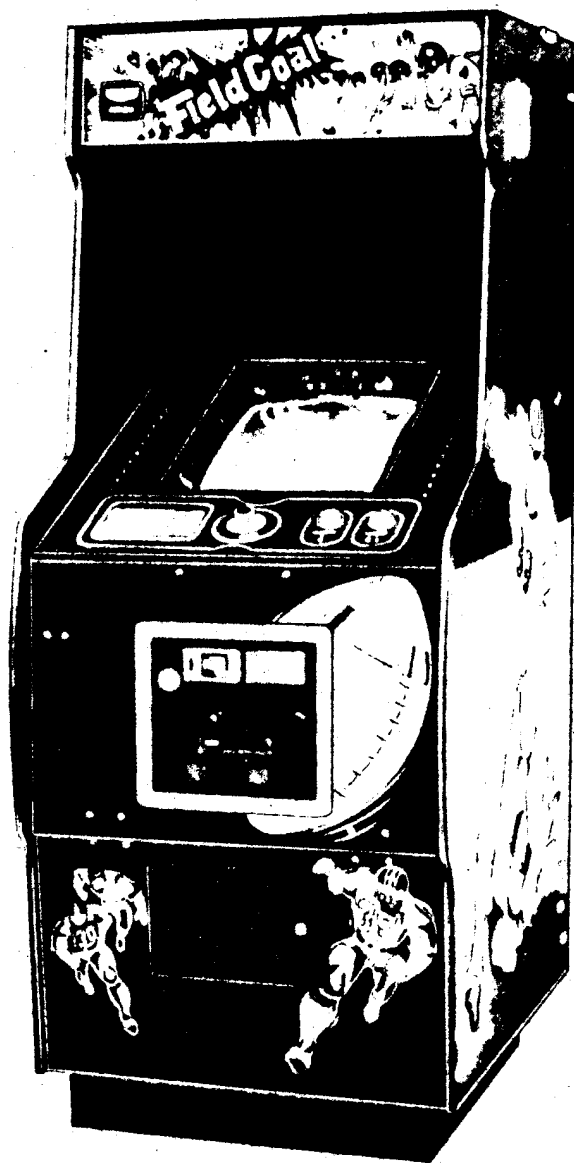


Field Goal



**SERVICE INSTRUCTIONS
AND PARTS CATALOG**



TAITO CORPORATION

AF070009

5. Playing Instructions

- o 1 or 2 player game.
- o 1 coin; 1 game (1 player).. 3 balls (adjustable to 5 balls)
- o 2 coins; 2 games (1 player) or 1 game (2 players)

- o After inserting Coin(s), press either one two player button to start game.

- o After finish game-start music, helmets (blue, yellow, and red ones), the paddle and the ball will appear on the screen.

- o Turn the control knob to move the paddle right or left and strike the ball.

- o Two players alternate play.

- o Scoring:

A goal 300 pts.
A blue helmet 40 pts.
A yellow helmet 30 pts.
A red helmet 20 pts.

(BONUS)
A complete row of blue helmets 1,500 pts.
A complete row of yellow helmets 1,000 pts.
A complete row of red helmets 500 pts.

- o One free game when the score of "TOP THIS SCORE FOR CREDIT" displayed on the screen is reached.

Functional Description of Game:

- o When the ball hits the player image running on the screen, the points (the player uniform number x100) will be added to the points displayed on the goal.
- o When the points displayed on the goal reach 1,000 or more, these points and the word "EXTRA" are displayed alternately on the screen. If the player gets a goal when the word "EXTRA" is displayed, he will be awarded one free-ball play.
- o The speed of the ball will change at random.
- o The size of the paddle becomes small if the player continues to hit helmets. If he misses a ball the size of the paddle becomes as large as before.
- o If the ball hits the head of the player's image running on the screen, he will be down and disappear.
- o In 5-ball game, the scoring for helmets changes as follows:
 - A blue helmet 30 pts.
 - A yellow helmet 20 pts.
 - A red helmet 10 pts.
- o From the top to the 3rd HI-SCORE'S will be displayed on the screen at the time of the attract mode (game-over).

7. Adjustments on Game & Sound PC Board

(See Fig. 4 and Tables 1 & 2)

To decrease the sound, turn each pot counterclockwise.

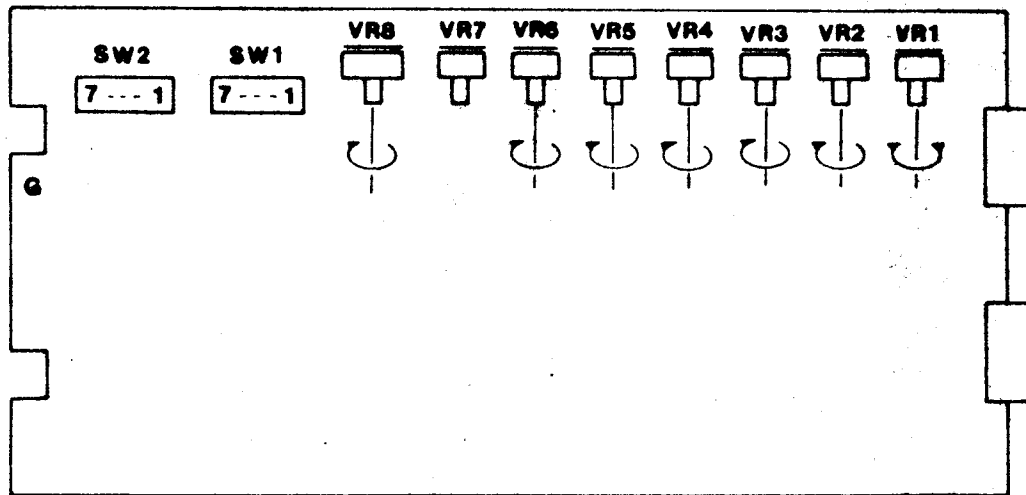


Fig. 4

- o VR1 ... Pot for adjusting the movement of the paddle.
(If the paddle does not touch either side of the wall, adjust it by turning this pot.)
- o VR2 ... Pot for adjusting the sound volume of the ball bouncing.
- o VR3 ... Pot for adjusting the music at the game start and the game-over.
- o VR4 ... Pot for adjusting the forward-hit sound when the ball is passed to the player-image.
- o VR5 ... Pot for adjusting the sound volume of "Do·Do·Do"
- o VR6 ... Pot for adjusting the sound volume when the player-image falls down.
- o VR7 ... Pot for adjusting the tone when the player-image falls down.
- o VR8 ... Pot for adjusting total sound.

DIP Switch NO.1:

- o SW1 - SW3 ... Switches for the change-over of the replay scores (See Fig. 4 and Table 1)

The replay scores are shown at the rate of 30% and 20%, and they become higher and higher as the number of replays are increased.

SW			REPLAY SCORE			
1	2	3	30%		20%	
a	ON	ON	7,000	9,000	12,000	17,000
b	OFF		12,000	17,000	23,000	28,000
c	ON	OFF	23,000	28,000	33,000	39,000
d	OFF		33,000	39,000	45,000	50,000
e	ON	OFF	45,000	50,000	57,000	65,000
f	OFF		57,000	65,000	72,000	79,000
g	ON	OFF	72,000	79,000	86,000	93,000
h	OFF		86,000	93,000	99,000	150,000

Table 1

Note: The Replay score is preset at "f" at the factory.

- o SW4 ... Switch for the change-over of the replay
When this switch is set at the "ON" position, no replay will be awarded.
This switch is preset at the "OFF" position at the factory.
- o SW5 ... Switch for factory-adjusting the solid-state modules This switch should be always set at "OFF" position.
- o SW6 ... Switch for the change-over of the ball number

SW6	Number
ON	3
OFF	5

Table 2

This switch is preset at the "ON" position (3 balls) at the factory.

- o SW7 ... Switch for displaying "ONE PLAYER 1 COIN, TWO PLAYERS 2 COINS" on the screen
When the switch is set at the "ON" position, these words are not displayed.
Normally, this switch is set at the "OFF" position.

DIP Switch NO.2:

- o SW1 ... Switch for rotating the screen images
When the switch is set at the "OFF" position the screen images will be rotated. (for Cocktail Version) In the upright version, this switch should be set at the "ON" position.
- o SW2 ... Switch for the change-over 1 COIN - 1 PLAYER or 1 COIN - 2 PLAYERS (See Fig. 4 and Table 3)

SW2	COIN	PLAYER(S)
OFF	1	1
ON	1	2

Table 3

This switch is preset at the "OFF" position at the factory.

- o SW3 ... Switch for the change-over the instruction languages (See Fig. 4 and Table 4)

SW3	LANGUAGE
OFF	ENGLISH
ON	JAPANESE

Table 4

This switch is preset at the "OFF" position (ENGLISH) at the factory.

- o SW4 - SW7 ... Switches for factory-adjusting the solid-state modules

These switches should be always set at the "OFF" positions.

9. Adjustments of Supply Voltage (See Fig. 6)

If the voltage of the power supply is low, the picture on the screen sometimes gluckers. In that case, change the connection of the power transformer terminals in the cabinet. This adjustment is obtained by using the change-over switch.

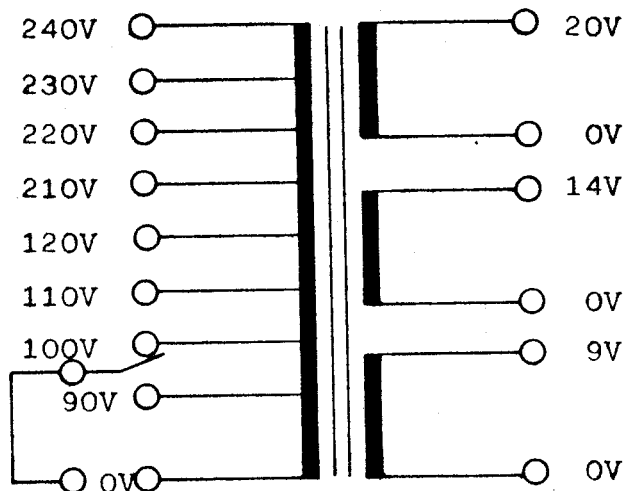


Fig. 6

10. Typical Picture During Play (See Fig. 7)

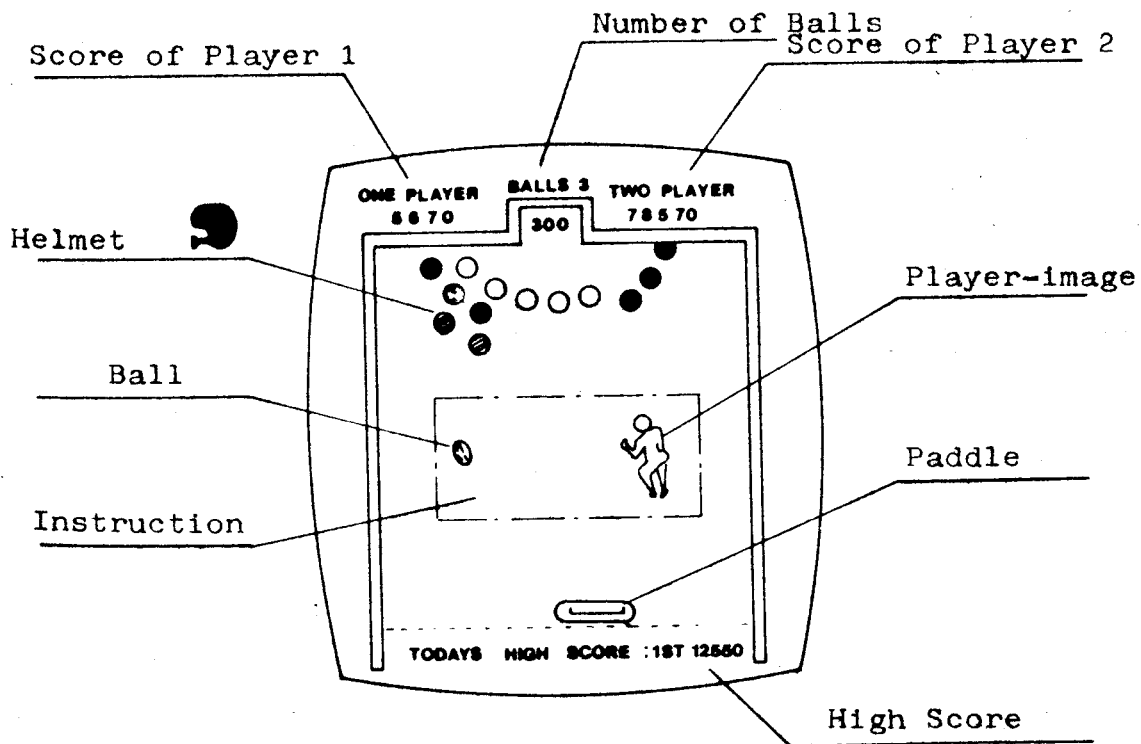
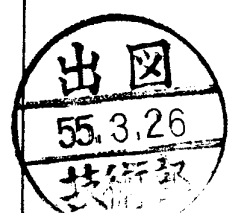
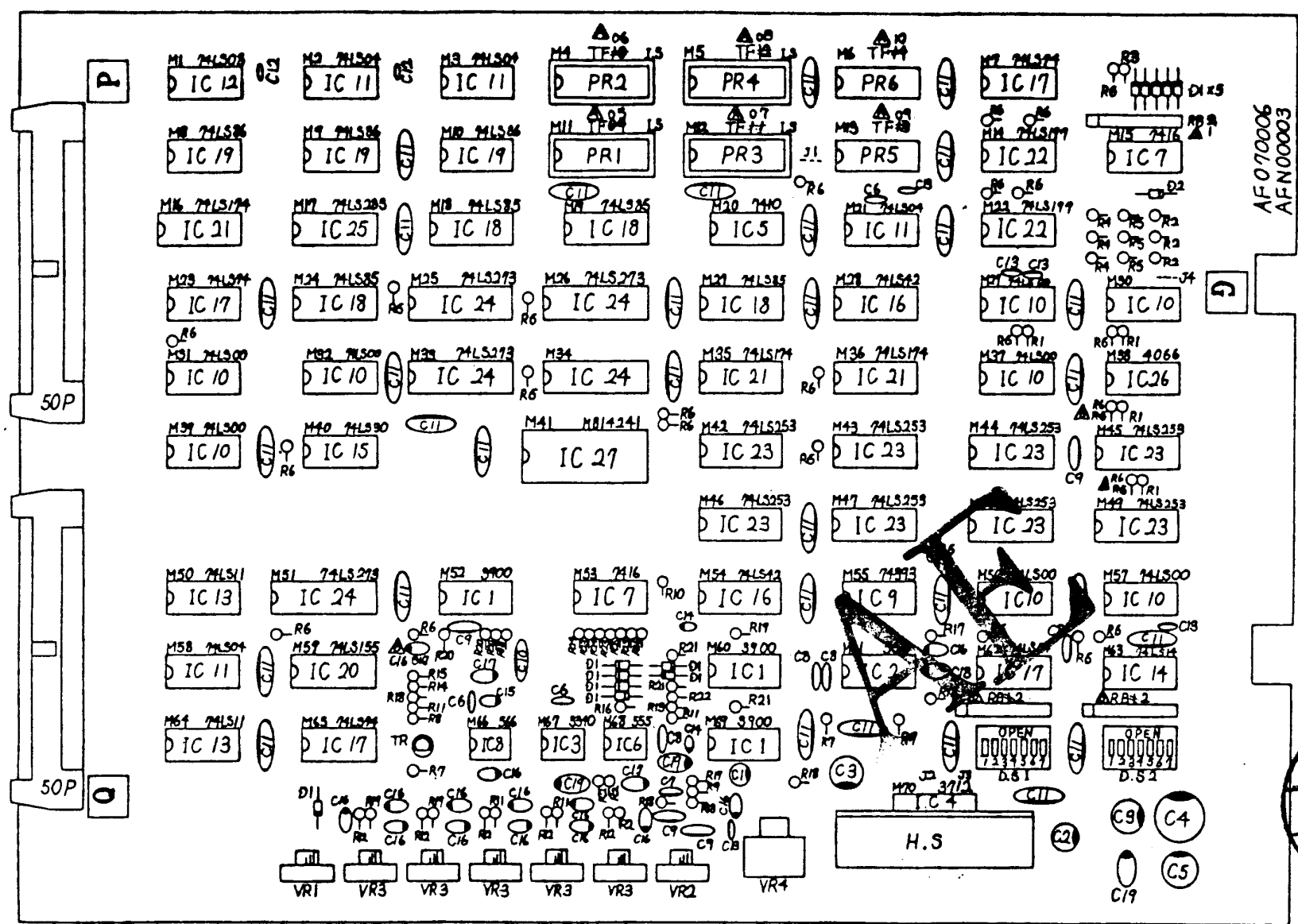
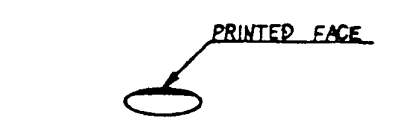


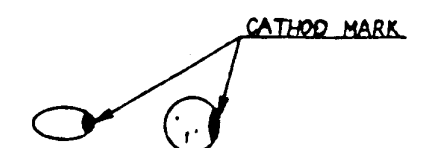
Fig. 7



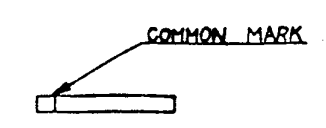
NOTE-1. HOW TO MOUNT RESISTOR



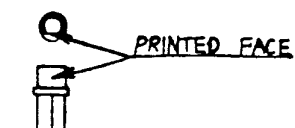
NOTE-2. CAP., FILM & CERAMIC



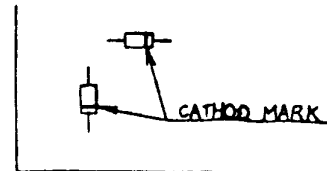
NOTE-3. CAP. TANTALUM & ELECTROLYTIC



NOTE-4. RESISTOR BLOCK



NOTE-5. TRANSISTOR (2SC372-0)



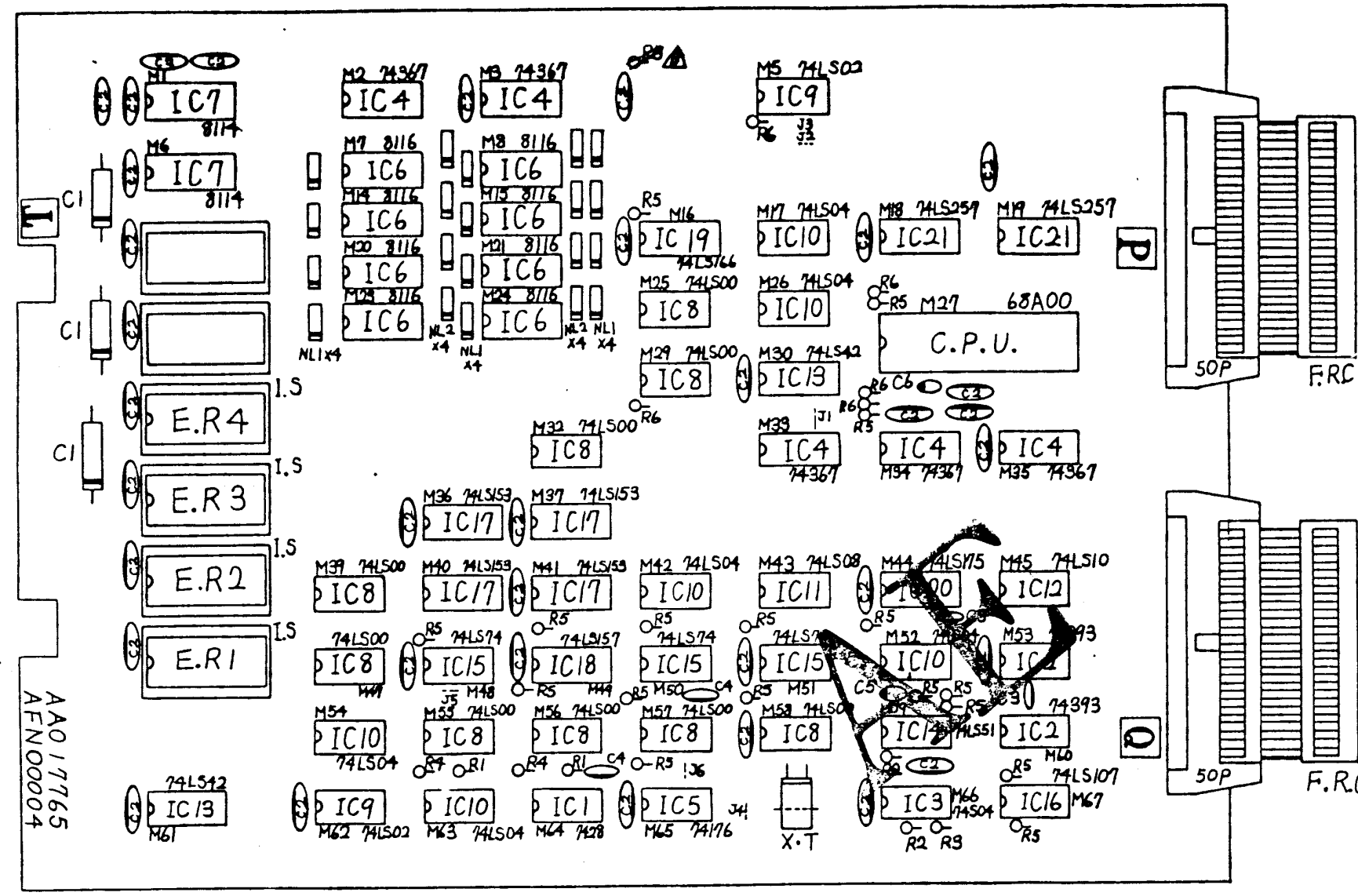
NOTE-6. DIODE (1S1588, RD-9A-M)

ITEM NO.	QTY	DESCRIPTION	UNIT
97	1	RESISTOR BLOCK 22KOHM 8-ELEMENT	2
98	1	RESISTOR BLOCK 10KOHM 8-ELEMENT	1
99	1	VARIABLE RESISTOR, B-50K RV8YP	1
100	5	B-50K	5
101	1	B-5K	1
102	1	VARIABLE RESISTOR, B-2K	1
103	1	RES., CARBON, 100KOHM 1/4W 2%	1
104	1	68K	1
105	1	270OHM 1/4W 5%	1
106	1	680K	1
107	1	560K	1
108	1	220K	1
109	1	100K	1
110	1	82K	1
111	1	75K	1
112	1	RES., CARBON, 68K OHM 1/4W 5%	1
113	1	NOMENCLATURE OR DESCRIPTION	1

ITEM NO.	QTY	DESCRIPTION	UNIT
80	1	RES., CARBON, 39KOHM 1/4W 5%	1
81	1	27K	1
82	1	22K	1
83	1	10K	1
84	1	4.7K	1
85	1	2K	1
86	1	1.8K	1
87	1	1.2K	1
88	1	1K	1
89	1	330	1
90	1	270	1
91	1	220	1
92	1	100	1
93	1	RES., CARBON, 20OHM 1/4W 5%	1
94	1	CAP., TANTALUM, 35509-10ME	3
95	1	SSG35-488E	1
96	1	SSG35-487E	2
97	1	SSG35-1E	14
98	1	SSG35-082E	1
99	1	CAP., TANTALUM, 55G35-081E	2
100	1	CAP., CERAMIC, 470PF	5
101	1	CAP., CERAMIC, 100PF	2
102	1	CAP., FILM, TDY-IH-104	31
103	1	TDY-IH-473	7
104	1	TDY-IH-333	4
105	1	TDY-IH-103	4
106	1	TDY-IH-223	1
107	1	CAP., FILM, TDY-IH-102	3
108	1	CAP., ELECTROLYTIC, 25VB-100	1
109	1	16VB-100	2
110	1	16VB-47	7
111	1	CAP., ELECTROLYTIC, 16VB-10	1
112	1	P-ROM FF-99(TF05), 4K	1
113	1	P-ROM FF-99(TF10), 1K	1
114	1	P-ROM FF-99(TF08), 4K	1
115	1	P-ROM FF-99(TF07), 4K	1
116	1	P-ROM FF-99(TF06), 4K	1
117	1	CUSTOM IC, MB14241	1
118	1	C-MOS, CD4066A	1
119	1	LS I.C., 74LS283	1
120	1	74LS273	5
121	1	74LS253	8
122	1	74LS197	2
123	1	74LS174	3
124	1	74LS155	1
125	1	74LS86	3
126	1	74LS85	4
127	1	74LS74	4
128	1	74LS42	2
129	1	74LS30	7
130	1	74LS14	1
131	1	74LS11	2
132	1	74LS08	1
133	1	74LS04	4
134	1	74LS00	8
135	1	TTL I.C., 74399	1
136	1	NE566V	1
137	1	7416	2
138	1	NE555V	1
139	1	7410	1
140	1	OP AMPLIFIER, MB3712	1
141	1	ATTENUATOR, MC3340P	1
142	1	TIMER I.C., NE555A	1
143	1	OP AMPLIFIER, LM3900	3
144	1	ZENER DIODE, RD-9A-M	1
145	1	DIODE, 1S1588	12
146	1	TRANSISTOR, 2SC372-0	1
147	1	ANGLE PIN HEADER, PS-500A	2
148	1	I.C. SOCKET, 18P	4
149	1	DIP SWITCH, DSS-7	2
150	1	CONNECTOR STICKER, P	1
151	1	CONNECTOR STICKER, G	1
152	1	NUT, M2.3	2
153	1	PAN HD SCREW, M2.3X8	2
154	1	NUT, M3	1
155	1	PAN HD SCREW, M3X8	1
156	1	HEAT SINK	1
157	1	A.F.-GAMEL SOUND P.C. BOARD	1

TAITO CORPORATION
 FIELD GOAL
 AF-GAME PC BOARD
 ASSY.
 AFN00003

LTB	DESCRIPTION	DATE	APPROVED
M-23-9	4POINTS	8.21.77	L
M-23-10	2POINTS	8.31.77	L

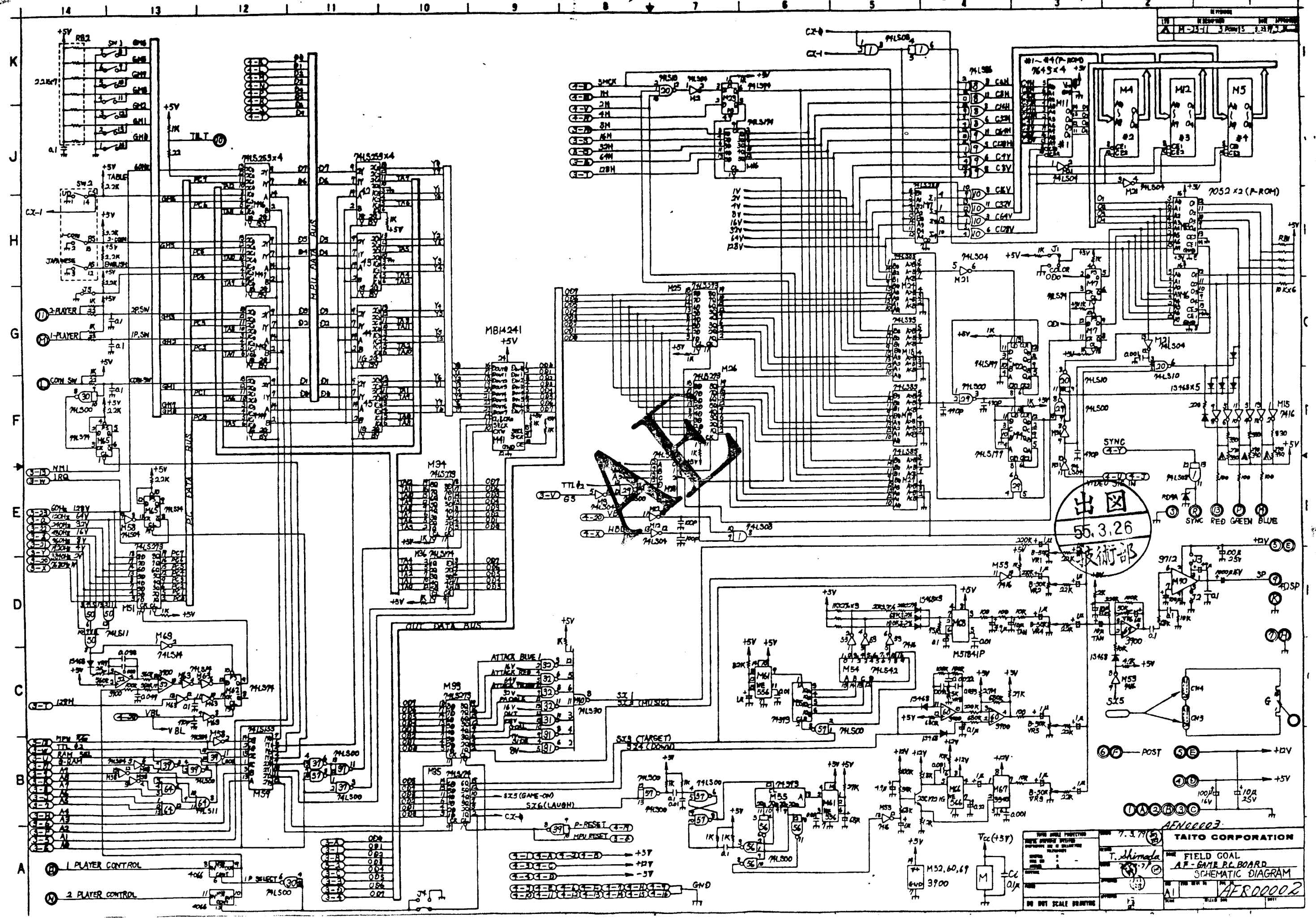


QTY	SYM	PART NO	MANUFACTURE OR DESCRIPTION	QTY
2	FRC	AA5 00215	F.R.C-HARNESS ASSY PS-50	2
1			TINNED COPPER WIRE 0.5φ	1000
8	NL2	AAT 61020	NOISE LIMIT CS90E-IE-1R500-R58	8
12	NLF	61019	NOISE LIMIT CS90E-1A-3R300-R58	12
5	R6	51789	RES. CARBON 1/4W ±5%	5
18	R5	51765	RES. CARBON 1/4W ±5%	18
2	R4	51758	RES. CARBON 1/4W ±5%	2
1	R3	51757	RES. CARBON 1/4W ±5%	1
2	R2	51753	RES. CARBON 1/4W ±5%	2
2	R1	51721	RES. CARBON 1/4W ±5%	2
1	C6	41436	CAP. TANTALUM SSG35-1F	1
1	C5	41429	CAP. TANTALUM SSG25-6R8F	1
2	C4	41334	CAP. CERAMIC 470PF 50V	2
2	C3	41318	CAP. CERAMIC 100PF 50V	2
35	C2	41244	CAP. FILM TDY-IH-104	35
3	C1	AAT 41094	CAP. ELECTROLYTIC 16T47	3
1	ER4	90004	EP-ROM AF-04(TF04) 2716	1
1	ER3	90003	EP-ROM AF-03(TF03) 2716	1
1	ER2	90002	EP-ROM AF-02(TF02) 2716	1
1	ER1	90001	EP-ROM AF-01(TF01) 2716	1
1	CPU	AAT 34006	C.P.U. 68A00	1
2	IC21	33164	LS I.C. 74LS257	2
1	IC20	33128	LS I.C. 74LS175	1
1	IC19	33121	LS I.C. 74LS166	1
1	IC18	33112	LS I.C. 74LS157	1
4	IC17	33108	LS I.C. 74LS153	4
1	IC16	33076	LS I.C. 74LS107	1
3	IC15	33051	LS I.C. 74LS74	3
1	IC14	33040	LS I.C. 74LS51	1
2	IC13	33032	LS I.C. 74LS42	2
1	IC12	33011	LS I.C. 74LS10	1
1	IC11	33009	LS I.C. 74LS08	1
6	IC10	33005	LS I.C. 74LS04	6
9	IC9	33003	LS I.C. 74LS02	9
1	IC8	33001	LS I.C. 74LS00	1
2	IC7	32156	STATIC RAM MB8114NLM	2
8	IC6	32153	DYNAMIC RAM MB8116N T4116	8
1	IC5	32145	TTL I.C. 74176	1
5	IC4	32099	TTL I.C. 74367	5
1	IC3	32096	TTL I.C. 74504	1
2	IE2	32076	TTL I.C. 74393	2
1	IC1	AAT 32047	TTL I.C. 7428	1
1	X.T	AAO 69575	X-TAL 10.065MHz	1
4	I.S	55787	I.C SOCKET 24P	4
2	50P	55154	ANGLE PIN HEADER PS-50PA	2
1	T	17665	CONNECTOR STICKER T	1
1	Q	17656	CONNECTOR STICKER Q	1
1	P	AAO 17653	CONNECTOR STICKER P	1
1	B.S	AF070014	P.C BOARD STICKER	1
1		AAO 17765	C.P.U.-P.C BOARD 6800	1

- NOTE 1) CAP. FILM & CERAMIC
- NOTE 2) CAP. TANTALU
- NOTE 3) CAP. ELECTROLYTIC
- NOTE 4) NOISE LIMIT
- NOTE 5) HOW TO MOUNT RESISTOR



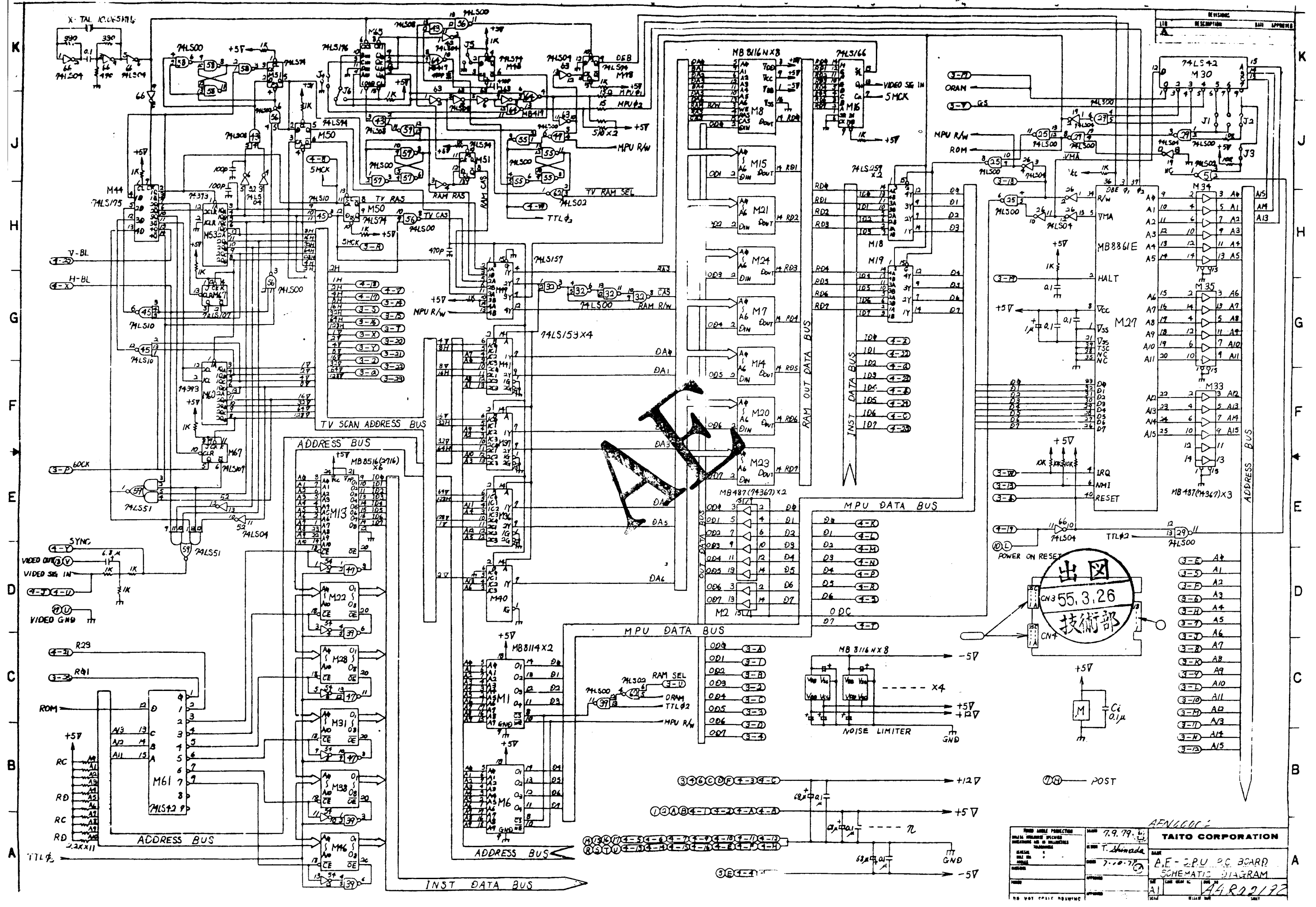
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETRES	DATE 7.16.79	TAITO CORPORATION	
TOLERANCES	DESIGNER Y. Shinada	NAME FIELD COAT.	
FINISH ±	DATE 7.16.79	A.F.-C.P.U PC BOARD	
APPROVED	APPROVED	ASSY.	
DO NOT SCALE DRAWING	SCALE	FORM RELEASE NO. A2	DATE AFN00004



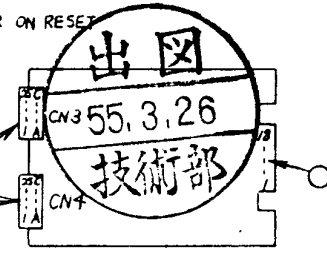
出図
55.3.26
技術部

DATE: 7.3.77	TAITO CORPORATION
DESIGNED BY: T. Shimada	FIELD GOAL
DRAWN BY: (Signature)	AE - GAME PCB BOARD
CHECKED BY: (Signature)	SCHEMATIC DIAGRAM
NO. 11	AE80002

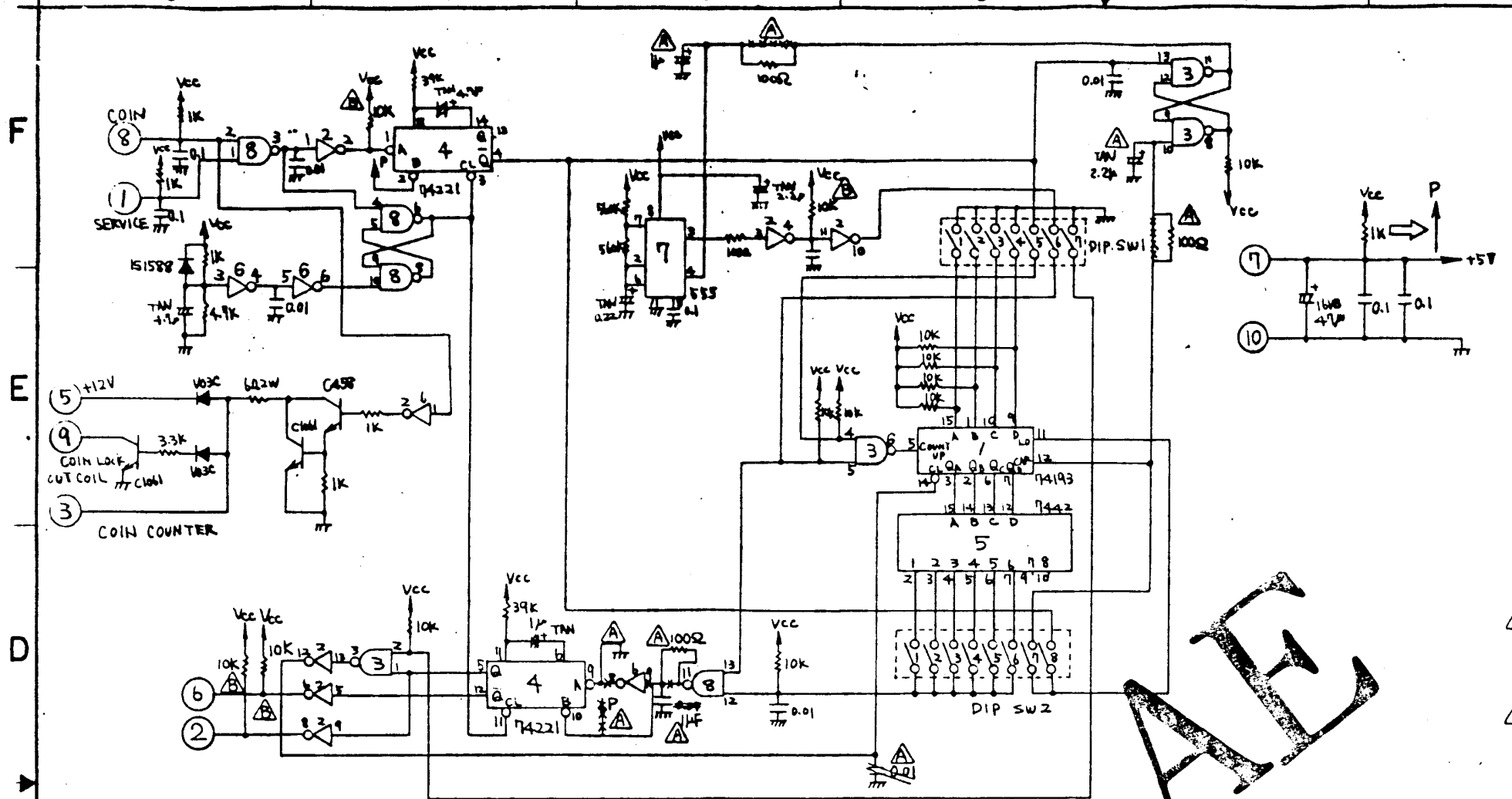
DO NOT SCALE DRAWING



① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ ⑳ ㉑ ㉒ ㉓ ㉔ ㉕ ㉖ ㉗ ㉘ ㉙ ㉚ ㉛ ㉜ ㉝ ㉞ ㉟ ㊱ ㊲ ㊳ ㊴ ㊵ ㊶ ㊷ ㊸ ㊹ ㊺ ㊻ ㊼ ㊽ ㊾ ㊿ ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ ⑳ ㉑ ㉒ ㉓ ㉔ ㉕ ㉖ ㉗ ㉘ ㉙ ㉚ ㉛ ㉜ ㉝ ㉞ ㉟ ㊱ ㊲ ㊳ ㊴ ㊵ ㊶ ㊷ ㊸ ㊹ ㊺ ㊻ ㊼ ㊽ ㊾ ㊿	7.9.79 T. Shinada 7.10.79	AFNL6002 TAITO CORPORATION A.E-2 P.U. P.C. BOARD SCHEMATIC DIAGRAM A4R22172
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------	------------------------------------------------------------------------------------------------



REVISIONS			
LTB	DESCRIPTION	DATE	APPROVED
Δ #54	2 POINTS	80.1.24	J. Higashi
Δ #54	9 POINTS	80.1.31	J. Higashi

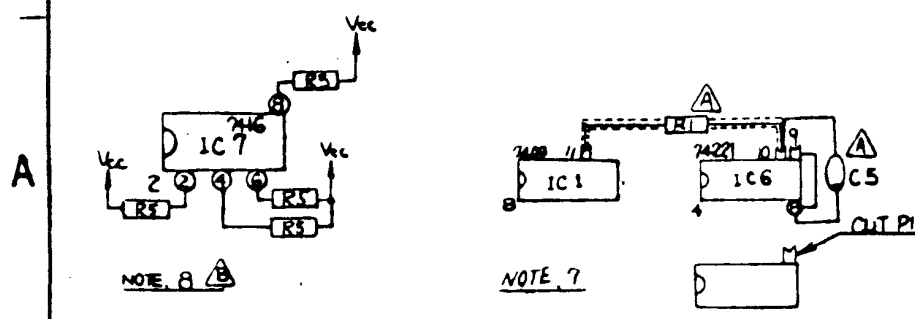
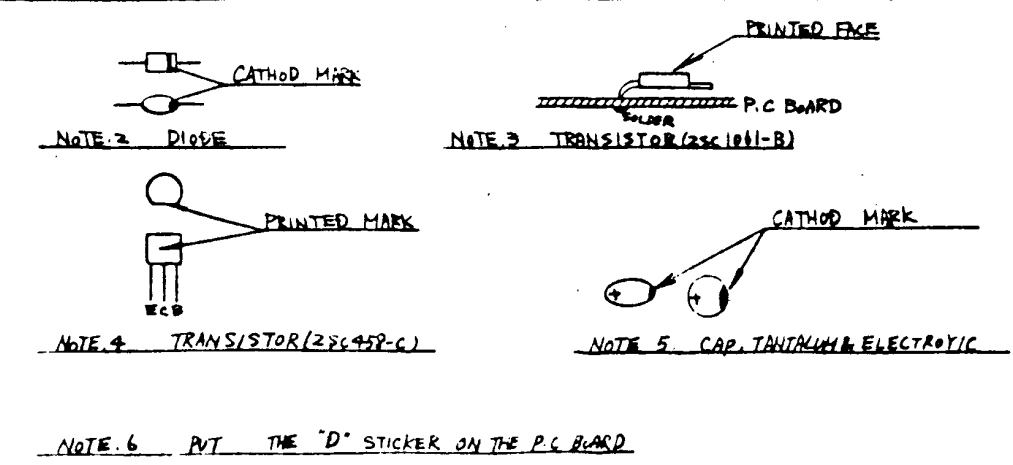
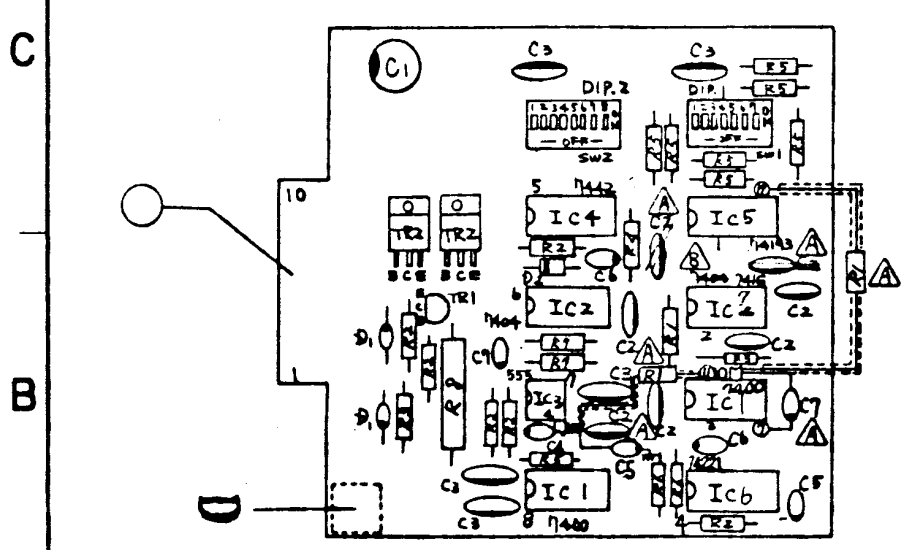


NO.	SYM.	REF. NO.	DESCRIPTION	QTY.
47				
46				
45				
44				
43				
42				
41				
40				
39				
38				
37				
36				
35				
34				
33				
32				
31				
30	IC7	AAT32033	TTL IC, 7416	1
29	R8	AAT55033	WINDING RESISTOR (10M 2W 10%)	1
28	R7	" 51831	RES. CARBON, 51K OHM 1/4W 5%	2
27	R6	" 51803	" " " " " " " "	2
26	R5	" 51789	" " " " " " " "	1
25	R4	" 51781	" " " " " " " "	1
24	R3	" 51777	" " " " " " " "	1
23	R2	" 51765	" " " " " " " "	1
22	R1	" 51741	RES. CARBON, 100 OHM 1/4W 5%	1
21	C7	" 41419	CAP. TANTALUM, 55μF 16V	1
20	C6	" 41421	CAP. TANTALUM, 55μF 16V	1
19	C5	" 41418	" " " " " " " "	1
18	C4	" 41414	CAP. TANTALUM, 55μF 16V	1
17	C3	" 41244	CAP. FILM, TBY-14-104	5
16	C2	" 41238	CAP. FILM, TBY-14-103	75
15	C1	" 41021	CAP. ELECTROLY, 100μF 47V	1
14	IC6	" 32077	TTL IC, 74221	1
13	IC5	" 32044	" " " " " " " "	1
12	IC4	" 32039	" " " " " " " "	1
11	IC3	" 32019	" " " " " " " "	1
10	IC2	" 32005	" " " " " " " "	1
9	IC1	" 32001	TTL IC, 7400	2
8	D2	" 12025	DIODE, 1S1588	1
7	D1	" 12002	DIODE, V03C	2
6	TR2	" 11030	TRANSISTOR, 2SC1061-B	2
5	TR1	AAT11005	TRANSISTOR, 2SC452-C	1
4	DIP2	AAO52566	DIP SWITCH, PSS-8	1
3	DIP1	" 52560	DIP SWITCH, PSS-7	1
2	D	" 17623	CONNECTOR, STICKER	1
1		AAO17766B	CREDIT P.C BOARD	1

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NOTE.1 THE RELATION BETWEEN COIN AND CREDIT

	SW.1							SW.2							
	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8
1 COIN 1PLAY	ON	ON	ON	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF
2 COIN 1PLAY	"	"	"	"	"	"	"	OFF	ON	OFF	"	"	"	"	"
3 COIN 1PLAY	"	"	"	"	"	"	"	"	OFF	ON	"	"	"	"	"
4 COIN 1PLAY	"	"	"	"	"	"	"	"	OFF	OFF	ON	"	"	"	"
1 COIN 2PLAY	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON
1 COIN 3PLAY	OFF	ON	"	"	"	"	"	"	"	"	"	"	"	"	"
1 COIN 4PLAY	ON	ON	"	"	"	"	"	"	"	"	"	"	"	"	"



THERM ANGLE PROJECTION		PARTS LIST	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS	DATE: 12.10.77	DESIGN: 12.11.77	CHECK: 12.11.77
GENERAL TOLERANCES	±	APPROVED:	NAME: AZ
HOLE DIA	±	APPROVED:	SCALE: 1:1
ANGLES	±	DO NOT SCALE DRAWING	TAITO CORPORATION
MATERIAL			CREDIT P.C BOARD
			REV: 1
			DATE: 80.1.24
			NO. 150011



FIELD GOAL

