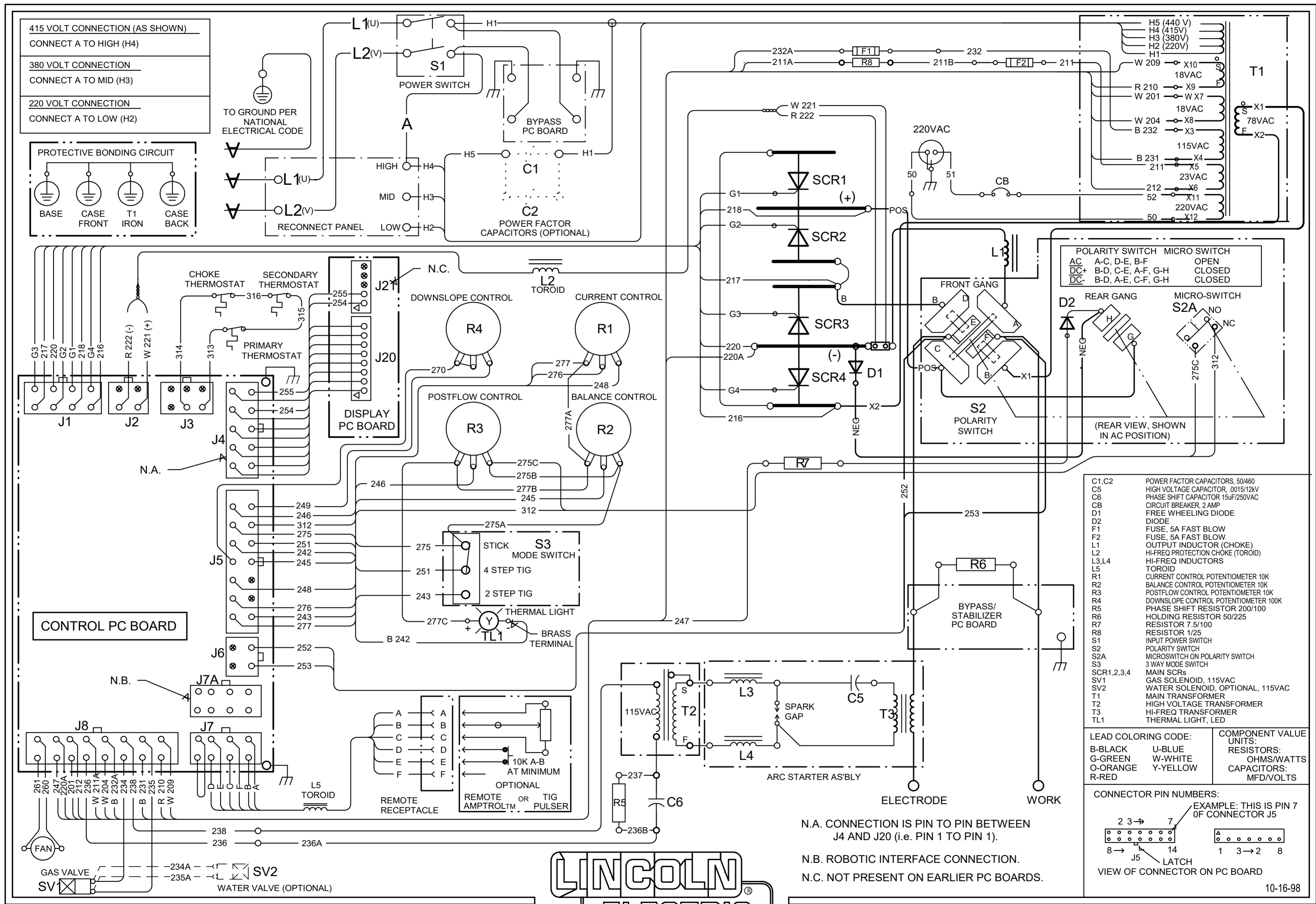


# SQUARE WAVE TIG 275 (208/380/415/1/50/60) WIRING DIAGRAM L10747-1 REV: D



**415 VOLT CONNECTION (AS SHOWN)**  
CONNECT A TO HIGH (H4)

**380 VOLT CONNECTION**  
CONNECT A TO MID (H3)

**220 VOLT CONNECTION**  
CONNECT A TO LOW (H2)

**PROTECTIVE BONDING CIRCUIT**

BASE CASE FRONT T1 IRON CASE BACK

TO GROUND PER NATIONAL ELECTRICAL CODE

RECONNECT PANEL

**POLARITY SWITCH MICRO SWITCH**

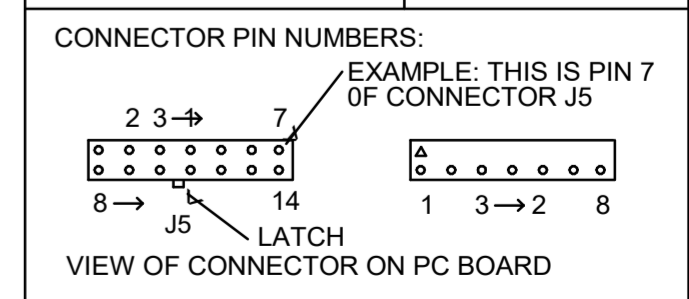
AC	A-C, D-E, B-F	OPEN
DC+	B-D, C-E, A-F, G-H	CLOSED
DC-	B-D, A-E, C-F, G-H	CLOSED

FRONT GANG REAR GANG MICRO-SWITCH S2A

(REAR VIEW, SHOWN IN AC POSITION)

- C1, C2 POWER FACTOR CAPACITORS, 50/460
- C5 HIGH VOLTAGE CAPACITOR, .0015/12kV
- C6 PHASE SHIFT CAPACITOR 15 $\mu$ F/250VAC
- CB CIRCUIT BREAKER, 2 AMP
- D1 FREE WHEELING DIODE
- D2 DIODE
- F1 FUSE, 5A FAST BLOW
- F2 FUSE, 5A FAST BLOW
- L1 OUTPUT INDUCTOR (CHOKE)
- L2 HI-FREQ PROTECTION CHOKE (TOROID)
- L3, L4 HI-FREQ INDUCTORS
- TOROID
- R1 CURRENT CONTROL POTENTIOMETER 10K
- R2 BALANCE CONTROL POTENTIOMETER 10K
- R3 POSTFLOW CONTROL POTENTIOMETER 10K
- R4 DOWNSLOPE CONTROL POTENTIOMETER 100K
- R5 PHASE SHIFT RESISTOR 200/100
- R6 HOLDING RESISTOR 50/225
- R7 RESISTOR 7.5/100
- R8 RESISTOR 1/25
- S1 INPUT POWER SWITCH
- S2 POLARITY SWITCH
- S2A MICROSWITCH ON POLARITY SWITCH
- S3 3 WAY MODE SWITCH
- SCR1,2,3,4 MAIN SCRs
- SV1 GAS SOLENOID, 115VAC
- SV2 WATER SOLENOID, OPTIONAL, 115VAC
- T1 MAIN TRANSFORMER
- T2 HIGH VOLTAGE TRANSFORMER
- T3 HI-FREQ TRANSFORMER
- TL1 THERMAL LIGHT, LED

LEAD COLORING CODE:	COMPONENT VALUE UNITS:
B-BLACK	U-BLUE
G-GREEN	W-WHITE
O-ORANGE	Y-YELLOW
R-RED	RESISTORS: OHMS/WATTS
	CAPACITORS: MFD/VOLTS



N.A. CONNECTION IS PIN TO PIN BETWEEN J4 AND J20 (i.e. PIN 1 TO PIN 1).

N.B. ROBOTIC INTERFACE CONNECTION.

N.C. NOT PRESENT ON EARLIER PC BOARDS.



CLEVELAND, OHIO U.S.A.