

FOR CONTROL P.C. BOARD L5224-5 OR HIGHER USE L8939 SCHEMATIC FOR COMPONENT VALUES AND CIRCUIT CONNECTIONS.

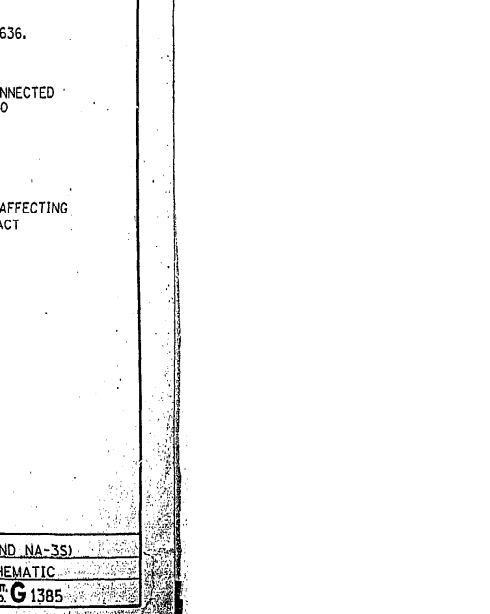
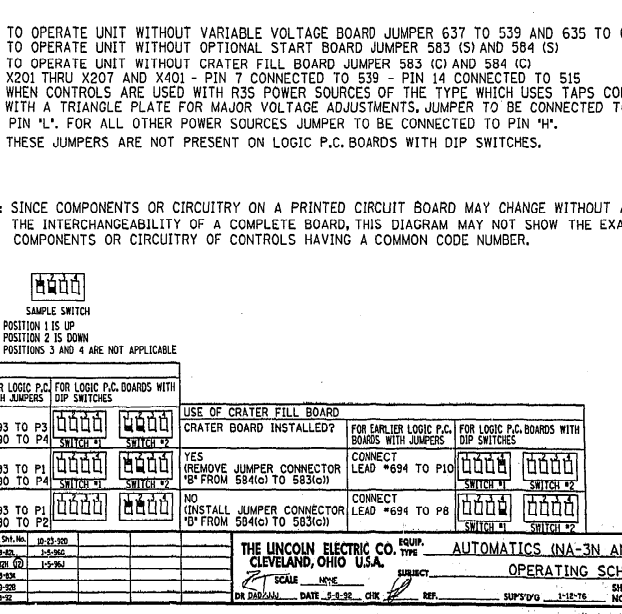
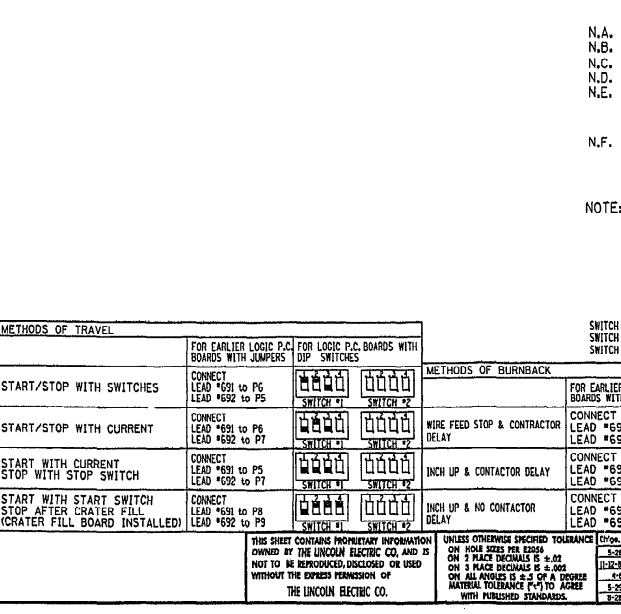
CONTROL CIRCUIT		
C101	.47 MFD	R101 40 OHM 12 W
C102	.50 MFD	R102 68K OHM
C103	.047 MFD	R104 10K OHM 2 W
C104	.047 MFD	R105 27K OHM
C106	.047 MFD	R106 4.7K OHM
C107	.1 MFD	R107 15K OHM
C108	4.7 MFD	R108 22K OHM
C110	1 MFD	R109 10K OHM
C115	.15 MFD	R110 1.5K OHM
C114	.15 MFD	R111 5K OHM TRIMMER
C116	.047 MFD	R112 4.7K OHM
C117	.02 MFD	R113 33K OHM
C118	.02 MFD	R114 10K OHM
C119	.02 MFD	R115 100 OHM
C120	.02 MFD	R117 47 OHM
C121	.02 MFD	R118 6.8K OHM
		R119 6.8K OHM
		R120 680 OHM
		R121 2.7K OHM
		R122 47K OHM
		R123 100 OHM
		R124 100 OHM
		R125 10K OHM
		R126 680 OHM
		R127 4.7K OHM
		R128 47K OHM
		R129 47K OHM
		R131 10K OHM 2 W
		R132 10K OHM
D101	16 A	
D102	16 A	
D103	16 A	
D104	16 A	
D114	THRU 1 A	
DZ101	25V	
DZ102	3V	
PT101	TRANSIENT PROTECTOR	
PT101	PULSE TRANSFORMER	
F101	1/2A SLOW BLOW FUSE	
F102	3/10A FUSE	
F103	3/10A FUSE	
SCR101	8A 603V	
SCR102	6A 603V	
SCR103	16A 400V	
SCR104	16A 400V	

VARIABLE VOLTAGE CIRCUIT  
FOR VARIABLE VOLTAGE P.C. BOARDS L5394-2 OR HIGHER USE M1896 SCHEMATIC FOR COMPONENT VALUES AND CIRCUIT CONNECTIONS.

C301	2 MFD	R308 10K OHM TRIMMER
C302	.1 MFD	R309 15 OHM
C303	.01 MFD	R310 75 OHM
C304	.02 MFD	R311 68 OHM
C305	.01 MFD	R312 5.6K OHM 2 W
C306	2 MFD	R313 6.8K OHM
C307	.47 MFD	R314 10K OHM
C308	.22 MFD	R315 1K OHM 12 W
C309	.02 MFD	R316 33K OHM
C310	.01 MFD	R317 10K OHM
		R318 560 OHM
		R319 2.7M OHM
		R320 100 OHM
D301	1 A	
D304	THRU 1 A	
D305	THRU 1 A	
D312	1 A	
DZ301	5.1V	
DZ302	10V	
DZ303	25V	
DZ304	15V	
DZ305	3V	
DZ306	3V	
OU301	MJT	
TP301	TRANSIENT PROTECTOR	
TP302	TRANSIENT PROTECTOR	
PT301	PULSE TRANSFORMER	
R301	47K OHM	
R302	3.3K OHM 2 W	
R303	6.8K OHM	
R304	68K OHM	
R305	100K OHM	
R306	4.7K OHM 2 W	
R307	100 OHM	

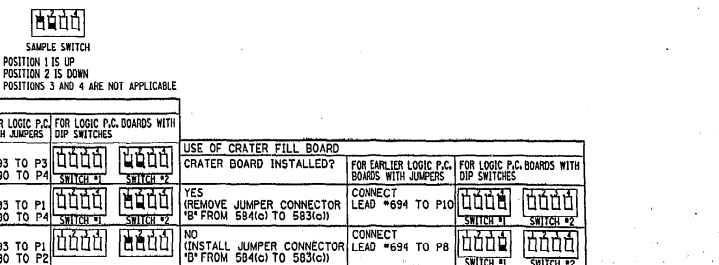
FOR START P.C. BOARD L9917-1 AND UP USE M1798 SCHEMATIC FOR COMPONENT VALUES AND CIRCUIT CONNECTIONS.  
FOR CRATER FILL P.C. BOARDS L5222-2 AND UP, USE M1799 SCHEMATIC FOR COMPONENT VALUES AND CIRCUIT CONNECTIONS.

COMPONENTS NOT ON P.C. BOARD	
R1	2 OHM 50 W
R2	10K OHM 2 W POWER SOURCE OUTPUT CONTROL
R3	5K OHM 2 W WIRE FEED SPEED CONTROL
R4	250 OHM 25 W
S1	DPST CONTROL POWER SWITCH
S2	SPDT TRAVEL SWITCH
S3	SPST INCH UP SWITCH
S4	SPST INCH DOWN SWITCH
S5	SPST START SWITCH
S6	SPST STOP SWITCH
CR401	DPST N.O. 24 VDC
D401	THRU 1A
D405	THRU 1A
LED4A	RED LIGHT EMITTING DIODE
LED4B	RED LIGHT EMITTING DIODE
R401	1.5K OHM
R402	6.8K OHM
R403	100K OHM 2 W
R404	4.7K OHM
R405	2.7K OHM
R406	1.5K OHM
R407	1K OHM
R408	10K OHM 2 W
R409	5K OHM 2 W
R410	50K OHM TRIMMER
R411	470 OHM
R412	6.8K OHM
2N4123	2N4123
2N5027	2N5027
OU401	OU401
D401	QUAD 2 INPUT NANDGATE
X401	QUAD 2 INPUT NANDGATE



N.A. TO OPERATE UNIT WITHOUT VARIABLE VOLTAGE BOARD JUMPER 637 TO 539 AND 635 TO 636.  
 N.B. TO OPERATE UNIT WITHOUT OPTIONAL START BOARD JUMPER 583 (S) AND 584 (S)  
 N.C. TO OPERATE UNIT WITHOUT CRATER FILL BOARD JUMPER 583 (C) AND 584 (C)  
 N.D. X201 THRU X207 AND X401 - PIN 7 CONNECTED TO 539 - PIN 14 CONNECTED TO 515  
 N.E. WHEN CONTROLS ARE USED WITH R35 POWER SOURCES OF THE TYPE WHICH USES TAPS CONNECTED WITH A TRIANGLE PLATE FOR MAJOR VOLTAGE ADJUSTMENTS, JUMPER TO BE CONNECTED TO PIN "L". FOR ALL OTHER POWER SOURCES JUMPER TO BE CONNECTED TO PIN "H".  
 N.F. THESE JUMPERS ARE NOT PRESENT ON LOGIC P.C. BOARDS WITH DIP SWITCHES.

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



THE LINCOLN ELECTRIC CO. CLEVELAND, OHIO U.S.A.

OPERATING SCHEMATIC

SCALE: 1/8" = 1"

DATE: 5-8-98

SUPPLY: 1-18-78

REV. NO. G1385