SEGA

Magical Truck Adventure

OWNER'S MANUAL

SEGA ENTERPRISES, INC. USA

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.

VISIT OUR WEBSITE!

SEGA

SEGA ENTERPRISES, INC. (USA)

45133 Industrial Drive
Fremont, CA 94538
(650) 632-7580 phone
(650) 632-7594 fax

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│                        SPECIFICATIONS                           │
│                                                                 │
│  Installation space:                 95.3 in.(D) x 46.1 in.(W)  │
│                                                                 │
│  Height:                             88.4 in.                   │
│                                                                 │
│  Weight:                             Approx. 816 lbs.           │
│                                                                 │
│  Power maximum current:              4.9 Amps (AC 120V 60 Hz AREA) │
│                                                                 │
│                                                                 │
│  MONITOR:                            50" PROJECTION DISPLAY      │
│                                                                 │
└─────────────────────────────────────────────────────────────────┘
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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 MAGICAL TRUCK ADVENTURE, 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 650-632-7580
Fax   650-632-7594
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 benzine, thinner, etc.

Location: This 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.

LISTED

5K92

AMUSEMENT MACHINE

In order to avoid accidents, check the following before starting the operation:

Check if all the adjusters are in contact with the service. If they are not, the cabinet can move and cause an accident.

Do not put any heavy item on this product. Placing any heavy item on this product can cause a falling down accident or parts damage.

Do not climb on the product. Climbing on the product can result in falling down accidents.

To avoid electric shock ensure door and cover parts are not damaged or omitted. Alos do not put the following items ont eh periphery of the product.
Flower vases, flower pots, cups, water tanks, cosmetics, and resceptacles/containers/vessels containing chemicals and water.
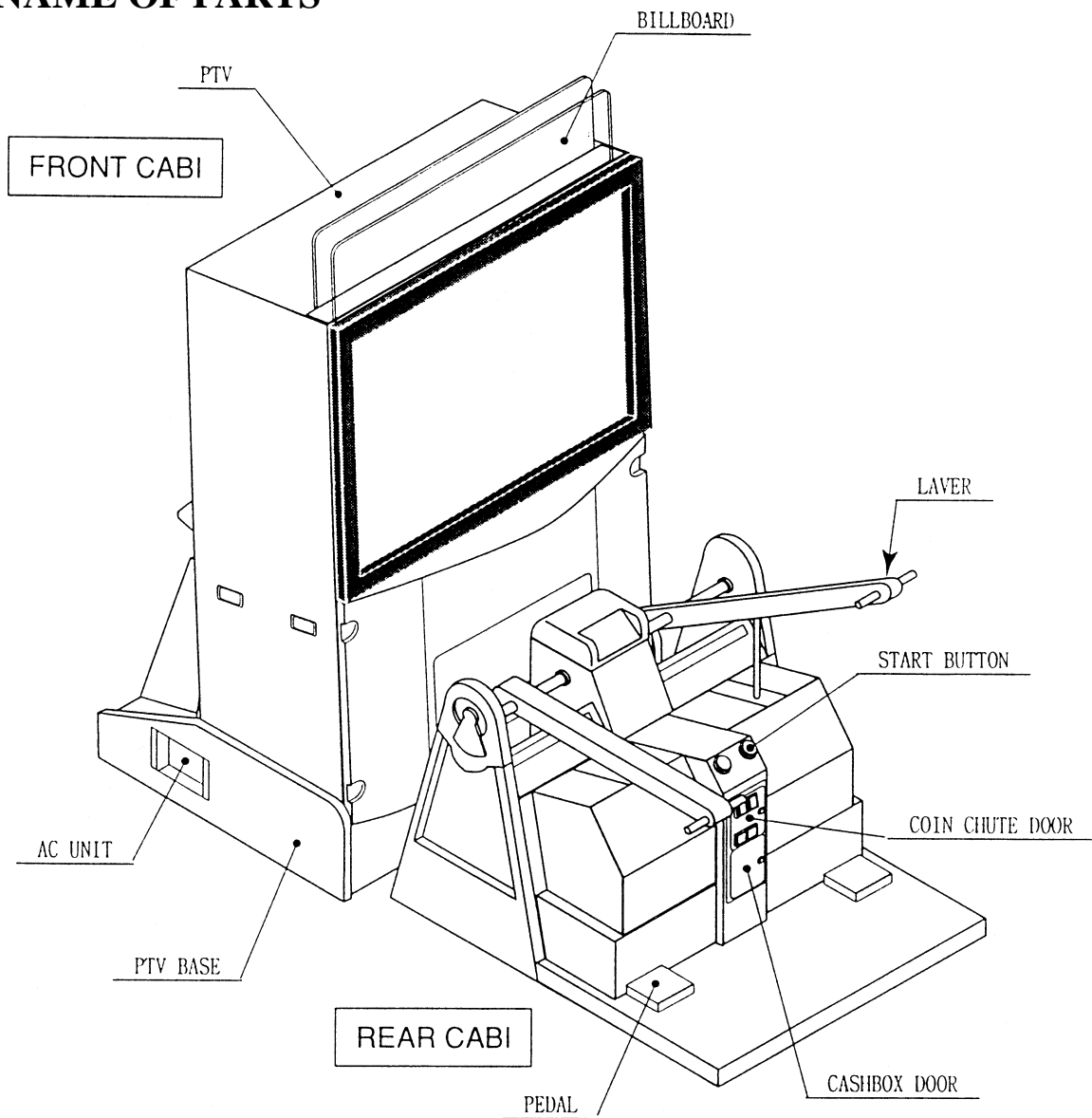Keep fingers and extranous matter from openings of the product or small openings in or around the doors.

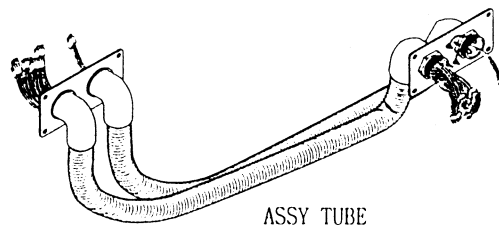To avoid injury and accidents, those who fall under the following catagories are not allowed to play the game.:

● Those who need assistance or apparatus while walking.
● Those who have high blood pressure or a heart problem.
● Those who experience, muscle convulsions or loss of consciousness when playing video games, etc.
● Intoxicated persons.
● Pregnant women or those with the likelihood of pregnancy.
● Person susceptable to motion sickness.
● Those under 140 cm (~54-55 inches)
● Those wearing high heels.

In addition please keep small children away from the game during operation to prevent them from bumping their head on the control levers.
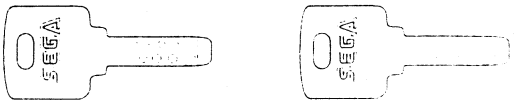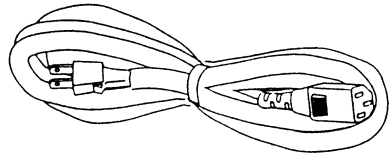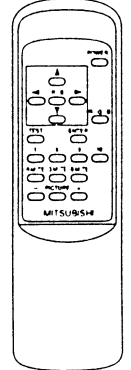
1. NAME OF PARTS

BILLBOARD

PTV

FRONT CABI

LAVER

START BUTTON

COIN CHUTE DOOR

AC UNIT

PTV BASE

REAR CABI

CASHBOX DOOR

PEDAL

DURING SHIPPING
~950 LBS.

ASSY TUBE

GAME SPECIFICATIONS	WIDTH		HEIGHT		DEPTH	WEIGHT
all measurements are rounded up to the nearest 0.5"						
PTV	45"	X	62"	X	21"	~243 LBS.
PTV BASE	46"	X	31"	X	40"	~153 LBS.
BILLBOARD	43.5"	X	19.5"	X	17"	~11 LBS.
REAR CABINET	45"	X	45.5"	X	51"	~418 LBS.
WHEN ASSEMBLED	46"	X	88.5"	X	95.5"	~825 LBS.

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2. ACCESSORIES

DESCRIPTION	OWNERS MANUAL
Part No. (Qty.)	4201-6447-01 (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.

KEY MASTER
220-5576 (2)

For opening/closing the doors

KEY
(2)

For the CASHBOX DOOR

AC Cable (Power Cord)
600-6695
600-6695-01 (1) for USA

TOSHIBA
Remote Control for Projector
Used for adjustment.
200-5536 (1)

MITSUBISHI
Remote Control for Projector
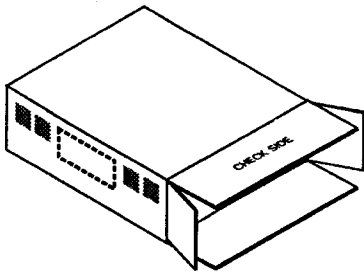Used for adjustment.
200-5532 (1)

⚠ **WARNING!**

THE SHIPMENT METHOD DESCRIBED BELOW ONLY APPLIES TO 'MODEL 3' BOARDS CONTAINED IN THE FOLLOWING GAMES:

LOST WORLD, VIRTUA FIGHTER 3, SUPER GT, SEGA BASS FISHING, STRIKER 2 HARLEY DAVIDSON, RALLY 2, DAYTONA 2, DIRT DEVILS, THE OCEAN HUNTER, STAR WARS TRILOGY, **MAGIC TRUCK ADVENTURE**

!!NEVER SHIP MODEL 3 GAME BOARDS OUTSIDE OF CAGE!!

CARTON BOX
601-8928 (1)
Used for transporting the GAME BOARD.
{SUPPLIED WITH YOUR GAME}

> **DO NOT SHIP GAME BOARD WITHOUT THIS BOX AS IT MAY DAMAGE THE GAME BOARD AND VOID YOUR WARRANTY.**

"CHECK SIDE" Display

FILTER BOARD
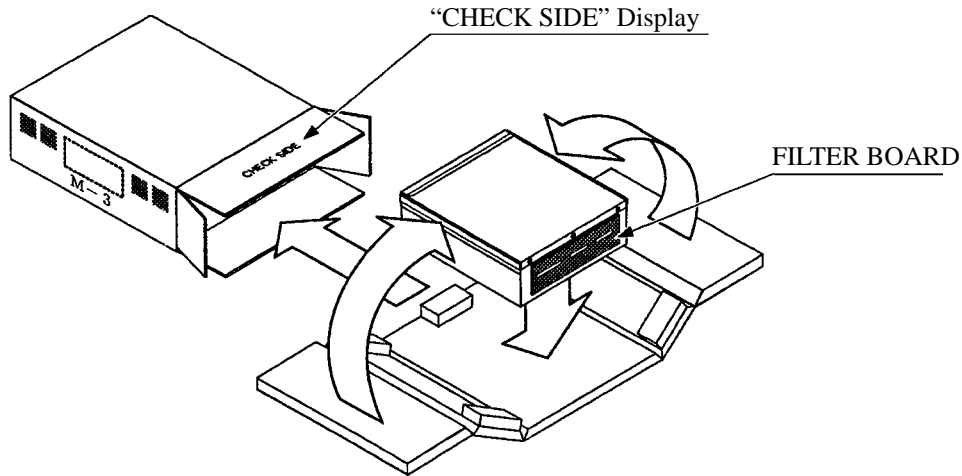
⚠ **WARNING!**

NO OTHER GAMES BOARDS ARE TO BE SHIPPED IN THE CAGE AS THEY MAY BE DAMAGED BEYOND REPAIR. PLEASE SHIP THEM WITHOUT CAGE PROPERLY PROTECTED DURING SHIPPING.

3. 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 4-item sequence:

| 1 | ASSEMBLING OF THE FRONT CABINET |

| 2 | WIRING CONNECTION BETWEEN PTV AND CABINETS |

| 3 | SECURING IN PLACE |

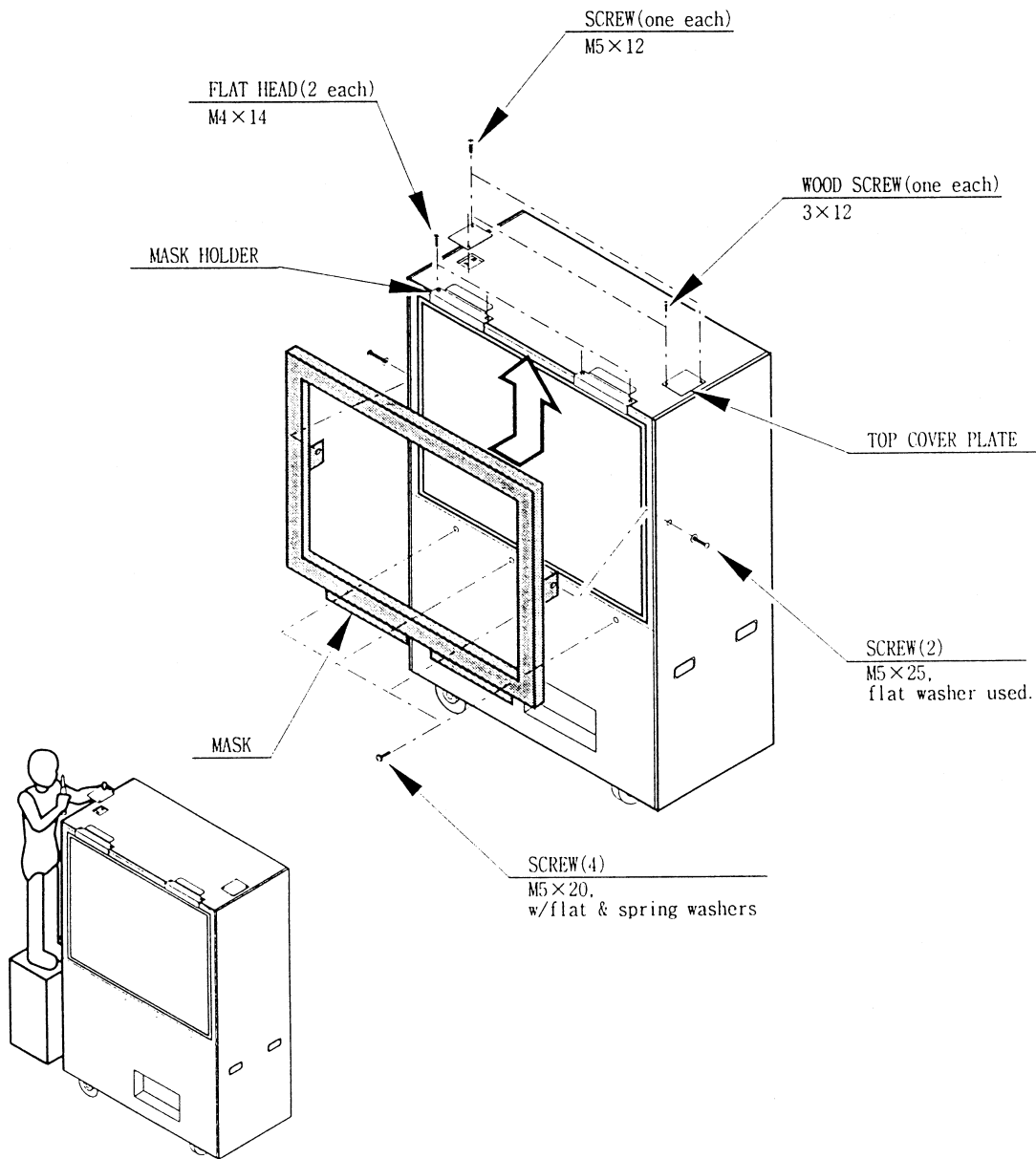| 4 | POWER SUPPLY |

| 5 | ASSEMBLY 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.

1 ASSEMBLING OF PTV

⚠ CAUTION!

Installing the Billboard by one person is difficult. Be sure to use plural persons to perform the work safely and accurately.
To perform work safely and securely, be sure to prepare a step which is in a stable and secure condition. Performing work without using a step can cause a violent falling down accident.

① Secure the 2 Top Cover Plates to the PTV ceiling by using one each of the truss screw and wood screw for each Plate.

② Secure the 2 Mask Holders to the PTV with 2 flat head screws for each.

③ Secure the Mask to the PTV with a total of 6 screws.

SCREW(one each)
M5×12

FLAT HEAD(2 each)
M4×14

WOOD SCREW(one each)
3×12

MASK HOLDER

TOP COVER PLATE

SCREW(2)
M5×25,
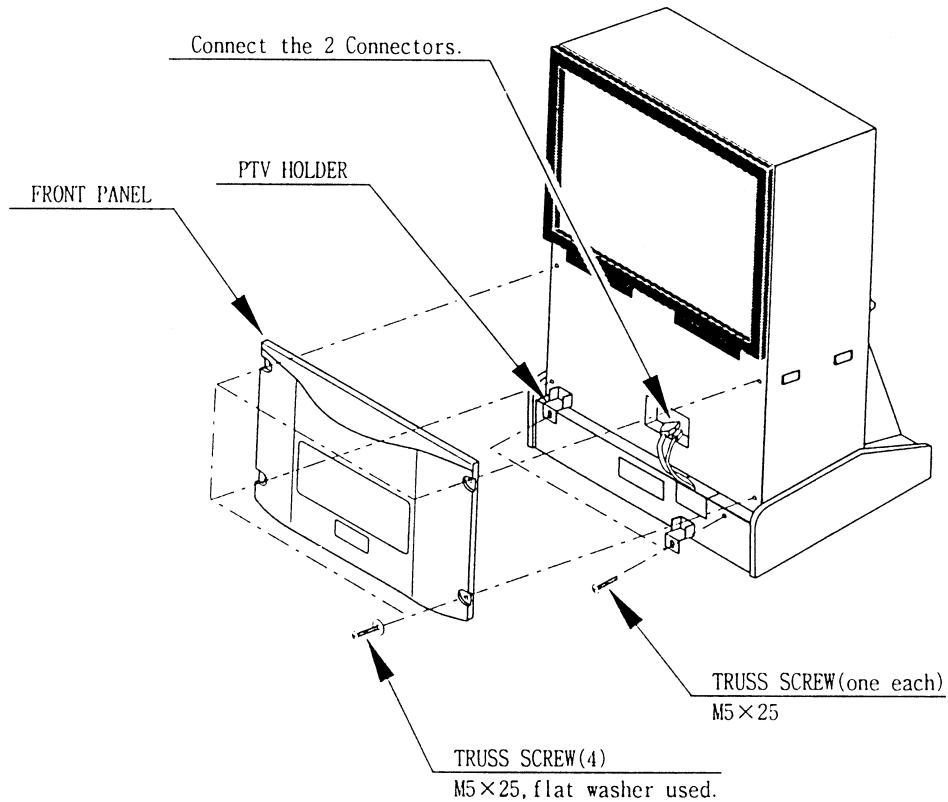flat washer used.

SCREW(4)
M5×20,
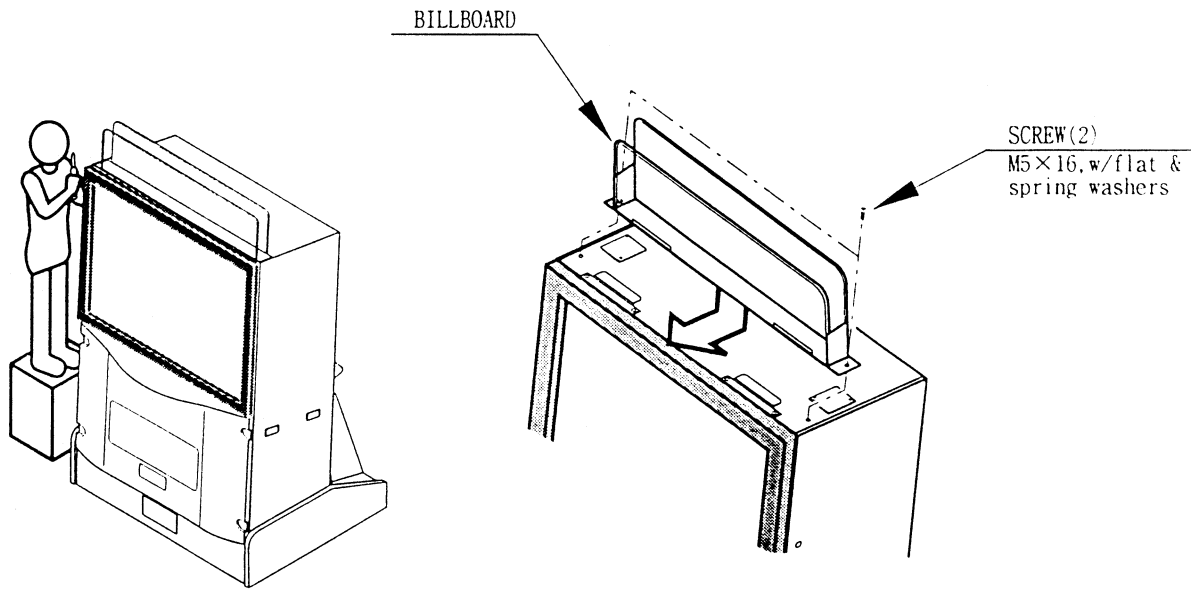w/flat & spring washers

MASK

When performing work,
prepare a step.

④ Secure the PTV Base by having the Adjuster make contact with the surface. This measure is taken to prevent accidents.

⑤ Mount the PTV onto the PTV Base by 4 or more persons.
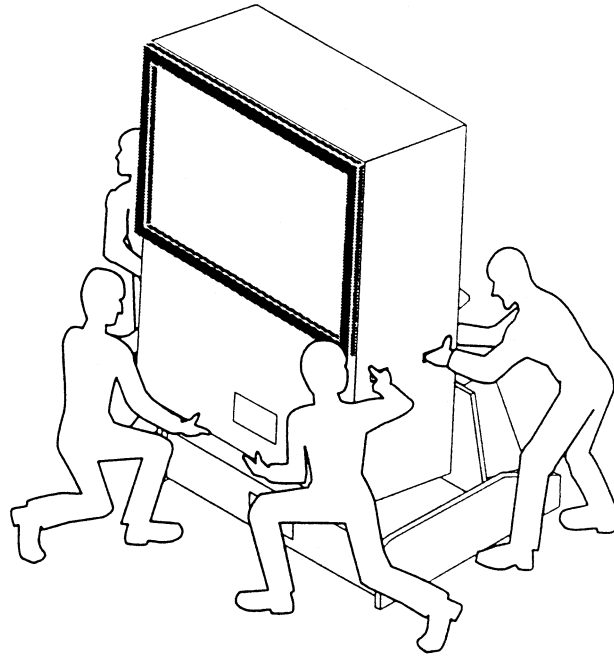
Perform work by 4 or more persons.

⑥ Temporarily fasten the 2 PTV Holders to the PTV Base with the Truss screw for each.

⑦ Connect the 2 Wire Connectors of PTV Base to the PTV.

⑧ Secure the Front Panel to the front of PTV with 4 truss screws.

⑨ Retighten the 2 truss screws whihc temporarily fastened the PTV Holder.

Connect the 2 Connectors.

PTV HOLDER

FRONT PANEL

TRUSS SCREW(one each)
M5×25

TRUSS SCREW(4)
M5×25, flat washer used.

10

BILLBOARD

SCREW(2)
M5×16,w/flat &
spring washers

When performing work,
prepare a step.

⑩ By inserting into the Mask Holder, mount the Billboard to the PTV ceiling.

⑪ Fasten with 2 screws.

2 WIRING CONNECTIONS BETWEEN PTV AND CABINETS

⚠ **WARNING!**

Be sure to connect connectors securely. Incomplete connector connection can cause electric shock accident.
Use care so as not to damage wirings. Damaged wiring can cause electric shock or short circuit accident.

Connect ASSY TUBE between Front and Rear Cabinets. Either side of the ASSY TUBE can be connected to Front Cabinet. Each ASSY TUBE Plates at both ends has 4 Studs which secure Earthwires. the Earth wires which come from the corresponding cabinet with the remaining Studs. Each Stud secures the Earth Wire.

① Secure the Earth Wire by fastening the hexagon nut after installing sequentially in order of the round type Earth Terminal, Flat Washer, and Spring Washer to each of the 2 Studs of the Plate on the side connected to the Front Cabinet.
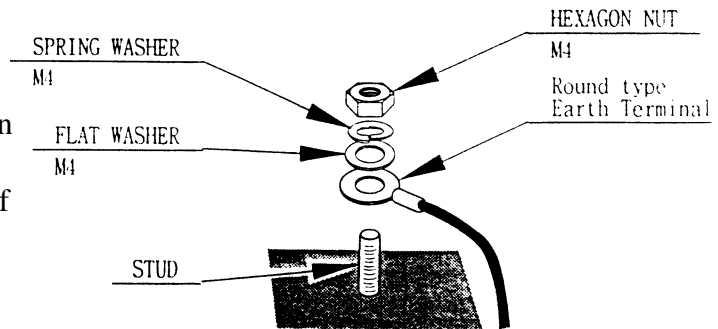
② Connect Connectors which have identical color and number of pins.

③ Secure the Plate with 4 truss screws.

④ Secure the Earth Wires to the 2 Studs of the Rear side Plate similarly as in the Front side.

⑤ Connect Connectors which have identical color and number of pins.
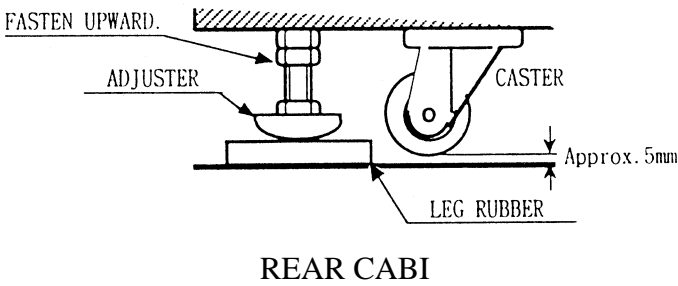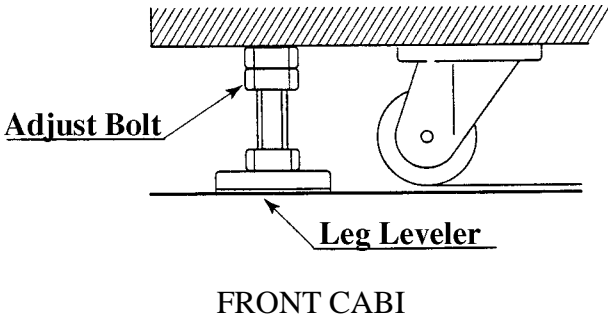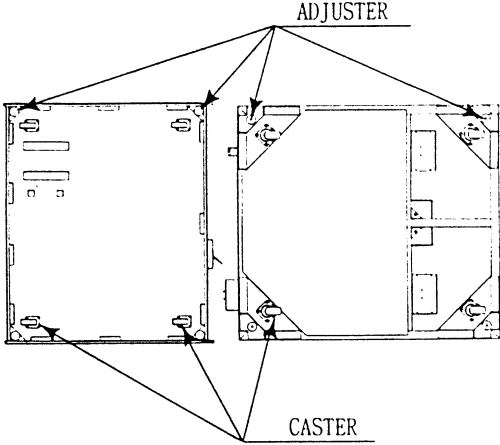
⑥ Secure the Plate with 4 truss screws.

HEXAGON NUT
M4
SPRING WASHER
M4
Round type
Earth Terminal
FLAT WASHER
M4
STUD

Secure the round type Earth Terminal.
TRUSS SCREW(4)
M4×20

TRUSS SCREW(4)
M4×8
EARTH WIRES

FRONT CABI

REAR CABI
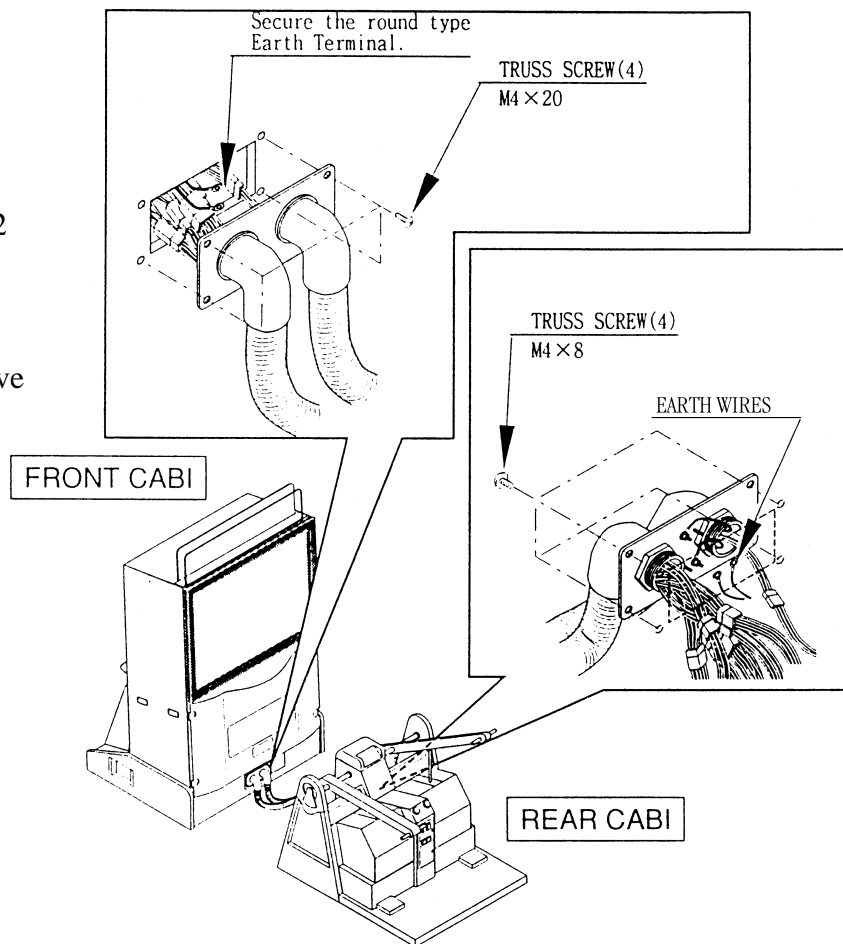
3 SECURING IN PLACE (ADJUSTER ADJUSTMENT)

⚠ **CAUTION!**

Be sure to have all the Adjusters make contact with the floor 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 adjuster (See Below). 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.
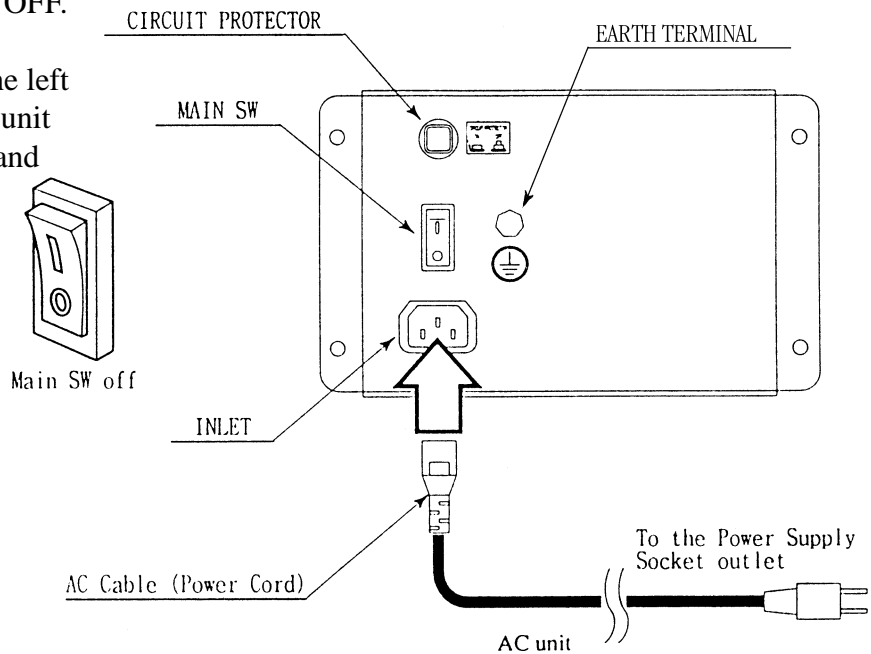
ADJUSTER

CASTER

Adjust Bolt

Leg Leveler

FRONT CABI

FASTEN UPWARD.

ADJUSTER   CASTER

Approx. 5mm

LEG RUBBER

REAR CABI

4 POWER SUPPLY

<table>
<tr><td>

⚠️ **WARNING!**

</td><td>

● 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.

</td></tr>
</table>

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

① Ensure that the Main SW is OFF.

② The AC unit is located on the left side of the Cabinet. The Ac unit incorporates the Main SW, and power cord.

CIRCUIT PROTECTOR

EARTH TERMINAL

MAIN SW

Main SW off

INLET

AC Cable (Power Cord)

To the Power Supply Socket outlet

AC unit

CAUTIONS TO BE HEEDED WHEN TURNING THE POWER ON

<table>
<tr><td>

⚠️ **WARNING!**

</td><td>

First make sure that no one is in the periphery of the bike body and turn the Main SW on. When the power is turned on, the bike body motion starts automatically. The presence of a person(s) in the periphery of the bike can cause an accident. Turning the AC Unit's Main SW on will cause the machine to start the POWER ON check automatically. In the POWER ON check, the bike body banks left and right, then returns to the centering position and stops. During this check, do not touch the bike body. If you do, the body reaction (at the time course-out or crashing) can not be obtained correctly. The Advertise mode is displayed at the same time the checking is finished. An ERROR display is indicated if irregularity is found in the POWER ON check. In case of an irregular reaction during game, turn power off and turn it back on again to finish the POWER ON check.

</td></tr>
</table>

In the TEST MODE, ensure that the assembly has been made correctly and IC BD is satisfactory (refer to Section 6).

In the test mode, perform the following test:

```
                    MEMORY TEST
    <ROM>
    IC 1 GOOD   IC 2 GOOD   IC 3 GOOD   IC 4 GOOD



    <RAM>
    IC17 GOOD        IC18 GOOD        IC94 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

                LEFT PLAYER      RIGHT PLAYER
    LEVER           ***              ***
    FOOT PEDAL      OFF              OFF
    MOTOR TEST      GOOD             GOOD
    START           OFF              OFF
    COIN CHUTE #1   OFF
    COIN CHUTE #2   OFF
    SERVICE         OFF
    TEST            OFF







        PRESS TEST AND SERVICE BUTTON TO EXIT
```

Selecting the INPUT TEST on the test mode menu screen causes the screen (on which each switch is tested) to be displayed. Press each switch. For the coin switch test, insert a coin into the coin inlet with the coin chute door being open. If the display beside each switch indicates "ON," the switch and wiring connections are satisfactory.
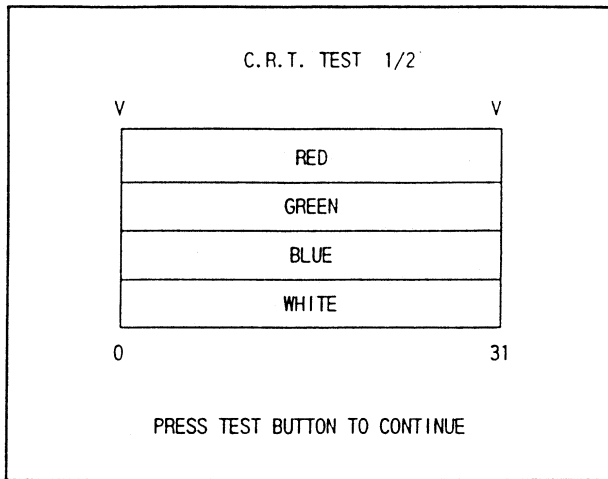
```
              OUTPUT TEST


          LEFT PLAYER
          RIGHT PLAYER
        > EXIT








        SELECT WITH SERVICE BUTTON
          AND PRESS TEST BUTTON
```

```
┌─────────────────────────────────┐
│            SOUND  TEST          │
│                                 │
│            VOICE                │
│                                 │
│            EFFECT               │
│                                 │
│            B.G.M.               │
│                                 │
│         >  EXIT                 │
│                                 │
│                                 │
│                                 │
│     SELECT  WITH  SERVICE  BUTTON │
│        AND  PRESS  TEST  BUTTON │
└─────────────────────────────────┘
```
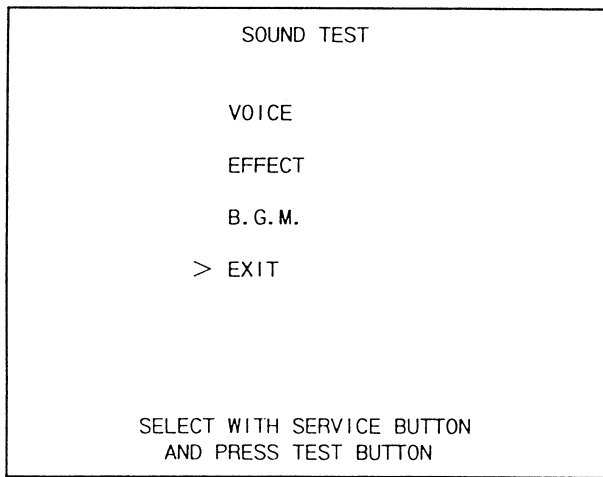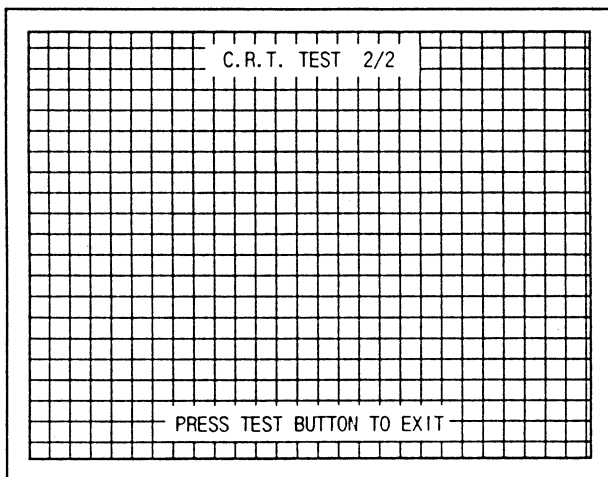
In the TEST mode, selecting SOUND TEST causes the screen, on which sound related BD and wiring connections are tested, to be displayed. be sure to check if the sound is satisfactorily emitted from each of speaker and the sound volume is appropriate.

```
┌─────────────────────────────────┐
│         C.R.T.  TEST  1/2       │
│  V                          V   │
│    ┌────────────────────────┐   │
│    │          RED           │   │
│    ├────────────────────────┤   │
│    │         GREEN          │   │
│    ├────────────────────────┤   │
│    │          BLUE          │   │
│    ├────────────────────────┤   │
│    │         WHITE          │   │
│    └────────────────────────┘   │
│  0                         31   │
│                                 │
│    PRESS  TEST  BUTTON  TO  CONTINUE │
└─────────────────────────────────┘
```

In the TEST mode menu, selecting C.R.T. TEST allows the screen (on which the monitor is tested) to be displayed. Although the monitor adjustments have been made at the same time of shipment from the factory, color deviation, etc., may occur due to the effect caused by geomagnitism, 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 neccessary, adjust the monitor by refering to Section 9.

```
┌─────────────────────────────────┐
│  ▦▦▦▦ C.R.T.  TEST  2/2 ▦▦▦▦    │
│  ▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦    │
│  ▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦▦    │
│  ▦▦▦▦ PRESS TEST BUTTON TO EXIT ▦│
└─────────────────────────────────┘
```

4. 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!**

Since this machine is a heavy structure of approximately 1000+lbs. its leg adjusters should be retracted when moving the machine over the floor. When moving the machine on the floor with slanted surfaces or step like differences, ensure that the PTV, Front Cabinet and Rear Base are seperated. Lifting the Cabinet with those items as is joined can cause the joint portions to be damaged.
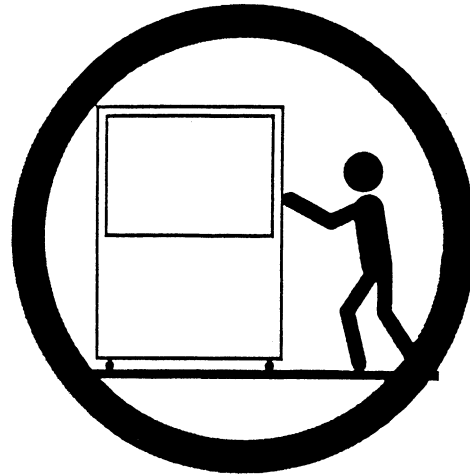
Do not push the PTV from the rear side. Pushing the PTV from the rear side can cause the PTV to fall down. Push it from the side.
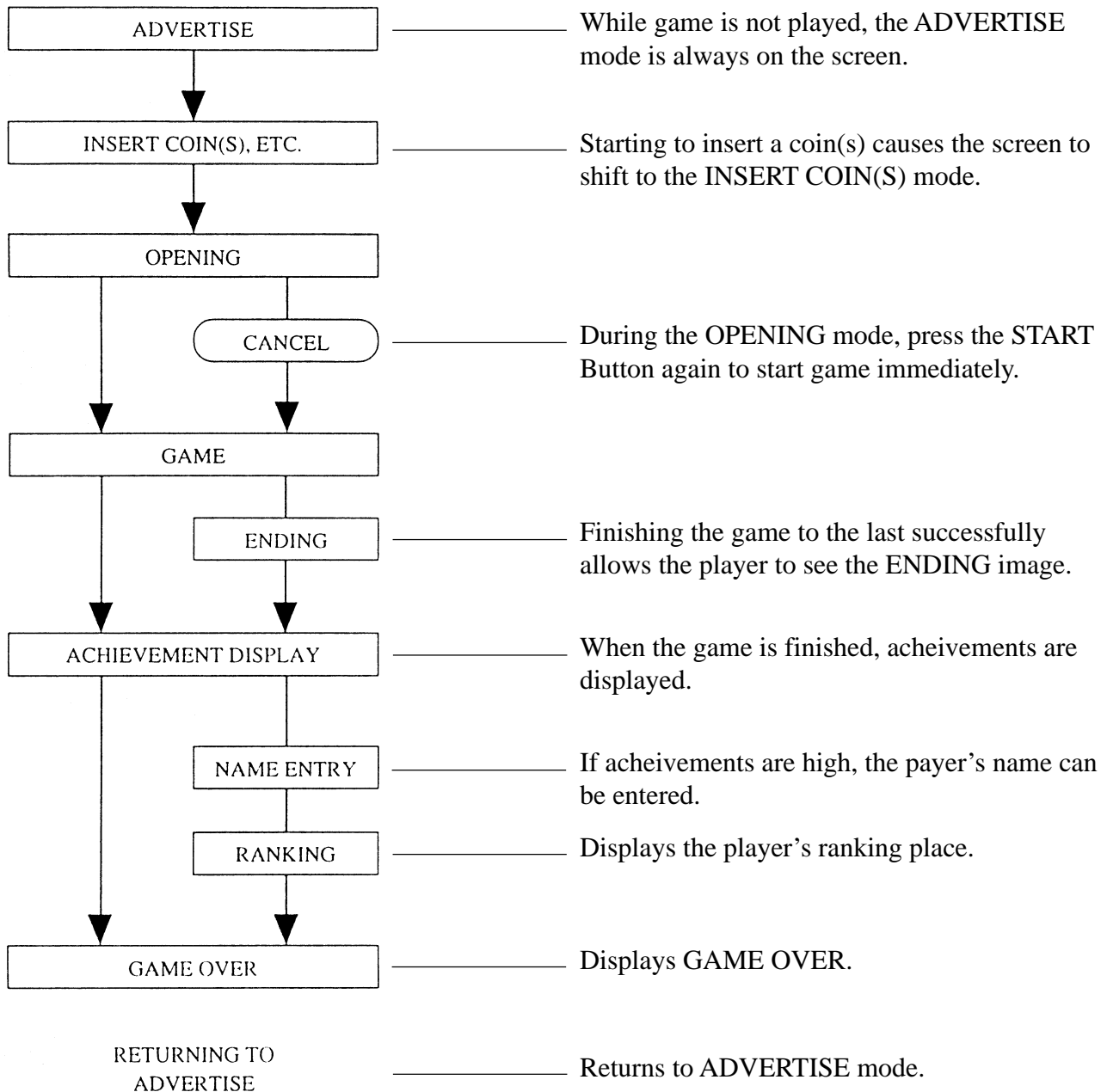
On a level surface, move the machine by causing all of the casters to make contact with the floor. Where there are steps (or step like differences in grade), move machine by seperating into each unit.

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5. CONTENTS OF GAME

The following explanations apply to the case the product is functioning satisfactoriliy. 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.

The Control Panel's START Button blinks if credits allowing for play are available.

| GAME FLOW |

ADVERTISE	While game is not played, the ADVERTISE mode is always on the screen.
INSERT COIN(S), ETC.	Starting to insert a coin(s) causes the screen to shift to the INSERT COIN(S) mode.
OPENING	
CANCEL	During the OPENING mode, press the START Button again to start game immediately.
GAME	
ENDING	Finishing the game to the last successfully allows the player to see the ENDING image.
ACHIEVEMENT DISPLAY	When the game is finished, acheivements are displayed.
NAME ENTRY	If acheivements are high, the payer's name can be entered.
RANKING	Displays the player's ranking place.
GAME OVER	Displays GAME OVER.
RETURNING TO ADVERTISE	Returns to ADVERTISE mode.

MAGICAL TRUCK ADVENTURE is a simulated action game in which 2 players move the truck together by using the LEVER in pumping motion evading on-screen obstacles appearing one after another by jump or dodging left/right.

STORY LINE

In a certain region, there is a girl called Alma who has a mysterious stone. The possessor of the stone can freely move in time and space dimensions. Once, an evil man Mommy comes to know the mysterious power of the stone and assaults on Alma together with a giant Marrow, his henchman. While they are scuffling, the stone's magical power starts to work suddenly and all of the three persons are instantaneously moved to a rural town. A boy called Roy happened to be there and rescues Alma who is knocked down by the two bad guys. Now, Roy and Alma together in the magical truck start to chase the wicked fellows who robbed her of her stone.

OUTLINE OF GAME

PUMP THE LEVER AND GO..... Roy and Alma chase the bad guys to get the stone back by moving the Lever up/down in pumping motion. The faster you move the Lever, the faster the truck moves. Move the Lever as quick as both of you can particularly in the scene the engine chases you, for example.

DODGING & JUMP..................... Evade on-rail obstacles by jumping or dodging left/right. Use the Foot Pedal to take these actions.

COOPERATIVE PLAY................. To cooperate with each other is important to pump the Lever and evade obstacles. When playing alone, the other (unoccupied) side is operated automatically.

COURSE OF STAGE................... Depending on the results at the end of each stage (whether or not the stone is recaptured), the next course of stage is determined.

MULTI-ENDING.......................... If all of the stages are cleared, the ending image can be seen. There are 4 types of Ending applicable on the game results.

ACHIEVEMENTS........................ When game is finished, ACHEIVEMENT display appears. In case of high points scored, the name of one or two players can be entered.

CHARACTERS

ROY........... Having a strong sense of justice, he fears nothing and dreams of becoming an adventurer.

ALMA....... An innocent and affectionate girl having the mission to preserve the stone.

MOMMY... A short higherflier conspiring to conquer the world by using the stone. Brainy and shrewd.

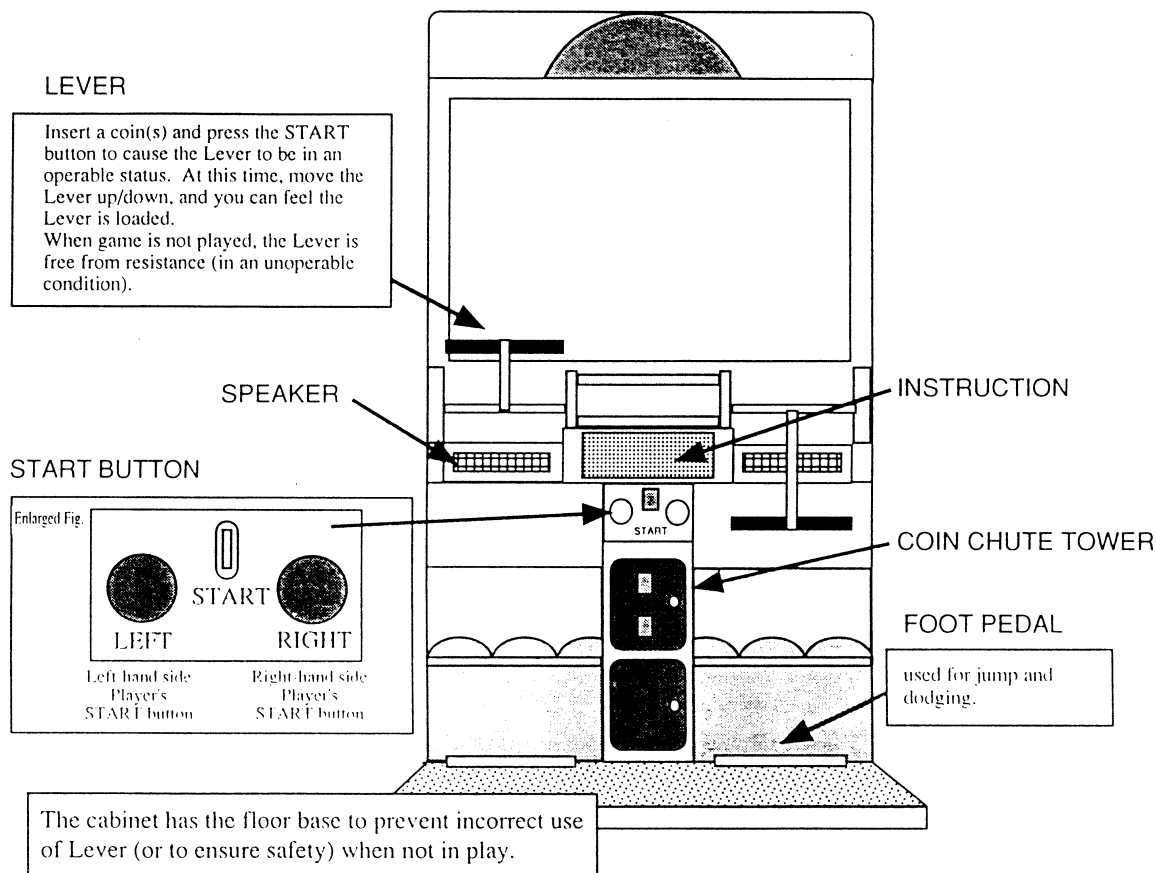MARROW. A man of muscle, rather unintelligent, submissive to his boss.

Before starting game, ADVERTISE mode flows in the following sequential order. This mode continues until game is started.
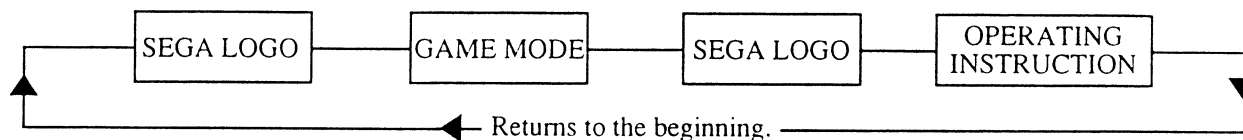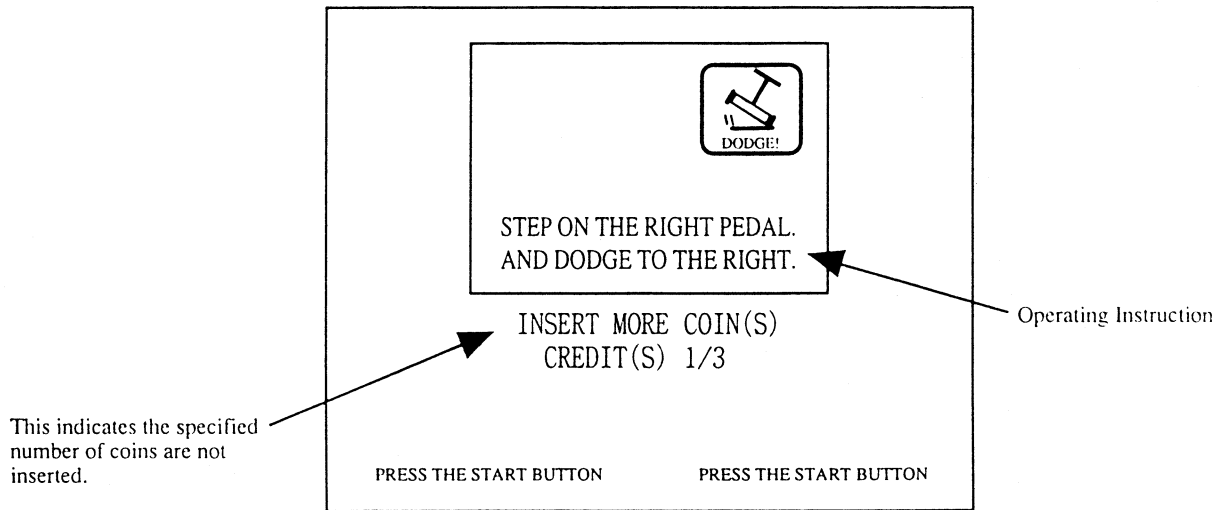

● During ADVERTISE, moving the Lever shifts to OPERATING INSTRUCTION automatically.

● In the latter half of OPERATING INSTRUCTION, rankning is also displayed.

● Any time during the ADVERTISE mode, the player can start the game by inserting a coin(s).

● Inserting a coin(s) between ENDING and RANKING DISPLAY at the time of previous player's play allows the game to start after finishing each display. Press the START button to start game immediately by cancelling each display.

The cabinet of MAGICAL TRUCK ADVENTURE consists of the following as shown.

LEVER

Insert a coin(s) and press the START button to cause the Lever to be in an operable status. At this time, move the Lever up/down, and you can feel the Lever is loaded.
When game is not played, the Lever is free from resistance (in an unoperable condition).

SPEAKER

INSTRUCTION

START BUTTON

Enlarged Fig.

START

LEFT   RIGHT

Left-hand side Player's START button

Right-hand side Player's START button

COIN CHUTE TOWER

FOOT PEDAL

used for jump and dodging.

The cabinet has the floor base to prevent incorrect use of Lever (or to ensure safety) when not in play.

Starting to insert a coin(s) shifts to the folowing screen. Operating instructions is given in this screen.

STEP ON THE RIGHT PEDAL.
AND DODGE TO THE RIGHT.

INSERT MORE COIN(S)
CREDIT(S) 1/3

Operating Instruction

This indicates the specified number of coins are not inserted.

PRESS THE START BUTTON   PRESS THE START BUTTON

Insert the specified number of coins and press START button to start OPENING.

For 2-player play, press left/right START buttons.
For the second player to start while one person is playing, press the other button.
This game isnot continuable.

For 1-player play, use either of left/right seats.
In case of one player play, the other (unoccupied) side is automatically operated.
The screen displays: AUTOMATIC CONTROLLER. JOIN ANYTIME.
Approxiamately 30 seconds after coin insertion (if the START button is pressed), the OPENING image is displayed on the screen, and game starts. At this time, game playable ont he left-hand side by one player.

OPENING AND CANCELLATION OF OPENING

The OPENING image starts immediately after pressing the START button following coin insertion. Game starts after the OPENING image display.

To start game immediately without watching the OPENING screen, press the START button while the OPENING image is displayed. Displayng the on-screen image stops and the screen shifts to the Game Mode.

Use the Lever and Foot Pedal during game play.
EXPLANATIONS OF ON-SCREEN DISPLAY

PUMPING METER

Indicates the left-hand
player's pumping
movements.
The higher the gauge
indication is, the more
the pumping movements
are.

PUMPING METER

Indicates the right-hand
player's pumping
movements.
The higher the gauge
indication is, the more
the pumping movements
are.

DAMAGE GAUGE
When the gauge indication is at the extreme right-hand end, no
damage is given. Each time damage is given, the gauge
indication gradually decreases.

The marks shown below appearing on the screen from time to time signify the following:
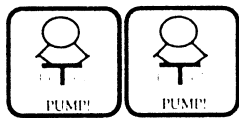
PUMP! PUMP!	DODGE!	DODGE!	JUMP! JUMP!
Move the Lever up/down as much as you can.	The left-hand side player steps on the Pedal to dodge.	The right-hand side player steps on the Pedal to dodge.	Two players step on the Pedal simultaneously to jump.
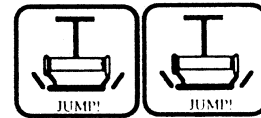
TO RUN THE TRUCK

Always move the Lever up/down.

Take a firm grip of the Lever to pump.

The truck speed varies depending on the pumping movements of the Lever.

Pump the Lever as fully as possible to move truck faster.

When an engine chases you or when you pursue
the bad guys, if marks shown right appear,
pump as fully and fast as possible to move truck
faster.

Check the Lever pumping movements by
watching the pumping meters at both ends.

PUMP!   PUMP!
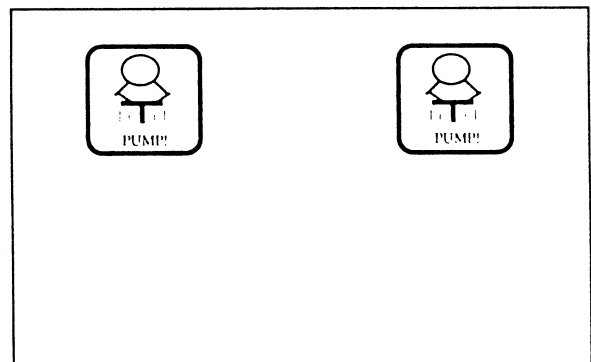
During a game, a number of obstacles will appear. Bumping an obstacle will damage the truck. To evade the obstacles dodge or jump.

DODGING

Dodge when an obstacle is on one side of the rails and when selecting the course of stage at the junction.
Dodging left (when the obstacle is on the right-hand side rail)
Only the left player steps on the Pedal. The same applies when selecting the left-hand side of rails at the junction.
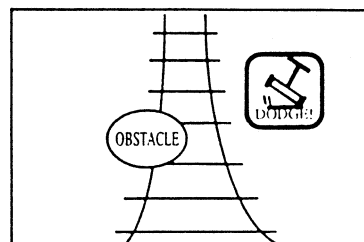The mark shown in the figure at right can be refered to when the left-hand side player steps on the Pedal
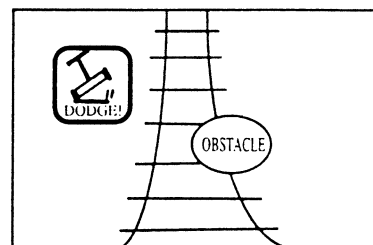
Dodging right (when the obstacle is onthe left-hand side rail)
Only the right-hand side player steps on the Pedal.
The same applies when selecting the right-hand side or rails at the junction.
The mark shown in the right-hand side player steps on the Pedal

When you should dodge an obstacle, stepping on both pedal results in a jump.

Once you jump, the truck speeds decreases and also, there are some obstacles you can evade only by dodging. Be carefu!

At the junction, if both pedals are stepped on by error, this is determined as a failure and in this case you take the wrong course of the stage.

At the time of dodging or jumping, what is important is to step on the Pedal at just the right moment rather than increasing the speed by pumping the Lever quickly.

JUMPING

Used to evade the obstacle in the middle of the rails by jumping, and also used inplaces where the rails are discontinued.

To jump, step on the Pedals simultaneously by both players.

The mark shown in the figure at right can be refered to when both players step on his/her Pedal.
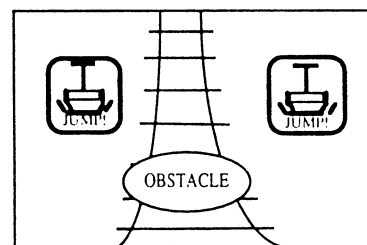
Try to step on Pedals simultaneously (by both players) at just the right moment, otherwise, the Jump is not succesful.

DAMAGE

Failing to evade obstacles by jump or dodging causes damage.

When damaged, the on-screen truck is graudually destroyed.
As regards, how serious damage is, check by watching the damage gauge.

When the truck is completely destroyed, the game is over.

SUCCESS IN "EVENT"

The player(s) is successful in the "EVENT" if he successfully evades a series of obstacles by jump and dodging without damage to the truck.

For example, if the player skillfully dodges the barrel twice in the first stage, then he is succesful in the "BARREL EVENT" with the stamp being displayed as shown below. All of the awarded stamps are displayed at the time of ranking display.

GAME COMPOSITION

In the latter half of the each stage, the hero/heroin chase the bad guys and vice vesra in conection with the stone. Depending on the results of pursuit, the next stage course differs.
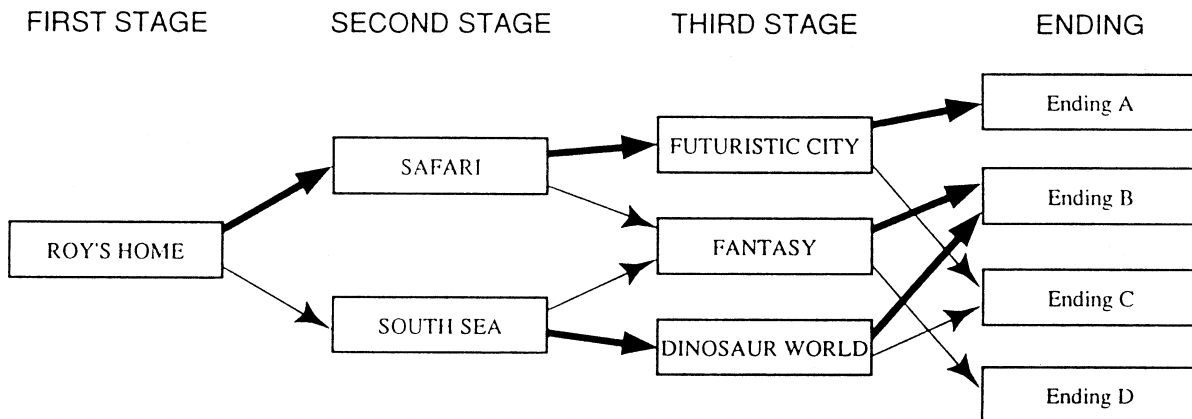
...Refers to the case the player is successful in the pursiut of bad guys and recaptures the stone.
...Refers to the case the player fails in the pursuit of bad guys and had the stone stolen.

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Finishing one Stage before the truck is completely destroyed results in STAGE CLEAR.

At the time of STAGE CLEAR, the following map is displayed and this informs you of the next stage the player is going to take.

TRY THE NEXT STAGE!
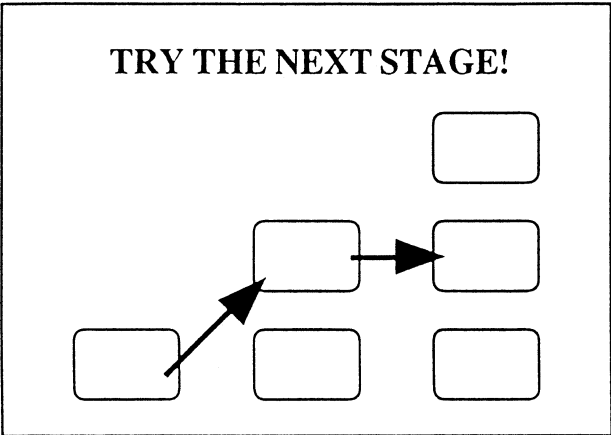
While repeating a sort of playing tag by chasing and being chased, clearing the 3 stages allowing you to see the Ending rsults in a GAME CLEAR.

ENDING

Depending on whether or not the player recaptures the stone in the Thrid Stage, which one of the four Ending Stories the player can see is determined.

When each stage is cleared, the map is displayed so that the player can see which course he followed.

ACHIEVEMENT DISPLAY

YOUR ACHIEVEMENTS

3 0 %
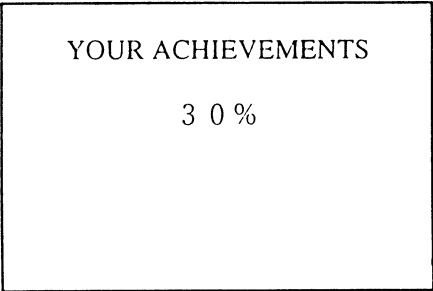
ACHIEVEMENTS are displayed after the ending or game over.

Name of player(s) can be entered if his ACHIEVMENTS are excellent. For the name entry, 3 characteres can be entered. In the case of one player play, the name of one person can be entered.
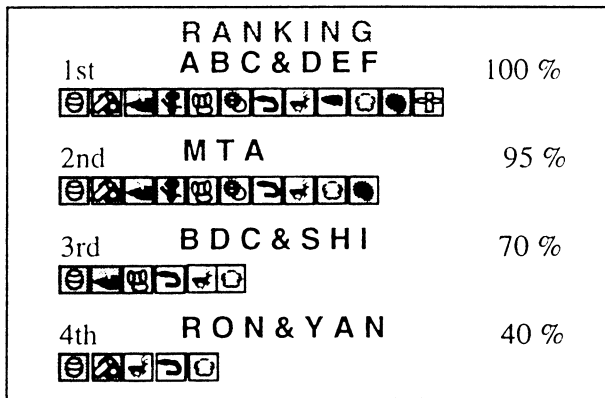
```
┌─────────────────────────────────────┐
│           NAME ENTRY                 │
├─────────────────────────────────────┤
│  G                        L          │
│  F                        K          │
│  E                        J          │
│  D  __ __  &  R  I  F      I          │
│  C                        H          │
│  B        38              G          │
│  A                        F          │
│                                      │
└─────────────────────────────────────┘
```
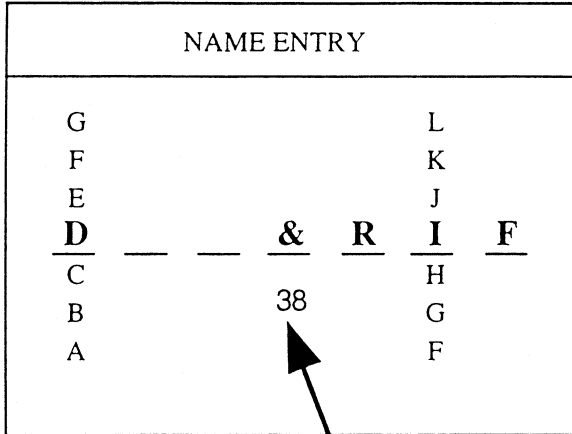
● Move the Lever up/down to select the characters for name entry.

● After choosing the desired characters for name entry, step on the pedal to execute the selection.

● In case of no name entry, the Name Entry mode ends after approximately 40 seconds, and the ranking is displayed by using an appropriate name.

Counts from 40 down to 0. When the count becomes 0, the Name Entry mode is finished.

RANKING

After Name Entry, RANKING is displayed. Displays up to 10 pairs can be displayed.

```
┌─────────────────────────────────────┐
│            R A N K I N G             │
│  1st      A B C & D E F      100 %   │
│  [icons]                             │
│                                      │
│  2nd        M T A             95 %   │
│  [icons]                             │
│                                      │
│  3rd      B D C & S H I       70 %   │
│  [icons]                             │
│                                      │
│  4th      R O N & Y A N       40 %   │
│  [icons]                             │
└─────────────────────────────────────┘
```

GAME OVER

GAME OVER display is indicated. This ends the game flow series.

After this, the ADVERTISE MODE returns to the screen.

```
┌─────────────────────────────┐
│                             │
│                             │
│        GAME OVER            │
│                             │
│                             │
└─────────────────────────────┘
```
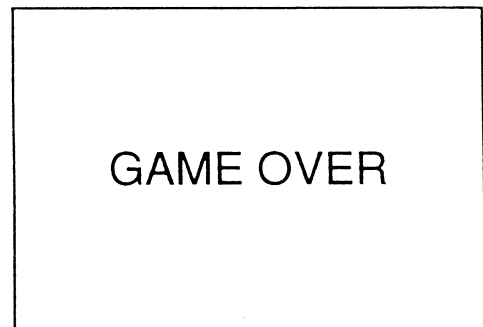
6. EXPLANATION OF TEST AND DATA DISPLAY

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 6   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.	6 - 8, 6 - 9, 6 - 10
	2. In the INPUT TEST mode, check each SW and VR.	6 - 4
	3. In the OUTPUT TEST mode, check each of lamps.	6 - 7
	4. In the MEMORY TEST mode, check ICs on the IC Board.	6 - 3
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.	6 - 3
PERIODIC SERVICING	Periodically perform the following: 1. MEMORY TEST	6 - 3
	2. Ascertain each setting.	6 - 8, 6 - 9
	3. In the INPUT TEST mode, test the CONTROL device	6 - 4
	4. In the OUTPUT TEST mode, check each of the lamps.	6 - 7
CONTROL SYSTEM	1. In the INPUT TEST mode, check each SW and VR.	6 - 4
	2. Adjust or replace each SW and VR.	7
	3.If the problem hasn't been solved yet, check the CONTROL's moves.	7
PROJECTOR	In the PROJECTOR ADJUSTMENT mode, check to see if the PROJECTOR adjustment is appropriately made.	9
IC BOARD	1. MEMORY TEST	6 - 3
	2. In the SOUND TEST mode, check the sound related ROMs.	6 - 5
DATA CHECK	Check such data as game play time and histogram to adjust the difficulty level, etc	6 - 11

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WARNING!

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

STOP

IMPORTANT!

● 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:

(1) SOUND VOLUME SPEAKER
Controls the speaker volume ofall of the machines speakers.

(2) TEST BUTTON (TEST SW)
For the handling of the
TEST BUTTON,
refer to the section on test mode.

(3) SERVICE BUTTON
(SERVICESW)
Gives credits without registering
on the coin meter.

SPEAKER VOLUME

VOL

TEST   SERVICE

TEST BUTTON   SERVICE BUTTON

COIN METER
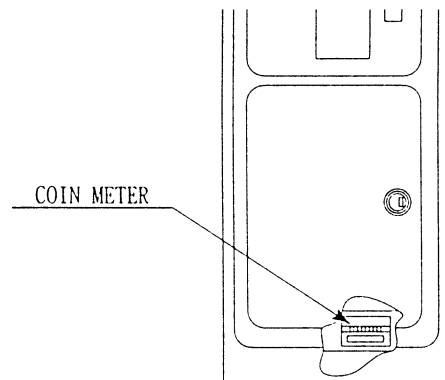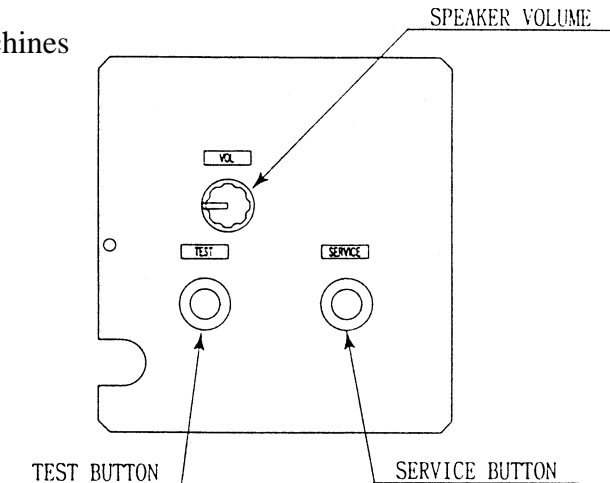
> **STOP**
>
> **IMPORTANT!**
>
> In case settings are changed in GAME ASSIGNMENTS, COIN ASSIGNMENT the setting changes are not effective unless the test mode is exited and the game mode returns to the screen. The setting changes are ineffective if the power is turned off in the test mode.

The TEST MODE allows the functioning of each part of the Cabinet to be checked, the monitor to be adjusted, and the coins and game related various settings to be performed.

SELECTION OF TEST ITEMS

```
                   TEST  MENU

             MEMORY  TEST
              INPUT  TEST
             OUTPUT  TEST
             SOUND  TEST
             C.R.T.  TEST
             GAME  ASSIGNMENTS
             COIN  ASSIGNMENTS
             DEVICE  SETTING
             BOOKKEEPING
             BACKUP  DATA  CLEAR
          >  EXIT



          SELECT  WITH  SERVICE  BUTTON
            AND  PRESS  TEST  BUTTON
```
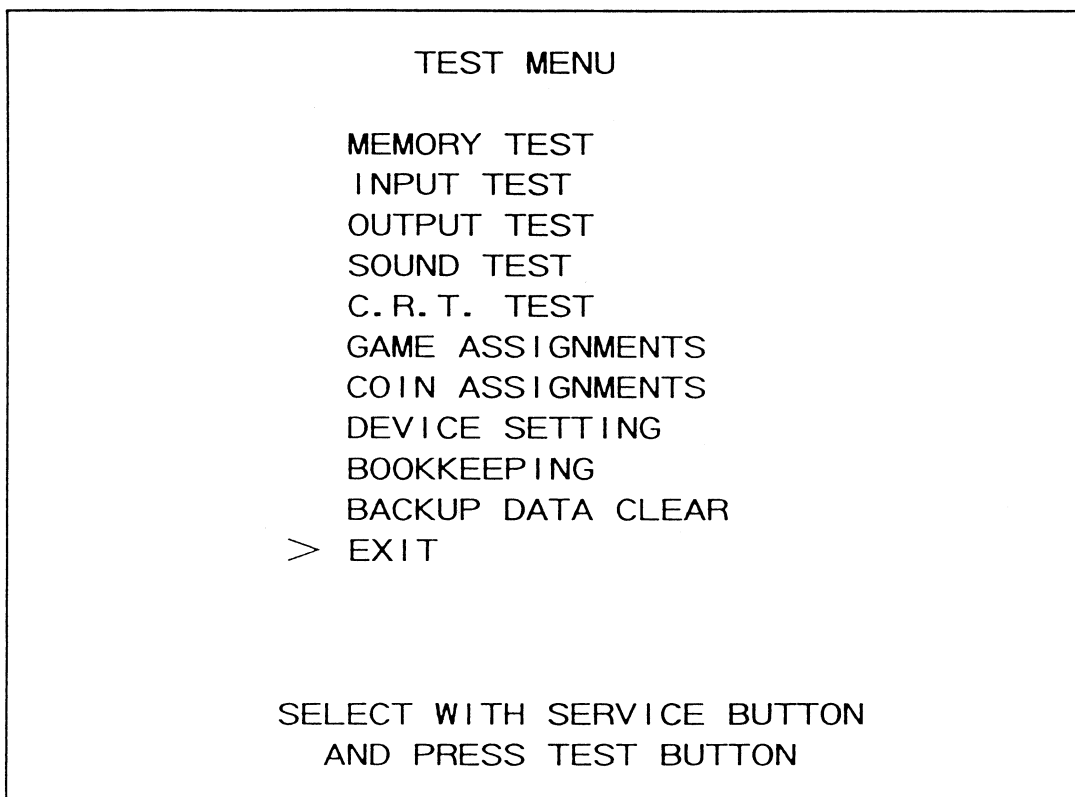
● Press the TEST BUTTON to have the menu displayed on the screen.

● Press the SERVICE BUTTON until the pointer is moved to the desired item to make a selection.

● Bring the pointer to the desired item and press the TEST BUTTON to enter the selected item's test.

6 -3 MEMORY TEST

```
                    MEMORY TEST
<ROM>
IC 1 GOOD   IC 2 GOOD   IC 3 GOOD   IC 4 GOOD



<RAM>
IC17 GOOD       IC18 GOOD       IC94 GOOD








                PRESS TEST BUTTON TO EXIT
```

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.

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6 - 4 INPUT TEST

When INPUT TEST is selected, the MONITOR will show the following, allowing you
to watch the status of each switch.
On the screen, periodically check the status of each switch.

```
                  INPUT TEST

              LEFT PLAYER      RIGHT PLAYER
LEVER             ***              ***
FOOT PEDAL        OFF              OFF
MOTOR TEST        GOOD             GOOD
START             OFF              OFF
COIN CHUTE #1     OFF
COIN CHUTE #2     OFF
SERVICE           OFF
TEST              OFF







        PRESS TEST AND SERVICE BUTTON TO EXIT
```

● By pressing each switch, if the display
on the righthand side of the name of
each switch changes to ON from OFF,
the SW and the wiring connections are
satisfactory.

● Open the COIN CHUTE DOOR and
insert a coin from the COIN ENRTY to
check the COIN CHUTE SW.

In the INPUT test, pressing the TEST
BUTTON causes the menu to return to
the screen.

6 - 5 OUTPUT TEST

Choose OUTPUT TEST to have the MONITOR screen shown left to appear. This screen allows
lamp status to be checked.Periodically check the lamp status in this mode.

```
              OUTPUT TEST


           LEFT PLAYER
           RIGHT PLAYER
        >  EXIT








        SELECT WITH SERVICE BUTTON
          AND PRESS TEST BUTTON
```

● Press the SERVICE BUTTON to move
the arrow to the desired lamp test item.

● Press the TEST BUTTON. If the display
to the right of the lamp name changes to
ON from OFF, the lamp and wiring
connection are satisfactory.

● Choose EXIT and press the TEST BUT-
TON to return to MENU mode (FIG. 6.2).

6 - 6 SOUND TEST

```
┌──────────────────────────────────────┐
│              SOUND TEST                │
│                                        │
│             VOICE                      │
│                                        │
│             EFFECT                     │
│                                        │
│             B.G.M.                     │
│                                        │
│           > EXIT                       │
│                                        │
│                                        │
│                                        │
│       SELECT WITH SERVICE BUTTON       │
│         AND PRESS TEST BUTTON          │
│                                        │
└──────────────────────────────────────┘
```
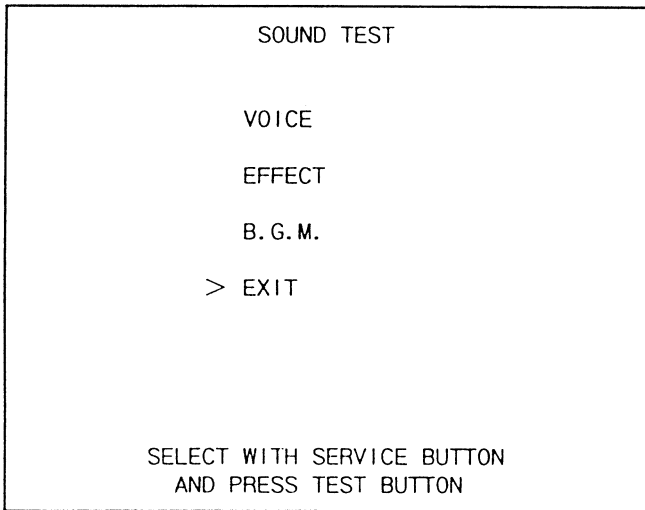
This enables sound used in the game to be checked. Sound related memory and each speaker are checked.

● SE1/SE2/VOICE/BGM
In these items, sound related memory and each speaker are checked.
By using the SERVICE button, move the arrow to the desired item. Every time the TEST button is pressd, the numeral displayed on the screen increases and sound is emitted sequentially in order.

● BASE SHAKER MUTE TEST
In this test, check if the BASE SHAKER equipped with the cabinet (the vibration device near where the player stands) satisfactorily functions.
Select this item to start vibrating the Base Shaker at the same time sound is emitted.
When the TEST button is pressed in this status, if only the sound is continuously emitted and the Shaker vibration is stopped, then, the Base Shaker is functioning satisfactorily.

Being the arrow to EXIT and press the TEST button to return to the Menu mode.

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```
            C.R.T. TEST  1/2
      V                          V
      ┌─────────────────────────┐
      │          RED            │
      ├─────────────────────────┤
      │         GREEN           │
      ├─────────────────────────┤
      │          BLUE           │
      ├─────────────────────────┤
      │         WHITE           │
      └─────────────────────────┘
      0                        31

        PRESS TEST BUTTON TO CONTINUE
```

```
            C.R.T. TEST  2/2




        PRESS TEST BUTTON TO EXIT
```
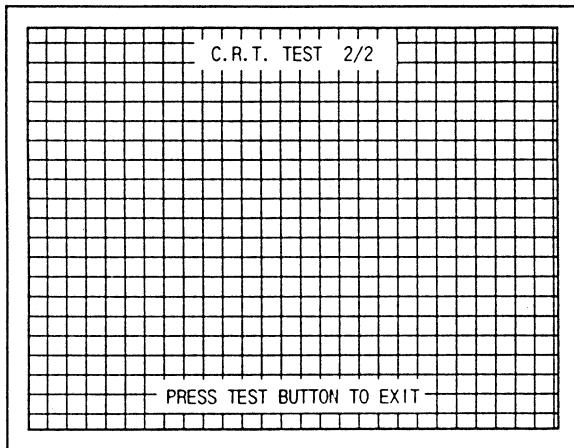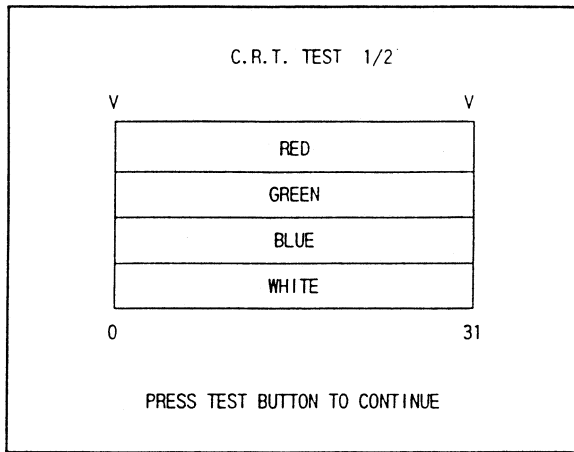
● Select C.R.T. TEST to cause the MONI-TOR to display the screen shown left, allowing MONITOR adjustment status to
● be checked.

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 page (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.

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 |

STOP
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.

```
                GAME ASSIGNMENTS

                easy              _              hard
  GAME DIFFICULTY  [ | | | | | | | | | | | | ]
                none              _              much
  DAMAGE RECOVERY  [ | | | | | | | | | | | | ]
  BOSS DIFFICULTY   NORMAL
  ADVERTISE SOUND   ON
  CHRISTMAS MODE    OFF
  COUNTRY           JAPAN
> EXIT




             SELECT WITH SERVICE BUTTON
             AND PRESS TEST BUTTON
```

These FIGURES/ TABLES show the factory recommended settings.

● GAME DIFFICULTY
This game allows by-course difficulty level to be set in 4 levels. Depending on the difficulty level set, the intial time varies.

● ADVERTISE SOUND
Setting of sound during Advertise. ON(sound to be emitted), OFF(sound not to be emitted).

● DAMAGE RECOVERY
The degree of DAMAGE RECOV-ERY after clearing each stage can be set in 16 levels from none to much.

● BOSS DIFFICULTY
The Difficulty Level in each Stage's latter half chase scenes can be set in 5 Levels from VERY EASY to VERY HARD.

● CHRISTMAS MODE
Setting to ON causes CHRISTMAS song for the BGM to be played at the time of game explanations during ADVERTISE. While the CHRIST-MAS song is emitted, "MERRY CHRISTMAS" is displayed on the screen.

6 - 9 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

> **STOP**
> **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/CREDIT SETTING #17

         COIN CHUTE #1        3COINS 1CREDIT

         COIN CHUTE #2        3COINS 1CREDIT

        MANUAL SETTING
      > EXIT


              SELECT WITH SERVICE BUTTON
              AND PRESS TEST BUTTON
```
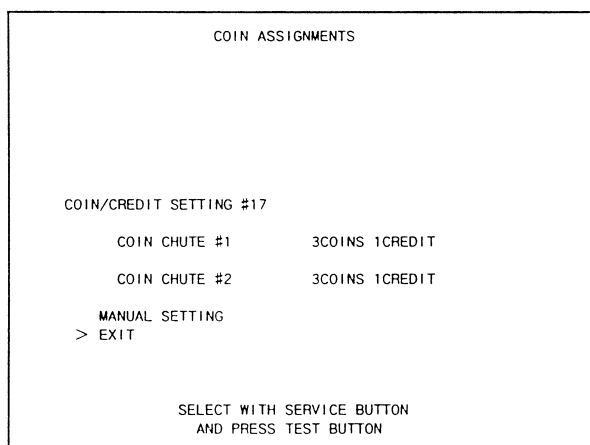
● COIN CHUTE TYPE
Sets the combination of the number of COIN CHUTEs and the number of players as applicable. In the case that the COIN CHUTE is changed, be sure the setting is made in a manner meeting the replaced coin chute.

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 setings from #1 to #27, expressed in XX CREDIT as against XX COINS inserted. (TABLE 6.10a, 6.10b) #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 6.10b.

● 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 6.10c).

35

TABLE 6.9a 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	1 CREDIT
	2 COINS	3 CREDITS
SETTING #16	1 COIN	3 CREDITS
SETTING #17	3 COINS	1 CREDIT
SETTING #18	4 COINS	1 CREDIT
SETTING #19	1 COIN	1 CREDIT
	2 COINS	2 CREDITS
	3 COINS	3 CREDITS
	4 COINS	5 CREDITS
SETTING #20	1 COIN	5 CREDITS
SETTING #21	5 COINS	1 CREDIT
SETTING #22	1 COIN	2 CREDITS
SETTING #23	2 COINS	1 CREDIT
	4 COINS	2 CREDITS
	5 COINS	3 CREDITS
SETTING #24	1 COIN	3 CREDITS
SETTING #25	1 COIN	1 CREDIT
	2 COINS	2 CREDITS
	3 COINS	3 CREDITS
	4 COINS	4 CREDITS
	5 COINS	6 CREDITS
SETTING #26	1 COIN	6 CREDITS
SETTING #27	FREE PLAY	

TABLE 6.9b COIN/CREDIT SETTING (COIN CHUTE INDIVIDUAL TYPE)

SETTING	FUNCTIONING OF COIN CHUTE	
SETTING #1	1 COIN	1 CREDIT
SETTING #6	1 COIN	2 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 #15	1 COIN	1 CREDIT
	2 COINS	3 CREDITS
SETTING #17	3 COINS	1 CREDIT
SETTING #18	4 COINS	1 CREDIT
SETTING #19	1 COIN	1 CREDIT
	2 COINS	2 CREDITS
	3 COINS	3 CREDITS
	4 COINS	5 CREDITS
SETTING #21	5 COINS	1 CREDIT
SETTING #22	3 COINS	1 CREDIT
	5 COINS	2 CREDITS
SETTING #23	2 COINS	1 CREDIT
	4 COINS	2 CREDITS
	5 COINS	3 CREDITS
SETTING #25	1 COIN	1 CREDIT
	2 COINS	2 CREDITS
	3 COINS	3 CREDITS
	4 COINS	4 CREDITS
	5 COINS	6 CREDITS
SETTING #27	FREE PLAY	

MANUAL SETTING

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

```
                    MANUAL SETTING

COIN TO CREDIT               1 COIN    1 CREDIT    — — — — ①

BONUS ADDER                  NO BONUS ADDER        — — — — — — ②


COIN CHUTE #1 MULTIPLIER                      — — — — — — — — ③
  1 COIN COUNTS AS 1 COIN
  COIN      1    2    3    4    5    6    7    8    9
  CREDIT    1    2    3    4    5    6    7    8    9

COIN CHUTE #2 MULTIPLIER
  1 COIN COUNTS AS 1 COIN
  COIN      1    2    3    4    5    6    7    8    9
  CREDIT    1    2    3    4    5    6    7    8    9

>EXIT

            SELECT WITH SERVICE BUTTON
            AND PRESS TEST BUTTON
```
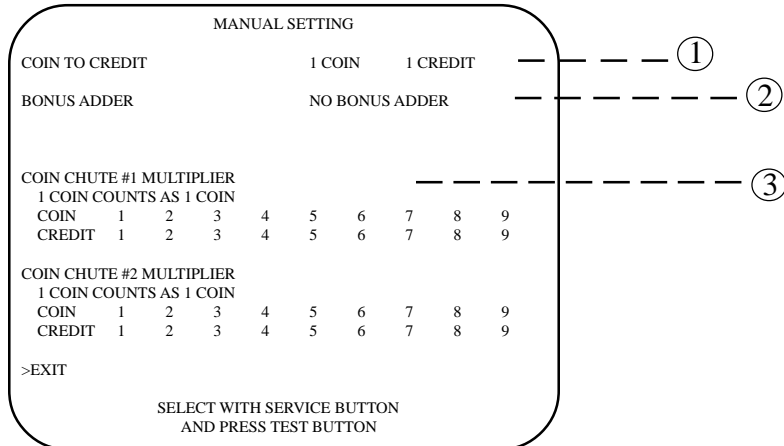
FIG. 6.11b MANUAL SETTING

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 6.11c 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

6 - 10 DEVICE SETTING

Performs the setting and checking of DEVICE (Lever V.R. , Motor). Moving the game machine or repeating play may cause the DEVICE and Mechanism portions to malfunction or to be deviated, resulting in operability failure. In this mode, periodically check status of DEVICE.

```
        DEVICE SETTING


LEFT LEVER           SET min: 9  max:250
        :156             min: 8  max:252
L_____|_V_____

RIGHT LEVER          SET min: 5  max:253◄──────①
②──────►:109             min: 7  max:250◄──────③
L_____V_|_____

MOTOR POWER TEST       ②
    LEFT PLAYER:  ON
    RIGHT PLAYER: ON

    PULL UP THE LEVER TO SET UP THE MAXIMUN,
    THEN PULL DOWN THE LEVER TO SET UP THE MINIMUM.
    PRESS START BUTTON TO MEMORY THEM.

        PRESS TEST BUTTON TO EXIT
```
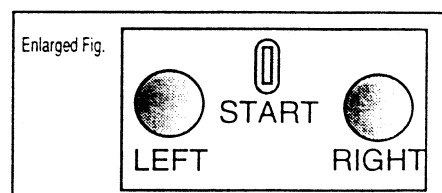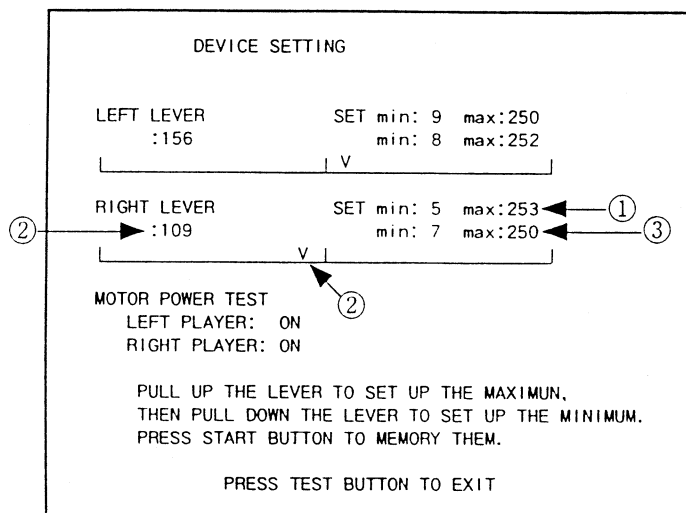
FIG. DEVICE SETTING

● LEFT LEVER / RIGHT LEVER

① Setting values of Device (Min. and Max.)
② Present value of Device. Moving the Lever varies the value.
③ Present values of Device (Min. and Max.)

Enlarged Fig. — START / LEFT / RIGHT

LEVER
START BUTTON
PEDAL
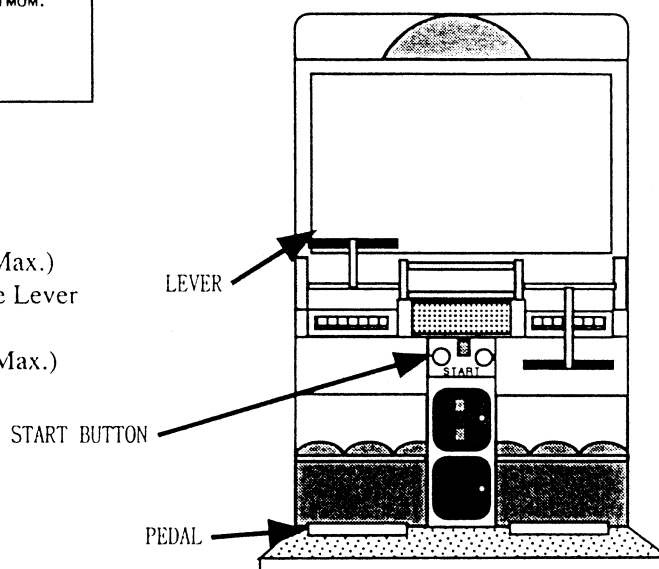
| METHOD OF SETTING |

For setting the left/right Device, operate each of the left/right LEVERS and START button for each. The setting changes are not stored unless the Test Mode is exited. The setting change becomes ineffective if power is turned off during test mode.

a.) Lower the LEVER fully downward. Min is displayed to (3).
b.) Lift the LEVER fully upwards. Max is displayed to (3).
c.) Press the START button. Setting value is changed.
d.) Press the TEST button, return to the MENU mode and EXIT from the Test Mode.

MOTOR POWER TEST
Check the MOTOR which subjects LEVER operation to load. Step on either of the left/right pedals, and both motors are activated. WHen the Pedal is stepped on, OFF is displayed. When the Pedal is not stepped on, ON is displayed. If the LEVER is felt lighter when it is moved up and down while OFF is displayed than while ON is displayed, it is satisfactory.

6 - 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 1/2


    COIN CHUTE #1              *
    COIN CHUTE #2              *
    TOTAL COINS               *
    COIN CREDITS              *
    SERVICE CREDITS           *
    TOTAL CREDITS             *
    NUMBER OF GAMES           *
    TOTAL TIME             **D **H **M **S
    PLAY TIME              **D **H **M **S
    AVERAGE PLAY TIME        **H **M **S
    LONGEST PLAY TIME        **H **M **S
    SHORTEST PLAY TIME       **H **M **S




            PRESS TEST BUTTON TO CONTINUE
```

● 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 2/2

                 TIME HISTOGRAM

    0M  0S ～ 0M 29S          *
    0M 30S ～ 0M 59S          *
    1M  0S ～ 1M 29S          *
    1M 30S ～ 0M 59S          *
    2M  0S ～ 2M 29S          *
    2M 30S ～ 5M 59S          *
    3M  0S ～ 3M 29S          *
    3M 30S ～ 3M 59S          *
    4M  0S ～ 4M 29S          *
    4M 30S ～ 4M 59S          *
    5M  0S ～ 5M 29S          *
    5M 30S ～ 5M 59S          *
    6M  0S ～ 6M 29S          *
    6M 30S ～ 6M 59S          *
    7M  0S ～ 7M 29S          *
    7M 30S ～ 7M 59S          *
    8M  0S ～ 8M 29S          *
    8M 30S ～ 8M 59S          *
    9M  0S ～ 9M 29S          *
    OVER    ～ 9M 30S          *


            PRESS TEST BUTTON TO EXIT
```

```
┌─────────────────────────────────────────────────┐
│                                                 │
│             BACKUP  DATA  CLEAR                  │
│                                                 │
│                                                 │
│                                                 │
│             YES  (CLEAR)                         │
│          >  NO   (CANCEL)                        │
│                                                 │
│                                                 │
│                                                 │
│                                                 │
│                                                 │
│                                                 │
│                                                 │
│          SELECT  WITH  SERVICE  BUTTON           │
│            AND  PRESS  TEST  BUTTON              │
│                                                 │
└─────────────────────────────────────────────────┘
```

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 SER-VICE 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 and sighting adjustment are not affected by BACKUP DATA CLEAR operation.

7. CONTROLLER'S (LEVERS AND FOOT SWITCH)

<table>
<tr>
<td>⚠️
WARNING!</td>
<td>Before starting to work, ensure that the power SW is OFF. Failure to observe this can cause electric shock and short circuit accident.
Use care so as not to damage wirings. Damaged wiring can cause electric shock and short circuit hazards.
Do not touch undesignated places. Touching places other than those specified can cause electric shock and short circuit accidents.</td>
</tr>
</table>

<table>
<tr>
<td>⚠️
WARNING!</td>
<td>This work should be performed by the locations Maitenance Man or Service Man. Performing work by those who do not have the technical expertise can cause electric shock accident.</td>
</tr>
</table>

7 - 1 ADJUSTING/REPLACING THE VOLUME

In cases the Lever's operability is poor and adjustment in the DEVICE SETTING of the TEST MODE is ineffective, the causes may be the Volume Gear's mesh failure, Volume malfunctioning, etc. By using the following procedure adjusting position of Volume and gear mesh, or replace the Volume.
In this product, when the Lever is moved up/down, if the Volume shaft is rotating within the movable range, the Volume is not feared to be damaged. The Volume gear mesh angle is approximately 90 degrees turned in the direction reverse to where the Volume gear angle is approximately 90 degrees turned in the direction reverse to where the Volume gear turned fully to the Lever's Grip side with the Lever being in the status fully lifted up. To perform the angular adjustment work, safely and accurately, secure the Lever by one person, and person and perform adjsutment and fastening the nut by another person.

ADJUSTING THE VOLUME

① Turn power off.

② Take out 3 screws and remove Pillar Cover Side.

③ Loosen the 2 Nuts, move the VR Bracket, and adjsut gear mesh angle and status.

PILLAR COVER SIDE

TRUSS SCREW(3)
M4×12

REPLACING THE VOLUME

① Disconnect Volume Connector.

② Take out the 2 hexagon nuts and remove the Volume together with VR Bracket.

③ After replacing the Volume, have the gear mesh at the angle specified above, and secure theVR Bracket.

④ Turn Power ON, and set the Volume value in DEVICE SETTING of TEST mode.

HEXAGON NUT(2)
M4

VR BRACKET

HEXAGON NUT(2)
M4

Disconnect the Connector.

GRIP

TURN IT FULLY TOWARDS THE GRIP.

TURN IT BACK APPROXIMATELY 90 DEGREES.

VOLUME GEAR

LIFT THE LEVER FULLY UP TO THE STOPPER POSITION.
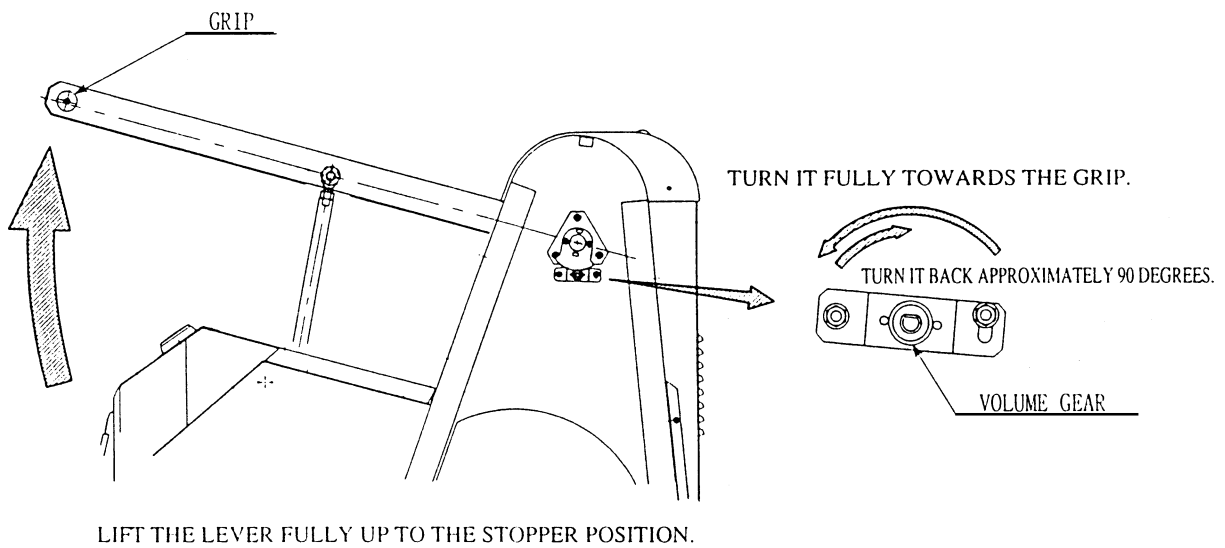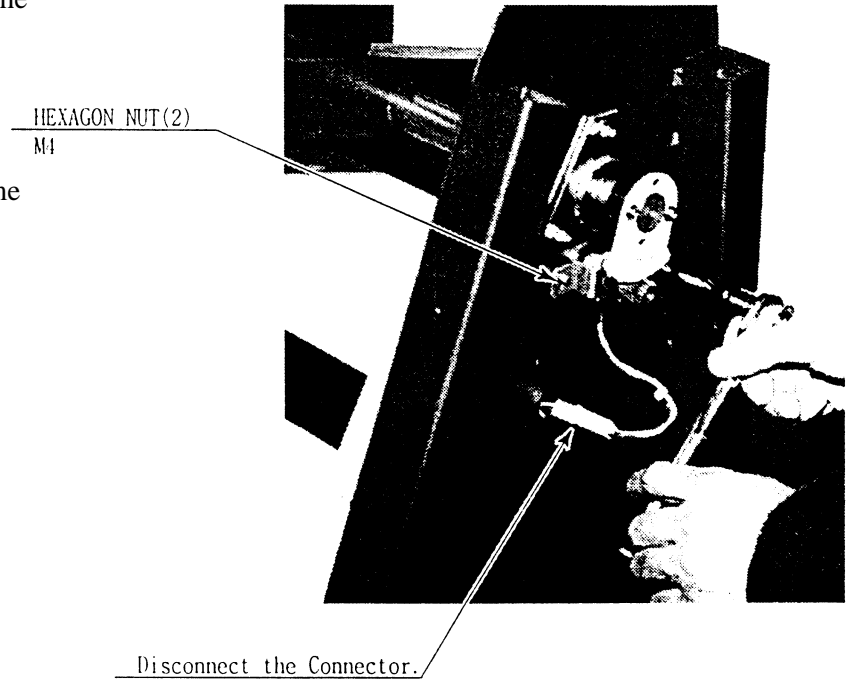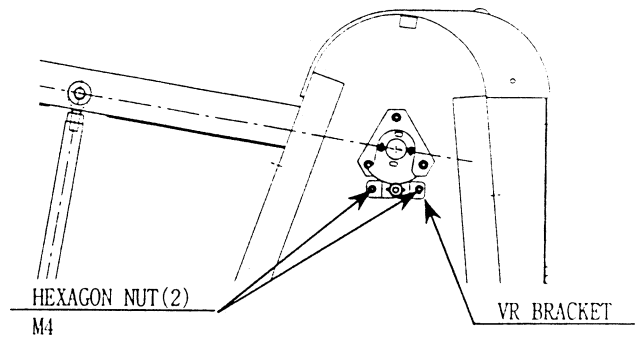
VOLUME
220-5473
220-5484

For performing work, use 2 workers.
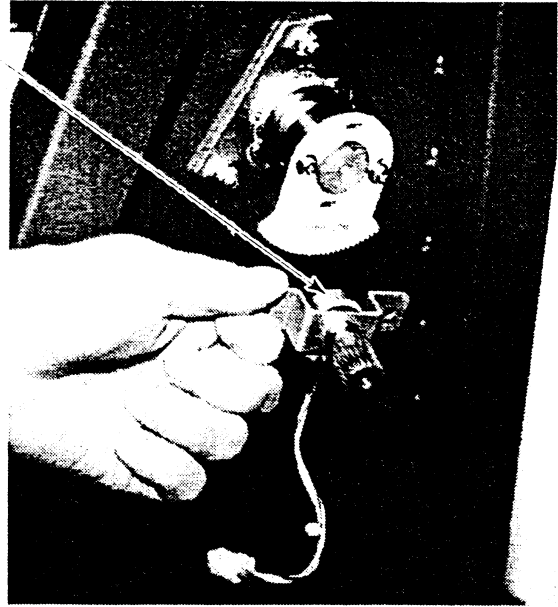
7 - 2 GREASING

WARNING!

Before starting to work, ensure that the Power SW is OFF. Failure to observe this can cause electric shock and short circuit hazards. Besure to use the designated grease. Using the undesignated grease can cause parts damage.
Do not apply greasing to undesignated places. Failure to observe this can cause malfunctioning or quality deterioration of parts.

Apply greasing to gear mesh portions once every 3 months. Use GREASEMATE (SEGA PART No. 090-0066).

VOLUME GEAR MESH PORTION

7 - 3 REPLACING THE STOPPER

In case the Lever's Rubbe Stopper is deteriorated or damaged, replace it by using the following procedure.

① Turn power off.

② Take out the 4 truss screws, and remove the Upper Plate.

③ Take out the 5 truss screws, and remove the Mecha Cover in the manner to pull out towards you.

④ Replace the Stopper.

⑤ When installing the Mecha Cover, mount the Slide Plate on the Mecha Cover.
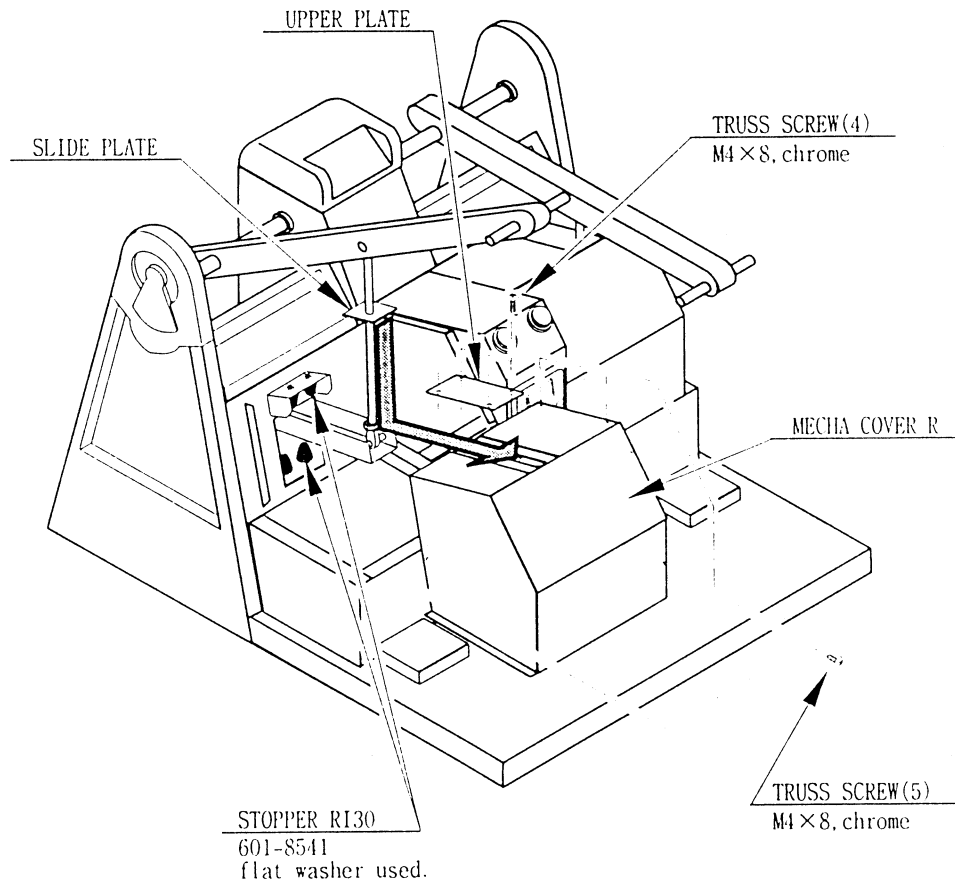
7 - 4 REPLACING THE SHOCK ABSORBER.

The following work needs a tool for the C Ring and is rather complicated.
Ask where you purchased your game from or SEGA's Service Center for assistance.

PILLAR COVER TOP

TRUSS SCREW(2)
M4×12
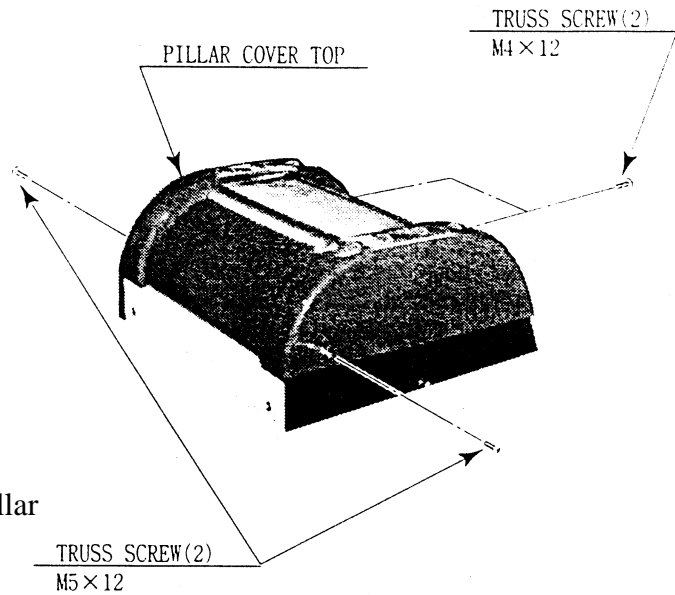
① Turn power OFF.

② Take out a total of 4 screws and remove Pillar
Cover Top.

TRUSS SCREW(2)
M5×12

REAR LID

③ Take out 4 screws. and remove Rear Lid.

TRUSS SCREW(4)
M4×8
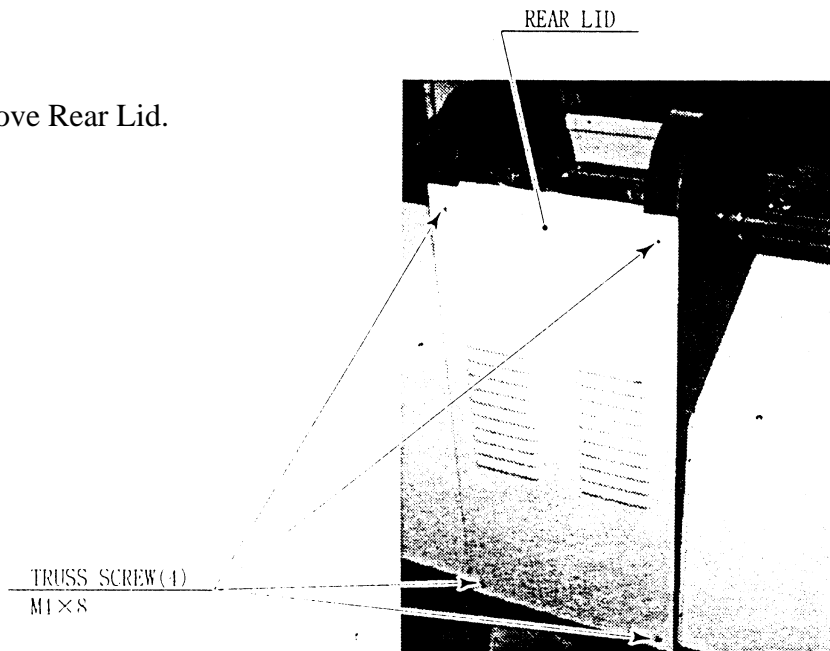
① Disconnect the two Connectors.

② Take out the 4 screws and remove the Unit(motor) on the shock absorber.

MOTOR

SCREW(4)
M5×12,W/flat &
spring washers

Disconnect the two Connectors.
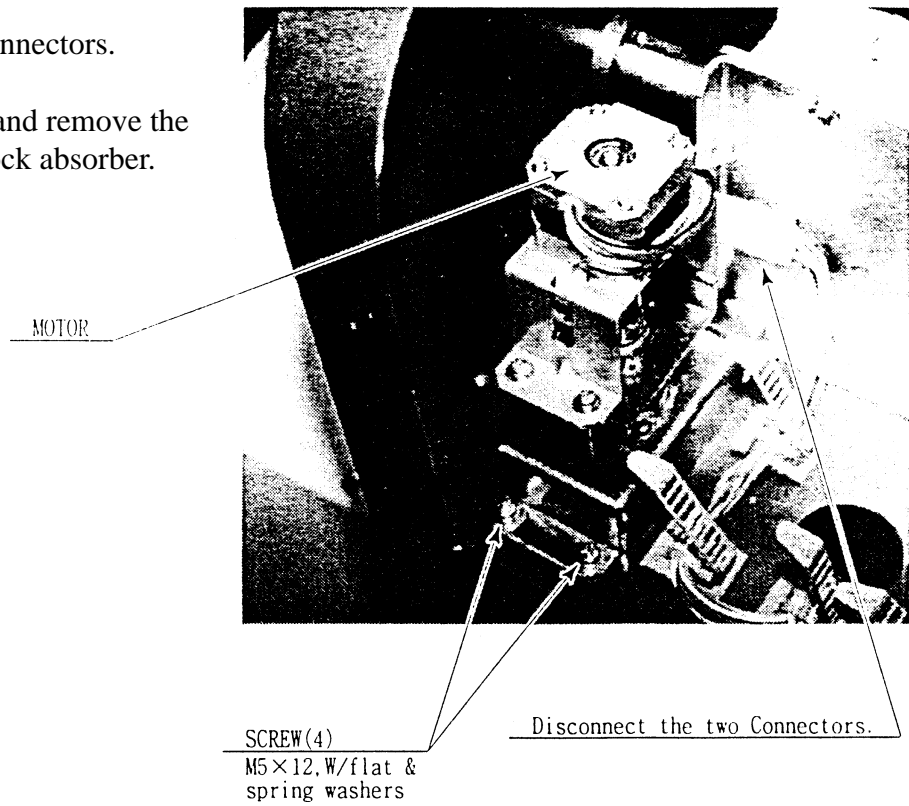
③ Remove the C Ring which secures the bottom part of the Shock Absorber, and replace Shock Absorber.
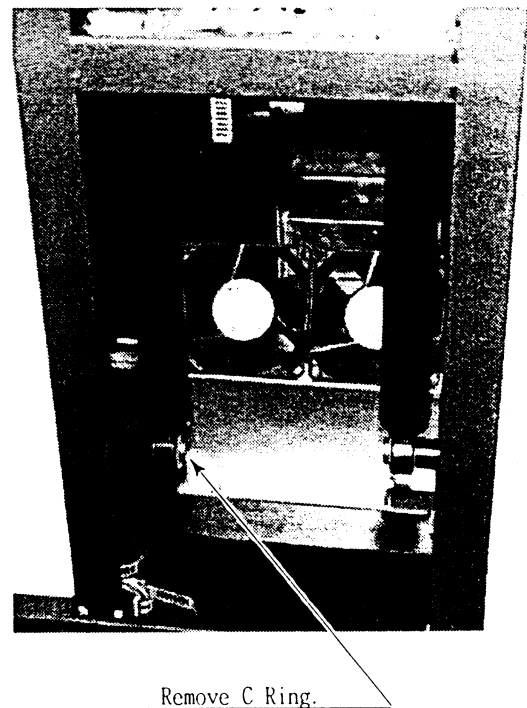
Remove C Ring.

⚠️ **WARNING!**

Before starting to work, ensure that the Power SW is OFF. Failure to observe this can cause electric shock and short circuit hazards.
Be sure to use the designated grease. Using the undesignated grease can cause parts damage.
Do not apply greasing to undesignated places. Failure to observe this can cause malfunctioning or quality deterioration of parts.
This work should be performed by the Location's Serviceman. Performing work by those who do not have technical expertise can cause electric shock accidents.

① Turn Power OFF.

② Remove both Mecha Covers.

③ Remove the Connectors from the FOOT SW's, one each on left/right side.

④ Take out the 3 trus screws and remove the ASSY FLOOR.

ASSY FLOOR

TRUSS SCREW(3)
M4 × 8

⑤ Turn the ASSY FLOOR over.

⑥ Take out the 2 screws and remove the FOOT SW and replace.

SCREW(2)
M4 × 10, w/flat & spring washers

FOOT SW
509-5891
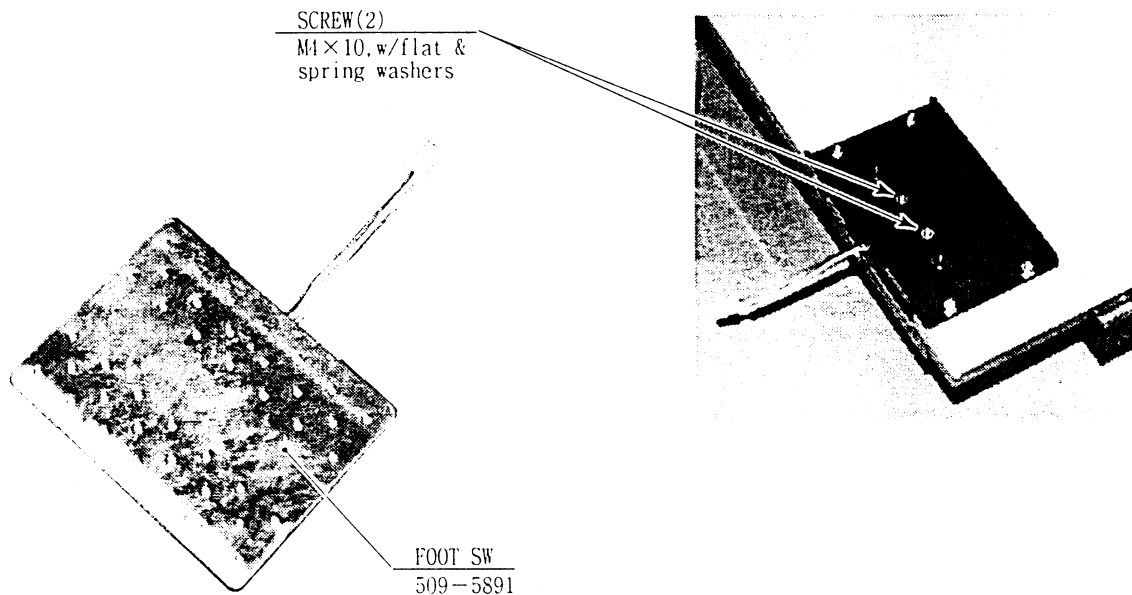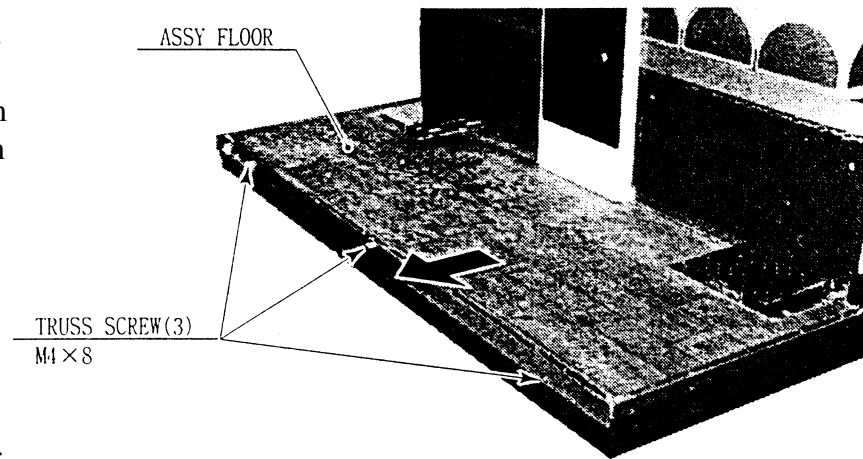
8. COIN SELECTOR

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 jammed 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.
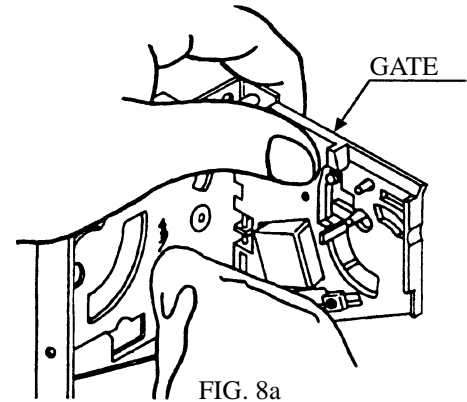
FIG. 8a
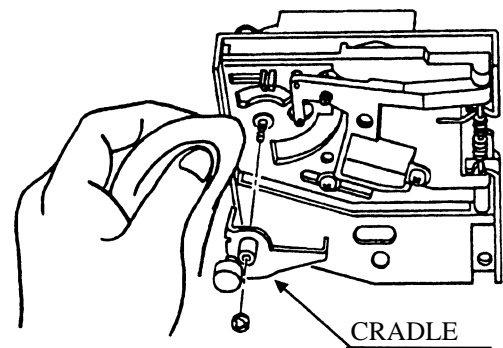
FIG.8b

STOP **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.

GATE

CRADLE

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 pressed down?

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

COIN METER
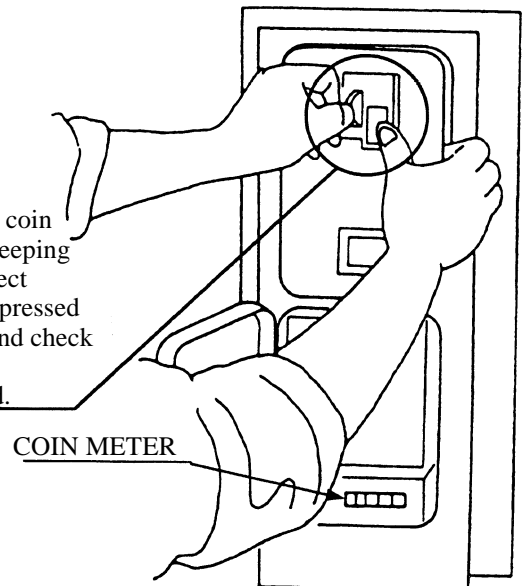
FIG. 8c

OPTIONAL DOLLAR BILL ACCEPTOR

● THE COIN DOOR ASSEMBLY USED ON **MAGIC TRUCK ADVENTURE** 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)	MARS 2000 SERIES
HOLE POSITION#2	MARS 2000 SERIES DBV45 (JCM)
HOLE POSITION #3	CURRENTLY NOT USED
HOLE POSITION #4	DSI01*

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

The frame and cashbox enclosure on this coindoor has been modified to accomodate a Mars 2000 series upstacker. A 2000 series stacker can be added by simply removing the top two entry door and replacing it with a one entry door with a cut-out for a stacker. This one entry door can be ordered through Coin Controls or one of Coin Controls authorized distributors. The Part # is 91-4000-01. The Mars stacker can be obtained through an authorized Mars distributor.
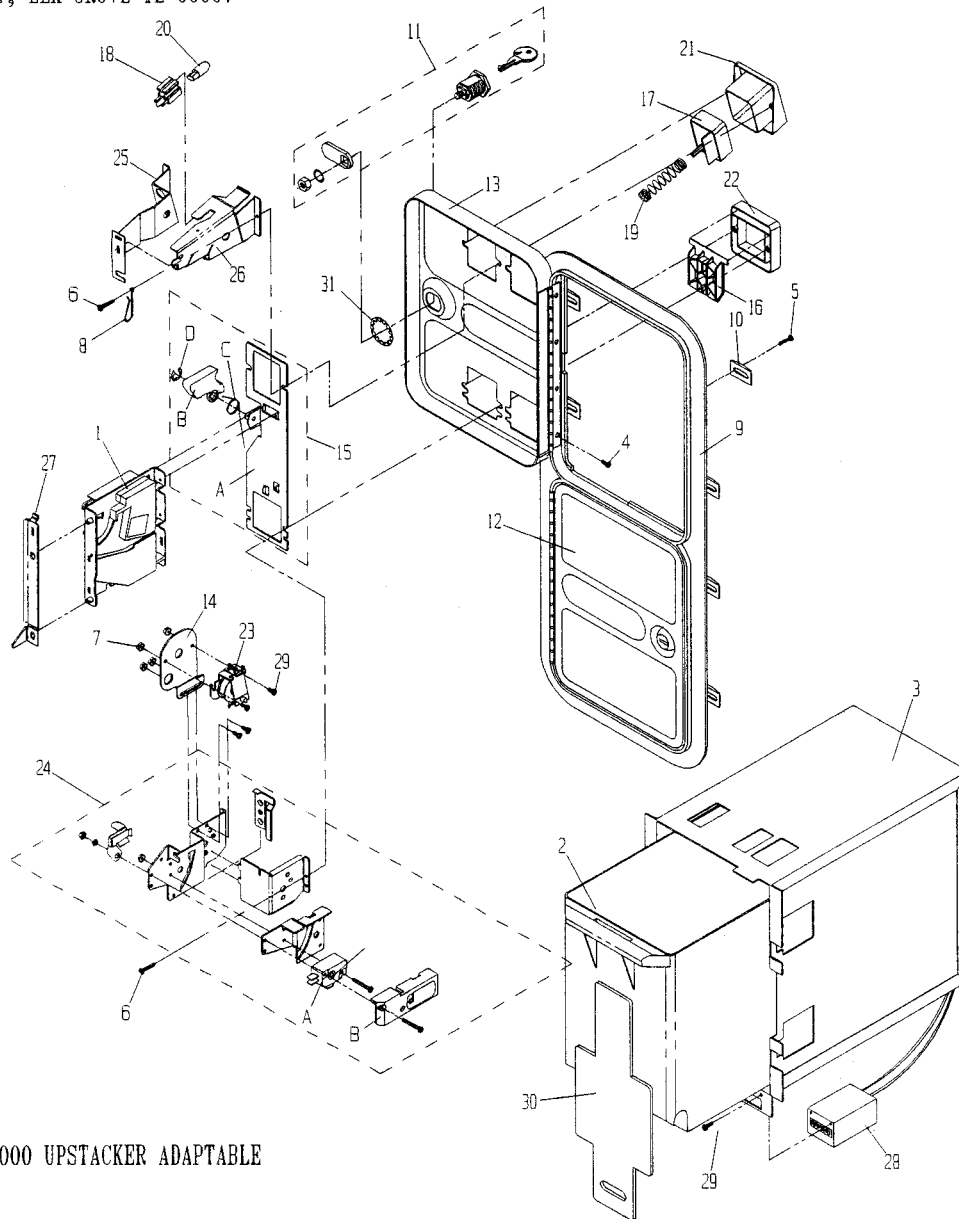
* MARS SERIES 2000 UPSTACKER ADAPTABLE

PART #	DESCRIPTION	COST	PART #	DESCRIPTION	COST	PART #	DESCRIPTION	COST
1) 12-4050-XX	S-10 ACCEPTOR	19.50	16) 91-1109-16	REJECT FLAP NYLON, BLACK	2.70	28) 23-1011-00	12V DC METER	8.50
12-4150-011	S-7 US $.25	12.00	17) 91-1113-01	ENTRY/REJECT BUTTON 25c	4.45	23-1103-00	4.5V DC METER	8.50
2) 20-4177-00	PLASTIC CASHBOX	7.40	18) 91-1117-00	LAMPHOLDER	1.40	29) 90-1032-01	METER & LOCKOUT SCREW	.25
3) 20-4189-00	ENCLOSURE, Z2000	27.50	19) 91-1121-00	E/R BUTTON SPRING	.80	30) 22-1400-00	LOCKING BAR	7.00
4) 90-1002-00	HINGE SCREW	.25	20) 91-1118-00	6V LAMP WEDGE BASE	.95	31) 90-1019-00	3/4" LOCKWASHER	.25
5) 90-1003-00	CLAMP SCREW	.95	21) 91-1311-16	BUTTON BEZEL BLACK	2.70			
6) 90-1017-00	SCREW BEZEL NYLON	.25	22) 91-1312-16	REJECT BEZEL BLACK	2.70			
7) 90-1206-02	#4-40 KEP NUT	.25	23) 91-2125-00	12V LOCKOUT COIL ASSEMBLY	12.85			
8) 90-1300-00	KEYHOOK	.35	24) 91-2216-16	MICROSWITCH ASSEMBLY	15.00			
9) 91-0508-16	FRAME	30.00	24A) 91-1116-16	MICROSWITCH BLACK	5.40			
10) 91-0506-00	CLAMP	.45	91-1116-11	MICROSWITCH WHITE	5.40			
11) 91-0547-00	DOUBLE D CAM LOCK	5.25	91-1116-10	MICROSWITCH RED	5.40			
12) 91-0603-16	BLACK MINI DOOR	8.40	24B) 91-1125-00	MICROSWITCH PLASTIC COVER	.85			
13) 91-0604-16	2 ENTRY UPPER DOOR	10.00	25) 92-1002-01	COIN INLET LAMP SIDE	1.80			
14) 91-1008-039	LOCKOUT BRACKET	4.30	26) 92-1002-021	COIN INLET COVER SIDE	1.80			
15) 91-1008-107	BASEPLATE ASSEMBLY	5.00	27) 92-1002-10	HOLD DOWN BRACKET	1.50			

9. PROJECTOR

Fine adjustments are stored inthe 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 touch the Fine Adjustment SW by mistake, immediatley tren 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 the adjustment by remote control. Note that there are two PROJECTOR makes (HITACHI and MITSUBISHI) and the adjustment method is different between the two. When checking the Adjustment Control Knob, remove the PTV's service door. For the HITACHI PROJECTOR, open the cover in front of the control panel. For the MITSUBISHI PROJECTOR, remove the cover.

9 - 1 CLEANING THE SCREEN

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 benzene and thinnerspill onto 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 with a hard material or using a duster.

SERVICE DOOR

CONTROL PANEL

STOP

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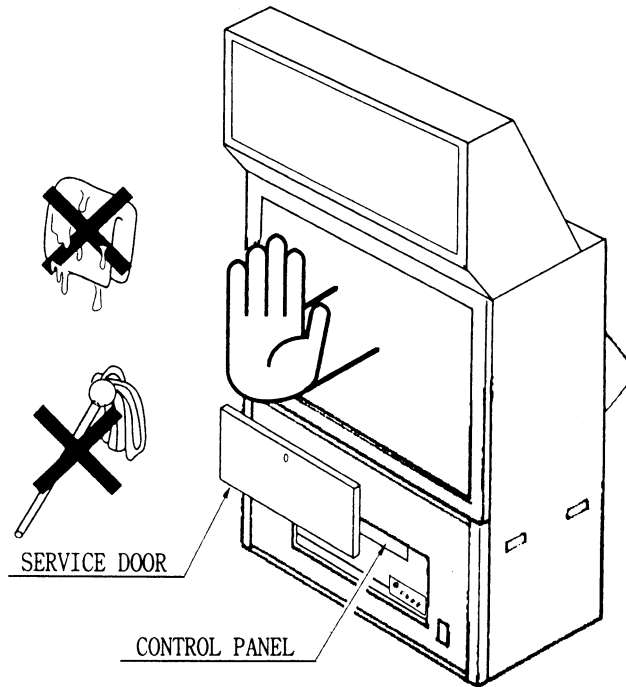
Although Remote Control Buttons other than those specified below do not function even if pressed during Convergence Adjustment, do not press them during adjustment work so as to avoid causing malfunctioning.
Operate the Remote Control towards the PTV screen. If directed other than to the PTV screen,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

When adjusting MITSUBISHI PROJECTOR, use the Remote Control.

STATIC CONVERGENCE ADJUSTMENT
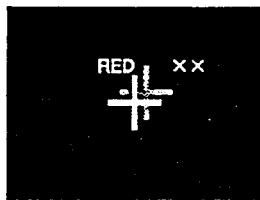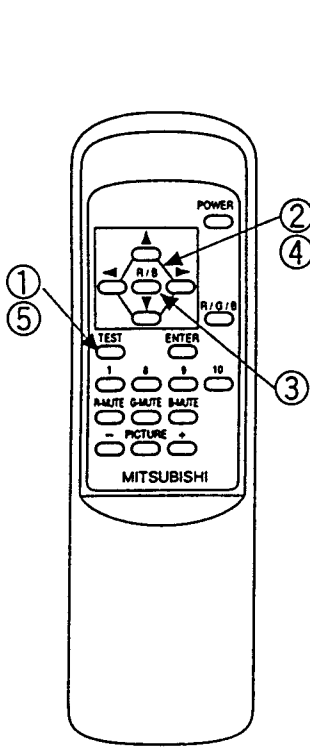
Red line Adjustment
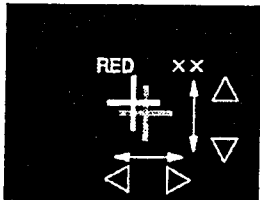
Press SHIFT to superimpose the red line on the green line.
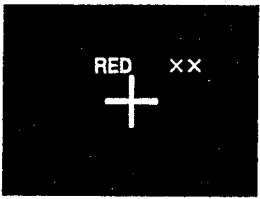
Completion of Adjustment

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 arrow keys 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 adjsutment mode.

During the STATIC CONBVERGENCE ADJUST-MENT MODE, if no action is taken within 5 minutes, the ADJUSTMENT MODE will be exited automatically.

NORMAL FUNCTIONING		CONTRAST Adjustment mode The brightness of image is adjusted.	BRIGHT Adjustment mode The black level of image is adjusted.	H - POS Adjustment mode The position of image is adjusted in the horizontal direction.
V - WIDTH Adjustment mode The vertical width of image is adjusted.	V - POS Adjustment mode The position of image is adjusted in the vertical direction.	H - WIDTH Adjustment mode The horizontal width of image is adjusted.		

① Every time the PICTURE Key is pressed, the Adjustment mode proceeds sequentially in order as above.

② In each Adjustment mode, press the + or - key to make adjsutment. 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).

AUTO CONVERGENCE ADJUSTMENT
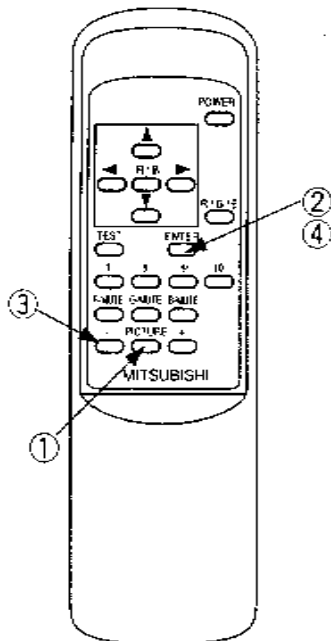
① Press the PICTURE KEY to display the AUTO CONVERGENCE Adjustment Mode on the screen (FIG. 12. 2 b).

② Press ENTER KEY to display "START EXIT."

③ Press the - KEY to cause "START" to become red.

④ Press the ENTER KEY to have AUTO CONVERGENCE Adjustment start. The adjustment takes up to 3 minutes at the maximum, and the normal status returns when the adjustment is finished.

If the AUTO CONVERGENCE is not operated satisfactorily due to illumination and malfunctioning, the problem message is displayed on the screen.

Auto Convergence Adjustment Mode

Cause "START" to become red and press the ENTER KEY.

During AUTO CONVERGENCE Adjustment, the screen displays Horizontal line of green → red → blue and Vertical line of green → red → blue

NORMAL STATUS
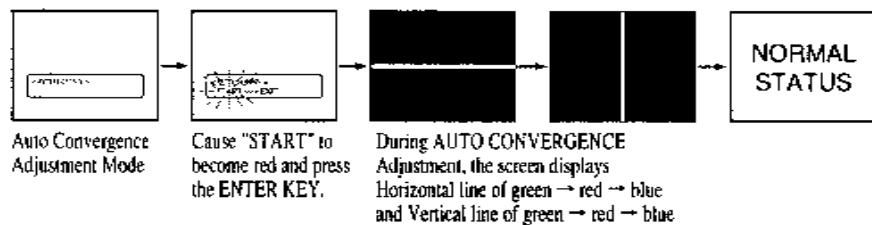
> ⚠ **WARNING!**
>
> Do not touch places other than those specified. Touching places not specified can cause an electric shock or short circuit accident.

TOSHIBA PROJECTOR has two different types, i.e., one equipped with the Control Panel and the other without the Control Panel. When adjusting, be sure to confirm the type used.

TOSHIBA PROJECTOR CONTROL PANEL
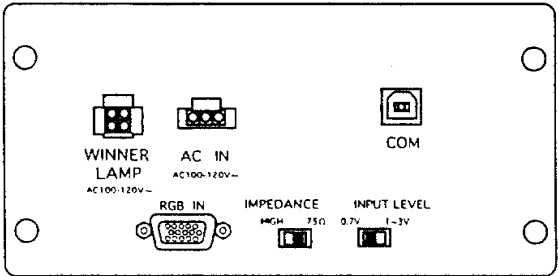
STATIC CONVERGENCE ADJUSTMENT (With the Control Panel)

> 🛑 **IMPORTANT!**
>
> Do not press undesignated key. Pressing any undesignated key can cause malfunction and adjustment fault. Should the key be pressed by mistake, turn power off and turn it back on again.
> During adjustment, should the screen image be abnormally disfigured due to static electricity and other cuases, do not have adjustment status stored, and be sure to turn power off.
> Operate the Remote Control towards the PTV screen. If directed other than to the PTV screen, the Remote Control does not function.
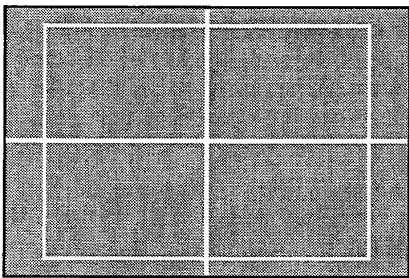
Test Pattern

① Unless the CONV ADJ SW is ON, remote control operation is not acceptable. At the time of shipment, the SW is set to ON. If remote control is not accepted, check status of this SW.

② Direct the remote control towards the PTV screen and keep the Test Key pressed down for approxiamtely 3 seconds. The adjustment mode should appear on the screen and the screen turns into the green test pattern.

On the screen, the cross pattern and the square frame line will be projected. However, due to the TV mask, the up/down lines cannot be seen.
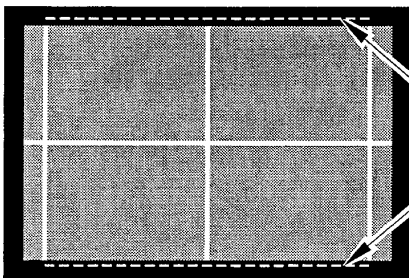
Due to the TV mask, the up/down lines of the Frame Line cannot be seen.

Adjustment Mode
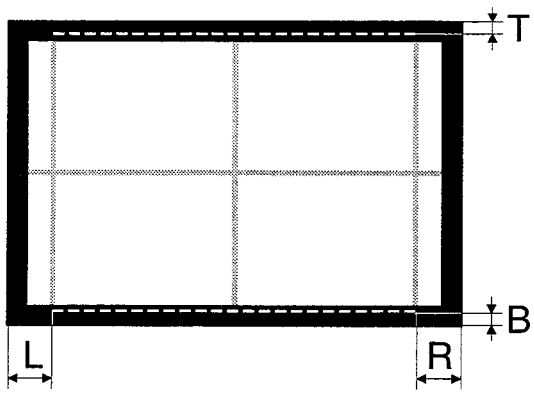
Adjust the position of green frame line
to L=R, T=B.

③⑤⑦
ADJUST KEY
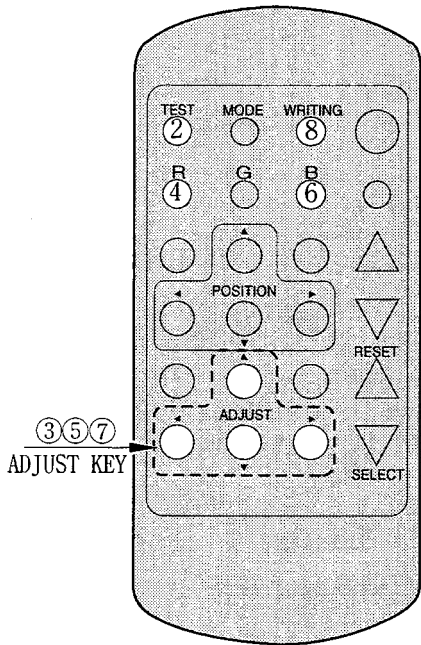
③ When intially installing the machine, or when the installation position is changed, check to see if the Test Pattern is in the central, well balanced position. If deviated, adjust the green position by using the Adjust Key "up/down/left/right" in the manner so as to improve the balance (L&R, and T&B are approximately equal as shown).
In the normal usage, with green as reference color, red and blue are adjusted. Therefore, skip the above procedure.

④ Press the R Key of the remote control. The red pattern together with the green pattern are displayed on the screen. At this time, the frame color turns into red.

⑤ By operating the Adjust Key of the remote control "up/down/left/right", have the center red match with that of green. When red color is superimposed on green color, it seems to be yellow.

⑥ Press the B Key of remote control. The blue test pattern is added to the display on the screen. At this time, the frame color turns into blue.

⑦ By operating the Adjsut key of the remote control "up/down/left/right", have the center of the blue match with that of yellow. When blue color is superimposed on yellow color, it seems to be white.

⑧ By pressing the WRITING KEY, have the adjustment status stored. After it has been stored, the Adjsutment Mode is exited automatically, and the noraml mode returns. If the Test Key is pressed down for approximately 3 seconds without having the adjustment status stored, pre adjustment status will remain.

⑨ The R.G.B. Keys have screen display color change functions. Pressing the key of the color presently shown on the screen causes the color to disappear, therefore, for adjustment, press the key again.
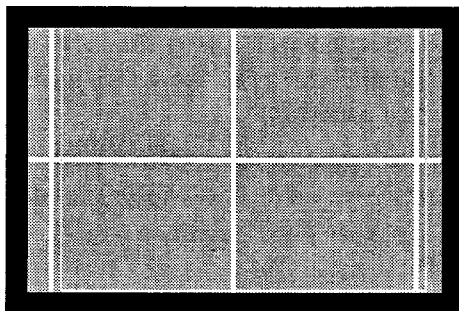
Choosing red causes the frame color to turn into red and the display indicates that red is adjustable. Choosing blue causes the frame color to turn into blue and the display indicates that blue is adjustable.
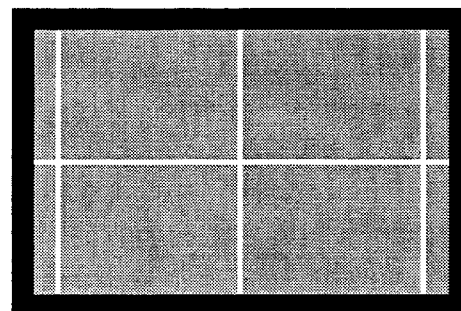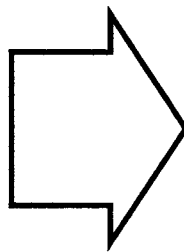
By operating ADJUST Key, have the center of red and blue frame match with that of green frame (the reference color). When the center matches with each other, the frame line becomes white.

STATIC CONVERGENCE ADJUSTMENT

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ADJUSTMENT OF TOSHIBA PROJECTOR (THE TYPE WITHOUT CONTROL PANEL)

The Remote Control is used for adjustment of the type without Control Panel. When adjsuting the Projector, direct the Remote Control's light emitting portion towards the Projector Screen.

REMOTE CONTROL BUTTONS

REMOTE CONTROL LIGHT EMITTING PORTION

MODE (mode selection)
TEST (adjust/normal shift)
R. G. B. (color selection)

POSITION (to select the position)

ADJUST (adjustment)

WRITING (storing the data)
P (automatic color matching)
SET (to decide the selection)
PIC - ADJ (item selection)

RESET
SELECT (pattern selection)
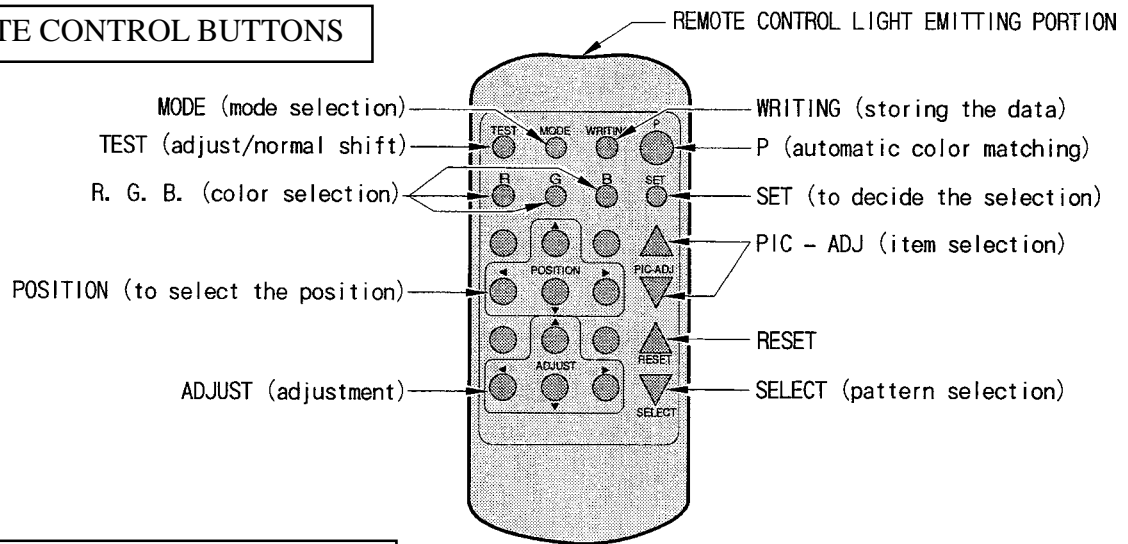
AUTOMATIC COLOR MATCHING

The Projector may be subject to color deviations affected by earth magnetism, the building's steel frames, etc. When the Projector is intially installed of the Projector's installation position is changed, have the color matching performed automatically.

① Keep pressing the p button (red) for approximately 3 seconds to have the ensuing movements performed automatically.
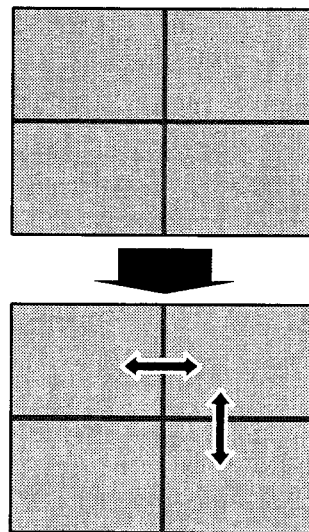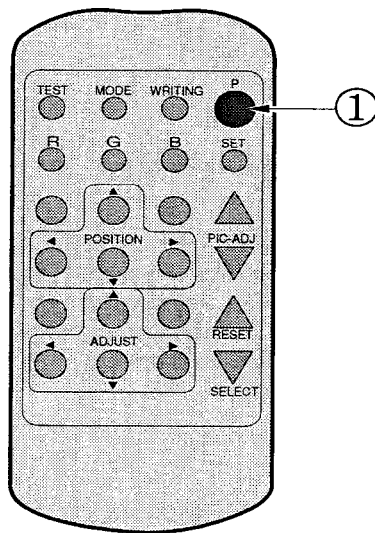
The Projector will shift to the color deviation correction mode from the game mode, with the green cross pattern appearing on the screen.

The cross pattern moves up/down and right/left to start the movement of searching the correct screen position and inclination.

When the green cross pattern movements are finished, similar detection is performed sequentially in order of red and then blue cross movements. After detecting by green, red and blue cross movements, the game mode returns with the color deviation status being corrected

Although very rarely, the TRY AGAIN error display in red may appear. At this time, press the P button (red) for approximately 3 seconds. Even after the above operation is repeated, if the error condition still exists, then display shifts to PLEASE ADJ. In this Case, the auto color matching function can not be used. Contact the place of contact herein stated or where the product was purchased from.

If the automatic color matching indicates an error, color matching can manually be performed. Refer to CONVERGENCE ADJUSTMENT (manual color matching).
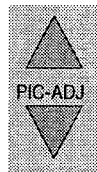
57

ADJUSTING THE ON-SCREEN CONTRAST

Although the on-screen picture quality has been adjusted at the time of shipment from the factory, the on-screen contrast can be readjusted if desired. When the Game Board is replaced, readjustment may be necessary. Changing the CONTRAST causes the light and shade of the on-screen images to be changed.
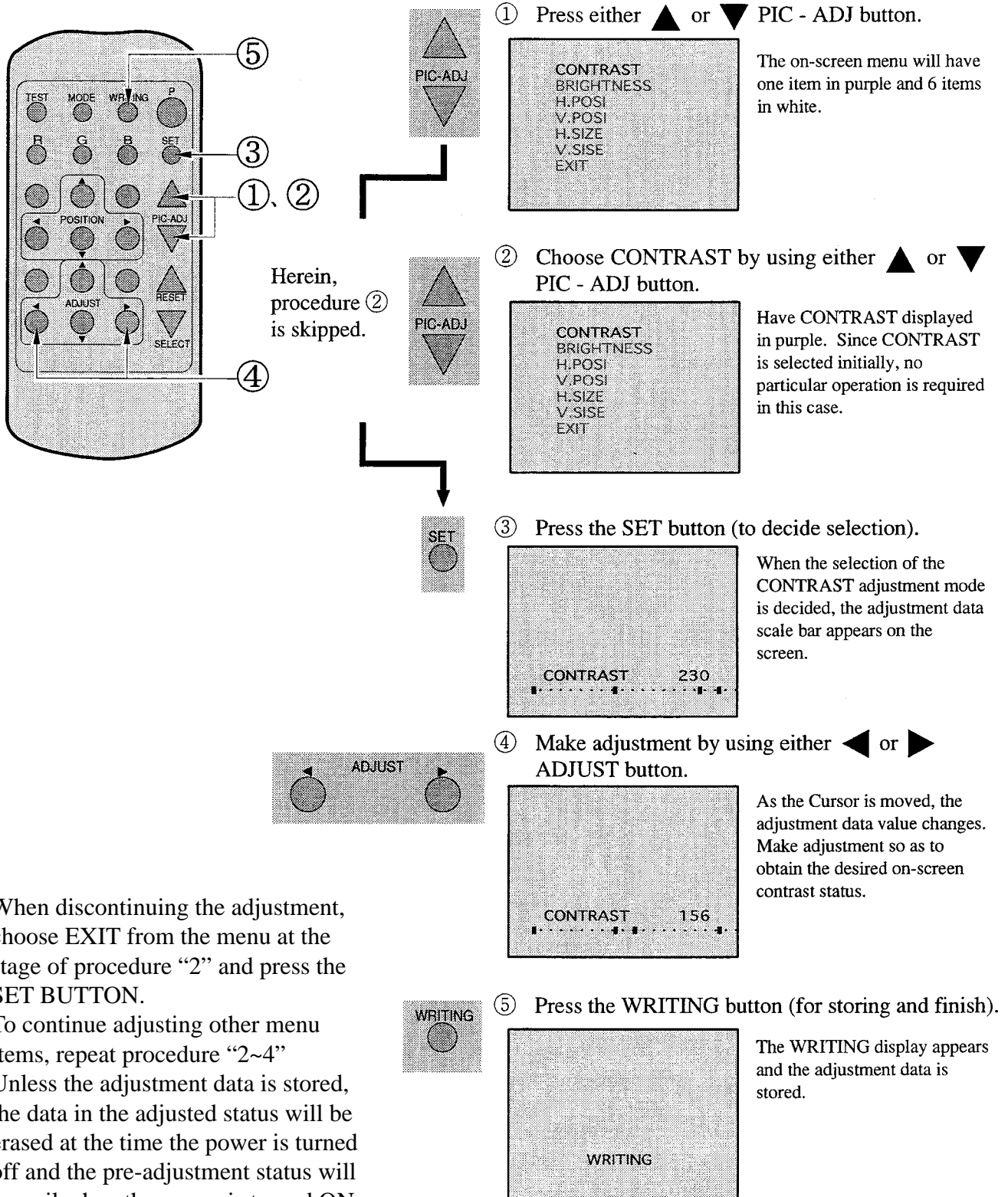
① Press either ▲ or ▼ PIC - ADJ button.

The on-screen menu will have one item in purple and 6 items in white.

CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SISE
EXIT

Herein, procedure ② is skipped.

② Choose CONTRAST by using either ▲ or ▼ PIC - ADJ button.

Have CONTRAST displayed in purple. Since CONTRAST is selected initially, no particular operation is required in this case.

CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SISE
EXIT

③ Press the SET button (to decide selection).

When the selection of the CONTRAST adjustment mode is decided, the adjustment data scale bar appears on the screen.
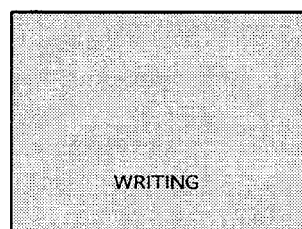
CONTRAST   230

④ Make adjustment by using either ◀ or ▶ ADJUST button.

As the Cursor is moved, the adjustment data value changes. Make adjustment so as to obtain the desired on-screen contrast status.

CONTRAST   156

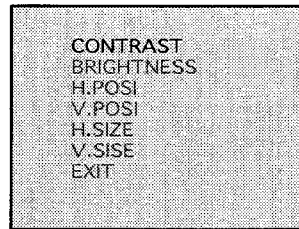When discontinuing the adjustment, choose EXIT from the menu at the stage of procedure "2" and press the SET BUTTON.
To continue adjusting other menu items, repeat procedure "2~4"
Unless the adjustment data is stored, the data in the adjusted status will be erased at the time the power is turned off and the pre-adjustment status will prevail when the power is turned ON the next time.

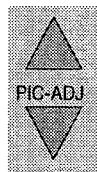⑤ Press the WRITING button (for storing and finish).

The WRITING display appears and the adjustment data is stored.

WRITING

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Although the on-screen picture quality has been adjusted at the time of shipment from the factory, the on-screen contrast can be readjusted if desired. When the Game Boar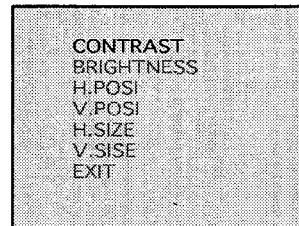d is replaced, readjustment may be necessary. Changing the BRIGHTNESS causes the light and shade of the on-screen images to be changed.

① Press either ▲ or ▼ PIC - ADJ button.

The on-screen menu will have one item in purple and 6 items in white.

> CONTRAST
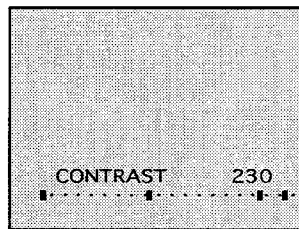> BRIGHTNESS
> H.POSI
> V.POSI
> H.SIZE
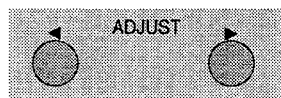> V.SISE
> EXIT

② Choose CONTRAST by using either ▲ or ▼ PIC - ADJ button.

Have CONTRAST displayed in purple. Since CONTRAST is selected initially, no particular operation is required in this case.
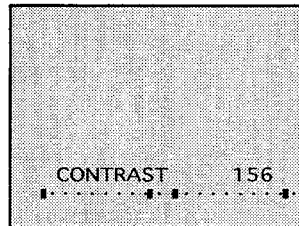
> CONTRAST
> BRIGHTNESS
> H.POSI
> V.POSI
> H.SIZE
> V.SISE
> EXIT

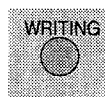③ Press the SET button (to decide selection).

When the selection of the CONTRAST adjustment mode is decided, the adjustment data scale bar appears on the screen.
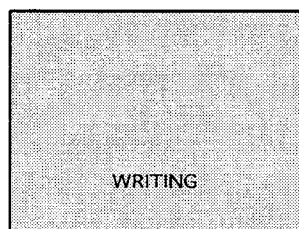
> CONTRAST   230

④ Make adjustment by using either ◀ or ▶ ADJUST button.

As the Cursor is moved, the adjustment data value changes. Make adjustment so as to obtain the desired on-screen contrast status.

> CONTRAST   156

When discontinuing the adjustment, choose EXIT from the menu at the stage of procedure "2" and press the SET BUTTON.
To continue adjusting other menu items, repeat procedure "2~4"
Unless the adjustment data is stored, the data in the adjusted status will be erased at the time the power is turned off and the pre-adjustment status will prevail when the power is turned ON the next time.

⑤ Press the WRITING button (for storing and finish).

The WRITING display appears and the adjustment data is stored.

> WRITING

ADJUSTING THE ON-SCREEN CONTRAST

Although the on-screen display position (H. POSI, V. POSI) has been adjusted at the time of shipment from the factory, the on-screen contrast can be readjusted if desired. When the Game Board is replaced, readjustment may be necessary.

① Press either ▲ or ▼ PIC - ADJ button.
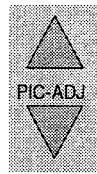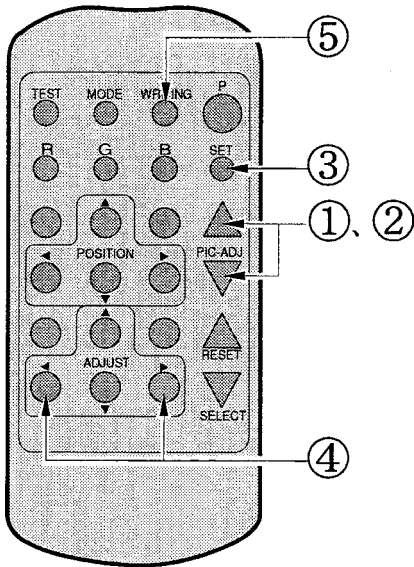
CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SISE
EXIT
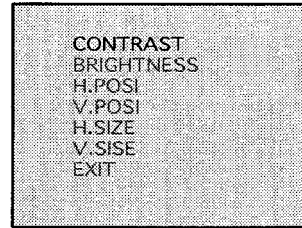
The on-screen menu will have one item in purple and 6 items in white.

② Choose CONTRAST by using either ▲ or ▼ PIC - ADJ button.
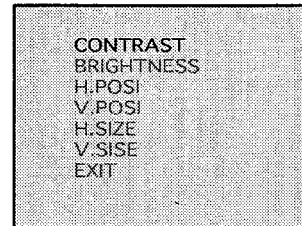
CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SISE
EXIT

Have CONTRAST displayed in purple. Since CONTRAST is selected initially, no particular operation is required in this case.

③ Press the SET button (to decide selection).
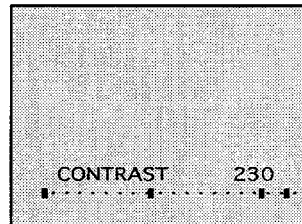
CONTRAST   230

When the selection of the CONTRAST adjustment mode is decided, the adjustment data scale bar appears on the screen.

④ Make adjustment by using either ◄ or ► ADJUST button.
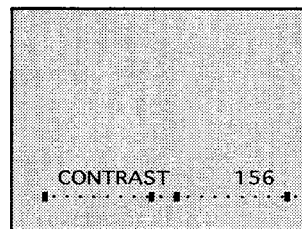
CONTRAST   156

As the Cursor is moved, the adjustment data value changes. Make adjustment so as to obtain the desired on-screen contrast status.

When discontinuing the adjustment, choose EXIT from the menu at the stage of procedure "2" and press the SET BUTTON.
To continue adjusting other menu items, repeat procedure "2~4"
Unless the adjustment data is stored, the data in the adjusted status will be erased at the time the power is turned off and the pre-adjustment status will prevail when the power is turned ON the next time.

⑤ Press the WRITING button (for storing and finish).

WRITING

The WRITING display appears and the adjustment data is stored.

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ADJUSTING THE SCREEN SIZE

Although the on-screen size (H. SIZE, V. SIZE) has been adjusted at the time of shipment from the factory, the on-screen contrast can be readjusted if desired. When the Game Board is replaced, readjustment may be necessary.

① Press either ▲ or ▼ PIC - ADJ button.

The on-screen menu will have one item in purple and 6 items in white.

CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SISE
EXIT

② Choose CONTRAST by using either ▲ or ▼ PIC - ADJ button.

Have CONTRAST displayed in purple. Since CONTRAST is selected initially, no particular operation is required in this case.

CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SISE
EXIT

③ Press the SET button (to decide selection).

When the selection of the CONTRAST adjustment mode is decided, the adjustment data scale bar appears on the screen.

CONTRAST   230

④ Make adjustment by using either ◀ or ▶ ADJUST button.

As the Cursor is moved, the adjustment data value changes. Make adjustment so as to obtain the desired on-screen contrast status.

CONTRAST   156

When discontinuing the adjustment, choose EXIT from the menu at the stage of procedure and press the SET BUTTON.
To continue adjusting other menu items, repeat procedure "2~4"
Unless the adjustment data is stored, the data in the adjusted status will be erased at the time the power is turned off and the pre-adjustment status will prevail when the power is turned ON the next time.

⑤ Press the WRITING button (for storing and finish).

The WRITING display appears and the adjustment data is stored.

WRITING

61

CAUTION!

To avoid circuitry malfunctioning due to electrical load increase, never utilize CONVERGENCE ADJUSTMENT (Line Convergence Adjustment in particular) for adjusting screen size changes.

There is no means to restore the Convergence Adjustment data once stored, to its original state. To avoid changing the screen size by erroneously using convergence adjustment, do not perform the green Line Convergence Adjustment.

As such, be sure to perform the adjustment work from this page onward by the Technical staff and the location's maintenance Personnel who are well versed in such adjustment work. In the Static Convergence Adjsutments, if satisfactory adjustments can not be performed, do not make another convergence adjustment inadvetently. Contact the office herein stated or where the product was purchased from.

STOP

IMPORTANT!

To avoid making the adjustment work ineffective, do not press the RESET button during adjustment.

To discontinue adjustment work, keep pressing the TEST button for approximately 3 seconds at the stage before storing the adjustment data by pressing the WRITING button.
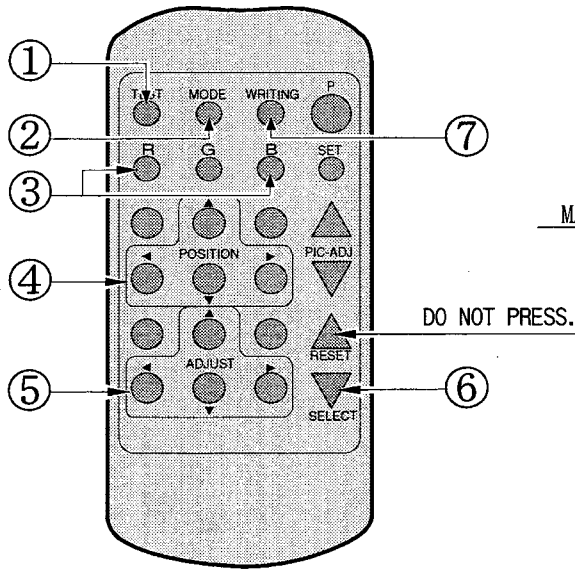
Should the screen be abnormally disturbed by noise due to static electricity, etc., turn the power off without storing the adjustment data.

Pressing the "up or down" PIC-ADJ button in the Convergence Adjustment Mode status will display the Adjustment Menu as this is the one applied at the factory.

Adjusting this menu causes the Customer's adjsutment range to be deviated.

Should the menu shown right be displayed by mistake, first choose EXIT by using either "up or down" PIC-ADJ button and then press the SET button.

----- ADJUST MODE -----

SUB VSIZE
SUB HSIZE
SUB BRIGHT
EXIT
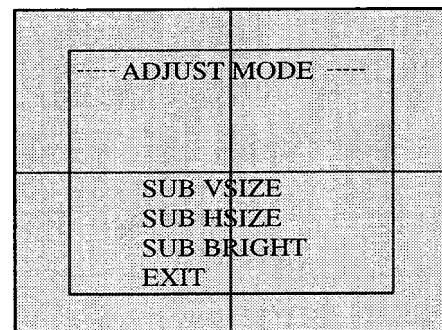
Adjustment menu used in the factory.

STATIC CONVERGENCE ADJUSTMENT

In the static convergence adjustment, each of red and blue images is comprehensively moved to and superimposed on the green color. If automatic color matching function is not sufficiently satisfactory, perform this adjustment. Be sure to perform automatic color matching before starting the above adjustment.

DO NOT PUSH THIS.
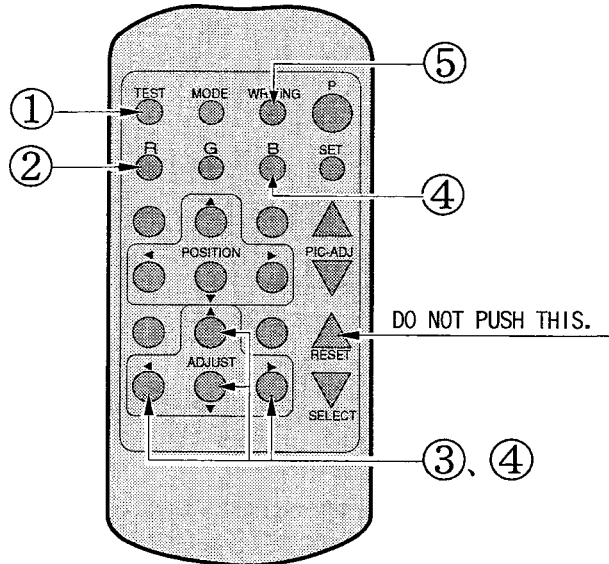
When either of "2" "4" COLOR SELECT buttons (R,B) is pressed, if the color desired to be adjusted disappears, press that particular button again. For example, if the red color needs to be adjusted again at the stage of "4" the R button need to be pressed twice.

① Keep pressing the TEST button for approximately 3 seconds.
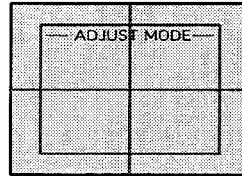
The screen will change to ADJUST mode from the Game mode to cause the green test pattern to be displayed on the screen.

② Press the R button to have the red adjustment mode.
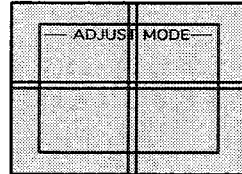
The red test pattern is added to the display. The frame color turns to red and this signifies the red adjustment mode.

③ Make adjustment by using the ▲ ▼ ◄ ► ADJUST buttons.
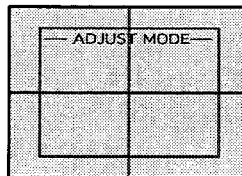
Make adjustment so as to have red superimposed on green. When red is superimposed on green, the color becomes yellow.

④ Press the B button to have the blue adjustment mode.
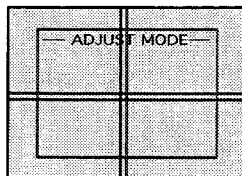
Similarly as in the case of red, adjust the blue color. When green, red, and blue are superimposed, the color becomes white.

⑤ Press the WRITING button (for storing and finish).
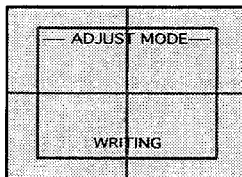
The WRITING display appears and the adjustment data is stored. After the data is stored, the Game mode returns.
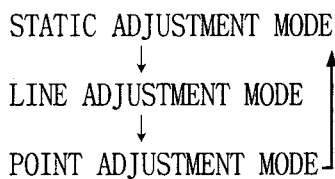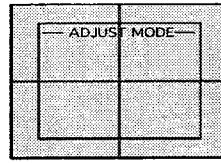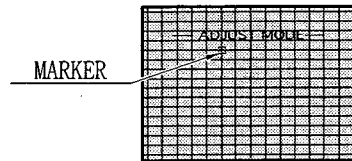
POINT CONVERGENCE ADJUSTMENT

In the POINT CONVERGENCE adjustment, each of red, green, and blue images is partially moved for color matching. The adjustment may be necessary when the Game Board is replaced or changed, or screen size is changed. Be sure to perform automatic color matching before starting.

① Keep pressing the TEST button for approximately 3 seconds.

The screen changes to ADJUST mode from the Game mode and displays the green test pattern.

② Press the MODE button twice to have the POINT ADJUSTMENT mode. Note 1

The crosshatch test pattern appears and the MARKER indicating the adjustment point is displayed.

MARKER

DO NOT PRESS.

③ Using either R or B button, select the desired color to be adjusted. Note 2 By using the G button, the green color can also be selected.
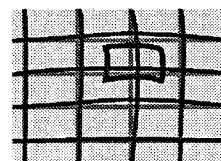
The selected color is displayed by superimposing on green. The MARKER will be in the color selected.

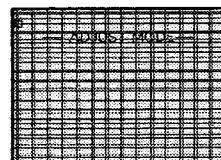④ By using the ▲ ▼ ◀ ▶ ADJUST buttons, move the MARKER to the position to be adjusted.
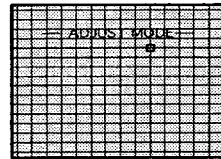
The MARKER moves in the direction of the button's arrow. However, the movable point is predetermined.

NOTE 1:
When the MODE button is pressed, the adjustment modes will circulate as follows:

STATIC ADJUSTMENT MODE
↓
LINE ADJUSTMENT MODE
↓
POINT ADJUSTMENT MODE

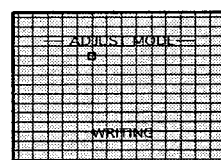⑤ Make adjustment by using the ▲ ▼ ◀ ▶ ADJUST buttons.

Although the direct vicinity of the MARKER's center moves most conspicuously, make adjustment by paying attention to the periphery area also. Shown left is the magnified MARKER periphery.

NOTE 2:
When either of the COLOR SELECT buttons (R, B) is pressed, if the desired color to be adjusted is erased, press that particular button again.

⑥ Press the SELECT button as necessary to superimpose Game Board images. Note 3

If the test pattern is not displayed in the periphery of the screen, adjustments can be made by pressing the SELECT button to superimpose the test pattern and the Game Board's CRT test screen.
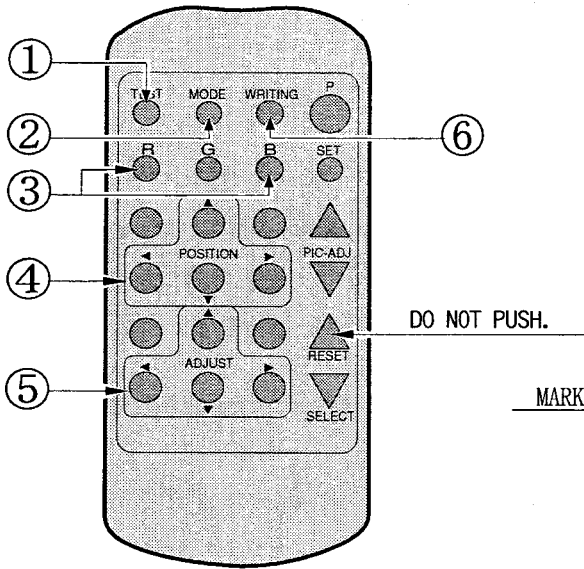
NOTE 3:
By repeatedly pressing the SELECT button, only the Projector's TEST pattern screen and the screen superimposing the Game Board Test pattern can be alternately displayed.

⑦ Press the WRITING button (for storing and finish).

WRITING is displayed and the adjustment data is stored. After the data is stored, the Game Board screen returns.
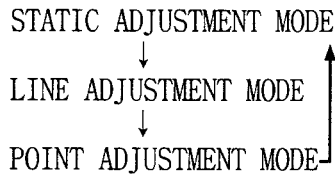
64

LINE CONVERGENCE ADJUSTMENT

In the LINE CONVERGENCE ADJUSTMENT, the adjustment point of column line (vertical) or row line (horizontal) is comprehensively moved for color matching. It is convenient to utilize this adjustment when color of the column line or row is uniformly deviated.
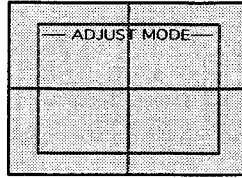
① Keep pressing the TEST button for approximately 3 seconds.

The screen changes to ADJUST mode from the Game Board mode and displays the green test pattern.

② Press the MODE button once to have the POINT ADJUSTMENT mode. Note 1

The crosshatch test pattern appears and the vertically long MARKER is shown.

③ Using either R or B button, select the desired color to be adjusted. Note 2 Although the green color can also be selected by using the G button, to avoid the screen size change adjustment, do not choose green.
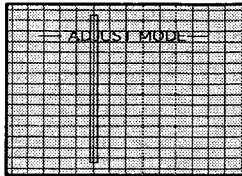
The selected color is displayed by superimposing on green. The MARKER will be in the color selected.

NOTE 1:
When the MODE button is repeatedly pressed, the adjustment modes will circulate as follows:

STATIC ADJUSTMENT MODE
↓
LINE ADJUSTMENT MODE
↓
POINT ADJUSTMENT MODE

④ By using the ▲ ▼ ◄ ► POSITION buttons, move the MARKER to the position to be adjusted.

Use the ◄ ► buttons to select the column line, and the MARKER moves in the right/left direction. However, the movable range is predetermined.

Use the ▲ ▼ buttons to select the row line and the MARKER moves in the up/down direction. However, the movable range is predetermined.
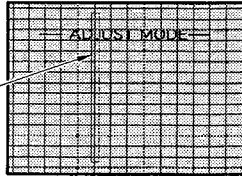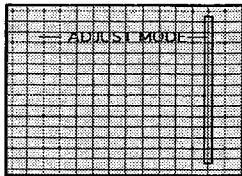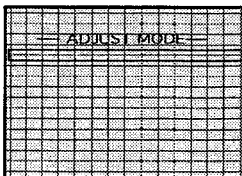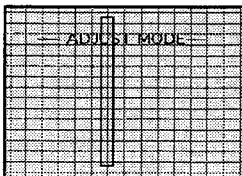
NOTE 2:
When either of the COLOR SELECT buttons (R, B) is pressed, if the desired color to be adjusted is erased, press that particular button again.

⑤ Make adjustment by using the ▲ ▼ ◄ ► ADJUST buttons.

The selected column line or row line (shown left is the column line) can be moved in the desired up/down or right/left directions as applicable.

⑥ Press the WRITING button (for storing and finish).
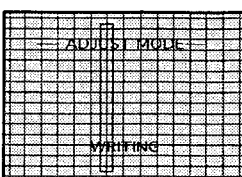
WRITING is displayed and the adjustment data is stored. After the data is stored, the Game Board screen returns.

DO NOT PUSH.

MARKER

10. REPLACEMENT OF LAMP

<table>
<tr>
<td>

⚠️
WARNING!

</td>
<td>

● When performing the work, be sure to turn power off. Working with power on can cause an electric shock or short circuit accident.
● The Flourescent Lamp, when it gets hot, can cause burns. Be very careful when replacing the Fluorescent Lamp.
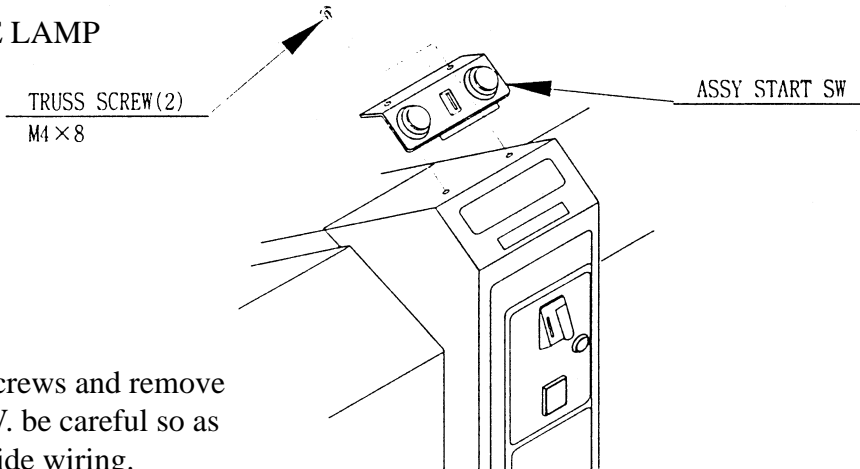● Be sure to use lamps of the designated rating. Using lamps of undesignated rating can cause a fire or malfunctioning.
● Use care so as no to damage wirings. Damaged wiring can cause electric shock or shortcircuit accidents.

</td>
</tr>
</table>

10 - 1 REPLACING THE LAMP

TRUSS SCREW(2)
M4 × 8

ASSY START SW

① Turn Power OFF.

② Take out the 2 truss screws and remove the ASSY START SW. be careful so as not to damage the inside wiring.

③ Hold the SW portion by 2 fingers tightly and pull out from the button's base portion. At this time, be careful so as not to damage the wiring connected to the SW.

④ The Lamp is at the end of the SW portion. Pull out straight without turning the lamp.

LAMP 6V 3W
390-5160
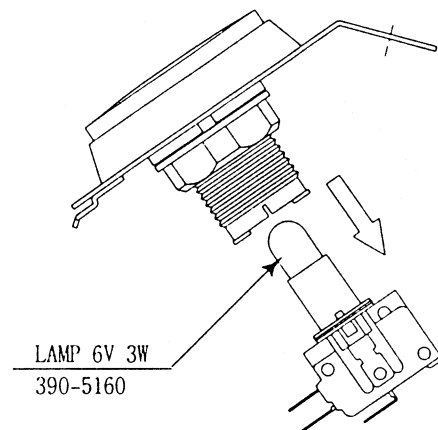
11. PERIODIC INSPECTION TABLE

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

When handling the controller, the player will be in direct contact with it. In order to always allow the player to enjoy the game, be sure to clean it regularly.

⚠️ **WARNING!**

● Be sure to check once a year to see if Power Cords are damaged, the plug is securley 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 herin 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
CONTROL MECHA	Check Volume Value and SW		as required
	Grease to gear portion	Weekly	6
	Check Adj. Gear engagement	Monthly	6
COIN SELECTOR	Check COIN SW	Monthly	6
	COIN SELECTOR cleaning	Trimonthly	8
PROJECTOR	SCREEN cleaning	Weekly	9
	Check adjustments	Monthly	3, 6, 9
GAME BD	Setting check	monthly	6
INTERIOR	Cleaning	Annually	see above.
POWER PLUG	Inspection and cleaning		
CABINET SURFACE	Cleaning	As necessary	see below
CABINET	Ensure that adjusters are in contact with the floor	As necessary	3

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 squezzed 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.

12. TROUBLESHOOTING

Should trouble occur, first check connector connections.

PROBLEMS	CAUSE	COUNTERMEASURES
When the main SW is turned ON, the machine is not activated.	The power is not ON. Incorrect power source/voltage. The CIRCUIT PROTECTOR functioned due to momentary overcurrent.	Firmly insert the plug into the outlet. Make sure that the power supply/voltage are correct. First, remove the cause of overcurrent and reinstate the circuit protector to its original status.
The color on PTV screen is incorrect.	Image adjustment is inappropriate.	Adjust appropriately
Color deviation on PTV screen.	Affected by peripheral machines or the building's steel frames.	Perform convergence adjustment Change installation direction or position. Move the machine which causes the problem.
No sound is emitted from the Main Speaker.	Connector connection fault. Incorrect volume adjustment. Malfunctioning BD. and Amp.	Check connector connection. Adjust the SWITCH UNIT's sound adjustment volume (control) Perform SOUND TEST
START button lamp does not light up.	Connector connection fault. Lamp replacement is needed.	Check connector connection. Check in the OUTPUT TEST of Test Mode. If the lamp does not light up, replace
START button can not be operated satisfactorily.	Connector connection fault. Switch malfunctioning.	Check connector connection. In the INPUT TEST of Test mode. In case of inaction, replace the switch
LEVER can not be operated satisfactorily.	Connector connection fault. LEVER adjustment failure or Volume deviation. Volume malfunctioning. Gear mesh failure.	Check connector connection. Readjust Volume value in DEVICE SETTING of TEST mode Replace the Volume Adjust gear mesh.
Load subject to LEVER does not vary.	Connector connection failure. Motor's fixed position adjustment failure or malfunctioning.	Check connector connection. Check adjustments in INPUT test of TEST mode. Check motor functioning in DEVICE SETTING of TEST mode.

13. GAME BOARD

<table>
<tr>
<td>⚠️
WARNING!</td>
<td>● 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.</td>
</tr>
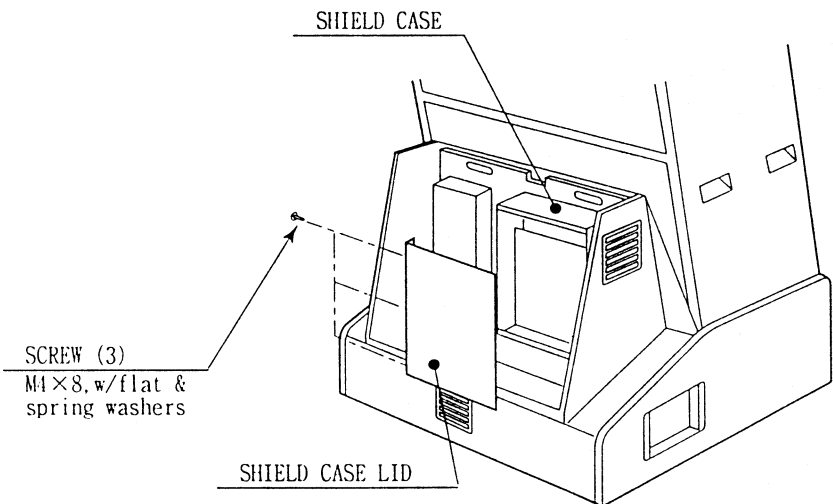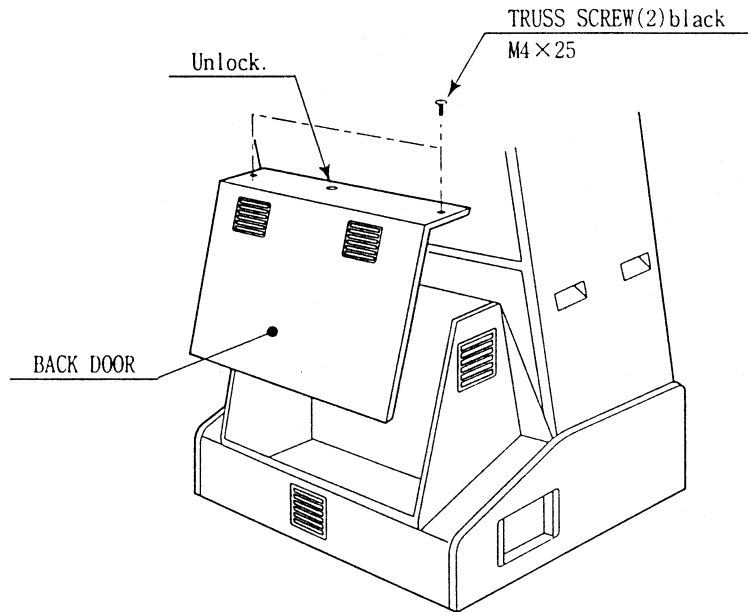</table>

<table>
<tr>
<td>⚠️
CAUTION!</td>
<td>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. The electronic parts on the IC Board could be damaged due to human static electricity.</td>
</tr>
</table>

13 - 1 GAME BOARD
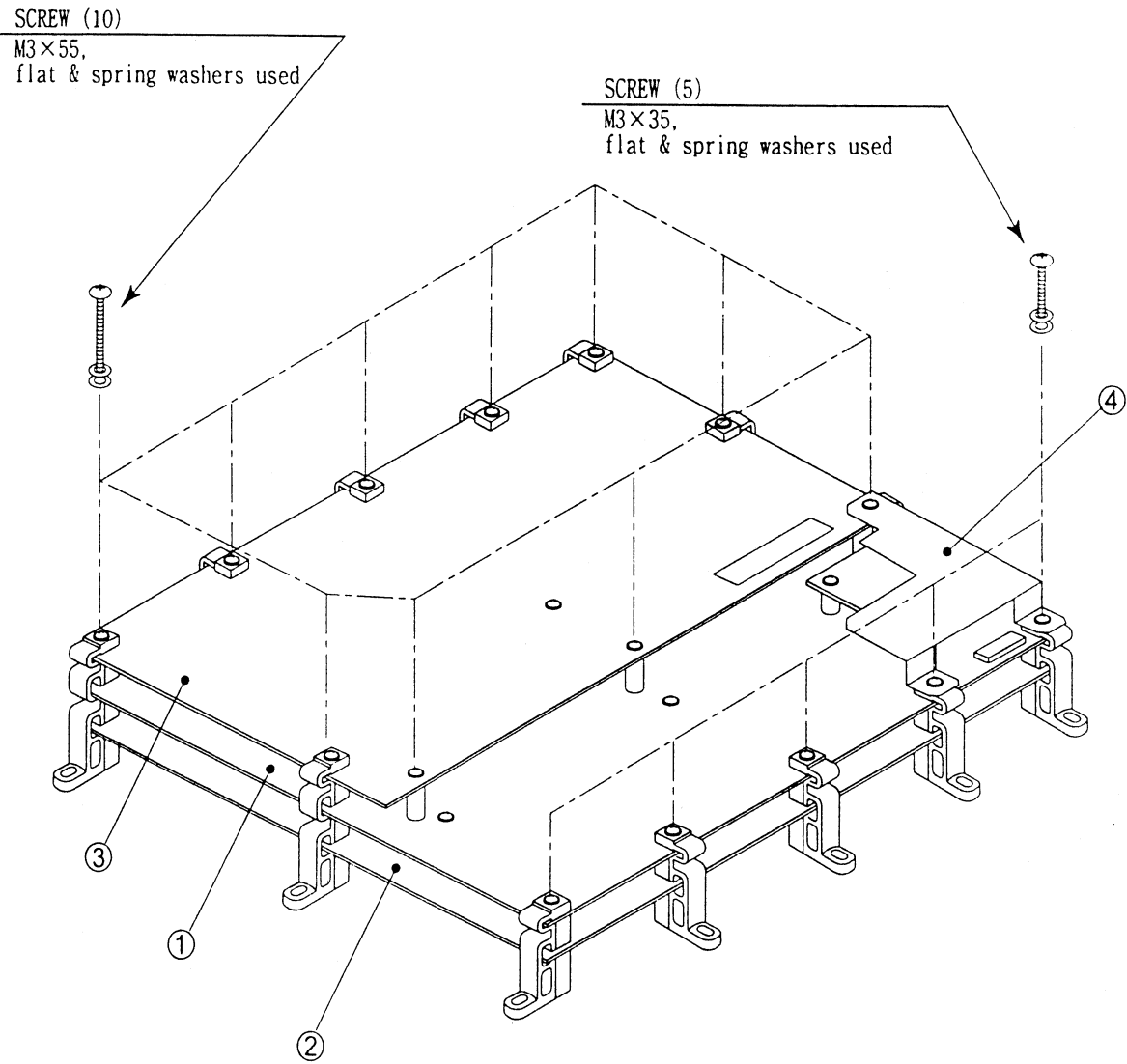
When replacing or inspecting the Game BD, take out the Game BD by using the following procedure:

① Turn the AC unit's Main SW OFF.

② Take out the 2 truss screws, unlock and remove the the Back Door.

③ Take out the 3 screws, remove Shield Case Lid, and the Game BD appears.

TRUSS SCREW(2)black
M4×25

Unlock.

BACK DOOR

SHIELD CASE

SCREW (3)
M4×8,w/flat &
spring washers

SHIELD CASE LID

13 - 2 COMPOSITION OF GAME BOARD
GAME BD RCS EXP (833-13601-01)

SCREW (10)
M3×55,
flat & spring washers used

SCREW (5)
M3×35,
flat & spring washers used

④

③

①

②

No.	PART No.	DESCRIPTION
1	837-12715-91	MODEL3 STEP2 CPU BOARD
	837-13443	MODEL3 STEP2 CPU BOARD
2	837-13368	MODEL3 STEP2.1 VIDEO BD
	837-12716-91	MODEL3 STEP2 VIDEO BDARD
3	834-13600-01	ROM BD RCS EXP
4	837-13599-COM	PFSB SEC BD RCS COM

14. DESIGN RELATED PARTS

(OPPOSITE SIDE 21)

20

11 (OPPOSITE SIDE 12)

5 (OPPOSITE SIDE 6)

9 (OPPOSITE SIDE 10)

18 (OPPOSITE SIDE 19)

13 (OPPOSITE SIDE 14)
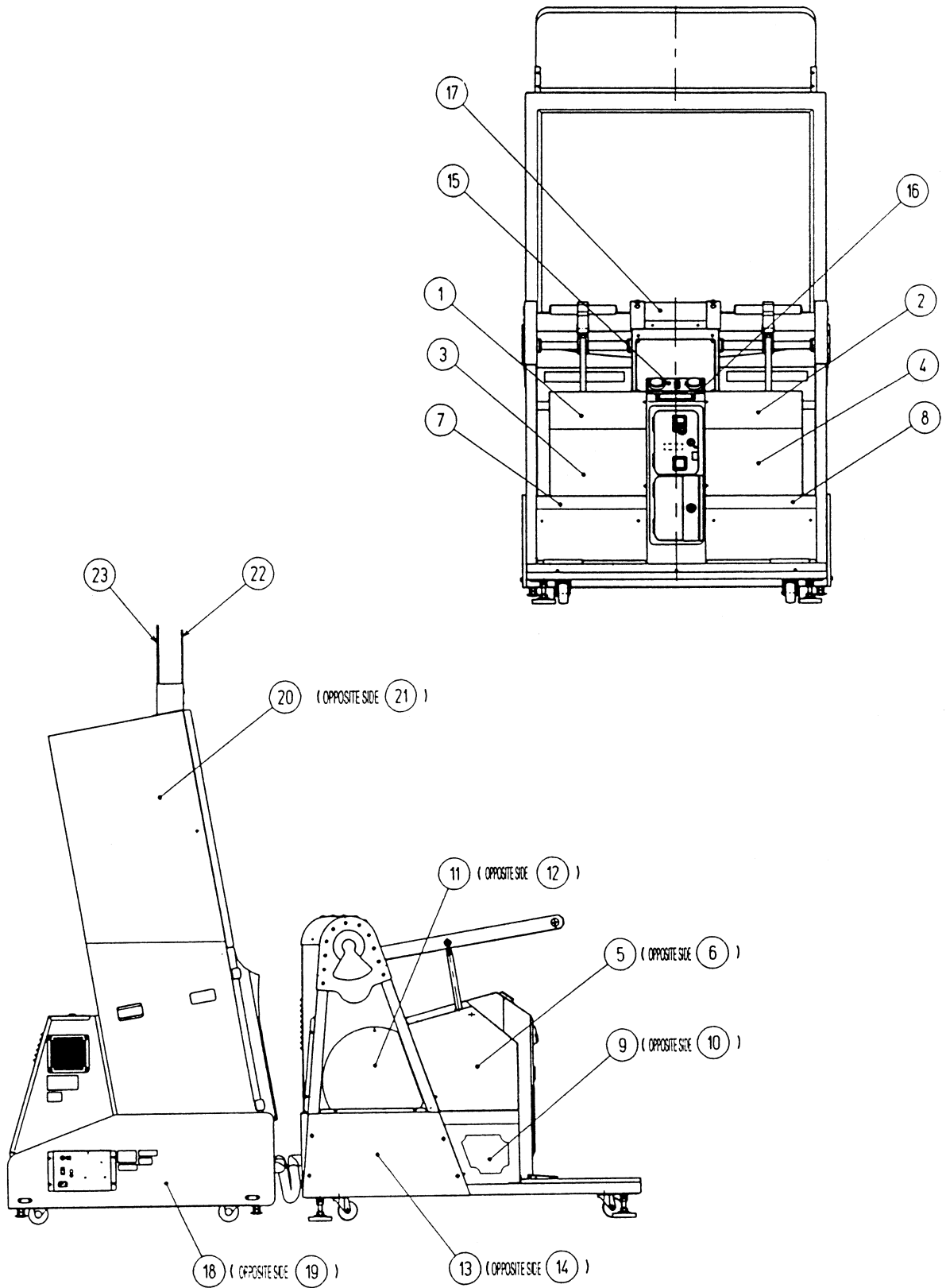
DESIGN RELATED PARTS

ITEM NO.	PART NO.	DESCRIPTION
1	RCS-3029	STICKER ALMA
2	RCS-3030	STICKER ROY
3	RCS-3031-L	STICKER RF900 L
4	RCS-3031-R	STICKER RF900 R
5	RCS-3032-L	STICKER 518 L
6	RCS-3032-R	STICKER 518 R
7	RCS-3033-L	STICKER LINE FRONT L
8	RCS-3033-R	STICKER LINE FRONT R
9	RCS-3034-L	STICKER FRONT L
10	RCS-3034-R	STICKER FRONT R
11	RCS-3035-L	STICKER MAGICAL L
12	RCS-3035-R	STICKER MAGICAL R
13	RCS-3036-L	STICKER LINE REAR L
14	RCS-3036-R	STICKER LINE REAR R
15	RCS-3421-A	STICKER START
16	RCS-0003	STICKER LR
17	RCS-3013-A	STICKER TOP COVER
18	RCS-1151-B	STICKER BASE L
19	RCS-1151-C	STICKER BASE R
20	421-10032	STICKER SIDE RCS L
21	421-10033	STICKER SIDE RCS R
22	RCS-1252	BILLBOARD PANEL FRONT
23	RCS-1253	BILLBOARD PANEL REAR

15. PARTS LIST
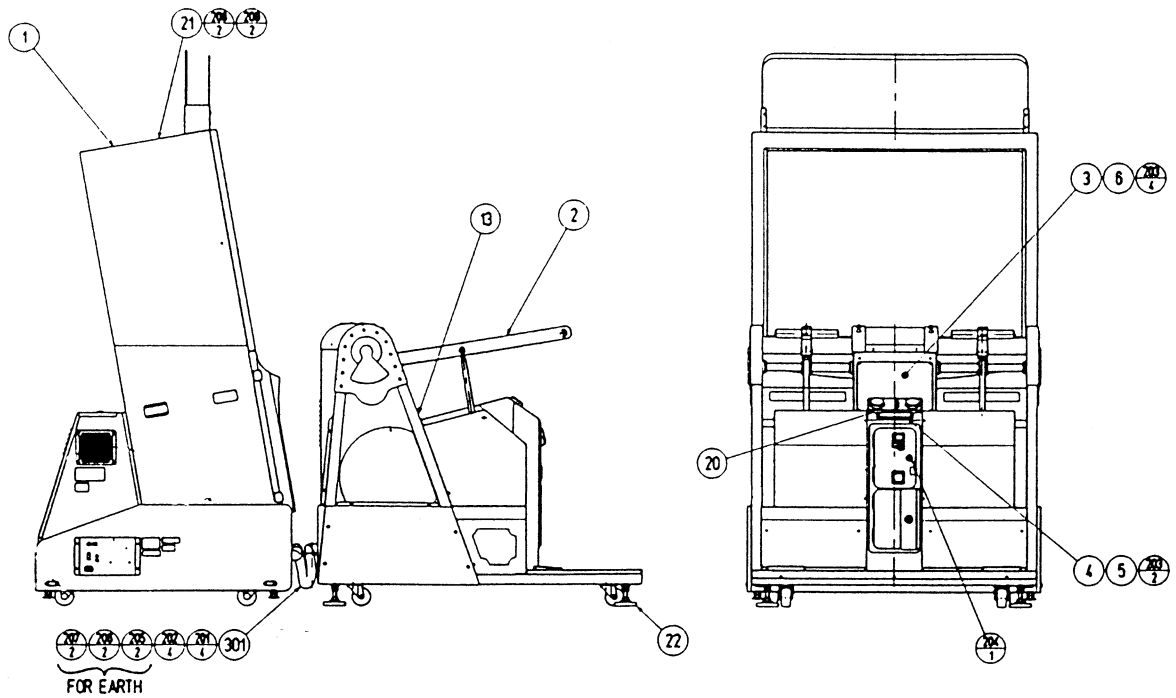
ITEM NO.	PART NO.	DESCRIPTION
1	RCS-1000	ASSY FRONT CABINET
2	RCS-3000	ASSY REAR CABINET
3	RCS-0001	INST HOLDER
4	RCS-0002	DENOMI PLATE
5	421-7907~	DENOMI SH 1 GAME~
6	422-10041X-01	PLAY INSTR SH RCS ENG
21	RCS-0005	TOP COVER PLATE
22	RCR-0018	LEG RUBBER

ASSY SHIELD CASE (RCS-0100)
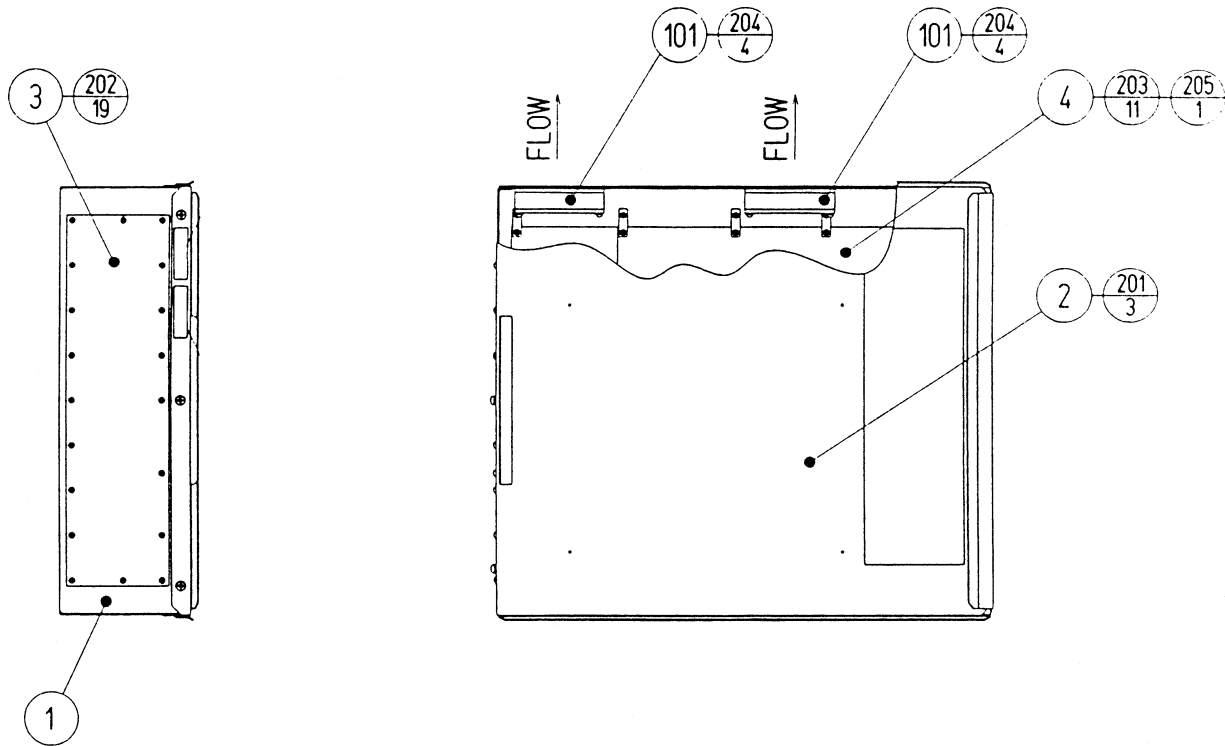
ITEM NO.	PART NO.	DESCRIPTION
1	105-5240Y	SHIELD CASE MODEL3
2	105-5242X	SHIELD CASE LID MODEL3
3	839-0951	FILTER BD MODEL 3 JPT
4	833-13601-01	GAME BD RCS EXP
101	260-0064	FAN MOTOR DC 12V
201	000-P00408-W	M SCR PH W/FS M4X8
202	010-P00308-F	S-TITE SCR PH W/F M3X8
203	010-P00310-F	S-TITE SCR PH W/F M3X10
204	000-P00320-W	M SCR PH W/FS M3X20
205	010-P00365-F	S-TITE SCR PH W/F M3X65

ASSY FRONT CABI (RCS-1000)
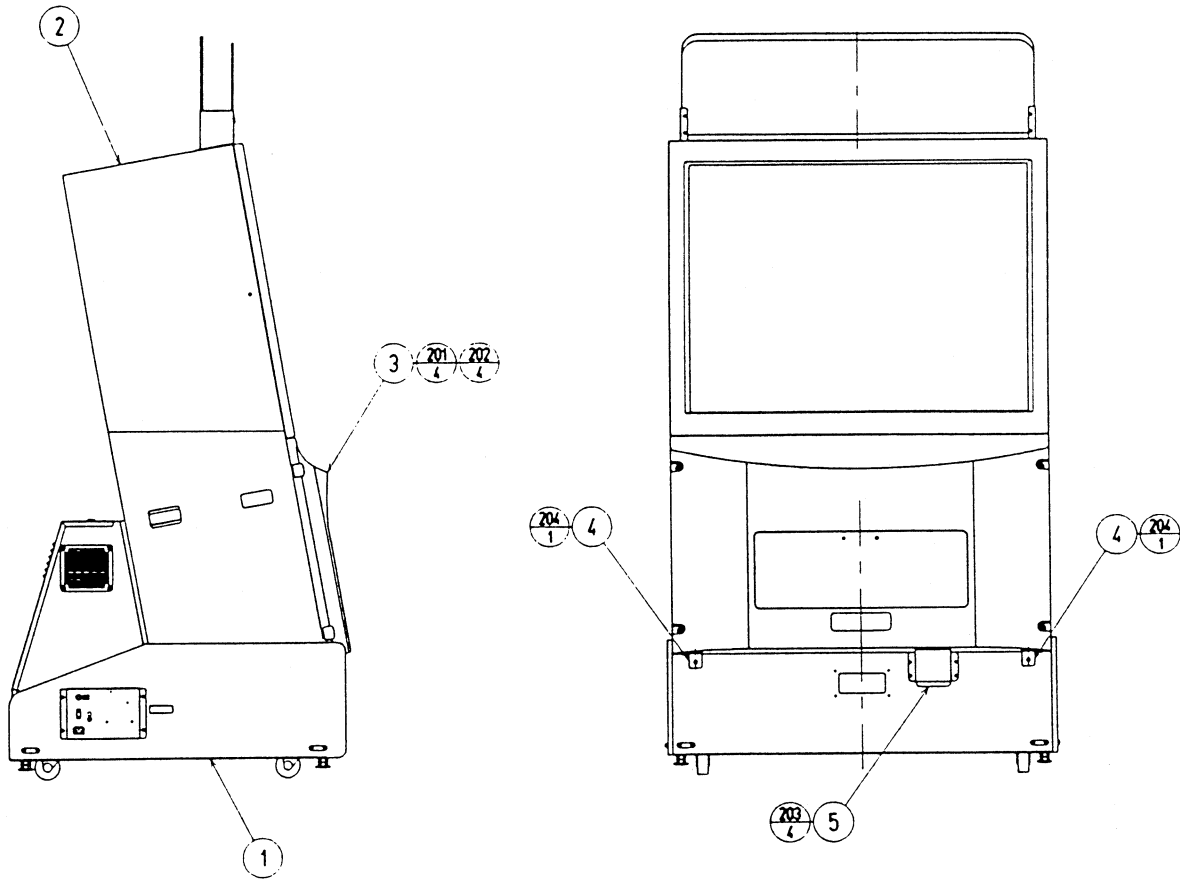
ITEM NO.	PART NO.	DESCRIPTION
1	RCS-1100	ASSY BASE CABI
2	RCS-1200	ASSY PTV
3	RCS-1300	ASSY FRONT PANEL
4	JEY-0004	PTV HOLDER
5	JEY-0003	RGB DUCT
201	000-T00525-0C	M SCR TH CRM M5X25
202	068-552016-0C	FLT WSHR CRM 5.5-20X1.6
203	000-T00416-0B	M SCR TH BLK M4X16
204	000-T00525-0B	M SCR TH BLK M5X25

ASSY BASE CABI (RCS-1100)

700 ±10
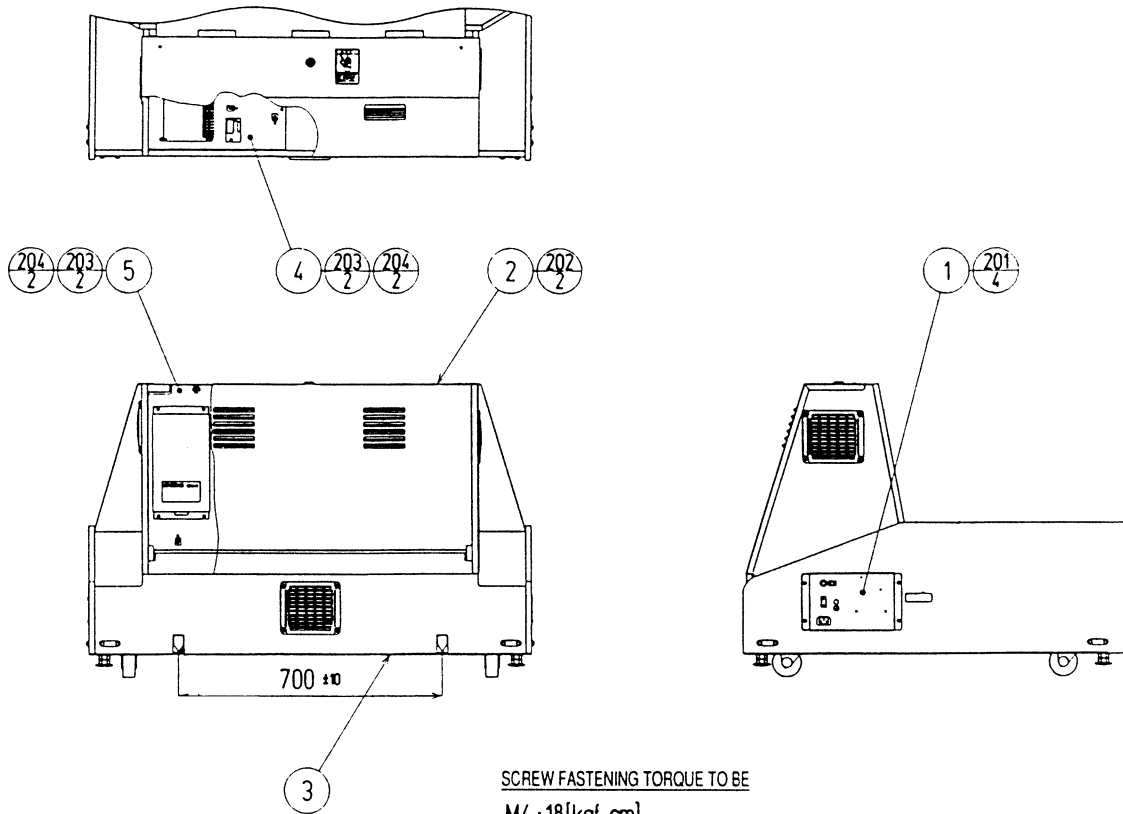
SCREW FASTENING TORQUE TO BE
M4 : 18[kgf-cm]
M5 : 37[kgf-cm]

ITEM NO.	PART NO.	DESCRIPTION
1	RCS-1120	AC UNIT
2	JEY-1170	ASSY BACK DOOR
3	RCS-1150	ASSY SUB BASE CABI
4	RCS-4000	ASSY ELEC
5	RCS-4100	ASSY MAIN BD
201	000-T00416-0B	M SCR TH BLK M4X16
202	000-T00425-0B	M SCR TH BLK M4X25
203	000-P00530-S	M SCR PH W/S M5X30
204	068-552016	FLT WSHR 5.5-20X1.6

AC UNIT (RCS-1120)
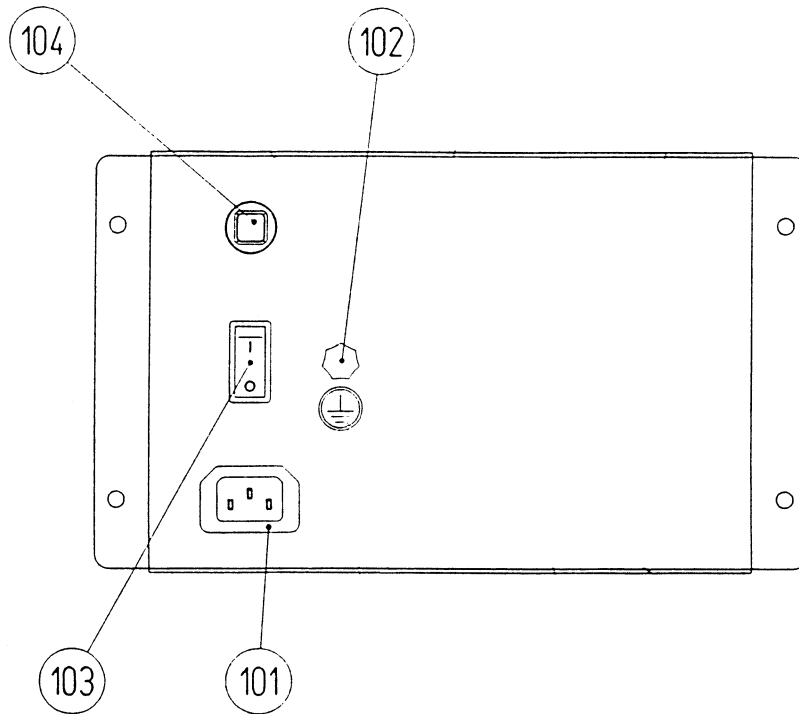
ITEM NO.	PART NO.	DESCRIPTION
1	JEY-1051	AC BRKT
101	214-0202	AC INLET PANEL TYPE
102	280-0417	TERMINAL BINDING POST BLACK
103	509-5453-91-V-B	SW ROCKER J8 V-B
104	512-5046-8000	C.P. 8000MA CE UL

ASSY MASK (MGL-1150)
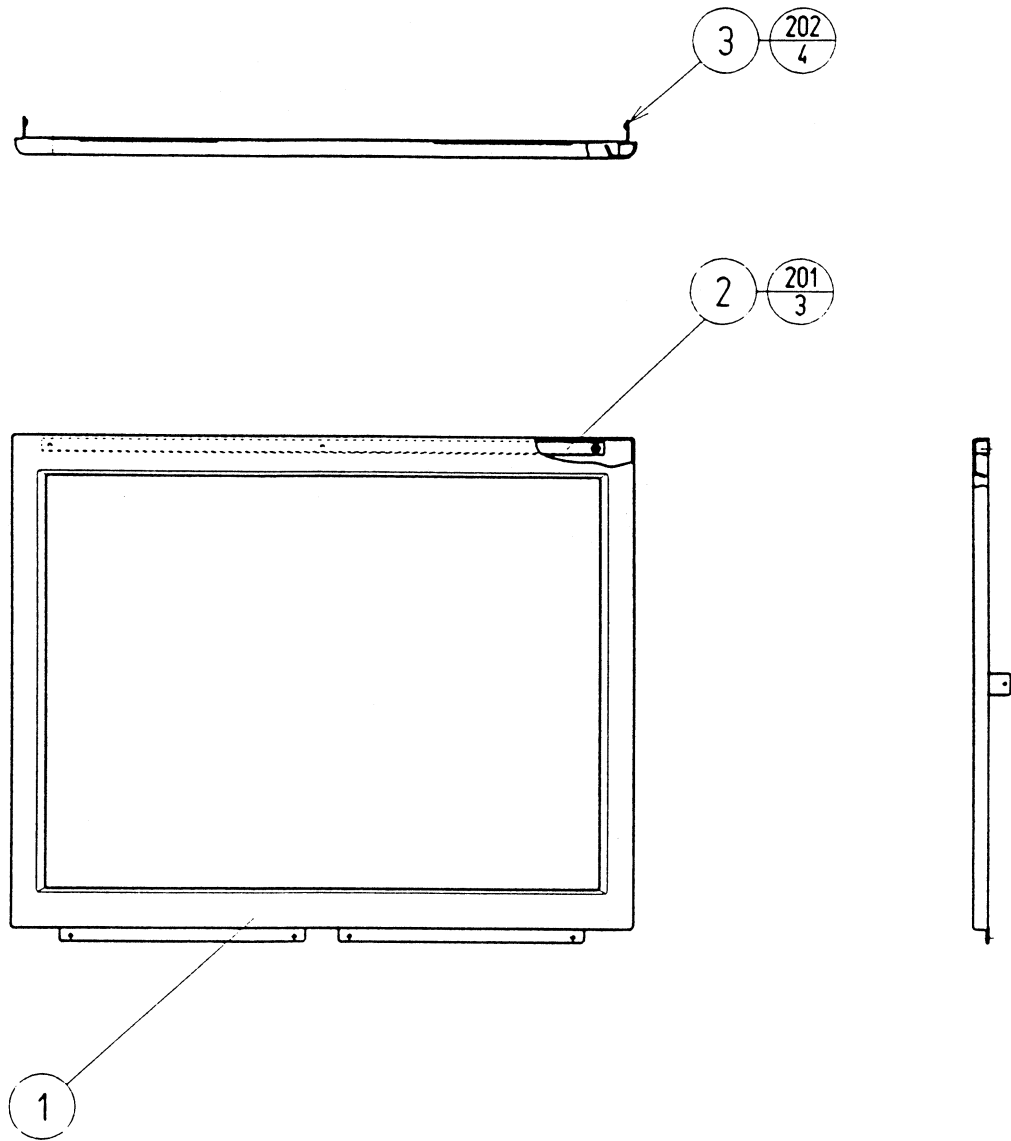
ITEM NO.	PART NO.	DESCRIPTION
1	MGL-1102	TV MASK
2	MGL-1151	SLIT PLATE
3	MGL-1152	MASK SIDE HOLDER
201	012-F00408-0B	TAP SCR FH BLK 4X8
202	000-F00410	M SCR FH M4X10

ASSY SUB BASE CABI (RCS-1150)

AIR ↑
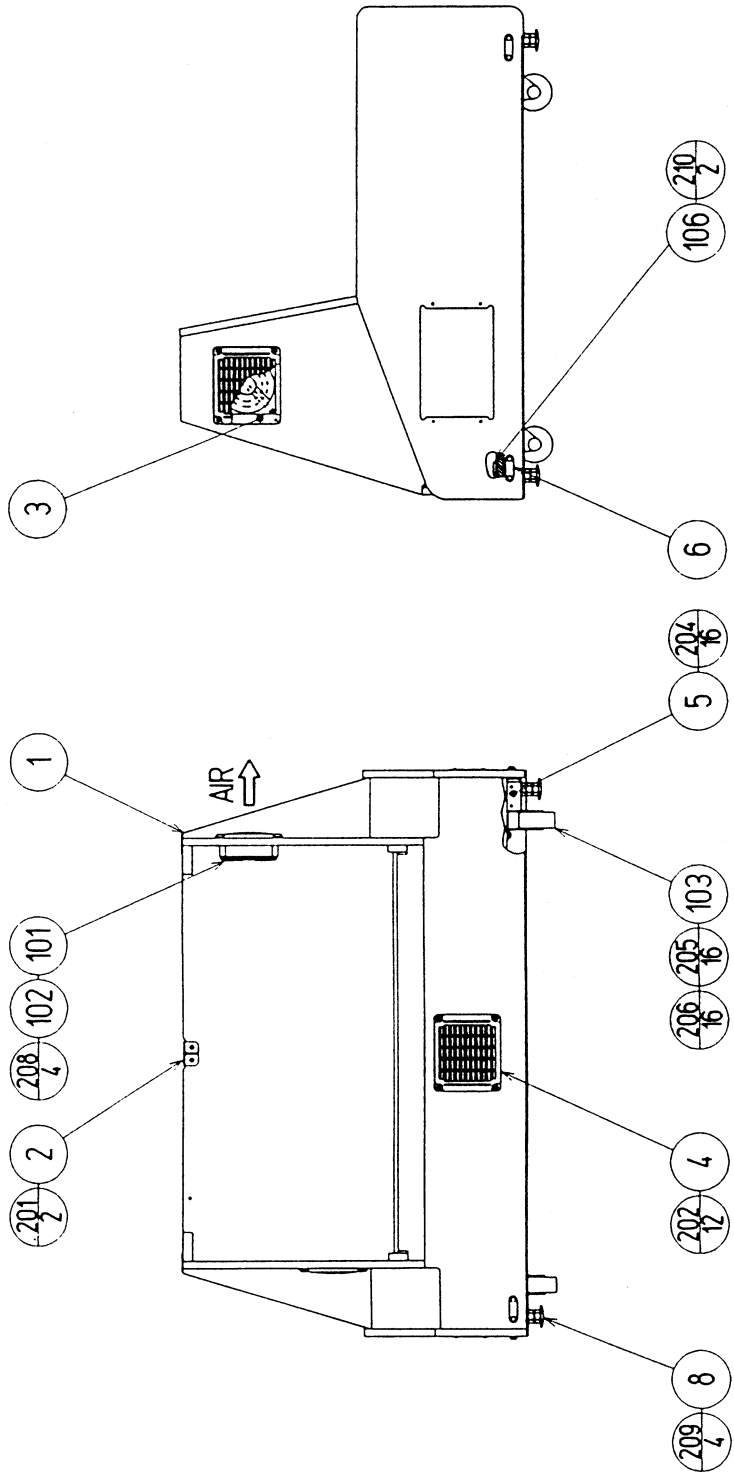
SCREW, BOLT, NUT FASTENING TORQUE TO BE

M3 : 7.5[kgf-cm]
M4 : 18[kgf-cm]
M6 : 73[kgf-cm]

ASSY SUB BASE CABI (RCS-1150)

ITEM NO.	PART NO.	DESCRIPTION
1	RCS-1151	PTV BASE
2	ASK-1152	LOCK BRKT
3	105-5340-01	FAN BRKT LONG
4	253-5460-01	AIR VENT BLACK
5	ARC-1006	LEG BRACKET
6	117-5191	PLATE
8	601-5699X	LEG ADJUSTER BOLT M16X75
101	260-0056	AXIAL FLOW FAN AC 115V 50-60Hz
102	601-8543	FAN GUARD
103	601-9377	CASTER FAI-75
106	117-5402-06	EARTH TERMINAL PLATE
201	000-P00416-W	M SCR PH W/FS M4X16
202	000-T00416-0B	M SCR TH BLK M4X16
203	011-T03512	TAP SCR TH 3.5X12
204	030-000630-SC	HEX BLT W/S CRM M6X30
205	030-000630-SC	HEX BLT W/S M6X30
206	060-F00600	FLT WSHR M6
207	011-F00310	TAP SCR FH 3X10
208	000-P00312-W	M SCR PH W/FS M3X12
209	050-H01600	HEX NUT M16
210	011-F03512	TAP SCR FH 3.5X12

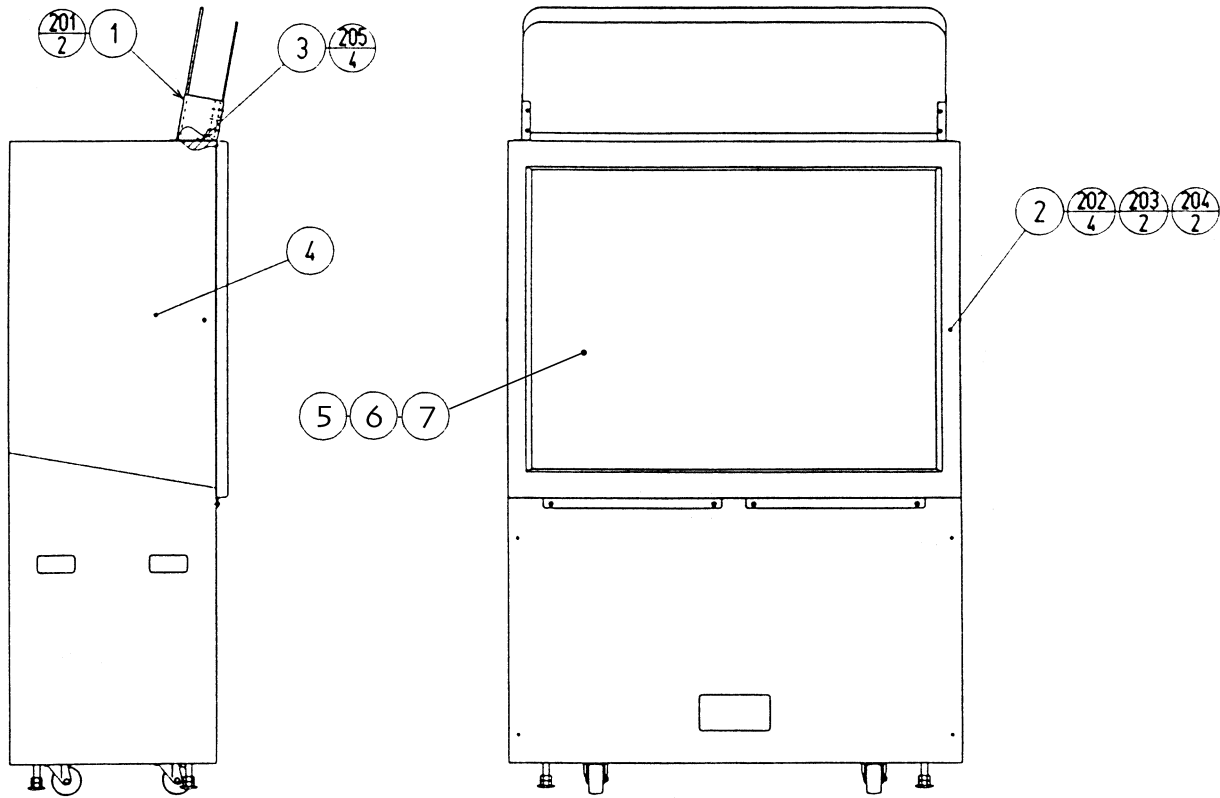## ASSY BACK DOOR (JEY-1170)
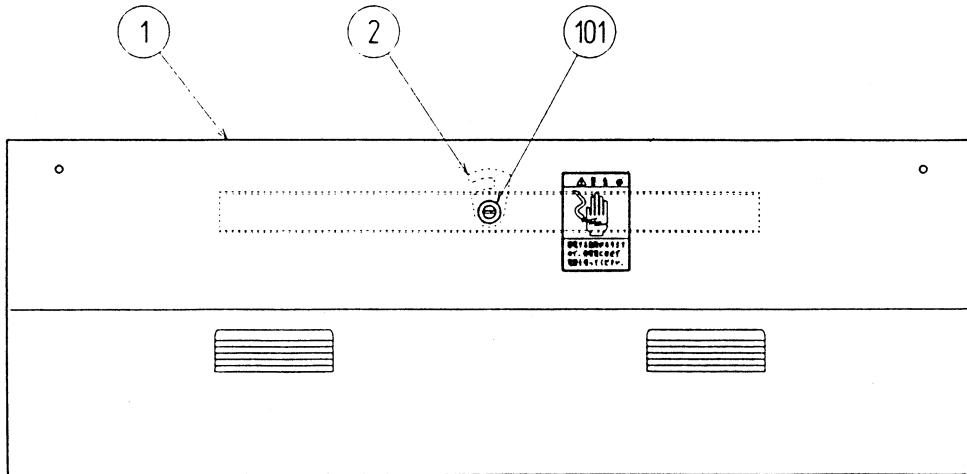
NUT FASTENING TORQUE TO BE
M10 : 50[kgf-cm]
3/4-NS27 : 200[kgf-cm]

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 PTV (RCS-1200)

ITEM NO.	PART NO.	DESCRIPTION
1	RCS-1250	ASSY BILLBOARD
2	MGL1-1150	ASSY MASK
3	RCS-1201	MASK HOLDER
4	RCS-1230	PROJ. DSPL T 50 TYPE 24K
5	200-5607	FRESNEL LENS 50"
6	200-5608	LENTICULAR LENS 50"
7	200-5601	MONITOR GLASS 50"
201	000-P00516-WB	M SCR PH W/FS BLK M5X16
202	000-P00520-W	M SCR PH W/FS M5X20
203	000-T00525-0C	M SCR TH CRM M5X25
204	068-552016-0C	FLT WSHR CRM 5.5-20X1.6
205	000-F00414	M SCR FH M4X14

ASSY BILLBOARD (RCS-1250)
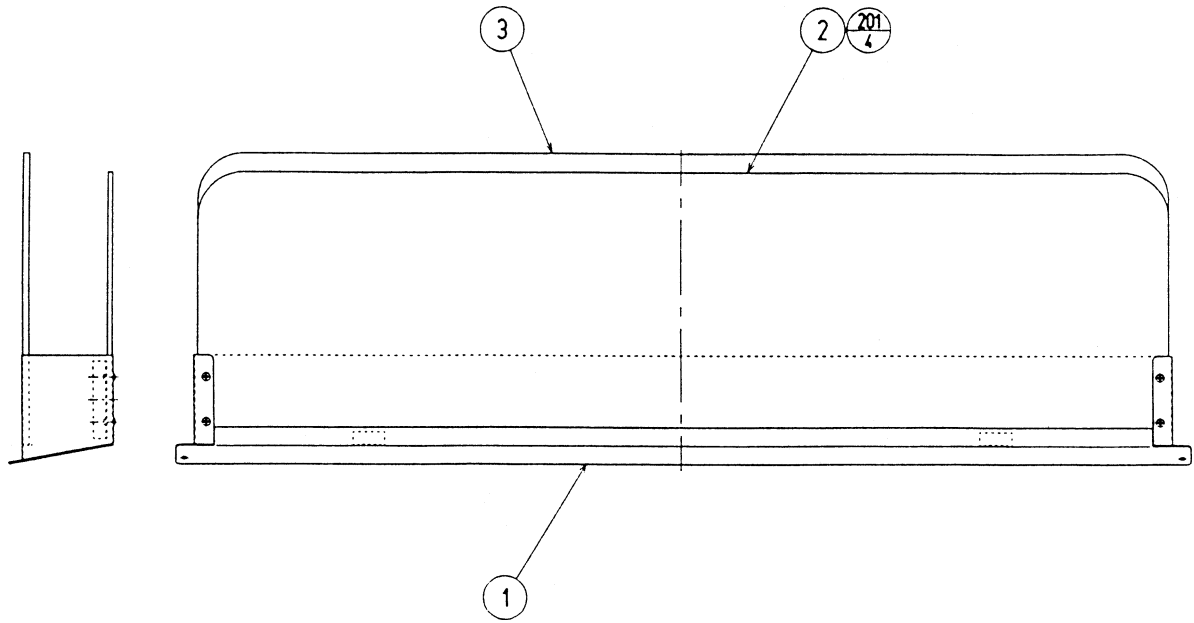
ITEM NO.	PART NO.	DESCRIPTION
1	RCS-1251	BILLBOARD BASE
2	RCS-1252	BILLBOARD PANEL FRONT
3	RCS-1253	BILLBOARD PANEL REAR
201	000-T00412-0C	M SCR TH CRM M4X12

ASSY FRONT PANEL (RCS-1300)

SECTION AT C.L.
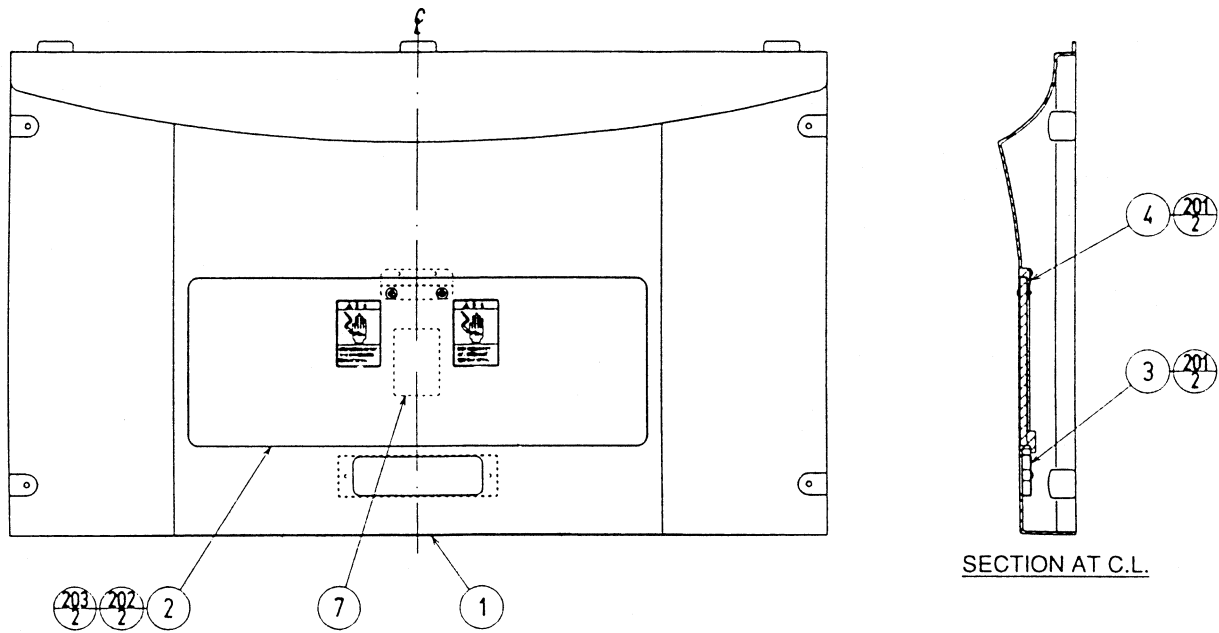
SCREW FASTENING TORQUE TO BE
M4 : 18 (kgf-cm)

ITEM NO.	PART NO.	DESCRIPTION
1	RCS-1301	FRONT PANEL
2	ASK-1302	PTV LID
3	ASK-1303	HOLE COVER
4	ASK-1304	LID BRKT
201	012-P00410	TAP SCR #2 4X10
202	000-T00416-0C	M SCR TH CRM M4X16
203	068-441616-0C	FLT WSHR CRM 4.4-16X1.6

METER UNIT (HOD-1590)
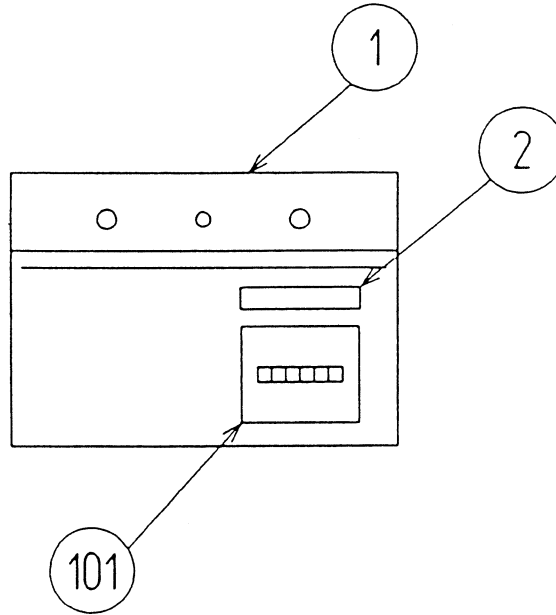
ITEM NO.	PART NO.	DESCRIPTION
1	HOD-1591	METER BRKT
101	220-5643-01	MAG CNTR DC5V 6P WH MZ-674-D04

BOLT FASTENING TORQUE TO BE

| M6 | 95kgf·cm |
| M8 | 195kgf·cm |

(EARTH)

(OPPOSITE SIDE)

(OPPOSITE SIDE)
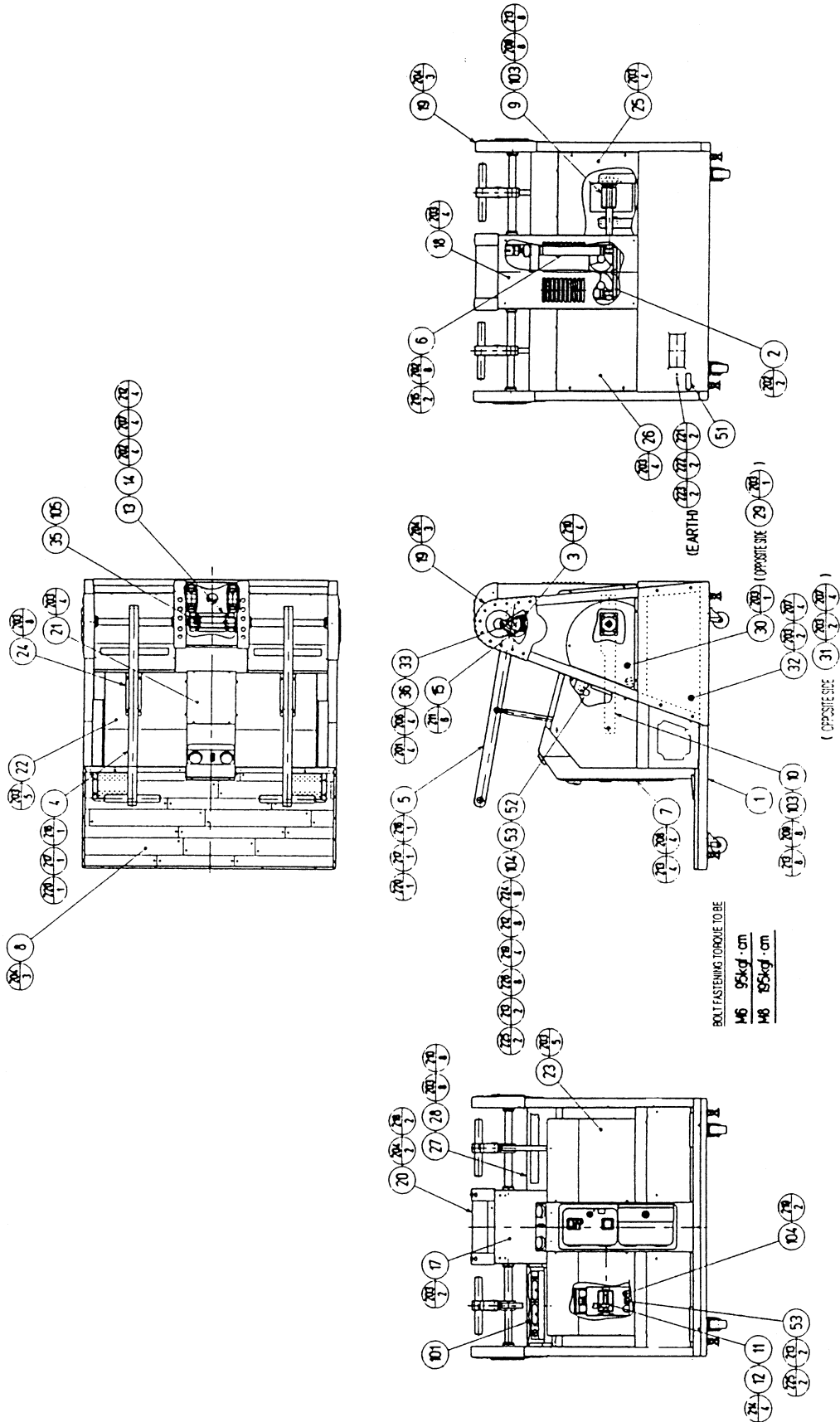
ASSY REAR CABI (RCS-3000)

ITEM NO.	PART NO.	DESCRIPTION
1	RCS-3001Y	REAR BASE
2	RCS-3050	ASSY COOLING FAN
3	RCS-3070	ASSY VR
4	RCS-3100	ASSY SWING LEVER L
5	RCS-3200	ASSY SWING LEVER R
6	RCS-3300	ASSY SHOCK ABSORBER
7	RCS-3400	ASSY COIN CHUTE TOWER
8	RCS-3500	ASSY FLOOR
9	RCS-3002Y	SWING ARM L
10	RCS-3003Y	SWING ARM R
11	RCS-3004	PIN L
12	RCS-3005	COLLAR
13	RCS-3006	RUBBER SPRING BASE
14	RCS-3007	RUBBER SPRING STOPPER
15	RCS-3008	LEVER HOLDER
17	RCS-3010	PILLAR LID F
18	RCS-3011	PILLAR LID R
19	RCS-3012	PILLAR COVER SIDE
20	RCS-3013	PILLAR COVER TOP
21	RCS-3014	MECHA COVER C
22	RCS-3015	MECHA COVER L
23	RCS-3016	MECHA COVER R
24	RCS-3017	UPPER PLATE
25	RCS-3018	BACK COVER L
26	RCS-3019	BACK COVER R
27	RCS-3020	SPEAKER COVER
28	RCS-3021	SPEAKER NET
29	RCS-3022	HOLE LID L
30	RCS-3023	HOLE LID R
31	RCS-3024	SIDE COVER L
32	RCS-3025	SIDE COVER R
33	RCS-3026	GEAR HOLDER
35	RCS-3038	KEY 5X5X40
36	601-6450	GEAR 110
52	RCS-3039	UPPER STOPPER W
53	RCS-3040	BUMP RUBBER
101	130-5146	SPEAKER BOX 80 OHM 20W
102	100-5334	THRUST BUSH25
103	100-5335	BEARING UNIT 20
104	601-8451	STOPPER RI-30
105	601-10480	TORSION RUBBER

ASSY REAR CABI (RCS-3000)

ITEM NO.	PART NO.	DESCRIPTION
201	000-P00412-W	M SCR PH W/FS M4X12
202	000-P00512-W	M SCR PH W/FS M5X12
203	000-T00408-0C	M SCR TH CRM M4X8
204	000-T00412-0C	M SCR TH CRM M4X12
205	000-T00616-0C	M SCT TH CRM M6X16
206	028-A00408-P	SET SCR HEX SKT CUP P M4X8
207	030-000616-S	HEX BLT W/S M6X16
208	030-000820-S	HEX BLT W/S M8X20
209	030-000840-S	HEX BLT W/S M8X40
210	050-F00400	FLG NUT M4
211	050-F00500	FLG NUT M5
212	060-F00600	FLT WSHR M6
213	060-F00800	FLT WSHR M8
214	065-S012S0-Z	STP RING BLK OZ S12
215	065-S022S0-Z	STP RING BLK OZ S22
216	068-552016	FLT WSHR 5.5-22X1.6
217	030-000510	HEX BLT M5X10
218	000-T00512-0C	M SCR TH CRM M5X12
219	068-852216	FLT WSHR 8.5-22X1.6
220	060-S00500	SPR WSHR M5
221	050-H00400	HEX NUT M4
222	060-S00400	SPR WSHR M4
223	060-F00400	FLT WSHR M4
224	020-00625-HZ	HEX SKT CAP SCR BLK OZ M6X25
225	020-000830-HZ	HEX SKT CAP SCR BLK OZ M8X30
226	060-S00600	SPR WSHR M6

ASSY COOLING FAN (RCS-3050)
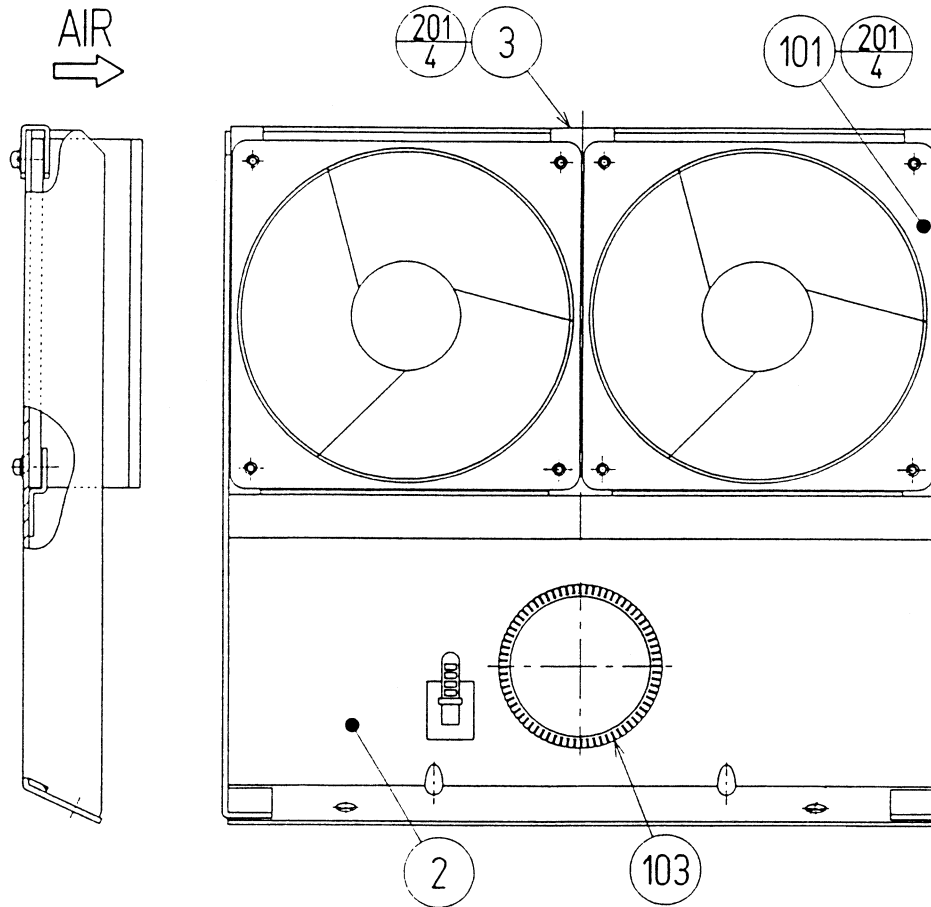
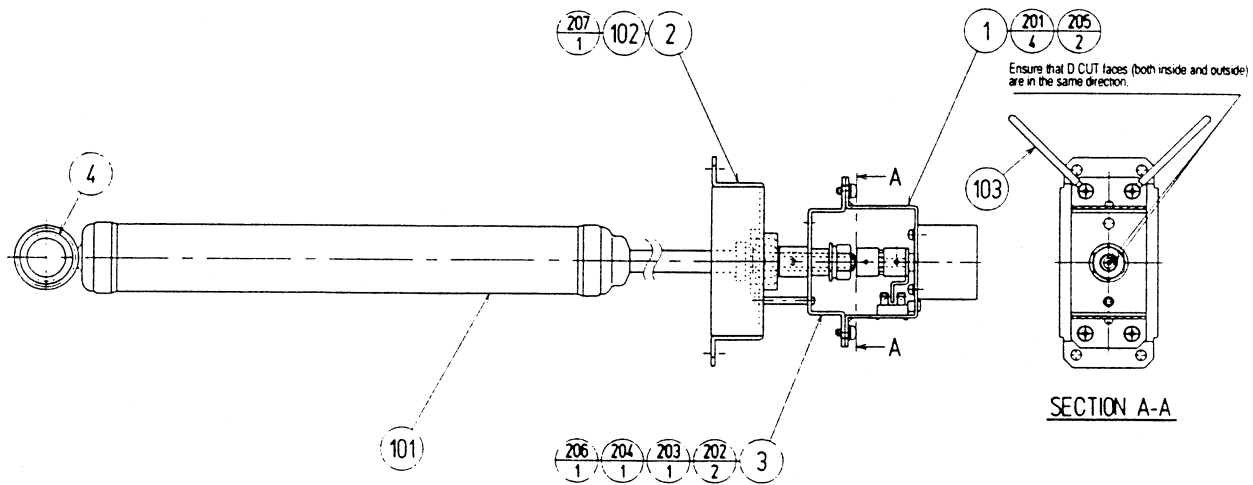| ITEM NO.	PART NO.	DESCRIPTION
2	RCS-3052	FAN BRKT
3	RCS-3053	CLAMP
101	260-0056	AXIAL FLOW FAN AC115V 50-60Hz
103	601-5963-150	BUSH 2.3T(150MM)
201	000-P00316-W	M SCR PH W/FS M3X16
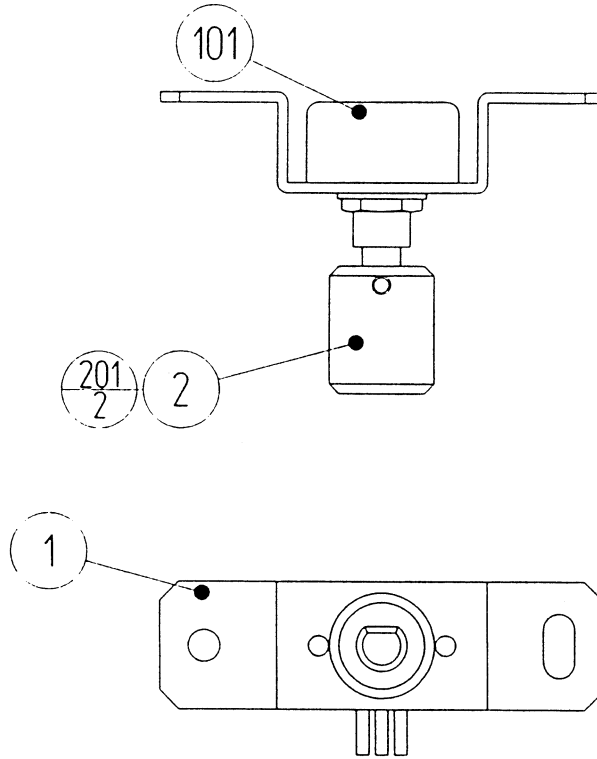
SCREW FASTENING TORQUE TO BE

M3 : 7.5kgf · cm

ITEM NO.	PART NO.	DESCRIPTION
1	RCS-3071	VR BRKT
2	601-7945	GEAR 20
101	220-5484	VOL CONT B-5K OHM
201	028-A00304-P	SET SCR HEX SKT CUP P M3X4

ASSY SWING LEVER L (RCS-3100)
ASSY SWING LEVER R (RCS-3200)

509.5 ±1
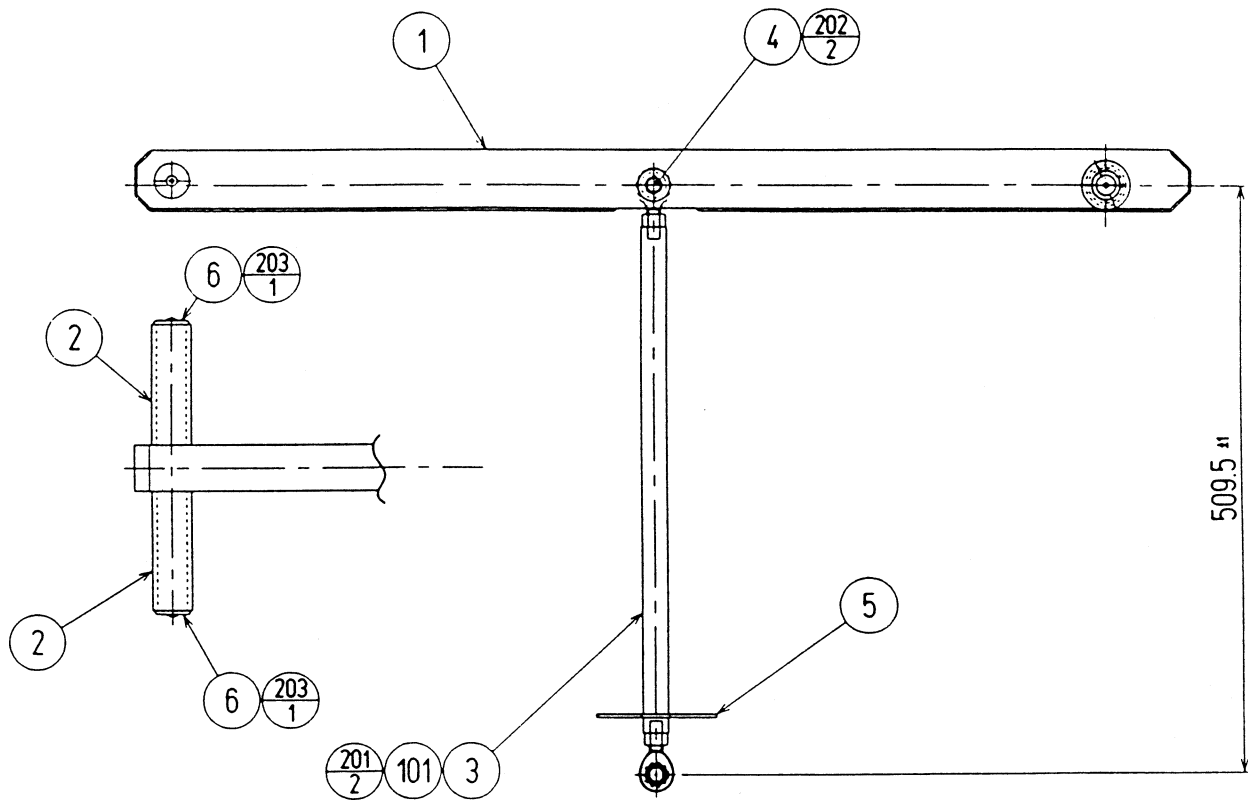
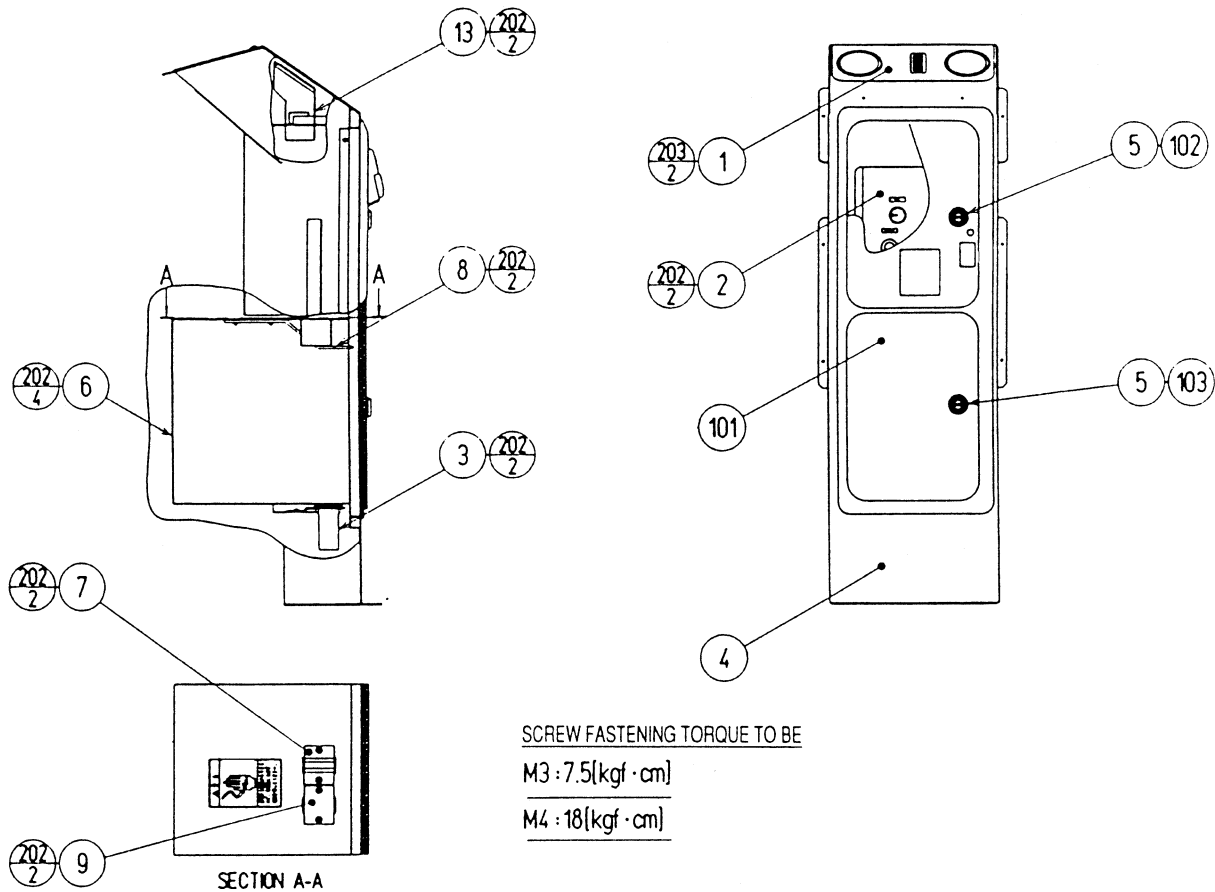| ITEM NO.	PART NO.	DESCRIPTION
1	RCS-3101Y	SWING LEVER L
	RCS-3201Y	SWING LEVER R
2	RCS-3102	GRIP
3	RCS-3103	CONNECTING ROD
4	RCS-3104	PIN S
5	RCS-3105	SLIDE PLATE
6	RCS-3106	GRIP END
101	111-0032	ROD END 12
201	050-H01200-0B	HEX NUT BLK M12
202	065-S012S0-Z	STP RING BLK OZ S12
203	000-T00412-0C	M SCR TH CRM M4X12

ASSY SHOCK ABSORBER (RCS-3300)

SECTION A-A

Ensure that D CUT faces (both inside and outside) are in the same direction.

ITEM NO.	PART NO.	DESCRIPTION
1	RCS-3350	ASSY ACTUATOR
2	RCS-3301	UPPER MOUNT
3	RCS-3302	ACTUATOR BASE
4	RCS-3303	BUSH
101	601-10481	SHOCK ABSORBER
102	100-5336	PILLOW BEARING
103	280-0419	HARNESS LUG
201	000-P00408-W	M SCR PH W/FS M4X8
202	028-A00408-P	SET SCR HEX SKT CUP P M4X8
203	060-F0100	FLT WSHR M10
204	060-S0100	SPR WSHR M10
205	028-A02610-P	SET SCR HEX SKT CUP P M2.6X10
206	050-H010S6	HEX NUT P=1.25 M10
207	065-S026H0-Z	STP RING BLK OZ H26

ASSY ACTUATOR (RCS-3350)
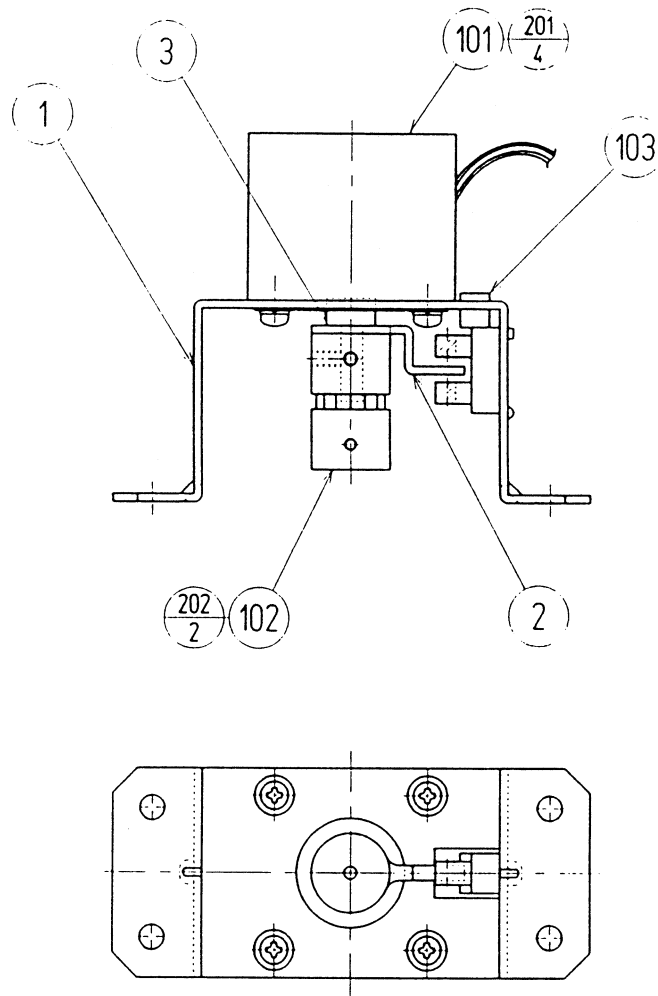
ITEM NO.	PART NO.	DESCRIPTION
1	RCS-3351	MOTOR BRKT
2	RCS-3352	SENSOR BLADE
3	RCS-3353	COLLAR
101	350-5550	MOTOR PULSE DC 12V
102	111-0055	COUPLING
103	370-5122	PHOTO INTERRUPTER GP1A73A
201	000-P00308-W	M SCR PH W/FS M3X8
202	028-A00306-P	SET SCR HEX SKT CUP P M3X6

ASSY COIN CHUTE TOWER (RCS-3400)

SCREW FASTENING TORQUE TO BE

M3 : 7.5[kgf·cm]

M4 : 18[kgf·cm]

SECTION A-A

ITEM NO.	PART NO.	DESCRIPTION
1	RCS-3420	ASSY START SW
2	RCS-3430	SW UNIT
3	HOD-1590-01	METER UNIT TWIN
4	RCS-3401	COIN CHUTE TOWER
5	DP-1167	TNG LKG
6	105-5106	CASH BOX COVER
7	105-5107	CHUTE
8	105-5170	LOCK BRACKET S
9	105-5188~	HOLE COVER~
101	220-5237-92~	ASSY C.C 2DR.~
102	220-5575	CAM LOCK MASTER W/O KEY
103	220-5574	CAM LOCK W/KEYS
201	000-P00406-W	M SCR PH W/FS M4X6
202	000-P00408-W	M SCR PH W/FS M4X8
203	000-T00410-0C	M SCR TH CRM M4X10
205	050-H00400	HEX NUT M4
206	060-F00400	FLT WSHR M4
207	060-S00400	SPR WSHR M4

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ASSY START SW (RCS-3420)
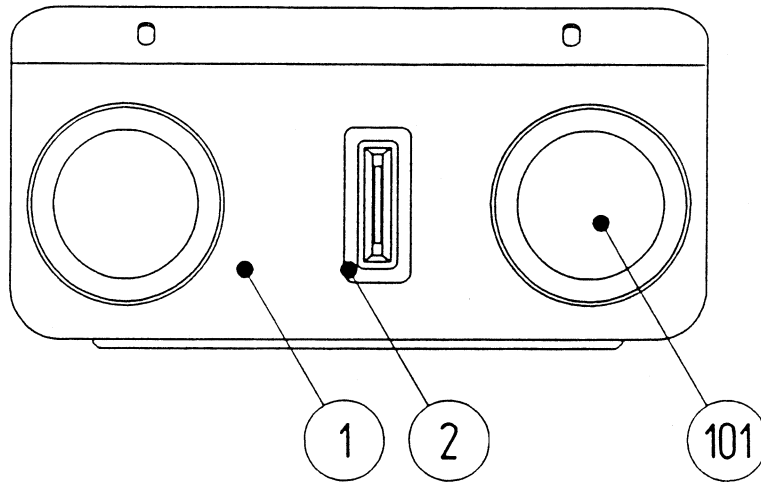
ITEM NO.	PART NO.	DESCRIPTION
1	RCS-3421-01	SW BASE EXP
2	220-5232-03	COIN ENTRY
101	509-5892-01	SW PB 60M W/L 6V3W YELLOW

SW UNIT (RCS-3430)
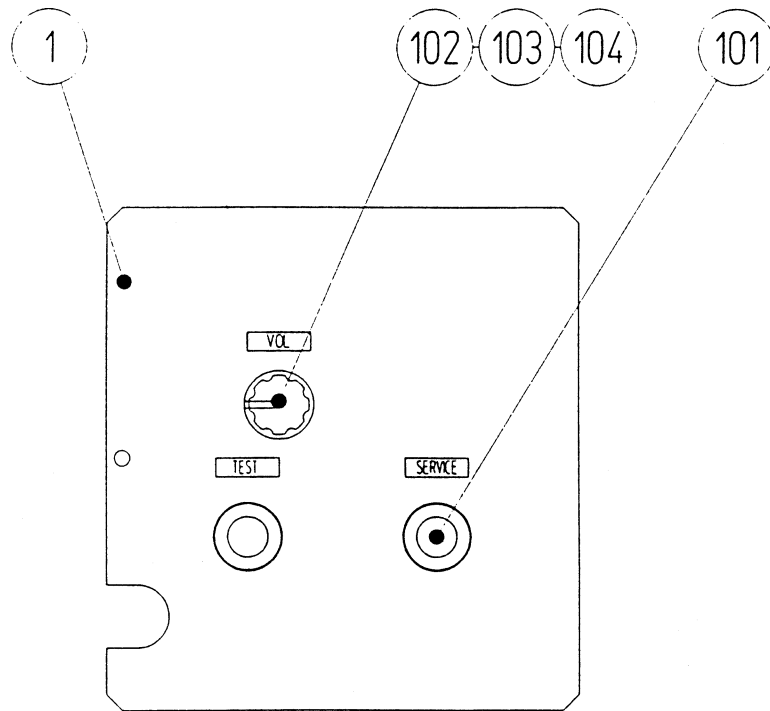
ITEM NO.	PART NO.	DESCRIPTION
1	RCS-3431	SW BRKT
101	509-5028	SW PB 1M
102	220-5179	VOL CONT B-5K OHM
103	601-0042	KNOB 22MM

ASSY FLOOR (RCS-3500)
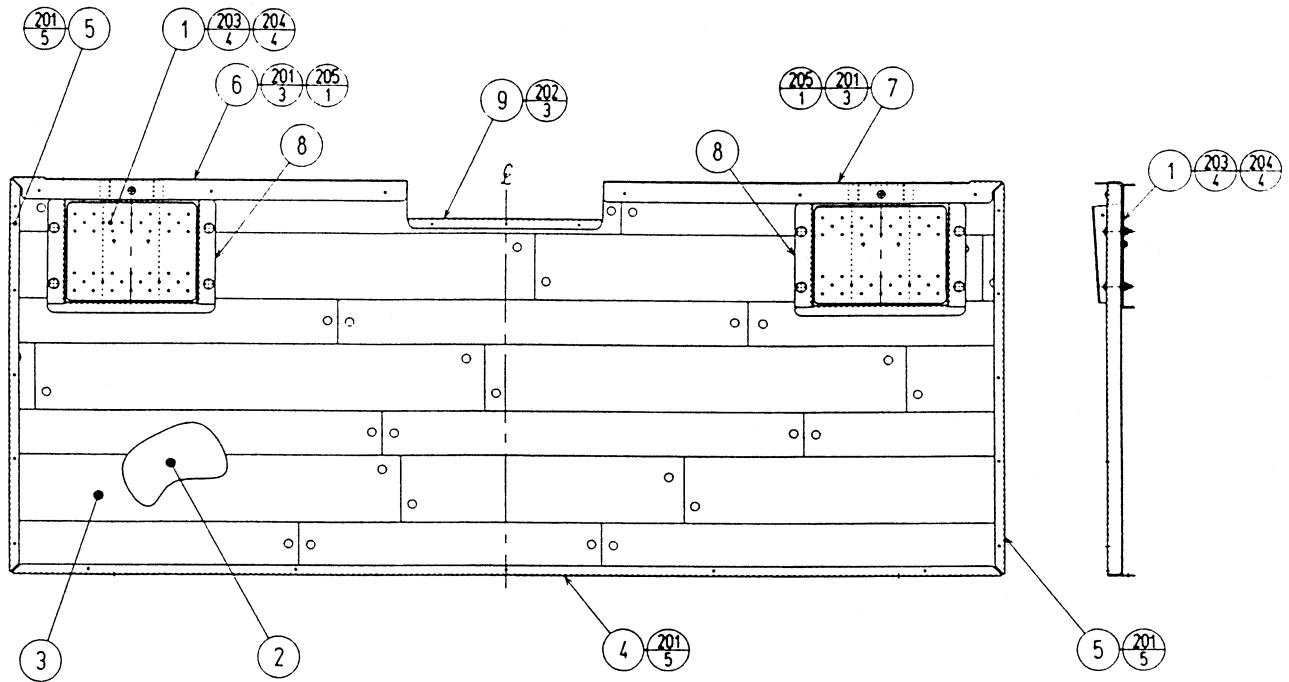
ITEM NO.	PART NO.	DESCRIPTION
1	RCS-3530	ASSY FOOT SW
2	RCS-3501	FLOOR BASE
3	RCS-3502	FLOOR CUSHION
4	RCS-3503	SASH REAR
5	RCS-3504	SASH SIDE
6	RCS-3505	SASH FL
7	RCS-3506	SASH FR
8	RCS-3507	SASH HOLE
9	RCS-3508	SASH FC
201	079-000008	SCR NAIL THH STNLS 1.5X16
202	FAS-790001	NAIL THH STNLS 1.2X13
203	031-000530-0C	CRG BLT CRM M5X30
204	050-F00500	FLG NUT M5
205	000-T00406-0C	M SCR TH CRM M4X6

ASSY FOOT SW (RCS-35300
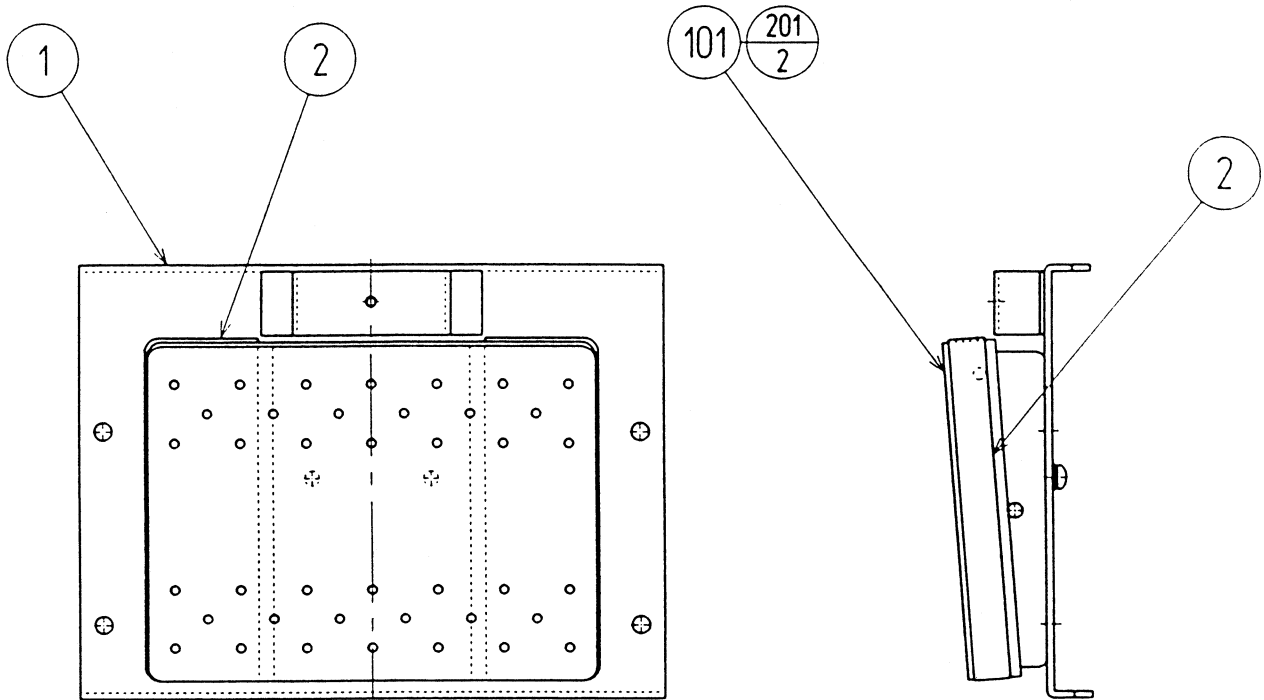
ITEM NO.	PART NO.	DESCRIPTION
1	RCS-3531	FOOT SW BASE
2	RCS-3532	SAFETY CUSHION
101	509-5891	FOOT SW
201	000-P00410-W	M SCR PH W/FS M4X10

ASSY ELEC (RCS-4000)
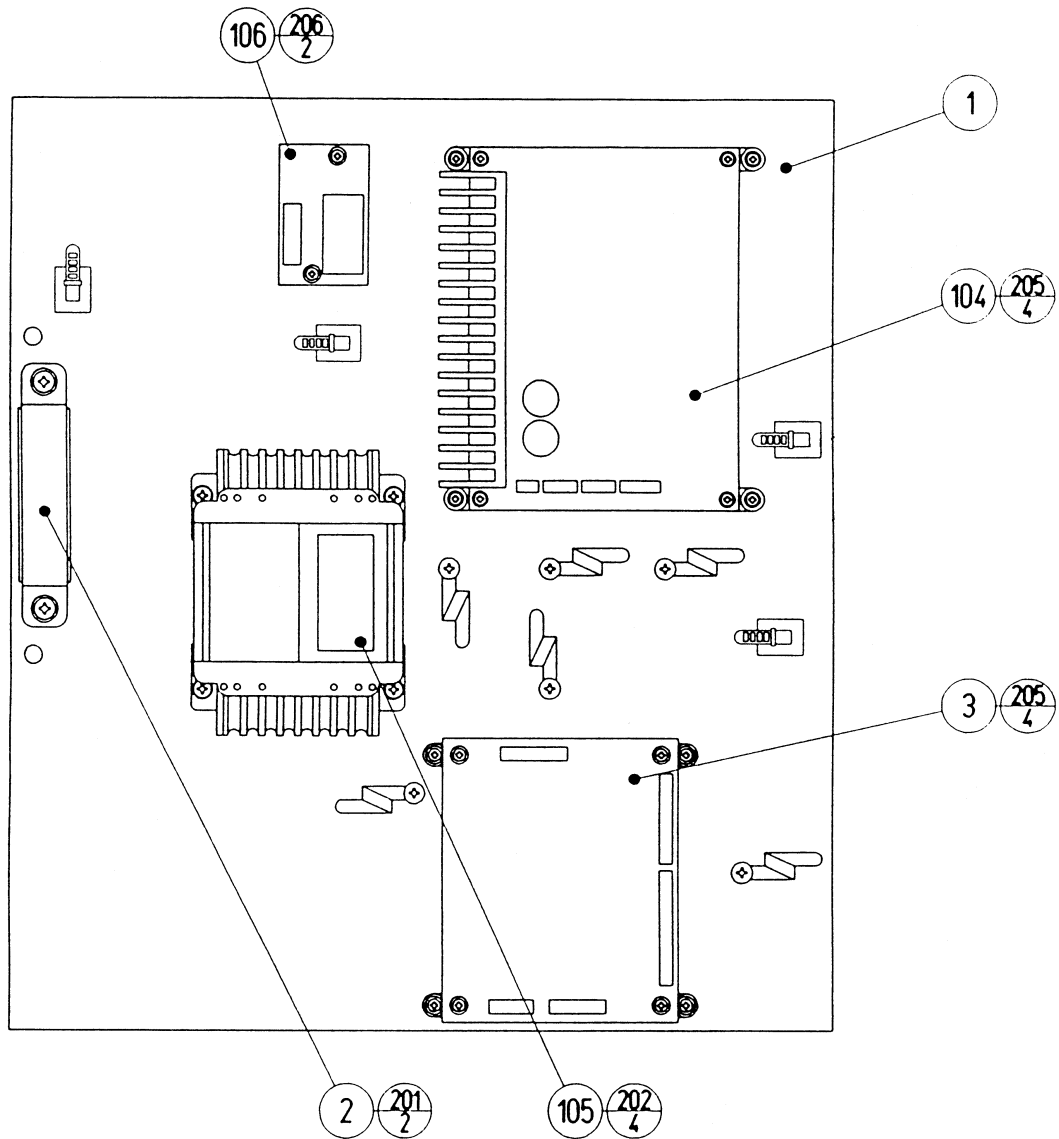
ITEM NO.	PART NO.	DESCRIPTION
1	RCS-4001	WOODEN BASE ELEC
2	GBN-4002	HANDLE
3	837-13677-91	STEP MOTOR CONTROL BD RCS
104	838-12796-01	PWR AMP FOR M3
105	560-5417-H	XFMR 100-120V 16.2-0-16.2V2.4A
106	838-11856-UL	CONNECT BD UL
201	000-P00516-W	M SCR PH W/FS M5X16
202	000-P00416-W	M SCR PH W/FS M4X16
203	011-F00310	TAP SCR FH 3X10
204	011-T03512	TAP SCR TH 3.5X12
205	011-T03520	TAP SCR TH 3.5X20
206	011-P00325	TAP SCR PH 3X25

ASSY MAIN BD (RCS-4100)
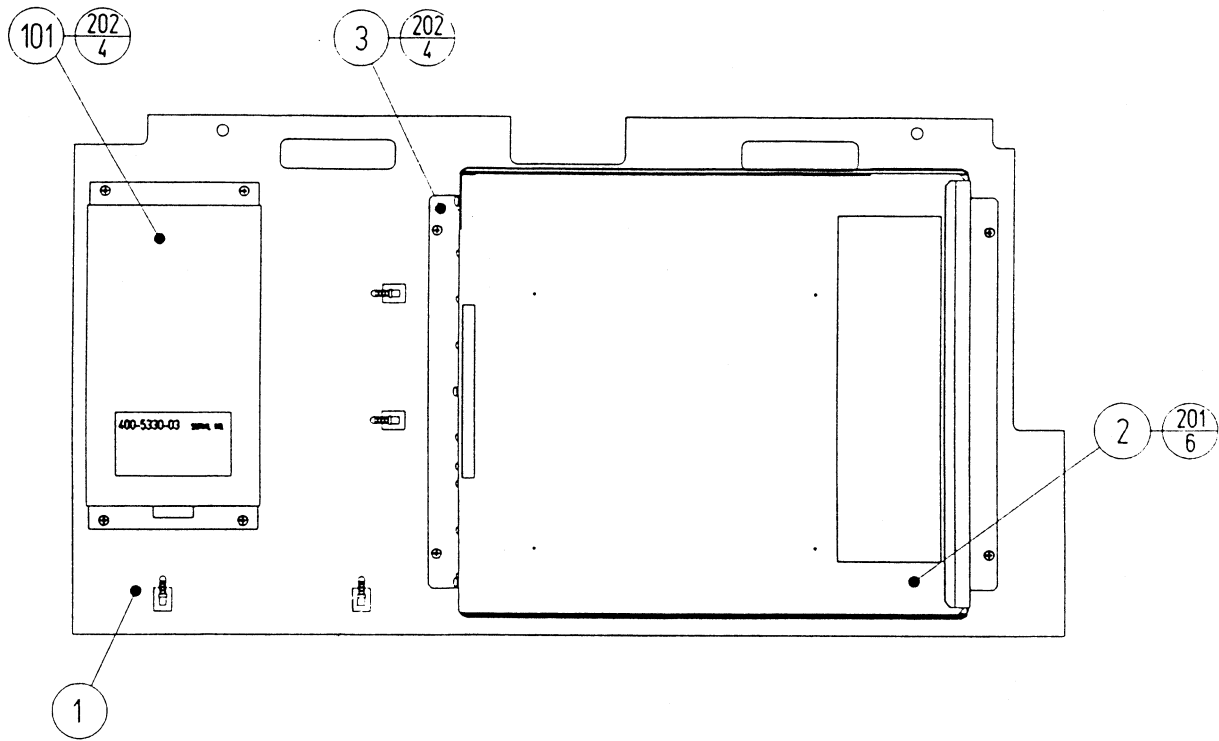
ITEM NO.	PART NO.	DESCRIPTION
1	JEY-0101	WOODEN BASE MAIN BD
2	RCS-0100-01	ASSY SHIELD CASE EXP
3	105-5241	SHIELD CASE BRKT
101	400-5330-03	SW REGU FOR MODEL 3
201	000-P00408-W	M SCR PH W/FS M4X8
202	000-P00412-W	M SCR PH W/FS M4X12
203	011-F00310	TAP SCR FH 3X10
204	011-T03512	TAP SCR TH 3.5X12