



**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 WIRE 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 COUNT/DUAL CURRENT (Dual Weld/Dual Heat) or TRIPLE COUNT/TRIPLE CURRENT (Triple Weld/Triple Heat) or External Schedule Selection, SEE MANUAL.
- EN1500-S(IGN) & EN1500-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. EN1500-150S, EN1500-300S, EN1500-600S & EN1500-1200S:  
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.
- VALVE 3 OUTPUT USAGE:  
T51-SV5 & T51-SV6 (Valve 3) can be used for either a Valve output or a Process output. When T51-SV5 & T51-SV6 is used as a Valve output use Jumper "A" on T53. When T51-SV5 & T51-SV6 is used as a Process output use Jumper "B" on T53. CAUTION: Do not overtighten T53.
- WARNING: Use of Jumper "B" bypasses control relay contacts to allow a process output without an initiation. SEE MANUAL.
- Connect T51-L2/CTH4 to L2/H2 side of Welding Transformer Primary.
- When Optional Program Lockout is specified by customer, Dial Plate A/N 600635-001 replaces A/N 600635. Add Switch P/N 600531-001 & remove Hole P/N 565005.
- EN1500-S(IGN) & EN1500-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 Resistor or Rectifiers must be disconnected prior to installation of this control. CAUTION: On EN1500-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 EN1000-S(SCR) Contactor Wiring Diagram with SCHLATTER Contactors. Install Jumper on PCB2 Terminal Strip Board between J5-2 (Yellow) & J6-1 (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.

