

NO CIRCUIT CALIBRATION OR ADJUSTMENT EVER REQUIRED.

CAUTION
Control Shipped Wired for 460 VAC
Unless Otherwise Specified - See Note 2.

PARTS LIST - CONTROL SECTION

421376

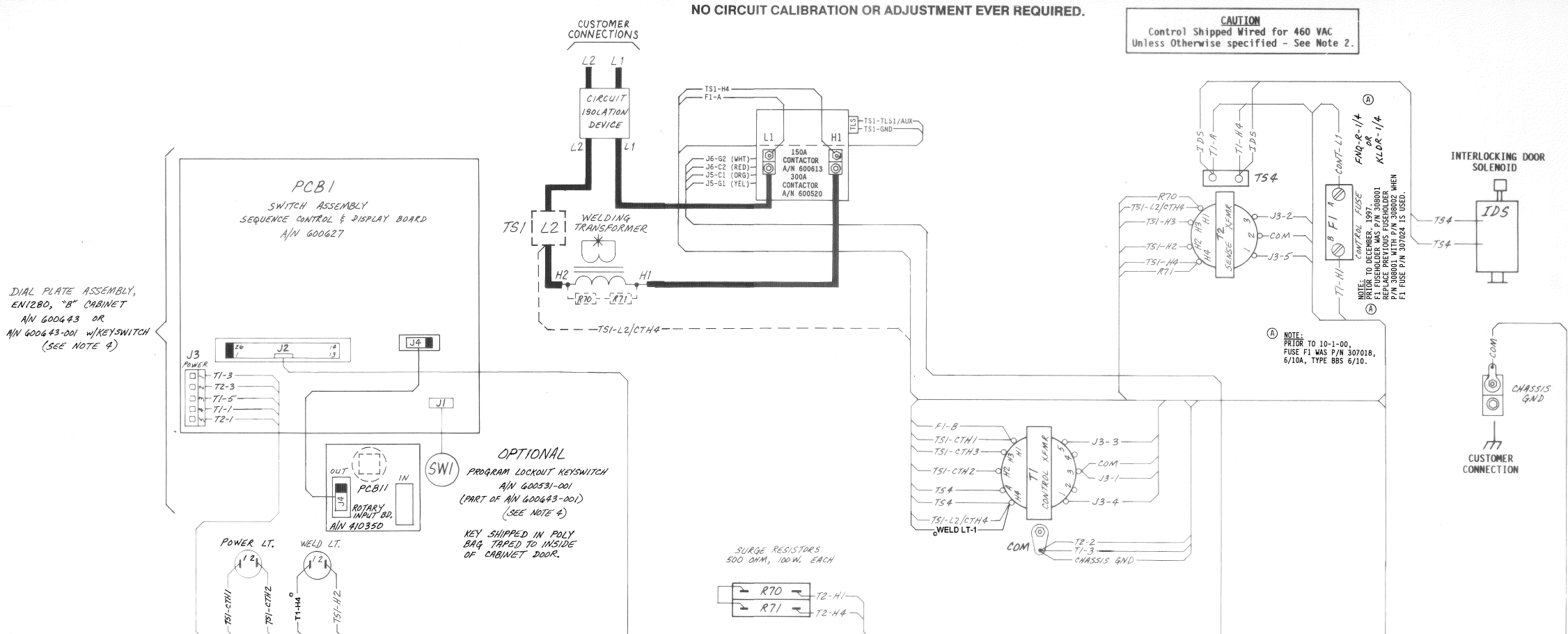
QTY.	DESIG.	PART NO.	DESCRIPTION
1	PCB1	600643	Assem., Dial Plate, w/Sw. Assem., EN1280, Consisting of:
1		600643-001	Assem., Dial Plate, w/Sw. & Keylock, EN1280, Consisting of:
1	SW1	600627	Assem., Switch, Sequence Control & Display Board
1		600531-001	Assem., Switch, Keylock, Momentary, SPDT
1		540287	Illustrated Panel, Dial Plate, EN1280
1		515104	Panel, Display, Window, Red Filter, EN1280
1		565003	Hole Plug, 3/4" Diam., Black, (For Keylock Switch Hole)
1	PCB11	410350	Assem., PCB, ROTARY INPUT BOARD
1		319008	Knob, Skirted Round, w/o Indicator, Black
1	J4-J4	322447	Assem., Harness, Ctrl Bd. to Rotary Input Bd., 7" Long
1	PWR.LT.	305001	Lamp, Neon, Red, 230V
1	WLD.LT.	305002	Lamp, Neon, Clear, 230V
1	J2-J2	322349	Assem., Harness, Control Bd. to Terminal Strip Bd.
1	J3	322434-002	Assem., Harness, Power, EN1280 "B" Cabinet

PARTS LIST - CONTACTOR/POWER SECTION

QTY.	DESIG.	PART NO.	DESCRIPTION
1	TS1	600630	Terminal Block, 1 Pole, 600V
1	TS4	335007	Terminal Strip, 2 Pin, (For IDS), (Part of J3 Harness)
1	T1	310001	Transformer, Control, (Part of J3 Harness)
1	T2	310002	Transformer, Sense, (Part of J3 Harness)
1	F1	308010	Fuseholder, 1 Pole, Mini, 600V
1	F1	307024	Fuse, Control, 1/4A, FNQ-R-1/4 or KLDR-1/4
2	R74	600048	Resistor, Power, 2000 Ohm, 10W, (For 575V)
2	R70, 71	225016	Resistor, Power, Surge, 500 Ohm, 100W
1		325024	Assem., Wire, Surge Resistor, 18 Ga., Black
1		600613	Assem., Contactor, Thyristor, Air, 150A, 460/575V, w/TLS
1		600520	Assem., Contactor, Thyristor, Air, 300A, 460/575V, w/TLS
1		300020	Switch, Temp. Limit, (N.C.), (Part of 600613/600520)
1	PCB2	410333-008	Assem., PCB, Terminal Strip Bd., EN1280, "B" Cabinet
1	(PCB2)	510236-001	Plate, Mounting, Terminal Strip Board
1		346004	Lug, Screw, Chassis GND, 2/0 Wire
1		565001	Hole Plug, 1" Diam., Black
1	IDS	600044	Assem., Interlocking Door Solenoid
1		314001	Coil Assem., Only, IDS
1		510001	Cabinet, Control Style "B", Bench
1		510004	Door, Cabinet, "B", Bench
4		580001	Jumper, Terminal Strip Board, TS1, Voltage #1 & #2
1		700145	Manual, EN1280
1		421351	Logic Diagram, EN1280 Control
1		421376	Wiring Diagram, EN1280-Series, "B" Cabinet

⊕ Optional Keylock, when specified by customer. See Note 4. Pack Key in Poly Bag 900148 & attach to Door w/Yellow Tape 900118.
* Substitution or addition of parts when 575V control is specified.

MECHANICAL INSTRUCTIONS
See Drawing #600567 for Mechanical Assembly Instructions.
See Drawing #440269 for Packing Instructions, "B" Cabinet.
See Drawing #440353 for Label Locations, "B" Cabinet.



DIAL PLATE ASSEMBLY,
EN1280, "B" CABINET
A/N 600643 OR
A/N 600643-001 w/KEYSWITCH
(SEE NOTE 4)

PCB1
SWITCH ASSEMBLY
SEQUENCE CONTROL & DISPLAY BOARD
A/N 600627

OPTIONAL
PROGRAM LOCKOUT KEYSWITCH
A/N 600531-001
(PART OF A/N 600643-001)
(SEE NOTE 4)

KEY SHIPPED IN POLY
BAG, TAPED TO INSIDE
OF CABINET DOOR.

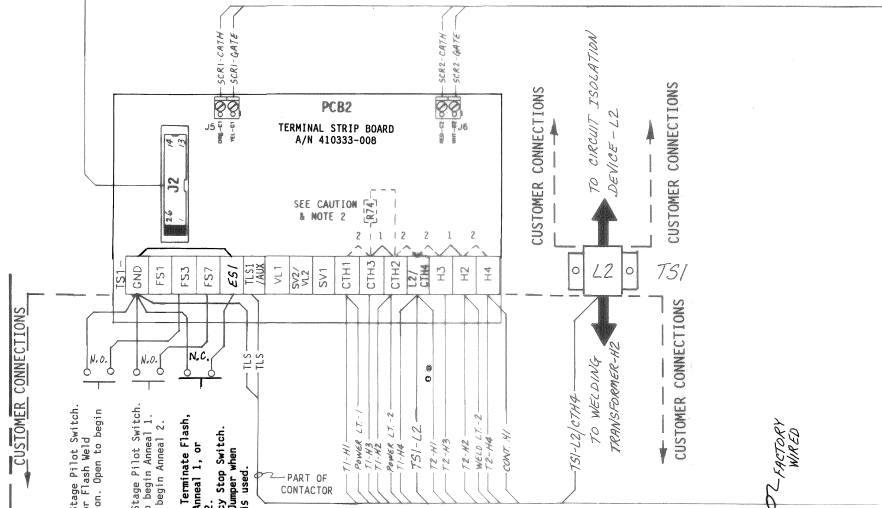
POWER LT.
WELD LT.

Switches & Lights shown
as viewed from inside
of Cabinet.

SURGE RESISTORS
500 OHM, 100W, EACH

NOTE:
PRIOR TO 10-1-00,
FUSE F1 WAS P/N 307018,
6/10A, TYPE BBS 6/10.

- 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 Jumpers #1 on TS1. As shipped unless otherwise specified.
For 230 VAC Operation - Use Jumpers #2 on TS1.
For 575 VAC Operation - FACTORY WIRED ONLY.
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.
 - DESCRIPTION OF OPERATION:
Close FS3 to GND to begin Flash Weld. Percent Current during Flash is set to 99%. Open FS3 to GND to begin a timed (in cycles) upset. Upset Time and Percent Current can be varied by changing Front Panel variables.
Close FS7 to GND to begin Anneal 1. Open FS7 to GND to begin a timed (in seconds) Anneal 2. Anneal 2 time ONLY can be effected by Heat and Cool Time (in cycles). Anneal 1 Percent Current, Heat (in cycles), and Cool (in cycles) can all be effected by changing Front Panel variables.
Open ES1 to GND to terminate Flash, Upset, Anneal 1, or Anneal 2.
 - When Optional Program Lockout is specified by customer. Dial Plate A/N 600643-001 replaces A/N 600643. Add Switch A/N 600531-001 & remove Hole Plug P/N 565003.
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 - EN1280-150B & EN1280-300B:
ENTRON supplies Temperatures Limit Switch (TLS) P/N 300020 and provides connections to TS1-TLS1/AUX & TS1-GND. Jumper not required between TS1-TLS1/AUX & TS1-GND.
NOTE: TLS Thyristor will open at temperatures greater than or equal to 150° F.



WARNING: HIGH VOLTAGE
VOLTAGES PRESENT IN THIS CONTROL CAN CAUSE SEVERE OR FATAL INJURIES.
NOTE: EVEN THOUGH SUPPLY POWER TO THIS UNIT HAS BEEN DISCONNECTED, THERE MAY BE VOLTAGES IN THIS CONTROL ORIGINATING FROM OTHER SOURCES.
FOR ALL VOLTAGE POTENTIAL TO BE REMOVED FROM THIS CONTROL, POWER MUST BE REMOVED FROM ALL EXTERNAL CONTROL CIRCUITS CONNECTED TO TERMINALS IN THIS CABINET.

FOR SERVICE ON THIS CONTROL CONTACT YOUR MACHINE DEALER OR
ENTRON CONTROLS INC.
DIRECTLY: (630) 882-9800
445 EAST RANDY ROAD
CAROL STREAM, IL 60188
FAX # (630) 882-3374

REV	AUTH	DESCRIPTION	DATE	CHK'D BY	DATE
1		ORIGINAL RELEASE			
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ENTRON CONTROLS INC

SCALE	DATE	DRAWN BY	CHK'D BY	APPROVED BY
	7-17-98	JEC	DEC	
TOLERANCE UNLESS SPECIFIED				
ANGLES:	± 1/2°	REV LTR	APPROVED BY	
DECIMALS:	± .010	C	DCS	
FRACTIONS:	± 1/64	DATE	2/16/09	

WIRING DIAGRAM, EN1280-SERIES, "B" CABINET

REV	AUTH	DESCRIPTION	DATE	CHK'D BY	DATE
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EN1280-300B EN1280-150B

DRAWING NUMBER 421376-1

REV