

BILL OF MATERIAL

ITEM NO.	PART NO.	PART DESIGNATION	DESCRIPTION	REQ'D. NO.	REQ'D. NO.
1	IC-1001-146-3		BARE P.C. BOARD	1	
2	SA-9156	IC1	TDA2002 V AUDIO AMPLIFIER	1	
3	SA-9012	IC2	7442 BCD-DEC DECODER	1	
4	SA-9073	IC3	7400 QUAD 2 INPUT NAND	1	
5	SA-9073	IC4	7408 QUAD 2 INP. AND GATE	1	
6	SA-9153	IC5	4050 BUFFER	1	
7	SA-9154	IC6	4068 8 INPUT NAND GATE	1	
8	SA-9071	IC7	14069 HEX INVERTER	1	
9	SA-9157	IC8	7505 5 VOLT REG.	1	
10	SA-9072	IC9	6821 P.I.A.	1	
11	SA-9003	IC10	6810 RAM	1	
12	SA-9152	IC13	1408 D/A CONVERTER	1	
13	5C-8938	Q2, Q3, Q4	2N4401 NPN TRANSISTOR	3	
14					
15	SA-9018	ZRI	1N5996 6.8V ZENER DIODE	1	
16					
17	SA-9155	BRI	MDA 200/AN255 BRIDGE RECTIFIER	1	
18	SA-9020	Y1	3.58 MHz CRYSTAL	1	
19	5B-8991	R1, R16, R21, R22, R27, R31, R32	RESISTOR, FC, 47K OHM 5% 1/4 WATT	9	
20	5B-9036	R2 THRU R10	RESISTOR, FC, 100 OHM 10% 1/4 WATT	9	
21	SA-8984	R12, R15, R28, R36, R38	RESISTOR, FC, 1K OHM 10% 1/4 WATT	5	
22	SA-9181	R14	RESISTOR, FC, 1 OHM 10% 1/2 WATT	1	
23	SA-9161	R16	RESISTOR, FC, 2.2 OHM 10% 1/4 WATT	1	
24	SA-9361	R17	RESISTOR, FC, 220 OHM 10% 1/2 WATT	1	
25					
26	5B-8985	R23, R24, R26	RESISTOR, FC, 3.3K OHM 10% 1/4 WATT	3	
27	SA-9179	R25	RESISTOR, FC, 3.3M OHM 10% 1/4 WATT	1	
28	SA-9359	R29	RESISTOR, FC, 47K OHM 5% 1/4 WATT	1	
29	5B-8817	R33, R35, R37	RESISTOR, FC, 10K OHM 10% 1/4 WATT	3	
30	5B-9039	R34	RESISTOR, FC, 10 OHM 10% 1/4 WATT	1	
31	SA-8980	C1, C16 THRU C23	CAPACITOR, CERAMIC, .01 MFD. 50 V. ±20%	11	
32	SA-9065	C2 THRU C10	CAPACITOR, CERAMIC, .01 MFD. 50 V. ±20%	9	
33	SA-9345	C11	CAPACITOR, CERAMIC, .001 MFD. 20% 100 V.	1	
34	SA-9355	C12, C33, C36	CAPACITOR, ELECTROLYTIC, 1 MFD. 6.5 V. 10% 25%	3	
35	SA-8996	C13, C24, C35	CAPACITOR, CERAMIC, .1 MFD. 50 V. ±20%	3	
36	SA-9165	C14	CAPACITOR, ELECTROLYTIC, 500 MFD. 16 V. OR 1000 MFD. 15 V. ±20%	1	
37	SA-9164	C15	CAPACITOR, ELECTROLYTIC, 500 MFD. 15 V. OR 470 MFD. 25 V. ±20%	1	
38	SA-8986	C25	CAPACITOR, ELECTROLYTIC, 100 MFD. 10 V. ±20%	1	
39	SA-8893	C26	CAPACITOR, ELECTROLYTIC, 1000 MFD. 25 V. ±20%	1	
40	SA-9046	C27	CAPACITOR, ELECTROLYTIC, 12,000 MFD. 16 V. ±20%	1	
41	SA-9180	C28	CAPACITOR, CERAMIC, 47 PFD. 1K V. ±20%	1	
42	SA-9343	C29	CAPACITOR, ELECTROLYTIC, 10 MFD. 25 V. LOW LEAKAGE	1	
43	SA-9169	C32, C33	CAPACITOR, CERAMIC DISC, 27 PFD. 1K V. ±10%	2	
44	SA-9163	C34	CAPACITOR, TANTALUM, 2.2 MFD. 15 V. ±20%	1	
45	SA-9031	C37	CAPACITOR, TANTALUM, 1 MFD. 25 V. ±20%	1	
46	SA-9024	SW1	MOMENTARY SWITCH SPDT	1	
47	SA-9330	DS1	2 STD. DIP SWITCH	1	

NOTES:

- SEE MECHANICAL DRAWINGS FOR DIMENSIONS AND HEIGHTS.
- USE CALIBRATION ON COMPONENTS ARL FOR REFERENCE ONLY.
- SYMBOLS SHOWN ON COMPONENTS ARL FOR REFERENCE ONLY.
- NO NOT SCRIPIN OR STAMP.
- USING INDEX MARK OF ALL INTEGRATED CIRCUITS, D-DIES.
- DI, DI AND ZRI.
- CAPACITORS Q2, C1, C2, C3, C4, C5, C6, C7.
- CONNECTORS IO1, IO2, IO3, IO4, IO5.
- PUSHERS OF TRANSISTORS Q2, Q3, Q4.
- NOTE: SELECTS SOUND NOTES.
- SPRINKLE SOLDER STATUS.
- IN - SOLDER MOUNT NOT ATTACHED
- OUT - SOLDER MOUNT ATTACHED
- W14 - MPU INTERNAL RAM INHIBIT
- W7 & W8 - MEMORY MAP CONTROL
- W2 & W3 - RV STATUS CONTROL (W3 NEVER USED)
- W1 & W9 - RV STATUS CONTROL
6. SOLDERED ON TOP OF BOARD
- W15, W6, W12, W4, W1, W3, W5, W10 FOR:

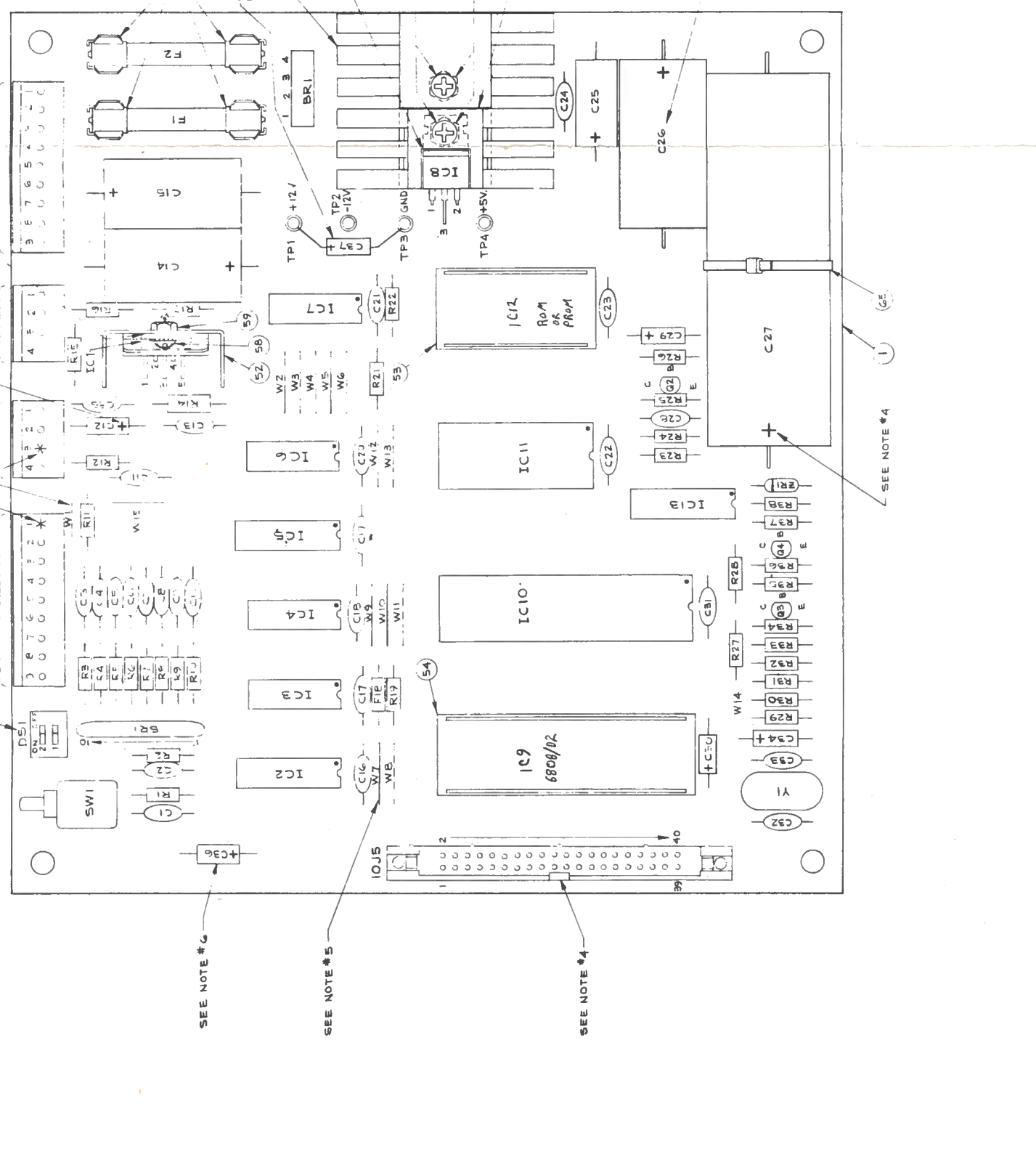
WORLD CUP
DISCO FLOOR
CONTACT
PUKING
PROFESSOR
ROBOTS
POLL SUFFLE
KAC TIT SUFFLE
TAURUS SUFFLE

FLASH
STELLAR WARS
FRI ZONE
TIME WARP

W7, W5, W8, W1, W4, W1, W6, W5, W10 FOR:
GORGAR
SOUND ROOM 2
JT-J50

(K x 8)
WJ
WJ
WJ

(SEE NOTE #4)
(SEE NOTE #5)
(SEE NOTE #6)
(SEE NOTE #7)



WILLIAMS ELECTRONICS, INC.
2401 N. CALIFORNIA, CHICAGO, ILL. 60638 312-2840

FRACATIONAL: 31184
CIRCUIT: 31184
ANNUAL: 31184
MATERIAL: 31184

DATE: 9-23-71
DRAWN BY: J.L.M.
CHECKED BY: J.L.M.

TOLERANCES: DIMS. ±.010" UNLESS OTHERWISE SPECIFIED
ELECTRICAL: AS SHOWN

MATERIAL: SOUND BOARD SUB-ASSEM
HEAT TREATMENT: N/A

DRAWING NO.: D-8224