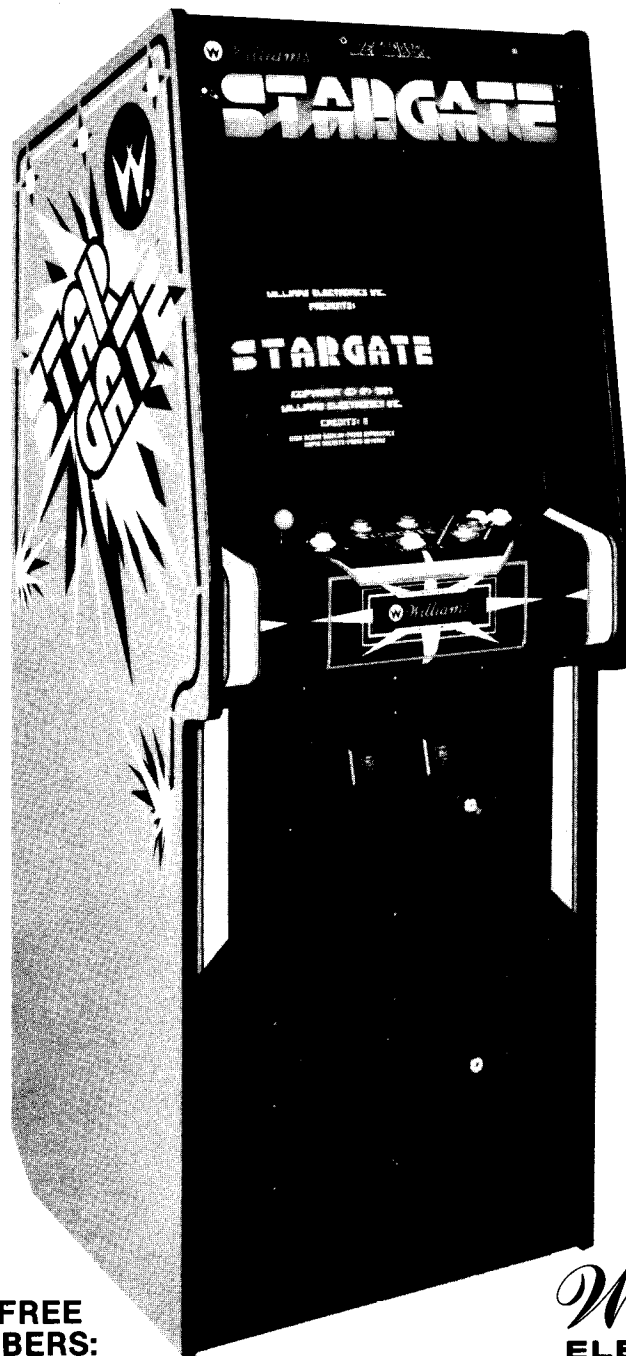


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December, 1981

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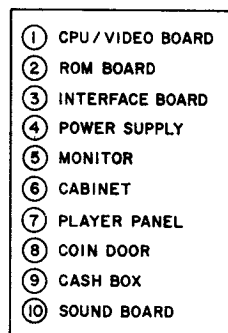
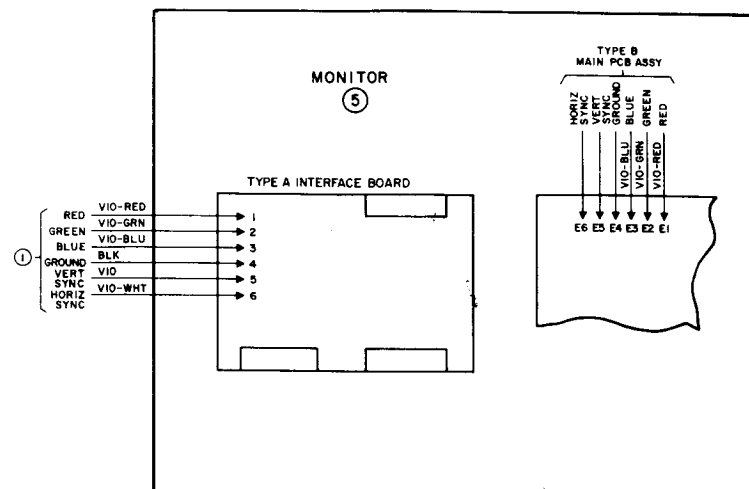
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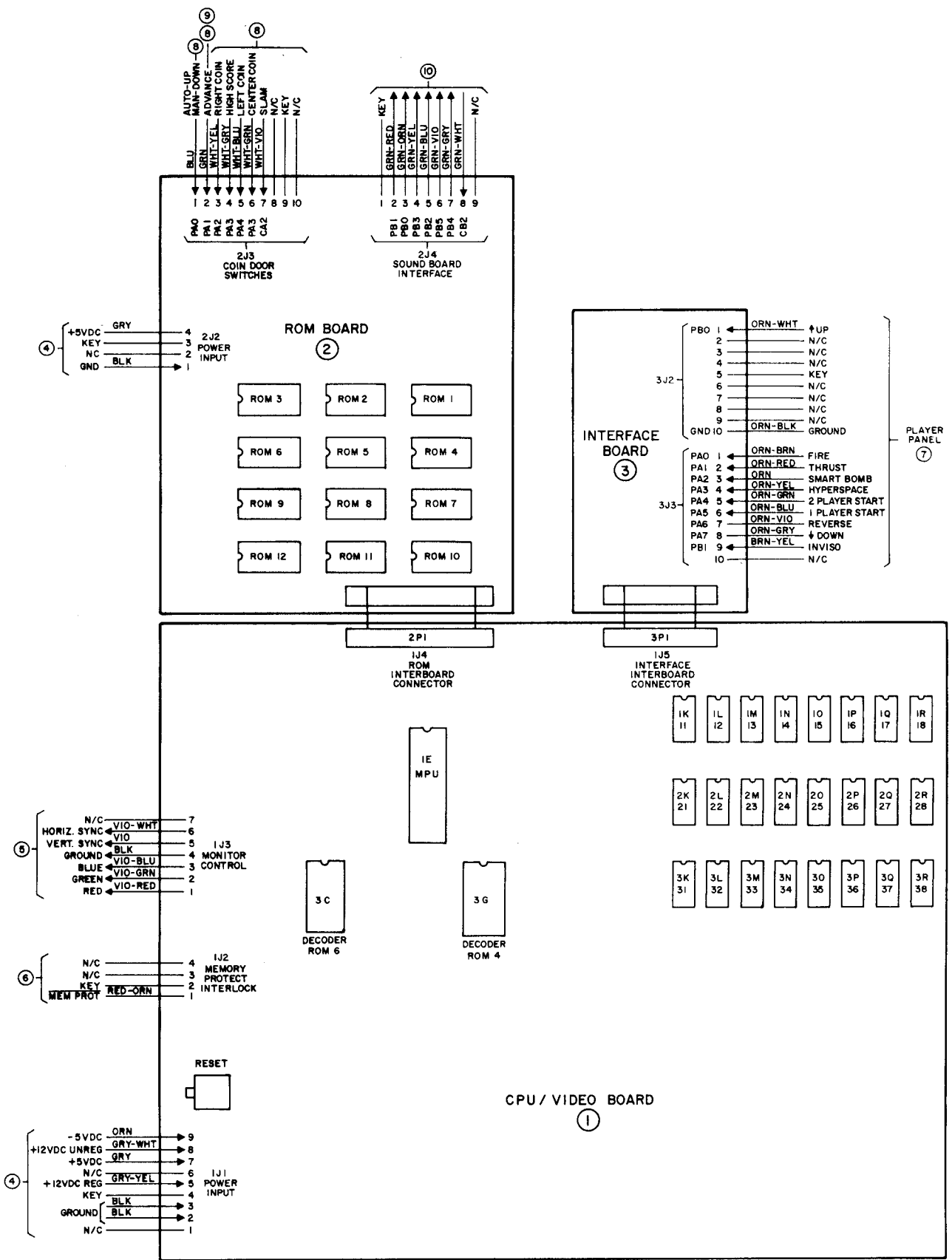
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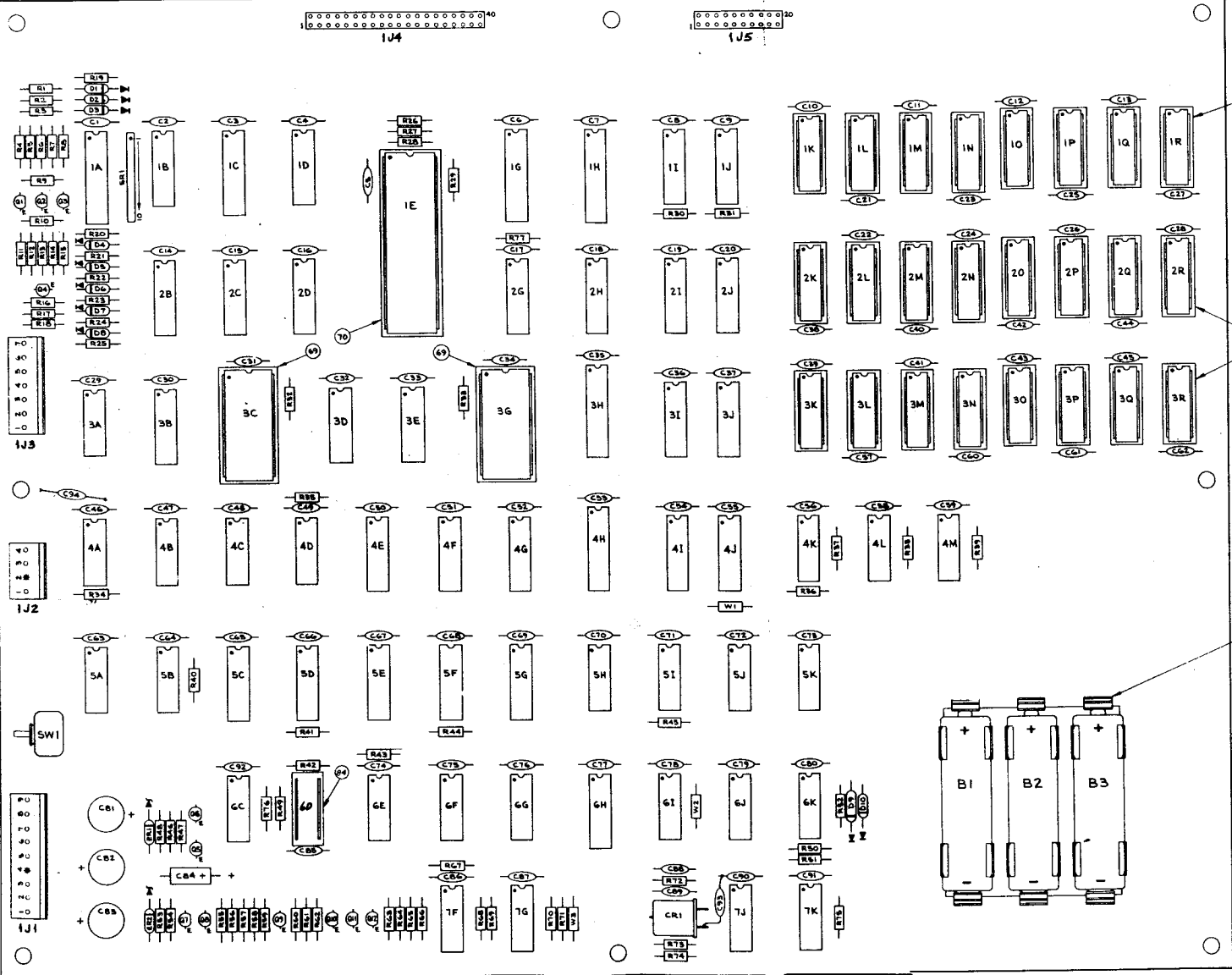


### Interboard Wiring Diagram

# COMPONENT DOOR

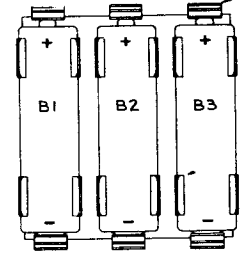
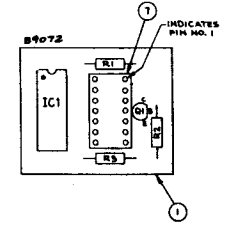


A B C D E F G H I J K L M N O P Q R



**B9072 BILL OF MATERIAL**

ITEM NO.	PART NO.	DESIGNATION	DESCRIPTION	REQ'D. NO.
1	5170-09810-00		BASE P.C. BOARD	1
2	5280-09011-00	IC1	7410 TRIPLE 3-INPUT NAND	1
3	5160-09358-00	Q1	2N4401, TO-92 TRANSISTOR, NPN	1
4	5010-09558-00	R1	RESISTOR, C.F. 1K $\pm$ 5% 1/4 WATT	1
5	5010-08991-00	R2	RESISTOR, C.F. 47K $\pm$ 5% 1/4 WATT	1
6	5010-09084-00	R3	RESISTOR, C.F. 10K $\pm$ 5% 1/4 WATT	1
7	5101-09812-00		14 PIN I.C. HEADER	1



BILL OF MATERIAL					ITEM NO.	PART NO.	PART DESIGNATION	DESCRIPTION	REQ'D. NO.
1	5170-09656-00		BARE P.C. BOARD 8x11	1	49	5010-09001-00	R2, R21, R24	RESISTOR, C.F. 330 OHM 5% 1/4 W.	3
2	5280-09073-00	4B	7400 QUAD 2-INPUT NAND	1	50	5010-09039-00	R56	RESISTOR, C.F. 10 OHM 5% 1/4 W.	1
3	5280-08948-00	5H	7402 QUAD 2-INPUT NOR	1	51	5043-09491-00	C89, C93	CAPACITOR, AXIAL 22 PFD. 1K V. 210%	2
4	5281-09218-00	7J	74LS04 HEX. INVERTER	1	52	5043-09492-00	C88	CAPACITOR, AXIAL 100 PFD. 50 V. 210%	1
5	5280-09013-00	5A, 5K	7404 HEX. INVERTER	2	53	5040-09545-00	C84	CAPACITOR, AXIAL 22 MFD. 10 V. 220%	1
6	5280-08973-00	6F	7408 QUAD AND	1	54	5043-09065-00	C94	CAPACITOR, AXIAL 470 PFD. 50 V. XTR 120%	1
7	5280-09011-00	4L, 4M, 6I	7410 TRIPLE 3-INPUT NAND	3	55	5043-08996-00	SEE NOTE #3	CAPACITOR, AXIAL 1 MFD. 50 V. 220%	86
8	5280-09475-00	3A, 6J	7411 TRIPLE 3-INPUT AND	2	56	5040-09421-00	C81, C82, C83	CAPACITOR, RADIAL 100 MFD. 25 V. +50 -10%	3
9	5280-09530-00	5B	7420 DUAL 4-INPUT NAND	1	57	5075-09059-00	2R2	IN5990A 3.9 V. ZENER DIODE	1
10	5280-09476-00	4C	7421 DUAL 4-INPUT AND	1	58	5075-09018-00	2R1	IN5990A 6.8 V. ZENER DIODE	1
11	5280-09477-00	6E, 6G	7432 QUAD 2-INPUT OR	2	59	5070-08919-00	D1, D2, D3, D4, D5, D6, D7, D8	1N4148 DIODE, SILICON	8
12	5280-09478-00	4D, 4K, 6K, 6C, 7F, 7G	7474 DUAL-D TYPE FLIP-FLOP	6	60	5070-09266-00	D9	1N5817 DIODE, SILICON	1
13	5280-09479-00	4A, 5J	7486 QUAD 2-INPUT EX-OR	2	61	5160-08938-00	Q5, Q6, Q7, Q8, Q9, Q10, Q11	2N4401, TO-92 TRANSISTOR, NPN	7
14	5281-09480-00	7K	74LS107 DUAL J-K FLIP-FLOP	1	62	5190-09016-00	Q1, Q2, Q3, Q4, Q12	2N4403, TO-92 TRANSISTOR, PNP	5
15	5281-09532-00	5G	74LS133 13-INPUT NAND	1	63	5520-09495-00	CRI	12 MHZ CRYSTAL	1
16	5281-09246-00	4G, 6H	74LS139 DUAL 2 to 4 LINE DECODER	2	64				
17	5280-09481-00	3D, 3E, 4E, 4F	74153 DUAL 4 to 1 DATA INVERT	4	65	5880-09022-00	B1, B2, B3	BATTERY ALKALINE 1.5 V. (AA)	3
18	5280-09668-00	1I, 1J, 2I, 2J, 3I, 3J, 4I, 4J	74166 8-BIT SHIFT REGISTER	8	66	5881-09021-00		BATTERY HOLDER #171	1
19					67	5700-09628-00		14-PIN IC SOCKET	0
20	5281-09308-00	1G	74LS245 OCTAL BUSTRANSCEIVER	1	68	5700-09006-00		16-PIN IC SOCKET	24
21	5281-09485-00	2C, 2H	74LS257 QUAD DATA MUX.	2	69	5700-09004-00		24-PIN IC SOCKET	2
22	5370-08989-00	1D, 2D, 2G, 3B	8T97 HEX. TS BUFFER	0	70	5700-08985-00		40-PIN IC SOCKET	1
	5281-09385-00		74LS367 HEX BUS DRIVER	4	71	5791-09437-00	1J5	20 PIN RIBBON CABLE HEADER	1
23	5281-09486-00	1A, 1H, 3H, 4H	74LS374 OCTAL D-TYPE FLIP-FLOP	4	72	5791-09349-00	1J4	40 PIN RIBBON CABLE HEADER	1
24	A-5342-09695	3C	UNIVERSAL VERT. DECODER ROM5	1	73	5791-09028-00	1J2	4 PIN HEADER 09-65-1041	1
25	A-5342-09694	3G	UNIVERSAL HORIZ. DECODER ROM4	1	74	5791-09497-00	1J3	7 PIN HEADER 09-65-1071	1
26	B-9072	6D	CMOS MOD. ASSY BOARD	1	75	5791-09027-00	1J1	9 PIN HEADER 09-65-1091	1
27	5281-09533-00	5I	74LS393 DUAL 4-BIT BIN. COUNTER	1	76	5019-09669-00	SR1	RESISTOR, 1K OHM 10 PIN SIP	1
28	5340-09488-00	SEE NOTE #1	4116 (450 ns ACCESS) 16 K x 1 DYNAMIC RAM	24	77	5010-09534-00	W1, W2, W3	RESISTOR, C.F. 0 OHM 1/4 WATT	3
29	5070-06258-00	D10	1N4001 DIODE	1	78	5340-09689-00	1C	5114 1K x 4 CMOS STATIC RAM	1
30	5280-09489-00	5C, 5D, 5E, 5F	9316 4-BIT BIN. COUNTER	4		5340-09667-00		6514 1K x 4 CMOS STATIC RAM	0
31	5400-09490-00	1E	6809E MICROPROCESSOR	1	79	5281-09488-00	1B, 2B	74LS189 16 x 4 RAM	0
32	5010-09548-00	R10, R12, R14	RESISTOR, C.F. 68 OHM 2% 1/4 W.	3		5180-09628-00		7489 16 x 4 RAM	0
33	5010-09036-00	R65	RESISTOR, C.F. 100 OHM 5% 1/4 W.	1		5281-09716-00		74S189 16 x 4 RAM	0
34	5010-09187-00	R4, R6, R7, R16, R19, R25	RESISTOR, C.F. 150 OHM 5% 1/4 W.	6		5281-09715-00		74LS289 16 x 4 RAM	2
35	5010-09508-00	R11, R13, R15	RESISTOR, C.F. 270 OHM 2% 1/4 W.	3		5282-09717-00		74S289 16 x 4 RAM	0
36	5010-09416-00	R18	RESISTOR, C.F. 470 OHM 5% 1/4 W.	1	80	5641-09571-00	SW1	PUSH BUTTON SW. SPST	0
37	5010-08992-00	R1, R20, R23	RESISTOR, C.F. 560 OHM 5% 1/4 W.	3		5641-09512-00		PUSH BUTTON SW. DPDT MOM.	1
38	5010-09558-00	R5, R8, R9, R17, R48, R54, R74	RESISTOR, C.F. 1K OHM 5% 1/4 W.	7	81				
39	5010-09314-00	R3, R22	RESISTOR, C.F. 1.2 K OHM 5% 1/4 W.	2	82				
40	5010-08998-00	R59, R72, R73	RESISTOR, C.F. 2.2 K OHM 5% 1/4 W.	3	83				
41	5010-08997-00	R60, R63	RESISTOR, C.F. 2.7 K OHM 5% 1/4 W.	2	84	5700-09013-00		14 PIN IC SOCKET	1
42	5010-08983-00	R30, R31, R40, R44, R55	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.	27					
44	5010-09034-00	R46, R53	RESISTOR, C.F. 10 K OHM 5% 1/4 W.	2					
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					
47	5010-09359-00	R64	RESISTOR, C.F. 47 K OHM 5% 1/4 W.	1					
48	5010-09442-00	R42, R49	RESISTOR, C.F. 330 K OHM 5% 1/4 W.	2					

#### NOTES:

1. 4116: 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. 47K 4 RESISTOR:

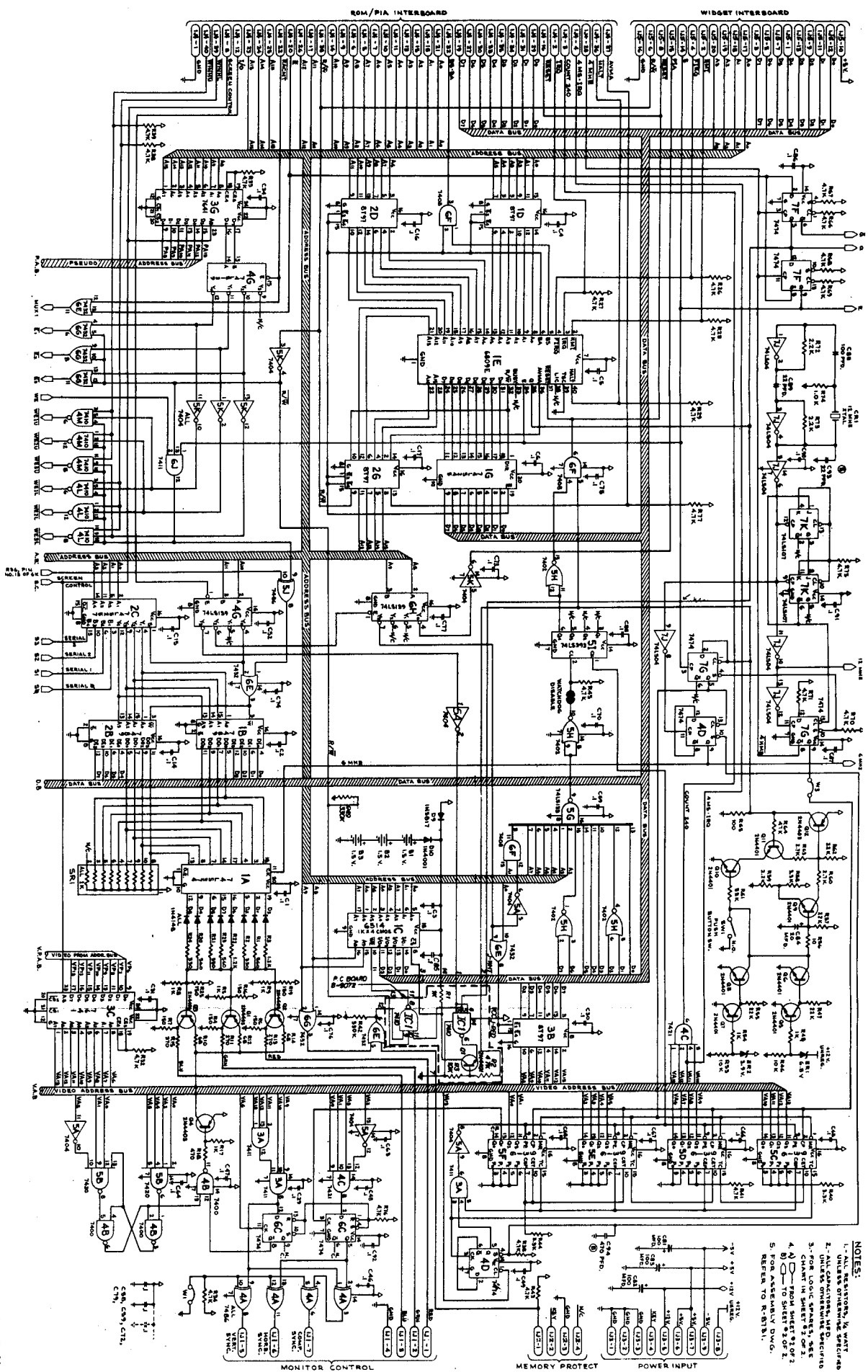
R26, R27, R28, R29, R32, R33, R35, R36, R37, R38, R39, R41, R43, R45, R50, R51, R52, R66, R67, R68, R69, R70, R71, R75, R84, R77

#### 3. J 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, C85, C86, C87, C90, C91, C92

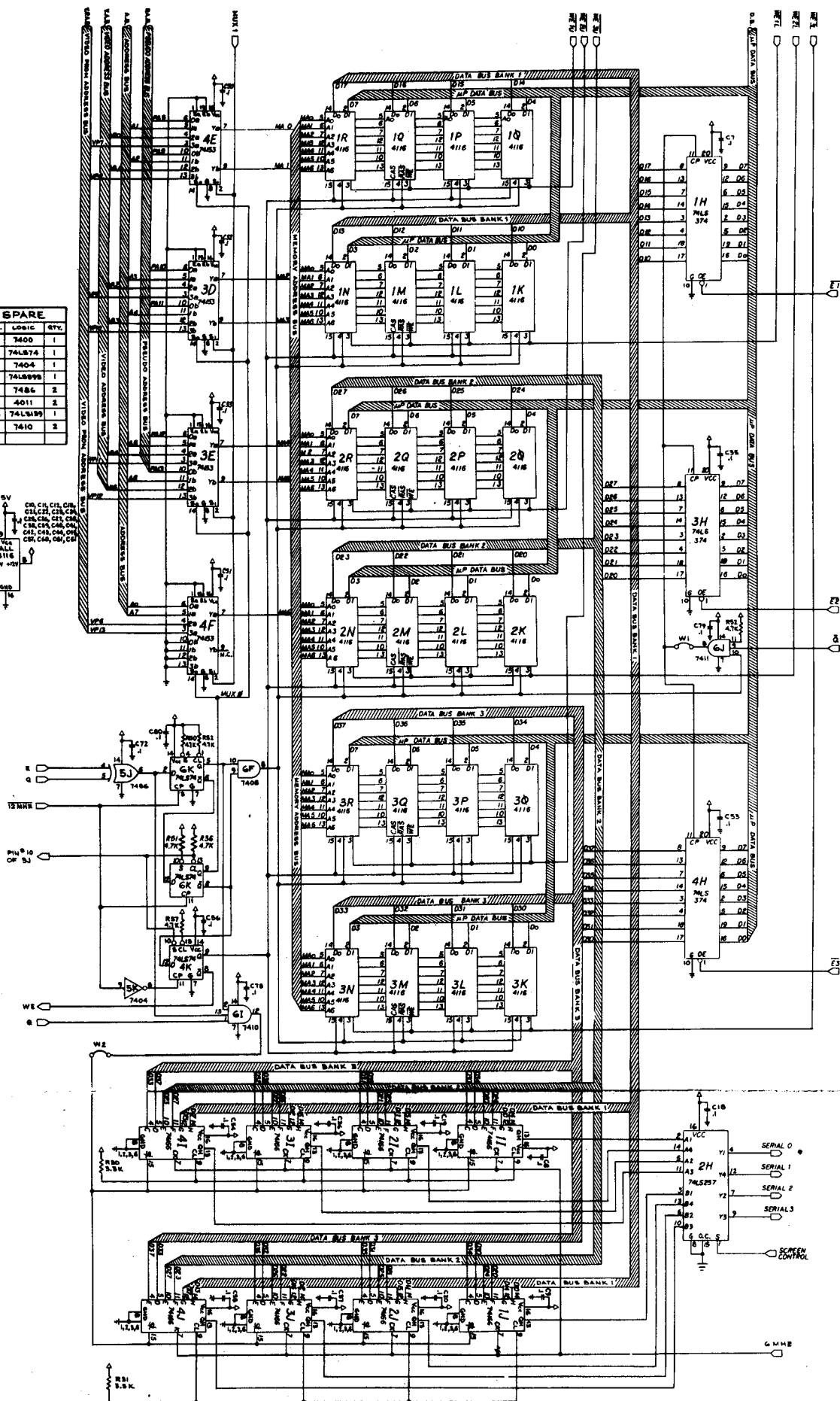
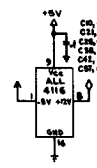
4. FOR SCHEMATIC REFER TO 1G-8809

R8948 CPU Board Logic Diagram (Sheet 1 of 2)



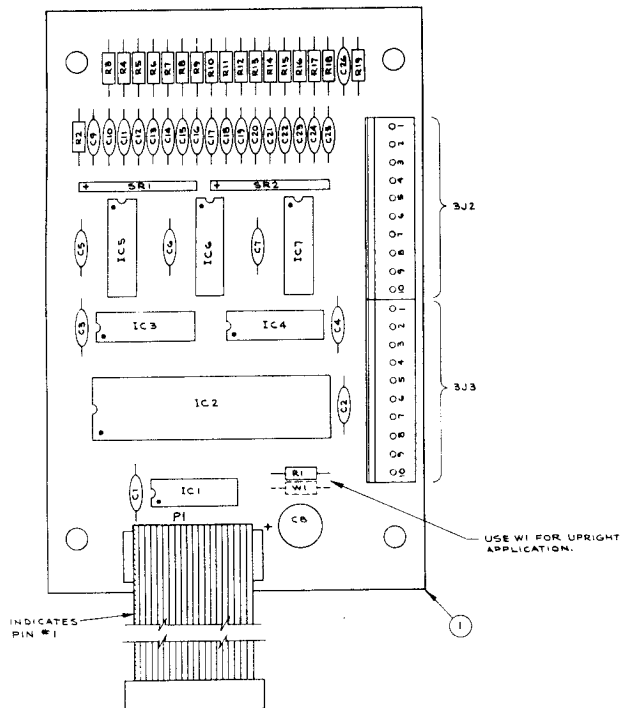
NOTES:  
1. ALL RESISTORS, IN OHMS, UNLESS OTHERWISE SPECIFIED.  
2. ALL CAPACITORS, IN P.F., UNLESS OTHERWISE SPECIFIED.  
3. FOR LOGIC SYMBOLS, SEE CHART IN SHEET 2 OF 2.  
4. A) FROM SHEET 2 OF 2.  
5. TO SHEET 2 OF 2.  
6. RETURN TO 0V OR GND.

SPARE		
LOC.	LOGIC	QTY.
4B	7400	1
4K	74LS74	1
5A	7404	1
5I	74LS99B	1
5J	7486	2
6D	4011	2
6H	74LS99	1
6I	7410	2



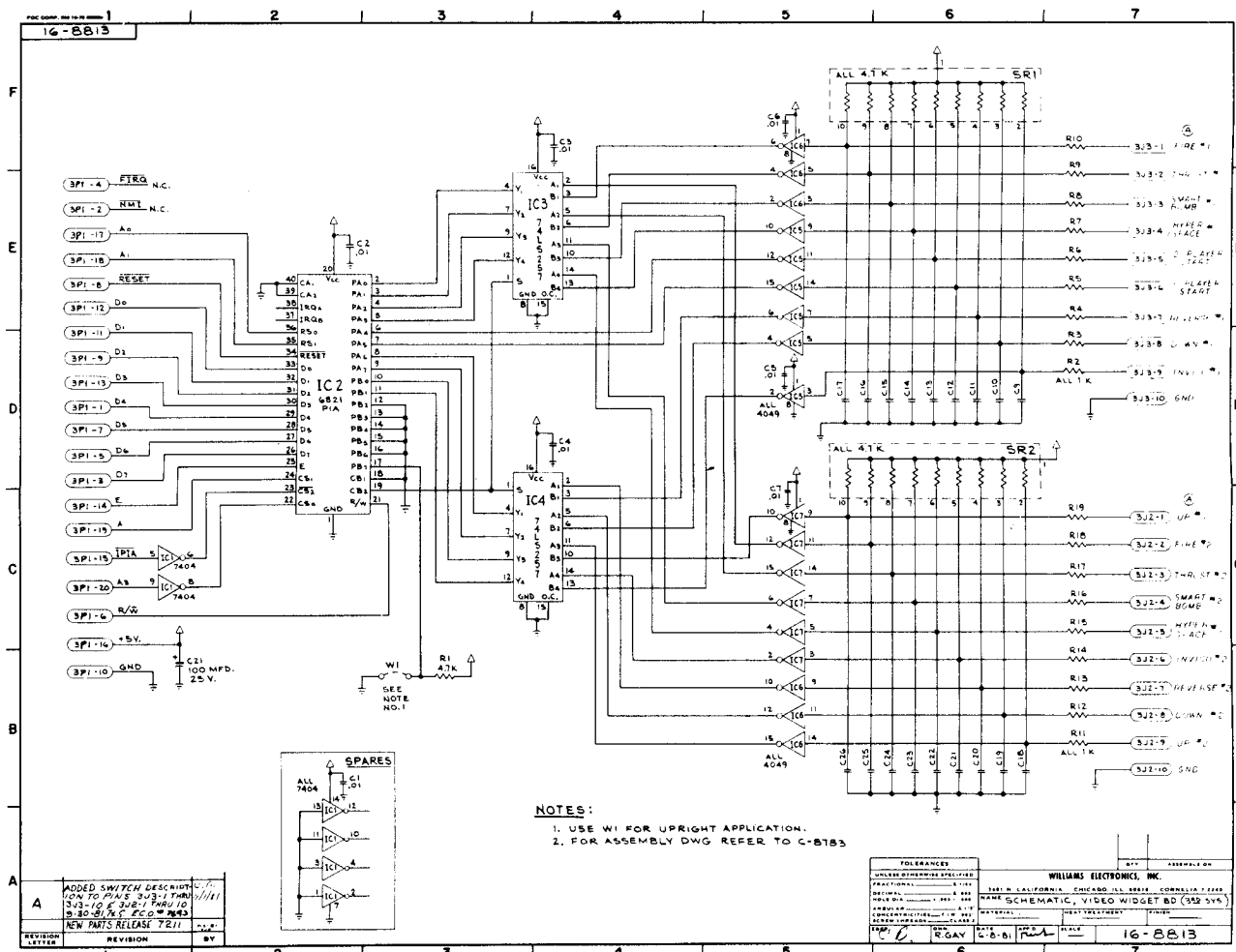


ITEM NO.	PART NO.	PART DESIGNATION	DESCRIPTION	NO. REQD.
1	5172-09480-00		BARE P.C. BOARD	1
2	5430-08972-00	IC2	6821 PIA	1
3	5310-08975-00	IC3, IC6, IC7	4049 CMOS HEX INVERTOR	3
4	5280-09013-00	IC1	7404 HEX INVERTER	1
5	5281-09485-00	IC3, IC4	74LS257 QUAD DATA MULTIPLEXER	2
6	5019-09362-00	SR1, SR2	4.7K OHM 8 RES. 10 PIN SIP	2
7	5010-09368-00	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	5010-09534-00	W1	RESISTOR, C.F. 0 OHM 1/4 WATT	1
10	5045-09065-00	C8 THRU C26	CAPACITOR, CERAMIC DISC. 470 PFD. 50 V. XTR 220%	18
11	5040-09421-00	C6	CAPACITOR, ELECT. RADIAL 100 MFD. 25 VOLT. +50-10%	1
12	5045-08980-00	C1 THRU C7	CAPACITOR, CERAMIC DISC. 101 MFD. 50 V. +50-20%	7
13	5175-09540-00	P1	20 PIN RIBBON CABLE ASSY.	1
14	09444-00	J2, J3	10 PIN HEADER 09-65-1101	2



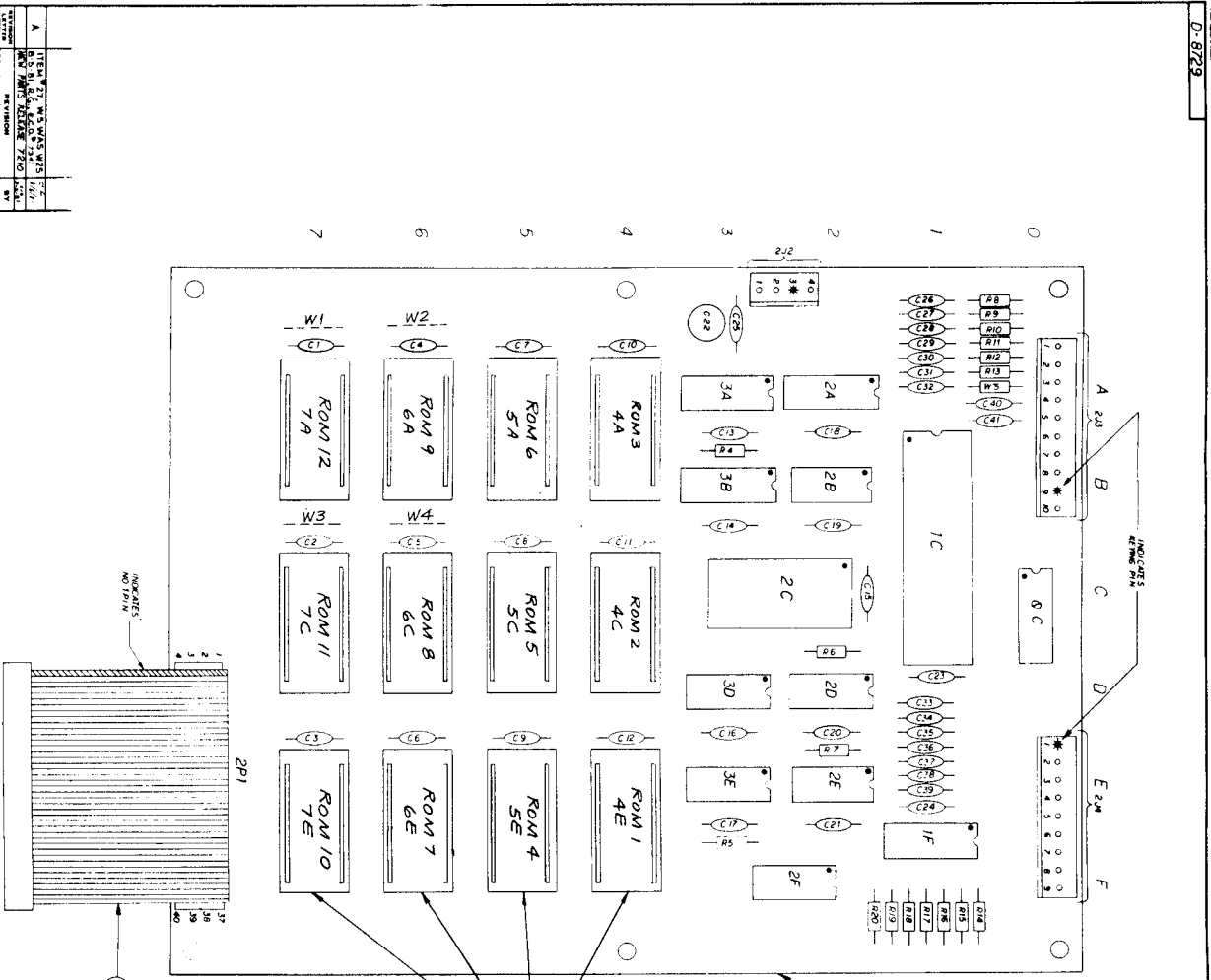
REVISION LETTER	NEW PARTS RELEASE 7212	BY
	REVISION	

TOLERANCES	UNLESS OTHERWISE SPECIFIED	WILLIAMS ELECTRONICS, INC.
FRACTIONAL	1/100	1601 N. CALIFORNIA, CHICAGO, ILL. 60614, CORNELIA 7-1100
DECIMAL	1/100	NAME VIDEO WIDGET ASSEMBLY (380 SYSTEM)
ANGULAR	1/100	MATERIAL
WELDING	1/100	TEST METHOD
WELDING	1/100	FINISH
WELDING	1/100	DATE
WELDING	1/100	BY
WELDING	1/100	16-8813



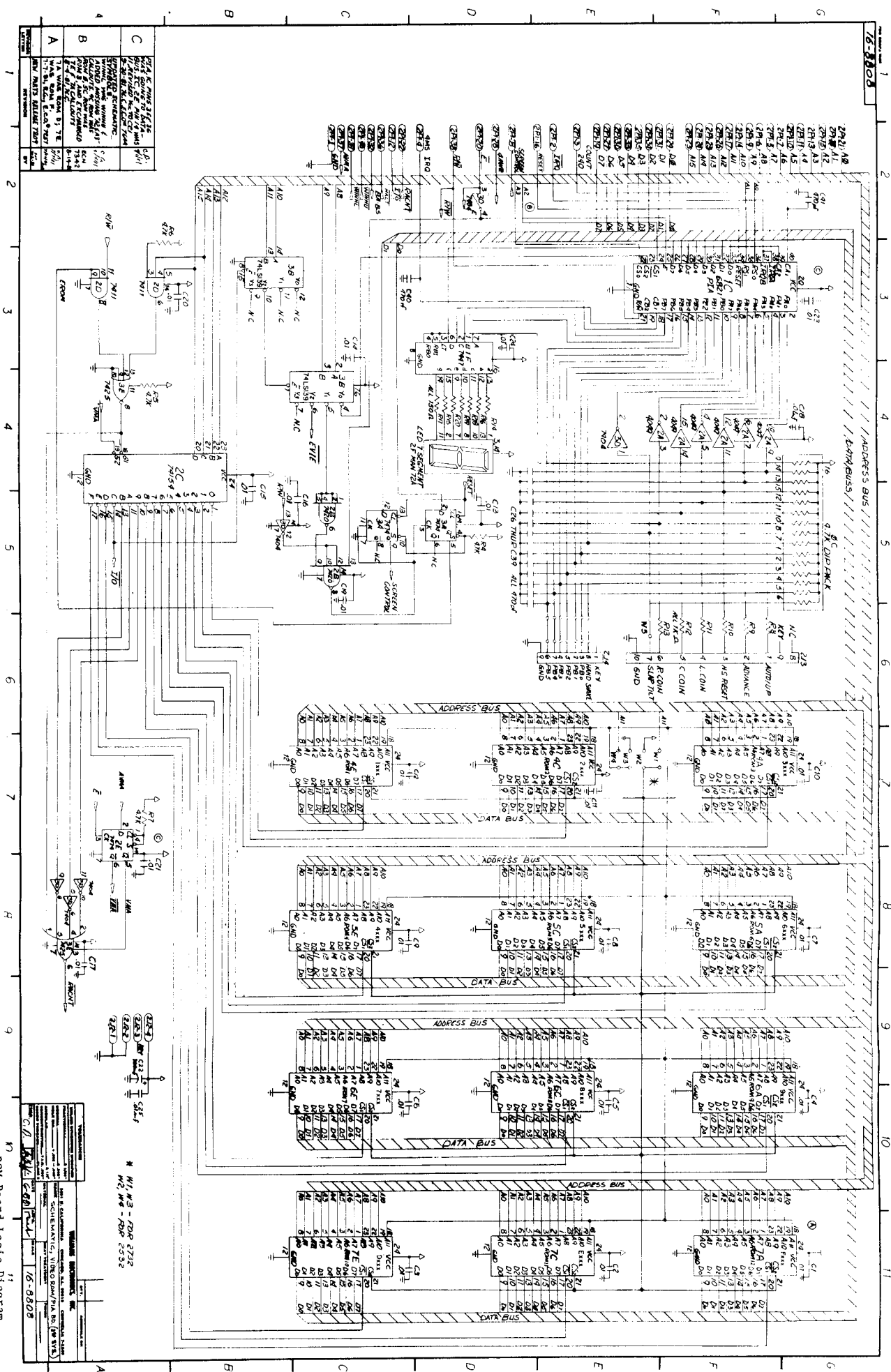
REVISION LETTER	ADDED SWITCH DESCRIPTION TO P1A5E 303-1 THRU 303-10 E 303-1 THRU 10 303-10 E 303-1 THRU 10 303-10 E 303-1 THRU 10	BY
	REVISION	

TOLERANCES	UNLESS OTHERWISE SPECIFIED	WILLIAMS ELECTRONICS, INC.
FRACTIONAL	1/100	1601 N. CALIFORNIA, CHICAGO, ILL. 60614, CORNELIA 7-1100
DECIMAL	1/100	NAME SCHEMATIC, VIDEO WIDGET ASSEMBLY (380 SYSTEM)
ANGULAR	1/100	MATERIAL
WELDING	1/100	TEST METHOD
WELDING	1/100	FINISH
WELDING	1/100	DATE
WELDING	1/100	BY
WELDING	1/100	16-8813

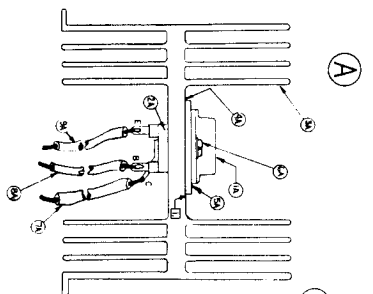


PART DESIGNATION	
GAUNE	STAGNATE
4A	A-5843-07101
4C	A-5843-07102
5A	A-5843-07103
5C	A-5843-07104
6A	A-5843-07105
6C	A-5843-07106
7A	A-5843-07107
7C	A-5843-07108
7E	A-5843-07109
JUMPER	W2, W4

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	5843-00	BASE PC BOARD	1
2	5843-00	ROM 10756 LED	1
3	5843-00	ROM 10756 LED	1
4	5843-00	ROM 10756 LED	1
5	5843-00	ROM 10756 LED	1
6	5843-00	ROM 10756 LED	1
7	5843-00	ROM 10756 LED	1
8	5843-00	ROM 10756 LED	1
9	5843-00	ROM 10756 LED	1
10	5843-00	ROM 10756 LED	1
11	5843-00	ROM 10756 LED	1
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13	5843-00	ROM 10756 LED	1
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15	5843-00	ROM 10756 LED	1
16	5843-00	ROM 10756 LED	1
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18	5843-00	ROM 10756 LED	1
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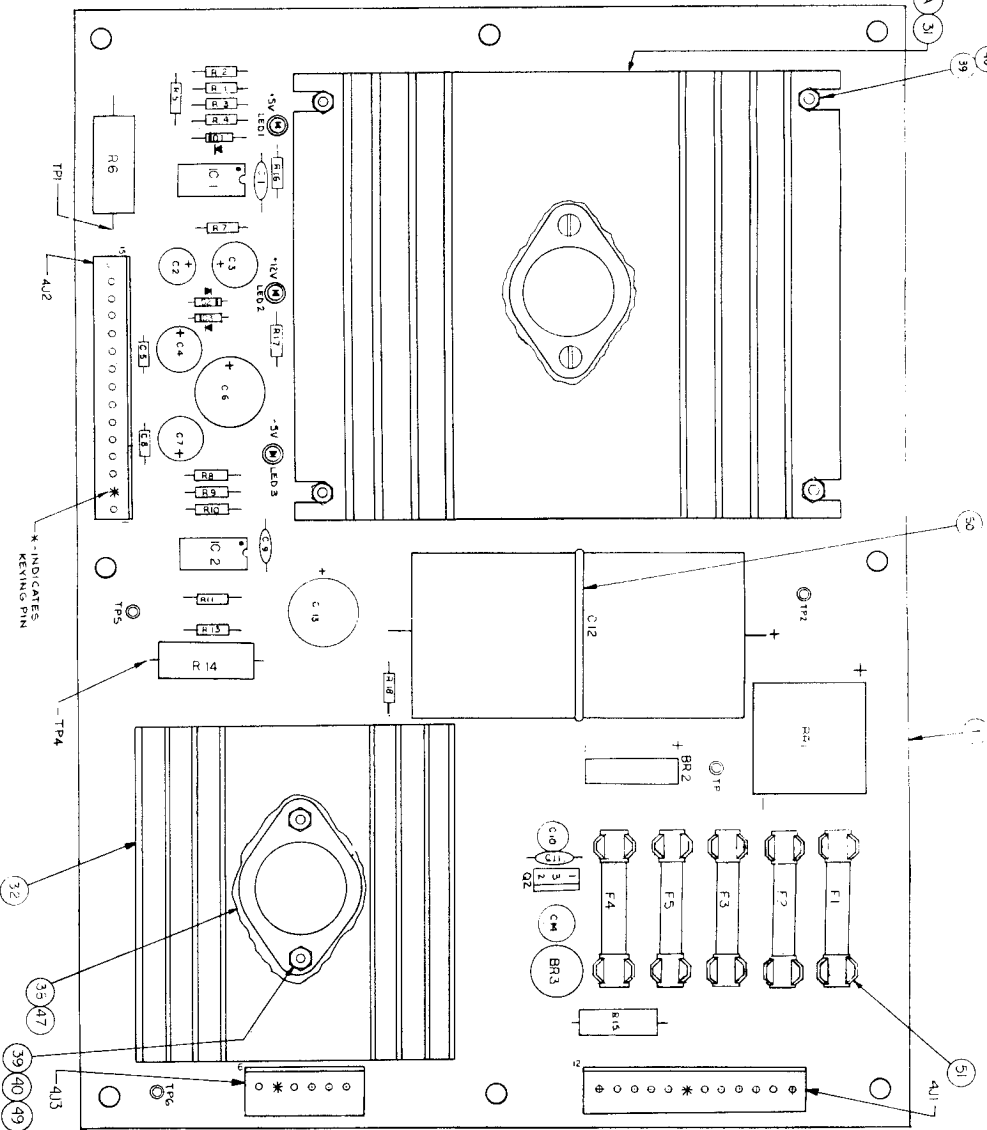


### ROM Board Logic Diagram

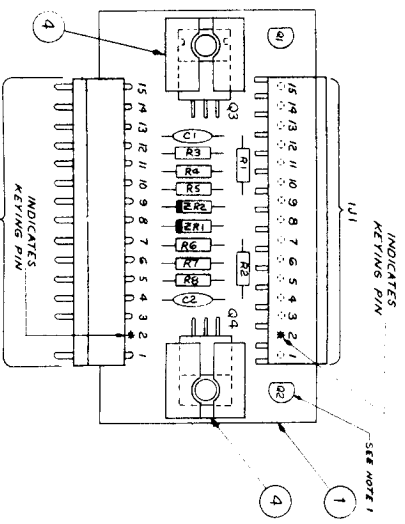
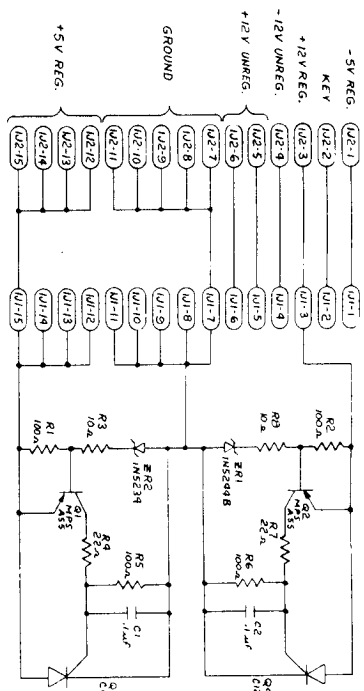


BILL OF MATERIAL			
ITEM NO	PART NO	DESCRIPTION	REQD NO
1A	342-0943-00	TRANSISTOR NPN	1
2A	342-0943-00	TRANSISTOR NPN	1
3A	342-0943-00	TRANSISTOR NPN	1
4A	342-0943-00	TRANSISTOR NPN	1
5A	342-0943-00	TRANSISTOR NPN	1
6A	342-0943-00	TRANSISTOR NPN	1
7A	342-0943-00	TRANSISTOR NPN	1
8A	342-0943-00	TRANSISTOR NPN	1
9A	342-0943-00	TRANSISTOR NPN	1

NOTES:  
 1. SEE DIMENSIONS AND TOLERANCES.  
 2. ALL DIMENSIONS ARE IN INCHES.  
 3. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  
 4. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.

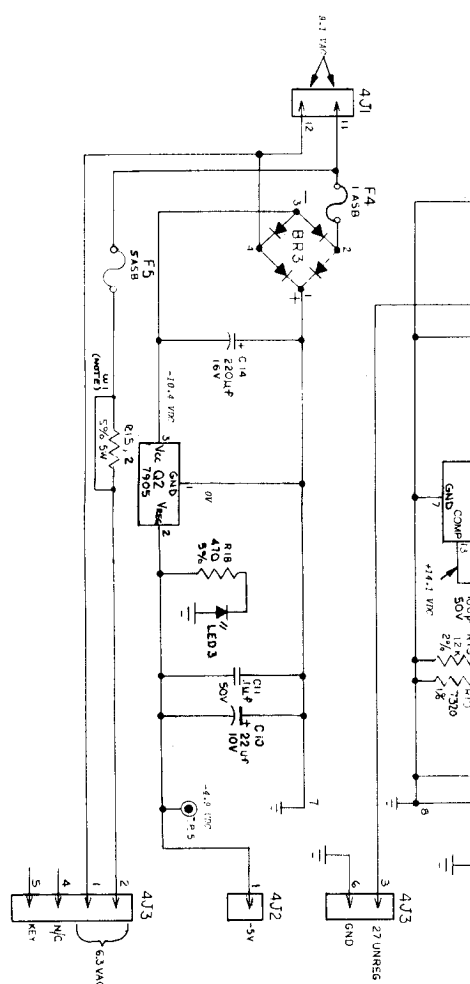
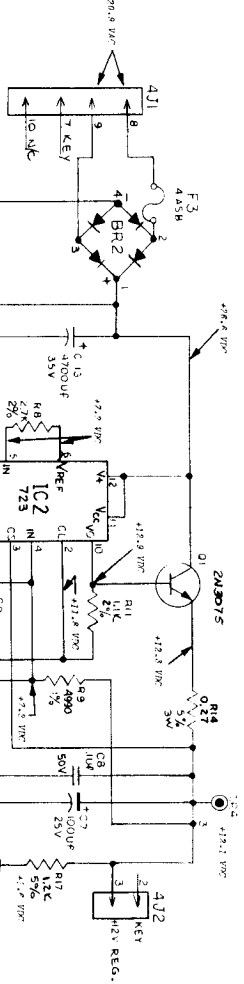
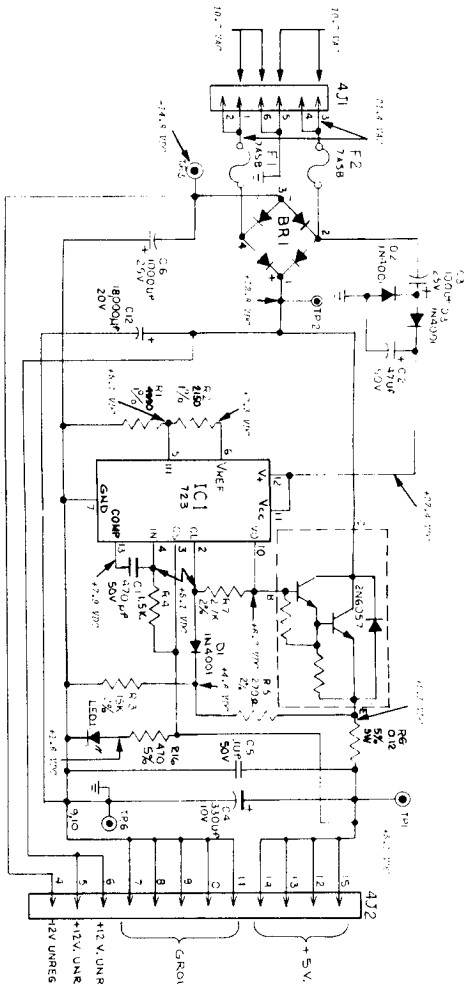


BILL OF MATERIAL			
ITEM NO	PART NO	DESCRIPTION	REQD NO
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28	342-0943-00	TRANSISTOR NPN	1
29	342-0943-00	TRANSISTOR NPN	1
30	342-0943-00	TRANSISTOR NPN	1
31	342-0943-00	TRANSISTOR NPN	1
32	342-0943-00	TRANSISTOR NPN	1
33	342-0943-00	TRANSISTOR NPN	1
34	342-0943-00	TRANSISTOR NPN	1
35	342-0943-00	TRANSISTOR NPN	1
36	342-0943-00	TRANSISTOR NPN	1
37	342-0943-00	TRANSISTOR NPN	1
38	342-0943-00	TRANSISTOR NPN	1
39	342-0943-00	TRANSISTOR NPN	1
40	342-0943-00	TRANSISTOR NPN	1
41	342-0943-00	TRANSISTOR NPN	1
42	342-0943-00	TRANSISTOR NPN	1
43	342-0943-00	TRANSISTOR NPN	1
44	342-0943-00	TRANSISTOR NPN	1
45	342-0943-00	TRANSISTOR NPN	1
46	342-0943-00	TRANSISTOR NPN	1
47	342-0943-00	TRANSISTOR NPN	1
48	342-0943-00	TRANSISTOR NPN	1
49	342-0943-00	TRANSISTOR NPN	1
50	342-0943-00	TRANSISTOR NPN	1
51	342-0943-00	TRANSISTOR NPN	1



NOTES:  
1. OBSERVE POLARITY OF CAPACITORS.  
2. DIODES AND POSITION OF TRANSISTORS.  
3. REFERENCE DWG: SCHEMATIC 16-8810

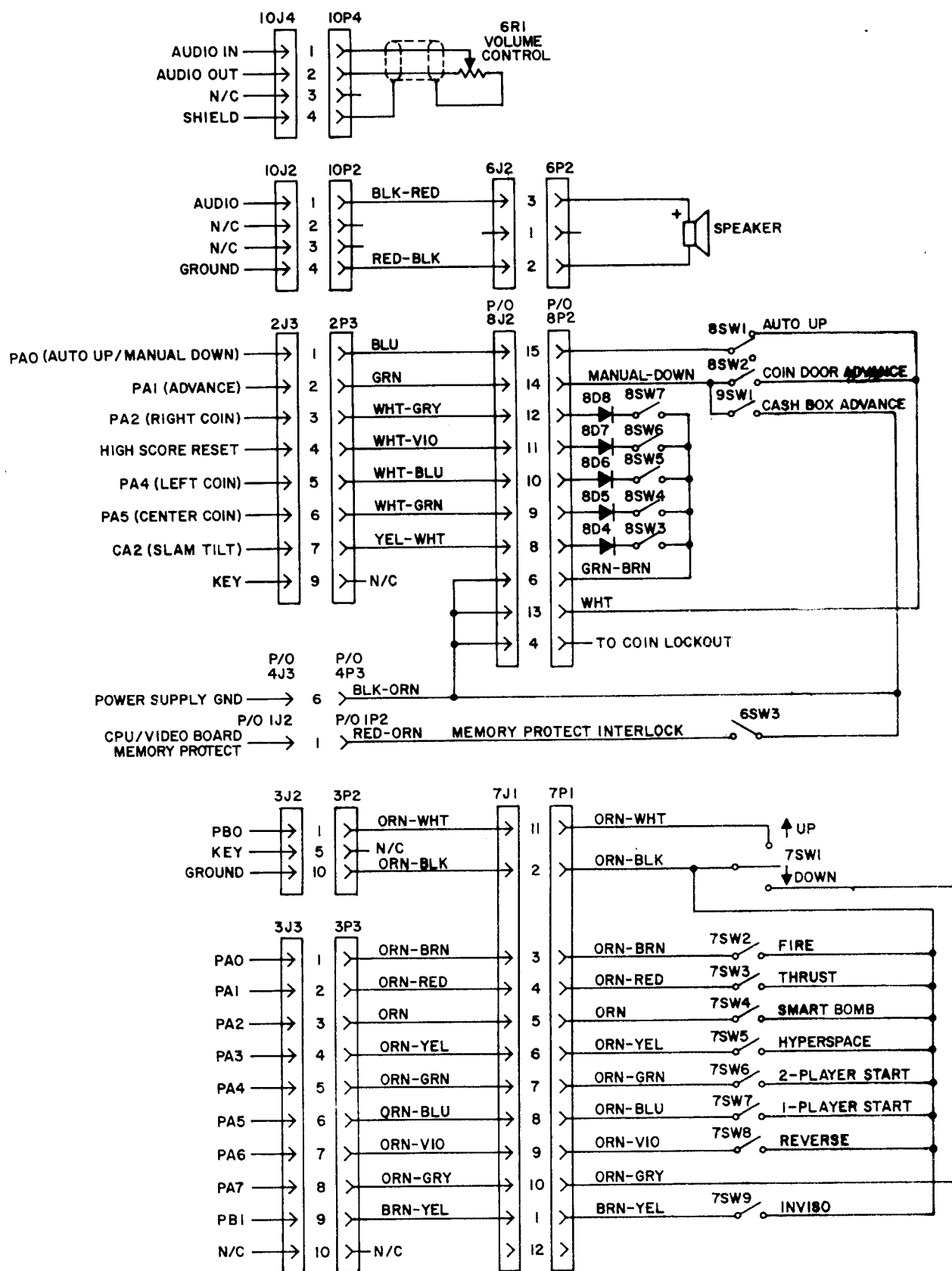
ITEM NO.	PART NO.	PART DESCRIPTION	QTY
1	5773-00	RIGHT ANGLE CONNECTOR, 15 PIN	1
2	5792-00	HEADER CONNECTOR, 15 PIN	1
3	5791-00	HEAT SINK, ALUM 5741	2
4	5705-00	HEAT SINK, THERMALLOY 4093	0
5	5705-00	HEAT SINK, THERMALLOY 4093	0
6	5705-00	HEAT SINK, THERMALLOY 4093	0
7	5130-00	SCR 122F (100V)	2
8	5130-00	TRANSISTOR	2
9	5130-00	TRANSISTOR	2
10	5075-00	DIODE 5075 ± 5% (14V)	1
11	5075-00	DIODE 5075 ± 5% (14V)	1
12	5075-00	DIODE 5075 ± 5% (14V)	1
13	5075-00	DIODE 5075 ± 5% (14V)	1
14	5075-00	DIODE 5075 ± 5% (14V)	1
15	5075-00	DIODE 5075 ± 5% (14V)	1
16	5075-00	DIODE 5075 ± 5% (14V)	1
17	5075-00	DIODE 5075 ± 5% (14V)	1
18	5075-00	DIODE 5075 ± 5% (14V)	1
19	5075-00	DIODE 5075 ± 5% (14V)	1
20	5075-00	DIODE 5075 ± 5% (14V)	1
21	5075-00	DIODE 5075 ± 5% (14V)	1
22	5075-00	DIODE 5075 ± 5% (14V)	1
23	5075-00	DIODE 5075 ± 5% (14V)	1
24	5075-00	DIODE 5075 ± 5% (14V)	1
25	5075-00	DIODE 5075 ± 5% (14V)	1
26	5075-00	DIODE 5075 ± 5% (14V)	1
27	5075-00	DIODE 5075 ± 5% (14V)	1
28	5075-00	DIODE 5075 ± 5% (14V)	1
29	5075-00	DIODE 5075 ± 5% (14V)	1
30	5075-00	DIODE 5075 ± 5% (14V)	1
31	5075-00	DIODE 5075 ± 5% (14V)	1
32	5075-00	DIODE 5075 ± 5% (14V)	1
33	5075-00	DIODE 5075 ± 5% (14V)	1
34	5075-00	DIODE 5075 ± 5% (14V)	1
35	5075-00	DIODE 5075 ± 5% (14V)	1
36	5075-00	DIODE 5075 ± 5% (14V)	1
37	5075-00	DIODE 5075 ± 5% (14V)	1
38	5075-00	DIODE 5075 ± 5% (14V)	1
39	5075-00	DIODE 5075 ± 5% (14V)	1
40	5075-00	DIODE 5075 ± 5% (14V)	1
41	5075-00	DIODE 5075 ± 5% (14V)	1
42	5075-00	DIODE 5075 ± 5% (14V)	1
43	5075-00	DIODE 5075 ± 5% (14V)	1
44	5075-00	DIODE 5075 ± 5% (14V)	1
45	5075-00	DIODE 5075 ± 5% (14V)	1
46	5075-00	DIODE 5075 ± 5% (14V)	1
47	5075-00	DIODE 5075 ± 5% (14V)	1
48	5075-00	DIODE 5075 ± 5% (14V)	1
49	5075-00	DIODE 5075 ± 5% (14V)	1
50	5075-00	DIODE 5075 ± 5% (14V)	1
51	5075-00	DIODE 5075 ± 5% (14V)	1
52	5075-00	DIODE 5075 ± 5% (14V)	1
53	5075-00	DIODE 5075 ± 5% (14V)	1
54	5075-00	DIODE 5075 ± 5% (14V)	1
55	5075-00	DIODE 5075 ± 5% (14V)	1
56	5075-00	DIODE 5075 ± 5% (14V)	1
57	5075-00	DIODE 5075 ± 5% (14V)	1
58	5075-00	DIODE 5075 ± 5% (14V)	1
59	5075-00	DIODE 5075 ± 5% (14V)	1
60	5075-00	DIODE 5075 ± 5% (14V)	1
61	5075-00	DIODE 5075 ± 5% (14V)	1
62	5075-00	DIODE 5075 ± 5% (14V)	1
63	5075-00	DIODE 5075 ± 5% (14V)	1
64	5075-00	DIODE 5075 ± 5% (14V)	1
65	5075-00	DIODE 5075 ± 5% (14V)	1
66	5075-00	DIODE 5075 ± 5% (14V)	1
67	5075-00	DIODE 5075 ± 5% (14V)	1
68	5075-00	DIODE 5075 ± 5% (14V)	1
69	5075-00	DIODE 5075 ± 5% (14V)	1
70	5075-00	DIODE 5075 ± 5% (14V)	1
71	5075-00	DIODE 5075 ± 5% (14V)	1
72	5075-00	DIODE 5075 ± 5% (14V)	1
73	5075-00	DIODE 5075 ± 5% (14V)	1
74	5075-00	DIODE 5075 ± 5% (14V)	1
75	5075-00	DIODE 5075 ± 5% (14V)	1
76	5075-00	DIODE 5075 ± 5% (14V)	1
77	5075-00	DIODE 5075 ± 5% (14V)	1
78	5075-00	DIODE 5075 ± 5% (14V)	1
79	5075-00	DIODE 5075 ± 5% (14V)	1
80	5075-00	DIODE 5075 ± 5% (14V)	1
81	5075-00	DIODE 5075 ± 5% (14V)	1
82	5075-00	DIODE 5075 ± 5% (14V)	1
83	5075-00	DIODE 5075 ± 5% (14V)	1
84	5075-00	DIODE 5075 ± 5% (14V)	1
85	5075-00	DIODE 5075 ± 5% (14V)	1
86	5075-00	DIODE 5075 ± 5% (14V)	1
87	5075-00	DIODE 5075 ± 5% (14V)	1
88	5075-00	DIODE 5075 ± 5% (14V)	1
89	5075-00	DIODE 5075 ± 5% (14V)	1
90	5075-00	DIODE 5075 ± 5% (14V)	1
91	5075-00	DIODE 5075 ± 5% (14V)	1
92	5075-00	DIODE 5075 ± 5% (14V)	1
93	5075-00	DIODE 5075 ± 5% (14V)	1
94	5075-00	DIODE 5075 ± 5% (14V)	1
95	5075-00	DIODE 5075 ± 5% (14V)	1
96	5075-00	DIODE 5075 ± 5% (14V)	1
97	5075-00	DIODE 5075 ± 5% (14V)	1
98	5075-00	DIODE 5075 ± 5% (14V)	1
99	5075-00	DIODE 5075 ± 5% (14V)	1
100	5075-00	DIODE 5075 ± 5% (14V)	1



Power Supply Board Schematic Diagram and  
Overvoltage Protection Board

NOTE:  
1. ALL COMPONENTS MUST BE ORIENTED  
APPLICATIONS.





Cabinet Wiring Diagram

# BILL OF MATERIAL

ITEM NO.	PART NO.	PART DESIGNATION	DESCRIPTION	REQ'D. NO.
1	01-2 01-146-6		BARE P.C. BOARD REV F	1
2	5370-09156-00	IC1	TDA 2002 V AUDIO AMPLIFIER	1
3	5280-09012-00	IC2	7442 BCD-DEC DECODER	1
4	5280-09073-00	IC3	7400 QUAD 2 INPUT NAND	1
5	5280-08973	IC4	7408 QUAD 2 INP. AND GATE	1
6	5310-09153-00	IC5	4050 BUFFER	1
7	5310-09154-00	IC6	4068 8 INPUT NAND GATE	1
8	5310-08971-00	IC7	4069 HEX INVERTER	1
9	5250-09157-00	IC8	7805 5 VOLT REG. W/TO 220 CASE	1
10	5430-08972-00	IC10	6821 P.I.A.	1
11	5340-09003-00	IC11	6810 RAM	1
12	5371-09152-00	IC13	1408 D/A CONVERTER	1
13	5160-08938-00	Q2, Q3, Q4	2N4401 NPN TRANSISTOR	3
14				
15	5075-09018-00	ZR1	1N5996A 6.8V ZENER DIODE	1
16				
17	5100-09357-00)	BR1	MDA 200/3N253	1
	5100-09158-00)		BRIDGE RECTIFIER	0
18	5520-09020-00	Y1	3.58 MHz CRYSTAL	1
19	5010-08991-00	R1,R18,R19,R21,R22, R27,R30,R31, R32	RESISTOR, FC, 4.7K OHM, 5% 1/4 WATT	9
20	5010-09036-00	R2 thru R10	RESISTOR, FC, 100 OHM, 5% 1/4W	9
21	5010-09358-00	R12,R15,R28,R36,R38	RESISTOR, FC, 1K OHM, 5% 1/4W	5
22	5010-09181-00	R14	RESISTOR, FC, 1 OHM, 10% 1/2 WATT	1
23	5010-09161-00	R16	RESISTOR, FC, 2.2 OHM, 5% 1/4 WATT	1
24	5010-09361-00	R17	RESISTOR, FC, 220 OHM, 5% 1/2 WATT	1
25				
26	5010-08983-00	R23, R24, R26	RESISTOR, FC, 3.3K OHM, 5% 1/4 WATT	3
27	5010-09179-00	R25	RESISTOR, FC, 3.3M OHM, 5% 1/4 WATT	1
28	5010-09035-00	R29	RESISTOR, FC, 47K OHM, 5% 1/4 WATT	1
29	5010-09034-00	R33, R35, R37	RESISTOR, FC, 10K OHM, 5% 1/4 WATT	3
30	5010-09039-00	R34	RESISTOR, FC, 10 OHM, 5% 1/4 WATT	1
31	5043-08980-00	C1, C16 thru C23, C31	CAPACITOR, CER. .01 MFD. 50V. +80%, -20%	10
32	5043-09065-00	C2 thru C10	CAPACITOR, CER. 470 PFD. 50V. +-20%	9
33	5043-09345-00	C11	CAPACITOR, CER. .001 MFD. +-20% 100V.	1
34	5040-09365-00	C12, C30, C36	CAPACITOR, ELECT. 1 MFD. 63V. -10 +50%	3
35	5043-08996-00	C13, C24, C35	CAPACITOR, CER. .1 MFD. 50V. +-20%	3
36	5040-09165-00	C14	CAPACITOR, ELECT. 1,000 MFD. 16V. +-20%	1
37	5040-09164-00	C15	CAPACITOR, ELECT. 470 MFD. 10V. +-20%	1
38	5040-08986-00	C25	CAPACITOR, ELECT. 100 MFD. 10V. +-20%	1
39	5040-08893-00	C26	CAPACITOR, ELECT. 1,000 MFD. 25V. +-20%	1
40	5040-09376-00	C27	CAPACITOR, ELECT. 4700 MFD. 16V. +-20%	1
41	5043-09180-00	C28	CAPACITOR, CER. 47 PFD. 1K V. +-20%	1
42	5040-09343-00)	C29	CAPACITOR, ELECT. 10 MFD. 20V	1
43	5043-09169-00	C32, C33	CAPACITOR, CER. DISC, 27 PFD. 1KV. +-10%	2
44	5041-09163-00	C34	CAPACITOR, TANTALUM 2.2 MFD. 15V. +-20%	1
45	5041-09031-00	C37	CAPACITOR, TANTALUM 1 MFD. 25V. +-20%	1
46	5641-09658-00)	SW1	MOMENTARY SWITCH SPDT	1
47	5645-09330-00	DS1	2 STD, DIP SWITCH	1
48	5731-06314-00	F1, F2	4 AMP SLOW BLOW FUSE	2
49	5732-09178-00		FUSEHOLDER	4
50	5705-09172-00		HEAT SINK THERMALLOY #6072B	1
51	5705-09173-00		HEAT SINK THERMALLOY #6071B	1
52	5705-09199-00		HEAT SINK THERMALLOY #6030	1
53	5700-09004-00		24 PIN SOCKET	1
54	5700-08985-00		40 PIN SOCKET	1
55	5791-09027-00	10J1, 10J3	9 PIN MALE CONNECTOR 09-65-1091	2
56	5791-09028-00	10J2, 10J4	4 PIN MALE CONNECTOR 09-65-1041	2
57				
58	4006-01003-06		6-32x3/8" P-PH-S	3
59	4406-01117-00		6-32 HEX NUT	3
60	5010-09534-00		0 OHM RESISTOR	A/R
61	5824-09248-00	TP1 THR TP4	TERMINAL #1502-1	4
62	5010-09363-00	R11	RESISTOR, FC, 5.6K OHM 5% 1/4 WATT	1
63				
64	5019-09362-00	SR1	RESISTOR, 4.7K OHM 10 PIN SIP	1
65	03-7520-1		TIE WRAP	1
66	4703-00007-00		#6 EXT. LOCKWASHER	3
67	20-9229		THERMAL COMPOUND	.01

## NOTES:

1. USE THERMAL COMPOUND BETWEEN IC1 AND IC8, AND HEAT SINKS.

2. CAUTION: AVOID STATIC DISCHARGE DAMAGE TO MOS LOGIC.

3. SYMBOLS SHOWN ON COMPONENTS ARE FOR REFERENCE ONLY.

DO NOT SCREEN OR STAMP.

4. OBSERVE INDEX MARK OF ALL INTEGRATED CIRCUITS;

DIODES D1, D2, AND ZR1;

CAPACITORS C12, C14, C15, C25, C26, C27;

CONNECTORS 10J1, 10J2, 10J4, 10J3, 10J5;

POSITION OF TRANSISTORS Q1, Q2, Q3, Q4.

5. JUMPERS

W3) W2)  
W4) W6)  
W5) IN W9) OUT  
W10) W11)  
W12)  
W13)



