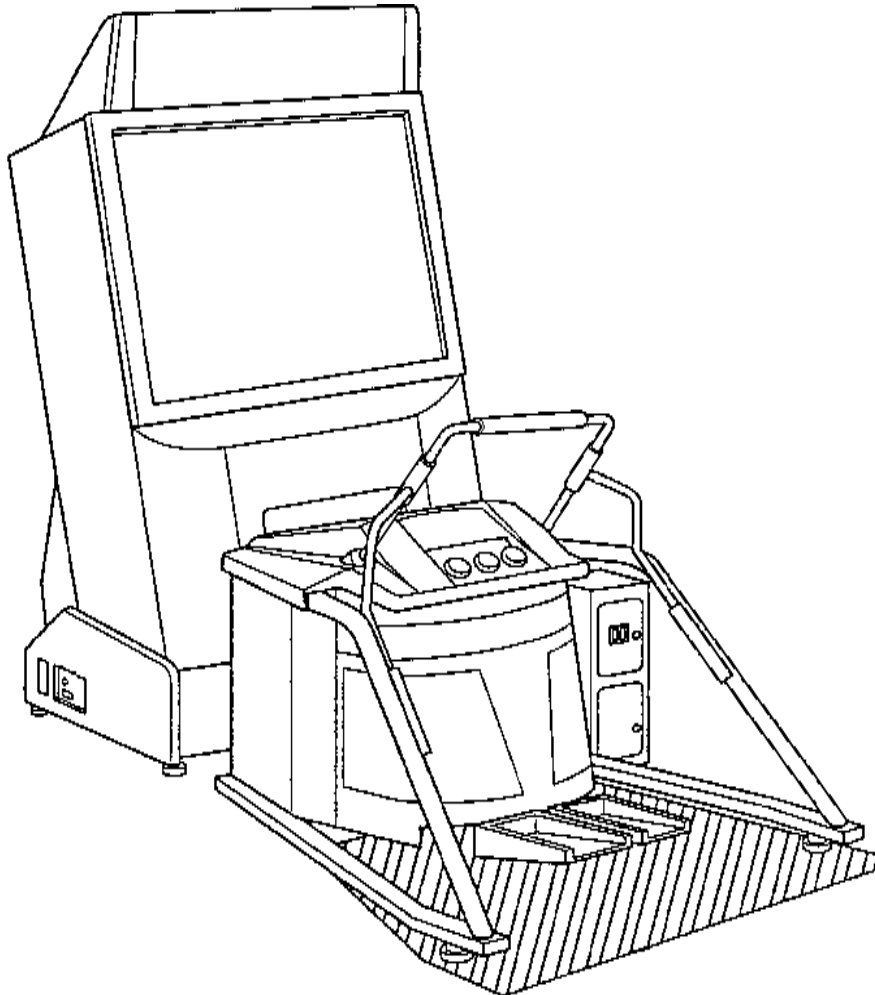


1ST PRINTING  
NOV.- 1997

# SEGA™

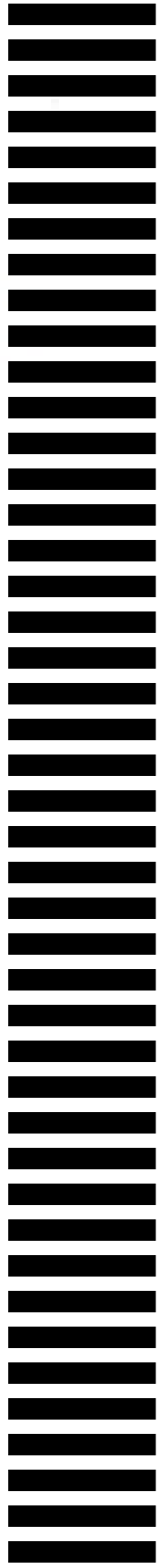
# WaterSki

## OWNER'S MANUAL



SEGA ENTERPRISES, USA

MANUAL NO. 4201-6334-01



## **Warranty**

Your new Sega Product is covered for a period of 90 days from the date of shipment. This certifies that the Printed Circuit Boards, Power Supplies and Monitor are to be free of defects in workmanship or materials under normal operating conditions. This also certifies that all Interactive Control Assemblies are to be free from defects in workmanship and materials under normal operating conditions. No other product in this machine is hereby covered.

Sellers sole liability in the event a warranted part described above fails shall be, at its option, to replace or repair the defective part during the warranty period. For Warranty claims, contact your Sega Distributor.

Should the Seller determine, by inspection that the product was caused by Accident, Misuse, Neglect, Alteration, Improper Repair, Installation or Testing, the warranty offered will be null and void.

Under no circumstances is the Seller responsible for any loss of profits, loss of use, or other damages.

This shall be the exclusive written Warranty of the original purchaser expressed in lieu of all other warranties expressed or implied. Under no circumstance shall it extend beyond the period of time listed above.

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## SPECIFICATIONS

Installation space:	108 in.(L) x 53 in.(W)
Height:	90 in.
Weight:	Approx. 871 lbs.
Power maximum current:	8 Amp AC 120V 60 Hz
MONITOR:	50 INCH PROJECTION DISPLAY

## INTRODUCTION OF THE OWNERS MANUAL

---

SEGA ENTERPRISES, LTD., has for more than 30 years been supplying various innovative and popular amusement products to the world market. This Owners Manual is intended to provide detailed descriptions together with all the necessary installation, game settings and parts ordering information related to the SEGA WATER SKI, a new SEGA product.

This manual is intended for those who have knowledge of electricity and technical expertise, especially in ICs, CRTs, microprocessors, and circuit boards. Read this manual carefully to acquire sufficient knowledge before working on the machine. Should there be a malfunction, non-technical personnel should under no circumstances touch the interior system. Should the need arise, contact our main office, or the closest branch office listed below.

### **SEGA ENTERPRISES, INC. (USA)**

#### **Customer Service**

45133 Industrial Drive

Fremont, CA 94538

Phone 650-802-1750

Fax 650-802-1754

7:30 am - 4:00 pm, Pacific Standard Time

Monday thru Friday

## General Precautions

---

**Follow Instructions:** All operating and use instructions should be followed.

**Attachments:** Do not use attachments not recommended by the product manufacturer as they may cause hazards.

**Accessories:** Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use only mounting accessories recommended by the manufacturer.

**Moving the Product:** This product should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product to overturn.

**Ventilation:** Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the product and to protect it from overheating; these openings must not be blocked or covered. The openings should never be blocked by placing the product in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

**Power Sources:** This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your location, consult your local power company. For products intended to operate from battery power or other sources, refer to the operating instructions.

**Grounding or Polarization:** This product is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

**Power Cord Protection:** Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

**Overloading:** Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

**Object and Liquid Entry:** Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

**Servicing:** Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

**Damage Requiring Service:** Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a) If the power cord or plug is damaged;
- b) If liquid has been spilled, or objects have fallen into the product;
- c) If the product has been exposed to rain or water;
- d) If the product does not operate normally when following the operating instructions. Adjust only those controls that are explained in the operating instructions. An improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation;
- e) If the product has been dropped or damaged in any way;
- f) When the product exhibits a distinct change in performance; this indicates a need for service.

**Replacement Parts:** When replacement parts are required, be sure the service technician has used replacements parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

**Safety Check:** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

**Heat:** The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

**Lithium Battery-** Dispose of batteries only in accordance with the battery manufacturer's recommendations. Do not dispose in an open flame condition, since the battery may explode.

**Cleaning:** When cleaning the monitor glass, use water or glass cleaner and a soft cloth. Do not apply chemicals such as benzene, thinner, etc.

**Location:** This is an indoor game machine, DO NOT install it outside. To ensure proper usage, avoid installing indoors in the places mentioned below:

- Places subject to rain/water leakage, or condensation due to humidity;
- In close proximity to a potential wet area;
- Locations receiving direct sunlight;
- Places close to heating units or hot air;
- In the vicinity of highly inflammable/volatile chemicals or hazardous matter;
- On sloped surfaces;
- In the vicinity of emergency response facilities such as fire exits and fire extinguishers;
- Places subject to any type of violent impact;
- Dusty places.

#### **INSTALLATION PRECAUTIONS**

- Verify the amperage of the branch circuit outlet before plugging in the power plug. Do not overload the circuit.
- Avoid using an extension cord. If one is required, use an extension cord of type SJT, 16/3 AWG rated min. 120 VAC, 7A.
- Moving this unit requires a minimum clearance (of doors, etc.) of 32" (W) by 77" (H).
- For the operation of this machine, secure a minimum area of 32" (W) by 42" (D).

#### **REGULATORY APPROVALS**

This game has been tested and found to comply with the Federal Communications Commission Rules.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This game has been tested and listed by Underwriters Laboratories, Inc., to ANSI/UL22.



# 1 . PRECAUTIONS TO BE HEDED FOR OPERATION

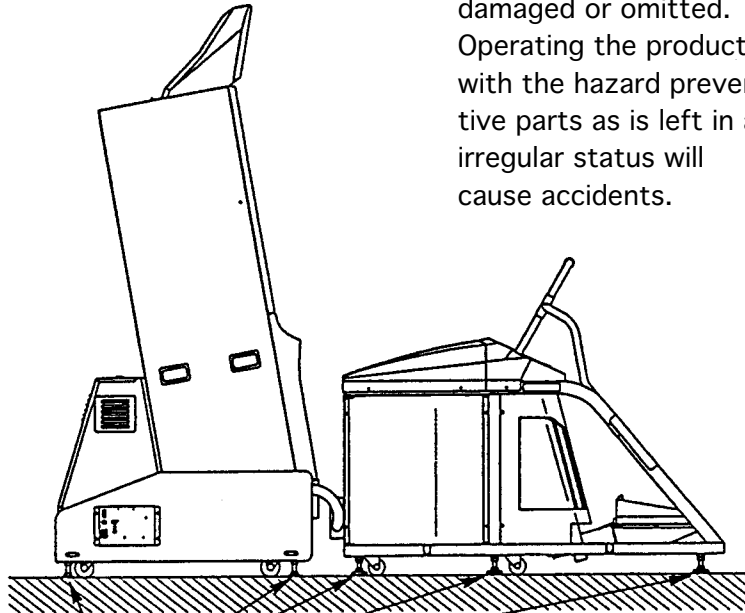
This product allows the game to be played by operating the SKATE BOARD. In order to prevent accidents, be sure to comply with the following points before and during operation.

## PRECAUTIONS TO BE HEDED FOR OPERATION BEFORE STARTING THE OPERATION



WARNING!

- In order to avoid accidents, check the following before starting the operation:  
Check if all of the adjusters are in contact with the surface. If they are not, the cabinet can move and cause an accident.



Ensure that all of the Adjusters are in contact with the floor.

- Check to see if hazard preventive parts are damaged or omitted. Operating the product with the hazard preventive parts as is left in an irregular status will cause accidents.

- Do not put any heavy item on this product. Placing any heavy item on the product can cause a falling down accident or parts damage.
- Do not climb on the product. Climbing on the product can cause falling down accidents. To check the top portion of the product, use a step.
- To avoid electric shock, check to see if door & cover parts are 508.5
- To avoid electric shock, short circuit and or parts damage, do not put the following items on or in the periphery of the product:
- Flower vases, flower pots, cups, water tanks, cosmetics, and receptacles/containers/vessels containing chemicals and water.



CAUTION!

To avoid injury, be sure to provide sufficient space by considering the potentially crowded situation at the installation location. Insufficient installation space can cause the player to come into contact with or hit the others and result in injury or trouble.

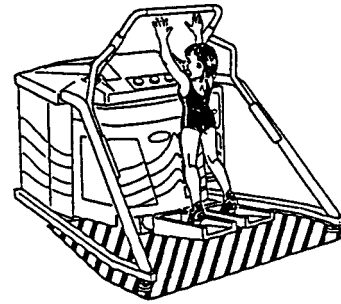
## PRECAUTIONS TO BE HEEDED DURING OPERATION

To avoid injury and trouble, be sure to constantly give careful attention to the behavior and manner of the visitors and players.



- To avoid injury and accidents, those who fall under the following categories are not allowed to play the game.
  - > Intoxicated persons.
  - > Pregnant women or those who are in the likelihood of pregnancy.
  - > Those who need assistance such as the use of apparatus when walking.
  - > Those who have high blood pressure or a heart condition.
  - > Those who have experienced muscle convulsion or loss of consciousness when exposed to intensive light stimulus due to watching television, playing video games or water surface flickering.
  - > Persons susceptible to motion sickness.
  - > Persons whose actions runs counter to the product's warning displays.

The player should be able to get on the skate board and hold on firmly to the safety bar. To avoid falling down accidents, instruct those who are shorter than 51 inches not to play, as the height of the safety bar is approximately 51 inches.



- Instruct those who wear high heel shoes to refrain from playing the game by explaining that playing game with high-heeled shoes is very likely to cause potentially hazardous situation.



- To avoid injury from potential falling down accidents, be sure to that only one person is allowed to play at a time.



- Do not allow players to put any heavy items or beverages on the product. Falling items can cause accidents and spilled beverages can cause electric shock.

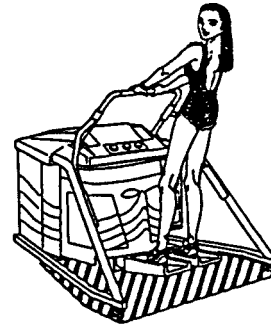
- To avoid electric shock and short circuit, do not allow customers to put hands and fingers or extraneous matter in the openings of the product or small openings in or around the doors.
- To avoid falling down and injury resulting from falling down, immediately stop the customer's leaning against or climbing on the product, etc.
- To avoid electric shock and short circuit, do not allow the customers to unplug the power plug without justifiable reason.



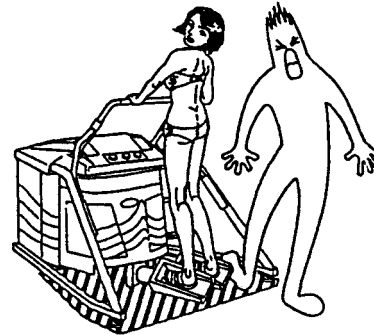


- Instruct the player to hold firmly to the Safety Bar during game. Caution the customers who are most likely to cause injury by playing without holding the Safety Bar, for example.

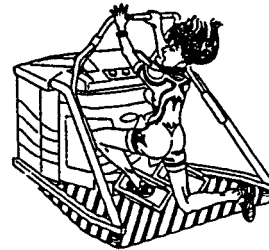
- To avoid injury, do not allow persons other than the player access to the mechanism base during game play.



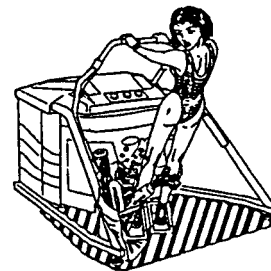
- Instruct the player to play by standing on both feet. Standing on one leg to play can cause injury.



- Instruct the player not to put baggages, etc. on the mechanism base to avoid damaging such items.



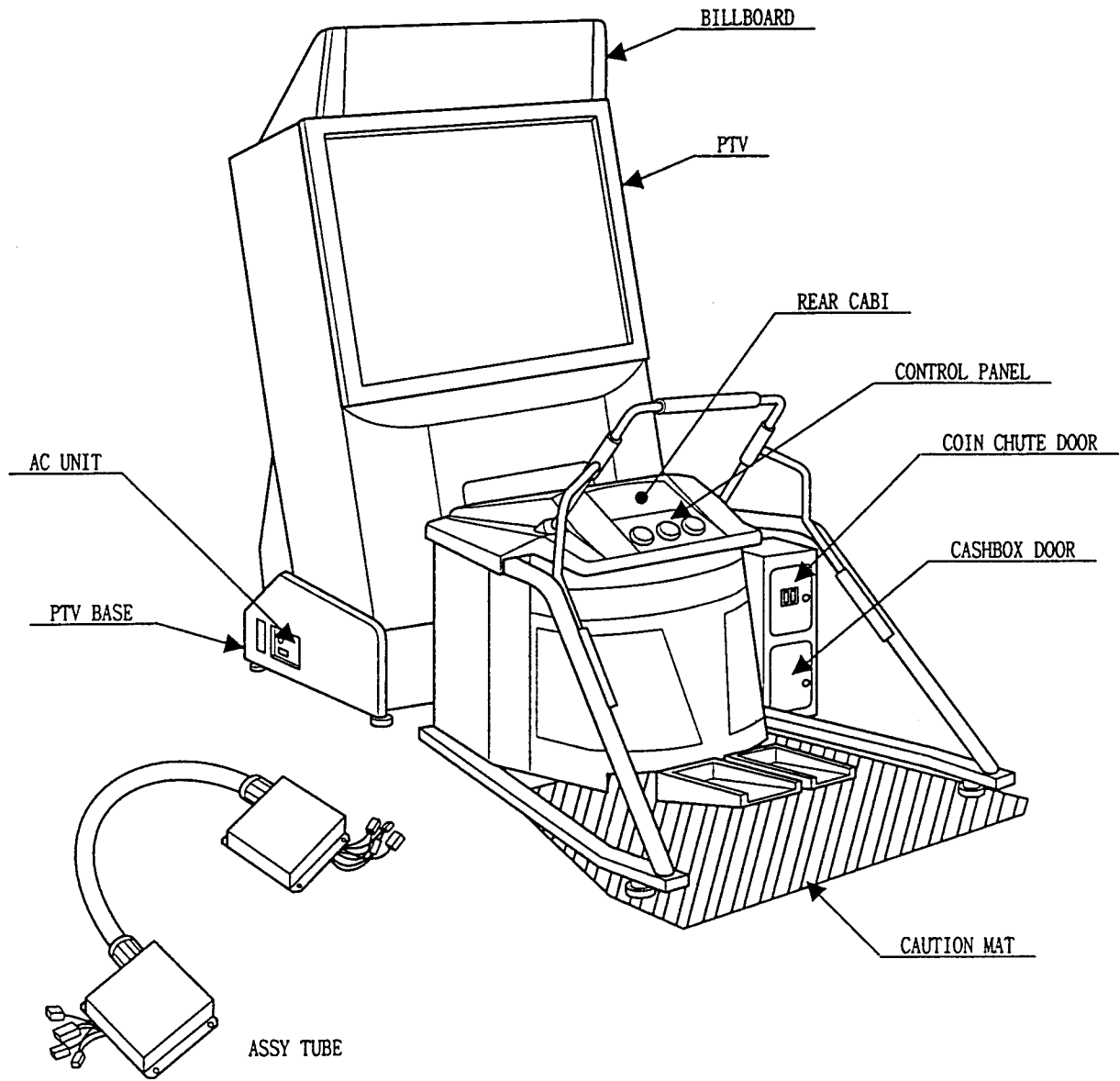
- Immediately stop violent acts such as hitting and kicking the product. Such violent acts can cause parts to be damaged or falling down, resulting in injury due to fragments and falling down.



- Regarding this product, the weight of the player is limited to 330 lbs. To avoid machine damage and injury due to machine damage, playing by those who are as heavy as 330 lbs. or heavier is strictly prohibited.

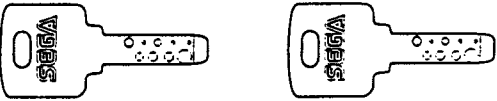
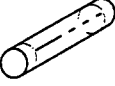
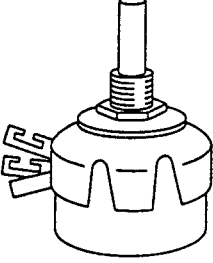
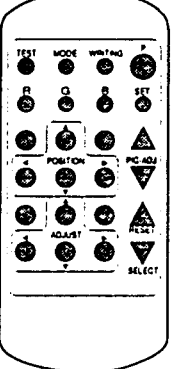
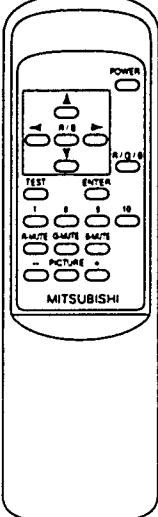


## 2 . NAME OF PARTS



GAME SPECIFICATIONS	WIDTH	LENGTH	HEIGHT	WEIGHT
DURING SHIPPING				1525 LBS.
All measurements are in inches				
REAR CABINET	63" X	70" X	58"	675 LBS.
PTV	55" X	37.5" X	77"	462 LBS.
PTV BASE/BILLBOARD	54" X	48" X	43.5"	387 LBS.
BILLBOARD	46" X	18" X	12"	33 LBS.
REAR CABINET	53" X	60.25" X	48"	416 LBS.
PTV	46" X	22" X	67"	263 LBS.
PTV BASE	47" X	41" X	31.5"	159 LBS.
WHEN ASSEMBLED	53" X	108" X	90"	871 LBS.

### 3. ACCESSORIES

<p>DESCRIPTION OWNERS MANUAL Part No. (Qty.) 4201-6334-01 (1) Note Figures If Part No. has no description, the Number has not been registered or can not be registered. Such a part may not be obtainable even if the customer desires to purchase it. Therefore, ensure that the part is in safekeeping with you.</p>	<p>KEY MASTER KEY 220-5576 (2) (2) For opening/closing the doors For the CASHBOX DOOR</p> 
<p>FUSE LOCAL PURCHASE</p> <p>4 A slow blow 2 A slow blow 2@5 A slow blow 7 A slow blow</p> 	<p>VOL CONT B-5K OHM 220-5573 (1) 220-5484</p> 
<p>TOSHIBA Remote Control for Projector Used for adjustment. See Sec. 12. 200-5536(1)</p>  <p>One of the above two types of Remote Controls is used for the Projector.</p>	<p>mitsubishi Remote Control for Projector Used for adjustment. See Sec. 12. 200-5532(1)</p> 

## 4 . ASSEMBLING AND INSTALLATION



WARNING!

Assembling should be performed as per this manual. Since this is a complex machine, erroneous assembling may cause damage to the machine, or malfunctioning to occur.  
When assembling, be sure to perform work by plural persons.  
Depending on the assembly work, there are some cases in which performing the work by a single person can cause personal injury or parts damage.

When carrying out the assembly work, follow the procedure in the following 6-item sequence:

- 1 ASSY OF PTV
- 2 WIRING CONNECTIONS BETWEEN CABINETS
- 3 SECURING IN PLACE (ADJUSTER ADJUSTMENT)
- 4 POWER SUPPLY
- 5 TURNING POWER ON
- 6 ASSEMBLING CHECK

Note that the tools such as a phillips screwdriver and wrench for M16 hexagon bolt w/24 mm width across flats are required for the assembly work.



ASSY OF PTV



CAUTION!

When installing the billboard, it is difficult to carry out work by one person. To perform work properly and safely, be sure work is performed by at least two people.



WARNING!

To perform work safely and securely, be sure to prepare a step which is in a secure and stable condition. Not using a step or using an unstable step can cause a violent falling down accident.

- ① By using the specified screws, secure the 2 Mask Holders to the Projection Display ceiling. (Fig. 4.1a)
- ② Insert the TV Mask from the underside as shown and secure with a total of 6 screws.
- ③ While supporting the Billboard by 2 persons, another person using a step is to insert the Billboard Connector into the Terminal Board of Projection Display ceiling. (Fig. 4.1b)
- ④ Insert the Billboard From the front as shown and secure with 2 screws (Fig. 4.1a)

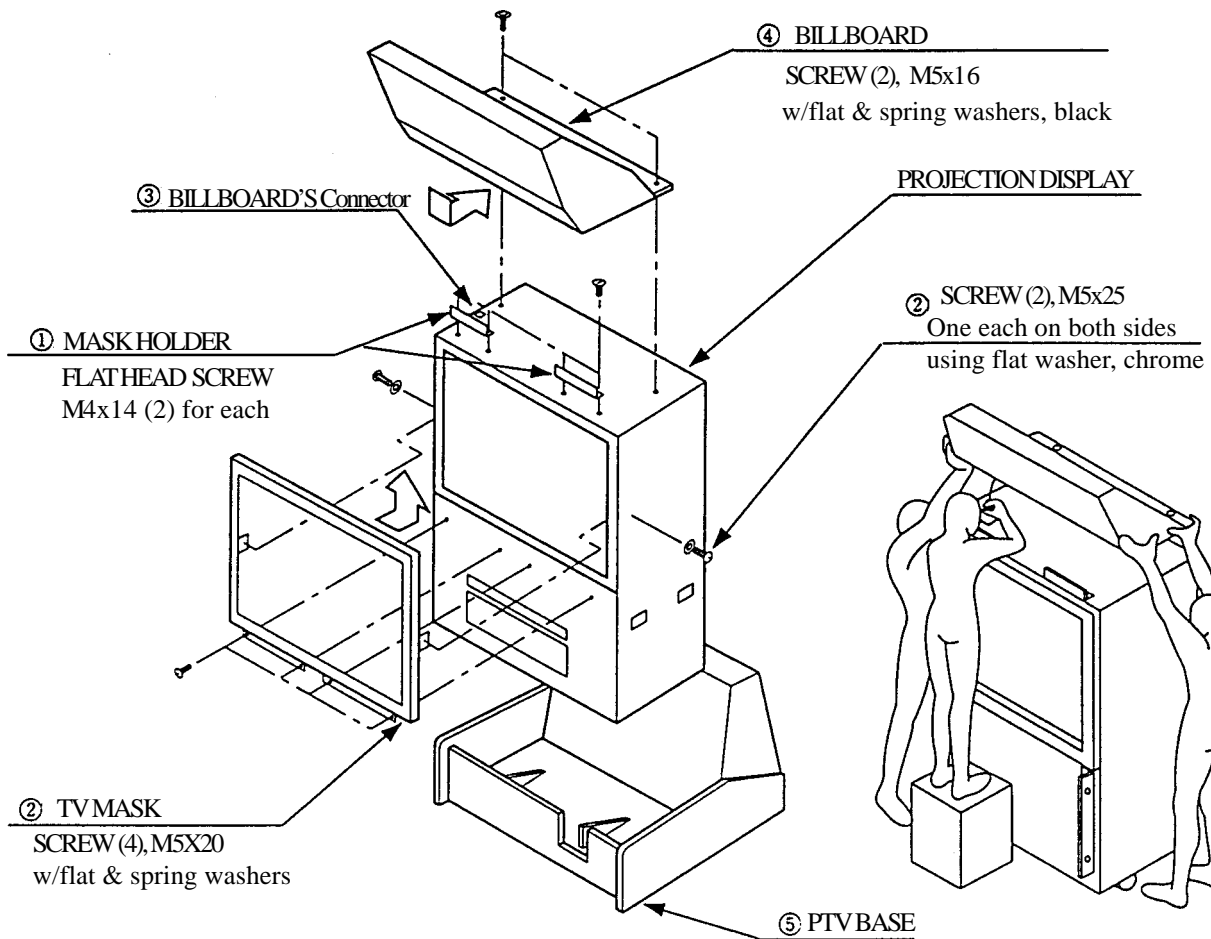


FIG. 4.1a

FIG. 4.1b

5 In order to prevent accidents during assembly work, have all of the leg adjusters of the PTV Base make contact with the surfaces to secure the PTV Base.

6 Mount the assembled PTV on the PTV Base. After mounting the PTV, move it to the rear part of the PTV Base. When performing this work, be sure to use 4 or more persons.(Fig. 4.1c)

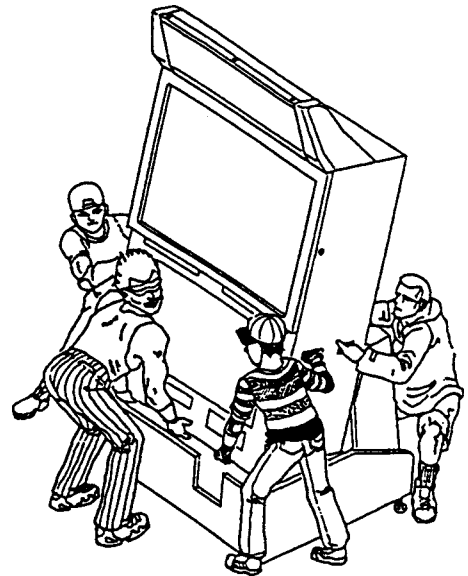


Fig. 4.1c

7 Connect the wires wired to the PTV Base to the PTV Connector Panel. Insert the wiring connectors, each of which wire covering is red, green, and blue, to the corresponding one of R.G.B. terminals as per connector panel display inside the PTV, and insert the remaining wire connector to the SYNC terminal. The connector's insertion angle is predetermined. Inserting the connector in a forcible manner will damage the connector. Check for the correct inserting direction and then insert the connector. After insertion of the connector, turn the connector's ring clockwise to lock the connection.

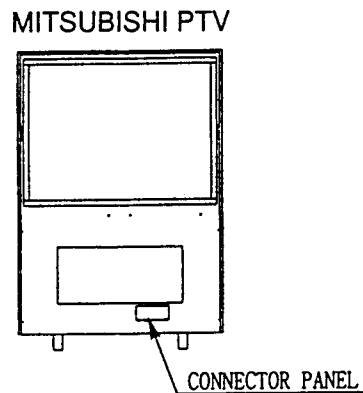
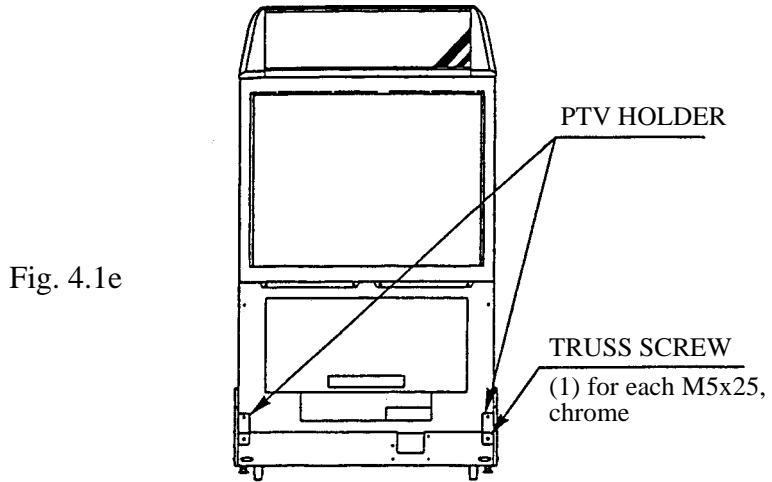


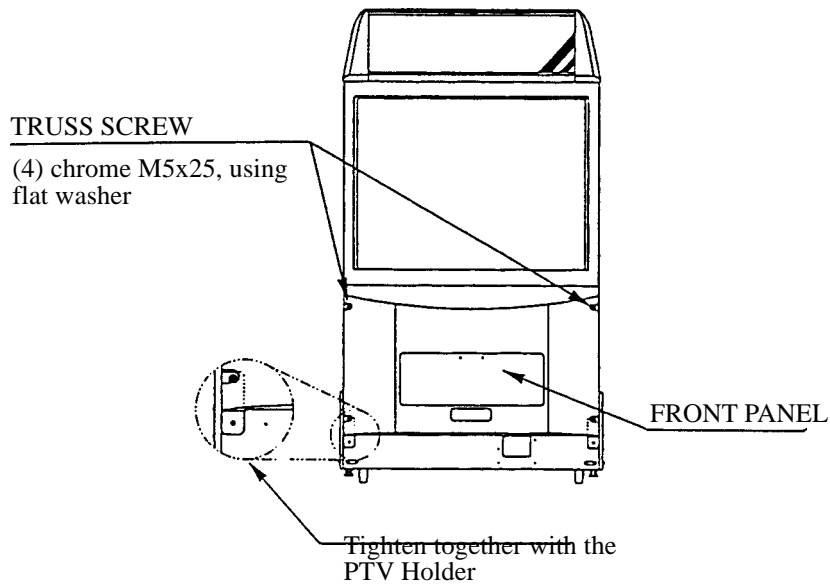
Fig. 4.1d

8 The connector panel has 3p white connector in addition to the connectors displayed as R.G.B. and SYNC. Connect the wiring coming from the PTV Base power supply unit to the 3p white connector.

- 9 Temporarily fasten the PTV Holders to the PTV Base with a screw for each Holder (Fig. 4.1e)



- 10 Secure the Front Panel to the front of the PTV with 4 screws. At this time, by using the underside 2 screws, tighten together with the PTV Holder. (Fig. 4.1f)



## 2 WIRING CONNECTIONS BETWEEN THE CABINETS

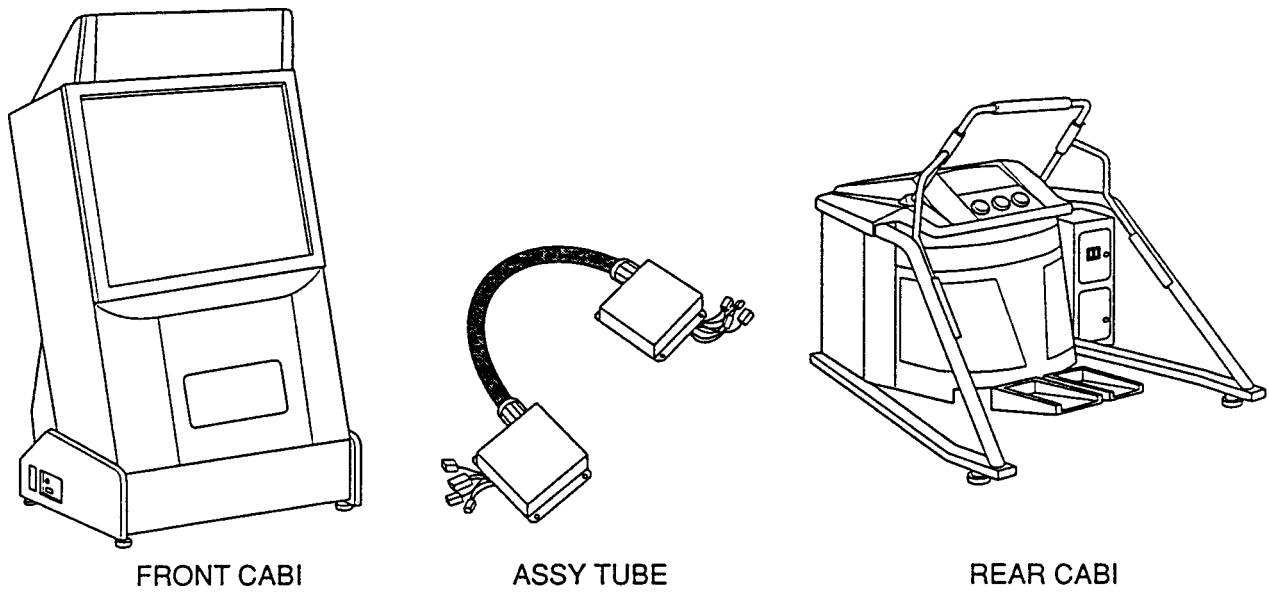


Fig. 4.2a

Install the ASSY TUBE to the Front Cabinet which is assembled as per **1** and the Rear Cabinet, and perform wiring connection in between both cabinets.

- ① The ASSY TUBE's box side is to the Front Cabinet. Connect all of the wiring connectors coming from the Front Cabinet and the box side wiring connectors. Be sure to connect the connectors of identical color and number of pins.
- ② Secure the box to the Front Cabinet with 4 screws. at this time, be very careful so that wires are not caught and damaged. (Fig. 4.2b)
- ③ Connect all of the Rear Cabinet side Wiring Connectors and ASSY Tube Wiring Connectors. Ensure that connectors of identical color and number of pins are connected with each other.
- ④ By using the 4 screws, secure the ASSY Tube Plate parts to the Rear Cabinet. At this time, use care so that wirings are not caught and damaged. (Fig. 4.2c)



# 3

## SECURING IN PLACE (ADJUSTER ADJUSTMENT)



Be sure to have all the Adjusters make contact with the surface. Unless the Adjusters come into contact with the surface, the Cabinet can move of itself, causing an accident.

This machine has 8 each of casters and adjusters (FIG. 3. 2 a). When the installation position is determined, cause the adjusters to come into contact with the floor directly, make adjustments in a manner so that the casters will be raised approximately 5mm. from the floor and make sure that the machine position is level.

- ① Move the machine to the installation position.
- ② Cause all of the leg adjusters to make contact with the floor. By using a wrench, make adjustments in the height of the leg adjusters to ensure that the machine's position is level.
- ③ After making adjustments, fasten the leg adjuster nut upward and secure the height of the leg adjuster.

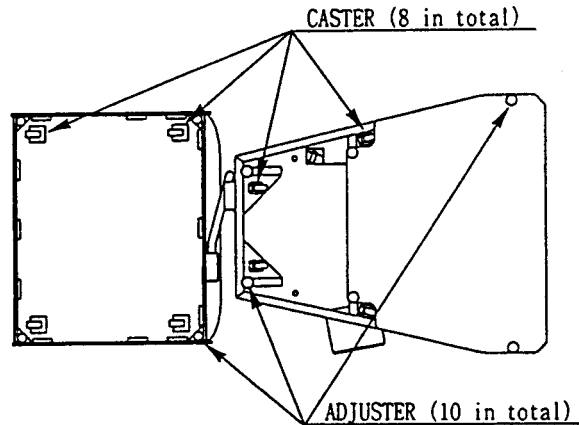


Fig. 4.3a

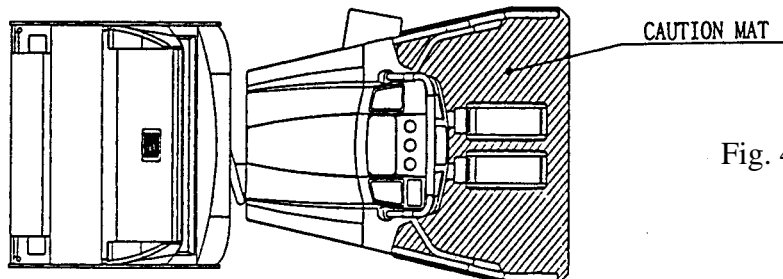
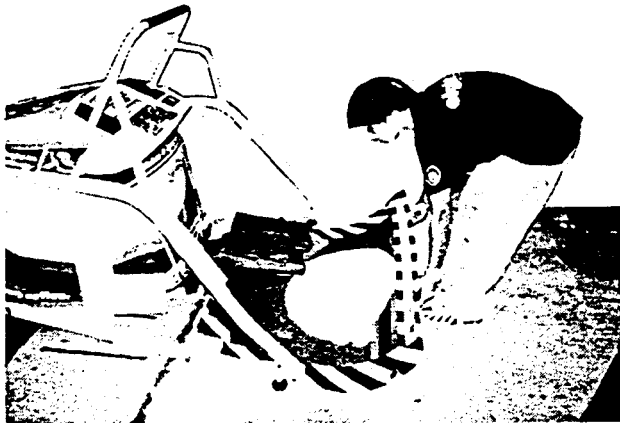
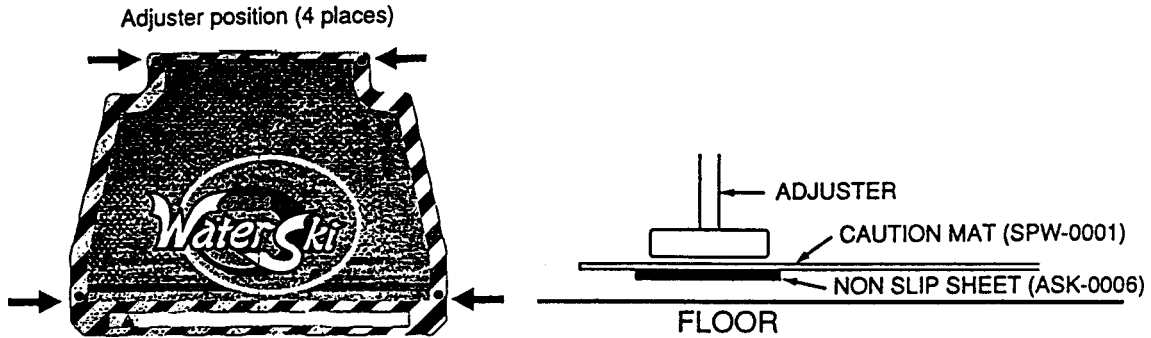
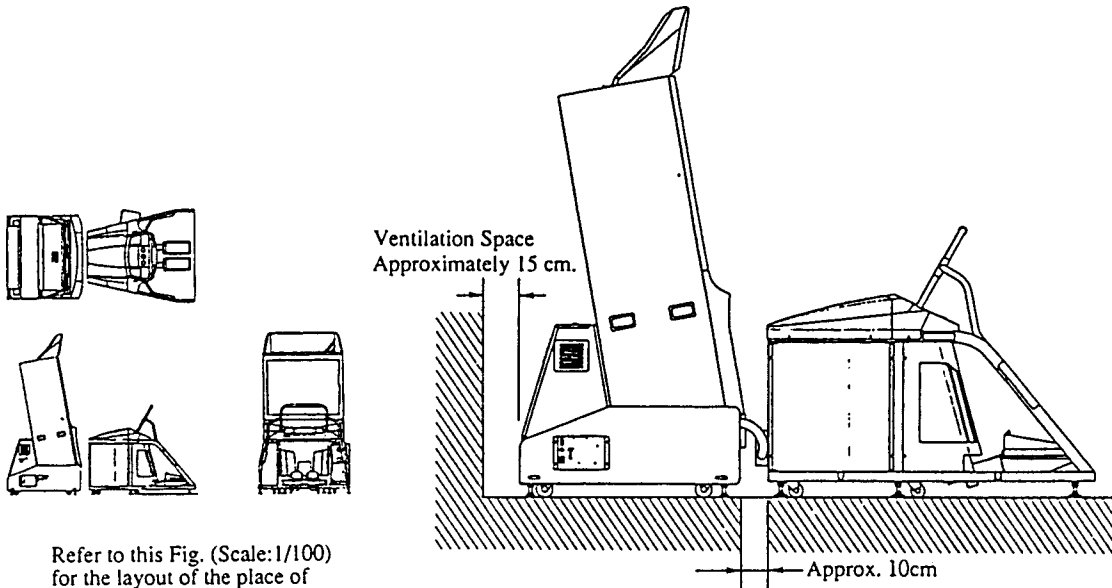
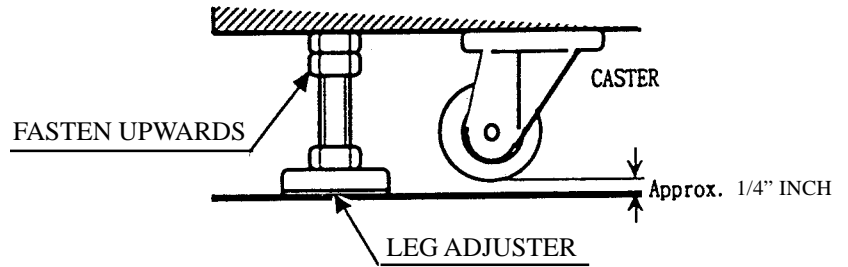


Fig. 4.3b

- ④ Depending on the floor surface status of the installation location, the Rear Cabinet may move of itself. As shown, the NON-SLIP SHEET is attached to the back side of the CAUTION MAT. Ensure that the Adjuster is installed in the manner to match the position of NON-SLIP SHEET



- ⑤ After making adjustments, fasten the adjuster nut upwards and secure the height of the adjuster



Refer to this Fig. (Scale: 1/100)  
for the layout of the place of  
installation.

Provide sufficient space so as to allow for ventilation by the  
ventilation fan.  
Provide space approximately 10cm. between the Front Cabinet  
and the Rear Cabinet.

# 4

## POWER SUPPLY



● Ensure that the power cord is not exposed on the surface (passage, etc.). If exposed, they can be caught and are susceptible to damage. If damaged, the cord can cause an electric shock or short circuit. Ensure that the wiring position is not in the customer's passage way or the wiring has protective covering.

The AC unit is mounted on the left side of Front Cabinet DX. The AC Unit incorporates the Main SW, Earth Terminal and Inlet. Firmly insert the Power Plug into the Socket Outlet and the other side of the plug to the Inlet. Turn the Main SW ON to turn power ON.

- ① Ensure that the Main SW is OFF.

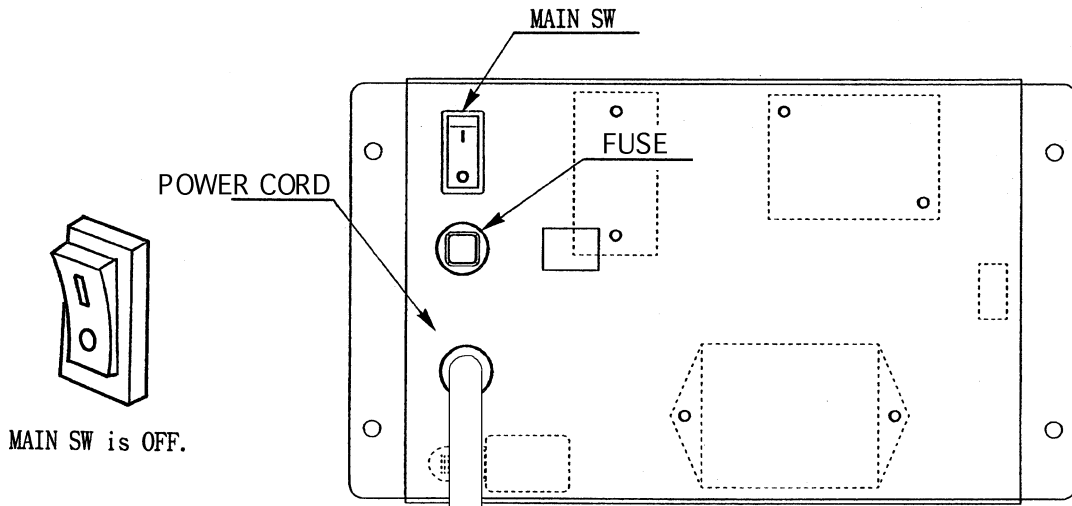


Fig. 4.4a

# 5

## TURNING POWER ON

To turn power on, turn the AC Unit's Main SW on.

The Billboard's Fluorescent Lamp lights up and images will be outputted on the projector. The lamps on the right sides of the Coin Chute Tower alternate lighting up by halves.

Background music (BGM) is outputted during ADVERTISE from the speaker. However, this BGM is not emitted if "No BGM output during ADVERTISE" is set. Since the Skate Board is locked unless the game is started, it can not be moved in the right/left directions.

# 4

## ASSEMBLING CHECK

MEMORY TEST

```

<ROM>
IC 15 GOOD      IC 16 GOOD
IC 11 GOOD      IC 12 GOOD
IC 9  GOOD      IC 10 GOOD
IC 7  GOOD      IC 8  GOOD
IC 5  GOOD      IC 5  GOOD

<RAM>
IC 58 GOOD IC 54 GOOD IC 72 GOOD IC 78 GOOD
IC 63 GOOD IC 71 GOOD
IC 79 GOOD IC 73 GOOD
IC 109 GOOD IC 101 GOOD
IC 116 GOOD IC 114 GOOD IC 115 GOOD IC 113 GOOD
IC 95 GOOD IC 87 GOOD
IC 86 GOOD IC 94 GOOD IC 100 GOOD
IC 12 GOOD IC 10 GOOD IC 11 GOOD IC 9 GOOD
IC 110 GOOD IC 102 GOOD IC 95 GOOD IC 88 GOOD
IC 111 GOOD IC 103 GOOD IC 97 GOOD IC 89 GOOD
IC 82 GOOD IC 75 GOOD IC 68 GOOD IC 60 GOOD
IC 61 GOOD IC 69 GOOD IC 76 GOOD IC 83 GOOD
IC 81 GOOD IC 55 GOOD IC 54 GOOD
  
```

PRESS TEST BUTTON TO EXIT

Selecting the MEMORY TEST on the test mode menu screen causes the on-board memory to be tested automatically. The game board is satisfactory if the display beside each IC No. shows GOOD.

INPUT TEST

```

SLIDE          80H
PITCH LEFT     OFF
PITCH RIGHT    OFF

SELECT (UP)    OFF
SET            OFF
SELECT (DOWN)  OFF

COIN CHUTE#1   OFF
COIN CHUTE#2   OFF

SERVICE TEST  OFF
  
```

PRESS TEST BUTTON TO EXIT

Selecting the INPUT TEST on the menu screen in the test mode to display the screen on which each SW and Volume is tested. Press each switch. (To check the Coin SW, insert a Coin from the inlet with the Coin Chute Door being opened.) If the display beside each switch is ON, the switch and wiring connection are satisfactory. Check the display of each Volume value. The Volume could have an irregularity caused by differences between machines and vibration during transportation. Set the Volume values by referring to Section ?

OUTPUT TEST

```

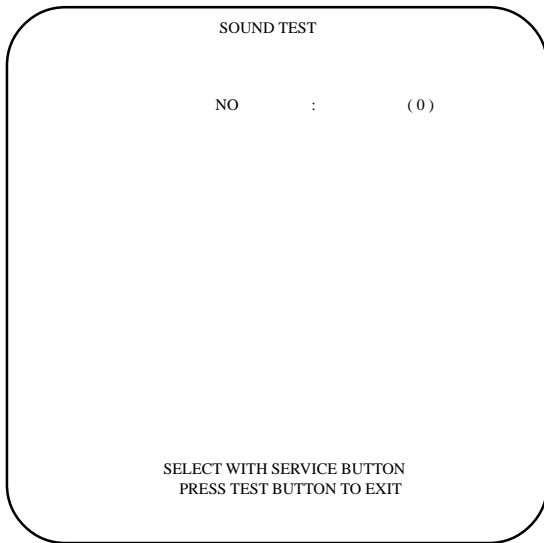
SELECT LAMP (UP)  OFF
SET LAMP         OFF
SELECT LAMP (DOWN) OFF

SLIDE LOCK       OFF

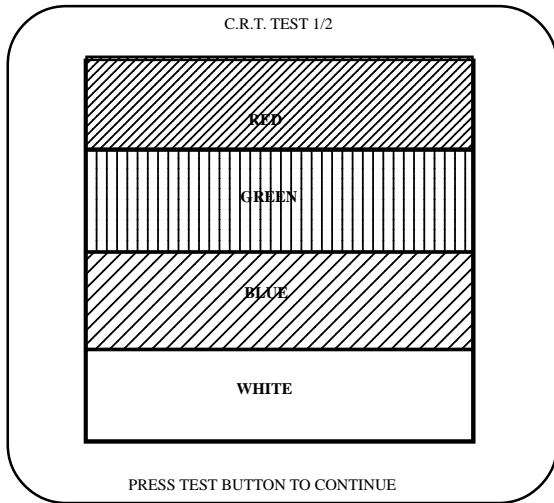
>EXIT

PRESS TEST BUTTON TO EXIT
  
```

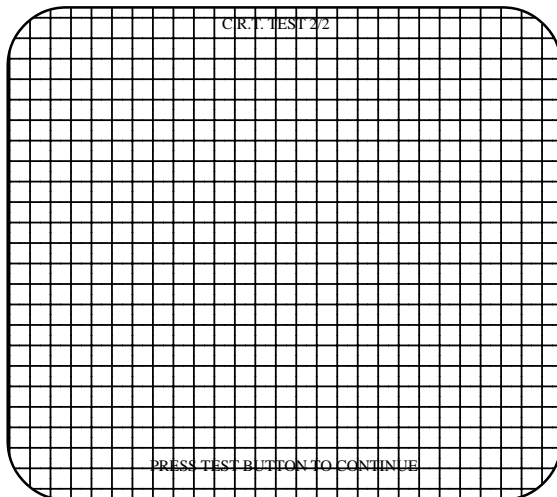
In the output test mode, carry out lamp test to ascertain that each lamp lights up satisfactorily.



In the TEST mode, selecting SOUND TEST causes the screen, on which sound related BD and wiring connections are tested, to be displayed. be sure to check if the sound is satisfactorily emitted from each of speaker and the sound volume is appropriate.



In the TEST mode menu, selecting C.R.T. TEST allows the screen (on which the projector is tested) to be displayed. Although the projector adjustments have been made at the same time of shipment from the factory, color deviation, etc., may occur due to the effect caused by geomagnetism, the location building's steel frames and other game machines in the periphery. By watching the test mode screen, make judgement as to whether an adjustment is needed. If it is necessary, adjust the projector by refering to Section 9.



Perform the above inspections also at the time of monthly inspection.

## 5 . PRECATIONS TO BE HEEDED WHEN MOVING THE MACHINE



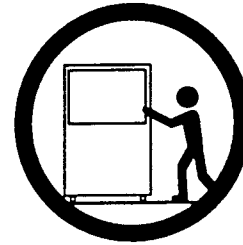
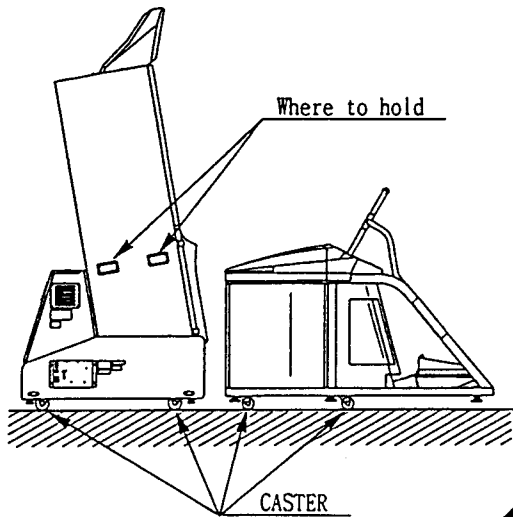
WARNING!

- When moving the machine, be sure to pull out the plug from the power supply. Moving the machine with the plug as is inserted can damage the power cord and cause a fire or electric shock.
- When moving the machine on the floor, retract the Adjusters and ensure that Casters make contact with the floor. During transportation, pay careful attention so that Casters do not tread power cords. Damaging the power cords can cause an electric shock and/or short circuit.
- When lifting the cabinet, be sure to hold the catch portions or bottom part. Lifting the cabinet by holding other portions can damage parts and installation portions, due to the empty weight of the cabinet, and cause personal injury.



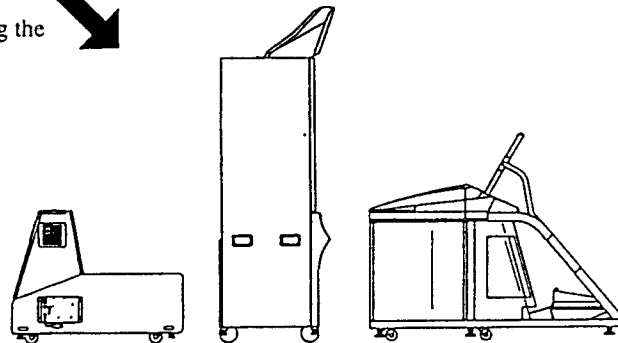
CAUTION!

Use care when handling glass made parts. When the glass is damaged, fragments of glass can cause injury



Do not push PTV from the rear side. Pushing the PTV from the rear side can cause the PTV to fall down. Push it from the side.

On level surfaces, move the machine by causing the Casters to make contact with the surfaces.



Where there are steps (or step-like differences in grade), move the machine by separating into each unit.

## 6. CONTENTS OF GAME

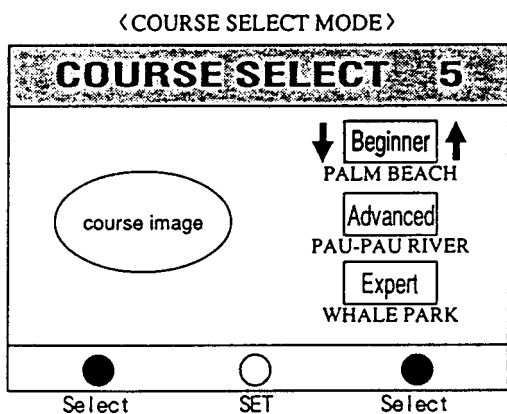
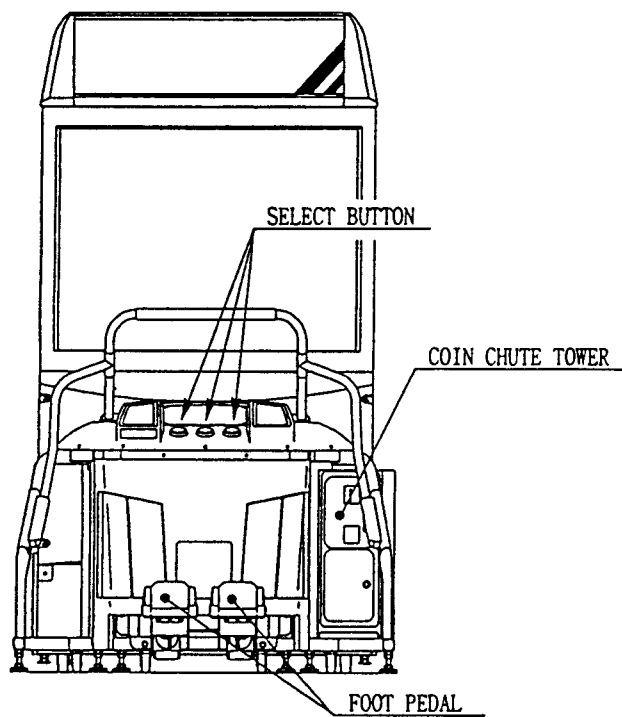
The following explanations apply to the case the product is functioning satisfactorily. Should there be any moves different from the following contents, some sort of faults may have occurred. Immediately look into the cause of the fault and eliminate the cause thereof to ensure satisfactory operation

### HOW TO PLAY

- ① Put your feet on the Foot Controller.
- ② Facing the Projector screen, the Coin Chute Tower is on the right-hand side. Insert one play worth of coins to have the Character selection screen appear. Up to 9 credits can be counted at one time. Coins inserted after counting 9 credits are not counted, nor returned
- ③ In the Character selection mode, the on-screen player character is selected. Press either of the Panel's left/right blue Select Buttons to select the desired player and press the center Red Button to decide. Four Characters are available for selection.



- ④ The Course Select Mode follows the character select/SET. As in the Character Select, press either of the left/right Blue Buttons to select a course and decide the selection by pressing the Center Red Button. The Courses available for selection are 3 types.



PALM BEACH for Beginners

This course represents the image of a southwestern resort.

PAU-PAU RIVER for Advanced players

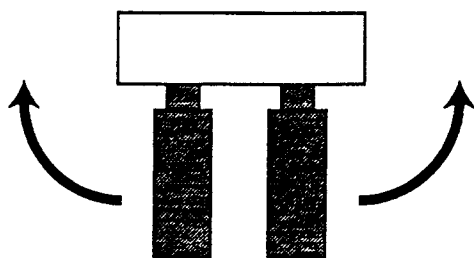
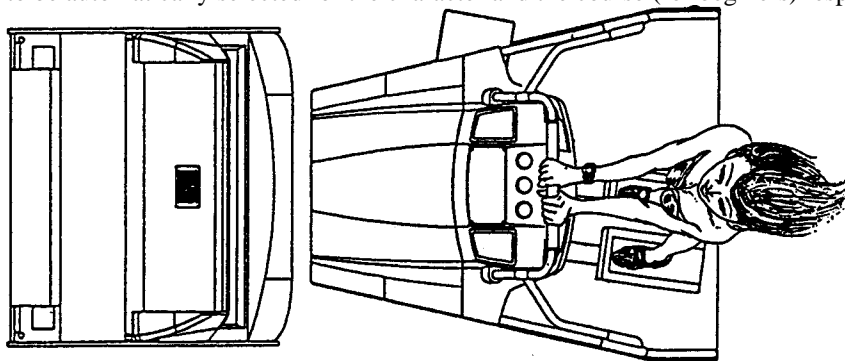
Represents the jungle course as in the Amazon.

WHALE PARK for Expert players

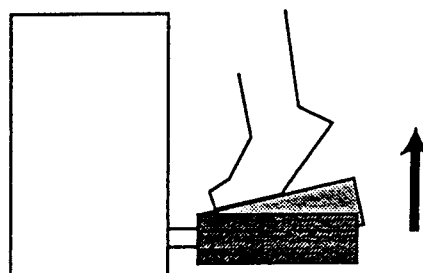
A water course in an amusement park.



- ⑤ In the Character Select Mode and Course Select Mode, the remaining time for selection is displayed on the upper right-hand portion of the screen. Failing to press the Select Button within the time limit causes “TAKUTO” and PALM BEACH to be automatically selected for the character and the course (for beginners) respectively.
- ⑥ In the Character Select Mode and Course Select Mode, the remaining time for selection is displayed on the upper right-hand portion of the screen. Failing to press the Select Button within the time limit causes “TAKUTO” and PALM BEACH to be automatically selected for the character and the course (for beginners) respectively.



Slide left/right and turn.



Jump by standing on tiptoes.

> Sliding the Foot Controller left/right causes the on-screen player to turn left/right so as to correspond to the Controller movement.

> At the Ramp, jump by moving the Foot pedal with heels up. Taking off at the end of the Ramp will extend the flying (jump) distance.

> While jumping, jump action can be determined by moving the Foot Pedal.

> Jump Action commands are as follows.

COMMAND	JUMPING FROM FRONT HALF OF RAMP (less flying distance)	JUMPING FROM REAR HALF OF RAMP (longer flying distance)
LP+LP	Daffy	Daffy Twister
RP+RP	Twister	Twister spread
LP&RP	Somersault	Double somersault
LS	Front flip roll	Double front flip roll
RS	Helicopter 360	Helicopter 720
LS+RS	Back roll twist	Double back roll twist

\*LP: Left foot pitch

\*RP: Right foot pitch

\*LS: Left slide

\*RS: Right slide

\*+: Continuous input

\*&: Simultaneous input

- ⑦ A gate is provided in between the courses. Passing the gate within the time limit allows the remaining time to be extended and game play to continue.
- ⑧ At the Ramp, jump with Foot Pedal's heels up. while jumping, use the Foot Controller to cuase the jump action to be activated. Depending on the jump flight distance and the type of jump action, the points the player can earn will be variable. The points awarded to the player will affect the after-course finish ranking.
- ⑨ When remaining time limit elapses while the player is in the middle of the course, or when he finishes the course, the game is over. At the time of finishing the course, the ranking and the level will be determined on the points earned by the jump action. If the ranking position is 100th or higher, the player can enter his name.

	TIME	YOUR POINTS
<b>PALM BEACH</b>	<b>70</b>	1500 pts
		YOUR RANK
		95/100

- ⑩ After finishing the game, the Foot Controller is locked.
- ⑪ After one game is finished, if there remian one play worth of credits, the Character Select mode appears on the screen.

## 7 . EXPLANATION OF TEST AND DATA DISPLAY

By operating the switch unit, periodically perform the tests and data check. When installing the machine initially or collecting cash, or when the machine does not function correctly, perform checking in accordance with the explanations given in this section. The following shows tests and modes that should be utilized as applicable.

TABLE 7 EXPLANATION OF TEST MODE

ITEMS	DESCRIPTION	SECTIONS
INSTALLATION OF MACHINE	When the machine is installed, perform the following: 1. Check to see that each setting is as per standard setting made at the time of shipment. 2. In the INPUT TEST mode, check each SW and VR. 3. In the OUTPUT TEST mode, check each of lamps. 4. In the MEMORY TEST mode, check ICs on the IC Board.	7 - 9, 7 - 10  7 - 5  7 - 6  7 - 3, 7 - 4
MEMORY	Choose MEMORY TEST in the MENU mode to allow the MEMORY test to be performed. In this test, PROGRAM RAMs, ROMs, and ICs on the IC Board are checked.	
PERIODIC SERVICING	Periodically perform the following: 1. MEMORY TEST 2. Ascertain each setting. 3. In the INPUT TEST mode, test the CONTROL device 4. In the OUTPUT TEST mode, check each of lamps.	7 - 3, 7 - 4  7 - 9, 7 - 10  7 - 5  7 - 6
CONTROL SYSTEM	1. In the INPUT TEST mode, check each SW and VR. 2. Adjust or replace each SW and VR. 3.If the problem can not be solved yet, check the CONTROL's moves.	7 - 5  8  8
PROJECTOR	In the PROJECTOR ADJUSTMENT mode, check to see if the PROJECTOR adjustment is appropriately made.	7 - 8
IC BOARD	1. MEMORY TEST 2. In the SOUND TEST mode, check the sound related ROMs.	  7 - 7
DATA CHECK	Check such data as game play time and histogram to adjust the difficulty level, etc	7 - 12

## 7 - 1 SWITCH UNIT AND COIN METER



Never touch places other than those specified. Touching places not specified can cause electric shock and short circuit.



- Adjust to the optimum sound volume by considering the environmental requirements of the installation location.
- If the COIN METER and the game board are electrically disconnected, game play is not possible.

Open COIN CHUTE DOOR, and the switch unit shown appears. The function of each switch is as follows:

### SWITCH UNIT

- ① **SOUND VOLUME**  
Controls the speaker volume of the right/left speakers on the coin chute tower.
- ② **TEST BUTTON (TEST SW)**  
For the handling of the TEST BUTTON, refer to the section on test mode.
- ③ **SERVICE BUTTON (SERVICE SW)**  
Gives credits without registering on the coin meter.

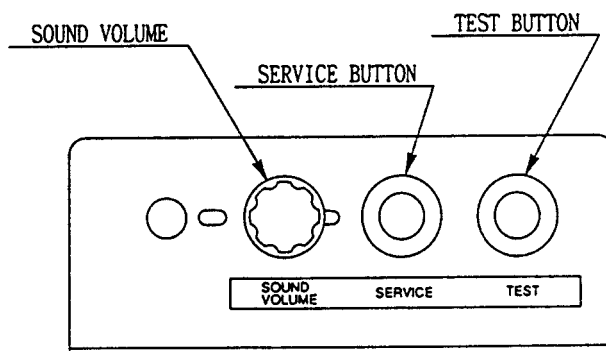


Fig. 7.1

### COIN METER

Open Cash Box Door and the Coin Meter will appear. The Coin Meter counts the number of coins inserted

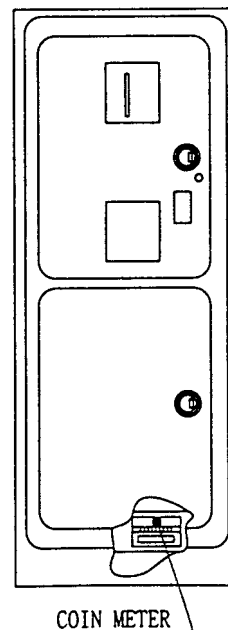
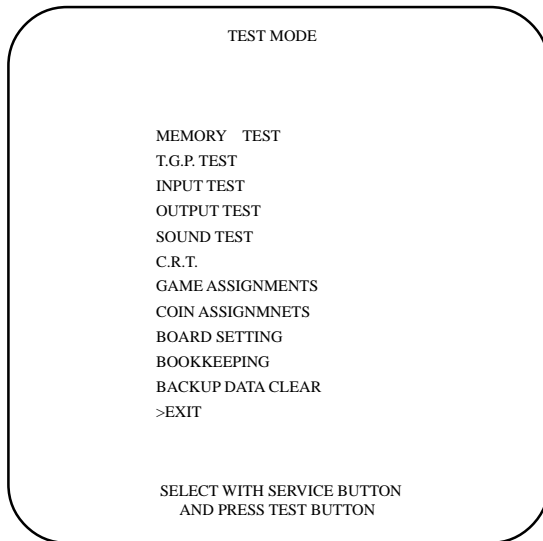


Fig. 7.2

## 7 - 2 TEST MODE

This mainly checks if the operation of the game BD is accurate, and allows for COIN ASSIGNMENTS/GAME ASSIGNMENTS setting and Projector adjustments.



- ① Push the TEST BUTTON to cause the following TEST MENU to appear:
- ② By pushing the SERVICE BUTTON, bring the “>” mark to the desired item and press the TEST BUTTON. This will select the item’s test.
- ③ After the test is complete, move the “>” mark to “EXIT” and press the TEST BUTTON to return to game mode.

FIG. 7.2 TEST MENU

## 7 - 3 MEMORY TEST

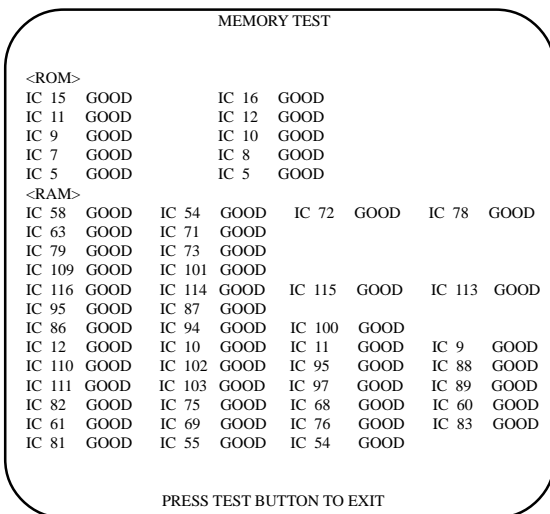


FIG. 7.3 MEMORY TEST

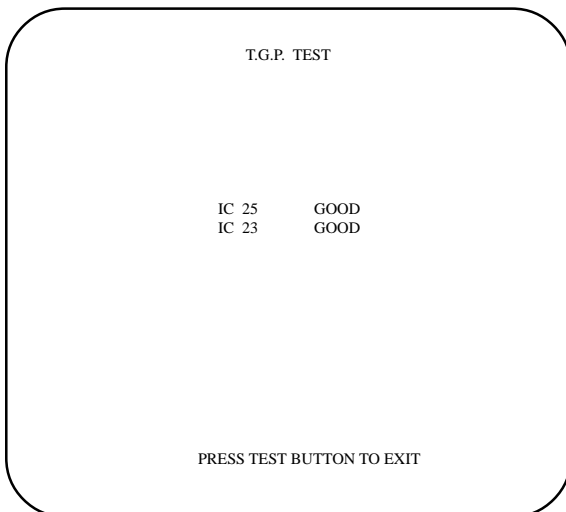
The MEMORY TEST mode is for checking the on-BD memory IC functioning.

“GOOD” is displayed for normal ICs and “BAD” is displayed for abnormal ICs

- When the test is completed, if the display is as shown left, it is satisfactory.
- After finishing the test, pressing the TEST BUTTON allows the MENU MODE to return on the screen.

IF THE TEST TIME FOR THE MEMORY TEST EXCEEDS 5 MINUTES THE IC BOARD MAY BE DEFECTIVE.

## 7 - 4 T.G.P. TEST



Selecting T.G.P. TEST causes the functioning of the on-IC-BD T.G.P. (screen display related IC’s) to be checked automatically. If the IC is satisfactory, “GOOD” will be indicated and if the IC is not satisfactory, “BAD” will be displayed.

## 7 - 5 INPUT TEST

When INPUT TEST is selected, the MONITOR will show the following, allowing you to watch the status of each switch and the value of each V.R. of the cabinet to be viewed  
 On the screen, periodically check the status of each switch & V.R.

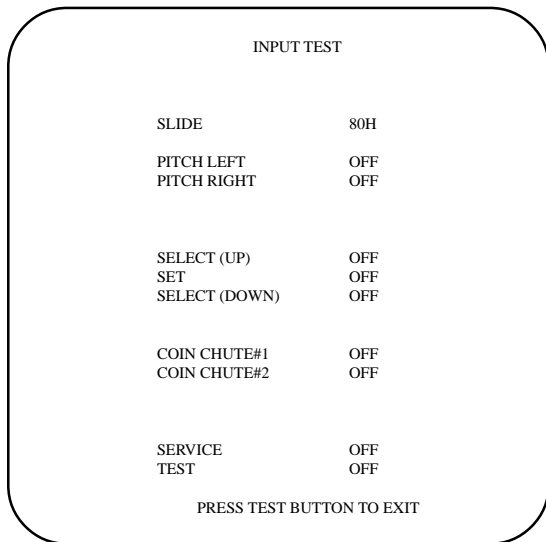
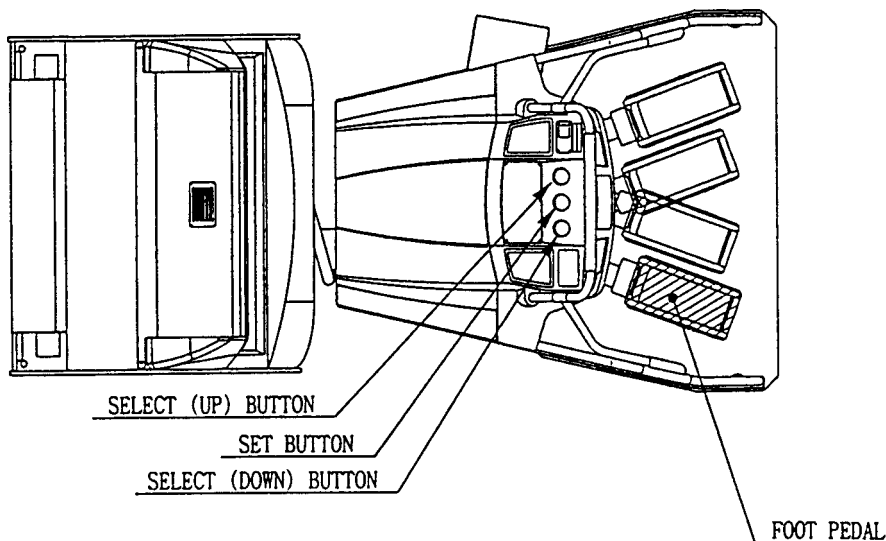


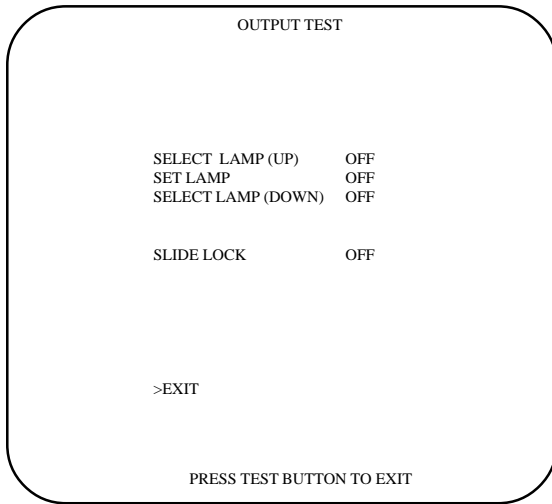
FIG. 7.5 INPUT TEST

- By pressing each switch, if the display on the right-hand side of the name of each switch changes to ON from OFF, the SW and the wiring connections are satisfactory.
- PITCH refers to the Switch for the left/right Foot Pedal's UP/DOWN. Normally, this is ON and stepping on the Pedal's front side causes the Switch to become off.
- Press the TEST BUTTON to have the menu mode return on the screen.
- Using the Decision (SET) button instead of TEST BUTTON will not allow for exiting from the Input Test Mode. Press the SET BUTTON and SELECT BUTTON (UP).
- By opening the Coin Chute Door, insert a coin from the Coin Inlet to check the Coin Chute Tower.



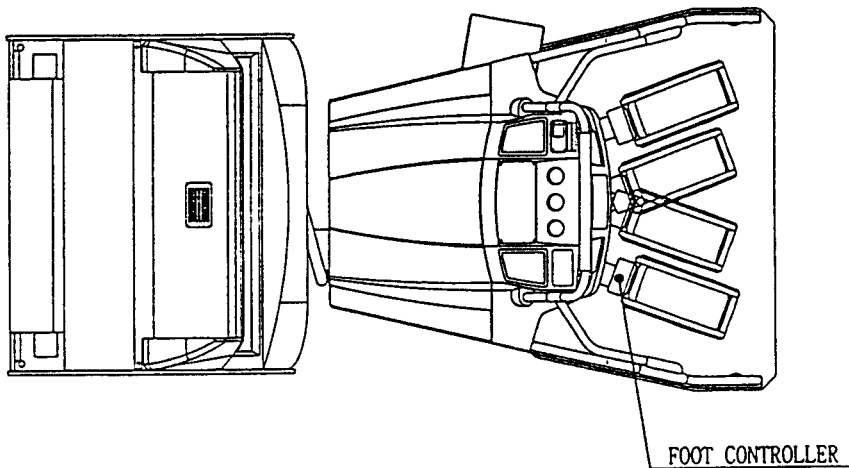
## 7 - 6 OUTPUT TEST

Choose OUTPUT TEST to cause the following lower screen to appear. In this test, check the status of each lamp.



- Pressing the TEST BUTTON causes "ON" to be displayed and the corresponding lamp lights up. Pressing the TEST BUTTON again causes "OFF" to be displayed and the lamp goes off. The Foot Controller is locked with the Slide Lock in the ON status, and Unlocked to become free with the Slide Lock in the OFF status.
- Press the test Button to return to the MENU MODE.

FIG. 7.6 OUTPUT TEST



## 7 - 7 SOUND TEST

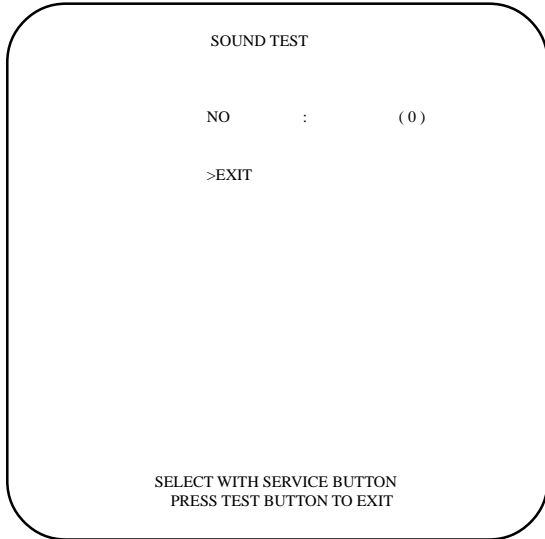


FIG. 7.7 SOUND TEST

- This enables sound used in the game to be checked. Sound related memory and each speaker are checked.
- Press the SERVICE BUTTON to bring the arrow to the desired sound item to be tested. SE refers to sound effects and BGM refers to background music.
- Each time the SERVICE BUTTON is pressed, the numeral displayed on the screen counts up and sound is admitted.
- Bring the ">" to EXIT and press the TEST BUTTON to return to the MENU MODE.

## 7 - 8 C.R.T. TEST

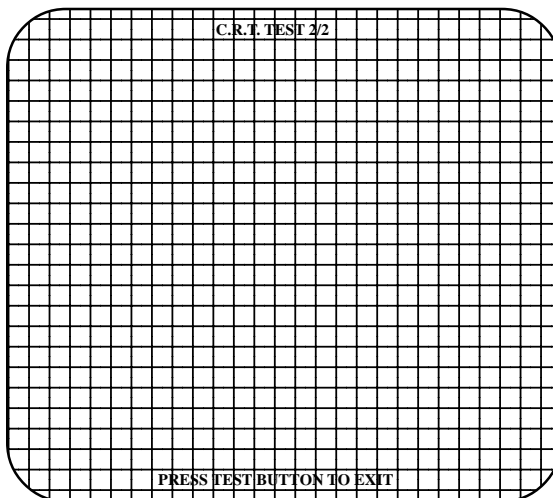
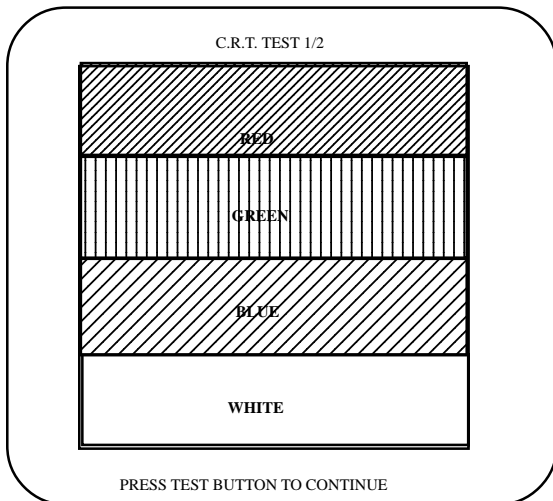


FIG. 7.8 C.R.T. TEST

- Select C.R.T. TEST to cause the MONITOR to display the screen shown left, allowing MONITOR adjustment status to be checked.
- Periodically check the MONITOR adjustment status on this screen.
- The screen (1/2) enables color adjustment check to be performed. The color bar of each of the 4 colors, i.e., red, green, blue, and white, is the darkest at the extreme left and becomes brighter towards the extreme right.
- Press the TEST BUTTON to shift to the next screen (2/2).
- The screen (2/2) allows screen size and distortion to be tested.
- Check if the CROSSHATCH FRAME LINE goes out of the screen and if the crosshatch lines are distorted.
- Press the TEST BUTTON to return to the MENU mode. (FIG. 6.2)



## 7 - 9 GAME ASSIGNMENTS

Selecting the GAME ASSIGNMENTS in the MENU mode causes the present game settings to be displayed and also the game settings changes (game difficulty, etc.) can be made. Each item displays the following content.

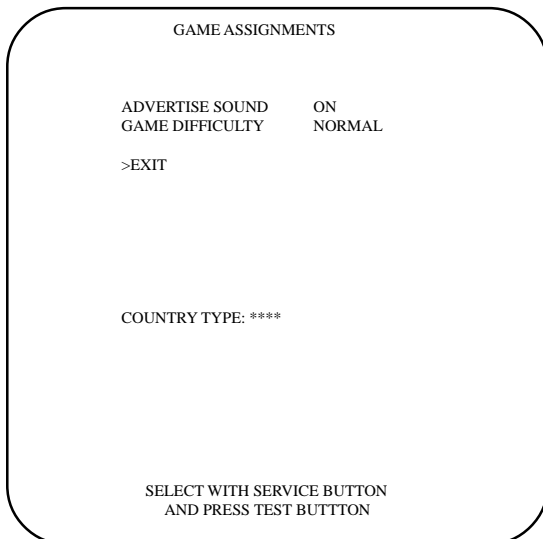
### SETTING CHANGE PROCEDURE



IMPORTANT!

Setting changes cannot be stored unless the TEST BUTTON is pressed while the arrow is on EXIT.

- ① Press the SERVICE BUTTON to move the “>” to the desired item.
- ② Choose the desired setting change item by using the TEST BUTTON.
- ③ To return to the MENU mode, move the arrow to EXIT and press the TEST BUTTON.



- **ADVERTISE SOUND**  
Determines whether ADVERTISE SOUND is to be emitted or not by the setting to ON when emitting it and to OFF when not emitting it.
- **GAME DIFFICULTY**  
Sets the Game Difficulty in 8 categories from 1 to 8. The greater the number is, the higher the difficulty level becomes.

The Following FIGURES/TABLES show the factory recommended settings.

## 7 - 10 COIN ASSIGNMENTS

The “COIN ASSIGNMENTS” mode permits you to set the start number of credits, as well as the basic numbers of coins and credits. This mode expresses “how many coins correspond to how many credits.”

### SETTING CHANGE PROCEDURE



IMPORTANT!

Setting changes cannot be stored unless the TEST BUTTON is pressed while the arrow is on EXIT.

- ① Press the SERVICE BUTTON to move the arrow to the desired item.
- ② Choose the desired setting change item by using the TEST BUTTON.
- ③ To return to the MENU mode, move the arrow to EXIT and press the TEST BUTTON.

COIN ASSIGNMENTS			
COIN CHUTE TYPE	COMMON		
CREDIT TO START	2 CREDITS		
CREDIT TO CONTINUE	1 CREDIT		
COIN/CREDIT SETTING	#1		
CHUTE#1	1 COIN	1 CREDIT	
CHUTE#2	1 COIN	1 CREDIT	
MANUAL SETTING			
>EXIT			
SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON			

- **COIN CHUTE TYPE**  
Sets the combination of the number of COIN CHUTES and the number of players as applicable. In the case that the COIN CHUTE is changed, be sure the setting is made in a manner meeting the replaced coin chute.

**COMMON:**  
Coins are accepted in common for both players.

**INDIVIDUAL:**  
Each player uses a coin chute which accepts coins independently.

- **CREDIT TO START**  
Number of credits required for starting game (1~5 credits are selected.)
- **CREDIT TO CONTINUE**  
Number of credits required for continuing game (1~5 credits are selected.)
- **COIN/CREDIT SETTING**  
Sets the CREDITS increase increment per coin insertion. There are 27 settings from #1 to #27, expressed in XX CREDIT as against XX COINS inserted. (TABLE 7.9a, 7.9b) #27 refers to FREE PLAY.  
When the COIN CHUTE TYPE is set to INDIVIDUAL, there are some setting numbers not displayed as indicated in TABLE 7.9b.
- **MANUAL SETTING**  
This allows credit increase setting as against coin insertion to be further set in the manner finer than COIN/CREDIT SETTING (refer to TABLE 7.9c).

TABLE 7.10a COIN/CREDIT SETTING (COIN CHUTE COMMON TYPE)

SETTING	FUNCTIONING OF CHUTE#1	
SETTING #1	1 COIN	1 CREDIT
SETTING #2	1 COIN	2 CREDITS
SETTING #3	1 COIN	3 CREDITS
SETTING #4	1 COIN	4 CREDITS
SETTING #5	1 COIN	5 CREDITS
SETTING #6	1 COIN	2 CREDITS
SETTING #7	1 COIN	5 CREDITS
SETTING #8	1 COIN	3 CREDITS
SETTING #9	1 COIN	4 CREDITS
SETTING #10	1 COIN	5 CREDITS
SETTING #11	1 COIN	6 CREDITS
SETTING #12	2 COINS	1 CREDIT
SETTING #13	1 COIN	1 CREDIT
SETTING #14	1 COIN	2 CREDITS
SETTING #15	1 COIN 2 COINS	1 CREDIT 3 CREDITS
SETTING #16	1 COIN	3 CREDITS
SETTING #17	3 COINS	1 CREDIT
SETTING #18	4 COINS	1 CREDIT
SETTING #19	1 COIN 2 COINS 3 COINS 4 COINS	1 CREDIT 2 CREDITS 3 CREDITS 5 CREDITS
SETTING #20	1 COIN	5 CREDITS
SETTING #21	5 COINS	1 CREDIT
SETTING #22	1 COIN	2 CREDITS
SETTING #23	2 COINS 4 COINS 5 COINS	1 CREDIT 2 CREDITS 3 CREDITS
SETTING #24	1 COIN	3 CREDITS
SETTING #25	1 COIN 2 COINS 3 COINS 4 COINS 5 COINS	1 CREDIT 2 CREDITS 3 CREDITS 4 CREDITS 6 CREDITS
SETTING #26	1 COIN	1 CREDITS
SETTING #27	FREE PLAY	

# MANUAL SETTING

Selecting MANUAL SETTING in the COIN ASSIGNMENTS mode displays the following screen.

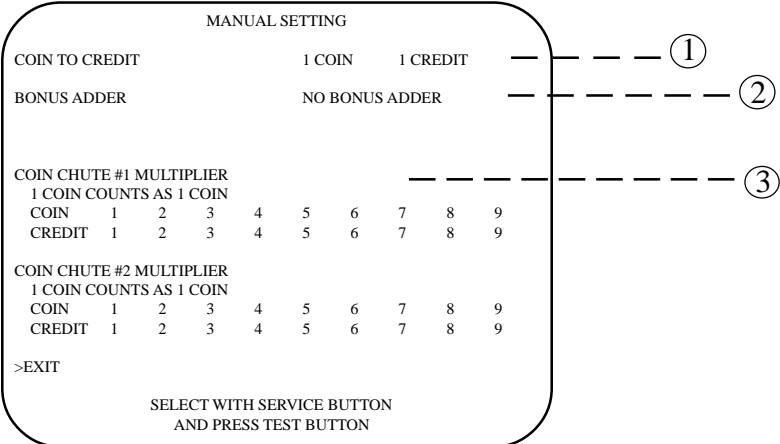


FIG. 7.10b MANUAL SETTING

- ① Determines Coin/Credit setting.
- ② This sets how many coins should be inserted to obtain one Service Coin.
- ③ This sets how many tokens one coin represents.

Table 7.10c MANUAL SETTING

COIN TO CREDIT	1 COIN	1 CREDIT
	2 COINS	1 CREDIT
	3 COINS	1 CREDIT
	4 COINS	1 CREDIT
	5 COINS	1 CREDIT
	6 COINS	1 CREDIT
	7 COINS	1 CREDIT
	8 COINS	1 CREDIT
	9 COINS	1 CREDIT
BONUS ADDER	NO BONUS ADDER	
	2 COINS GIVE 1 EXTRA COIN	
	3 COINS GIVE 1 EXTRA COIN	
	4 COINS GIVE 1 EXTRA COIN	
	5 COINS GIVE 1 EXTRA COIN	
	6 COINS GIVE 1 EXTRA COIN	
	7 COINS GIVE 1 EXTRA COIN	
	8 COINS GIVE 1 EXTRA COIN	
	9 COINS GIVE 1 EXTRA COIN	
COIN CHUTE MULTIPLIER	1 COIN COUNTS AS 1 COIN	
	1 COIN COUNTS AS 2 COINS	
	1 COIN COUNTS AS 3 COINS	
	1 COIN COUNTS AS 4 COINS	
	1 COIN COUNTS AS 5 COINS	
	1 COIN COUNTS AS 6 COINS	
	1 COIN COUNTS AS 7 COINS	
	1 COIN COUNTS AS 8 COINS	
	1 COIN COUNTS AS 9 COINS	

## 7 - 11 VOLUME SETTING

This allows Slide Volume to be set.

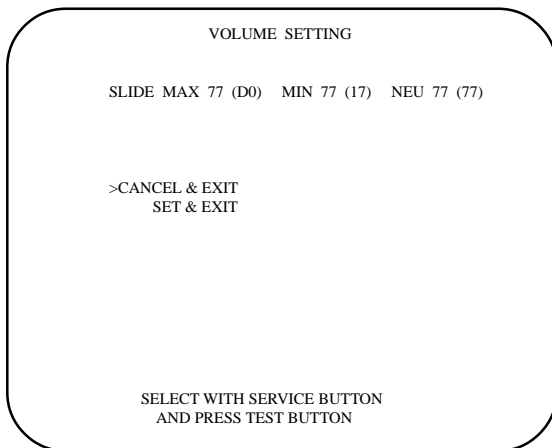
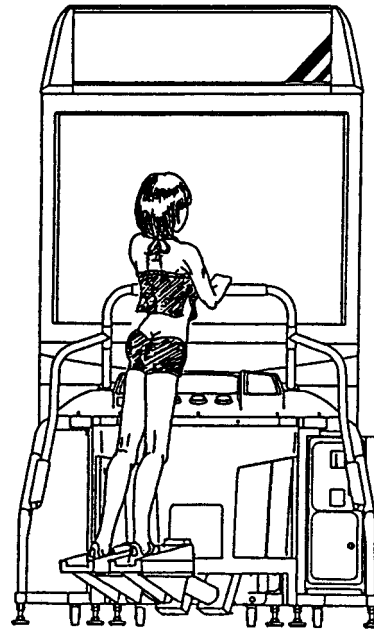


Fig. 7.11 VOLUME SETTING



Stop at the center position after fully swinging the Foot Controller right and left.

### SLIDE SETTING

After swinging the Foot Controller fully to the left and right, return to the neutral position. Selecting SET & EXIT with the Foot Controller as is in the neutral position causes the currently executed setting to be stored and the TEST MENU mode returns to the screen. If CANCEL & EXIT is selected, the present setting will not be stored and the previously set value (in parenthesis) will remain.

## 7 - 12 BOOKKEEPING

Choosing BOOKKEEPING in the MENU mode displays the data of operating status up to the present are shown on 2 pages. Press the TEST BUTTON to proceed to PAGE 2/2.

BOOKKEEPING		PAGE1/2
COIN REPORT		
COIN CHUTE #1		XXXXXXXXXX
COIN CHUTE #2		XXXXXXXXXX
TOTAL COINS		XXXXXXXXXX
COIN CREDITS		XXXXXXXXXX
SERVICE CREDITS		XXXXXXXXXX
TOTAL CREDITS		XXXXXXXXXX
NUMBER OF GAMES		
1 P GAMES		XXXXXXXXXX
2 P GAMES		XXXXXXXXXX
NUMBER OF CONTINUE		
1 P GAMES		XXXXXXXXXX
2 P GAMES		XXXXXXXXXX
TOTAL	TIME	XDXXHXXMXXS
PLAY	TIME	XDXXHXXMXXS
AVERAGE PLAY	TIME	XXMXXS
LONGEST PLAY	TIME	XXMXXS
SHORTEST PLAY	TIME	XXMXXS

PRESS TEST BUTTON TO CONTINUE

FIG. 7.12a BOOKKEEPING (1/2)

- **COIN CHUTE#\*:**  
Number of coins put in each Coin Chute.
- **TOTAL COINS:**  
Total number of activations of Coin Chutes.
- **COIN CREDITS:**  
Number of credits registered by inserting coins.
- **SERVICE CREDITS:**  
Credits registered by the SERVICE BUTTON.
- **TOTAL CREDITS:**  
Total number of credits (COIN CREDITS+SERVICE CREDITS).
- **TOTAL TIME:**  
The total energized time.

BOOKKEEPING		PAGE 2/2
TIME HISTOGRAM		
0M00S ~ 0M29S		XXXXXXXXXX
0M30S ~ 0M39S		XXXXXXXXXX
0M40S ~ 0M49S		XXXXXXXXXX
0M50S ~ 0M59S		XXXXXXXXXX
1M00S ~ 1M09S		XXXXXXXXXX
1M10S ~ 1M19S		XXXXXXXXXX
1M20S ~ 1M29S		XXXXXXXXXX
1M30S ~ 1M39S		XXXXXXXXXX
1M40S ~ 1M49S		XXXXXXXXXX
1M50S ~ 1M59S		XXXXXXXXXX
4M00S ~ 4M09S		XXXXXXXXXX
4M10S ~ 4M19S		XXXXXXXXXX
4M20S ~ 4M29S		XXXXXXXXXX
4M30S ~ 4M39S		XXXXXXXXXX
4M40S ~ 4M49S		XXXXXXXXXX
4M50S ~ 4M59S		XXXXXXXXXX
5M00S ~		XXXXXXXXXX

PRESS TEST BUTTON TO EXIT

FIG. 7.12b BOOKKEEPING (2/2)

On page (2/2), each play frequency is displayed. When setting difficulty levels, the frequency can be referred to as a standard.

When in the PAGE 2/2 mode, press the TEST BUTTON to return to the MENU mode..

## 7 - 13 BACKUP DATA CLEAR

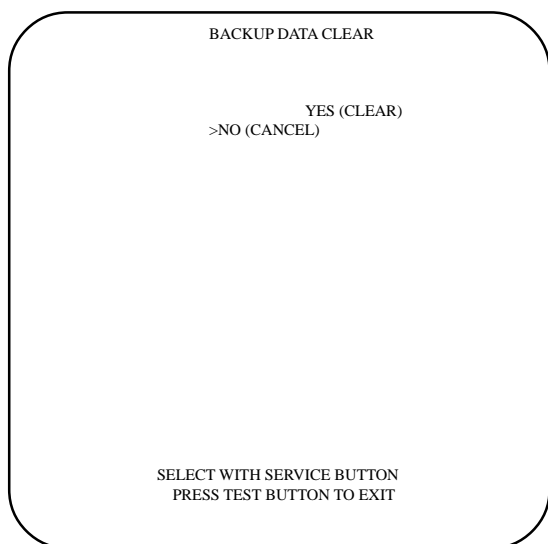


FIG. 7.13 BACKUP DATA CLEAR

Clears the contents of BOOKKEEPING and high score player ranking entry.

When clearing, bring the arrow to “YES” and when not clearing, to “NO”, by using the SERVICE BUTTON, and push the TEST BUTTON. When the data has been cleared, “COMPLETED” will be displayed. Bring the arrow to “NO” and press the TEST BUTTON to cause the MENU mode to return on to the screen.

Note that the contents of the GAME SETTING, COIN SETTING, and BOARD SETTING are not affected by BACKUP DATA CLEAR operation.

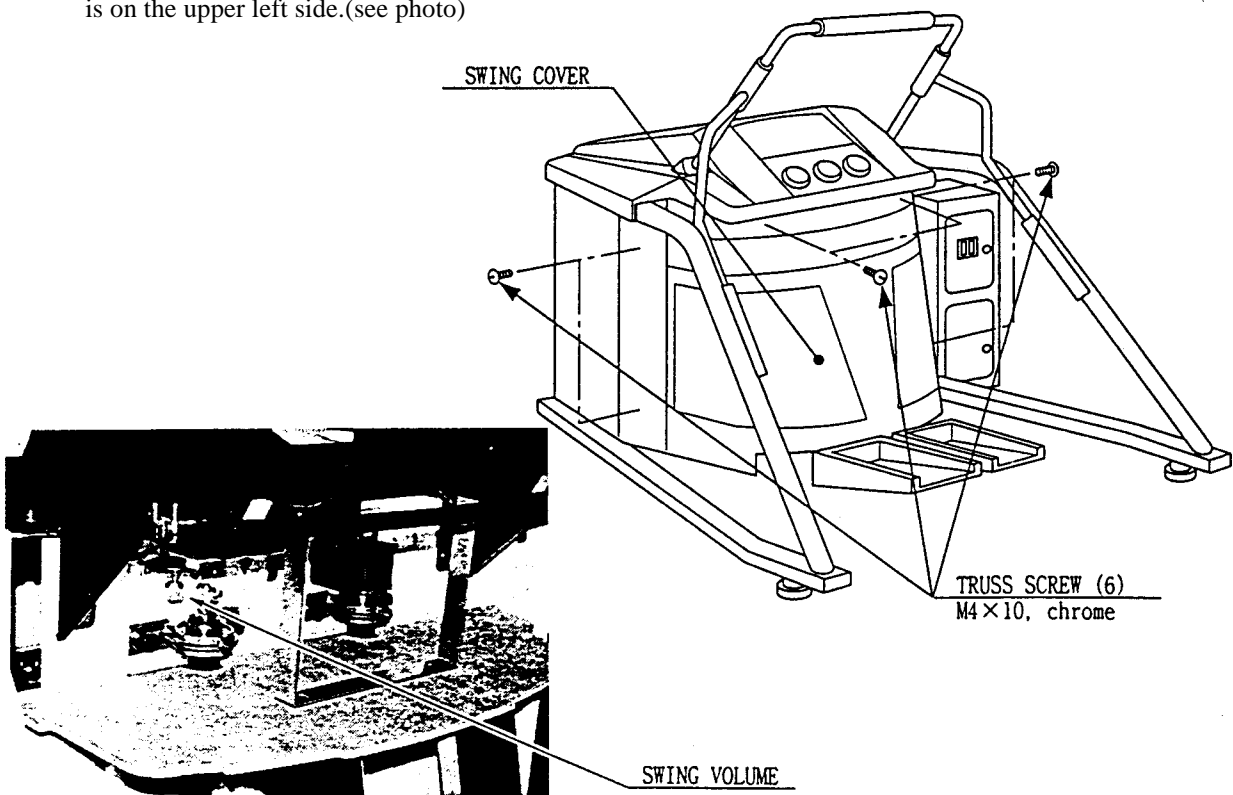
## 8. MAINTENANCE OF MECHANISM UNIT



- In order to prevent an electric shock and short circuit, be sure to turn power off before performing work by touching the interior parts of the product.
- Be careful so as not to damage wirings. Damaged wiring can cause an electric shock or short circuit accident.

### 8 - 1 ADJUSTMENT AND REPLACEMENT OF SWING VOLUME

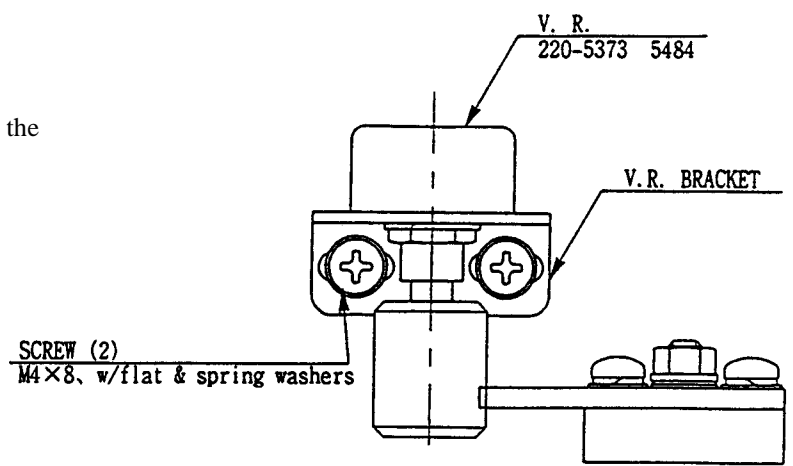
- ① Turn the power OFF.
- ② Remove the SWING COVER from the front of the REAR CABINET, Remove the 6 truss screws. Facing the INSIDE REAR COVER, the SWING VOLUME is on the upper left side.(see photo)





③ To move the Volume Bracket, loosen the 2 screws which secure the Volume Bracket.

④ Move the Volume Bracket, disengage the gear mesh and turn the Volume shaft so that the d-cut portion of the Volume shaft faces the Volume bracket side as shown.

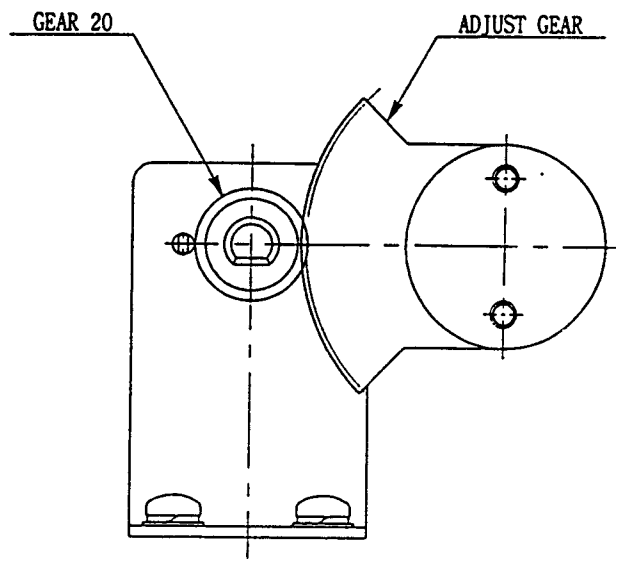


⑤ Have the gears mesh, fasten the 2 screws, and secure the Volume Bracket.

⑥ After making adjustments, be sure to perform volume setting in the TEST MODE.

⑦ If the volume is malfunctioning, first disconnect the connector which is connected to the Volume, remove the 2 screws which secure the Volume Bracket and remove the Volume Bracket together with the Volume as is attached.

③ Remove the gear from the Volume shaft and replace the Volume.

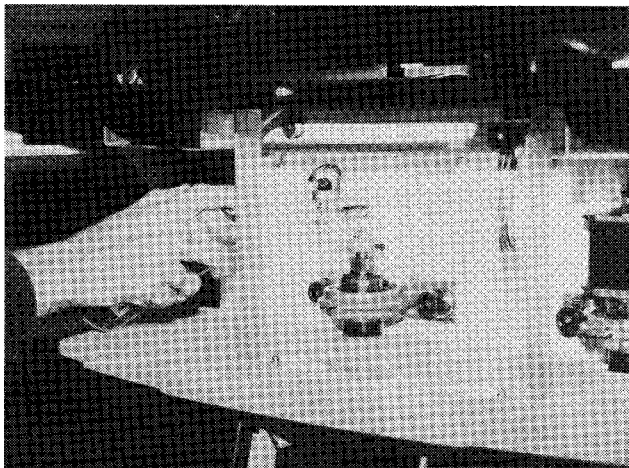


## 8 - 2 GREASING

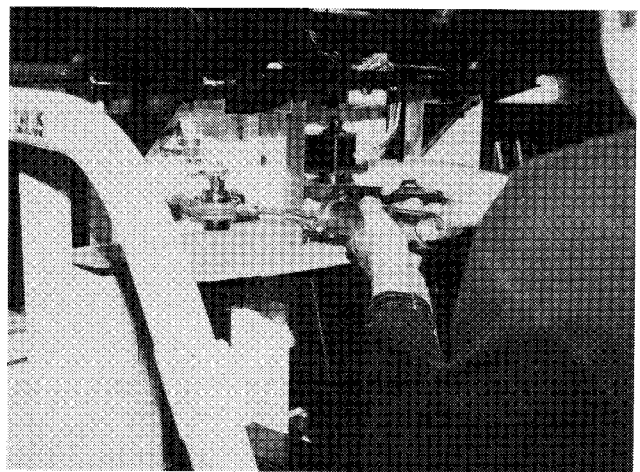


- Besure to use designated grease. Using undesignated grease can cause parts damage.
- Do not apply greasing to places other than those specified. Greasing to undesignated places can cause malfunctioning and the qualitative deterioration of parts.

Once every 3 months, apply greasing to the SWING Volume gear mesh portion, Swing Frame supportive bearings, and Motor gear mesh portion. For spray greasing, use GREASE MATE (PART No. 090-0066).



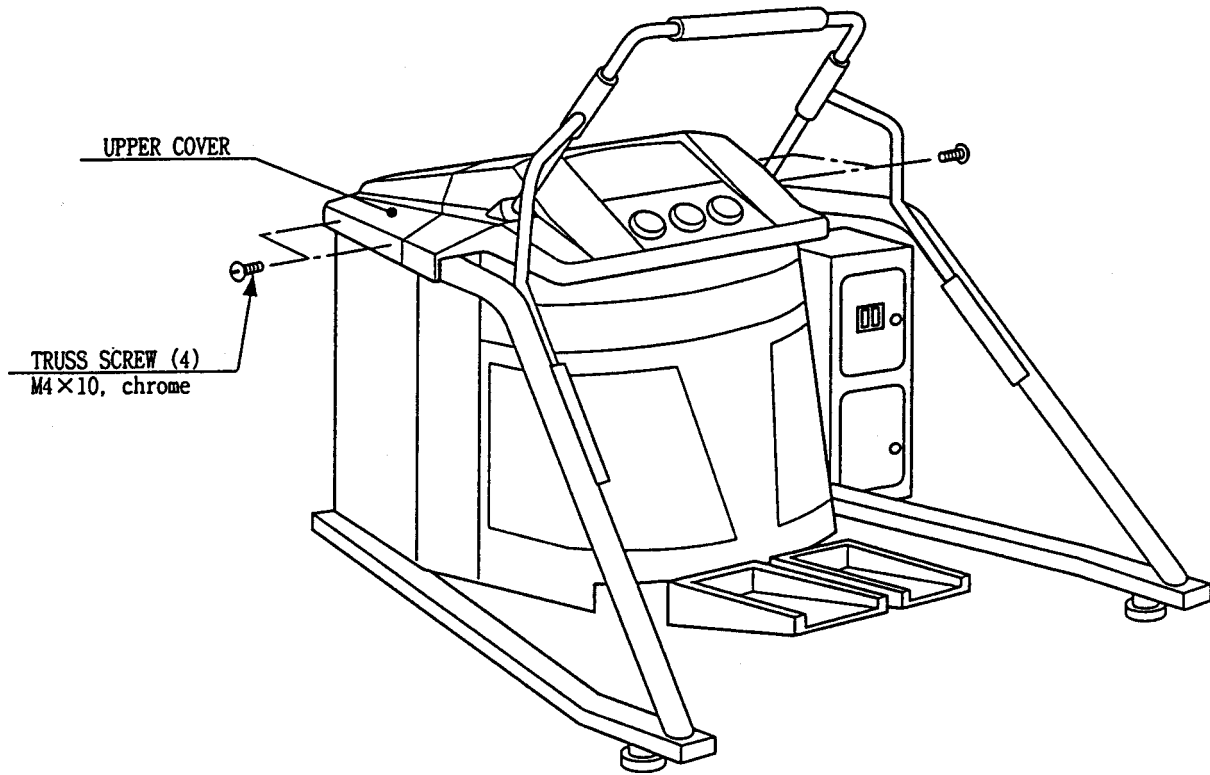
Apply grease to SWING Volume gear mesh portion.



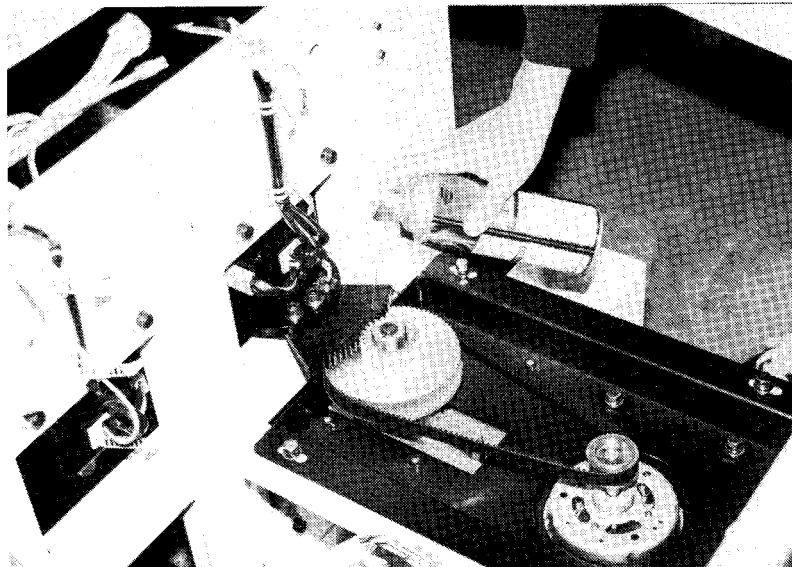
Apply grease to the Grease Nipple for bearings by using the Grease Gun.

## GREASING TO BRAKE GEAR PORTION

- ① Take out the 4 screws and remove the Upper Cover.



- ② By using the spray grease, apply greasing only to the gear mesh portion.



# 9 . COIN SELECTOR

## HANDLING THE COIN JAM

If the coin is not rejected when the REJECT BUTTON is pressed, open the coin chute door and open the selector gate. After removing the jamed coin, put a normal coin in and check to see that the selector correctly functions.

## CLEANING THE COIN SELECTOR

The coin selector should be cleaned once every 3 months. When cleaning, follow the procedure below:

- ① Turn the power for the machine OFF. Open the coin chute door.
- ② Open the gate and dust off by using a soft brush (made of wool, etc.).
- ③ Remove and clean smears by using a soft cloth dipped in water or diluted chemical detergent and then squeezed dry.
- ④ Remove the CRADLE.  
When removing the retaining ring(E-ring), be very careful so as not to bend the shaft.
- ⑤ Remove stain from the shaft and pillow portions by wiping off with a soft cloth, etc.
- ⑥ After wiping as per #5 above, further apply a dry cloth, etc. to cause the coin selector to dry completely.

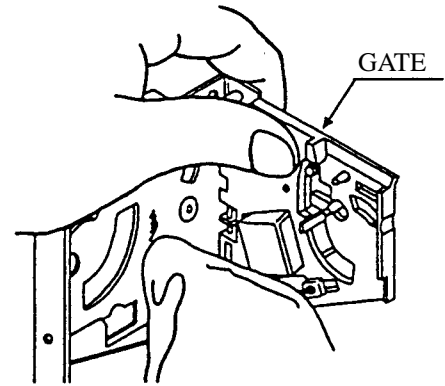


FIG. 9a

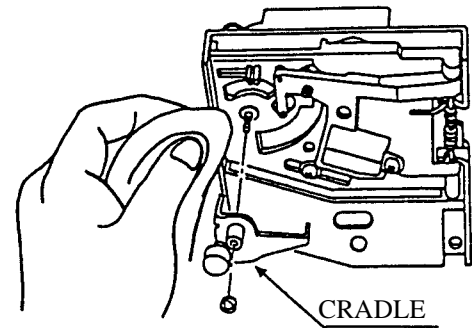


FIG.9b



IMPORTANT!

- Never apply machine oil, etc. to the coin selector
- After cleaning the Coin Selecting, Insert a regular coin in the normal working status and ensure that the Selector correctly functions.

### COIN INSERTION TEST

Once a month, when performing the COIN SW TEST, simultaneously check the following:

- Does the Coin Meter count satisfactorily?
- Does the coin drop into the Cashbox correctly?
- Is the coin rejected when inserted while keeping the REJECT BUTTON is pressed down?

Insert a coin while keeping the Reject Button pressed down and check if it is rejected.

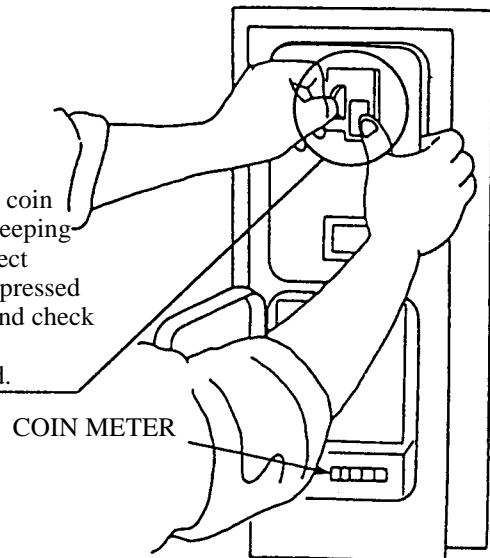


FIG. 9c

**OPTIONAL DOLLAR BILL ACCEPTOR**

● THE COIN DOOR ASSEMBLY USED ON **SEGA WATER SKI** COMES EQUIPPED TO ACCEPT A DOLLAR BILL ACCEPTOR. ALL NEEDED WIRING CONNECTIONS ARE CONVIENENTLY LOCATED INSIDE THE GAME FOR THIS APPLICATION.

● THE COIN DOOR CAN ACCCOMMODATE THE FOLLOWING VALIDATORS:

HOLE POSITION#1 (FORWARD-MOST POSITION)	VFM5 (MARS)
HOLE POSITION#2	VFM2 (MARS) VFM4 (MARS) DBV45 (JCM)
HOLE POSITION #3	CURRENTLY NOT USED
HOLE POSITION #4	DSI01*

\*The back flange on the chute can be removed for hold position #4. If the flange is not removed, it may interfere with the back of the cabinet.

## 10 . PROJECTOR



CAUTION!

Since the Projector has been adjusted at the time of shipment, avoid making further adjustments without good reason.



IMPORTANT!

The Projector is subject to color deviation due to Convergence deviation caused by the geomagnetism at the time of installation location and peripheral magnetic field. After the installation of machine, and before commencing operation, check for Convergence deviation and if deviated, make adjustments..

Fine adjustments are stored in the Projector. Pressing the Fine Adjustment SW (Convergence Adjustment) results in entering the Fine Adjustment mode, and this may cause the stored fine adjustment to be changed. During work other than for adjustment, Should you topuch the Fine Adjustment SW by mistake, immediately turn power off by using the main SW and then turn it back on again. If any distortion or color deviation is found in the test mode and adjustments are needed, use the specified adjustment knob, or perform adjustment by remote control. To find the adjustment knob, move Cabinet DX and remove the PTV Front Service Door by using the procedure opposite the one for installing and assembling. In some cases a cover is installed to the Adjustment Knobs. Remove the Cover.

### 10 - 1 CLEANING THE SCREEN



CAUTION!

Since the Projector screen is susceptible to damage, pay careful attention to it's handling. When cleaning, refrain from using water or volatile chemical.

When the screen surface becomes dirty with dust, etc., clean it by using a soft cloth such as gauze. When water, and volatile chemicals such as benzine, thinner, etc., spill on the screen surface, it may be subject to damage, therefore, do not use them. Also, since the surfaces are susceptible to damage, refrain from rubbing them with a hard material or using a duster.

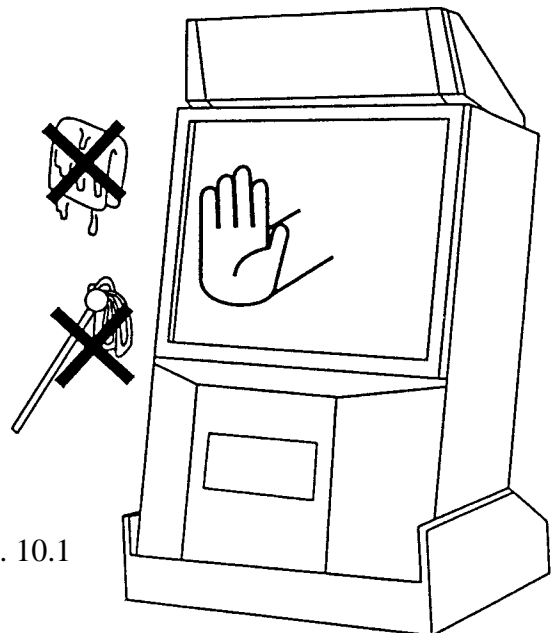
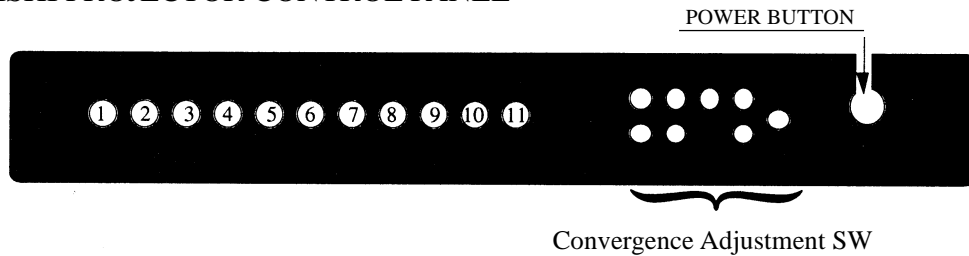


Fig. 10.1

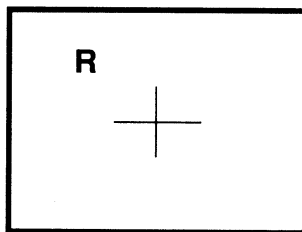
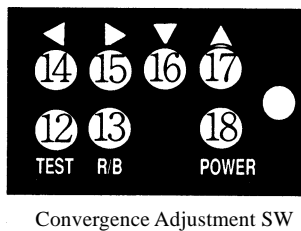
## 10 - 2 MITSUBISHI PROJECTOR

### □ MITSUBISHI PROJECTOR CONTROL PANEL



- |          |   |          |          |          |
|----------|---|----------|----------|----------|
| ① V.POS  | ② H.POS   | ③ R-GAIN | ④ G-GAIN | ⑤ B-GAIN |
| ⑥ CONT   | ⑦ BRI   | ⑧ V.W    | ⑨ H.W    |          |
| ⑩ R.H.L. | } Linearity adjustments in horizontal directions<br>(red or blue) are made. |          |          |          |
| ⑪ B.H.L. |   |          |          |          |

#### STATIC CONVERGENCE ADJUSTMENT



- |         |                      |
|---------|----------------------|
| ⑫ TEST  | Test mode on/off key |
| ⑬ R/B   | R/B key              |
| ⑭ ◀     | Left shift key       |
| ⑮ ▶     | Right shift key      |
| ⑯ ▼     | Lower shift key      |
| ⑰ ▲     | Upper shift key      |
| ⑱ POWER | Power button         |

- ① For the Convergence adjustment mode, press the test mode on/off key. ⑫
- ② Ensure that “R” is displayed on the screen.
- ③ Make adjustments so as to cause the red cross pattern to match with the green cross pattern by using Left shift key ⑭, Right shift key ⑮, Lower shift key ⑯, and Upper shift key ⑰.
- ④ By using R/B shift key ⑬, cause the red adjustment “R” to shift to blue adjustment “B” and make sure that “B” is displayed on the screen.
- ⑤ In the same manner as in ③ above, cause the blue cross pattern to match with the green cross pattern.
- ⑥ After making adjustment, press the test mode on/off key ⑫ to cancel the convergence adjustment mode.

## STATIC CONVERGENCE ADJUSTMENT METHOD WITH REMOTE CONTROL



**IMPORTANT!**

- Although Remote Control Buttons other than those specified below do not function even if pressed during Convergence Adjustment, do not press them during adjustment work so as to avoid causing malfunctioning.
- Operate the Remote Control towards the PTV screen. If directed other than to the PTV screen, the Remote Control does not function.

### BEFORE USING REMOTE CONTROL:

First make sure that the main SW on the Projector's control panel is ON (the LED adjacent to the main SW is lit).

The Remote Control has 2 different types. Depending on the type, the Adjustment procedure is different.

In case of REMOTE CONTROL (Part No. 200-5298):

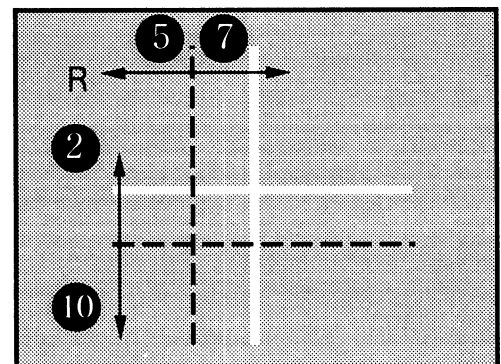
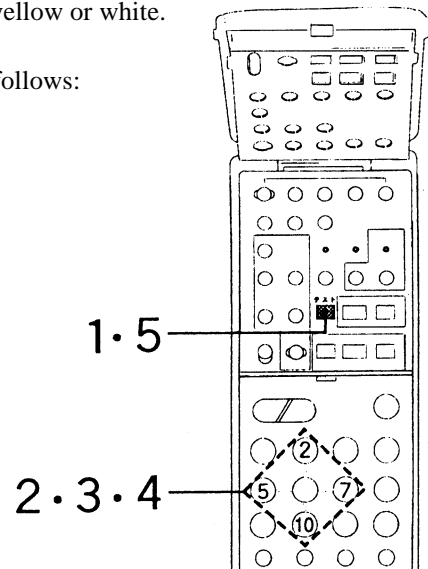
- ① For the Convergence Adjustment mode, press the test button. Ensure that "R" is displayed on the screen.
- ② Make adjustment so as to cause the red cross pattern to match with the green cross pattern. When the red cross matches the green cross, the green cross turns yellow or white.

Use remote control buttons shown below to move the red cross as follows:

- Button
- ⑤ ————— to the left
  - ⑦ ————— to the right
  - ② ————— Upward
  - ⑩ ————— Downward

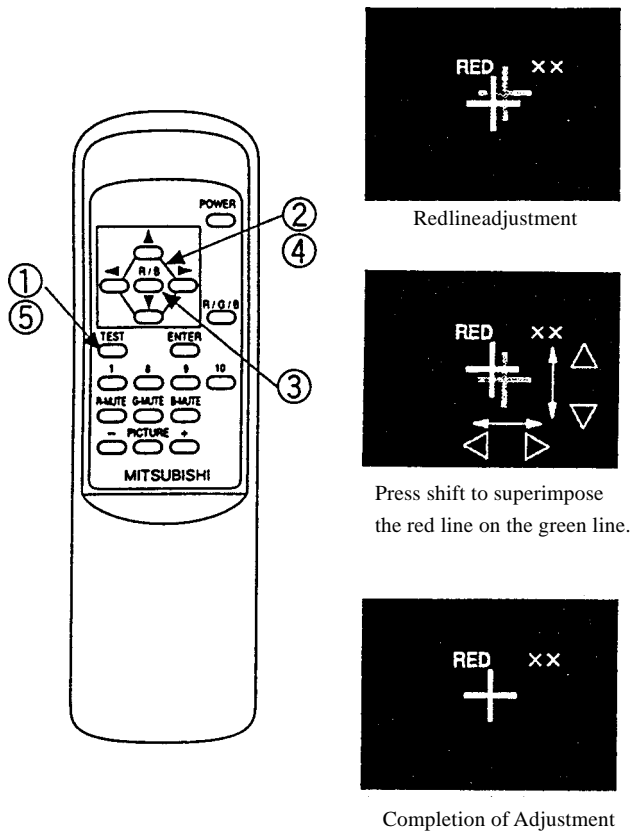
- ③ Use Remote Control button 6 to shift "R" to "B". Make sure that "B" is displayed on the screen. Each time Button ⑥ is pressed, red and blue adjustments are shifted.
- ④ In the same manner as in ② above, cause the blue cross to match the green cross. When the blue cross matches the green cross, the green cross turns white.
- ⑤ After adjustment is made, press the test button to cancel the Convergence Adjustment mode.

\*When 2 minutes or more elapses in the Convergence mode screen without taking any action, the on-screen adjustment mode will disappear.

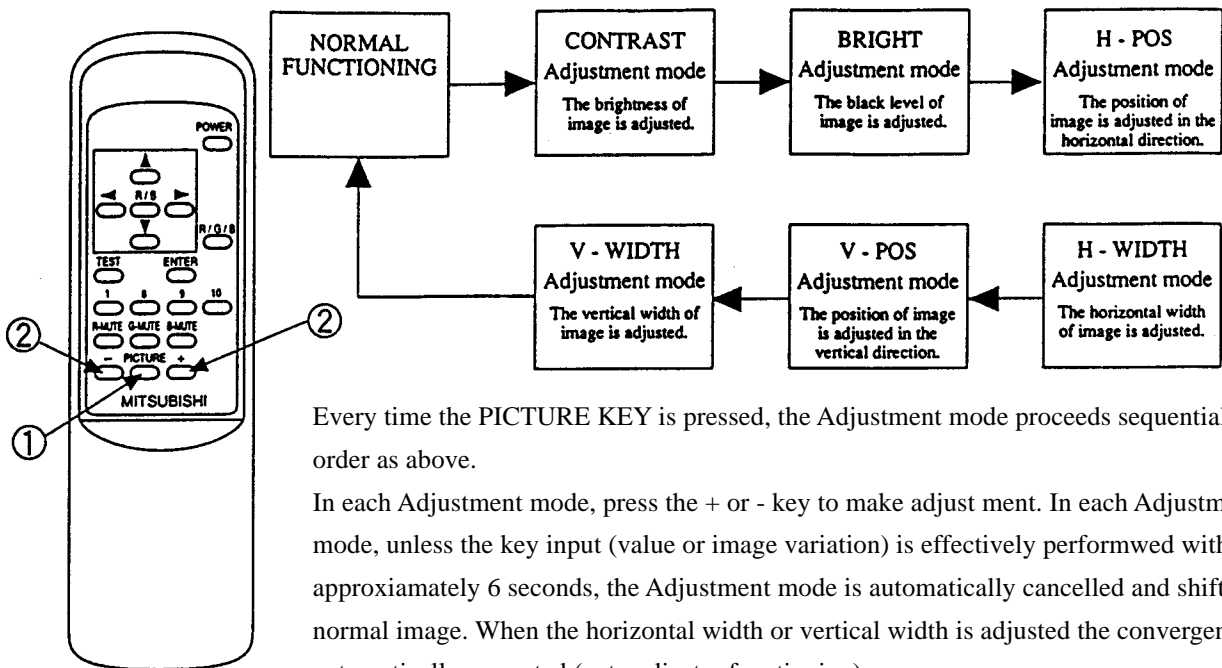




In case of REMOTE CONTROL (Part No. 200-5532):



- ① Press the TEST KEY to have the red line adjustment screen appear.
- ② Superimpose the red cross on the green cross at the center of the screen. Move the red cross to the left, right, up, and down respectively with the corresponding buttons of the remote control. When the red cross is superimposed on the green cross, the green cross turns into yellow or white.
- ③ Press the R/B Key to have the blue line adjustment screen appear. Each time R/B Key is pressed, the red line and blue line will be alternated.
- ④ In the manner similar to ② above, press each key to superimpose the blue cross on the green cross. When it is superimposed, the cross in the center will become white.
- ⑤ Press the TEST KEY to exit from the adjustment mode.
- ⑥ During STATIC CONVERGENCE Adjustment Mode, if no action is taken within 5 minutes, the adjustment mode will be exited automatically.



Every time the PICTURE KEY is pressed, the Adjustment mode proceeds sequentially in order as above.

In each Adjustment mode, press the + or - key to make adjustment. In each Adjustment mode, unless the key input (value or image variation) is effectively performed within approximately 6 seconds, the Adjustment mode is automatically cancelled and shifts to the normal image. When the horizontal width or vertical width is adjusted the convergence is automatically corrected (auto adjuster functioning).

## 11 . REPLACEMENT OF FLUORESCENT LAMP AND LAMPS



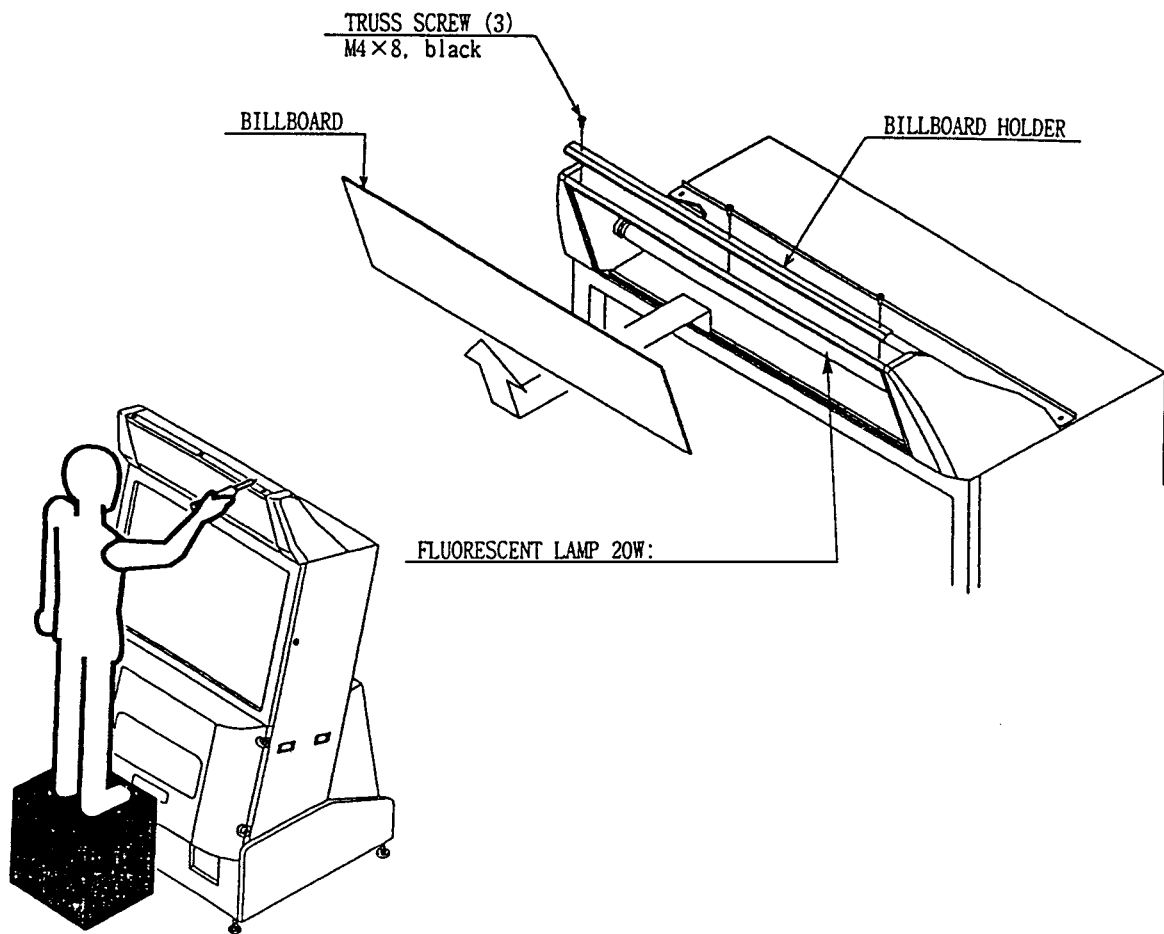
- When performing the work, be sure to turn power off. Working with power on can cause an electric shock or short circuit accident.
- The Fluorescent Lamp, when it gets hot, can cause burns. Be very careful when replacing the Fluorescent Lamp.



To perform work safely and securely, be sure to prepare a step which is in a secure and stable condition. Not using a step or using an unstable step can cause a violent falling down accidents.

### 11 -1 REPLACEMENT OF FLUORESCENT LAMP

- ① Take off the 3 screws which secure the Holder on the upper part of Billboard.
- ② Take out the billboard from the cabinet and replace the fluorescent lamp (20W)



PREPARE A STEP BEFORE PERFORMING WORK.

## 12 . PERIODIC INSPECTION TABLE

The items listed below require periodic check and maintenance to retain the performance of this machine and ensure safe operation.



- Be sure to check once a year to see if Power Cords are damaged, the plug is securely inserted, dust is accumulated between the Socket Outlet and the Power Plug, etc. Using the product with dust as is accumulated can cause a fire or electrical shock.
- Periodically once a year, request the place of contact herein stated or the Distributer, etc. where the product was purchased from, as regards the interior cleaning. Using the product with dust as is accumulated in the interior without cleaning can cause a fire or accident. Note that cleaning the interior parts can be performed on a pay-basis.

ITEMS	DESCRIPTION	PERIOD	REFERENCE
CABINET	Ensure that adj. are in contact with floor	Daily	1
	Check hazard preventive parts	Daily	1
FOOT CONTROLLER	Check volume and sensor	Monthly	7
	Apply greasing to volume gear, R guide and brake gear	Trimonthly	7
COIN SELECTOR	Check COIN SW	Monthly	7
	COIN SELECTOR cleaning	Trimonthly	9
PROJECTOR	Screen cleaning	Weekly	10
	Check adjustments	Monthly	4, 7, 10
GAME BD	Setting check,	Monthly	7
INTERIOR	Cleaning	Annually	see above.
POWER PLUG	Inspection and cleaning		
CABINET SURFACE	Cleaning	As necessary	see below

### CLEANING CABINET SURFACES

When the cabinet surfaces are badly soiled, remove stains with a soft cloth dipped in water or diluted (with water) chemical detergent and squeezed dry. To avoid damaging surface finish, do not use such solvents as thinner, benzine, etc. other than ethyl alcohol, or abrasives, bleaching agent and chemical dustcloth.

## 13 . TROUBLESHOOTING

Should trouble occur, first check connector connections.

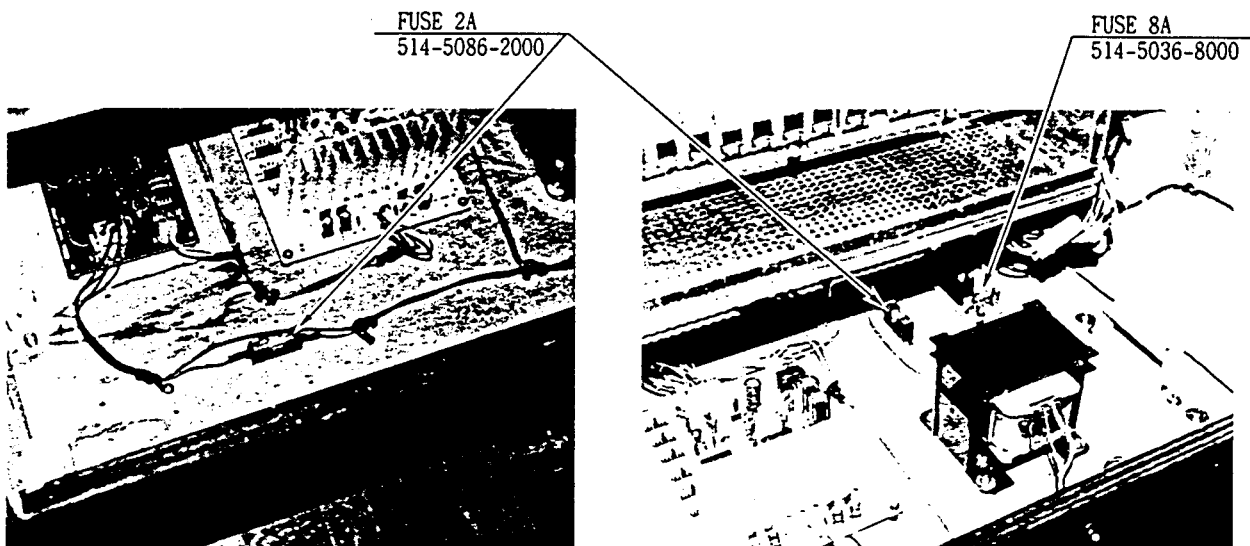
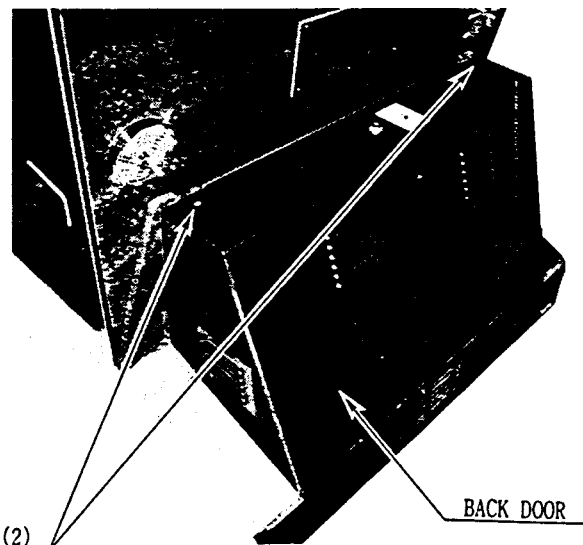
PROBLEMS	CAUSE	COUNTERMEASURES
With Main SW ON, no activation	Power is not supplied.  Power supply/voltage is not correct.  AC main fuse causes the power to be cut off due to momentary overload.	Plug in correctly  Make sure that power supply/voltage is  Check fuse. Remove the cause of overload and replace fuse
Foot Controller operation is unsatisfactory	Poor mesh of ADJUST GEAR  V.R. deviation of malfunctioning.  Poor V.R. setting	Adjust gear mesh  Adjust or Replace V.R.  Perform V.R. setting.
Irregular sound emitted from inside Rear Cabinet	Greasing to gear mesh portion is not satisfactory, or extraneous matter mixed in.	Apply greasing or eliminate extraneous matter.
The color of the image on PROJ. screen is incorrect.	Connector connections are defective.	Check the connection for the RGB and SYNC connectors of the PROJ. TERM. BD and VPM BUFFER BD.
The image on PROJ. screen has color deviation.	Affected by the magnetic field of installation location.	Make CONVERGENCE adjustment. (Refer to Section 9.)
No sound is emitted.	Sound Volume adjustment is not appropriate.  Sound BD and speaker are malfunctioning.	Adjust sound volume. (see Section 6).  Perform sound test to find and replace defective parts.(Refer to Section 6).
During advertise the Foot Controller cannot be locked	Connection fault of connector between Front Cabi and Rear Cabi  Due to instantaneous over current, fuse on ASSY ELEC is blown	Accurately connect the Connector.  After eliminating the cuase of overcurrent, replace the fuse.
The Fluorescent lamp does not light up.	The Fluorescent tube is burnt out.	Replace the Fluorescent tube (Refer to Section 10).
Switches of Control Panel, Switch Unit, Foot Sensor (PITCH), etc., cannot be turned ON or OFF.	Connection fault of connector between Front and Rear Cabi.	Accurately connect the connector.

## 13 - 1 REPLACEMENT OF FUSE



- In order to prevent an electric shock, be sure to turn power off before performing work by touching the interior parts of the product.
- Be careful so as not to damage wirings. Damaged wiring can cause an electric shock or short circuit accident
- After eliminating the cause of the blowing of fuse, replace the fuse.  
Depending on the cause of the fuse blowing, using the fuse as is blown can cause generation of heat resulting in fire.

- ① Turn off the AC Unit's Main SW.
- ② Unplug from the Plug Socket.
- ③ Remove the 2 truss screws, unlock with the Master Key, and remove the Back Door from the rear part of the Front Cabi.
- ④ Two types of fuse are on the Power Supply Unit.



# 14 . GAME BOARD



- In order to prevent an electrical shock, be sure to turn power off before performing work by touching the interior parts of the product.
- Be careful so as not to damage wirings. Damaged wiring can cause an electric shock or short circuit accident.



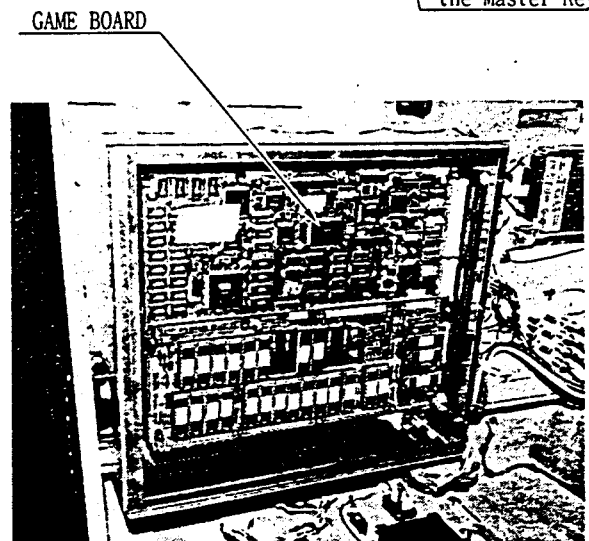
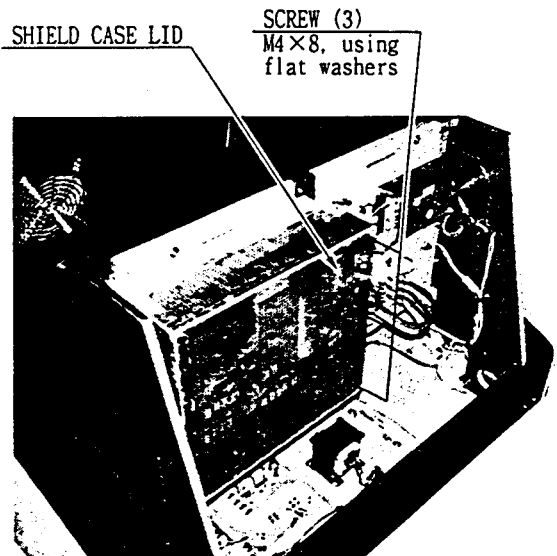
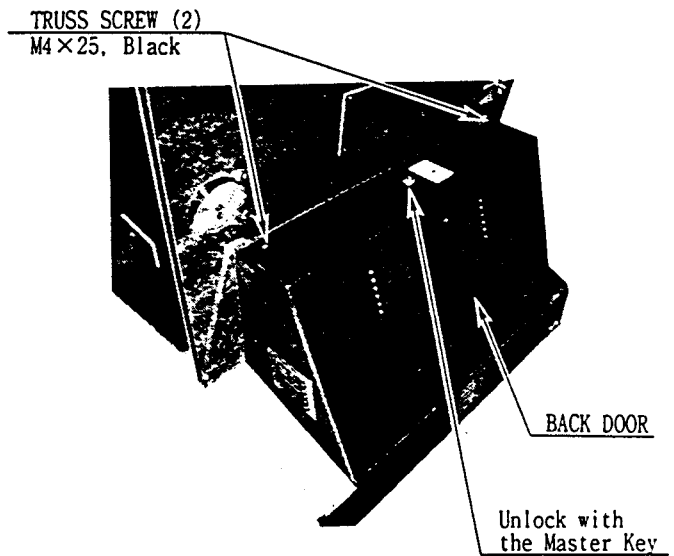
Do not expose the Game BD, etc. without a good reason. In this product, setting changes are made during the test mode. The Game BD need not be operated. Use the Game BD, etc. as is with the same setting made at the time of shipment.

## 14 -1 REMOVING THE IC BOARD

The IC board such as Game BD, etc., is on the Rear side of the Front Cabi.

Take out the 2 Truss screws, unlock with the Master Key, and remove the Back Door from the rear part of the Front Cabinet.

Take out the 3 screws, unlock with the Master Key, and remove the Back Door from the rear part of the Front Cabinet. (photo 14.1a)



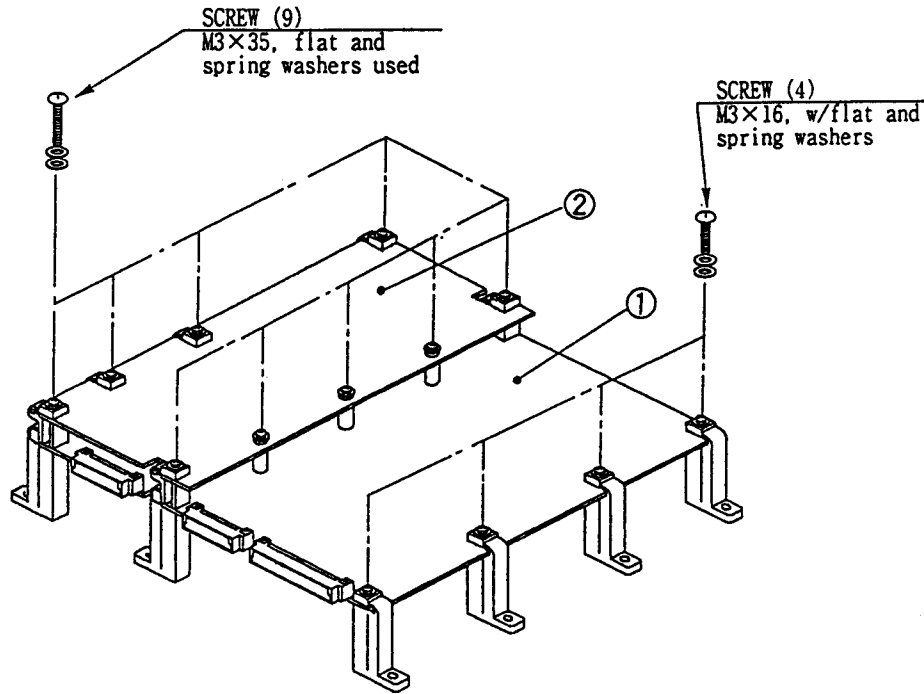
14 - 2 COMPOSITION OF GAME BOARD

GAME BD SPW  
(833-13204)

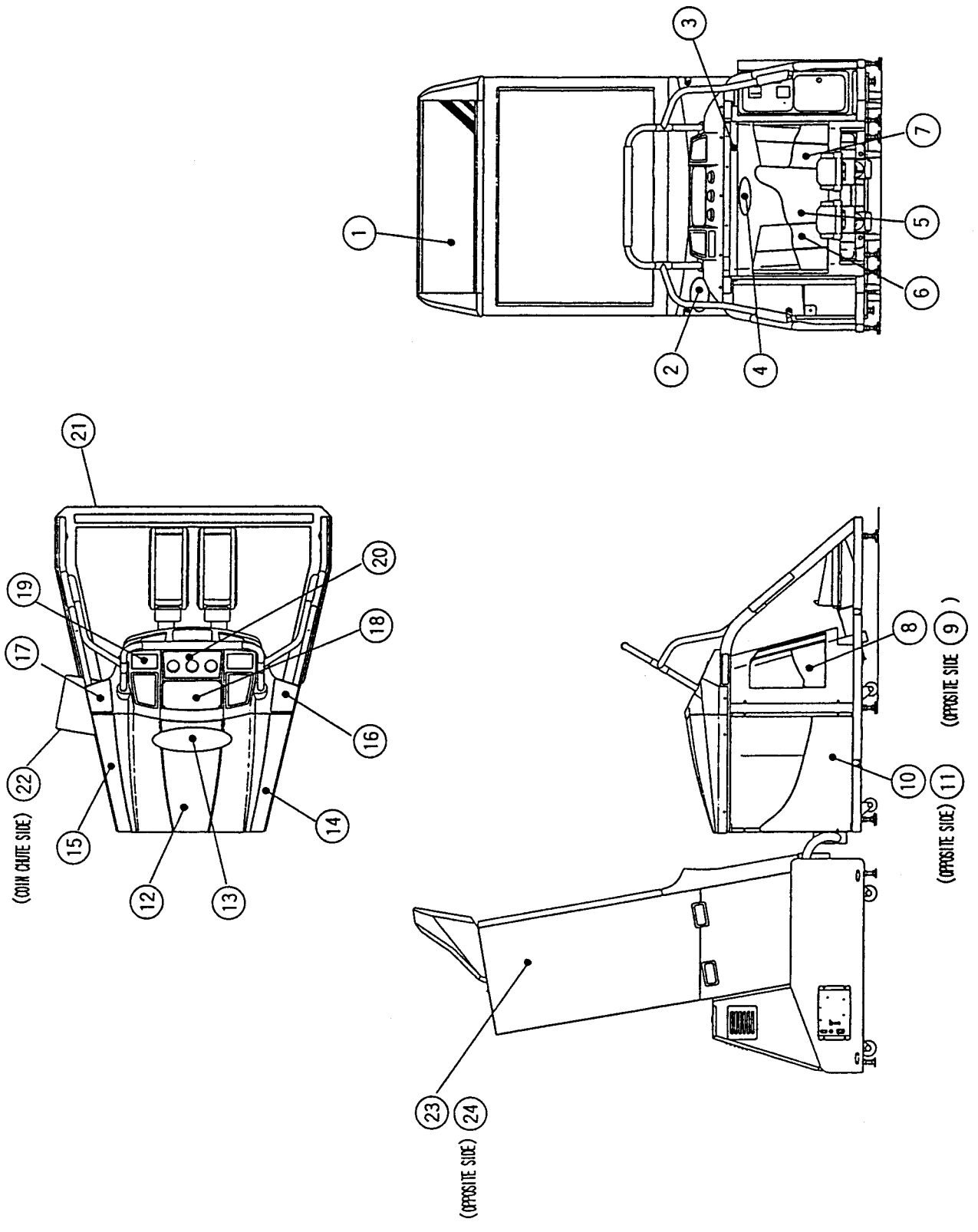
ROM BD SPW  
(834-13205)

MODEL 2 C-CRX MAIN BD COM (837-12469-01)

MODEL 2 C-CRX MAIN BD COM (837-12469-91)



# 15. DESIGN RELATED PARTS

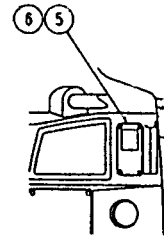
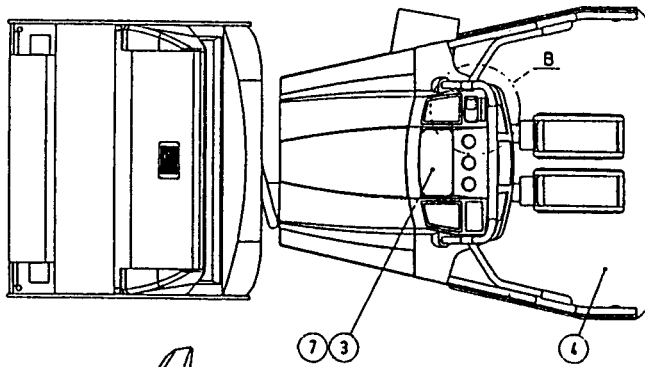




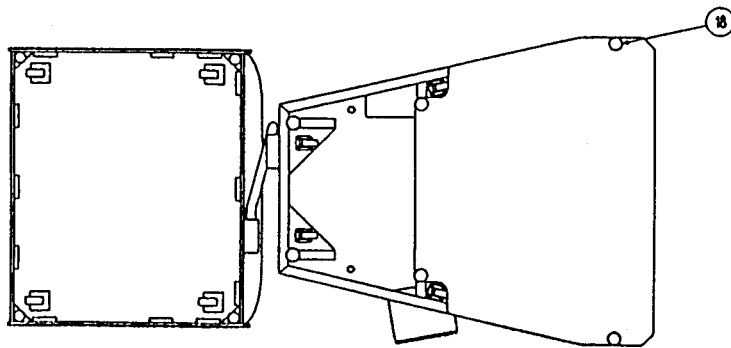
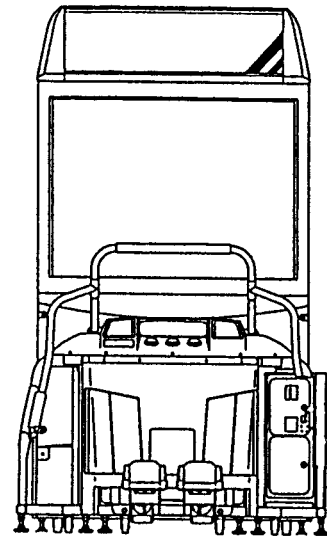
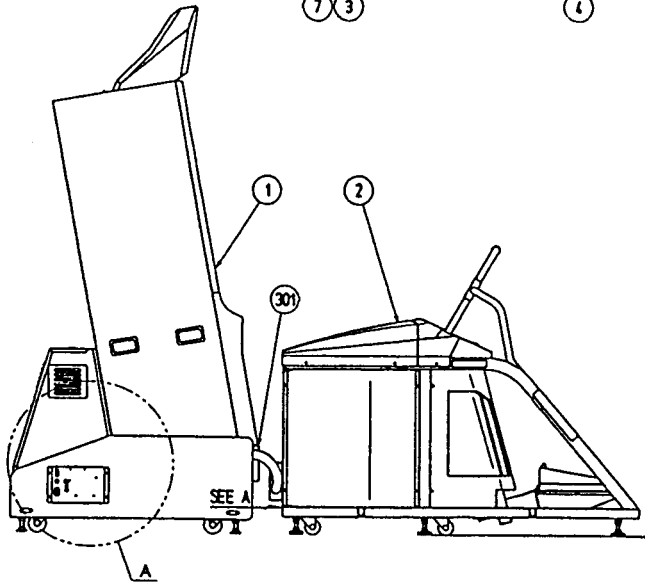
ITEM NO.	PART NO.	DESCRIPTION
1	423-0303-91	BILLBOARD PLATE SPW
2	SPW-1301	STICKER FRONT PANEL
3	SPW-3003-B	STICKER SWING COVER A
4	SPW-3003-C	STICKER SWING COVER B
5	SPW-3003-D	STICKER SWING COVER C
6	SPW-3003-E	STICKER SWING COVER D
7	SPW-3003-F	STICKER SWING COVER E
8	SPW-3003-G	STICKER SWING COVER F
9	SPW-3003-H	STICKER SWING COVER G
10	SPW-3010-B	STICKER SIDE LID L
11	SPW-3011-B	STICKER SIDE LID R
12	SPW-3004-B	STICKER UPPER COVER A
13	SPW-3004-C	STICKER UPPER COVER B
14	SPW-3004-D	STICKER UPPER COVER C
15	SPW-3004-E	STICKER UPPER COVER D
16	SPW-3851-B	STICKER CONT PNL A
17	SPW-3851-C	STICKER CONT PNL B
18	422-0628-01	PLAY INSTR SH SPW ENG
19	421-7308~	DENOMI SHEET I GAME
20	SPW-3851-E	STICKER CONT PNL ENG
21	SPW-0001-01	CAUTION MAT SPW ENG
22	SPW-3702	STICKER TOWER
23	SPW-9617-91	STICKER PTV SIDE L SPW
24	SPW-9618-91	STICKER PTV SIDE R SPW

# 16. PARTS LIST

## TOP ASSY SEGA WATERSKI



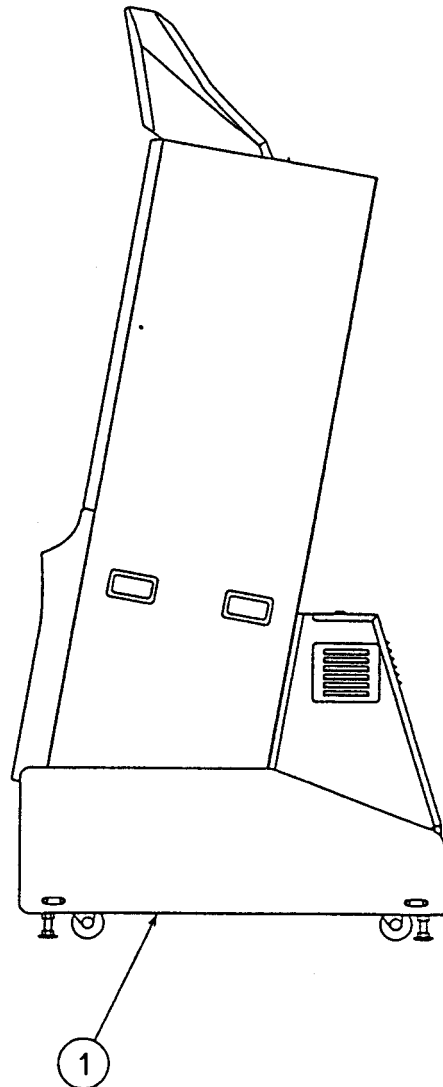
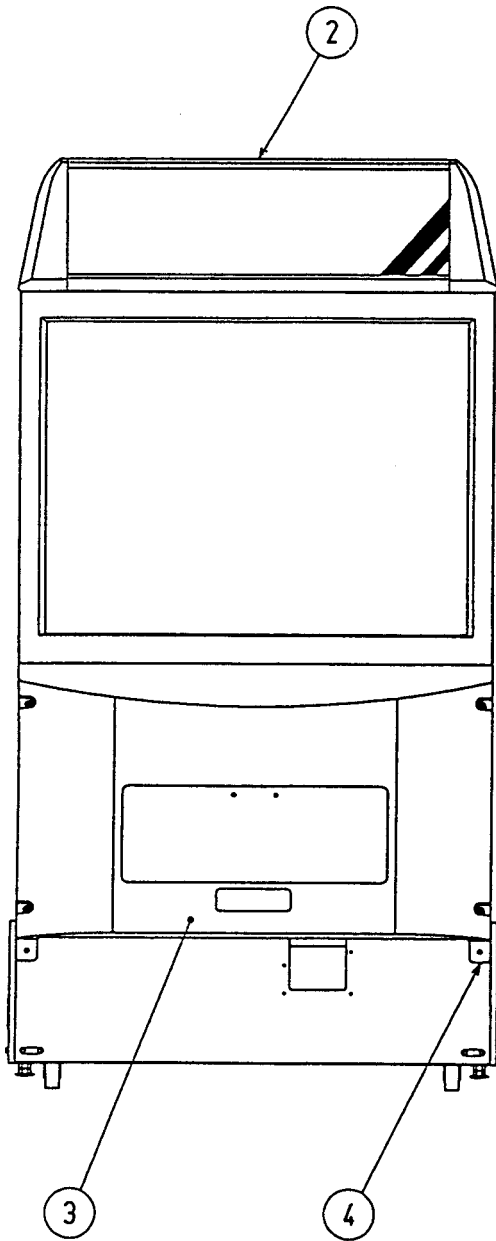
Details of PART B



TOP ASSY SEGA WATERSKI

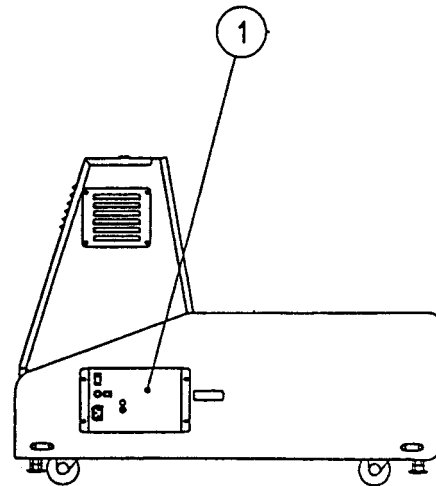
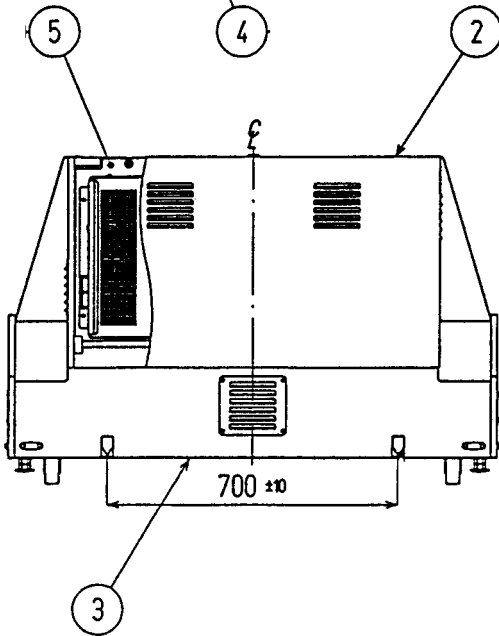
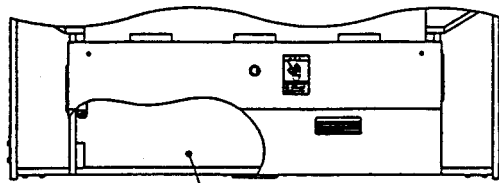
ITEM NO.	PART NO.	DESCRIPTION
1	SPW-1000	ASSY FRONT CABI
2	SPW-3000	ASSY REAR CABI
3	ASK-0001	CONT PNL PLATE
4	SPW-0001-01	CUATION MAT SPW ENG
5	DYN-0011	DENOMI PLATE W/O ORIGINAL
6	421-7308-~	DENOMINATION SHEET 1 GAME
7	422-0628-01	PLAY INSTR SH SPW ENG
101	600-6695-01	AC CABLE CONNECT TYPE USA 15A

ASSY FRONT CABI (SPW-1000)



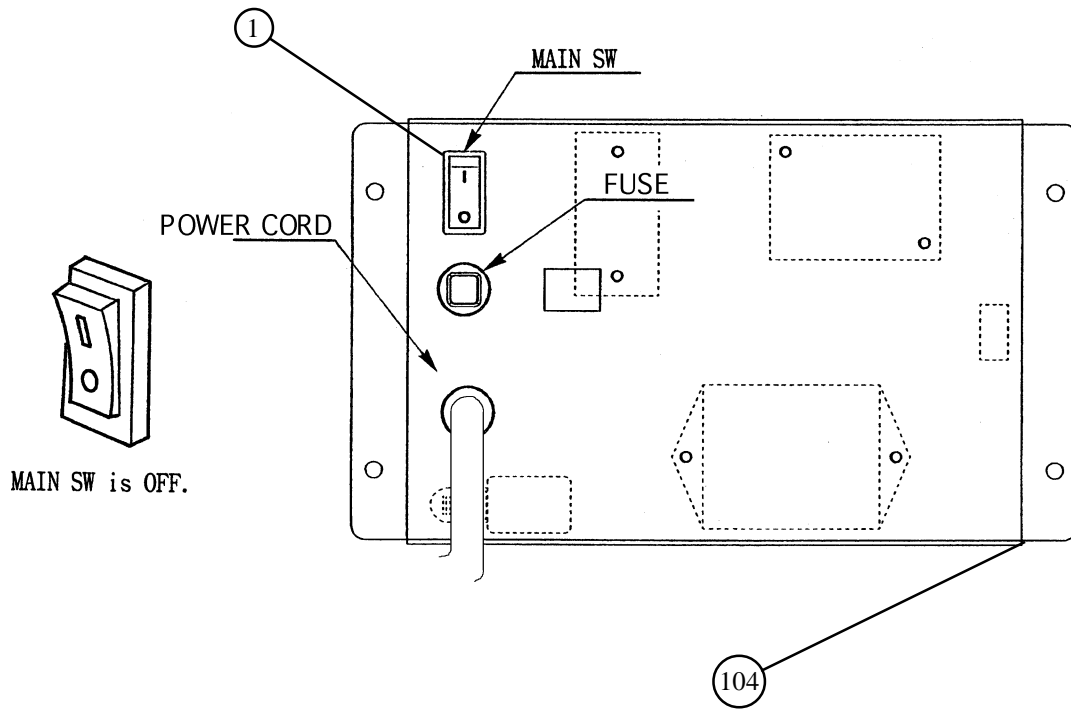
ITEM NO.	PART NO.	DESCRIPTON
1	SPW-1100	ASSY BASE CABI
2	SPW-1200	ASSY PTV
3	SPW-1300	ASSY FRONT PANEL
4	SPW-1001	PTV HOLDER

ASSY BASE CABI (SPW-1100)



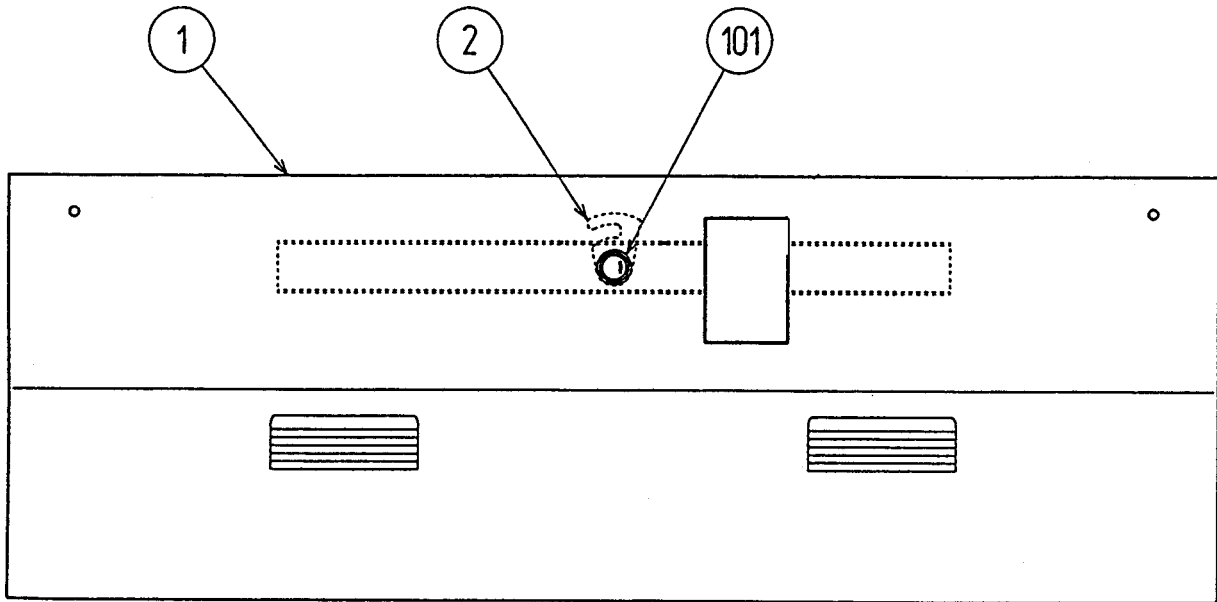
ITEM NO.	PART NO.	DESCRIPTION
1	SPW-1120	AC UNIT
2	SPW-1140	ASSY BACK DOOR
3	SPW-1150	ASSY SUB BASE CABI
4	SPW-4000	ASSY ELEC
5	SPW-4100	ASSY MAIN BD

AC UNIT (SPW1-1120)



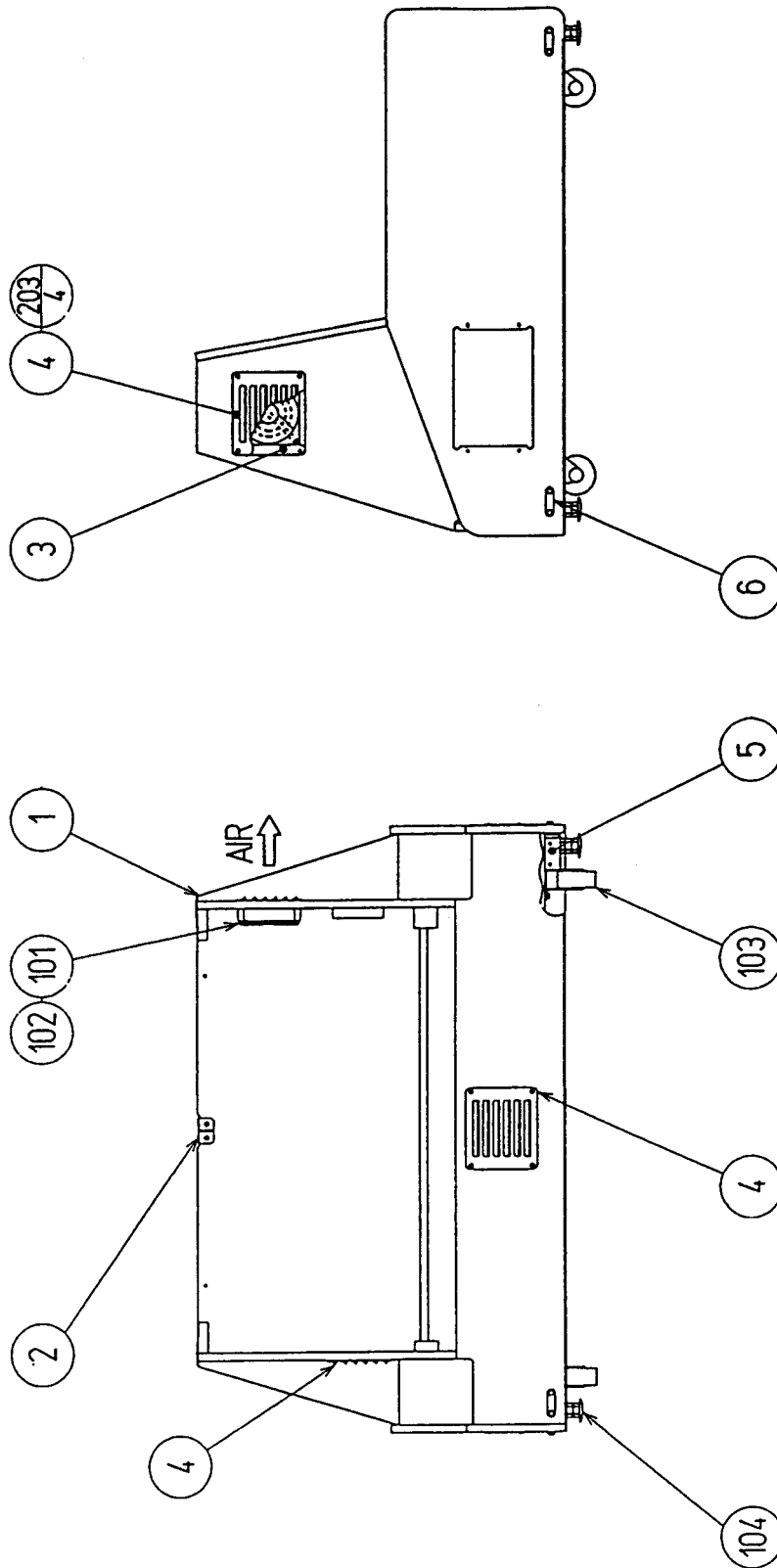
ITEM NO.	PART NO.	DESCRIPTION
1	SPW-1121	AC BRKT
104	509-5453-91-V-B	SW ROCKER TYPE J8 V-B

ASSY BACK DOOR (SPW-1140)



ITEM NO.	PART NO.	DESCRIPTION
1	ASK-1141	BACK DOOR
2	TH-1015	LOCKING TONGUE
101	220-5575	CAM LOCK MASTER W/O KEY

ASSY SUB BASE CABI (SPW-1150)

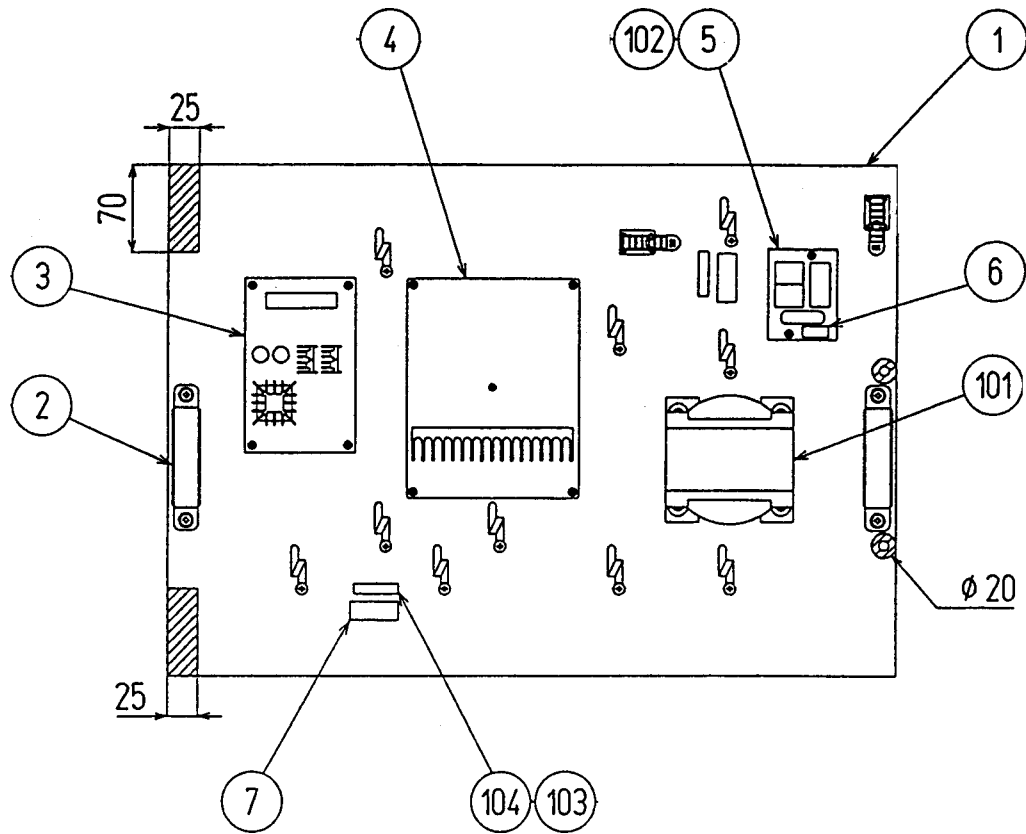




ASSY SUB BASE CABI (SPW-1150)

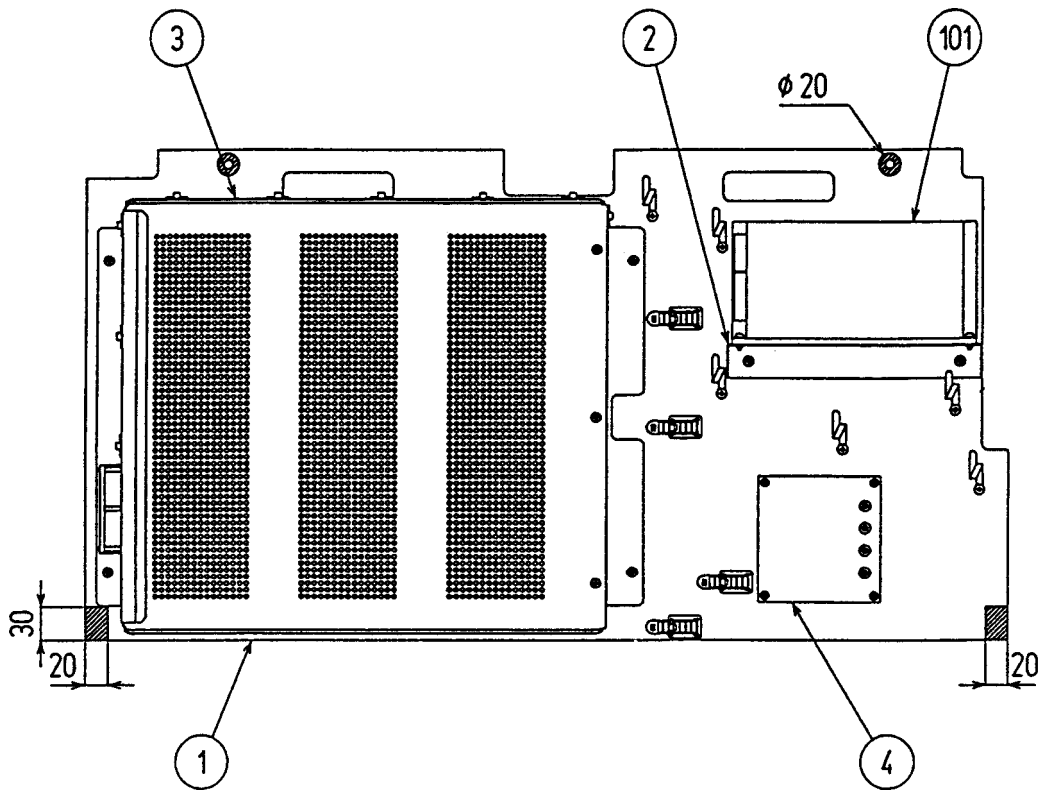
ITEM NO.	PART NO.	DESCRIPTION
1	SPW-1151	BASE CABI
2	ASK-1152	LOCK BRKT
3	105-5238	FAN BRKT
4	UP-1018	AIR VENT
5	ARC-1006	LEG BRKT
6	117-5191	PLATE
101	260-0011-02	AXIAL FLOW FAN AC100V 50-60Hz
102	601-8543	FAN GAURD
103	999-0168	CASTER 2 1/2"
104	999-0167	LEVELER (LEG ADJUSTER BOLT)

ASSY ELEC (SPW-4000)



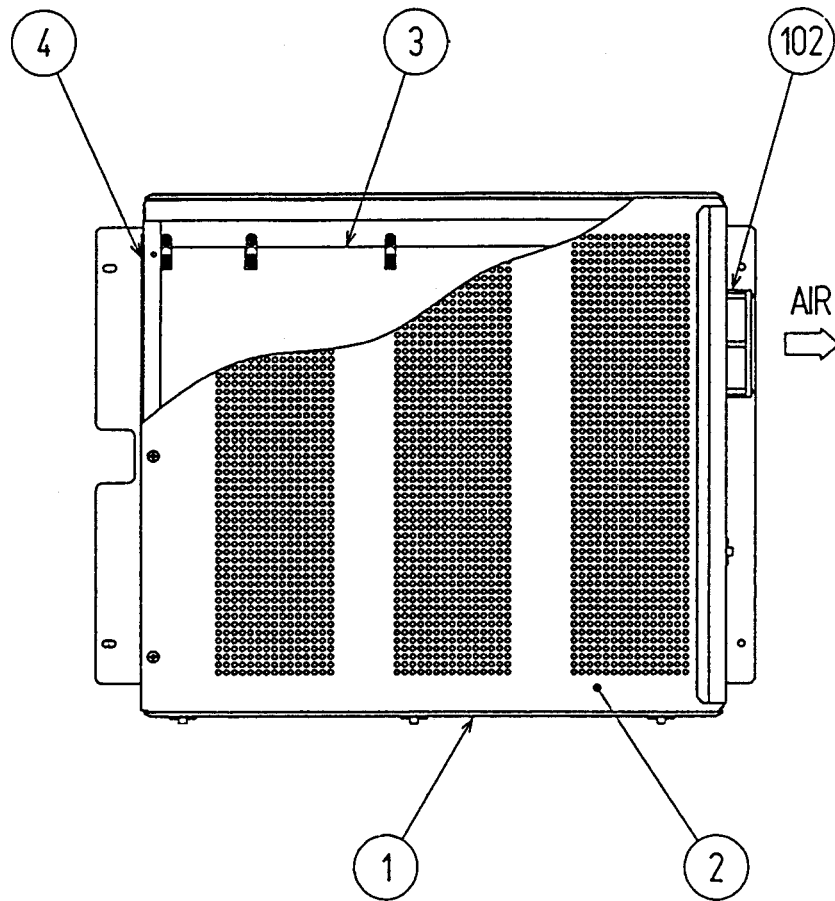
ITEM NO.	PART NO.	DESCRIPTION
1	SPW-4001	WOODEN BASE ELEC
2	GBN-4002	HANDLE
3	839-0451-01	LIGHT CONTROL BD TTR
4	838-11650-32	EQ. PWR AMP SPW
5	838-11856-01	CONNECT BD W/FUSE & COVER
101	560—5345	PWR XFMR 114.8 VA
102	LOCAL PURCHASE	FUSE
103	LOCAL PURCHASE	FUSE
104	514-5084	FUSE HOLDER

ASSY MAIN BD (SPW-4100)



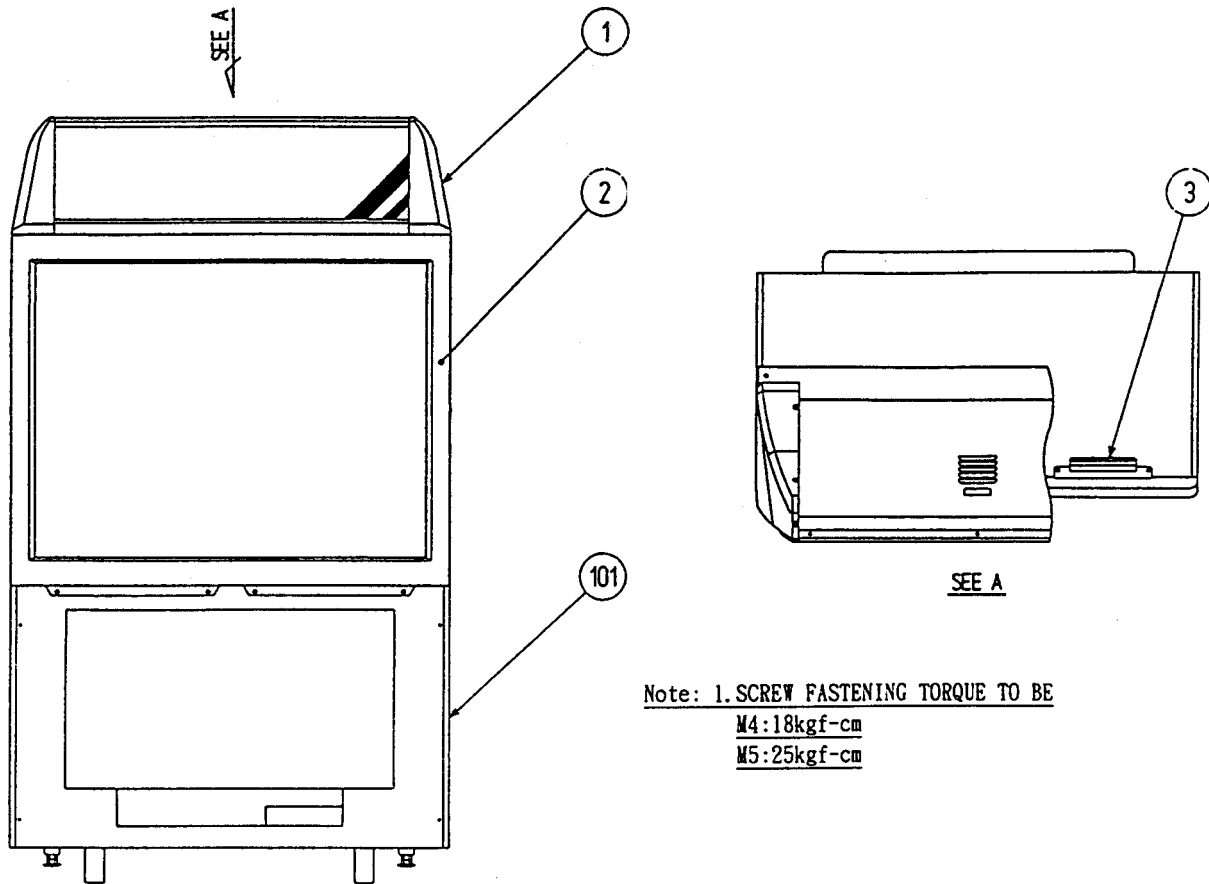
ITEM NO.	PART NO.	DESCRIPTION
1	SPW-4101	WOODEN BASE MAIN
2	GBN-4102	SW REG BRKT
3	SPW-0100	ASSY SHIELD CASE
4	839-0582-03	RGB BUFFER BD 0.7V OUT BNC
101	400-5306CE-01	SW REG +5V +12V -5V CE

ASSY SHIELD CASE (SPW-0100)



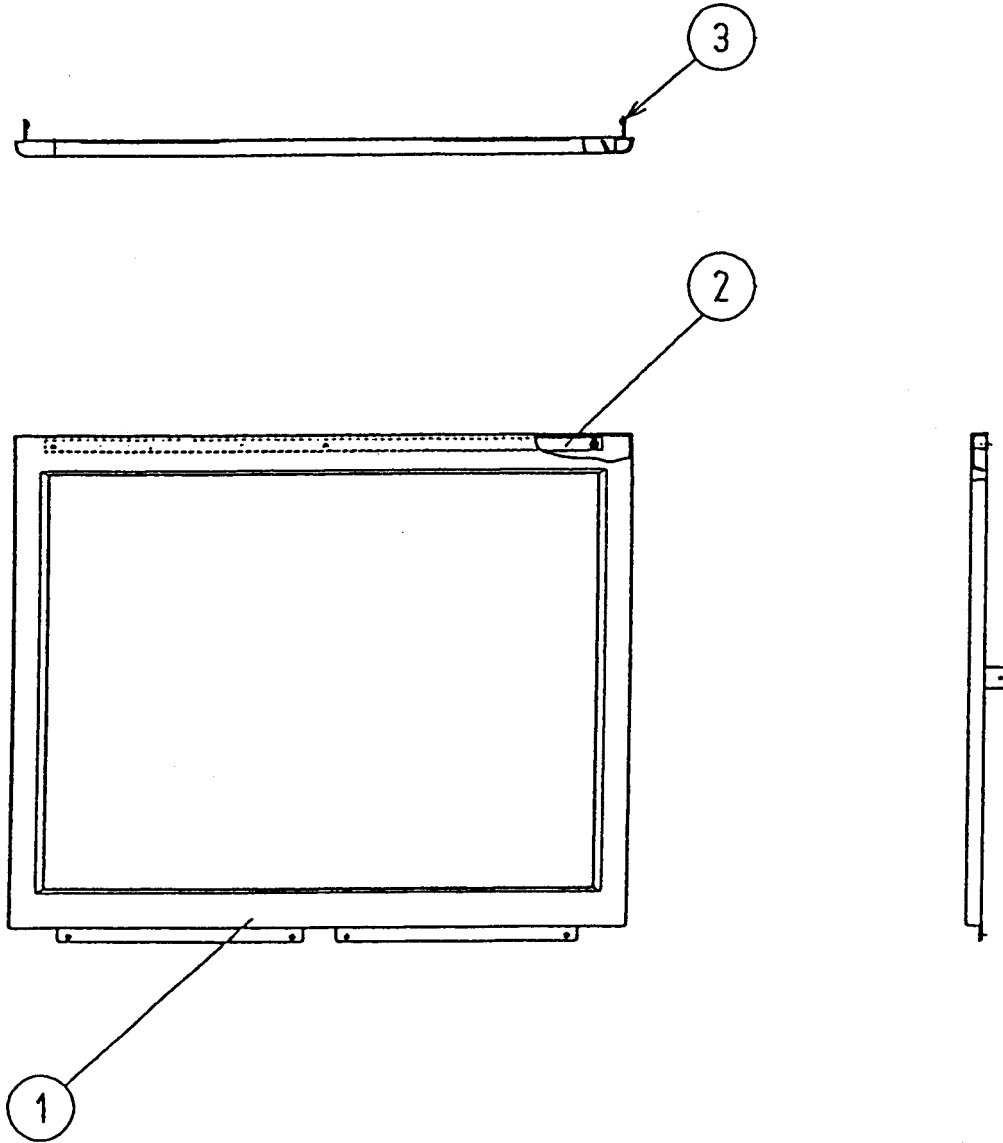
ITEM NO.	PART NO.	DESCRIPTION
1	105-5218	SHIELD CASE
2	105-5219-91	SHIELD CASE LID
3	833-13204	GAME BD SPW
4	839-0949-01	FLT BD C-CRX SPW
102	260-0055	FAN MOTOR DC 5V

ASSY PTV (SPW-1200)



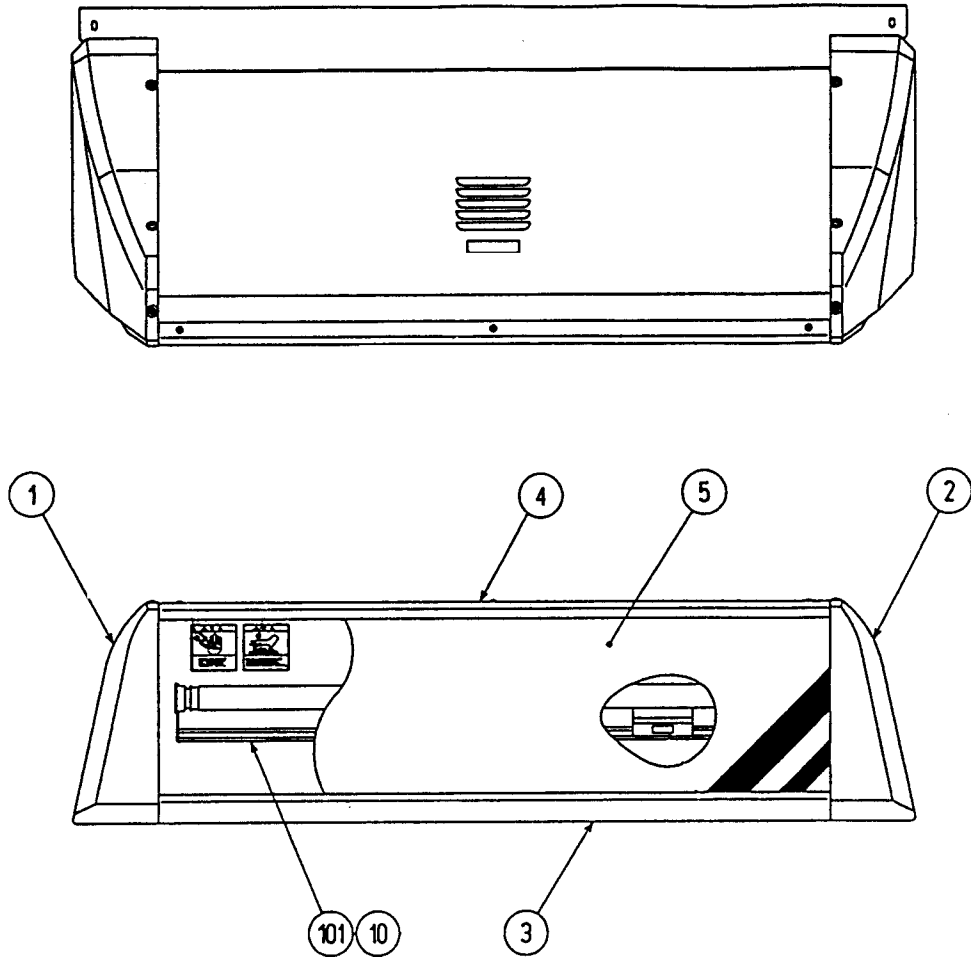
ITEM NO.	PART NO.	DESCRIPTION
1	SPW1-1220	ASSY BILLBOARD
2	MGL-1150	ASSY MASK
3	RAL-0501	MASK HOLDER
101	200-5639-SPW	ASSY PROJECTION DISPLAY US SPW

ASSY MASK (MGL-1150)



ITEM NO.	PART NO.	DESCRIPTION
1	MGL-1102	TV MASK
2	MGL-1151	SLIT PLATE
3	MGL-1152	MASK SIDE HOLDER

ASSY BILBOARD (SPW1-1220)



ITEM NO.	PART NO.	DESCRIPTION
1	SPW-1221	LEFT COVER
2	SPW-1222	RIGHT COVER
3	SPW-1223	BILBOARD BOX
4	SPW-1224	BILBOARD HOLDER
5	423-0303-91	BILBOARD PLATE SPW
10	280-5308	SPACER 4.5-12X2
101	LOCAL PURCHASE	ASSY FL 20W EX W/CONN HIGH T CE

ASSY REAR CABI (SPW-3000)

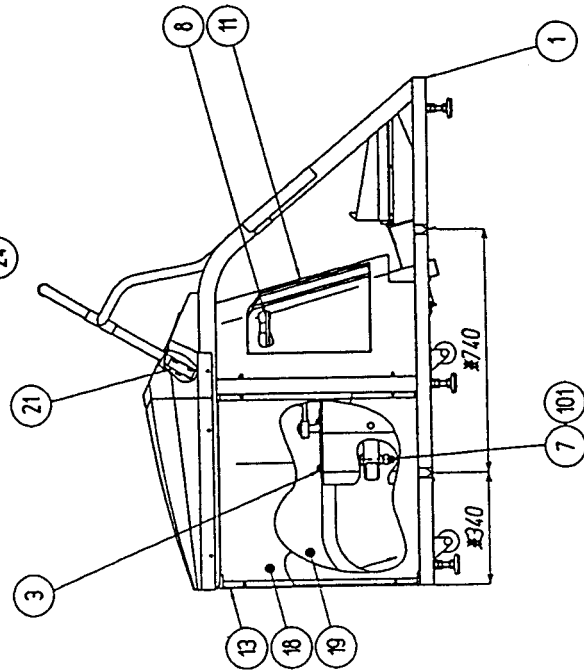
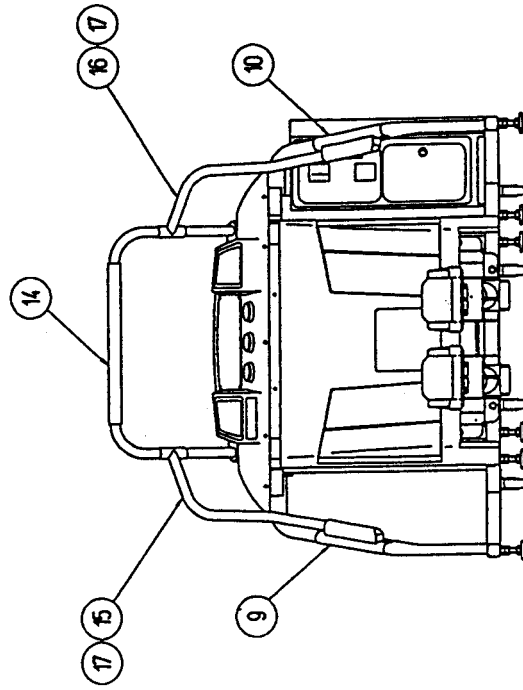
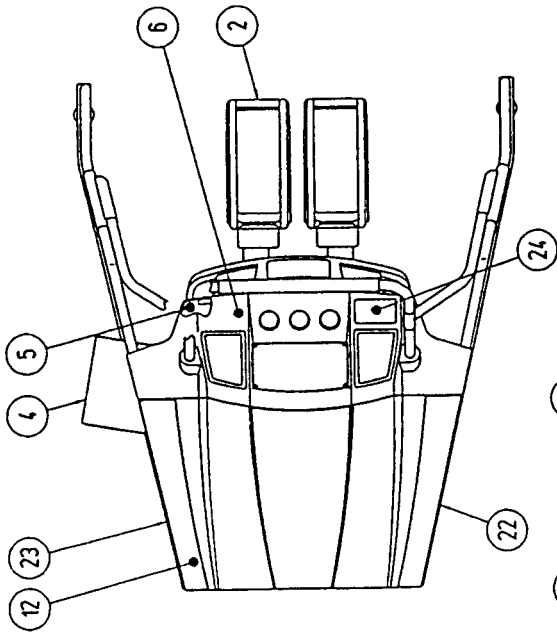
Note: BOLT, NUT FASTENING TORQUE TO BE

M4: 18kgf-cm

M8: 178kgf-cm (⑤): 150kgf-cm

M10: 250kgf-cm

M12: 617kgf-cm

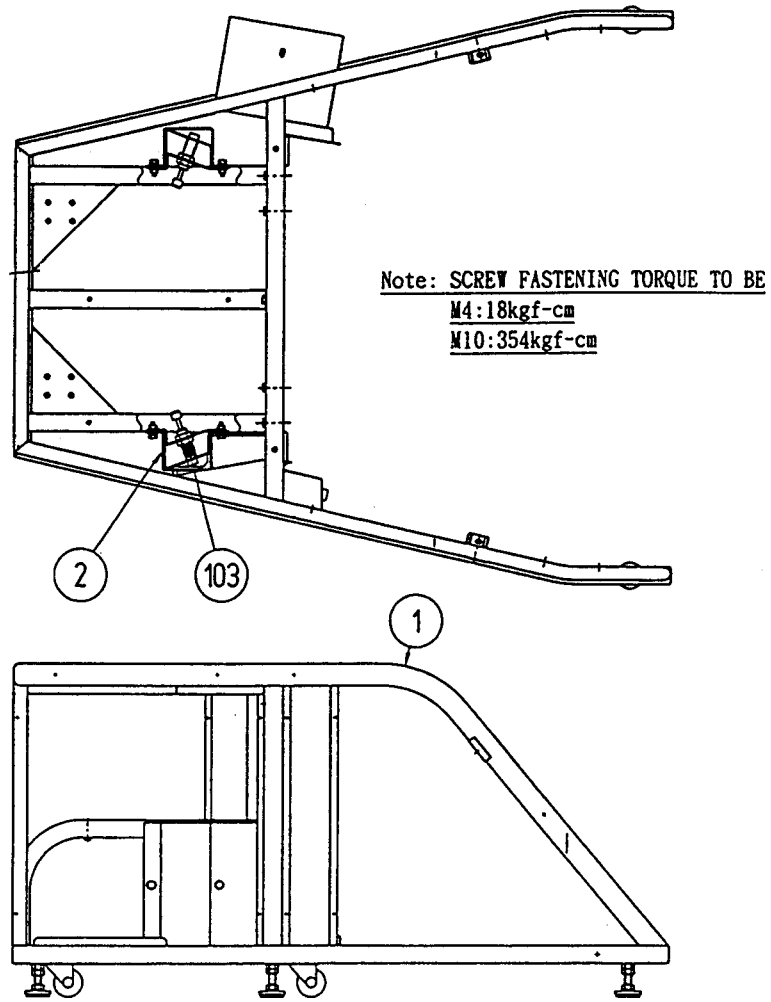




ASSY REAR CABI (SPW-3000)

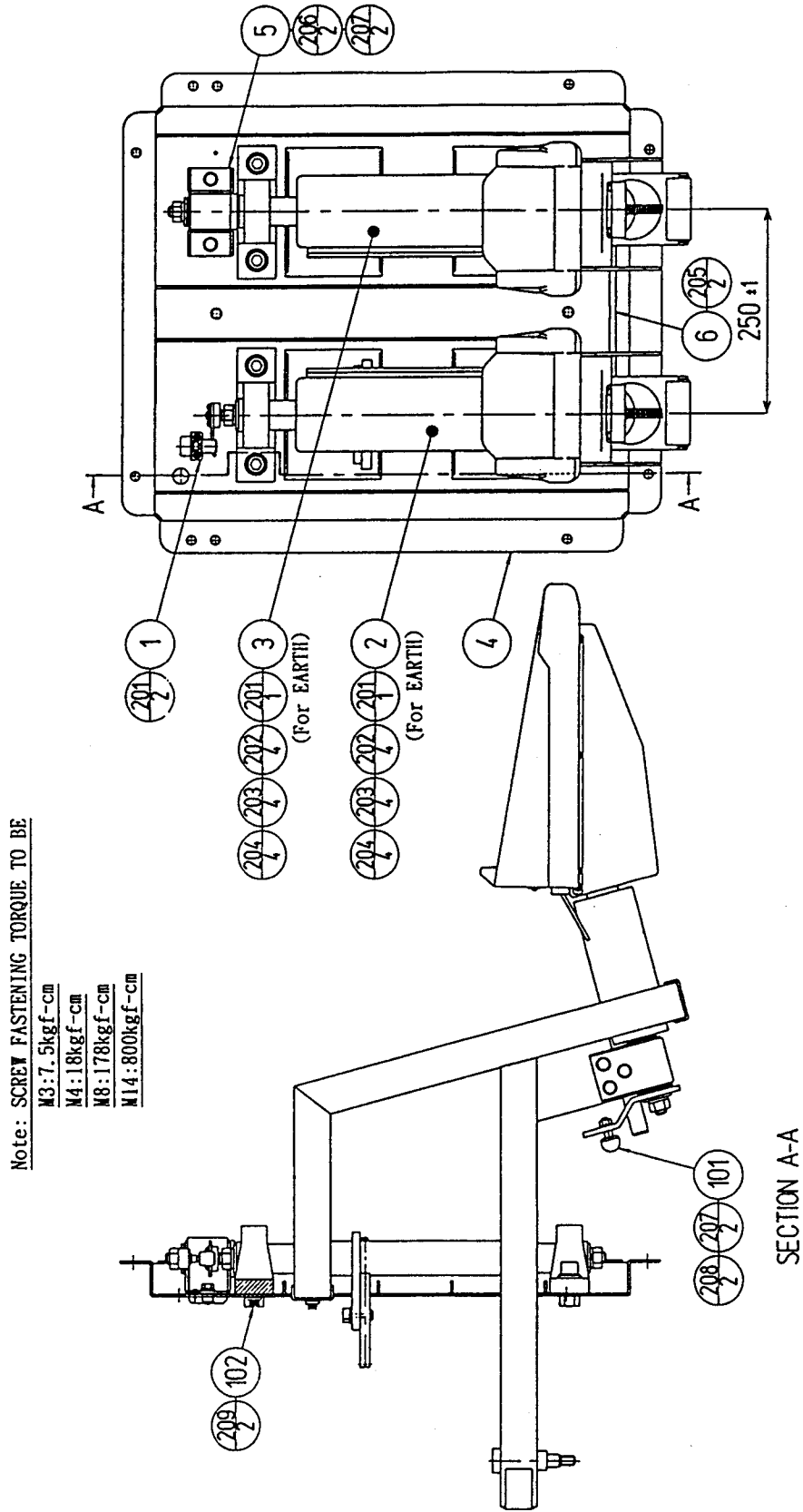
ITEM NO.	PART NO.	DESCRIPTION
1	SPW-3100	ASSY SUB REAR CABI
2	SPW-3200	ASSY SWING CONTROLLER
3	SPW-3500	ASSY BRAKE MECHA
4	SPW-3700	ASSY COIN CHUTE TOWER
5	SPW-3800	ASSY CONT PNL BASE
6	SPW-3850	ASSY CONT PNL
7	ASK-3001	SWING LINK BAR
8	ASK-3002	BOTTOM BOARD
9	SPW-3001	PIPE HOLDER L
10	SPW-3002	PIPE HOLDER R
11	SPW-3003	SWING COVER
12	SPW-3004	UPPER COVER
13	SPW-3005	FRAME LID F
14	SPW-3006	GRIP PIPE
15	SPW-3007	GRIP SUPPORT L
16	SPW-3008	GRIP SUPPORT R
17	SPW-3009	HOLDER PLATE
18	SPW-3010	SIDE LID L
19	SPW-3011	SIDE LID R
21	SPW-3804	PIPE HOLDER
22	SPW-3010-B	STICKER SIDE LID L
23	SPW-3011-B	STICKER SIDE LID R
24	440-CS0094-EG	STICKER C FOR PLAYER ASK ENG
101	100-5249	BEARING FAI16

ASSY SUB REAR CABI (SPW-3100)



ITEM NO.	PART NO.	DESCRIPTION
1	SPW-3101	REAR FRAME
2	ASK-3102	BUFFER BRKT
101	601-8918	SHOCK ABSORBER RH

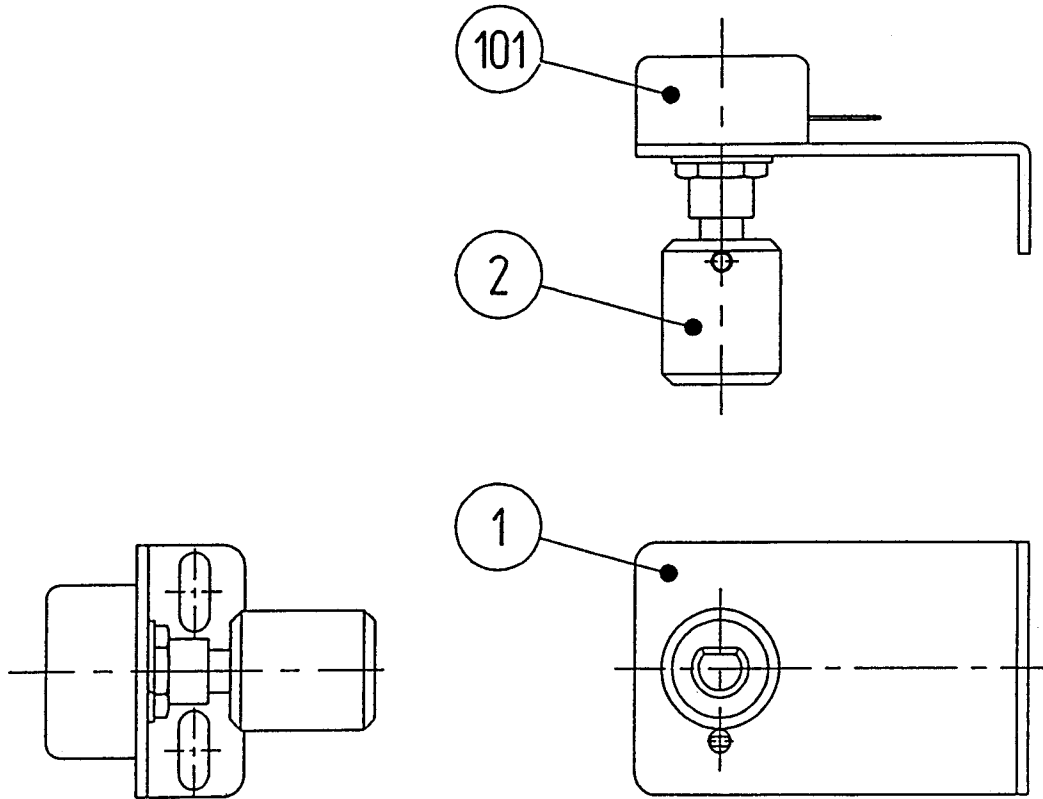
ASSY SWING CONTROLLER (SPW-3200)



ASSY SWING CONTROLLER (SPW-3200)

ITEM NO.	PART NO.	DESCRIPTION
1	ASK-3250	ASSY SWING VOLUME
2	SPW-3300	ASSY SWING FRAME L
3	SPW-3400	ASSY SWING FRAME R
4	ASK-3201	SWING FRAME BASE
5	ASK-3202	SWING ROSTA BRKT
6	ASK-3203	STEP LINK ROD
101	111-0050	LINK BALL RBL8D
102	280-5009-01	CORD CLAMP 21
201	000-P00408-W	M SCR PH W/FS M4X8
202	FAS-200005	HEX SKT H CAP SCR B OZ M14X40
203	060-S01400	SPR WSHR M14
204	060-F01400	FLT WSHR M14
205	050-H00800	HEX NUT M8
206	030-000820-S	HEX BLT W/S M8X20
207	060-F00800	FLT WSHR M8
208	050-U00800	U NUT M8
209	000-F00308	M SCR FH M3X8

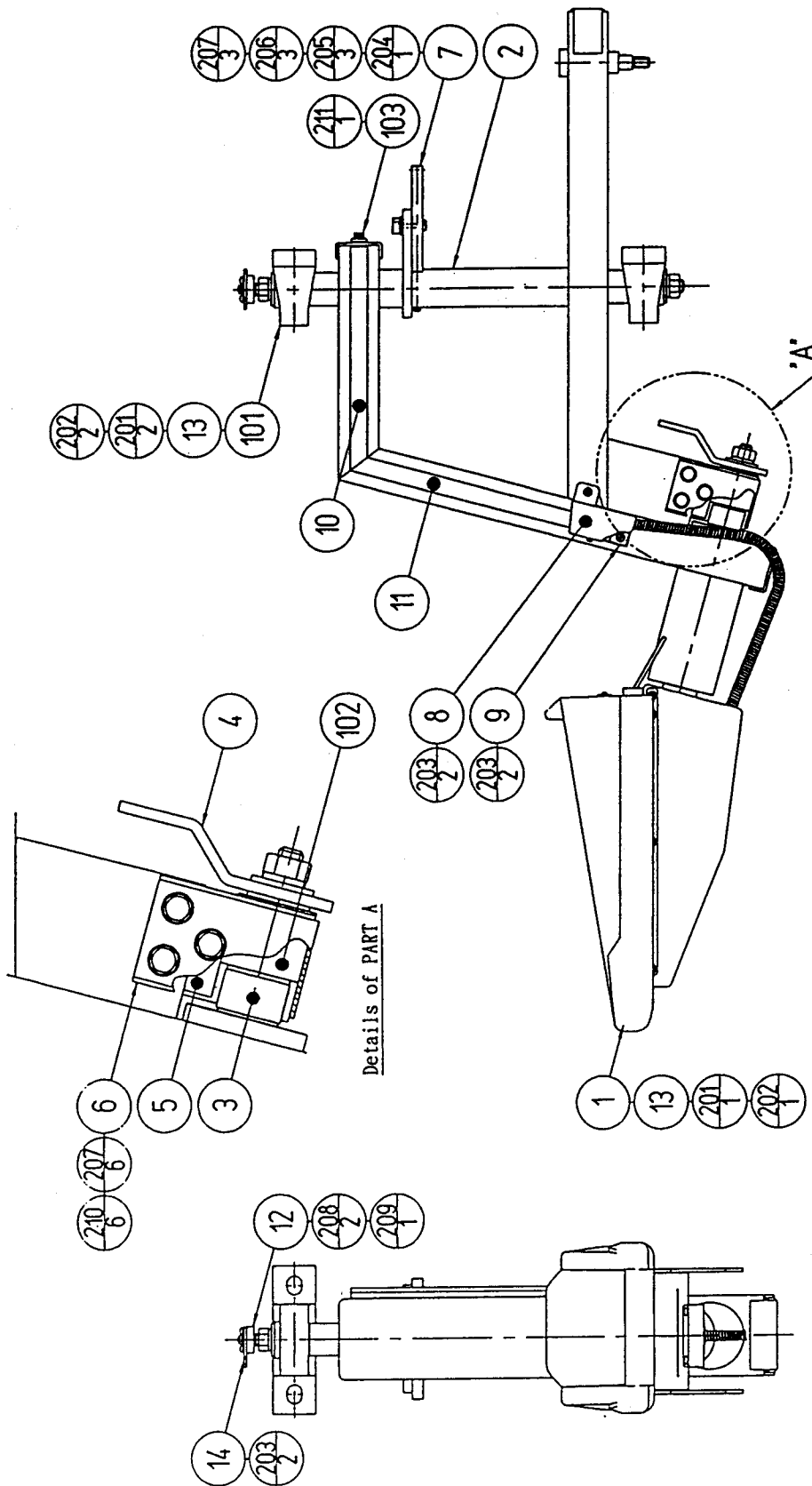
ASSY SWING VOLUME (ASK-3250)



ITEM NO.	PART NO.	DESCRIPTION
1	ASK-3251	SWING VOL BRKT
2	601-7945	GEAR 20
101	220-5373	VOL CONT B-5K

ASSY SWING FRAME L (SPW-3300)

ASSY SWING FRAME R (SPW-3400)



Note: SCREW FASTENING TORQUE TO BE

M3: 7.5kgf-cm

M4: 18kgf-cm

M5: 37kgf-cm

M8: 178kgf-cm

M14: 800kgf-cm

ONLY  $\varnothing 205$ : 235kgf-cm

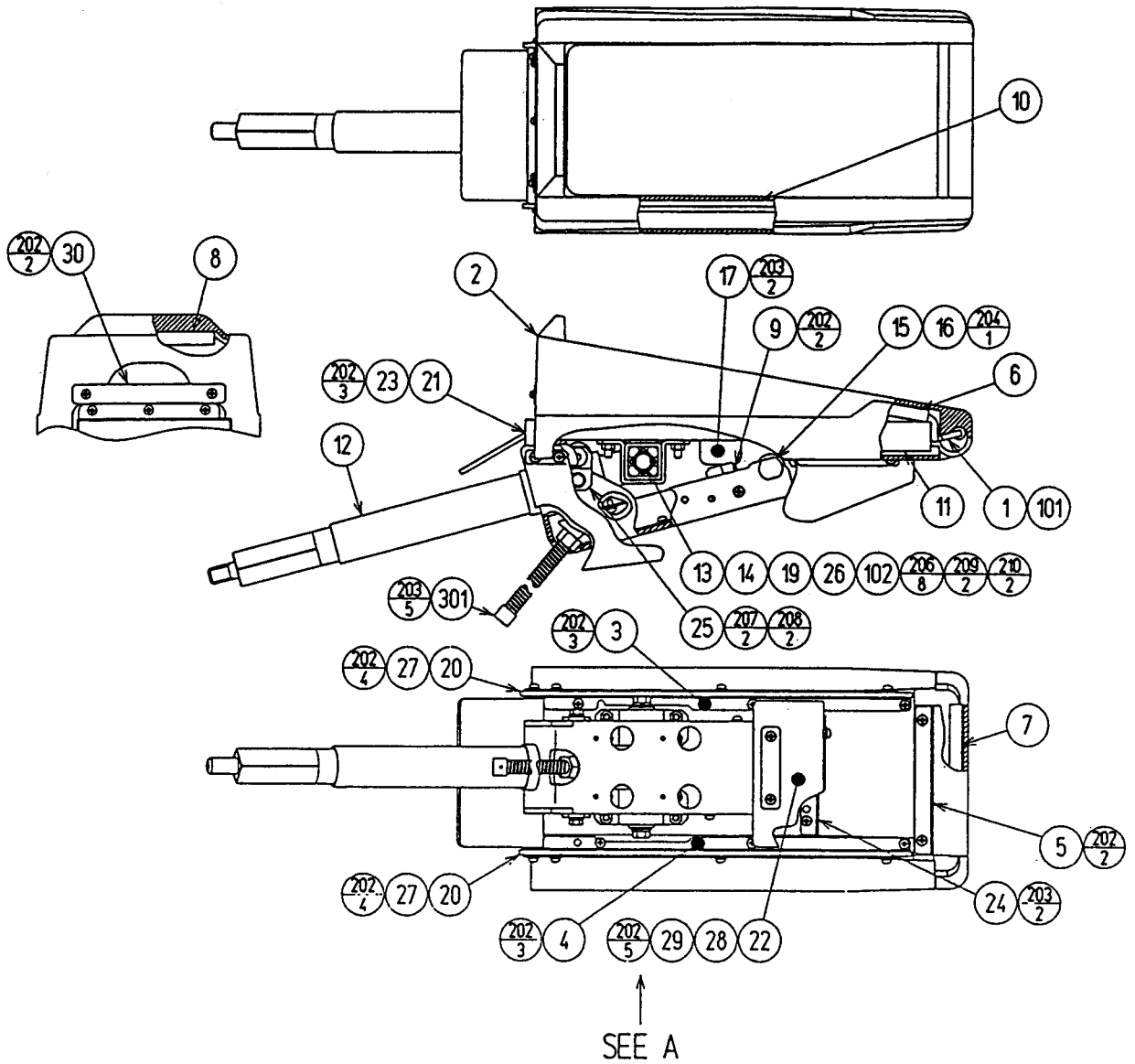
ASSY SWING FRAME L (SPW-3300)

ASSY SWING FRAME R (SPW-3400)

ITEM NO.	PART NO.	DESCRIPTION
1	SPW-3350	ASSY STEP L
	SPW-3450	ASSY STEP R
2	SPW-3301	SWING FRAME L
	SPW-3401	SWING FRAME R
3	ASK-3302	STEP COLLAR L
	ASK-3402	STEP COLLAR R
4	ASK-3303	LINK BRKT
5	ASK-3307	ROSTA SPACER
6	ASK-3308	STEP ROSTA BRKT
7	ASK-3309	SWING GEAR 130
8	SPW-3302	WIRE COVER L
	SPW-3402	WIRE COVER R
9	SPW-3303	TUBE HOLDER L
	SPW-3403	TUBE HOLDER R
10	ASK-3312	UPPER PROTECTOR L
	ASK-3406	UPPER PROTECTOR R
11	ASK-3313	LOWER PROTECTOR L
	ASK-3407	LOWER PROTECTOR R
12	TTR-2009	GEAR HOLDER 80
13	TTR-3205	FLT 14.5-36X3.2
14	601-6005	ADJUST GEAR
101	100-5240	BEARING FAI30
102	601-8917	ROSTA 22
201	050-H01400	HEX NUT M14
202	060-S01400	SPR WSHR M14
203	000-P00408-W	M SCR PH W/FS M4X8
204	FAS-000029	M SCR PH W/FSM4X50
205	020-000830-HZ	HEX SKT CAP SCR BLK OZ M8X20
206	060-S00800	SPR WSHR M8
207	060-F00800	FLT WSHR M8
208	028-C00416-P	SET SCR CH CUP P M4X16
209	050-U00500	U NUT M5
210	030-000820-S	HEX BLT W/S M8X20
211	000-F00308	M SCR FH M3X8

ASSY STEPL (SPW-3350)

ASSY STEP R (SPW-3450)



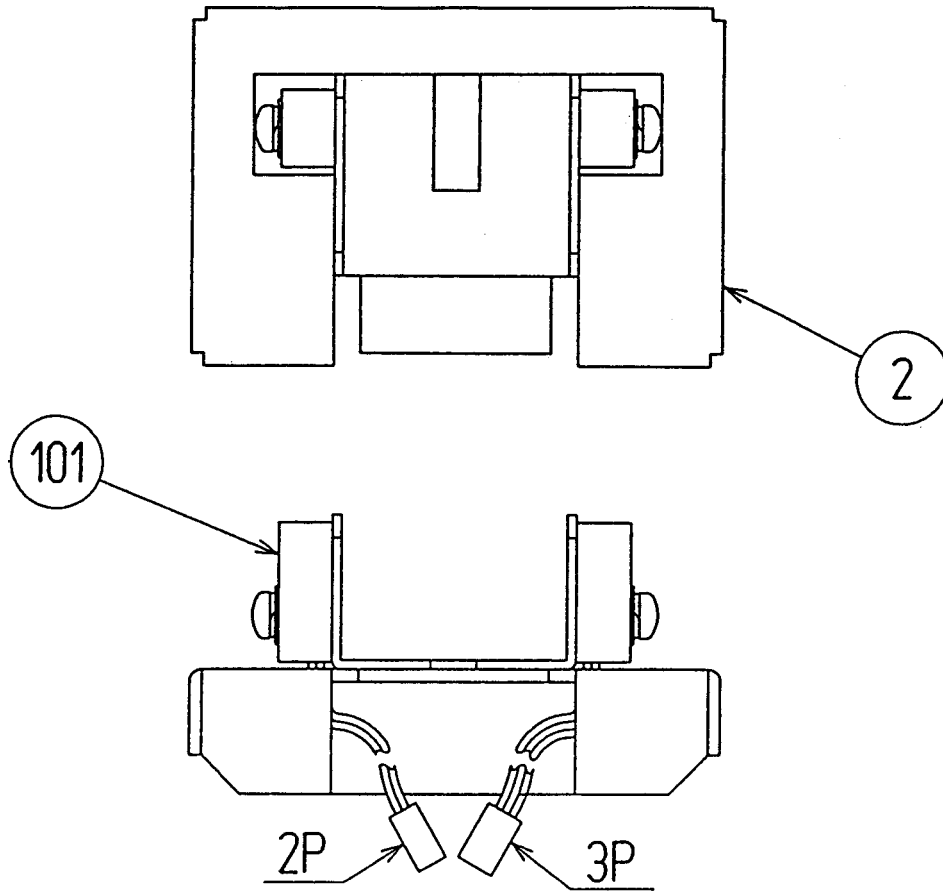


ASSY STEP L (SPW-3350)

ASSY STEP R (SPW-3450)

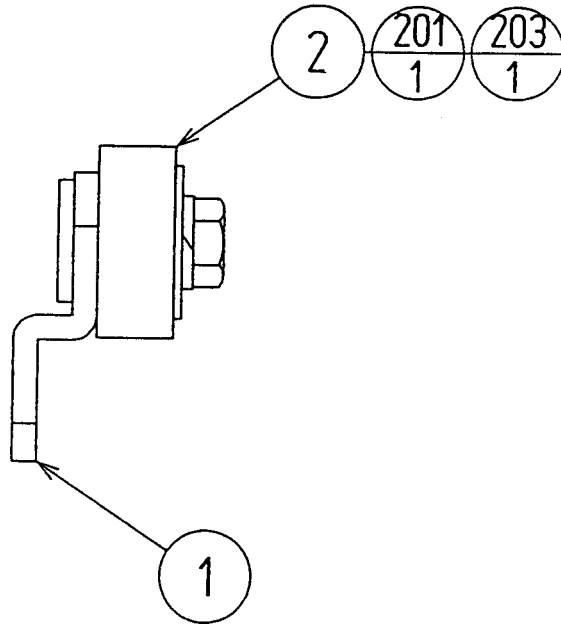
ITEM NO.	PART NO.	DESCRIPTION
1	SPW-3351	STEP BASE L
	SPW-3451	STEP BASE R
2	SPW-3352	STEP COVER L
	SPW-3452	STEP COVER R
3	SPW-3353	COVER HOLDER L
4	SPW-3354	COVER HOLDER R
5	ASK-3355	COVER HOLDER B
6	ASK-3356	EDGE GUARD A
7	ASK-3357	EDGE GUARDB
8	SPW-3374	EDGE GUARD C
9	SPW-3380	SENSOR UNIT
10	ASK-3362	CUSHION A
11	ASK-3363X	CUSHION B
12	SPW-3356	STEP SHAFT
13	SPW-3357	PITCHING SHAFT
14	SPW-3358	COLLAR 17
15	SPW-3359	STOPPER BOLT
16	SPW-3360	STOPPER RUBBER
17	SPW-3361	SENSOR PLATE
19	SPW-3363	ROSTA BRKT 18X30
20	SPW-3364	SIDE GUARD PLATE
21	SPW-3365	FRONT GUARD PLATE
22	SPW-3366	REAR GUARD PLATE
23	SPW-3367	GUARD HOLDER F L
	SPW-3453	GUARD HOLDER F R
24	SPW-3368	GUARD HOLDER R
25	SPW-3390	ASSY STOPPER
26	SPW-3369	KEY 5X5-12.5
27	SPW-3370	RUBBER HOLDER A
28	SPW-3371	RUBBER HOLDER B
29	SPW-3372	RUBBER HOLDER C
30	3376	COVER HOLDER F
102	601-8847	ROSTA DR-S-18X30
202	000-P00412-WB	M SCR PH W/FS BLK M4X12
203	000-P00408-W	M SCR PH W/FS M4X8
204	050-U00800	U NUT M8
206	050-U00600	U NUT M6
207	030-000820-S	HEX BLT W/S M6X12
208	060-F00600	FLT WSHR M6
209	030-000820-S	HEX BLT W/S M8X20
210	060-F00800	FLT WSHR M8

SENSOR UNIT (SPW-3380)



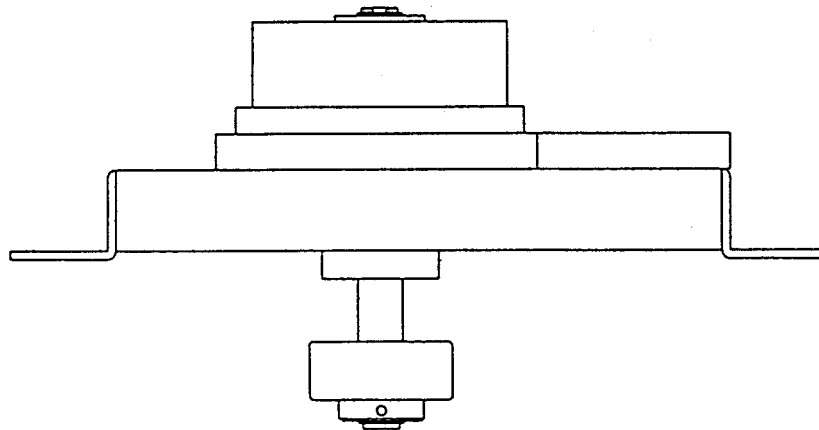
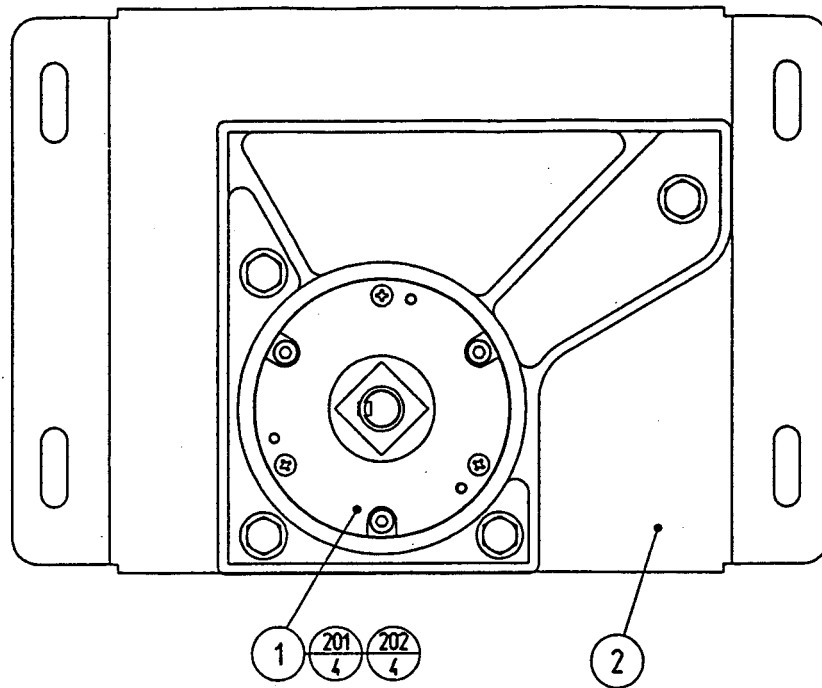
ITEM NO.	PART NO.	DESCRIPTION
1	SPW-3382	SENSOR BASE
101	370-5138-01	SENSOR ASL

ASSY STOPPER (SPW-3390)



ITEM NO.	PART NO.	DESCRIPTION
1	SPW-3391	STOPPER BRKT
2	SPW-3392	STOPPER RUBBER S
201	030-000616-S	HEX BLT W/S M6X16
203	068-652016	FLT WSHR 6.5-20X1.6

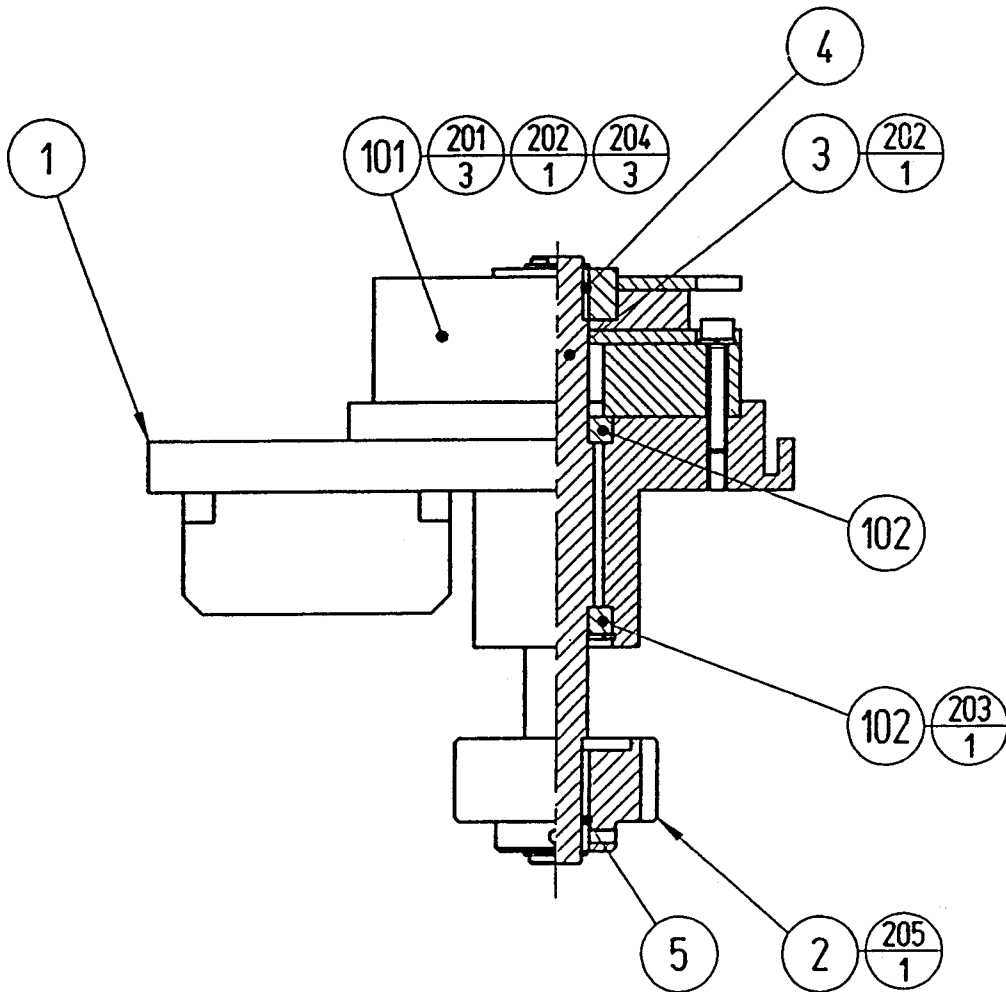
ASSY BRAKE MECHA (SPW-3500)



Note: SCREW FASTENING TORQUE TO BE  
M8:178kgf-cm

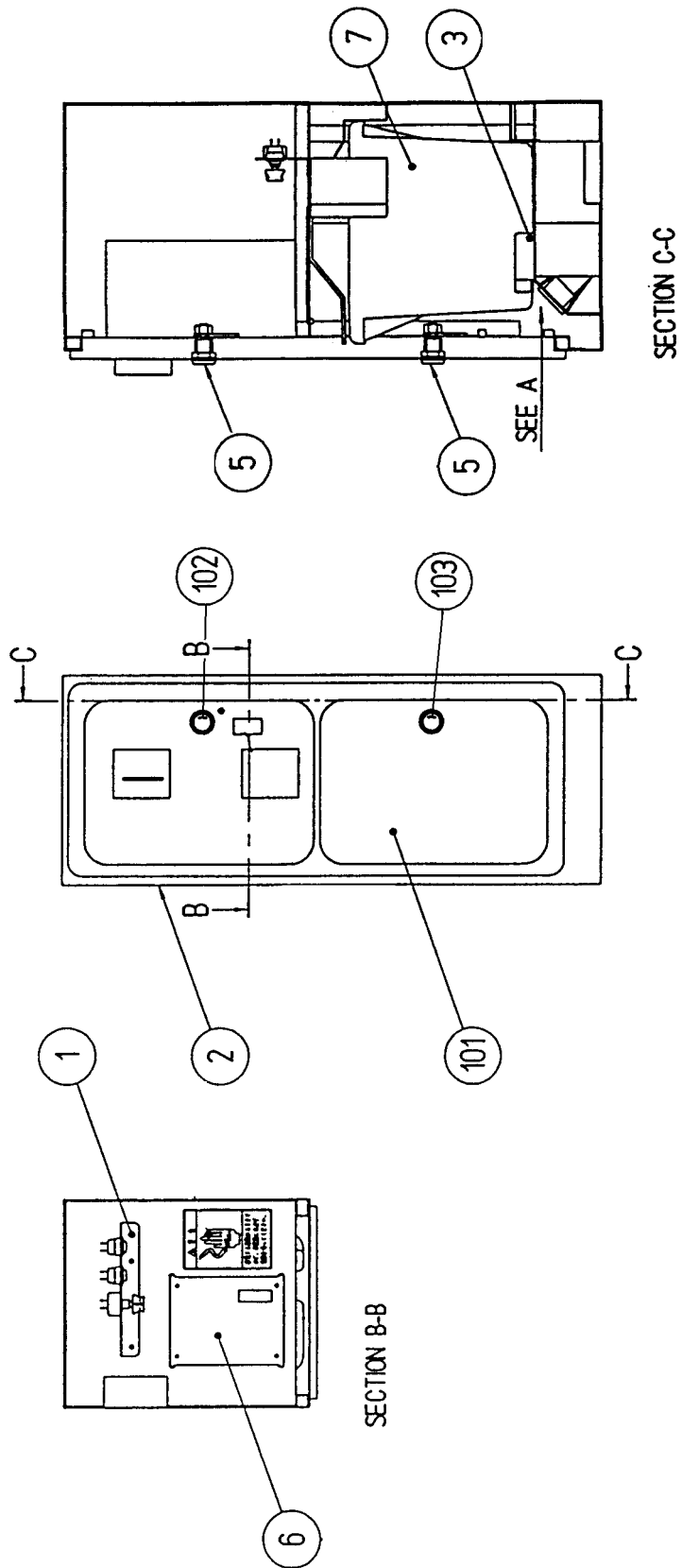
ITEM NO.	PART NO.	DESCRIPTION
1	ASL-3350	BRAKE UNIT
2	SPW-3501	BRAKE BRKT
201	030-000820-S	HEX BLT W/S M8X20
202	060-F00800	FLT WSHR M8

BRAKE UNIT (ASL-3350)



ITEM NO.	PART NO.	DESCRIPTION
1	ASL-3351	BRAKE BASE
2	ASK-3603	PINION GEAR 25
3	ASL-3353	BRAKE SHAFT
4	ASK-3606	KEY 5X5-10.5
101	601-8982	BRAKE BXH
102	100-5229	BEARING 17
201	060-S00500	SPR WSHR M5
202	065-S014S0-Z	STP RING BLK OZ S14
203	065-A030H0-Z	STP RING BLK OZ H 30
204	020-000530-OZ	HEX SKT H CAP SCR BLK OZ M5X30

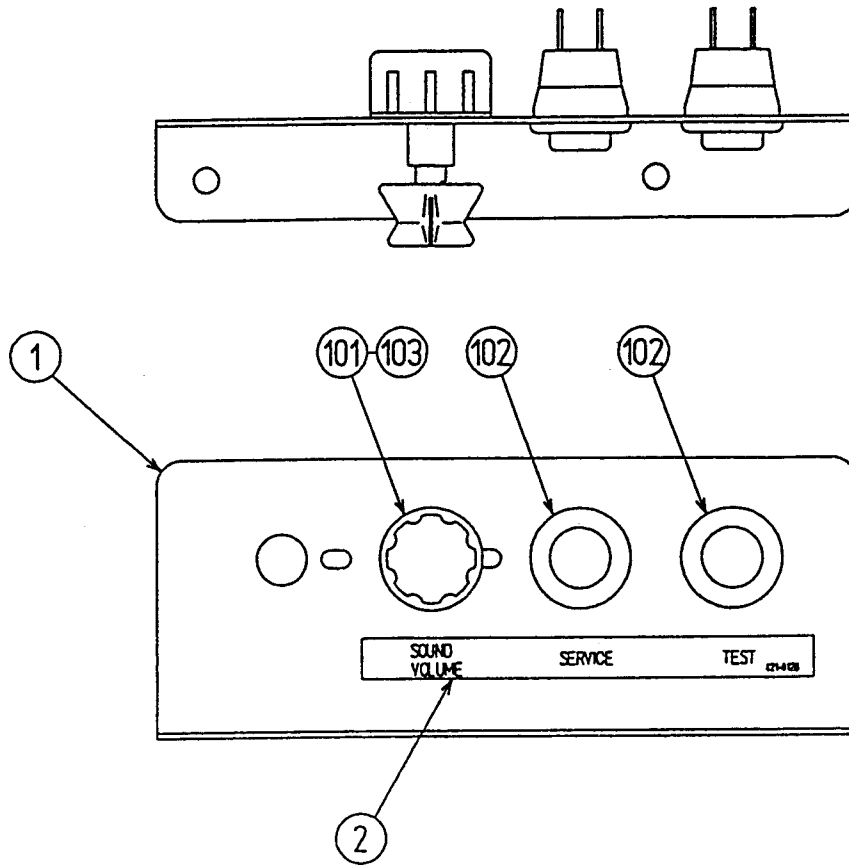
ASSY COIN CHUTE TOWER (SPW-3700)



ASSY COIN CHUTE TOWER (SPW-3700)

ITEM NO.	PART NO.	DESCRIPTION
1	MJT-3350	SW UNIT
2	SPW-3701	COIN CHUTE TOWER
3	INY-1162	METER BRKT
5	DP-1167	TNG LKG
6	105-5172	CHUTE PLATE DOUBLE
7	BOX-CASH	CASH BOX
101	220-5237-92-~	ASSY C.C. 2 DOOR
102	220-5574	CAM LOCK W/KEY
103	220-5575	CAM LOCK W/O KEY

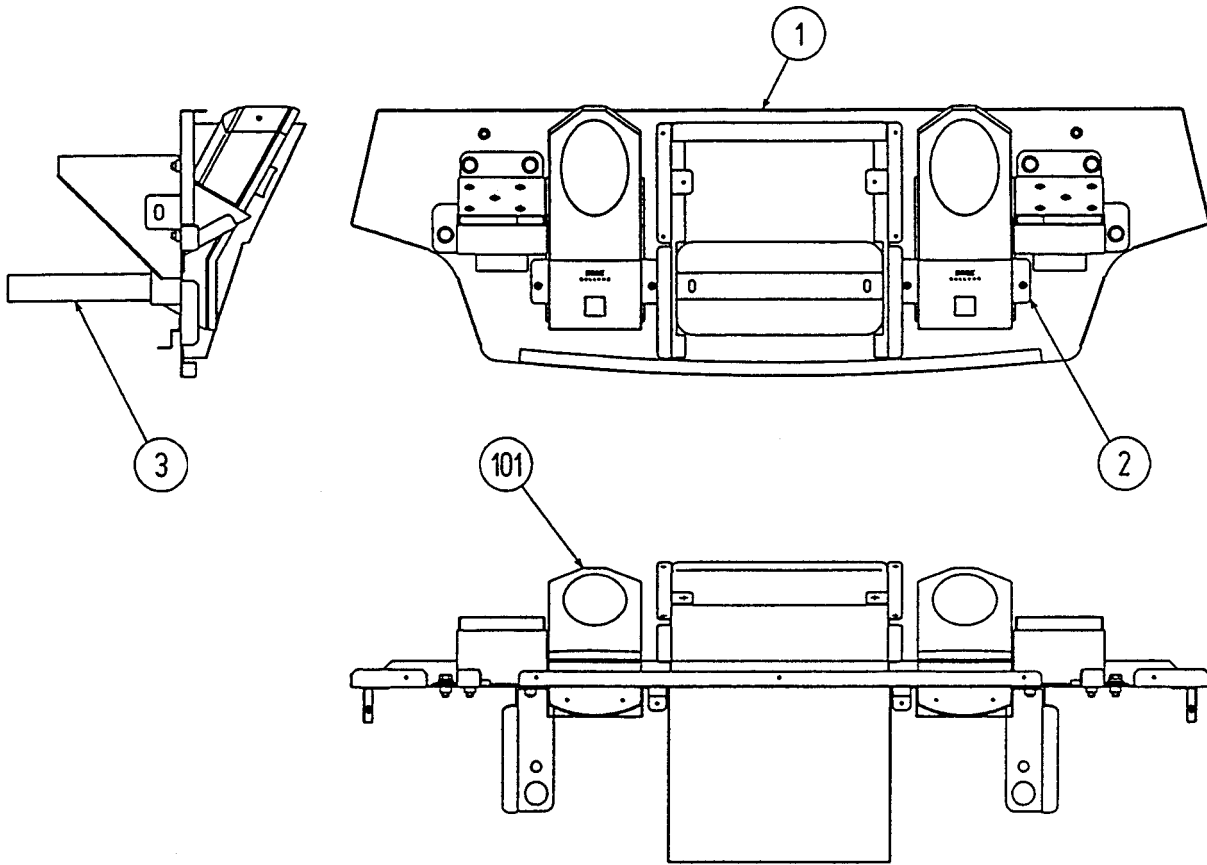
SW UNIT (MJT-3550)



ITEM NO.	PART NO.	DESCRIPTION
1	INY-1181	SW BRKT
2	421-8126	STICKER SW PANEL
101	220-5179	VOL CONT B-5K OHM
102	509-5028	SW PB 1M
103	601-0042	KNOB 22 M

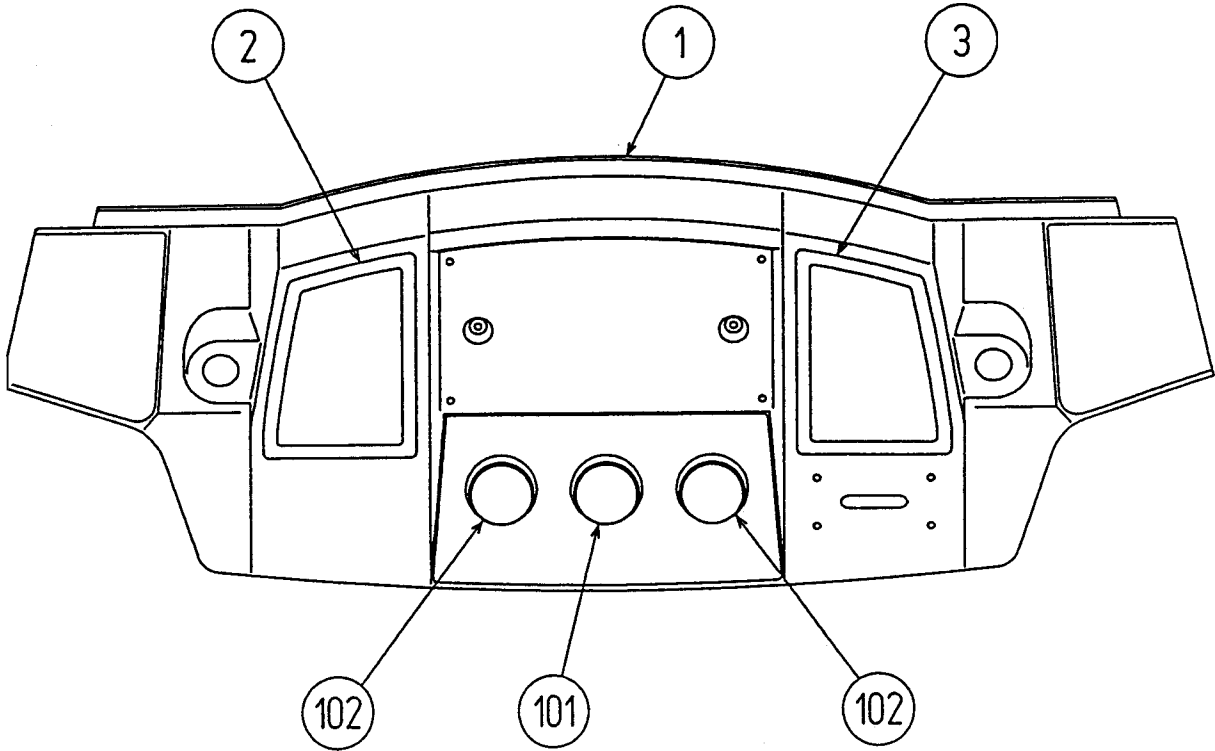


ASSY CONT PNL BASE (SPW-3800)



ITEM NO.	PART NO.	DESCRIPTION
1	SPW-3801	CONTRL PNL BASE
2	ASK-3802	SPEAKER BRKT
3	ASK-3803	BOTTOM SUPPORT
101	130-5162	GULL BOX SPEAKER 80 OHM 8W

ASSY CONT PNL (SPW-3850)



ITEM NO.	PART NO.	DESCRIPTION
1	SPW-3851-01	CONTRL PNL COVER ENG
2	SPW-3852	SPEAKER NET L
3	SPW-3853	SPEAKER NET R
101	509-5547-91-02	SW PB 60M RED W/L
102	509-5547-91-03	SW PB 60M BLUE W/L

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**SEGA ENTERPRISES, INC. (USA)**

45133 Industrial Drive  
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