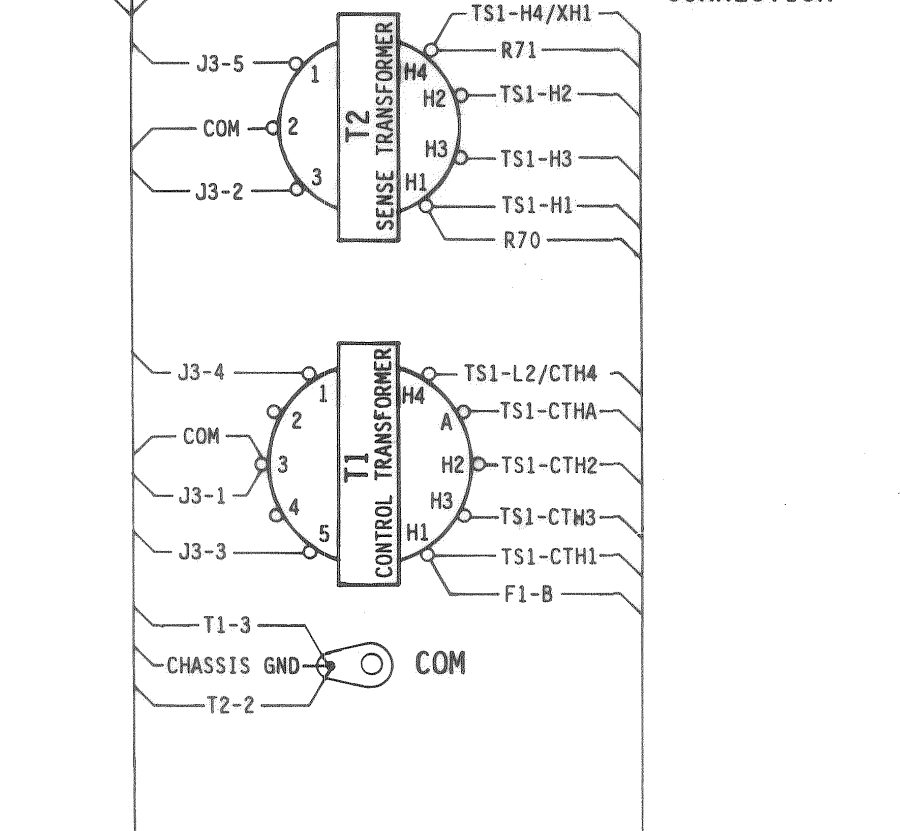
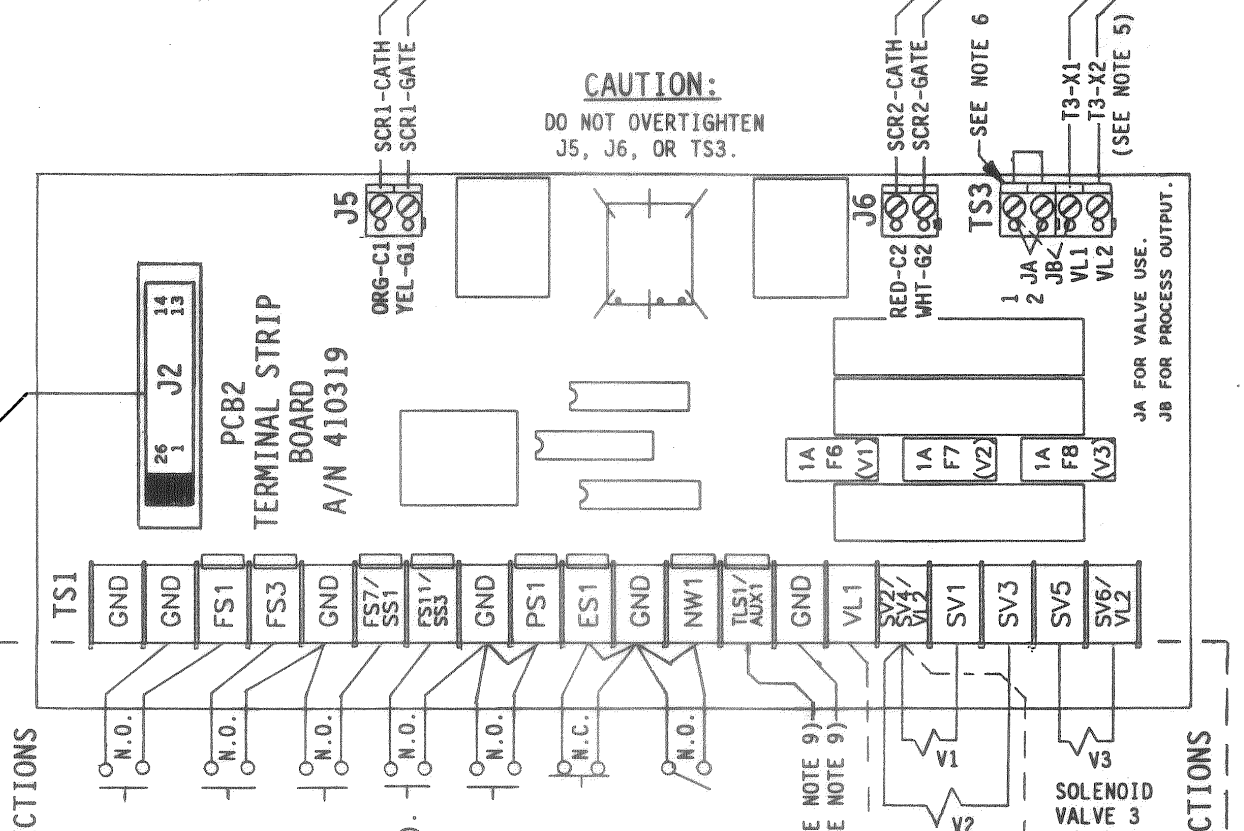
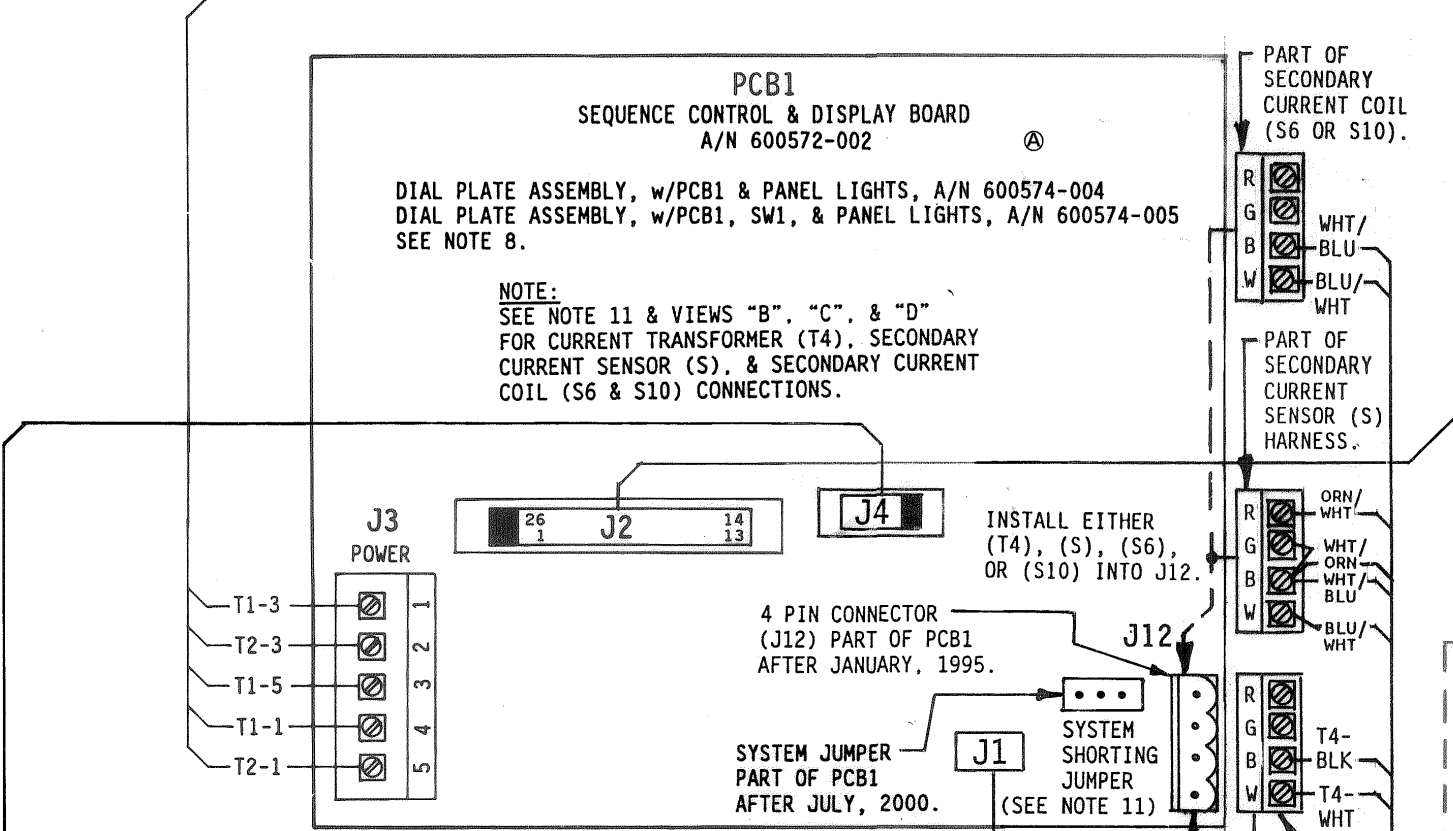
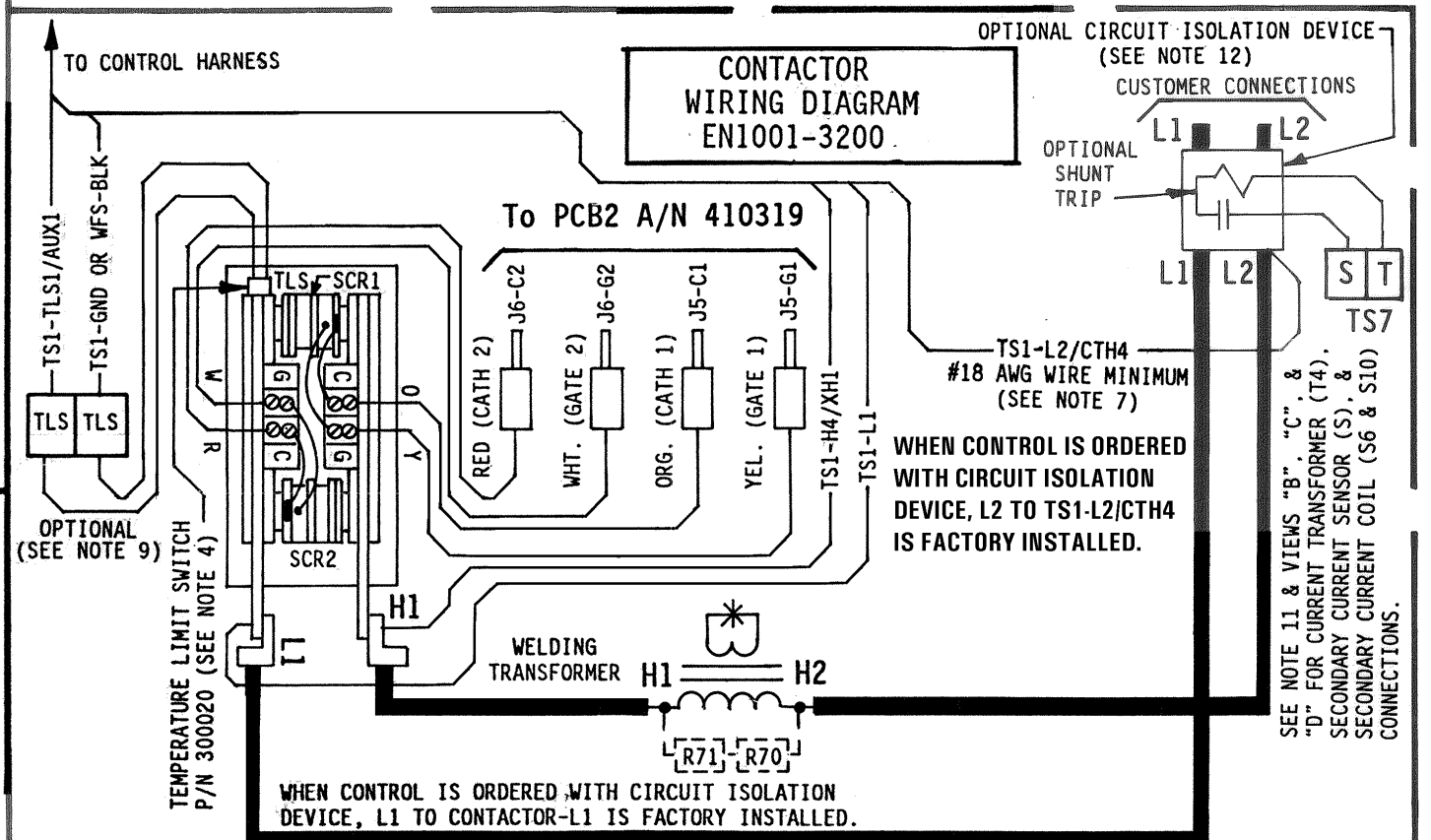
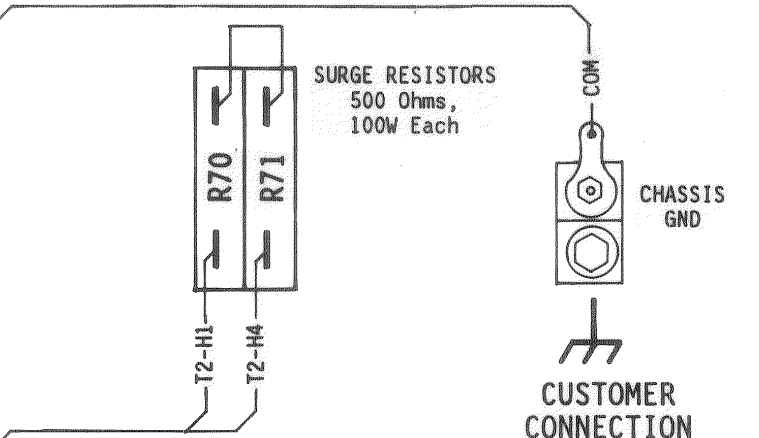
NOTICE
FOR SERVICE ON THIS CONTROL
Contact Your Machine Dealer Or
ENTRON CONTROLS LLC.
DIRECTLY: (864) 416-0190
601 HIGH TECH COURT
GREEN, SC 29650
FAX: (864) 416-0195

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 return to power this sign.

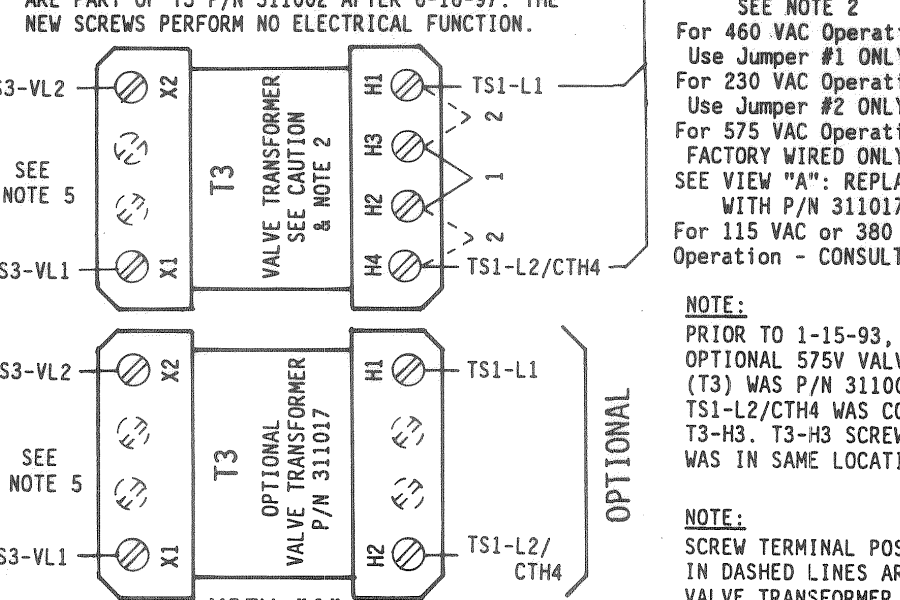
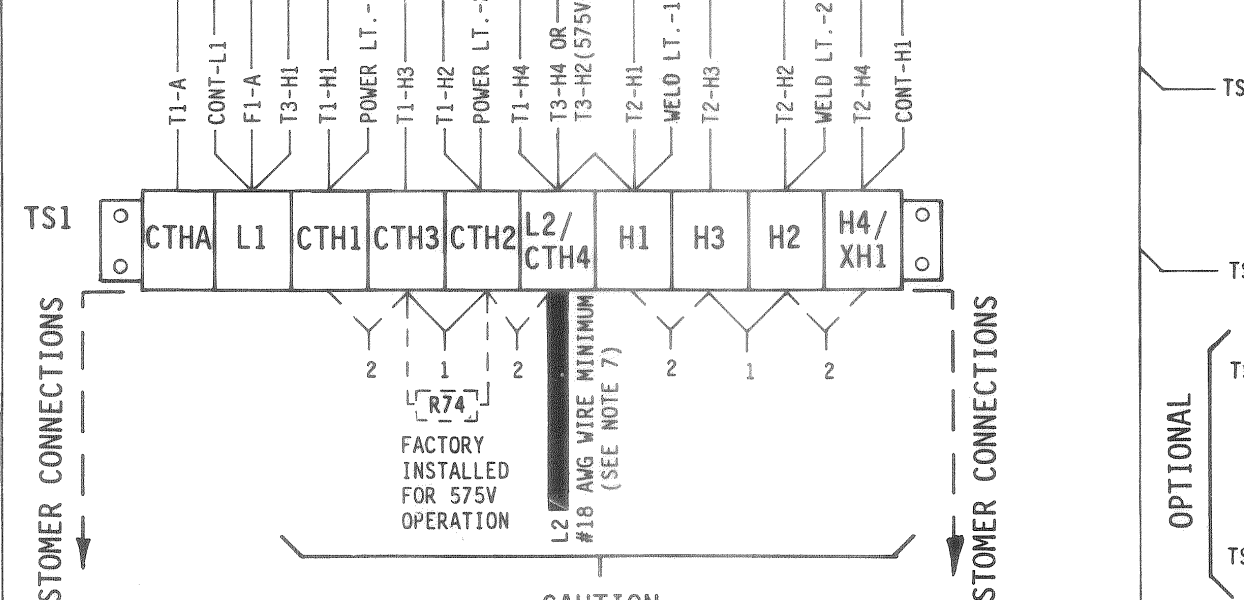
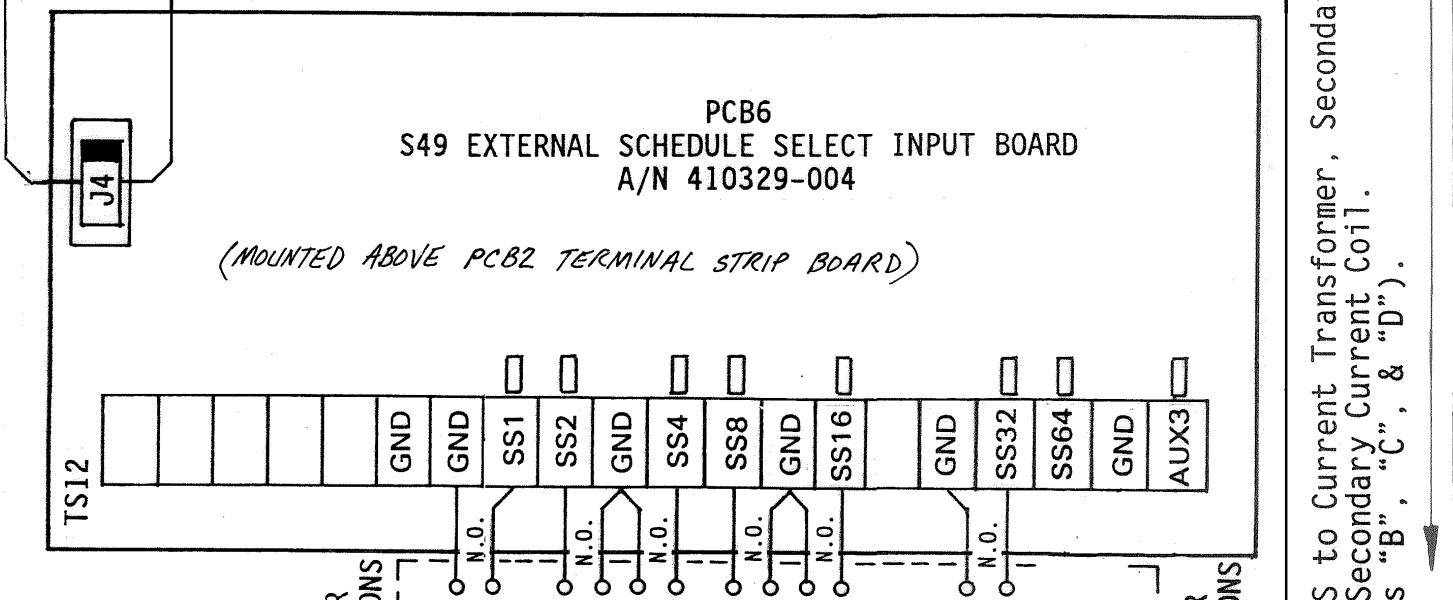
421269-030 A



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

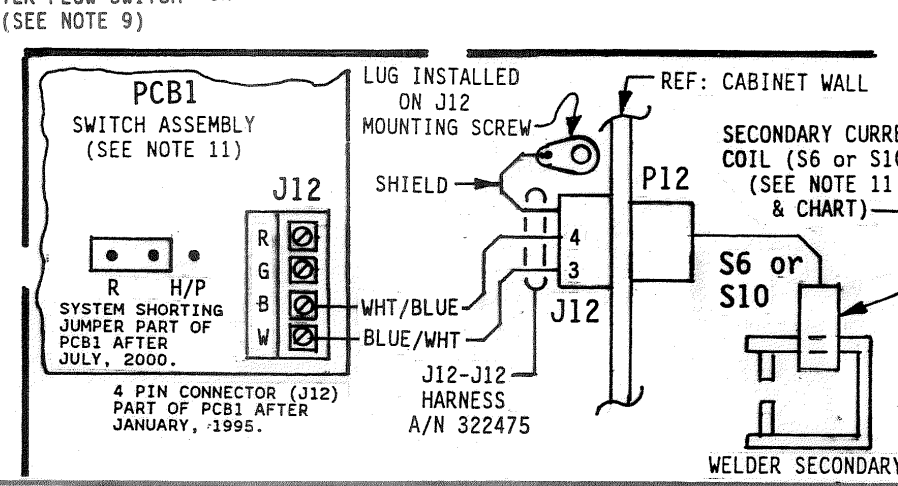
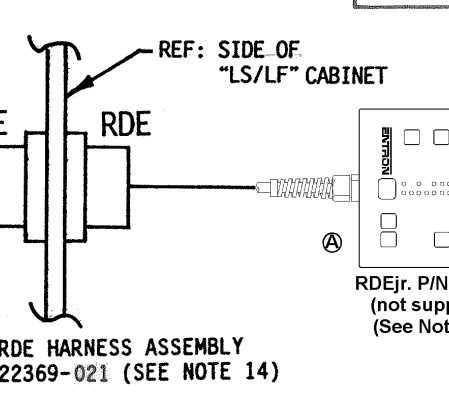


- NOTES:
1. It is recommended that control wiring... be physically separated from the high voltage wiring...
2. For 460 VAC Operation - Use Jumper #1 on T3 & T51...
3. For Single Stage Pilot Operation - Connect pilot switch to T51-F53 & T51-GND...
4. EN1001-3200, "LS/LF" CABINET: ENTRON supplies temperature limit switch (T51) P/N 300020...
5. When external valve power is supplied to the control...
6. VALVE 3 OUTPUT USAGE: T51-SV5 & T51-SV6 (Valve 3) can be used for either a Valve output or a Process output...
7. Connect T51-L2/CTH4 to L2/H2 side of Welding Transformer Primary...
8. When Optional Program Lockout Switch is specified by customer...
9. When T51 and WFS are used together...
10. CURRENT TRANSFORMER (T4) CONNECTIONS: Wire per view "B". Secondary Transformer coil (T4) shown installed on L1...
11. CURRENT TRANSFORMER (T4) CONNECTIONS: Wire per view "B". Secondary Transformer coil (T4) shown installed on L1...



CURRENT SENSING COIL/SENSOR APPLICATION CHART

COIL/SENSOR MODEL NUMBER	CURRENT TRANSFORMER OR SECONDARY CURRENT COIL P/N & CABINET SIZE	300A	500A	1200A	1500A	2200A
P2 - 200:5	#600575-004	#600575-003	X	X	X	X
P5 - 500:5	#600576-004	#600576-003	X	X	X	X
P10 - 1000:5	#600577-004	#600577-003	X	X	X	X
S	#600590 & #322379	#600590 & #322379	X	X	X	X
S6	#600567 & #322475	#600567 & #322475	X	X	X	X
S10	#600568 & #322475	#600568 & #322475	X	X	X	X



CAUTION
SEE NOTE 2
For 460 VAC Operation - Use Jumper #1 ONLY.
For 230 VAC Operation - Use Jumper #2 ONLY.
For 575 VAC Operation - FACTORY WIRED ONLY.
SEE VIEW "A": REPLACE T3 WITH P/N 311017.
For 115 VAC or 380 VAC Operation - CONSULT FACTORY.

CAUTION
SEE NOTE 5
FOR 575 VAC OPERATION SEE NOTE 2

CAUTION
SEE NOTE 2
FOR 575 VAC OPERATION SEE NOTE 2

PARTS LIST - CONTROL SECTION

QTY.	DESIG.	PART NO.	DESCRIPTION
1	PCB1	600574-004	Assem., Dial Plate, w/Sw. Assem., EN1001, Consisting of:
1	SW1	600574-005	Assem., Dial Plate, w/Sw. Assem. & Keylock, EN1001, Consisting of:
1		600572-002	Assem., Switch, Sequence Control & Display Board
1		600531-001	Assem., Switch, Keylock, Momentary, SPST
1		540245	Illustrated Panel, Dial Plate, EN1001
1		515104	Panel, Display Window, Red Filter, EN1001
1		565003	Hole Plug, 3/4" Diam., Black

PARTS LIST - CONTACTOR SECTION

QTY.	DESIG.	PART NO.	DESCRIPTION
1	PMR.LT.	305001	Lamp, Neon, Red, 230V
1	M.LD.LT.	305002	Lamp, Neon, Clear, 230V
1	J2-J2	322326	Assem., Harness, Ctrl Bd. to Term. Bd.
1	J3-J4-RDH	322325	Assem., Harness, Power, EN1000/EN1001
1		322369-021	Assem., Harness, Ctrl Bd to S49 Schedule Select Bd, 34" Lg.

EN1001-3200

QTY.	DESIG.	PART NO.	DESCRIPTION
1	T51	335067	Terminal Strip, 10 Pin, (Part of J3 Harness)
1	T57	335044	Terminal Strip, 2 Pin
1	T58	335017	Terminal Strip, 2 Pin, (Part of 1800/2200A Cont. Assem.)
1	T1	310001	Transformer, Control, (Part of J3 Harness)
1	T3	310002	Transformer, Valve, 250VA
1	T3	311002	Transformer, Valve, 150VA
1	T3	311017	Transformer, Valve, 150VA, 575V
1	T3	311022	Transformer, Valve, 250VA
2	R70,71	229016	Resistor, Power, Surge, 500 Ohm, 100W
1	R74	600048	Assem., Resistor, Power, 2000 Ohm, 10W, (For 575V)
1	R81	210198	Resistor, Metal Glide, 1 Ohm, 1W, (Part of Current Xfer Assem.)
1	F1	330821	Fuseholder, 1 Pole, Mini, 600V
1	F1	307024	Fuse, Control, 1/4A, FNO-R-1/4 or KLR-R-1/4
1	F6,7,8(PCB2)	307022	Fuse, 1 Amp, 510W, 2AG, (Part of 410319)
1	(R70,71)	325024	Assem., Wire, Surge Resistor, 10 Ga., Black
2	(T3)	325149	Assem., Wire, Valve Transformer, 22 Ga., Black

EN1001-3200 (continued)

1		600533-007	Assem., Contactor, SCR, Water, 3200A, 460/575V, w/TLS
1	SEE CHART T4	SEE CHART	Assem., Transformer, Current, 200:5, P2
1	SEE CHART T4	SEE CHART	Assem., Transformer, Current, 1000:5, P10
1	SEE CHART S6	SEE CHART	Secondary Current, 6" Coil Rogowski
1	SEE CHART S10	SEE CHART	Secondary Current, 10" Coil Rogowski
1	J2-J2	346004	Lug, Screw, Chassis GND, 2/Wire
1	PCB2	410319	Assem., PCB, Terminal Strip Board, EN1000/EN1001
1	(PCB2)	510236	Plate, Mounting, Terminal Strip Board
1		525035	Bracket, Mounting, 300A Thyristor Contactor
1		525136	Bracket, Mounting, 1800/2200A Contactors
1		530821	Plate, Mounting, 600/1200A Contactors
1	TLS	300020	Switch, Temperature Limit, (N.C.), (Part of 300A Contactor & 1800/2200A Contactor Assem.)
1	PCB6	410329-004	Assem., PCB, External Schedule Select S49 Input Board
1		900045	Hose Clamp, 3/8" I.D.
1		566010	Hose Clamp, 3/8" Hose
1		600179	Assem., Water Fitting, 3/8" Hose
1	WFS	600590	Assem., Water Flow Switch, 3/8" Hose
1	J2-J2	600590	Assem., Secondary Current Sensor (S)
1	SEE CHART	322379	Assem., Harness, Secondary Current Sensor
1	SEE CHART	550014	Assem., Harness, Secondary Current Sensor
1		510257	Cabinet, Control, Style "LS/LF", w/CB
1		510258	Door, Cabinet, Control, Style "LS/LF" Circuit Breaker, Pole, V, (See Note 12)
1	C/B		Assem., V, (See Note 12)
1		700202	Manual, RDH Options
1		700120	Manual, EN1001
1		421271	Log Diagram, EN1001 Control
1		421269-030	Wiring Diagram, EN1001/S49/SP-3200/RDH, "LS/LF" Cab, SP-Cust Supplied C/B

- Optional, See Note 12.
Optional Keylock when specified by customer. See Note 8. Pack Key in Poly Bag 900148 & attach to Door w/Yellow Tape 900118.
Optional or addition of parts when 575V control is specified.
Supplied when optional Shunt Trip (ST), 115V is specified.
Optional Water Flow Switch Assembly & T58. 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.

MANUFACTURING INSTRUCTIONS:
See Drawings #440365, #515112, #515114, & #600552 for Mechanical Assembly Instructions of EN1001 "LS/LF" Cabinet.
See Drawing #600526 for Layout/Assem. of Front Panel.
See Drawing #440437 for Current Transformer Assembly.
See Drawing #440458 for Secondary Current Sensor Assembly.
SEE DRAWING #440478 FOR SECONDARY CURRENT COIL ASSEMBLY.

REVISION HISTORY

REV	AUTH	DESCRIPTION	DATE	CHK'D BY	DATE
		ORIGINAL RELEASE			

ENTRON CONTROLS INC.

SCALE	DATE	DRAWN BY	CHK'D BY	APPROVED BY
	11-03-08	DPDH		

TOLERANCE UNLESS SPECIFIED

ANGLES	DECIMALS	FRACTIONS	REV	LTR	APPROVED BY
± .5°	± .010	± 1/64			

DATE: 7/14/11 DCS

WIRING DIAGRAM, EN1001/S49/SP-3200/RDH, "LS", OR "LF" CABINET, SP = CUSTOMER SUPPLIED C/B AND XTOR MTG.

REV	ASSM/USED ON	DRAWING NUMBER	REV
		421269-030	A