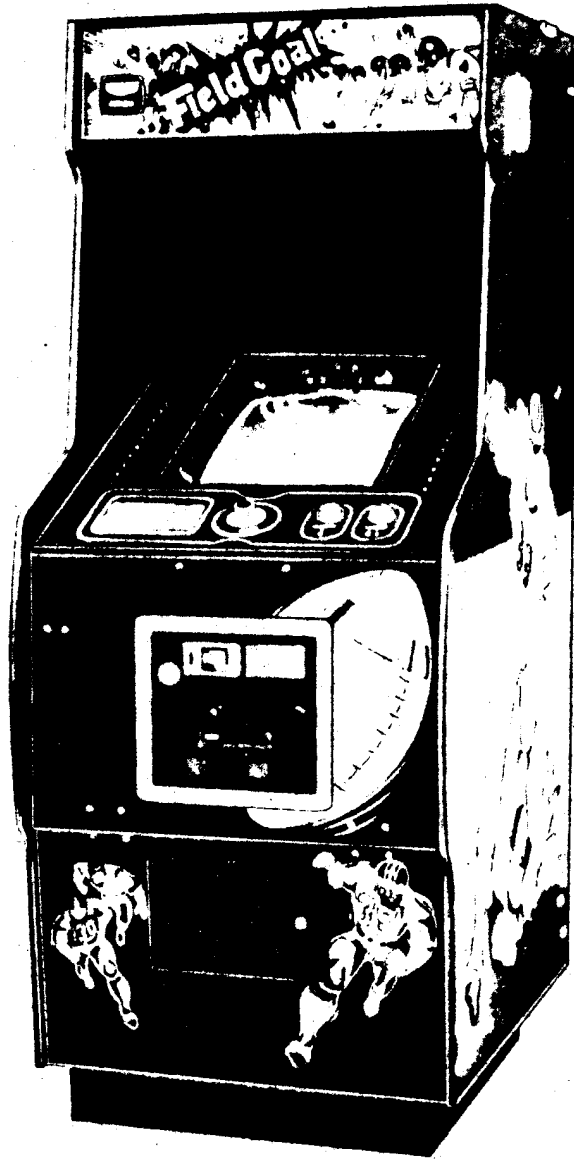


Field Goal



**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.

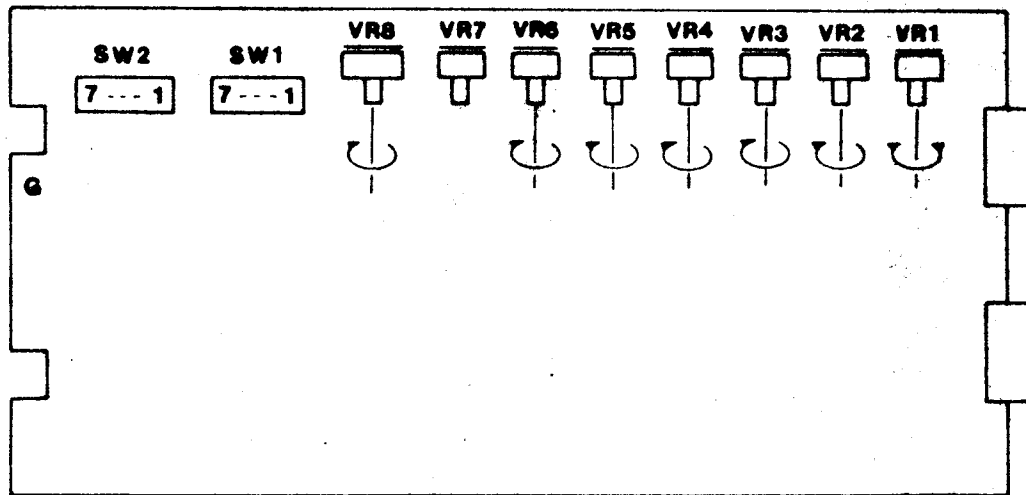


Fig. 4

- 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.

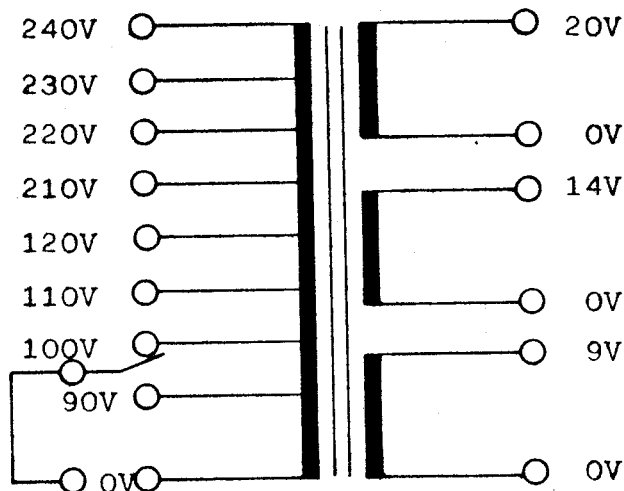


Fig. 6

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

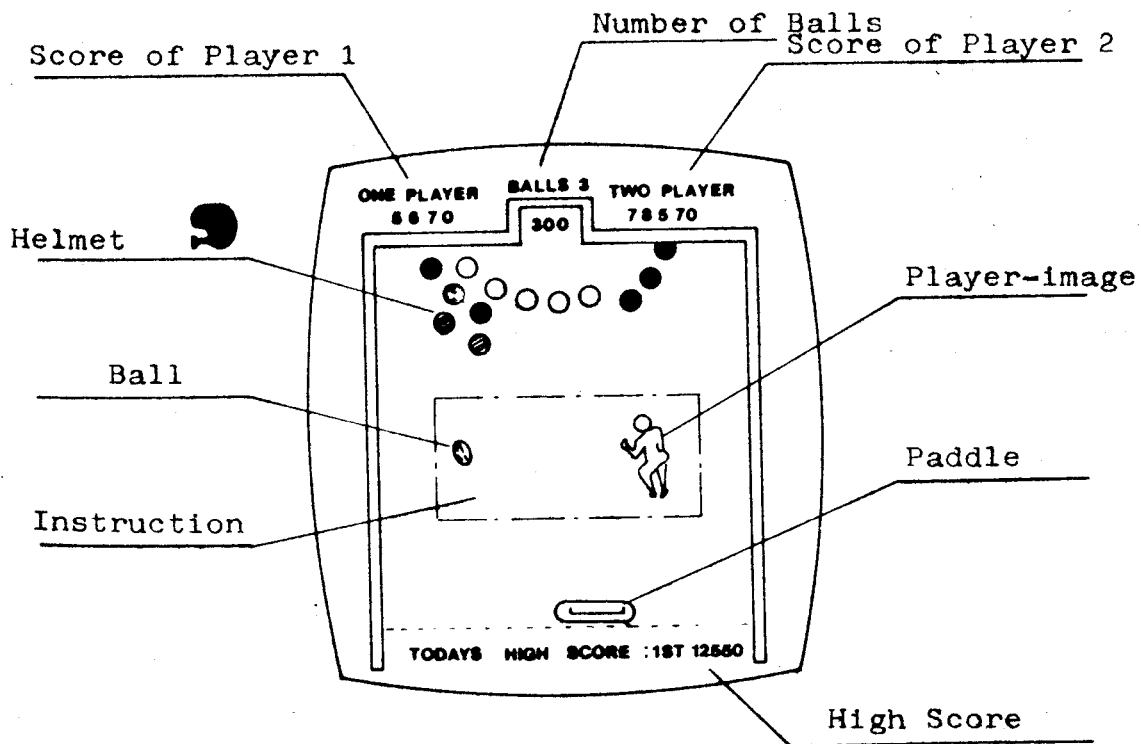
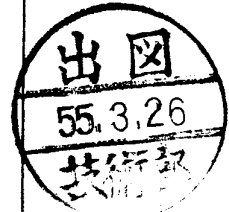
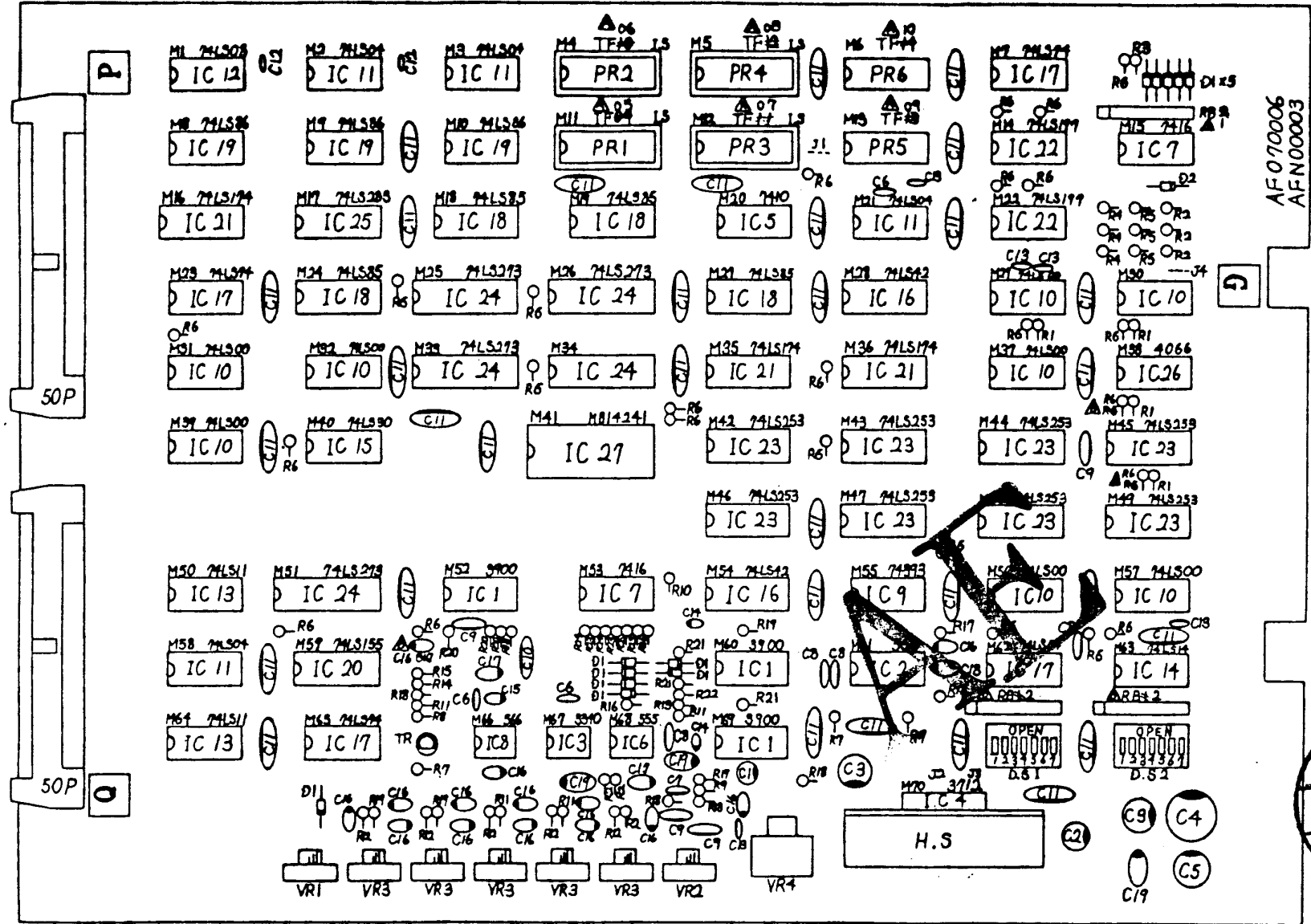
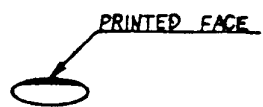


Fig. 7

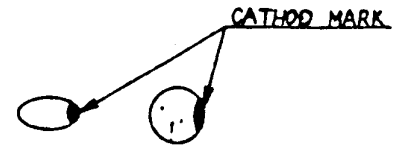
K
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F
E
D
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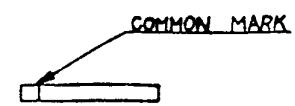
NOTE-1. HOW TO MOUNT RESISTOR



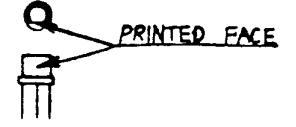
NOTE-2. CAP., FILM & CERAMIC



NOTE-5. TRANSISTOR (2SC372-0)

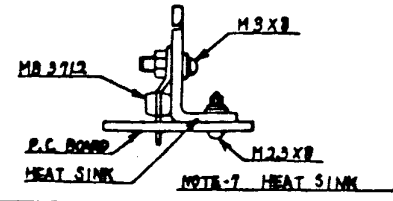


NOTE-4. RESISTOR BLOCK



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

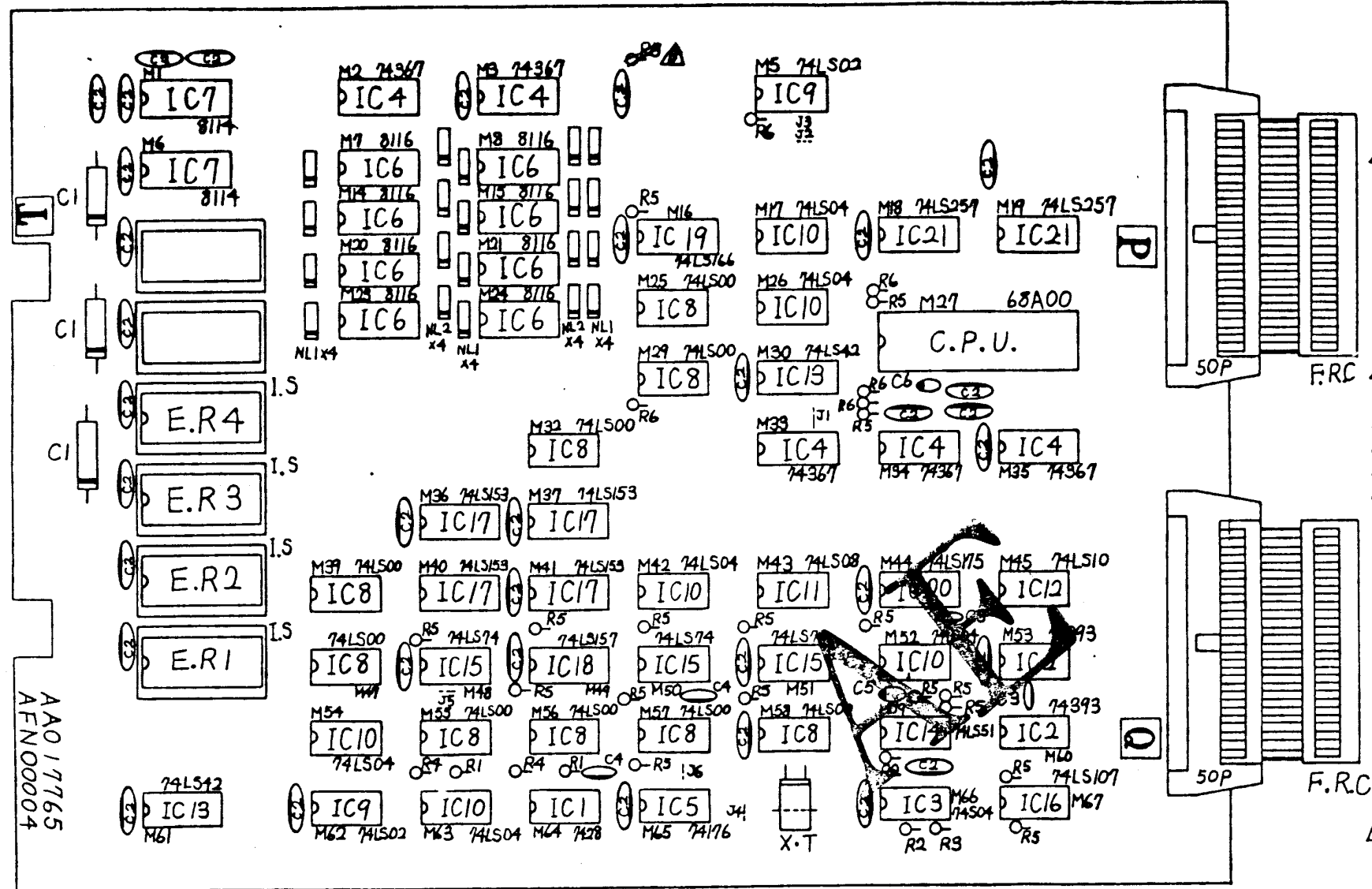
ITEM NO.	PART NO.	QUANTITY	DESCRIPTION
97	R2	1	RESISTOR BLOCK 22KOHM 8-ELEMENT
98	R1	1	RESISTOR BLOCK 10KOHM 8-ELEMENT
99	VR4	1	VARIABLE RESISTOR, B-50K RV8YP
96	VR3	5	B-50K
95	VR2	1	B-5K
94	VR1	1	VARIABLE RESISTOR, B-2K
93	R26	1	RES., CARBON, 100KOHM 1/4W 2%
92	R25	1	68K
91	R24	1	20K
90	R23	3	1 K OHM 1/4W 2%
89	R22	1	2.7KOHM 1/4W 5%
88	R21	3	680K
87	R20	3	560K
86	R19	4	220K
85	R18	5	100K
84	R17	1	82K
83	R16	1	75K
82	R15	1	RES., CARBON, 68K OHM 1/4W 5%
81	SYM	1	NOMENCLATURE OR DESCRIPTION



ITEM NO.	PART NO.	QUANTITY	DESCRIPTION
80	R14	1	RES., CARBON, 39KOHM 1/4W 5%
79	R13	1	27K
78	R12	1	10K
77	R10	1	4.7K
76	R9	1	2K
75	R8	1	1.8K
74	R7	1	1.2K
73	R6	1	1K
72	R5	1	330
71	R4	1	270
70	R3	1	220
69	R2	1	100
68	R1	1	RES., CARBON, 20KOHM 1/4W 5%
67	C9	3	CAP., TANTALUM, 35V 50-10M
66	C8	1	SSG35-488E
65	C7	1	SSG35-487E
64	C6	1	SSG35-1E
63	C5	1	SSG35-0E2E
62	C4	1	CAP., TANTALUM, 35V 50-10M
61	C3	5	CAP., CERAMIC, 470PF
60	C2	2	CAP., CERAMIC, 100PF
59	C1	1	CAP., FILM, TDY-IH-104
58	C10	1	TDY-IH-473
57	C9	1	TDY-IH-333
56	C8	1	TDY-IH-103
55	C7	1	TDY-IH-223
54	C6	1	CAP., FILM, TDY-IH-102
53	C5	1	CAP., ELECTROLYTIC, 25VB-100
52	C4	1	16VB-100
51	C3	1	16VB-100
50	C2	1	16VB-100
49	C1	1	CAP., ELECTROLYTIC, 16VB-100
48	PR6	1	P-ROM FF=0 (TF10), 1K
47	PR5	1	FF=3 (TF09), 1K
46	PR4	1	FF=2 (TF08), 4K
45	PR3	1	FF=1 (TF07), 4K
44	PR2	1	FF=0 (TF06), 4K
43	PR1	1	P-ROM FF=0 (TF05), 4K
42	IC7	1	AAT 37001 CUSTOM IC, MB14241
41	IC6	1	A 36067 C-MOS, CD4066A
40	IC5	1	33176 LS I.C., 74LS283
39	IC4	5	33170, 74LS273
38	IC3	8	33163, 74LS253
37	IC2	2	33147, 74LS197
36	IC21	3	33137, 74LS174
35	IC20	1	33110, 74LS155
34	IC19	3	33062, 74LS86
33	IC18	4	33061, 74LS85
32	IC17	4	33051, 74LS74
31	IC16	2	33032, 74LS42
30	IC15	1	33026, 74LS30
29	IC14	1	33015, 74LS14
28	IC13	2	33012, 74LS11
27	IC12	1	33009, 74LS08
26	IC11	4	33005, 74LS04
25	IC10	8	33001, LS I.C., 74LS00
24	IC9	1	32076 TTL I.C., 74399
23	IC8	1	32041, NE566V
22	IC7	2	32033, 7416
21	IC6	1	32019, NE555V
20	IC5	1	32004 TTL I.C., 7410
19	IC4	1	31042 OP AMPLIFIER, MB3712
18	IC3	1	31031 ATTENUATOR, MC3340P
17	IC2	1	31028 TIMER I.C., NE555A
16	IC1	3	31011 OP AMPLIFIER, LM3900
15	D1	1	13028 ZENER DIODE, RD-9A-M
14	D1	12	12025 DIODE, 1S1588
13	TR	1	AAT 11020 TRANSISTOR, 2SC372-0
12	50P	2	AAD 55154 ANGLE PIN HEADER, PS-500A
11	LS	4	55103 I.C. SOCKET, 18P
10	D.S	2	52560 DIP SWITCH, DSS-1
9	P	1	77656 CONNECTOR STICKER, P
8	G	1	77653 CONNECTOR STICKER, G
7	G	1	AAD 17632 CONNECTOR STICKER, G
6		2	NUT, M2.3
5		2	PAN HD SCREW, M2.3X8
4		1	NUT, M3
3		1	PAN HD SCREW, M3X8
2	H.S	1	AEO 40001 HEAT SINK
1		1	AFO 70006 A.F.-GAMEL SOUND P.C. BOARD

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

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M-23-9	4POINTS	8.21.77	L
M-23-10	2POINTS	8.31.77	L

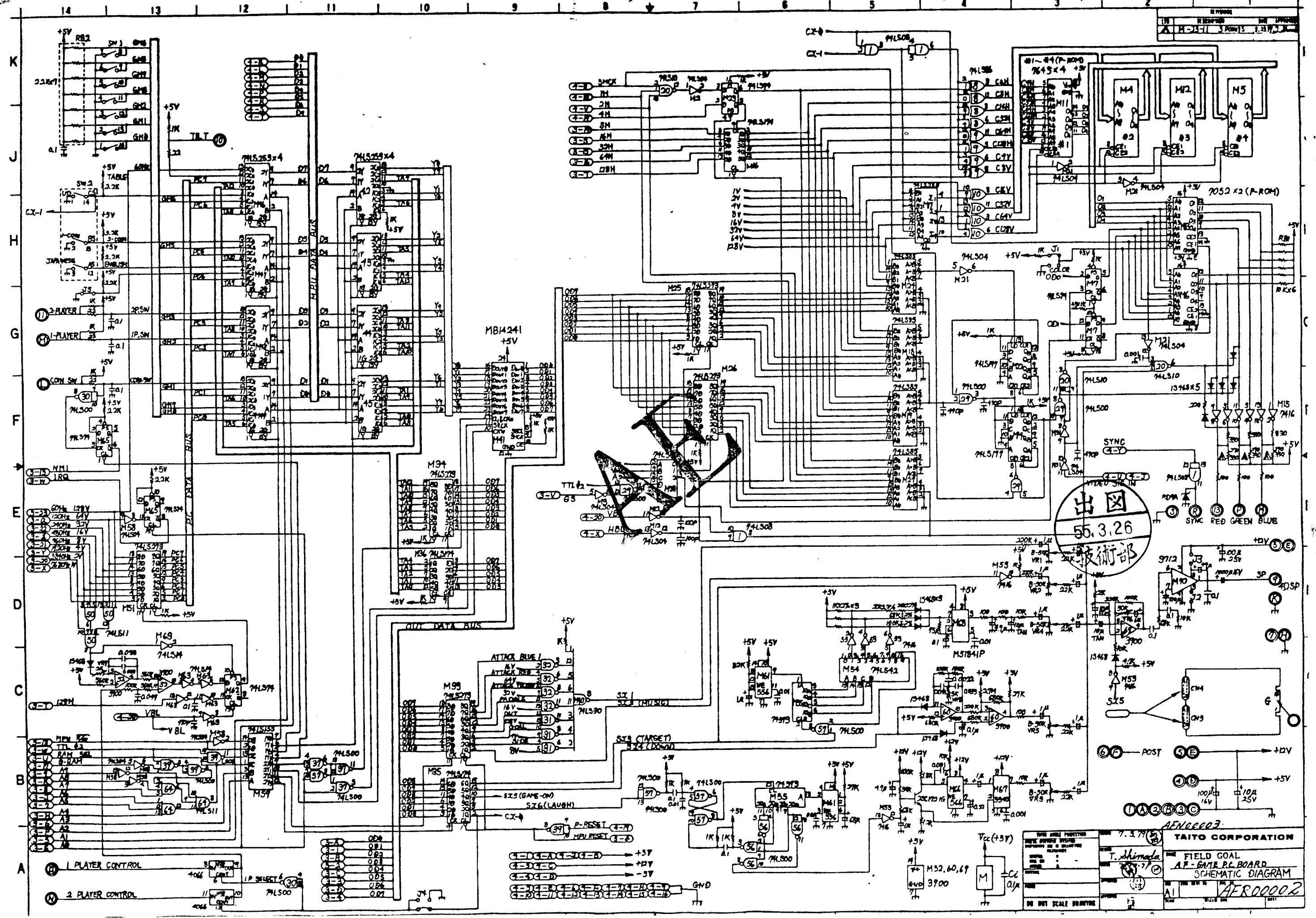


QTY	SYM	PART NO	NAME/DESCRIPTION	QTY
2	FRC	AA5 00215	F.R.C.-HARNESS ASSY PS-50	2
1			TINNED COPPER WIRE 0.5φ	1000
8	NL2	AAT 61020	NOISE LIMIT CS90E-IE-1R500-R58	8
12	NL1	61019	NOISE LIMIT CS90E-1A-3R300-R58	12
5	R6	51789	RES. CARBON 10K OHM 1/4W ±5%	5
18	R5	51765	RES. CARBON 1K	18
2	R4	51758	RES. CARBON 510	2
1	R3	51757	RES. CARBON 470	1
2	R2	51753	RES. CARBON 330	2
2	R1	51721	RES. CARBON 15 OHM 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 16T 47	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

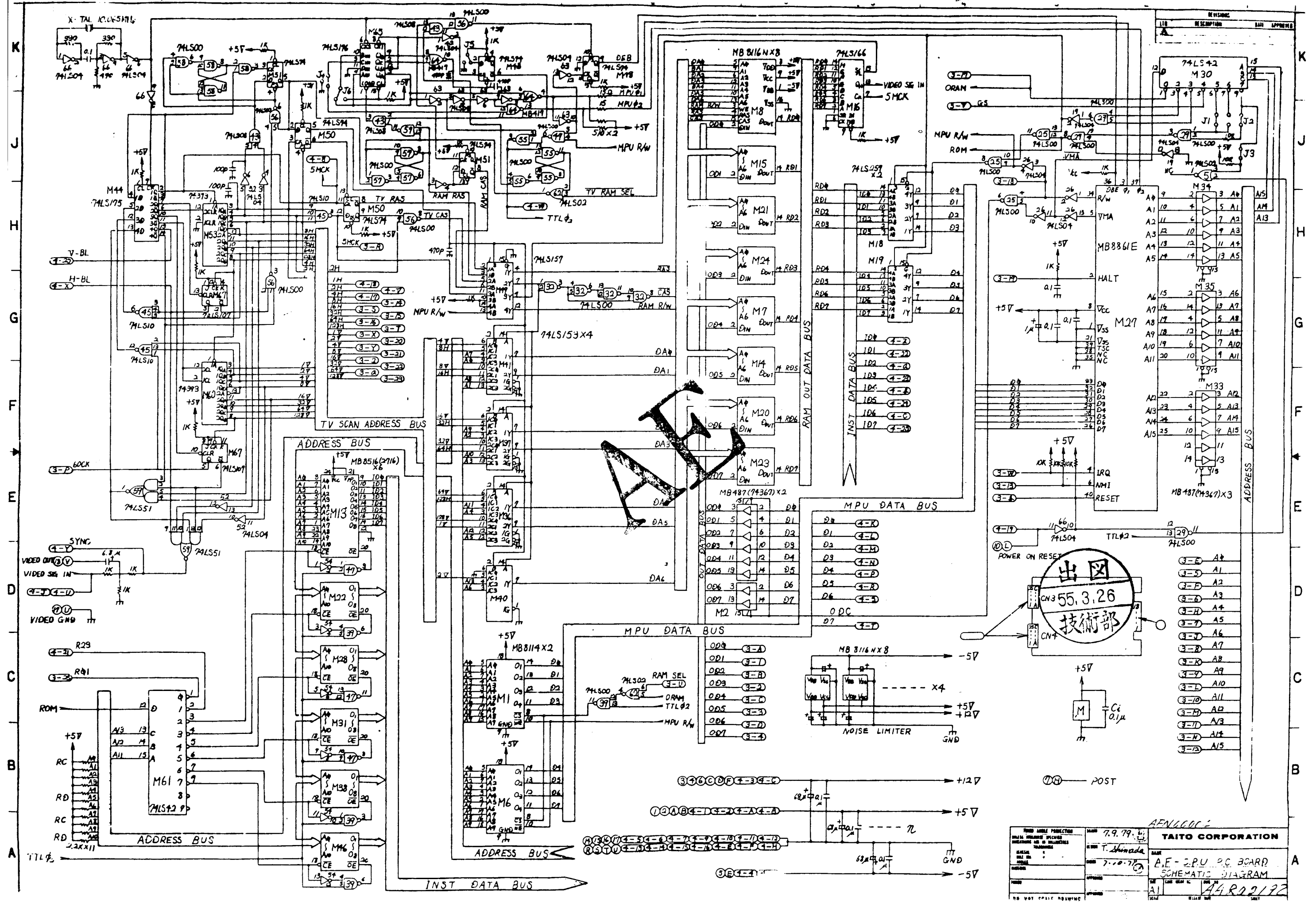
- NOTE 1) CAP. FILM & CERAMIC
- NOTE 2) CAP. TANTALU
- NOTE 3) CAP. ELECTROLYTIC
- NOTE 4) NOISE LIMIT
- NOTE 5) HOW TO MOUNT RESISTOR



TURNS ANGLE PROJECTION		PARTS LIST	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETRES	DATE 7.16.79	TAITO CORPORATION	
TOLERANCES	DESIGNED BY 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 8.31.77
	RELEASE DATE	AFN00004	

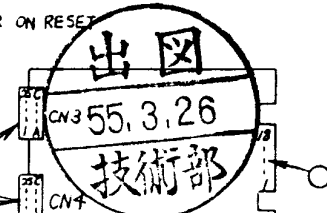


TAITO CORPORATION
 FIELD GOAL
 AE GAME PCB BOARD
 SCHEMATIC DIAGRAM
 AF80002
 T. Shimada
 7.3.79
 DO NOT SCALE DRAWING



TAITO CORPORATION	
DATE	7.9.79
DESIGNED BY	T. Shinada
DATE	7.10.79
APPROVED BY	
NO. OF THIS DRAWING	A4R22/72

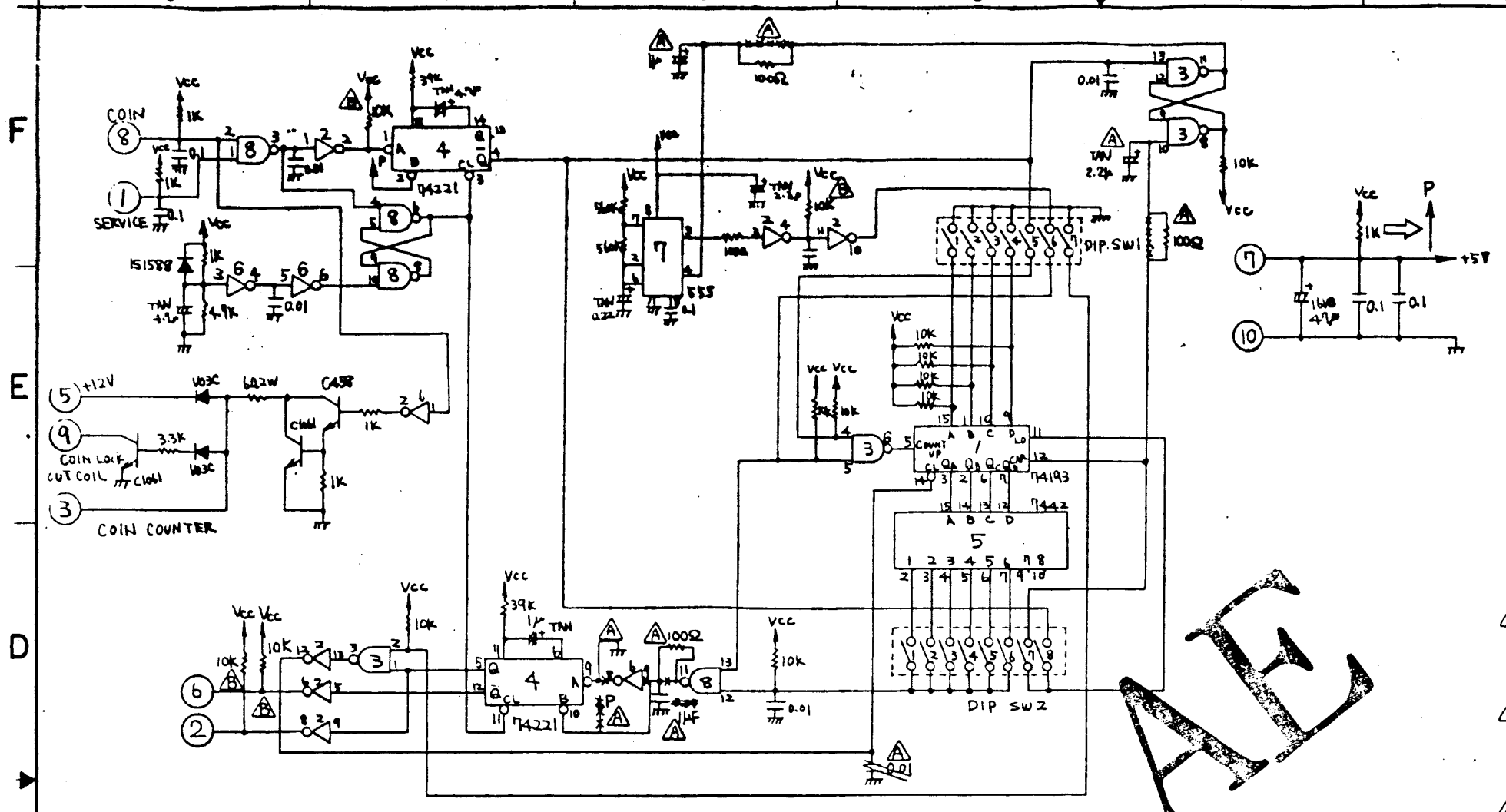
AFNL6002
A.E. ZPU PC BOARD
SCHEMATIC DIAGRAM



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REVISIONS			
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#54	9 POINTS	80.13.10	[Signature]

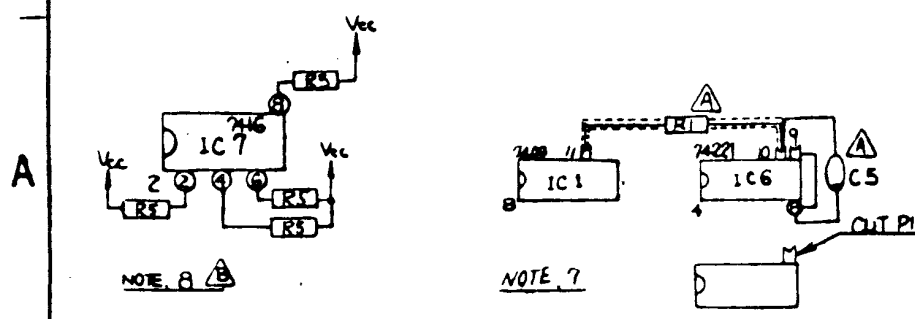
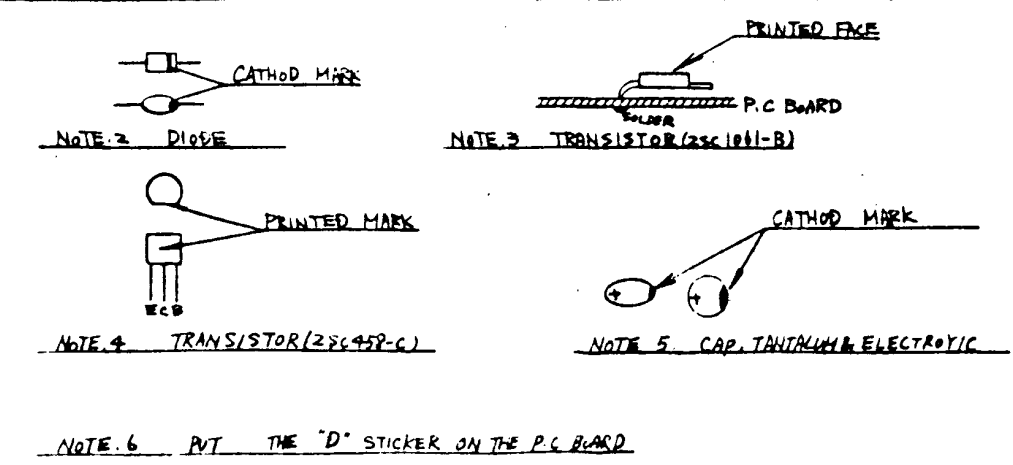
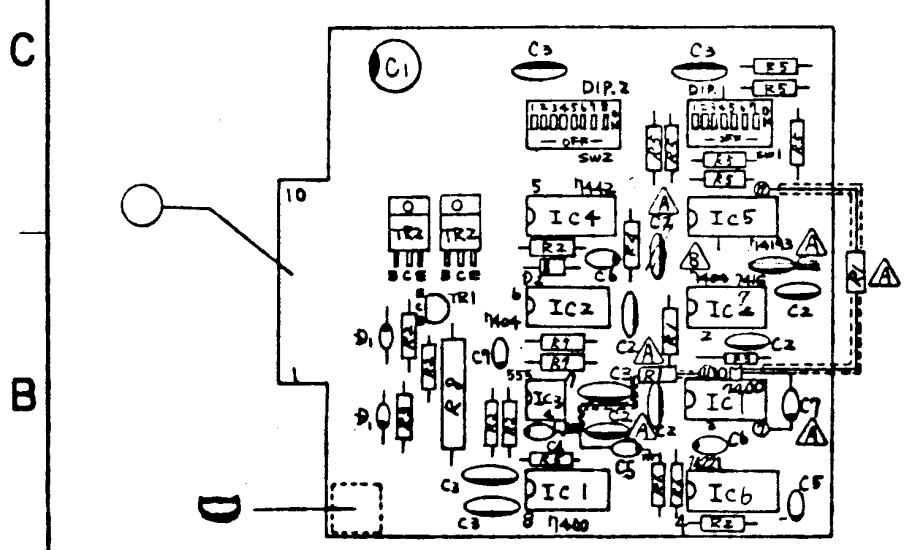


NO.	SYM.	REF. NO.	QUANTITY	DESCRIPTION	UNIT
47					
46					
45					
44					
43					
42					
41					
40					
39					
38					
37					
36					
35					
34					
33					
32					
31					
30	IC7	AAT32033	1	TTL IC, 7416	1
29	R8	AAT55033	1	WINDING RESISTOR (OHM 2W 10K)	1
28	R7	" 51831	2	RES. CARBON, 51K OHM 1/4W 5%	2
27	R6	" 51803	2	" " " 29K " " " "	2
26	R5	" 51789	1	" " " 10K " " " "	1
25	R4	" 51781	1	" " " 47K " " " "	1
24	R3	" 51777	1	" " " 33K " " " "	1
23	R2	" 51765	1	" " " 1K " " " "	1
22	R1	" 51741	1	RES. CARBON, 100 OHM 1/4W 5%	1
21	C7	" 41419	1	CAP. TANTALUM, 55V 10UF	1
20	C6	" 41421	2	CAP. TANTALUM, 55V 10UF	2
19	C5	" 41418	1	" " " 55V 10UF	1
18	C4	" 41414	1	CAP. TANTALUM, 55V 10UF	1
17	C3	" 41244	5	CAP. FILM, TBY-14-104	5
16	C2	" 41238	7.5	CAP. FILM, TBY-14-103	7.5
15	C1	" 41021	1	CAP. ELECTROLY, 16V 47UF	1
14	IC6	" 32077	1	TTL IC, 7422	1
13	IC5	" 32044	1	" " " 74193	1
12	IC4	" 32039	1	" " " 7442	1
11	IC3	" 32019	1	" " " NE555V	1
10	IC2	" 32005	1	" " " 7404	1
9	IC1	" 32001	2	TTL IC, 7400	2
8	D2	" 12025	1	DIODE, 1S1588	1
7	D1	" 12002	2	DIODE, V03C	2
6	TR2	" 11030	2	TRANSISTOR, 2SC1011-B	2
5	TR1	AAT11005	1	TRANSISTOR, 2FC452-C	1
4	DIP2	AAO52566	1	DIP SWITCH, PSS-8	1
3	DIP1	" 52560	1	DIP SWITCH, PSS-7	1
2	D	" 17623	1	CONNECTOR STICKER	1
1		AAO17766B	1	CREDIT P.C BOARD	1

出図
55.3.26
技術部

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
1COIN 1PLAY	ON	ON	ON	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF
2COIN 1PLAY	"	"	"	"	"	"	"	OFF	ON	OFF	"	"	"	"	"
3COIN 1PLAY	"	"	"	"	"	"	"	"	OFF	ON	"	"	"	"	"
4COIN 1PLAY	"	"	"	"	"	"	"	"	OFF	OFF	ON	"	"	"	"
1COIN 2PLAY	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON
1COIN 3PLAY	OFF	ON	"	"	"	"	"	"	"	"	"	"	"	"	"
1COIN 4PLAY	ON	ON	"	"	"	"	"	"	"	"	"	"	"	"	"



PARTS LIST

THIRD ANGLE PROJECTION UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES	DATE: 12.10.77 DESIGN: 12.11.77 CHECK: 12.11.77	TAITO CORPORATION	
GENERAL: ± HOLE DIA: ± ANGLES: ±	APPROVED: [Signature]	NAME: CREDIT P.C BOARD	SCALE: 1:1
DO NOT SCALE DRAWING	APPROVED: [Signature]	DATE: 80.1.15	NO. 150011



FIELD GOAL

