SEGA®

VIRTUA COP 3

Deluxe Version
Owner's Manual

SEGA AMUSEMENTS USA, INC.

MANUAL NO.   999-1769
GAME CODE: VCT

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BEFORE USING THE PRODUCT, BE SURE TO READ THE FOLLOWING:

To maintain the safety:

To ensure the safe usage of the product, be sure to read the following before using the product. The following instructions are intended for the users, operators and the personnel in charge of the operation of the product. After carefully reading and sufficiently understanding the warning displays and cautions, handle the product appropriately. Be sure to keep this manual nearby the product or elsewhere convenient for referring to it when necessary.

Herein, explanations which require special attention are enclosed with dual lines. Depending on the potentially hazardous degrees, the terms of WARNING, CAUTION, etc. are used. Be sure to understand the contents of the displays before reading the text.

WARNING! Indicates that mishandling the product by disregarding this warning will cause a potentially hazardous situation which can result in death or serious injury.

CAUTION! Indicates that mishandling the product by disregarding this caution will cause a slight hazardous situation which can result in personal injury and or material damage.

For the safe usage of the product, the following pictographs are used:

Indicates "HANDLE WITH CARE." In order to protect the human body an equipment, this display is attached to places where the Owner's Manual and or Service Manual should be referred to.

○ **Perform work in accordance with the instructions herein stated.**
Instructions for work are explained by paying attention to the aspect of accident prevention. Failing to perform work as per the instructions can cause accidents. In the case where only those who have technical expertise should perform the work to avoid hazardous situation, the instructions herein state that the serviceman should perform such work.

○ **Be sure to turn off power before working on the machine.**
To prevent electric shock, be sure to turn off power before starting the work in which the worker touches the interior of the product. If the work is to be performed in the power-on status, the Instruction Manual herein always states to that effect.

○ **Be sure to ground the Earth Terminal** (this, however, is not required in the case where a power cord with earth is used).
This product is equipped with the Earth Terminal. When installing the product, Connect the Earth Terminal to the "accurately grounded indoor earth terminal" by using an earth wire. Unless the product is grounded appropriately, the user can be subject to electric shock. After performing repair, etc. for the Control equipment, ensure that the Earth Wire is firmly connected to the Control equipment.

○ **Ensure that the Power Supply used is equipped with an Earth Leakage Breaker.**
This product does not incorporate the Earth Leakage Breaker. Using a power supply which is not equipped with the Earth Leakage Breaker can cause a fire when earth leakage occurs.

○ **Be sure to use fuses which meet the specified rating.** (only for the machines which use fuses).
Using fuses exceeding the specified rating can cause a fire and electric shock.

○ **Specification changes (removal of equipment, conversion and addition) not designated by SEGA are not allowed.**
The parts of the product include warning labels for safety, covers for personal protection, etc. It is very hazardous to operate the product by removing parts and or modifying the circuits. Should doors, lids and protective parts be damaged or lost, refrain from operating the product, and contact where the product was purchased from or the office herein stated. SEGA shall not be held responsible for any accidents, compensation for damage to a third party, resulting from the specifications not designated by SEGA.

○ **Ensure that the product meets the requirements of appropriate Electrical Specifications.**
Before installing the product, check for Electrical Specifications. SEGA products have a nameplate on which Electrical Specifications are described. Ensure that the product is compatible with the power supply voltage and frequency requirements of the location. Using any Electrical Specifications different from the designated Specifications can cause a fire and electric shock.

○ **Install and operate the product in places where appropriate lighting is available, allowing warning labels to be clearly read.**
To ensure safety for the customers, labels and printed instructions describing potentially hazardous situation are applied to places where accidents can be caused. Ensure that where the product is operated has sufficient lighting allowing the warnings to be read. If any label is peeled off, apply it again immediately. Please place an order with where the product was purchased from or the office herein stated.

○ **When handling the Monitor, be very careful. (Applies only to the product w/monitor.)**
Some of the monitor (TV) parts are subject to high tension voltage. Even after running off power, some portions are still subject to high tension voltage sometimes. Monitor repair and replacement should be performed only be those technical personnel who have knowledge of electricity and technical expertise.

○ **Be sure to adjust the monitor (projector) properly. (Applies only to the product w/monitor.)**
Do not operate the product leaving on-screen flickering or blurring as it is. Using the product with the monitor not properly adjusted may cause dizziness or a headache to an operator, a player, or the customers.

○ **When transporting or reselling this product, be sure to attach this manual to the product.**
In the case where commercially available monitors and printers are used in this product, only the contents relating to this product are explained herein. Some commercially available equipment has functions and reactions not stated in this manual. Read this manual together with the specific Instruction Manual of such equipment.

• Descriptions herein contained may be subject to improvement changes without notice.
• The contents described herein are fully prepared with due care. However, should any question arise or errors be found, please contact SEGA.

INSPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION.

Normally, at the time of shipment, SEGA products are in a status allowing for usage immediately after transporting to the location. Nevertheless, an irregular situation may occur during transportation. Before turning on power, check the following points to ensure that the product has been transported in a satisfactory status.

☐ Are there any dented portions or defects (cuts, etc.) on the external surfaces of the cabinet?
☐ Are Casters and Adjusters, damaged?
☐ Do the power supply voltage and frequency requirements meet with those of the location?
☐ Are all wiring connectors correctly and securely connected? Unless connected in the correct direction, connector connections can not be made accurately. Do not insert connectors forcibly.
☐ Do power cords have cuts and dents?
☐ Do the fuses used meet specified rating? Is the Circuit Protector in an energized status?
☐ Are all accessories available?
☐ Can all Doors and Lids be opened with the Accessory keys? Can Doors and Lids be firmly closed?

TABLE OF CONTENTS

BEFORE USING THE PRODUCT, BE SURE TO READ THE FOLLOWING:
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INTRODUCTION OF THE OWNER'S MANUAL

SPECIFICATIONS

Installation Space	: 7.5 Feet Wide X 9.2 Feet Deep
Height	: 84.65 inches
Width	: 63.98 inches
Length	: 76.97 inches
Weight	: 535.7 lbs
Power, maximum current	: 1200 W 10 A (AC 120V 60 Hz AREA)
MONITOR	: 50inch PTV Supplied by Toshiba
	SEGA Part# 200-5788-31

INTRODUCTION OF THE OWNERS MANUAL

This Owner's Manual is intended to provide detailed descriptions together with all the necessary information covering the general operation of electronic assemblies, electrome-chanicals, servicing control, spare parts, etc. as regards the product,
VIRTUA COP III DELUXE TYPE.
This manual is intended for the owners, personnel and managers in charge of operation of the product. Operate the product after carefully reading and sufficiently understand-ing the instructions. If the product fails to function satisfactorily, non-technical personnel should under no circumstances touch the internal system. Please contact where the prod-uct was purchased from.

Use of this product is unlikely to cause physical injuries or damages to property. However, where special attention is required this is indicated by a thick line, the word "IMPORTANT" and its sign in this manual.

STOP Indicates that mishandling the product by disregarding this display can cause the
IMPORTANT! product's intrinsic performance not to be obtained, resulting in malfunctioning.

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   Phone : (415) 701-6580
   Fax   : (415) 701-6594

NOTES:

1. HANDLING PRECAUTIONS

When installing or inspecting the machine, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.
Non-compliance with the following points or inappropriate handling running counter to the cautionary matters herein stated can cause personal injury or damage to the machine.

⚠️
WARNING!

- Before performing work, be sure to turn power off. Performing the work without turning power off can cause an electric shock or short circuit. In the case work should be performed in the status of power on, this manual always states to that effect.
- To avoid electric shock or short circuit, do not plug in or unplug quickly.
- To avoid electric shock, do not plug in or unplug with a wet hand.
- Do not expose Power Cords and Earth Wires on the surface, (floor, passage, etc.). If exposed, the Power Cords and Earth Wires are susceptible to damage. Damaged cords and wires can cause electric shock or short circuit.
- To avoid causing a fire or electric shock, do not put things on or damage Power Cords.
- When or after installing the product, do not unnecessarily pull the power cord. If damaged, the power cord can cause a fire or electric shock.
- In case the power cord is damaged, ask for replacement through where the product was purchased from or the office herein stated. Using the cord as is damaged can cause fire, electric shock or leakage.
- Be sure to perform grounding appropriately. Inappropriate grounding can cause an electric shock.
- Be sure to use fuses meeting specified rating. Using fuses exceeding the specified rating can cause a fire or electric shock.
- Completely make connector connections for IC BD and others. Insufficient insertion can cause an electric shock.
- Specification changes, removal of equipment, conversion and/or addition, not designated by SEGA are not permitted.
  - Failure to observe this may cause a fire or an electric shock. Non-compliance with this instruction can have a bad influence upon physical conditions of the players or the lookers-on, or result in injury during play.
  - SEGA shall not be held responsible for damage, compensation for damage to a third party, caused by specification changes not designated by SEGA.
- Be sure to perform periodic maintenance inspections herein stated.

STOP

IMPORTANT!

- For the IC board circuit inspections, only the logic tester is allowed. The use of a multiple-purpose tester is not permitted, so be careful in this regard.
- The Projector is employed for this machine. The Projector's screen is susceptible to damage, therefore, be very careful when cleaning the screen. For details, refer to PROJECTOR.
- Some parts are the ones designed and manufactured not specifically for this game machine. The manufacturers may discontinue, or change the specifications of, such general-purpose parts. If this is the case, Sega cannot repair or replace a failed game machine whether or not a warranty period has expired.

2. PRECAUTIONS CONCERNING INSTALLATION LOCATION

⚠️ **WARNING!**

This product is an indoor game machine. Do not install it outside. Even indoors, avoid installing in places mentioned below so as not to cause a fire, electric shock, injury and or malfunctioning.

● Places subject to rain or water leakage, or places subject to high humidity in the proximity of an indoor swimming pool and or shower, etc.
● Places subject to direct sunlight, or places subject to high temperatures in the proximity of heating units, etc.
● Places filled with inflammable gas or vicinity of highly inflammable/volatile chemicals or hazardous matter.
● Dusty places.
● Sloped surfaces.
● Places subject to any type of violent impact.
● Vicinity of anti-disaster facilities such as fire exits and fire extinguishers.
● The operating (ambient) temperature range is from 5º to 30º.

LIMITATIONS OF USAGE REQUIREMENTS

⚠️ **WARNING!**

● Be sure to check the Electrical Specifications.
Ensure that this product is compatible with the location's power supply, voltage and frequency requirements.
A plate describing Electrical Specifications is attached to the product.
Non-compliance with the Electrical Specifications can cause a fire and electric shock.
● This product requires the Breaker and Earth Mechanisms as part of the location facilities. Using them in a manner not independent can cause a fire and electric shock.
● Ensure that the indoor wiring for the power supply is rated at 15 A or higher (AC single phase 100~120 V area). Non-compliance with the Electrical Specifications can cause a fire and electric shock.
● Be sure to independently use the power supply equipped with the Earth Leakage Breaker. Using a power supply without the Earth Leakage Breaker can cause an outbreak of fire when earth leakage occurs.
● Putting many loads on one electrical outlet can cause generation of heat and a fire   resulting from overload.
● When using an extension cord, ensure that the cord is rated at 15 A or higher (AC 100~120 V area). Using a cord rated lower than the specified rating can cause a fire and electric shock.

WARNING!

- For the operation of this machine, secure a minimum area of 2.3 m (7.5 ft) (W)×2.8 m (9.2 ft) (D). In order to prevent injury resulting from the falling down accident during game play, be sure to secure the minimum area for operation.
- Be sure to provide sufficient space so as to allow this product's ventilation fan to function efficiently. To avoid machine malfunctioning and a fire, do not place any obstacles near the ventilation opening.
- SEGA shall not be held responsible for damage, compensation for damage to a third party, resulting from the failure to observe this instruction.

STOP IMPORTANT!

For transporting the machine into the location's building, the minimum necessary dimensions of the opening (of doors, etc.) are 3.28 ft (W) and 5.57 ft (H).

Electric current consumption

MAX. 10 A (AC 120 V 60 Hz)

3.9 in

9.2 ft

7.5 ft
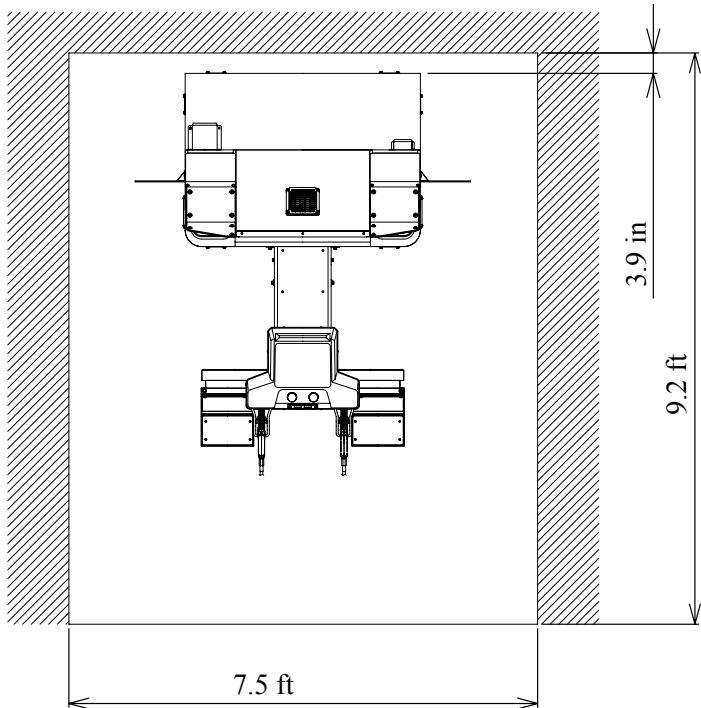
FIG. 2
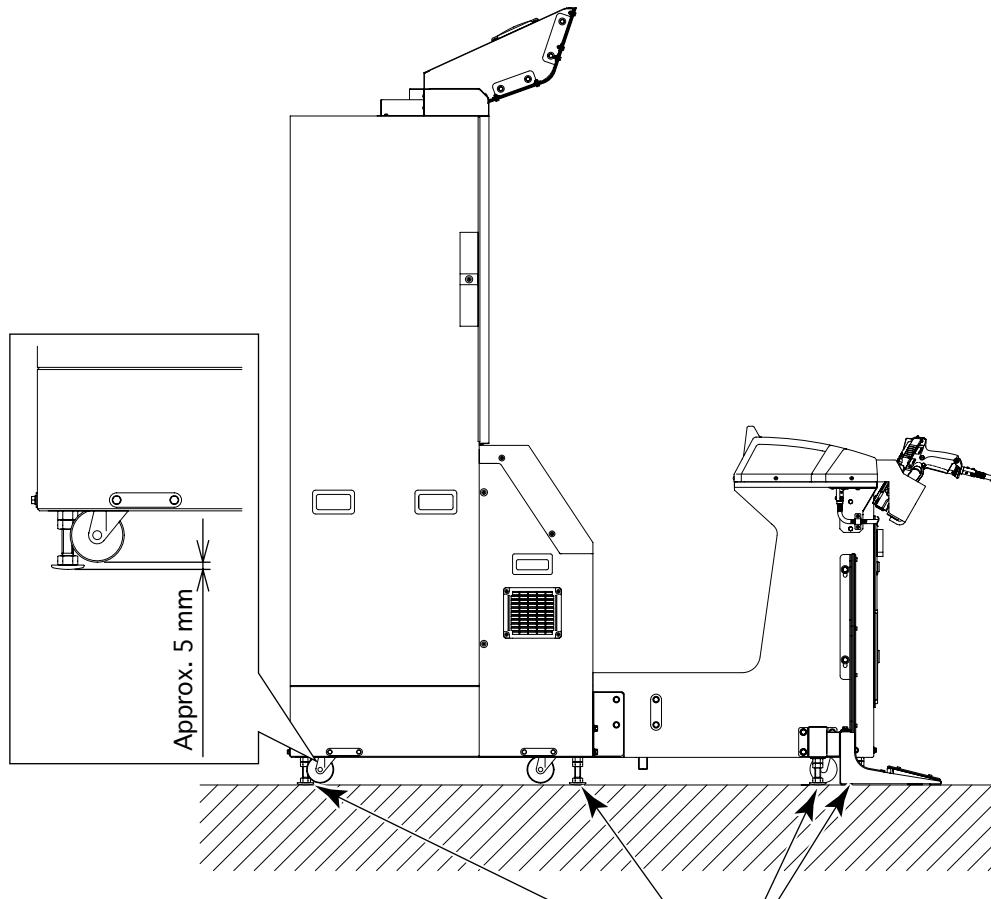
3. OPERATION

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

⚠ WARNING

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

● To ensure maximum safety for the players and the customers, ensure that where the product is operated has sufficient lighting to allow any warnings to be read. Operation under insufficient lighting can cause bodily contact with each other, hitting accident, and or trouble between customers.

● Be sure to perform appropriate adjustment of the monitor (projector). For operation of this machine, do not leave monitor's flickering or deviation as is. Failure to observe this can have a bad influence upon the players' or the customers' physical conditions.

● It is suggested to ensure a space allowing the players who feel sick while playing the game to take a rest.

● Check if all of the adjusters are in contact with the surface. If they are not, the Cabinet can move and cause an accident.

Approx. 5 mm

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

FIG. 3

5

WARNING!

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

CAUTION!

- To avoid injury, be sure to provide sufficient space by considering the potentially crowded situation at the installation location. Insufficient installation space can cause making bodily contact with each other, hitting accidents, and or trouble between customers.
- During daily cleaning and maintenance, check the surface of the control unit (Gun Controller) for cracks and other damage and ensure that screws are securely fastened. Loose screws, cracks, and other damage could cause harm to players and other customers if left unrepaired.

STOP IMPORTANT!

Players with bare hands directly hold the controller. For operation, it is recommended that the wet towels (paper towels) be provided.

PRECAUTIONS TO BE HEEDED DURING OPERATION(PAYING ATTENTION TO CUSTOMERS)

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

WARNING!

- To avoid injury and accidents, those who fall under the following categories are not allowed to play the game.
  - Those who need assistance such as the use of an apparatus when walking.
  - Those who have high blood pressure or a heart problem.
  - Those who have experienced muscle convulsion or loss of consciousness when playing video game, etc.
  - Those who have a trouble in the neck and or spinal cord.
  - Intoxicated persons.
  - Pregnant women or those who are in the likelihood of pregnancy.
  - Persons susceptible to motion sickness.
  - Persons whose act runs counter to the product's warning displays.
- A player who has never been adversely affected by light stimulus might experience dizziness or headache depending on his physical condition when playing the game. Especially, small children can be subject to those conditions. Caution guardians of small children to keep watch on their children during play.
- Instruct those who feel sick during play to have a medical examination.
- To avoid injury resulting from falling down and electric shock due to spilled drinks, instruct the player not to place heavy items or drinks on the product.
- To avoid electric shock and short circuit, do not allow customers to put hands and fingers or extraneous matter in the openings of the product or small openings in or around the doors.
- To avoid falling down and injury resulting from falling down, immediately stop the customer's leaning against or climbing on the product, etc.
- To avoid electric shock and short circuit, do not allow the customers to unplug the power plug without a justifiable reason.
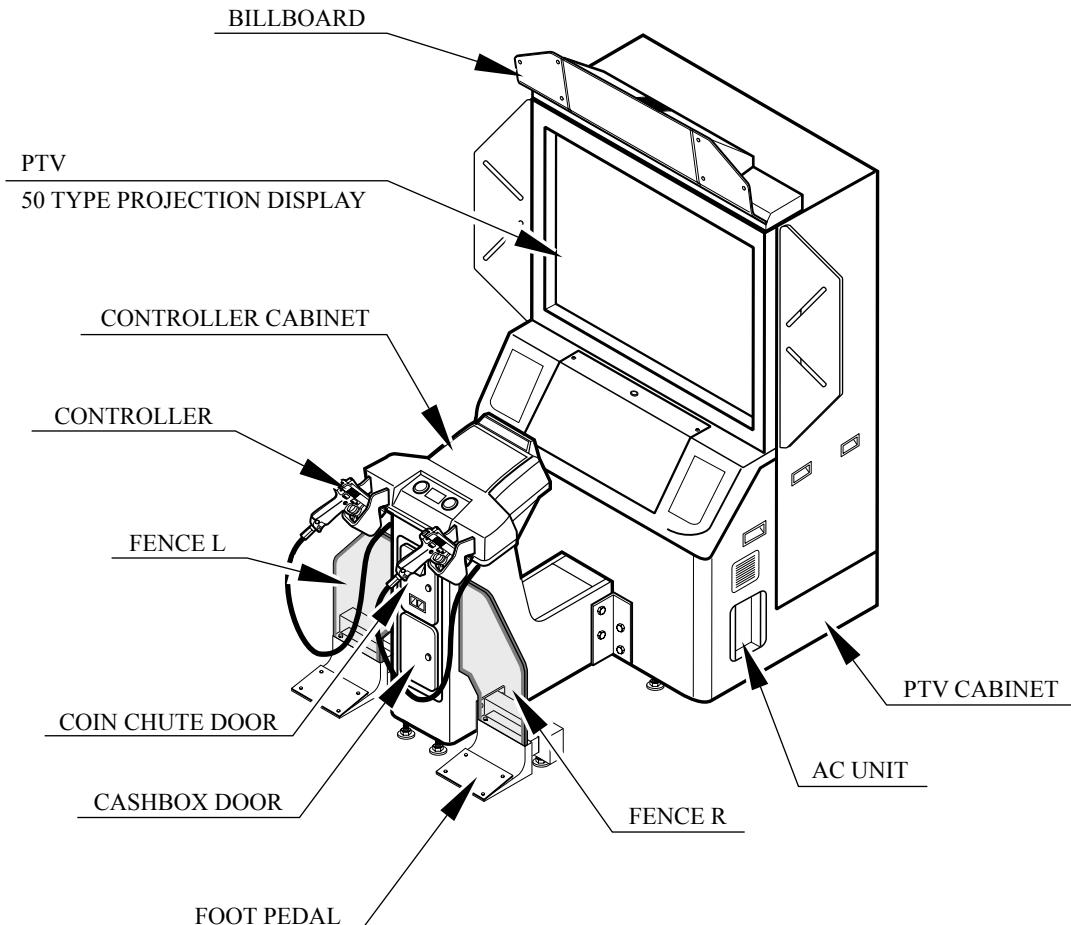
CAUTION!

- Immediately stop such violent acts as hitting and kicking the product. Such violent acts can cause parts damage or falling down, resulting in injury due to fragments and falling down.
- Playing close to the cabinet could cause the Gun Controller to strike the cabinet, possibly causing an accident. Be sure to ask your customers to maintain a safe distance during play.
- Wearing large rings and other accessories during play could result in injury to players' fingers. Be sure to ask your customers to remove such accessories before playing.

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STOP

IMPORTANT!

The Gun Controller for use on 1P side (left side) and 2P side (right side) are different. Ensure that players do not confuse the right and left side guns when starting play.

4. NAME OF PARTS

BILLBOARD

PTV
50 TYPE PROJECTION DISPLAY

CONTROLLER CABINET

CONTROLLER

FENCE L

COIN CHUTE DOOR

CASHBOX DOOR

FENCE R

PTV CABINET

AC UNIT

FOOT PEDAL

Note: Actual Unit may differ from image.
FIG. 4
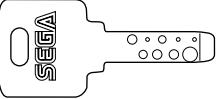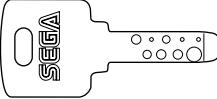
TABLE 4

	Width × Depth × Height	Weight
PTV	44.88 in × 21.85 in × 65.75 in	220.5 lbs
PTV CABINET	44.88 in × 33.03 in × 36.81 in	152.1 lbs
BILLBOARD	44.8 in × 16.65 in × 11.89 in	37.48 lbs
CONTROLLER CABINET	21.65 in × 44.76 in × 38.86 in	85.98 lbs
When assembled	44.88 in × 76.97 in × 84.65 in	535.7 lbs
When assembled (W/POP)	63.98 in × 76.97 in × 84.65 in	

5. ACCESSORIES
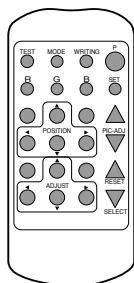
When transporting the machine, make sure that the following parts are supplied.

TABLE 5 a ACCESSORIES

DESCRIPTION	OWNERS MANUAL
Part No. Qty.	999-1769(1)
Note	

Figures

NOTE: Parts not labeled with part numbers are as yet unregistered or cannot be registered. Be sure to handle all parts with care, as some parts are not available for purchase separately.

KEY MASTER
220-5576 (2)

For opening/closing the doors

KEY
(2)

For the CASHBOX DOOR
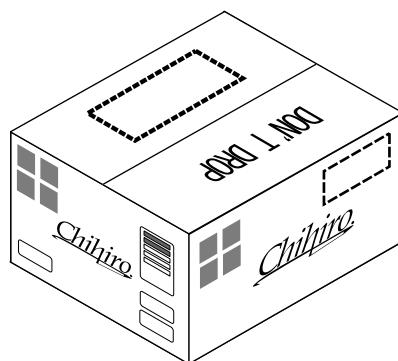
The Keys are inside the Coin Chute Door at the time of shipment from the factory.

TOSHIBA
200-5536 (1)

Remote Controller used for adjustment of the projector.

See Section 11.

The Remote Controller is attached to the Projector at the time of shipment.

CARTON BOX
601-11219-01 (1)

Used for transporting the Game Board.
See FIG. 5 a.

STOP

IMPORTANT!

Replacement or repair of the Game Board (Chihiro) for this product should be undertaken at the appropriate repair center. Be sure to follow the specifications below when requesting repairs/sending the board to the repair center. Not following the specifications may result in the board not being accepted or in extra charges being made.

- Put the game board in the carton box as is. Do not carry out any disassembly or part removal other than that specified.
- Follow the procedure and instructions regarding direction below when placing the Game Board in the carton box.
- When packing the game board with the Media Board attached, do not remove the Key Chip.
- When packing the game board with the Media Board detached, be sure to include the AVIP Cable.
- When packing, attach the accessory stickers in the specified places on the Game Board and carton box.

INSTRUCTIONS

- Wrap the Chihiro Board in a plastic bag.

- Place it on top of the bottom surface cushioning material. Turn the Filter Board to face the side with the three honeycomb buffers. Placing it in the opposite direction may cause damage to the Filter Board.

- Insert corrugated cardboard into the space between the lateral honeycomb buffers of the bottom surface cushioning material and stow the AVIP cable inside.

- Place the Chihiro Board wrapped in the bottom surface cushioning material into the carton box. Use the handles on the bottom surface cushioning material.

- Place the upper surface cushioning material on top of the Chihiro Board. Be sure to align it in the right direction, as it will not fit otherwise.

- Close the top of the carton box and seal it tightly with adhesive tape.

Key Chip

Filter Board

Plastic bag

Top surface cushioning material

Corrugated cardboard

Chihiro Board

AVIP cable

Bottom surface cushioning mat

Handles

Three honeycomb buffers

Box

FIG. 5 a

843-****B

843-****D-02

DON'T DROP

Chihiro

Chihiro

FIG. 5 b

STOP

IMPORTANT!
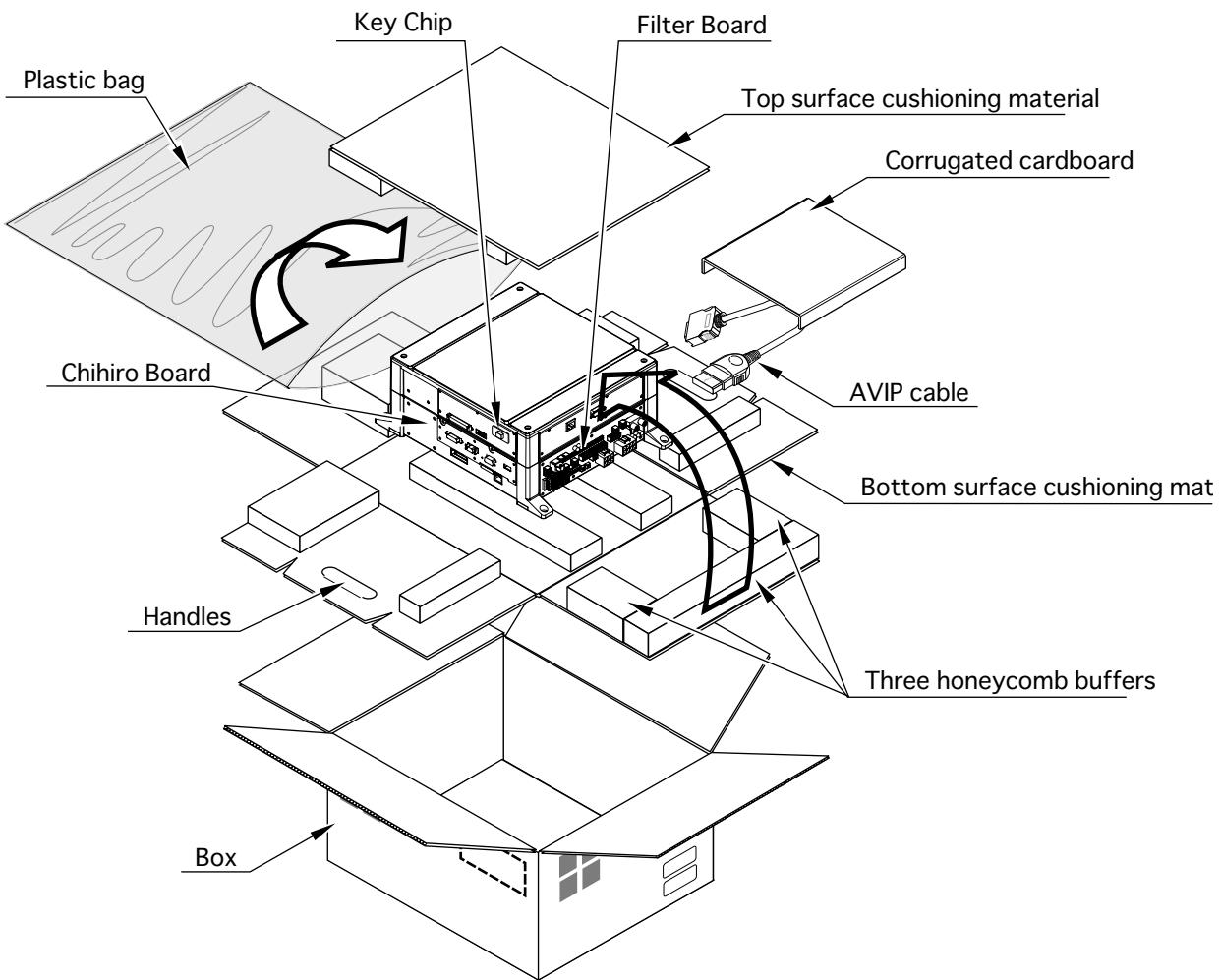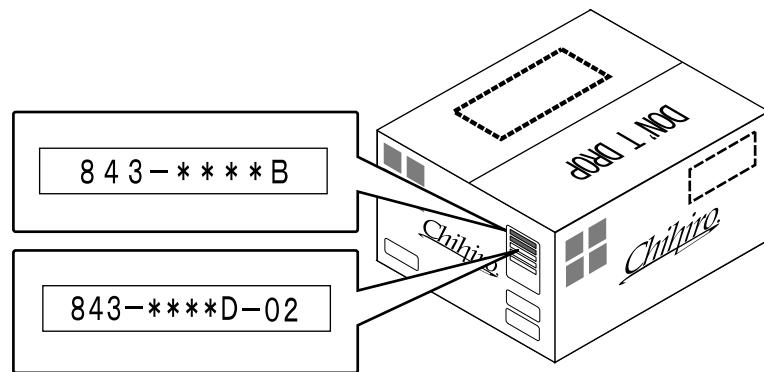
When you want to order for replacing or repairing service of the GD-ROM drive that is used by the product, pack it in a carton box as instructed below, and then deliver the carton box to a service agent. If you do not observe the instruction, your order may not be accepted or may be charged additionally. If you handle the GD-ROM drive differently from the following instructions, its components may be damaged.

● Contain the GD-ROM drive in a dedicated carton box. Do not disassemble it or remove any part from it unless otherwise instructed.

● Before containing the GD-ROM drive in a dedicated carton box, attach the GD-ROM drive lid (DISC LID) onto the drive and fix the lid with a screw.

● Before containing the GD-ROM drive in a dedicated carton box, remove the GD-ROM disc from the drive. Do not attempt to move the GD-ROM drive with a GD-ROM disc inside.

● Before containing the GD-ROM drive in a dedicated carton box, remove the GD-ROM drive bracket. Carefully keep the GD-ROM drive bracket and the 4 set screws, because they will be reused.

● When inserting the GD-ROM drive into a dedicated carton box, be careful about an inserting direction as illustrated below.

● The packing materials in a carton box are used as a cushion. Use them always when inserting the GD-ROM drive into a dedicated carton box. Do not bend them.

Remove the GD drive bracket.
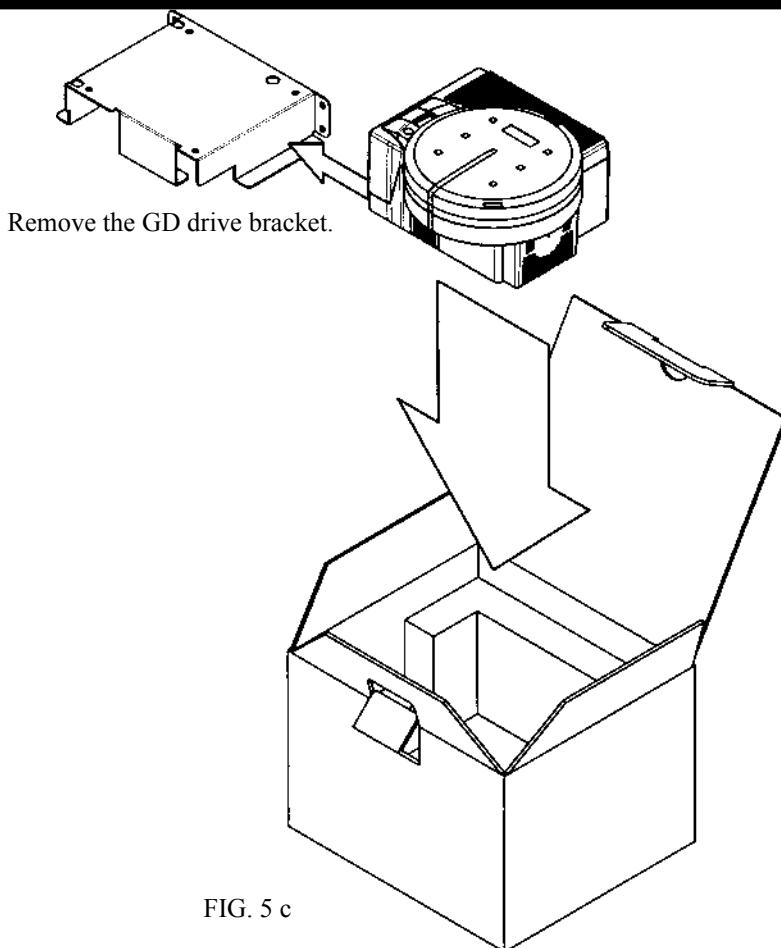
FIG. 5 c

6. ASSEMBLING AND INSTALLATION

⚠ **WARNING!**

- Perform assembly work by following the procedure herein stated. Failing to comply with the instructions can cause electric shock hazard.
- Perform assembling as per this manual. Since this is a complex machine, erroneous assembling can cause an electric shock, machine damage and or not functioning as per specified performance.
- When assembling, be sure to use plural persons. Depending on the assembly work, there are some cases in which working by one person alone can cause personal injury or parts damage.
- Ensure that connectors are accurately connected. Incomplete connections can cause electric shock hazard.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a fire risk.
- Do not carelessly push the PTV. Pushing the PTV carelessly can cause the PTV to fall down.
- This work should be performed by the Location's Maintenance Man or Serviceman. Performing work by non-technical personnel can cause a severe accident such as electric shock. Failing to comply with this instruction can cause a severe accident such as electric shock to the player during operation.
- Provide sufficient space so that assembling can be performed. Performing work in places with narrow space or low ceiling may cause an accident and assembly work to be difficult.
- To perform work safely and avoid serious accident such as the cabinet's falling down, do not perform work in places where step-like grade differences, a ditch, or slope exist.
- Do not use this product with connectors other than those that were connected and used with the Game Board at the time of shipping. Do not carelessly connect wires to connectors that were not used at the time of shipping, as this may cause overheating, smoke or fire damage.
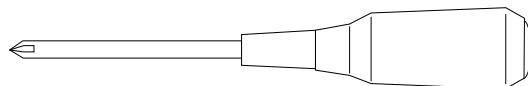
⚠ **CAUTION!**

- When handling plastic parts, use care. Do not give a shock or apply excessive load to the fluorescent lamps and plastic parts. Failure to observe this can cause parts damage, resulting in injury due to fragments, cracks and broken pieces.
- To perform work safely and securely, be sure to prepare a step which is in a secure and stable condition. Performing work without using the step can cause violent falling down accidents.
- Make sure that the GD cable connector is inserted parallel to the plug. Improper insertion may cause damage to the connector and present a fire risk.
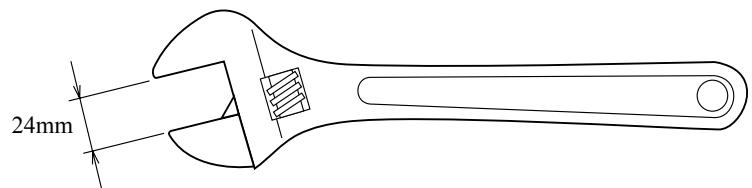
When carrying out the assembling and installation, follow the following 9-item sequence.

1	ASSEMBLING THE PTV
2	ASSEMBLING THE CABINET
3	INSTALLING THE FOOT PEDAL
4	SECURING IN PLACE(ADJUSTER TUNING)
5	INSTALLING THE GD-ROM DRIVE(SETTING THE GD-ROM DISC)
6	POWER SUPPLY, AND EARTH CONNECTION
7	TURNING POWER ON
8	ASSEMBLING CHECK
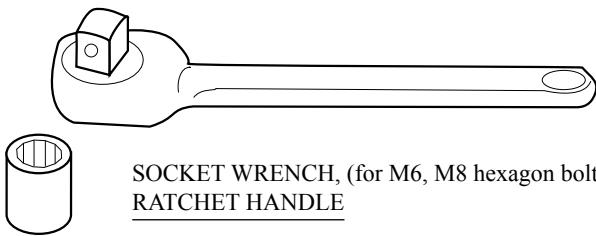
The master key (accessories) in addition to the tools such as a Phillips type screwdriver, wrench, socket wrench and Ratchet Handle are required for the assembly work.
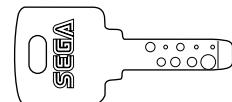
Phillips type screwdriver
(for M3, M4, M5 screw)

24mm

WRENCH (for M16 hexagon bolt)

SOCKET WRENCH, (for M6, M8 hexagon bolt)
RATCHET HANDLE

KEY MASTER

1   ASSEMBLING THE PTV

● By using 2 Flat Head screws, secure the 2 Mask Bracket Uppers to the PTV ceiling.

● Secure the Mask Bracket Lower to the front of PTV with 4 screws.

FLAT HEAD SCREW (2 each)
M4×12

MASK BRACKET UPPER

MASK BRACKET LOWER

TRUSS SCREW (4), black
M5×20
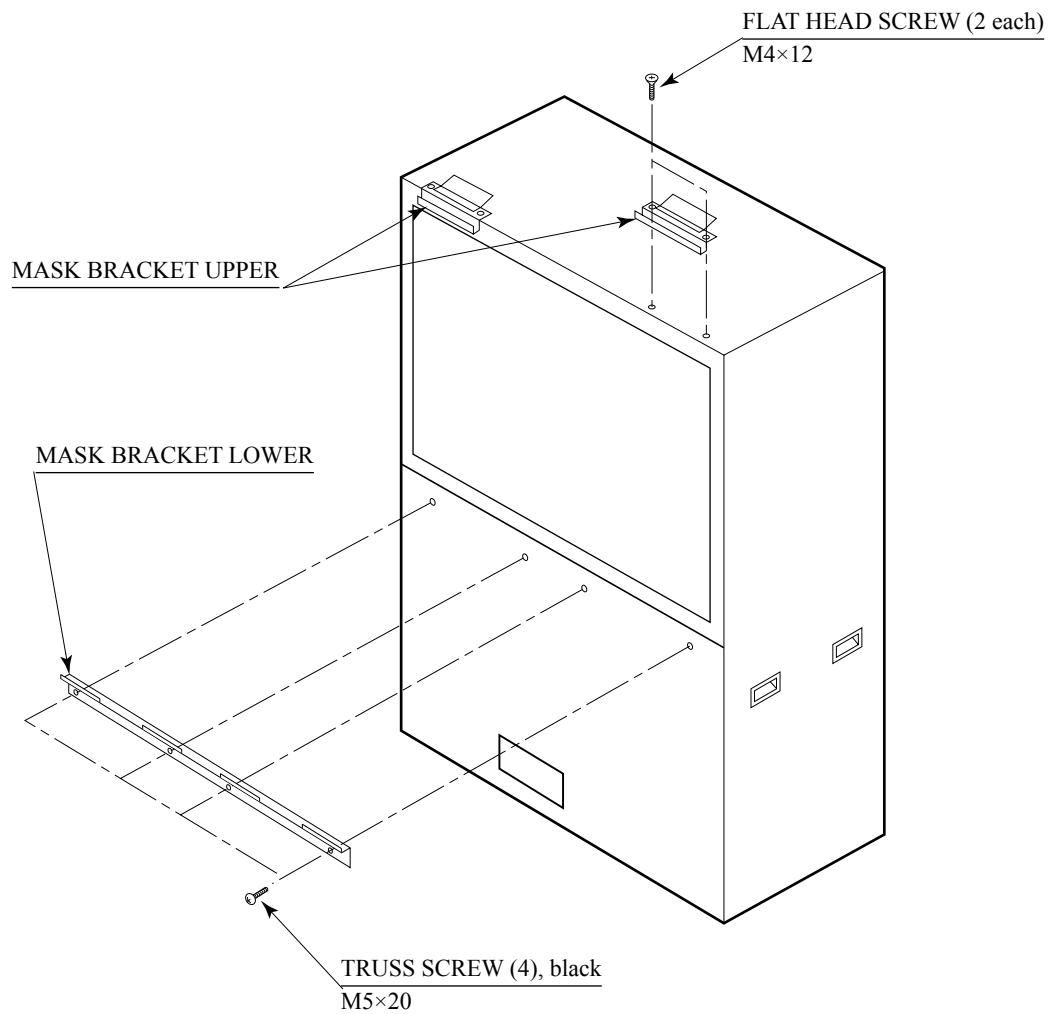
FIG. 6. 1 a

● Install the Mask to the PTV front. Install the Mask in a manner hooking up to both 2 Mask Bracket Uppers and the Mask Bracket Lower. Simultaneously insert the projections of the Mask into the square holes in the PTV Screen left and right.

● Secure the Mask by fastening a screw for each from both sides of PTV.

TRUSS SCREW (2), black
M5×25, flat washer used.

MASK
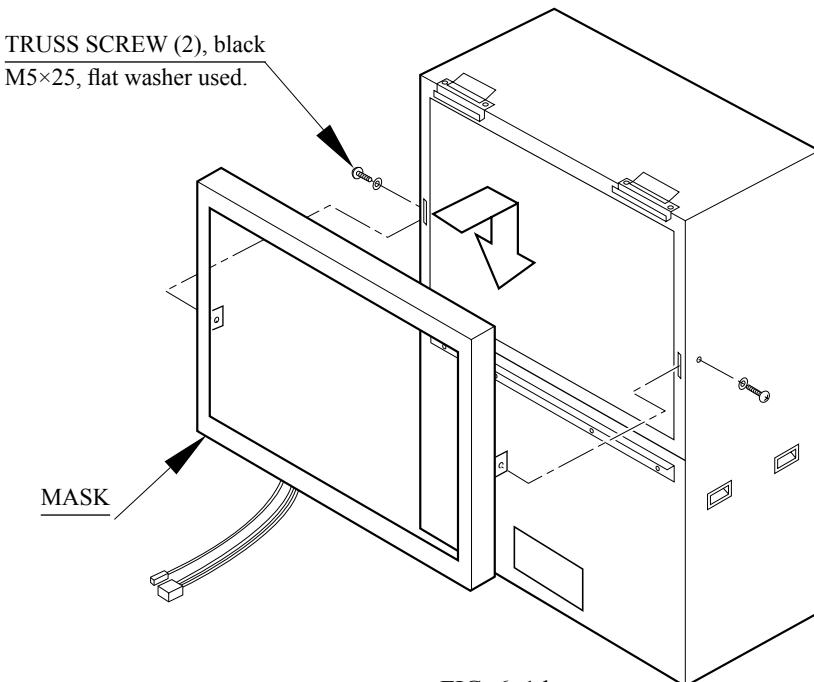
FIG. 6. 1 b

● Secure the 2 PTV Holders to the PTV front with the 2 screws for each.

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

PTV HOLDER
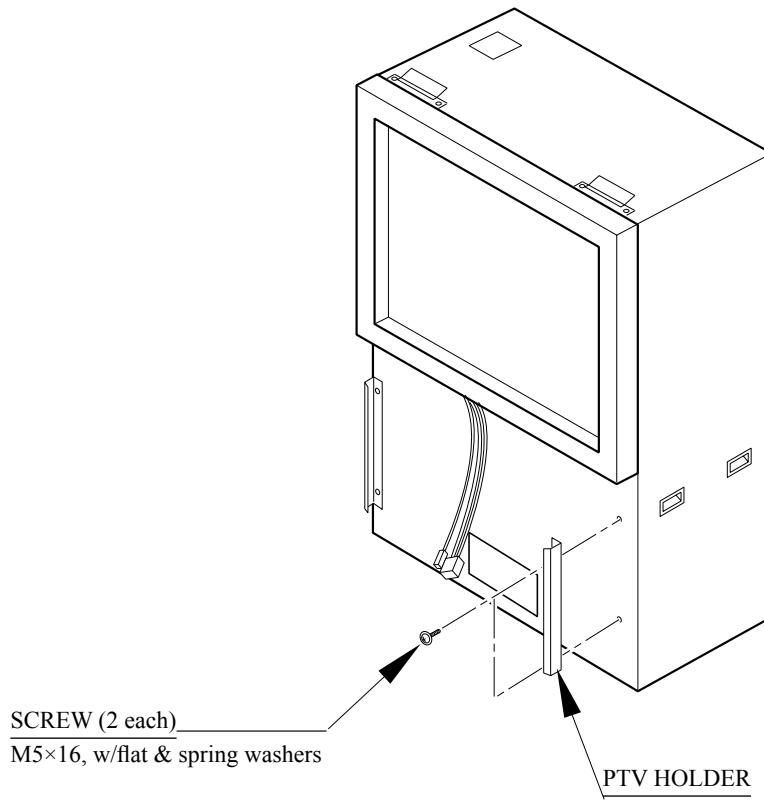
FIG. 6. 1 c

2   ASSEMBLING THE CABINET

● Move the PTV to the rear of the PTV Cabinet.

● Connect wiring between the PTV and the PTV Cabinet.

Connect the Connector.

Connect the Connector.
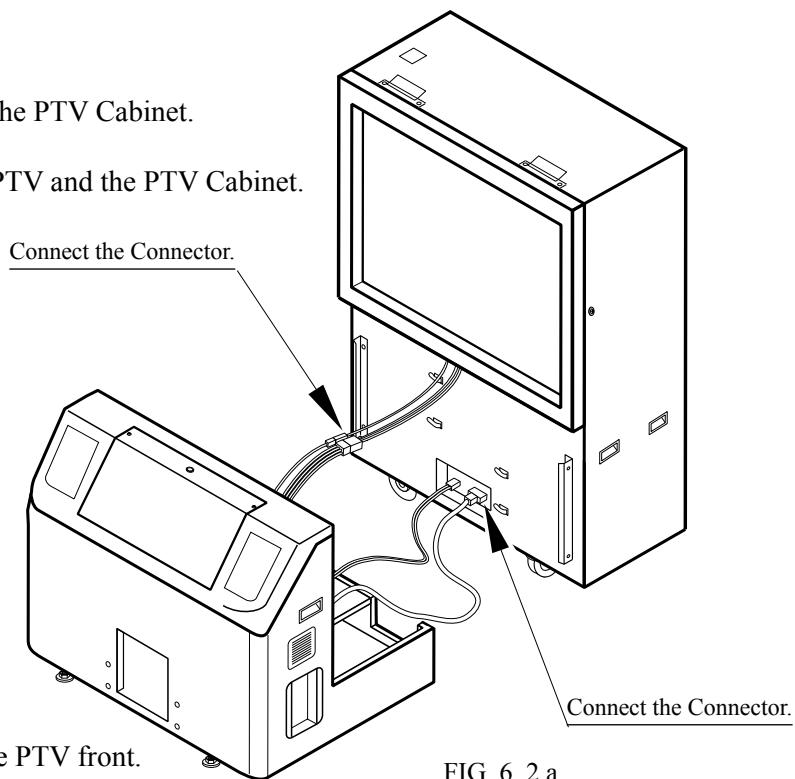
FIG. 6. 2 a

● There are 4 cord clamps in the PTV front. By using the 4 cord clamps, secure the wiring as per the Figure. (FIG. 6. 2 b)

● Mount the PTV onto the PTV Cabinet. Lift the PTV by 3 or more workers while another worker supporting the PTV Cabinet. Be careful so as not to damage wiring at this time.
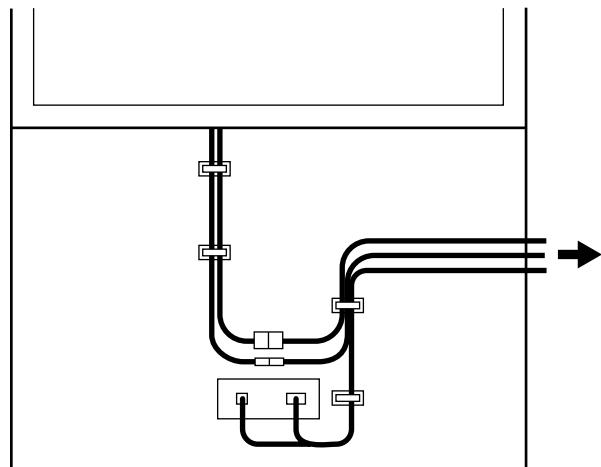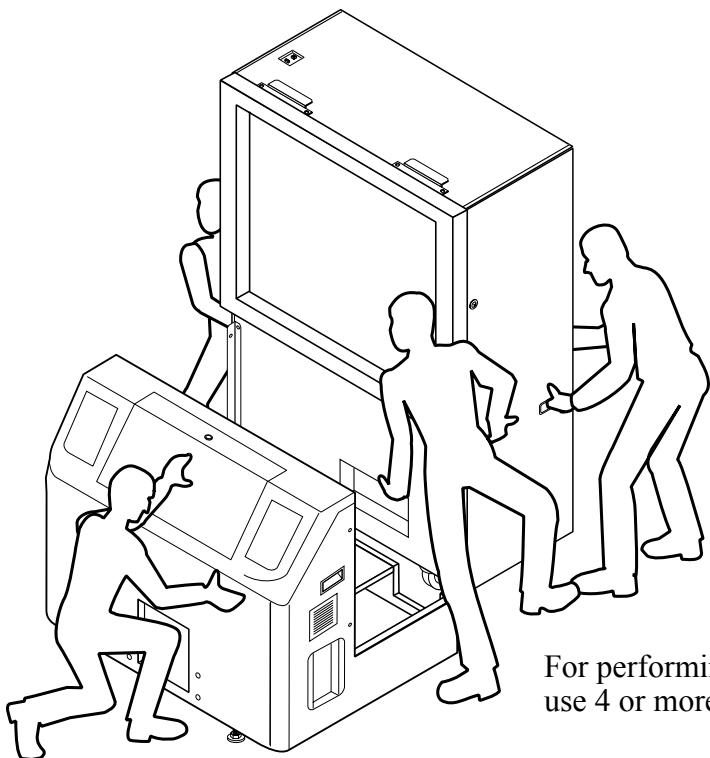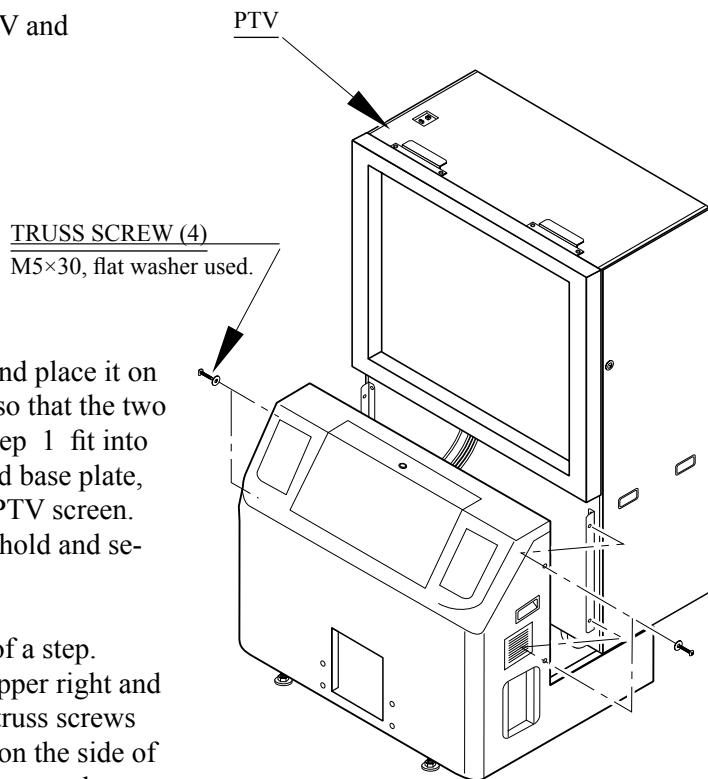
FIG. 6. 2 b

For performing work, use 4 or more workers.

FIG. 6. 2 c

● Secure the joining portion of the PTV and the PTV Cabinet with the 4 screws.

PTV

TRUSS SCREW (4)
M5×30, flat washer used.

● Have two people lift the Billboard and place it on top of the PTV. Place the Billboard so that the two Mask Bracket Uppers attached in Step 1 fit into the rectangular holes in the Billboard base plate, then slide the Billboard toward the PTV screen. Once set, the Mask Bracket Uppers hold and secure the Billboard base plate.

● Perform the following with the aid of a step. Remove the Billboard Lids on the upper right and left of the Billboard. Remove the 2 truss screws holding each Billboard Lid, pull up on the side of the Billboard lid secured by the screws, and remove.

FIG. 6. 2 d
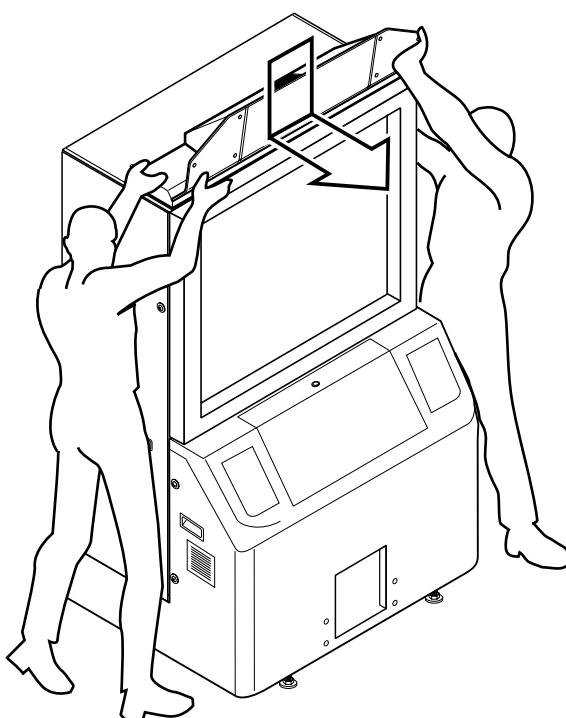
FIG. 6. 2 e
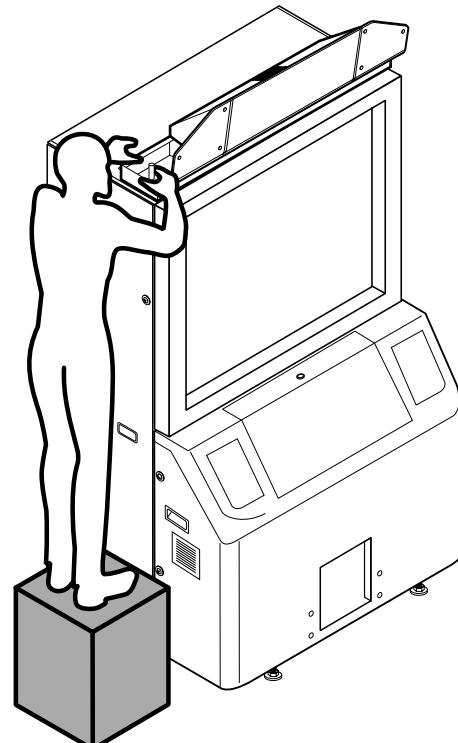
Perform with two people.

FIG. 6. 2 f

Be sure to use a step.

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TRUSS SCREW (2ea), black
M4×8, flat washer used

BILLBOARD LID

PHOTO 6. 2 a

PHOTO 6. 2 b

● Having removed the Billboard
Lids from both sides, attach the
base plate with 2 screws.

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

PHOTO 6. 2 c

● Pull the wires through the rectangular holes on either side of the Billboard and connect them to
the connectors on the roof of the PTV. There are 2 connectors on the left side.

JVS CONNECTOR
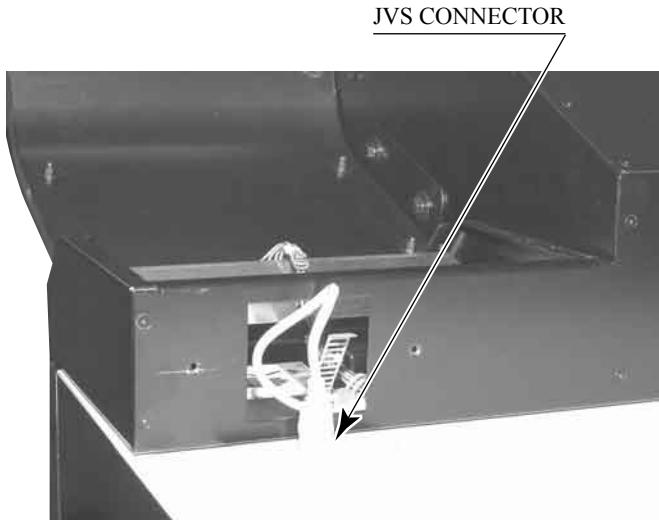
CONNECTOR (2)
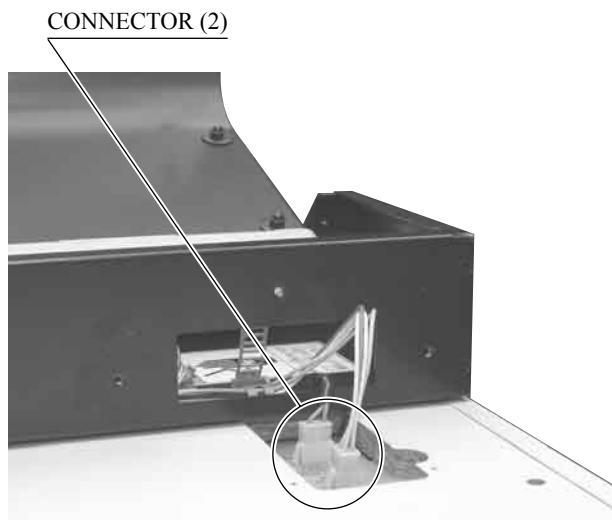
PHOTO 6. 2 d

PHOTO 6. 2 e

● Attach Wire Covers L (left) and R (right) to protect the connectors on the right and left sides of the roof of the PTV. The larger wire cover is Wire Cover L and should be attached to the 2 connectors.

WIRE COVER L   WIRE COVER R
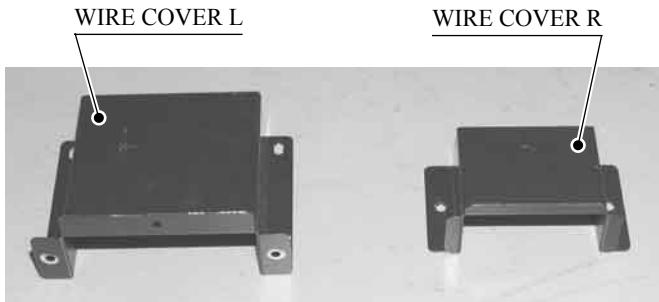
PHOTO 6. 2 f

● Attach Wire Cover L with 4 screws. The screw for the PTV roof is different from the 3 truss screws for the Billboard.

TRUSS SCREW (3), black
M4×8

SCREW (1)
M5×16,
w/flat & spring washers
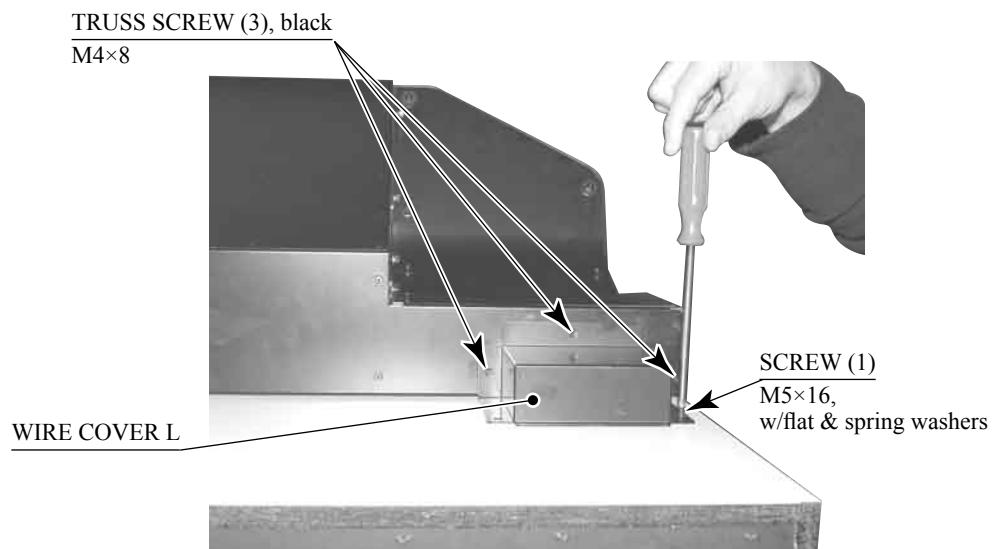
WIRE COVER L

PHOTO 6. 2 g

● Attach Wire Cover R with 2 truss screws.

TRUSS SCREW (2), black
M4×8

WIRE COVER R
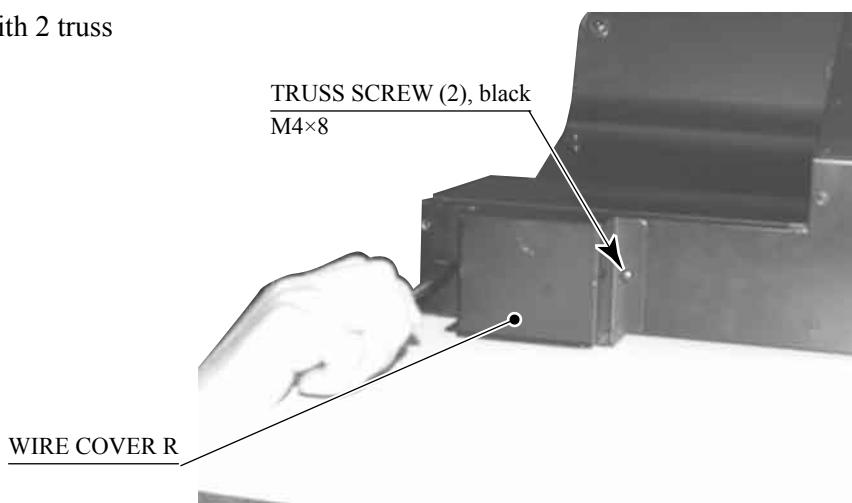
PHOTO 6. 2 h

● Re-attach the Billboard Lids on either side of the Billboard as they were before.

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● Move the controller cabinet nearer to the PTV cabinet.

● Connect the wires between the controller cabinet and the PTV cabinet. Connect the 7 connectors.

● Insert the controller cabinet into a square opening of the PTV cabinet. In this instance, be careful not to catch the wires in the cabinets.

● Attach the joint bracket L and R onto the contacting surfaces of the controller cabinet and PTV cabinet. Carefully use the hexagon head screws because the ones for the former cabinet and the others for the latter cabinet are different in size from each other.

Do not catch the wires in the cabinets.

CONTROLLER CABINET

HEXAGON BOLT (2ea), black
M8×50, w/spring washer,
flat washer used.

HEXAGON BOLT (2ea), black
M8×35, w/spring washer,
flat washer used.

JOINT BRACKET R
OPPOSITE SIDE: JOINT BRACKET L
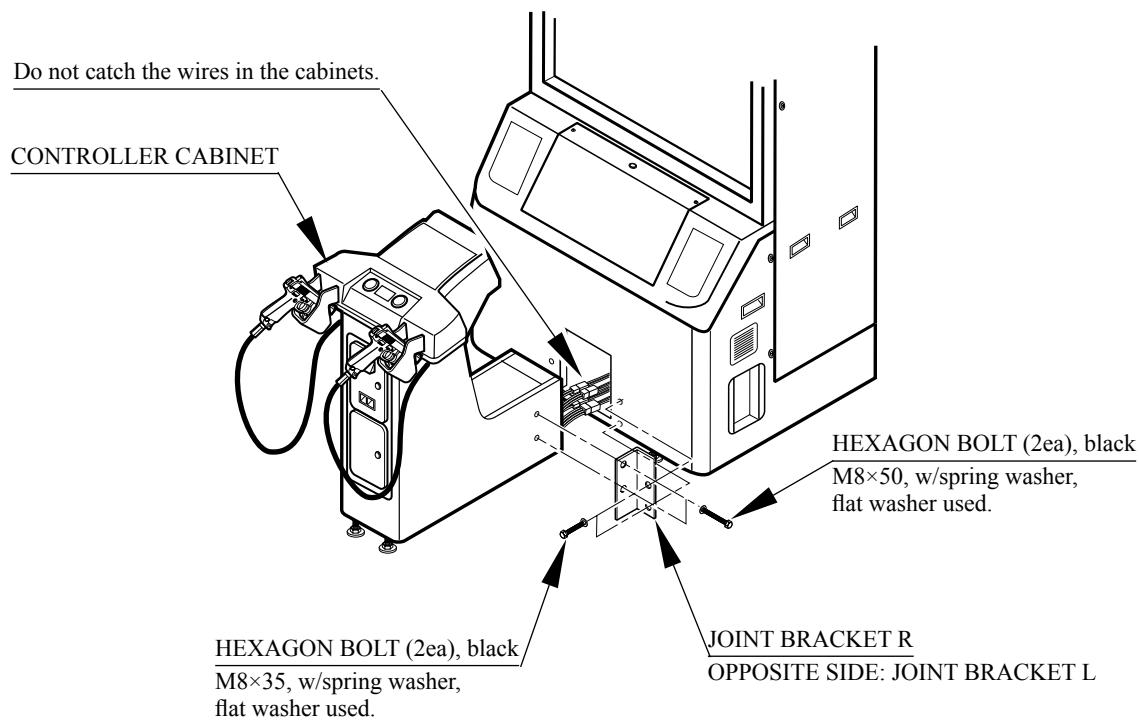
FIG. 6. 2 g

3 INSTALLING THE FOOT PEDAL

Attach the pedal and fence to the left and right of the controller cabinet. The foot base and fence have right and left versions; make sure they are aligned correctly before attaching.

PEDAL (works for both right and left)

PHOTO 6. 3 a

FOOT BASE L

BASE HOLE LID
(works for both right and left)

FOOT BASE R

PHOTO 6. 3 b

FENCE L   FENCE R
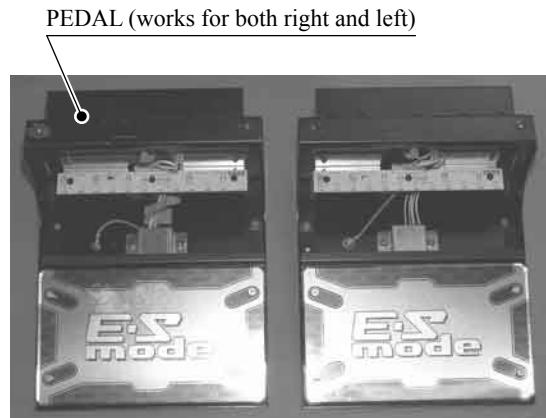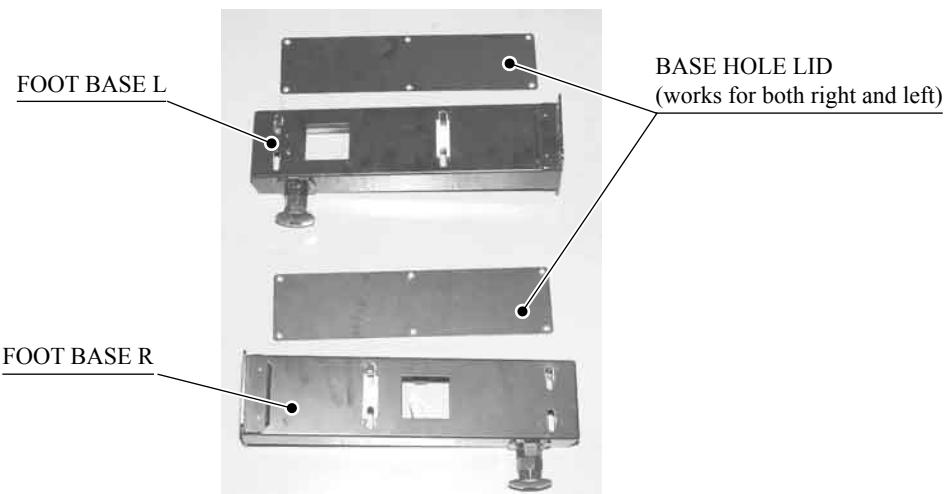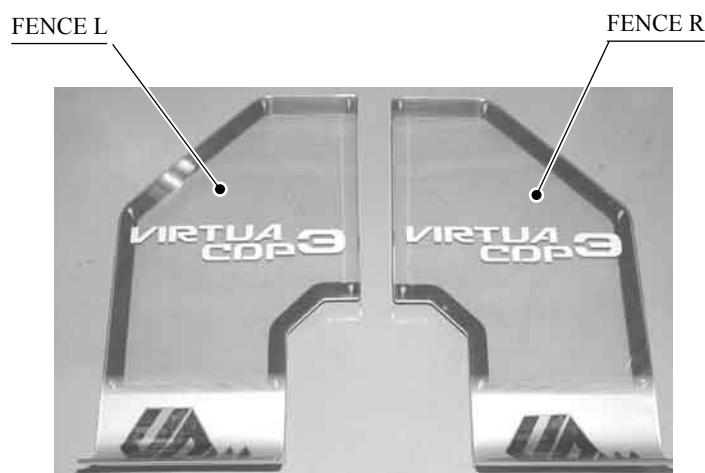
PHOTO 6. 3 c

Instructions for attaching the R (right) side are included in this manual. The procedure for attaching the L (left) side is the same.

● Attach the foot base to the U-shaped bracket sticking out from the side of the controller cabinet by inserting it from the side.
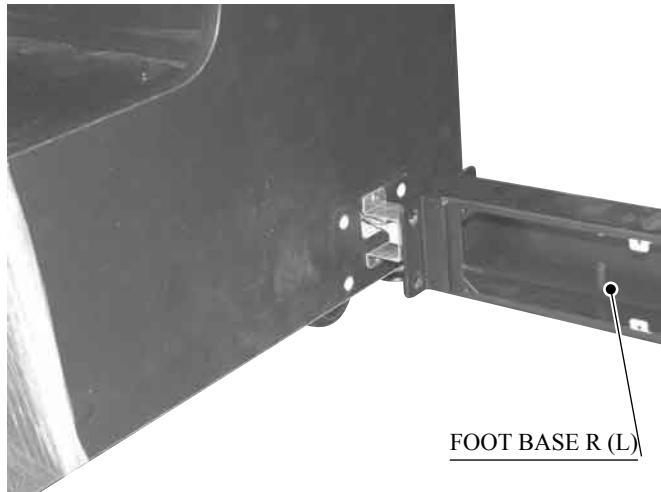
FOOT BASE R (L)

PHOTO 6. 3 d

● Secure the foot base with 4 hexagonal bolts.

HEXAGONAL BOLT (4), black
M8×35, w/spring washer,
flat washer used
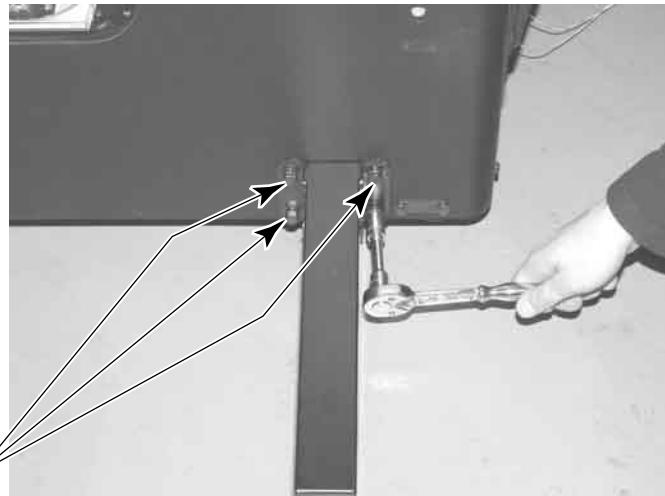
PHOTO 6. 3 e

● Set foot base adjuster.

Set adjuster.
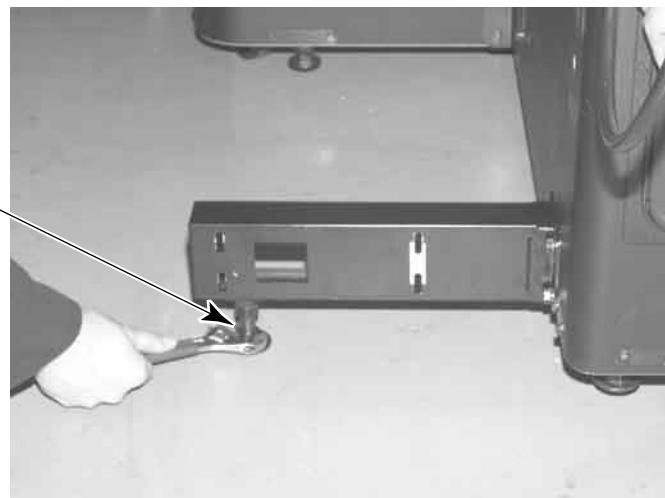
PHOTO 6. 3 f

● Attach the pedal to the foot base using 4 hexagonal bolts. Be sure not to tighten the hexagonal bolts completely.

● Pull wire from the pedal to the foot base and connect the connector on the end of the wire to the connector on the U-shaped bracket. Use the cord clamp in the foot base to secure the wire.

CORD CLAMP

Connect the connector.

PEDAL

HEXAGONAL BOLT (4)
M6×16, w/spring washer,
flat washer used
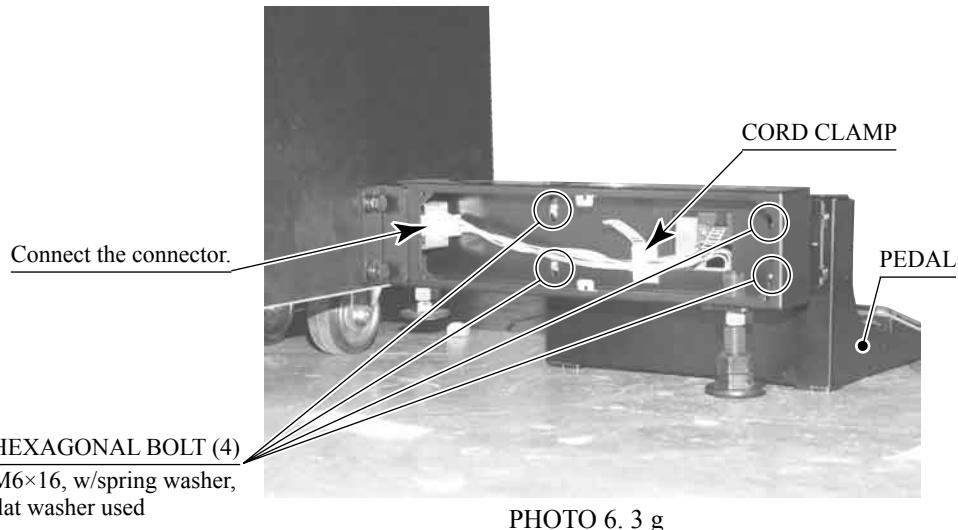
PHOTO 6. 3 g

● Remove the 2 screws and remove the plate sash from the pedal.

SCREW (2), black
M4×8, w/flat & spring washer

PLATE SASH
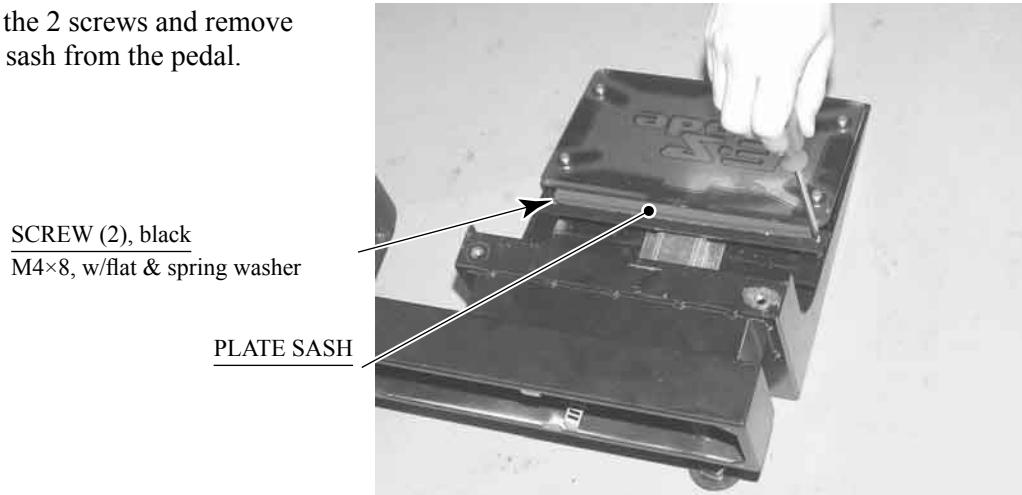
PHOTO 6. 3 h

● Insert the fence into the pedal and attach with 4 hexagonal bolts. Use the large flat washers with the hexagonal bolts used on the cabinet.

FENCE

HEXAGONAL BOLT (2), black
M8×16, w/spring washer, flat washer used
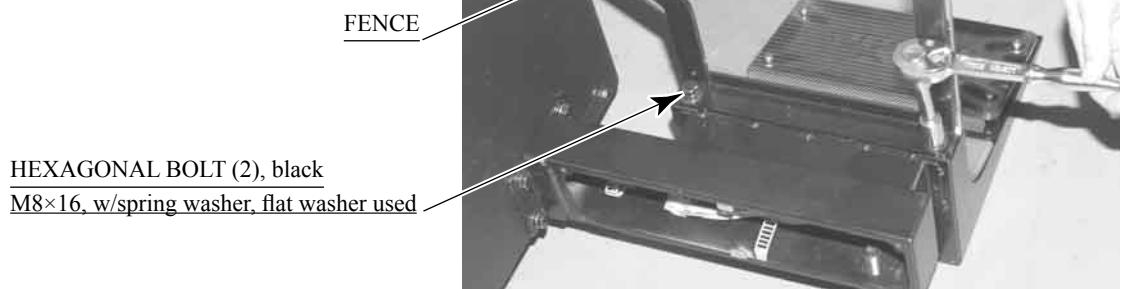
PHOTO 6. 3 i

HEXAGONAL BOLT (2), black
M8×35, w/spring washer, large flat washer used
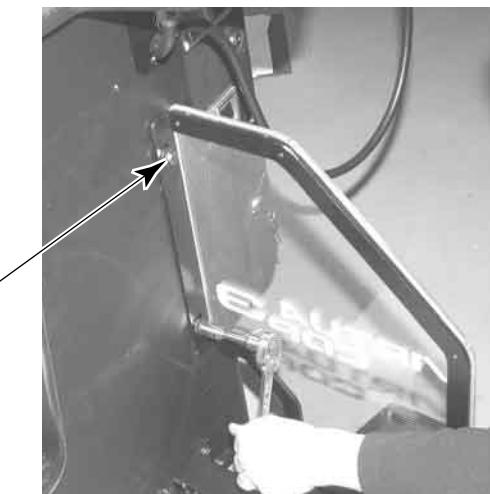
PHOTO 6. 3 j

BASE HOLE LID

● Reattach the plate sash as it was before.

● Securely tighten the 4 hexagonal bolts on the pedal.

● Attach the base hole lid to the foot base and attach 6 screws.

SCREW (6), black
M4×8, w/flat & spring washers
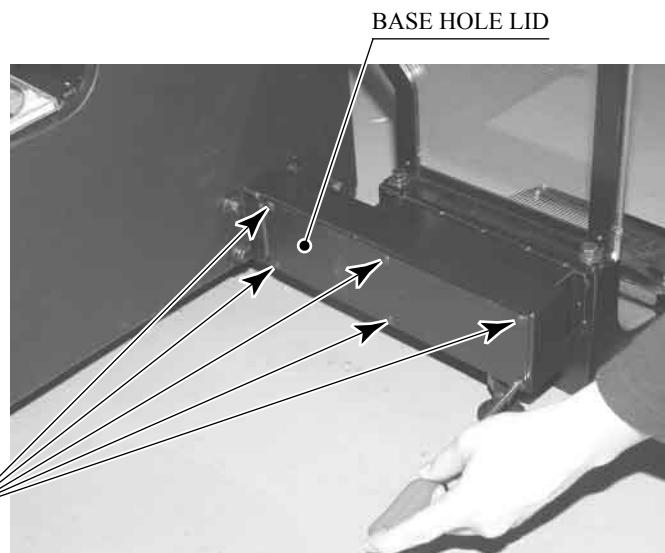
PHOTO 6. 3 k

4 SECURING IN PLACE (ADJUSTER TUNING)

⚠️ **WARNING**

Make sure that all of the adjusters are in contact with the floor. If they are not, the cabinet can move and cause an accident.

This product has 6 casters (4 for PTV Cabinet, 2 for CONTROLLER CABINET) and 8 Adjusters (4 for PTV Cabinet, 4 for CONTROLLER CABINET). (FIG. 6. 5 a) When the installation position is determined, cause the adjusters to come into contact with the floor directly, make adjustments in a manner so that the casters will be raised approximately 5 mm. from the floor and make sure that the machine position is level.

● Transport the product to the installation position.

● Have all of the adjusters make contact with the floor. Adjust the adjuster's height by using a wrench so that the machine position is kept level.
When contacting the adjusters of the right and left fences onto the floor, manually turn them.

● After making adjustment, fasten the adjuster nut upward and secure the height of adjuster.

● Make sure that the pedal base plate is set properly. If it has been set too stiff or too loose, remove the base hole lid from the back side of the foot base, loosen the hexagonal bolts securing the pedal and fence, and correct the position of the pedal.
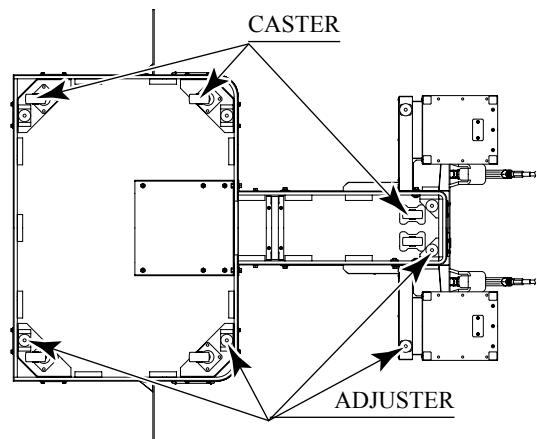
FIG. 6. 5 a BOTTOM VIEW
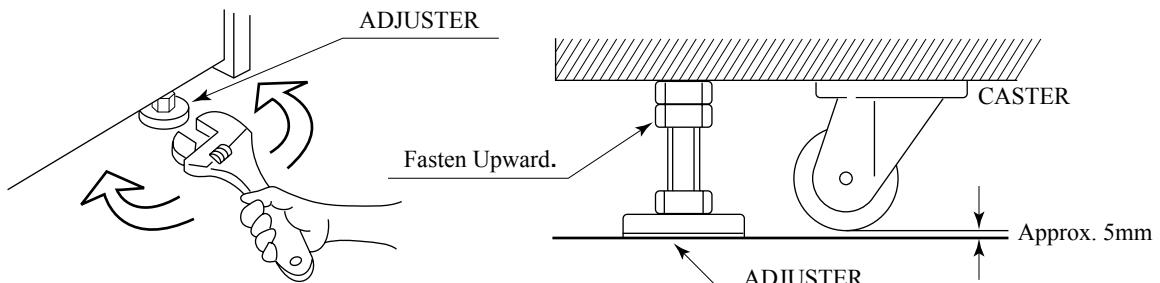
FIG. 6. 5 b ADJUSTER
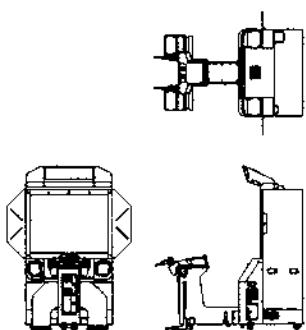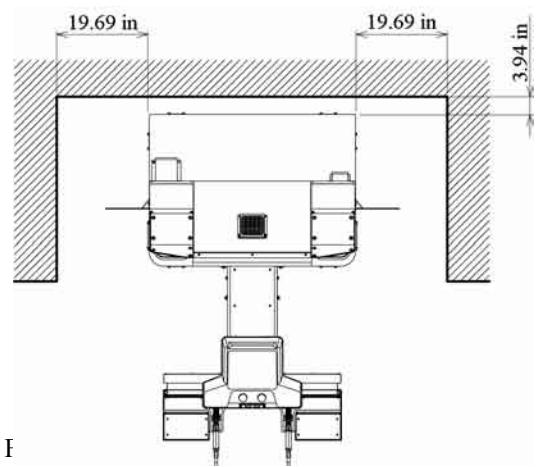
FIG. 6. 5 c
Refer to this Fig. (Scale:1/100) for the layout of the place of installation.

Provide ventilation space for the ventilation opening.

STOP

IMPORTANT

- Carefully handle the GD-ROM drive so as not to contaminate the disc and the readout lens with stains and dust particles.
- Do not continue to use the scratched GD-ROM disc. The scratched GD-ROM disc may cause the system to malfunction.
- Set the GD-ROM disc onto the GD-ROM drive with its labeled side facing upward.
- The key chip is a precision device. Handle it carefully and avoid exposure to heat, shock and static electricity, as these may cause damage to the device.
- The key chip is contained in the GD-ROM disc case. Always use them as a set.

This section explains how to remove the ASSY MAIN BD from the PTV cabinet, set the GD-ROM disc onto the GD-ROM drive, and install the GD-ROM drive onto the ASSY MAIN BD.

- Unpack the shipping crate, and take out the GD-ROM drive, GD-ROM drive bracket, and GD-ROM disc.

GD DRIVE BRACKET   GD-ROM DRIVE

PHOTO 6. 6 a

● Use the 4 tapping screws to fix the GD-ROM drive bracket onto the GD-ROM drive. Be careful about a fixing direction.

TAPPING SCREW (4)
4×8

GD DRIVE BRACKET

GD-ROM DRIVE

FIG. 6. 6 a

Application diagram

Please follow the drawing and place the sticker with the right language.

FIG. 6. 6 b

CAUTION for U. S. A., Europe, and Australia: Attach the 2 caution stickers for a laser ray onto the GD-ROM drive.
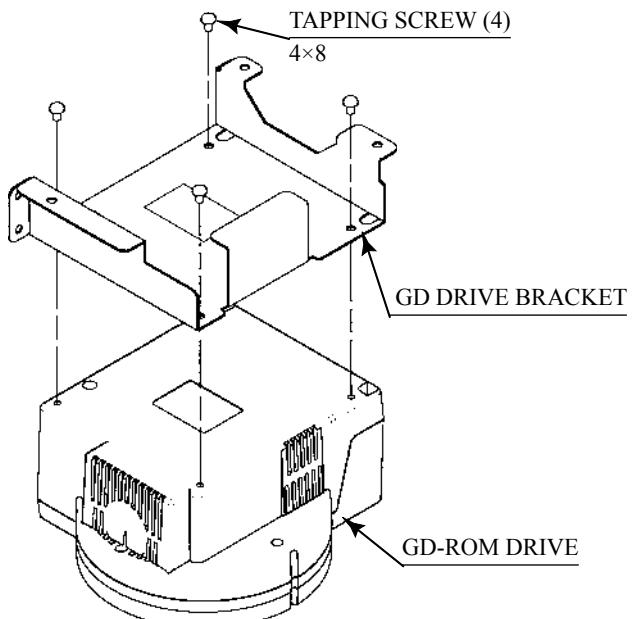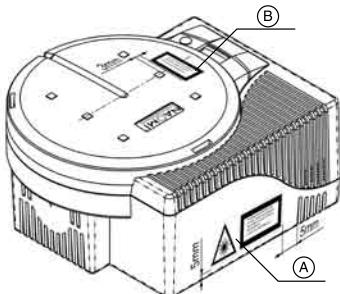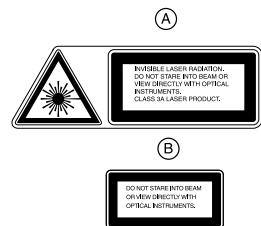
● Remove the 1 truss head screw that fixes the GD-ROM drive lid (DISC LID). And turn clockwise the lid to remove.
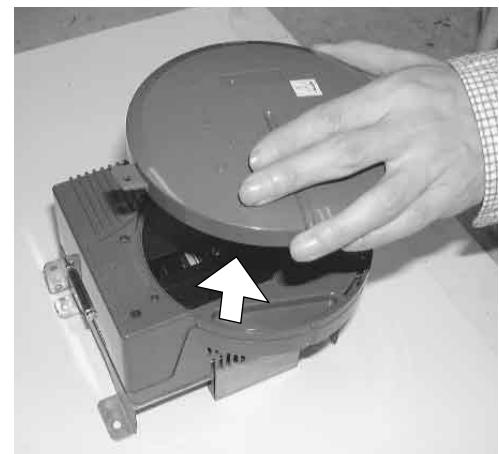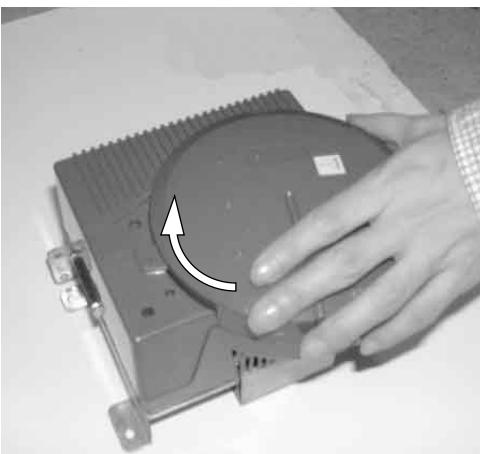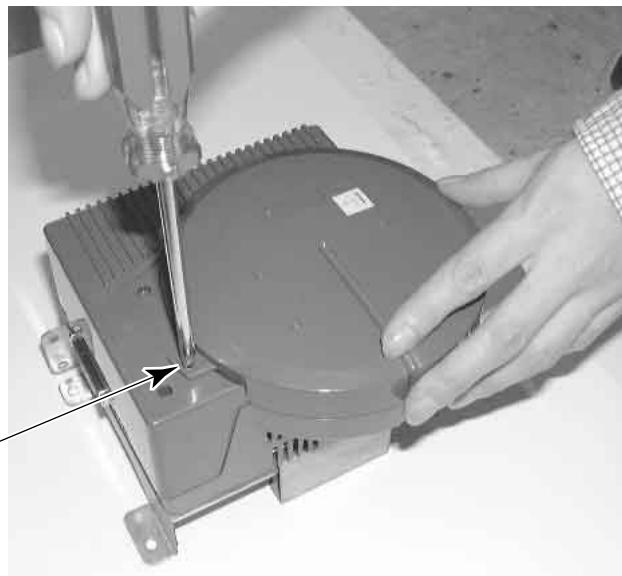
TRUSS SCREW (1)
M3×8

PHOTO 6. 6 b

● Set the GD-ROM disc onto the GD-ROM drive with its labeled side facing upward.

● Return the lid to its original place, and fix it with 1 truss head screw. Be careful not to fasten the screw too tightly.
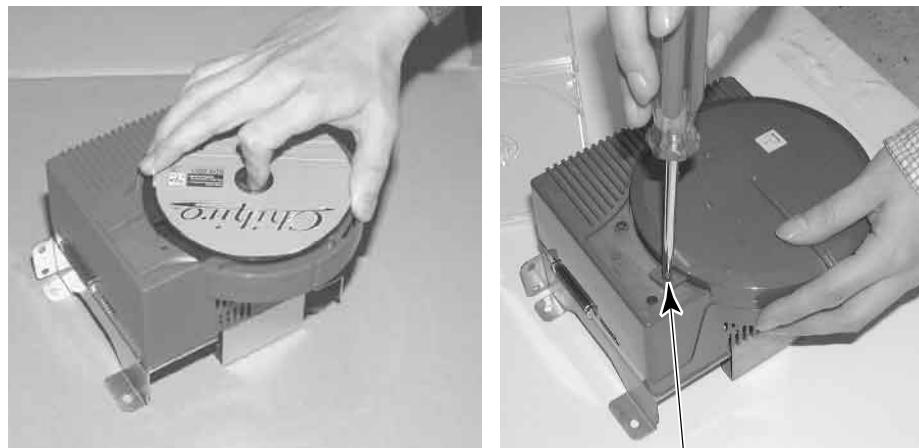
PHOTO 6. 6 c

TRUSS SCREW (1)
M3×8

TRUSS SCREW (2), black
M4×16

● Remove the 2 truss head screws that fix the PTV cabinet lid upper, and unlock. Thus remove the lid upper.

Unlock.

LID UPPER
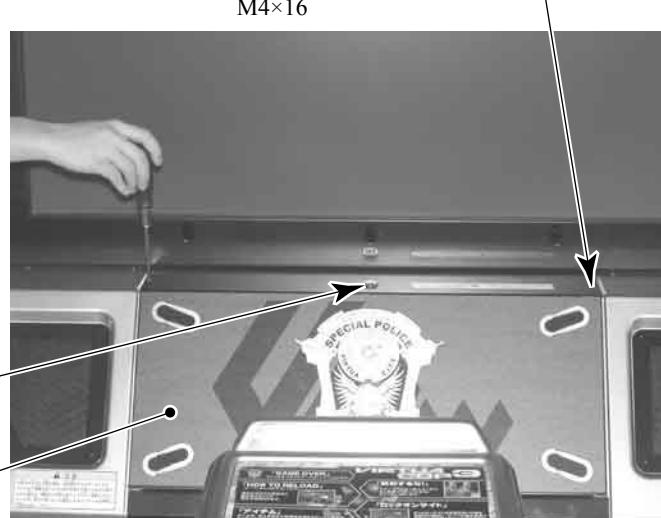
PHOTO 6. 6 d

● Disconnect the connectors between the ASSY MAIN BD inside the PTV cabinet and the wires in the cabinet. There are 3 connectors on the left side.
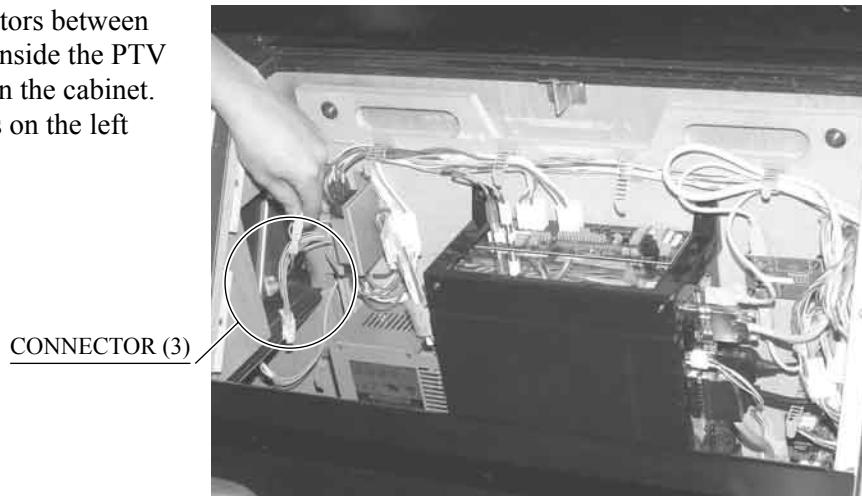
CONNECTOR (3)

PHOTO 6. 6 e

● Unclamp the clamp on the upper right of the ASSY MAIN BD and disconnect the USB connector from the connect board.

Unclamp.

USB CONNECTOR
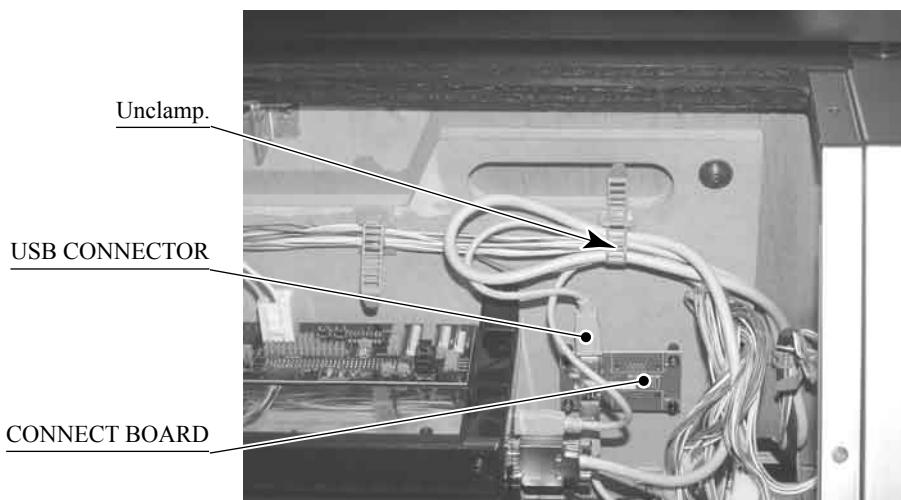
CONNECT BOARD

PHOTO 6. 6 f

● Disconnect 7 connectors.
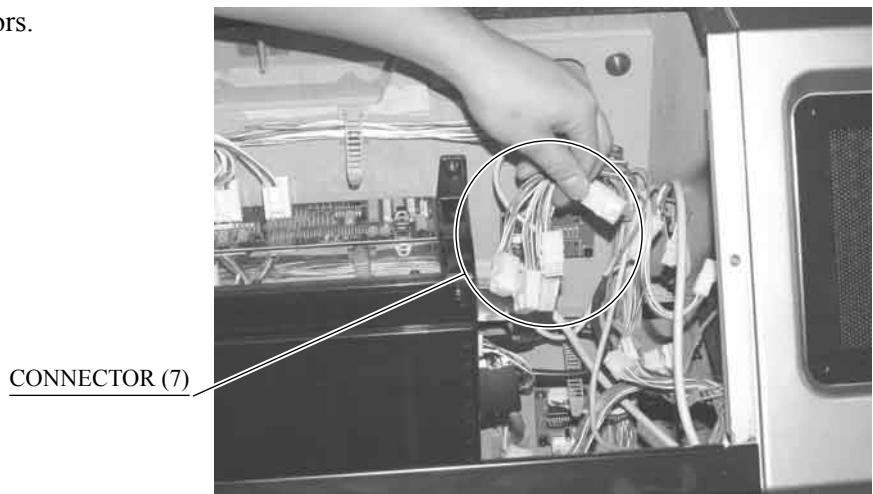
CONNECTOR (7)

PHOTO 6. 6 g

● Find the D-SUB connector that is connected to the game board side of the ASSY MAIN BD, loosen the screws on the right and left of and disconnect.

D-SUB CONNECTOR

PHOTO 6. 6 h

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● Remove the 2 screws that fix the ASSY MAIN BD's base (a wooden base).

● Take out the ASSY MAIN BD from the PTV cabinet. Be careful not to damage the wires in this instance.

SCREW (2)
M5×35, w/spring washer, flat washer used.
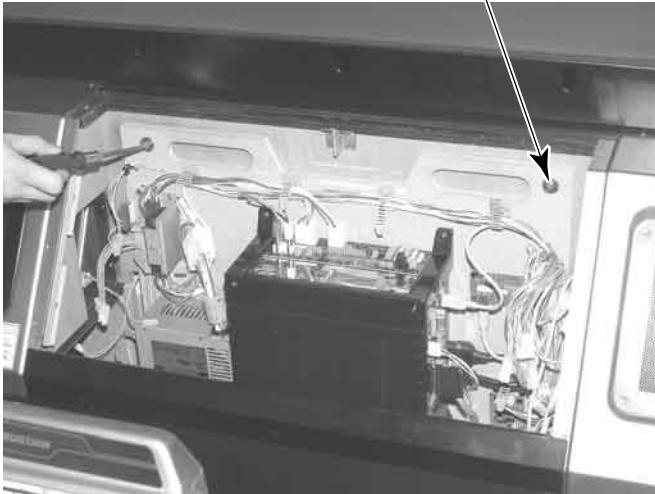
GD-ROM DRIVE dirve is installed here.

PHOTO 6. 6 i

PHOTO 6. 6 j

● Place the ASSY MAIN BD on a flat horizontal surface.

● Using the 4 screws, fix the GD-ROM drive onto the ASSY MAIN BD.

SCREW (4)
M4×16, w/flat & spring washers

PHOTO 6. 6 k

● Insert both the GD cable connector (for data communication) and the power cord connector (JST NH6P) into the GD-ROM drive. Be careful about an inserting direction in this instance. Make sure that the connectors are inserted firmly and completely.

POWER CORD CONNECTOR

GD CABLE CONNECTOR
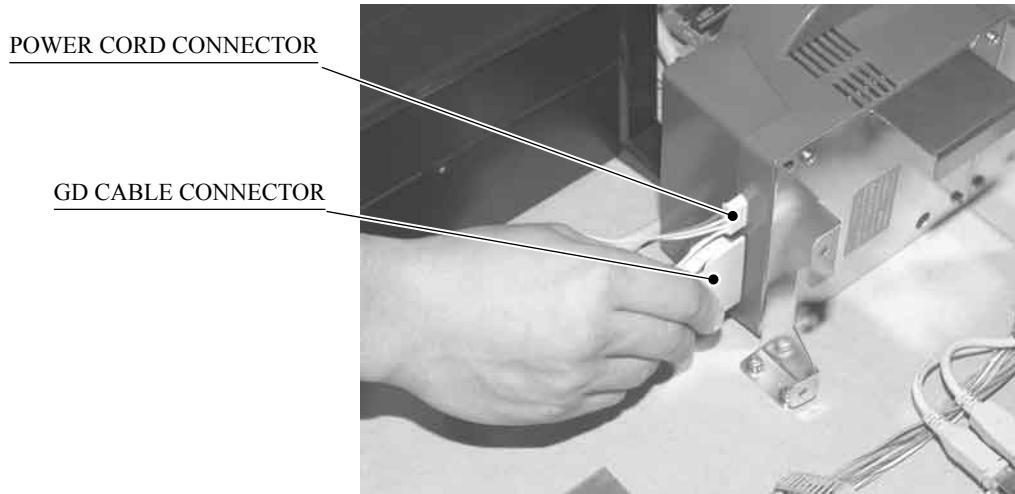
PHOTO 6. 6 l

● Insert Key Chip straight into the hole on the Media Board side of upper part of the Game Board. Be sure to check the alignment of the key chip and push it all the way in.

KEY CHIP
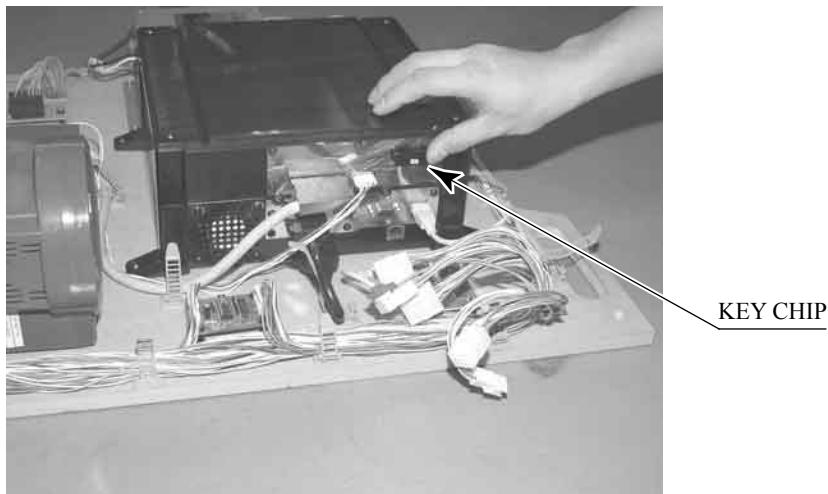
PHOTO 6. 6 m

● Affix the enclosed stickers to the Game Board. Affix the 843-∗∗∗∗D-02 sticker to the Main Board and the 843-∗∗∗∗B sticker to the Media Board. Place the both stickers on top of the stickers already affixed.

MEDIA BOARD

KEY CHIP

8 4 3 − ∗ ∗ ∗ ∗ B

843−∗∗∗∗D−02

MAIN BOARD

FIG. 6. 6 c

PROJECTION
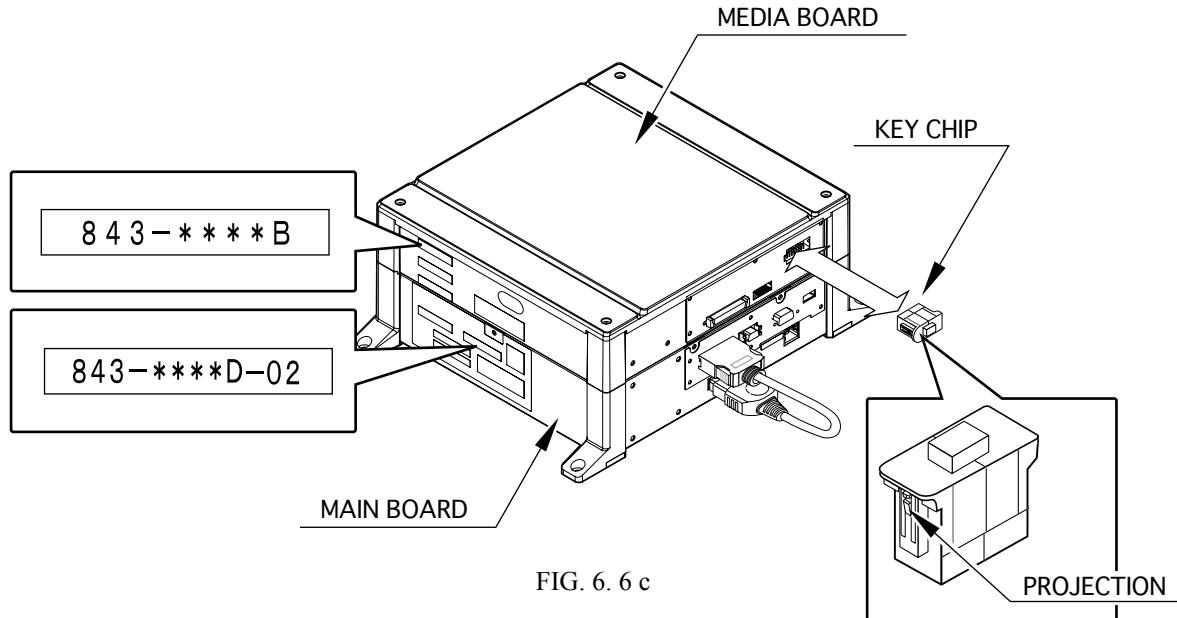
● Return the ASSY MAIN BD (now installed with the GD-ROM drive) into the PTV cabinet. Following the above-described actions in a reverse order, fix the base, connect the connectors, and clamp the wires/cables.

● Return the PTV cabinet lid upper to the PTV cabinet.

WARNING!

- Be sure to independently use the power supply socket outlet equipped with an Earth Leakage Breaker. Using a power supply without an Earth Leakage Breaker can cause a fire when electric leakage occurs.
- Ensure that the "accurately grounded indoor earth terminal" and the earth wire cable are available (except in the case where a power cord plug with earth is used). This product is equipped with the earth terminal. Connect the earth terminal and the indoor earth terminal with the prepared cable. If the grounding work is not performed appropriately, customers can be subjected to an electric shock, and the product's functioning may not be stable.
- Ensure that the power cord and earth wire are not exposed on the surface (passage, etc.). If exposed, they can be caught and are susceptible to damage. If damaged, the cord and wire can cause electric shock and short circuit accidents. Ensure that the wiring position is not in the customer's passage way or the wiring has protective covering.
- After wiring power cord on the floor, be sure to protect the power cord. Exposed power cord is susceptible to damage and causes an electric shock accident.

The AC Unit is located on one side of Cabinet. The AC Unit has Main SW, Earth Terminal and the Inlet which connects the Power Cord.

- Ensure that the Main SW is OFF.

MAIN SW

Main SW off

CIRCUIT PROTECTOR

EARTH TERMINAL <For Taiwan>
Connect with the indoor earth terminal

AC CABLE (POWER CORD)

INLET

To the Power Supply
Socket outlet
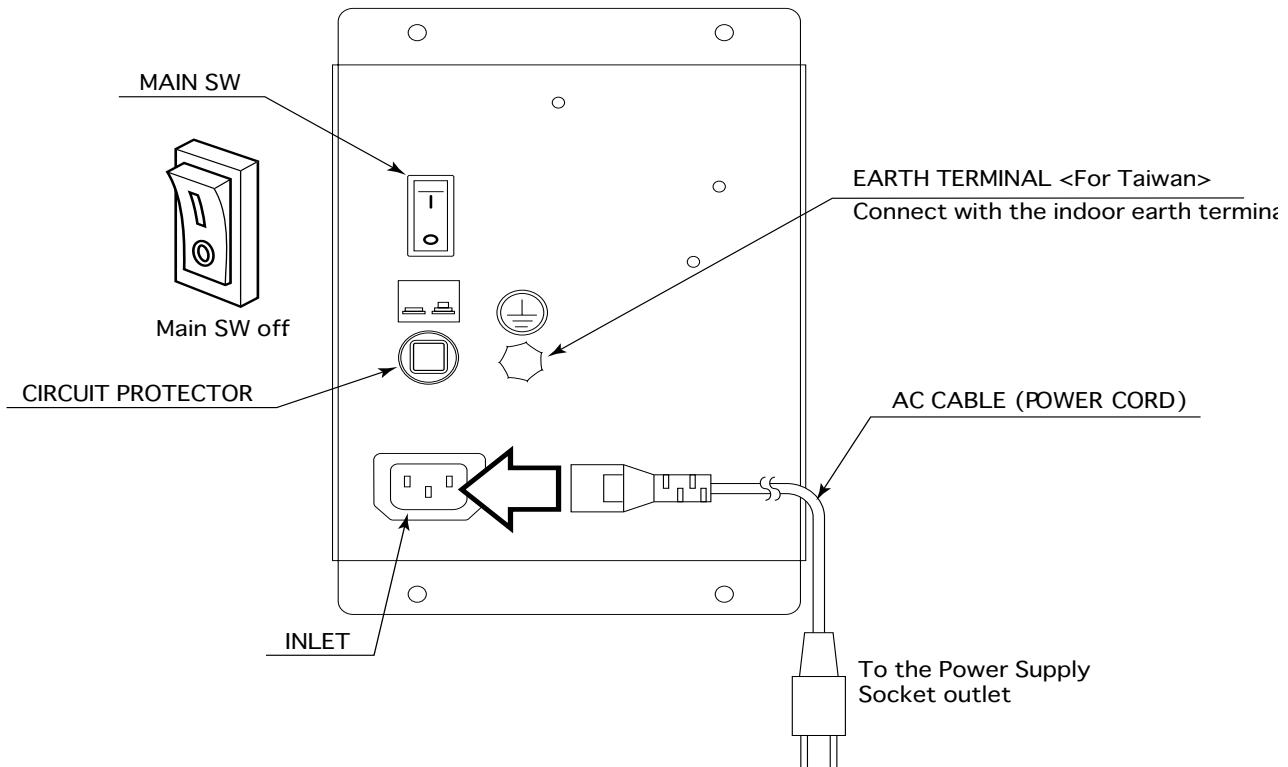
FIG. 6. 7 a AC UNIT   Note: Image may differ from actual unit.

● Connect one end of the earth wire to the AC Unit earth terminal, and the other end to the indoor earth terminal. The AC Unit earth terminal has a Bolt and Nut combination. Take off the Nut, pass the end of earth wire through the Bolt, and fasten the Nut. <For Taiwan>

*Note that the Earth Wire is incorporated in the Power Cord for the Areas of AC 120 V (USA) and AC 220~240 V, and therefore, this procedure is not necessary.

Connect the Earth Wire to the Earth Terminal.
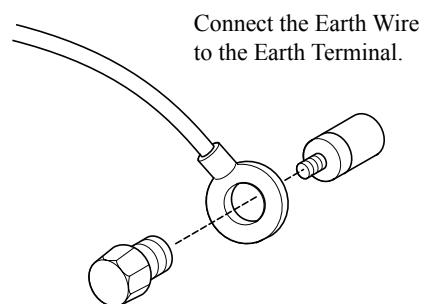
FIG. 6. 7 b *Earth Wire Connection

● Firmly insert the power plug into the socket outlet.
Insert the opposite side of Power Cord plug to the AC Unit's connector ("INLET").

● Perform wiring for the Power Cord and Earth Wire. Install protective covering for the Power Cord and Earth Wire.

□WIRING COVER□
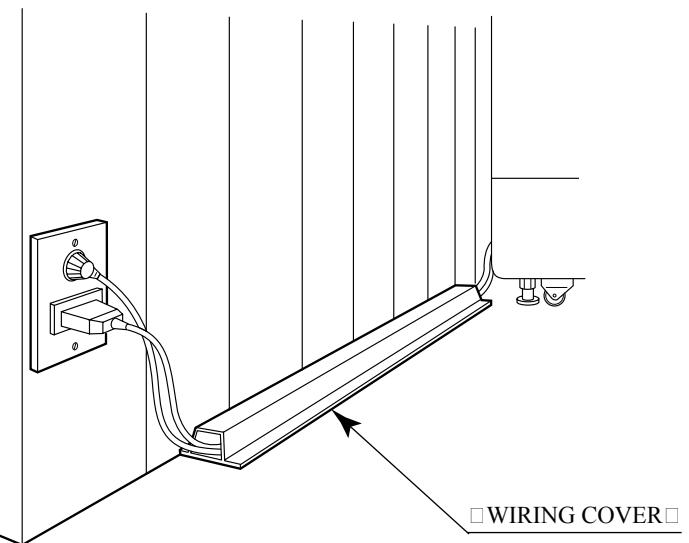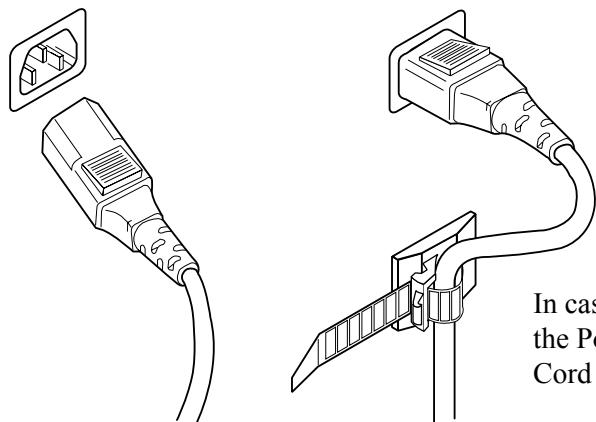
FIG. 6. 7 c Connecting Power Cord and Earth Wire

In case the Power Plug is apt to come out of place, secure the Power Cord to the periphery of the AC Unit with the Cord Clamp (an accessory).
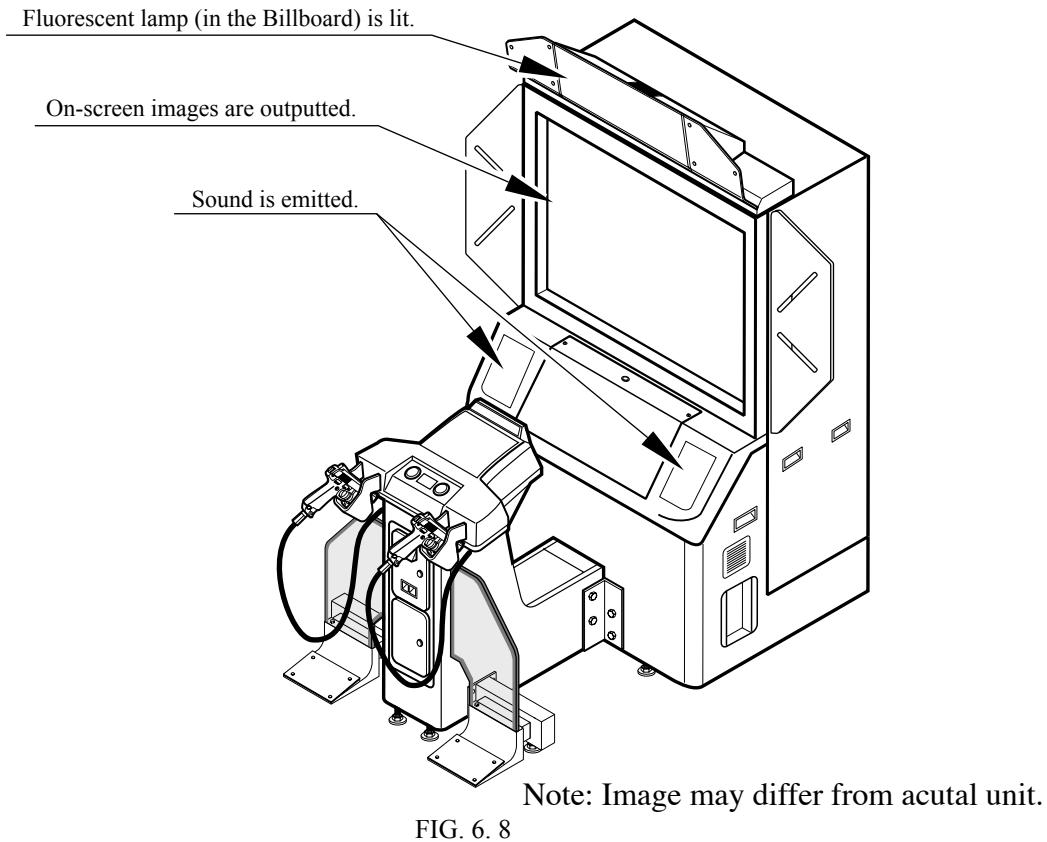
FIG. 6. 7 d HOW TO USE THE CORD CLAMP

7 TURNING POWER ON

Turn on the AC unit's main switch to connect the power. When the power is connected, the fluorescent light in the billboard becomes on. A few seconds later a system startup screen appears and then an advertising screen (plying for a player screen) appears.

Time until displaying an advertising screen is not constant; it varies from some tens of second up to several minutes. This is due to the functional characteristics of the GD-ROM system's rechargeable battery and therefore normal.

When an advertising screen appears, sound is output from the speakers on the right and left of the PTV cabinet. Sound is not output if you have set the function to off.
After the power is disconnected, the system can maintain the data of credit number and ranking. The system cannot maintain, however, the fractional number of coins (not enough for one credit) and the bonus adder count data.

Fluorescent lamp (in the Billboard) is lit.

On-screen images are outputted.

Sound is emitted.

Note: Image may differ from acutal unit.

FIG. 6. 8

ASSEMBLING CHECK
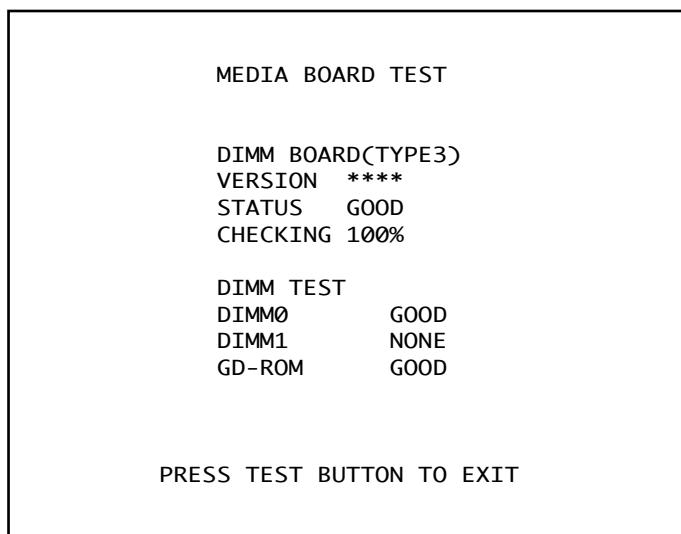
In the TEST MODE, ensure that the assembly has been made correctly and IC BD. is satisfactory (refer to Section 9).
In the test mode, perform the following test:
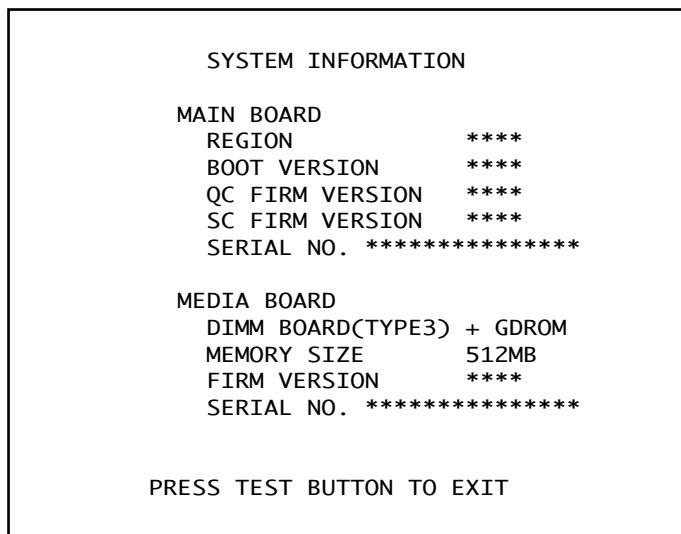
MEMORY TEST

When "MEDIA BOARD TEST" is selected from the System Test Mode Menu Screen the Game Board memory is automatically tested. If the display beside each memory reads "GOOD", the Game Board is functioning correctly.
Also, when "SYSTEM INFORMATION" is selected, Main Board and Media Board data for the Game Board are displayed. If data is displayed correctly, the Game Board is functioning correctly.

```
              MEDIA BOARD TEST


         DIMM BOARD(TYPE3)
         VERSION  ****
         STATUS   GOOD
         CHECKING 100%

         DIMM TEST
         DIMM0         GOOD
         DIMM1         NONE
         GD-ROM        GOOD



      PRESS TEST BUTTON TO EXIT
```
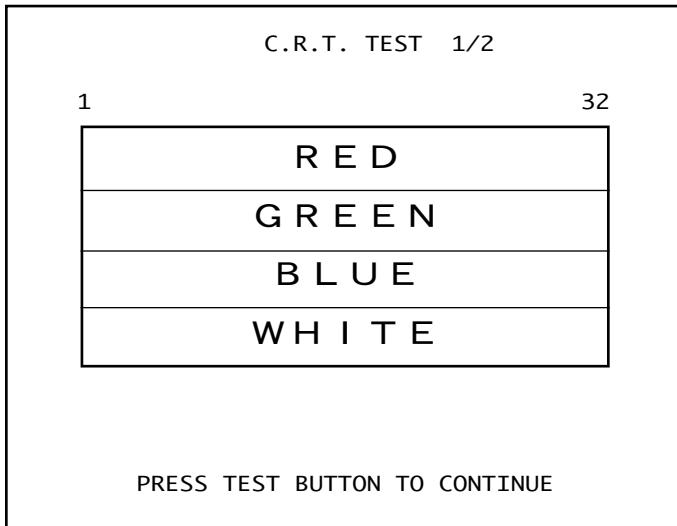
MEDIA BOARD TEST screen

```
           SYSTEM INFORMATION

       MAIN BOARD
         REGION            ****
         BOOT VERSION      ****
         QC FIRM VERSION   ****
         SC FIRM VERSION   ****
         SERIAL NO. **************

       MEDIA BOARD
         DIMM BOARD(TYPE3) + GDROM
         MEMORY SIZE       512MB
         FIRM VERSION      ****
         SERIAL NO. **************


      PRESS TEST BUTTON TO EXIT
```
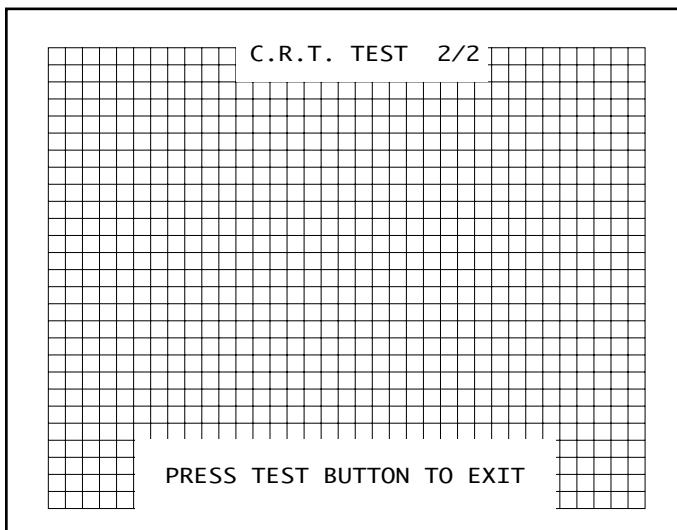
SYSTEM INFORMATION screen

C.R.T. TEST

```
                C.R.T. TEST  1/2

1                                          32

            ┌─────────────────────┐
            │        R E D        │
            ├─────────────────────┤
            │      G R E E N      │
            ├─────────────────────┤
            │      B L U E        │
            ├─────────────────────┤
            │    W H I T E        │
            └─────────────────────┘



            PRESS TEST BUTTON TO CONTINUE
```
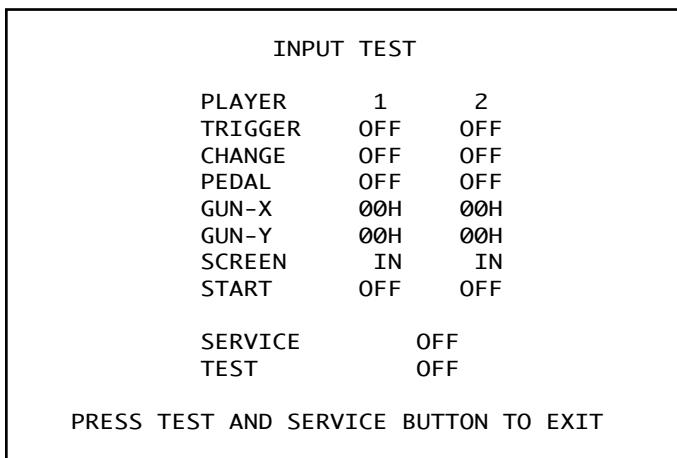
In the TEST mode menu, selecting C.R.T. TEST allows the screen (on which the projector is tested) to be displayed. Although the projector adjustments have been made at the time of shipment from the factory, make judgment as to whether an adjustment is needed by watching the test mode screen. If it is necessary, adjust the projector by referring to Section 11.

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









                PRESS TEST BUTTON TO EXIT
```

INPUT TEST
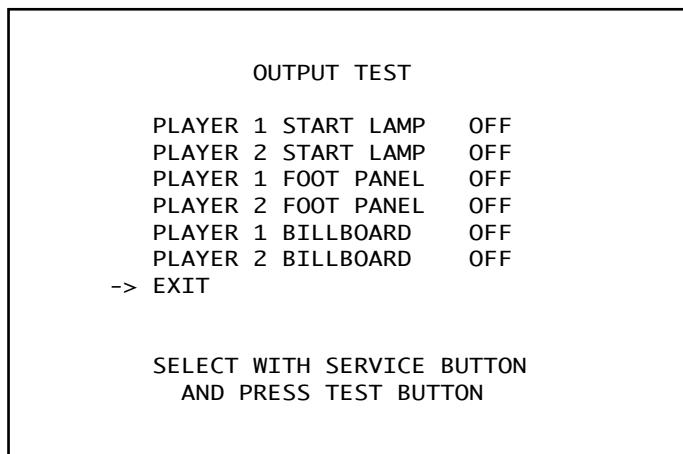
```
                    INPUT TEST

        PLAYER       1       2
        TRIGGER     OFF     OFF
        CHANGE      OFF     OFF
        PEDAL       OFF     OFF
        GUN-X       00H     00H
        GUN-Y       00H     00H
        SCREEN       IN      IN
        START       OFF     OFF

        SERVICE         OFF
        TEST            OFF

    PRESS TEST AND SERVICE BUTTON TO EXIT
```

Selecting the INPUT TEST on the game test mode menu screen causes the screen (on which each switch is tested) to be displayed. Press each switch. If the display beside each switch indicates "ON," the switch and wiring connections are satisfactory.
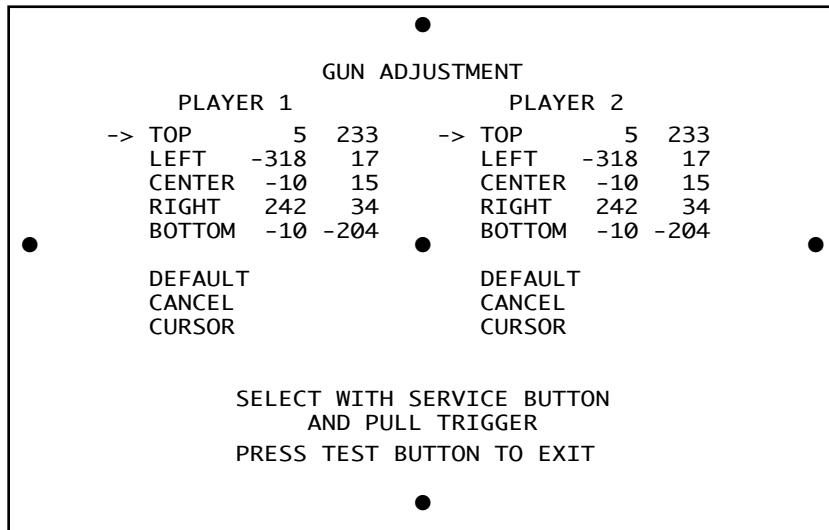
OUTPUT TEST

Select OUTPUT TEST from the menu in the test mode to cause the screen (on which each lamp and wiring connections are tested) to appear. Ensure that lamp light up satisfactorily.

```
              OUTPUT TEST

     PLAYER 1 START LAMP   OFF
     PLAYER 2 START LAMP   OFF
     PLAYER 1 FOOT PANEL   OFF
     PLAYER 2 FOOT PANEL   OFF
     PLAYER 1 BILLBOARD    OFF
     PLAYER 2 BILLBOARD    OFF
  -> EXIT


     SELECT WITH SERVICE BUTTON
       AND PRESS TEST BUTTON
```

GUN ADJUSTMENT

Before starting the operation, play the game by yourself and make sure that the gun readjustment is not needed and that you can play the game without a problem. Although completed at the factory, the gun adjustment may be necessary because of the moving/shipping divergence.

```
                      ●
              GUN ADJUSTMENT
        PLAYER 1            PLAYER 2
  -> TOP       5  233   -> TOP       5  233
     LEFT   -318   17      LEFT   -318   17
     CENTER  -10   15      CENTER  -10   15
     RIGHT   242   34      RIGHT   242   34
     BOTTOM  -10 -204      BOTTOM  -10 -204
●                      ●                      ●
     DEFAULT               DEFAULT
     CANCEL                CANCEL
     CURSOR                CURSOR


        SELECT WITH SERVICE BUTTON
            AND PULL TRIGGER
        PRESS TEST BUTTON TO EXIT

                      ●
```

Perform the above inspections also at the time of monthly inspection.
As for the gun adjustment described in Part (5) above, weekly confirm that the gun is properly adjusted.

⚠ **WARNING!**

- In order to prevent electric shock and short circuit hazards, be sure to turn power off before performing work.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a fire risk.
- Do not expose the IC BD, etc. without a good reason. Failure to observe this can cause electric shock hazard or malfunctioning.
- Work should be performed by the Location's Maintenance Man or technical personnel. Performing work by those who do not have technical knowledge and expertise can cause electric shock accident or malfunctioning.

When the game machines of a same or similar type are installed side by side, their sensors may interfere with each other. To reject the interference, follow the procedure below.
The following game machines employ a same or similar type of sensor. If interference happens to the sensors, operation of the games may be mutually disturbed.

- THE HOUSE OF THE DEAD 2, U/R type, DX type and Super DX type
- THE LOST WORLD, U/R type, DX type and Super DX type
- BRAVE FIRE FIGHTERS
- CONFIDENTIAL MISSION, U/R type and DX type
- THE MAZE OF THE KINGS, U/R type and DX type
- THE HOUSE OF THE DEAD 3, U/R type and DX type
- VIRTUA COP 3, U/R type and DX type

- Disconnect the power.

- Remove the 2 truss head screws that fix the PTV cabinet lid upper, and unlock. Thus remove the lid upper.

- An interference prevention wire is connected to the board on the back of the Lid Lower.

  If the game machines of a same or similar type are installed side by side, place them alternately (place the machine with an interference prevention wire next to the machine without).

INTERFERENCE PREVENTION WIRING
SMB-60028
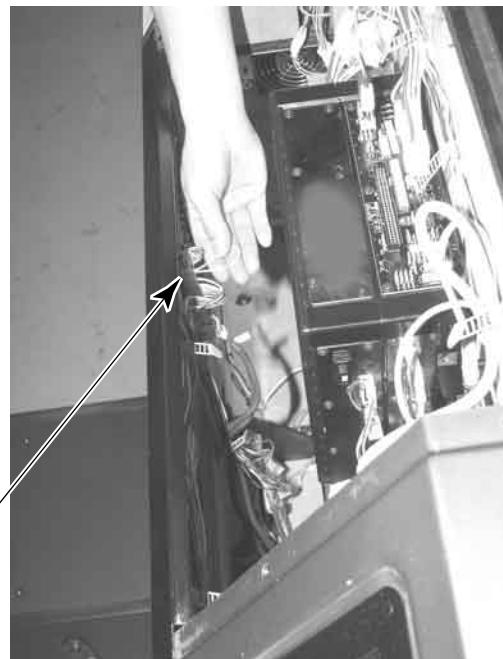
PHOTO 6. 9

7. PRECAUTIONS 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 cause the power cord to be damaged and could result in a fire and 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 and earth wires. Damaging the power cords can cause an electric shock and or short circuit.
- In places where step-like grade differences exist, be sure to separate the PTV, PTV Cabinet, and the Controller Cabinet. Inclining the PTV as is mounted on the PTV Cabinet can cause the PTV to fall off from the Base and result in injury.
- When lifting the cabinet, be sure to hold the grip 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.
- When moving the PTV, do not push it from the rear side. Push it from sideways. Pushing the PTV from the rear side can have the PTV fall down, causing personal injury etc. In case the floor has slanted surfaces or step-like differences, be sure to move the machine by 2 or more persons.
- When the Cabinet is disassembled, the detached Controller Cabinet may be unstable.
  If it is carelessly pushed, it can fall and cause accidents. When the Control Cabinet is detached, place it in on a level surface and be careful not to tip it right or left when moving it.

CAUTION!

- Do not move the product with a GD-ROM disc inside. Remove the GD-ROM disc before moving the product.
  Failure to observe this instruction may cause the GD-ROM disc and/or GD-ROM drive to be damaged.
- Do not hold or press the plastic parts as indicated by the Figure 7c. Failure to observe this instruction may break the parts, and eventually the broken pieces may cause a personal injury.
- When moving the machine, be sure to remove the foot pedals. Moving with the foot pedals may cause an accident, and deform or damage the part/floor.

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

Have caster make contact with the floor.

FIG. 7 a

GRIP PORTION
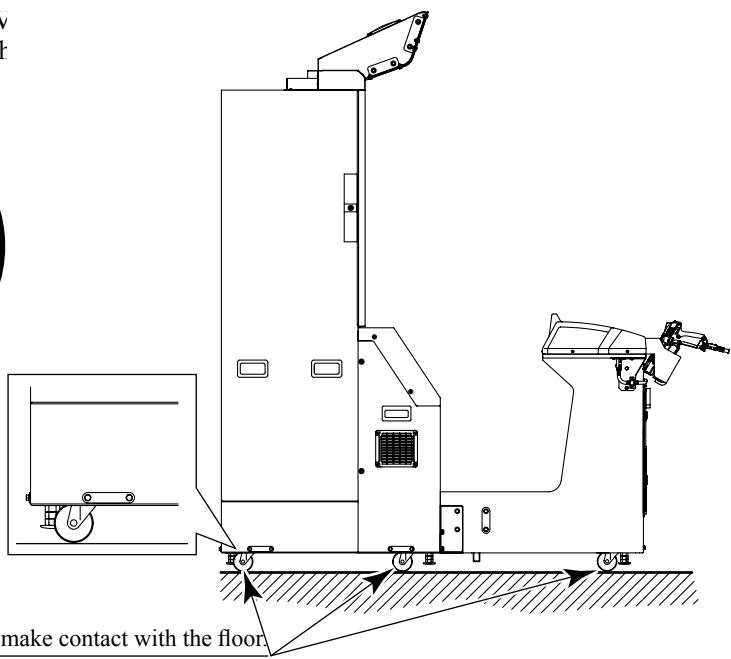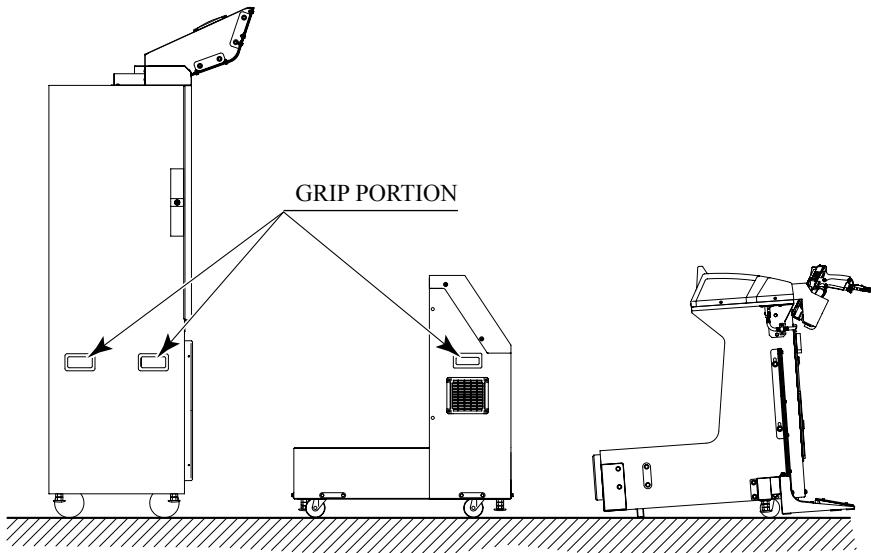
When transporting the
product in places with steps
or step-like differences in
grade, disassemble into each
unit before transporting.

FIG. 7 b

Do not hold press these
hatched parts to move the
product.

FIG. 7 c

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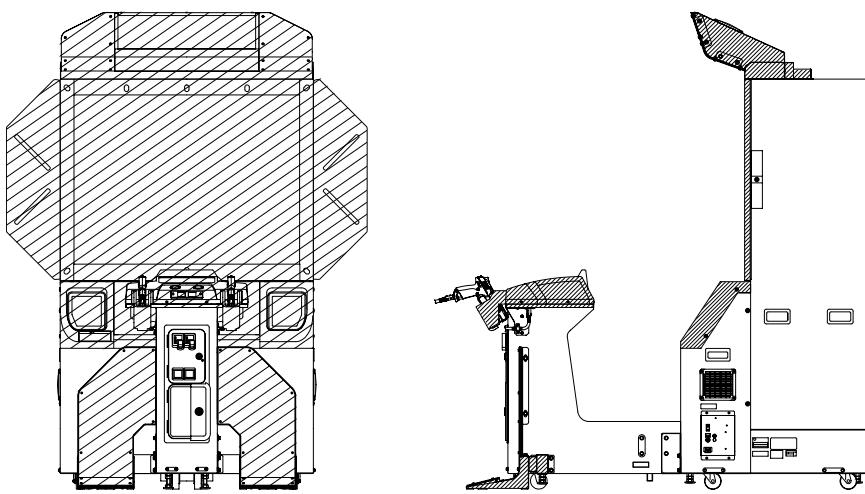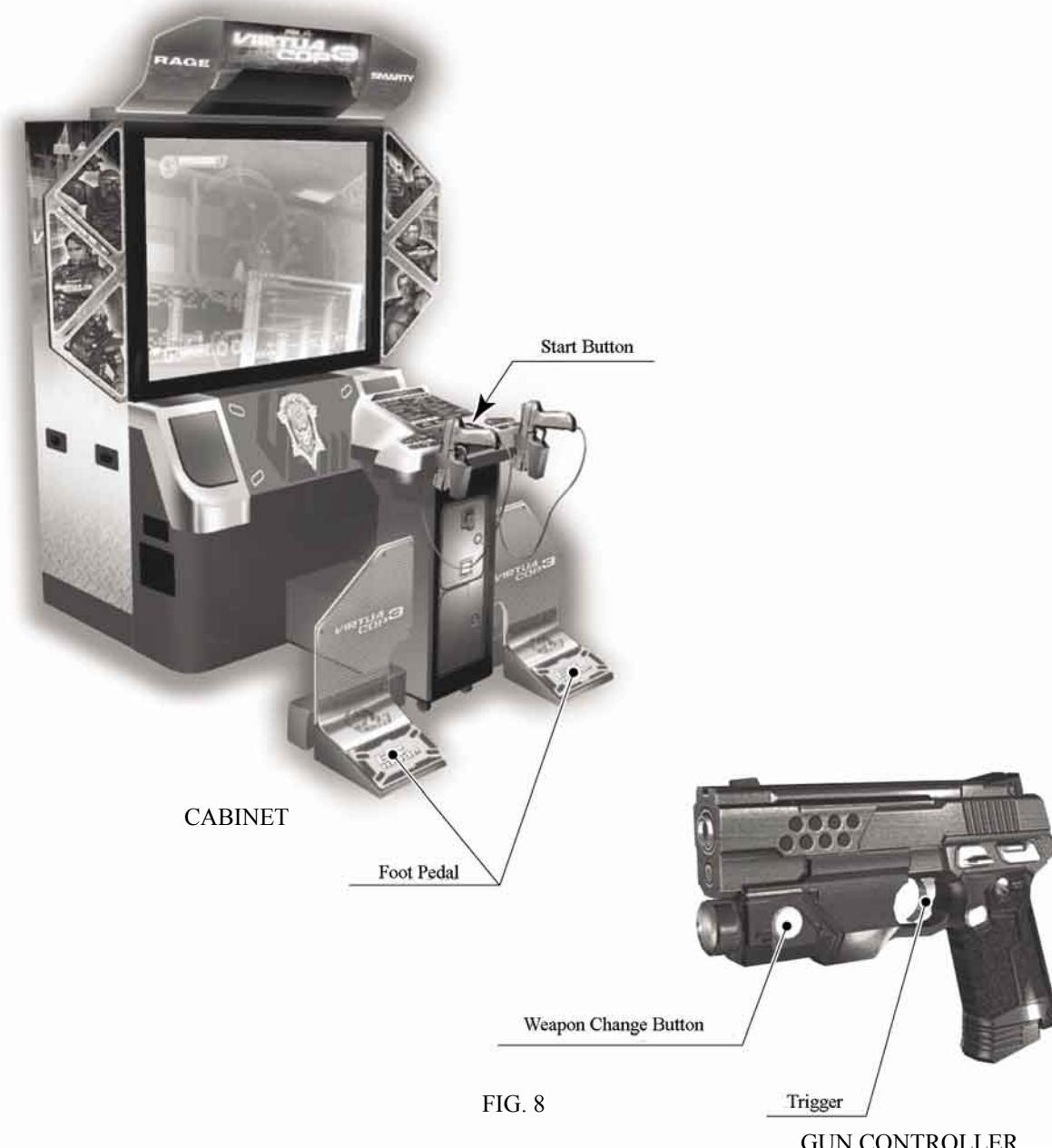
8. GAME CONTENTS

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

While the power is connected, the fluorescent light in the billboard is on and demonstration images and ranking data are displayed. During this advertising period, sound is also output from the speakers on the right and left of the PTV cabinet. Sound is not output if you have set the function to off.

Each of the right and left start buttons is integrated with a light. The light flashes when coins are inserted sufficiently for a play. The light goes out when the start button is pressed to start the game.

Press the appropriate start button to begin play as 1P or 2P. If enough credits for a game are remaining, the other player's START button will flash. Press the flashing START button to join a game.

Start Button

CABINET

Foot Pedal

FIG. 8

Weapon Change Button

Trigger

GUN CONTROLLER

Virtua Cop 3 has two main characters, RAGE (1P) and SMARTY (2P). JANET appears as an allied character during the game but cannot be controlled.

1P Character: RAGE

Strong as an ox and just as uncontrollable, this hothead tends to act before he thinks. That's made him something of a headache for the department.

VIRTUA COP : RAGE
Michael Hardy

2P Character: SMARTY

Rage's complete opposite, Smarty is a cautious, brainy type who never loses his cool. He's also the best marksman in the precinct.

VIRTUA COP : SMARTY
James Cools

A) Start a New Game

Press the START button to begin a new game. Mission Select follows.

B) Calibrating at the Start of the Game

The availability of calibration at the start of each game may be set in Test Mode. The following applies when calibration on demand is enabled.
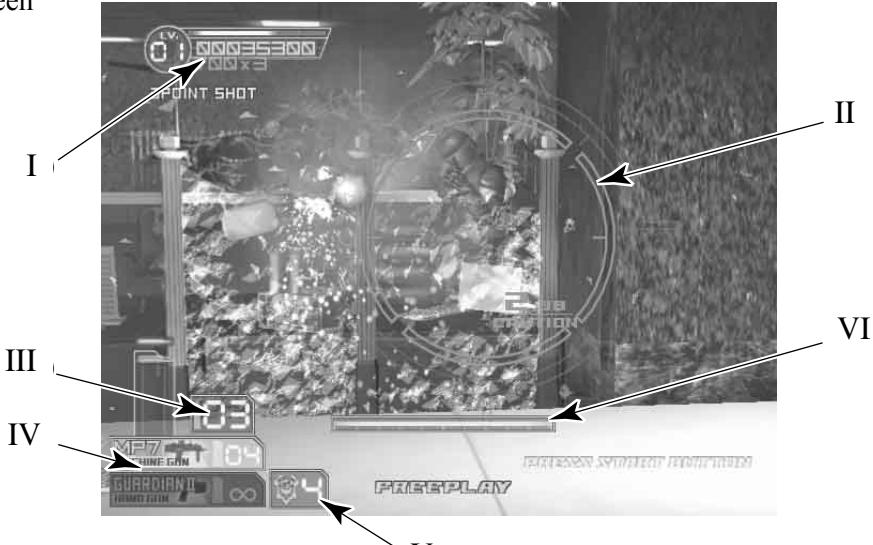
To enter the calibration screen, hold down the foot pedal, aim the gun controller at the screen, and press the START button when starting the game. Aim the gun at the center target and pull the trigger. When calibration is complete, press the START button to exit to Mission Select.

C) Mission Select

Displays the three mission panels, Simple, Normal and Hard. Shoot the desired mission panel to start. Players are free to start any mission they like.

When a mission has been completed, the game returns to Mission Select. The mission panel for the completed mission reads "Complete" and cannot be selected. Select a different mission.

D) Game Screen

I   Points/Point Multiplier Meter
Total points earned are indicated by the eight digit number. After 3-point shots, Justice shots, and other special attacks the name of the attack and points earned are shown beneath the score display.

The more enemies you shoot, the more the gauge above the score display lengthens. When the gauge is completely filled, your level increases. The current level is shown inside the circle. A higher level means more points for killing enemies, but you'll lose a level if you take damage or shoot a civilian!

II   Lock-On Sight
The Lock-On Sight automatically detects armed enemies and tells you when you're being attacked. The Lock-On Sight can lock on multiple enemies simultaneously. When the sight appears, enemies are attacking. If you don't fight back, you're sure to take damage.

III Bullets Left/Reload

Shows bullets remaining in current gun.

Shoot the gun away from the screen to reload your weapon.

IV Weapon Palette, Weapon Change

The player starts out with a Guardian II (10-round magazine, infinite reloads). Defeat special enemies and destroy background objects to get special weapons. Acquiring a special weapon will add a second weapon to the Weapon Palette. Use the Weapon Change button to switch between the special weapon and the Guardian II. The weapon currently in use is shown on top, above the weapon in stock. Special weapons can only be reloaded a limited number of times and cannot be reloaded once ammunition runs out. Get Ammo items to increase the number of times the weapon may be reloaded.

Special Weapons can be lost in three ways:

- When the reload count hits zero and all ammunition is used up

- When shot and hurt by an enemy

- By shooting a civilian

Knowing when to use which weapon is key.

After acquiring a special weapon, then another special weapon is acquired, it will be replaced old one.

V Life

Shows life remaining. Getting shot by an enemy costs one life. Shooting a civilian also costs one life. When all lives have been used up, the game is over.

VI ES Gauge

Shows remaining energy in ES Mode. The ES Gauge falls during ES Mode and recovers when you defeat enemies.

E) ES Mode (Exceeding Sense Mode)

Hold down the foot pedal to activate ES Mode.

ES Mode enhances your character's senses, making time appear to move slower.

In ES Mode you can even see your enemies' bullets and shoot them down before they reach you.

Red bullets are especially damaging, so try to get them before they get you!

ES Mode consumes the ES Gauge. When the ES Gauge runs out of energy, you will be unable to use ES Mode.

Kill enemies to recover energy for the ES Gauge.

F) ES Attack (Exceeding Sense Attack)

ES Attack begins automatically in certain scenes.

ES Attack displays special targeting sights that show points of particular vulnerability for a limited time. Speed and accuracy are essential.

Hit all the targeted areas within the time given to clear the ES Attack. The outcome of an ES Attack affects the rest of the game's story.

When targets are shown with energy gauges, shoot until the energy gauge hits zero to clear the ES Attack.

G) Game Over

The game ends in one of three ways:

- When all lives have been lost

- When all three missions have been completed

- When the special "Extra Mission"(*) has been completed

    (*) When both the Simple and Normal missions have been completed successfully (in either order) and the player defeats the boss of the Hard mission, a special scene is shown and the Extra Mission is unlocked.

H) Continue

When you run out of lives, "Continue" appears on the screen and a countdown begins. To continue, insert sufficient coins and press the START button. If enough credits remain to continue, press the flashing START button.

9. 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.

This product's basic system consists of the Chihiro game board and the GD-ROM drive. The system enables you to play several games one after the other just by changing a GD-ROM disc that is to be set on the GD-ROM drive.

The product supports, therefore, the following 2 test modes:

(1) System test mode for an automatic self-diagnostic test (generally used by every product that contains the basic system) and a coin assignment (specifically used by this product) and

(2) Game test mode for testing the input/output control devices and setting the difficulty level (specifically used by this product).

TABLE 9   EXPLANATION OF TEST MODE

ITEMS	DESCRIPTION
INSTALLATION OF MACHINE	When the machine is installed, perform the following: 1. Check to ensure each is the standard setting at shipment. 2. Check each Input equipment in the INPUT TEST mode. 3. Check each Output equipment in the OUTPUT TEST mode. 4. Test on-IC-Board IC's in the self-test mode.
MEMORY TEST	This test is automatically executed by selecting MEDIA BOARD TEST or SYSTEM INFORMATION in the Menu mode.
PERIODIC SERVICING	Periodically perform the following: 1. MEMORY TEST 2. Ascertain each setting. 3. To test each Input equipment in the INPUT TEST mode. 4. To test each Output equipment in the OUTPUT TEST mode.
CONTROL SYSTEM	1. To check each Input equipment in the INPUT TEST mode. 2. Adjust or replace each Input equipment. 3. If the problem still remains unsolved, check each equipment's mechanism movements.
MONITOR	In the Monitor Adjustment mode, check to see if Monitor (Projector) adjustments are appropriate.
IC BOARD	MEMORY TEST
DATA CHECK	Check such data as game play time and histogram to adjust the difficulty level, etc.

9-1 SWITCH UNIT AND COIN METER

⚠
WARNING!

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

🛑
STOP
IMPORTANT!

> ● Adjust the sound to the optimum volume, taking into consideration the environmental requirements of the installation location.
> ● Removing the Coin Meter circuitry renders the game inoperable.

SWITCH UNIT

Open the coin chute door, and the switch unit shown will appear.
The functioning of each SW is as follows:
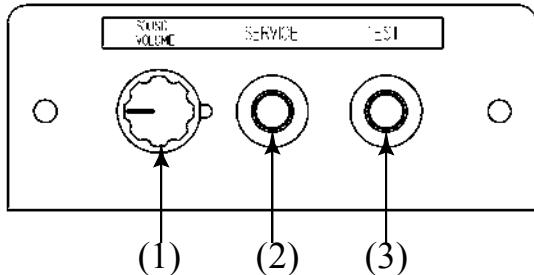
FIG. 9. 1 a SWITCH UNIT

(1)	SOUND VOLUME SWITCH: (SOUND VOLUME)	Adjusts sound volume for all of the machines' Speakers.
(2)	SERVICE BUTTON: (SERVICE)	Gives credits without registering on the coin meter.
(3)	TEST BUTTON: (TEST)	For the handling of the test button, refer to the following pages.

COIN METER

Open the Cashbox Door by using the key to have the Coin Meter appear underneath the Cashbox.

COIN METER
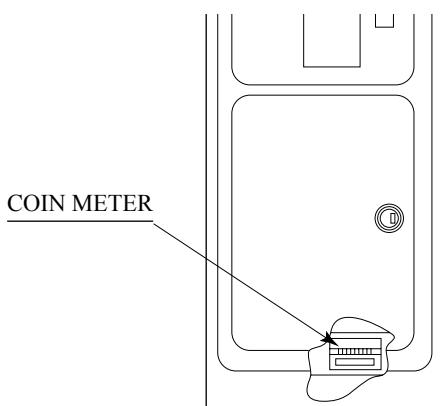
FIG. 9. 1 b

SYSTEM TEST MODE

<table>
<tr>
<td>

STOP

IMPORTANT!

</td>
<td>

● Any settings that are changed by users during TEST MODE are saved upon exiting TEST MODE with the EXIT command in the SYSTEM MENU. If the unit is powered off prior to exiting, changes to settings will not take effect.

● You may not enter GAME TEST MODE while the unit is reading from or checking the GD-ROM. If error messages are displayed when exiting TEST MODE, you should power the unit off and on again.

● In the manual for this product, "Media Board" and "DIMM" are one and the same.

● Use with the specified settings. If settings other than those specified are used, inappropriate operations or malfunction may occur.

</td>
</tr>
</table>
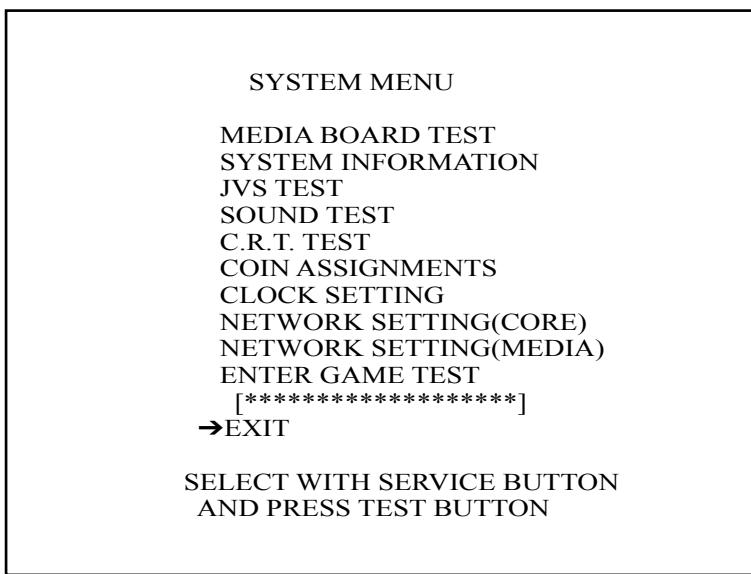
SYSTEM TEST MENU MODE

System Test Mode can be used to check that the main circuit operations are correct, adjust Monitor color, and perform coin/credit settings.
However, this product can only be used with the settings shown below.

● SOUND TEST
- OUTPUT TYPE: STEREO
● COIN ASSIGNMENTS
- COIN CHUTE TYPE: COMMON
- SERVICE TYPE: COMMON

● Press the TEST Button after powering on the unit to display the following SYSTEM MENU.

```
                    SYSTEM MENU

            MEDIA BOARD TEST
            SYSTEM INFORMATION
            JVS TEST
            SOUND TEST
            C.R.T. TEST
            COIN ASSIGNMENTS
            CLOCK SETTING
            NETWORK SETTING(CORE)
            NETWORK SETTING(MEDIA)
            ENTER GAME TEST
             [*******************]
          ➔EXIT

         SELECT WITH SERVICE BUTTON
          AND PRESS TEST BUTTON
```

● Press the SERVICE Button to move the cursor to the desired test item.

● Move the cursor to the desired item and press the TEST Button to display each test screen.

● Move the cursor to ENTER GAME TEST and press the TEST Button to enter the individual test menus for each game. Refer to "9-3 GAME TEST MODE".

● When testing is complete, move the cursor to EXIT and press the TEST Button. The game advertisement screen should be displayed.

MEDIA BOARD TEST

STOP
IMPORTANT!
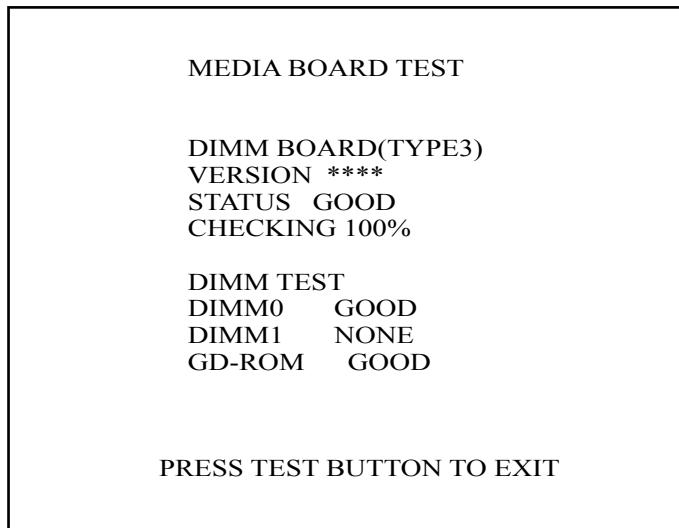
Powering off the system during the MEDIA BOARD TEST with a DIMM
BOARD will erase the game programme data. It may be necessary to reload the
data.
Always wait for the test to complete before attempting to exit.

MEDIA BOARD TEST is used to check the memory and IC on the MEDIA BOARD connected
to the Chihiro. Test screens and test times may differ depending on the type of MEDIA BOARD
connected to the unit.
● The following is the MEDIA BOARD TEST screen for a unit with a DIMM BOARD.

```
              MEDIA BOARD TEST


              DIMM BOARD(TYPE3)
              VERSION  ****
              STATUS   GOOD
              CHECKING 100%

              DIMM TEST
              DIMM0     GOOD
              DIMM1     NONE
              GD-ROM    GOOD



          PRESS TEST BUTTON TO EXIT
```
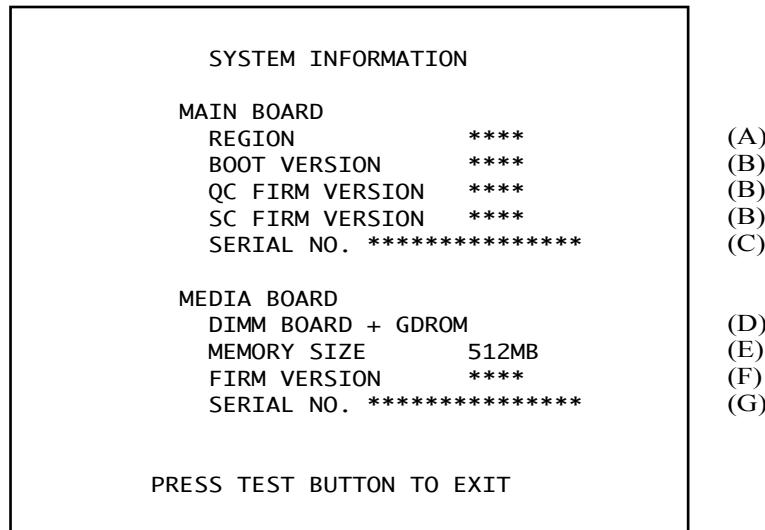
● MEDIA BOARD TEST begins immediately upon entering this test mode.

● If "GOOD" is displayed to the right of each item, the MEDIA BOARD components are
functioning properly.

● After the test is complete, move the cursor to EXIT and press the TEST Button to return to the
SYSTEM MENU screen.

SYSTEM INFORMATION

Use SYSTEM INFORMATION to check version and other information for system programmes.
Screens may differ depending on the type of MEDIA BOARD connected to the unit.
● The following is the SYSTEM INFORMATION screen for a unit with a DIMM BOARD.

```
        SYSTEM INFORMATION

    MAIN BOARD
       REGION            ****              (A)
       BOOT VERSION      ****              (B)
       QC FIRM VERSION   ****              (B)
       SC FIRM VERSION   ****              (B)
       SERIAL NO. ***************          (C)

    MEDIA BOARD
       DIMM BOARD + GDROM                  (D)
       MEMORY SIZE      512MB              (E)
       FIRM VERSION      ****              (F)
       SERIAL NO. ***************          (G)


    PRESS TEST BUTTON TO EXIT
```

Press the TEST Button to return to the SYSTEM MENU screen.
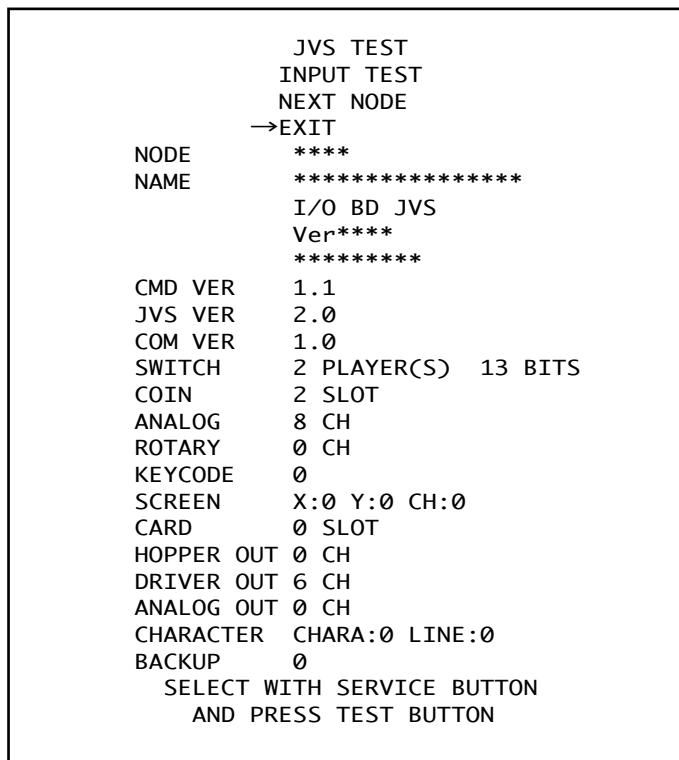
(A)   REGION
       The COUNTRY CODE of the MAIN BOARD.

(B)   BOOT VERSION, QC FIRM VERSION, SC FIRM VERSION
       Version information for the MAIN BOARD system programmes.

(C)   SERIAL NO.
       Serial number of the MAIN BOARD.

(D)   DIMM BOARD + GDROM
       Type of MEDIA BOARD. This example shows a DIMM BOARD with a GD-ROM
       DRIVE connected.

(E)   MEMORY SIZE
       Capacity of DIMM memory installed on the DIMM BOARD.

(F)   FIRM VERSION
       Version information for the DIMM BOARD system programme.

(G)   SERIAL NO.
       Serial number of the DIMM BOARD.

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JVS TEST

        JVS TEST is used to verify the specs of the I/O BOARD connected to the Chihiro and to run
input tests.
I/O BOARD specs are displayed initially.
Screens may differ depending on the type of I/O BOARD connected to the unit.

```
              JVS TEST
             INPUT TEST
             NEXT NODE
           →EXIT
    NODE       ****
    NAME       ****************
             I/O BD JVS
             Ver****
             ********
    CMD VER    1.1
    JVS VER    2.0
    COM VER    1.0
    SWITCH     2 PLAYER(S)  13 BITS
    COIN       2 SLOT
    ANALOG     8 CH
    ROTARY     0 CH
    KEYCODE    0
    SCREEN     X:0 Y:0 CH:0
    CARD       0 SLOT
    HOPPER OUT 0 CH
    DRIVER OUT 6 CH
    ANALOG OUT 0 CH
    CHARACTER  CHARA:0 LINE:0
    BACKUP     0
       SELECT WITH SERVICE BUTTON
         AND PRESS TEST BUTTON
```

● Use the SERVICE Button to move the cursor to the desired test item.

● Move the cursor to INPUT TEST and press the TEST Button to enter the INPUT TEST screen
for the I/O BOARD currently displayed.

● When 2 or more I/O BOARDS are connected, move the cursor to NEXT NODE and press the
TEST Button to enter the test screen for the next I/O BOARD. The lower the NODE number,
the further away the node is from the Chihiro.

● Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

INPUT TEST Screen
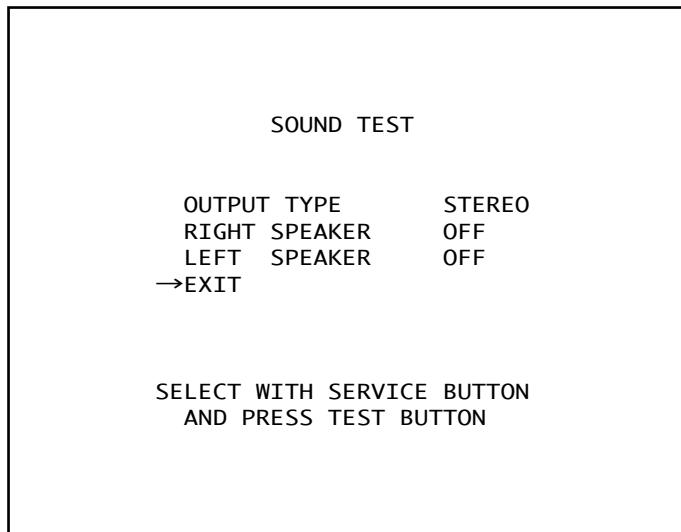
```
┌─────────────────────────────────────────┐
│              JVS TEST                     │
│             INPUT TEST                    │
│                                           │
│      NODE       1/1                       │
│        SYSTEM     00            (A)       │
│        PLAYER 1   0000          (A)       │
│        PLAYER 2   0000          (A)       │
│        COIN 1     0000          (B)       │
│        COIN 2     0000          (B)       │
│        ANALOG 1   0000          (C)       │
│        ANALOG 2   0000          (C)       │
│        ANALOG 3   0000          (C)       │
│        ANALOG 4   0000          (C)       │
│        ANALOG 5   0000          (C)       │
│        ANALOG 6   0000          (C)       │
│        ANALOG 7   0000          (C)       │
│        ANALOG 8   0000          (C)       │
│                                           │
│    PRESS TEST AND SERVICE BUTTON TO EXIT  │
└─────────────────────────────────────────┘
```

● On-screen values change according to the input from switches and the volume.

(A)   SYSTEM, PLAYER
      Values change with input from control panel/other switches.

(B)   COIN
      Increases with input from the COIN SWITCH. The count is cleared when exiting TEST MODE.

(C)   ANALOG
      Displays analog values from "0000" to "FFFF".

● Press the SERVICE and TEST Buttons simultaneously to return to the JVS TEST main screen.

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SOUND TEST

       Use SOUND TEST to test sound output and to select the stereo/mono/surround setting.
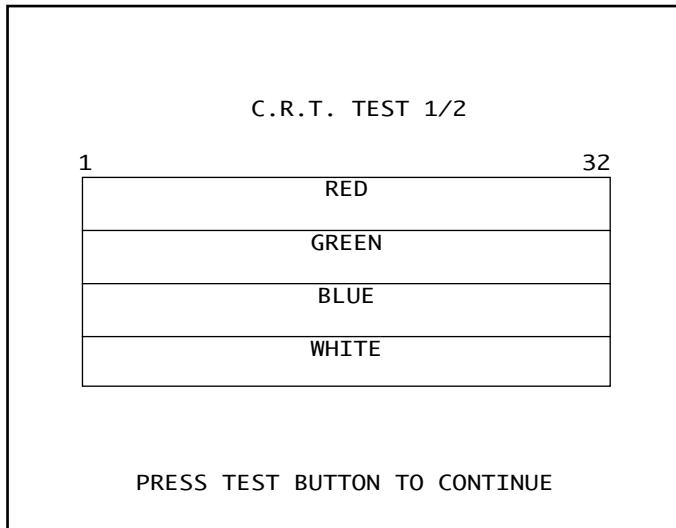
```
              SOUND TEST


      OUTPUT TYPE      STEREO          (A)
      RIGHT SPEAKER    OFF             (B)
      LEFT  SPEAKER    OFF             (B)
     →EXIT



      SELECT WITH SERVICE BUTTON
        AND PRESS TEST BUTTON
```

● Use the SERVICE Button to move the cursor to the desired test item.

● Press the TEST Button to enter the selected item.

    (A)   OUTPUT TYPE(STEREO, MONO, SURROUND)
          Select the sound output from the I/O PANEL audio output interface setting among
          STEREO, MONO and SURROUND.

    (B)   RIGHT/LEFT SPEAKER(ON, OFF)
          When set to "ON", the test sends a beep to each audio output interface. Only the word
          "SPEAKER" is displayed when the OUTPUT TYPE is set to "MONO", and when set to
          "ON", the test sends the same beep to both the left/right audio output interfaces.
          To test surround output, it is necessary to use a separate Audio Amp, and receive signal
          from a terminal not in use at the time of shipping.
          Note: Not available with this product.

● Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

C.R.T. TEST

Use the C.R.T. TEST to adjust monitor colours and verify screen size.
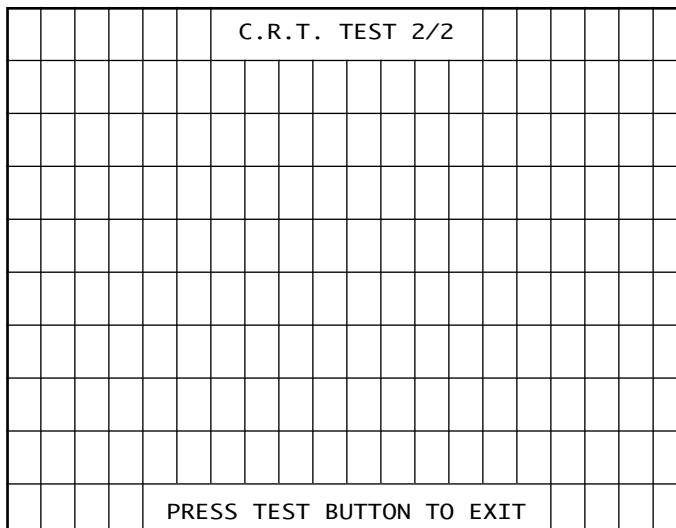
COLOUR CHECK Screen

● Monitor COLOUR CHECK screen is displayed initially.
Each of the colours (red, green and blue) is darkest at the far left and gets progressively lighter (32 steps) towards the right.
Monitor brightness is set correctly if the white colour bar is black at the left edge and white at the right edge.

```
                    C.R.T. TEST 1/2

 1                                          32
              ┌──────────────────────────┐
              │           RED            │
              ├──────────────────────────┤
              │          GREEN           │
              ├──────────────────────────┤
              │           BLUE           │
              ├──────────────────────────┤
              │          WHITE           │
              └──────────────────────────┘



         PRESS TEST BUTTON TO CONTINUE
```

● Press the TEST Button to proceed to the next page.

SIZE CHECK Screen

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












           PRESS TEST BUTTON TO EXIT
```
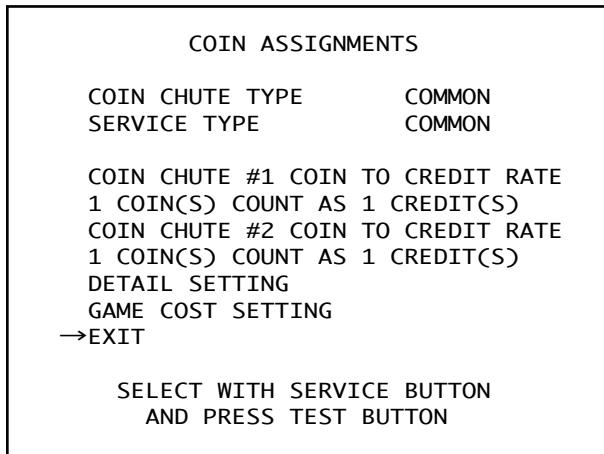
● Adjust the CHECK GRID so that the entire GRID is displayed on the screen.

● Press the TEST Button to return to the SYSTEM MENU screen.

57
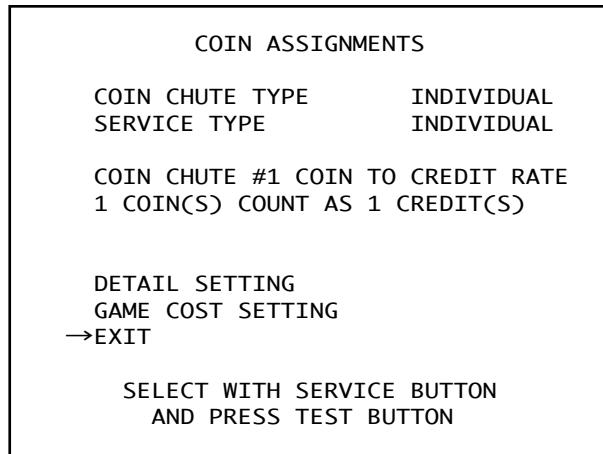
COIN ASSIGNMENTS

Use COIN ASSIGNMENTS to set the credit rate for each coin inserted.

● Use the SERVICE Button to move the cursor to the desired test item.

● Press the TEST Button to change the setting or to open the detailed settings.

● Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

```
        COIN ASSIGNMENTS

  COIN CHUTE TYPE        COMMON        (A)
  SERVICE TYPE           COMMON        (B)

  COIN CHUTE #1 COIN TO CREDIT RATE    (C)
  1 COIN(S) COUNT AS 1 CREDIT(S)
  COIN CHUTE #2 COIN TO CREDIT RATE    (C)
  1 COIN(S) COUNT AS 1 CREDIT(S)
  DETAIL SETTING                       (D)
  GAME COST SETTING                    (H)
 →EXIT

     SELECT WITH SERVICE BUTTON
       AND PRESS TEST BUTTON
```

COIN CHUTE TYPE…COMMON

```
        COIN ASSIGNMENTS

  COIN CHUTE TYPE        INDIVIDUAL
  SERVICE TYPE           INDIVIDUAL

  COIN CHUTE #1 COIN TO CREDIT RATE
  1 COIN(S) COUNT AS 1 CREDIT(S)


  DETAIL SETTING
  GAME COST SETTING
 →EXIT

     SELECT WITH SERVICE BUTTON
       AND PRESS TEST BUTTON
```

COIN CHUTE TYPE…INDIVIDUAL

(A)   COIN CHUTE TYPE(COMMON, INDIVIDUAL)
       Adjust settings according to the specs of the cabinet COIN CHUTE.

       COMMON
       This is for cabinets where a single COIN CHUTE is used by multiple players.
       Coins inserted by each player are treated as common credits.
       Up to 2 COIN CHUTES (#1 and #2) may be used. The (C) COIN TO CREDIT RATE setting
       for COIN CHUTE #1 and #2 may be set differently.

       INDIVIDUAL
       This is for cabinets with individual COIN CHUTES for each player.
       Coins inserted by each player are treated as individual player credits.
       The (C) COIN TO CREDIT RATE setting is used by all COIN CHUTES.

(B)   SERVICE TYPE(COMMON, INDIVIDUAL)
       Use this to set the function of each SERVICE Button when there is more than one SERVICE
       Button.

       COMMON
       Pressing any SERVICE Button enters service credits for all players.

       INDIVIDUAL
       Pressing the SERVICE Button enters service credits only for the corresponding player.

(C)　COIN TO CREDIT RATE
Set the CREDIT RATE for each coin inserted.
The "X COIN(S) COUNT AS Y CREDIT(S)" setting indicates that "Inserting X coins equals Y credits".
Set this to "FREE PLAY" to allow game play without credits.
When (A) COIN CHUTE TYPE is set to "COMMON", COIN CHUTE #2 settings are restricted to some extent by the settings for COIN CHUTE #1.
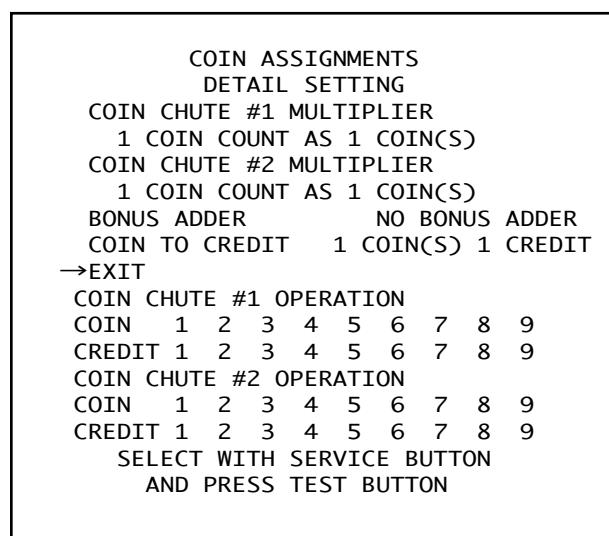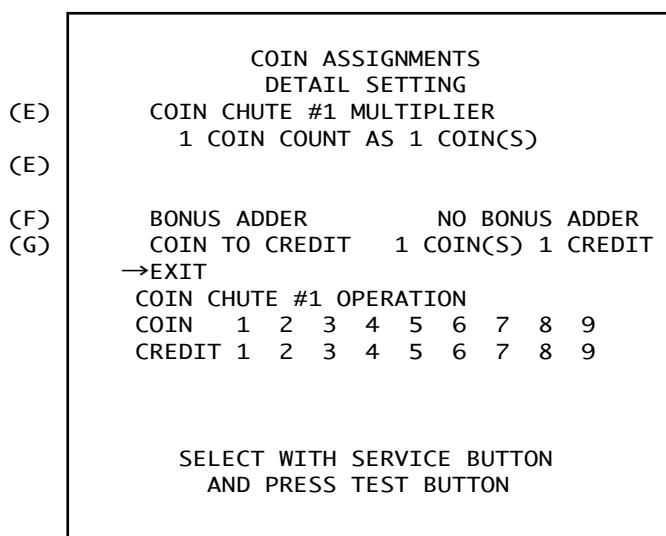
(D)　DETAIL SETTING
This mode allows for more detailed credit rate settings than the (C) COIN TO CREDIT RATE setting.
Changes made in DETAIL SETTING override any (C) COIN TO CREDIT RATE settings.

DETAIL SETTING Screen

```
        COIN ASSIGNMENTS
         DETAIL SETTING
  COIN CHUTE #1 MULTIPLIER            (E)
    1 COIN COUNT AS 1 COIN(S)
  COIN CHUTE #2 MULTIPLIER            (E)
    1 COIN COUNT AS 1 COIN(S)
  BONUS ADDER        NO BONUS ADDER   (F)
   COIN TO CREDIT   1 COIN(S) 1 CREDIT (G)
 →EXIT
 COIN CHUTE #1 OPERATION
 COIN   1  2  3  4  5  6  7  8  9
 CREDIT 1  2  3  4  5  6  7  8  9
 COIN CHUTE #2 OPERATION
 COIN   1  2  3  4  5  6  7  8  9
 CREDIT 1  2  3  4  5  6  7  8  9
   SELECT WITH SERVICE BUTTON
     AND PRESS TEST BUTTON
```

```
        COIN ASSIGNMENTS
         DETAIL SETTING
  COIN CHUTE #1 MULTIPLIER
    1 COIN COUNT AS 1 COIN(S)



  BONUS ADDER        NO BONUS ADDER
   COIN TO CREDIT   1 COIN(S) 1 CREDIT
 →EXIT
 COIN CHUTE #1 OPERATION
 COIN   1  2  3  4  5  6  7  8  9
 CREDIT 1  2  3  4  5  6  7  8  9



   SELECT WITH SERVICE BUTTON
     AND PRESS TEST BUTTON
```

COIN CHUTE TYPE…COMMON　　　　　　　　　COIN CHUTE TYPE…INDIVIDUAL

(E)　COIN CHUTE MULTIPLIER
Use this to set how many coins will be counted for each coin inserted.
The "1 COIN COUNT AS X COIN(S)" setting indicates that "Each coin will be counted as X coins".
When the (A) COIN CHUTE TYPE is set to "COMMON", the setting may be set individually for COIN CHUTE #1 and #2.

(F)　BONUS ADDER
Use this to set the number of coins calculated with the (E) COIN CHUTE MULTIPLIER setting that need to be inserted to get 1 bonus coin. When the (A) COIN CHUTE TYPE is set to "COMMON", the sum of the coins for COIN CHUTE #1 and #2 is used for the calculation.
The "X COINS GIVE 1 EXTRA COIN" setting indicates that "For every X coins, 1 bonus coin is given".
Set this to "NO BONUS ADDER" to disable bonus coins entirely.
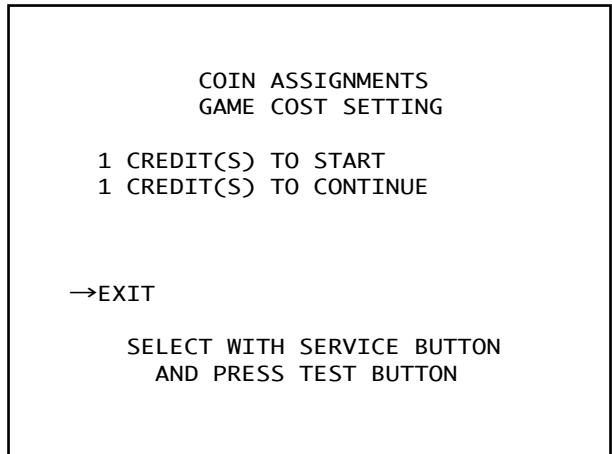
(G)　COIN TO CREDIT
Use this to set how many coins calculated with the (F) BONUS ADDER setting count as 1 credit.
The "X COIN(S) 1 CREDIT" setting indicates that "Every X coins equals 1 credit."
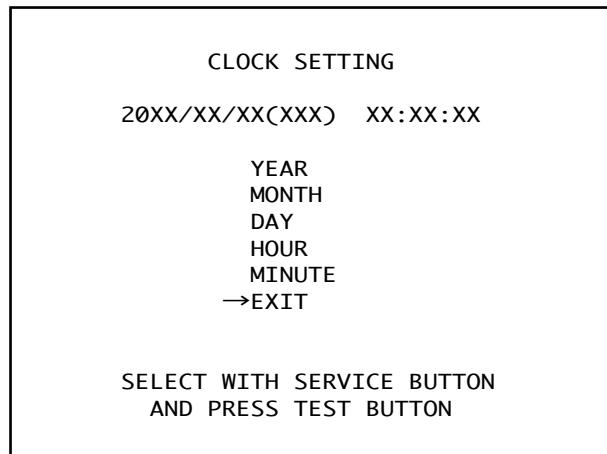
(H) GAME COST SETTING
     Use this mode to set the number of credits required to start a game.
     Screens may differ depending on the game.

```
┌─────────────────────────────────────────┐
│                                          │
│           COIN ASSIGNMENTS               │
│           GAME COST SETTING              │
│                                          │
│      1 CREDIT(S) TO START          (I)   │
│      1 CREDIT(S) TO CONTINUE       (J)   │
│                                          │
│                                          │
│                                          │
│     →EXIT                                │
│                                          │
│         SELECT WITH SERVICE BUTTON       │
│           AND PRESS TEST BUTTON          │
│                                          │
│                                          │
└─────────────────────────────────────────┘
```

(I)   Set the number of credits required to start a game.

(J)   Set the number of credits required to continue a game.

CLOCK SETTING

Use CLOCK SETTING to set the Chihiro internal clock.

```
                    CLOCK SETTING

        20XX/XX/XX(XXX)   XX:XX:XX

                    YEAR
                    MONTH
                    DAY
                    HOUR
                    MINUTE
                  →EXIT


          SELECT WITH SERVICE BUTTON
            AND PRESS TEST BUTTON
```
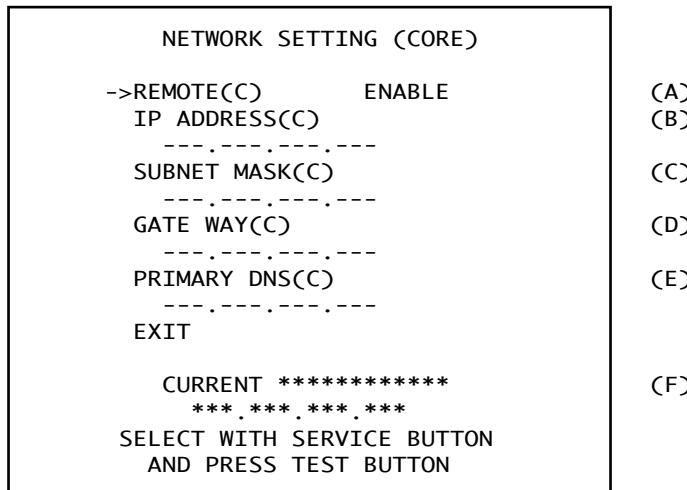
● Use the SERVICE Button to move the cursor to the item to be set.

● Move the cursor to the desired item and press the TEST Button to increase values.
   The max value for YEAR is "2099"; further increases return the value to "2000".

● Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

NETWORK SETTING (CORE)

Use the LAN PORT attached to the Main Board, and carry out the settings necessary for network communication.
Note: This function is not available with this product.

```
┌─────────────────────────────────────────┐
│         NETWORK SETTING (CORE)           │
│                                          │
│   ->REMOTE(C)        ENABLE        (A)   │
│     IP ADDRESS(C)                  (B)   │
│       ---.---.---.---                    │
│     SUBNET MASK(C)                 (C)   │
│       ---.---.---.---                    │
│     GATE WAY(C)                    (D)   │
│       ---.---.---.---                    │
│     PRIMARY DNS(C)                 (E)   │
│       ---.---.---.---                    │
│     EXIT                                 │
│                                          │
│       CURRENT ************         (F)   │
│         ***.***.***.***                  │
│     SELECT WITH SERVICE BUTTON           │
│       AND PRESS TEST BUTTON               │
└─────────────────────────────────────────┘
```

● Use the SERVICE Button to move the cursor to the desired test item.
(When setting IP ADDRESS, SUBNET MASK, GAME WAY or PRIMARY DNS, use the underline as a guide.)

● Press the TEST Button to change the setting.

● Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

(A) REMOTE (C)
This sets up whether a communication setting is automatic or manual.
ENABLE: Sets the communication setting automatically.
DISABLLE: Sets the communication setting manually.

(B) IP ADDRESS (C)
This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.

(C) SUBNET MASK (C)
This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.

(D) GATE WAY (C)
This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.

(E) PRIMARY DNS (C)
This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.
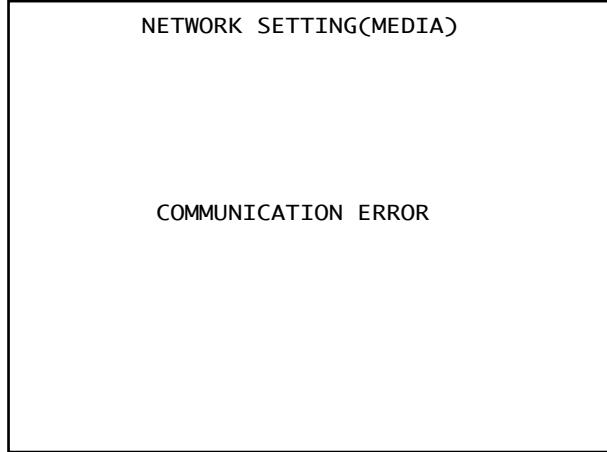
(F) CURRENT
This displays the present setting value during a setup of each item [(B), (C), (D), (E)]. Pressing TEST Button on SET position, the settings are memorized and the screen is changed.

NETWORK SETTING (MEDIA)

Use NETWORK SETTING to establish and test network connections.
This is only displayed the following error message screen.
● This game does not support network communication connections.

```
┌─────────────────────────────────────────┐
│         NETWORK SETTING(MEDIA)           │
│                                          │
│                                          │
│                                          │
│                                          │
│           COMMUNICATION ERROR            │
│                                          │
│                                          │
│                                          │
│                                          │
│                                          │
└─────────────────────────────────────────┘
```

STOP **IMPORTANT!**

When changing the game configuration, changes will not take effect until the Game Test Mode has been completed. Be sure to exit the Game Test Mode properly after configuration changes.

Select ENTER GAME TEST from the System Menu screen to display the Game Test Menu screen as follows.
Use the SERVICE Button to move the cursor to the desired test item.
Press the TEST Button to enter the selected item's test.

```
          GAME TEST MENU

          INPUT TEST
          OUTPUT TEST
          GAME ASSIGNMENTS
          GUN ADJUSTMENT
          BOOKKEEPING
          BACKUP DATA CLEAR
       ->EXIT


     SELECT WITH SERVICE BUTTON
       AND PRESS TEST BUTTON
```
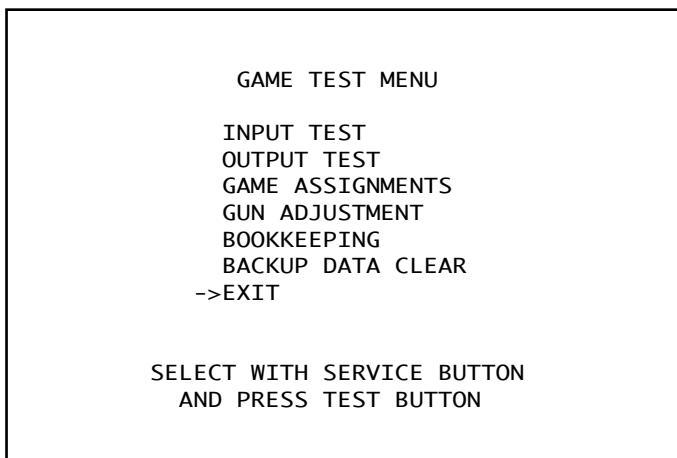
FIG. 9. 3 GAME TEST MENUscreen

Performs tests, adjustments and settings for each of the Game Test Menu screen items below.

A. INPUT TEST: Tests each input device used in the game.

B. OUTPUT TEST: Tests each output device used in the game.

C. GAME ASSIGNMENTS: Adjusts game settings.

D. GUN ADJUSTMENT: Performs sight settings for the game's Control Unit (Gun).

E. BOOKKEEPING: View all recorded game data.

F. BACKUP DATA CLEAR: Erase all game records.

After selecting an item, read the explanations below regarding operation.

After performing tests and adjustments, return to the Game Test Menu screen, select EXIT and press the TEST Button.

You will return to the System Menu screen. Move the cursor to EXIT on the System Menu screen and press the TEST Button to return to the Game Play screen.

A. INPUT TEST

Select INPUT TEST to display the following screen and check the status of input devices.
This test should be used periodically to check that each input device is functioning correctly.

```
            INPUT TEST

        PLAYER      1      2
        TRIGGER    OFF    OFF
        CHANGE     OFF    OFF
        PEDAL      OFF    OFF
        GUN-X      00H    00H
        GUN-Y      00H    00H
        SCREEN      IN     IN
        START      OFF    OFF

        SERVICE        OFF
        TEST           OFF

    PRESS TEST AND SERVICE BUTTON TO EXIT
```
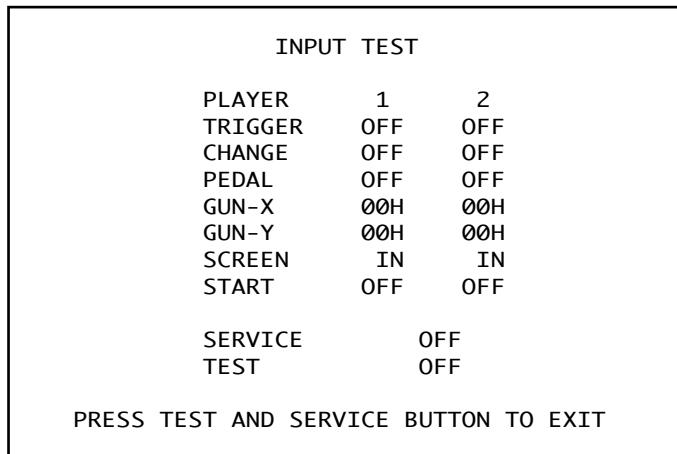
FIG. 9. 3 a INPUT TEST screen

The items refer to the following input devices.

● TRIGGER: The gun triggers.

● CHANGE: The controller's weapon change button.

● PEDAL: The foot pedal.

● GUN-X: Ranges between 00 and FF when controller is pointed at screen.

● GUN-Y: Ranges between 00 and FF when controller is pointed at screen.

● SCREEN: Point controller at screen to change from OUT to IN.

● START: The player Start Buttons.

● SERVICE: The SERVICE Button.

● TEST: The TEST Button.

Input is normal if the display to the right of each item changes from OFF to ON when each input device is operated.

Input is normal if the display to the right of SCREEN changes from OUT to IN and GUN-X and GUN-Y show values between 00 and FF when the controller is pointed at the screen.

Press the SERVICE and TEST Buttons simultaneously to return to the Game Test Menu screen.

B. OUTPUT TEST

       Select OUTPUT TEST to display the following screen and check the status of each lamp. This test should be used periodically to check that the lamps are functioning correctly.

       Press the SERVICE Button to move the cursor and the TEST Button to select. Displays ON when selected.

       Actual screen may differ for depending on cabinet type.

```
               OUTPUT TEST

      PLAYER 1 START LAMP    OFF
      PLAYER 2 START LAMP    OFF
      PLAYER 1 FOOT PANEL    OFF
      PLAYER 2 FOOT PANEL    OFF
      PLAYER 1 BILLBOARD     OFF
      PLAYER 2 BILLBOARD     OFF
   -> EXIT


      SELECT WITH SERVICE BUTTON
        AND PRESS TEST BUTTON
```
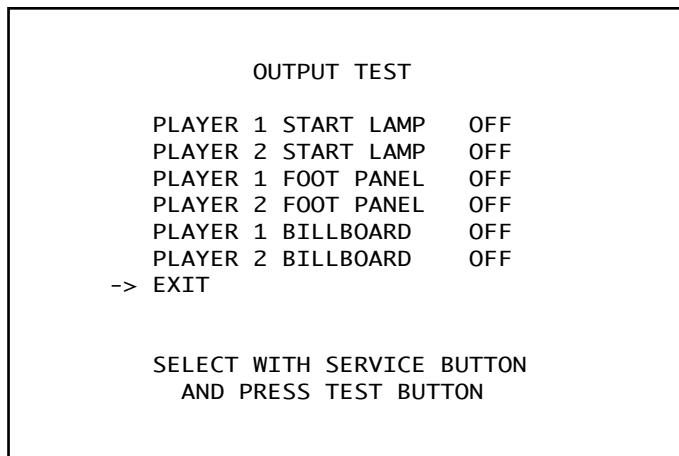
FIG. 9. 3 b OUTPUT TEST screen(DELUXE TYPE)

Perform the tests as follows.

● PLAYER 1 START LAMP: Lights up the 1P START button.

● PLAYER 2 START LAMP: Lights up the 2P START button flash.

● PLAYER 1 FOOT PANEL: Lights up the 1P foot panel. Press the TEST Button to cycle through the colors, in the order RED, BLUE, WHITE, RED.

● PLAYER 2 FOOT PANEL: Lights up the 2P foot panel. Press the TEST Button to cycle through the colors, in the order RED, BLUE, WHITE, RED.

● PLAYER 1 BILLBOARD: Lights up the 1P Billboard. Press the TEST Button to cycle through the colors, in the order RED, GREEN, YELLOW, BLUE, PURPLE, AQUA, WHITE, RED.

● PLAYER 2 BILLBOARD: Lights up the 2P Billboard. Press the TEST Button to cycle through the colors, in the order RED, GREEN, YELLOW, BLUE, PURPLE, AQUA, WHITE, RED.

Move the cursor to EXIT and press the TEST Button to return to the Game Test Menu screen.

C. GAME ASSIGNMENTS

Select GAME ASSIGNMENTS to display the current game settings and make changes.

```
          GAME ASSIGNMENTS

     DIFFICULTY      NORMAL
     LIFT            3
     COLLISION       3
     GUN LOOSENESS   5
     CALIBRATION     OFF
     ADVERTISE SOUND OFF
     CABINET TYPE    DELUXE
  -> EXIT

     SELECT WITH SERVICE BUTTON
       AND PRESS TEST BUTTON
```
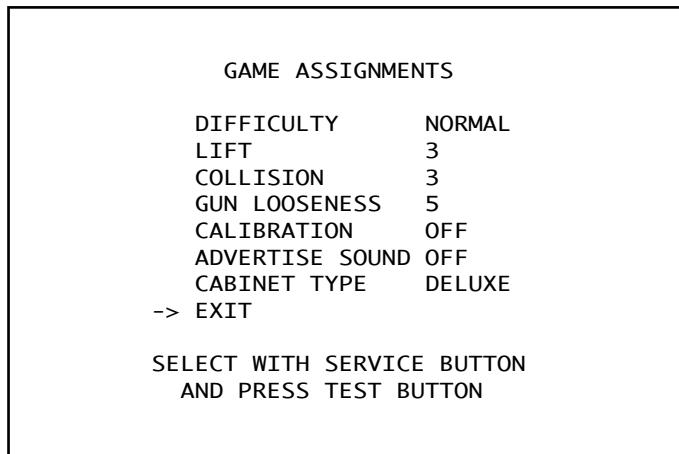
FIG. 9. 3 c GAME ASSIGNMENTS screen

Perform the following settings for each item.

● DIFFICULTY: Set the game's difficulty level. Five settings are available, from VERY EASY to VERY HARD.

● LIFE: Set the number of lives each player starts the game with. Nine levels are available.

● COLLISION: Set the size of targets. Five levels, from 1 to 5, are available. The higher the level, the easier it is to hit targets.

● GUN LOOSENESS: Set gun looseness. Ten levels, from 0 to 9, are available. The higher the level, the easier it is to hit targets.

● CALIBRATION: Toggle the availability of user calibration at the start of the game. Three options are available.
  •OFF: Disable calibration.
  •ON (TYPE1):   Always calibrate.
  •ON (TYPE2):   Allow calibration if command is entered (start game with controller aimed at screen and pedal held down).

● ADVERTISE SOUND: Turn advertising sound output ON/OFF.

● CABINET TYPE: Set cabinet type.
                     Set to either DELUXE or STANDARD. Be sure to set according to actual cabinet type.

Changes to settings are not enabled until Test Mode is exited. After changing settings, be sure to exit Test Mode.

After changing the settings, select EXIT and press the TEST Button to return to the Game Test Menu screen.

D. GUN ADJUSTMENT

Select GUN ADJUSTMENT to display the following screen.
This screen allows you to adjust the gun using the five calibration targets (TOP, LEFT,
CENTER, RIGHT, BOTTOM). Use each target to calibrate as follows.

Use the standard gun controller, carefully aim at the correct target and pull the trigger to
calibrate the value. Select between the calibration targets with the 1P and 2P START buttons or
SERVICE button.

```
                            ●
                    GUN ADJUSTMENT
            PLAYER 1                    PLAYER 2
    -> TOP        5  233     -> TOP        5  233
       LEFT    -318   17        LEFT    -318   17
       CENTER   -10   15        CENTER   -10   15
       RIGHT    242   34        RIGHT    242   34
       BOTTOM   -10 -204        BOTTOM   -10 -204

 ●        DEFAULT       ●       DEFAULT              ●
          CANCEL                CANCEL
          CURSOR                CURSOR


            SELECT WITH SERVICE BUTTON
                  AND PULL TRIGGER
            PRESS TEST BUTTON TO EXIT
                            ●
```
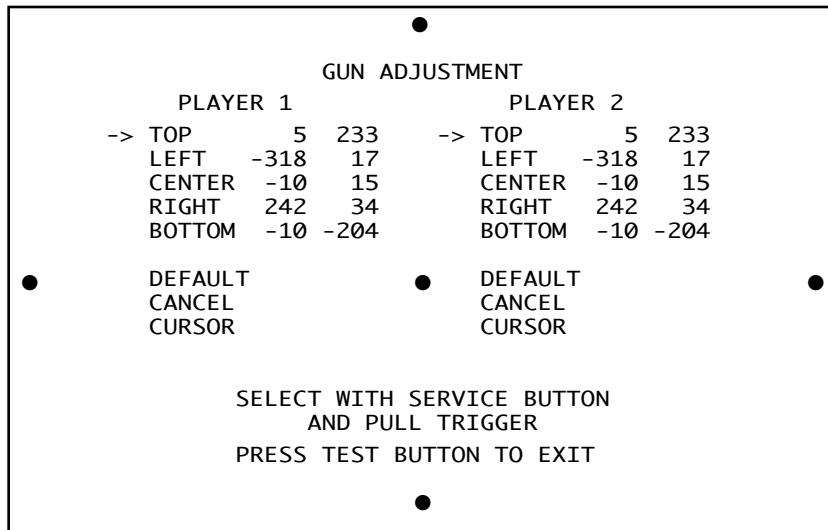
FIG. 9. 3 d GUN ADJUSTMENT screen

Details for each item are as follows.

● TOP x y: Set the TOP value.
                      The number on the left (x) is the horizontal component, and the
                      number on the right (y) is the vertical component. Aim the controller
                      at the TOP target (circle) and pull the trigger to set the value. This will
                      not affect horizontal calibration.

● LEFT x y: Set the LEFT value.
                      The number on the left (x) is the horizontal component, and the
                      number on the right (y) is the vertical component. Aim the controller
                      at the LEFT target and pull the trigger to set the value. This will not
                      affect vertical calibration.

● CENTER x y: Set the CENTER value.
                      The number on the left (x) is the horizontal component, and the
                      number on the right (y) is the vertical component. Aim the controller
                      at the CENTER target and pull the trigger to set the CENTER value.

● RIGHT x y: Set the RIGHT value.
                      The number on the left (x) is the horizontal component, and the
                      number on the right (y) is the vertical component. Aim the controller
                      at the RIGHT target and pull the trigger to set the RIGHT value. This
                      will not affect vertical calibration.

Details for each item are as follows.

● TOP x y: Set the TOP value.
The number on the left (x) is the horizontal component, and the number on the right (y) is the vertical component. Aim the controller at the TOP target (circle) and pull the trigger to set the value. This will not affect horizontal calibration.

● LEFT x y: Set the LEFT value.
The number on the left (x) is the horizontal component, and the number on the right (y) is the vertical component. Aim the controller at the LEFT target and pull the trigger to set the value. This will not affect vertical calibration.

● CENTER x y: Set the CENTER value.
The number on the left (x) is the horizontal component, and the number on the right (y) is the vertical component. Aim the controller at the CENTER target and pull the trigger to set the CENTER value.

● RIGHT x y: Set the RIGHT value.
The number on the left (x) is the horizontal component, and the number on the right (y) is the vertical component. Aim the controller at the RIGHT target and pull the trigger to set the RIGHT value. This will not affect vertical calibration.

● BOTTOM x y: Set the BOTTOM value.
The number on the left (x) is the horizontal component, and the number on the right (y) is the vertical component. Aim the controller at the BOTTOM target and pull the trigger to set the value. This will not affect horizontal calibration.

● DEFAULT: Restore calibration values to original settings.

● CANCEL: Restore calibration values to previous settings.

● CURSOR: Select CURSOR and aim the controller at the screen to display a round cursor (blue for 1P, red for 2P) where the controller hits the screen. Use this cursor to check calibration.

● OUT OF SCREEN: Displays "OUT OF SCREEN" when the controller is pointed outside the screen. Values cannot be set when the controller is out of screen.

Changes to settings are not enabled until the Test Mode is exited. After changing settings, be sure to exit Test Mode.

After changing the settings, select EXIT and press the TEST Button to return to the Game Test Menu screen.

E. BOOKKEEPING

Select BOOKKEEPING on the Game Test Menu screen to display the three screens of operating status data.
Press the TEST Button on the BOOKKEEPING 1/3 and BOOKKEEPING 2/3 screens to move to the second and third (BOOKKEEPING 3/3) screens. Press the TEST Button in the third screen to return to the Game Test Menu screen.

```
        BOOKKEEPING  1/3

    COIN CHUTE #1            0
    COIN CHUTE #2            0
    TOTAL COINS             0

    COIN CREDITS            0
    SERVICE CREDITS         0
    TOTAL CREDITS           0




    PRESS TEST BUTTON TO CONTINUE
```
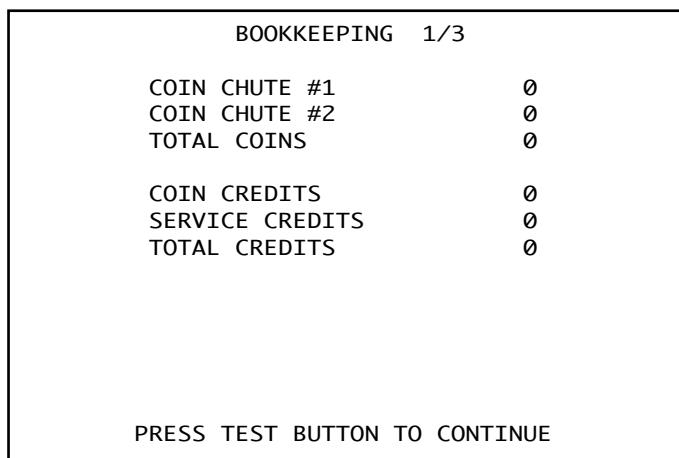
FIG. 9. 3 e a BOOKKEEPING 1/3 screen

The display items for the screen (Page 1 of 3) are as follows.

● COIN CHUTE #1:   The number of coins inserted into Coin Slot 1.

● COIN CHUTE #2:   The number of coins inserted into Coin Slot 2.

● TOTAL COINS: The total number of coins inserted into the coin slots.

● COIN CREDITS: The number of credits for the coins inserted.

● SERVICE CREDITS: The number of credits input by the SERVICE Button.

● TOTAL CREDITS: Total credits from coins and the SERVICE Button

 Press the TEST Button to display the next screen.

```
            BOOKKEEPING  2/3

    NUMBER OF GAMES                 3
    NUMBER OF GAME START            3
    NUMBER OF CONTINUE              0
    NUMBER OF JOIN GAMES            0

    TOTAL TIME           0D 0H10M49S
    PLAY TIME            0D 0H 1M55S
    LONGEST PLAY TIME       0H 1M24S
    SHORTEST PLAY TIME      0H 0M14S
    AVERAGE PLAY TIME       0H 0M38S


     PRESS TEST BUTTON TO CONTINUE
```
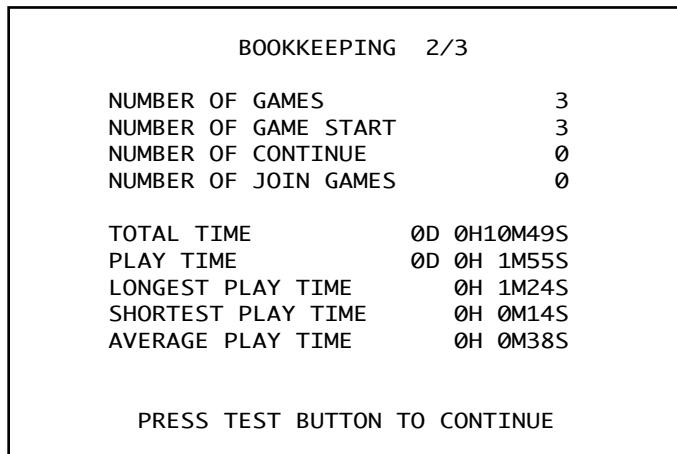
FIG. 9. 3 e b BOOKKEEPING 2/3 screen

The display items for the screen (Page 2 of 3) are as follows.

● NUMBER OF GAMES: The total number of games played by 1P and 2P.

● NUMBER OF GAME STARTS: Number of games started.

● NUMBER OF CONTINUES: Number of times game has been continued.

● NUMBER OF JOIN GAMES: Number of two-player games.

● TOTAL TIME: The amount of time the unit has been in operation.

● PLAY TIME: The sum of 1P's time played and 2P's time played.

● LONGEST PLAY TIME: The longest play time for one game.

● SHORTEST PLAY TIME: The shortest play time for one game.

● AVERAGE PLAY TIME: The sum of all play times divided by the total number of games.

Press the TEST Button to display the next screen (Page 3 of 3).

```
            BOOKKEEPING  3/3
         0M 00S ~  0M 29S    2
         0M 30S ~  0M 59S    0
         1M 00S ~  1M 29S    1
         1M 30S ~  1M 59S    0
         2M 00S ~  2M 29S    0
         2M 30S ~  2M 59S    0
         3M 00S ~  3M 29S    0
         3M 30S ~  3M 59S    0
         4M 00S ~  4M 29S    0
         4M 30S ~  4M 59S    0
         5M 00S ~  5M 29S    0
         5M 30S ~  5M 59S    0
         6M 00S ~  6M 29S    0
         6M 30S ~  6M 59S    0
         7M 00S ~  7M 29S    0
         7M 30S ~  7M 59S    0
         8M 00S ~  8M 29S    0
         8M 30S ~  8M 59S    0
         9M 00S ~  9M 29S    0
         9M 30S ~  9M 59S    0
          OVER    10M 00S    0

        PRESS TEST BUTTON TO EXIT
```
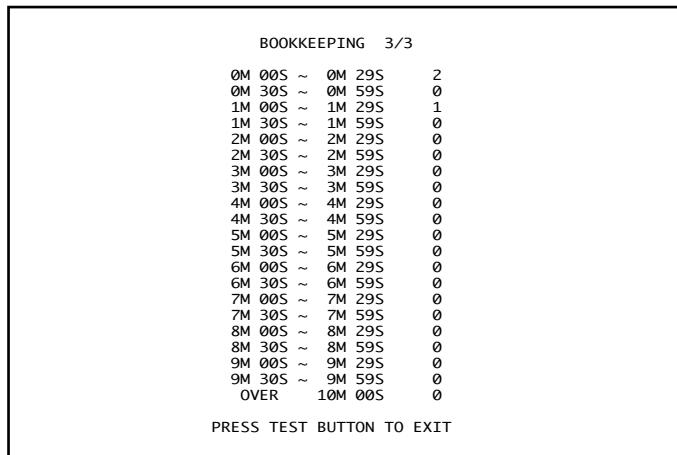
FIG. 9. 3 e e BOOKKEEPING 3/3 screen

PLAY TIME HISTOGRAM shows the number of plays and the respective play times. This histogram should be referred to when setting the Game Difficulty.

This displays play times on a scale from 0M00S to 9M59S with 30-second intervals.
All play times over ten minutes are included in the item OVER 10M00S.

Press the TEST Button after viewing. You will return to the Game Test Menu screen.

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F. BACKUP DATA CLEAR

Select BACKUP DETA CLEAR to clear the contents of BOOKKEEPING, ranking data and coin/credit data.

```
┌─────────────────────────────────────────┐
│                                          │
│            BACKUP  DATA  CLEAR           │
│                                          │
│                                          │
│                                          │
│             YES  (CLEAR)                 │
│          -> NO   (CANCEL)                │
│                                          │
│                                          │
│                                          │
│                                          │
│                                          │
│        SELECT WITH SERVICE BUTTON        │
│          AND PRESS TEST BUTTON           │
│                                          │
└─────────────────────────────────────────┘
```
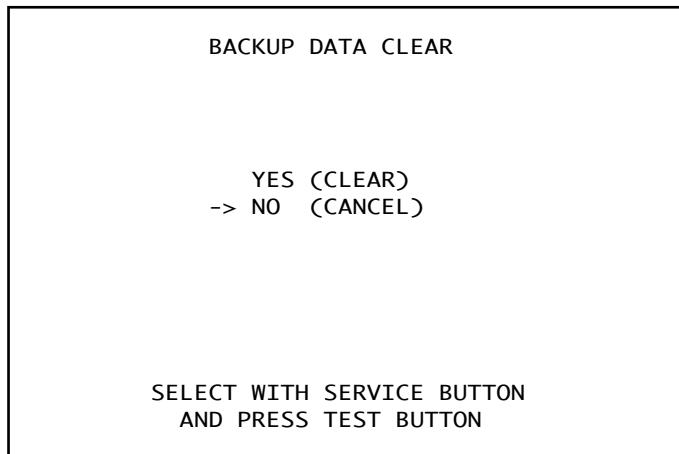
FIG. 9. 3 f BACKUP DATA CLEAR screen

To clear data, use the SERVICE Button to move the cursor to YES (CLEAR) and then press the TEST Button. When the data has been cleared, the message "COMPLETED" will be displayed.

Press the TEST Button again to return to the Game Test Menu screen.

Move the cursor to NO (CANCEL) and press the TEST Button to return to the Game Test Menu screen without clearing the data.

Note that this operation does not affect GAME ASSIGNMENTS or GUN ADJUSTMENT settings.

10. CONTROL UNIT (GUN CONTROLLER)

⚠ **WARNING!**

- In order to prevent an electric shock and short circuit, be sure to turn power off before performing work by touching the interior parts of the product.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a fire risk.
- Be very careful when soldering. Handling a soldering iron carelessly may result in a fire or a burn.

⚠ **CAUTION!**

- When securing the plastic-made parts, do not excessively fasten screws and nuts. Failure to observe this may damage the parts and cause injury due to fragments resulting from damage.
- When reassembling the Gun Controller, be sure to check the connecting portion and the trigger, etc. If the reassembling work is not sufficient and/or correct, it may cause injury resulting from catching fingers.

🛑 **STOP IMPORTANT!**

- Do not cut the tie belt securing the wires in the Control Unit (Gun Controller). Cutting the tie belt may cause malfunctioning of the wire connection. If you cut the tie belt when replacing the wire etc., be sure to secure the wires using a new tie belt as before.
- Follow these directions carefully to avoid damaging or losing small parts.

In the cases where the gun's operation is not satisfactory or the gun sight deviates from the direction in which the control unit is pointed, the gun's interior parts may have been damaged. Replace the parts by disassembling the gun in the following procedure: Also, be sure to perform sighting check in the test mode when the gun parts are replaced.

To replace the Gun Controller's internal components, first separate the left shell (Cover L) and right shell (Cover R). The controller's internal components are mounted on the right shell, so work with the gun lying on its right side. To replace the weapon change button microswitch, first remove the weapon change button from the right shell.

● Turn power off.

● Remove the 10 screws to separate the two shells.

SCREW (10), black
M3×10, w/small flat & spring washers
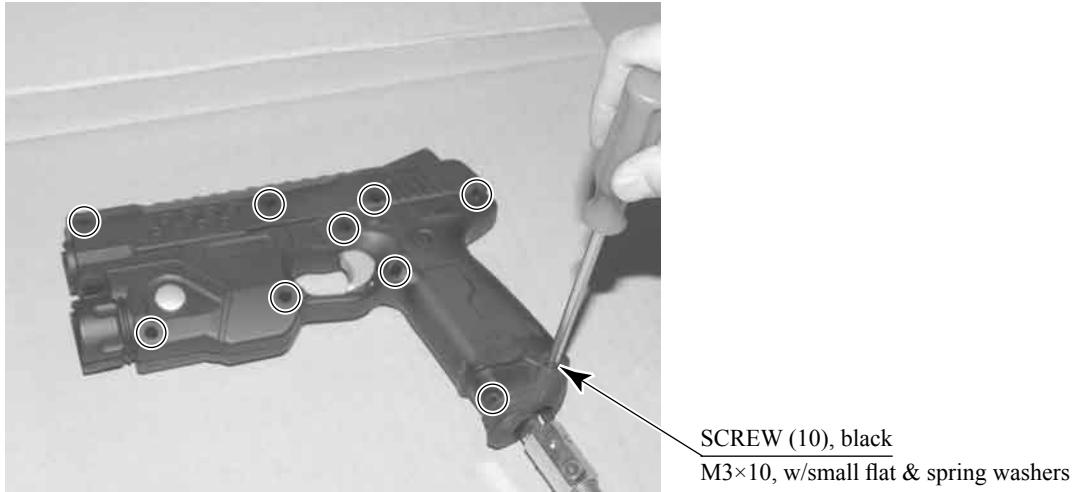
PHOTO 10 a

● With the right shell lying flat, carefully lift the left shell from the right shell.

COVER L

COVER R
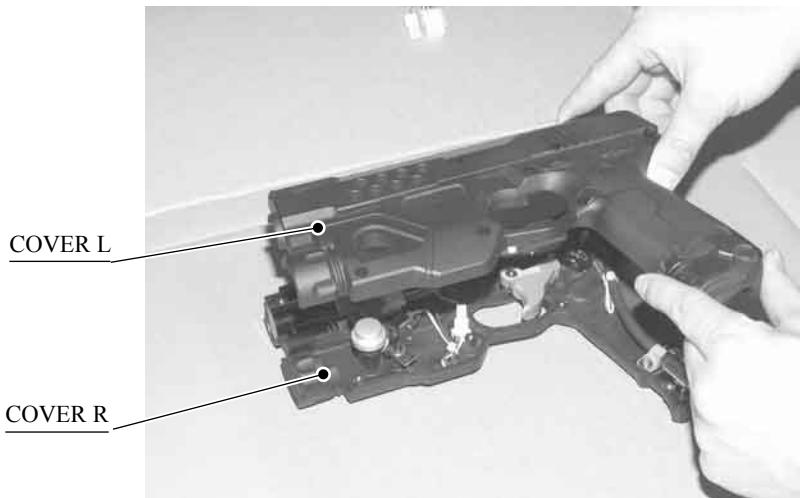
PHOTO 10 b

● Remove the trigger microswitch from the right shell.

MICROSWITCH
509-5080

● Remove the soldering and detach the microswitch.

PHOTO 10 c

● Remove the weapon change button from the right shell.

WEAPON CHANGE BUTTON

PHOTO 10 d

● Remove the spring from the right shell.

SPRING

PHOTO 10 e

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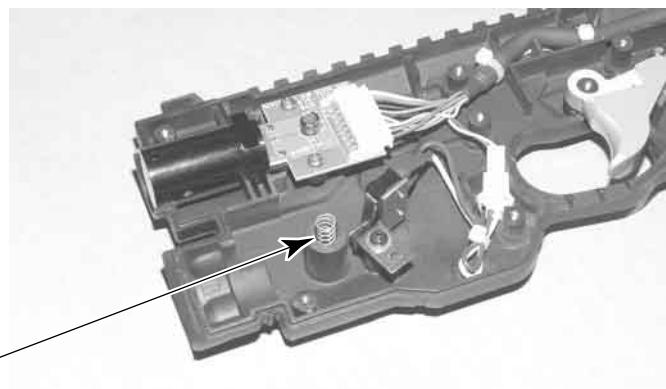
● Remove 1 screw and detach the
microswitch (with SW bracket
attached) from the right shell.

SCREW (1)
M3×8, w/flat & spring washers
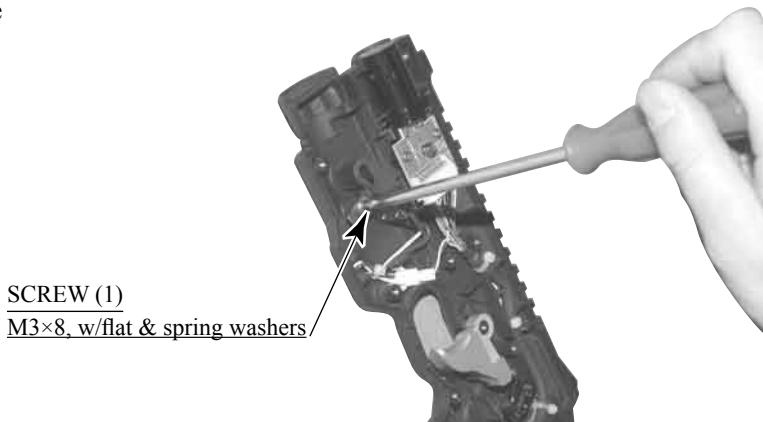
PHOTO 10 f

● Disconnect the microswitch wire connector.

Disconnect the connector.
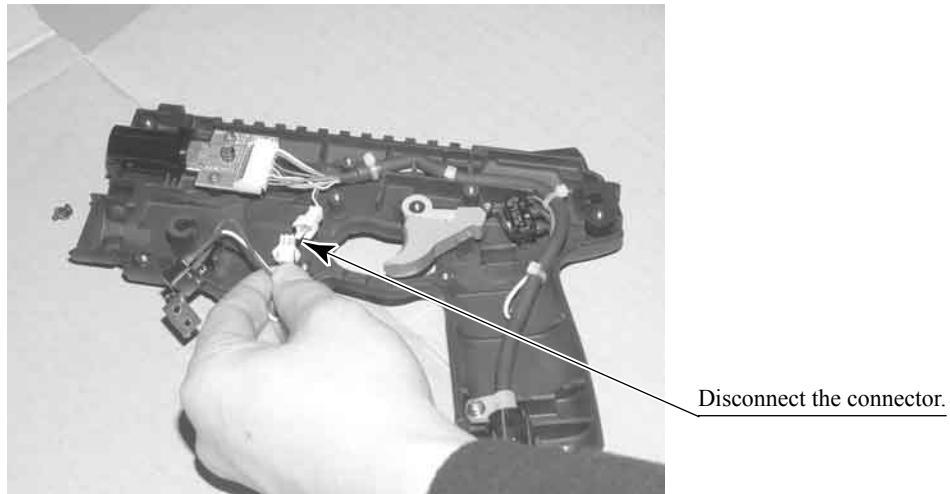
PHOTO 10 g

● Remove the 2 screws and remove the SW bracket from the microswitch.

SCREW (2)
M2.3×10, w/flat & spring washers
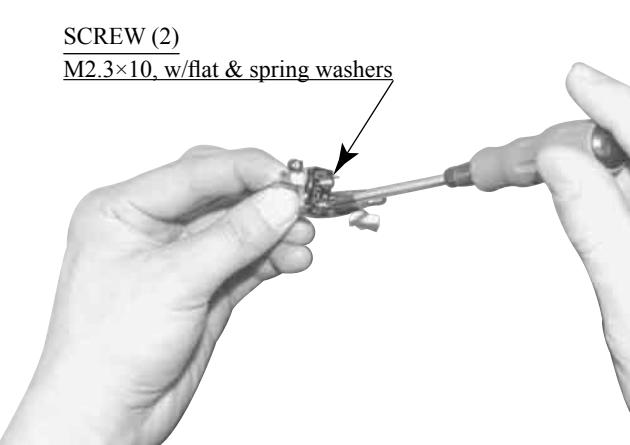
PHOTO 10 h

● Remove the soldering and extract the microswitch.

● Solder a new microswitch and rebuild the gun controller. Make sure that the wire in the right shell (Cover R) and the connector are wired as in the diagram before reattaching the left shell (Cover L) to the right shell. Also, be careful not to overtighten the screws.

COVER L

WEAPON
CHANGE BUTTON

SCREW (10), black

M3×10, w/small flat
& spring washers

Disconnect the connector.

SENSOR UNIT

JPT-2030

COVER R

SPRING

SCREW (1)

M3×8, w/flat & spring washer

SWITCH BRACKET

MICROSWITCH

509-5080

SCREW (2)

M2.3×10, w/flat & spring washers
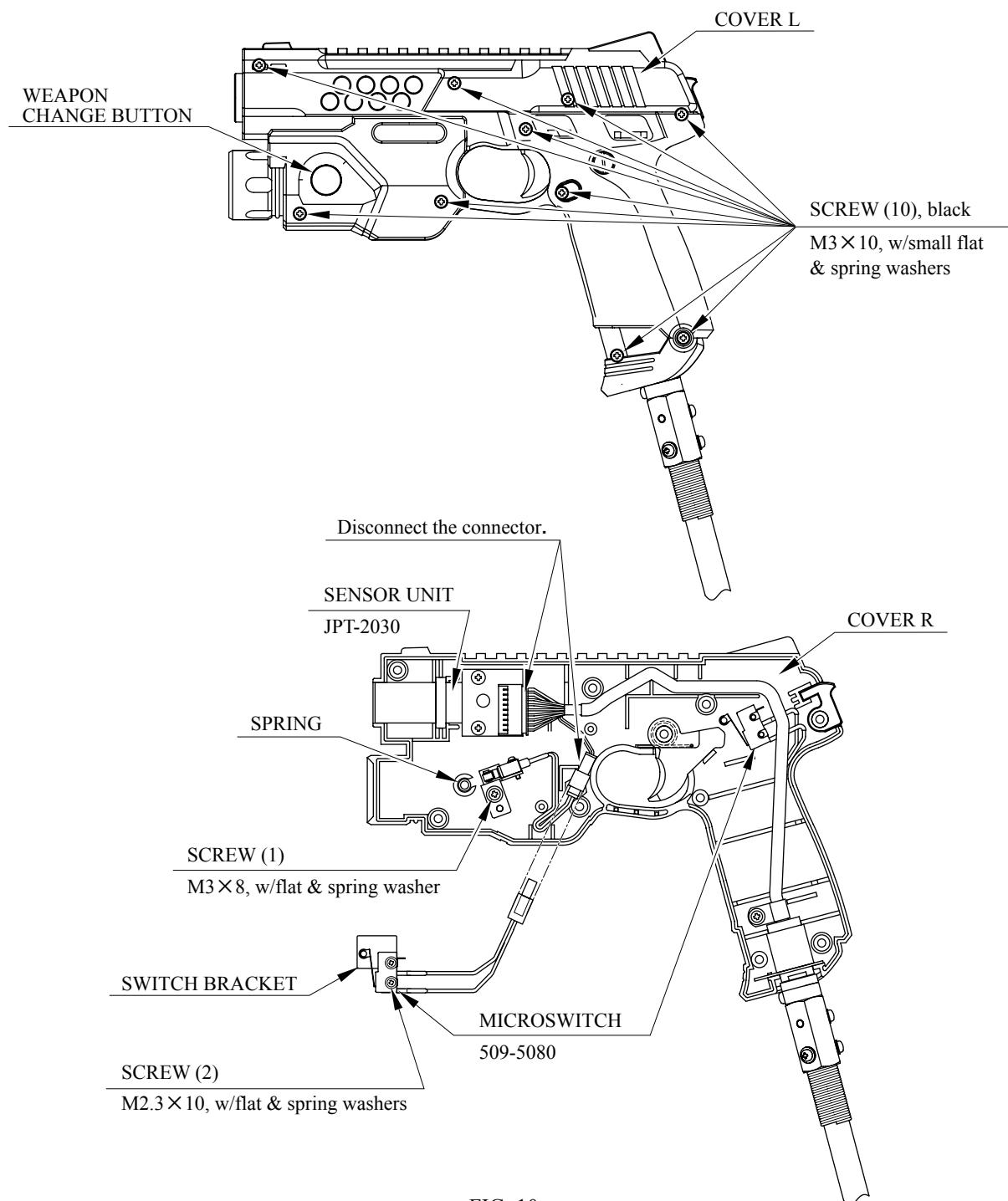
FIG. 10

● Test the trigger and the weapon change button to make sure that the microswitch switches ON and OFF properly.

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● Follow the first 3 steps of "Replacing the Microswitch" to remove the left shell.

● Detach the connector and pull out the sensor unit.
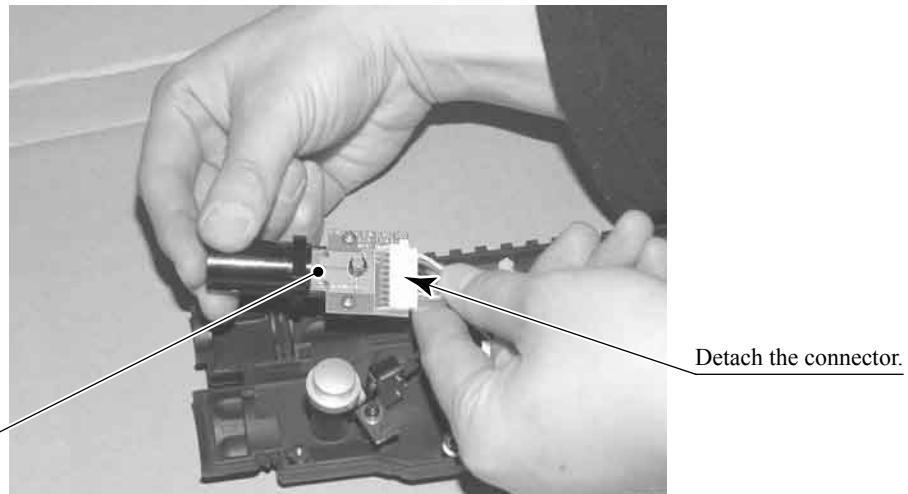
SENSOR UNIT
JPT-2030

Detach the connector.

PHOTO 10 i

11. PROJECTOR

Projector adjustments are stored. Due to distortion or color deviation in the TEST mode, if an adjustment is necessary, use the Remote Control to make adjustments.

11-1 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 benzine, thinner, etc., spill on the screen surface, it may be subject to damage, therefore, do not use them. Also, since the surfaces are susceptible to damage, refrain from rubbing them with a hard material or using a duster.
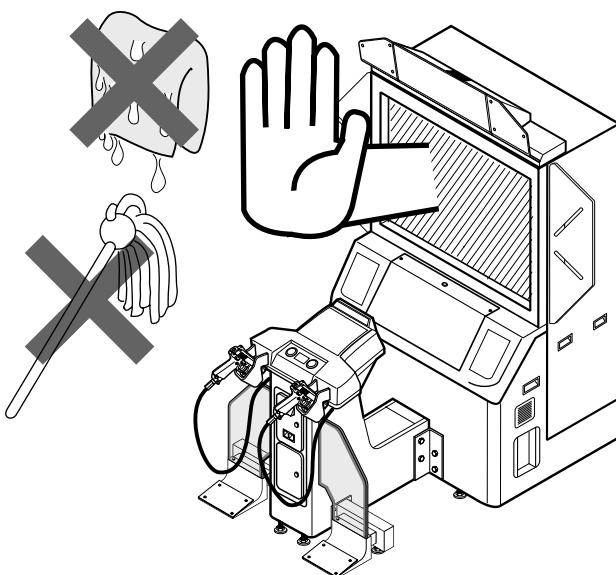

FIG. 11. 1
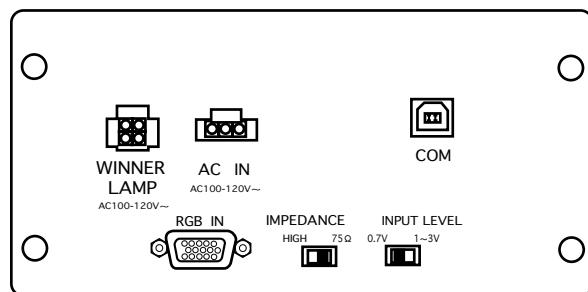
SETTING THE INTERFACE

STOP

IMPORTANT
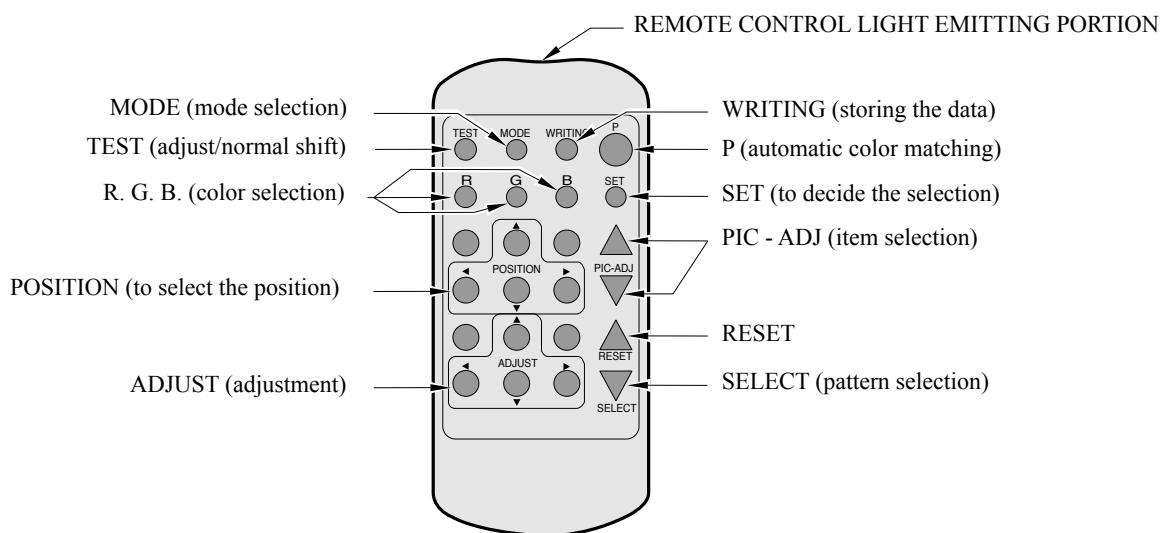
In this product, set to INPUT LEVEL: 0.7 V and IMPEDANCE: 75Ω. Failure to observe this can cause CRT membrane to burn or Shutdown device to function resulting in power off.

The Projector's Connector Panel contains the Interface setting SW.

WINNER LAMP
AC100-120V~

AC IN
AC100-120V~

COM

RGB IN

IMPEDANCE
HIGH   75Ω

INPUT LEVEL
0.7V   1~3V
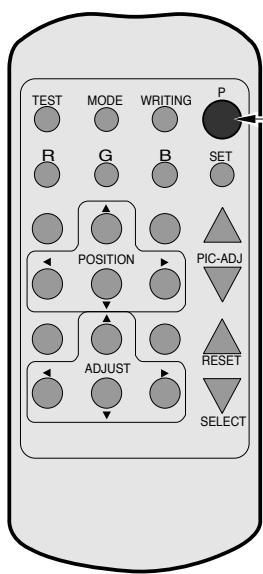
REMOTE CONTROL BUTTONS

When adjusting the Projector, direct the Remote Control's light emitting portion towards the Projector Screen.

REMOTE CONTROL LIGHT EMITTING PORTION

MODE (mode selection)

TEST (adjust/normal shift)

R. G. B. (color selection)

POSITION (to select the position)

ADJUST (adjustment)

TEST   MODE   WRITIN   P

R   G   B   SET

POSITION   PIC-ADJ

ADJUST   RESET   SELECT

WRITING (storing the data)

P (automatic color matching)

SET (to decide the selection)

PIC - ADJ (item selection)

RESET

SELECT (pattern selection)
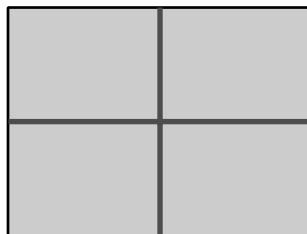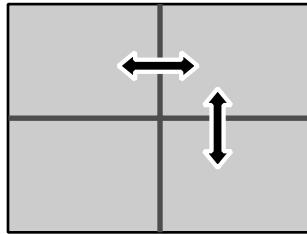
The Projector may be subject to color deviations affected by earth magnetism, the building steel frames, etc. When the Projector is initially installed or the Projector's installation position is changed, have the color matching performed automatically.

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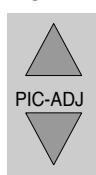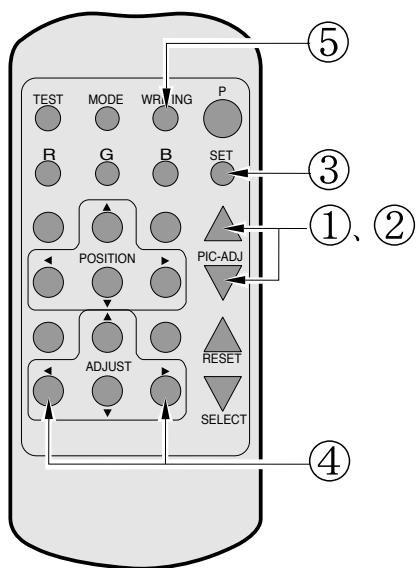
The cross pattern moves up/down and right/left to start the movement of searching the correct screen position and inclination.

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 the 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).

ADJUSTING THE SCREEN BRIGHTNESS
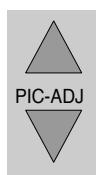
Although the on-screen picture quality has been adjusted at the time of shipment from the factory, readjustment can be made if desired. When the Game Board is replaced, readjustment may be necessary. Changing the BRIGHTNESS causes the brightness of the on-screen images of black portions to be changed.

(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.SIZE
EXIT
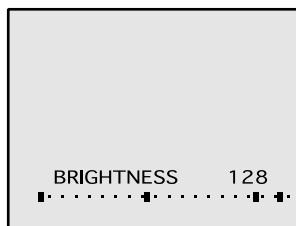
(2) Choose BRIGHTNESS by using either ▲ or ▼ PIC - ADJ button.
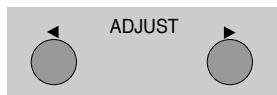
Have the BRIGHTNESS displayed in purple.

CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SIZE
EXIT
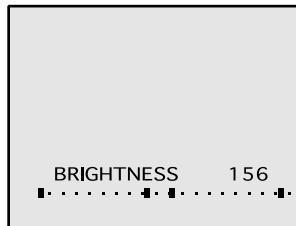
(3) Press the SET button (to decide selection).
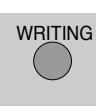
When the selection of the BRIGHTNESS adjustment mode is decided, the adjustment data scale bar appears on the screen.
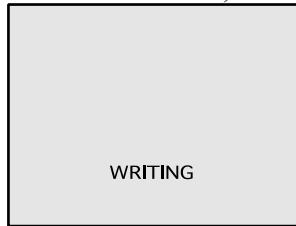
BRIGHTNESS   128

(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 brightness status.
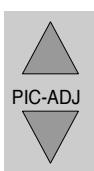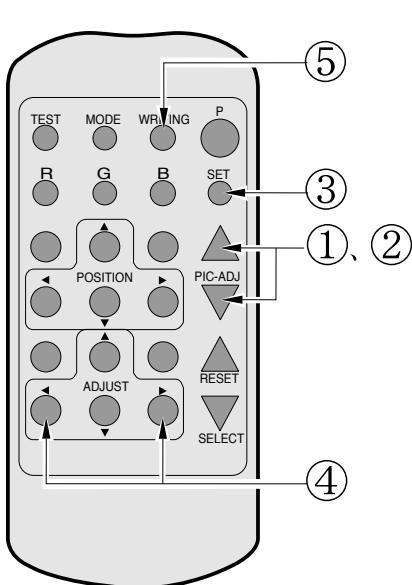
BRIGHTNESS   156

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

The WRITING display appears and the adjustment data is stored.

WRITING

● 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.
● 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 remain when the power is turned on next time.
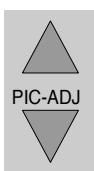
ADJUSTING THE ON-SCREEN DISPLAY POSITION

Although the on-screen display position (H. POSI, V. POSI) has been adjusted at the time of shipment from the factory, readjustment can be made if desired. When the Game Board is replaced, readjustments 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.SIZE
EXIT
```
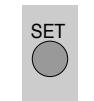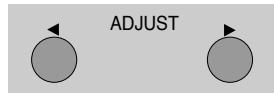
(2) Choose H. POSI or V. POSI by using either ▲ or ▼ PIC - ADJ button.

Have the H. POSI or V. POSI displayed in purple. The Figure shows the status in which H. POSI is selected.

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

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

When the selection of the H. POSI or V. POSI is decided, the adjustment data scale bar appears on the screen.

```
H.POSI      128
```

(4) Make adjustment by using either ◄ or ► ADJUST button.
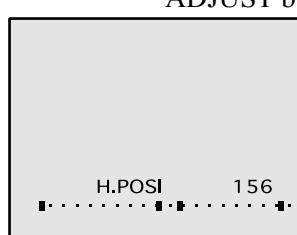
When making adjustments in vertical directions, also use either ◄ or ► ADJUST button.

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

```
H.POSI      156
```

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

The WRITING display appears and the adjustment data is stored.

```
WRITING
```
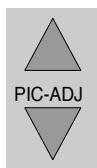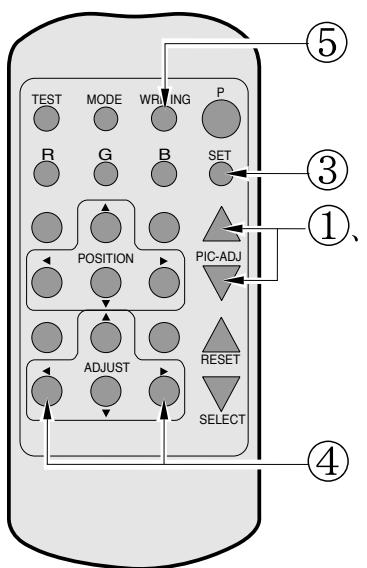
● When discontinuing the adjustment, choose EXIT from the menu at the stage of the second procedure and press the SET button.
● To continue adjusting other menu items, repeat procedure.
● Unless the adjustment data is stored, the data in the adjusted status will be erased at the time the power is turned off and the pre-adjustment status will remain when the power is turned on next time.

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Although the on-screen size (H. SIZE, V. SIZE) has been adjusted at the time of shipment from the factory, readjustment can be made if desired. When the Game Board is replaced, readjustments 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.SIZE
EXIT
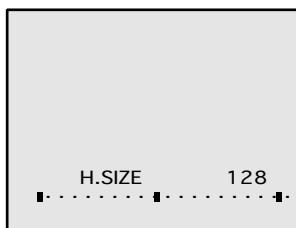
(2) Choose H. SIZE or V. SIZE by using either ▲ or ▼ PIC - ADJ button.

Have the H. SIZE or V. SIZE displayed in purple. The Figure shows the status in which H. SIZE is selected.

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

(3) Press the SET button (to decide selection).
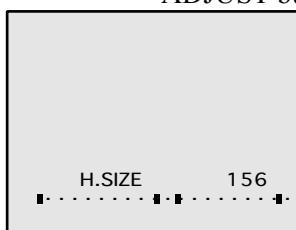
When the selection of the H. SIZE or V. SIZE adjustment mode is decided, the adjustment data scale bar appears on the screen.

H.SIZE   128

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

When making adjustments in vertical directions, also use either ◀ or ▶ button.
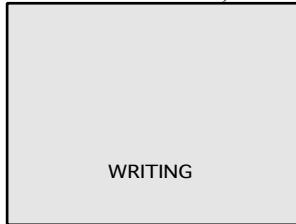
As the Cursor is moved, the adjustment data value changes. Make adjustment so as to obtain the desired on-screen position status.

H.SIZE   156

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

The WRITING display appears and the adjustment data is stored.

WRITING

● When discontinuing the adjustment, choose EXIT from the menu at the second stage of the procedure and press the SET button.
● To continue adjusting other menu items, repeat procedure.
● 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 remain when the power is turned on next time.

CONVERGENCE ADJUSTMENT (manual color matching)

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 Man who are well versed in such adjustment work. In the Static Convergence Adjustments, if satisfactory adjustments can not be performed, do not make another convergence adjustments inadvertently. 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 ▲ or ▼ PIC - ADJ button in the Convergence Adjustment mode status will display the Adjustment Menu shown right. Do not utilize this Adjustment Menu as this is the one applied at the factory.

```
----- ADJUST MODE -----



              SUB V SIZE
              SUB H SIZE
              SUB BRIGHT
              EXIT
```

Adjustment menu used in the factory.

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

Should the menu shown right be displayed by mistake, first choose EXIT by using either ▲ or ▼ PIC - ADJ button and then press the SET button.
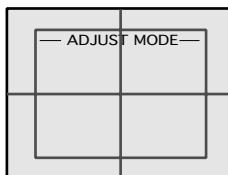
STATIC CONVERGENCE ADJUSTMENT

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.

(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.
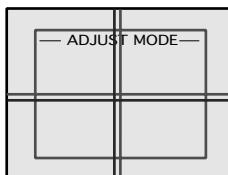
The red test pattern is added to the display. The frame color turns red and this signifies the red adjustment mode.

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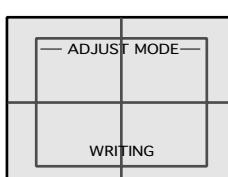
Make adjustment so as to have red superimposed on green. When red is superimposed on green, the color becomes yellow.

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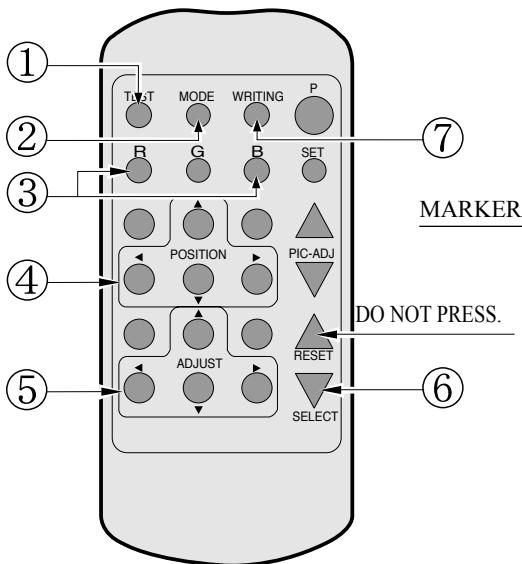
(5) Press the WRITING button (for storing and finish).
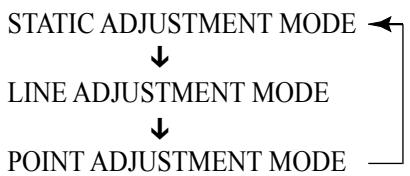
The WRITING display appears and the adjustment data is stored. After the data is stored, the Game mode returns.

DO NOT PUSH THIS.

When either of the 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 Writing, the R button need to be pressed twice.

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 the adjustment.

(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

(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.

DO NOT PRESS.

(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.
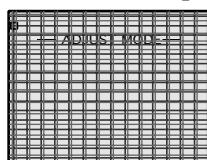
The MARKER moves in the direction of the button's arrow. However, the movable point is predetermined.

(5) Make adjustment by using the ▲▼◀▶ ADJUST buttons.
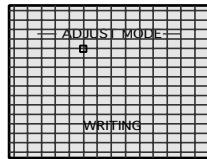
Although the direct vicinity of the MARKER's center moves most conspicuously, make adjustment by paying attention to the periphery area also. Shown left is the magnified MARKER periphery.

(Note 2) When either of the COLOR SELECT buttons (R, B) is pressed, if the desired color to be adjusted disappears, 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.
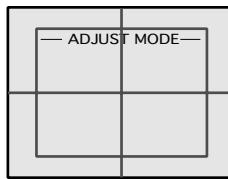
(Note 3) By repeatedly pressing the SELECT button, only the Projector's TEST pattern screen and the screen superimposing the Game Board Test pattern can be alternately displayed.

(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.

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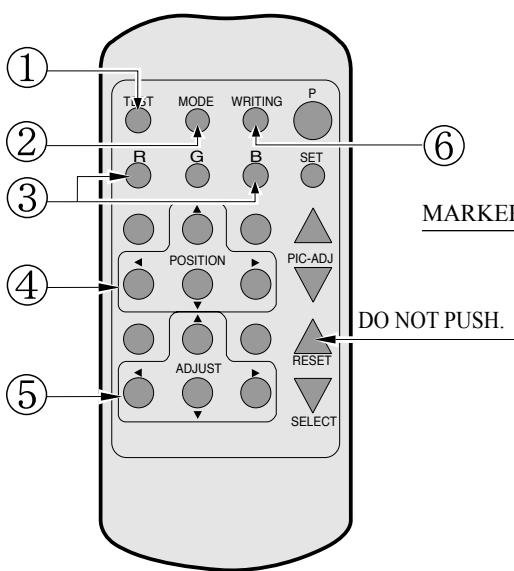
LINE CONVERGENCE ADJUSTMENT

In the LINE CONVERGENCE adjustment, the adjustment point of the column line (vertical) or row line (horizontal) is comprehensively moved for color matching. It is convenient to utilize this adjustment when the color of the column line or row line is uniformly deviated.

(1) Keep pressing the TEST button for approximately 3 seconds.
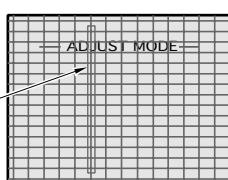
The screen changes to ADJUST MODE from the Game Board mode and displays the green test pattern.

(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.

MARKER
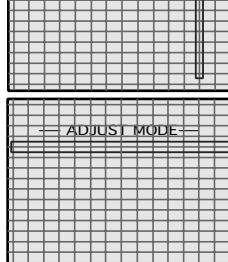
(3) Using either R or B button, select the desired color to be adjusted. (Note 2) Although the green color can also be selected by using the G button, to avoid the screen size change adjustment, do not choose green.

The selected color is displayed by superimposing on green. The MARKER will be in the color selected.

DO NOT PUSH.

(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

(Note 2) When either of the COLOR SELECT buttons (R, B) is pressed, if the desired color to be adjusted disappears, press that particular button again.
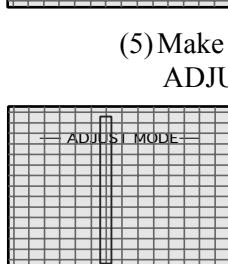
(4) By using the ▲ ▼ ◄ ► POSITION buttons, move the MARKER to the position to be adjusted.

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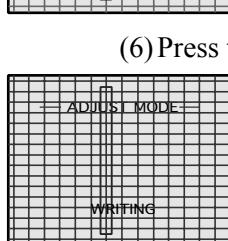
Use the ▲ ▼ buttons to select the row line and the MARKER moves in the up/down direction. However, the movable range is predetermined.

(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.

12. COIN SELECTOR

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

STOP

IMPORTANT!

- ● Remove and clean smears by using a soft cloth dipped in water or diluted chemical detergent and then squeezed dry.
- ● Never apply machine oil, etc. to the Coin Selector.
- ● After cleaning the Coin Selector, insert a regular coin in the normal working status and ensure that the Selector correctly functions.
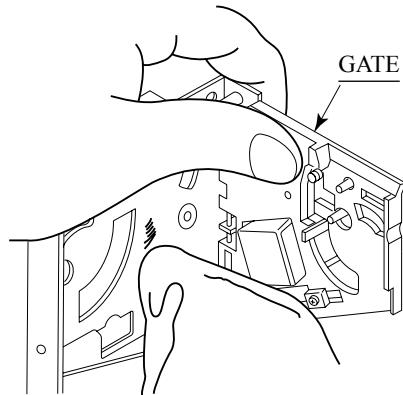
FIG. 12 a

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

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

FIG. 12 b

COIN INSERTION TEST

Once every 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
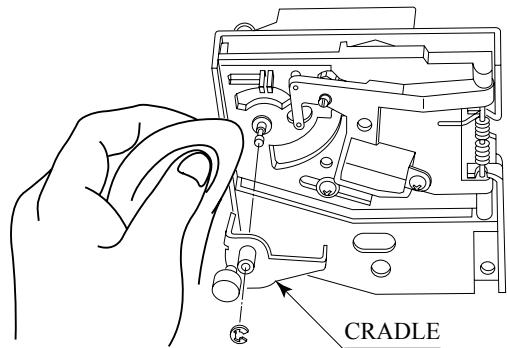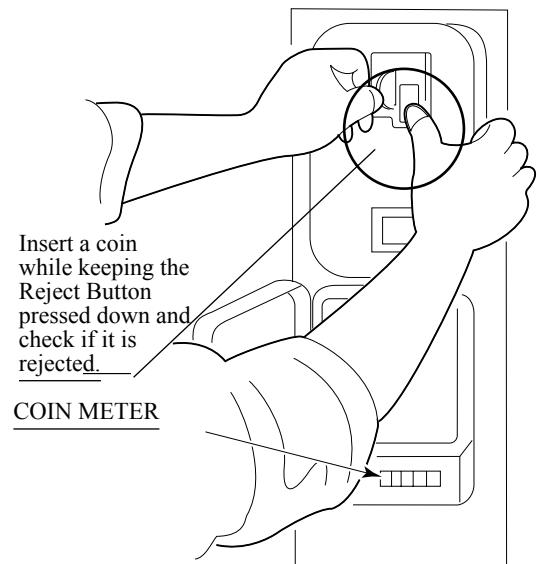
FIG. 12 c
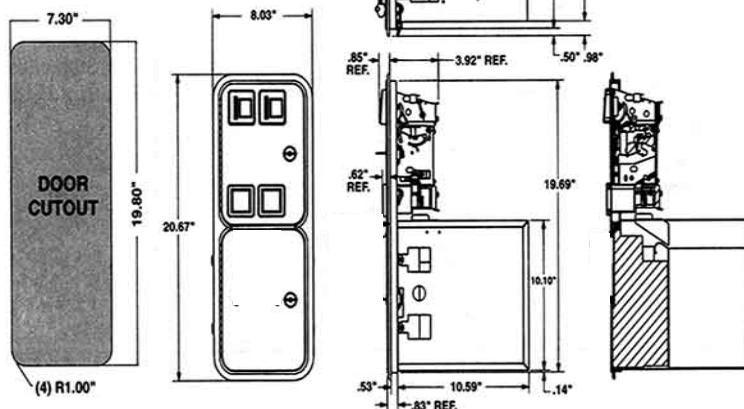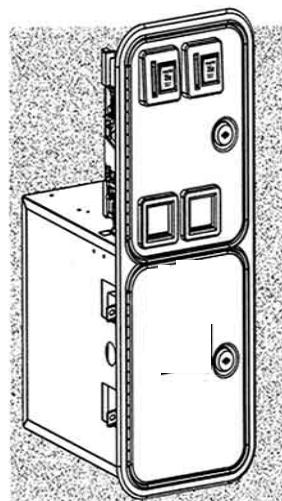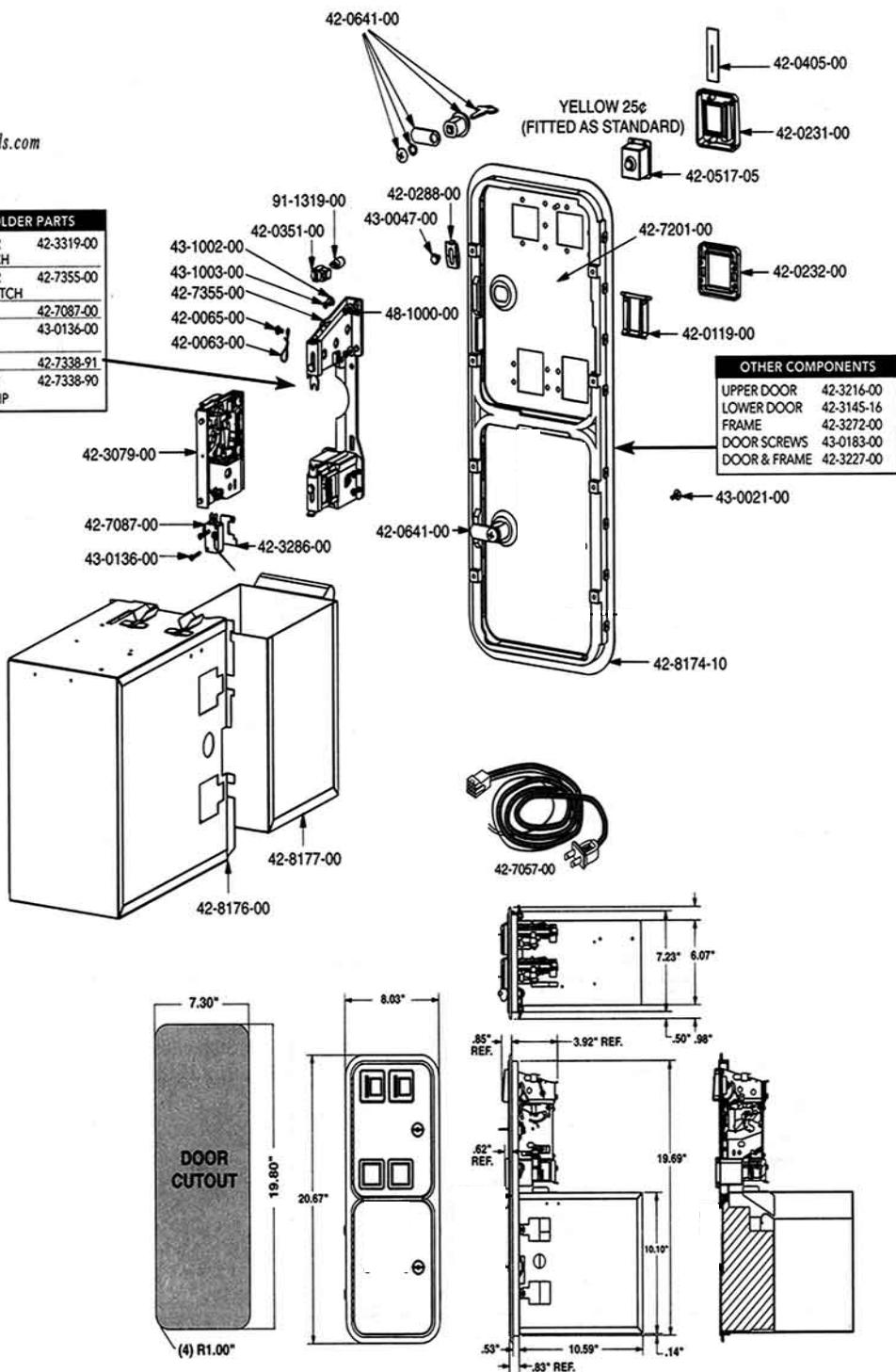
COIN DOOR

Tom Happ
tom.happ@happcontrols.com
Happ Controls
106 Garlisch Drive
Elk Grove, IL. 60007
Ph. 847-593-6161 ext. 107
Fx. 847-956-2091

Visit our website http://www.happcontrols.com

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MECH HOLDER PARTS	
MECH HOLDER W/COIN SWITCH	42-3319-00
MECH HOLDER W/O COIN SWITCH	42-7355-00
COIN SWITCH	42-7087-00
SCREW FOR COIN SWITCH	43-0136-00
METAL CLIP	42-7338-91
THUMBSCREW FOR METAL CLIP	42-7338-90

42-0641-00

42-0405-00

YELLOW 25¢ (FITTED AS STANDARD)

42-0231-00

42-0517-05

42-7201-00

42-0232-00

91-1319-00
42-0351-00
43-1002-00
43-1003-00
42-7355-00
42-0065-00
42-0063-00

42-0288-00
43-0047-00

48-1000-00

42-0119-00

42-3079-00

42-7087-00
43-0136-00

42-3286-00

42-0641-00

OTHER COMPONENTS	
UPPER DOOR	42-3216-00
LOWER DOOR	42-3145-16
FRAME	42-3272-00
DOOR SCREWS	43-0183-00
DOOR & FRAME	42-3227-00

43-0021-00

42-8174-10

42-8177-00

42-8176-00

42-7057-00

7.23" 6.07"

7.30"

8.03"

.85" REF.

3.92" REF.

.50" .98"

DOOR CUTOUT

19.80"

20.67"

.62" REF.

19.69"

10.10"

(4) R1.00"

.53"

10.59"

.14"

.83" REF.

13. REPLACING THE FLUORESCENT LAMP/OTHER LAMPS

⚠ **CAUTION!**

- When performing work, be sure to turn power off. Working with power on can cause electric shock and short circuit hazards.
- The Fluorescent Lamp, when it gets hot, can cause burn. 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.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a fire risk.
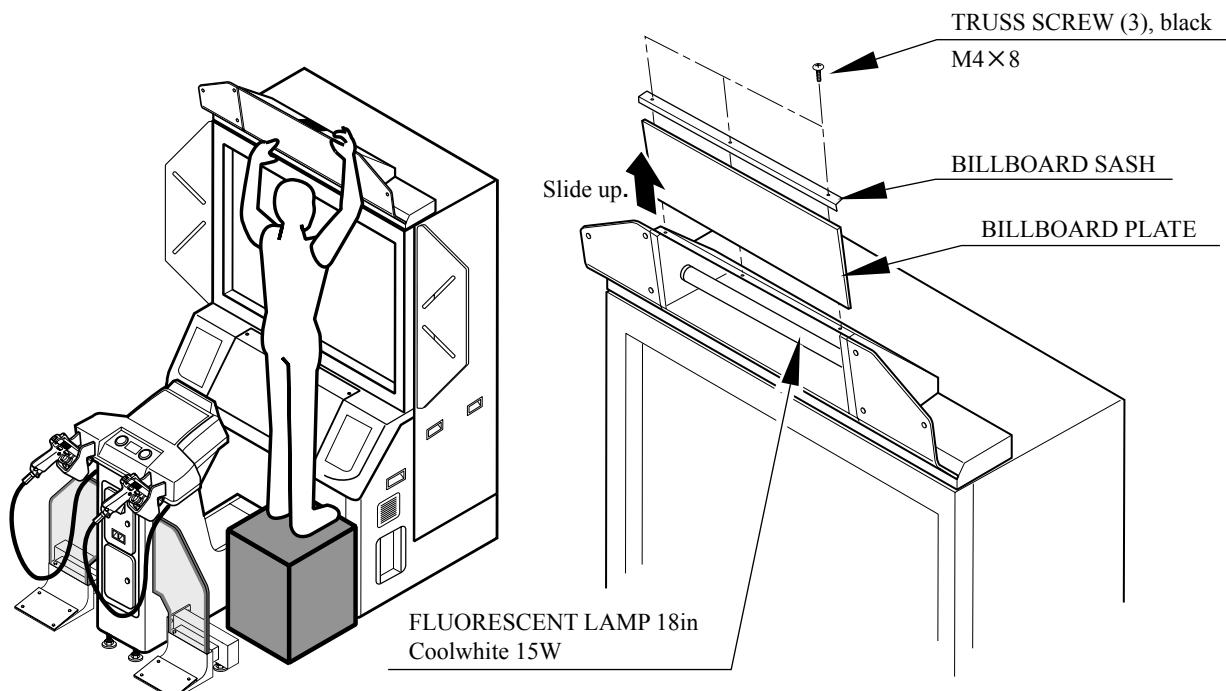
⚠ **WARNING!**

- To perform work safely and securely, be sure to prepare a step which is in a secure and stable condition. Performing work without using the step can cause violent falling down accidents.
- Be careful when handling the plastic made parts. Failure to observe this may cause injury due to damage or fragments resulting from damage.

INSIDE THE BILLBOARD

Remove the billboard sash, slide up the billboard plate, and replace the fluorescent lamp.

TRUSS SCREW (3), black
M4×8

BILLBOARD SASH

Slide up.

BILLBOARD PLATE

FLUORESCENT LAMP 18in
Coolwhite 15W

When performing work, prepare a step.

FIG. 13 a

● Take out the 8 screws and remove Control Panel DX.

CONTROL PANEL DX

TRUSS SCREW (8), chrome
M4×8, flat washer used.
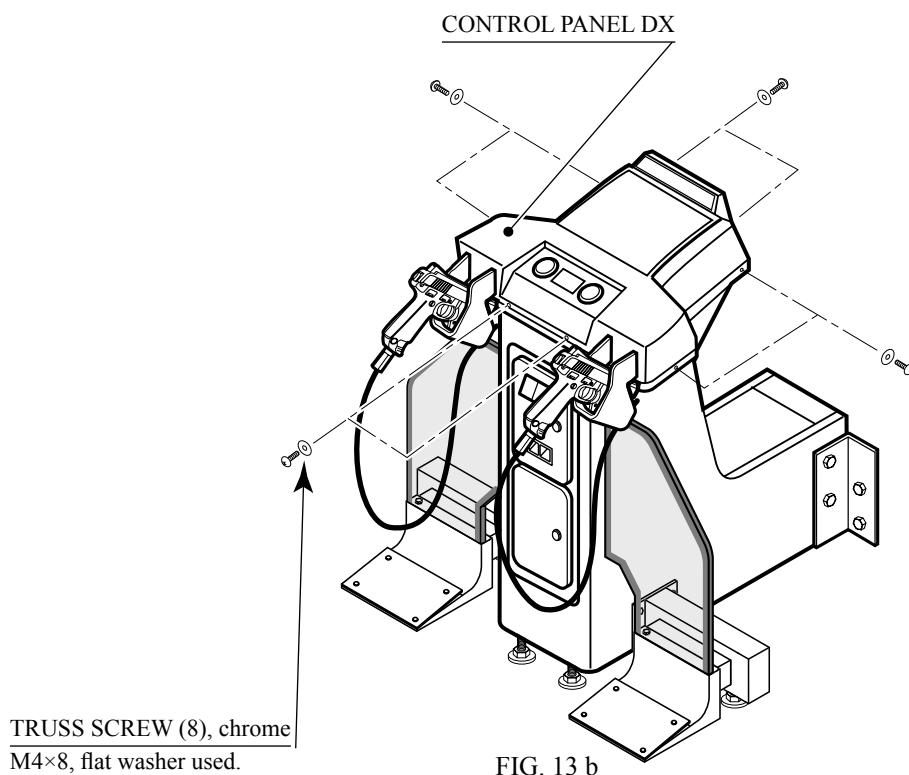
FIG. 13 b

● Hold both sides of the switch portion with fingers and pull out from the button's base portion. At this time, be careful so as not to damage the wiring connected to the switch.

● The lamp is positioned at the end of the switch portion. Pull out the lamp straight without turning it.

WEDGE BULB, 6V 3W
390-5160
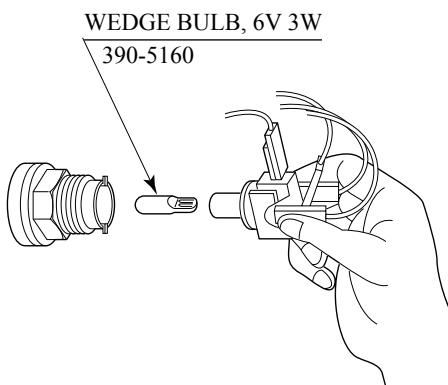
FIG. 13 c

14. PERIODIC INSPECTION TABLE

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

When handling the control unit, 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. Also, it is advisable to provide wet tissue, etc. available for player use.

⚠ **WARNING!**

- Be sure to check once a year to see if Power Cords are damaged, the plug is securely inserted, dust is accumulated between the Socket Outlet and the Power Plug, etc. Using the product with dust as is accumulated can cause fire and electric shock hazards.
- Never use a water jet, etc. to clean inside and outside the cabinet. If wetness occurs for any reason, do not use the product until it has completely dried.
- Periodically once a year, request the place of contact herein stated or the Distributor, etc. where the product was purchased from, as regards the internal 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.

TABLE 14

	Item	Interval
CABINET	Check Adjusters'contact with surface.	Daily
CONTROL UNIT (GUN CONTROLLER)	Cleaning	As necessary
	Sight check	Weekly
	Check SWes.	Monthly
COIN CHUTE DOOR	Check COIN SW.	Monthly
	Coin insertion test	Monthly
	Cleaning of COIN SELECTOR	Trimonthly
PROJECTOR	SCREEN cleaning	Weekly
	Check adjustments.	Monthly or when moving
GAME BD	MEMORY TEST	Monthly
	Check settings.	Monthly
INTERIOR	Cleaning	Annually
POWER SUPPLY PLUG	Inspection and cleaning	
CABINET SURFACES	Cleaning	As necessary

CLEANING THE CABINET SURFACES

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

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15. TROUBLESHOOTING

15-1 PROBLEMS NOT INVOLVING THE GAME BOARD

In case a problem occurs, first check wiring connector connections.

⚠️ **WARNING**

- In order to prevent electric shock and short circuit, be sure to turn power off before performing work.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a fire risk.
- After removing the cause of the functioning of the Circuit Protector, reinstate the Circuit Protector. Depending on the cause of the functioning, using the Circuit Protector as is without removing the cause can cause generation of heat and fire hazard.

TABLE 15. 1 a

| PROBLEMS	CAUSE	COUNTERMEASURES
With Main SW ON, no activation.	Power is not supplied.	Securely insert the power plug into the plug socket.
	Power supply/voltage is not correct.	Make sure that power supply/voltage is correct.
	The Circuit Protector functioned due to the momentary overload.	After eliminating the cause of overload, reinstate the AC Unit's Circuit Protector .
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.

CIRCUIT PROTECTOR

CIRCUIT PROTECTOR

Functions due to the activation of bimetal. To restore the function, wait for approximately one minute or longer until the bimetal cools off. (Press the Button.)

FIG. 15. 1 a
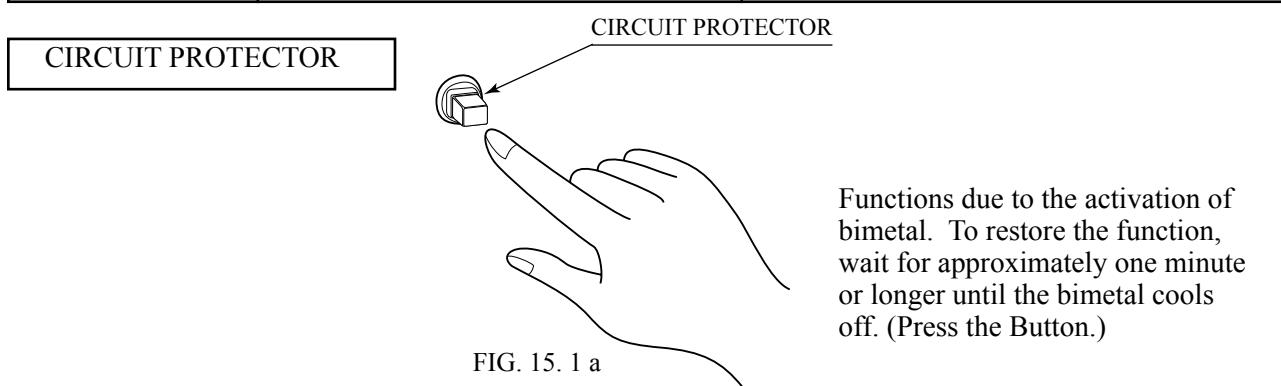
TABLE 15. 1 b

PROBLEMS	CAUSE	COUNTERMEASURES
No sound is emitted.	Sound volume adjustment is not appropriate.	Adjust sound volume
	Board and Amplifier malfunctioning.	Perform the sound test and confirm .
Control Unit sighting is not satisfactory.	Due to environmental changes, etc., sighting became inappropriate.	Perform sighting adjustment in the test mode .
	LED BD malfunctioning.	Check to ensure that the LED lights up. If it does not light up, replace .
	Sensor Unit malfunctioning.	Replace the Sensor Unit .
	LED board and LED board cover are contaminated.	Wipe off soiled surfaces
During game play, the Control Unit is not operable for shooting.	Malfunctioning of microswitch.	Check for ON and OFF in the INPUT test and if it is not functioning, replace the microswitch .
	Malfunctioning of LED BD.	Check if the LED is lit, and if it is not lit, replace .
	Malfunctioning of Sensor Unit.	Replace the Sensor Unit.
The weapon change button does not function properly.	Microswitch malfunction.	Perform the input test to check that the button switches ON and OFF properly. If the button is not functioning properly, replace the microswitch .
The Fluorescent lamp does not light up.	The Fluorescent tube is burnt out.	Replace the Fluorescent tube
The Lamp does not light up.	Lamp malfunctioning.	Replace the Lamp .

REPLACING THE LED BD

In case two of LED's do not emit light, failure and malfunctioning may be considered. Replace in the following procedure. When removing surface soils, also use the following procedure.

If the light emission from the 2 LED's can not be seen, replace.
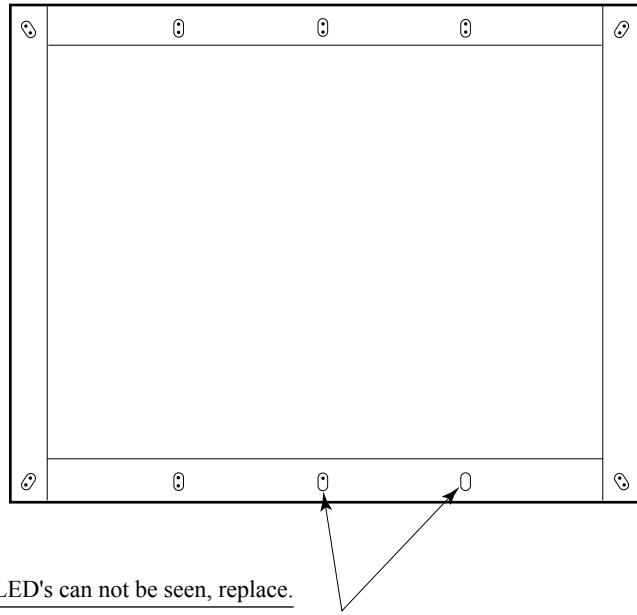
FIG. 15. 1 b

● Turn the power off.

● The Mask has the LED Board. Disconnect the Connectors from both ends of LED Board, remove 2 U Nuts, take out and replace the LED Board. At this time, pay attention to the direction of the LED Board, and install it.

● After replacing the LED Board, be sure to perform sighting check according to the test mode.

LED BD
838-13145-02

U NUT (2)
M3, plastic washer used.

FIG. 15. 1 c

WARNING!
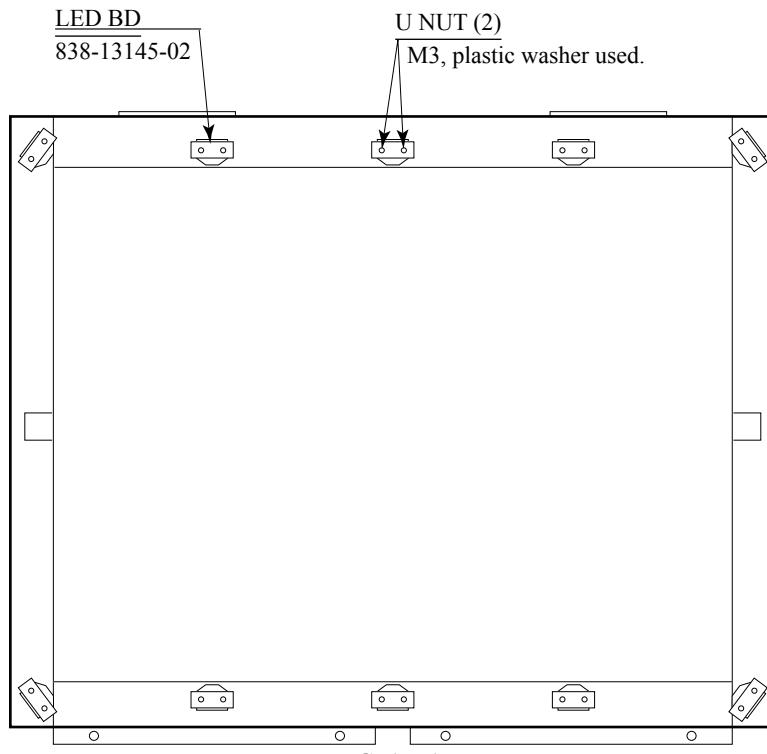
● If an error code is displayed, have a Location's Maintenance Man or Service-man resolve it. If someone without specialized or technical knowledge attempts to rectify the problem, electric shock, short circuits or fire may result. If there is no store maintenance person or technician available, turn the power OFF immediately, and contact your retailer or the office listed in this manual.
● If problems other than those noted in this manual occur, or the countermeasures suggested result in no improvement, do not try to rectify the problem by other means. Turn the power OFF immediately, and contact your retailer or the office listed in this manual. Careless countermeasures can result in unexpected accidents.

STOP

IMPORTANT!

● If error No. 20 is generated, the power must be turned OFF and ON again in order to clear it.
● When requesting replacement or repair of the Game Board or Media Board, put the board in the special purpose packing box specified in this manual for transportation.

Chihiro displays error messages on the screen to indicate various problems.
If an error message is displayed, the game cannot be started. In this case, refer to the following section on causes and countermeasures.
In the text for this product below, "Media Board" and "DIMM" are one and the same.

Error 02
[DISPLAY]   Error 02
                                 Main board malfunctioning.
[CAUSE]   MAIN BOARD is inoperative.
[COUNTERMEASURES]   Verify that the MAIN BOARD is connected properly.

Error 03
[DISPLAY]   Error 03
                                 Bad serial number on main board.
[CAUSE]   Unable to read MAIN BOARD serial ID.
[COUNTERMEASURES]   Disconnect the MEDIA BOARD from the MAIN BOARD and
                                 send the MAIN BOARD for repair.

Error 04
[DISPLAY]   Error 04
                                 Bad serial number on media board.
[CAUSE]   Unable to read MEDIA BOARD serial ID.
[COUNTERMEASURES]   With the MEDIA BOARD still attached to the MAIN BOARD,
                                 send the Chihiro for repair.

Error 05
[DISPLAY]   Error 05
                                 This game is not acceptable by main board.
[CAUSE]   The game is a foreign edition.
[COUNTERMEASURES]   Use the domestic version of the game.

Error 11

[DISPLAY]	Error 11
	JVS I/O board is not connected to main board.
[CAUSE]	(1) I/O BOARD is not connected.
	(2) Unreliable connection between MAIN BOARD and I/O BOARD.
[COUNTERMEASURES]	(1) Connect the I/O BOARD to the MAIN BOARD. Verify that the power cable is connected to I/O BOARD.
	(2) Reconnect or replace the USB CABLE that connects the I/O BOARD to the MAIN BOARD.

Error 12

[DISPLAY]	Error 12
	JVS I/O board does not fulfill the game spec.
[CAUSE]	Correct I/O BOARD is not connected.
[COUNTERMEASURES]	Use an I/O BOARD that provides the proper input/output for the game.

Error 21

[DISPLAY]	Error 21
	This game is not acceptable by main board.
[CAUSE]	Game data loaded from the GD-ROM to the DIMM BOARD is corrupted.
[COUNTERMEASURES]	Verify the GD-ROM DRIVE and Chihiro connection.
	Check the GD-ROM disc for scratches, dust or dirt.

Error 22

[DISPLAY]	Error 22
	Communication error occurred between main board and media board.
[CAUSE]	No response from DIMM BOARD to MAIN BOARD.
[COUNTERMEASURES]	Ensure that the DIMM BOARD and the GD INTERFACE BOARD are properly connected.
	Should the problem persist, the DIMM BOARD or GD INTERFACE BOARD may be damaged.

Error 23

[DISPLAY]	Error 23
	GD-ROM drive cover is open.
[CAUSE]	The GD-ROM DRIVE cover is open.
[COUNTERMEASURES]	Ensure the GD-ROM DRIVE cover is firmly closed.

Error 24

[DISPLAY]	Error 24
	GD-ROM is not found.
[CAUSE]	GD-ROM disc is not found.
[COUNTERMEASURES]	Insert the GD-ROM disc correctly.
	Verify that the disc is a Chihiro GD-ROM disc.
	Check the GD-ROM disc for scratches, dust or dirt.

Error 25

[DISPLAY]	Error 25
	Cannot access GD-ROM drive.
[CAUSE]	(1) Unable to access GD-ROM DRIVE.
	(2) The GD-ROM DRIVE cover is open.
[COUNTERMEASURES]	(1) Verify that the GD CABLE and the power cable are
	properly connected to the GD-ROM DRIVE.
	(2) Close the GD-ROM cover securely.
	Should the problem persist, the GD-ROM DRIVE
	may be damaged.

Error 26

[DISPLAY]	Error 26
	Media board malfunctioning.
[CAUSE]	KEY CHIP is not found.
[COUNTERMEASURES]	Attach the proper KEY CHIP for the game.
	Insert the KEY CHIP securely.

Error 27

[DISPLAY]	Error 27
	DIMM memory is not enough.
[CAUSE]	(1) Insufficient DIMM MEMORY on DIMM BOARD.
	(2) DIMM MEMORY is not connected securely.
[COUNTERMEASURES]	(1) Provide a suitable amount of DIMM MEMORY for
	the software.
	(2) Verify that the DIMM MEMORY is connected
	securely to the DIMM BOARD.

Caution 51

[DISPLAY]	Caution 51
	Wrong video output setting of horizontal scanning frequency.
[CAUSE]	The game does not support horizontal sync frequency setting.
[COUNTERMEASURES]	Change the No. 2□4 and 6□8 DIPSW correcty on the
	CONNECTOR BOARD.
	The monitor must support these frequencies.
	(See "16-2 COMPOSITION OF GAME BOARD".)

Caution 52

[DISPLAY]	Caution 52
	Wrong video output setting of horizontal/vertical screen.
[CAUSE]	The game does not support the vertical/horizontal screen
	settings.
[COUNTERMEASURES]	Change the No. 1 DIPSW on the CONNECTOR BOARD.
	ON is for vertically placed monitor screens, OFF is for
	horizontally placed monitor screens.
	Change the monitor placement from vertical to horizontal or vice
	versa if necessary.
	(See "16-2 COMPOSITION OF GAME BOARD".)

16. GAME BOARD

⚠ **WARNING**

- In order to prevent electric shock and short circuit hazards, be sure to turn power off before performing work.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a fire risk.
- Do not expose the Game BD, etc. without a good reason. Failure to observe this can cause electric shock hazard or malfunctioning.
- Do not use this product with connectors other than those that were connected and used with the Game Board at the time of shipping. Do not carelessly connect wires to connectors that were not used at the time of shipping, as this may cause overheating, smoke or fire damage.

⚠ **CAUTION**

- 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 so as not to cause electric shock and malfunctioning.
- Static electricity from your body may damage some electronics devices on the IC board. Before handling the IC board, touch a grounded metallic surface so that the static electricity can be discharged.

16-1 REMOVING THE GAME BOARD

- Turn off power.

- Take off the 2 screws from the cabinet, unlock, and remove the LID UPPER.

TRUSS SCREW (2), black
M4×16

Unlock.

LID UPPER
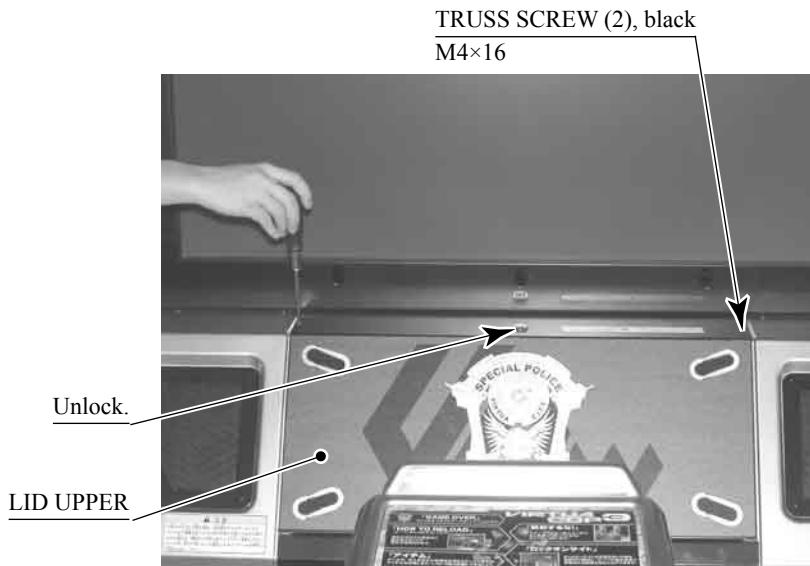
PHOTO 16. 1 a

● Disconnect all connectors from the ASSY MAIN BD. There are 3 connectors on the left side. Unclamp the cord clamp on the upper right and disconnect the USB connector attached to the connect board.

CONNECTOR (3)

PHOTO 16. 1 b

Remove the cord clamp.

USB CONNECTOR
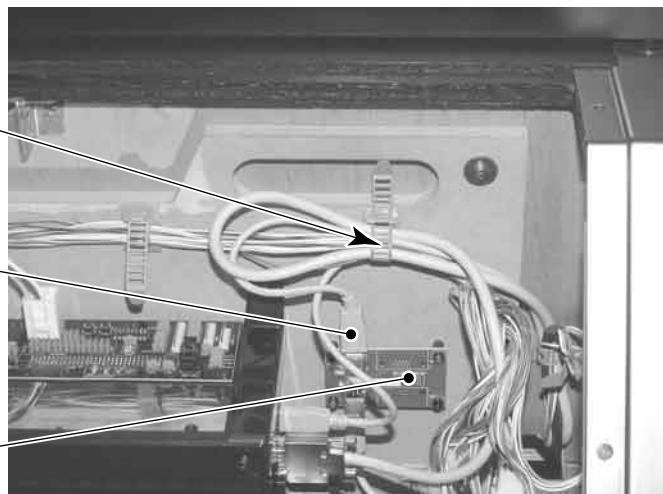
CONNECT BOARD

PHOTO 16. 1 c

● Disconnect 7 connectors.

CONNECTOR (7)

PHOTO 16. 1 d

101
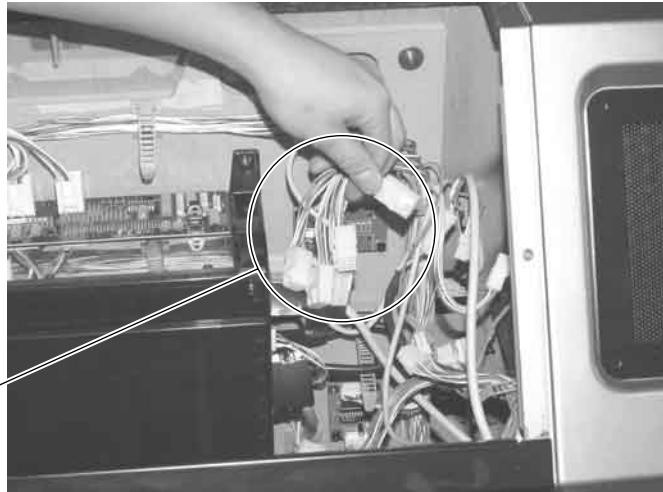
● Loosen the screws on either side of the D-SUB connector connected to the Chihiro Board and disconnect.

D-SUB CONNECTOR
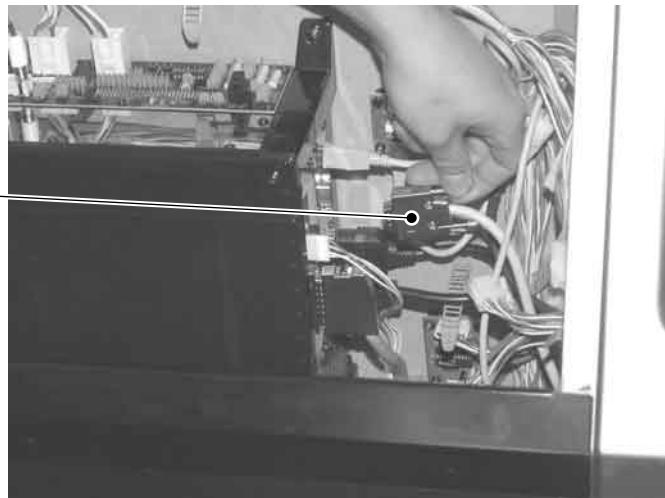
PHOTO 16. 1 e

● Remove the 2 screws that fasten the ASSY MAIN BD wooden Base .

SCREW (2)
M5×35, w/spring washer, flat washer used.
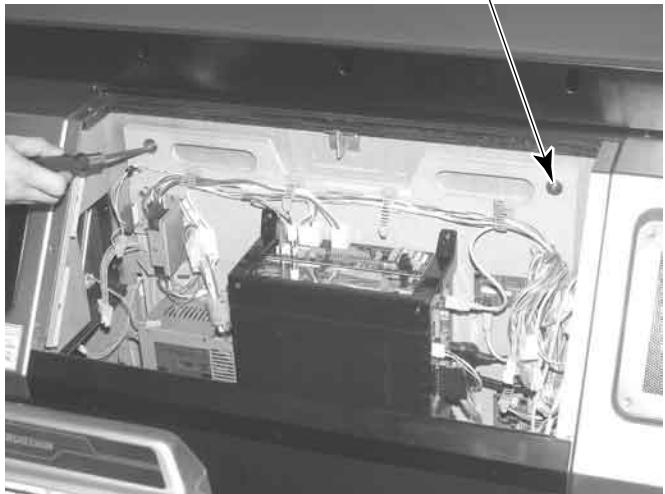
PHOTO 16. 1 f

● Extract the ASSY MAIN BD from the Cabinet with the Chihiro Board attached.
At this time, be careful not to damage the wiring.

PHOTO 16. 1 g

● Work with the ASSY MAIN BD
  set on a level surface.

PHOTO 16. 1 h

● Unplug all connectors connected
  the Chihiro Board. Unplug the Gl
  Cable connector on the side of the
  Media Board on the upper part of
  the Chihiro Board.

Unplug all connectors.
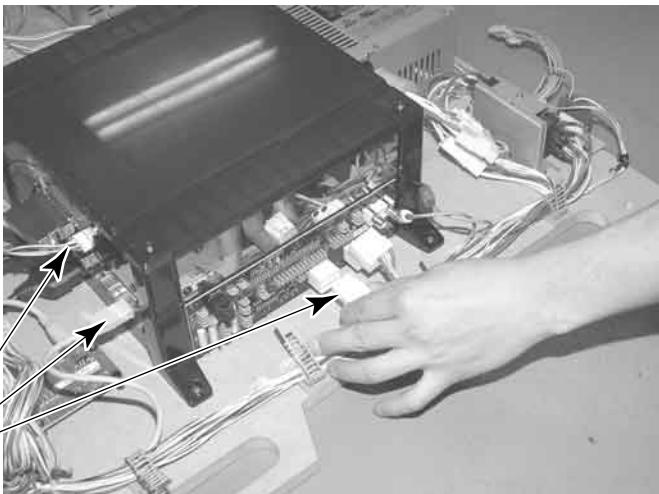
PHOTO 16. 1 i

● Unplug the AVIP Cable connected
  to the Chihiro Board.
  Because the AVIP Cable is packed
  with it when the Chihiro Board
  is transported, unfasten the cord
  clamp that fastens the cable and
  remove it.

AVIP CABLE
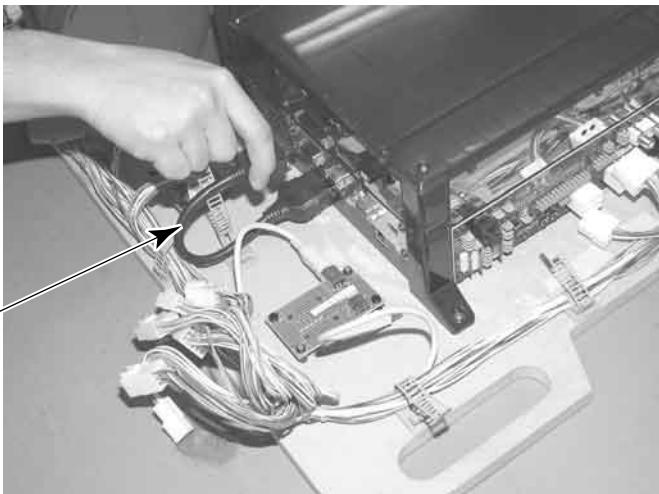
PHOTO 16. 1 j

● Remove the 4 screws and remove the Chihiro Board from the Base.

SCREW (4)
M4×16, w/flat & spring washers
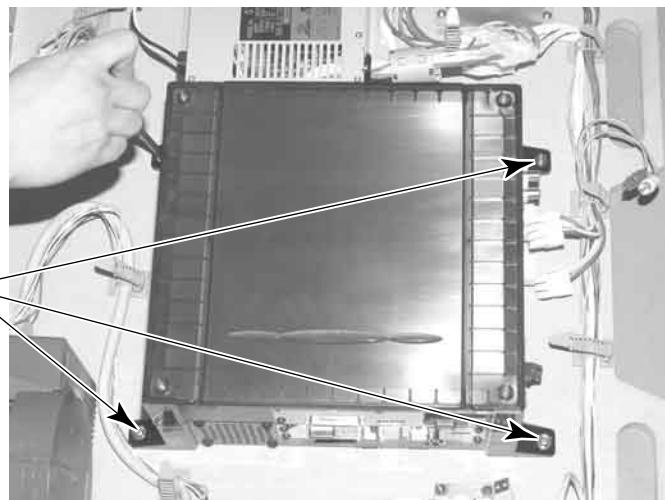
PHOTO 16. 1 k

REMOVING THE GD-ROM DRIVE

Take out the ASSY MAIN BD from the PTV cabinet; and then remove the GD-ROM drive from the ASSY MAIN BD as follows:

● Carry out the "Removing the Game Board" procedures and remove the ASSY MAIN BD from the cabinet.

● Remove the GD cable connector and the AC cable connector from the GD-ROM drive.

AC CABLE CONNECTOR

GD CABLE CONNECTOR
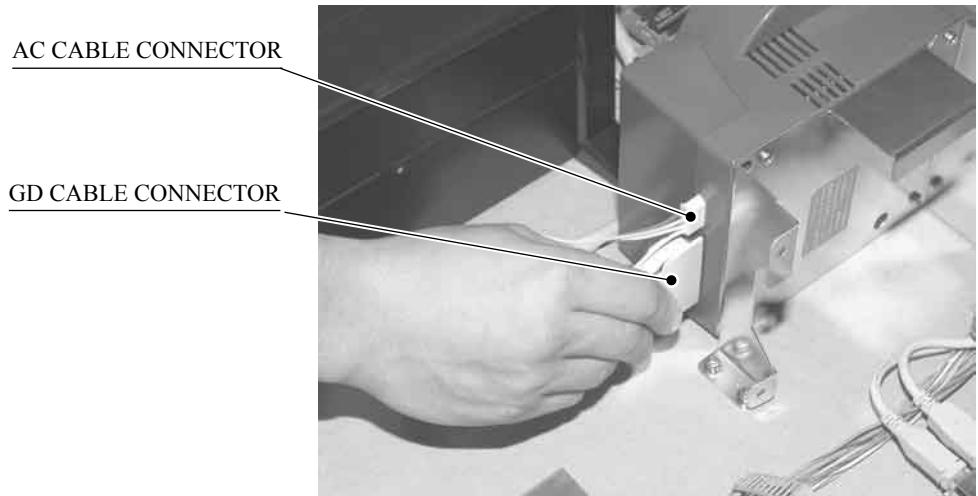
PHOTO 16. 1 l

● Take off the 4 screws to remove the GD-ROM drive.

SCREW (4)
M4×16, w/flat & spring washers

PHOTO 16. 1 m

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STOP IMPORTANT!
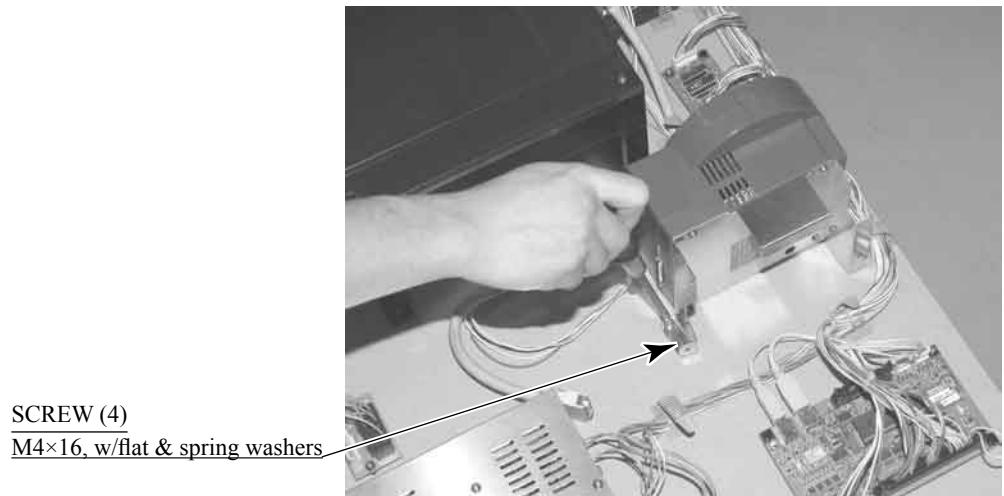
Once the Chihiro Board has the Key Chip inserted, it is this product's specialized Game Board.

ASSY CASE BOX VCT EXP(843-0003D-02)
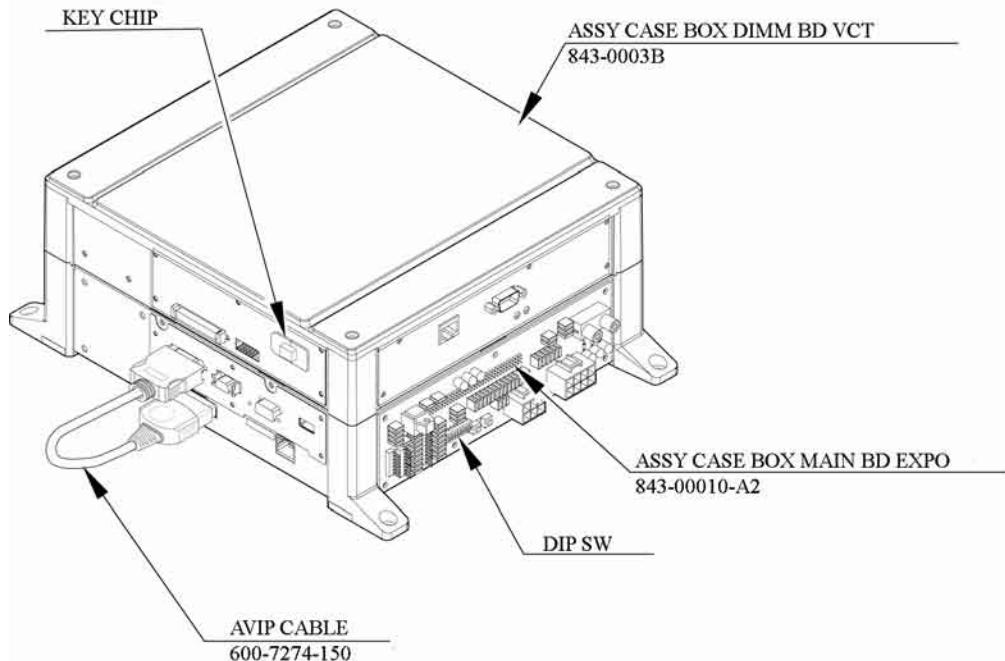
FIG. 16. 2 a

DIP SW SETTING

Use this product with the DIP SW settings shown in the figure below.
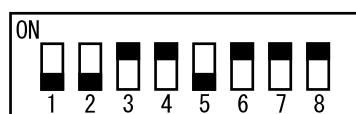
FIG. 16. 2 b

WARNING!

● To prevent overheating, explosion, or fire:
  • Do not recharge, disassemble, heat, incinerate, or short the battery.
  • Do not allow the battery to come into direct contact with metallic objects or other batteries.
  • To preserve the battery, wrap it in tape or other insulating material.
● Follow local regulations when disposing of the battery.
  Improper disposal can damage the environment.

CAUTION!

To avoid risk of malfunction and damage:
● Make sure the positive and negative ends are aligned correctly.
● Use only batteries approved for use with this unit.

STOP IMPORTANT!

If an error appears indicating that the battery power is very low within the first year of use, it is usually an indication of a problem or abnormality with something other than the battery. Be sure to inspect the board that the battery is connected to.

● There is a Media Board Button Battery underneath the Media Board.
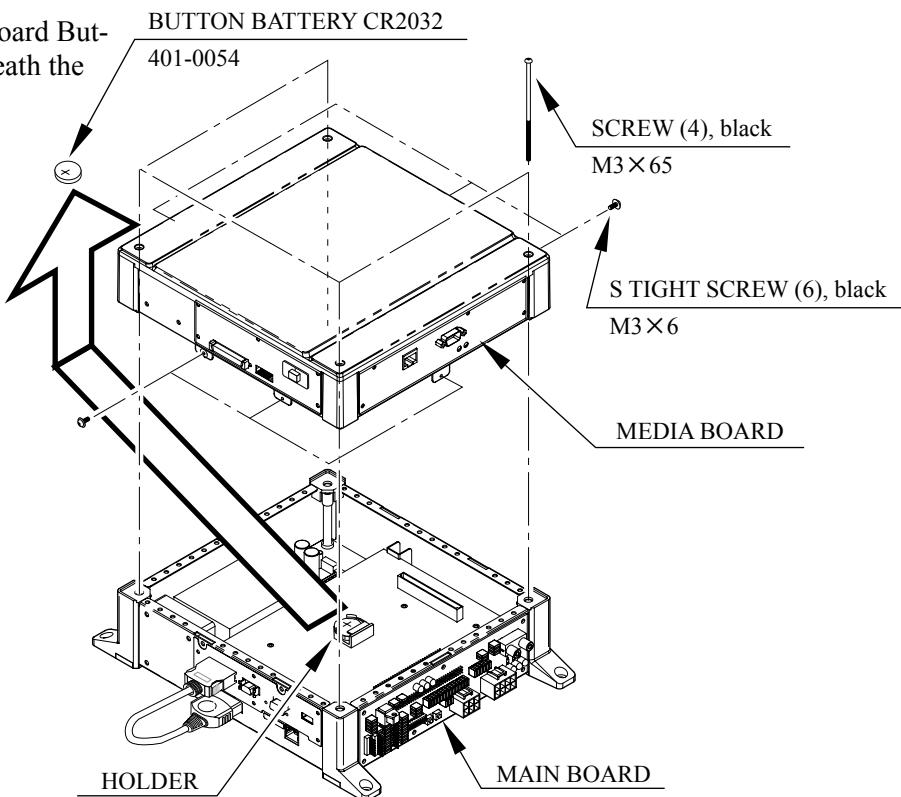
FIG. 16. 3

● Carefully remove the battery from its holder.

● Insert a new battery into the holder with the "+" terminal facing up.

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Prohibitions and Cautions to Handle the Battery Pack

Be careful when handling the battery pack.
We bear no responsibility for problems caused by handling clearly contrary to the content of this manual.

⚠ **WARNING!**

● Do not disassemble the battery pack and the batteries.
If you should fail to observe this instruction, the internal wires and/or protective devices may be damaged; as a result the safety system may not function when discharging and recharging, eventually causing an overheating, fire and explosion. If you should disassemble the batteries, the generated gases may harm your throat and the negative plate may overheat and make a fire.

● Do not make an external short circuit of the battery pack and the batteries.
If you should fail to observe this instruction, the batteries may overheat, make a fire, and explode.

● Do not fire the battery pack and the batteries.
If you should fail to observe this instruction, the batteries may make a fire and explode.
Do not leave the battery pack and the batteries nearby the heat source (fire or heater) or under the intense direct sunlight and flaming sun. If you should fail to observe this instruction, the batteries may reduce the service life and in the worst case may overheat, make a fire, and explode.

● Do not leave the battery pack and the batteries in water or seawater. Also do not apply water or seawater onto the battery pack and the batteries. If you should fail to observe this instruction, the internal wires and/or protective devices may be damaged; as a result the safety system may not function when discharging and recharging, eventually causing an overheating, fire and explosion. Also water may be electrolyzed into oxygen and hydrogen, and eventually the battery's sealed section may be corroded and the internal liquid may leak.

● Do not solder on the battery pack's terminals.
If you should fail to observe this instruction, the armor may be heated and melted or the internal wires may be damaged, eventually causing an overheating, fire and explosion. Also, when the battery's temperature reaches to 100º or more, the battery may leak its internal liquid due to destruction of its plastic parts (gasket, separator, etc.), or may overheat, make a fire, or explode due to internal short-circuit.

● Do not insert or connect the battery in a reversal polarity.
If you should fail to observe this instruction, the battery may be externally short-circuited and eventually overheat, make a fire, or explode, depending on the device you connect with.

- Do not tightly seal the battery pack when installing it onto an external device. Flammable gas is generated from the battery when its safety mechanism has functioned. If you should fail to observe the above-described instruction, sparks from motors, switches, etc. may cause the gas to fire. Therefore, install the battery pack so that the gas can be quickly released from the external device.
- Do not use the battery pack for the device/usage other than this game system. If you should fail to observe this instruction, the battery and/or the device may be damaged due to non-applicable specifications.
- Do not strike a nail in, hammer, step on, or apply any other forms of pressures and shocks on, the battery.
  If you should fail to observe this instruction, the battery may be deformed. As a result, the battery may burst at its sealed sections to leak the internal liquid, or may be short-circuited internally to overheat, make a fire, and explode.
- Do not use a battery charger because any battery charger is not usable for this battery pack.
  If you should fail to observe this instruction, the gas may be suddenly generated in the battery and eventually the battery may overheat, make a fire or explode.
- If the battery in use or in keeping shows an abnormal indication (deformation, change of color, bursting of the armor cover, etc.), immediately stop using or keeping it. If it leaks and smells abnormally, immediately keep it away from fire and put it in a safety box.
- If the liquid leaks from the battery and gets in your eyes, do not rub your eyes but immediately wash them with clean water (city water etc.); and consult a medical doctor for a treatment. If you should fail to observe this instruction, the liquid may harm your eyes.
- The battery pack armor (a polyvinyl chloride tube) may be damaged or deformed by external force or heat. When transporting the battery pack or replacing it with a new one, therefore, be careful not to drop or excessively shock it. Do not continue to use any damaged or deformed battery pack. If you should fail to observe this instruction, the battery may overheat, make a fore, or explode.
- The battery pack contains a printed circuit board (PCB) for protective circuitry. It may be destroyed by the static electricity. When handling or servicing the battery pack, therefore, take preventive measures against the static electricity.
  If your battery pack has shown destruction of a protective circuitry PCB, do not continue to use it. If you should fail to observe this instruction, the battery may overheat, make a fore, or explode.
- When wiring the battery pack to a device, be careful not to apply excessive force onto the connectors and lead wires. The battery may overheat, make a fire, or explode if the connectors and lead wires are damaged.
- Do not do away with the used battery packs carelessly because they may contaminate the environment. Be sure to dispose of the used battery packs in accordance with the laws/regulations of your country.

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If the GD-ROM read time becomes excessively long, it is likely that the Media Board battery pack life if running low.
No battery pack charger is available.
Follow the procedure to replace the battery pack.

● Remove 4 screws from the upper face of the board.

● Remove the top cover.

● Remove 1 tapping screw and remove the cover battery holder.

● Disconnect the connector at the end of the wire coming out of the battery pack. Remove by pressing the projection on the connector and pulling.

● Securely connect the new battery pack.

● Attach the cover battery holder and top cover.

Submit the used battery packs to an industrial waste disposal plant. Thus they must be disposed according to the local laws and the regulations in your country.

SCREW (4), black
M3×65

TOP COVER

TAPPING SCREW (1), black
3×8

COVER BATTERY HOLDER

BATTERY PACK
401-0081

CONNECTOR

MEDIA BOARD
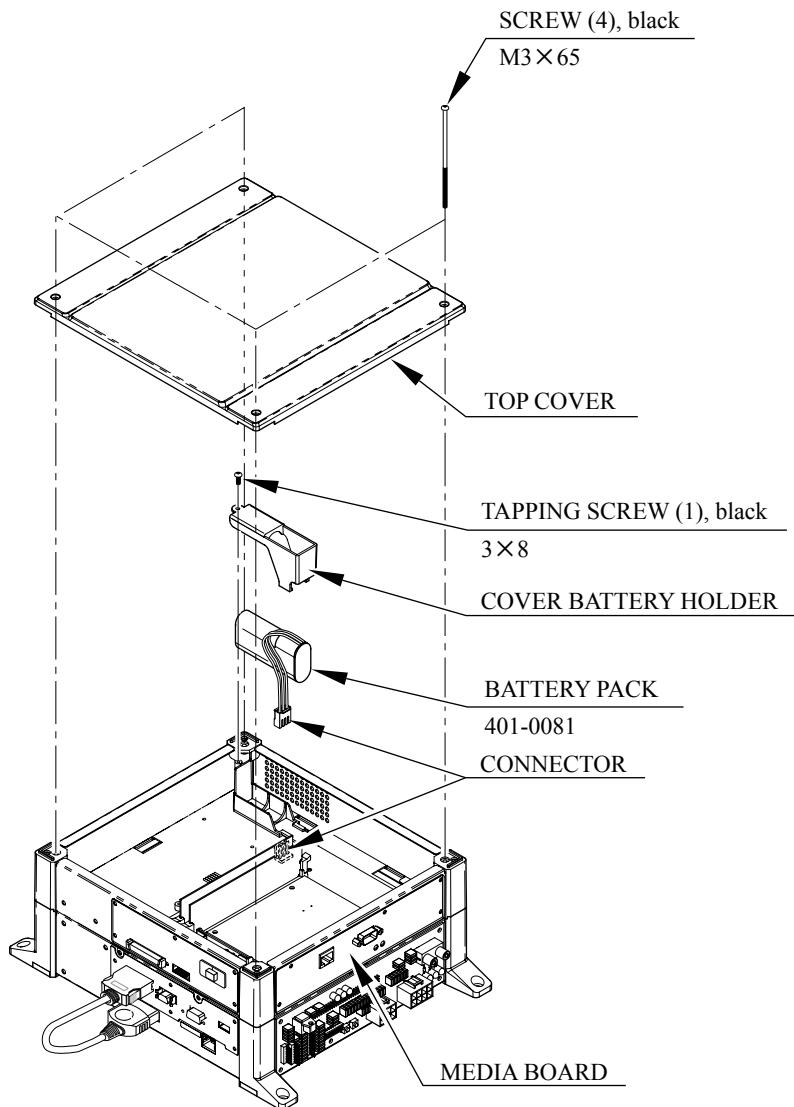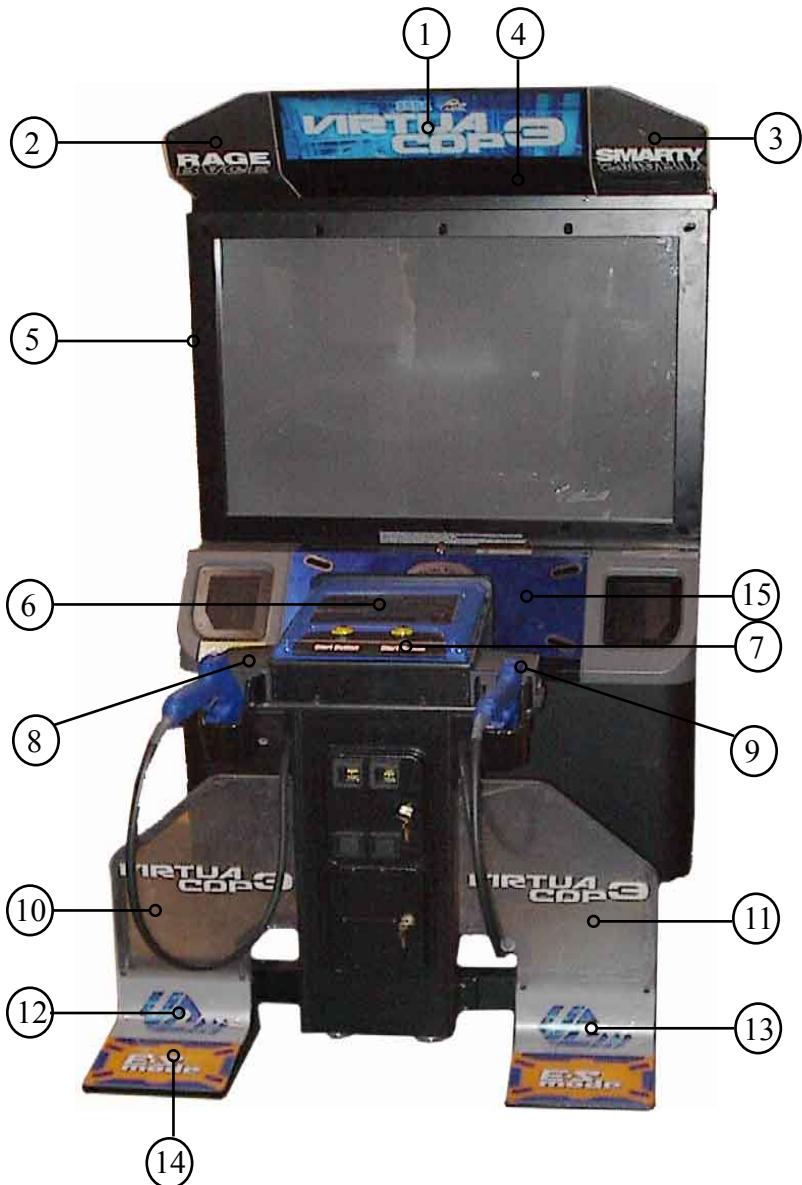
FIG. 16. 4

17. DESIGN RELATED PARTS
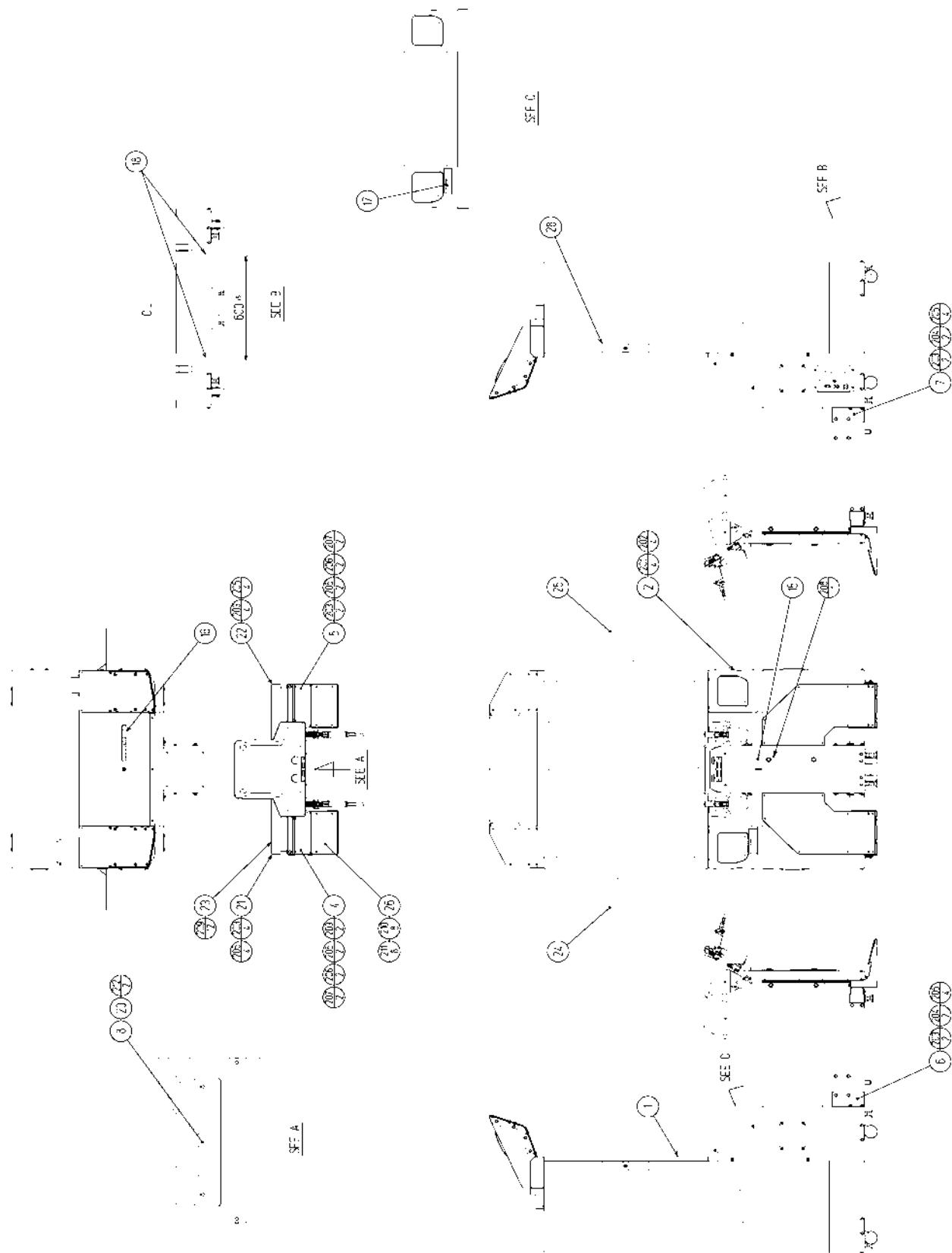
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-0525	BILLBOARD PLATE VCT	
2	VCT-0526	BILLBOARD PLATE L VCT	
3	VCT-0527	BILLBOARD PLATE R VCT	
4	VCT-0531	DECAL BILLBOARD VCT	
5	VCT--0511	DECAL PTV SIDE LorR	
6	999-1770	CONTROL PANEL INSTRUCTIONS	
7	999-1771	CONTROL PANEL START DECAL	
8	999-1772	DECAL CONTROL PANEL L	
9	999-1773	DECAL CONTROL PANEL R	
10	VCT-1153	GUARD PLATE L	
11	VCT-1163	GUARD PLATE R	
12	VCT-1152	DESIGN PLATE L	
13	VCT-1162	DESIGN PLATE R	
14	VCT-1203	FOOT PLATE	
15	VCT-1061	DECAL LID UPPER	

18. PARTS LIST

① TOP ASSY VCT DX   D-1/2
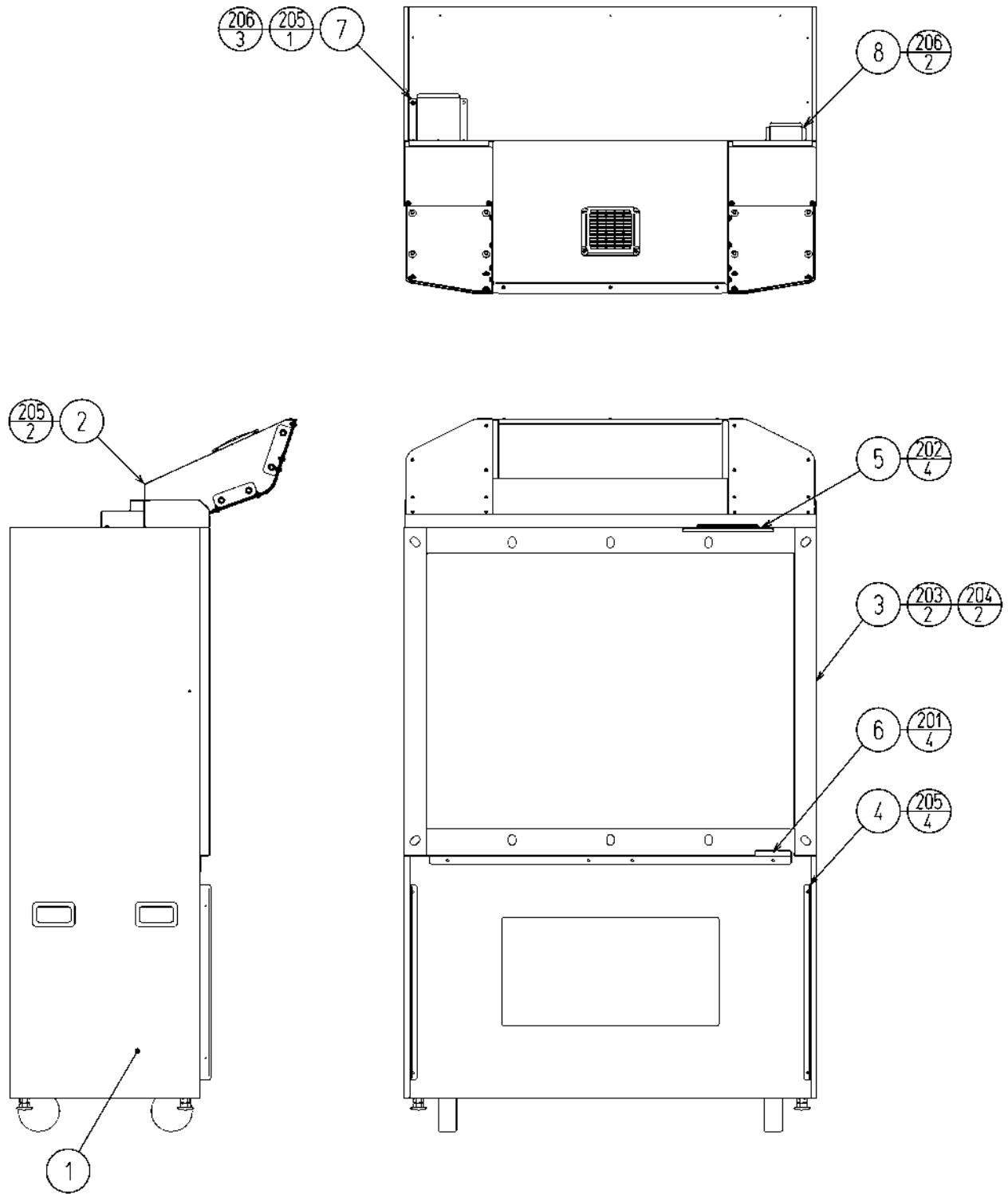
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-0500	ASSY PTV	
2	VCT-1000	ASSY PTV CABINET DX	
4	VCT-1150	ASSY FENCE L	
5	VCT-1160	ASSY FENCE R	
6	SPY-0001	JOINT BRKT L	
7	SPY-0002	JOINT BRKT R	
8	JEY-0005	DENOMI PLATE	
9	SGM-4346	POLY COVER 1200×1200×1300	
10	SGM-4426	POLY COVER 800×750×900	
16	440-WS0143-EG	STICKER W POWER OFF WIDE ENG	
17	440-CS0175-EG	STICKER C EPILEPSY ENG	
18	421-11416	STICKER CAUTION FORK	
19	421-8479-01	STICKER INSTR SUNLIGHT ENG	
20	421-7907-~	DENOMI SH ~	
21	VCT-1300	ASSY FOOT BASE L	
22	VCT-1310	ASSY FOOT BASE R	
23	VCT-0003	BASE HOLE LID	
24	VCT-0004	POP L VCT DX	
25	VCT-0005	POP R VCT DX	
26	VCT-1200	ASSY FOOT PEDAL DX	
28	VCT-0009	SIDE POP BASE	
201	000-T00530-0B	M SCR TH BLK M5×30	
202	068-552016-0B	FLT WSHR BLK 5.5-20×1.6	
203	030-000835-SB	HEX BLT BLK W/S M8×35	
204	030-000850-SB	HEX BLT W/S BLK M8×50	
205	060-F00800-0B	FLT WSHR BLK M8	
206	068-852216-0B	FLT WSHR BLK 8.5-22×1.6	
207	030-000816-SB	HEX BLT W/S BLK M8×16	
208	008-T00412-0B	TMP PRF SCR TH BLK M4×12	
209	000-P00408-WB	M SCR PH W/FS BLK M4×8	
210	030-000616-S	HEX BLT W/S M6×16	
211	068-652016	FLT WSHR 6.5-20 ×1.6	
212	000-T00416-0B	M SCR TH BLK M4×16	
401	601-6604-70	CARTON BOX 70	
402	SGM-2675X	POLYETHYLENE BAG 240 × 370	
403	420-6759-01	OWNERS MANUAL VCT DX ENG	
405	390-5160	LAMP WG B TYPE 6V 3W (C2R)	
406	509-5080	SW MICRO TYPE (SS-5GL2)	
407	600-6729	AC CABLE CONNECT TYPE 15A	
408	SGM-4111Y	KEY BAG	
409	220-5576	KEY MASTER FOR 220-5575	
410	280-5009-01	CORD CLAMP 21	
412	105-5435	GD DRIVE BRKT STD	
413	000-P00416-W	M SCR PH W/FS M4×16	
414	012-P00408	TAP SCR #2 PH 4×8	
415	610-0653-0003	GD SOFT KIT VCT	
416	443-30003B	STICKER 843-0003B	
417	443-30003D-02	STICKER 843-0003D-02	
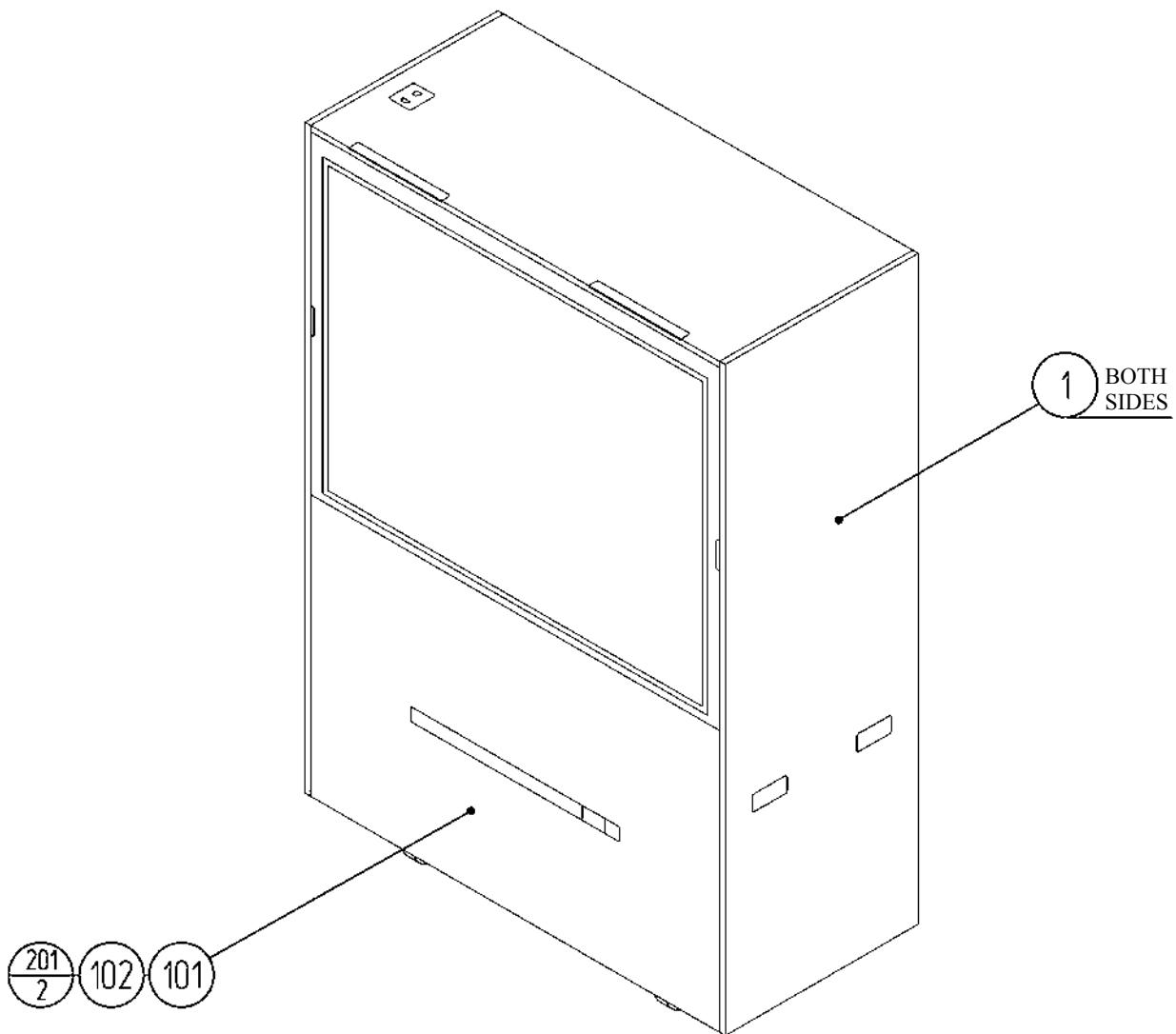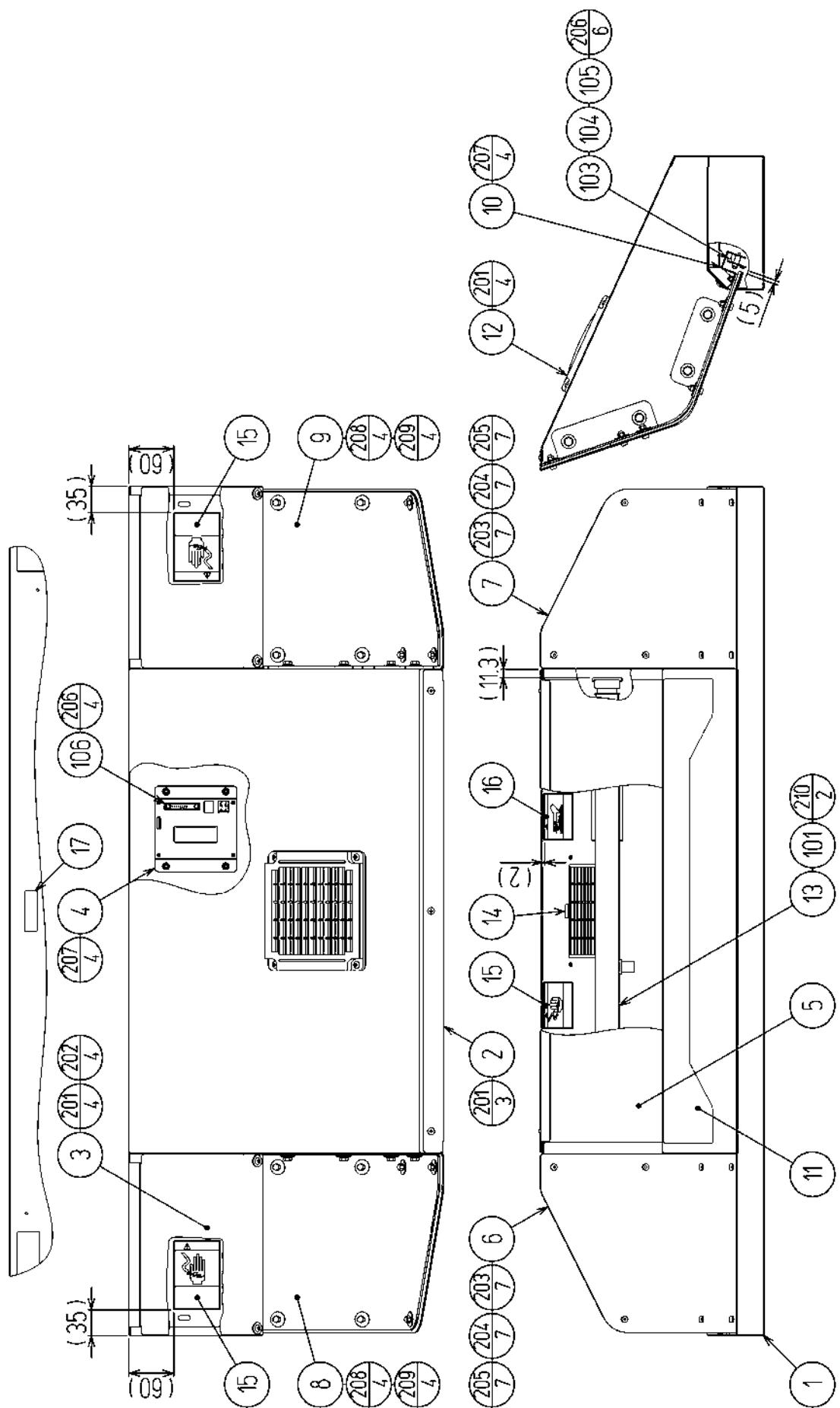
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-0510	PTV W/STICKER VCT DX	
2	VCT-0520	ASSY BILLBOARD DX	
3	SPY-0530	ASSY MASK	
4	HOD-1101	PTV HOLDER	
5	FRQ-1114	MASK BRKT UPPER	
6	SMB-1501	MASK BRKT LOWER	
7	VCT-0501	WIRE COVER L	
8	VCT-0502	WIRE COVER R	
201	000-T00520-0B	M SCR TH BLK M5×20	
202	000-F00412	M SCR FH M4×12	
203	000-T00525-0B	M SCR TH BLK M5×25	
204	068-552016-0B	FLT WSHR BLK 5.5-20×1.6	
205	000-P00516-W	M SCR PH W/FS M5×16	
206	000-T00408-0B	M SCR TH BLK M4×8	

③ PTV W/STICKER VCT DX (VCT-0510)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-0511	STICKER PTV SIDE	
101	200-5788-31	PROJECTION DSPL T 50TYPE 31K	
102	280-5009-01	CORD CLAMP 21	
201	011-F00310	TAP SCR FH 3×10	

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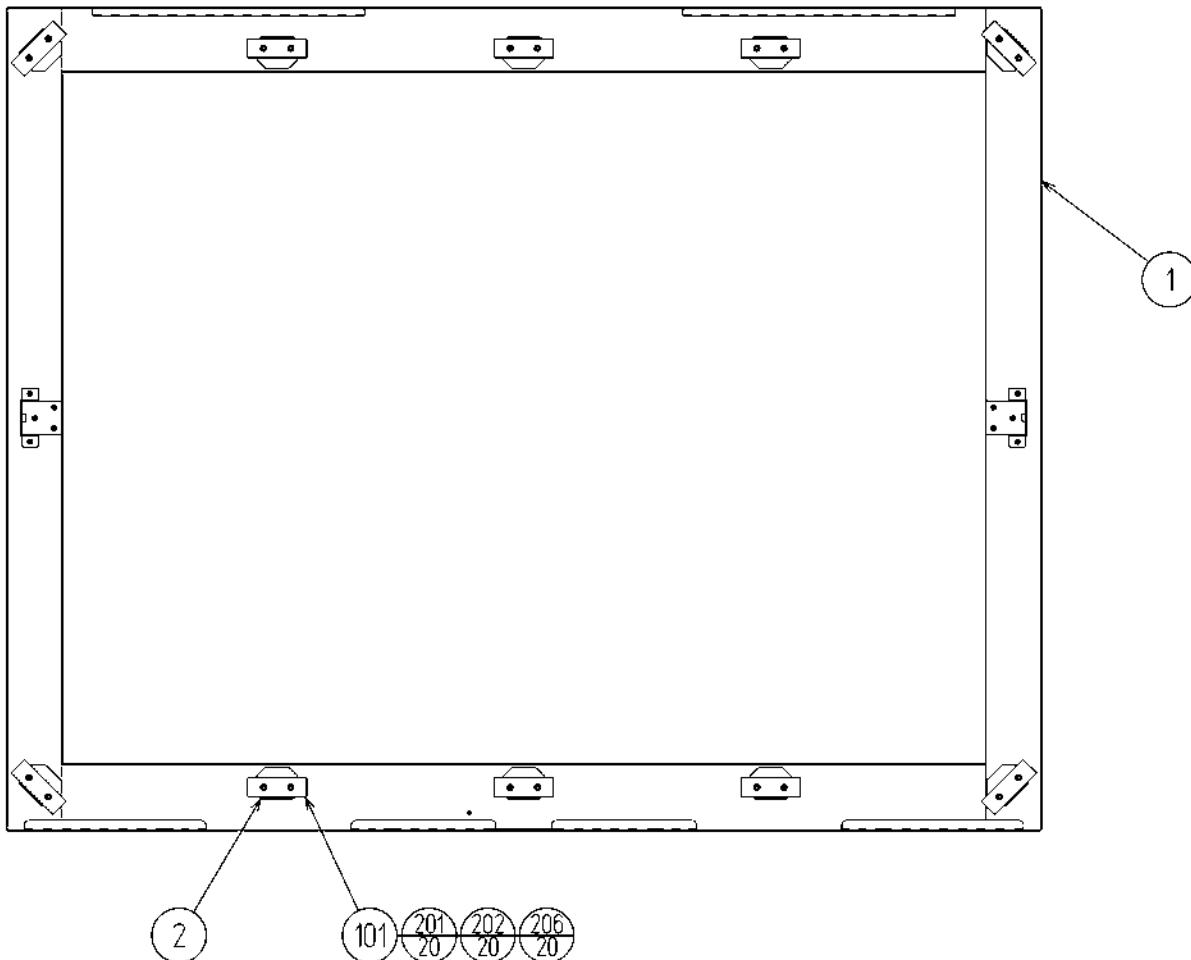
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-0521	BILLBOARD BOX	
2	VCT-0522	BILLBOARD SASH	
3	VCT-0523	BILLBOARD LID	
4	VCT-0524	BD BASE	
5	VCT-0525	BILLBOARD PLATE VCT	
6	VCT-0526	BILLBOARD PLATE L VCT	
7	VCT-0527	BILLBOARD PLATE R VCT	
8	VCT-0528	PLATE HOLDER L	
9	VCT-0529	PLATE HOLDER R	
10	VCT-0530	LED BD HOLDER	
11	VCT-0531	STICKER BILLBOARD VCT	
12	253-5460-01	AIR VENT BLACK	
13	253-5457	FL HOLDER	
14	421-7501-17	STICKER FL 20W	
15	440-WS0002XEG	STICKER W POWER OFF ENG	
16	440-WS0012XEG	STICKER W HIGH TEMP ENG	
101	390-6603-20EX	ASSY FL20W EX W/CONN HIGH T CE	
101	390-6659-20EX	ASSY FL20W EX W/CONN HIGH S CE	
102	280-5009-01	CORD CLAMP 21	
103	838-14281-02	LED BAR BD RGB	
104	280-5247	ONE TOUCH BUSHING	
105	280-5248-10	ONE TOUCH COLLAR M3 L=10	
106	838-14371	OUTPUT CONTROL BD FOR JVS	
201	000-T00408-0B	M SCR TH BLK M4×8	
202	068-441616-0B	FLT WSHR BLK 4.4-16×1.6	
203	068-552016-0B	FLT WSHR BLK 5.5-20×1.6	
204	FAS-290034	HEX SKT LH CAP SCR STN M5×15	
205	050-C00500-3B	CAP NUT TYPE3 BLK M5	
206	000-P00320-W	M SCR PH W/FS M3×20	
207	050-F00400	FLG NUT M4	
208	030-000616-SB	HEX BLT W/S BLK M6×16	
209	068-652016-0B	FLT WSHR BLK 6.5-20×1.6	
210	000-P00430-W	M SCR PH W/FS M4×30	
301	VCT-60014	WH PWR BILLBOARD EXT 2	
302	VCT-60015	WH LED BILLBOARD	
303	VCT-60016	WH FL	
304	600-7141-100	CABLE JVS TYPE A-B 100CM	
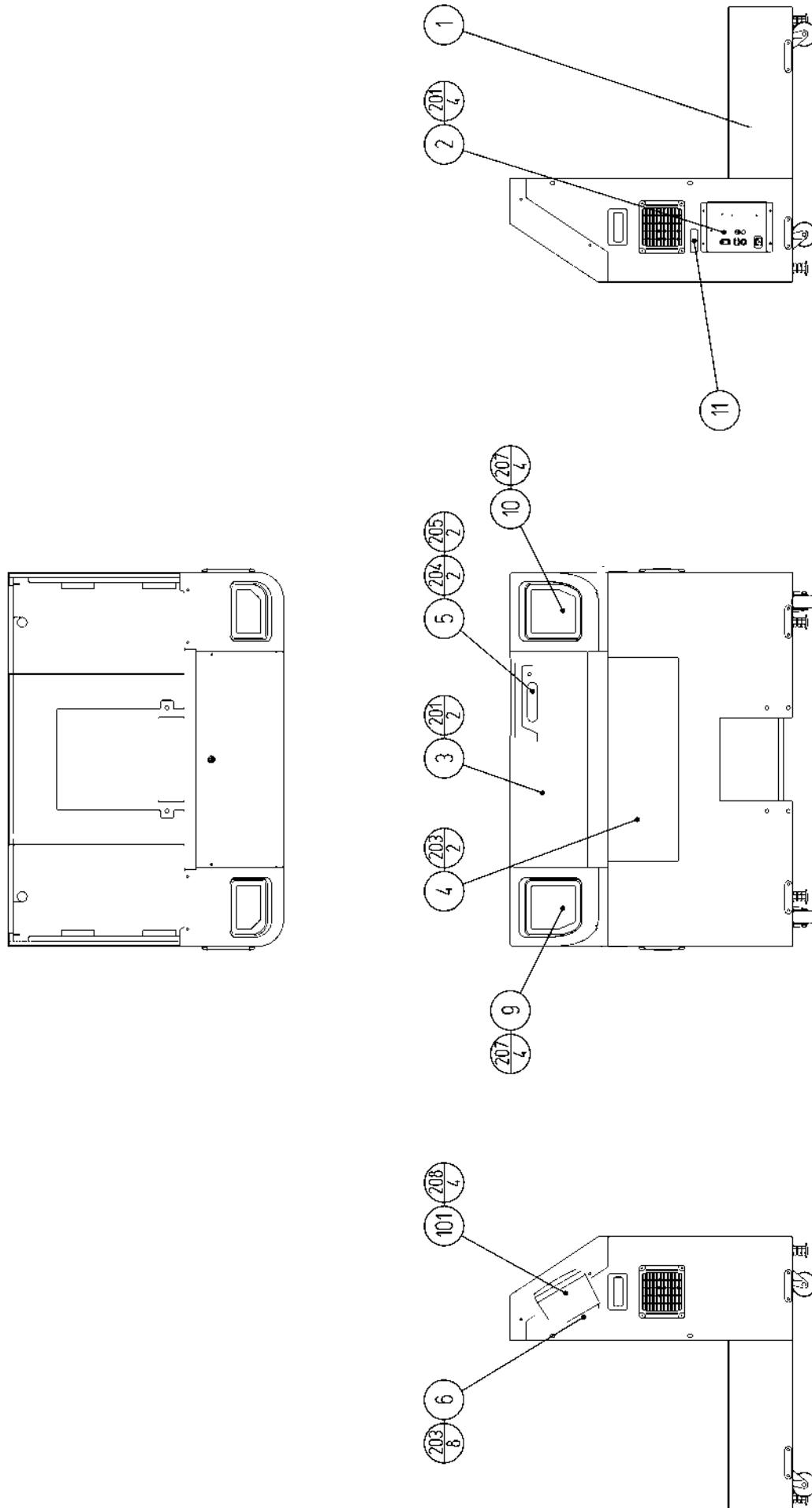
⑤ ASSY MASK (SPY-0530)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	SPY-0531	MASK BASE	
2	JPT-1082	IR COVER	
101	838-13145-02	LED BD GUN SENSE HOD	
103	280-5008	CORD CLAMP 15	
201	050-U00300	U NUT M3	
202	068-330808-PN	FLT WSHR PLASTIC 3.3-8×0.8	
203	050-H00400	HEX NUT M4	
204	060-F00400	FLT WSHR M4	
205	060-S00400	SPR WSHR M4	
206	069-000026	FLT WSHR 3.2-11 ×0.5	
301	SPY-60026	WH MASK INTO	
302	SPY-60024	WH MASK SHORT	
303	SPY-60025	WH MASK LONG	
304	HOD-60035	WIRE HARN E MASK01	
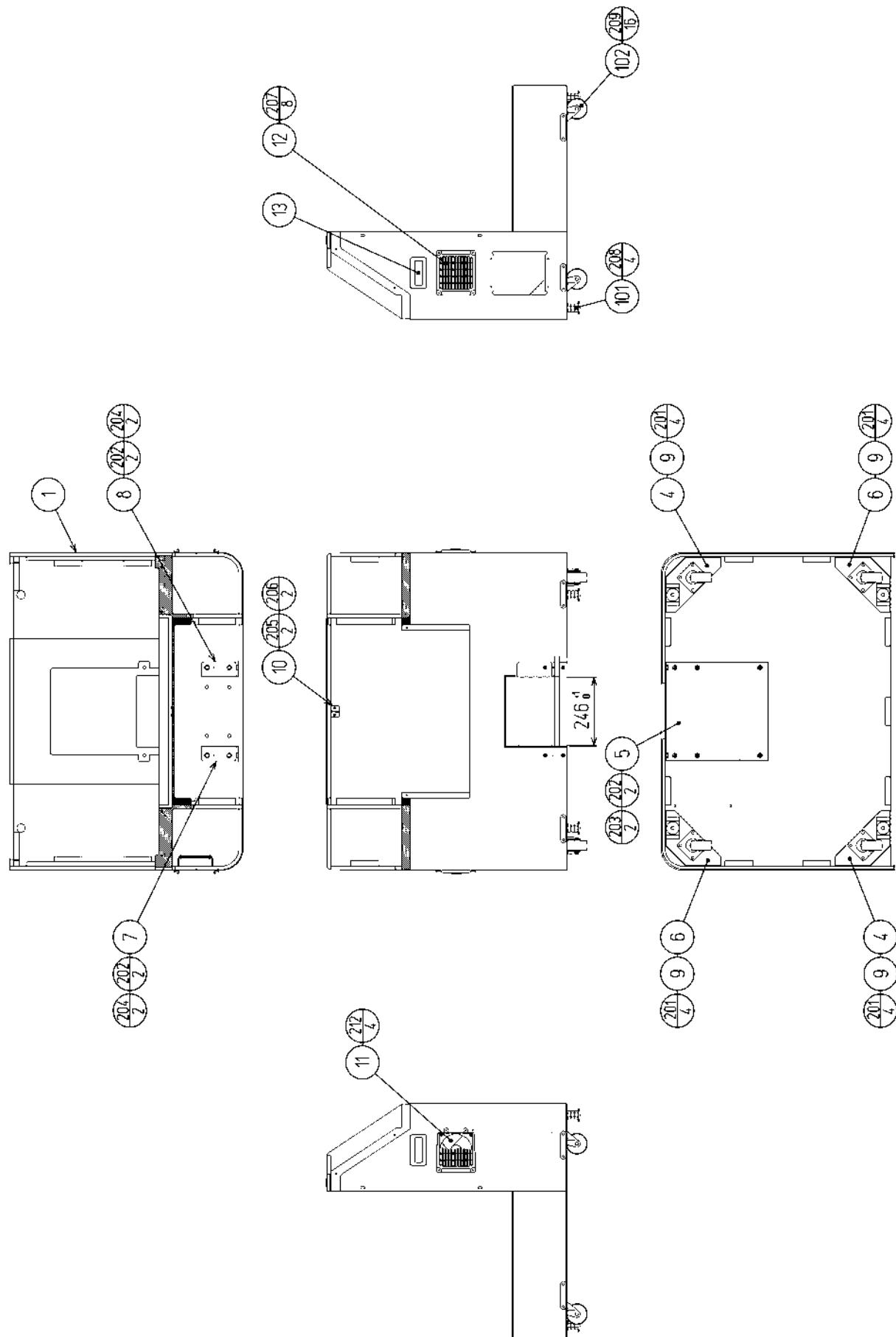
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-1001	ASSY SUB-CABI PTV DX	
2	SPY-1050	AC UNIT	
3	VCT-1060	ASSY LID UPPER	
4	VCT-1070	ASSY LID LOWER	
5	VCT-4000	ASSY MAIN BD	
6	FRQ-1071	SPEAKER BRKT	
7	VCT-1003	SPEAKER COVER L	
8	VCT-1004	SPEAKER COVER R	
9	FRQ-1007	SPEAKER NET L	
10	FRQ-1008	SPEAKER NET R	
101	130-5096	ASSY SERVO SPEAKER BOX	
102	280-5275-SR10	CORD CLAMP SR10	
201	000-T00416-0B	M SCR TH BLK M4×16	
203	000-P00420-W	M SCR PH W/FS M4×20	
204	000-P00535-S	M SCR PH W/S M5×35	
205	068-552016	FLT WSHR 5.5-20 ×1.6	
207	050-F00400	FLG NUT M4	
208	000-P00512-W	M SCR PH W/FS M5×12	
301	600-6341-44	WIRE HARN RIGHT SPEAKER	
302	600-6341-45	WIRE HARN LEFT SPEAKER	
/	000-P00530-S	M SCR PH W/S M5×30	
/	068-552016	FLT WSHR 5.5-20×1.6	
/	SMB-4100	ASSY XFMR 100V AREA	<AC 110~120V Area>
/	SMB-4200	ASSY XFMR 200V AREA	<AC 220~240V Area>
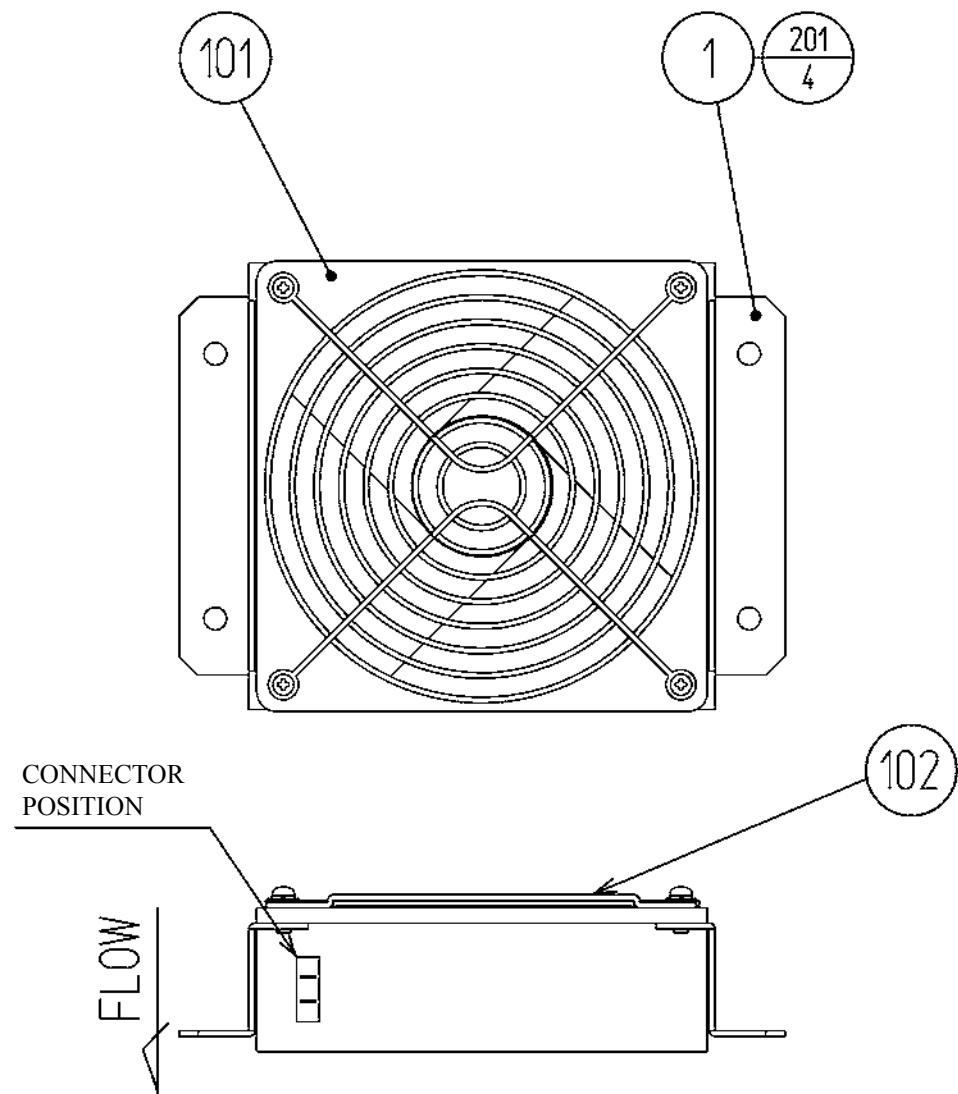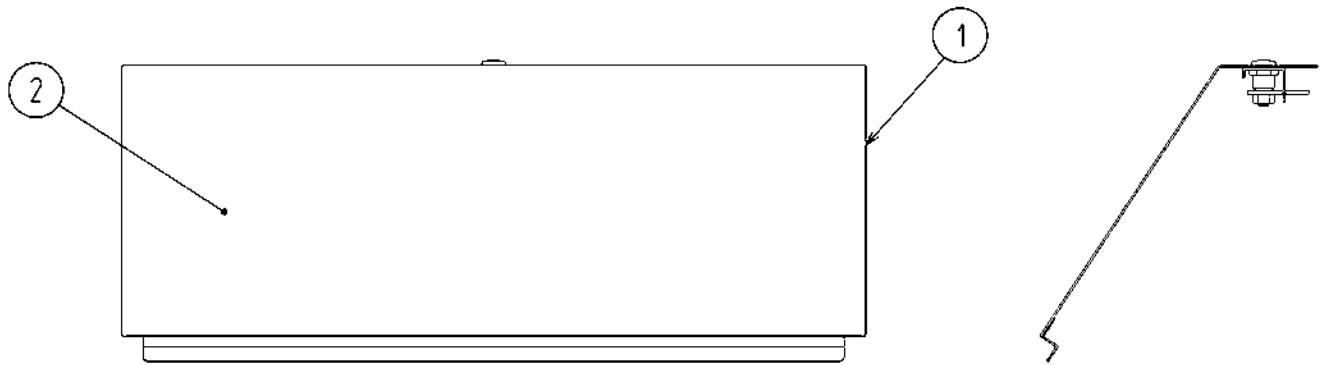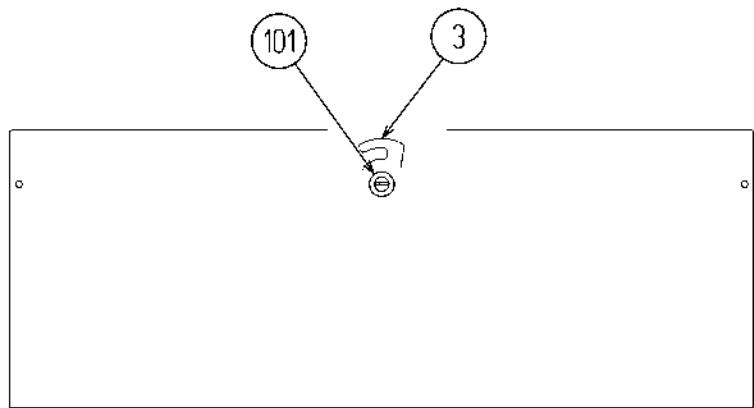
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	FRQ-1002X	PTV CABINET	
4	FRQ-1009	LEG CASTER BRKT A	
5	SPY-1005	HOLDER PLATE	
6	FRQ-1012	LEG CASTER BRKT B	
7	SPY-1006	HOLDER BRKT L	
8	SPY-1007	HOLDER BRKT R	
9	117-5284	PLATE 6-80 BLACK	
10	HOD-1003	LOCKING BRKT HOD	
11	SPY-1080	FAN UNIT	
12	253-5460-01	AIR VENT BLACK	
13	253-5396-91	CABINET HANDLE	
101	601-5699X	LEG ADJUSTER BOLT M16×75	
102	601-9377	CASTER FAI=75	
102	601-6224	CASTER 75	
103	280-5009-01	CORD CLAMP 21	
104	280-0419	HARNESS LUG	
201	030-000630-SB	HEX BLT BLK W/S M6×30	
202	030-000840-S	HEX BLT W/S M8×40	
203	068-852216	FLT WSHR 8.5-22 ×1.6	
204	060-F00800	FLT WSHR M8	
205	000-P00420-W	M SCR PH W/FS M4×20	
206	050-F00400	FLG NUT M4	
207	000-T00416-0B	M SCR TH BLK M4×16	
208	050-H01600-0B	HEX NUT BLK M16	
209	030-000616-S	HEX BLT W/S M6×16	
210	011-F00310	TAP SCR FH 3×10	
211	011-T03512	TAP SCR TH 3.5×12	
212	000-P00416-W	M SCR PH W/FS M4×16	
213	050-H00400	HEX NUT M4	
214	060-F00400	FLT WSHR M4	
215	060-S00400	SPR WSHR M4	
301	SPY-60001	WH AC EXT MAIN 1	
303	SMB-60007	WIRE HARN AC EXT W/FAN	
304	SPY-60002	WH AC EXT PTV	
305	SPY-60003	WH LED EXT 1	
306	600-7009-2250	ASSY RGB CA D-SUB 15P 2250MM	
307	SPY-60020	WH EARTH TO CTRL CABI	
308	SPY-60021	WH EARTH MASK	
309	600-6972-0550	WIRE HARN EARTH ID5 0550MM	
310	VCT-60004	WH PWR BILLBOARD EXT	
311	600-7141-200	CABLE JVS TYPE A-B 200CM	

⑧ FAN UNIT (SPY-1080)

CONNECTOR
POSITION
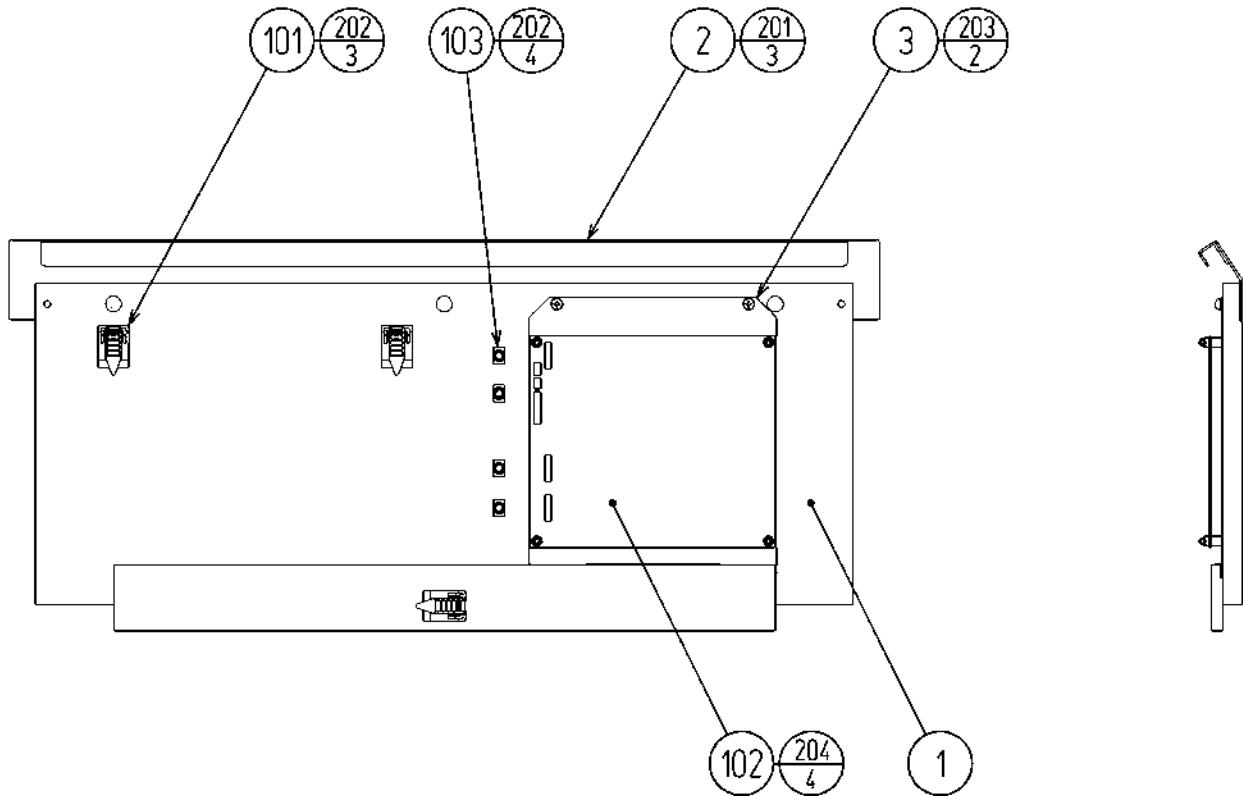
FLOW

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	SPY-1081	FAN BRKT	
101	260-0011-02	AXIAL FLOW FAN AC100V 50-60HZ	
102	601-8543	FAN GUARD	
201	000-P00312-W	M SCR PH W/FS M3×12	

⑩ ASSY LID UPPER (VCT-1060)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	SPY-1061	LID UPPER	
2	VCT-1061	STICKER LID UPPER	
3	TH-1015	LOCKING TONGUE	
101	220-5575	CAM LOCK MASTER W/O KEY	
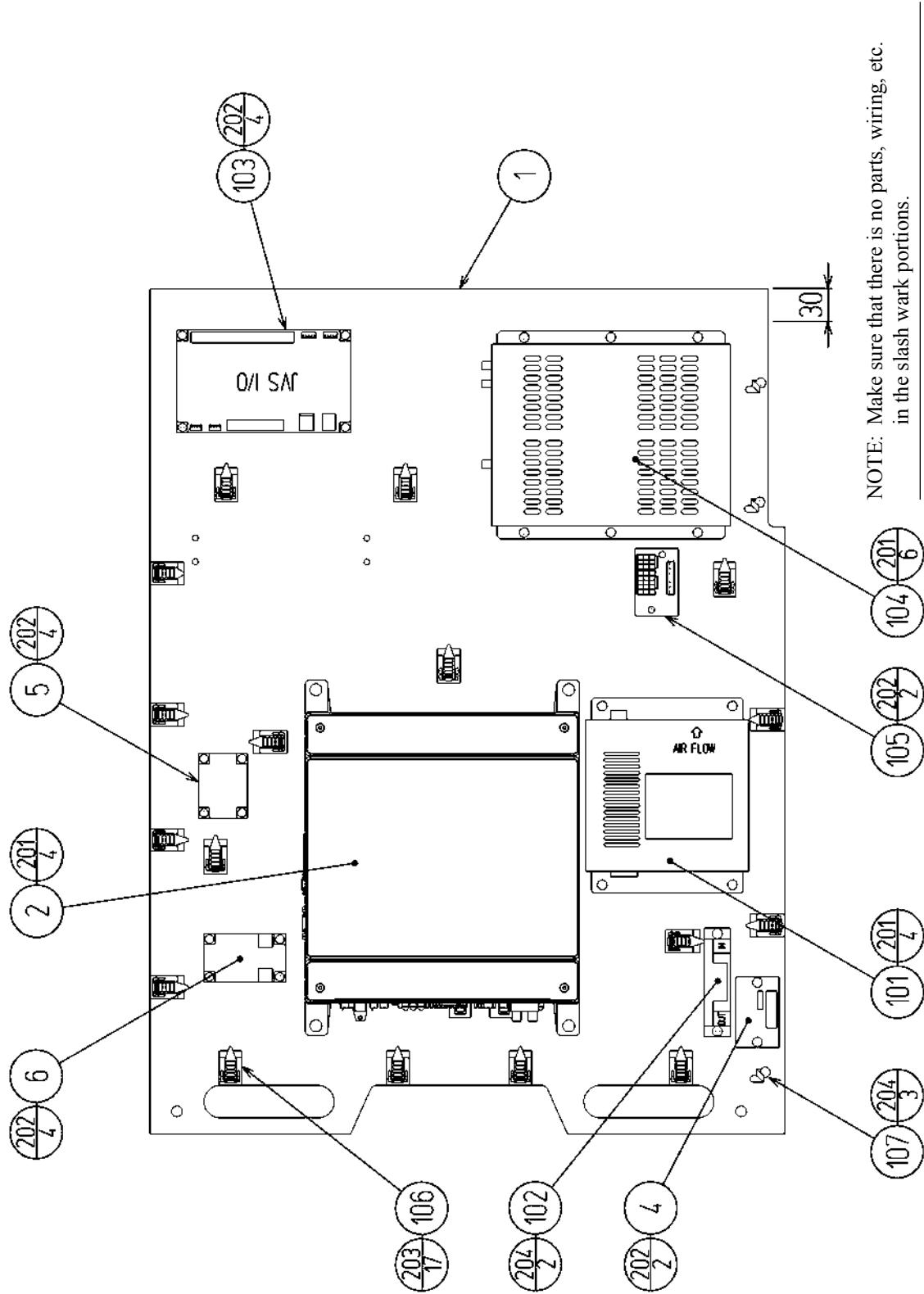
11 ASSY LID LOWER (VCT-1070)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-1071	LID LOWER	
2	SPY-1071	LID BRKT	
3	VCT-1072	BD BASE	
101	280-5009-01	CORD CLAMP 21	
102	838-13143-08	IC BD GUN SENSE SPY	
	838-13143-10	IC BD GUN SENSE SPY EXTRA	
103	280-5256	TIE BASE TMIS4	
201	050-F00400	FLG NUT M4	
202	011-F00310	TAP SCR FH 3×10	
203	000-P00412-W	M SCR PH W/FS M4×12	
204	050-F00300	FLG NUT M3	
301	SPY-60011	WH TOWER EXT 1	
302	SPY-60012	WH START EXT 1	
303	VCT-60005X	WH SENSOR OUT	
304	VCT-60006X	WH SENSOR LED	
305	VCT-60007X	WH SENSOR RECIEVER	
306	VCT-60008	WH CHANGE & PEDAL EXT	
307	VCT-60009	WH FRONT LED EXT	
308	SMB-60028	WIRE HARN CONT BD FREQ	

NOTE: Make sure that there is no parts, wiring, etc. in the slash wark portions.
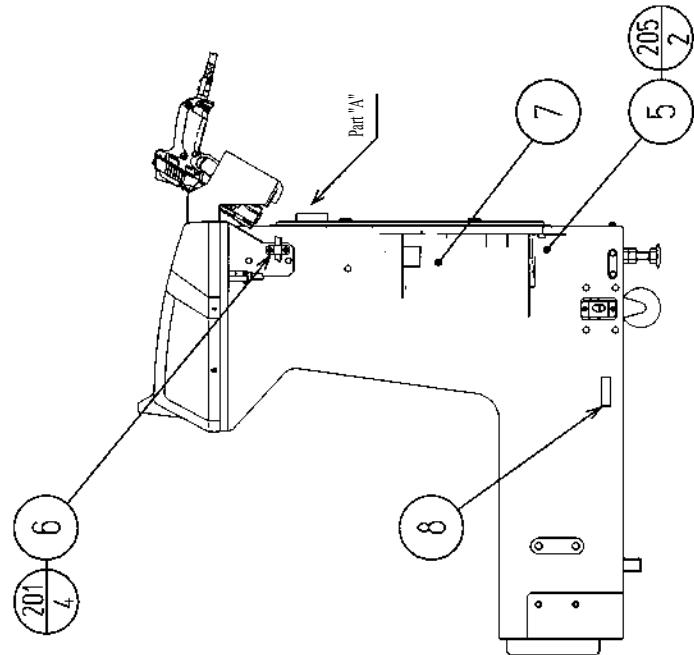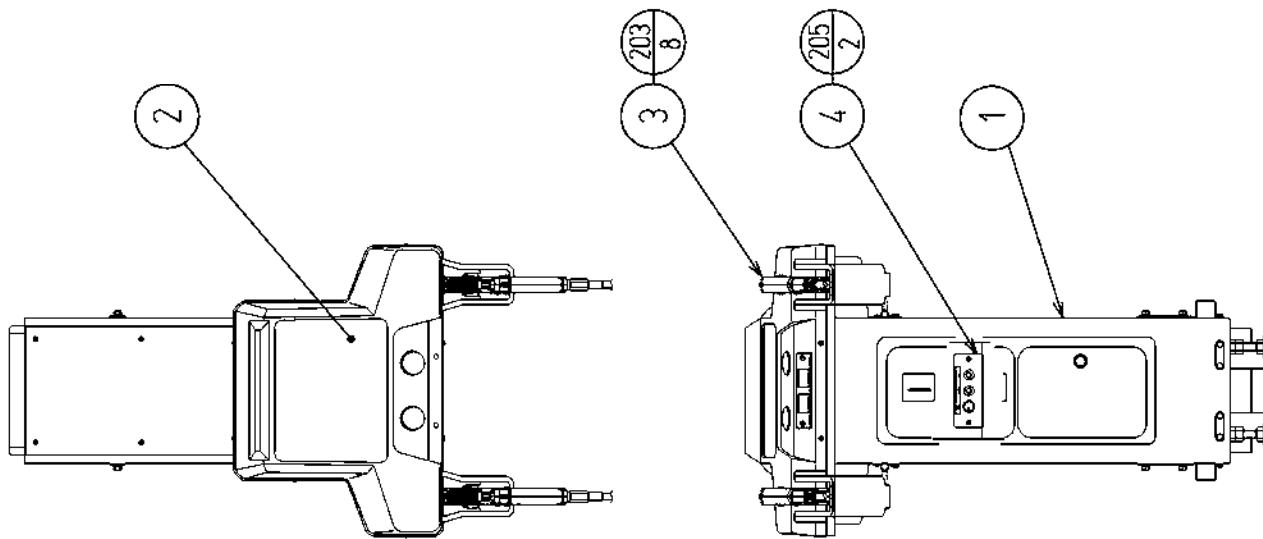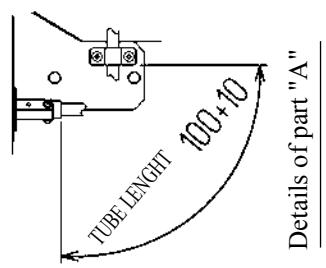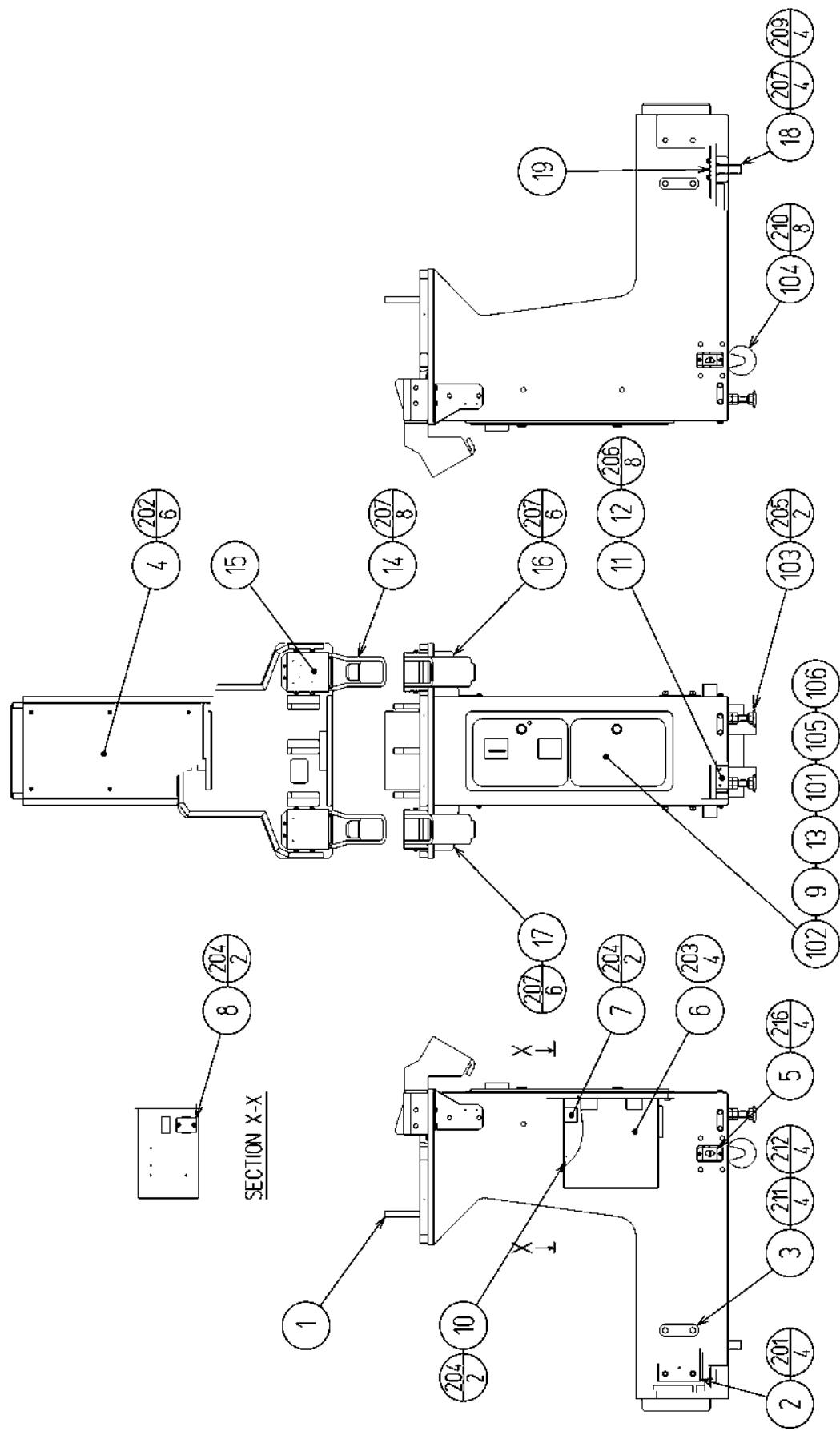
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-4001	MAIN BASE	
2	843-0001D-22	ASSY CASE BOX COM DIMM EXP	
4	839-0979	CONDENSER BD	
5	839-1221	RGB LED DECODER BD	
6	839-1176-01	CONN BD JVS	
101	400-5443	SW REGU FOR CHIHIRO	
102	610-0674	POWER PROTECT UNIT FOR CHIHIRO	
103	837-13551-92	I/O CONTROL BD FOR JVS	
104	601-10369	STEREO PWR AMP 47	
105	838-11856-UL	CONNECT BD UL	
106	280-5009-01	CORD CLAMP 21	
107	280-0419	HARNESS LUG	
108	270-5117	FERRITE CORE TDK ZCAT3035-1330	
109	601-0460	PLASTIC TIE BELT 100MM	
201	000-P00416-W	M SCR PH W/FS M4×16	
202	011-P00325	TAP SCR PH 3×25	
203	011-F00312	TAP SCR #1 FH 3×12	
204	011-T03512	TAP SCR TH 3.5×12	
301	SPY-60004	WH AC MAIN BASE	
302	HDT-60001	WH AUDIO L	
303	HDT-60002	WH AUDIO R	
304	VCT-60001	WH SIGNAL MAIN BASE	
305	VCT-60002	WH PWR BILLBOARD	
306	VCT-60003	WH FRONT LED	
307	VCT-60017	WH POWER PROTECT UNIT	
308	SMB-60013	WIRE HARN SPEAKER L	
309	SMB-60014	WIRE HARN SPEAKER R	
310	600-7141-100	CABLE JVS TYPE A-B 100CM	
311	600-7247-500	CABLE SCSI ST-L TYPE2 500MM	
312	VCT-60018	WH PWR GD	

Details of part "A"

TUBE LENGHT 100+10

203
8

205
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3

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1

2

205
2

7

5

Part "A"

6

201
4

8

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-1101	ASSY SUB-CABI CONTROLLER	
2	999-XXXX	CONTROL PANEL COVER	
3	VCT-2100	CONTROL UNIT	
4	SPY-1170	SW UNIT	
5	HOD-1590	METER UNIT	
6	CPT-1017	CABLE CLAMP	
7	253-5366	CASH BOX	
201	000-T00416-0C	M SCR TH CRM M4×16	
203	000-T00430-0C	M SCR TH CRM M4×30	
204	000-P00416-W	M SCR PH W/FS M4×16	

SECTION X-X

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-1102	CONTROLLER CABINET	
2	SPY-1103	JOINT NUT PLATE	
3	SPY-1104	PLATE 8-70	
4	SPY-1105	JOINT PART LID	
5	VCT-1104	CONN PNL BRKT	
6	105-5106	CASH BOX COVER	
7	105-5107	CHUTE	
8	105-5188	HOLE COVER	
9	DP-1167	TNG LKG	
10	105-5170	LOCK BRACKET S	
11	ARC-1006	LEG BRACKET	
12	117-5233	PLATE LEG BRACKET BLACK	
13	421-7501-02	STICKER 6.3V 0.15A	
14	VCT-1103	HOLDER	
15	SPY-1106	HOLDER BRKT	
16	HOD-1307	SIDE BRKT L	
17	HOD-1308	SIDE BRKT R	
18	HOD-1309	UNDER BRKT	
19	HOD-1310	UNDER PLATE	
101	310-5029-F20	SUMITUBE F F 20MM	
102	220-5482-91-03	ASSY C.C 2DR TAIWAN NT$10 S	<Taiwan>
	220-5237-92-04	ASSY C.C 2DR TAIWAN NT$10	<Taiwan>
	220-5482-91-04	ASSY C.C 2DR HONG KONG $1 S	<Hong Kong>
	220-5237-92-05	ASSY C.C 2DR HONG KONG $1	<Hong Kong>
	220-5237-92-06	ASSY C.C 2DR MALAYSIA 50CENT	<Malaysia>
	220-5237-92-37	ASSY C.C 2DR SINGAPORE $1	<Singapore>
	220-5482-91-08	ASSY C.C 2DR KOREA 100W S	<Korea>
	220-5237-92-09	ASSY C.C 2DR KOREA 100W	<Korea>
	220-5237-92-08	ASSY C.C 2DR AUSTRALIA $1	<Australia>
103	601-5699X	LEG ADJUSTER BOLT M16×75	
104	601-8291	CASTER 75	
105	220-5575	CAM LOCK MASTER W/O KEY	
106	220-5574	CAM LOCK W/KEYS	
107	280-5009-01	CORD CLAMP 21	
108	280-5275-SR10	CORD CLAMP SR10	
201	011-P00312	TAP SCR PH 3×12	
202	000-T00430-0B	M SCR TH BLK M4×30	
203	000-P00406-W	M SCR PH W/FS M4×6	
204	000-P00410-W	M SCR PH W/FS M4×10	
205	050-H01600	HEX NUT M16	
206	030-000640-SB	HEX BLT W/S BLK M6×40	
207	030-000630-SB	HEX BLT BLK W/S M6×30	
208	011-F00310	TAP SCR FH 3×10	
209	060-F00600	FLT WSHR M6	
210	030-000830-SB	HEX BLT W/S BLK M8×30	
211	060-F00800-0B	FLT WSHR BLK M8	
212	030-000850-SB	HEX BLT W/S BLK M8×50	
213	000-P00408	M SCR PH M4×8	
214	060-S00400	SPR WSHR M4	
215	060-F00400	FLT WSHR M4	
216	000-P00416-W	M SCR PH W/FS M4×16	
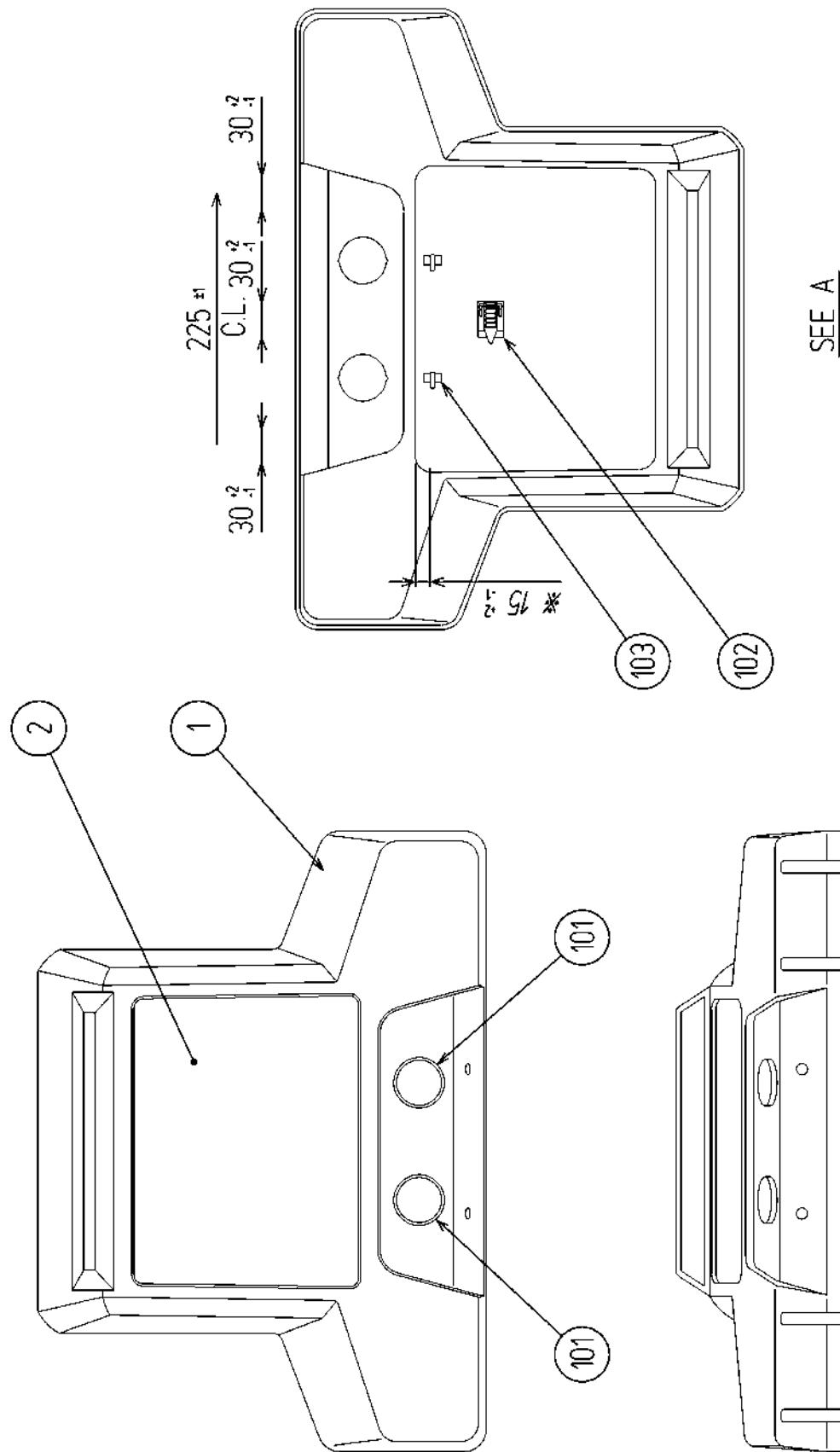
| ITEM NO.	PART NO.	DESCRIPTION	NOTE
301	600-6455-02	WIRE HARN C.C DOOR SINGLE	
302	SPY-60014	WH TOWER EXT 2	
303	SPY-60015	WH START EXT 2	
304	SPY-60016X	WH RECIEVER EXT 2	
305	SPY-60022	WH EARTH CTRL CABI	
306	600-6972-0280	WIRE HARN EARTH ID5 0280MM	
307	600-6972-0120	WIRE HARN EARTH ID5 0120MM	
308	600-6972-0480	WIRE HARN EARTH ID5 0480MM	
309	VCT-60010	WH FRONT LED EXT 2	

NOTE: Do not wire across the slash mark portions.

NOTE: ACTUAL CONTROL PANEL WILL DIFFER FROM WHAT IS SHOWN HERE.

SEE A
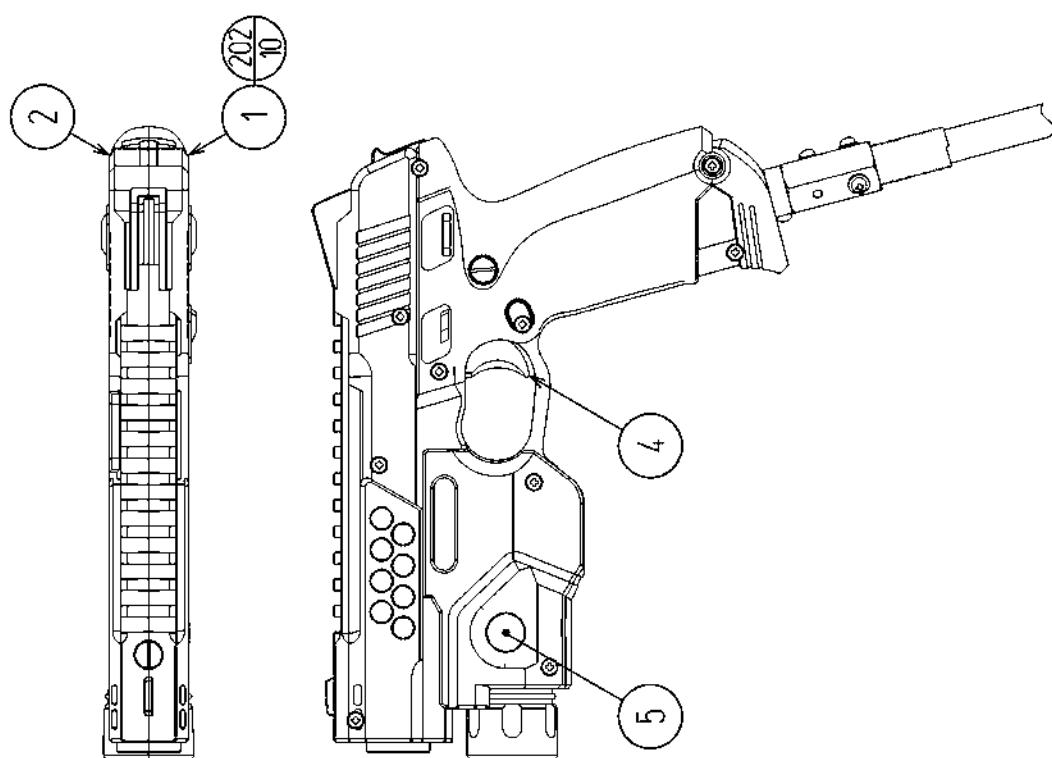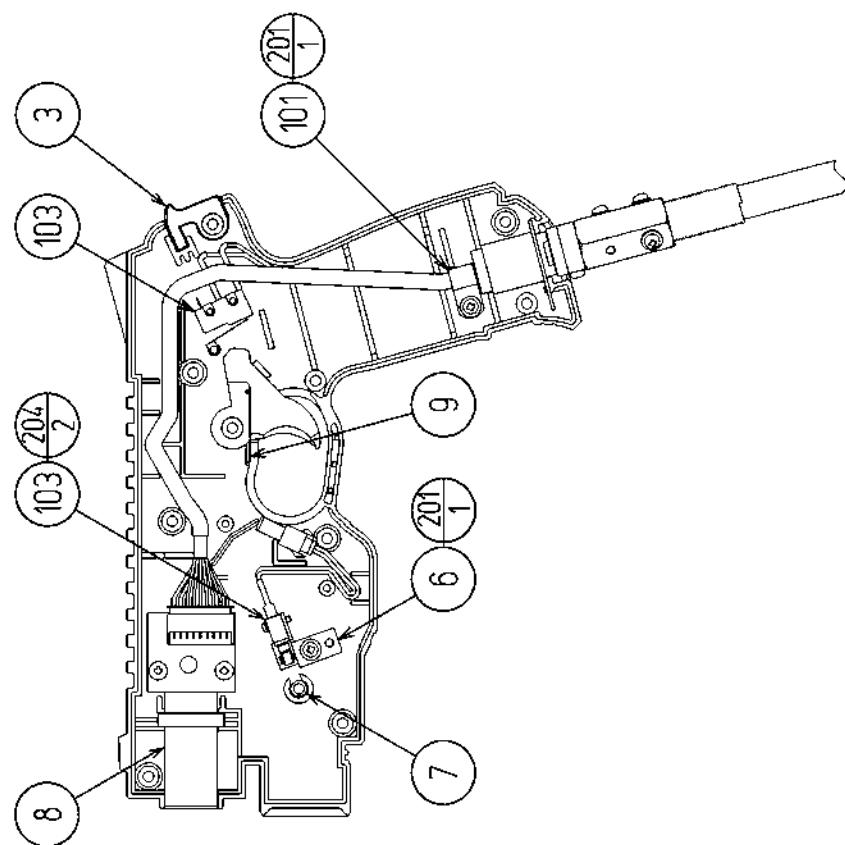
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-2001-01	CTRL PNL ENG	
2	999-1774	VAC FORM CONTROL PANEL	
101	509-5712-01S	SW PB W/L 6V YELLOW	
102	280-5009-01	CORD CLAMP 21	
103	280-5275-SR10	CORD CLAMP SR10	
301	HOD-60020	WIRE HARN CONTROL PANEL	
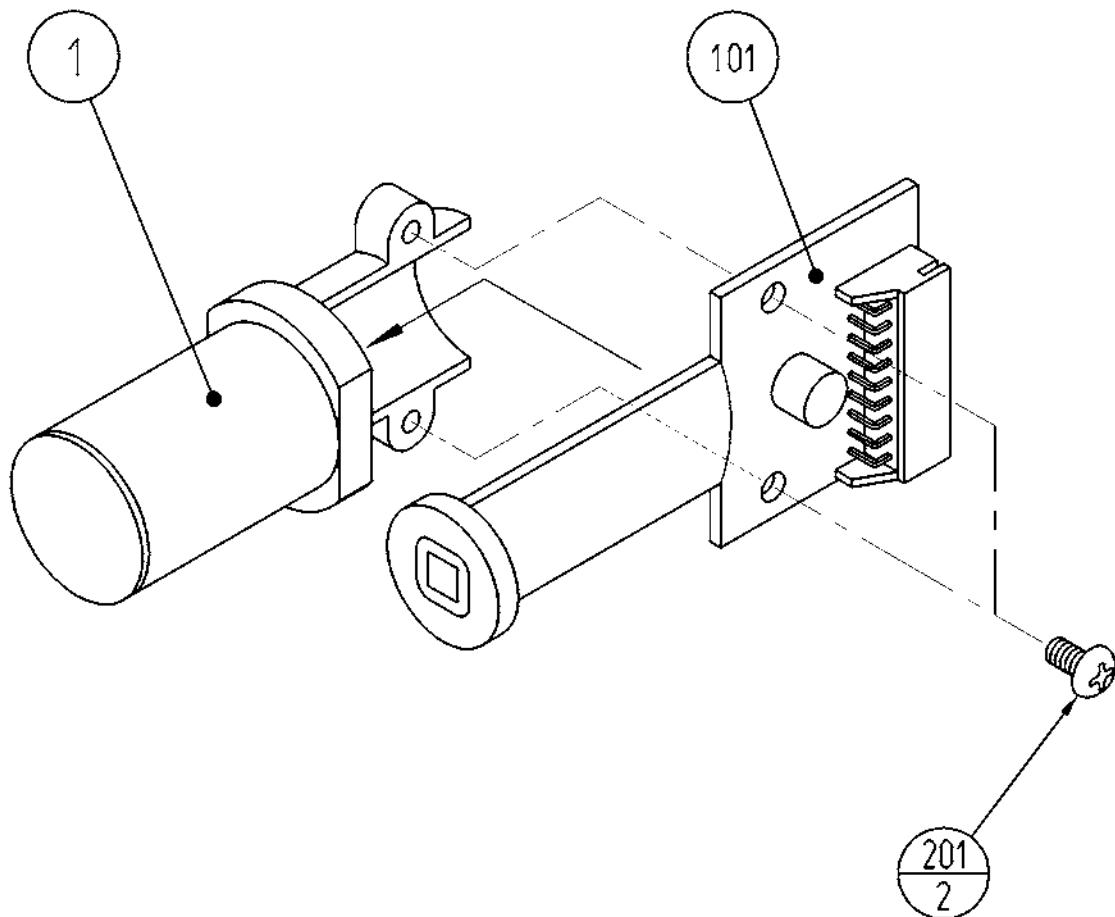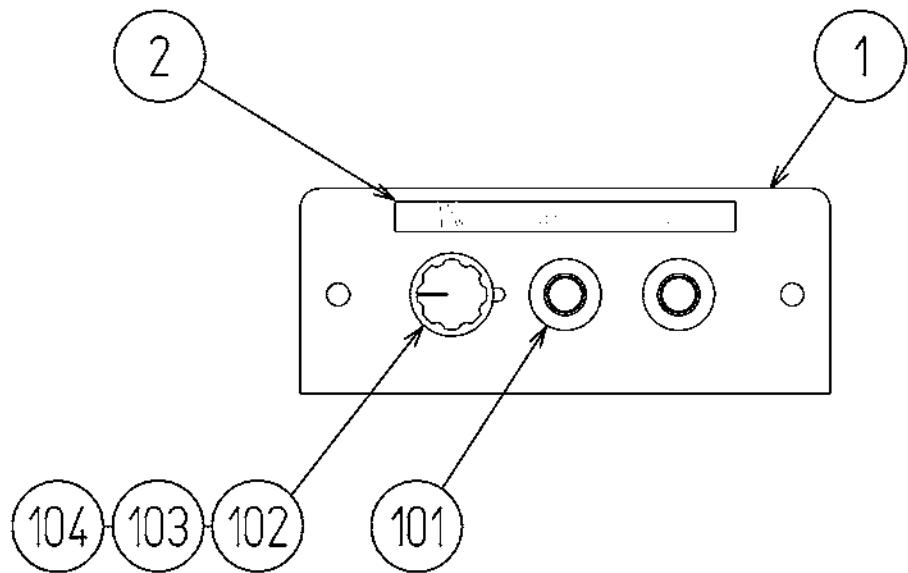
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-2101-01	COVER L EXP	
2	VCT-2102-01	COVER R EXP	
3	VCT-2103-01	HAMMER EXP	
4	VCT-2104	TRIGGER	
5	VCT-2105	CHANGE BUTTON	
6	VCT-2106	SW BRKT	
7	VCT-2107	COM SPRING	
8	JPT-2030	SENSOR UNIT	
9	125-5124	TORSION SPRING	
101	280-5124-04	NYLON CLAMP NK04	
102	310-5029-D20	SUMITUBE F D 20MM	
103	509-5080	SW MICRO TYPE (SS-5GL2)	
104	601-0460	PLASTIC TIE BELT 100 MM	
201	000-P00308-W	M SCR PH W/FS M3×8	
202	FAS-000099	M SCR PH W/SMALL FS BLK M3×10	
204	FAS-000101	M SCR PH W/FS M2.3×10	
301	VCT-60011	WH CONTROL UNIT	
302	VCT-60012	WH CHANGE SW	

⑰ SENSOR UNIT (JPT-2030)
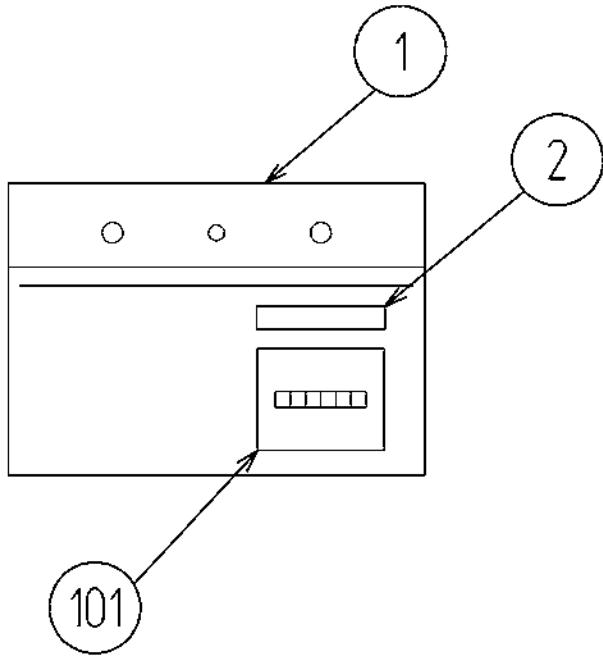
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	JPT-2031	SENSOR HOLDER	
101	838-13144	SENSOR BD GUN SENSE	
201	012-P00306	TAP SCR #2 PH 3×6	

(18) SW UNIT (SPY-1170)
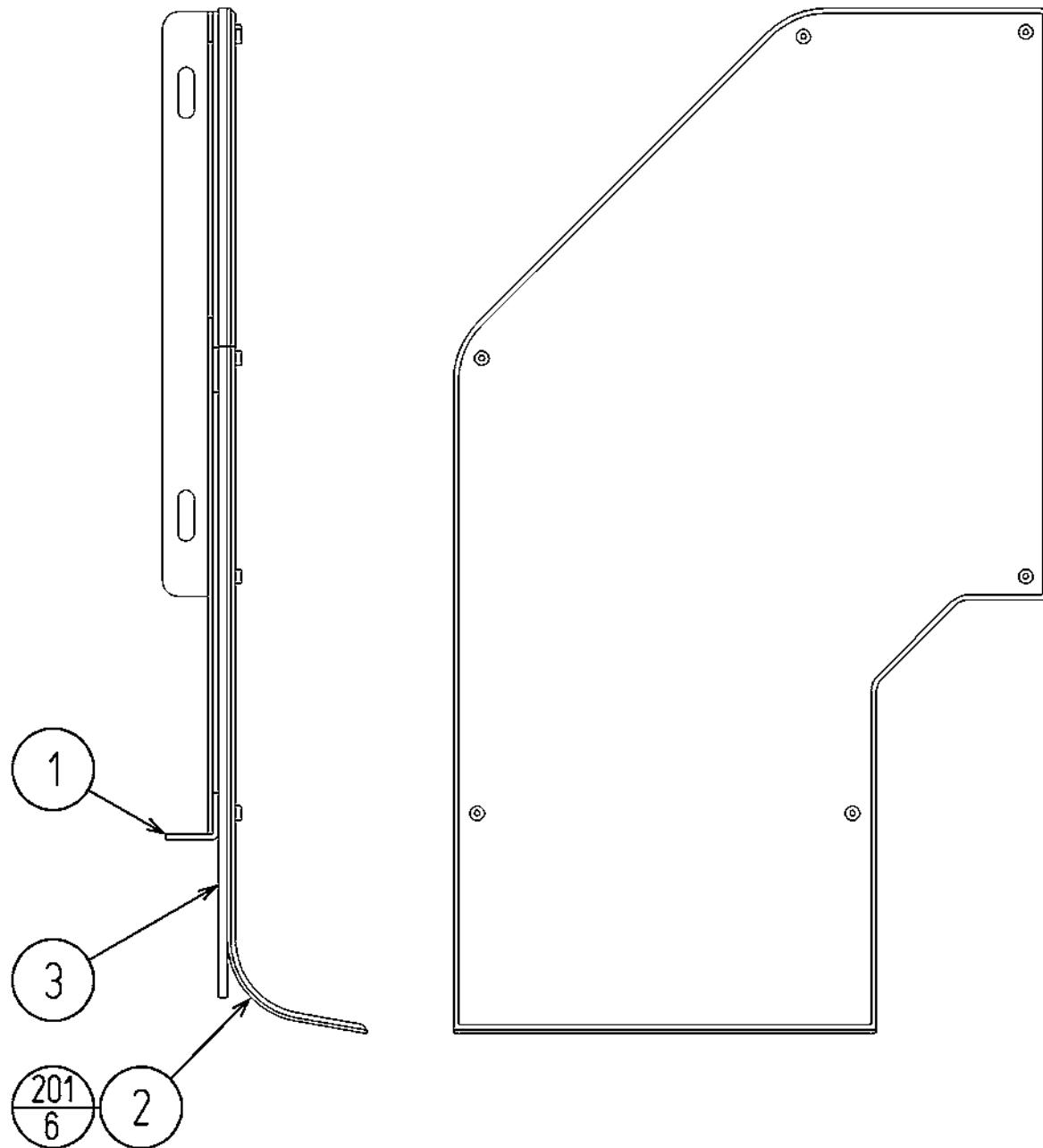
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	SPY-1171	SW BRKT	
2	421-8126	STICKER SWITCH PANEL	
101	509-5028	SW PB 1M (MIYAMA DS-412R)	
102	220-5754	VOL CONT B5KOHM (RV24YN 15S)	
103	601-0042	KNOB 22 MM	
104	310-5029-F20	SUMI TUBE FF 20MM	
301	SPY-60017	WH SW UNIT	

(19) METER UNIT (HOD-1590)
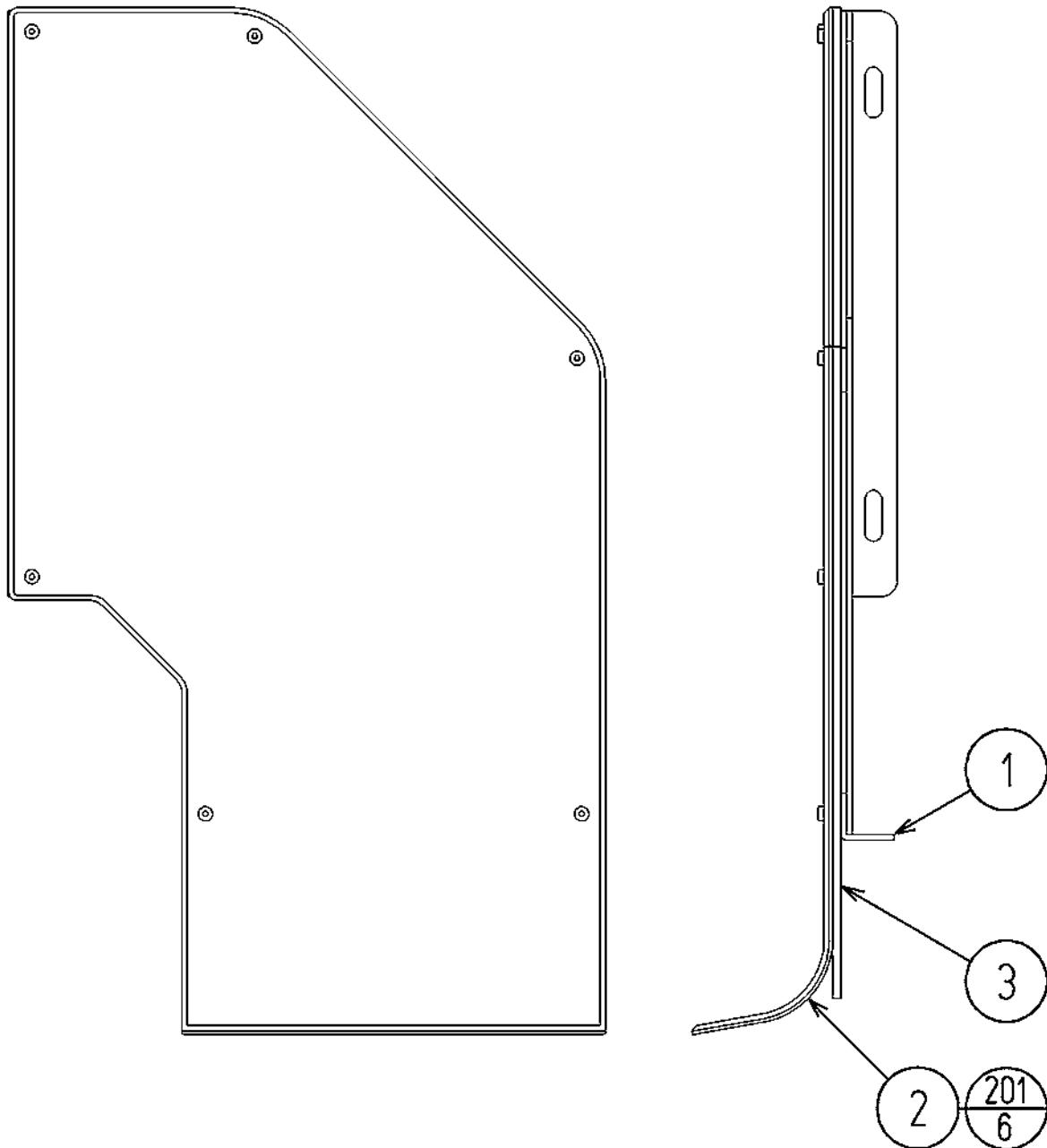
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	HOD-1591	METER BRKT	
2	421-6591-01	STICKER COIN METER	
101	220-5617-01	MAG CNTR DC5V W/CONN 6P WH	
	220-5643-01	MAG CNTR DC5V 6P WH MZ-674-D04	

㉓ ASSY FENCE L (VCT-1150)
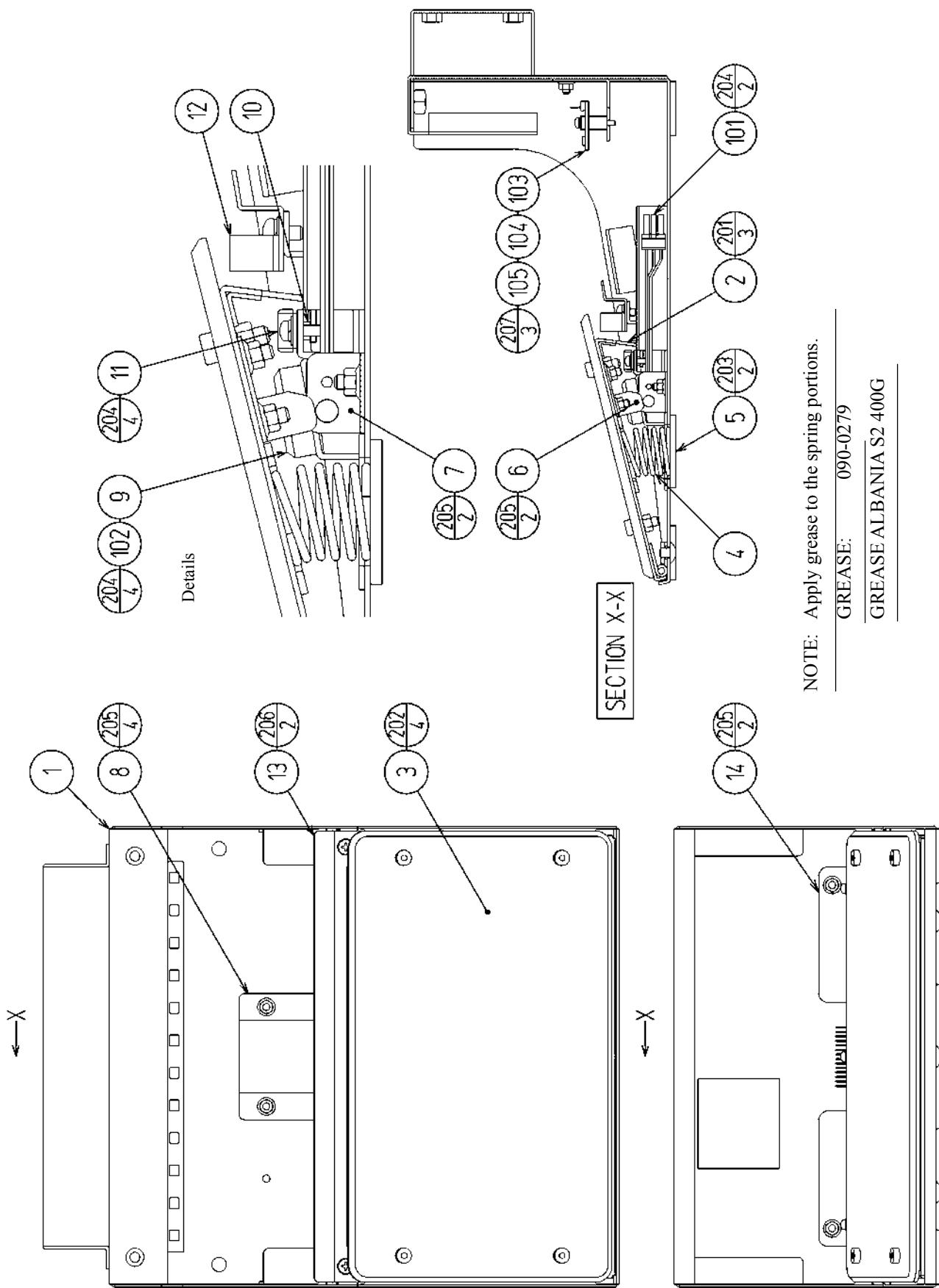
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-1151	FENCE FRAME L	
2	VCT-1152	DESIGN PLATE L	
3	VCT-1153	GUARD PLATE L	
201	FAS-290034	HEX SKT LH CAP SCR STN M5×15	

㉑ ASSY FENCE R (VCT-1160)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-1161	FENCE FRAME R	
2	VCT-1162	DESIGN PLATE R	
3	VCT-1163	GUARD PLATE R	
201	FAS-290034	HEX SKT LH CAP SCR STN M5×15	

NOTE: Apply grease to the spring portions.

GREASE: 090-0279

GREASE ALBANIA S2 400G

SECTION X-X

Details
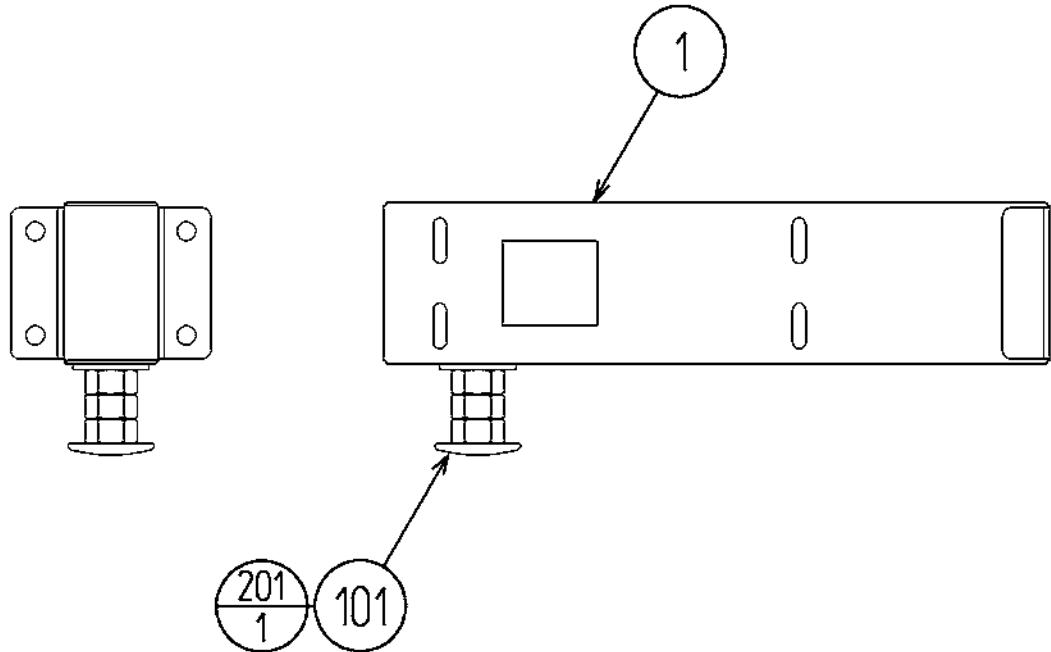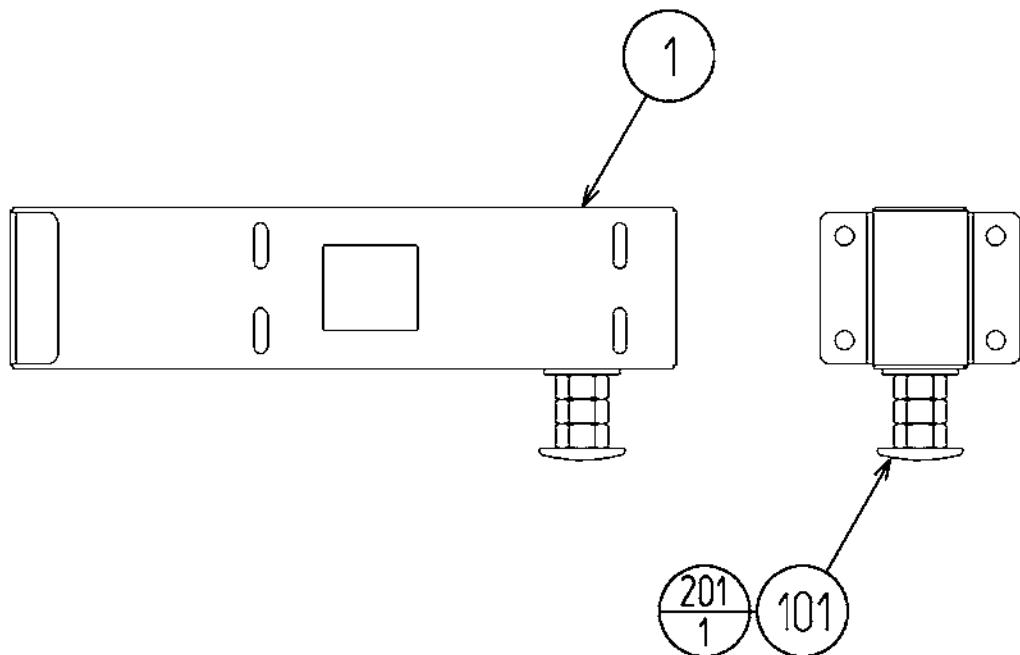
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-1201X	PEDAL BASE DX	
2	VCT-1202X	PEDAL	
3	VCT-1203	FOOT PLATE	
4	VCT-1204	COM SPRING	
5	VCT-1205	SPRING COVER	
6	VCT-1206	SHADE PLATE	
7	VCT-1207	SENSOR BRKT	
8	VCT-1208	WIRE COVER	
9	VCT-1209	STOPPER RUBBER	
10	VCT-1210	RUBBER CUSHION	
11	VCT-1211	RUBBER CASE	
12	VCT-1212	CUSHION	
13	VCT-1213	PLATE SASH	
14	VCT-1214	LED BD BRKT	
101	370-5226	PHOTO SENSOR OMT-01DAMP NEW	
102	280-6622-30030	SPACER TUBE	
103	838-14281-01	LED BAR BD RGB	
104	280-5247	ONE TOUCH BUSHING	
105	280-5248-10	ONE TOUCH COLLAR M3 L=10	
106	280-5009-01	CORD CLAMP 21	
107	280-5275-SR10	CORD CLAMP SR10	
201	FAS-000102	M SCR TH BLK M5×6	
202	FAS-290034	HEX SKT LH CAP SCR STN M5×15	
203	000-F00512	M SCR FH M5×12	
204	000-P00310-W	M SCR PH W/FS M3×10	
205	050-F00400	FLG NUT M4	
206	000-P00408-WB	M SCR PH W/FS BLK M4×8	
207	000-P00320-W	M SCR PH W/FS M3×20	
208	050-H00400	HEX NUT M4	
209	060-F00400	FLT WSHR M4	
210	060-S00400	SPR WSHR M4	
301	VCT-60013	WH PEDAL	

(23) ASSY FOOT BASE L (VCT-1300)
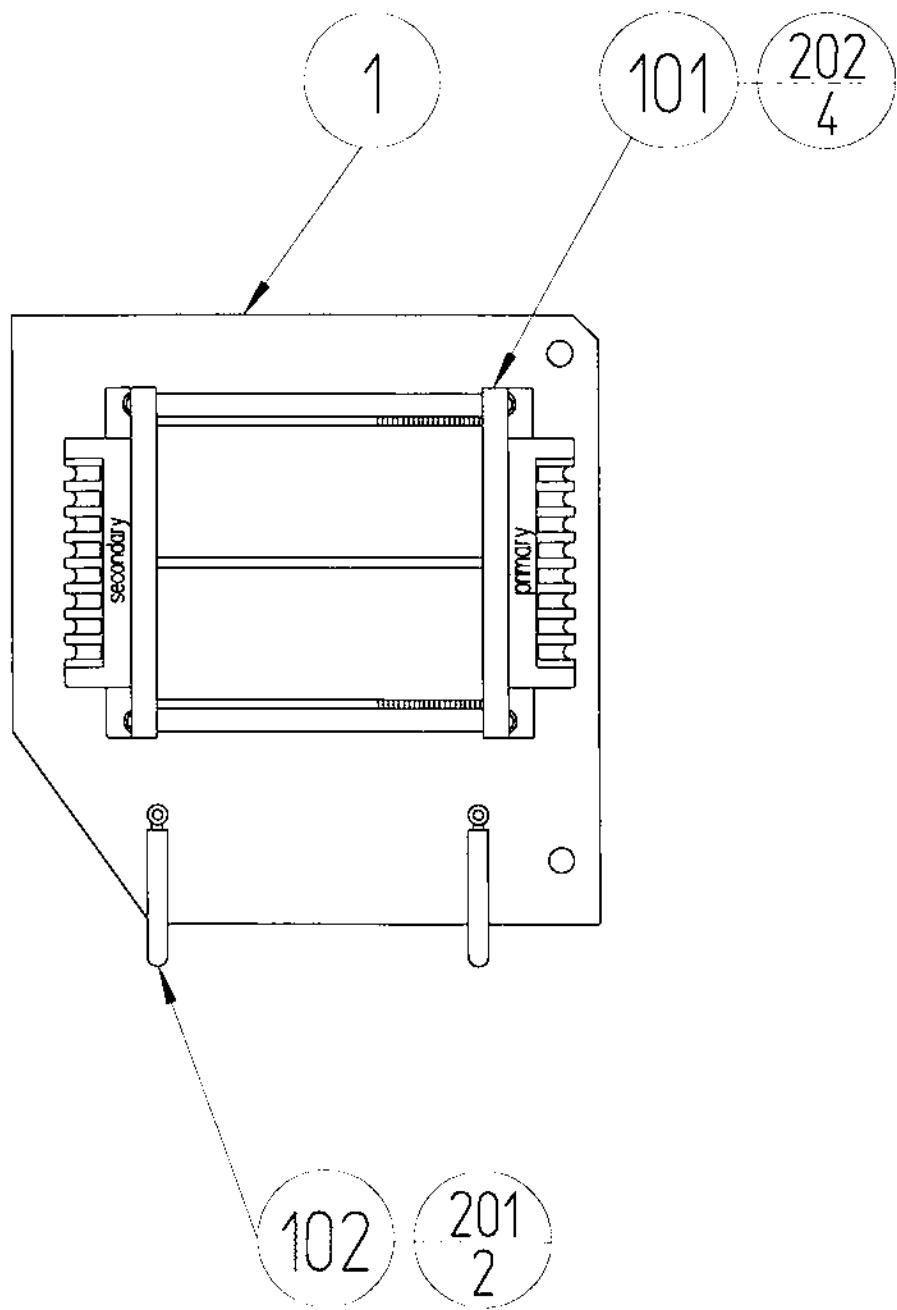
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-1301	FOOT BASE FRAME L	
101	601-5699X	LEG ADJUSTER BOLT M16×75	
102	280-5009-01	CORD CLAMP 21	
201	050-H01600-0B	HEX NUT BLK M16	

(24) ASSY FOOT BASE R (VCT-1310)
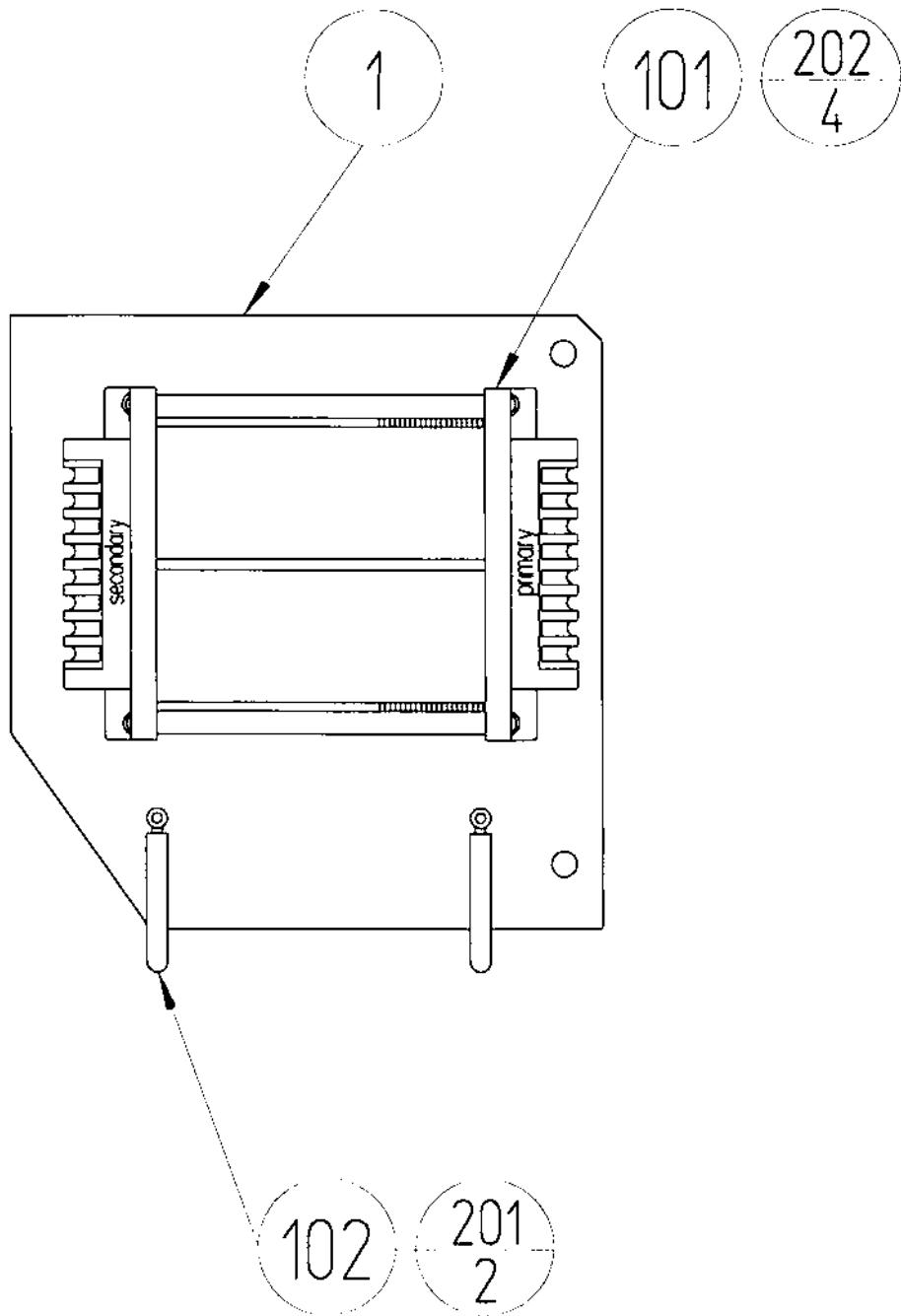
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	VCT-1311	FOOT BASE FRAME R	
101	601-5699X	LEG ADJUSTER BOLT M16×75	
102	280-5009-01	CORD CLAMP 21	
201	050-H01600-0B	HEX NUT BLK M16	

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	FRQ-4101	PWR SPLY BASE	
101	560-5384	XFMR 100-120V 100V 10A WB	
102	280-5207	HARNESS LUG CC-1005	
201	011-T03512	TAP SCR TH 3.5×12	
202	000-P00516-W	M SCR PH W/FS M5×16	
301	SMB-60052	WIRE HARN XFMR IN	
302	SMB-60053	WIRE HARN XFMR OUT	

(25) ASSY XFMR 200V AREA (SMB-4200)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	FRQ-4101	PWR SPLY BASE	
101	560-5377	PWR XFMR 200-240V 100V10A CE	
102	280-5207	HARNESS LUG CC-1005	
201	011-T03512	TAP SCR TH 3.5×12	
202	000-P00516-W	M SCR PH W/FS M5×16	
301	SMB-60052	WIRE HARN XFMR IN	
302	SMB-60053	WIRE HARN XFMR OUT	

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19. WIRE COLOR CODE TABLE

THE WIRE COLOR CODE is as follow:

A   PINK
B   SKY BLUE
C   BROWN
D   PURPLE
E   LIGHT GREEN
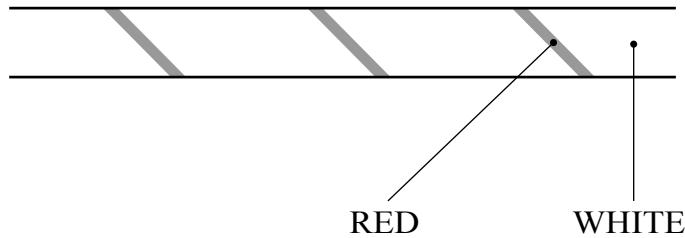
Wires other than those of any of the above 5 single colors will be displayed by 2 alphanumeric characters.

1   RED
2   BLUE
3   YELLOW
4   GREEN
5   WHITE
7   ORANGE
8   BLACK
9   GRAY

If the right-hand side numeral of the code is 0, then the wire will be of a single color shown by the left-hand side numeral (see the above).

Note 1:   If the right-hand side alphanumeric is not 0, that particular wire has a spiral color code. The left-hand side character shows the base color and the right-hand side one, the spiral color.

      \<Example\>   51 ……… WHITE / RED

RED   WHITE

Note 2:   The character following the wire color code indicates the size of the wire.

U: AWG16
K: AWG18
L: AWG20
None: AWG22

Warranty

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

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

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

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

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

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