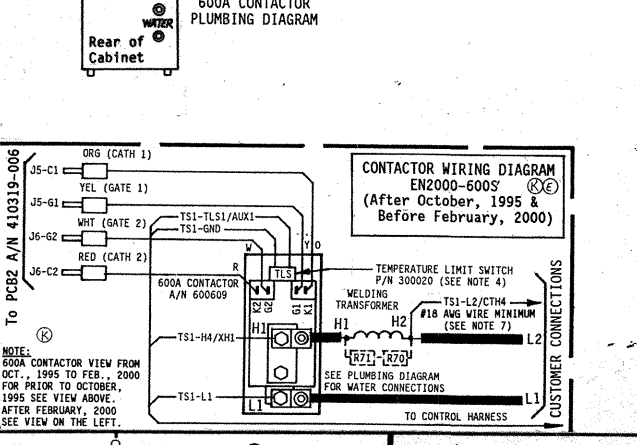
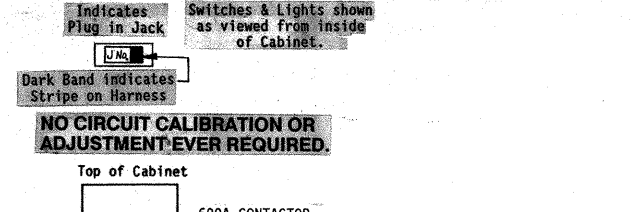
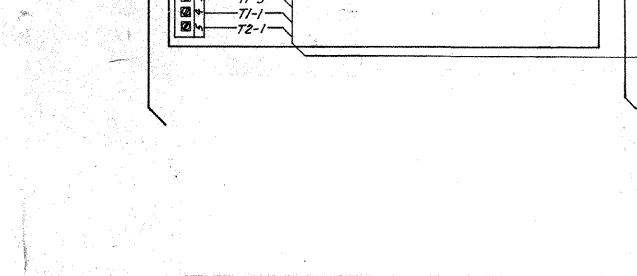
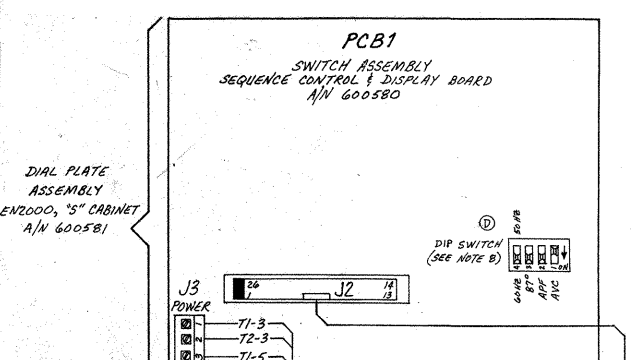


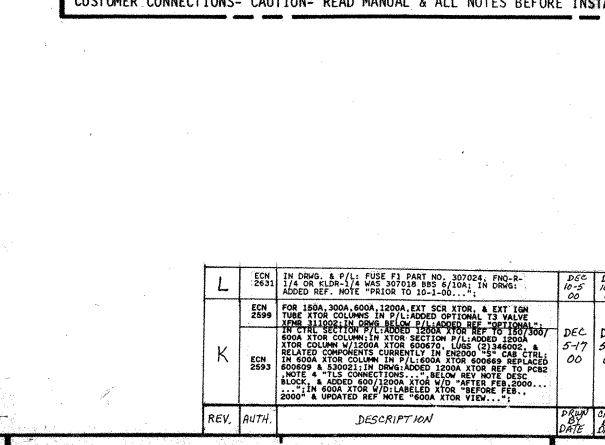
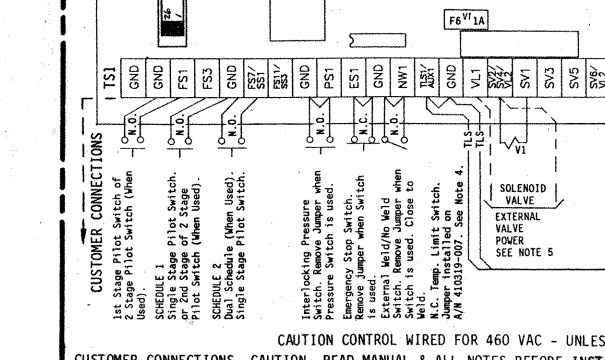
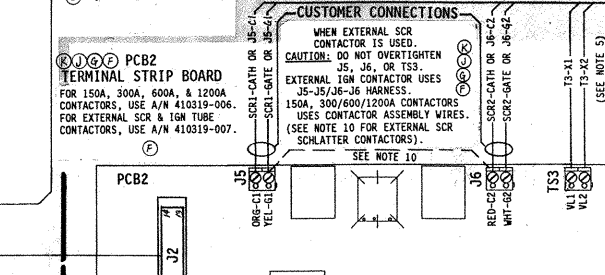
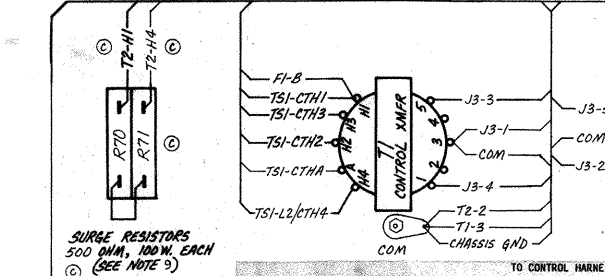
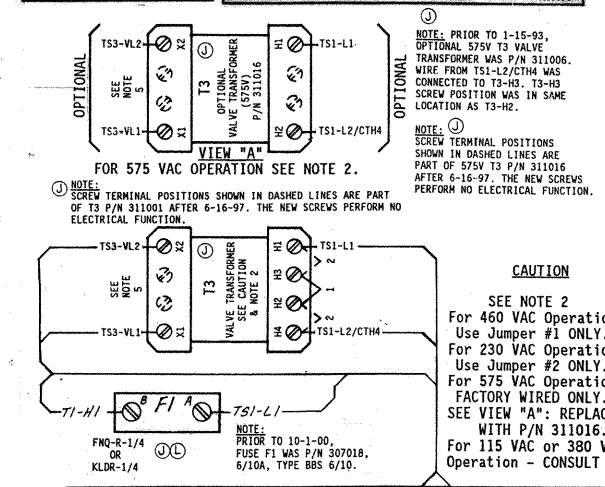
- NOTES:
- It is recommended that control wiring (i.e., initiation, pressure switch, etc.) be physically separated from the high voltage wiring (115 volts or higher).
  - For 460 VAC Operation - Use Jumper #1 on T3 & T51. As shipped unless otherwise specified. For 230 VAC Operation - Use Jumper #2 on T3 & T51. For 575 VAC Operation - FACTORY WIRED ONLY. SEE VIEW "A". Replace T3 with P/N 311016. Wire per View "A". Use Jumper #1 between H2 & H3 on T51. Use Resistor R74 (2000 Ohm, 10 Watt) in place of Jumper #1 between CTH2 & CTH3 on T51. For 115 VAC or 380 VAC Operation - CONSULT FACTORY.
  - For Single Stage Pilot Operation - Connect pilot switch to T51-F53 & T51-GND. No Jumpers required across T51-F51 & T51-GND.
  - For Two Stage Pilot Operation - Connect 1st stage pilot switch to T51-F51 & T51-GND. Connect 2nd stage pilot switch to T51-F53 & T51-GND.
  - For DUAL CONTROL/DUAL CURRENT (Dual Weld/Dual Heat) or External Schedule Selection, SEE MANUAL.
  - EN2000-S (IGN) & EN2000-S (SCR): When used, connect customer provided Normally Closed (N.C.) Temperature Limit Switch (TLS) across T51-TLS1/AUX1 & T51-GND and remove jumper between T51-TLS1/AUX1 & T51-GND. EN2000-150S, EN2000-300S, EN2000-600S, & EN2000-1200S: ENTRON supplies Temperature Limit Switch (TLS) P/N 300020 and provides connections to T51-TLS1/AUX1 & T51-GND. Jumper not required between T51-TLS1/AUX1 & T51-GND. NOTE: TLS Thyristor will open at temperatures greater than or equal to 150°F.
  - When external valve power is supplied to the control. Remove and insulate leads T53-VL1 & T53-VL2 on the Terminal Strip Board (PCB2), (from T3-X1 & T3-X2). Connect external AC power supply (24-240 VAC) to T51-VL1 & T51-SV2/SV4/VL2. CAUTION: Do not overtighten T53.
  - Connect T51-L2/CTH4 to L2/H2 side of Welding Transformer Primary.
  - The Automatic Voltage Compensation (AVC), Automatic Power Factor (APF), 87° Delayed Firing, and 50Hz/60Hz functions are determined by the settings of the four position DIP switch on PCB2 (A/N 600580). As shipped from the factory, AVC is off, APF is on, 87° Delayed Firing is on, and 60Hz operation is selected. To change any of these functions, see instructions in the manual.
  - EN2000-S (IGN) & EN2000-S (SCR): Remove all connections from previously existing firing circuits to L1, L2/H2, & H1 also Ignitor leads or SCR Gate leads & SCR Cathode leads. All previously existing surge Resistors or Rectifiers must be disconnected prior to installation of this control. CAUTION: On EN2000-S (SCR), Do not overtighten J5 & J6.
  - For External SCR Contactor firing with SCHLATTER P/N S55.5, ES65.5, & ES130 Contactors. Do NOT make J5 & J6 connections as shown on PCB2. See EN2000-S (SCR) Contactor Wiring Diagram with SCHLATTER Contactors. Install Jumper on PCB2 Terminal Strip Board between J5-2 (Yellow) & J5-1 (Red). Make connections from J5-1 (Orange) & J6-2 (White) on PCB2 to SCHLATTER Contactor per correct External SCR Contactor Wiring Diagram.
  - CAUTION: Do not set Current Control below 40% for 230 Volt Operation with Ignitron Tube Contactor.



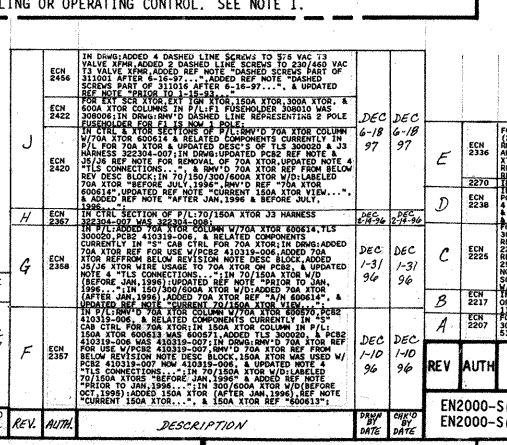
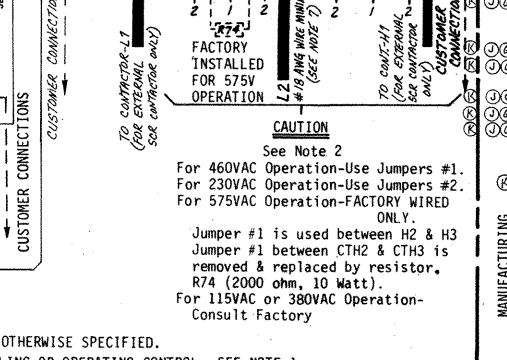
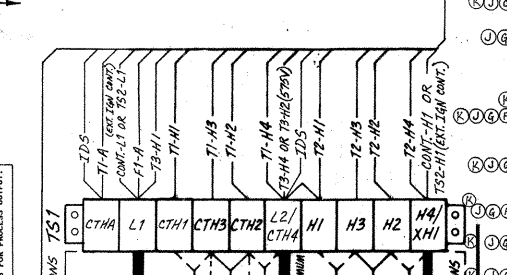
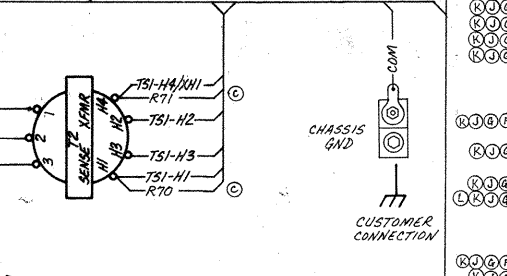
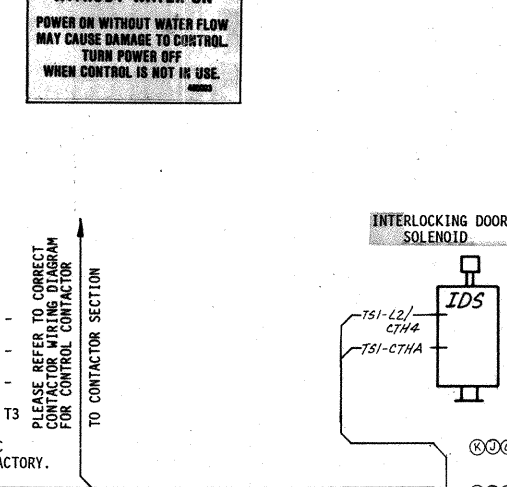
**FOR SERVICE ON THIS CONTROL CONTACT YOUR MACHINE DEALER OR ENTRON CONTROLS INC. DIRECTLY: (650) 682-9600**

**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.

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



**CAUTION**  
DO NOT OPERATE WITHOUT WATER ON  
POWER ON WITHOUT WATER FLOW MAY CAUSE DAMAGE TO CONTROL. TURN POWER OFF WHEN CONTROL IS NOT IN USE.



QTY.	DESIG.	PART NO.	DESCRIPTION
1	SW1	600581	Assem., Dial Plate, EN2000, Consisting of: Assem., Switch, Sequence Control & Display Bd.
1		540244	Illustrated Panel, Dial Plate, EN2000
1		515104	Panel, Display Window, Red Filter, EN2000
1	J2-J2	322303	Assem., Harness, Control Bd. to Terminal Bd.
1	J3	322304-007	Assem., Harness, Power, 150A, 300/600/1200A Cont's
1	J3	322304-008	Assem., Harness, Power, External IGN Tube Cont's
1	J3	322304-009	Assem., Harness, Power, External SCR Contactors

QTY.	DESIG.	PART NO.	DESCRIPTION
1	TS1	335034	Terminal Strip, 10 Pin, (Part of J3 Harness)
1	T3	311002	Transformer, Valve, 150VA
1	T1	310001	Transformer, Control, (Part of J3 Harness)
1	T2	310002	Transformer, Sense, (Part of J3 Harness)
1	T3	311001	Transformer, Valve, 50VA
1	T3	311016	Transformer, Valve, 50VA, 575V
1	(J5-J5/J6-J6)	322311	Assem., Harness, IGN Firing Module to Term. Bd.
2	R70, 71	225016	Resistor, Power, Surge, 500 Ohm, 100W
2	R72, R73 (PCB3)	220055	Resistor, Ignitor, 5 Ohm, 50W, (Part of 410318)
1	R74	600048	Assem., Resistor, Power, 2000 Ohm, 10W, (For 575V)
1	F1	308010	Fuseholder, 1 Pole, Mini, 600V
1	F1	307024	Fuse, Control, 1/4A, FNQ-R-1/4 or KLD-R-1/4
1	F1	307022	Fuse, 1 Amp, 5/16" Blow, 2AG, (Part of 410319-006 & 410319-007)
1	F4, F5 (PCB3)	307010	Fuse, Ignitor, 6 Amp, BAF 6, (Part of 410318)
1	(R70, 71)	325191	Assem., Wire, Surge Resistor, 18 GA., Black
2	(T3)	325149	Assem., Wire, Valve Transformer, 22 GA., Blk.

QTY.	DESIG.	PART NO.	DESCRIPTION
1	TS1	335034	Terminal Strip, 10 Pin, (Part of J3 Harness)
1	T3	311002	Transformer, Valve, 150VA
1	T1	310001	Transformer, Control, (Part of J3 Harness)
1	T2	310002	Transformer, Sense, (Part of J3 Harness)
1	T3	311001	Transformer, Valve, 50VA
1	T3	311016	Transformer, Valve, 50VA, 575V
1	(J5-J5/J6-J6)	322311	Assem., Harness, IGN Firing Module to Term. Bd.
2	R70, 71	225016	Resistor, Power, Surge, 500 Ohm, 100W
2	R72, R73 (PCB3)	220055	Resistor, Ignitor, 5 Ohm, 50W, (Part of 410318)
1	R74	600048	Assem., Resistor, Power, 2000 Ohm, 10W, (For 575V)
1	F1	308010	Fuseholder, 1 Pole, Mini, 600V
1	F1	307024	Fuse, Control, 1/4A, FNQ-R-1/4 or KLD-R-1/4
1	F1	307022	Fuse, 1 Amp, 5/16" Blow, 2AG, (Part of 410319-006 & 410319-007)
1	F4, F5 (PCB3)	307010	Fuse, Ignitor, 6 Amp, BAF 6, (Part of 410318)
1	(R70, 71)	325191	Assem., Wire, Surge Resistor, 18 GA., Black
2	(T3)	325149	Assem., Wire, Valve Transformer, 22 GA., Blk.
1		600613	Assem., Contactor, Thyristor, Air, 150A, 460/575V, w/TLS
1		600520	Assem., Cont., Thyristor, Air, 300A, 460/575V, w/TLS
1		346004	Lug, 5/16" Bolt to 2/0 Wire, 600A Cont., L1 & H1
1		600669	Assem., Cont., Thyristor, Water, 600A, 460/575V
1		300020	Switch, Temp. Limit, (Part of 600520 & 600613)
1		346002	Lug, 5/16" Bolt to 4/0 Wire, 1200A Cont., L1 & H1
1		410319-006	Assem., Cont., Thyristor, Water, 1200A, 460/575V
1		410319-007	Assem., PCB, Terminal Strip Board, EN2000
1		410318	Assem., PCB, IGN Firing Module
1		510236	Plate, Mounting, Terminal Strip Board
1		346004	Lug, Screw, Chassis GND, 2/0 Wire
1		600044	Assem., Interlocking Door Solenoid
1		314001	Coil Assem Only, IDS
1		510015	Cabinet, "S" Subcompact
1		510017	Door, Cabinet, "S"
1		700121	Manual, EN2000
1		421279	Logic Diagram, EN2000 Control
1		421280	Wiring Diagram, EN2000-Series, "S" Cabinet

OPTIONAL: X  
\* Substitution or Addition of Parts when 575V Control is specified.

See Drawings #600530, #600530-001, #600530-002, & #600530-003 for Mechanical Assembly Instructions.  
See Drawing #440289 for Packing Instructions, "S" Cabinet.  
See Drawing #440352 for Label Locations, "S" Cabinet.  
See Drawing #440055 for Customer Mounting & Knockout Detail of "S" Cabinet.

See Wiring Diagram #421282 for EN2000-Series, "E" Cabinet  
See Wiring Diagram #421283 for EN2000-Series, "D/T/LS/LF" Cabinet, w/Optional Circuit Isolation Device.

REV	AUTH	DESCRIPTION	DATE	DRWN	CHK'D	BY	DATE
1		ORIGINAL RELEASE					
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