

6891-9 LEGEND

CONTROL BOARD		
C1 50/25	D1 1A/1000 V	SCR 1 4A/400V
C2 50/15	D2 1A/1000 V	SCR 2 4A/400V
C3 .022/200	D3 1A/1000 V	SCR 3 4A/400V
C4 100PF/1000	D4	
C5 .02/25	D5	
C6 .0033/200	D6	
C7 .02/600	D7	
C9 100PF/1000	D8	
C10 .02/25	D9	DZ 1 15V/5W
C11 20/50	D10	DZ 2 10V/5W
C12 .02/600	D11	DZ 3 6.2V/.5W
	D12	DZ 4 6.2V/1W
	D13	DZ 5 15V/1W
	D14	DZ 6 15V/1W
	D15	DZ 7 15V/1W
	D16	DZ 8 15V/1W
	D17	DZ 9 10V/.5W
	D18	
C18 1/200	D19	Q1 2N5815
C19 1/200	D20	Q2 2N5815
C20 1/200	D21	
C21 .047/100	D22	QU1 2N6027
C22 .047/100	D23	QU2 2N6027
C23 .047/100	D24	QU3 2N6027
C24 .02/600	D25	
C25 .02/600	D26	X1 SINGLE OP AMP
C26 .02/600	D27	X2 SINGLE OP AMP
C27 .02/25	D28	X3 QUAD OP AMP
C28 .02/25	D29	
C29 .02/25	D30	
C30 50/15	D31	OCI 1 (N.A.)
C31 .1/400	D32	OCI 2 OPTOCOUPLER
	D33	OCI 3 (N.A.)
	D34	TP1 130V/10J
	D35	TP2 130V/10J
	D36	TP3 130V/10J

R1 250/20	R32 100K	R63 100
R2 250/20	R33 56K	R64 100
R3 250/20	R34 150	R65 50K TRIMMER
R4 1.5K/5	R35 100K	R66 50K TRIMMER
R5 1.5K/5	R36 10K (N.A.)	R67 50K TRIMMER
R6 1.5K/5	R37 100K	R68 2.7K
R7 1.5K/5	R38 270K	R69 2.7K
R8 1.5K/5	R39 100K	R70 2.7K
R9 1.5K/5	R40 270	R71 2.7K
R10 100K TRIMMER	R41 4.7K	R72 2.7K
R11 150K	R42 10K	R73 2.7K
R12 27K	R43 1K	R74 220K
R13 100K	R44 1.3K (N.A.)	R75 220K
R14 100K	R45 220K	R76 220K
R15 27K	R46 10M	R77 4.7K
R16 500 TRIMMER	R47 2.7M	R78 4.7K
R17 680K	R48 150K	R79 4.7K
R18 2.7M	R49 1K	R80 100K
R19 1M (N.A.)	R50 3.3K	R81 100K
R20 1M (N.A.)	R51 68	R82 100K
R21 27K	R52 100K TRIMMER	R83 270
R22 1M	R53 1.5K (N.A.)	R84 270
R23 50K TRIMMER	R54 2.2K	R85 270
R24 6.8K	R55 330K	R86 1K
R25 4.7K	R56 270	R87 1K
R26 4.7K	R57 270	R88 1K
R27 27K	R58 270	R89 2.7M (N.A.)
R28 220K	R59 10K	R90 10K TRIMMER
R29 100K TRIMMER	R60 10K	R91 50M
R30 5.0M	R61 10K	R92 100
R31 5.0M	R62 100	R93 100
		R94 100

SNUBBER BOARD		
C1 .68/400	R1 10/2	TP1 130V/10J
C2 .68/400	R2 10/2	TP2 130V/10J
C3 .68/400	R3 10/2	TP3 130V/10J
C4 .05/600		TP4 320V/40J
C5 .05/600		TP5 320V/40J
		TP6 150V/20J

COMPONENTS NOT ON P.C. BOARDS		
R1 10K/2W POTENTIOMETER	(380A/250V (ON R3R-300)	
R2 10K/2W POTENTIOMETER	(470A/250V (ON R3R-400)	
R3 40/100W	(470A/250V (ON R3R-500)	
ICR LINE CONTACTOR		
SW1 ON-OFF SWITCH	SHUNT { 400A (ON R3R-300)	
SW2 MACHINE-REMOTE SWITCH	600A (ON R3R-400)	
SW3 RANGE SWITCH (N.A.)	800A (ON R3R-500)	
T1 WELDING TRANSFORMER		
T2 PILOT TRANSFORMER	DI THRU D4 400A/300V	

GENERAL INFORMATION

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

CAPACITORS = MFD/VOLTS

RESISTORS = OHMS/WATTS *

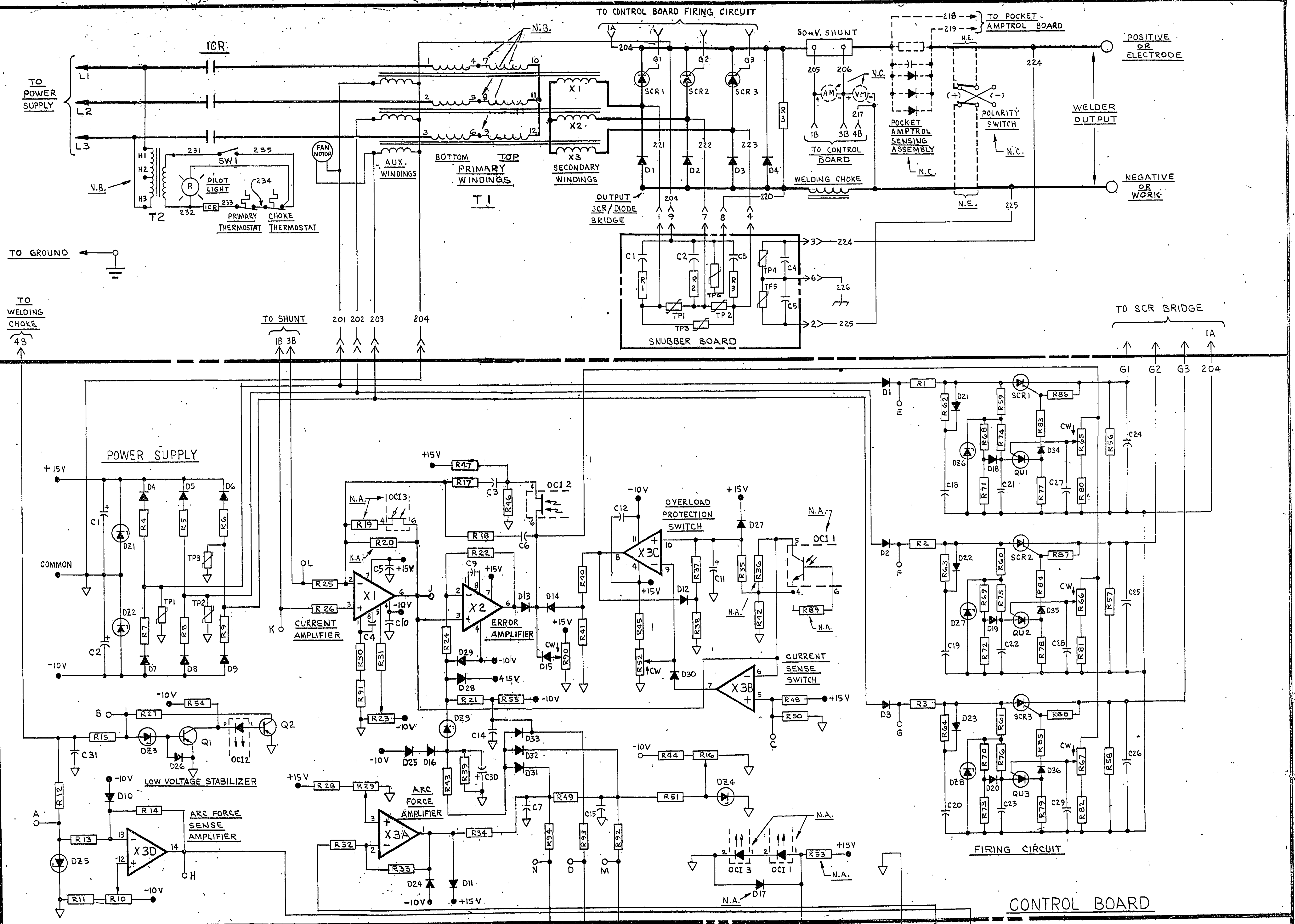
* 1/2 WATT UNLESS OTHERWISE SPECIFIED

○ "A" THRU "N" = TEST POINTS

▽ = COMMON CONNECTION

CONNECTOR "A" CONNECTOR "B"

(AS VIEWED FROM COMPONENT SIDE OF BOARD)



NOTES

N.A. ON R3R-300 MACHINES DELETE ITEMS R19, R53, R59, D17, OCI 1, OCI 3, AND SW3. CHANGE R36 TO A JUMPER. CHANGE R20 TO 470K, AND R44 TO 1K.

N.B. CONNECTIONS SHOWN ARE FOR HIGH VOLTAGE INPUT ON DUAL VOLTAGE MACHINES. SEE WIRING DIAGRAM AND CONNECTION DIAGRAM FOR ALL OTHER MACHINE TYPES OR VOLTAGES.

N.C. VOLTAGE, AMMETER, POLARITY SWITCH, AND POCKET AMP/PROB SENSING ASSEMBLY SHOWN ARE OPTIONAL EQUIPMENT.

N.D. 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.

N.E. NO CONNECTION AT THIS POINT WHEN POLARITY SWITCH IS INSTALLED.

CONNECTOR PROVIDED ON SOME UNITS IN PLACE OF TERMINAL STRIPS (TS):

CONNECTOR "A" CONNECTOR "B"

(AS VIEWED FROM COMPONENT SIDE OF BOARD)

TEST POINTS:

TP1 130V/10J

TP2 130V/10J

TP3 130V/10J

TP4 320V/40J

TP5 320V/40J

TP6 150V/20J

WELDING TRANSFORMER (T1):

DI THRU D4 400A/300V

SWITCHES:

SW1 ON-OFF SWITCH

SW2 MACHINE-REMOTE SWITCH

SW3 RANGE SWITCH (N.A.)

RESISTORS:

R1 10K/2W POTENTIOMETER

R2 10K/2W POTENTIOMETER

R3 40/100W

CAPACITORS:

C1 .68/400

C2 .68/400

C3 .68/400

C4 .05/600

C5 .05/600

DIODES:

D1 1A/1000 V

D2 1A/1000 V

D3 1A/1000 V

D4

D5

D6

D7

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