



## DRAWING SET

FOR SERVICE . . .  
NOTE NEW TOLL-FREE  
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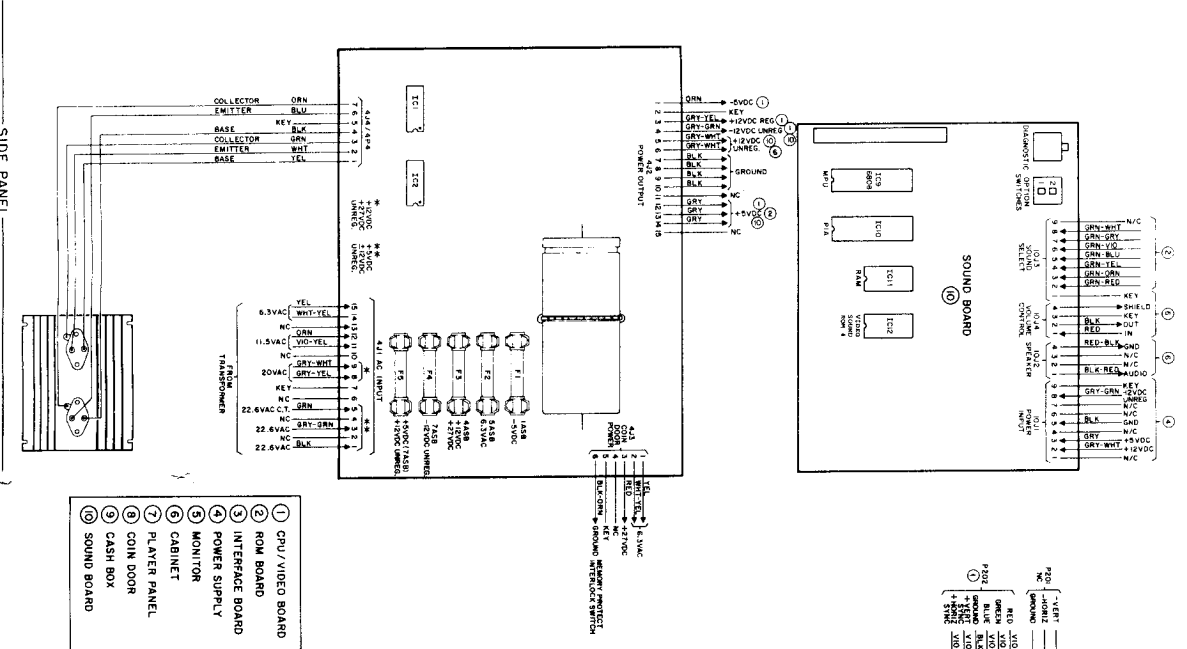
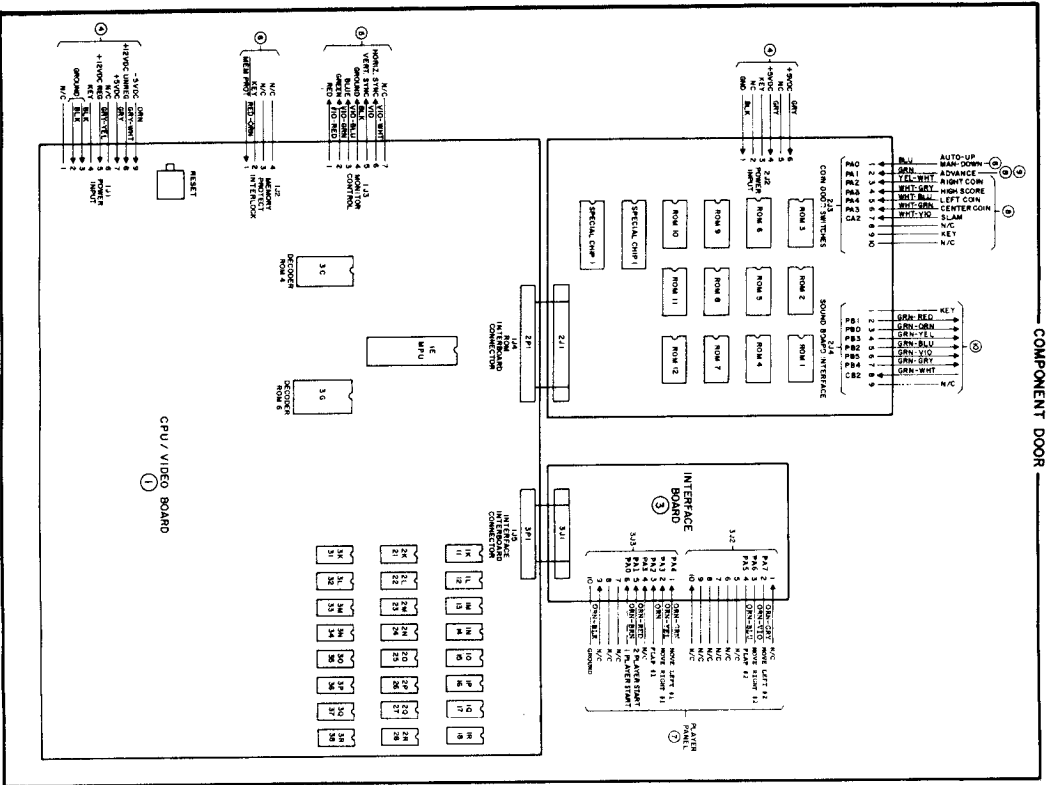
*Williams*®   
**ELECTRONICS, INC.**

3401 N. California Ave.  
Chicago, IL 60618  
Cable Address: WILCOIN, CHICAGO  
(312) 267-2240

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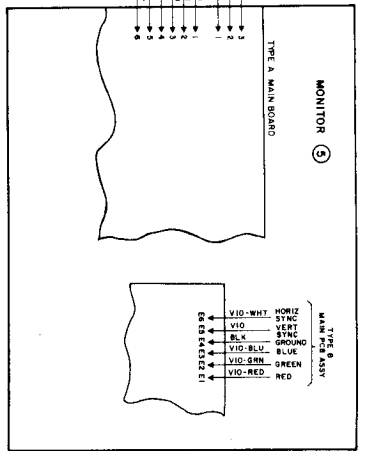
# INTERBOARD WIRING



- ① CPU/VIDEO BOARD
- ② ROW BOARD
- ③ INTERFACE BOARD
- ④ POWER SUPPLY
- ⑤ MONITOR
- ⑥ CABINET
- ⑦ PLAYER PANEL
- ⑧ COIN DOOR
- ⑨ CASH BOX
- ⑩ SOUND BOARD

**C-8808 Heat sink assembly**

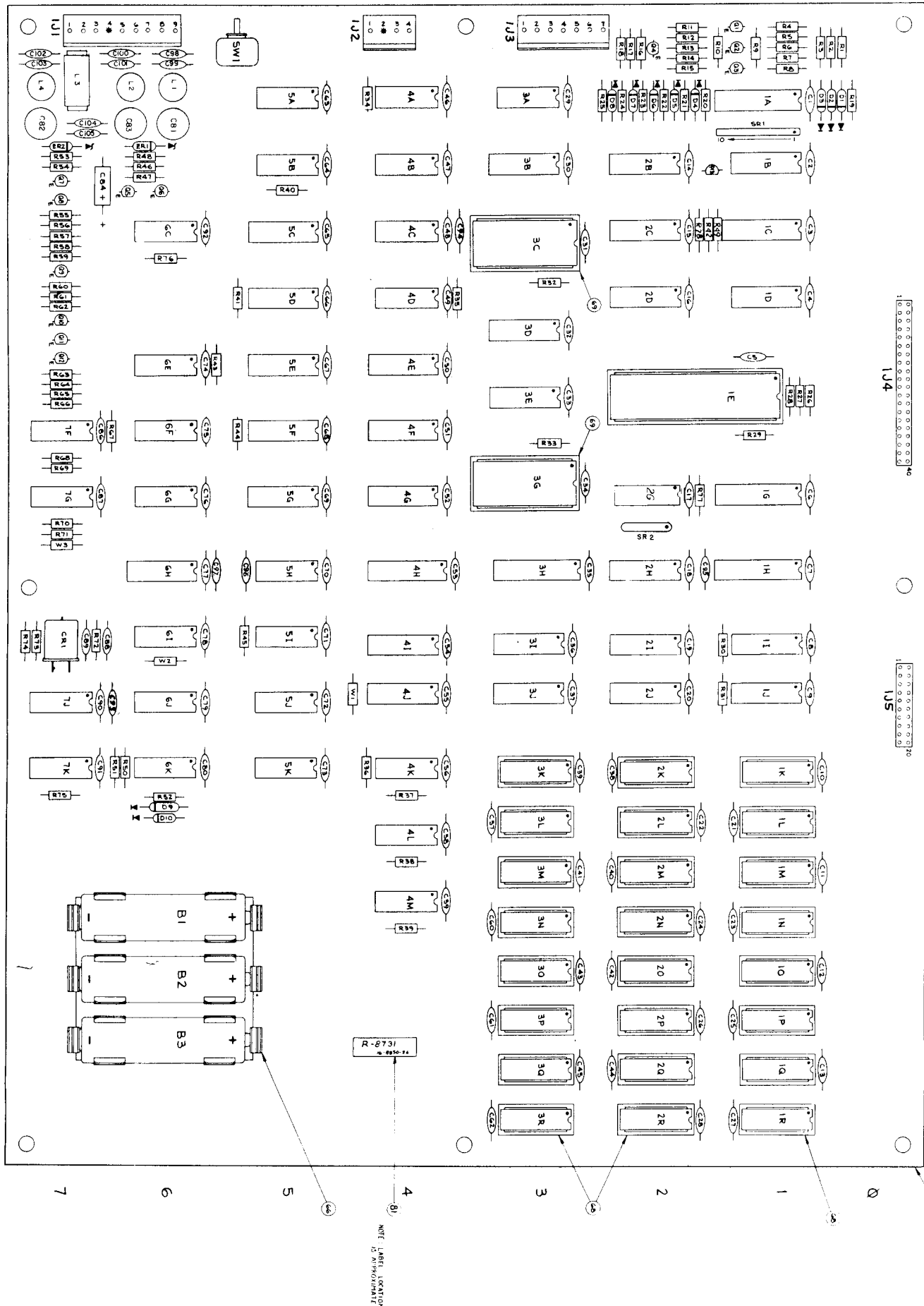
Part No.	Description
5161-09425	2N8057, Transistor, NPN
5161-09552	2N3055, Transistor, NPN
5705-08854	Heat Sink
5705-08854	Socket, Pkg
5705-08854	Transistor, Pkg
4009-01003-10	Machine Screw 6-32x5/8"



A B C D E F G H I J K L M N O P Q R

104

105



NOTE: LABEL LOCATION IS APPROXIMATE

ITEM NO.	PART NO.	PART DESIGNATION	DESCRIPTION	REQ'D NO.
74	5791-09497-00	IJ3	7 PIN HEADER 09-65-1071	1
75	5791-09027-00	IJ1	9 PIN HEADER 09-65-1091	1
76	5019-09669-00	SR1	RESISTOR, 1K OHM 10 PIN SIP	1
77	5010-09534-00	W1, W2, W3	RESISTOR, C.F. 0 OHM 1/4 WATT	3
78	5340-09689-00	1C	5114 1K X 4 CMOS STATIC RAM	1
	5340-09667-00		6514 1K X 4 CMOS STATIC RAM	0
79	5281-09483-00	1B, 2B	74LS189 16 X 4 RAM	0
	5280-09625-00		74LS189 16 X 4 RAM	0
	5281-09716-00		74LS189 16 X 4 RAM	0
	5281-09715-00		74LS289 16 X 4 RAM	2
	5282-09717-00		74LS289 16 X 4 RAM	0
80	5641-09371-00	SW1	PUSH BUTTON SW. SPST	0
	5641-09312-00		PUSH BUTTON SW. DPDT MOM.	1
81	16-8850-26	—	LABEL PCB ASSY I.D.	1
82				
83	5019-09786-00	SR2	SIP 4.7KΩ 5R 6 PIN 5% 125 W/R @ 70°C	1
84	5281-09856-00	1H, 3H, 4H	OCTAL LATCH 74LS373	3
85				
47	5010-09035-00	R64	RESISTOR, C.F. 47K OHM 5% 1/4 W.	1
48	5551-09822-00	L3	COIL 4.74H, 3A	1
49	5010-09001-00	R2, R21, R24	RESISTOR, C.F. 330 OHM 5% 1/4 W.	3
50	5010-09039-00	R56	RESISTOR, C.F. 10 OHM 5% 1/4 W.	1
51	5043-09491-00	C89, C93	CAPACITOR, AXIAL 22 PFD. 1K V. ±10%	2
52	5043-09492-00	C88	CAPACITOR, AXIAL 100 PFD. 50 V. ±10%	1
53	5040-09545-00	C84	CAPACITOR, AXIAL 22 MFD. 10 V. ±20%	1
54	5043-09065-00	C94 THRU C97	CAPACITOR, AXIAL 470 PFD. 50 V. XTR ±20%	4
55	5043-08996-00	SEE NOTE #3	CAPACITOR, AXIAL .1 MFD. 50 V. ±20%	85
56	5040-09421-00	C81, C82, C83	CAPACITOR, RADIAL 100 MFD. 25 V. ±30-10%	3
57	5075-09059-00	ZR2	1N5990A 3.9 V. ZENER DIODE	1
58	5075-09018-00	ZR1	1N5990A 6.8 V. ZENER DIODE	1
59	5070-08919-00	D1, D2, D3, D4, D5, D6, D7, D8	1N4148 DIODE, SILICON	8
60	5070-09266-00	D9	1N5817 DIODE, SILICON	1
61	5160-08938-00	Q5, Q6, Q7, Q8, Q9, Q10, Q11, Q13	2N4401, TO-92 TRANSISTOR, NPN	8
62	5190-09016-00	Q1, Q2, Q3, Q4, Q12	2N4403, TO-92 TRANSISTOR, PNP	5
63	5520-09495-00	CR1	12 MHZ CRYSTAL	1
64	5043-09645-00	C98-C105	CAPACITOR, AXIAL 1000 PFD. 50V ±20%	8
65	5880-09022-00	B1, B2, B3	BATTERY ALKALINE 1.5 V. (AA)	3
66	5881-09021-00	—	BATTERY HOLDER *171	1
67	5700-09628-00	—	14-PIN IC SOCKET	0
68	5700-09006-00	—	16-PIN IC SOCKET	24
69	5700-09004-00	—	24-PIN IC SOCKET	2
70	5700-08985-00	—	40-PIN IC SOCKET	1
71	5791-09437-00	IJ5	20 PIN RIBBON CABLE HEADER	1
72	5791-09349-00	IJ4	40 PIN RIBBON CABLE HEADER	1
73	5791-09028-00	IJ2	4 PIN HEADER 09-65-1041	1

## NOTES:

1. 411G: 1K, 1L, 1M, 1N, 1O, 1P, 1Q, 1R, 2K, 2L, 2M, 2N, 2O, 2P, 2Q, 2R, 3K, 3L, 3M, 3N, 3O, 3P, 3Q, 3R

### 2. 4.7K A RESISTOR:

R26, R27, R28, R29, R32, R33, R35, R36, R37, R38, R39, R41, R43, R45, R50, R51, R52, R66 R67 R68, R69, R70, R71, R75, R34, R76, R77, R78

### 3. .1 MFD. CAPACITORS:

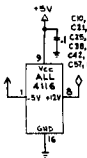
C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C86, C87, C90, C91, C92

4. FOR SCHEMATIC REFER TO 16-8809

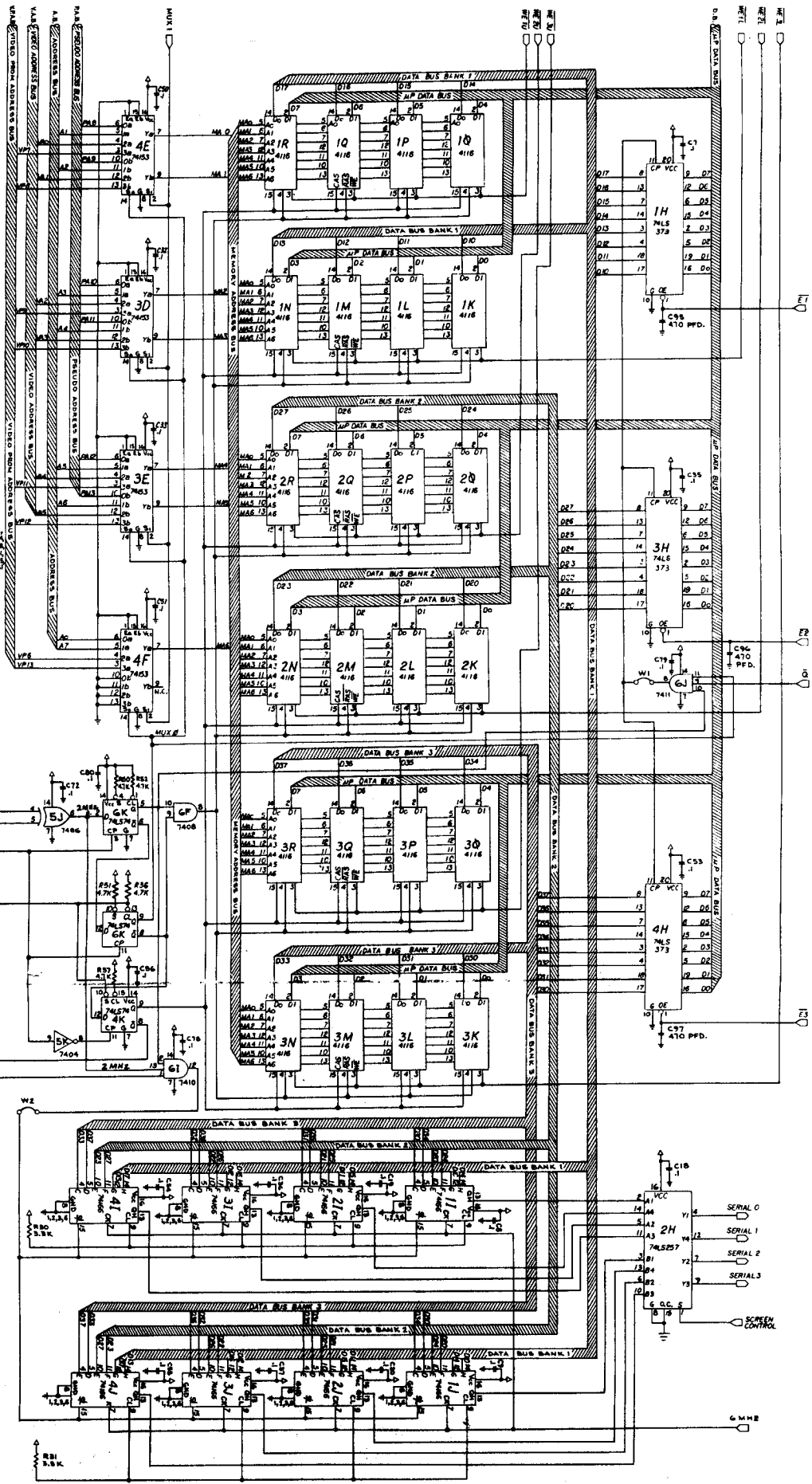
BILL OF MATERIAL				
ITEM NO.	PART NO.	PART DESIGNATION	DESCRIPTION	REQ'D NO.
1	5770-09656-00		BARE P.C. BOARD REV. D	1
2	5280-09073-00	4B	7400 QUAD 2-INPUT NAND	1
3	5280-08948-00	5H	7402 QUAD 2-INPUT NOR	1
4	5281-09215-00	7J	74LS04 HEX. INVERTER	1
5	5280-09013-00	5A, 5K	7404 HEX. INVERTER	2
6	5280-08973-00	6F	7408 QUAD AND	1
7	5280-09011-00	4L, 4M, 6I	7410 TRIPLE 3-INPUT NAND	3
8	5280-09475-00	3A, 6J	7411 TRIPLE 3-INPUT AND	2
9	5280-09530-00	5B	7420 DUAL 4-INPUT NAND	1
10	5280-09476-00	4C	7421 DUAL 4-INPUT AND	1
11	5280-09477-00	6E, 6G	7432 QUAD 2-INPUT OR	2
12	5280-09478-00	4D, 4K, 4L, 6C, 7F, 7G	7474 DUAL D-TYPE FLIP-FLOP	6
13	5280-09479-00	4A, 5J	7486 QUAD 2-INPUT EX-OR	2
14	5281-09480-00	7K	74LS107 DUAL J-K FLIP-FLOP	1
15	5281-09532-00	5G	74LS133 13-INPUT NAND	1
16	5281-09246-00	4G, 6H	74LS139 DUAL 2 to 4 LINE DECODER	2
17	5280-09481-00	3D, 3E, 4E, 4F	74LS53 DUAL 4 to 1 DATA INVERT	4
18	5280-09668-00	1I, 1J, 2I, 2J, 3I, 3J, 4I, 4J	74166 8-BIT SHIFT REGISTER	8
19				
20	5281-09308-00	1G	74LS245 OCTAL BUS TRANSCEIVER	1
21	5281-09485-00	2C, 2H	74LS257 QUAD DATA MUX	2
22	5370-08989-00	1D, 2D, 2G, 3B	8T97 HEX. TS BUFFER	0
	5281-09385-00		74LS367 HEX BUS DRIVER	4
23	5281-09486-00	1A,	74LS374 OCTAL D-TYPE FLIP-FLOP	1
24	A-5342-09821	3C	UNIVERSAL VERT. DECODER ROM 6	1
25	A-5342-0969A	3G	UNIVERSAL HORIZ. DECODER ROM 4	1
26	5551-09898-00	L1, L2, L4	COIL, 2.04H, 1.5A	3
27	5281-09533-00	5I	74LS393 DUAL 4-BIT BIN. COUNTER	1
28	5340-09488-00	SEE NOTE #1	411G (450 ns ACCESS) 16K X 1 DYNAMIC RAM	24
29	5070-06258-00	D10	1N4001 DIODE	1
30	5280-09489-00	5C, 5D, 5E, 5F	9316 4-BIT BIN. COUNTER	4
31	5400-09490-00	1E	6809E MICROPROCESSOR	1
32	5010-09548-00	R10, R12, R14	RESISTOR, C.F. 68 OHM 2% 1/4 W.	3
33	5010-09036-00	R65	RESISTOR, C.F. 100 OHM 5% 1/4 W.	1
34	5010-09187-00	R4, R6, R7, R16, R19, R21	RESISTOR, C.F. 150 OHM 5% 1/4 W.	6
35	5010-09508-00	R11, R13, R15	RESISTOR, C.F. 270 OHM 2% 1/4 W.	3
36	5010-09416-00	R18	RESISTOR, C.F. 470 OHM 5% 1/4 W.	1
37	5010-08992-00	R1, R20, R23	RESISTOR, C.F. 560 OHM 5% 1/4 W.	3
38	5010-09358-00	R42, R59, R77, R48, R54, R74	RESISTOR, C.F. 1K OHM 5% 1/4 W.	8
39	5010-09314-00	R3, R22	RESISTOR, C.F. 1.2 K OHM 5% 1/4 W.	2
40	5010-08998-00	R59, R72, R73	RESISTOR, C.F. 2.2 K OHM 5% 1/4 W.	3
41	5010-08997-00	R60, R63	RESISTOR, C.F. 2.7 K OHM 5% 1/4 W.	2
42	5010-08983-00	R30, R31, R40, R44, R58	RESISTOR, C.F. 3.3 K OHM 5% 1/4 W.	5
43	5010-08991-00	SEE NOTE #2	RESISTOR, C.F. 4.7 K OHM 5% 1/4 W.	
44	5010-09034-00	R49, R46, R53	RESISTOR, C.F. 10 K OHM 5% 1/4 W.	3
45	5010-08774-00	R47, R55, R57, R62	RESISTOR, C.F. 22 K OHM 5% 1/4 W.	4
46	5010-09113-00	R61	RESISTOR, C.F. 33 K OHM 5% 1/4 W.	1



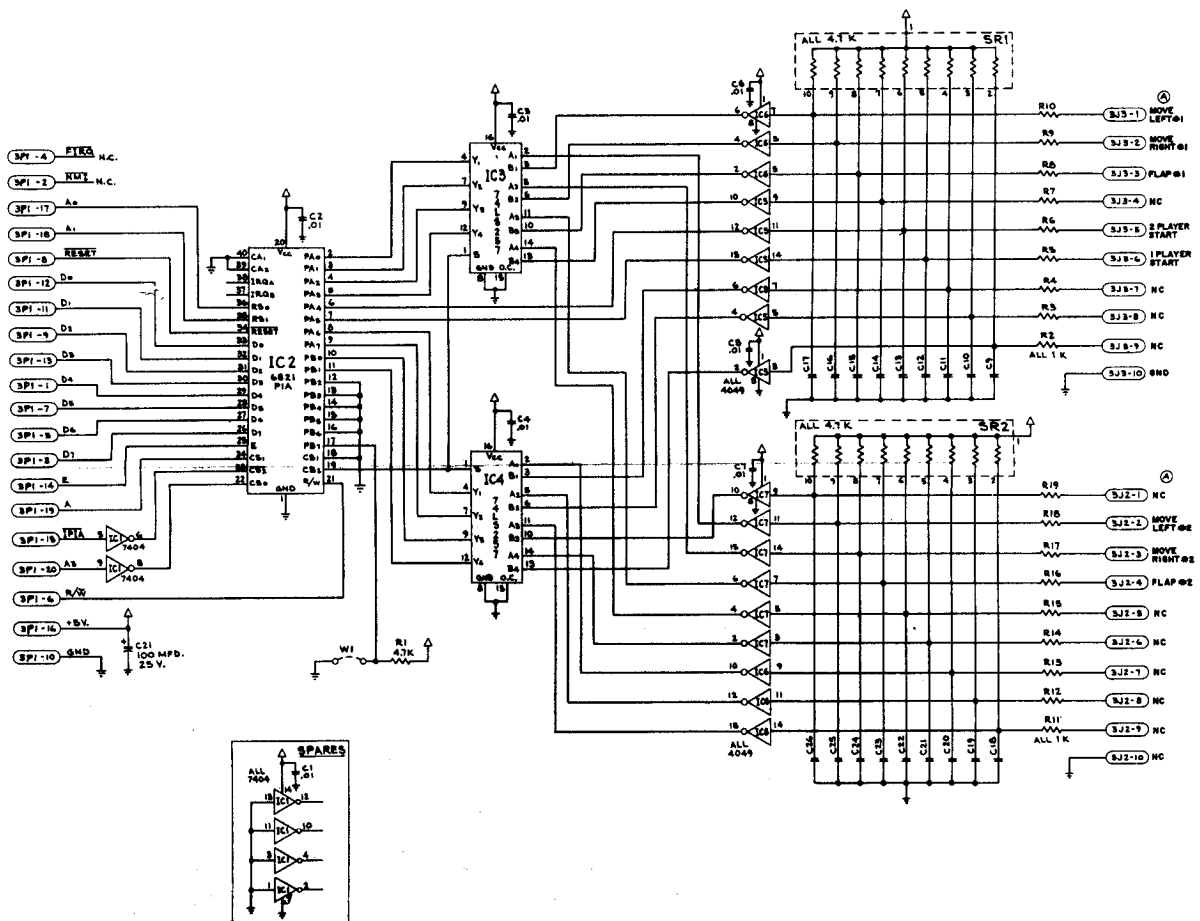
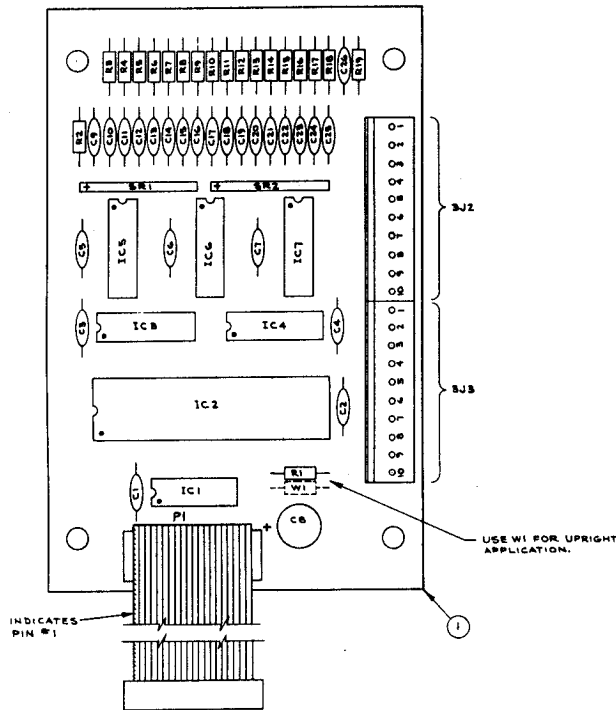
SPARE		
LOC.	LOGIC	QTY.
4B	7400	1
4K	74LS74	1
5I	74LS99	1
5J	7486	2
6D	4011	2
6H	74LS199	1
6I	7410	2



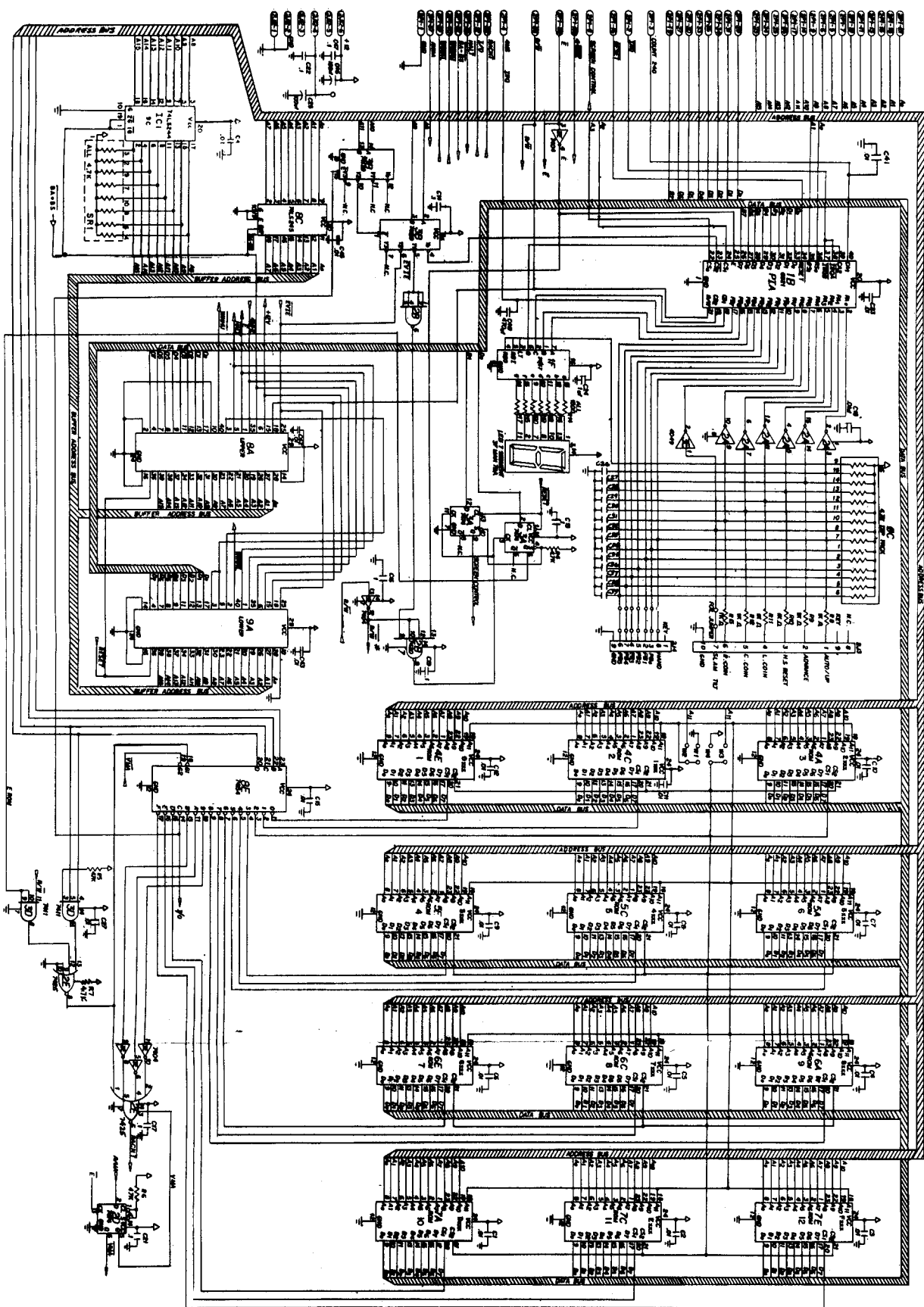
R-8731 CPU Board Logic Diagram (Sheet 2 of 2)



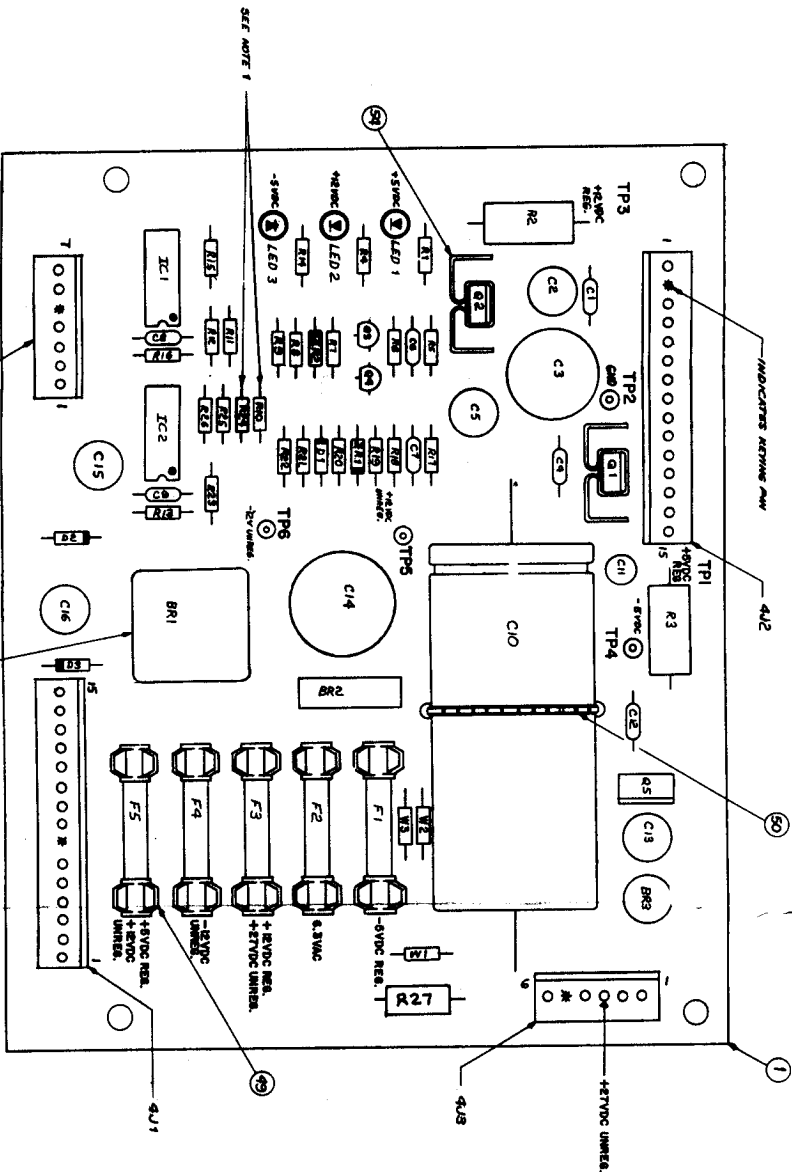
BILL OF MATERIAL				
ITEM NO.	PART NO.	PART DESIGNATION	DESCRIPTION	NO. REQ'D.
1	5712-09480-00		BARE P.C. BOARD	1
2	5430-08972-00	IC2	6821 PIA	1
3	5310-08915-00	IC3, IC6, IC7	4049 CMOS HEX INVERTOR	3
4	5380-09013-00	IC1	7404 HEX INVERTER	1
5	5281-09486-00	IC3, IC4	74LS257 QUAD DATA MULTIPLEXER	2
6	5019-01861-00	SR1, SR2	4.7K OHM 9 RES. 10 PIN SIP	2
7	5010-09388-00	R2 THRU R19	RESISTOR, C.F. 1K OHM 5% 1/4 WATT	18
8	5010-08991-00	R1	RESISTOR, C.F. 4.7K OHM 5% 1/4 WATT	1
9	5010-09594-00	W1	RESISTOR, C.F. 0 OHM 1/4 WATT	1
10	5043-09065-00	C9 THRU C26	CAPACITOR, CERAMIC DISC 470 PFD. 50 V. X7R 220%	18
11	5040-09421-00	C8	CAPACITOR, ELECT. RADIAL 100 MFD. 25 VOLT. +50-10%	1
12	5045-08950-00	C1 THRU C7	CAPACITOR, CERAMIC DISC. 01 MFD. 50 V. +50-20%	7
13	5775-09540-00	P1	20 PIN RIBBON CABLE ASMY	1
14	5781-09444-00	SJ2, SJ3	10 PIN HEADER 09-65-1101	2







D-9144 ROM Board Logic Diagram

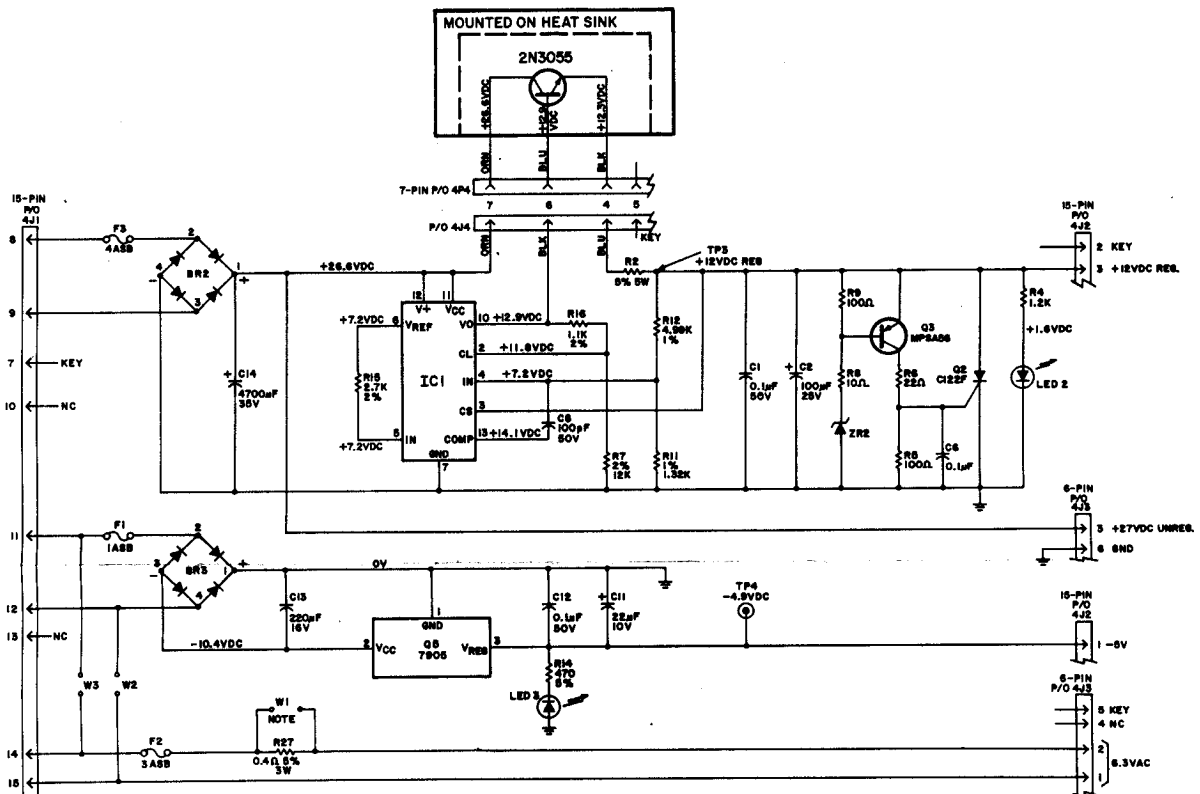
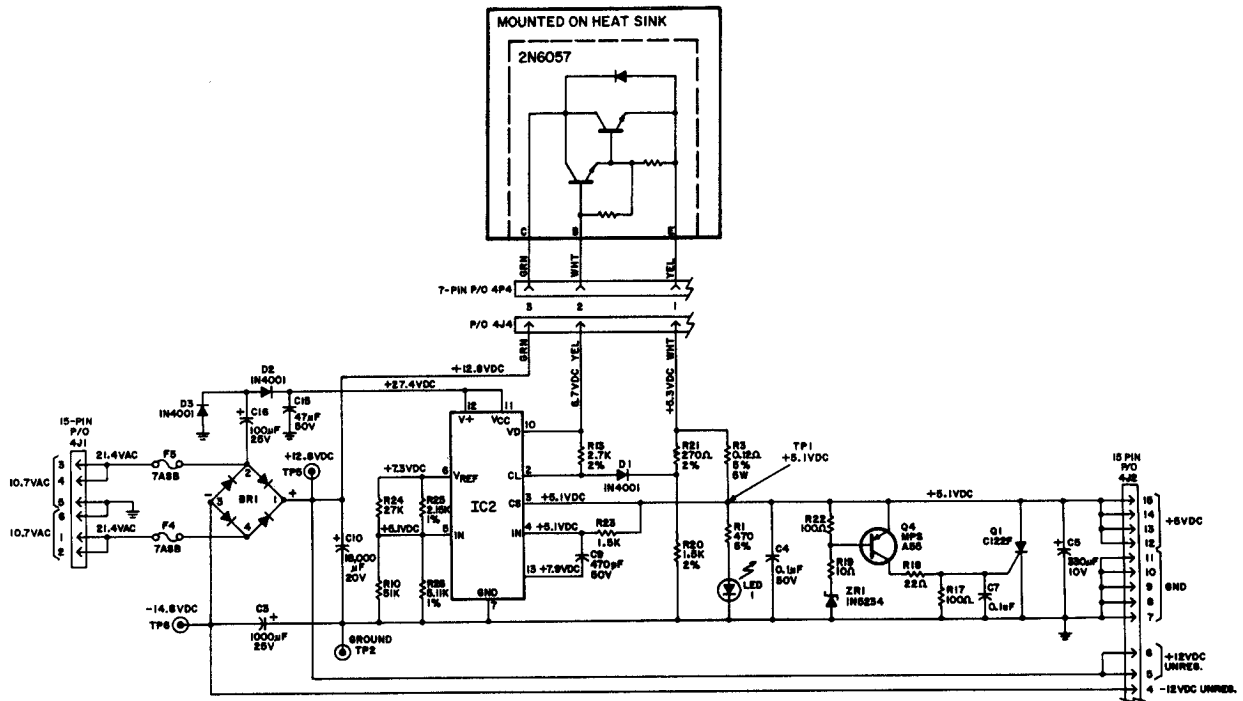


NOTES:  
1. REMOVE R24 IF +5VDC IS GREATER THAN 5.25 VDC,  
2. REMOVE R10 IF +5VDC IS LESS THAN 4.75 VDC,  
3. BR1 MUST BE MOUNTED 1/8" ABOVE SURFACE OF BOARD.  
3. FOR SCHEMATIC REFER TO 14-8011.

ITEM NO.	PART NO.	DESCRIPTION	QTY
55	5000-00	RESISTOR, 1/4W	1
56	5000-00	RESISTOR, 1/4W	1
57	5000-00	RESISTOR, 1/4W	1
58	5000-00	RESISTOR, 1/4W	1
59	5000-00	RESISTOR, 1/4W	1
60	5000-00	RESISTOR, 1/4W	1
61	5000-00	RESISTOR, 1/4W	1
62	5000-00	RESISTOR, 1/4W	1
63	5000-00	RESISTOR, 1/4W	1
64	5000-00	RESISTOR, 1/4W	1
65	5000-00	RESISTOR, 1/4W	1
66	5000-00	RESISTOR, 1/4W	1
67	5000-00	RESISTOR, 1/4W	1
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70	5000-00	RESISTOR, 1/4W	1
71	5000-00	RESISTOR, 1/4W	1
72	5000-00	RESISTOR, 1/4W	1
73	5000-00	RESISTOR, 1/4W	1
74	5000-00	RESISTOR, 1/4W	1
75	5000-00	RESISTOR, 1/4W	1
76	5000-00	RESISTOR, 1/4W	1
77	5000-00	RESISTOR, 1/4W	1
78	5000-00	RESISTOR, 1/4W	1
79	5000-00	RESISTOR, 1/4W	1
80	5000-00	RESISTOR, 1/4W	1
81	5000-00	RESISTOR, 1/4W	1
82	5000-00	RESISTOR, 1/4W	1
83	5000-00	RESISTOR, 1/4W	1
84	5000-00	RESISTOR, 1/4W	1
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95	5000-00	RESISTOR, 1/4W	1
96	5000-00	RESISTOR, 1/4W	1
97	5000-00	RESISTOR, 1/4W	1
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99	5000-00	RESISTOR, 1/4W	1
100	5000-00	RESISTOR, 1/4W	1

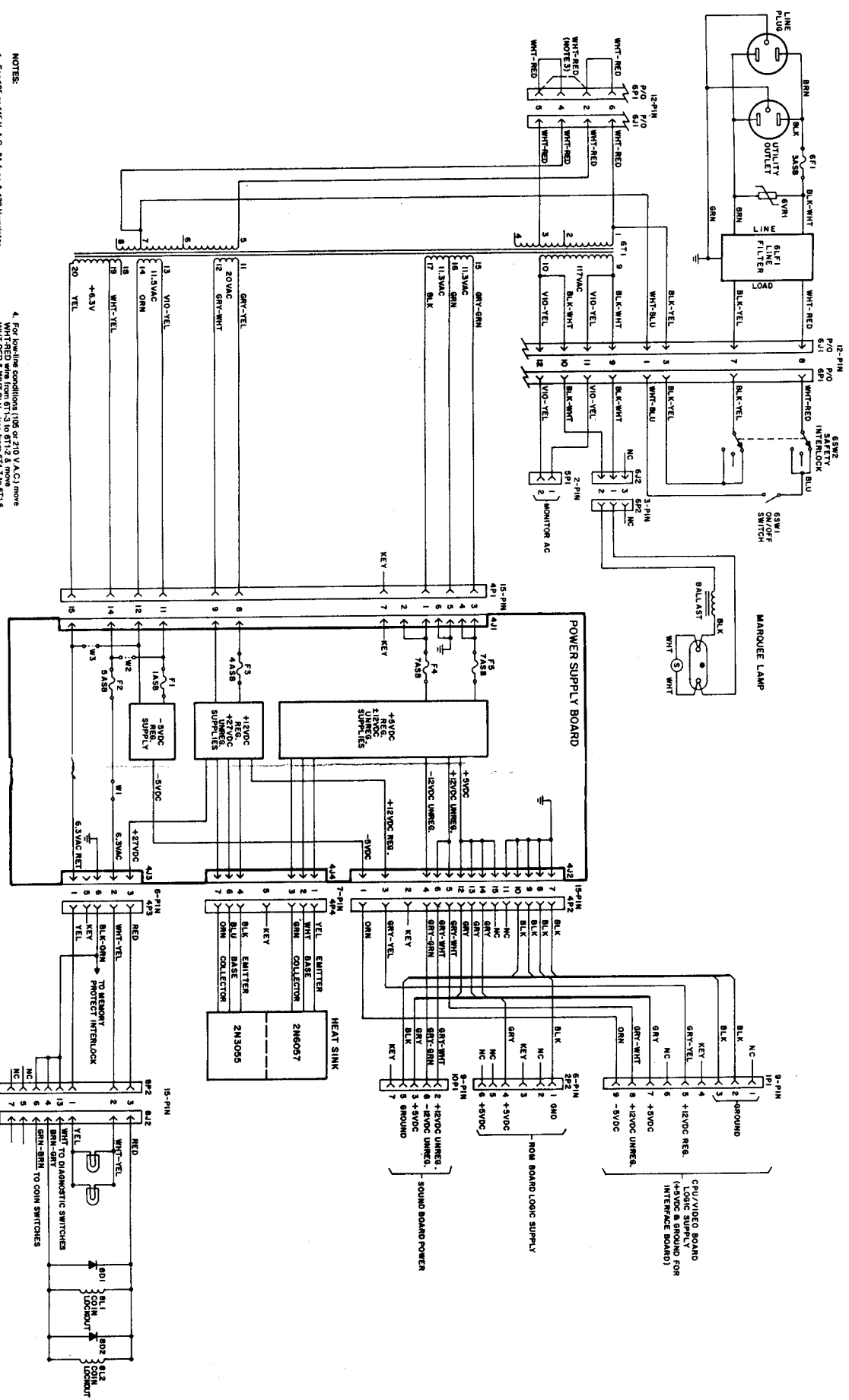
# BILL OF MATERIAL

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	5000-00	RESISTOR, 1/4W	1
2	5000-00	RESISTOR, 1/4W	1
3	5000-00	RESISTOR, 1/4W	1
4	5000-00	RESISTOR, 1/4W	1
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6	5000-00	RESISTOR, 1/4W	1
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83	5000-00	RESISTOR, 1/4W	1
84	5000-00	RESISTOR, 1/4W	1
85	5000-00	RESISTOR, 1/4W	1
86	5000-00	RESISTOR, 1/4W	1
87	5000-00	RESISTOR, 1/4W	1
88	5000-00	RESISTOR, 1/4W	1
89	5000-00	RESISTOR, 1/4W	1
90	5000-00	RESISTOR, 1/4W	1
91	5000-00	RESISTOR, 1/4W	1
92	5000-00	RESISTOR, 1/4W	1
93	5000-00	RESISTOR, 1/4W	1
94	5000-00	RESISTOR, 1/4W	1
95	5000-00	RESISTOR, 1/4W	1
96	5000-00	RESISTOR, 1/4W	1
97	5000-00	RESISTOR, 1/4W	1
98	5000-00	RESISTOR, 1/4W	1
99	5000-00	RESISTOR, 1/4W	1
100	5000-00	RESISTOR, 1/4W	1

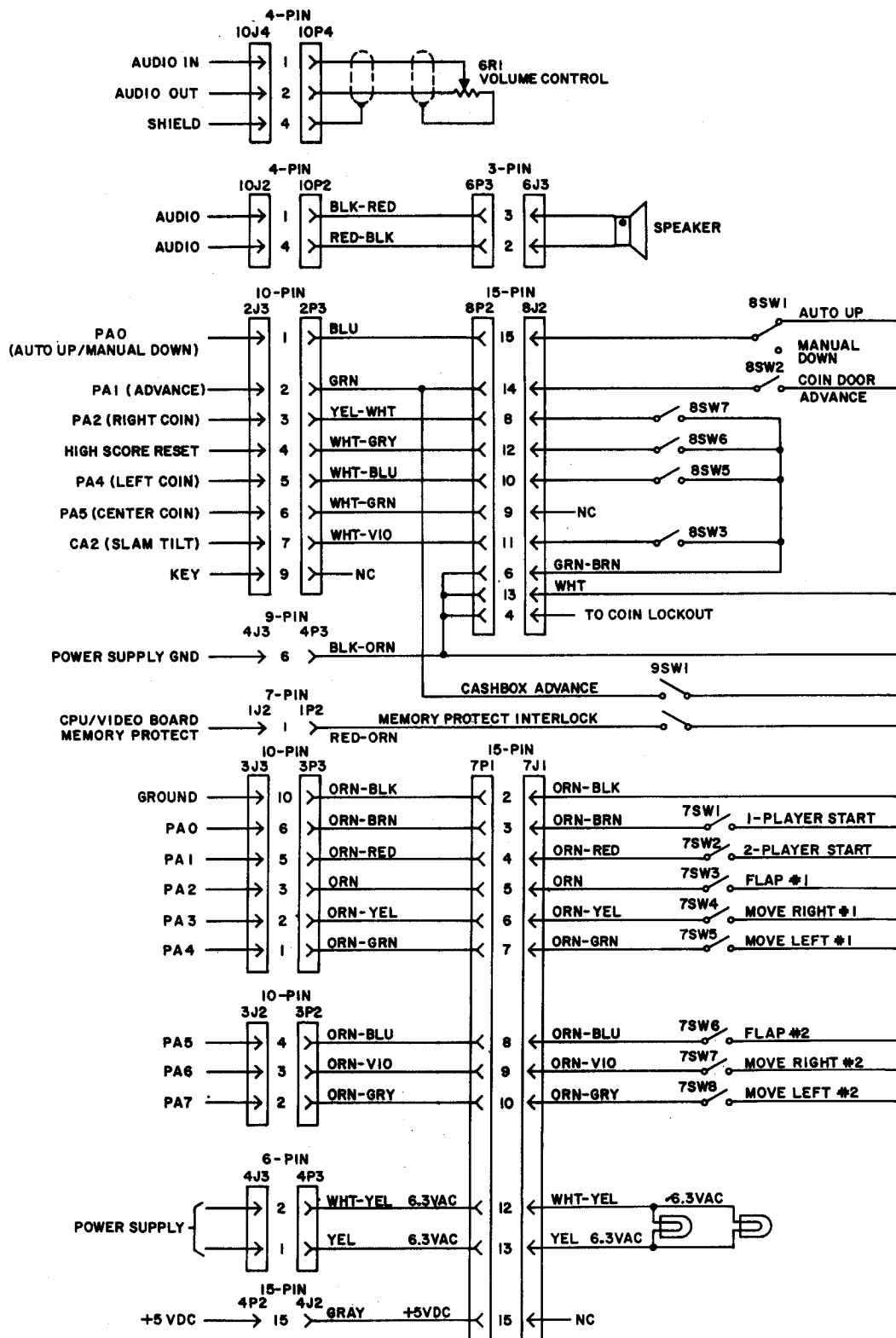


NOTE: JUMPERS W1, W2 & W3 ARE ALL N.C. IN JOUST-UPRIGHT GAMES.  
THESE GAMES USE POWER TRANSFORMER #00810-00055 WITH  
A 12.5VCT SECONDARY, ALLOWING 6.5V FOR GENERAL ILLUMINATION.

- NOTES:
- For 105 or 115 V.A.C., 3A fuse & 130 V variator  
5017/50844 are used.
  - For 210 or 235 V.A.C., 1A fuse & 275V variator  
5017/50805 are used.
  - Jumper wires on 8P1 shown with solid lines are connected for 17V A.C. operation. Only the one shown with dashed lines is connected for 220 V.A.C. operation.
  - For lowline conditions (105 or 210 V.A.C.) move  
WHT-RED wire from 8T1-3 to 8T1-2 & move  
WHT-RED & WHT-BLU wires from 8T1-7 to 8T1-6
  - For high line conditions (135 or 240 V.A.C.) move  
WHT-RED wire from 8T1-3 to 8T1-4 and move  
WHT-RED & WHT-BLU wires from 8T1-7 to 8T1-6

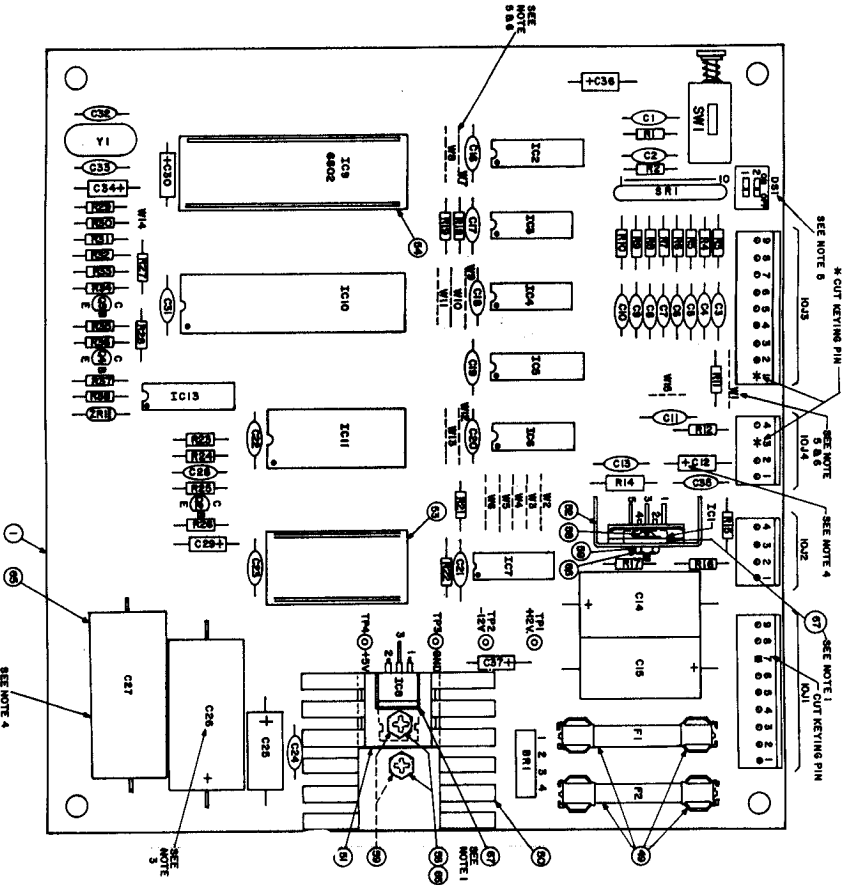


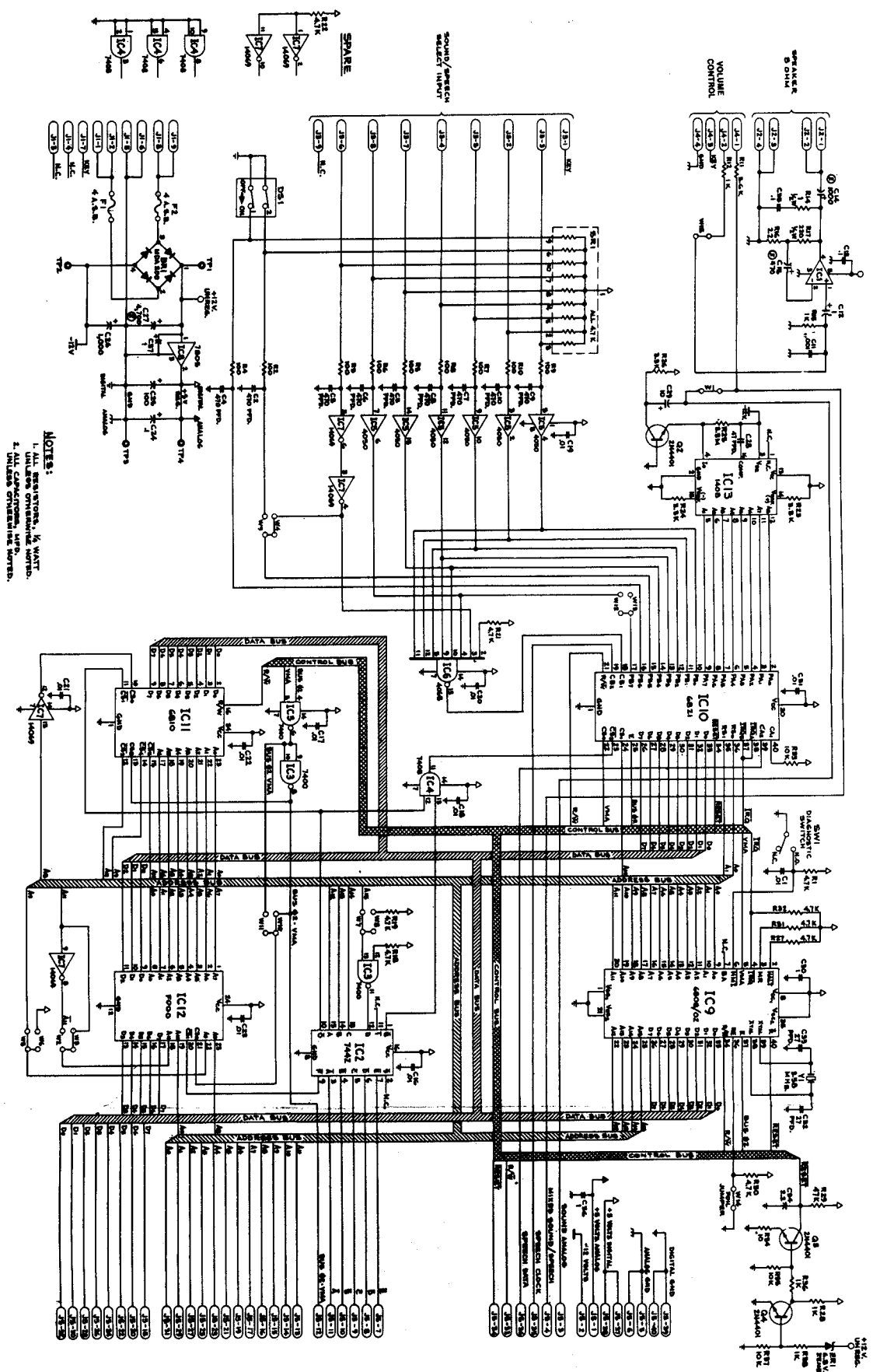
# CABINET WIRING



BILL OF MATERIAL

ITEM NO.	PART NO.	PART DESIGNATION	DESCRIPTION	QTY
1	01-2 01-146-4	IC1	7400 P.C. BOARD KEY F	1
2	5370-09154-00	IC2	7400 P.C. BOARD KEY F	1
3	5380-09012-00	IC3	7400 P.C. BOARD KEY F	1
4	5380-09012-00	IC4	7400 P.C. BOARD KEY F	1
5	5310-09113-00	IC5	7400 P.C. BOARD KEY F	1
6	5310-09113-00	IC6	7400 P.C. BOARD KEY F	1
7	5310-09154-00	IC7	7400 P.C. BOARD KEY F	1
8	5310-09154-00	IC8	7400 P.C. BOARD KEY F	1
9	5310-09154-00	IC9	7400 P.C. BOARD KEY F	1
10	5310-09154-00	IC10	7400 P.C. BOARD KEY F	1
11	5310-09154-00	IC11	7400 P.C. BOARD KEY F	1
12	5310-09154-00	IC12	7400 P.C. BOARD KEY F	1
13	5310-09154-00	IC13	7400 P.C. BOARD KEY F	1
14	5310-09154-00	IC14	7400 P.C. BOARD KEY F	1
15	5310-09154-00	IC15	7400 P.C. BOARD KEY F	1
16	5310-09154-00	IC16	7400 P.C. BOARD KEY F	1
17	5310-09154-00	IC17	7400 P.C. BOARD KEY F	1
18	5310-09154-00	IC18	7400 P.C. BOARD KEY F	1
19	5310-09154-00	IC19	7400 P.C. BOARD KEY F	1
20	5310-09154-00	IC20	7400 P.C. BOARD KEY F	1
21	5310-09154-00	IC21	7400 P.C. BOARD KEY F	1
22	5310-09154-00	IC22	7400 P.C. BOARD KEY F	1
23	5310-09154-00	IC23	7400 P.C. BOARD KEY F	1
24	5310-09154-00	IC24	7400 P.C. BOARD KEY F	1
25	5310-09154-00	IC25	7400 P.C. BOARD KEY F	1
26	5310-09154-00	IC26	7400 P.C. BOARD KEY F	1
27	5310-09154-00	IC27	7400 P.C. BOARD KEY F	1
28	5310-09154-00	IC28	7400 P.C. BOARD KEY F	1
29	5310-09154-00	IC29	7400 P.C. BOARD KEY F	1
30	5310-09154-00	IC30	7400 P.C. BOARD KEY F	1
31	5310-09154-00	IC31	7400 P.C. BOARD KEY F	1
32	5310-09154-00	IC32	7400 P.C. BOARD KEY F	1
33	5310-09154-00	IC33	7400 P.C. BOARD KEY F	1
34	5310-09154-00	IC34	7400 P.C. BOARD KEY F	1
35	5310-09154-00	IC35	7400 P.C. BOARD KEY F	1
36	5310-09154-00	IC36	7400 P.C. BOARD KEY F	1
37	5310-09154-00	IC37	7400 P.C. BOARD KEY F	1
38	5310-09154-00	IC38	7400 P.C. BOARD KEY F	1
39	5310-09154-00	IC39	7400 P.C. BOARD KEY F	1
40	5310-09154-00	IC40	7400 P.C. BOARD KEY F	1
41	5310-09154-00	IC41	7400 P.C. BOARD KEY F	1
42	5310-09154-00	IC42	7400 P.C. BOARD KEY F	1
43	5310-09154-00	IC43	7400 P.C. BOARD KEY F	1
44	5310-09154-00	IC44	7400 P.C. BOARD KEY F	1
45	5310-09154-00	IC45	7400 P.C. BOARD KEY F	1
46	5310-09154-00	IC46	7400 P.C. BOARD KEY F	1
47	5310-09154-00	IC47	7400 P.C. BOARD KEY F	1
48	5310-09154-00	IC48	7400 P.C. BOARD KEY F	1
49	5310-09154-00	IC49	7400 P.C. BOARD KEY F	1
50	5310-09154-00	IC50	7400 P.C. BOARD KEY F	1
51	5310-09154-00	IC51	7400 P.C. BOARD KEY F	1
52	5310-09154-00	IC52	7400 P.C. BOARD KEY F	1
53	5310-09154-00	IC53	7400 P.C. BOARD KEY F	1
54	5310-09154-00	IC54	7400 P.C. BOARD KEY F	1
55	5310-09154-00	IC55	7400 P.C. BOARD KEY F	1
56	5310-09154-00	IC56	7400 P.C. BOARD KEY F	1
57	5310-09154-00	IC57	7400 P.C. BOARD KEY F	1
58	5310-09154-00	IC58	7400 P.C. BOARD KEY F	1
59	5310-09154-00	IC59	7400 P.C. BOARD KEY F	1
60	5310-09154-00	IC60	7400 P.C. BOARD KEY F	1
61	5310-09154-00	IC61	7400 P.C. BOARD KEY F	1
62	5310-09154-00	IC62	7400 P.C. BOARD KEY F	1
63	5310-09154-00	IC63	7400 P.C. BOARD KEY F	1
64	5310-09154-00	IC64	7400 P.C. BOARD KEY F	1
65	5310-09154-00	IC65	7400 P.C. BOARD KEY F	1
66	5310-09154-00	IC66	7400 P.C. BOARD KEY F	1
67	5310-09154-00	IC67	7400 P.C. BOARD KEY F	1
68	5310-09154-00	IC68	7400 P.C. BOARD KEY F	1
69	5310-09154-00	IC69	7400 P.C. BOARD KEY F	1
70	5310-09154-00	IC70	7400 P.C. BOARD KEY F	1
71	5310-09154-00	IC71	7400 P.C. BOARD KEY F	1
72	5310-09154-00	IC72	7400 P.C. BOARD KEY F	1
73	5310-09154-00	IC73	7400 P.C. BOARD KEY F	1
74	5310-09154-00	IC74	7400 P.C. BOARD KEY F	1
75	5310-09154-00	IC75	7400 P.C. BOARD KEY F	1
76	5310-09154-00	IC76	7400 P.C. BOARD KEY F	1
77	5310-09154-00	IC77	7400 P.C. BOARD KEY F	1
78	5310-09154-00	IC78	7400 P.C. BOARD KEY F	1
79	5310-09154-00	IC79	7400 P.C. BOARD KEY F	1
80	5310-09154-00	IC80	7400 P.C. BOARD KEY F	1
81	5310-09154-00	IC81	7400 P.C. BOARD KEY F	1
82	5310-09154-00	IC82	7400 P.C. BOARD KEY F	1
83	5310-09154-00	IC83	7400 P.C. BOARD KEY F	1
84	5310-09154-00	IC84	7400 P.C. BOARD KEY F	1
85	5310-09154-00	IC85	7400 P.C. BOARD KEY F	1
86	5310-09154-00	IC86	7400 P.C. BOARD KEY F	1
87	5310-09154-00	IC87	7400 P.C. BOARD KEY F	1
88	5310-09154-00	IC88	7400 P.C. BOARD KEY F	1
89	5310-09154-00	IC89	7400 P.C. BOARD KEY F	1
90	5310-09154-00	IC90	7400 P.C. BOARD KEY F	1
91	5310-09154-00	IC91	7400 P.C. BOARD KEY F	1
92	5310-09154-00	IC92	7400 P.C. BOARD KEY F	1
93	5310-09154-00	IC93	7400 P.C. BOARD KEY F	1
94	5310-09154-00	IC94	7400 P.C. BOARD KEY F	1
95	5310-09154-00	IC95	7400 P.C. BOARD KEY F	1
96	5310-09154-00	IC96	7400 P.C. BOARD KEY F	1
97	5310-09154-00	IC97	7400 P.C. BOARD KEY F	1
98	5310-09154-00	IC98	7400 P.C. BOARD KEY F	1
99	5310-09154-00	IC99	7400 P.C. BOARD KEY F	1
100	5310-09154-00	IC100	7400 P.C. BOARD KEY F	1





NOTES:  
1. ALL RESISTORS,  $\frac{1}{4}$  WATT  
UNLESS OTHERWISE NOTED.  
2. ALL CAPACITORS,  $\mu$ F, UNLESS OTHERWISE NOTED.