

SPEED RACE

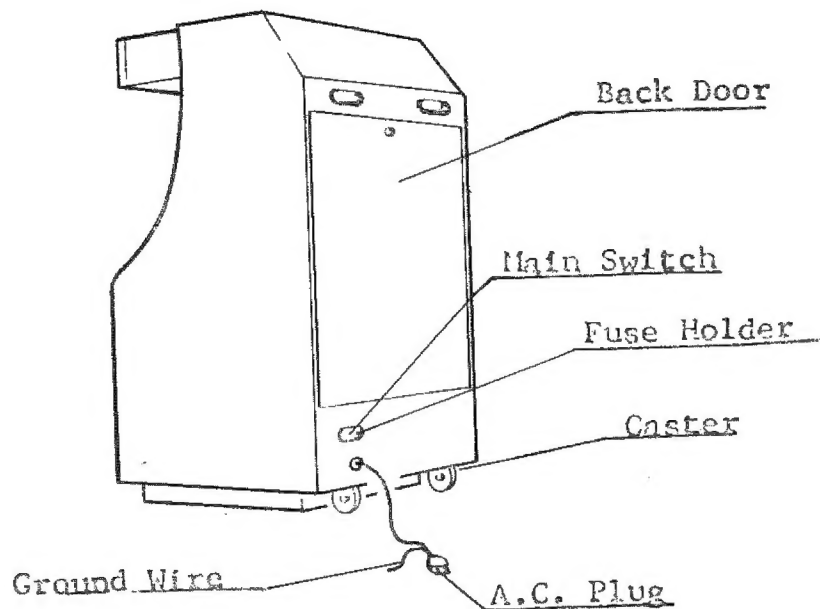
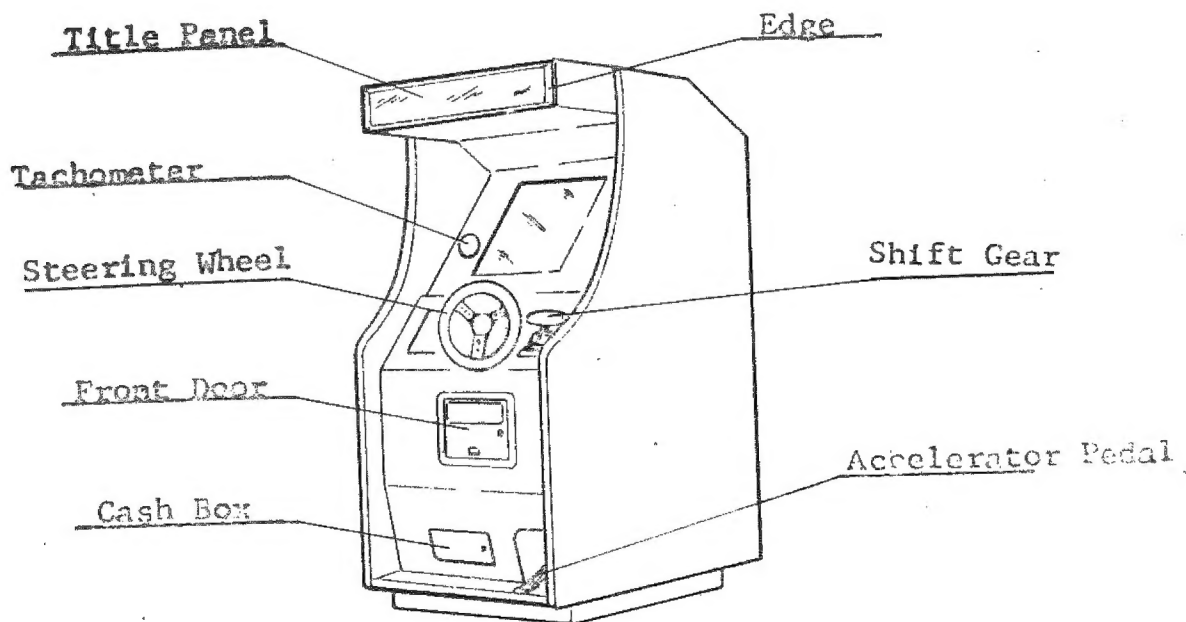


**SERVICE INSTRUCTIONS
AND PARTS CATALOG**



TAITO CORPORATION

Name of Part



1. Transportation and Installation

- o Avoid rough handling during transportation; the picture tube is fragile.
- o Avoid installation in location with exposure to direct sunlight or excessive heat to avoid damage from high internal temperatures.
- o Connect ground terminal and A.C. plug prior to switching on.

Note:-

- o Erroneous or partial scores may appear when the machine is first switched on. This is a typical of solid-state circuitry and will correct itself automatically when the first game is started.
- o A slight flicker between adjacent line in the car is normal.
- o TAITO SPEED RACE DELUXE uses the latest solid-state circuitry for long life, however, as with all sophisticated electronic equipment certain precautions must be observe to prevent damage:
 - (1) Do not attempt to service with ordinary test equipment, of which voltage may break ICs.
 - (2) Assure proper ventilation. Do not expose to temperatures above 60° C.
 - (3) Do not connect or disconnect any internal receptacles without first switching off the power.

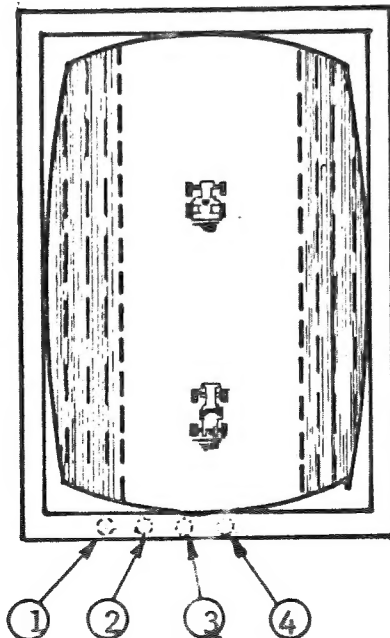
2. Playing Instructions

- o Single player game
(One coin for one play, adjustable one coin for two plays)
- o Insert a coin, and a player's car appears on lower part of the screen.
A player's car starts at "low" position of the Gear Shift by stepping on the accelerator pedal, and then shift the Gear Shift to "high" position to increase the speed to the maximum. Your car can maintain a certain speed by keeping the linear accelerator stepping on.
... players car can run even if it starts at "high" position, but speed of the car increases so slow.
- o The more speed you drive the car, the more score you get.
- o When a player's car starts to run, the car can enter into the course at any time. When the car enters into the course, the guard rail appears on the right side.
- o When a player's car crashes with competing cars or into the guard rails, right & left, the car is repositioned at the place started. Once the car entered into the course, the car cannot run out of the course. Scores can be made only when the car runs in the course. The black zones appear every score of 800, 1,800, 2,800, 3,800, 4,800, and 5,800, which are "slip zone", where you drive carefully.
- o Time counts down from 90.
- o Game time is extended individually every score of exceeding 2,000, 4,000 and 6,000. In the extended games, the time again counts down from 90, when the time reaches 0-Points, but the speed of counting down increases.
- o The number of competing cars increases every score of 1,000 and 2,000.

3. ADJUSTMENT

- o For T.V. Monitor

TV monitor is adjusted before delivery from Factory, however if case of necessary, re-adjust the controls as shown below:



- ① V. Hold (Vertical Hold Control)
- ② Bright (Brightness Control)
- ③ Cont. (Screen Contrast Control)
- ④ Volume (Sound Volume Control)

- o For Sound Volume

Adjust the control (4) so as to match with your locations.

- o For screen brightness

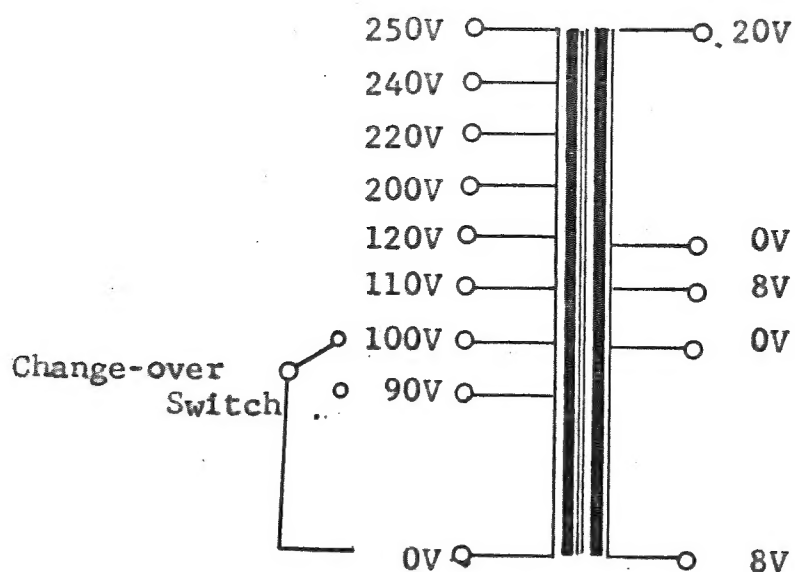
Adjust the control (2) so that the screen field becomes dark, but not so dark as a player cannot see "Slip Zone".

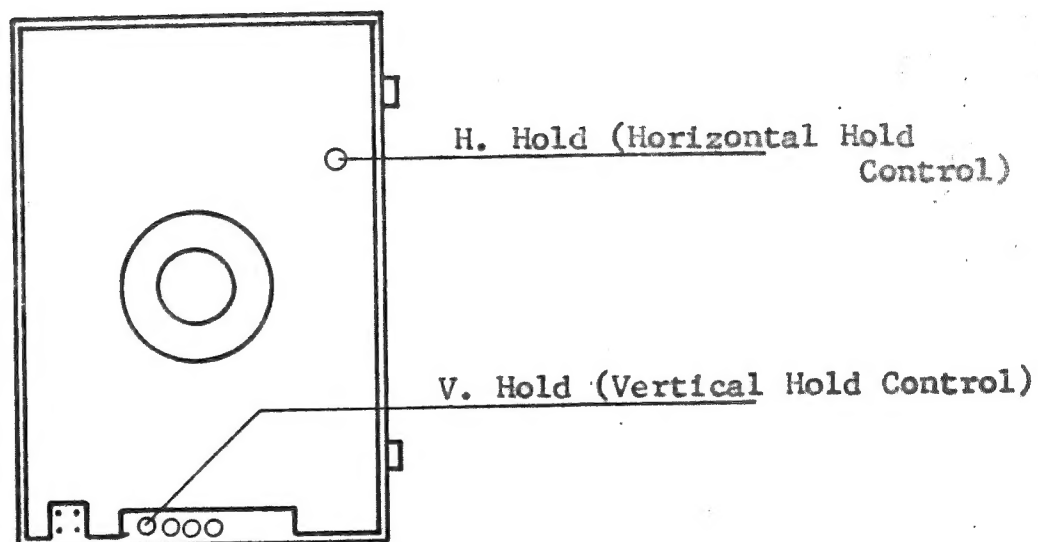
- o For Screen Contrast

When the contrast is intensified, the lower side of the car images will be distorted. Therefore, adjust the control (3) so as to keep the car images clear.

- o When the voltage of the power source is low, the car images on the screen sometimes flicker. In such case, the vertical width of the screen is also shrunken.

Adjustment: Change the terminal of the power transformer in the cabinet according to the supply voltage. This change can be made by the switch.



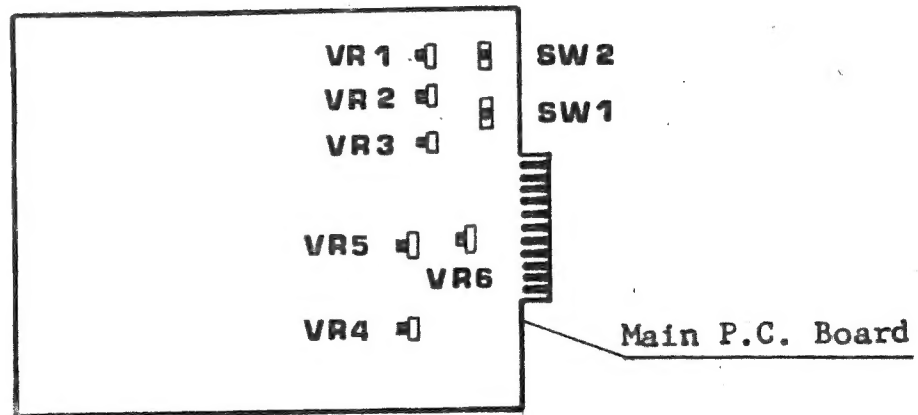


- o When the picture on the screen rolls vertically or oblique lines appear on the screen, adjust it by turning the control knobs as above.
- o When the picture on the screen rolls vertically, adjust it by turning the V. Hold control knob so that the picture roll stops on the screen correctly.
- o When oblique lines appear on the screen, adjust it by turning the H. Hold control knob.

Adjustment for Main P.C. Board

The main P.C. board is adjusted before shipping, however, if necessary, readjust the potentiometers on the board as follows:

(Note: All the potentiometers are paint-locked.)



◦ Adjustment for playtime

Playtime is adjusted as to count down every one second. It can be increased or decreased by adjusting VR3.

◦ Adjustment for others

VR1 --- for adjustment of degree of slip to right direction in slip zone.

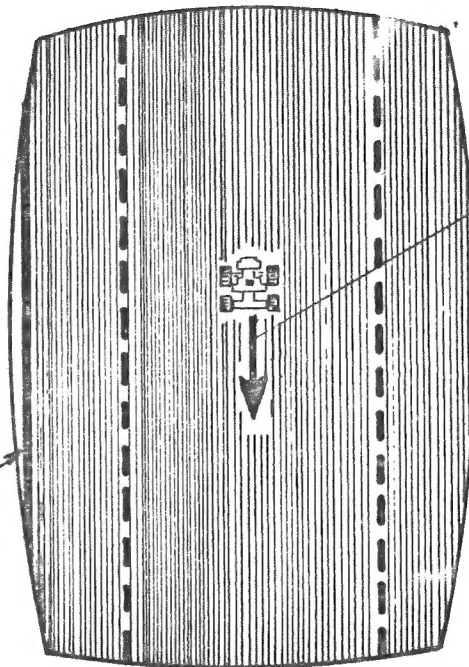
VR2 --- for adjustment of degree of slip to left direction in slip zone. This adjustment is carried out with the player's car being on the slip zone. For easy adjustment, switch SW2 so that no crash occurs.

VR4 --- for adjustment of the highest speed when the shift gear is put in HIGH. When SW1 is switched, the black end line will appear from the right side of the screen. Adjust VR4 so that this black end line goes slightly across the position (shown on the next page) when the shift gear is put in HIGH and the speed is maximized.

VR6 --- for adjustment of the high speed when the shift gear is put in LOW. Adjust VR6 so that the player's car goes slowly back when the shift gear is put in LOW and the speed is maximized.

Note: After adjusted VR4, adjust VR6.

Adjust VR4 so that this black end line goes slightly across this position when the shift gear is put in HIGH and the speed is maximized.



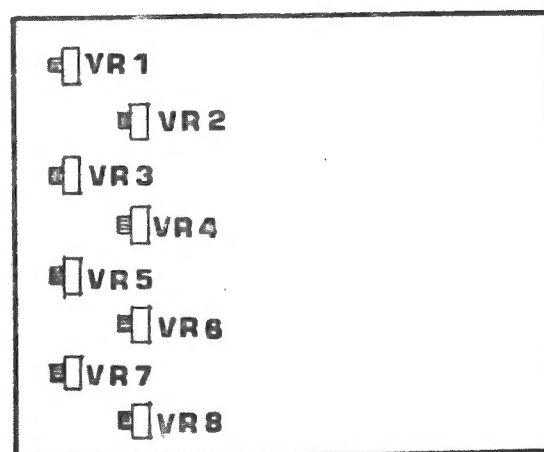
Adjust VR6 so that the player's car goes slowly back when the shift gear is put in LOW and the speed is maximized.

When SW1 is switched, the black end line will appear from the right side of the screen.

VR5 --- for adjustment of speed of the guard rails.
If the speed of the guard rails run too fast, the rails flicker. Adjust VR5 so that no flickering occurs.

◦ Adjustment for sound

The sound P.C. board is mounted on the chassis (lower inside of the cabinet). All the potentiometers are pre-adjusted and paint-locked at the factory.



Sound P.C. Board

VR1 --- for adjustment of sound of car running
VR2 --- for adjustment of sound of car running
VR3 --- for adjustment of tachometer for its maximum turn
VR4 --- for adjustment of sound of car slipping
VR5 --- for adjustment of sound of the highest speed when
the shift gear is put in HIGH
VR6 --- for adjustment of sound of the highest speed when
the shift gear is put in LOW
VR7 --- for adjustment of sounds of crashing and slip zone
VR8 --- for adjustment of tachometer for its minimum turn

Note:

If the sound P.C. board and the main P.C. board are replaced, the sound of car running may be out of order. If so, adjust VR5 when the shift gear is put in HIGH and the speed is maximized, then adjust VR6 when the shift gear is put in LOW and the speed is maximized.

4. Steering Wheel Mechanism

Shifting of player's car to left or right is made by pulses which are generated according to the rotation of the steering wheel. This mechanism is composed of two phototransistors and two LEDs (Light Emitting Diodes) with facing each phototransistor and LED. In addition, a rotating plate is arranged between the phototransistors and the LEDs. The detection of the shifting of player's car to left or right is made by two pulses generated by this mechanism. If the shifting is not normal when the steering wheel is turned, to left or right, make sure that the two LEDs go on and off as shown below.



Note: These two LEDs should go on and off as shown above when the steering wheel is turned clockwise or counterclockwise.

If the two LEDs do not go on and off as shown above, the P.C. board of the steering wheel mechanism or the power circuit is assumed to be out of order.

If the shifting of player's car is not normal when the two LEDs go on and off as shown above, the connector, the P.C. board of the steering wheel mechanism, or the main P.C. board is assumed to be out of order. Make sure the trouble.

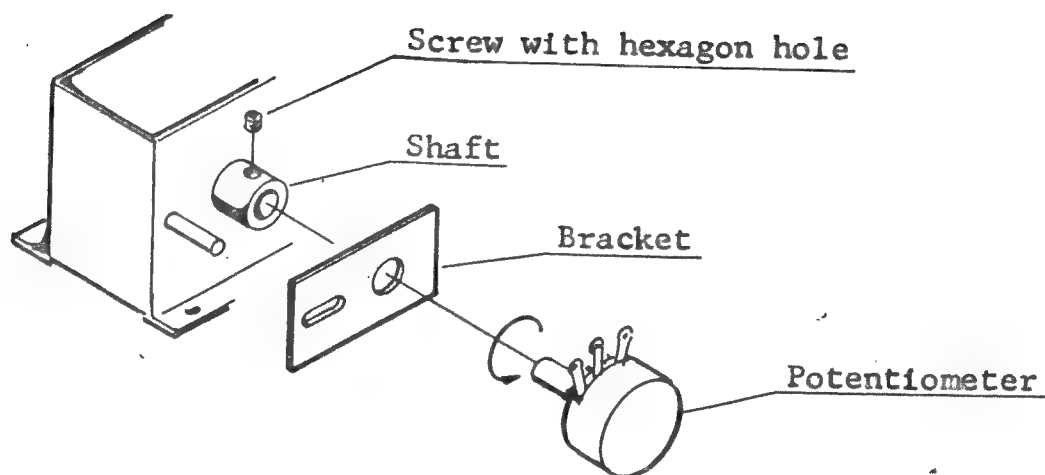
5. Acceleration Mechanism

When the accelerator pedal is pressed down, the potentiometer rotates to start the player's car. Then, the player's car is accelerated automatically, and when the accelerator pedal is released, the player's car is decelerated.

If the player's car is not accelerated smoothly, or it flickers, the potentiometer is assumed to be out of order. Make sure the trouble.

Replacement of potentiometer:

- Remove two screws(with hexagon hole) and the potentiometer and the bracket can be removed.
- Remove the wiring from the potentiometer, and replace the potentiometer with new one.
- Solder the wiring to the replaced potentiometer.
- Turn the new potentiometer fully counterclockwise, and turn back it slightly (approximately 2 degrees).
- Slowly insert the new potentiometer into the shaft, and thrust the two screws(with hexagon hole) into the shaft to fix the new potentiometer.



6. Gear Mechanism

When the accelerator pedal is pressed with put the gear shift in LOW, the player's car starts. When the shift gear is put in HIGH after the speed becomes constant (top in LOW), the player's car will be accelerated.

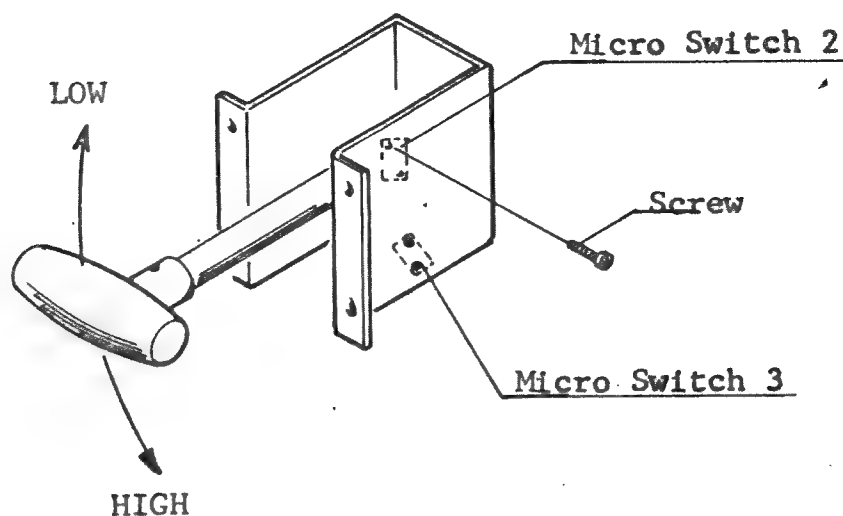
When the shift gear is put in LOW, the micro switches 2, 3 are activated, and when the shift gear is put in HIGH, the micro switch 2 is activated.

If the player's car does not start or the speed is extremely high when the shift gear is put in LOW, the micro switch 2 or 3 is assumed to be out of order.

If the player's car does not run or any abnormal acceleration occurs when the shift gear is put in HIGH, the micro switch 2 is assumed to be out of order.

Check the trouble.

Replacement of micro switch:



- Remove two screws and the micro switch (2 or 3) can be removed.
- Remove the wiring, and replace the micro switch (2 or 3) with new one, and screw up.
- Solder the wiring to the replaced micro switch.
- Make sure that the replaced micro switch is on when the shift gear is put in LOW or HIGH.

◦ Option:

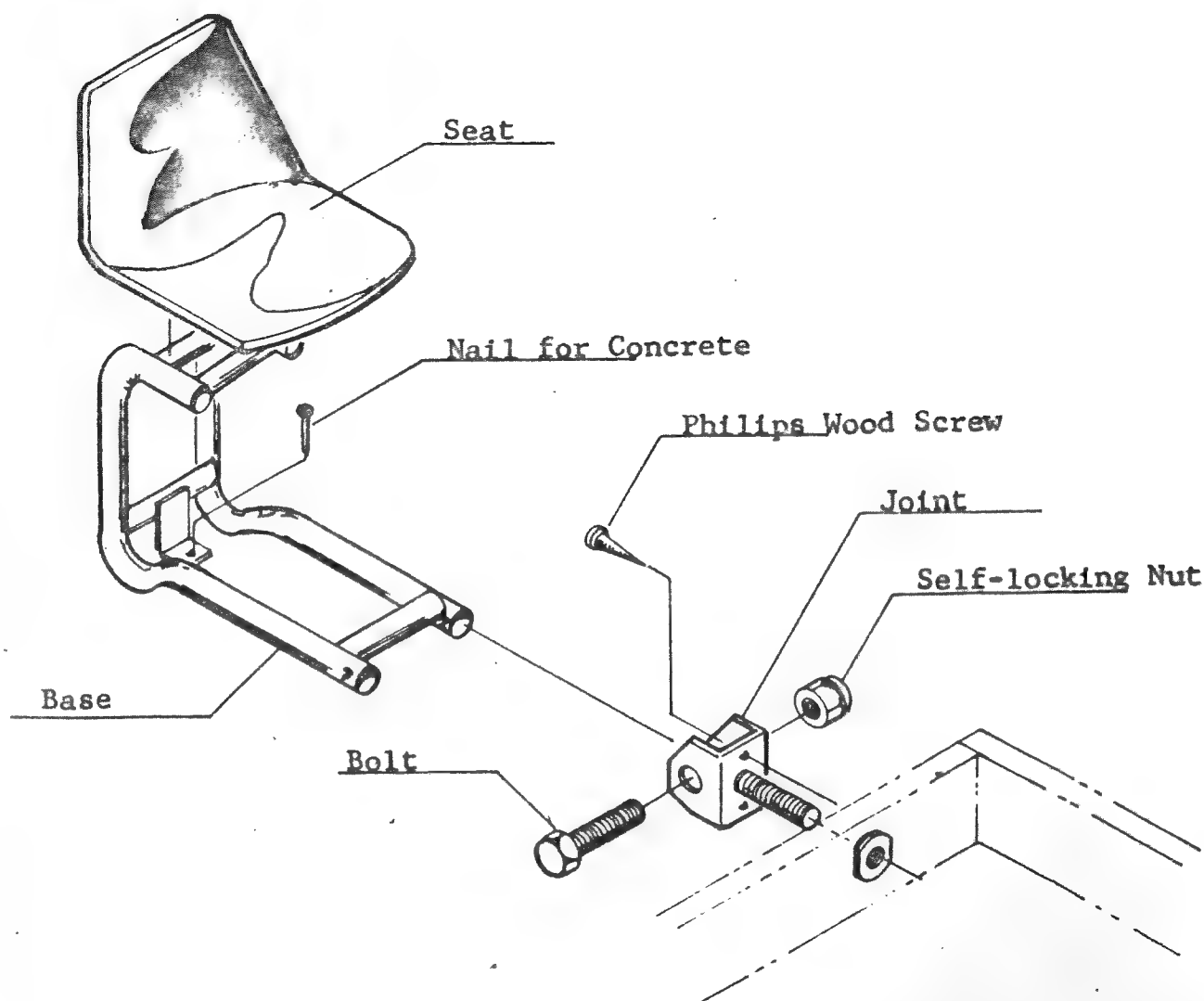
- Seat
- Base
- Joint
- Hexagon Bolt, M8 x 45
- Self-locking Nut, M8
- Philips Wood Screw 35 x 13
- Nail for Concrete

1
1
2
2
4
1

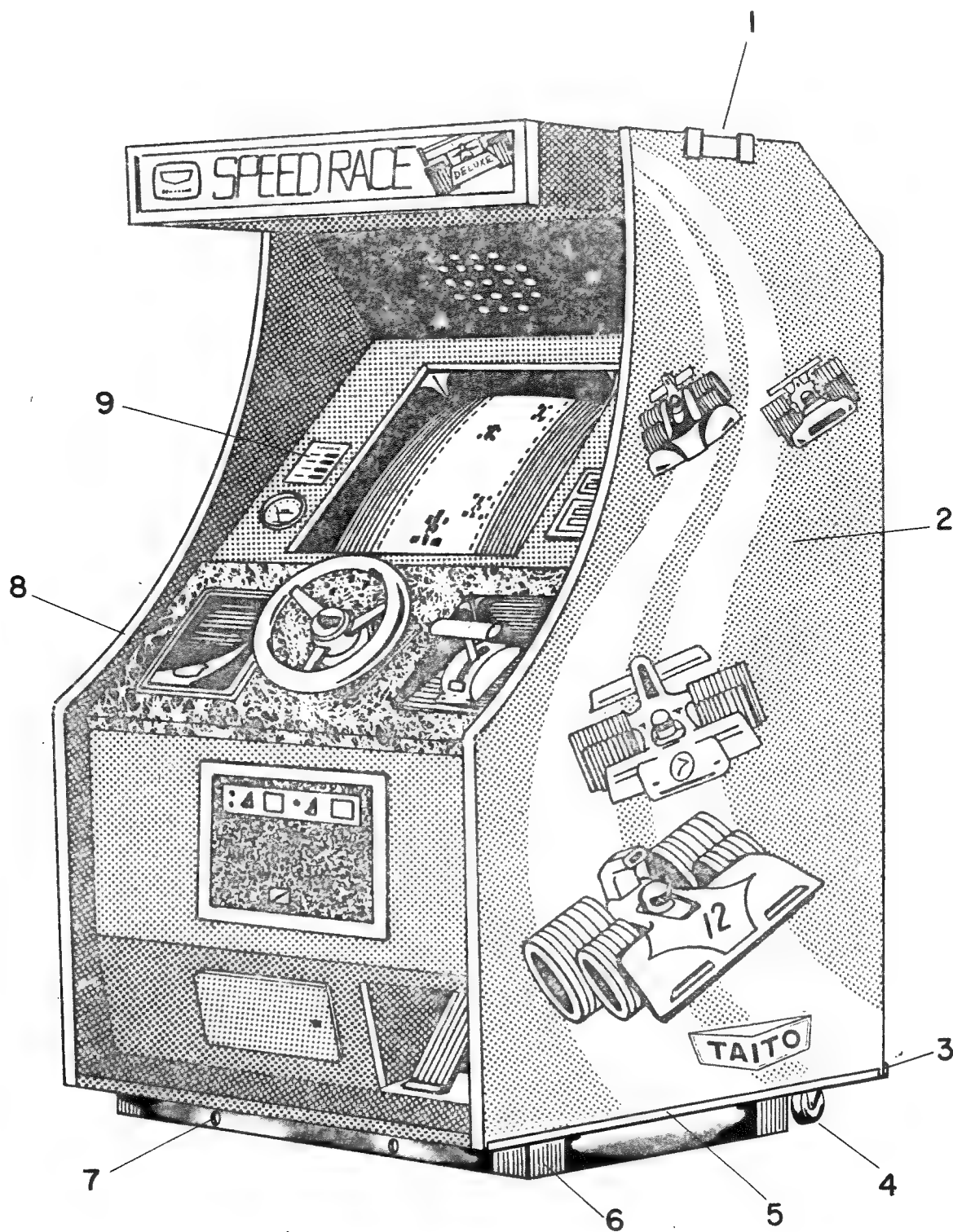
Note: Make sure the number of the parts before assembling.

Assembling Method:

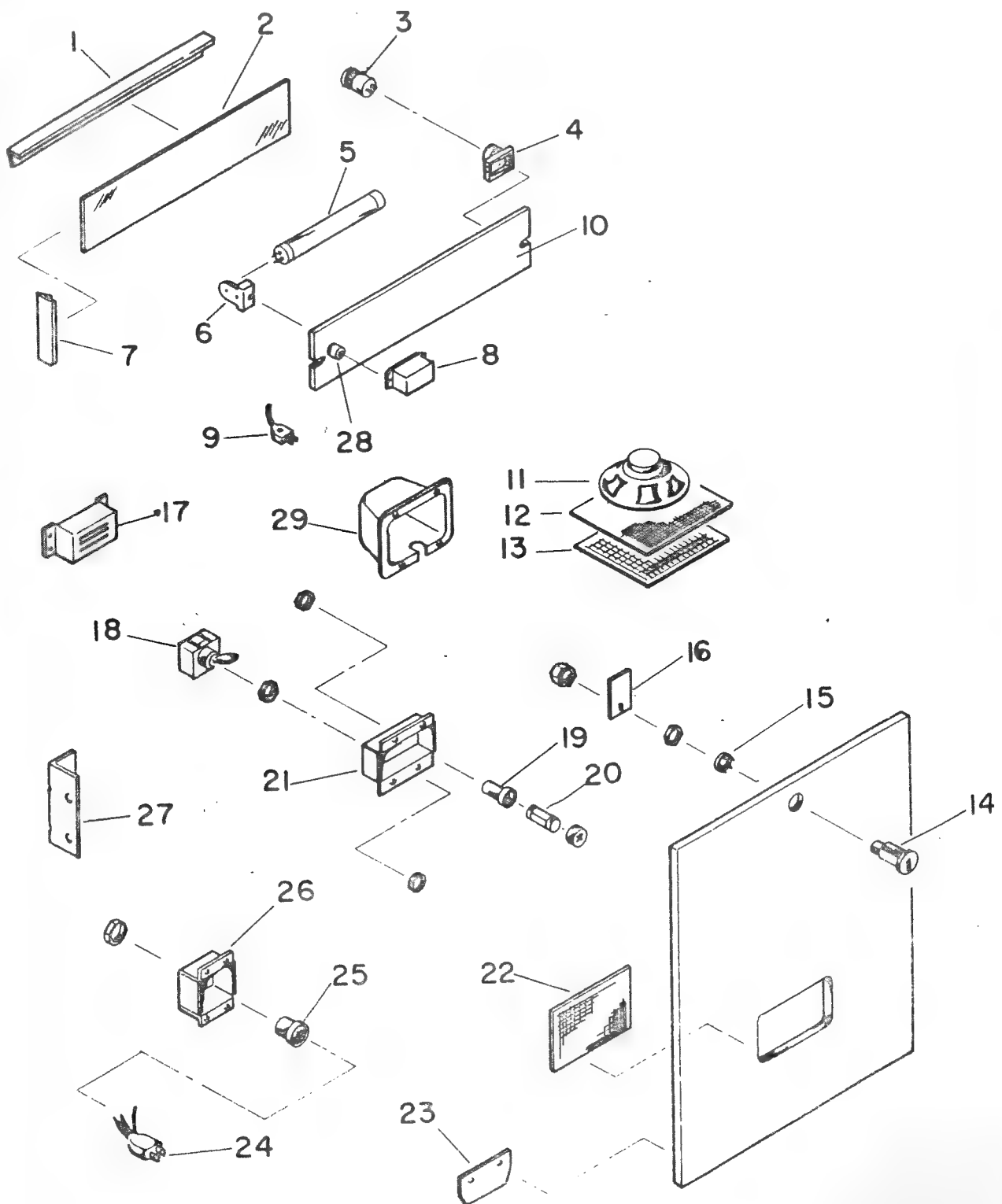
1. Screw the joint in the nut mounted on the skirt of the cabinet, and screw two philips wood screws so that the holes of the joint for the bolt are put in horizontal position.
2. Mount the seat on the base.
3. Insert the base into the joints, and screw the hexagon bolts. Then, hammer the nail for concrete.



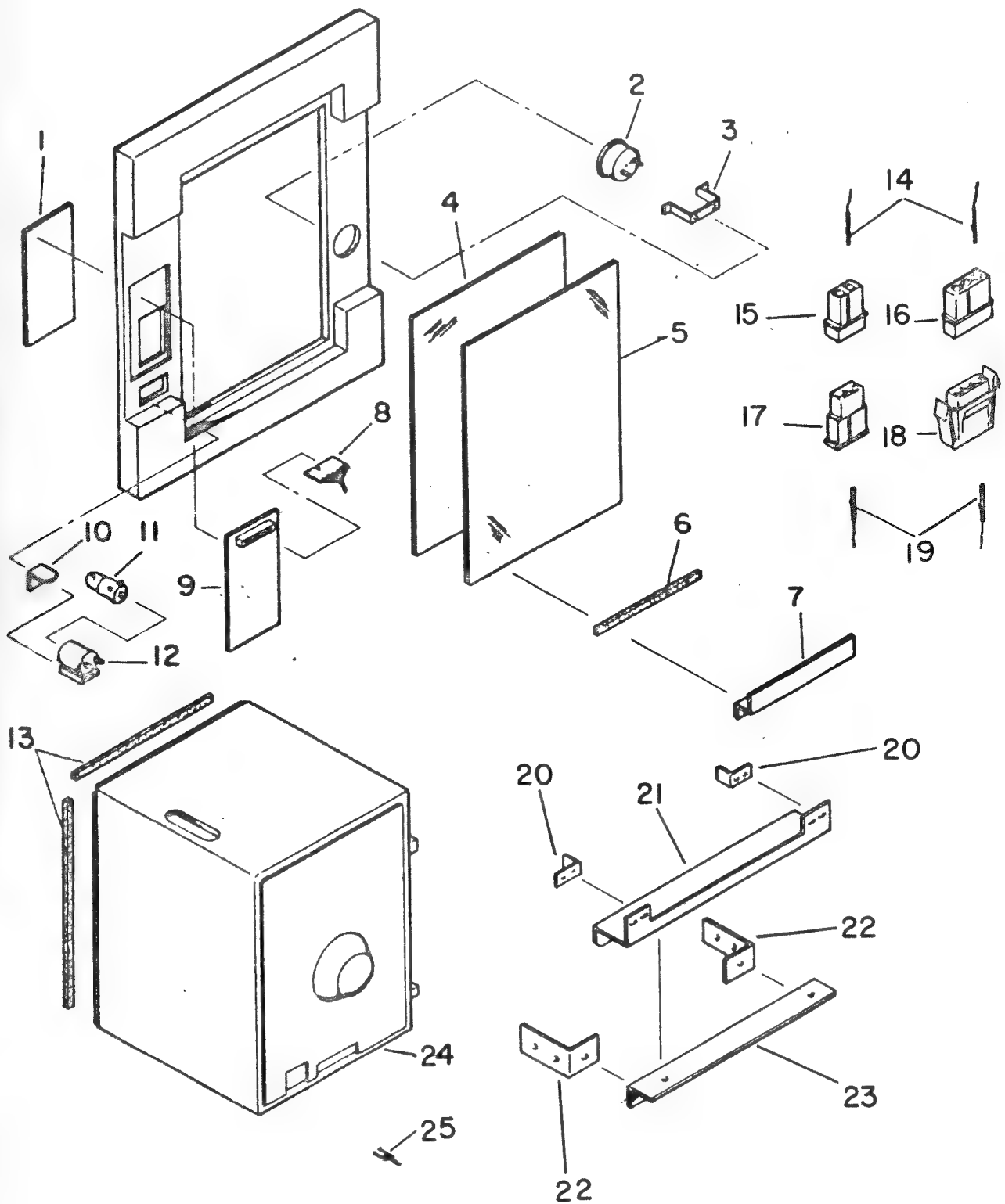
CABINET ACCESSORY ASS'Y



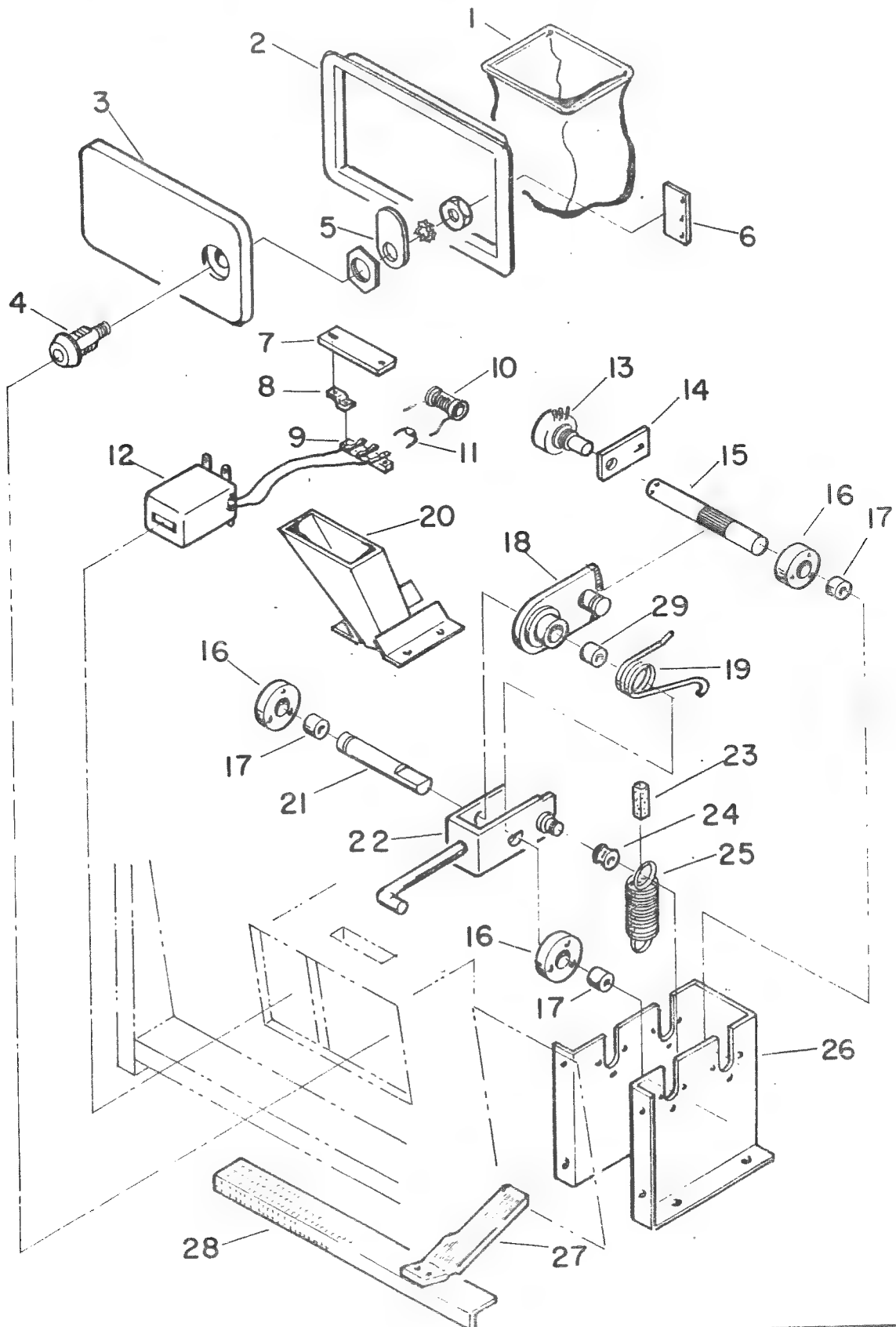
CABINET ASS'Y



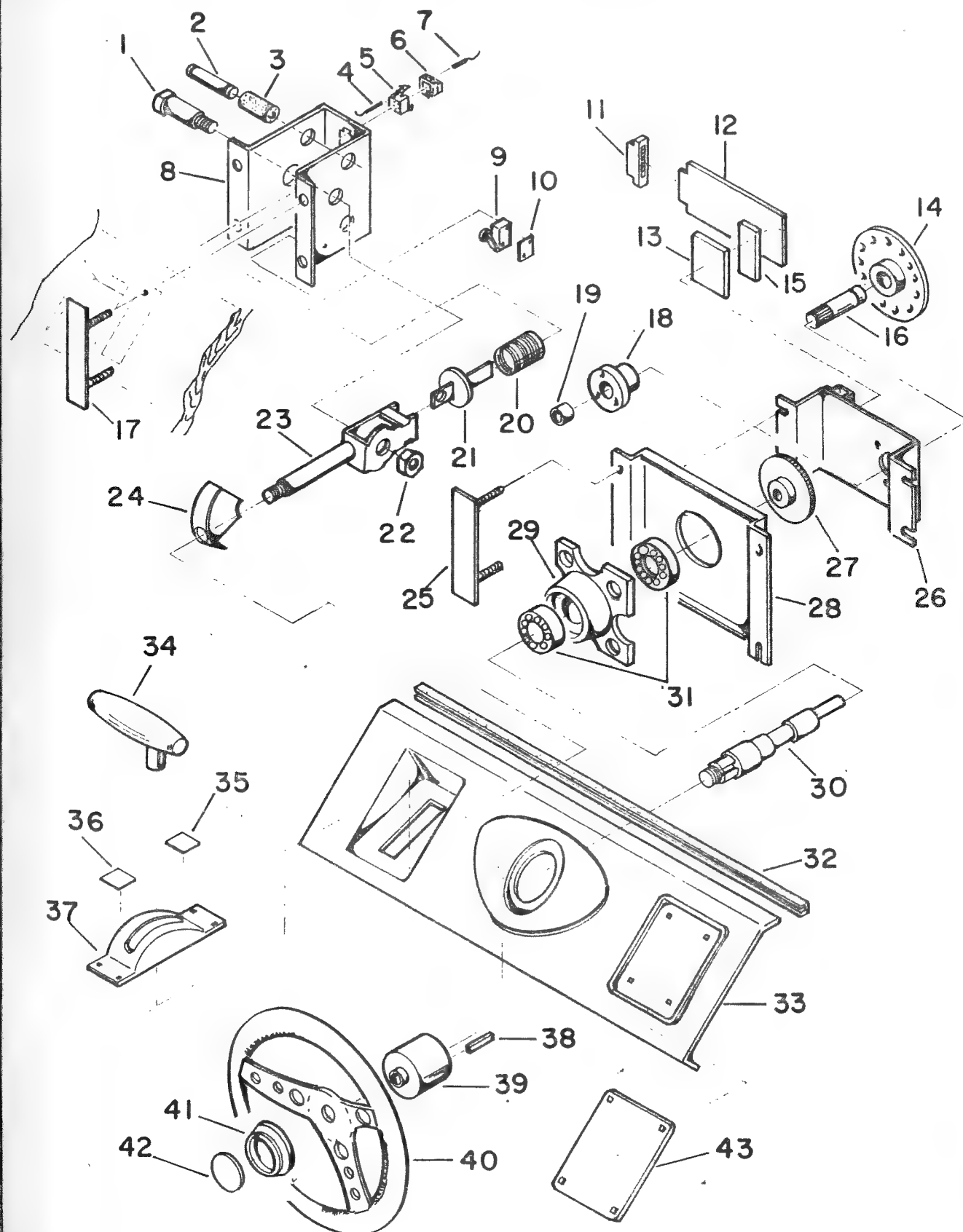
VIDEO ASS'Y



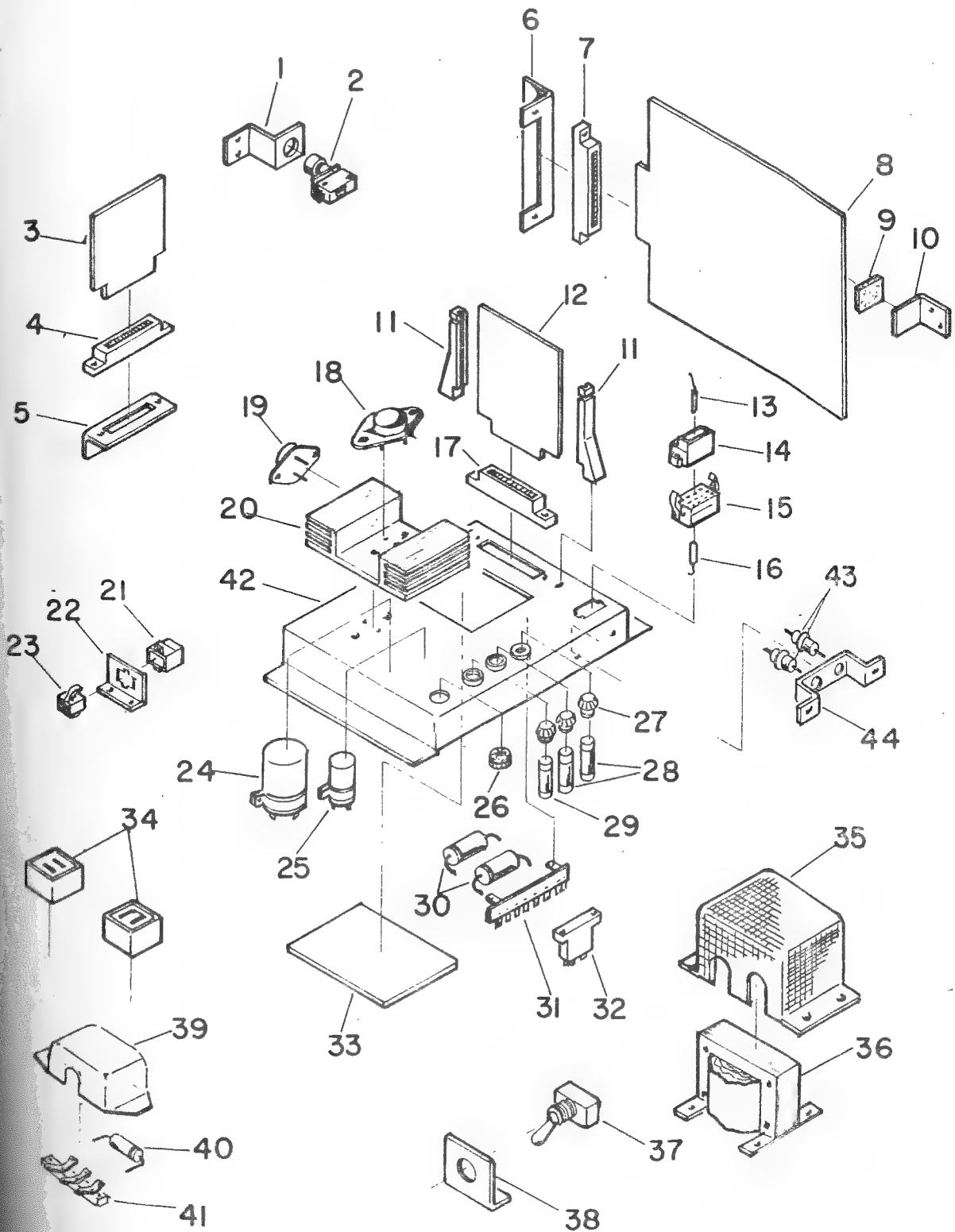
ACCELERATOR AND CASH BOX ASS'Y



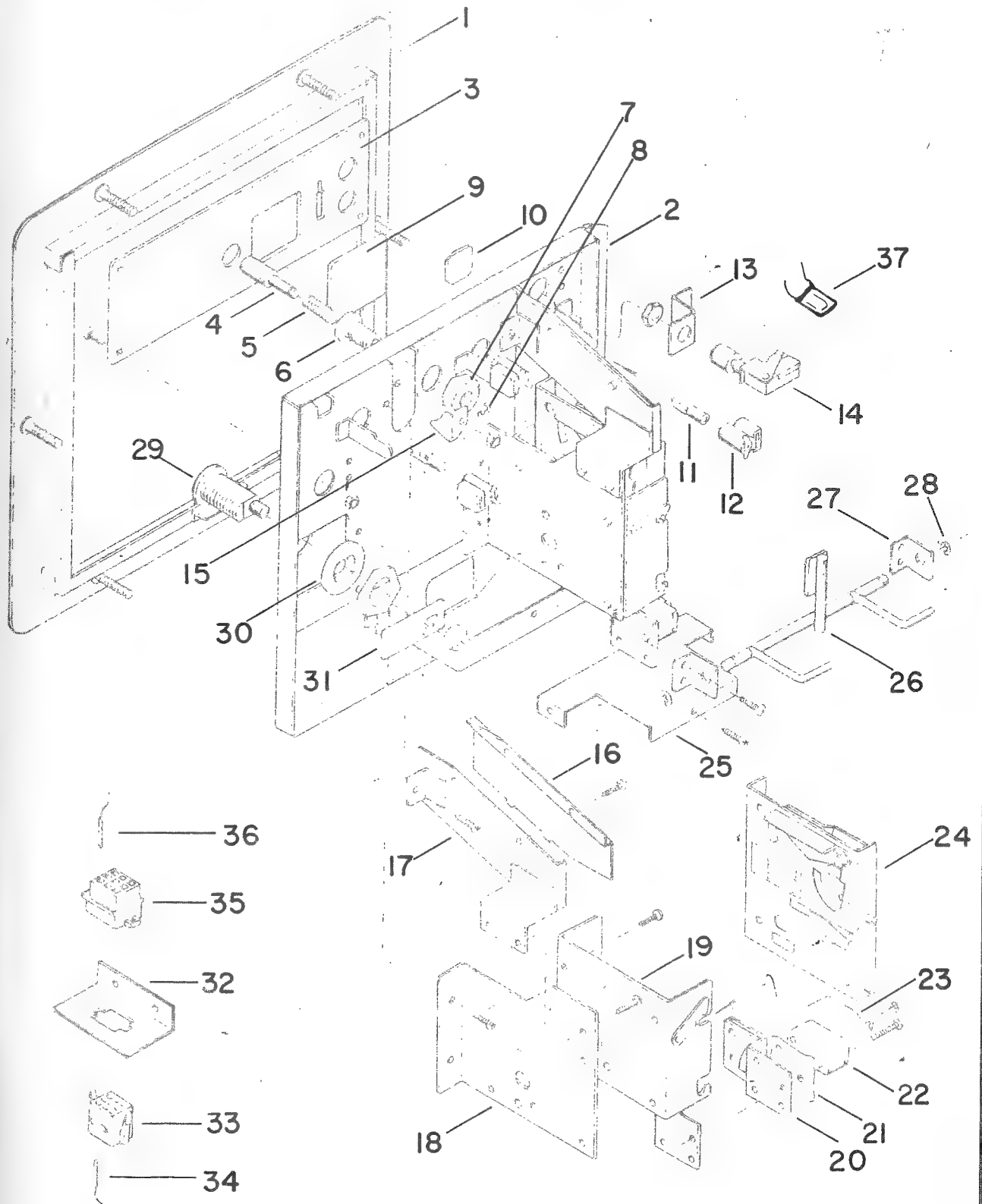
DASH BOARD ASS'Y



REGULATOR ASS'Y



FRONT DOOR AND COIN -MECHANISM ASS'Y



CABINET ACCESSORY ASS'Y

Item	Part No	Description
1	AAO 14511	Molding
2	SEO 10005	Cabinet
3	SEO 40007	Corner Protector(C)
4	AAO 16513	Caster
5	SEO 40001	Corner Protector (A)
6	AAO 13519	Corner Bracket
7	AAO 14512	Edge
8	AAL 54008	Nut
9	SEO 70017	Sticker

CABINET ASS'Y

Item	Part No	Description
1	SEO 40005	Retainer Frame A
2	SEO 70008	Title Plate
3	AAO 54720	Starter FG-1P
4	AAO 55695	Glow Lamp Socket
5	AAO 54711	Fluorescent Lamp
6	AAO 55694	Fluorescent Lamp Socket
7	SEO 40006	Retainer Frame B
8	AAO 57504	Ballast
9	AAO 55713	A.C Plug
10	SEO 10003	F.L Board
11	AAT 71002	Speaker
12	SEO 90006	Net
13	SEO 30025	Ventilator

14	AAO:16530	Lock & Key /67500
15	AAO 13524	Lock Washer
16	AAO 13510	Lock Plate
17	AAO 13512	Cover
18	AAO 52501	Switch
19	AAO 55784	Fuse Holder
20	AAO 63504	Fuse 3A
21	AAO 13551	Switch Bracket
22	EPO 30010	Ventilator
23	AAO 13523	Door Stopper
24	AAO 62506	Cable & Plug Ass' Y
25	AAO 69503	Mold Cord Bush
26	AAO 13553	Bracket
27	SEO 30010	Support Bracket
28	AAO 12510	Spacer
29	AAO 19519	Cover

V I D E O A S S ' Y

Item	Part #	Description
1	SEO 70009	Score Plate
2	AAO 69527	Tacho Meter
3	SEO 30015	Maunting Bracket
4	SEO 90002	Front Glass
5	SEO 90007	Color Plate
6	EPO 80001	Sponge Rubber
7	SEO 30023	Glass Retaining Plate
8	SEO 70007	Contact Board
9	SEN 00002	Timer & Score P.C.Board Ass'Y

10	SPO 30029	Lamp Bracket
11	AAO 54704	Lamp
12	AAO 55698	Lamp Socket
13	SPO 80003	Bumper Sponge
14	AAO 55641	Contact Pin
15	AAO 55501	Mate-N-Lok Cap 2P
16	AAO 55521	Mate-N-Lok Cap 3P
17	AAO 55502	Mate-N-Lok Plug 2P
18	AAO 55522	Mate-N-Lok Plug 3P
19	AAO 55642	Contact Socket 3P
20	SEO 30034	Bracket C
21	SEO 30031	Base Bracket
22	SEO 30033	Bracket B
23	SEO 30032	Bracket A
24	AAO 69521	Video
25	AAO 56541	Terminal

ACCELERATOR AND CASH BOX ASS'Y

Item	Part No	Description
1	AAO 28503	Cash Bage
2	AAO 26506	Cash Box Door Frame
3	AAO 26505	Cash Box Door
4	AAO 16501	Lock & Key
5	AAO 13511	Lock Plate

6	AAO 13533	Lock Retaing
7	AAO 19509	Cover
8	AAO 13518	Cover Bracket
9	AAO 56511	Contact Strip Ass'y
10	AAT 55033	Resistor 6 Ω 2 W
11	AAT 12002	Diode V030
12	AAO 51615	Counter
13	AAT 53029	Potention Meter
14	SEO 30022	Plate
15	SEO 20009	Pinion
16	SEO 20008	Hub
17	AAO 12542	Bushing
18	SEO 20007	Gear Ass'y
19	SEO 50003	Torsion Spring
20	SPO 30008	Coin Chute
21	SEO 20010	Accelerator Shaft
22	SEO 30021	Accelerator Lever Ass,y
23	SEO 90008	Felt Plug
24	SEO 20006	Bushing
25	SEO 50002	Extension Spring
26	SEO 30017	Accelerator Frame
27	SPO 90006	Accelerator Pedal
28	SEO 30008	Floor Metal Plate
29	AAO 12541	Bushing

DASH BOARD ASS'Y

Item	Part No	Description
1	SEO 20001	Shaft

2	SEO 20013	Shaft
3	SEO 80001	Rubber Bumper
4	AAO 55642	Contact Socket
5	AAO 55562	Mate-N-Lok Plug 6P
6	AAO 55561	Mate-N-Lok Cap 6P
7	AAO 55641	Contact Pin
8	SEO 30006	Shaft Mounting Bracket
9	AAO 52532	Switch V-15FL22-1A
10	AAO 19502	Insulator
11	AAO 55720	Connector 10P
12	SEN 00004	Pulse P.C.Board Ass'y
13	SEN 00005	L.E.D P.C.Board Ass'y
14	SEO 30020	Disc Plate Ass'y
15	SEO 90005	Plate
16	SEO 20015	Gear
17	SEO 30007	Lock Plate
18	SEO 20016	Hub
19	AAO 12545	Bearing
20	SEO 50001	Compression Spring
21	SEO 30002	Spring Arm
22		Nut
23	SEO 30004	Shift Ass'y
24	SEO 30001	Shift Mask
25	SPO 30010	Lock Plate
26	SEO 30030	Platform Mounting Bracket
27	SEO 20017	Gear
28	SEO 30018	Platform Bracket
29	SPO 40004	Steering Wheel Bearing
30	SPO 20009	Shaft
31	AAO 12526	Bearing
32	SEO 80002	Sponge Rubber

33	SEO 90010	Dash Board Right Shift
33	SEO 90003	Dash Board Left Shift
34	SEO 90001	Shift Knob
35	SEO 70011	Sticker A
36	SEO 70013	Sticker B
37	SEO 30005	Cover
38	SPO 20010	Key
39	SEO 40003	Base
40	SEO 90004	Steering Wheel
41	SEO 40004	Base Cover
42	SEO 70012	Decoration Plate
43	SEO 70016	Instruction Plate

REGULATOR ASS'Y

Item	Part #	Description
1	AAO 13552	Switch Bracket
2	AAO 52511	Switch
3	SEN 00006	Motor Drive P.C. Board Ass'y
4	AAO 55720	Connector 10P
5	BAO 30003	Socket Bracket
6	SEO 30026	Socket Bracket
7	AAO 55774	Connector 44P
8	SEN 00001	Main P.C. Board Ass'y
9	SPO 80004	Rubber
10	SPO 30027	Stopper
11	AAO 69520	P.C. Board Bracket
12	SEN 00003	Sound P.C. Board Ass'y
13	AAO 55641	Contact Pin
14	AAO 55621	Mate-N-Lok Cap 15P

15	AAO 55622	Mate-N-Lok Plug 15P
16	AAO 55642	Contact Socket
17	AAO 55721	Connector 14P
18	AAT 11045	Transistor
19	AAT 31012	Regulator
20	AAO 69526	Heatsink
21	AAO 55561	Mate-N-Lok Cap 6P
22	AAO 13526	Socket Bracket
23	AAO 55562	Mate-N-Lok Plug 6P
24	AAT 41166	Capacitor 16LASN22000
25	AAT 41162	Capacitor 16LBSN2200
26	AAO 18508	Grommet
27	AAO 55700	Fuse Holder
28	AAO 63505	Fuse 5A
29	AAO 63501	Fuse 0.5A
30	AAT 41139	Capacitor 50T470
31	AAO 56528	Contact Strip Ass'y
32	AAT 14002	Rectifier 5B1
33	DAO 70016	Regulator P.C. Board
34	AAO 55715	A.C. Socket
35	SEO 30016	Transformer Cover
36	AAO 57530	Transformer
37	AAO 52535	Switch
38	SEO 30028	Switch Bracket
39	AAO 19520	Cover
40	AAT 41194	Capacitor
41	AAO 56511	Contact Strip Ass'y
42	SEO 30024	Regulator Base
43	AAT 12027	Diode 6BG11
44	SEO 30027	Mounting Bracket

FRONT DOOR AND COIN MECHANISM ASS'Y

Item	Part No	Description
1	AAO 26502	Door Frame
2	AAO 26501	Front Door
3	AAO 21517	Coin Entry Plate
4	AAO 27501	Push Button
5	AAO 15501	Spring
6	AAO 27502	Button Holder
7	AAO 12508	Nut
8	AAL 65007	"E" Ring ETWJ-4
9	AAO 29506	Price Label ¥100
10	AAO 19501	Replay Plate
11	AAO 54704	Lamp 12V 150mA
12	AAO 55698	Lamp Socket
13	AAO 13504	Switch Bracket
14	AAO 52511	Push Button Switch
15	AAO 21501	Coin Entry
16	AAO 25501	Coin Guid (A)
17	AAO 25502	Coin Guid (B)
18	AAO 13501	Mounting Bracket
19	AAO 23501	Slug Rejector Mounting Bracket Assy
20	AAO 25503	Coin Guide
21	AAO 19502	Insulator
22	AAO 52512	Switch C-5G3-3
23	AAO 53501	Actuator
24	AAO 22503	Slug Rejector ¥100
25	AAO 13536	Coin Return Cover
26	AAO 12501	Scavenger
27	AAO 13503	Scavenger Bracket
28	AAL 65008	"E" Ring ETWJ-5

29	AAO 16515	Lock & Key 7500
30	AAO 13505	Lock Washer
31	AAO 13510	Lock Plate
32	AAO 13527	Socket Bracket
33	AAO 55582	Mate-N-Lok Plug
34	AAO 55642	Mate-N-Lok Contact Socket
35	AAO 55581	Mate-N-Lok Cap
36	AAO 55641	Mate-N-Lok Contact Pin
37	AAT 41241	Capacitor TDY-1H-333