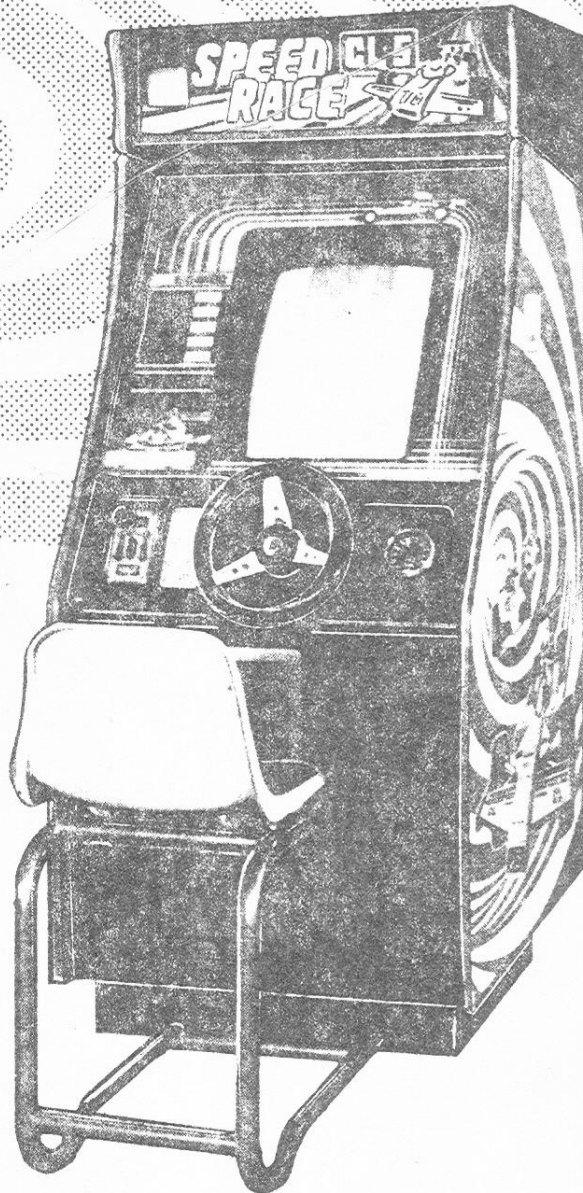


SPEED RACE



**SERVICE INSTRUCTIONS
AND PARTS CATALOG**



TAITO CORPORATION

EC070007

1. Name of Parts (See Figs, 1 and 2)

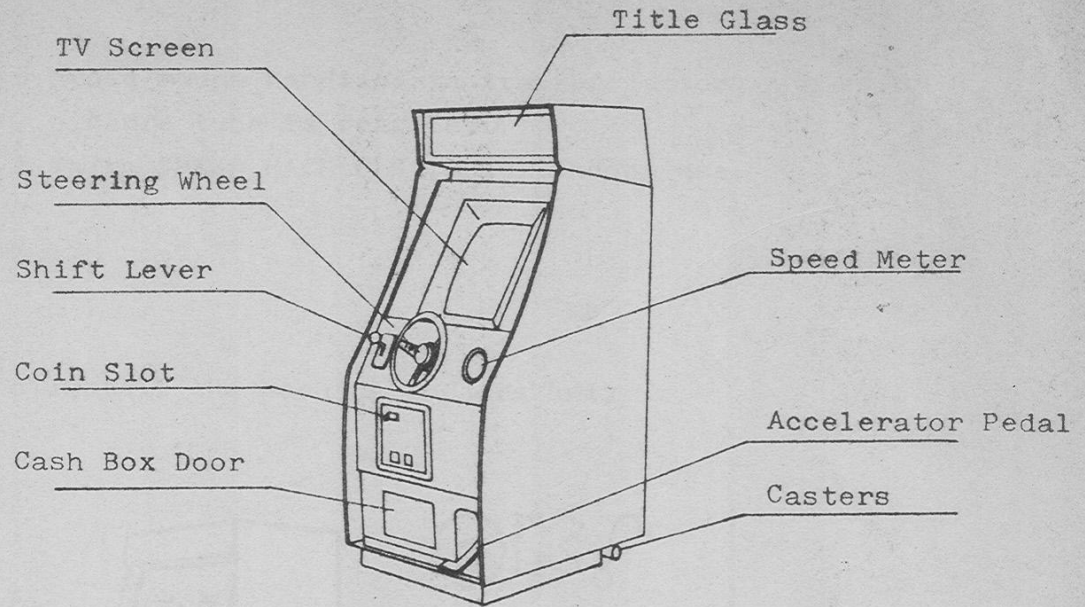


Fig. 1

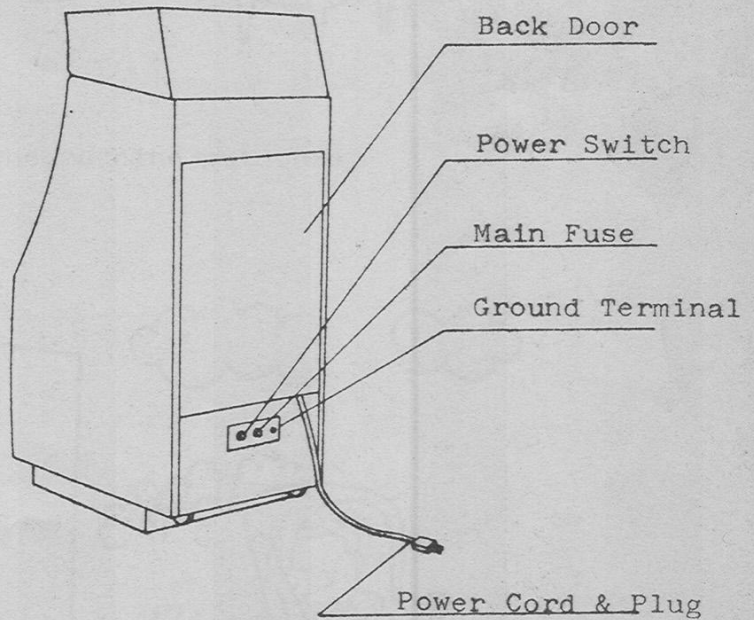


Fig. 2

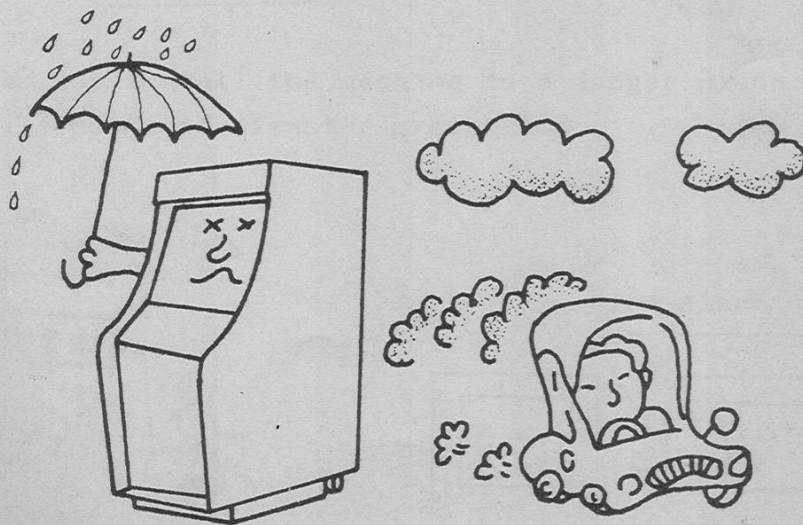
2. Transportation and Installation

- o Avoid rough handling in transportation; the color picture tube is fragile.
- o Taito SPEED RACE CL5 is for indoor use.

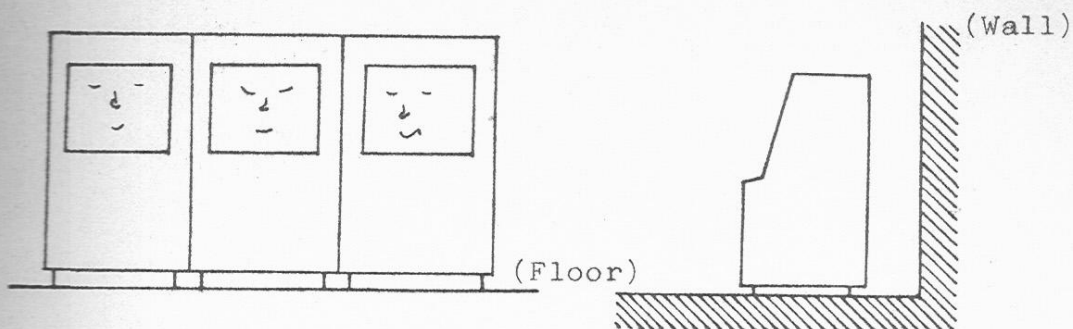
- o Install the machine indoors only



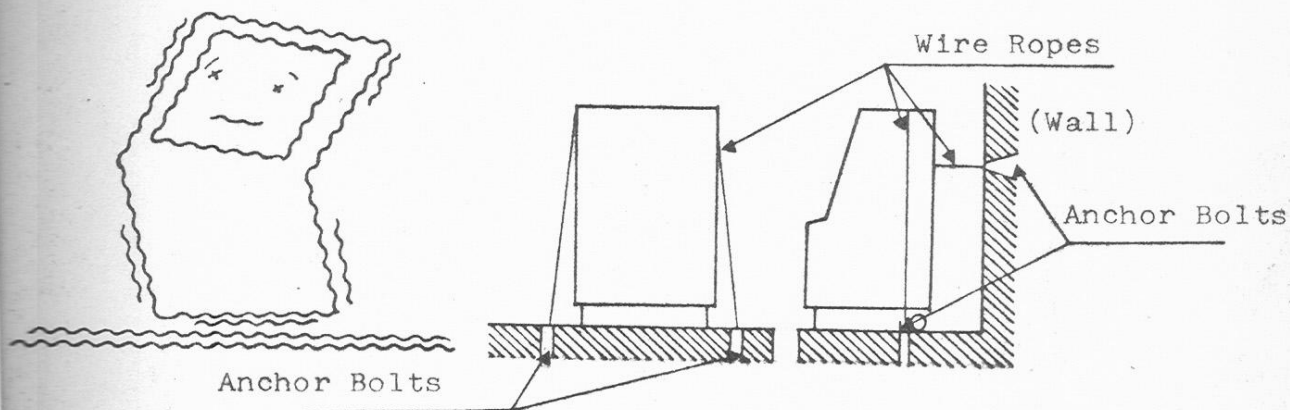
- o Do not install the machine outdoors.



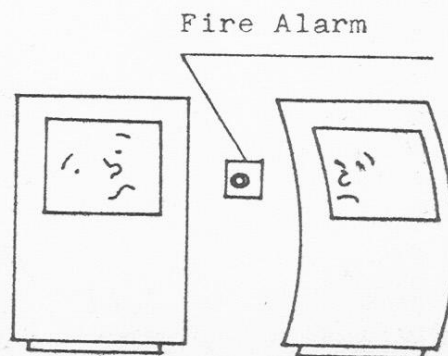
- o Install the machine on flat-surfaced floor and provide suitable space in front of the machine.



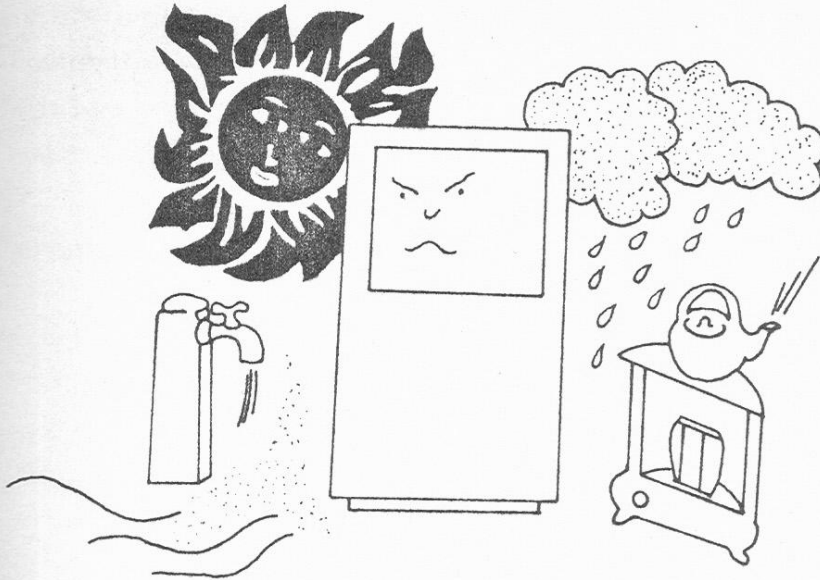
- o In case of installation on location with vibration, fix the machine by using anchor bolts and wire ropes as shown in the following sketch.



- o Do not install the machine in a danger place from the viewpoint of disaster prevention.



- o Do not install the machine in location with exposure to direct sunlight or excessive heat in order to prevent the unit from rising internal temperatures. Also, do not install the machine in humid or dusty places.



- o Install the machine so that no children can enter the place between the backside of the machine and the wall of the location.
- o Ensure all connections to the PCB's are secure.
- o Never fail to ground the ground terminal.
- o Insert the power plug into a proper outlet and turn the power switch on.

3. Handling Note and Warning

Note:

- o Erroneous picture may appear on the screen when the machine is first powered up. This is typical of solid-state circuitry, and will correct itself automatically when the first play is started.

Warning:

- o Taito SPEED RACE CL5 uses the latest solid-state circuitry for long life, however, as with sophisticated electronic equipment certain precautions must be observed to avoid damage.
 - (1) Do not attempt to service with ordinary testing equipment, since the internal voltage of the testing equipment may cause damage to the solid-state circuitry.
 - (2) Never connect or disconnect any of the solid-state modules while the power is on.

4. Routine Maintenance

- o Due to the solid-state electronic circuitry, this machine should require very little maintenance and only occasional adjustments, however, it is necessary to take measures to insure its daily safety.

5. Playing Instructions

- o Single player game
(1 coin - 1 play. Adjustable to 2 coins - 1 play or 3 coins - 2 plays.)
- o Inserting coin(s) into the coin slot initiates game play, the machine stops displaying the attract mode, the previous play score is reset to "0", the game timer is reset to "90", and the player's red car appears on the lower right side of the screen.
- o The player's car starts at "LOW" position of the speed shift by stepping on the accelerator pedal.
- o Shifting the speed shift to "high" position increases the speed of the player's car to the maximum.
- o The faster the player drives, the more points he scores.

Functional Description of Game:

- o When the player's car enters into the course, the guard rail appears on the right side of the course.
- o Once the player's car entered into the course, it cannot get out of the corse.
- o When the player's car crashes with other rival cars or crashes into the guard rails, it is repositioned at the starting position.
- o Scores can be made only when the player's car runs in the course.
- o The player's car can run even if it started at "HIGH" shift position, however, the speed increases so slow.
- o The white zones will appear at score of 800, 1800, 2800, 3800, 4800, and 5800. These are "slip zones" where careful driving is required.
- o The game time will be extended when score exceeds 2000, 4000, and 6000.. In this case, red words "EXTENDED PLAY" appear and flash on the screen.

- o In the extended play, the timer also counts down from "90" after it reaches "0", but the count-down speed increases.
- o Fanfare sounds at the finish, if the player scores 3000 or more points. (Adjustable to 3400 or 4000 points)
- o The number of rival cars increases when the score reaches 1000 and 2000 points.
- o In case of 3 coins - 2 plays game, push the credit button to start the second game.

5. Adjustments on Power Supply P.C. Board

(See Fig. 3)

Warning: The line voltage should be set within the limit.
Failure to do so may result in destruction to the electronic components.

- o To check the output voltage, measure the line voltage at the terminal of the L, M, or N connector.

(See the block diagram AAR00173 in this manual.)

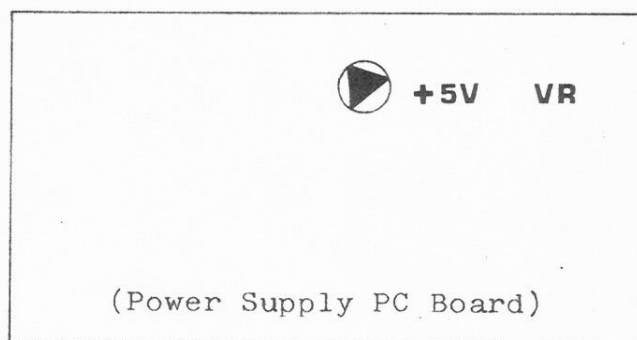


Fig. 3

- oVR ... Pot for adjusting the voltage of 5 V DC line
Adjustable range is 5 to 6 volt.

7. Adjustments on Main P C Board (See Fig. 4)

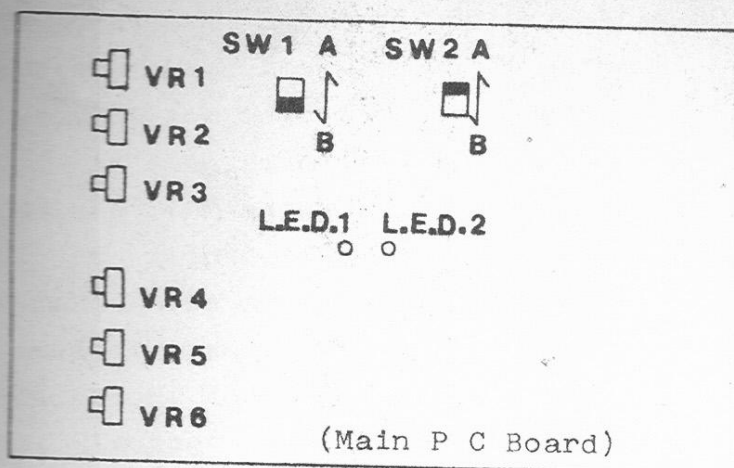


Fig. 4

- o VR1 ... Pot for adjusting the speed of the player's car at "HIGH" position.

Adjusting Procedure:

- (1) Set the SW1 switch at the A-position and the SW2 switch at the B-position.
 - (2) Turn the service switch on.
 - (3) Step on the accelerator pedal, and the edge mask appears from the right side of the screen.
 - (4) Adjust the VR1 pot so that this edge mask is positioned slightly over the left side of the screen after the speed of the player's car reaches the maximum at the "HIGH" position.
 - (5) Set back the SW1 switch and the SW2 switch.
- o VR2 ... Pot for adjusting the speed of the guard rails.
 - o VR3 ... Pot for adjusting the speed of the player's car at "LOW" position

Adjusting Procedure:

- (1) Set the SW2 switch at the B-position.
 - (2) Turn the service switch on.
 - (3) Adjust the VR3 pot so that rival cars move slowly from the top to the bottom of the screen after the speed of the player's car reaches the maximum at the "LOW" position.
 - (4) Set back the SW2 switch.
- Note:** The adjustment of the VR1 pot should precede that of the VR3 pot.

- VR4...Pot for adjusting the length of game time.
The adjustable range is approximately 60 to 100 seconds. The length of game time is preset about 90 seconds at the factory.
- VR5...Pot for adjusting the degree of slipping to the left in slip zone.
- VR6...Pot for adjusting the degree of slipping to the right in slip zone.

To make these adjustments, set the SW2 switch at the B-position, and slip zones appear at score of 800, 1800, 2800, 3800, 4800, and 5800 for easy adjustments.

- SW1...Indicator Switch for adjusting the speed of the player's car. With this switch set at the A-position, stepping on the accelerator pedal makes the edge mask appearance from the right side of the screen.

This edge mask goes with the accelerator pedal. After making adjustments, set back the SW1 switch to the B-position.

- SW2...Crashless Switch

When the SW2 switch is set at the B-position, no chasing will take place, therefore, checking on scoring and slipping can be easily done. After checking, set back the SW2 switch to the A-position.

- LED1 & LED2... Light Emitting Diodes for checking scoring
When the score reaches 1000 points, the LED2 goes off, and when the score reaches 2000 points, the LED1 goes off.

B. Adjustments on Timer & Score PC Board (See Fig. 5)

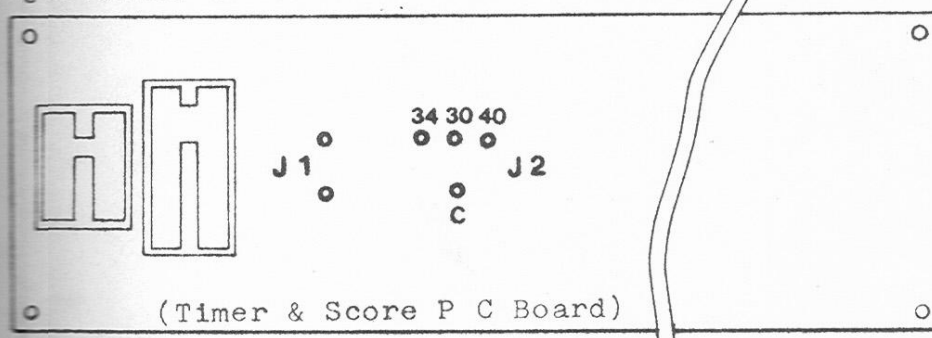


Fig. 5

- J1 ... Jumper Terminals

When these terminals are connected with a jumper wire, the game time is not extended.

- J2 ... Adjusting Terminals of Scoring for Fanfare

Fanfare sounds at the finish if the player scores 3000 points or more. These points are adjustable by changing the connection of the terminals as follows:

C - 34 : 3400 points

C - 40 : 4000 points

9. Adjustments on Sound P C Board

(See Fig. 6)

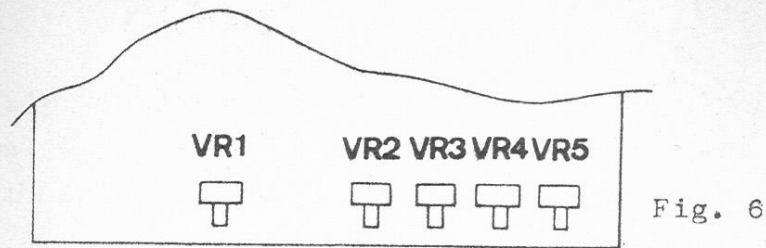


Fig. 6

- oVR1...Pot for adjusting maximum speed sound at "HIGH" position
- oVR2...Pot for adjusting maximum speed sound at "LOW" position
- oVR3...Pot for adjusting maximum deflection of speedometer
- oVR4...Pot for adjusting minimum deflection of speedometer
- oVR5...Pot for adjusting sound volume

10. Steering Wheel Mechanism

Shifting of the player's car to the left or the right is made by pulses which are generated according to the rotation of the steering wheel.

This mechanism consists of two phototransistors and two LED's, and each phototransistor faces each LED. In addition, a rotating plate is arranged between the phototransistors and LED's. The detection for shifting of the player's car to the left or the right is made by two pulses generated by this mechanism. If the shifting is abnormal when the steering wheel is turned to the left or the right, make sure that the two LED's go on and off as shown below.



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

If the two LED's do not go on and off as shown above, the Steering Wheel P C Board or the power circuit is assumed to be out of order.

If the shifting of the player's car is abnormal while the two LED's go on and off as shown above, the connector or the Main PC Board is assumed to be out of order.

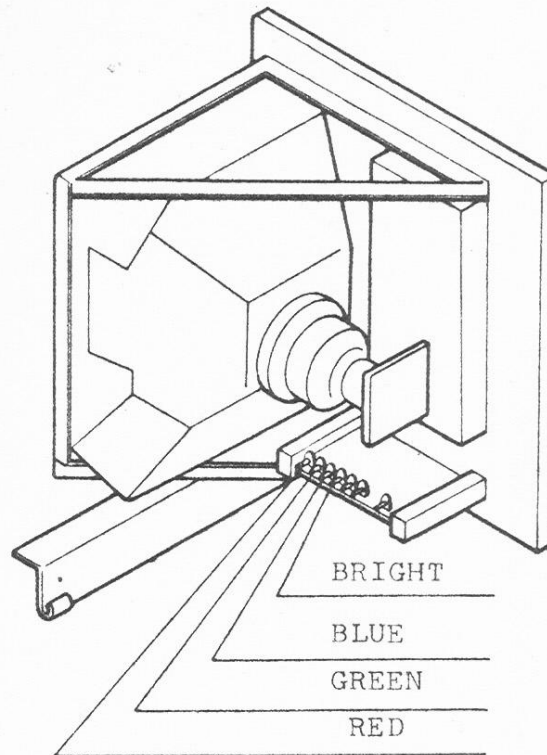
II. Adjustments on color TV Monitor

(See Fig. 7)

Caution:

Adjustments for vertical hight, horizontal screen position, and horizontal width are delicate things, therefore, only competent technicians should make them.

Fig. 7



The TV Monitor is properly adjusted before shipping, however, if necessary, readjust it as follows:

- o RED ... Pot for adjusting optical density of red color
- o GREEN ... Pot for adjusting optical density of green color
- o BLUE ... Pot for adjusting optical density of blue color
- o BRIGHT ... Pot for adjusting screen brightness

Note:

The TV monitor of Taito "SPEED RACE CL5" is for exclusive use, therefore, it can not be replaced with other models.

12. Adjustments of Supply Voltage

If the voltage of the power supply is low, the picture on the screen sometimes flickers. In that case, change the terminal of the power transformer in the cabinet.

This adjustment is obtained by use of the change-over switch. (See Fig. 8)

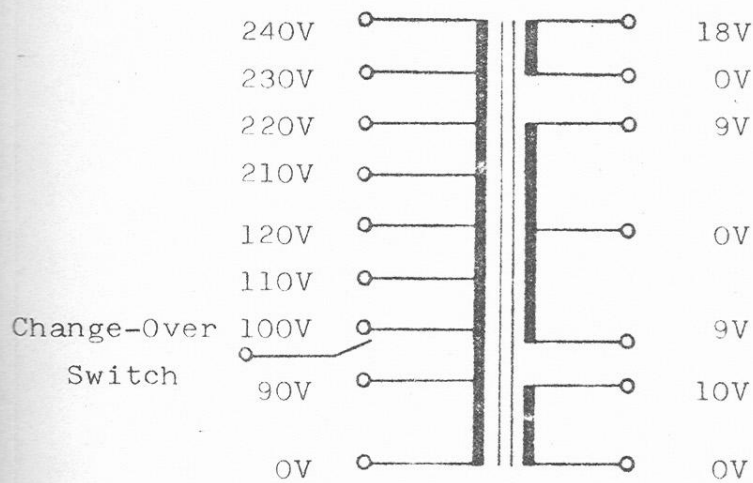
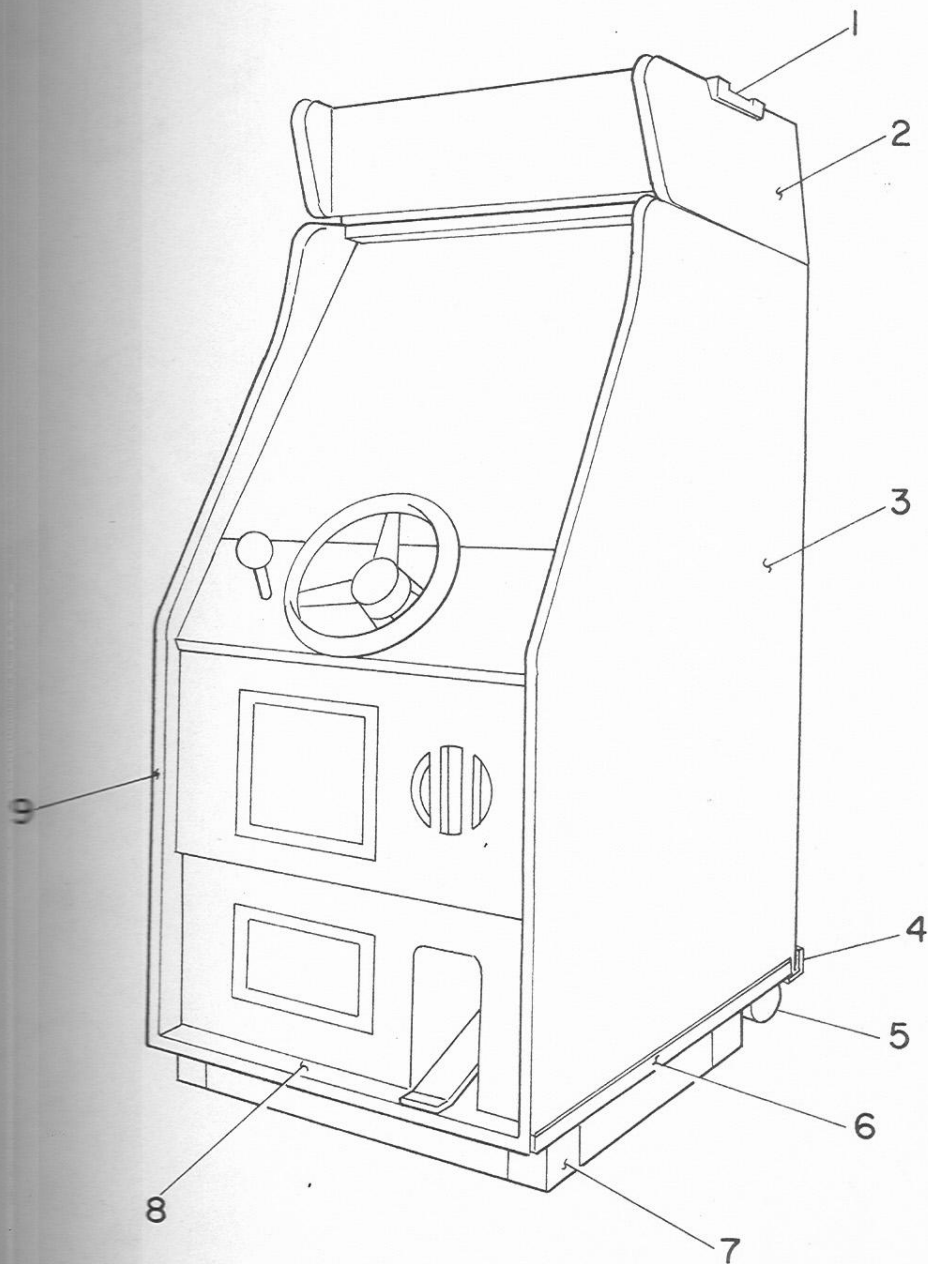


Fig. 8

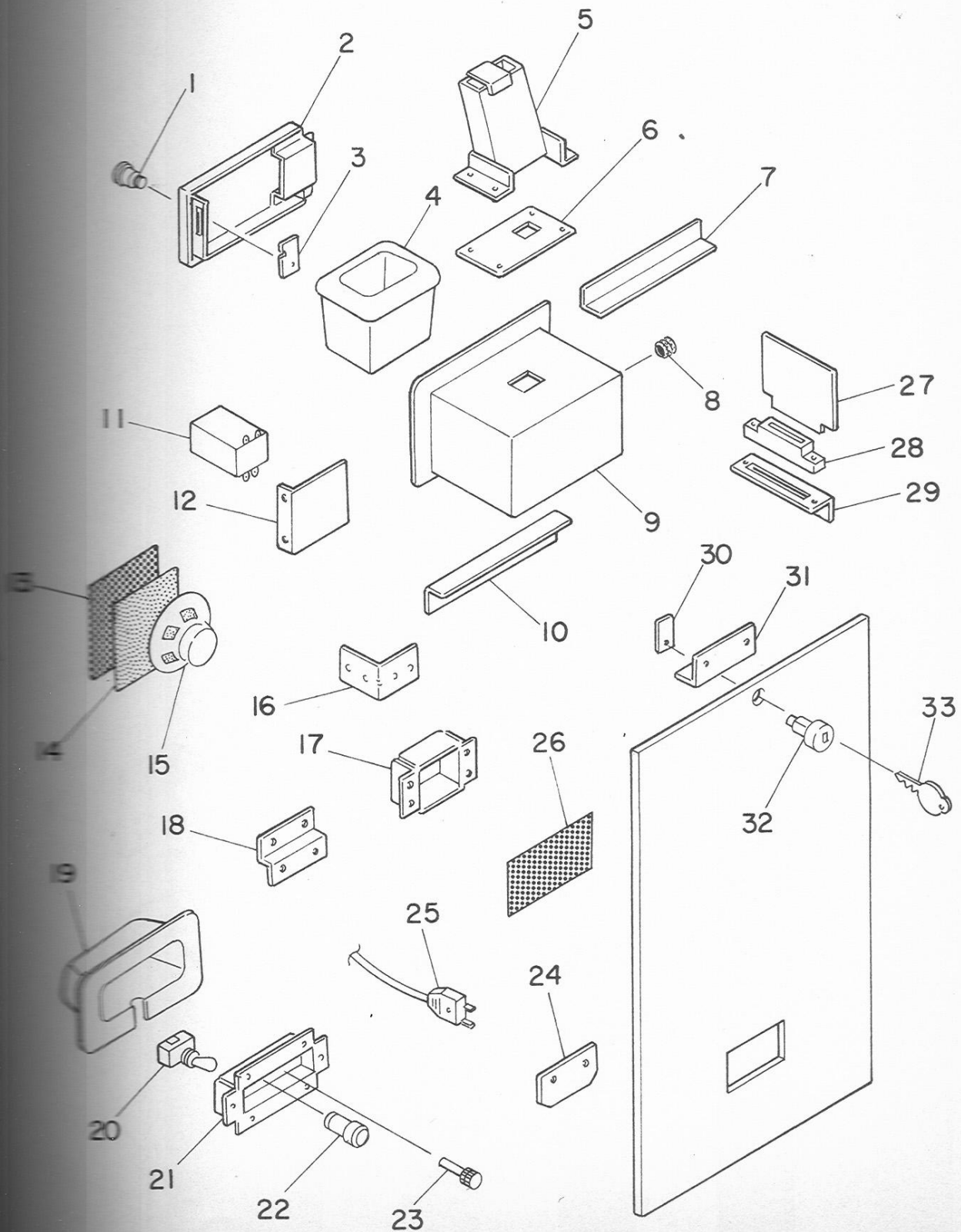
CABINET ACCESSORY ASS'Y

See page 24



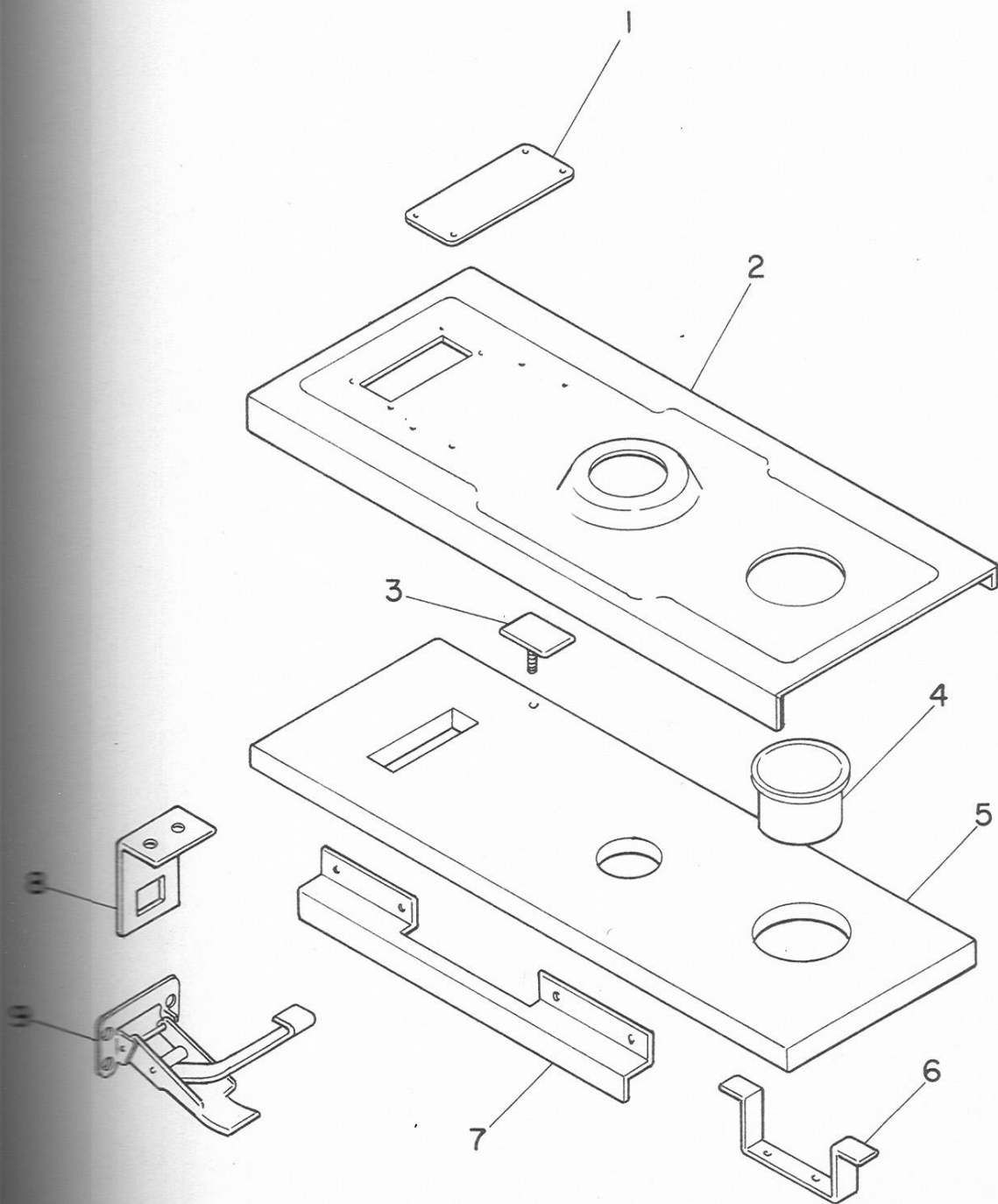
CABINET ASS'Y

See pages 24,25,26



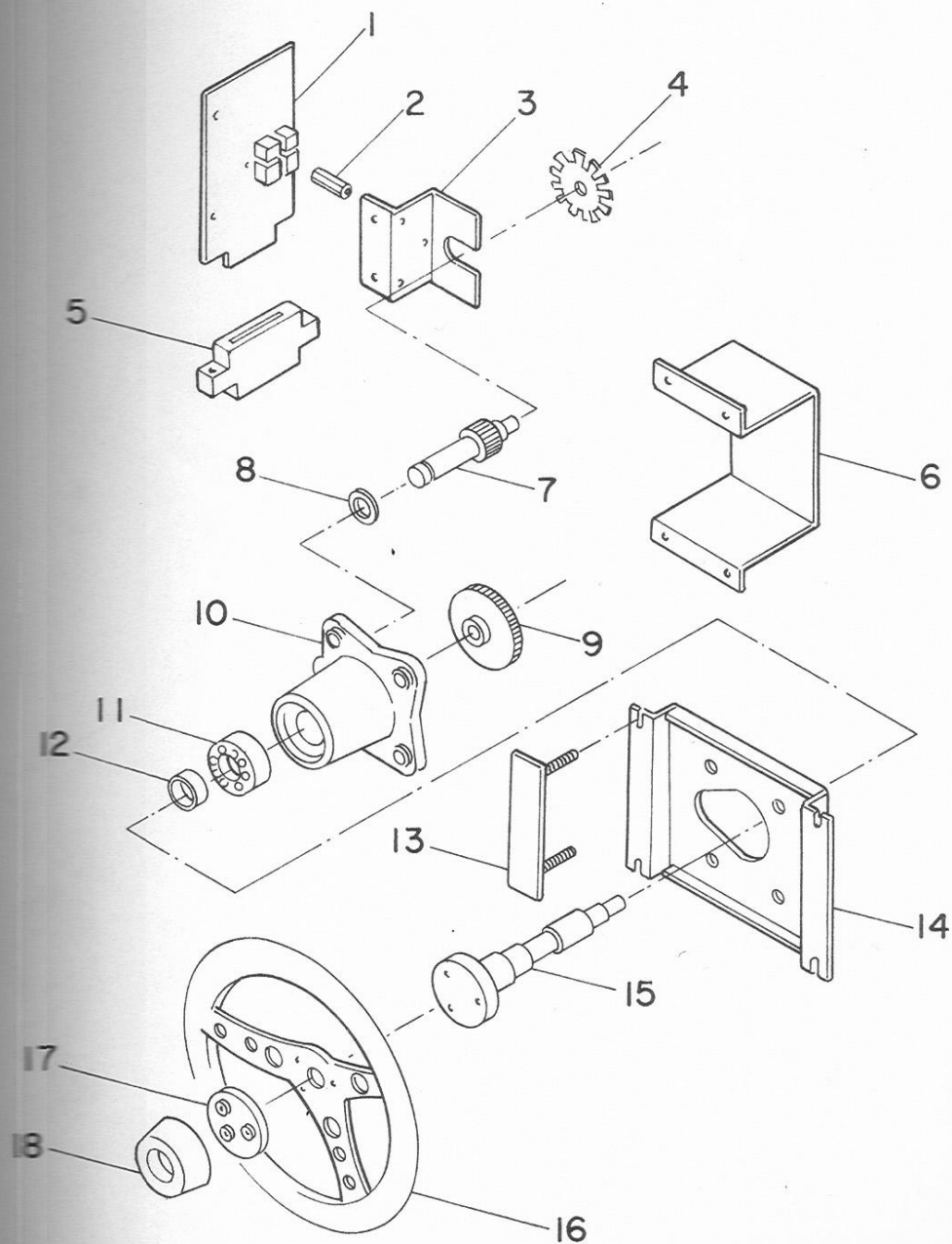
DASH BOARD PANEL ASS'Y

See page 26



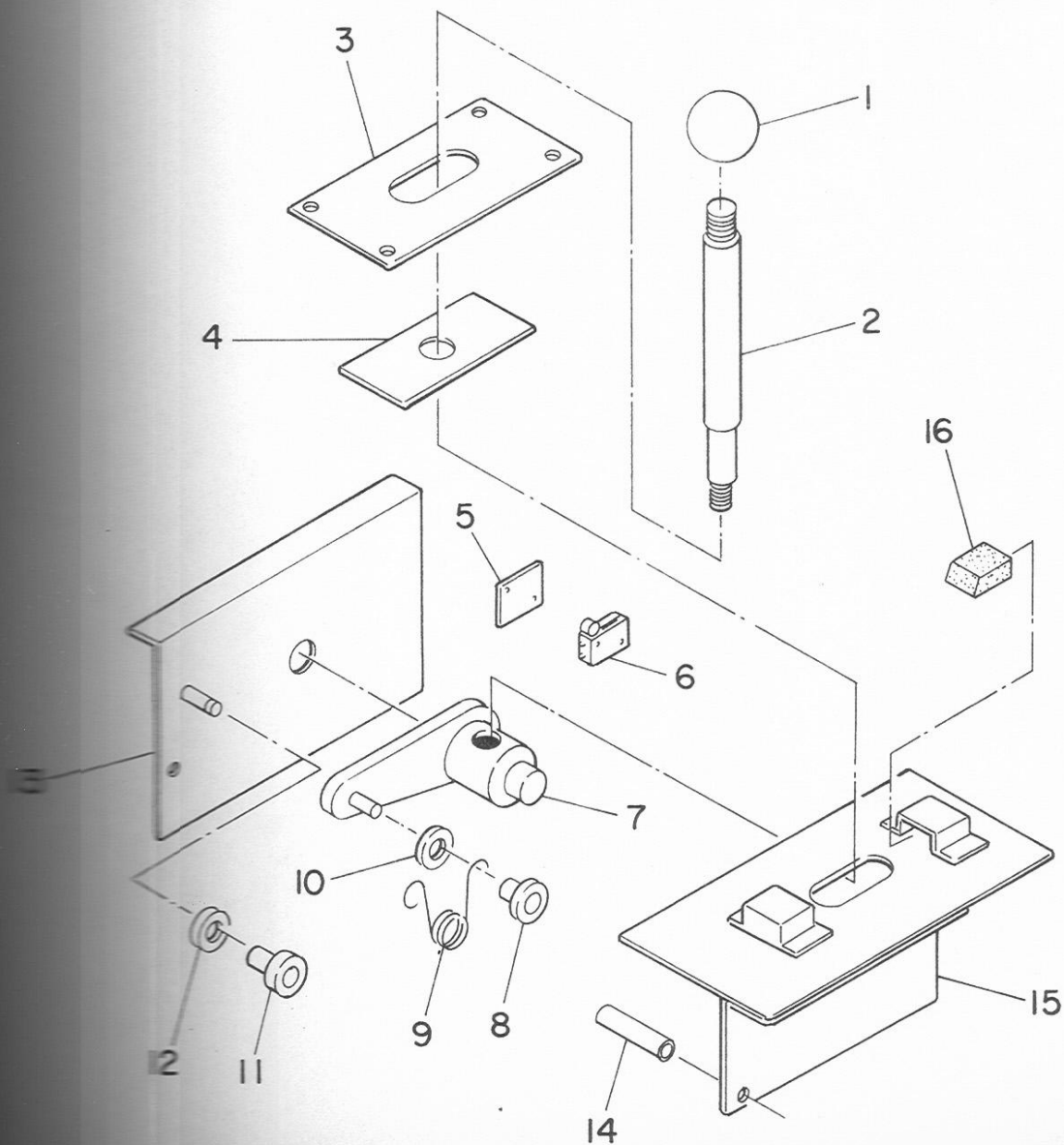
STEERING ASS'Y

See pages 26,27



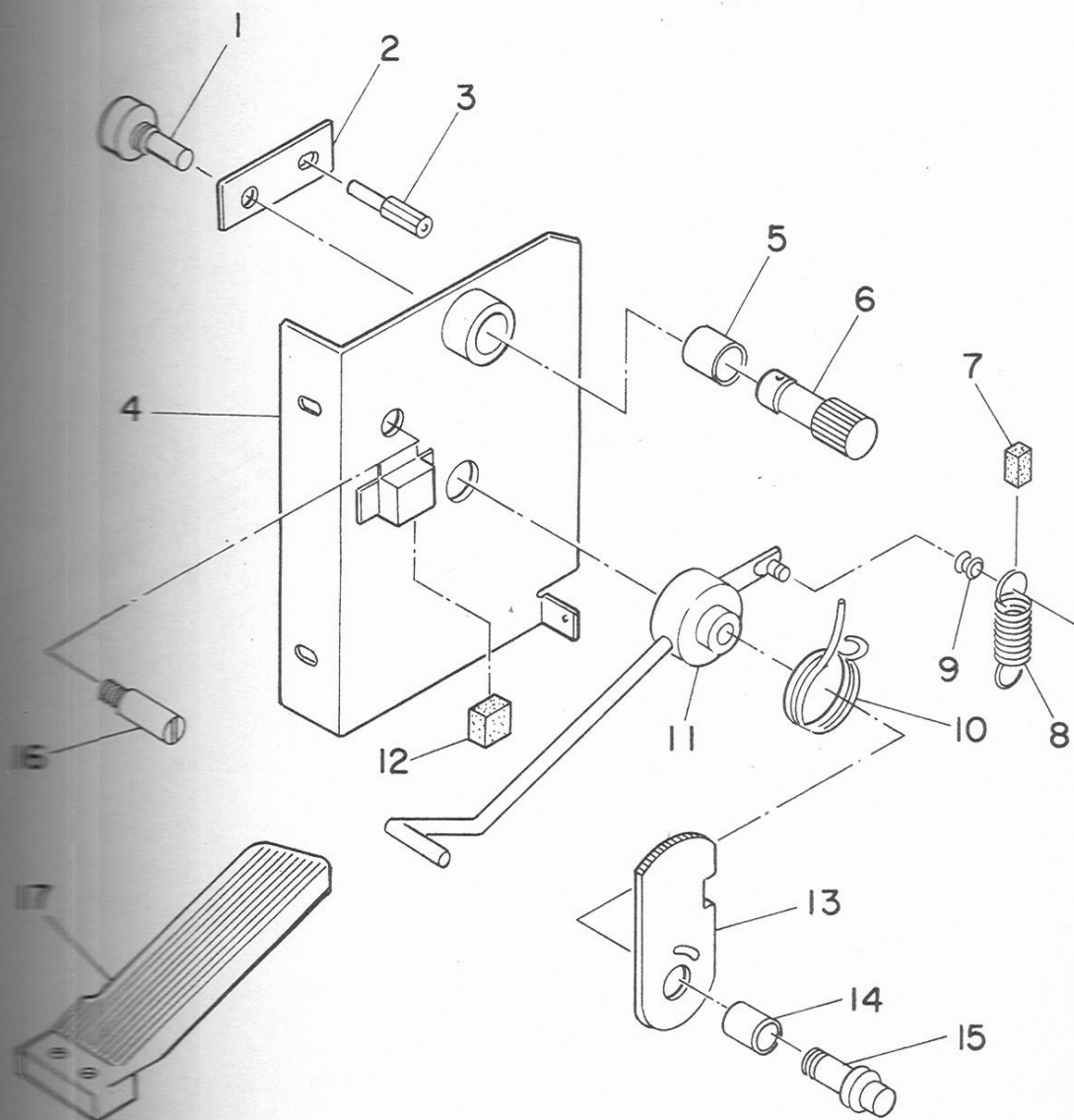
SHIFT MECHANISM ASS'Y

See pages 27, 28



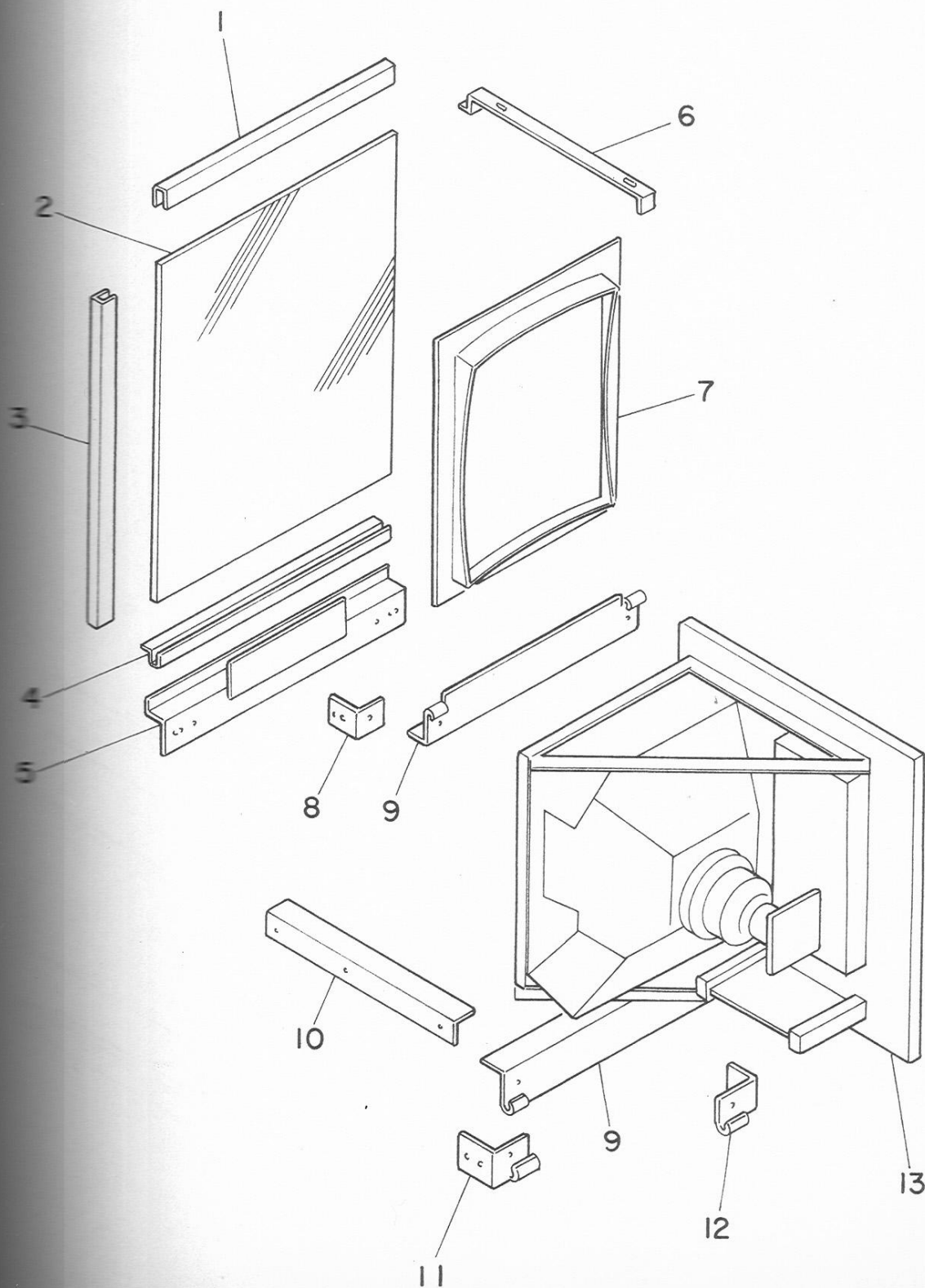
ACCELERATOR MECHANISM ASS'Y

See pages 28,29



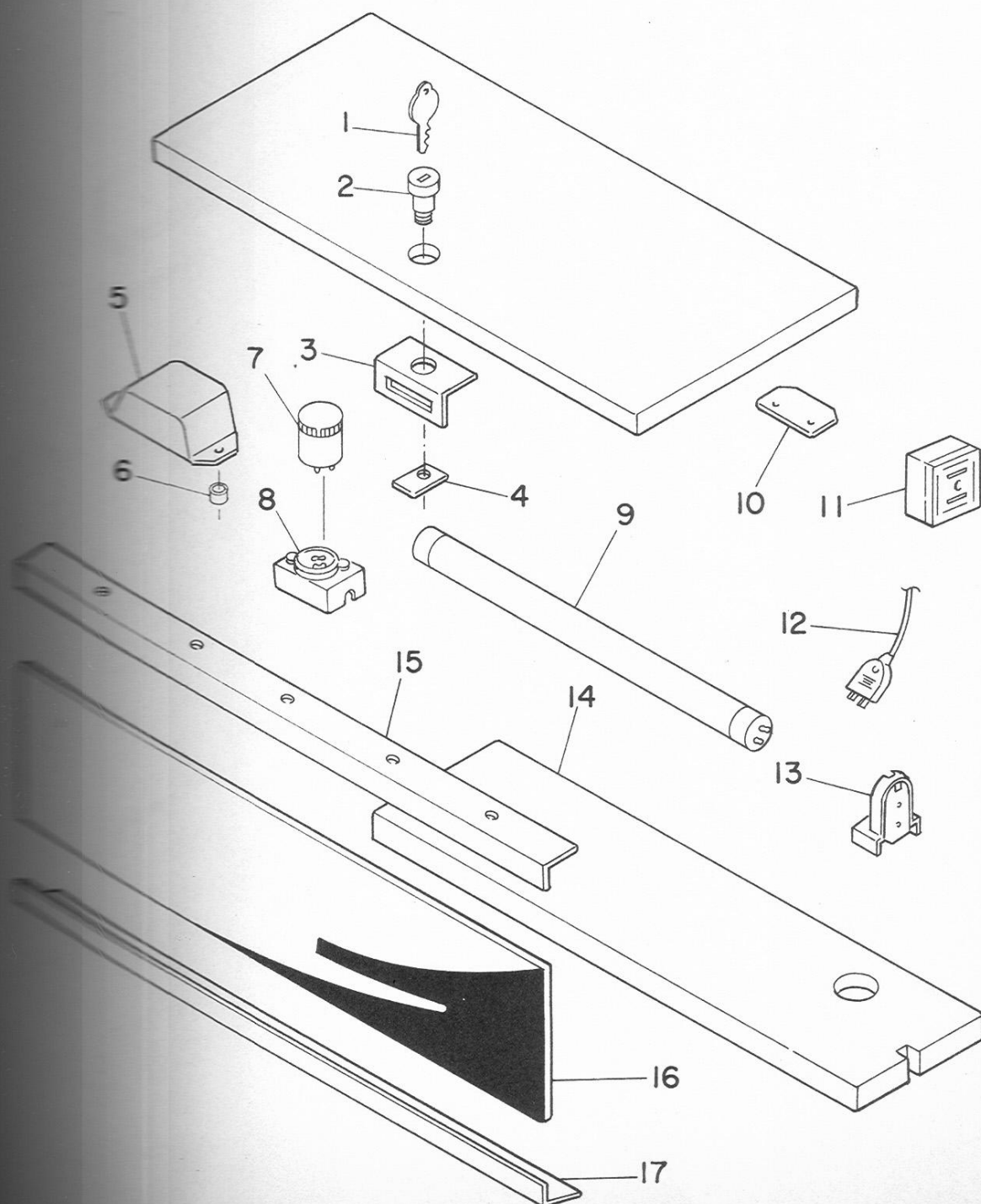
VIDEO ASS'Y

See pages 29,30



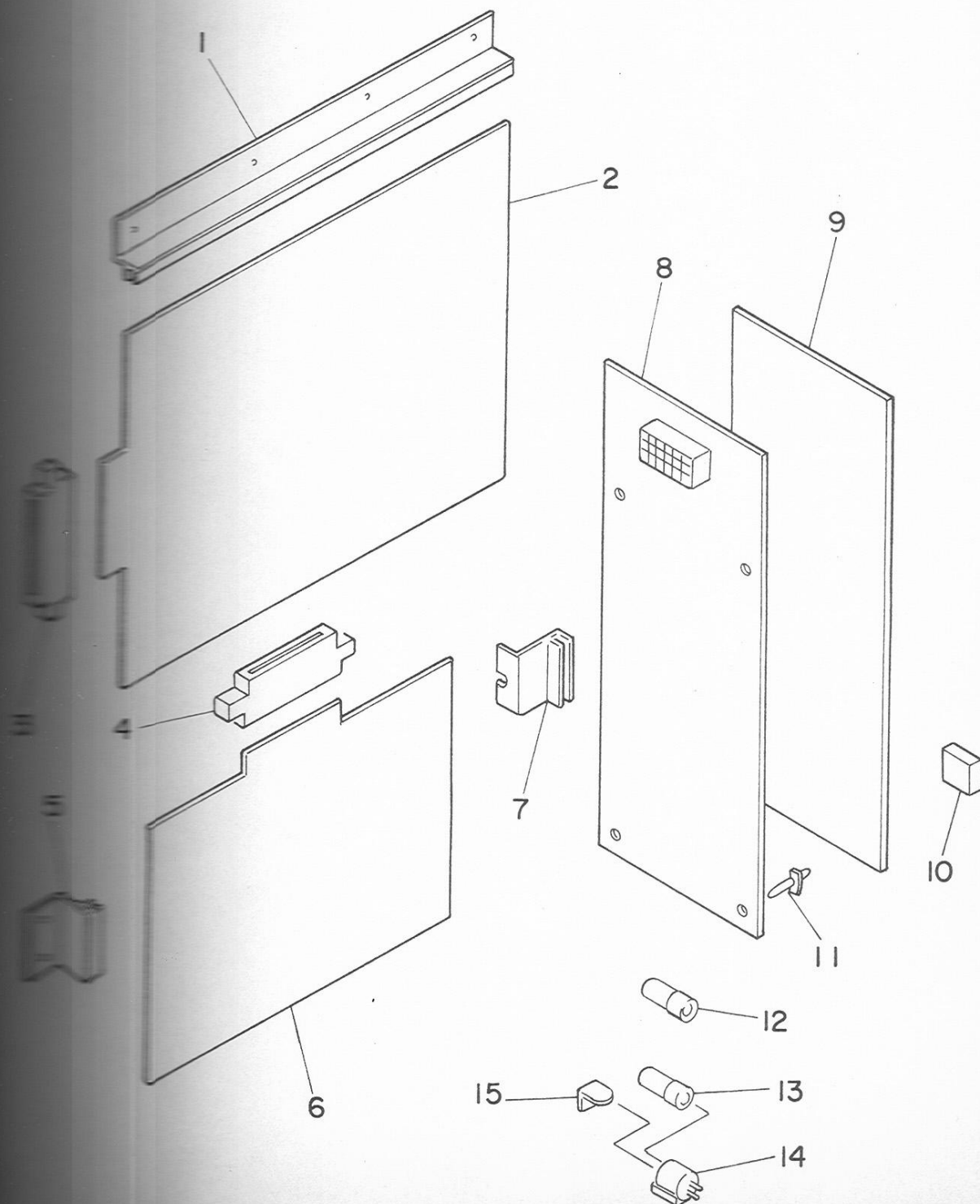
TITLE BOX ASS'Y

See pages 30,31



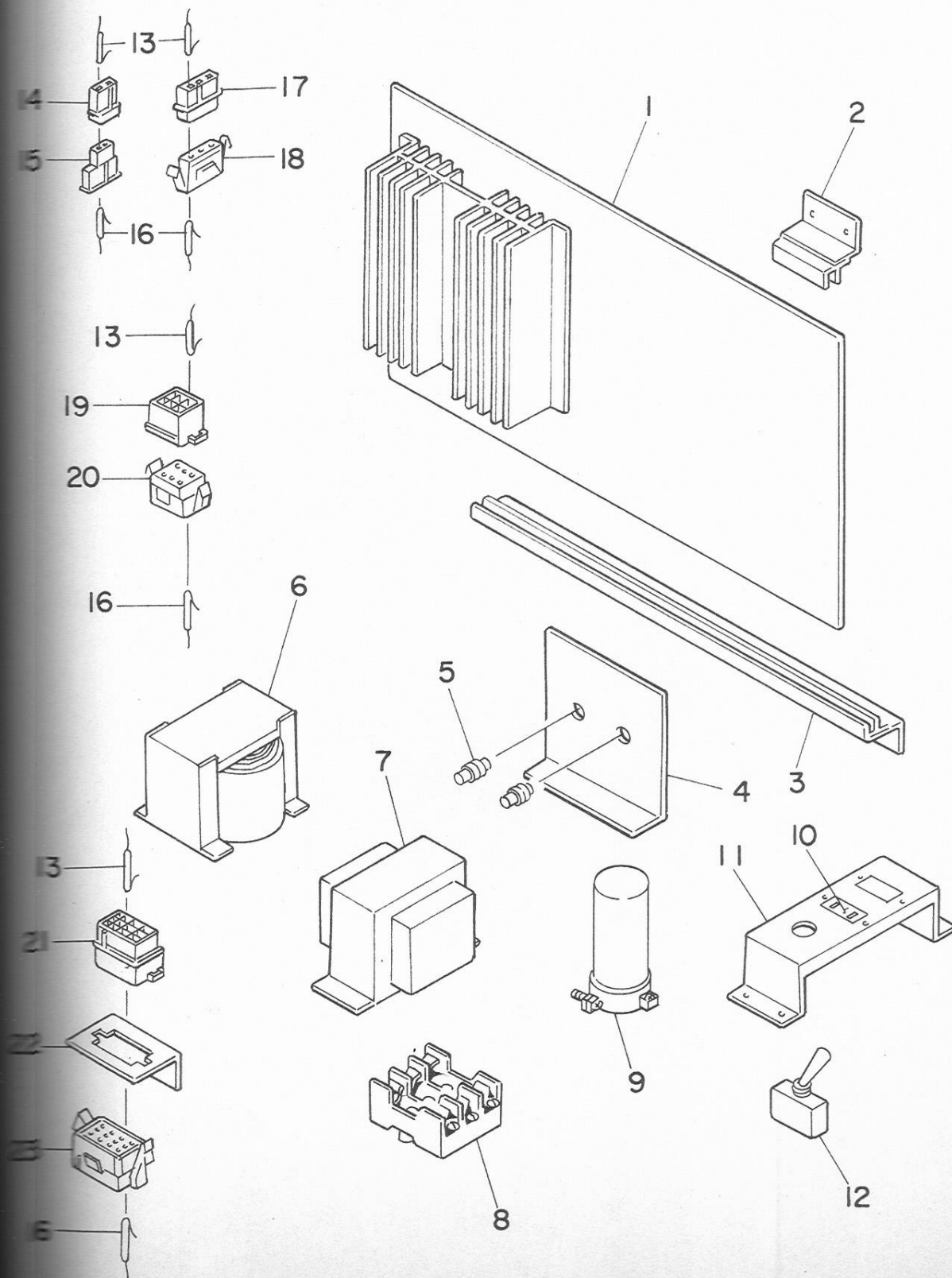
PRINTED BOARD ASS'Y

See pages 31,32



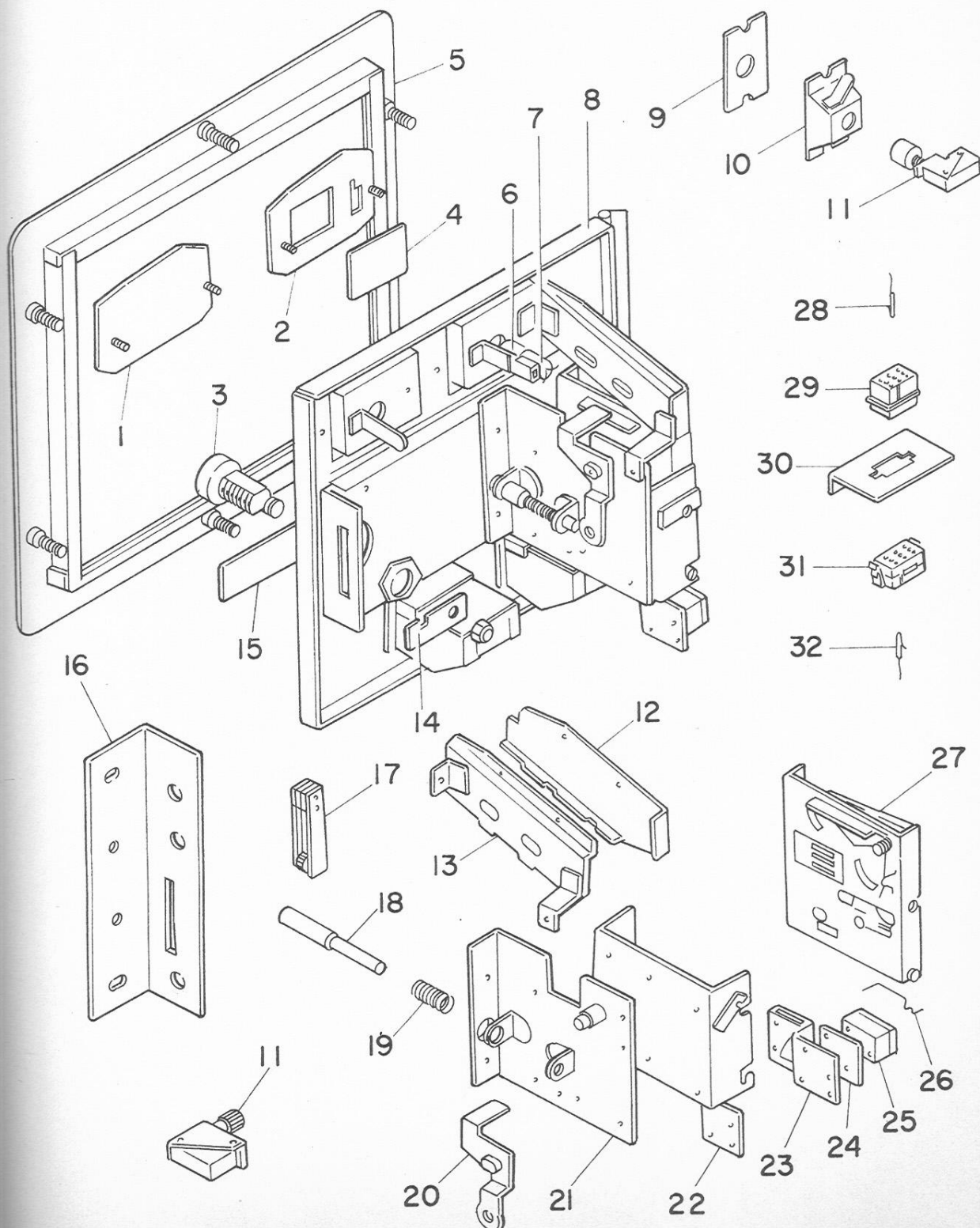
REGULATOR ASS'Y

See pages 32,33



FRONT DOOR AND COIN MECHANISM ASS'Y

See pages 33,34,35



CABINET ACCESSORY ASS'Y

Item	Part No	Description
1	AAO14511	Molding
2	ECO10002	Title Box
3	ECO10001	Cabinet
4	SDO30029	Corner Protector (B)
5	AAO16513	Caster
6	ECO30015	Corner Protector
7	AAO13519	Corner Bracket
8	ECO30009	Step Plate
9	AAO19524	Edge

CABINET ASS'Y

Item	Part No	Description
1	AAO16545	Lock & Key
2	AAO26512	Cash Box Door
3	AAO13583	Lock Plate
4	AAO28504	Cash Case
5	AAO25509	Coin Chute
6	AAO13582	Entry Plate

7	AAO13580	Cash Box Guide (B)
8	AAO18504	Grommet NG-79-C
9	AAO28505	Cash Box
10	AAO13579	Cash Box Guide (A)
11	AAO51615	Counter Dc 6V
12	AAO13581	Counter Bracket
13	AAO13562	Punching Metal
14	AAO19526	Net
15	AAT71011	Speaker 8Ω 20W 16cm
16	AAO13584	Support Bracket
17	AAO13512	Handle Cover
18	AAO13587	Support Bracket
19	AAO19542	Switch Cover
20	AAO52501	Toggle Switch S-301
21	AAO13594	Switch Box
22	AAO55784	Fuse Holder S-N 2056
23	AAO56508	Earth Tarminal T-375
24	AAO13523	Door Stopper
25	AAO62501	A C Cable & Plug Ass'y
26	EPO30010	Punching Metal
27	AAM50008	Credit P. C. Board Ass'y
28	AAO55720	Connector 10P
29	AAO13586	Connector Bracket

30	AAO13510	Lock Plate
31	AAO13569	LockGard (B)
32	AAO16549	Service Lock №7800
33	AAO16552	Service Key №7800

DASH BOARD PANEL ASS'Y

Item	Part №	Description
1	ECO70003	Instruction Plate
2	ECO90001	Dash Board Panel
3	BPO30004	Lock Plate (A)
4	AAO69527	Tachometer
5	ECO10003	Control Board
6	SDO30019	Meter Bracket
7	ECO30019	Control Board Stop Bracket
8	RMO30003	Hook
9	AAO16554	Super Cramp C-137

STEERING ASS'Y

Item	Part №	Description
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1	ECN00001	Handle Pulse P. C. Board Ass'y
2	ECO20005	Spacer
3	ECO30005	Sensor Mounting Bracket
4	ECO30004	Pulse Cam
5	AAO55720	Connector 10P
6	ECO30003	Cover
7	ECO20002	Gear (A)
8	ECO60001	Shim Washer
9	ECO20003	Gear (B)
10	ECO40001	Housing Ass'y
11	AAO12526	Bearing
12	AAO12562	Bush MB 1010 DU
13	SPO30010	Lock Plate
14	ECO30001	Platfrom Bracket
15	ECO20001	Steering Shaft
16	SEO90004	Steering Wheele
17	ECO30002	Retaining Plate Ass'y
18	ECO90003	Steering Cap

SHIFT MECHANISM ASS'Y

Item	Part	Description
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1	CHO90002	Shift Knob
2	ECO20004	Shaft
3	SWO70005	Cover Plate
4	SWO90019	Mask
5	AAO19504	Insulator Type-V
6	AAO52532	Micro Switch AH71555
7	SDO30035	Cam
8	SWO90015	Spring Hook (A)
9	SWO50003	Spring
10	SWO90017	Spacer (A)
11	SWO90016	Spring Hook (B)
12	SWO90018	Spacer (B)
13	SDO30036	M S Bracket
14	SWO20007	Bar
15	SWO30016	Base Bracket
16	SWO80002	Bumper Rubber

ACCELERATOR MECHANISM ASS'Y

Item	Part No	Description
1	AAT53029	Variable Resistor EVS-31AS20E53
2	SEO30022	Plate

3	SDO20005	Guide Shaft
4	ECO30020	Accelerator Bracket
5	AAO12563	Bush MB1210DU
6	SDO20003	Gear
7	SED90008	Felt Plug
8	SEO50002	Spring
9	SEO20006	Bushing
10	ECO50001	Spring
11	ECO20008	Accelerator Lever
12	ECO80001	Rubber Stop
13	ECO20007	Accelerator Gear
14	AAO12562	Bush MB1010DU
15	SDO20004	Pin
16	SDO20010	Stop Pin (B)
17	SPO90006	Accelerator Pedal

VIDEO ASS'Y

Item	Part No	Description
1	SDO30021	Glass Retainer (B)
2	ECO70001	Front Glass
3	SVO30003	Glass Retainer

4	ECO30014	Glass Retainer Bottom
5	ECO30008	Lock Base
6	ECO30007	Lock Plate
7	AAO19536	Video Mask
8	ECO30013	Lock Bracket
9	ECO30006	Video Angle
10	ECO30016	Video Guide Bracket
11	ECO30012	Video Bracket (B)
12	ECO30011	Video Bracket (A)
13	ECO90004	ColorVideo

TITLE BOX ASS'Y

Item	Part No	Description
1	AAO16552	Service Key No7800
2	AAO16549	Service Lock No7800
3	AAO13569	Lock Guard
4	AAO13510	Lock Plate
5	AAO57505	Ballast 20W
6	AAO12510	Spacer
7	AAO54720	Glow Lamp FG-1P
8	AAO55695	Glow Socket

9	AAO54712	Fluorescent Lamp
10	AAO13523	Back Door Stopper
11	AAO55715	AC Receptacle WK1012
12	AAO55713	AC Plug WH4012
13	AAO55694	FL Socket
14	FFO10005	FL Board
15	ECO30018	Title Bracket (B)
16	ECO70002	Title Glass
17	ECO30017	Title Bracket (A)

PRINTED BOARD ASS'Y

Item	Part No	Description
1	AAO19530	P. C. Board Guide (D)
2	SDN00001	Main P. C. Board Ass'y
3	AAO55952	AMPLEAF Connector 28P
4	AAO55948	AMPLEAF Connector 15P
5	AAO19527	P. C. Board Guide (A)
6	SDN00002	Sound P. C. Board Ass'y
7	SDO90023	P. C. Board Guide
8	SDN00015	Timer & Score P. C Board Ass'y (A)
9	SDN00016	Timer & Score P. C Board Ass'y (B)

10	AAO69514	L E D TLR306
11	AAO69558	Locking Circuit Board Support LCB-10
12	AAO54702	Pilot Lamp 6.3V 250mA
13	AAO54704	Pilot Lamp 12V 150mA
14	AAO55698	Vinyl Socket S-4108
15	SPO30029	Lamp Bracket

REGULATOR ASS'Y

Item	Part No	Description
1	AAM60002	Power Supply P. C. Board Ass'y
2	AAO19527	P. C. Board Guide (A)
3	AAO19528	P. C. Board Guide (B)
4	AAO13566	Heat Sink
5	AAT12035	Diode 1s1588
6	AAO57547	Transformer
7	AAO57573	Transformer
8	AAO55804	Fuse Holder 3P F3321
9	AAT41658	Capacitor CW16LGSN33000C
10	AAO55788	AC Socket S-1520
11	AAO13599	Socket Box

12	AAO52535	Toggle Switch S-2A
13	AAO55501	Mate-N-Lok Plug pin
14	AAO55501	Mate-N-Lok Cap 2P
15	AAO55502	Mate-N-Lok Plug 2P
16	AAO55790	Mate-N-Lok Socket Pin
17	AAO55521	Mate-N-Lok Cap 3P
18	AAO55522	Mate-N-Lok Plug 3P
19	AAO55561	Mate-N-Lok Cap 6P
20	AAO55562	Mate-N-Lok Plug 6P
21	AAO55601	Mate-N-Lok Cap 12P
22	AAO13528	Socket Bracket for 12P
23	AAO55602	Mate-N-Lok Plug 12P

FRONT DOOR AND COIN MECHANISM ASS'Y

Item	Part No	Description
1	AAO21530	Coin Shield Plate
2	AAO21533	Coin Entry Plate for ¥100
3	AAO16549	Service Lok ¥7800
4	AAO29508	Price Card for ¥100 Coin
5	AAO26510	Door Frame
6	AAO54704	Pilot Lamp 12V 150mA

7	AAO55698	Vinyl Socket
8	AAO26511	Rejector Door
9	AAO19521	Credit Plate
10	AAO13555	Switch Bracket
11	AAO52511	Push Button Switch VAQ-4R
12	AAO25508	Coin Guide (B)
13	AAO25507	Coin Guide (A)
14	AAO13578	Lock Plate
15	AAO17705	TAITO Name Plate
16	AAO13577	Lock Gard
17	AAO68717	Tilt Switch
18	AAO27504	Cancel Rod
19	AAO15504	Spring
20	AAO13557	Lock Gard
21	AAO13554	Rejector Bracket
22	AAO23501	Rejector Holder
23	AAO25503	MS Coin Guide
24	AAO19502	Insulator
25	AAO52512	Micro Switch C-5G3-3
26	AAO53501	Actuator CAA-1
27	AAO22503	Rejector for ¥100
28	AAO55789	Mate-N-Lok Plug Pin

- 29 AAO55581 Mate-N-Lok Cap 9P
- 30 AAO13527 Socket Bracket
- 31 AAO55582 Mate-N-Lok Plug 9P
- 32 AAO55790 Mate-N-Lok Socket Pin



SPEED RACE CL5

