



1502 CONTROL P.C. BOARD L6959-2 OR HIGHER USE L9943 SCHEMATIC FOR COMPONENT VALUES AND CIRCUIT CONNECTIONS.

FOR LOGIC P.C. BOARD L5927-2 OR HIGHER USE L9015 SCHEMATIC FOR COMPONENT VALUES AND CIRCUIT CONNECTIONS.

FOR VARIABLE VOLTAGE P.C. BOARD L5394-2 OR HIGHER USE M16986 SCHEMATIC FOR COMPONENT VALUES AND CIRCUIT CONNECTIONS.

CONTROL CIRCUIT

C101 .47 MFD	R101 80 Ω, 1/2W	R128 47 K Ω
C102 .50 MFD	R102 68 K Ω	R129 47 K Ω
C103 .047 MFD	R104 10 K Ω, 1/2W	R131 10 K Ω, 1/2W
C104 .047 MFD	R105 39 K Ω	R132 10 K Ω
C106 .047 MFD	R106 4.7 K Ω	R133 27 K Ω
C107 .1 MFD	R107 15 K Ω	Q101 2N5655
C108 .1 MFD	R108 22 K Ω	Q102 MJ 3029
C110 .1 MFD	R109 10 K Ω	Q103 2N4123
C113 .15 MFD	R110 1.5 K Ω	Q104 2N4123
C114 .15 MFD	R111 5 K Ω TRIMMER	Q105 2N4123
C116 .047 MFD	R112 4.7 K Ω	Q106 2N5816
C117 .02 MFD	R113 22 K Ω	Q107 2N5816
C118 .02 MFD	R114 10 K Ω	Q108 2N4123
C119 .02 MFD	R115 100 Ω	Q109 2N4123
C120 .02 MFD	R116 47 Ω	Q110 2N4123
C121 .02 MFD	R117 47 Ω	Q111 2N4123
C122 .02 MFD	R118 6.8 K Ω	LED1A
D101 16 A	R119 6.8 K Ω	LED1B RED
D102 16 A	R120 100 Ω	LED1C LIGHT EMITTING DIODE
D103 16 A	R121 2.7 K Ω	LED1D
D104 THRU D117 1A	R122 47 K Ω	LED1E
D210 25V	R123 100 Ω	SCR101 8A, 600V
D2102 3V	R124 100 Ω	SCR102 8A, 600V
TP101	R125 10 K Ω	SCR103 12A, 400V
F101 1/2 A SLOW BLOW FUSE	R126 680 Ω	SCR104 12A, 400V
F102 2 1/2 A FUSE	R127 4.7 K Ω	
PT101 PULSE TRANSFORMER		
PT104 PULSE TRANSFORMER		
PT105 PULSE TRANSFORMER		

LOGIC CIRCUIT

C201 .02 MFD	R201 1.5 K Ω	R226 6.8 K Ω
C202 2 MFD	R202 4.75 K Ω	R227 1.5 K Ω
C203 .02 MFD	R203 15 K Ω	R228 4.75 K Ω
C204 .10 MFD	R204 47.5 Ω	R229 100 Ω
C205 .10 MFD	R205 10 K Ω	R230 100 Ω
C206 .02 MFD	R206 50 K Ω TRIMMER	R231 100 Ω
C207 .50 MFD	R207 1.5 K Ω	R232 47.5 Ω
C208 2 MFD	R208 1 K Ω	R233 100 Ω
C209 4.7 MFD	R209 10 K Ω	R234 475 Ω
C210 THRU C215 .02 MFD	R210 5 K Ω TRIMMER	R235 475 Ω
D201 THRU D218 1A	R211 1 K Ω	R236 4.75 K Ω
LED2B THRU LED2F RED	R212 2.67 K Ω	R237 332 Ω
LED2H LIGHT	R213 4.75 K Ω	X201 QUAD 2 INPUT NANDGATE
LED2J EMITTING THRU DIODE	R214 4.75 K Ω	X202 QUAD 2 INPUT NANDGATE
LED2M	R215 4.75 K Ω	X203 HEX INVERTER
	R216 4.75 K Ω	X204 QUAD 2 INPUT NANDGATE
	R217 4.75 K Ω	X205 QUAD 2 INPUT NANDGATE
	R218 1.5 K Ω	L201 5.6 mH
	R219 2.67 K Ω	DZ201 16V
	R220 4.75 K Ω	DZ202 3V
	R221 1.5 K Ω	DZ205 3V
	R222 1 K Ω	
	R223 10 K Ω	
	R224 2.67 K Ω	
	R225 1.5 K Ω	
Q201 2N5655		
Q202 2N5657		
Q203 2N4401		
Q204 2N5657		
Q205 0.5A 300V		
QU201 UJT		

VARIABLE VOLTAGE CIRCUIT

C301 2 MFD	R311 68 Ω
C302 .1 MFD	R312 5.6 K Ω, 2W
C303 .01 MFD	R313 6.8 K Ω
C304 .02 MFD	R314 10 K Ω
C305 .01 MFD	R315 1 K Ω, 1/2W
C306 2 MFD	R316 33 K Ω
C307 .47 MFD	R317 10 K Ω
C308 .22 MFD	R318 560 Ω
C309 .02 MFD	R319 2.7 M Ω
C310 .01 MFD	R320 100 Ω
D301 THRU D304 1A	LED3A RED LIGHT EMITTING DIODE
D305 THRU D312 1A	OCI301 OPTO-ISOLATOR
	OCI302 OPTO-ISOLATOR
	Q301 2N4123
	Q302 2N5815
	Q303 MP5-A13
	QU301 UJT
	TP301 TRANSIENT PROTECTOR
	TP302 TRANSIENT PROTECTOR
	PT301 PULSE TRANSFORMER
	R301 47 K Ω
	R302 3.3 K Ω, 2W
	R303 6.8 K Ω
	R304 68 K Ω
	R305 100 K Ω
	R306 4.7 K Ω, 2W
	R307 100 Ω
	R308 10 K Ω TRIMMER
	R309 15 Ω
	R310 75 Ω
	DZ301 5.1V
	DZ302 10V
	DZ303 25V
	DZ304 15V
	DE305 3V
	DE306 3V

COMPONENTS NOT ON P.C. BOARD

R1 2 Ω, 50W
R2 10K Ω, 2W POWER SOURCE OUTPUT CONTROL
R3 5K Ω, 2W WIRE FEED SPEED CONTROL
R4 250 Ω, 25W
S1 DPST CONTROL POWER SWITCH
S3 SPST INCH UP SWITCH
S4 SPST INCH DOWN SWITCH
S5 SPST START SWITCH
S6 SPST STOP SWITCH
ICR SPST, 110VDC COIL
3 CR AC CURRENT SENSOR ACTUATED BY WELDING CURRENT
4 CR REED SWITCH ACTUATED BY FAULT CURRENT THRU GROUNDING LEAD TO POWER SOURCE FRAME.

AC CURRENT SENSOR CIRCUIT

C501 1 MFD
D501 1A
D502 1A
D503 1A
D504 1A
R501 10 K Ω
Q501 2N4123

ELECTRICAL SYMBOLS PER E-1537
 N/A: TO OPERATE UNIT WITHOUT VARIABLE VOLTAGE BOARD JUMPER G37 TO 539 & G35 TO G36
 N/B: X201 THRU X205 - PIN 7 CONNECTED TO 539 PIN 14 CONNECTED TO 515
 N/C: WHEN CONTROLS ARE USED WITH R35 POWER SOURCES OF THE TYPE WHICH USES TAPS CONNECTED WITH TRIMMER PLATE FOR MAJOR VOLTAGE ADJUSTMENTS, JUMPER TO BE CONNECTED TO PIN 14. FOR ALL OTHER POWER SOURCES JUMPER TO BE CONNECTED TO PIN 7.

NOTE: SINCE COMPONENTS OR CIRCUITRY ON A PRINTED CIRCUIT BOARD MAY CHANGE WITHOUT AFFECTING THE INTERCHANGABILITY OF A COMPLETE BOARD, THIS DIAGRAM MAY NOT SHOW THE EXACT COMPONENTS OR CIRCUITRY OF CONTROLS HAVING A COMMON CODE NUMBER.