



LEGEND

SPECIFIED VALUES OF NUMBERED COMPONENTS

CONTROL CIRCUIT P.C. BOARD

C20	.022 MFD.	R20	500 Ω 1/4 W.
C21	.22 MFD.	R21	100 Ω
C22	150 MFD.	R22	2.2 K Ω
C23	.047 MFD.	R23	270 Ω 1W
C24	100 MFD.	R24	15 K Ω
C25	30 MFD.	R25	10 Ω
C26	50 MFD.	R26	100 Ω
		R27	39 K Ω
		R28	1.8 K Ω
		R29	6.8 K Ω
		R30	1 K Ω
		R31	1 K Ω 1/4 W.
		R32	3.9 K Ω
		R33	2.00 Ω 10W.
		R34	4.7 K Ω
		R36	1 K Ω 1/4 W.
		R37	330 Ω

D20 THRU D36 1AMP

DZ 20 20 V.
DZ 21 6.2 V.

TP1 150V
TP2 150V
TP3 150V

Q20 1A. 200V P.N.P.
Q21 1A. 200V P.N.P.

SCR1 4 A. 400 V.
SUS 2 N 4989

F1 1/10 AMP SLOW BLOW FUSE

FOR CONTROL P.C. BOARDS L9207-1 OR HIGHER USE M17162-1 SCHEMATIC FOR COMPONENT VALUES AND CIRCUIT CONNECTIONS.

FIRING CIRCUIT P.C. BOARD

C40, C41, C42	.02 MFD	R40, R41, R42	430 Ω 5W
C43, C44, C45	4.7 MFD	R43, R44, R45	27 Ω
C46, C47, C48	.047 MFD	R46, R47, R48	150 Ω
C49, C50, C51	.047 MFD	R49, R50, R51	3.3 K Ω
C52, C53, C54	.1 MFD	R52, R53, R54	6.8 K Ω
C55, C56, C57	.022 MFD	R55, R56, R57	47 K Ω
C58, C59, C60	.22 MFD	R58, R59, R60	47 Ω
C61	.022 MFD	R61, R62, R63	1 K Ω
C62, C63, C64	2 MFD	R64, R65, R66	10 Ω
C65, C66, C67	100 MFD	R67, R68, R69	47 Ω
		R70, R71, R72	500 Ω 1/4 W.
		R73, R74, R75	100 K Ω 1/4 W.
		R76, R77, R78	270 Ω 5W.
		R79, R80, R81	5.1 Ω
		R82, R83, R84	100 Ω
		R85, R86, R87	6.8 Ω 5W.

D40 THRU D54 1 AMP

DZ 40, DZ 41, DZ 42 20 V. 1W.

Q40, Q41, Q42 2N 3393 P.N.P.
Q43, Q44, Q45 UJT

SCR1, SCR2, SCR3 4 A. 400 V.

NOT ON P.C. BOARDS

C1	.05 +.05 MFD	R1	50 Ω 50W.
C2	.68 MFD.	R2	40 Ω 100W.
C3	.68 MFD.	R3	10 K Ω 2W.
C4	.68 MFD.	R4	50 Ω
C5	1 MFD.	R5	270 Ω
		R6	47 Ω
		R7	47 Ω
		R8	47 Ω
		R9	27 Ω

- CT1, CT2, CT3 CURRENT TRANS.
- L1 D.C. OUTPUT FILTER
- L2 FEEDBACK FILTER
- ICR INPUT STARTER
- SCR1 - D4 } HYBRID BRIDGE
- SCR2 - D5 }
- SCR3 - D6 }
- D7 }
- SW1 POWER SWITCH
- SW2 MACH. REMOTE SWITCH
- SW3 DIAL SELECTOR SWITCH
- T1 MAIN TRANSFORMER
- T2 CONT. TRANSFORMER

THIS LEAD IS NOT USED WHEN POLARITY SWITCH IS INSTALLED.

L2 IS LOCATED NEAR POSITIVE OUTPUT TERMINAL ON OLDER MACHINES

N.A. A DASH N#2 IS STAMPED ON THE LAMINATION OF L2 NEAR THE COIL. THE SIDE OF L2 WITH THE DASH N#2 MUST FACE THE HEAVY LEAD THAT CONNECTS TO THE POSITIVE STUD (OR POLARITY SWITCH, IF SO EQUIPPED).

THIS LEAD IS NOT USED WHEN POLARITY SWITCH IS INSTALLED.

OPTIONAL POLARITY SWITCH (SHOWN IN D.C. + POSITION)

WORK TERMINAL ON MACHINES WITH POLARITY SWITCH

A.N.S.I. ELECTRICAL SYMBOLS PER E-1537

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.

THE LINCOLN ELECTRIC CO. CLEVELAND, OHIO U.S.A.	CHG. SH. No. 2-8-80 10/10/80 1/24/80 1/24/80 2-4-80	TYPE IDEALARC R3R-400 (TRIPLE VOLTAGE)
DATE 1-22-80 SCALE		SUBJECT SCHEMATIC
ARMCO AUSTRALIA 8-80 CANADA 2-80 FRANCE 3-80		DIFF. DRG. (6-1983) ON MIN. CHG. DEC. G-1524