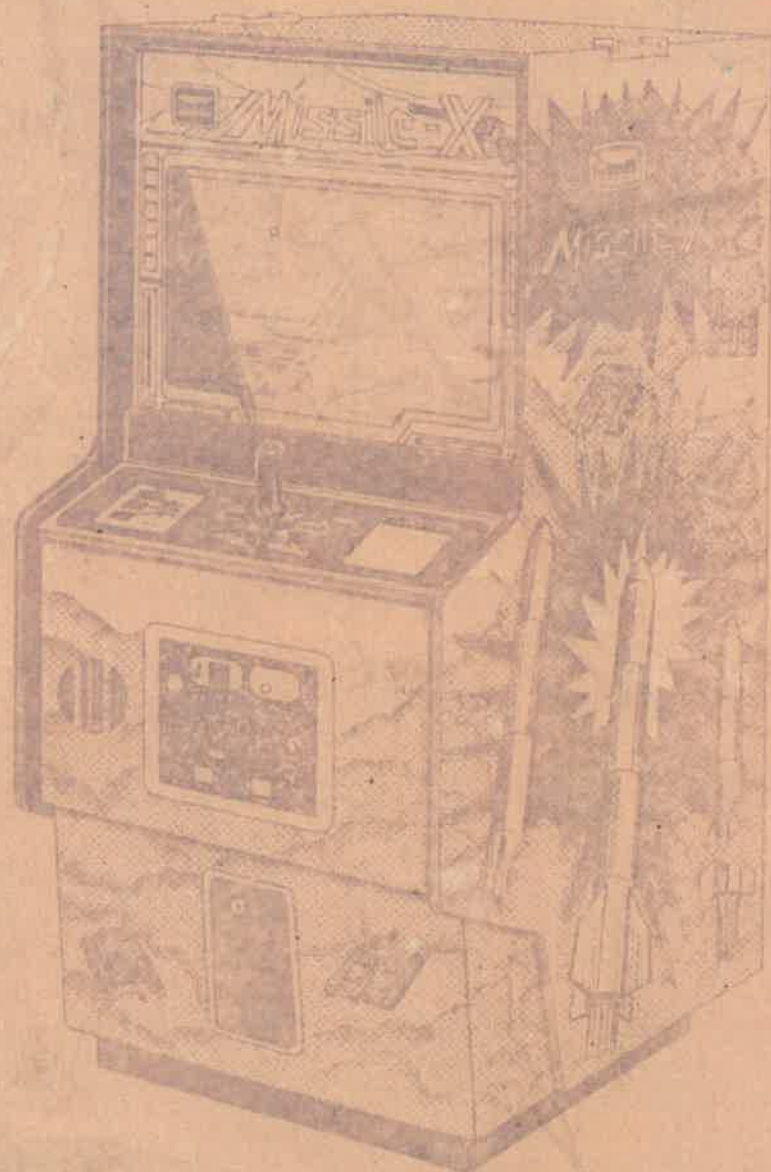


Missile-X



SERVICE INSTRUCTIONS
AND PARTS CATALOG



TAITO CORPORATION

• Name of Part

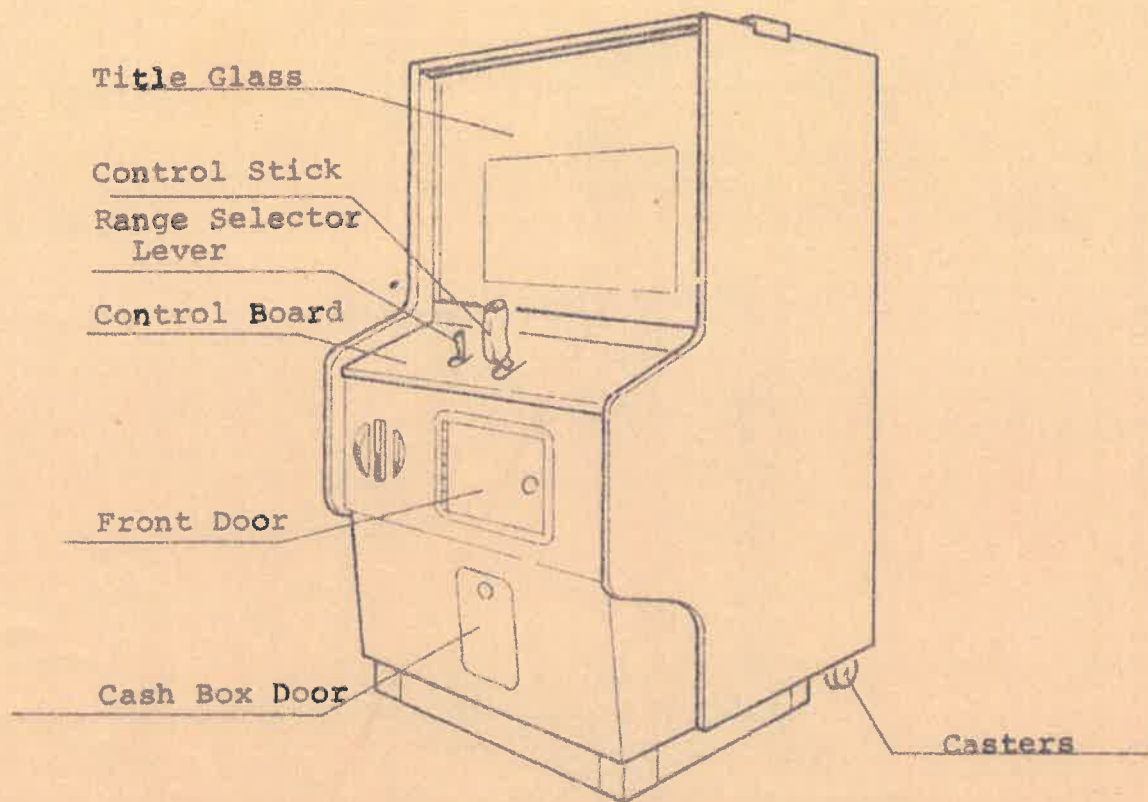


Fig. 1

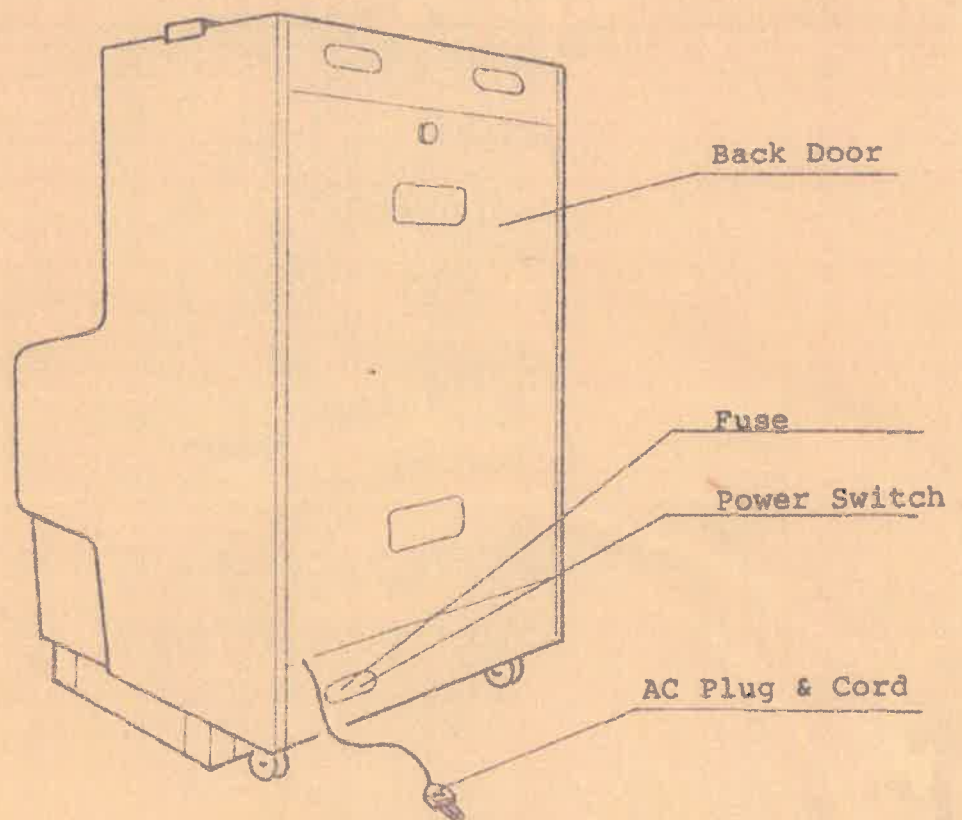


Fig. 2

1. Transportation and Installation

- Avoid rough handling in transportation; the picture tube is fragile.
- Avoid installation in location with exposure to direct sunlight or excessive heat in order to prevent the unit from rising internal temperatures.
- Ensure all connections to the PCB's are secure.
- Insert the AC plug into a proper outlet and switch on the power.

Note:

- Erroneous or partial score may appear on the screen when the machine is first switched on. This is typical of solid-state circuitry, and will correct itself automatically when the first play is started.

Warning:

- Taito MISSILE-X uses the latest solid-state circuitry for long life, however, as with sophisticated electronic equipment some precautions must be observed to avoid damage.

- (1) Do not attempt to service with ordinary test device, since the internal voltage of the test device may cause damage to the IC's.
- (2) Assure proper ventilation. Do not expose the unit to the temperatures above 60°C.
- (3) Never connect or disconnect any of the solid-state modules while the power is on.

2. Playing Instructions

- ° One player game.
- ° Inserting the proper value of coin(s) initiates game play; the last score resets to 0000, the game timer resets to 90 and begins counting down.
- ° When a missile appears on the launching site (lower center of the screen) and flashes, it is ready to be fired.
- ° Game sound will be evident, including jeep sound and tank sound.
- ° Select any one range of missile out of three (for upper, middle, or lower target line) by operating the left-hand Range Selector Lever (small one).
- ° Push the red button on the center Control Stick (big one) to fire the missile. Direction of the launched missile can be controlled with this Control Stick.
- ° If the missile hits a target; it will explode giving points as follows:
 - small tanks (upper targets) - 100 points
 - big tanks (middle targets) - 200 points
 - jeeps (lower targets) - 400 points
- ° If the score exceeds 4,000 points (adjustable to 5,000 points) when the time runs out, the time will reset to 40 for one extended play.
- ° When the score exceeds 2,000 points, all targets gain speed.
- ° High Score is displayed on lower right side of the screen.

3. Adjustments

Adjustment of TV Monitor:
(See Fig. 3)

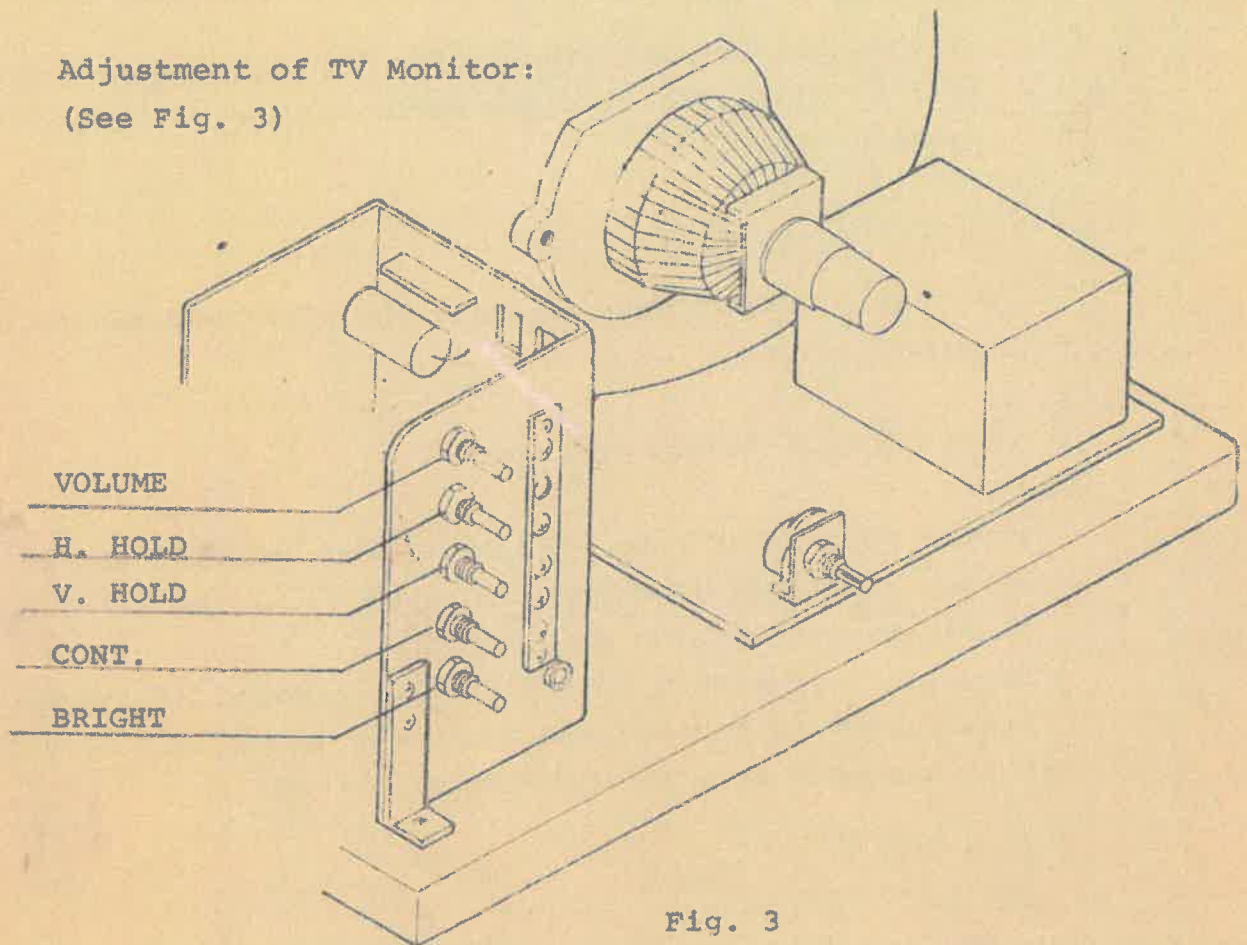


Fig. 3

The TV monitor is properly adjusted before shipping, however, if necessary, readjust the controls as follows:

- ° Sound Volume

Adjust VOLUME control to suit location noise level.

- ° Horizontal Hold

Adjust H. Hold control if the picture is warped or broken into diagonal lines.

- ° Vertical Hold

Adjust V. Hold control if the picture rolls vertically across the screen.

° Screen Contrast

If the contrast is intensified, the picture on the screen will be distorted. Adjust CONT. control to keep the picture clear.

° Screen Brightness

Adjust BRIGHT control so that the playfield of the screen becomes dark.

Adjustment of Supply Voltage

If the voltage of power supply is low, the picture on the screen sometimes flickers. In that case, the vertical width of the screen is also shrunken.

Adjustment is made by changing the terminal of the power transformer in the cabinet according to the supply voltage. This can be done with the change-over switch.

(See Fig. 4)

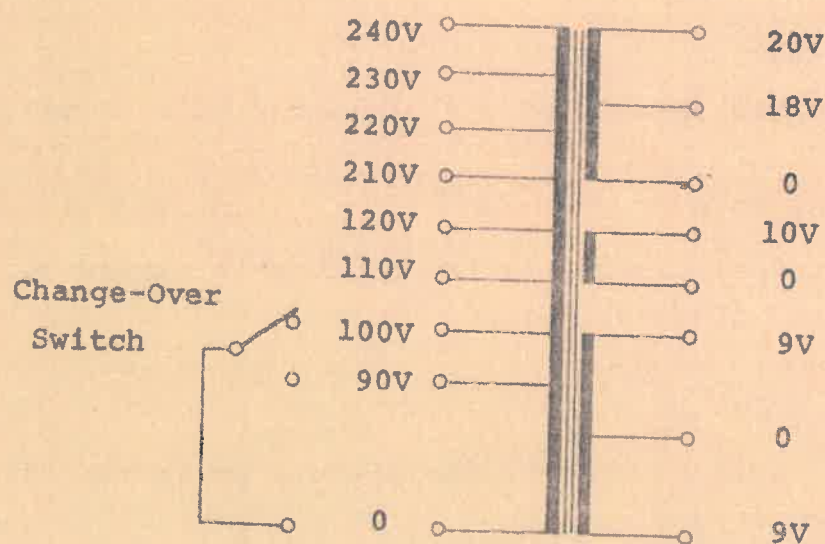


Fig. 4

Adjustment of Game Length

Adjustable range is from about 80 to 100 seconds.
This adjustment can be done by turning VR on the Main P.C. Board.

Adjustment of Penalty Time

The interval of the time between a missile misses hitting a target and the next missile appears on the launching site can be adjusted by changing the connection of the jumper wire on the Main P.C. Board. (L: shorter interval, M: longer interval) This is preset at L before shipping.

Adjustment of Score for Extended Play

The score for extended play can be set at 4,000 or 5,000 points by changing the connection of the jumper wire on the Main P.C. Board. This score is preset at 4,000 points at the factory.

(See Fig. 5)

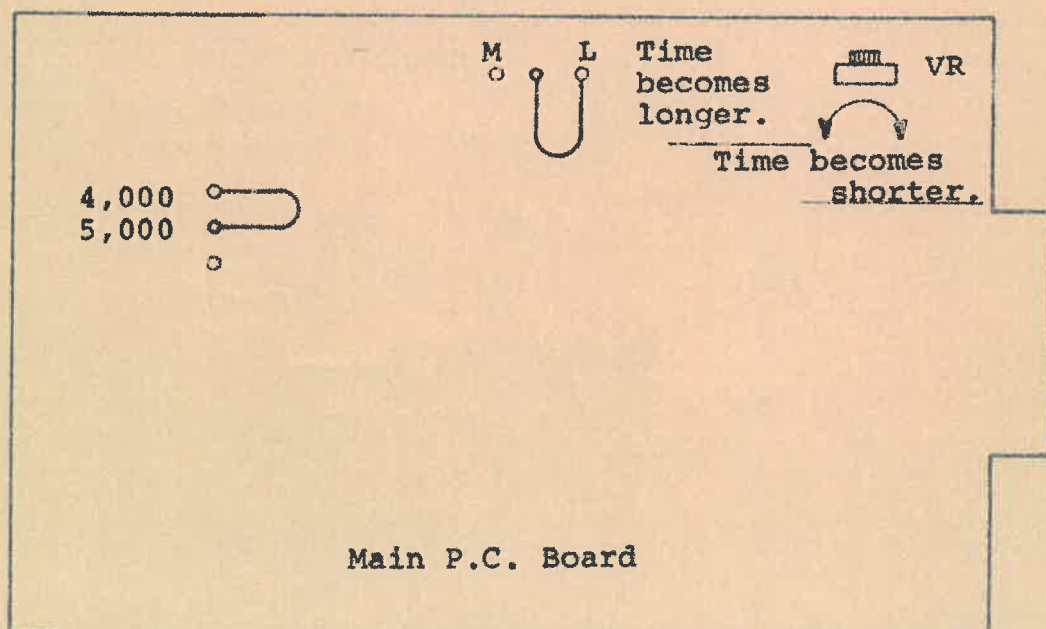


Fig. 5

Adjustment of Sound P.C. Board

- VR 1 - Sound volume of big tanks
- VR 2 - Tone quality of big tanks
- VR 3 - Sound volume of small tanks
- VR 4 - Tone quality of small tanks
- VR 5 - Sound volume of missile explosion when hitting a target ,
- VR 6 - Sound volume of missile when it misses hitting a target
- VR 7 - Sound volume of jeeps
- VR 8 - Tone quality of jeeps
- VR 9 - Sound volume of launched missile

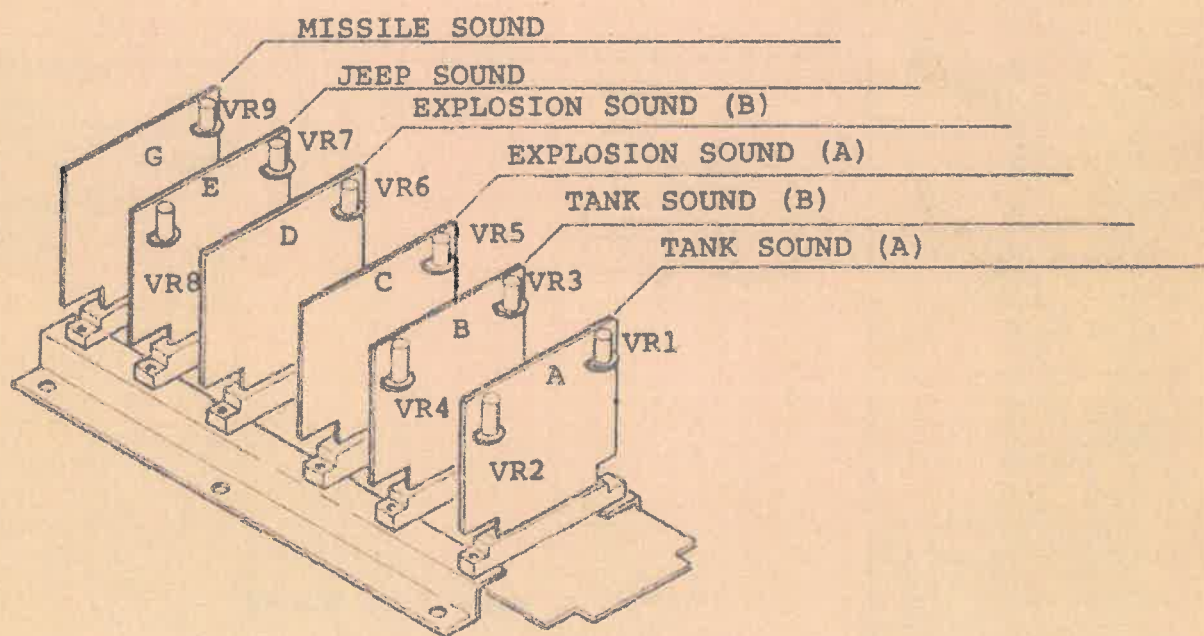
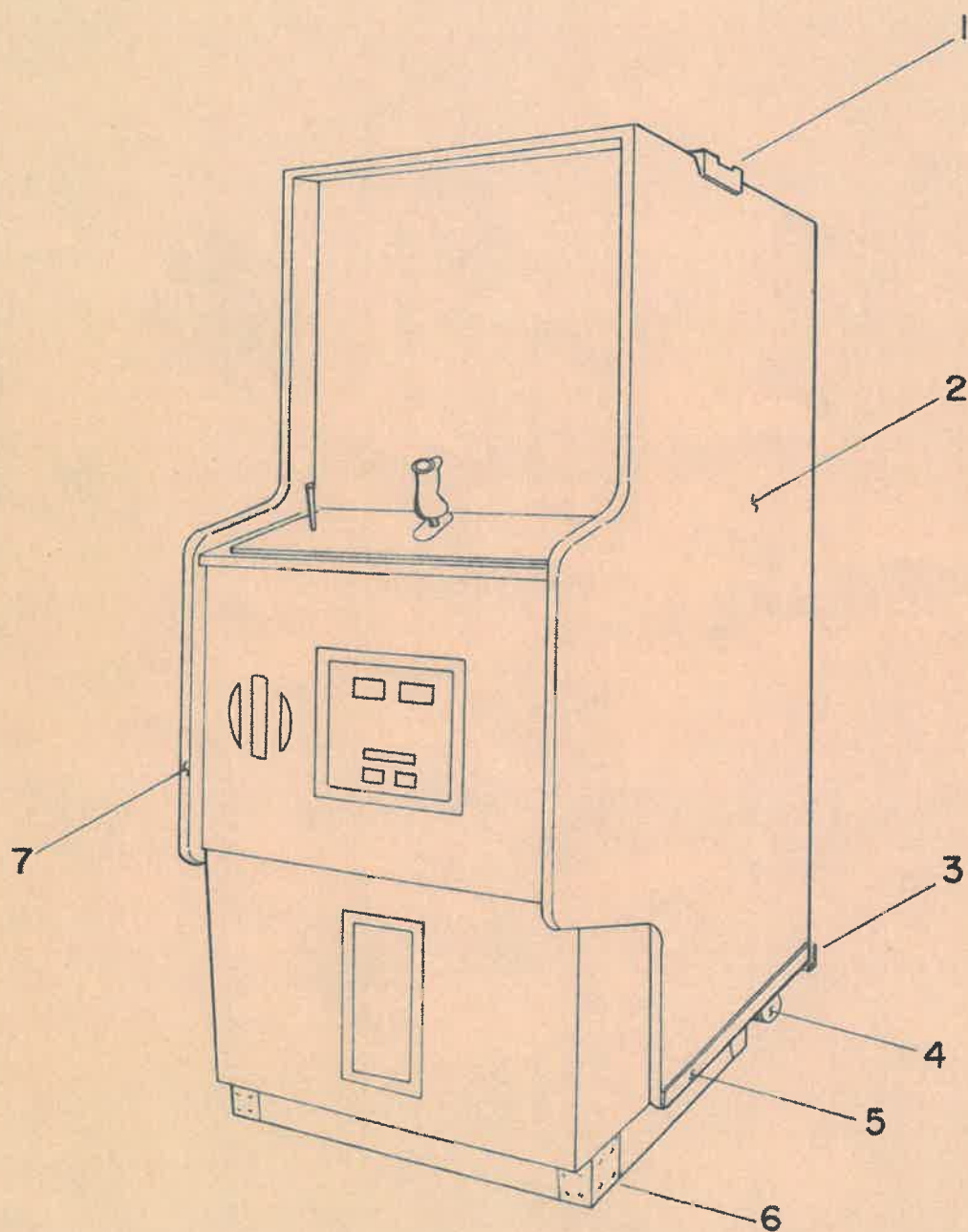
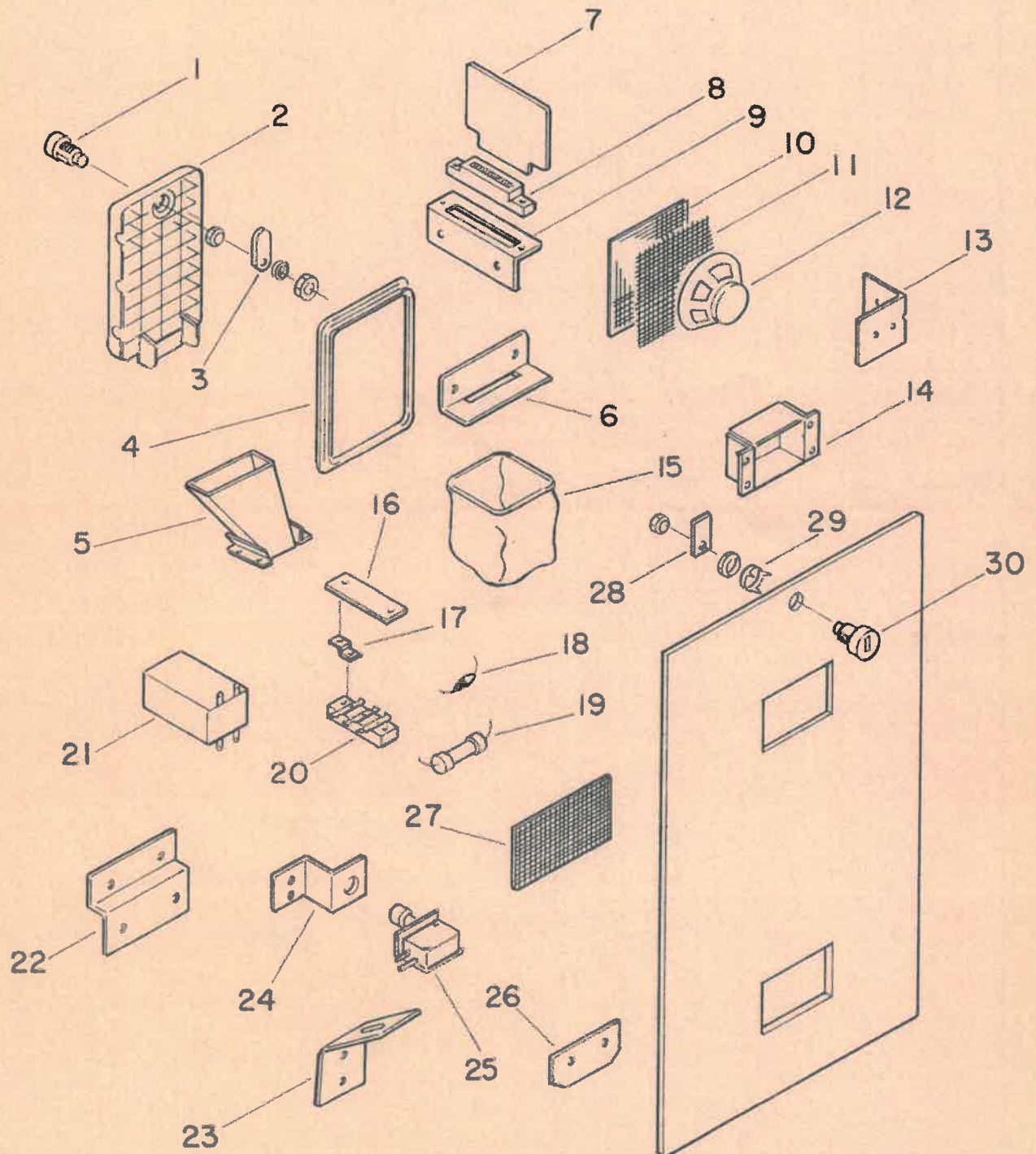


Fig. 6

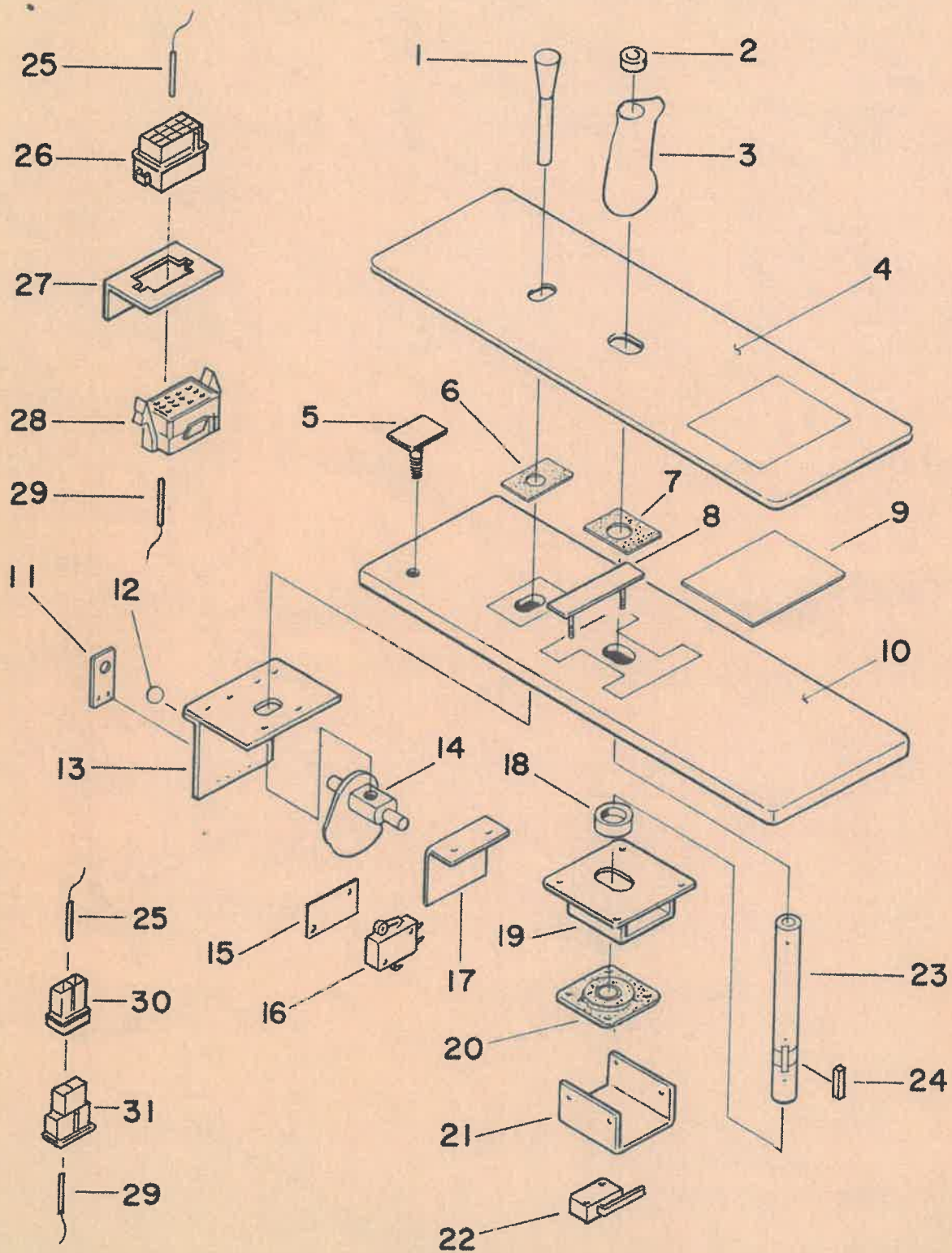
CABINET ACCESSORY ASS'Y



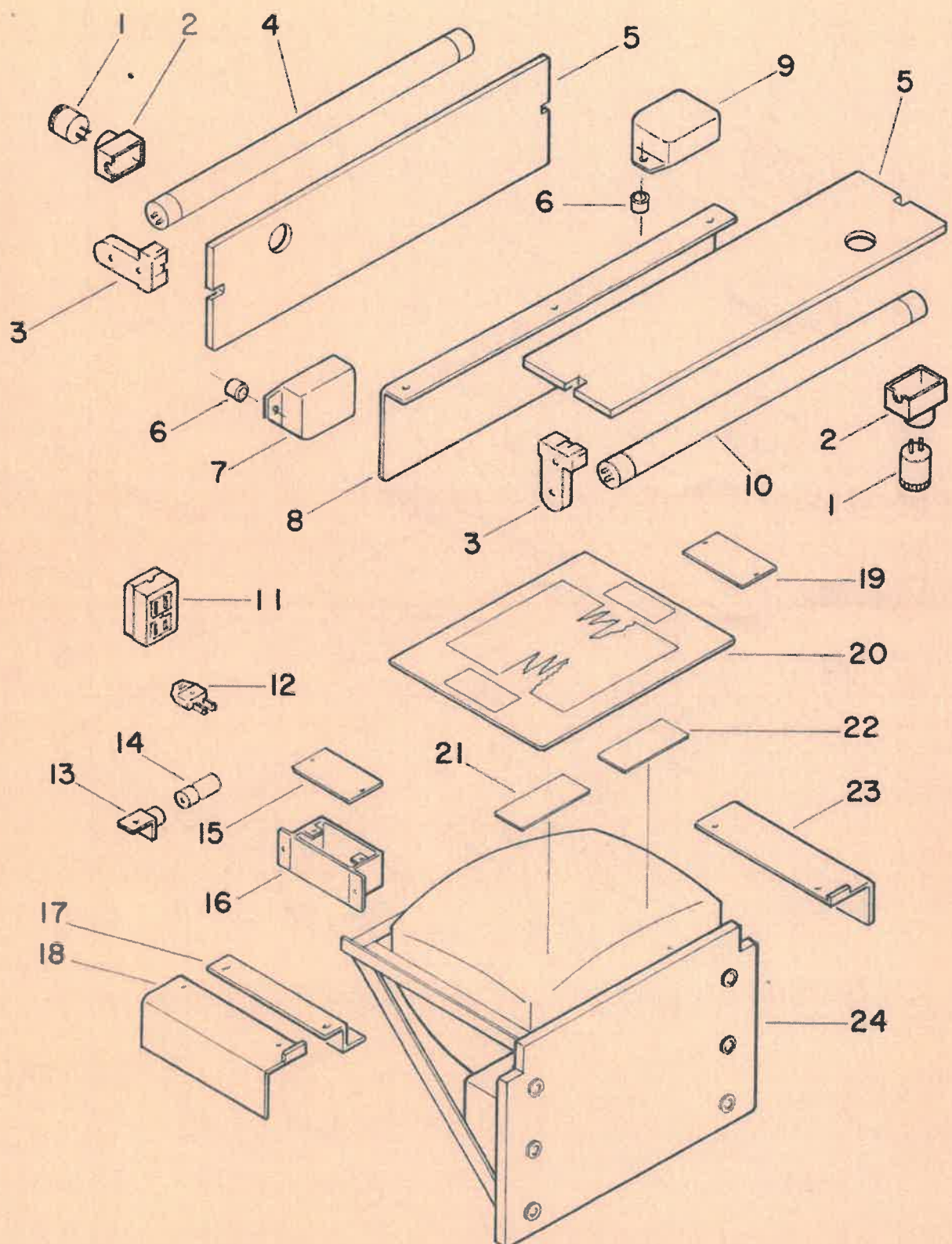
CABINET ASS'Y



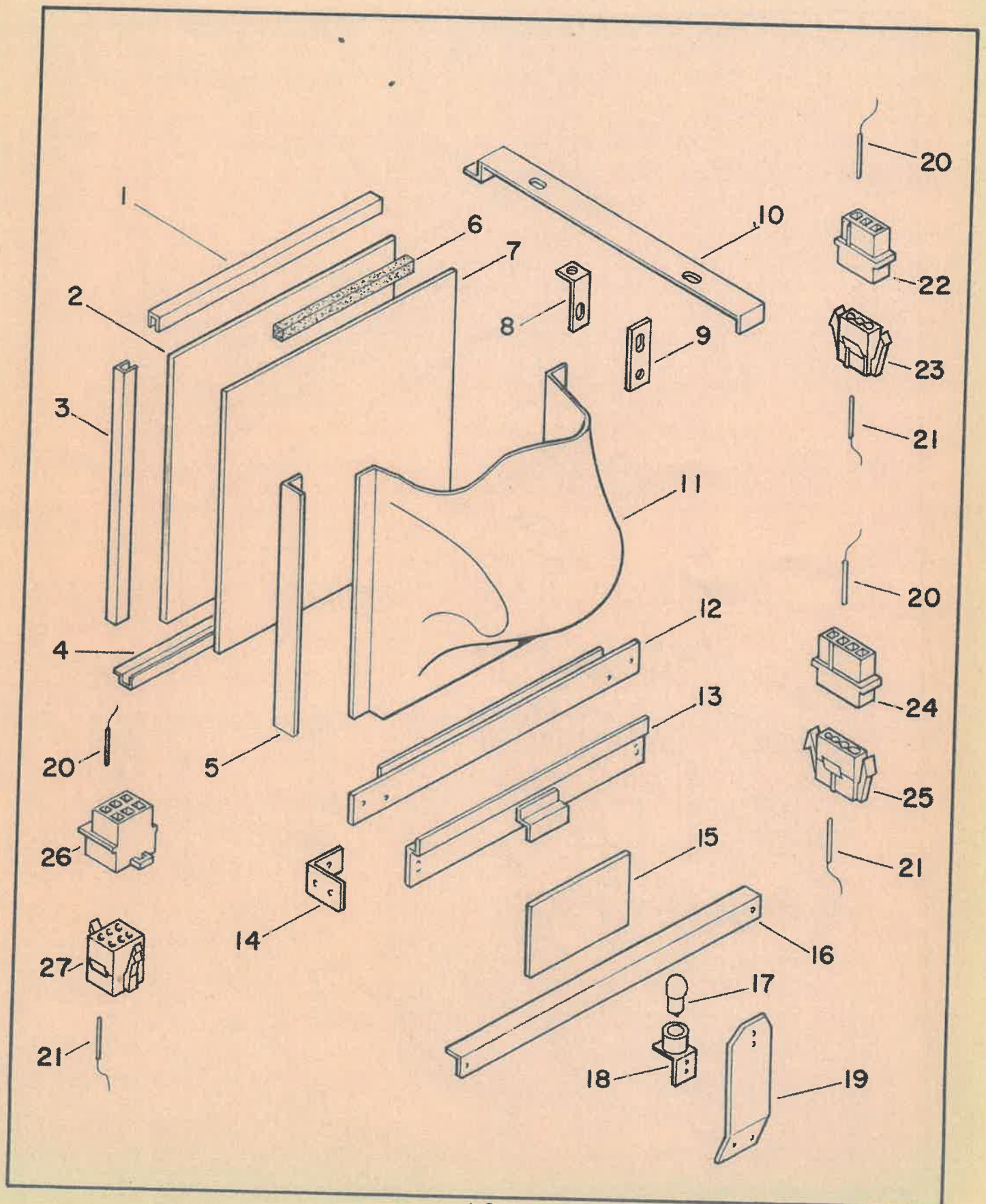
CONTROL PLATE ASS'Y



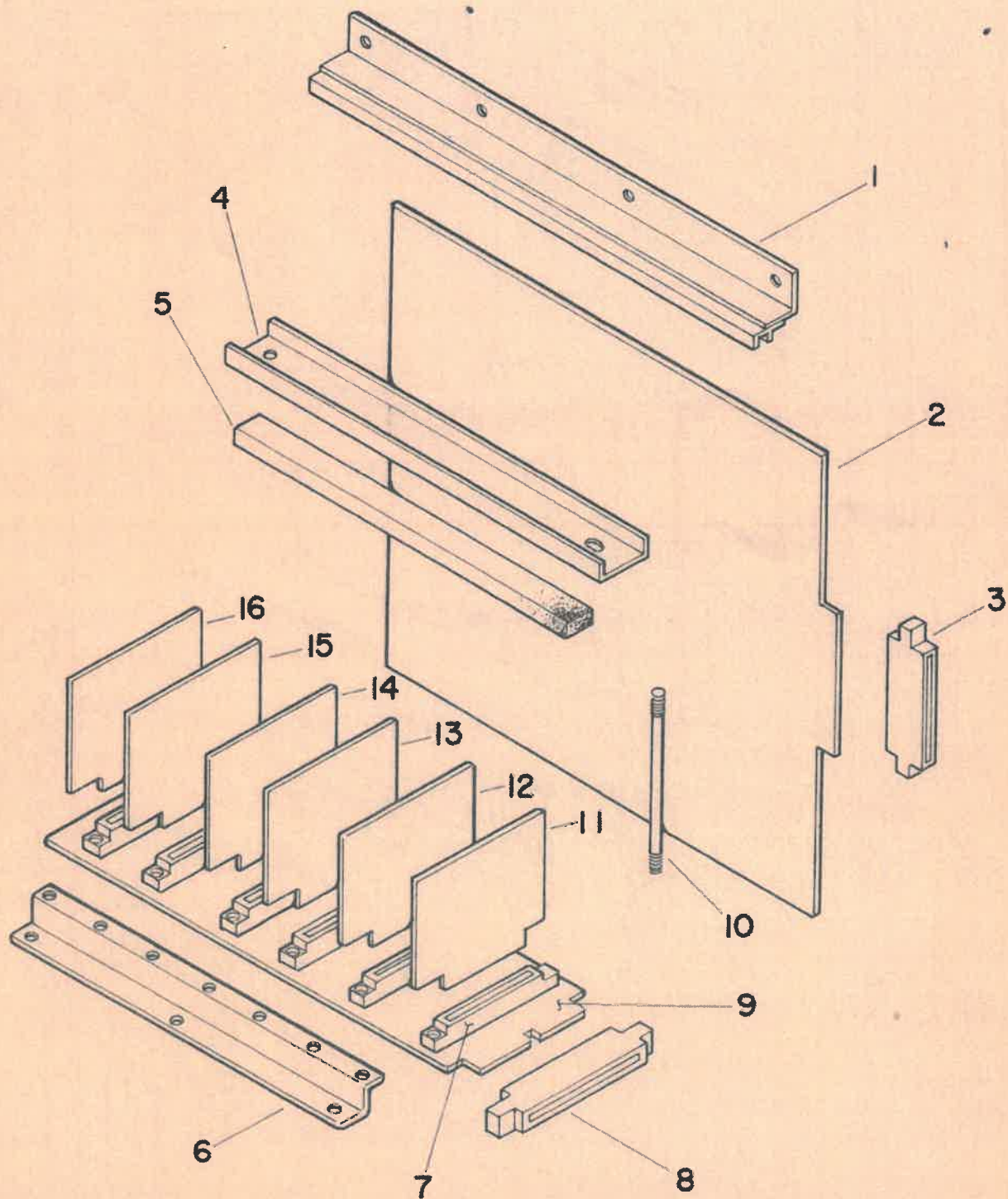
VIDEO AND FLUORESCENT LAMP ASS'Y



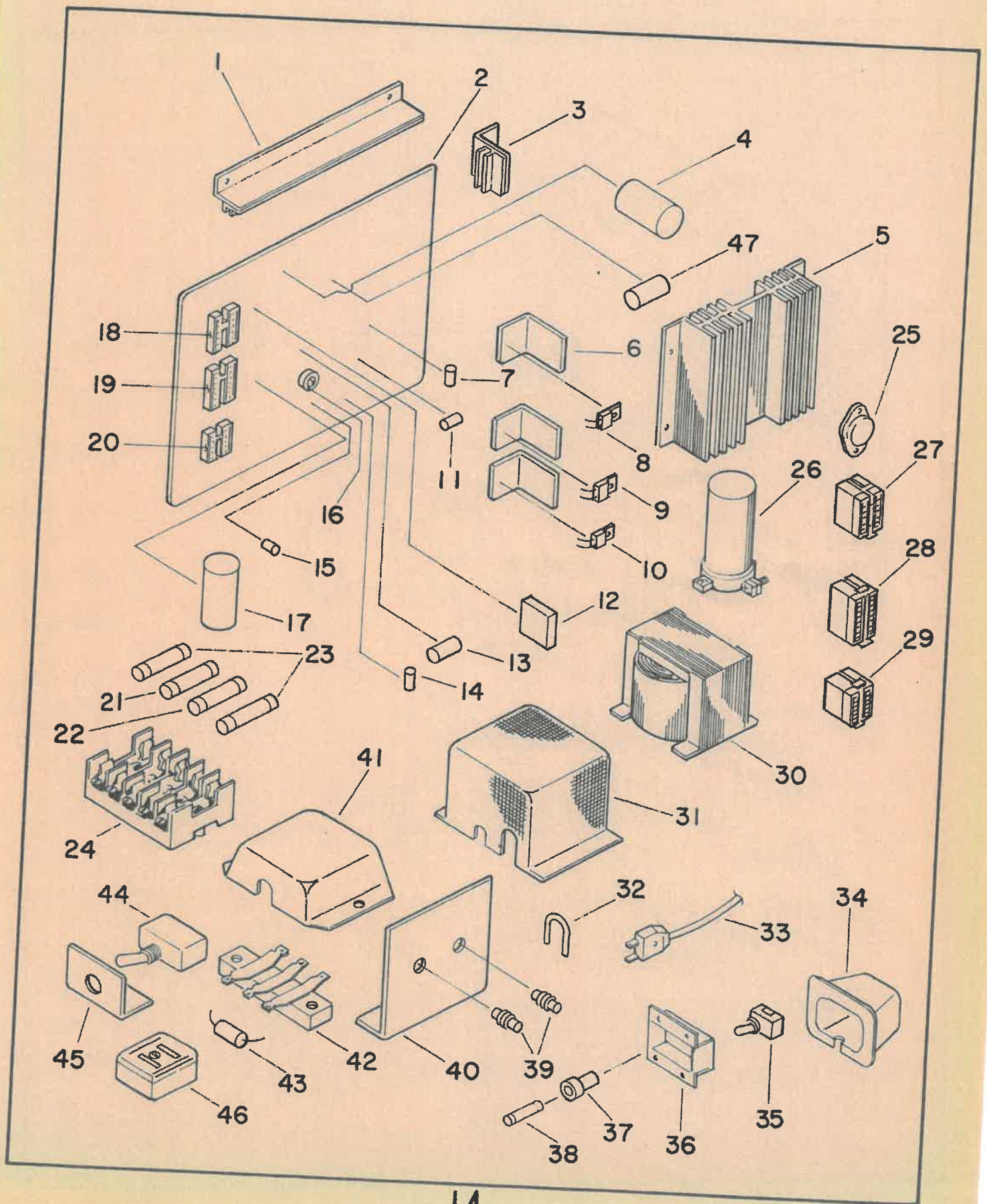
PLAYFIELD ASS'Y



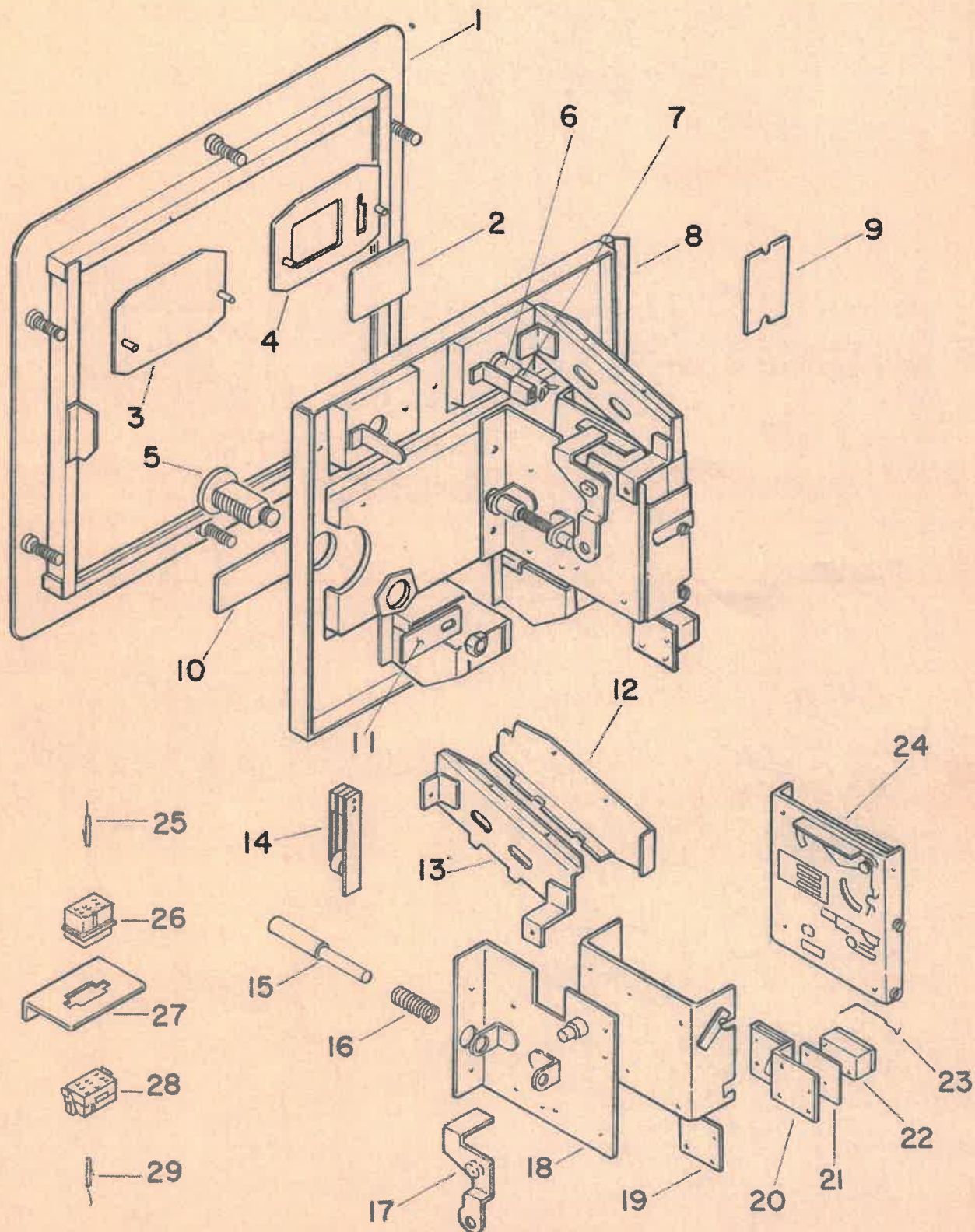
PRINTED BOARD ASS'Y



REGULATOR ASS'Y



FRONT DOOR AND COIN MECHANISM ASS'Y



CABINET ACCESSORY ASS'Y

Item	Part #	Description
1	AAO14511	Molding
2	MSO10001	Cabinet
3	MSO40002	Corner Protector
4	AAO16518	Caster
5	MSO40001	Corner Protector
6	AAO18519	Corner Bracket
7	AAO19524	Edge

CABINET ASS'Y

Item	Part #	Description
1	AAO16501	Lock & Key
2	AAO26505	Cash Box Door
3	AAO18511	Lock Plate
4	AAO26506	Cash Box Door Frame
5	SPO30008	Coin Shute
6	AAO18581	Lock Guide
7	SEN00006	Counter Drive P.C.Board Ass'y
8	AAO55720	Connector
9	BAO80008	Connector Bracket

10	AAO18562	Ventilator
11	AAO19528	Net
12	AAT71011	Speaker
18	EPO80007	Support Bracket
14	AAO18512	Cover
15	AAO28501	Cash Bag
16	AAO19509	Cover
17	AAO18518	Cover Bracket
18	AAT12002	Diode V08C
19	AAT55088	Resistor $8\Omega 2W$
20	AAO58511	Contact Strip Ass'y 3P
21	AAO51615	Counter
22	BCO80008	Support Bracket
28	BPO80018	Lock Stopper
24	AAO18552	Switch Bracket
25	AAO52511	Switch
26	AAO18528	Door Stopper
27	EPO30010	Ventilator
28	AAO18510	Lock Plate
29	AAO18524	Lock Washer
80	AAO18540	Lock & Key 467700

CONTROL PLATE ASS'Y

Item	Part No	Description
1	MSO20008	Lever
2	AAO52559	Switch
3	FFO40002	Grip
4	MSO70010	Control Panel
5	BPO80004	Lock Plate
6	MSO90012	Mask A
7	MSO90011	Mask
8	SPO80010	Lock Plate
9	MSO70011	Instructions Card
10	MSO10002	Control Board
11	MSO50001	Spring
12	AAO12552	Ball
13	MSO80017	Lever Bracket (A)
14	MSO80019	Cam Ass'y
15	AAO19504	Insulator
16	AAO52532	Switch
17	MSO80018	Lever Bracket (B)
18	MSO20002	Stopper A
19	MSO80015	Lever Bracket
20	AAO18549	Rubber

21	MSO80016	M • S • Bracket
22	AAO52581	Switch
23	MSO20001	Shaft
24	SPO20010	Key
25	AAO55789	Mate - N - Lok Plug Pin
26	AAO55601	Mate - N - Lok Cap 12P
27	AAO18528	Socket Bracket
28	AAO55602	Mate - N - Lok Plug 12P
29	AAO55790	Mate - N - Lok Socket Pin
30	AAO55501	Mate - N - Lok Cap 2P
31	AAO55502	Mate - N - Lok Plug 2P

VIDEO AND FLUORESCENT LAMP ASS'Y

Item	Part #	Description
1	AAO54720	Glow Lamp
2	AAO55695	Glow Socket
3	AAO55694	F • L • Socket
4	AAO54711	Fluorescent Lamp
5	FFO10005	F • L • Board
6	AAO12510	Spacer
7	AAO57504	Ballast 15W
8	MSO80014	F • L • Cover

9	AAO57505	Ballast 20W
10	AAO54716	Black Light Lamp
11	AAO55716	A • C • Socket
12	AAO55718	A • C • Plug
13	AAO55727	Lamp Socket
14	AAO54744	Lamp
15	MSO70018	Lamp Box Cover R
16	MSO80006	Lamp Box
17	MSO80002	T • V • Bracket
18	MSO80004	Base Bracket R
19	MSO70014	Lamp Box Cover L
20	MSO70015	T • V • Cover
21	MSO70016	Score Sticker
22	MSO70017	Time Sticker
23	MSO80003	Base Bracket L
24	AAO69542	Video

PLAYFIELD ASS'Y

Item	Part #	Description
1	FFO80010	Glass Retainer Top
2	MSO70009	Front Glass
3	MSO80001	Glass Retainer Side

4	FFO30011	Glass Retainer Bottom
5	MSO30005	Glass Retaining Bracket
6	EPO80001	Rubber
7	MSO90010	Half Mirror
8	MSO80010	Play Field Bracket A
9	MSO30011	Play Field Bracket B
10	BPO30028	Lock Plate
11	MSO70019	Play Field
12	MSO30008	Mirror Bottom Plate
13	MSO30009	Play Field Bottom Plate
14	MSO30007	Bracket
15	MSO70018	Explosive Plate
16	MSO30012	Explosive Plate Bracket
17	AAO54780	Lamp
18	AAO55729	Lamp Socket
19	MSO30013	Lamp Bracket
20	AAO55789	Mate - N - Lok Plug Pin
24	AAO55790	Mate - N - Lok Socket Pin
22	AAO55521	Mate - N - Lok Cap 3P
23	AAO55522	Mate - N - Lok Plug 3P
24	AAO55541	Mate - N - Lok Cap 4P
25	AAO55542	Mate - N - Lok Plug 4P
26	AAO55551	Mate - N - Lok Cap 6P

27 AAO55562 Mate-N-Lok Plug 6P

PRINTED BOARD ASS'Y

Item	Part #	Description
1	AAO19580	P.C.Board Guide D
2	MSN00001	Main P-C-Board Ass'y
3	AAO55952	Connector 28P
4	AAO18564	Plate
5	AAO18548	Rubber
6	AAO18568	Guide Bracket
7	AAO55962	Connector 22P
8	AAO55950	Connector 22P
9	MSN00008	Sound Mother P.C.Board Ass'y
10	AAO12550	Shaft
11	MSN00002	Tank Sound(A)P.C.Board Ass'y
12	MSN00008	Tank Sound(B)P.C.Board Ass'y
13	MSN00004	Explosion Sound(A)P.C.Board Ass'y
14	MSN00005	Explosion Sound(B)P.C.Board Ass'y
15	MSN00006	Jeep Sound P.C.Board Ass'y
16	MSN00007	Missile Sound P.C.Board Ass'y

REGULATOR ASS'Y

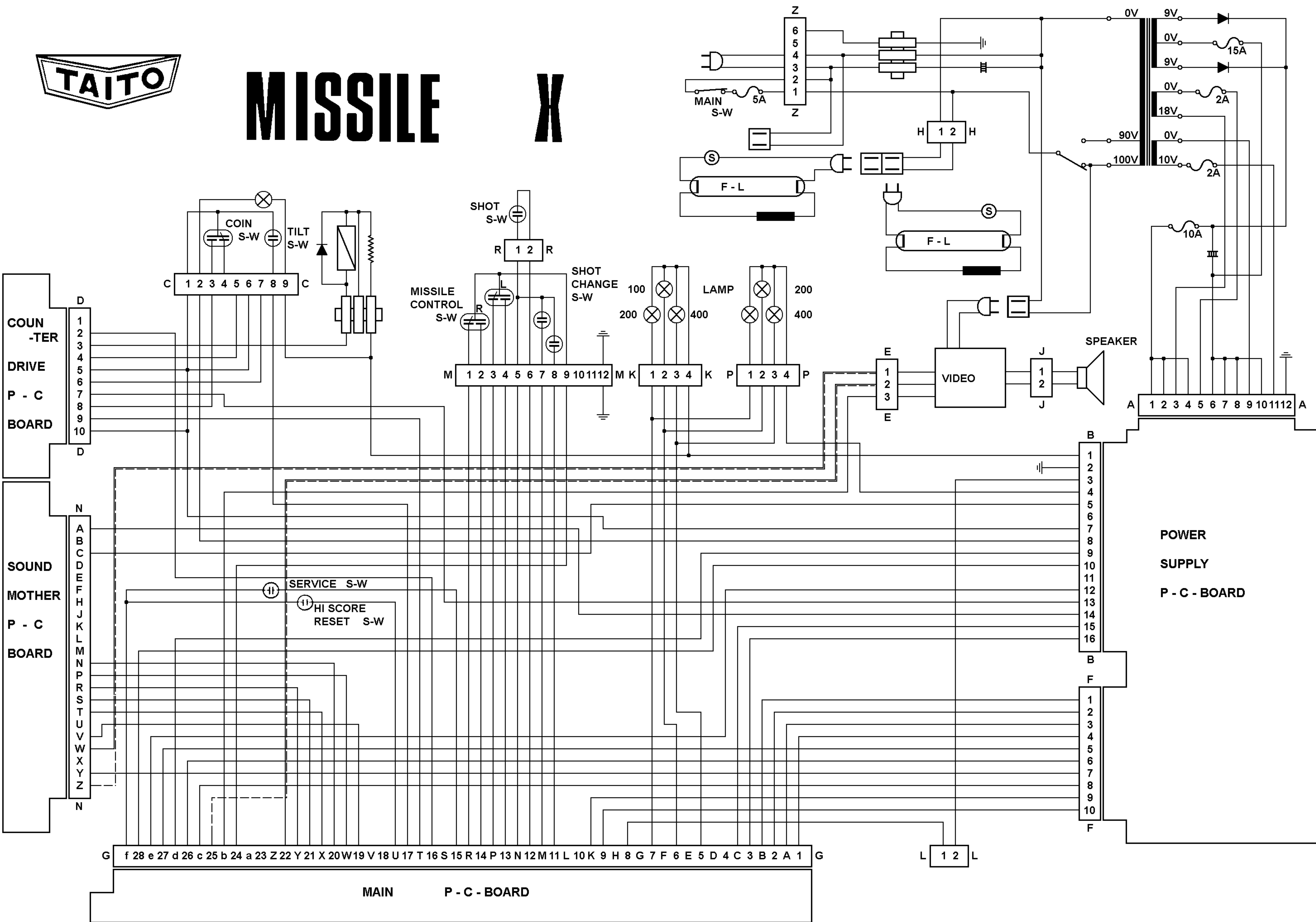
Item	Part #	Description
1	AAO19529	P.C.Board Guide C
2	AAM60002	Power P.C.Board Ass'y
3	AAO19527	P.C.Board Guide A
4	AAT41580	Capacitor
5	AAO69519	Heat Sink
6	AAO13565	Heat Sink
7	AAT51037	Resistor
8	AAT81025	Regulator
9	AAT81015	Regulator
10	AAT11040	Transistor
11	AAT51065	Resistor
12	AAT14023	Rectifier
13	AAT41095	Capacitor
14	AAT51328	Resistor
15	AAT41484	Capacitor
16	AAT53051	Control
17	AAT41116	Capacitor
18	AAO55876	Pin Header Ass'y 12P
19	AAO55886	Pin Header Ass'y 16P
20	AAO55866	Pin Header Ass'y 10P

21	AAO68507	Fuse 10A
22	AAO68508	Fuse 15A
28	AAO68503	Fuse 2A
24	AAO55705	Fuse Holder
25	AAT11089	Transistor
26	AAT41658	Capacitor
27	AAO55926	Socket Housing 12P
28	AAO55986	Socket Housing 16P
29	AAO55916	Socket Housing 10P
80	AAO57547	Transformer
81	WNO80010	Transformer Cover
82	AAO69525	Grommet
88	AAO62501	A.C. Cable & Plug Ass'y
84	AAO19519	Cover
85	AAO52501	Switch
86	AAO18551	Switch Bracket
87	AAO55784	Fuse Holder
88	AAO68505	Fuse 5A
89	AAT12085	Diode
40	AAO18588	Heat Sink
41	AAO19520	Cover
42	AAO56511	Contact Strip Ass'y 8P
48	AAT41194	Capacitor

44	AAO52585	Switch
45	SEO30028	Switch Bracket
46	AAO55715	A.C. Socket
47	AAT41114	Capacitor

FRONT DOOR AND COIN MECHANISM ASS'Y

Item	Part #	Description
1	AAO26502	Door Frame
2	AAO29508	Price Label ¥100
8	AAO21580	Coin Shield Plate
4	AAO21588	Coin Entry Plate
5	AAO16540	Lock & Key
6	AAO54704	Lamp 12V 150mA
7	AAO55698	Lamp Socket
8	AAO26509	Front Door
9	AAO19522	Cover Plate
10	AAO17705	Name Plate
11	AAO18 ⁵ 10	Lock Plate
12	AAO25508	Coin Guide B
18	AAO25507	Coin Guide A
14	AAO68717	Blade Switch
15	AAO27504	Push Button
16	AAO15504	Spring





MISSILE X

