

Field Goal



**SERVICE INSTRUCTIONS
AND PARTS CATALOG**



TAITO CORPORATION

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.

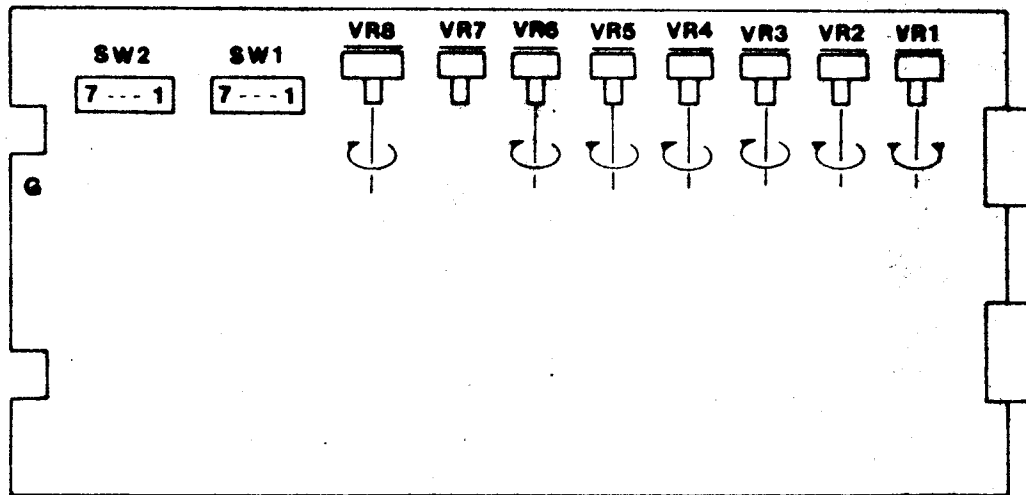


Fig. 4

- 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.

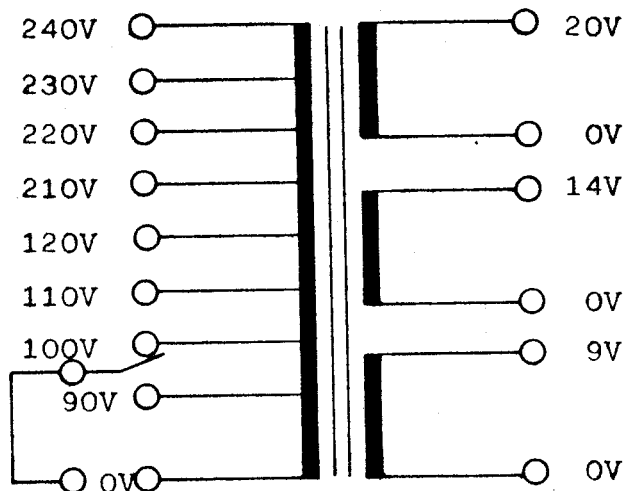


Fig. 6

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

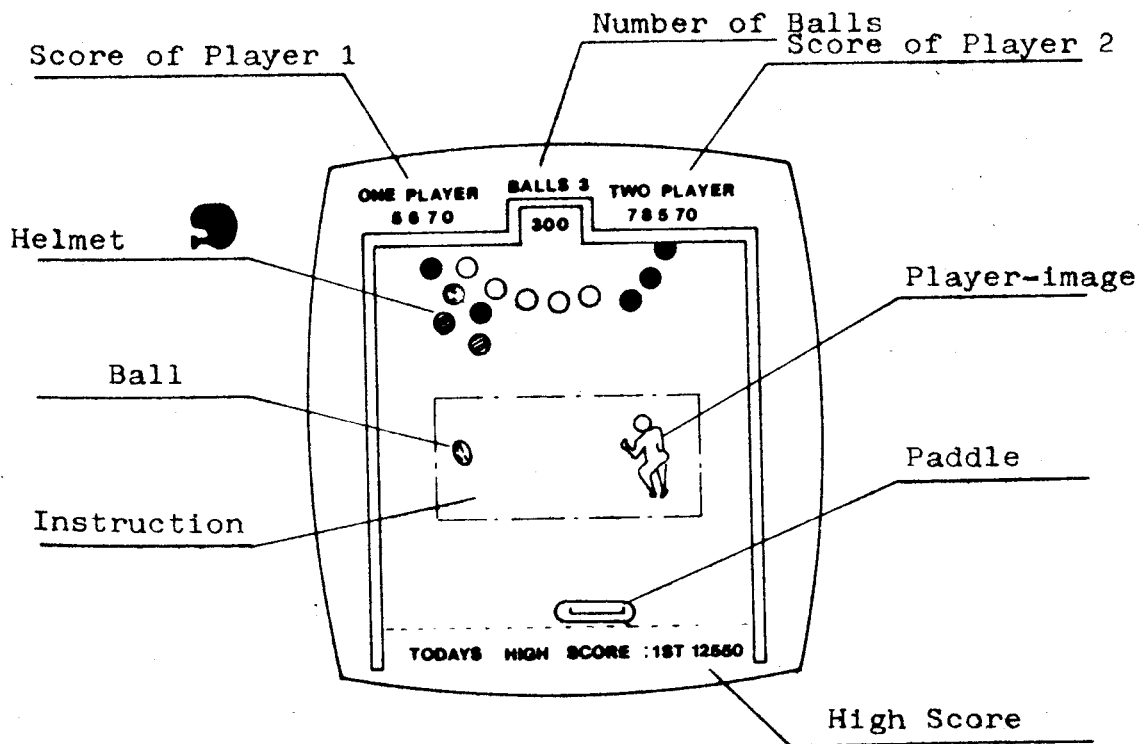
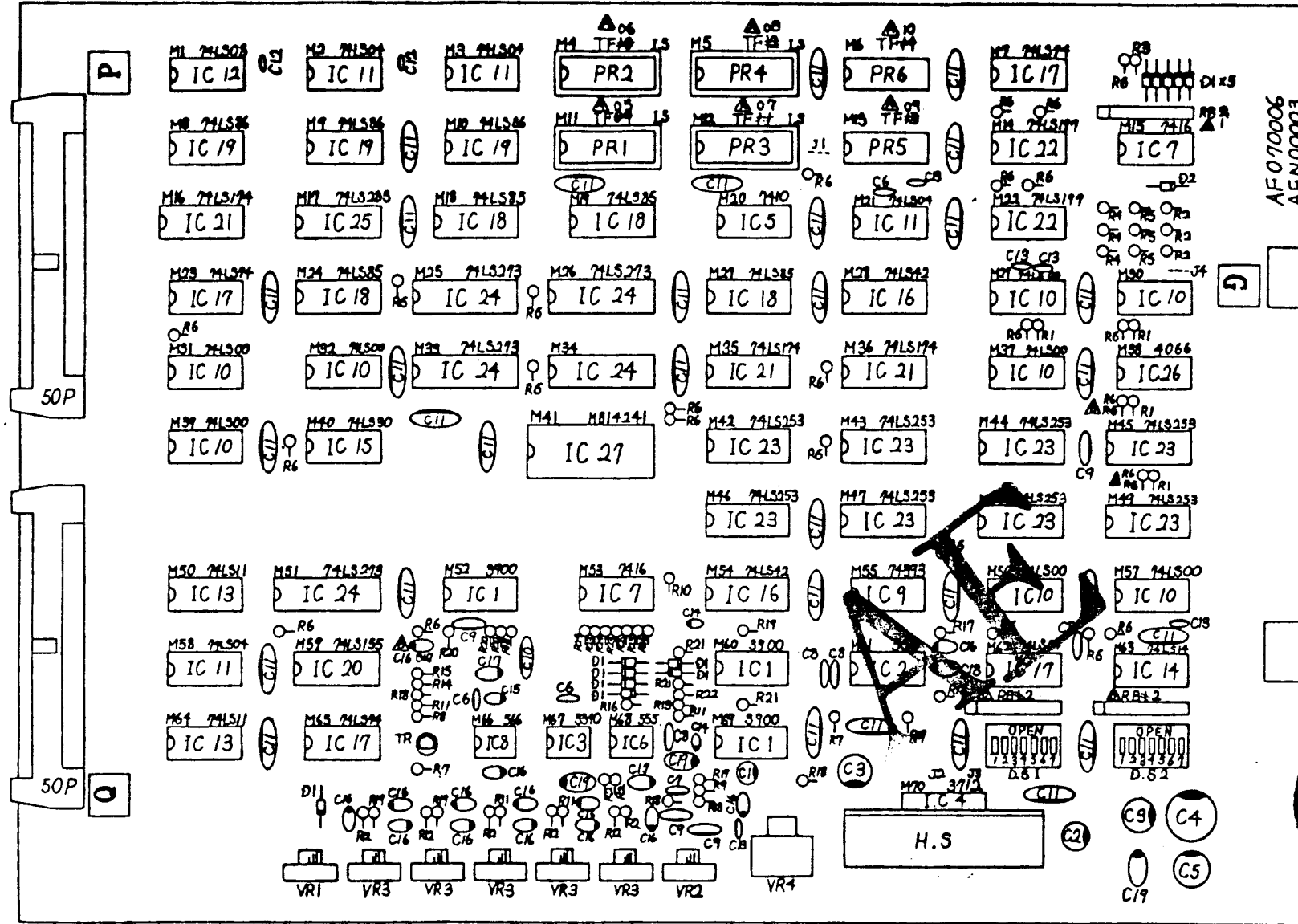


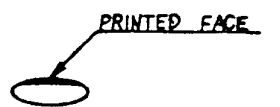
Fig. 7



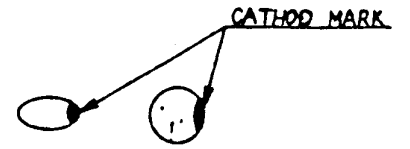
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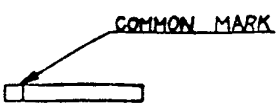
NOTE-1. HOW TO MOUNT RESISTOR



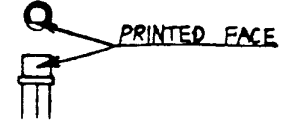
NOTE-2. CAP., FILM & CERAMIC



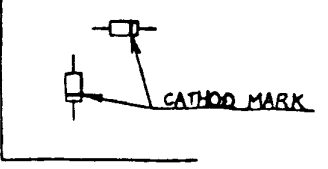
NOTE-3. CAP. TANTALUM & ELECTROLYTIC



NOTE-4. RESISTOR BLOCK



NOTE-5. TRANSISTOR (2SC372-0)



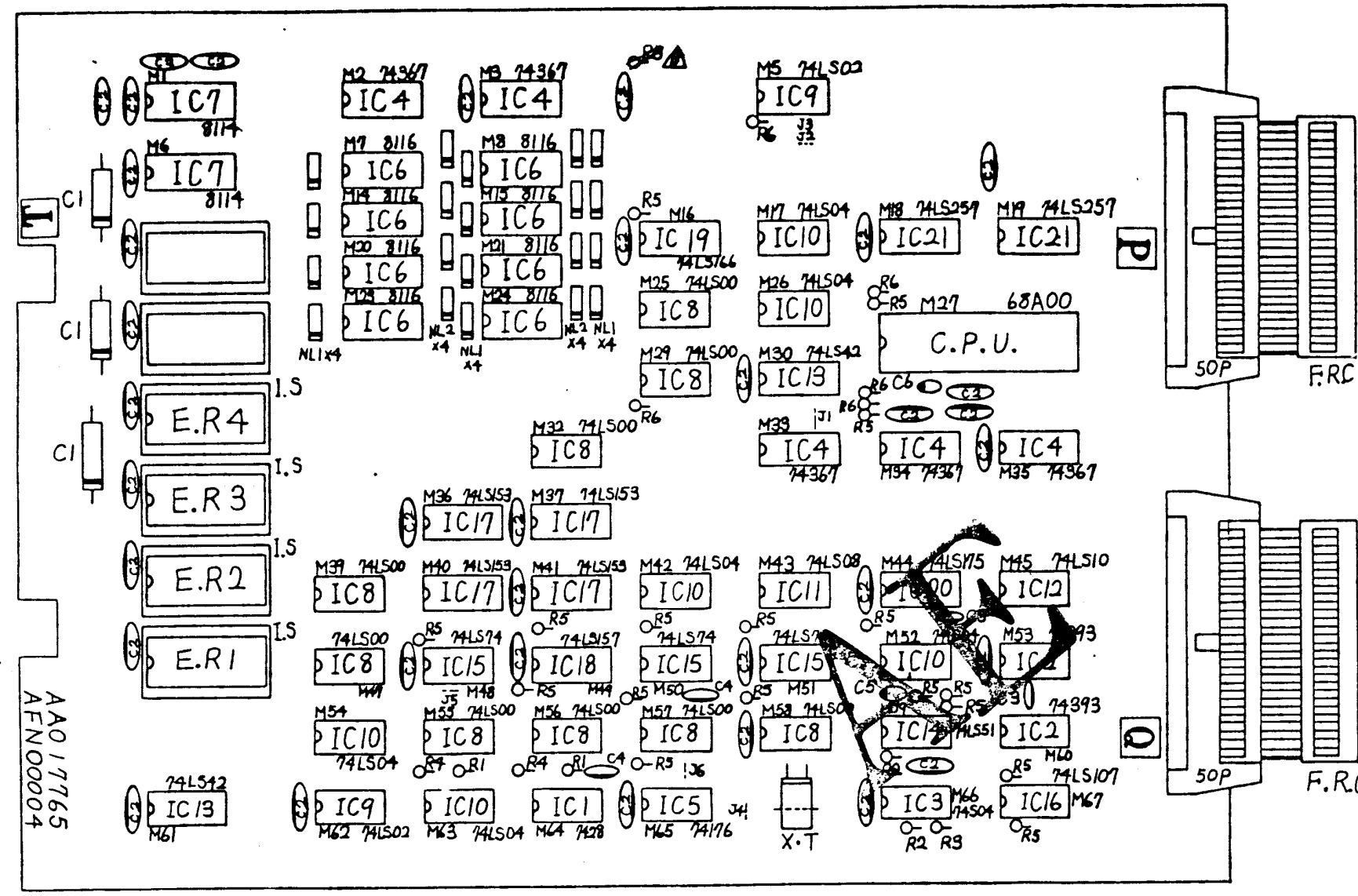
NOTE-6. DIODE (1S1588, RD-9A-M)

ITEM NO.	PART NO.	DESCRIPTION
97	R2	AAT 53058 RESISTOR BLOCK 22KOHM 8-ELEMENT
98	R1	55039 RESISTOR BLOCK 10KOHM 8-ELEMENT
99	VR4	53047 VARIABLE RESISTOR, 8-50K RV8YP
96	VR3	53041 B-50K
95	VR2	53038 B-5K
94	VR1	53037 VARIABLE RESISTOR, 8-2K
93	R26	51967 RES., CARBON, 100KOHM 1/4W 1/2%
92	R25	51965 68K
91	R24	51960 20K
90	R23	51957 1 KOHM 1/4W 1/2%
89	R22	51847 270OHM 1/4W 5%
88	R21	51833 680K
87	R20	51831 560K
86	R19	51831 220K
85	R18	51813 100K
84	R17	51811 82K
83	R16	51810 75K
82	R15	AAT 51809 RES., CARBON, 68K OHM 1/4W 5%

ITEM NO.	REVISION	DATE	DESCRIPTION
81	5	1977.11.22	RES. CARBON 390OHM 1/4W 5%
80	4	1977.11.22	27K
79	3	1977.11.22	22K
78	2	1977.11.22	10K
77	1	1977.11.22	4.7K
76	1	1977.11.22	2K
75	1	1977.11.22	750
74	1	1977.11.22	12K
73	1	1977.11.22	17K
72	1	1977.11.22	270
71	1	1977.11.22	330
70	1	1977.11.22	100
69	1	1977.11.22	RES. CARBON 200OHM 1/4W 5%
68	1	1977.11.22	CAP. TANTALUM 35SD9-10MF
67	1	1977.11.22	SSG35-688E
66	1	1977.11.22	SSG35-487E
65	1	1977.11.22	SSG35-1F
64	1	1977.11.22	SSG35-0P24
63	1	1977.11.22	SSG35-0P24
62	1	1977.11.22	CAP. TANTALUM 55G35-0R1F
61	1	1977.11.22	CAP. CERAMIC 470PF
60	1	1977.11.22	CAP. CERAMIC 100PF
59	1	1977.11.22	CAP. FILM TDY-IH-104
58	1	1977.11.22	TDY-IH-473
57	1	1977.11.22	TDY-IH-333
56	1	1977.11.22	TDY-IH-103
55	1	1977.11.22	TDY-IH-223
54	1	1977.11.22	CAP. FILM TDY-IH-102
53	1	1977.11.22	CAP. ELECTROLYTIC 25VB-100
52	1	1977.11.22	6VB-100
51	1	1977.11.22	6VB-100
50	1	1977.11.22	16VB-17
49	1	1977.11.22	CAP. ELECTROLYTIC 16VB-10
48	1	1977.11.22	P-ROM 900979
47	1	1977.11.22	900979
46	1	1977.11.22	900979
45	1	1977.11.22	900979
44	1	1977.11.22	900979
43	1	1977.11.22	P-ROM 900979
42	1	1977.11.22	AAT 37001 CUSTOM IC MB1241
41	1	1977.11.22	LS MOS CD4066A
40	1	1977.11.22	LS IC 74LS283
39	1	1977.11.22	74LS273
38	1	1977.11.22	74LS253
37	1	1977.11.22	74LS197
36	1	1977.11.22	74LS174
35	1	1977.11.22	74LS155
34	1	1977.11.22	74LS86
33	1	1977.11.22	74LS85
32	1	1977.11.22	74LS74
31	1	1977.11.22	74LS42
30	1	1977.11.22	74LS30
29	1	1977.11.22	74LS14
28	1	1977.11.22	74LS11
27	1	1977.11.22	74LS08
26	1	1977.11.22	74LS04
25	1	1977.11.22	74LS00
24	1	1977.11.22	TTL I.C. 74393
23	1	1977.11.22	NE566V
22	1	1977.11.22	7416
21	1	1977.11.22	NE555V
20	1	1977.11.22	TTL I.C. 7410
19	1	1977.11.22	OP AMPLIFIER MB3712
18	1	1977.11.22	ATTENUATOR MC3340P
17	1	1977.11.22	TIMER I.C. NE555A
16	1	1977.11.22	OP AMPLIFIER LM3900
15	1	1977.11.22	ZENER DIODE RD-9A-M
14	1	1977.11.22	DIODE 1S1588
13	1	1977.11.22	TRANSISTOR 2SC372-0
12	1	1977.11.22	ANGLE PIN HEADER PS-500A
11	1	1977.11.22	IC SOCKET 18P
10	1	1977.11.22	DIP SWITCH DSS-1
9	1	1977.11.22	CONNECTOR STICKER, P
8	1	1977.11.22	
7	1	1977.11.22	CONNECTOR STICKER, G
6	1	1977.11.22	NUT M2.3
5	1	1977.11.22	PAN HD SCREW, M2.3x8
4	1	1977.11.22	NUT M3
3	1	1977.11.22	PAN HD SCREW, M3x8
2	1	1977.11.22	HEAT SINK AFO40001
1	1	1977.11.22	A.F.-GAME& SOUND P.C BOARD

PARTS LIST		
DATE	7.16.77	TAITO CORPORATION
DESIGNED BY	J. Shimada	FIELD GOAL
CHECKED BY		AF-GAME PC BOARD
		ASSY.
		AFENC0003

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

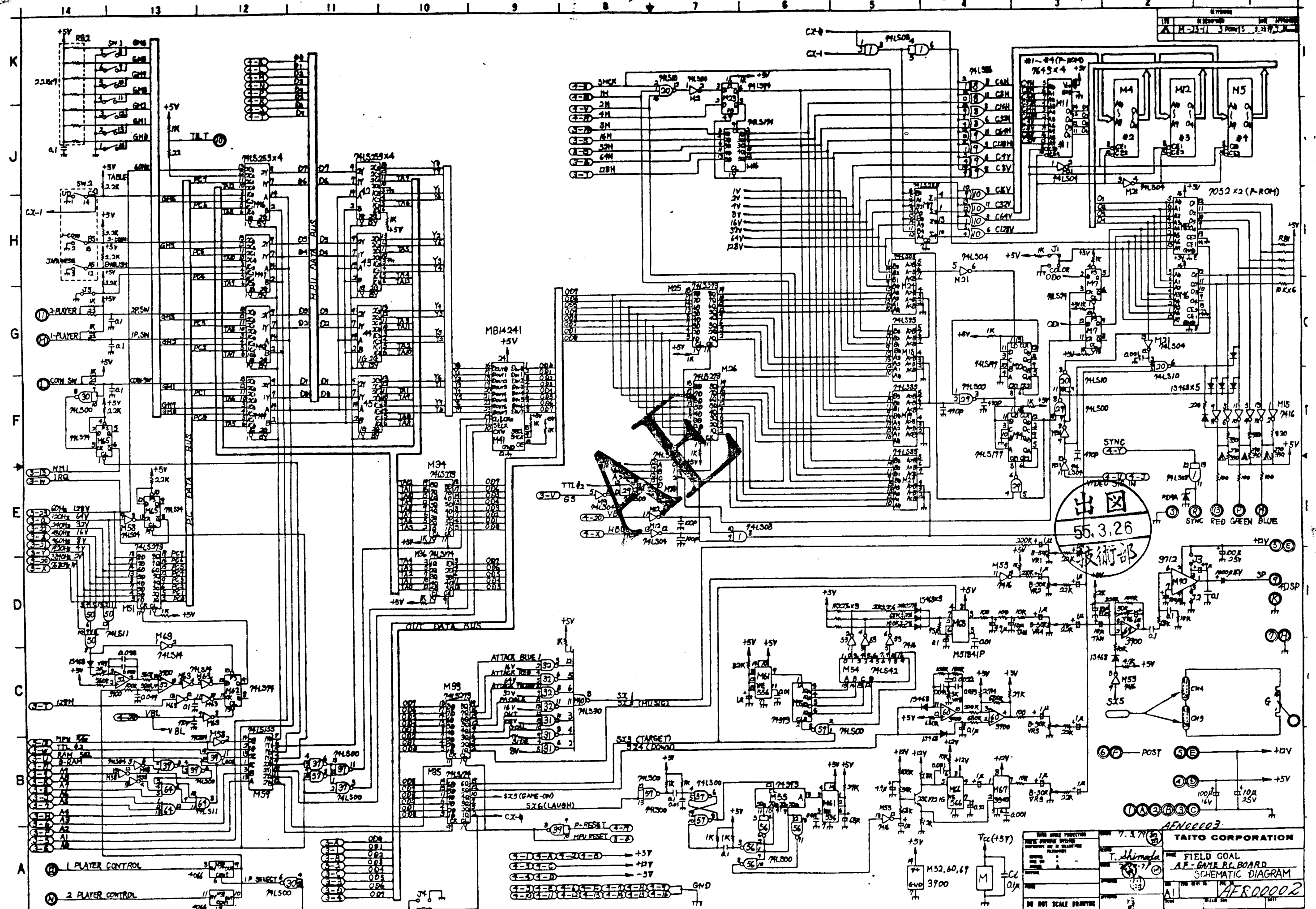


NO	SYM	PART NO	QUANTITY	NAME	DESCRIPTION	QTY
50	FRC	AA5 00215		F.R.C.-HARNESS ASSY	PS-50	2
49				TINNED COPPER WIRE	0.5φ	200
48	NL2	AAT 61020		NOISE LIMIT	CS90E-IE-1R500-R58	8
47	NLF	61019		NOISE LIMIT	CS90E-1A-3R300-R58	12
46	R6	51789		RES. CARBON	10K OHM 1/4W ±5%	5
45	R5	51765			1K	18
44	R4	51758			510	2
43	R3	51757			470	1
42	R2	51753			330	2
41	R1	51721		RES. CARBON	15 OHM 1/4W ±5%	2
40	C6	41436		CAP. TANTALUM	SSG35-1F	1
39	C5	41429		CAP. TANTALUM	SSG25-6R8F	1
38	C4	41334		CAP. CERAMIC	470PF 50V	2
37	C3	41318		CAP. CERAMIC	100PF 50V	2
36	C2	41244		CAP. FILM	TBY-IH-104	30
35	C1	AAT 41094		CAP. ELECTROLYTIC	16T 47	3
34	ER4	90004		EP-ROM	AF-04(TF04), 2716	1
33	ER3	90003			AF-03(TF03),	1
32	ER2	90002			AF-02(TF02),	1
31	ER1	90001		EP-ROM	AF-01(TF01), 2716	1
30	CPU	AAT 34006		C.P.U.	68A00	1
29	IC21	33164		LS I.C	74LS257	2
28	IC20	33128			74LS175	1
27	IC19	33121			74LS166	1
26	IC18	33112			74LS157	1
25	IC17	33108			74LS153	4
24	IC16	33076			74LS107	1
23	IC15	33051			74LS74	3
22	IC14	33040			74LS51	1
21	IC13	33032			74LS42	2
20	IC12	33011			74LS10	1
19	IC11	33009			74LS08	1
18	IC10	33005			74LS04	6
17	IC9	33003			74LS02	2
16	IC8	33001		LS I.C	74LS00	9
15	IC7	32156		STATIC RAM	MB8114NLM	2
14	IC6	32153		DYNAMIC RAM	MB8116N T4116	8
13	IC5	32145		TTL I.C	74176	1
12	IC4	32099			74367	5
11	IC3	32096			74S04	1
10	IE2	32076			74393	2
9	IC1	AAT 32047		TTL I.C	7428	1
8	X.T	AAO 69575		X-TAL	10.065MHz	1
7	I.S	55787		I.C SOCKET	24P	4
6	50P	55154		ANGLE PIN HEADER	PS-50PA	2
5	T	17665		CONNECTOR STICKER	T	1
4	Q	17656			Q	1
3	P	AAO 17653		CONNECTOR STICKER	P	1
2	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

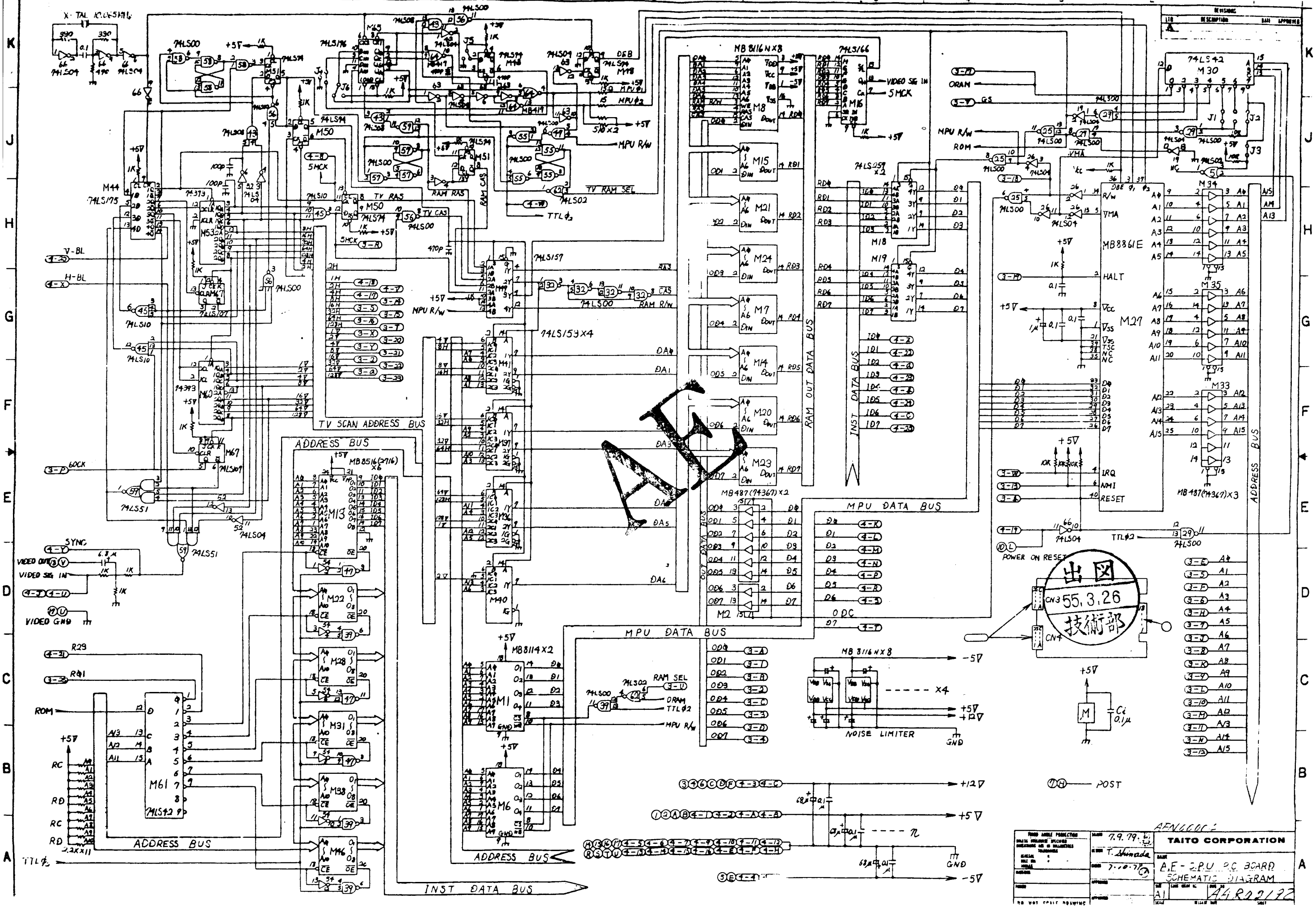


TURNS ANGLE PROJECTION		PARTS LIST	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETRES	DATE 7.16.79	TAITO CORPORATION	
TOLERANCES	DESIGNED BY Y. Shinada	NAME FIELD COAT.	
FINISH ±	DATE 7.16.79	A.F.-C.P.U PC BOARD	
APPROVED	APPROVED	ASSY.	
DO NOT SCALE DRAWING	SCALE	FORM RELEASE NO. A2	DATE 8.31.77
	RELEASE DATE	AFN00004	



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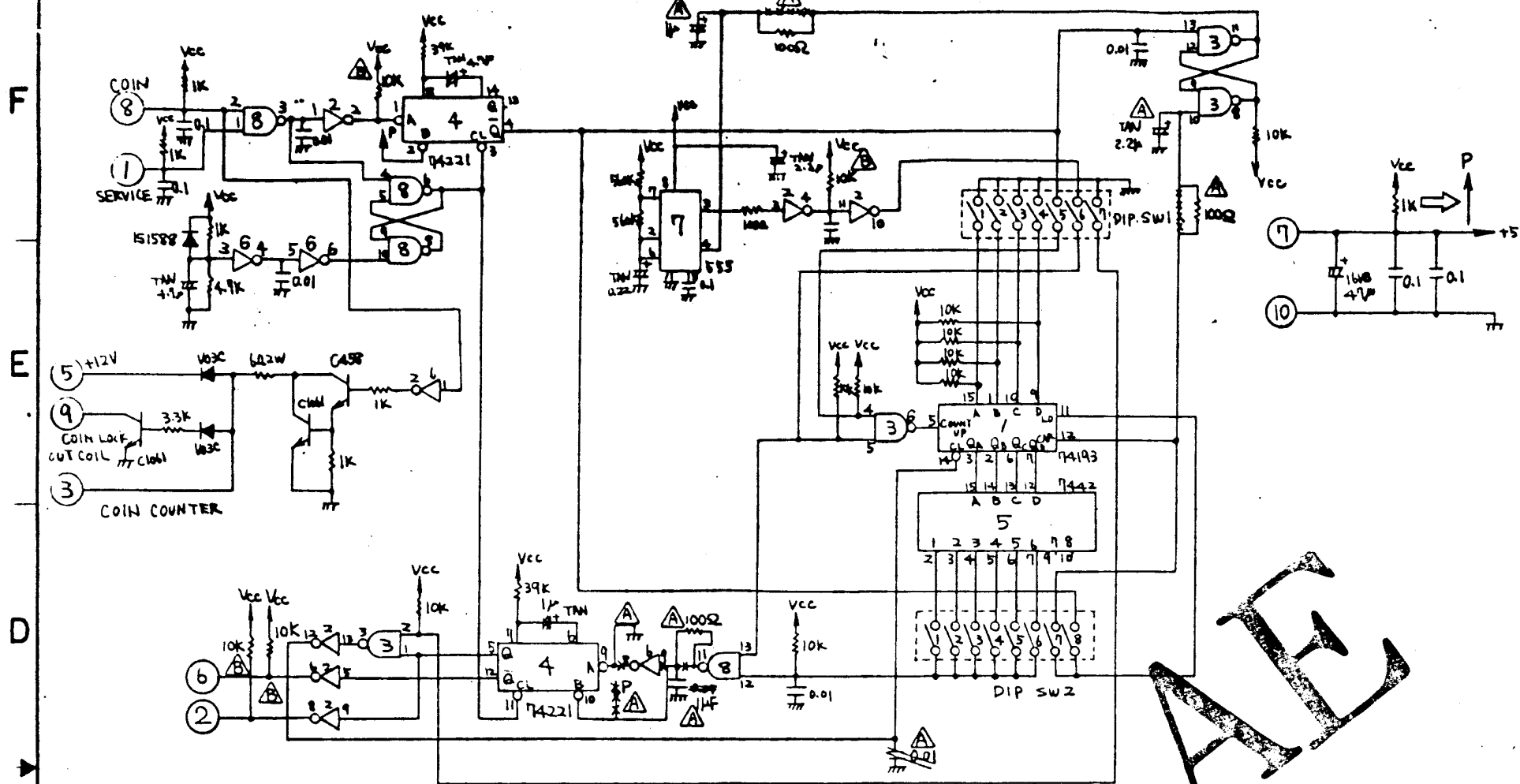
TAITO CORPORATION
FIELD GOAL
AE GAME PCB BOARD
SCHEMATIC DIAGRAM
AF80002
T. Shimada
7.3.79



MODEL DATE REV.	NAME T. Shinada DATE 7.10.79 APPROVED TAITO CORPORATION A.E. Z.P.U. PC BOARD SCHEMATIC DIAGRAM A1 A4R22/72
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7.9.79
 TAITO CORPORATION
 A.E. Z.P.U. PC BOARD
 SCHEMATIC DIAGRAM
 A1
 A4R22/72

REVISIONS			
LT#	DESCRIPTION	DATE	APPROVED
2	POINTS	80.12.15	J. Ogawa
9	POINTS	80.13.10	J. Ogawa

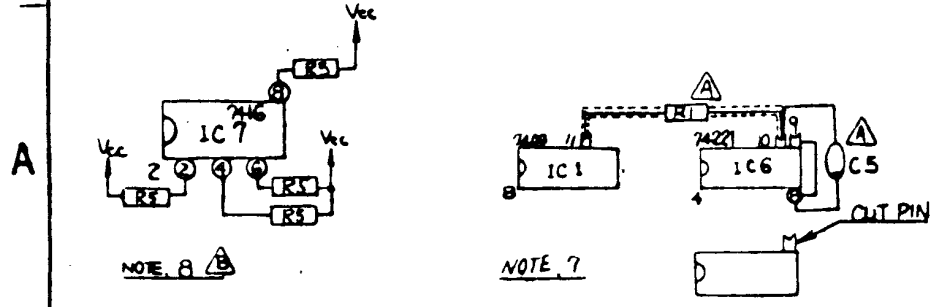
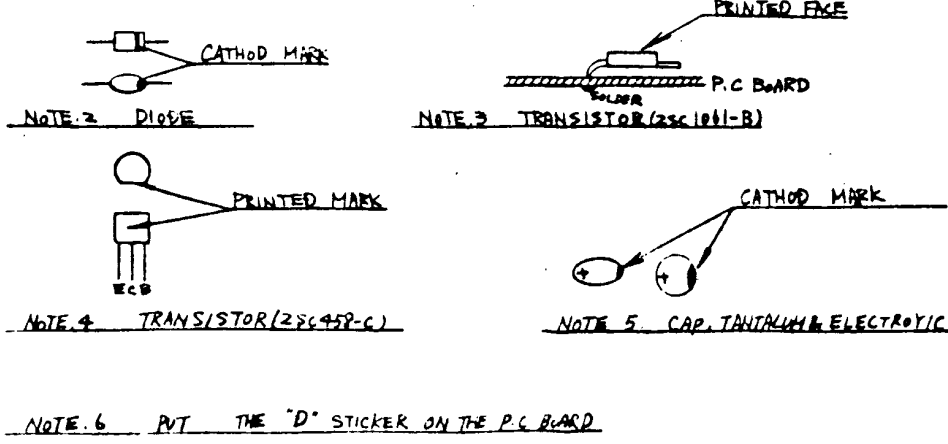
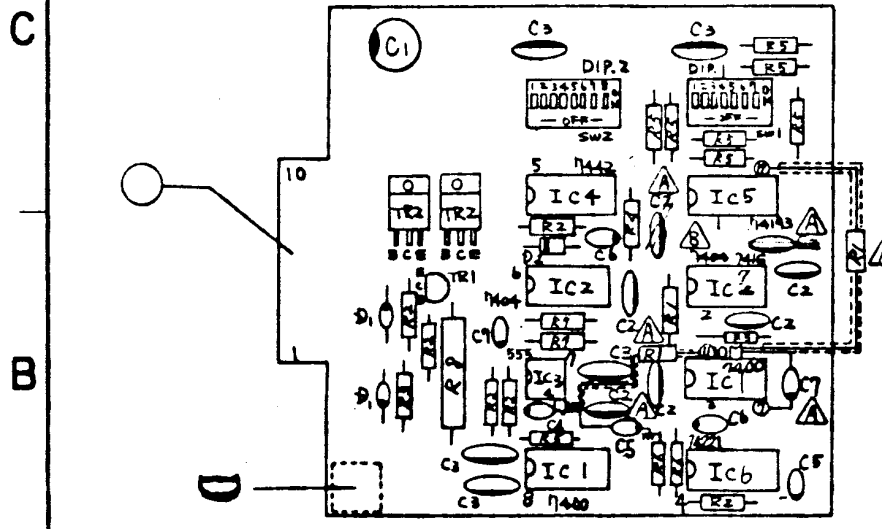


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NOTE. 1 THE RELATION BETWEEN COIN AND CREDIT

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



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31			
30	IC7	AAT 32033	TTL IC, 7416
29	R8	AAT 55033	WINDING RESISTOR (2.5W 220K)
28	R7	" 51831	RES. CARBON, 51K OHM 1/4W 5%
27	R6	" 51803	" " " 29K " " " "
26	R5	" 51789	" " " 10K " " " "
25	R4	" 51781	" " " 47K " " " "
24	R3	" 51777	" " " 33K " " " "
23	R2	" 51765	" " " 1K " " " "
22	R1	" 51741	RES. CARBON, 100 OHM 1/4W 5%
21	C7	" 41419	CAP. TANTALUM, 55µ 16V
20	C6	" 41421	CAP. TANTALUM, 55µ 16V
19	C5	" 41418	" " " 55µ 16V
18	C4	" 41414	CAP. TANTALUM, 55µ 16V
17	C3	" 41244	CAP. FILM, TBY-1H-104
16	C2	" 41238	CAP. FILM, TBY-1H-103
15	C1	" 41021	CAP. ELECTROLY, 100µ 47V
14	IC6	" 32077	TTL IC, 7421
13	IC5	" 32044	" " " 74193
12	IC4	" 32039	" " " 7442
11	IC3	" 32019	" " " NE555V
10	IC2	" 32005	" " " 7404
9	IC1	" 32001	TTL IC, 7400
8	D2	" 12025	DIODE, 1S1588
7	D1	" 12002	DIODE, V03C
6	TR2	" 11030	TRANSISTOR, 2SC1011-B
5	TR1	AAT 11005	TRANSISTOR, 2SC452-C
4	DIP2	AAO 52566	DIP SWITCH, PSS-8
3	DIP1	" 52560	DIP SWITCH, PSS-7
2	D	" 17623	CONNECTOR STICKER
1		AAO 17766B	CREDIT P.C BOARD

PARTS LIST			
THIRD ANGLE PROJECTION	DATE: 12.10.77	TAITO CORPORATION	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES	DESIGN: 12.11.77		
GENERAL: ±	CHECK: 12.11.77	NAME: CREDIT P.C BOARD	
HOLE DIA: ±		SCALE: 1:1	
ANGLES: ±		DRAWN: AZ	
DO NOT SCALE DRAWING		APPROVED: [Signature]	
MATERIAL:		ISS. DATE: 80.15.01	
FUNCTION:		SCALE: 1/100	
APPROVED: [Signature]		RELEASE MAN: [Signature]	



FIELD GOAL

