namco®

CRAZY TYPHOON

OPERATION MANUAL

The actual product you have received may differ slightly from the illustration.

⚠WARNING

- To ensure safe operation of the game machine, be sure to read this Operation Manual before use.
- Keep this Operation Manual in a safe place for quick access whenever needed.

NAMCO BANDAI Games Inc.

INTRODUCTION

Thank you for purchasing the "CRAZY TYPHOON" game machine (hereafter referred to as the "machine").

This operation manual describes:
- How to install, operate, relocate, transport, maintain and discard the machine safely and properly
- How to operate the machine correctly and make full use of its features
- How to ensure safety of players and bystanders

1. SAFETY PRECAUTIONS - Be sure to read these instructions to ensure safety -

Instructions to the owner

- If you entrust another party to perform installation, operation, relocation, transportation, maintenance or discarding of the machine, instruct the concerned party to read and observe all the instructions and precautions in this operation manual regarding the particular action to be taken.

1-1 Magnitudes of risk

On the labels attached to the machine and in this operation manual, precautions regarding safety and property damage are classified as shown below in accordance with the magnitude of the particular risk.

⚠ **WARNING** : **Failure to avoid the indicated risk may result in death or serious injury.**

⚠ **CAUTION** : **Failure to avoid the indicated risk may result in minor injury or property damage.**

Notes related to machine functions but not to safety are marked with the following label.

◀ **NOTICE** : **Notes related to product functions or protection.**

1-2 Definition of the term "technician"

This operation manual is written for arcade personnel. However, the sections marked "To be conducted by a technician only" in the table of contents are written for technicians. These tasks should be conducted by technicians only.

Technician: A person engaged in machine design, manufacture, inspection or maintenance service for a manufacturer of amusement equipment, or a person who has technical knowledge related to electricity, electronics or mechanical engineering at a level equal to or higher than that of a technical high school graduate and is engaged routinely in the maintenance (repair) of amusement machines.

1-3 Top-priority safety precautions

⚠WARNING

- Should any problem occur, turn off the power switch immediately to stop operating the machine. Then, unplug the power cord plug from the AC outlet. Operating the machine without correcting a problem may cause a fire or accident.
- Dust accumulated on the power cord plug may cause a fire. Check the power cord plug regularly and remove dust.
- Insert the power cord plug firmly into the AC outlet. Poor contact may cause overheating that can lead to a fire or burns.
- A damaged power cord can cause a fire, electric shock or electrical leakage. Observe the following cautions.
    - Keep the power cord away from heating devices.
    - Do not twist the power cord.
    - Do not bend the power cord forcibly.
    - Do not alter the power cord.
    - Do not bundle the power cord.
    - Do not pull the power cord. (Always unplug by holding the power cord plug, and avoid pulling the power cord.)
    - Do not place anything on the power cord.
    - Do not get the power cord caught by the machine, other products or wall.
    - Do not do anything else that might damage the power cord.

- Do not wet the power cord or power cord plug with water. Water can cause an electric shock or leakage.
- Do not touch the power cord with a wet hand. Doing so can result in an electric shock.
- The power rating for the machine is 230 VAC and 1.5 A (maximum current consumption). To prevent fire and electric shock, always use indoor wiring that conforms to the machine's power specifications.
- Operate the machine with a power supply voltage in the range of 210 to 250 VAC. Using the machine with a supply voltage outside the specified range may cause a fire or electric shock. To ensure that the machine operates in optimum condition, maintain the power supply at 230 VAC.
- To ensure safe operation of the machine, be sure to conduct the pre-service check (see P. 28 "7-1 Pre-service check") and maintenance (see P. 69 "8 SERVICE"). Failure to perform the specified inspection and maintenance can result in unexpected accidents.
- Use only consumables and service parts (including fasteners) specified by NAMCO BANDAI Games Inc. To order parts, contact your distributor.
- Do not convert the machine without permission. Do not perform any work that is not described in this operation manual. Unauthorized conversion of the machine may create unforeseen hazards.
- When transferring the ownership of the machine, be sure to provide this operation manual together with the machine.

1-4 Description of warning labels attached to the machine
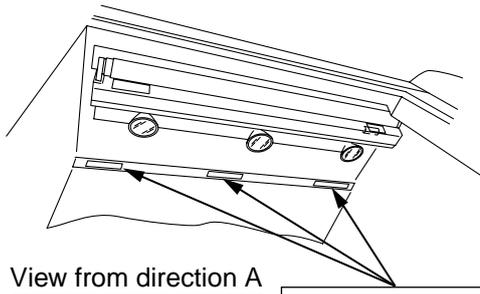
⚠ **WARNING**

● **The warning labels describe important safety precautions. Observe the following:**
  • **To make sure that the warning labels attached to the machine are easily legible, install the machine at a proper location with ample illumination and keep the labels clean at all times. Also, make sure that the labels are not hidden behind another game machine or other objects.**
  • **Do not remove or alter the warning labels.**
  • **If the warning labels become dirty or damaged, replace them with new labels. To order warning labels, contact your distributor.**

The warning labels shown in the diagram on the following page are attached on machine to notify danger to the people operating, maintaining, transporting or moving the machine.
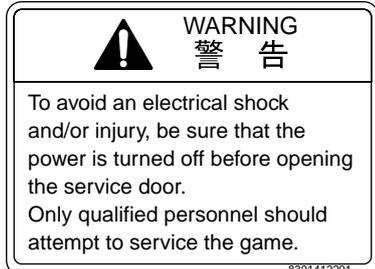
⚠ HIGH TEMPERATURE ⬇

Warning sticker High Temperature (NEL)
Part No.: 8301409401

View from direction A

⚠ HIGH TEMPERATURE

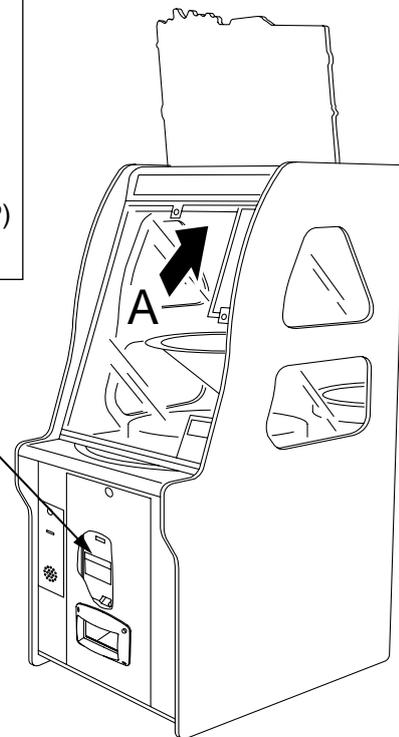Warning sticker High Temperature (A)
Part No.: 8301414400

⚠ WARNING 警告

To avoid an electrical shock
and/or injury, be sure that the
power is turned off before opening
the service door.
Only qualified personnel should
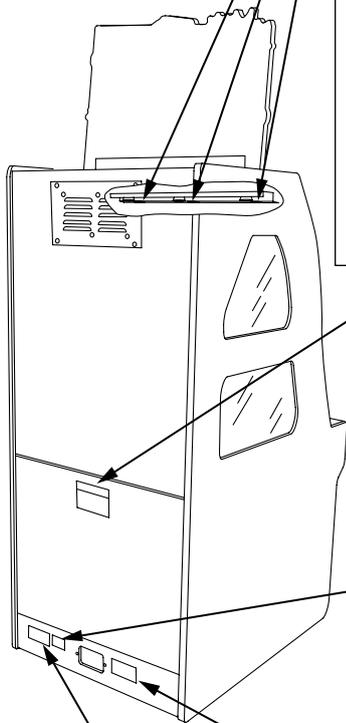attempt to service the game.

8301412201

Warning sticker Maintenance B (EXP)
Part No.: 8301412201

A

WARNING
THIS MACHINE
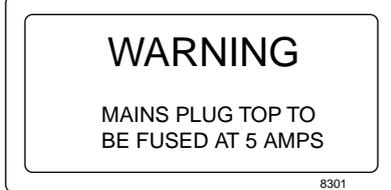MUST BE
EARTHED

8301413900

Warning sticker (CE Earth)
Part No.: 8301413900

⚡ CAUTION
230 VOLT

8301413800

Caution sticker (CE 230V)
Part No.: 8301413800

WARNING

MAINS PLUG TOP TO
BE FUSED AT 5 AMPS

8301

Caution sticker (5A)
Part No.: 8301414300

CONTENTS

7

2. SPECIFICATIONS

(1) Rated power supply   230 + 20 VAC (50 Hz)
(2) Rated power consumption   250 W
(3) Maximum current consumption   1.5 A
(4) Compatible coins   Diameter: 20 to 26 mm, +0.05
                                     Thickness: 2.0 + 0.1 mm

   * Depending on the coin size deviation range, it may be necessary to check operation.

(5) Coin hopper capacity   400 coins
(6) Cash box capacity   6,000 coins
(7) Dimensions [unit: mm]
     As installed: 680 (W) x 900 (D) x 2,030 (H)
(8) Weight   Approx. 80 kg
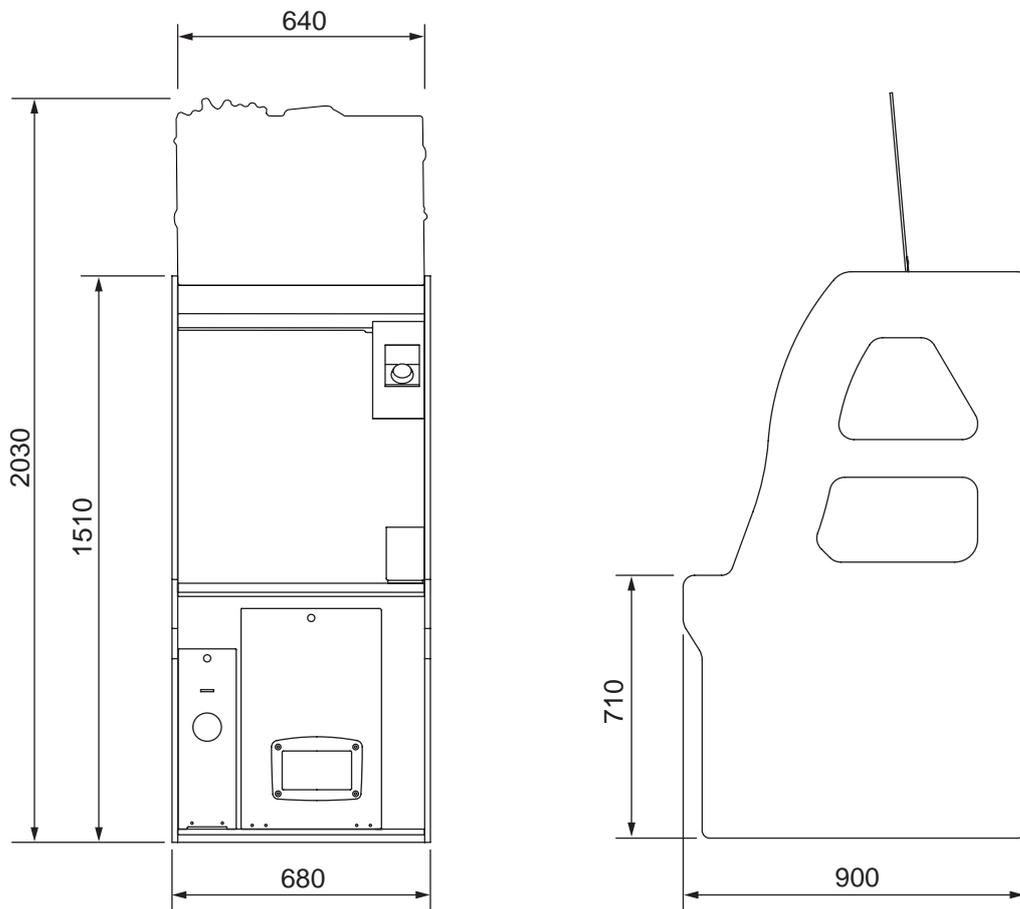
3. CHECKING THE PACKAGE CONTENTS

The product package contains the following parts.

> **⬤ NOTICE**
> ● Make sure all the parts shown below are contained in the product package.
> ● If parts are missing, contact your distributor.

Operation manual (this manual)

Key type	Location of use	Coin lock model no.
A	Cash box door	C201-1
B	Coin entry door, ticket redemption door	
C	Front glass, front door	C201-2 (two-position key removal)

A   B   C

Keys (3 types, 2 keys each)

Signboard Assy (1 unit) (wrapped in air bubble cushioning sheet)

Phillips pan-head screw (M4 x 15) (Flat and spring washers) (3 sets)

Torx wrench, 4 mm across flats (M5)

Key C   Key B

Key C

Halogen lamps (3 pieces) 12 V, 35W

Power cord (3 m)

Key B   Key C

Key A

Taped inside the cash box

• **Accessory list**

Name	Specification		Qty
Operation Manual (this manual)			1
Key (for cash box door)			2
Key (for coin entry door, ticket redemption door)			2
Key (for front glass, front door)			2
Halogen lamp	12V 35W		3
Signboard Assy			1
Phillips pan-head screw (with flat and spring washers)	M4 x 15		3
Torx wrench, 4 mm across flats (M5)			1
Power cord (3 m)	SY-029+SY-020		1

4. OVERALL CONSTRUCTION (Components and Their Names)

Halogen lamps (3 pieces)

Lamp Assy

Signboard Assy

Fluorescent lamp

Coin Entry Door Assy

Cam lock (one-position key removal)

Main Unit Assy (Cabinet)

Cam lock (two-position key removal)

Front Glass Assy

A

Drop rail

Ticket dispenser (ticket dispensing model)

Coin Entry Door Assy

Hopper door

Front glass support (B)

B

Field

Redemption Door Assy

C

Slot Machine Assy (7-segment display)

Front Door Assy

Dispensing outlet box (cash dispensing model)

Sensor cover

Snap pin

Spur gear A

Spur gear B

Field cover

Sensor base

Origin sensor
(field sensor 7)

Turntable

LED PC Boards

Roulette panel
(tempered glass)

Roulette sheets A, B, C

AC geared motor

Roulette Mechanism Assy

Sensor cover (A) (5 light-emitting sensor units)

Area sensor
(field sensor 6)

Light-receiving sensor units
(5 sensors)

View from direction A (Roulette Assy)

LCD

Ticket dispenser
(ticket dispensing model)

Item Selection buttons

ENTER SW

ON
TEST SW
OFF

Enter switch

Test switch
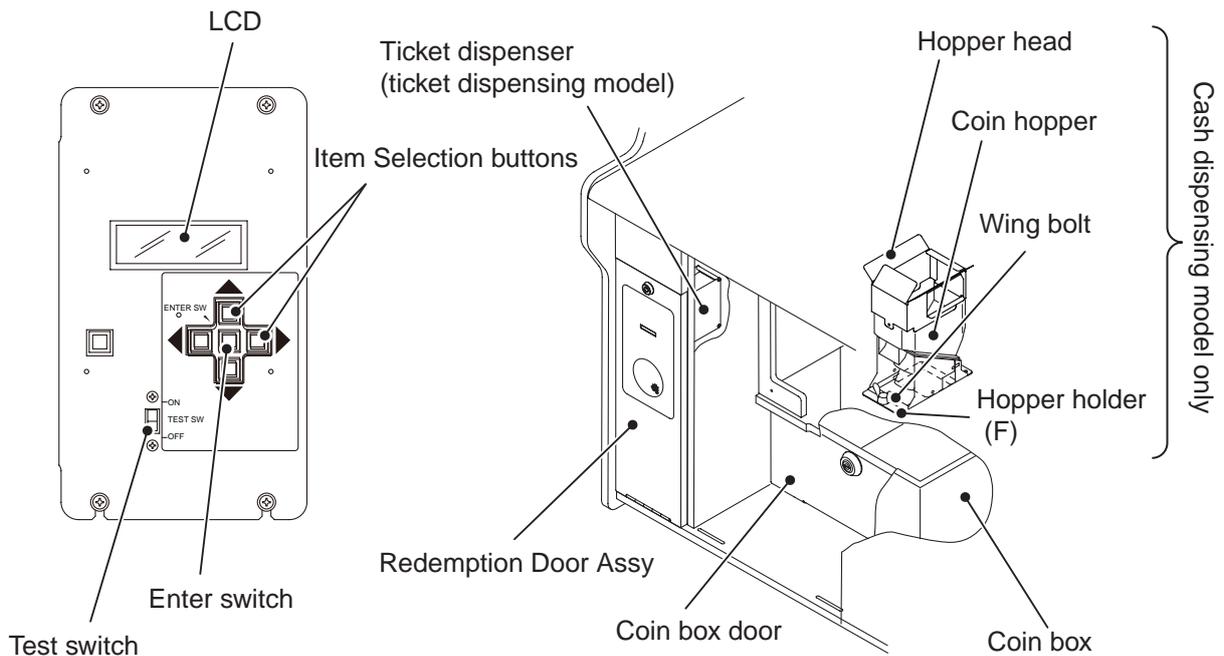
View from direction B (Service Panel Assy)

Hopper head

Coin hopper

Wing bolt

Hopper holder
(F)

Cash dispensing model only

Redemption Door Assy

Coin box door

Coin box

View from direction C

Signboard bracket

Fan motors (2 units)

Ventilation panel

Control Panel Assy

Switching regulator (12 V)

Switching regulator (24 V)

Game PC Board

SSR

Rear Door

D

Power switch

Power input section (noise filter)

Power cord connector (power cord)
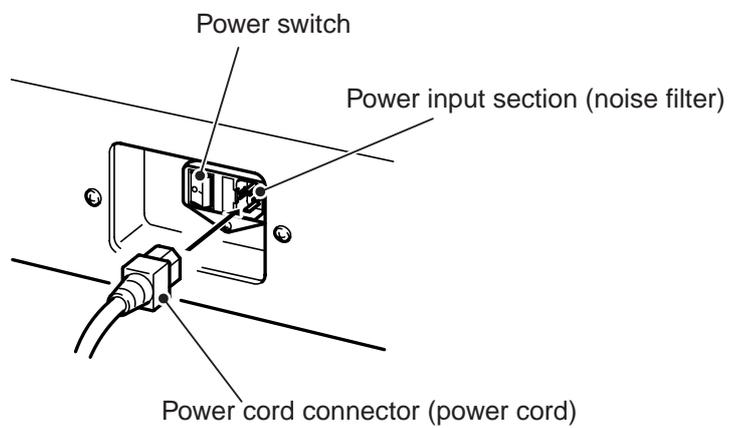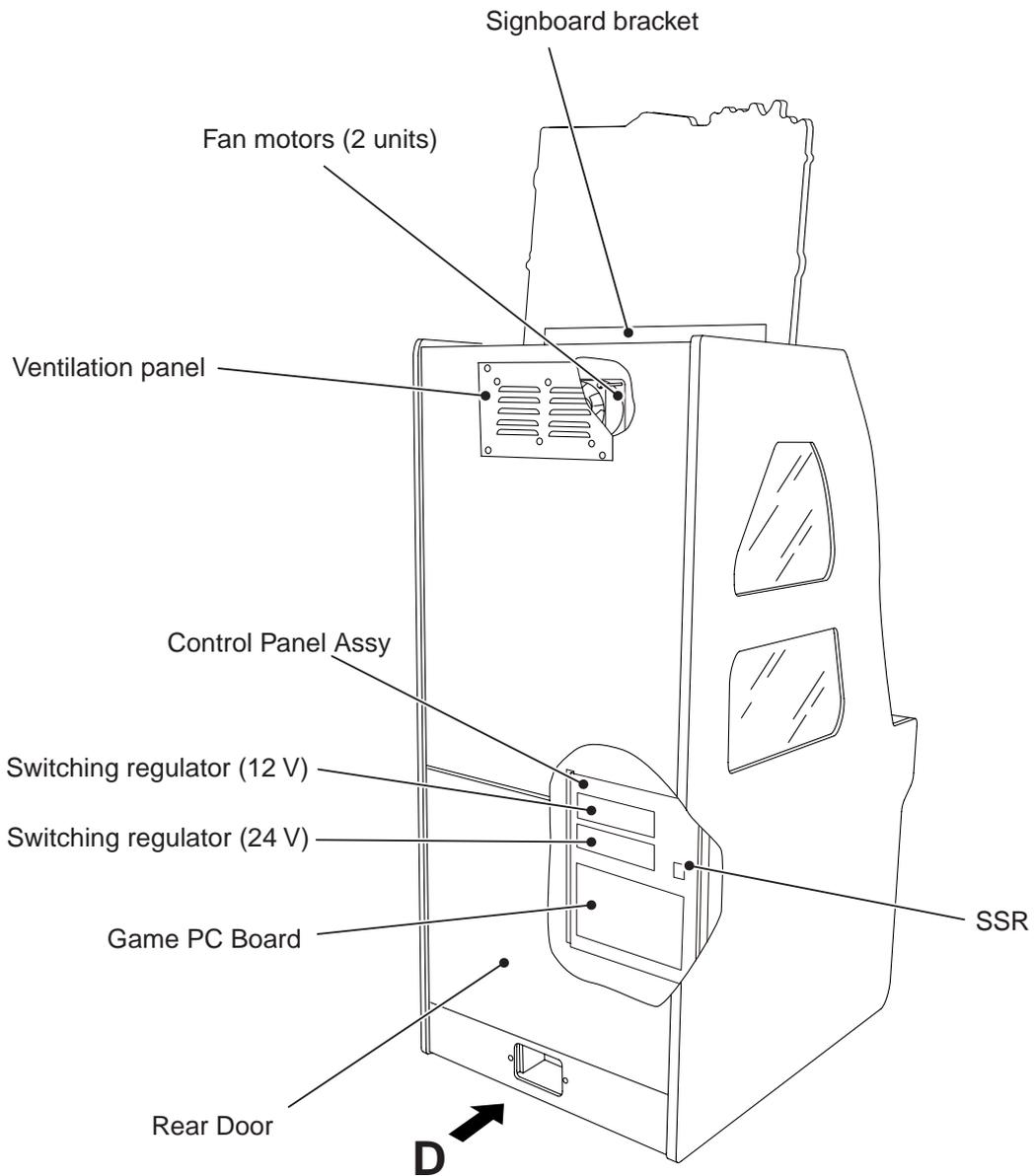
View from direction D (cord box)

5. INSTALLATION

⚠️WARNING

- Install the machine according to the instructions and procedures in this operation manual. Failure to follow the specified procedures may result in a fire, electric shock, injury, or machine malfunction.
- Insert the power cord plug firmly into the AC outlet. Poor contact may cause overheating that can lead to a fire or burns.
- Install the machine on a flat and level floor, and make sure that the machine is stable and perfectly vertical.

5-1 Installation conditions

⚠️WARNING

- Do not block the air vent holes on the rear side of the machine with objects or a wall. If the air vent holes are blocked, the inside of the machine becomes hot, and a fire or machine malfunction can result.

5-1-1 Locations to avoid

⚠️WARNING

- The machine is designed for indoor use. Never install the machine outdoors or at any of the following locations:
    - Place in direct sunlight
    - Place exposed to rain or water leakage
    - Damp place
    - Dusty place
    - Close to heating devices
    - Hot place
    - Extremely cold place
    - Place where dew condensation may occur due to temperature differences
    - Place where the machine may become an obstruction in emergencies (such as near emergency exit) and place where fire extinguisher or similar equipment is installed
    - Unstable place or location where vibrations are produced

5-1-2 Play zone of installed machine

⚠ CAUTION

● **Set a play zone as shown below so that players can move away from the machine without bumping into observers or passersby.**

Provide the following play zone around the installed machine. This play zone is also necessary for performing maintenance work. Therefore, be sure to ensure that the size of the play zone conforms to the dimensions shown below.

Unit: cm
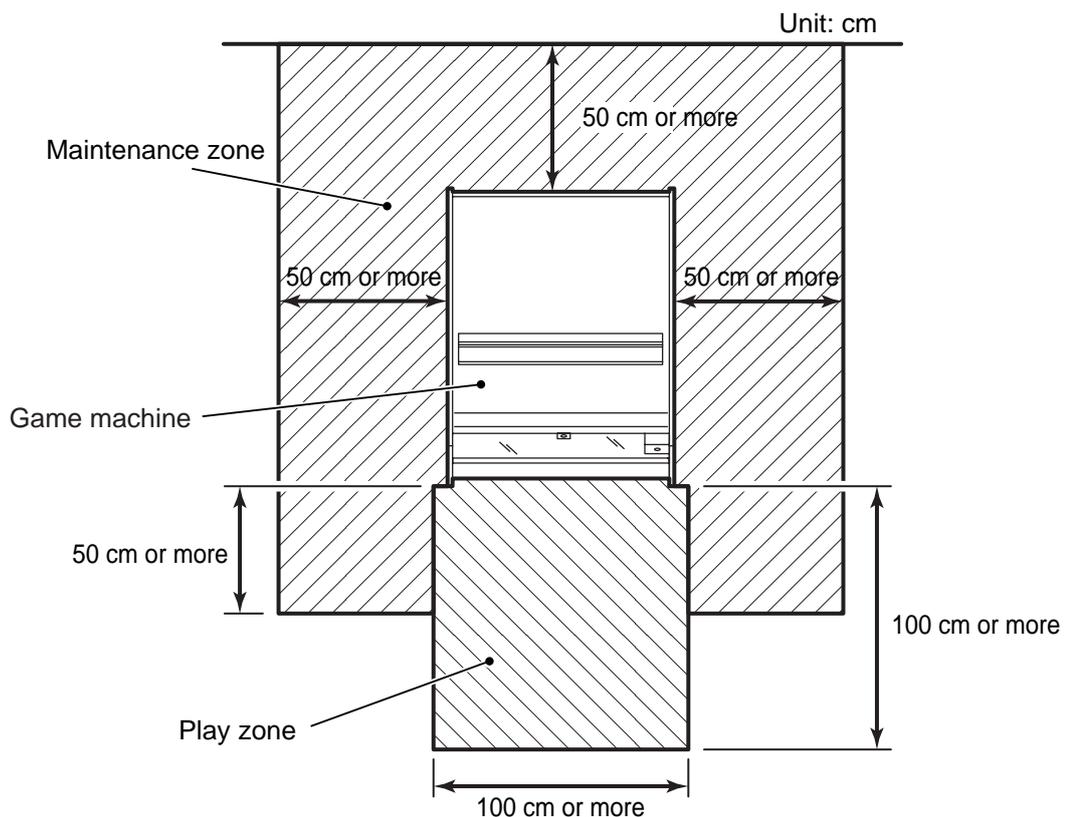
5-2 Required dimensions of carry-in passage (such as doors and corridors)

The doors and passages must be larger than the dimensions indicated below so that the machine can be carried to the installation site. By referring to the dimensions indicated below, make sure in advance that the machine can be carried smoothly to the installation site.

The dimensions of the machine are as follows (unit: mm):
    680 (W) x 900 (D) x 2.030 (H) (with Signboard Assy attached)
    680 (W) x 900 (D) x 1,510 (H) (with Signboard Assy removed)

5-3 Assembly

5-3-1 Installing the Signboard Assy

⚠ **CAUTION**

● **Before installing the Signboard Assy (signboard panel), make sure that the machine has been installed as specified in "5-1 Installation conditions" on page 16.**

1 Install the signboard bracket for the Signboard Assy to the main unit by using three Phillips pan-head screw (with flat and spring washers) (M4 x 15).

Signboard Assy

Phillips pan-head screw
(with flat and spring washers)
(M4 x 15) x 3

Signboard bracket

Signboard Assy

Main Unit Assy
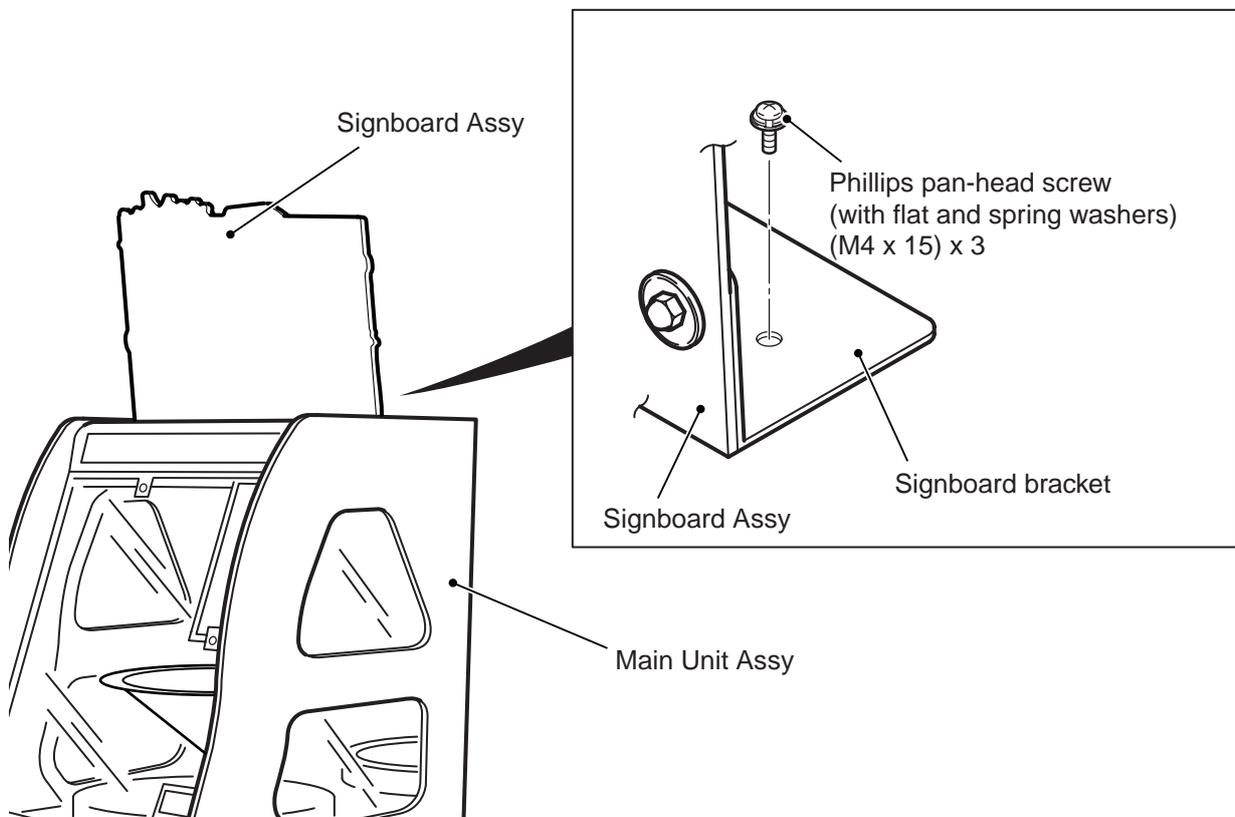
5-3-2 Preparing coins (cash dispensing model)

1 Using the provided keys, open the cam lock (two-position key removal) below the Coin Entry Assy on the Front Glass Assy and the cam lock (one-position key removal) at the top center of the Front Glass Assy in that order.

Cam lock (one-position key removal)

Coin Entry Assy

Front Glass Assy

Cam lock (two-position key removal)
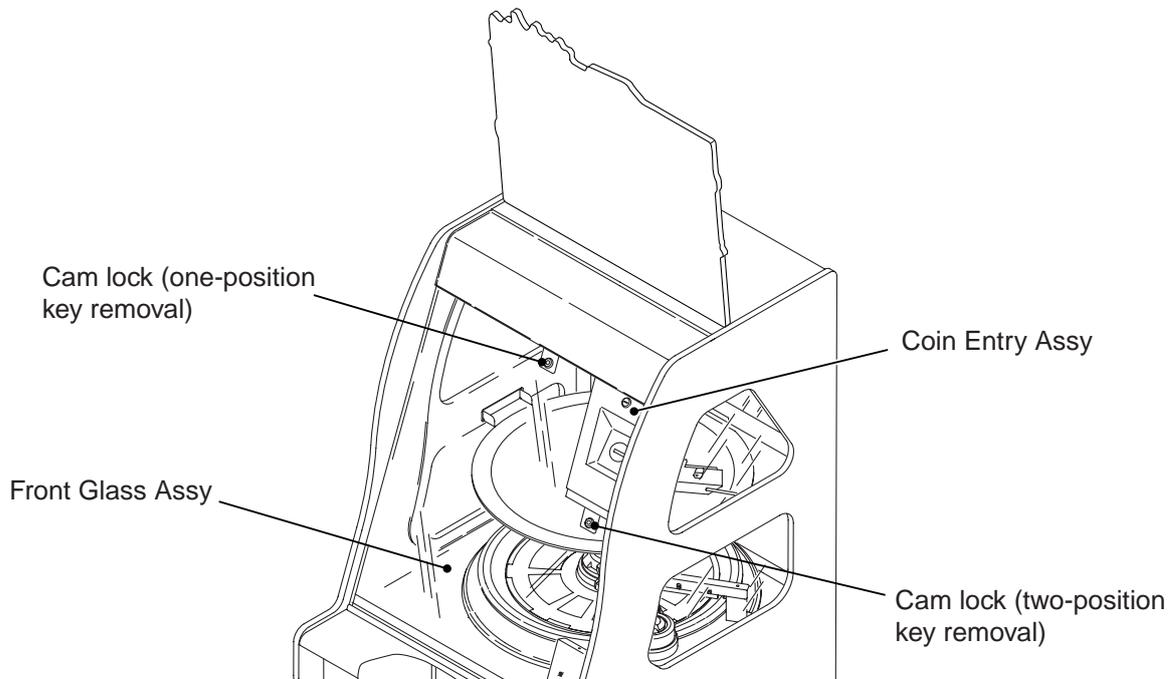
2 Place coins on the roulette panel (tempered glass), and drop them through the gap at the field cover.

NOTICE
- **Make sure that placed coins are lower than the square coin recovery duct located below the roulette panel. If too many coins are placed, coins may overflow from the hopper head.**

Coins

Roulette panel (tempered glass)

Field cover

Square coin recovery duct
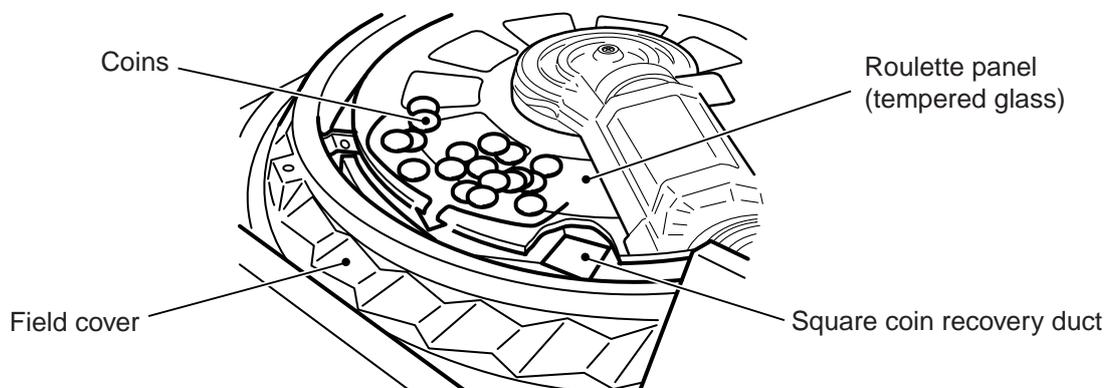
3 Reinstall the Front Glass Assy by following the sequence described in **1** in reverse.

5-3-3 Installing the halogen lamps

⚠WARNING

● **To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.**

Reinstall the three halogen lamps that were removed from the main unit before transportation.

1 Open the Front Glass Assy.
(See P. 19 "5-3-2 Arranging coins (cash dispensing model)" 1 .)

2 Insert the halogen lamps in the halogen lamp sockets (three locations) in the Lamp Assy.

Lamp Assy

Halogen lamp (3 locations)
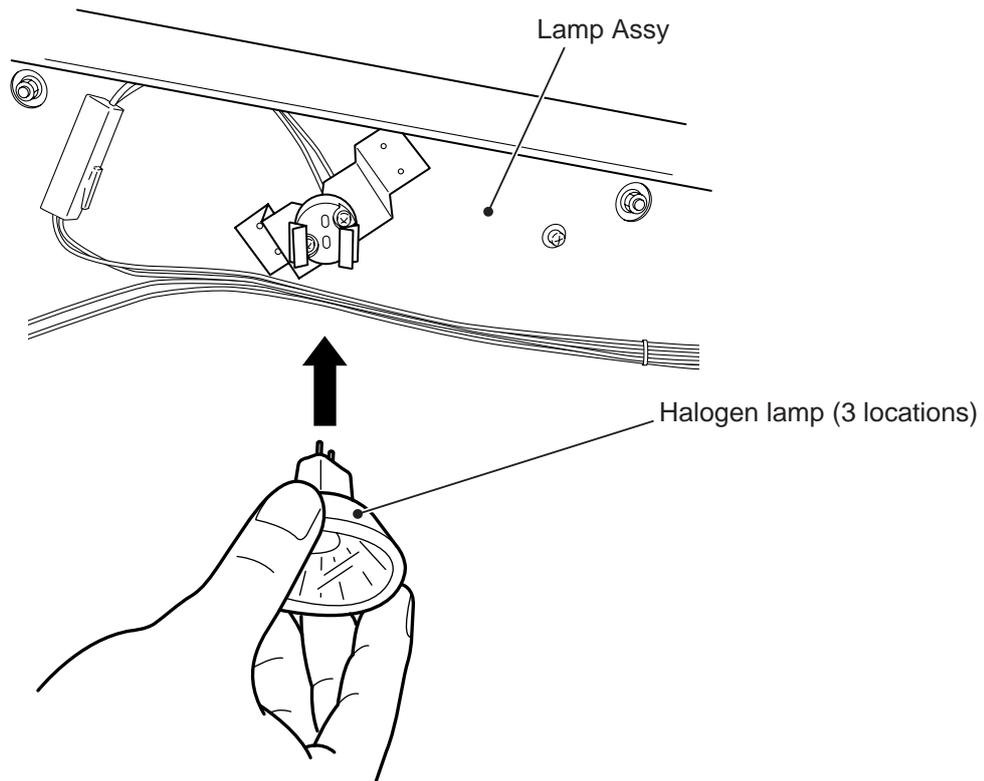
3 Reinstall the Front Glass Assy by following the procedure in [1] in reverse.

5-4 Connecting the power cord

1 Connect the provided power cord to the power input section located on the back side of the Main Unit Assy.

3P power outlet

Power cord

Power cord connector

Power plug
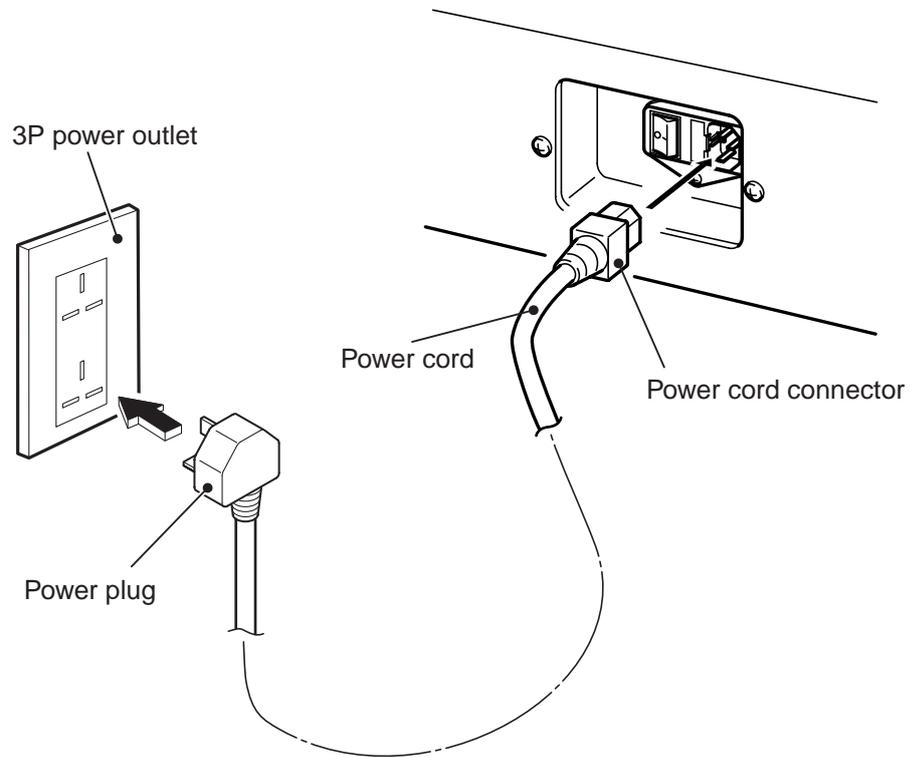
6. MOVING AND TRANSPORTING

⚠ WARNING

- Do not leave the machine on a slope; otherwise, the machine may tip over or cause an unforeseen accident.
  The machine is not designed to be carried by a forklift. Do not use a forklift to move or transport the machine. Use of a forklift can cause the machine to topple or result in an unexpected accident.
- Remove all coins from the Main Unit Assy before moving or transporting machine. Observe this instruction in order to prevent fire or electric shock caused by coins entering unexpected places inside the machine.
  (See P. 67 "7-6 Collection of coins.")
  Be sure to collect coins from the roulette panel (tempered glass) and the field and coins spilled inside the Main Unit Assy. Also, take out coins from the coin box and coin hopper.
- Do not hold on to the following places when moving or transporting the machine. Those parts can cause your hands to slip, causing the machine to fall and resulting in an accident or injury.
  Front Glass Assy, Signboard Assy

Do not hold on to the following sections of the machine.

Signboard Assy

Front Glass Assy
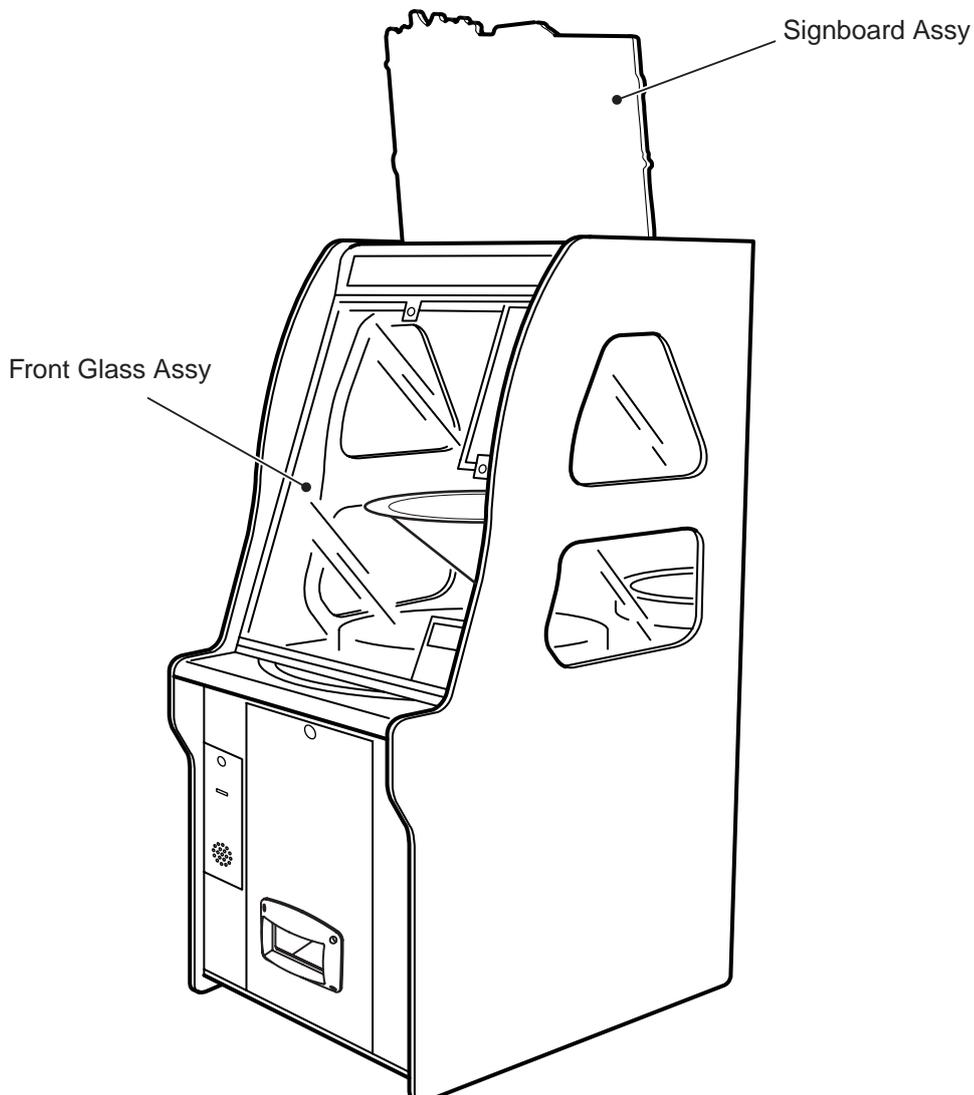
6-1 Transportation

6-1-1 Moving (on the floor)

⚠ **WARNING**

- **The machine must be carried by the following number of persons. If the machine is moved improperly, accidents and injury can result.**
  - **Main machine (80 kg): 4 persons or more**

⚠ **CAUTION**

- **Be sure to remove the Signboard Assy before moving the machine. To remove the Signboard Assy, following the Signboard Assy installation sequence in reverse. (See P. 18 "5-3-1 Installing the Signboard Assy.")**

◀ NOTICE
- **Move the machine carefully to prevent damage.**
- **Do not apply impact to the machine when carrying the machine over a ridge.**
- **Be sure to unplug the power cord before moving the machine.**

1 Turn off the power switch on the rear side of the Main Unit Assy.

Power switch

Power input section (noise filter)

Power cord connector (Power cord)
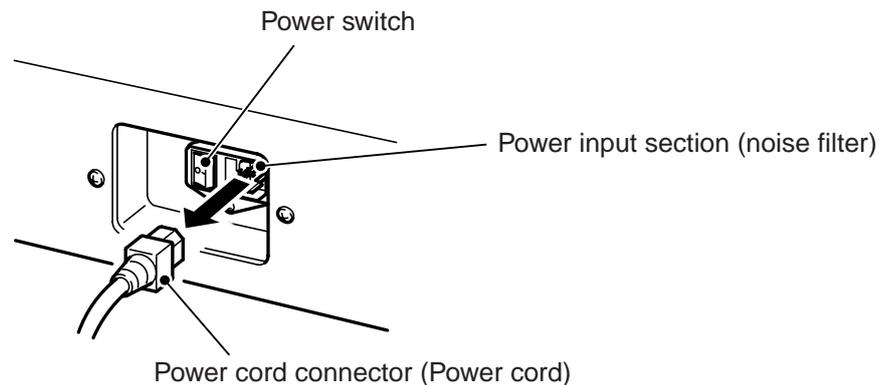
2 Disconnect the power cord from the Main Unit Assy.

3 Place the machine on a two-wheel trolley.

Game machine

Game machine

Two-wheel trolley
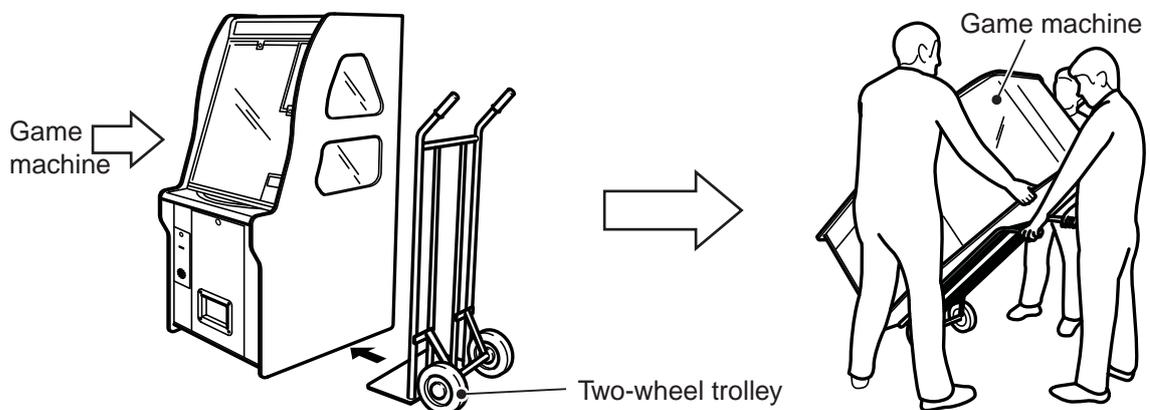
4 After moving the machine, install it by following the instructions in "5. INSTALLATION" on page 16.

6-1-2 Manual transport (carrying up or down the stairs, etc.)

⚠ WARNING

● When manually carrying the machine, the machine must be carried by the following number of persons. If the machine is moved improperly, accidents and injury can result.
  • Main machine (80 kg): 4 persons or more
● Remove coins from the coin hopper, roulette panel (tempered glass) and field in the Main Unit Assy, as well as from the coin box.
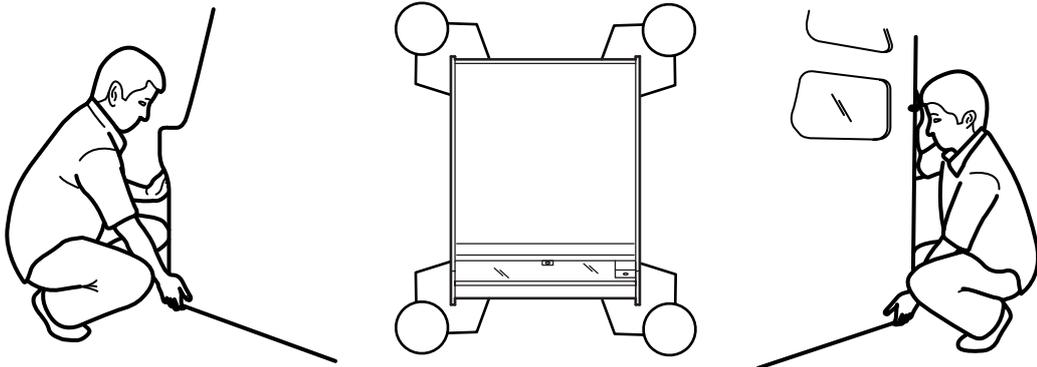
Hold the Main Unit Assy at the four bottom corners.

⚠ CAUTION

● Be sure to remove the Signboard Assy before moving the machine. To remove the Signboard Assy, following the Signboard Assy installation sequence in reverse. **(See P. 18 "5-3-1 Installing the Signboard Assy.")**

NOTICE
● Move the machine carefully to prevent damage.
● Do not apply impact to the machine when carrying the machine over a ridge.
● Be sure to unplug the power cord before moving the machine.
● Secure the coin box in place with fabric tape so that it will not move around.

1 Unplug the power cord from the cord box located on the back side of the Main Unit Assy.
(See P. 23 "6-1-1 Moving (on the floor)" 1 and 2.)

2 After transporting the machine, install it by following the instructions in "5. INSTALLATION" on page 16.

6-1-3 Loading on or unloading from a vehicle

⚠ **WARNING**

- When loading the machine onto or unloading the machine from a truck, be sure to detach the Signboard Assy from the Main Unit Assy for easy handling. If the machine is loaded on or unloaded from a truck with the Signboard Assy attached, an unexpected accident can occur. **(See P. 18 "5-3-1 Installing the Signboard Assy.")**
- The machine is not designed to be carried by a forklift. Do not use a forklift to load, unload, move or transport the machine. Use of a forklift can cause the machine to topple or result in an unexpected accident.
- The machine must be carried manually by the following number of persons. If the machine is moved improperly, accidents and injury can result.

  Weight of divided assys
  - Main Unit Assy (78 kg): 4 persons or more
  - Signboard Assy (2 kg): 1 person or more
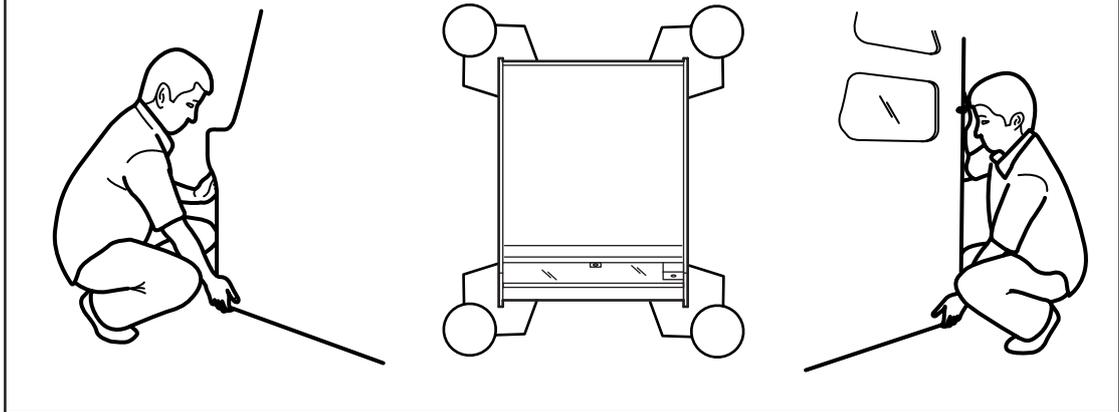
◀ **NOTICE**
- Carry the machine carefully to prevent damage.
- Be sure to unplug the power cord before moving the machine.
- Do not apply impact to the machine when carrying the machine over a ridge.

6-1-4 Trucking

⚠ WARNING

● When transporting the machine on a truck, secure the machine to the truck in order to prevent it from moving due to acceleration or deceleration of the vehicle. Failure to tie the machine to the vehicle may result in an accident.

NOTICE

● Be sure to secure the machine using belts.
● Place cushioning materials such as blankets between the machine and belts for the protection of machine surfaces.
● Insert pads made of polystyrene foam or other materials between the machine and cargo bed and between the machine and adjacent equipment for the protection of machine surfaces.
● Be sure to position the belt at the location shown in the diagram below.
● When transporting the machine on a rainy day, use a vehicle equipped with a cargo cover or container truck to protect the machine from rain.
● Hold the coin box in place with fabric tape so that it will not move around.

Pad (polystyrene foam, etc.)

Belt
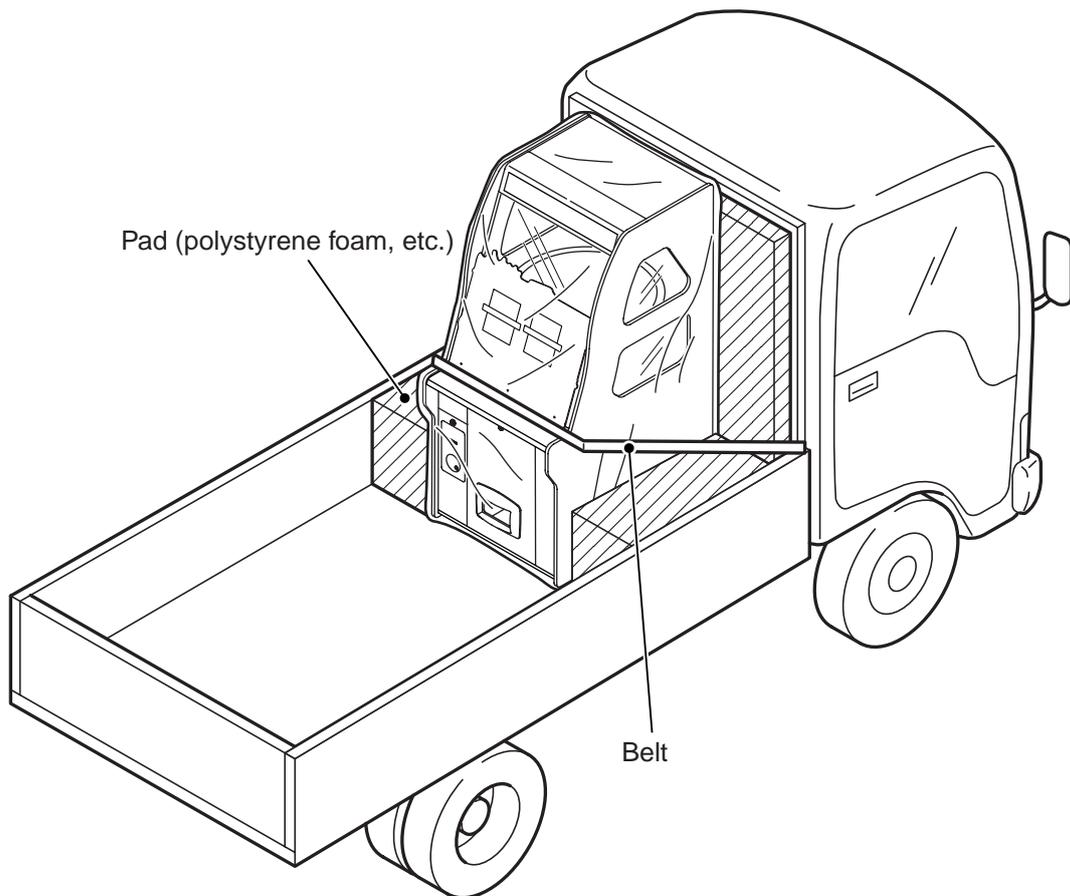
7. OPERATION

⚠WARNING

● Should any problem occur, turn off the power switch immediately to stop operating the machine. Then, unplug the power cord from the AC outlet. Operating the machine without correcting a problem may cause a fire or accident.

● Dust accumulated on the power cord plug may cause a fire. Check the power cord plug regularly and remove dust.

● Insert the power cord plug firmly into the AC outlet. Poor contact may cause overheating that can lead to a fire or burns.

● Before operating the machine, check to make sure that the machine has been installed according to the specified instructions (see P. 16 "5. INSTALLATION"). If the machine is installed improperly, a fire, electric shock, injury or malfunction may result.

● The warning labels describe important precautions. Observe the following.

　• To make sure that the warning labels attached to the machine are easily legible, install the machine at a proper location with ample illumination and keep the labels clean at all times. Also, make sure that the labels are not hidden behind another game machine or other objects.

　• Do not remove or alter the warning labels.

　• If warning labels become dirty or damaged, replace them with new labels. To order warning labels, contact your distributor.

● To ensure safe operation of the machine, be sure to conduct the pre-service check **(see P. 28 "7-1 Pre-service check")** and maintenance **(see P. 69 "8 SERVICE")**.
Failure to perform the specified inspection and maintenance can result in unexpected accidents.

◤NOTICE ● The machine can use only certain types of coins. Make sure that the coins used in your location meet the coin specifications allowed for use in this machine.
Use of different coins can result in malfunctions.

● When ordering coin-handling parts (coin hopper, coin selector), be sure to order the parts designed for the type of coins used in your location.
Use of parts that are not designed for the specified type of coins can result in a machine malfunction.

7-1 Pre-service check

Check the items described below before commencing operation.
If any problem is found, take corrective measures by referring to "8-2 Response to Errors" on page 79 or "8-3 Troubleshooting" on page 84.

7-1-1 Safety check (before power ON)

<div style="border:1px solid black;">

⚠ WARNING

● **To prevent accidents and injury, be sure to check the following items before commencing operation.**

</div>

(1) Are all warning indications legible?
(See P. 3 "1-4 Description of warning labels attached to the machine.")
(2) Is the play zone area established as specified?
(See P. 17 "5-1-2 Play zone of installed machine.")
(3) Is there any item in the coin discharging outlet box?
(4) Is the power cord connected securely to the AC outlet and power input socket?
(5) Is the power plug free of dust?
(6) Is the Front Glass Assy installed securely?

Check the following items after turning on the power switch. If any abnormality is found, turn off the power switch immediately and stop operating the machine. Then, unplug the power cord from the AC power outlet and contact your distributor.

(7) Is any part of the power cord or plug abnormally hot?
(8) Does touching the machine give an electrical shock?
(9) Is there a burning smell, abnormal noise or vibration?
(10) Is there any other sign of abnormality or malfunction?

7-1-2 Operation check (after power ON)

(1) Check that the machine produces background music and sound effects properly **(see P. 49 "7-4-7 Sound test (SOUND TEST)")**.
(2) Check that the fluorescent lamp, halogen lamps, Win lamps (WIN LEDs), slot machine 7-segment display, and service panel LCD the Main Unit Assy light properly **(see P. 13 "4. OVERALL CONSTRUCTION (Components and Their Names)")**.

Check the following items in the Test mode.
(See P. 44 "7-4-5 Input/output test (I/O TEST MENU).")
(3) Check the Test switch, Item Selection button, Enter switch, coin sensor, AC motor, coin hopper/ticket redemption sensors, etc. for proper operation.
(4) Check to make sure that the AC motor operates properly.

7-2 How to play

7-2-1 Description of the game

● **Basic rules of the game**

(1) Coins inserted through the coin slot by a player are counted by the coin sensor. Inserted coins pass through the field and fall onto the rotating roulette.

(2) When a coin lands in a framed area on the roulette, coins or tickets to the number indicated by that area are dispensed.

(3) If a multiple number of coins land in a framed area, the coins in the frame area are counted as "1."
If one coin lands within a framed area and another coin touches the frame, both coins are considered to be in contact with the black edge, and coins will not be dispensed.

Note: *Due to the effect of looking at the lines through the glass, a coin that appears to be just inside the line may be sensed by the sensors as touching and therefore treated as a losing coin.*

(4) Coins falling through a gap in the roulette enter the coin hopper, or the cash box in the case of ticket redemption.

(1) Rules of the CRAZY TYPHOON game machine

① The purpose of the game is to drop a coin onto a framed area on the roulette with an indication such as "2," "4," "JP" and "?."

② If a coin falls on the "JP" area coins or tickets to the number indicated on the Slot Machine Assy (7-segment display) in the Front Glass Assy are dispensed.

③ If a coin falls on the "?" area, "Mystery Win" results and the number of coins to be dispensed is determined randomly. The number of coins or tickets dispensed varies from 0 to 10 (cash dispensing model) or from 1 to 40 (ticket dispensing model), depending on the set payout rate. Therefore, players do not know in advance how many coins or tickets will be dispensed.

7-3 Adjustment

7-3-1 Turning on the power switch

NOTICE ● **Avoid turning the power switch On and Off frequently. Frequent On/Off operations can cause an equipment malfunction.**

1 After installing the machine according to the instructions in **"5. INSTALLATION" on page 16**, turn on the power switch located at the lower section of the back panel of the Main Unit Assy.

Power switch

Power input section

Power cord connector   Main Unit Assy
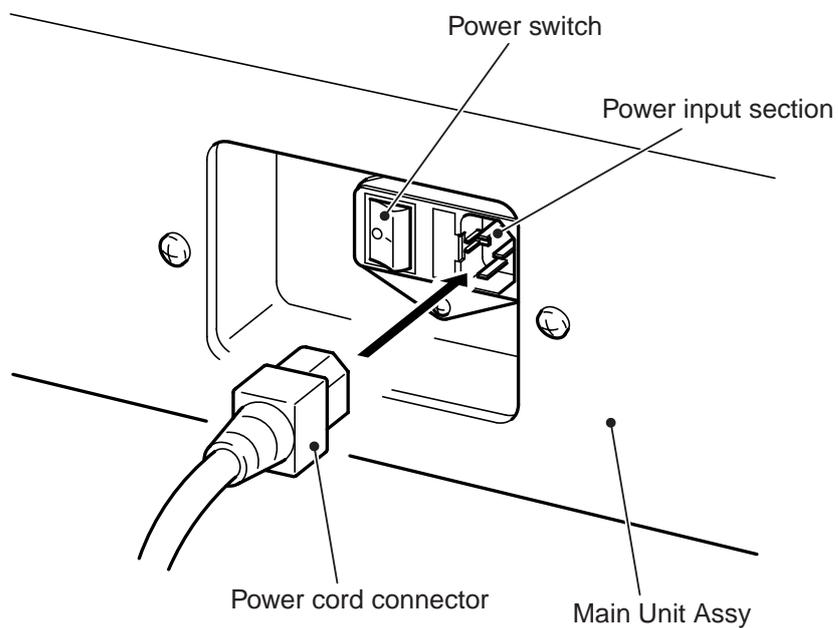
7-3-2 Adjustment switches

Using the provided key, open the Front Door Assy to locate the Service Panel Assy on the front side.
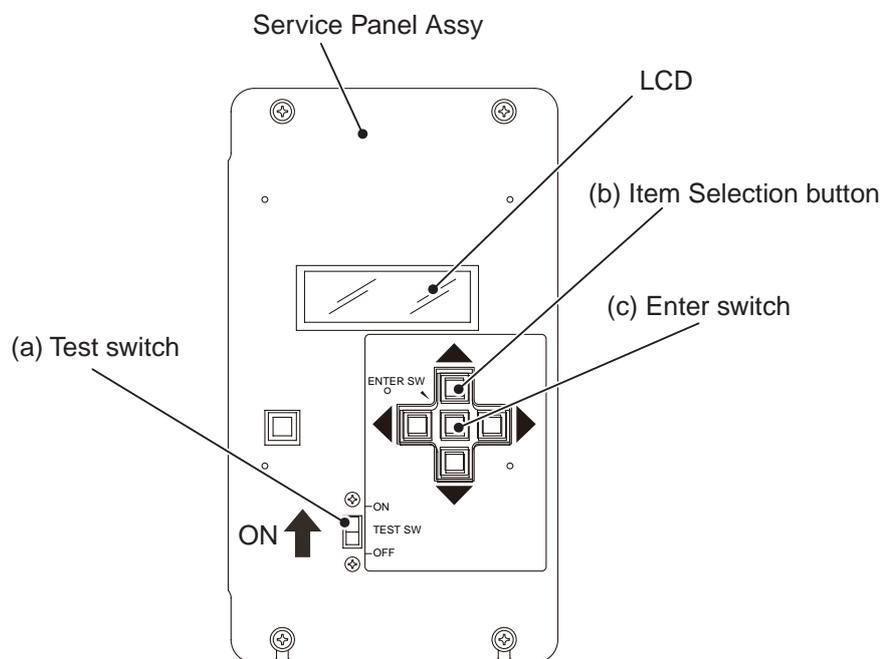
(a) Test switch

Set this switch to ON to enter the Test mode.
The Test mode allows the setting of the payout rate and testing of parts.

(b) Item Selection buttons

Press the UP, DOWN, RIGHT or LEFT button to select an item in the Test mode.

(c) Enter switch

Press this switch to enter or execute the item selected with the Item Selection button.

7-3-3 Replenishing/adding coins (cash dispensing model)

When coins in the coin hopper run short, supply or add coins.
(See P. 19 "5-3-2 Supplying coins.")

7-3-4 Adjustment of the payout rate

The payout rate is adjusted by the software.

(1) Software adjustment of the payout rate
(cash dispensing model: See P. 42 "7-4-4 Settings (OPTIONS).")
(ticket dispensing model: See P. 57 "7-5-4 Settings (OPTIONS).")
The machine provides automatic control in such a way that the ratio of the number of coins or tickets dispensed from the coin hopper or ticket dispenser to the number of inserted coins stays close to the payout ratio set with the software.
Because this control is provided by the software, there is no need to make any manual adjustment.

7-3-5 Adjustment of the coin selector

(1) Adjustment of the coin selector - To be conducted by a technician only -

1 Using the key, open the Coin Entry Door Assy toward the front.

Selector cover (U)

Phillips pan-head screw
(with flat and spring washers)
(M4 x 6) x 2

Door wire

Front Glass Assy

Cam lock (one-position
key removal)

Coin Entry Door Assy
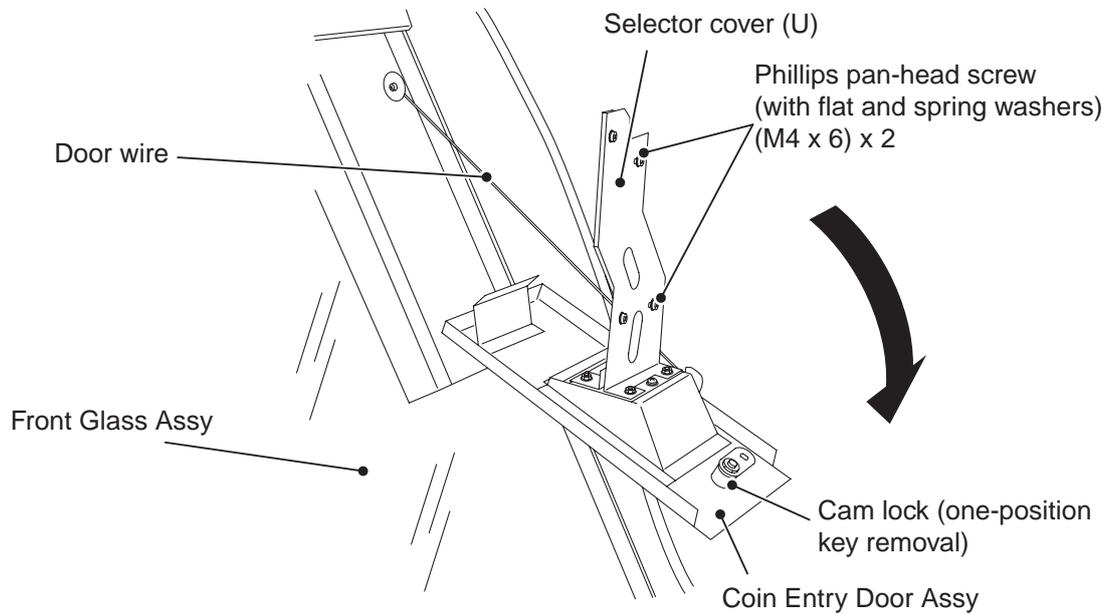
2 Remove the four flanged hexagon nuts (M4), and remove the coin selector unit.

Coin selector unit

Flanged hexagon nut (M4) x 4

Coin entry door
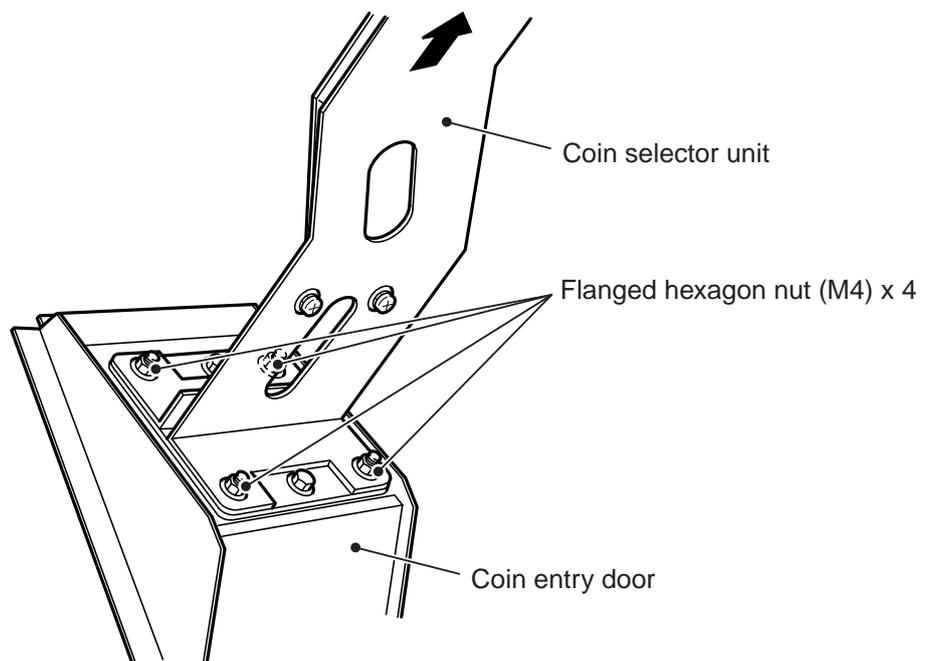
3 Loosen the two Phillips pan-head screws (with flat and spring washers) (M4 x 6), and adjust the position of the selector slide rail.
Adjust the width at the section shown in the following diagram to the following:
0.5 to 0.6 mm less than the Diameter of coin used
Measure the width at both coins positions (indicated with "*" in the diagram) ensuring that theselector slide rail is parallel to the selector base rail.

Elongated adjustment holes on selector cover (U)
[Phillips pan-head screw (with flat and spring washers)
(M4 x 6)] x 2

Selector cover (U) (coin outlet)

Selector base rail

Coin

Coin

Section A

0.5 to 0.6 mm

Selector slide rail

Detailed view of section A
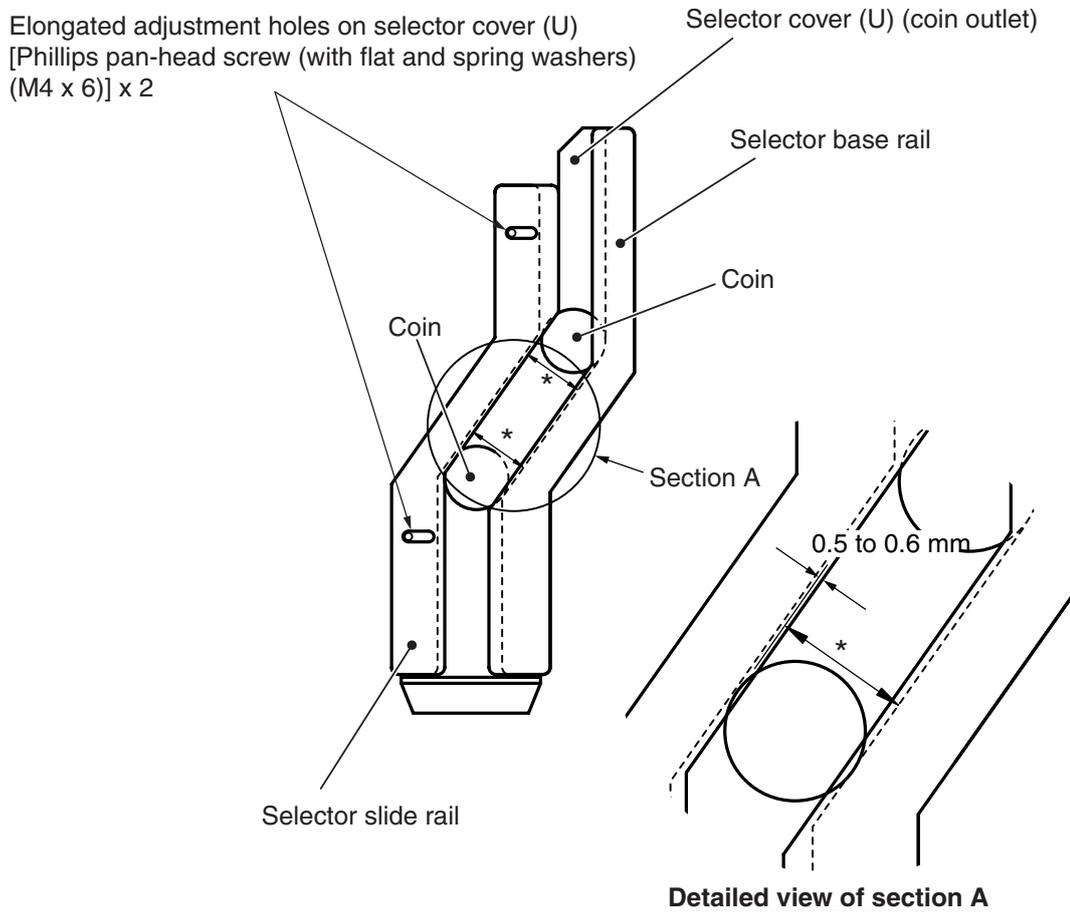
4 After the adjustment, tighten the two Phillips pan-head screws (with flat and spring washers) (M4 x 6) firmly, and reinstall the coin selector unit by following the removal sequence in reverse.

(2) Adjustment of the coin insertion slot - To be conducted by a technician only -

1   Using the key, open the Coin Entry Door Assy toward the front.

2   Remove the two Phillips pan-head screws (with flat and spring washers) (M4 x 8), and remove the coin entry unit (coin insertion slot).

Coin selector

Phillips pan-head screw (with flat and spring washers) (M4 x 8) x 2

Coin Entry Door Assy
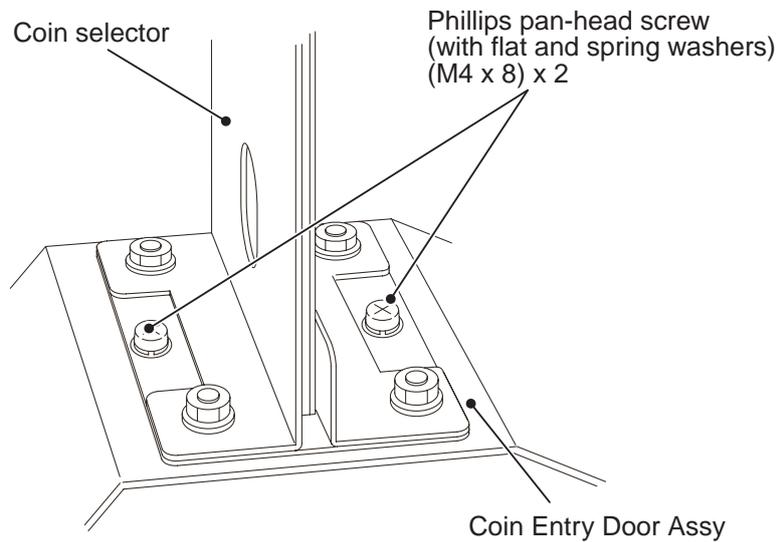
3   Remove the three Phillips pan-head screws (M2.6 x 6) from the coin selector side of the removed coin entry unit, and remove the coin linkage. Rotate the coin linkage until the tab of the required coin size is is line with the coin slot.

Coin entry

Phillips pan-head screw (M2.6 x 6) x 3

D

Coin linkage

C

A

B
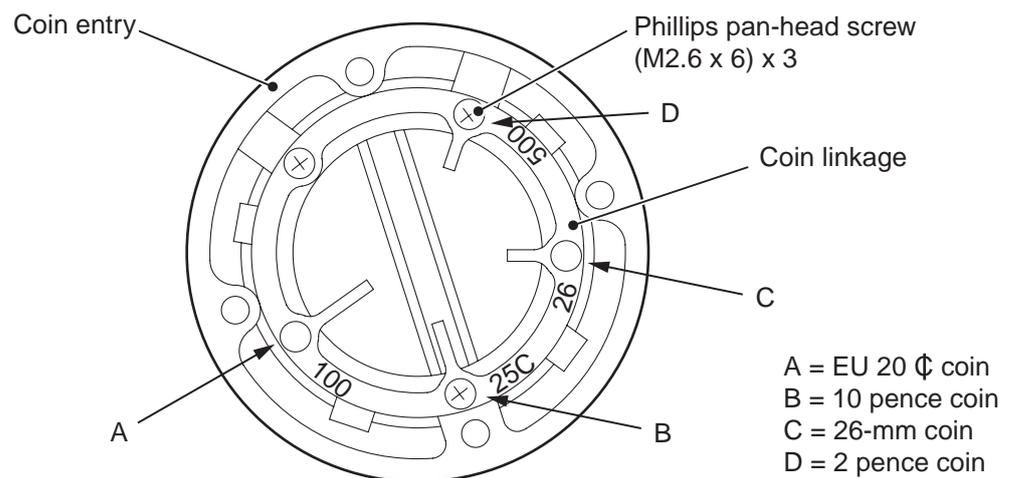
A = EU 20 ¢ coin
B = 10 pence coin
C = 26-mm coin
D = 2 pence coin

*   After the adjustment, tighten the two Phillips pan-head screws (with flat and spring washers) (M4 x 8) and three Phillips pan-head screws (M2.6 x 6) firmly.

*   Insert about 10 coins to make sure that coins slide through smoothly. (Hold a cup to receive the inserted coins.)

4   Reinstall the parts by following the removal sequence in reverse.

7-4 Test mode (cash dispensing model)

7-4-1 Description of the "TOTAL IN, TOTAL OUT" screen

1   Set the Test switch to ON to display the DATA 1/3 screen.

2   Press the UP, DOWN, RIGHT or LEFT button to select an item. The selected item will blink.

3   Press the Enter switch to enter the selection.

4   After completing adjustments, set the Test switch to OFF to exit the Test mode. The display returns to the game screen.

● **Service Panel Assy**

4-line, 20-digit LCD display

(This switch is not used.)

Enter switch

ENTER SW

Test switch

ON
TEST SW
OFF
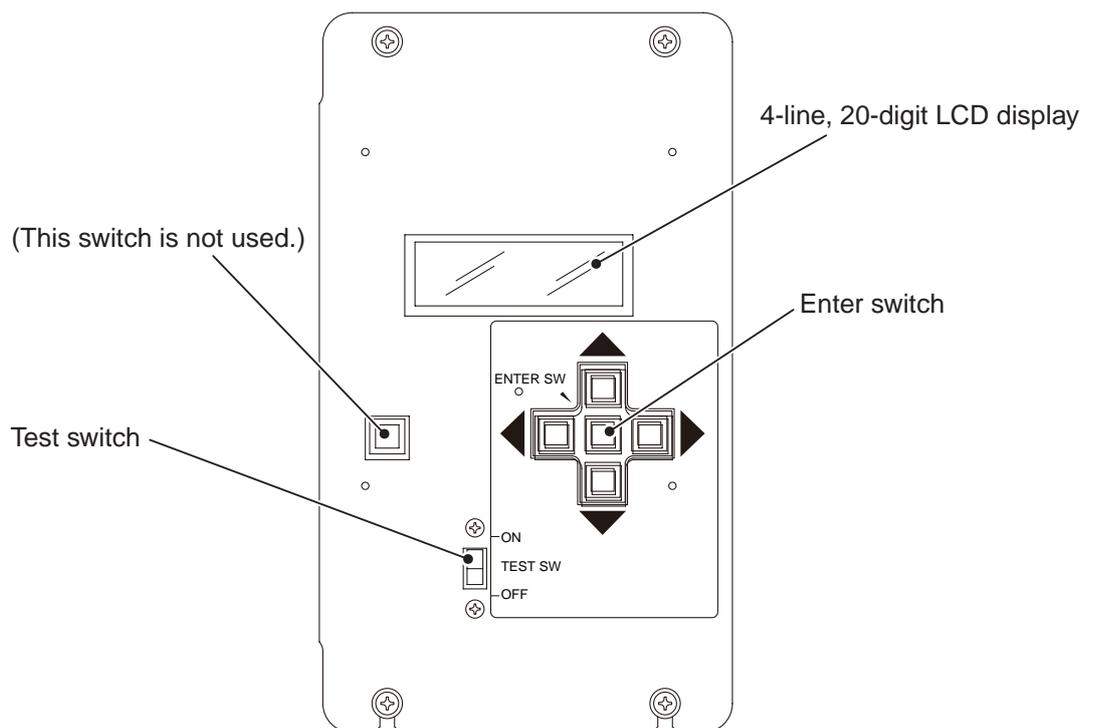
● **Screen displays**
  * The LCD displays 4 lines, each with 20 digits.
    Characters in italic shown below are indicated by blinking.

```
TOTAL IN          0

TOTAL OUT         0
```

```
◀◀    DATA 1/3    ▶▶
COIN IN           0
COIN OUT          0
P/O            0.0%
```

```
◀◀    DATA 2/3    ▶▶
SET P/O          75%
DISK SENSOR       0
●DATA_RESET
```

```
◀◀    DATA 3/3    ▶▶
BOX:A  OB  OC  OD  0
E  OF  OG  OH  OI  0
J   0
```

```
◀◀ERROR HISTORY 1/2 ▶▶
1
2
3
```

```
◀◀ERROR HISTORY 2/2 ▶▶
1
2
3
```

```
◀◀   OPTIONS 1/2   ▶▶
1SET P/O         75%
2TILT          AUTO
```

```
◀◀   OPTIONS 2/2   ▶▶
JACKPOT MAX       50
```

```
◀◀   I/O TEST 1/3  ▶▶
●DISK_MOTOR      OFF
SENSOR:
1- 2- 3- 4- 5- 6- 7-
```

```
◀◀   I/O TEST 2/3  ▶▶
COIN-IN SENSOR OFF 0
TILT SENSOR    OFF 00
●7Seg-LED/Win-LED
```

```
◀◀   I/O TEST 3/3  ▶▶
●BUTTON TEST
L-    R-   U-    D-
E-   To
```

```
◀◀   HOPPER TEST   ▶▶
●HOPPER       OFF   0
```

```
◀◀   SOUND TEST    ▶▶
1BGM VOLUME        0
2ERROR VOLUME      0
3REQUEST SONG No  00
```

```
◀◀     OTHERS      ▶▶
●BACKUP MEMORY
 INITIALIZE
CTY100-2-NA-MPRO-A00
```

7-4-2 Display/initialization of data (DATA DISPLAY)

● **Default (TOTAL IN, TOTAL OUT) screen**

① Generally, the screen shows the number of inserted coins and the number of dispensed coins.

```
TOTAL IN         0
TOTAL OUT        0
```

Default screen

(a) Cumulative number of inserted coins (8 digits).

(b) Cumulative number of dispensed coins (8 digits).

Data (a) and (b) will not be cleared even if Data Clear or P/O Rate Change is executed.

(1) Income data (INCOME DATA)

This screen displays data related to income.

① **When the Test switch is set to ON, the DATA 1/3 screen appears.**

1 When the RIGHT or LEFT button is pressed while the DATA 1/3 screen is displayed, the screen changes to the DATA 2/3 screen.

2 Using the RIGHT or LEFT button and Enter switch, select and enter an adjustment item.

3 After completing adjustments, set the Test switch to OFF to exit the Test mode. The display returns to the default screen.

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```
◀◀     DATA 1/3     ▶▶
COIN IN              0
COIN OUT             0
P/O               0.0%
```

INCOME DATA 1/3 screen

(a) Number of inserted coins (8 digits).

(b) Number of dispensed coins (8 digits).

(c) P/O rate calculated based on data (a) and (b)

```
◀◀     DATA 2/3     ▶▶
SET P/O            75%
DISK SENSOR          0
●DATA RESET
```

INCOME DATA 2/3 screen

(a) P/O rate set in the machine

(b) Rotating times (8 digits) of roulette (AC motor). Number of origin sensor (field sensor 7) operations.

(c) Deletes the "COIN IN," "COIN OUT," "P/O," "No. of Wins" and "Error History" data.
When the Enter switch is pressed, the screen shows "Y/N." The "N" indication is blinking in the initial condition.
The "DATA RESET" indication stops blinking.
  N (Does not clear the data.)
  Y (Clears the data.)
Using the RIGHT or LEFT button, select "N" or "Y," and press the Enter switch to execute the command.
If "Y" is selected, the "Y" indication blinks for two seconds, and the "DATA RESET" indication appears again.
If "N" is selected, the "DATA RESET" indication appears again immediately.

```
◀◀     DATA 3/3     ▶▶
BOX:A  0B  0C  0D  0
E  0F  0G  0H  0I  0
J  0
```

INCOME DATA 3/3 screen

(a) Number of wins in each framed area (WIN BOX), A through J (3-digit).
The framed area immediately left of the "JP" framed area is "A," and the subsequent framed areas are indicated "B" to "I" in order in the clockwise direction, and the following framed area, "J", is indicated as "JP."

7-4-3 Error history (ERROR HISTORY)

The screen shows the five most recent errors (error codes, error messages) generated in the past.

```
◀◀ERROR HISTORY1/2 ▶▶
1
2
3
```
ERROR HISTORY screen

(a) Error history
This screen displays error codes and error messages (the most recent data at the top).
If there is no error, "NO ERROR" is indicated.
(Example of display) 4-1: HOPPER_EMPTY

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7-4-4 Settings (OPTIONS)

1 Using the RIGHT or LEFT button, select OPTIONS.

2 Using the UP or DOWN button, select an item.

3 Press the Enter switch to enter the selected item. The current setting is indicated by blinking.

4 After selecting an item, change the setting by using the RIGHT or LEFT button.

5 After changing the setting, press the Enter switch. The indication of the changed setting blinks rapidly for two seconds, and the display returns to the item selection screen.

```
◀◀    OPTIONS 1/2    ▶▶
1SET P/O           65%
2TILT            AUTO
```

OPTIONS 1/2 screen

(a) Payout rate setting

Ratio of the number of coins dispensed from coin hopper to the number of inserted coins (50%, 55%, 65%, 75%, 85%)

Default setting: 65%

* When the set value is changed and the Enter switch is pressed, a "Y/N" indication appears in front of the "65%" indication. The value stops blinking.

  N (Does not change the setting): The "N" indication is blinking in the initial condition.

  Y (Clears the income data and changes the setting)

Using the RIGHT or LEFT button, select "N" or "Y," and press the Enter switch to execute the command. If "Y" is selected, the "Y" indication blinks for two seconds, and the "SET_P/O" indication appears again. If "N" is selected, the "SET_P/O" indication appears again immediately.

(b) Tilt setting

AUTO (automatic reset after about 10 seconds)

MANUAL (error state remains until release operation is performed)

OFF (no tilt detection)

Default setting: AUTO

```
◀◀    OPTIONS 2/2    ▶▶
JACKPOT  MAX        50
```
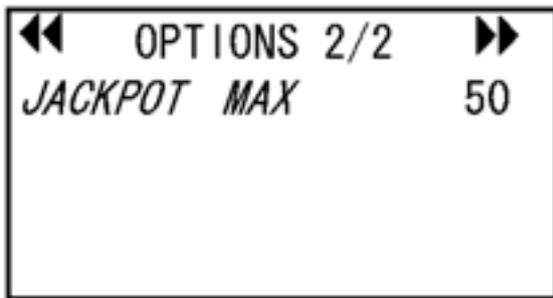
OPTIONS 2/2 screen

(c) JP MAX setting
Upper-limit number of coins (50 or 250) for JP
Default setting: 50 (This is for 10p coins.
When using 2p coins set
this value to "250")

NOTICE ● **When the payout rate setting is changed, the income data (see P. 39 "7-4-2 (1) Income data (INCOME DATA)") will be cleared (except for the cumulative number of inserted coins and cumulative number of dispensed coins). Before changing the payout rate setting, record the income data on paper.**

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7-4-5 Input/output test (I/O TEST)

● **This screen is used to check the sensor and motor operations. The selected item continues operation while the switch is held pressed.**

1 Using the RIGHT or LEFT button, select I/O Test.

2 Use the UP or DOWN button to select an item. The selected item is indicated by blinking.

3 Press the Enter switch to enter the selected test item.

① **MOTOR TEST (AC motor test)**

This screen is used to test the Roulette Assy.

1 The test is executed while the Enter switch is held pressed.

2 The test stops when the Enter switch is released.

```
◀◀   I/O TEST 1/3    ▶▶
●DISK MOTOR        OFF
SENSOR
1- 2- 3- 4- 5- 6- 7-
```

I/O TEST 1/3 screen

(a) Turns the AC motor On/Off.

(b) Conducts operation check for each sensor. "-" indicates OFF, and "O" indicates ON. The coin detection sensors on the roulette are 1 through 5, from the outside toward the inside.

The area sensor (field sensor 6) consists of the range detection sensor that detects notches on the periphery of the roulette and the origin sensor (field sensor 7) that detects the dog at the table sensor.

② **SENSOR/LED TEST (Coin, tilt, LED test)**

This screen is used to conduct an input test for coin and tilt sensors and an output test for LEDs.

* Coins can be inserted when this screen is displayed.

```
◀◀   I/O TEST 2/3    ▶▶
COIN-IN SENSOR OFF 0
TILT SENSOR    OFF 00
●7Seg-LED/Win-LED
```

I/O TEST 2/3 screen

(c) Indicates the coin checker sensor input test On/Off.
The number of ON operations is counted and displayed in a range of 0 to 9.

(d) Indicates the tilt sensor input test On/Off.
The level of vibration is displayed in a range of 00 to 99.

(e) 7-segment LED and Win LED output test
While this screen is displayed, the 7-segment LED and Win LED light alternately.

③ **BUTTON TEST (Service panel button test)**

```
◀◀  I/O TEST 3/3    ▶▶
●BUTTON TEST
L-   R-   U-   D-
E-   TO
```

I/O TEST 3/3 screen

(f) Service panel button input test
Indicates the On/Off state of each button.
"-" indicates OFF, and "O" indicates ON.

L = LEFT button
R = RIGHT button
U = UP button
D = DOWN button
E = Enter switch
T = Test switch

* To return to the I/O TEST screen, press the Enter switch and one of the UP, DOWN, RIGHT and LEFT buttons at the same time.

7-4-6 Coin hopper test (COIN HOPPER TEST)

This screen is used to test the coin hopper.

1 Using the RIGHT or LEFT button, select HOPPER TEST.

2 The test is executed (the hopper operates) while the Enter switch is held pressed.

3 The test stops when the Enter switch is released.

```
◀◀   HOPPER  TEST    ▶▶
● HOPPER       OFF     0
```
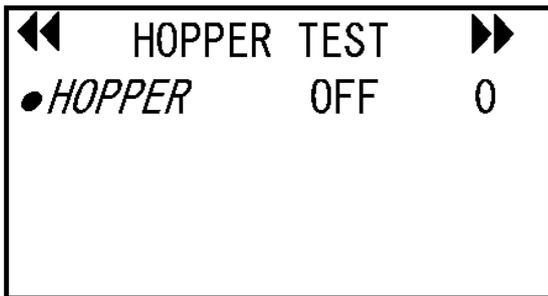
(a) Turns the hopper test On/Off.
Counts the number of coins dispensed in a range of 0 to 99.

HOPPER TEST screen

⊲NOTICE ● **If the machine stops operation due to a coin hopper error, do not operate the coin hopper in the coin hopper test. Doing so can cause damage to the coin hopper. Check the error indication and remove the cause of the error that resulted in the machine failure (see P. 79 "8-2-1 Error list.")**

7-4-7 Sound test (SOUND TEST)

This screen is used for sound level setting and sound test.

1   Using the RIGHT or LEFT button, select SOUND TEST.

2   Use the UP or DOWN button to select an item.

3   Press the Enter switch to enter the selected check item. The current setting of the selected item blinks. Using the RIGHT or LEFT button, change the setting. Each time the setting is changed, sound is reproduced at the corresponding sound level.

* When the set value is changed and the Enter switch is pressed, an "Y/N" indication appears.
  Using the RIGHT or LEFT button, select "N" or "Y," and press the Enter switch to execute the command.

  Each time the RIGHT or LEFT button is pressed, sound of the indicated number is reproduced.

4   After changing the setting, press the Enter switch. The indication of the changed value blinks for two seconds.

```
◀◀    SOUND  TEST      ▶▶
1BGM  VOLUME          10
2ERROR  VOLUME        10
3REQUEST  SONG No     00

```
SOUND TEST screen

(a) Game and Attraction (demo) sound setting
    00 [Min.] to 15 [Max.], default setting: 10

(b) Error sound level setting
    00 [Min.] to 15 [Max.], default setting: 10

(c) Music No.
    Music No. (0 to 22), default setting: 00

7-4-8 Other tests (OTHERS)

This screen is used to initialize the backup memory.

1 Using the RIGHT or LEFT button, select OTHERS.

2 After changing the item, press the Enter switch. The changed item blinks for two seconds.
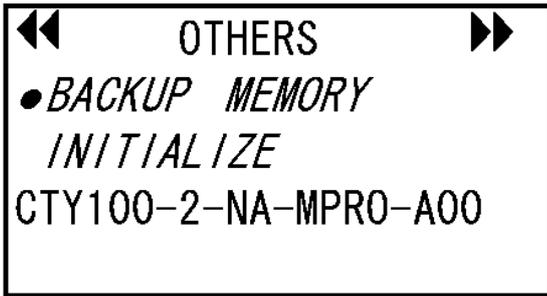
```
◀◀    OTHERS      ▶▶
●BACKUP  MEMORY
  INITIALIZE
CTY100-2-NA-MPRO-A00
```

OTHERS screen

(a) Initializes the backup memory.
When the Enter switch is pressed, an "Y/N" indication appears.
    N (Does not clear the memory.)
    Y (Clears the memory.)
When "Y" is selected and the Enter switch is pressed, the income data, hardware data, error history and various settings are cleared and return to defaults.

(b) Displays the version of the main software.

7-4-9 Error display

When an error is generated, an error message appears on the LCD. When an error occurs, reset the error by following the error resetting instructions.

(1) Error indication

```
ERROR : 5-7
HOPPER
PUSH ON AND OFF TEST
BUTTON TO RESTART
```

ERROR screen

(a) Indicates that the machine has generated an error.
The "Push TEST BUTTON ON AND OFF TO RESET" indication and the "COIN REMAIN 00" indication that shows the number of unpaid coins are displayed alternately.

When an error occurs, the error code, error condition, and the number of unpaid coins are displayed.
While the machine is in an error state, the "ERROR" indication blinks.
The above display indicates that the error can be reset by setting the Test switch to ON and then to OFF.
To stop the error alarm sound, press the Enter switch or one of the UP, DOWN, RIGHT and LEFT buttons.
Press the Enter switch to stop the error alarm sound.

7-5 Test mode (ticket dispensing model)

7-5-1 Description of the "TOTAL IN, TOTAL OUT" screen

> * In the Test mode, coins cannot be inserted unless the display shows the "I/O TEST 1/3, 2/3" screen.
> **(See P. 61 "7-5-5 ② SENSOR/LED TEST.")**

1   Set the Test switch to ON to display the DATA 1/3 screen.

2   Press the UP, DOWN, RIGHT or LEFT button to select an item. The selected item is indicated by blinking.

3   Press the Enter switch to enter the selection.

4   After completing adjustments, set the Test switch to OFF to exit the Test mode. The display returns to the game screen.

● **Service Panel Assy**

(This switch is not used.)

4-line, 20-digit LCD display

Enter switch

ENTER SW

Test switch

ON

TEST SW

OFF

● **Screen displays**

* The LCD display 4 lines, each with 20 digits.
  Characters in italic shown below are indicated by blinking.

```
┌──────────────────────┐
│ TOTAL IN         0    │
│                      │
│ TOTAL OUT        0    │
│                      │
└──────────────────────┘
```

```
┌──────────────────────┐   ┌──────────────────────┐   ┌──────────────────────┐
│◀◀    DATA 1/3    ▶▶ │   │◀◀    DATA 2/3    ▶▶ │   │◀◀    DATA 3/3    ▶▶ │
│COIN IN           0   │   │SET P/O       MEDIUM  │   │BOX:A  0B  0C  0D  0  │
│TICKET OUT        0   │   │DISK SENSOR       0   │   │E  0F  0G  0H  0I  0  │
│                      │   │●DATA RESET           │   │J  0                  │
└──────────────────────┘   └──────────────────────┘   └──────────────────────┘
```

```
┌──────────────────────┐   ┌──────────────────────┐   ┌──────────────────────┐
│◀◀ERROR HISTORY 1/2 ▶▶│   │◀◀ERROR HISTORY 2/2▶▶│   │◀◀    OPTIONS 1/2  ▶▶ │
│1                     │   │4                     │   │1SET P/O       MEDIUM │
│2                     │   │5                     │   │2TILT            AUTO │
│3                     │   │                      │   │                      │
└──────────────────────┘   └──────────────────────┘   └──────────────────────┘
```

```
┌──────────────────────┐   ┌──────────────────────┐   ┌──────────────────────┐
│◀◀    OPTIONS 2/2  ▶▶ │   │◀◀   I/O TEST 1/3  ▶▶ │   │◀◀   I/O TEST 2/3  ▶▶ │
│MERCY TICKETS      5  │   │●DISK MOTOR       OFF │   │COIN-IN SENSOR OFF 0  │
│                      │   │SENSOR:               │   │TILT SENSOR    OFF 00 │
│                      │   │1- 2- 3- 4- 5- 6- 7-  │   │●7Seg-LED/Win-LED     │
└──────────────────────┘   └──────────────────────┘   └──────────────────────┘
```

```
┌──────────────────────┐   ┌──────────────────────┐   ┌──────────────────────┐
│◀◀   I/O TEST 3/3  ▶▶ │   │◀◀   TICKET TEST   ▶▶ │   │◀◀    SOUND TEST   ▶▶ │
│●BUTTON TEST          │   │●TICKET MACHINE OFF0  │   │1BGM VOLUME        0  │
│L-  R-  U-  D-        │   │                      │   │2ERROR VOLUME      0  │
│E-  To                │   │                      │   │3REQUEST SONG No  000 │
└──────────────────────┘   └──────────────────────┘   └──────────────────────┘
```

```
                                                       ┌──────────────────────┐
                                                       │◀◀     OTHERS      ▶▶ │
                                                       │●BACKUP MEMORY        │
                                                       │ INITIALIZE           │
                                                       │CTY100-2-NA-MPRO-A00  │
                                                       └──────────────────────┘
```

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7-5-2 Display/initialization of data (DATA DISPLAY)

● **Default (TOTAL IN, TOTAL OUT) screen**

① Generally, the screen shows the number of inserted coins and the number of dispensed coins.

```
TOTAL IN          0

TOTAL OUT         0

```
Default screen

——— (a) Cumulative number of inserted coins (8 digits).

——— (b) Cumulative number of dispensed tickets (8 digits)
Includes the number of dispensed Mercy tickets.

Data (a) and (b) will not be cleared even if Data Clear or P/O Rate Change is executed.

(1) Income data (INCOME DATA)

This screen displays data related to income.

① **When the Test switch is set to ON, the DATA 1/3 screen appears.**

1 When the RIGHT or LEFT button is pressed while the DATA 1/3 screen is displayed, the screen changes to the DATA 2/3 screen.

2 Using the RIGHT or LEFT button and Enter switch, select and enter an adjustment item.

3 After completing adjustments, set the Test switch to OFF to exit the Test mode. The display returns to the default screen.

```
┌──────────────────────────────┐
│ ◀◀    DATA 1/3      ▶▶        │
│ COIN IN            0          │
│ TICKET OUT         0          │
│                              │
│                              │
└──────────────────────────────┘
```
INCOME DATA 1/3 screen

(a) Number of inserted coins (8 digits)

(b) Number of dispensed tickets (8 digits)

```
┌──────────────────────────────┐
│ ◀◀    DATA 2/3      ▶▶        │
│ SET P/O         MEDIUM        │
│ DISK SENSOR        0          │
│ ●DATA RESET                   │
└──────────────────────────────┘
```
INCOME DATA 2/3 screen

(a) Set P/O rate (not applicable to Mercy tickets)

(b) Rotating times (8 digits) of roulette (AC motor). Number of origin sensor (field sensor 7) operations.

(c) Deletes the "COIN IN," "TICKET OUT," "No. of Wins" and "Error History" data.
When the Enter switch is pressed, the screen shows "Y/N." The "N" indication is blinking in the initial condition.
The "DATA RESET" indication stops blinking.
  N (Does not clear the data.)
  Y (Clears the data.)
Using the RIGHT or LEFT button, select "N" or "Y," and press the Enter switch to execute the command.
If "Y" is selected, the "Y" indication blinks for two seconds, and the "DATA RESET" indication appears again.
If "N" is selected, the "DATA RESET" indication appears again immediately.

```
┌──────────────────────────────┐
│ ◀◀    DATA 3/3      ▶▶        │
│ BOX:A   0B   0C   0D   0      │
│ E   0F   0G   0H   0I   0     │
│ J   0                        │
└──────────────────────────────┘
```
INCOME DATA 3/3 screen

(a) Number of wins in each framed area (WIN BOX), A through J (3-digit).
The framed area immediately left of the "JP" framed area is "A," and the subsequent framed areas are indicated "B" to "I" in order in the clockwise direction, and the following framed area, "J", is indicated as "JP."

7-5-3 Error history (ERROR HISTORY)

The screen shows the five most recent errors (error codes, error messages) generated in the past.

```
◀◀ERROR HISTORY1/2 ▶▶
1
2
3
```
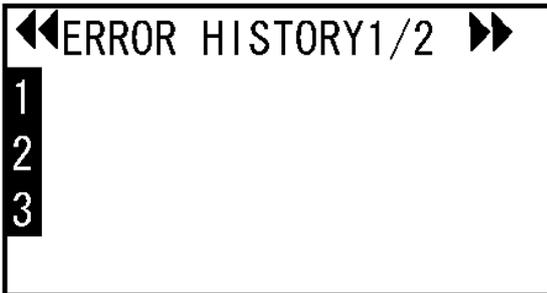
ERROR HISTORY screen

(a) Error history
This screen displays error codes and error messages (the most recent data at the top).
If there is no error, "NO ERROR" is indicated.
(Example of display) 4-1: HOPPER_EMPTY

7-5-4 Settings (OPTIONS)

1 Using the RIGHT or LEFT button, select OPTIONS.

2 Using the UP or DOWN button, select an item.

3 Press the Enter switch to enter the selected item. The current setting is indicated by blinking.

4 After selecting an item, change the setting by using the RIGHT or LEFT button.

5 After changing the setting, press the Enter switch. The indication of the changed setting blinks rapidly for two seconds, and the display returns to the item selection screen.

```
◀◀   OPTIONS 1/2    ▶▶
1 SET P/O      MEDIUM
2 TILT           AUTO


```
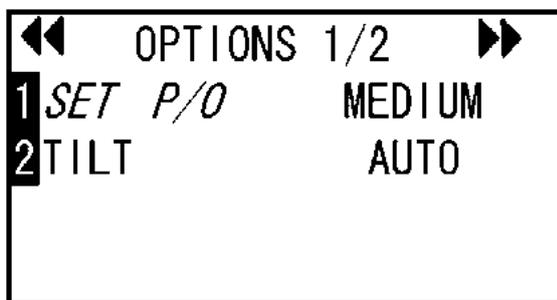
OPTIONS 1/2 screen

(a) Payout rate setting
Ratio of the number of tickets dispensed to the number of inserted coins
Redemption setting: HARD, M-HARD, MEDIUM, M-EASY, EASY
Default setting: Medium
Guidelines:
　HARD = Approx. 3.0 to 4.5 tickets per coin
　M-HARD = Approx. 3.5 to 5.0 tickets per coin
　MEDIUM = Approx. 4.5 to 6.0 tickets per coin
　M-EASY = Approx. 5.0 to 6.5 tickets per coin
　EASY = Approx. 5.5 to 7.0 tickets per coin
* Note that Mercy tickets are not taken into considerations.
* When the set value is changed and the Enter switch is pressed, an "Y/N" indication appears in front of the "MEDIUM" indication. The value stops blinking.
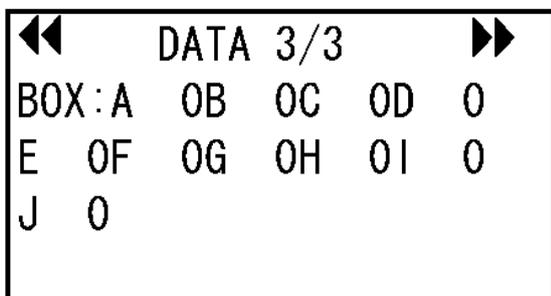　N (Does not change the setting): The "N" indication is blinking in the initial condition.
　Y (Clears the income data and changes the setting)
Using the RIGHT or LEFT button, select "N" or "Y," and press the Enter switch to execute the command.
If "Y" is selected, the "Y" indication blinks for two seconds, and the "SET_P/O" indication appears again.
If "N" is selected, the "SET_P/O" indication appears again immediately.

(b) Tilt setting
AUTO (automatic reset after about 10 seconds)
MANUAL (error state remains until release operation is performed)
OFF (no tilt detection)
Default setting: AUTO

57

```
◄◄    OPTIONS 2/2    ►►
MERCY TICKETS        5



```
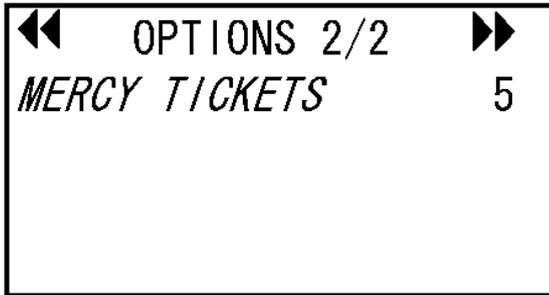
OPTIONS 2/2 screen

(c) Mercy ticket
Number of free tickets to be dispensed each time a coin is inserted
Default setting: 5

> **NOTICE**
>
> ● When the payout rate setting is changed, some of the data **(see P. 54 "7-5-2 (1) Income data (INCOME DATA)")** will be cleared (except for the cumulative number of inserted coins and cumulative number of dispensed tickets). Before changing the payout rate setting, record the income data on paper.

7-5-5 Input/output test (I/O TEST)

- **This screen is used to check the sensor and motor operations. The selected item continues operation while the switch is held pressed.**

  1 Using the RIGHT or LEFT button, select I/O Test.

  2 Use the UP or Down button to select an item. The selected item is indicated by blinking.

  3 Press the Enter switch to enter the selected test item.

① **MOTOR TEST (AC motor test)**

This screen is used to test the Roulette Assy.

The test is executed while the Enter switch is held pressed.

The test stops when the Enter switch is released.
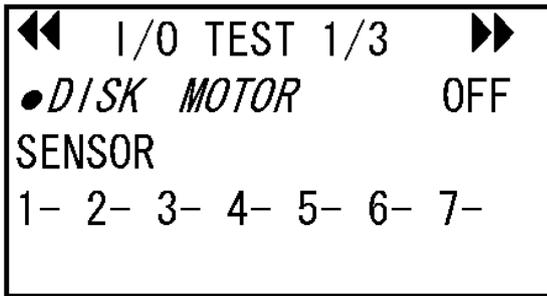
```
◀◀   I/O TEST 1/3    ▶▶
●DISK MOTOR        OFF
SENSOR
1- 2- 3- 4- 5- 6- 7-
```

I/O TEST 1/3 screen

(a) Turns the AC motor On/Off.

(b) Conducts operation check for each sensor. "-" indicates OFF, and "O" indicates ON.
The coin detection sensors on the roulette are 1 through 5, from the outside toward the inside.
The area sensor (field sensor 6) consists of the range detection sensor that detects notches on the periphery of the roulette and the origin sensor (field sensor 7) that detects the dog at the table sensor.

(See P. 61 "7-5-5 ② SENSOR/LED TEST.")

② **SENSOR/LED TEST (Coin, tilt, LED test)**

This screen is used to conduct an input test for coin and tilt sensors and an output test for LEDs.

* Coins can be inserted when this screen is displayed.

```
◀◀   I/O TEST 2/3    ▶▶
COIN-IN SENSOR OFF 0
TILT SENSOR    OFF 00
●7Seg-LED/Win-LED
```

I/O TEST 2/3 screen

(c) Indicates the coin checker sensor input test On/Off.
The number of ON operations is counted and displayed in a range of 0 to 9.

(d) Indicates the tilt sensor input test On/Off.
The level of vibration is displayed in a range of 00 to 99.

(e) 7-segment LED and Win LED output test
While this screen is displayed, the 7-segment LED and Win LED light alternately.

③ **BUTTON TEST (Service panel button test)**

```
◀◀   I/O TEST 3/3   ▶▶
●BUTTON TEST
L-   R-   U-   D-
E-   TO
```

I/O TEST 3/3 screen

(f) Service panel button input test
Indicates the On/Off state of each button.
"-" indicates OFF, and "O" indicates ON.

L = LEFT button
R = RIGHT button
U = UP button
D = DOWN button
E = Enter switch
T = Test switch

* To return to the I/O TEST screen, press the Enter switch and one of the UP, DOWN, RIGHT and LEFT buttons at the same time.

7-5-6 Ticket test (TICKET TEST)

This screen is used to check the redemption unit operation. The unit continues operation while the switch is held pressed.

1 Using the RIGHT or LEFT button, select TICKET TEST.

2 Press the Enter switch to operate the redemption unit.

```
◀◀   TICKET_TEST      ▶▶
● TICKET MACHINE OFF0
```
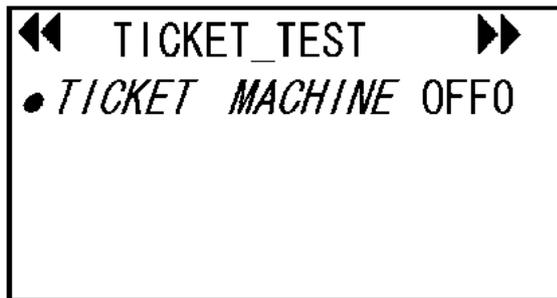
(a) Conducts the redemption test by On/Off. Counts the number of dispensed tickets in a range of 0 to 9.

TICKET TEST screen

7-5-7 Sound test (SOUND TEST)

● **This screen is used for sound level setting and sound test.**

1 Using the RIGHT or LEFT button, select SOUND TEST.

2 Use the UP or DOWN button to select an item.

3 Press the Enter switch to enter the selected check item. The current setting of the selected item blinks. Using the RIGHT or LEFT button, change the setting. Each time the setting is changed, sound is reproduced in the corresponding sound level.

   * When the set value is changed and the Enter switch is pressed, an "Y/N" indication appears.
Using the RIGHT or LEFT button, select "N" or "Y," and press the Enter switch to execute the command.

     Each time the RIGHT or LEFT button is pressed, sound of the indicated number is reproduced.

4 After changing the setting, press the Enter switch. The indication of the changed value blinks for two seconds.

```
◀◀   SOUND TEST    ▶▶
1BGM  VOLUME       10
2ERROR VOLUME      10
3REQUEST SONG No   00
```
SOUND TEST screen

(a) Game and Attraction (demo) sound setting
00 [Min.] to 15 [Max.], default setting: 10

(b) Error sound level setting
00 [Min.] to 15 [Max.], default setting: 10

(c) Music No.
Music No. (0 to 22), default setting: 00

64

7-5-8 Other tests (OTHERS)

This screen is used to initialize the backup memory.

1   Using the RIGHT or LEFT button, select OTHERS.

2   Using the UP or DOWN button, select an item.

3   After changing the item setting, press the Enter switch. The changed item blinks for two seconds.
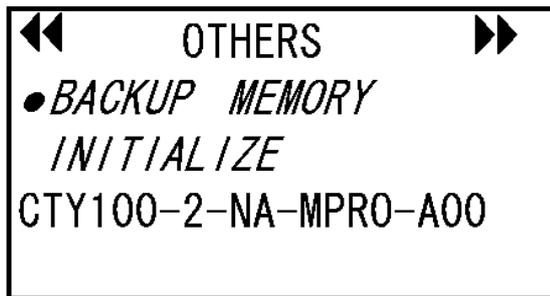
```
◀◀      OTHERS        ▶▶
●BACKUP  MEMORY
  INITIALIZE
CTY100-2-NA-MPRO-A00
```

OTHERS screen

(a) Initializes the backup memory.
When the Enter switch is pressed, an "Y/N" indication appears.
    N (Does not clear the memory.)
    Y (Clears the memory.)
When "Y" is selected and the Enter switch is pressed, the income data, hardware data, error history and various settings are cleared and return to defaults.

(b) Displays the version of the main software.

7-5-9 Error display

When an error is generated, an error message appears on the LCD.
When an error occurs, reset the error by following the error resetting instructions.

(1) Error indication

```
ERROR : 5-7
HOPPER
PUSH ON AND OFF TEST
BUTTON TO RESTART
```
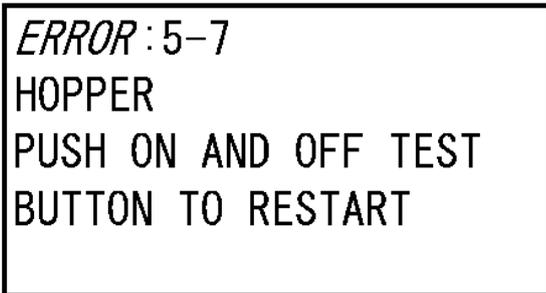
ERROR screen

(a) Indicates that the machine has generated an error.
The "Push ON AND OFF TEST BUTTON TO RESET" indication and the "TICKET REMAIN 00" indication that shows the number of unpaid coins are displayed alternately.

While the machine is in an error state, the "ERROR" indication blinks.
The above display indicates that the error can be reset by setting the Test switch to ON and then to OFF.
To stop the error alarm sound, press the Enter switch or one of the UP, DOWN, RIGHT and LEFT buttons.

7-6 Collection of coins

7-6-1 Collection of coins from the cash box

> **NOTICE**
> - The cash box becomes heavy when it contains a large quantity of coins. It is advised to remove coins from the cashbox frequently.

1 Open the Front Door Assy and the cash box door by using the provided keys.

Key

Front Door Assy

Main Unit Assy

Key

Coin box door

Main Unit Assy
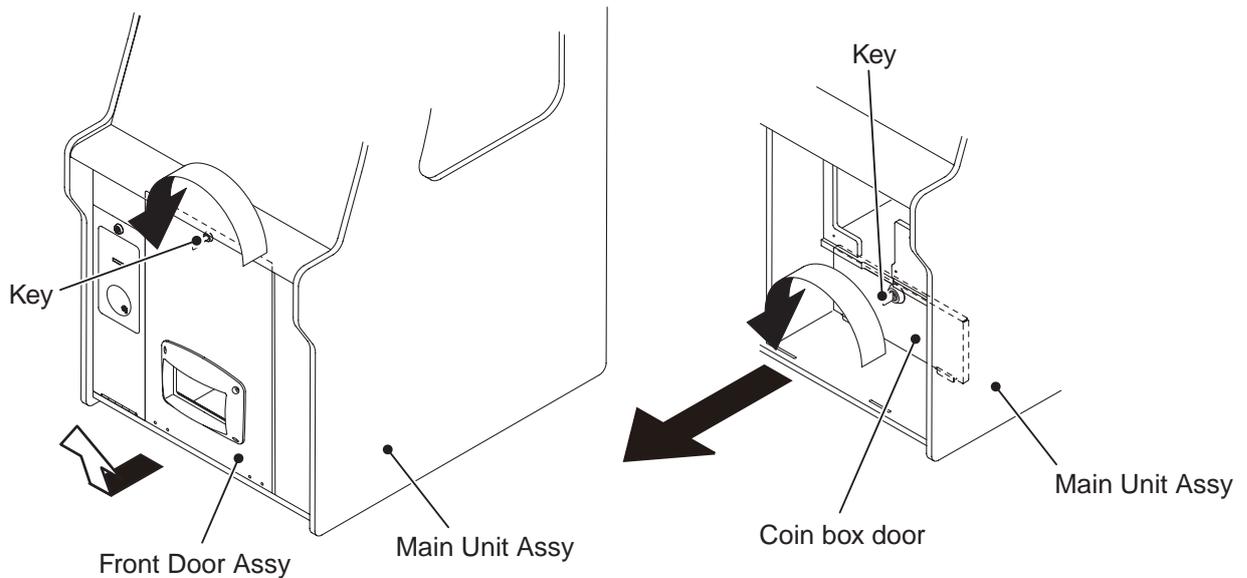
2 Pull out the cash box, and collect coins from the box.

Main Unit Assy

Coin box
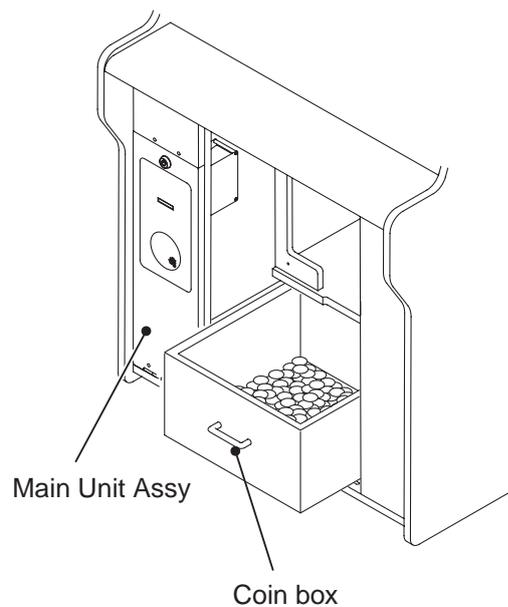
3 After collecting coins, reinstall the cash box, and close and lock the cash box door and front door.

7-6-2 Collection of coins from the coin hopper (cash dispensing model)

NOTICE
● **If the coin hopper fails to operate properly due to foreign items, follow the instruction described in [Removeing the coin hopper to collect coins]. If the coin hopper is operated forcibly, an equipment malfunction can result.**

[Using the Test switch to collect coins]

1 Using the key, open the front door. Set the Test switch to ON to enter the Test mode.

2 Display the "HOPPER TEST" screen, and set "HOPPER OFF 0" to ON to collect coins from the coin hopper **(see P. 48 "7-4-6 Coin hopper test").**

Service Panel Assy

Enter switch

Test switch
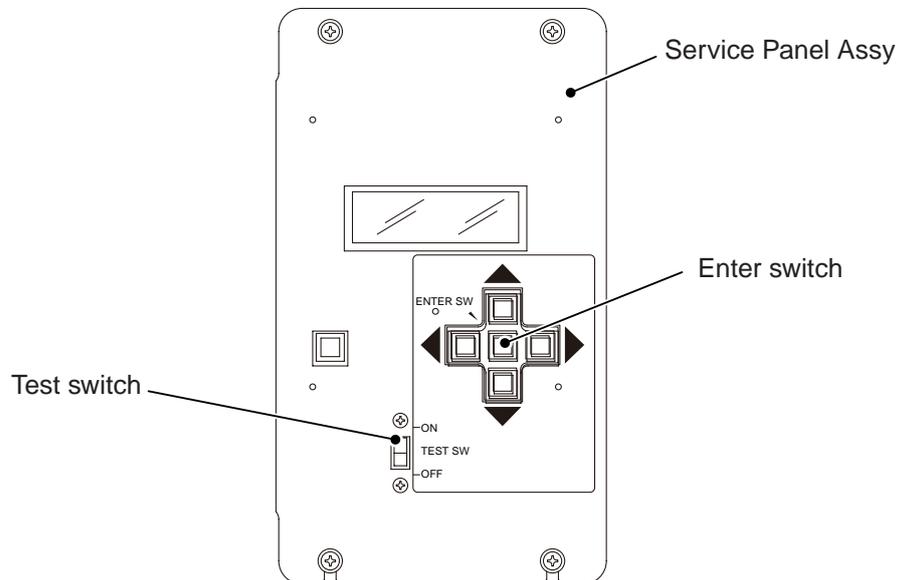
[Removing the coin hopper to collect coins]

1 Remove the coin hopper.
(See P. 106 "8-4-5 Replacing the coin hopper.")

2 Collect coins from the coin hopper.

8. SERVICE

⚠ WARNING

- **Before conducting Service (troubleshooting, repair, parts replacement, etc.), turn off the power switch to protect the service staff and other people from electrical shock, accidents and injury.**

8-1 Service and Inspection - To be conducted by a technician only -

⚠ CAUTION

- **Conduct Service regularly to prevent unexpected accidents.**
- **Conduct a pre-service check everyday to prevent accidents.**
  (See P. 28 "7-1 Pre-service check.")

8-1-1 Inspection items

Check the following regularly.

(1) Inspection of the power plug
- Make sure that the power cord is connected securely to the Cord Box Assy of the machine and AC outlet.
- If the connectors are covered with dust, clean them.
- Check the power cord to make sure that the cable sheath is not cracked or dirty. If there is any abnormality in the power cord, replace it with a new cord.

(2) Inspection of screws and bolts for tightness

Check the following screws and bolts to make sure that they are tightly fastened. If they are loose, tighten them firmly.
- Retaining screws for the coin entry door and front glass support (B).
  (See P. 13 "4. OVERALL CONSTRUCTION (Components and Their Names).")
- Coin hopper retaining screws
  (See P. 106 "8-4-5 Replacing the coin hopper.")
- Field retaining screws
  (See P. 13 "4. OVERALL CONSTRUCTION (Components and Their Names).")
- Drop rail retaining screws
  (See P. 75 "8-1-6 Cleaning the drop rail.")

8-1-2 Cleaning the Main Unit Assy

⚠ CAUTION

● Do not apply excessive force on the Front Glass Assy during cleaning to avoid breaking the glass.

◀NOTICE   ● Do not use organic solvents such as thinner, benzine, gasoline or alcohol, as they can degrade the materials.

1   Wipe the Main Unit Assy with a dry soft cloth. If it is excessively dirty, dampen a soft cloth with a neutral detergent and wipe clean. Then, scrub gently with a slightly wet cloth, and wipe thoroughly with a dry soft cloth.
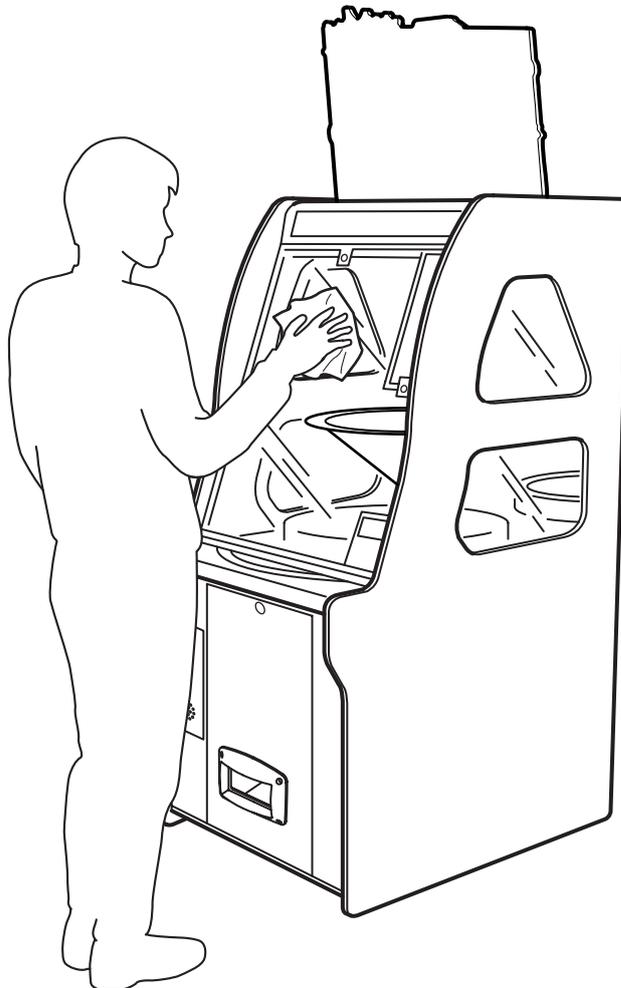
8-1-3 Cleaning the coin selector - To be conducted by a technician only -

⚠️WARNING

- **To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.**

◀NOTICE
- **Do not use organic solvents such as thinner, benzine, gasoline or alcohol, as they can degrade the materials.**

1 Remove the coin selector unit **(see P. 33 "7-3-5 Adjustment of the coin selector" 1, 2).**

2 Wipe the coin passage in the coin selector with a dry soft cloth. If it is excessively dirty, dampen a soft cloth with a neutral detergent and wipe clean. Then, scrub gently with a slightly wet cloth, and wipe thoroughly with a dry soft cloth. **(See P. 33 "7-3-5 (1) Adjustment of the coin selector" 2.)**

Coin passage

Selector cover (U)

3 Reinstall the parts by following the removal sequence in reverse.

8-1-4 Cleaning the coin hopper - To be conducted by a technician only -

⚠WARNING

- **To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.**

> **NOTICE** ● **Do not use organic solvents such as thinner, benzine, gasoline or alcohol, as they can degrade the materials.**

1 Turn off the power switch located at the lower section of the back panel of the Main Unit Assy.
(See P. 23 "6-1-1 Moving (on the floor)" 1 .)

2 Open the front door by using the provided key.

3 Remove the coin hopper.
(See P. 106 "8-4-5 (1) Replacing the coin hopper.")

4 While pushing in the hopper head pin, turn the hopper head in the clockwise direction and lift it to remove.

5 Soak a soft cloth in water or a neutral detergent diluted with water, wring tightly, and clean the coin hopper thoroughly.
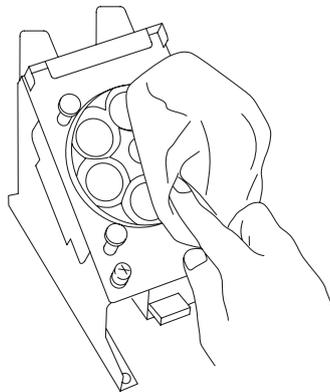
6 Wipe with a dry soft cloth to make sure that there is no water or detergent remaining on the surface.

7 Reinstall the parts by following the removal sequence in reverse.
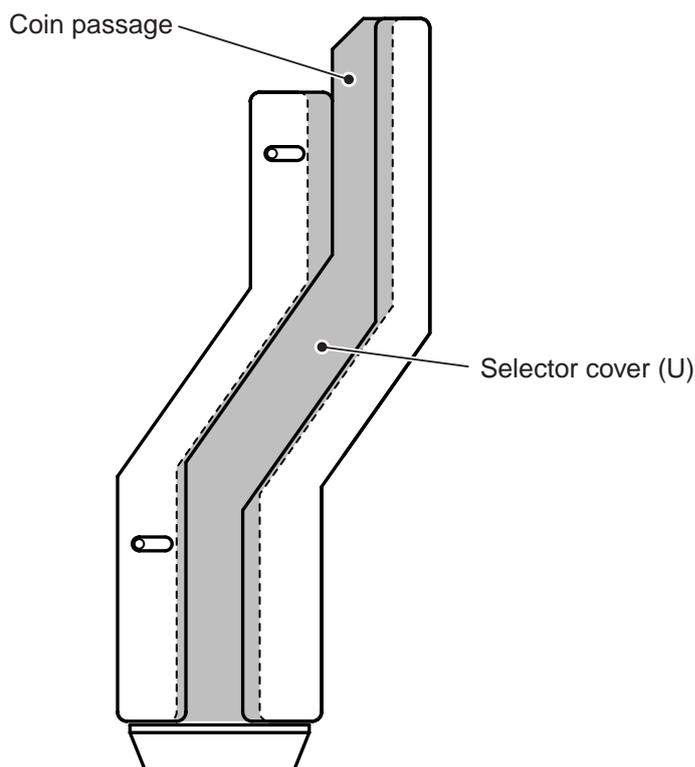
8-1-5 Removing jammed coins from the coin hopper - To be conducted by a technician only -

⚠WARNING

- To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.

1 Remove the coin hopper.
(See P. 106 "8-4-5 (1) Replacing the coin hopper.")

2 While pushing in the hopper head pin, turn the hopper head in the clockwise direction and lift it to remove.

Hopper head

Coin hopper
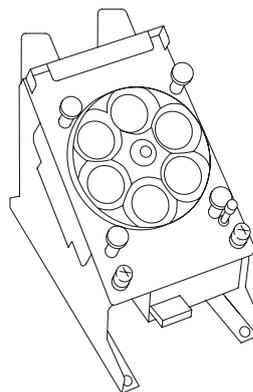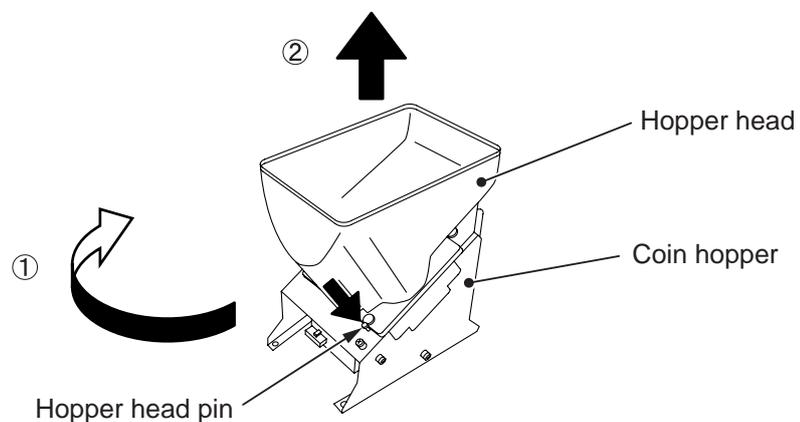
Hopper head pin

3 Remove stuck coins.

4 Reinstall the parts by following the removal sequence in reverse.

(1) Hopper head section

> * Vertically positioned coins in the hopper head section may cause a HOPPER EMPTY error. When this happens, remove coins from the hopper head, and replace coins horizontally.

Coins

Hopper head section

8-1-6 Cleaning the drop rail - To be conducted by a technician only -
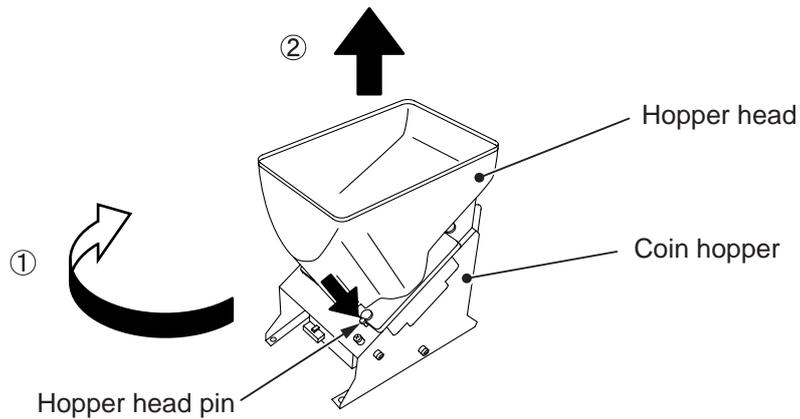
⚠WARNING

● **To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.**

◀NOTICE ● **Do not use organic solvents such as thinner, benzine, gasoline and alcohol, as they can degrade the materials.**

1 Turn off the power switch located at the lower section of the back panel of the Main Unit Assy.
(See P. 23 "6-1-1 Moving (on the floor)" 1 .)

2 Open the Front Glass Assy using the provided key, and remove it from the Main Unit Assy.
(1) Open the cam lock at the bottom of the Coin Entry Door Assy by using the provided key, and pull out the key.
(2) After removing the key, insert the key into the cam lock at the top center of the Front Glass Assy and open the Front Glass Assy.

Lock (one-position key removal) to open in step (2)

Lock (two-position key removal) to open in step (1)

Front Glass Assy

(3) Lift the Front Glass Assy at an angle to remove it from the Main Unit Assy.

Front Glass Assy

75
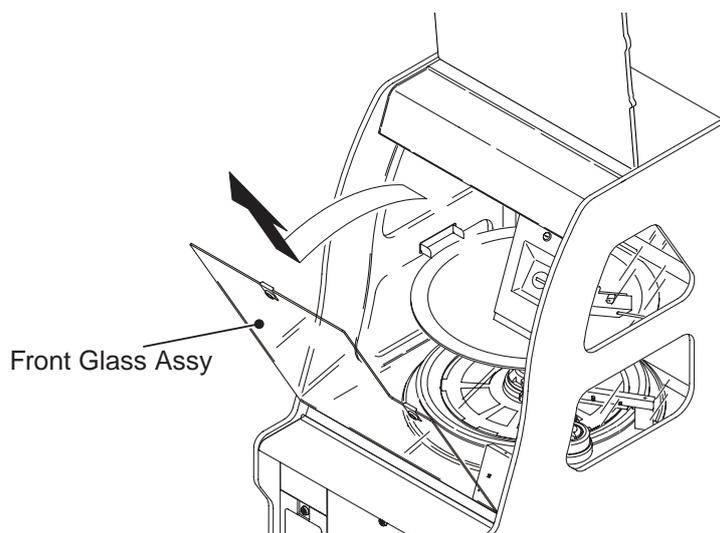
3 Unplug the connector (6P), remove the one countersunk-head screw (M3 x 6) and two Phillips pan-head screws (with flat and spring washers) (M4 x 8), and remove the drop rail.

Phillips pan-head screw (with flat and spring washers) (M4 x 8) x 1

Countersunk-head screw (M3 x 6) x 1

Connector (6P)

Drop rail

Phillips pan-head screw (with flat and spring washers) (M4 x 8) x 1
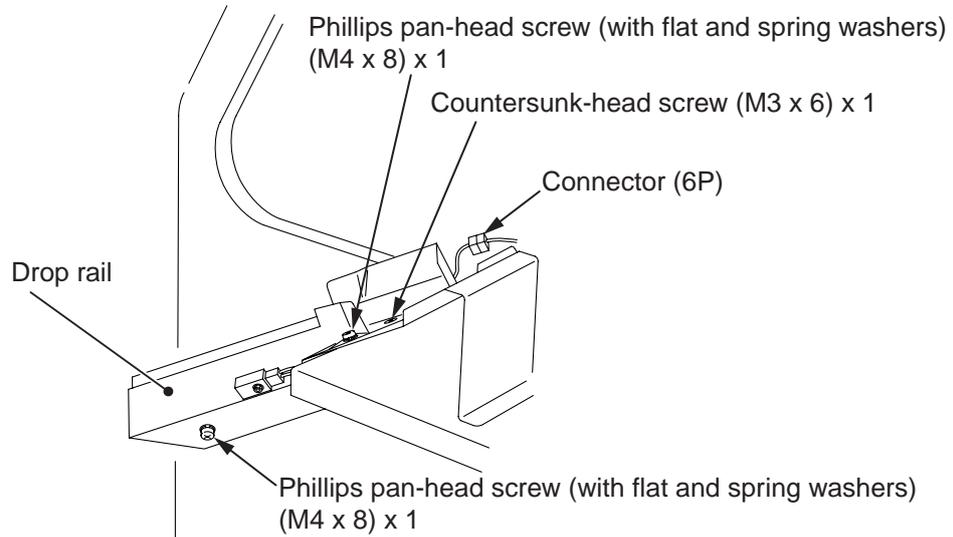
4 Clean the coin passage on the drop rail with a dry soft cloth.
If it is excessively dirty, dampen a soft cloth with a neutral detergent and wipe clean. Then, scrub gently with a slightly wet cloth, and wipe thoroughly with a dry soft cloth.

Coin passage

Connector (6P)

Drop rail

Coin sensor
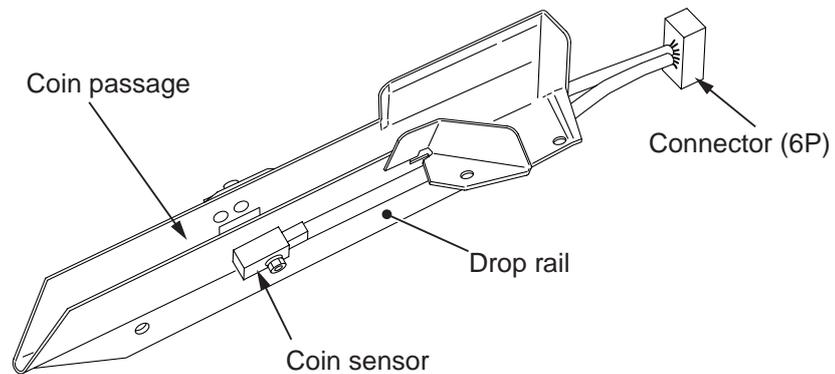
5 Reinstall the parts by following the removal sequence in reverse.

8-1-7 Cleaning the field

⚠ WARNING

- To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.
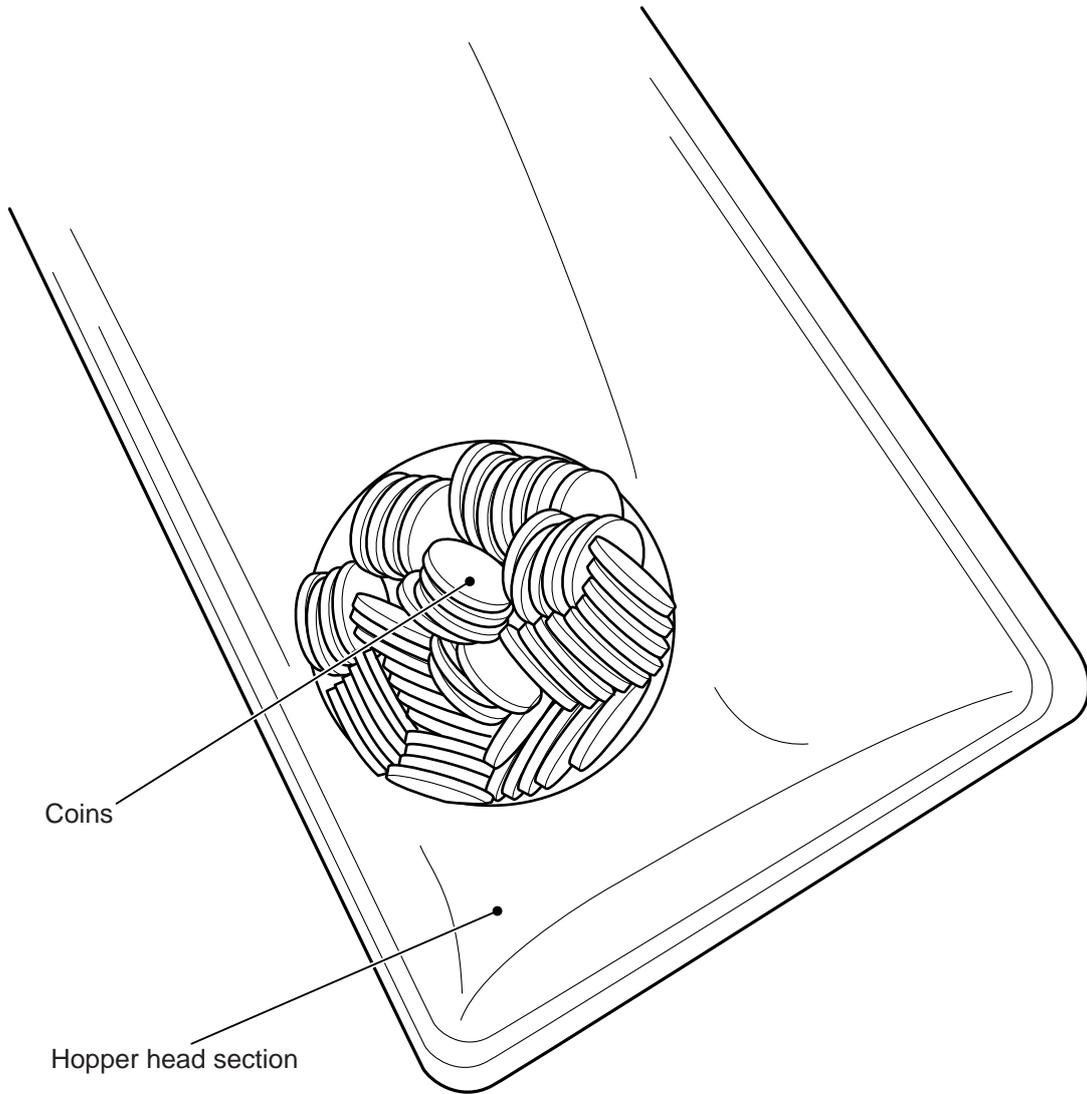
◀ NOTICE
- Do not use organic solvents such as thinner, benzine, gasoline or alcohol, as they can degrade the materials.

1 Turn off the power switch located at the lower section of the back panel of the Main Unit Assy.
(See P. 23 "6-1-1 Moving (on the floor)" 1.)

2 Remove the Front Glass Assy from the Main Unit Assy.
(See P. 75 "8-1-6 Cleaning the drop rail" 1, 2.]

3 Clean the field with a dry soft cloth.
If the field is excessively dirty, dampen a soft cloth with a neutral detergent and wipe clean. Then, scrub gently with a slightly wet cloth, and wipe thoroughly with a dry soft cloth.

Field
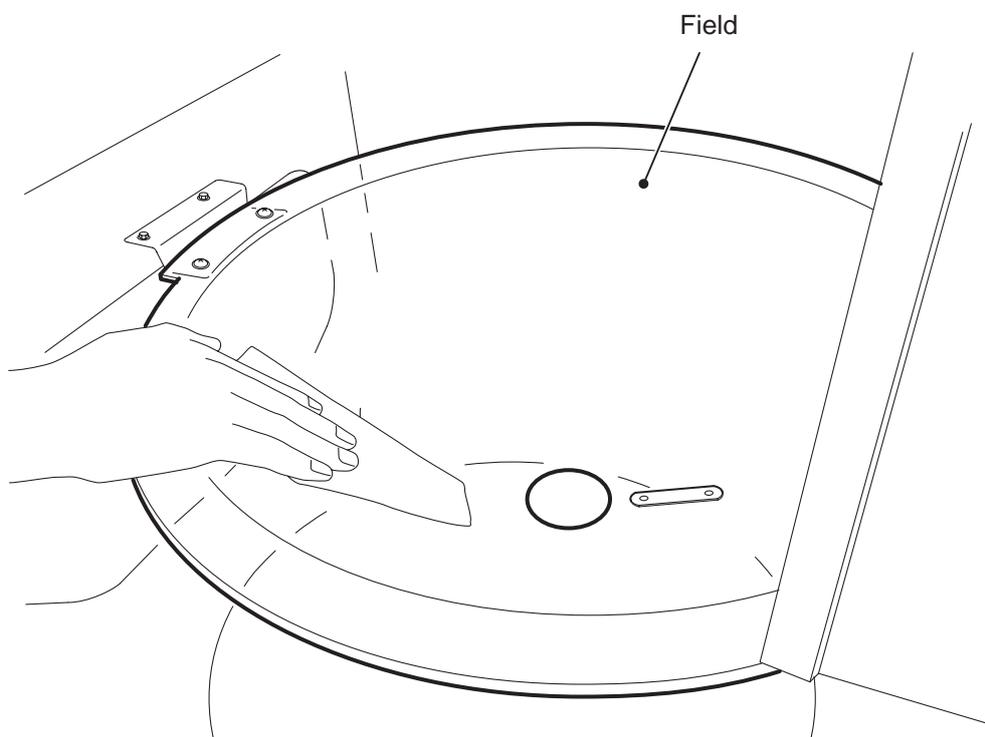
4 Reinstall the Assy by following the removal sequence in reverse.
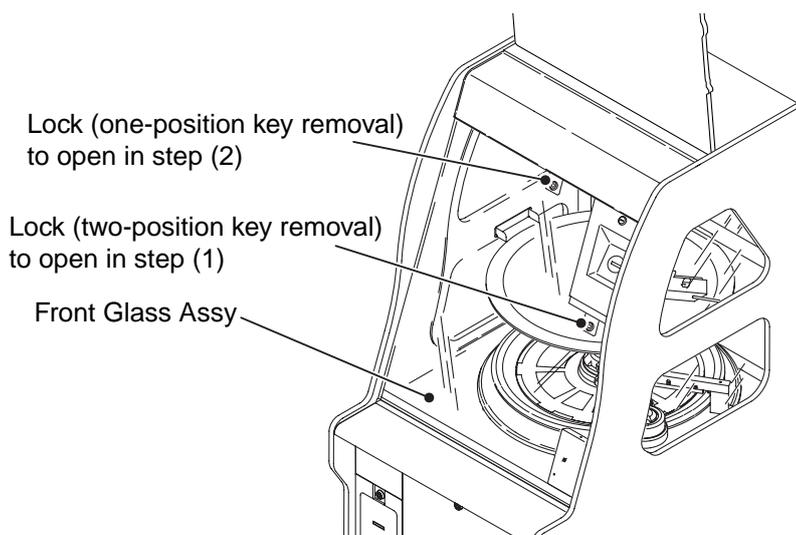
8-1-8 Cleaning the roulette panel

⚠WARNING

● **To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.**

◖NOTICE   ● **Do not use organic solvents such as thinner, benzine, gasoline or alcohol, as they can degrade the materials.**

1   Remove the Front Glass Assy from the Main Unit Assy.
(See P. 75 "8-1-6 Cleaning the drop rail" 1, 2.]

2   Clean the roulette panel (tempered glass) with a dry soft cloth.
If the roulette panel is excessively dirty, dampen a soft cloth with a neutral detergent and wipe clean. Then, scrub gently with a slightly wet cloth, and wipe thoroughly with a dry soft cloth.

3   Reinstall the Assy by following the removal sequence in reverse.

8-2 Response to Errors

8-2-1 Error list - To be conducted by a technician only -

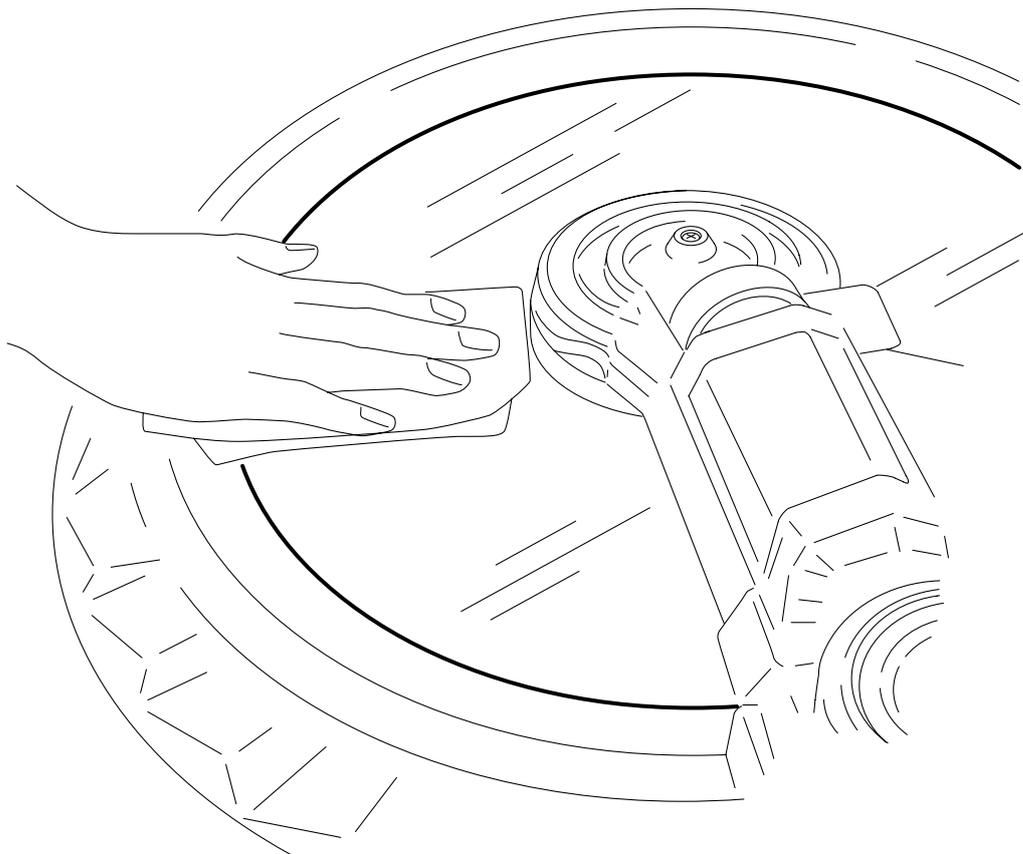| Error code	Error message	Description of error	Main cause	Remedy	Page
1-1	HOPPER RUNAWAY	Malfunction of the coin hopper. Malfunction of the Main PC Board.	This error is generated when the payout sensor operates while the coin hopper is in non-operation.	Replace the coin hopper. Replace the Main PC Board.	106 103
1-2	HOPPER OVER PAID	Malfunction of the coin hopper.	This error is generated when the payout sensor operates while the coin hopper is in non-operation, and then it does not react thereafter.	Replace the coin hopper.	106
1-3	HOPPER EMPTY	No coin in the coin hopper. Jammed coins.	This error is generated when the payout sensor does not react while the coin hopper is rotating.	Add coins to the coin hopper. Remove jammed coins.	19 73
1-4	HOPPER TIMEOUT	Jammed coins in the coin hopper causing the payout sensor to remain ON.	This error is generated when the payout sensor for the coin hopper remains ON for a certain period of time.	Remove jammed coins.	73
2-1	BACK UP MEMORY	Abnormality in the Main PC Board.	Data in the backup memory is corrupted.	Contact your distributor.	---
3-1	TILT	Impact applied to the cabinet.	The cabinet was shaken intentionally or applied with impact.	Check to see if the cabinet is tilted.	---
5-1	SENSOR (1)	Field sensor 1 is blocked by coin or foreign object. Dirty sensor. Malfunction of sensor.	This error is generated when there is a coin or foreign item between the roulette upper/lower coin detection sensor (at outermost location) and the periphery of the roulette or when that sensor is malfunctioning.	Remove jammed coins. If the sensor is dirty, clean. If the sensor is malfunctioning, replace the sensor.	73 96 - 100
5-2	SENSOR (2)	Field sensor 2 is blocked by coin or foreign object. Dirty sensor. Malfunction of sensor.	This error is generated when there is a coin or foreign item between the roulette upper/lower coin detection sensor (second sensor from outermost location) and the periphery of the roulette or when that sensor is malfunctioning.	Remove jammed coins. If the sensor is dirty, clean. If the sensor is malfunctioning, replace the sensor.	96 - 100

Error code	Error message	Description of error	Main cause	Remedy	Page
5-3	SENSOR (3)	Field sensor 3 is blocked by coin or foreign object. Dirty sensor. Malfunction of sensor.	This error is generated when there is a coin or foreign item between the roulette upper/lower coin detection sensor (third sensor from outermost location) and the periphery of the roulette or when that sensor is malfunctioning.	Remove jammed coins. If the sensor is dirty, clean. If the sensor is malfunctioning, replace the sensor.	96 - 100
5-4	SENSOR (4)	Field sensor 4 is blocked by coin or foreign object. Dirty sensor. Malfunction of sensor.	This error is generated when there is a coin or foreign item between the roulette upper/lower coin detection sensor (fourth sensor from outermost location) and the periphery of the roulette or when that sensor is malfunctioning.	Remove jammed coins. If the sensor is dirty, clean. If the sensor is malfunctioning, replace the sensor.	96 - 100
5-5	SENSOR (5)	Field sensor 5 is blocked by coin or foreign object. Dirty sensor. Malfunction of sensor.	This error is generated when there is a coin or foreign item between the roulette upper/lower coin detection sensor (sensor at innermost location) and the periphery of the roulette or when that sensor is malfunctioning.	Remove jammed coins. If the sensor is dirty, clean. If the sensor is malfunctioning, replace the sensor.	96 - 100
5-6	SENSOR (6)	Field sensor 6 is blocked by coin or foreign object. Dirty sensor. Malfunction of the sensor.	This error is generated when there is a coin or foreign item between the range detection sensor located on the circumference of the roulette and the periphery of the roulette or when that sensor is malfunctioning.	Remove jammed coins. If the sensor is dirty, clean. If the sensor is malfunctioning, replace the sensor.	96 - 100
5-7	SENSOR (7)	Field sensor 7 is blocked by coin or foreign object. Dirty sensor. Malfunction of sensor. Malfunction of AC motor	This error is generated when there is a coin or foreign item between the origin detection sensor on the inner periphery of the roulette and the roulette or when that sensor is malfunctioning.	Remove jammed coin. If the sensor is dirty, clean. If the sensor is malfunctioning, replace the sensor. If the AC motor is malfunctioning, replace the motor.	96 - 100 102

Error code	Error message	Description of error	Main cause	Remedy	Page
6-1	DISK TIMEOUT	Roulette is not rotating properly. Malfunction of field sensor 7.	This error is generated when the roulette fails to rotate properly or field sensor 7 is malfunctioning.	If coins are jammed, remove jammed coins. If the AC motor is malfunctioning, replace the motor. If field sensor 7 is dirty, clean the sensor. If field sensor 7 is malfunctioning, replace the sensor.	73 102 96 - 100
6-2	COIN-IN JAM	Coin checker sensor is blocked. Dirty coin checker sensor. Malfunction of coin checker sensor.	This error is generated when the coin checker sensor is blocked or the coin checker sensor is malfunctioning.	If coins are jammed, remove jammed coins. If the coin checker sensor is dirty, clean the sensor. After the problem is corrected, the machine automatically resets itself. If the coin checker sensor is malfunctioning, replace the sensor.	73 90
7-2	TICKET OVERPAID	Malfunction of the ticket dispenser.	This error is generated when the ticket sensor operates while the ticket dispenser is in non-operation.	Replace the ticket dispenser.	14
7-3	TICKET EMPTY	No ticket in ticket dispenser. Jammed tickets.	This error is generated when the ticket sensor does not operate during ticket dispensing operation.	Add tickets to the ticket dispenser. Remove jammed tickets.	---
7-4	TICKET TIMEOUT	Jammed tickets in ticket dispenser are causing ticket sensor to remain ON. Dispensing mechanism in ticket dispenser is operating under no load.	This error is generated when the ticket sensor in the ticket dispenser remains ON for a certain period of time during ticket dispensing operation.	Remove jammed tickets. Check the lock of the dispensing mechanism in the ticket dispenser.	14

Error code	Error message	Description of error	Main cause	Remedy	Page
9-1	PRO TYPE CHANGE	DIP switch setting has been changed.	This error is recorded when DIP switching settings are changed.	The setting change was recorded, and it does not denote a malfunction.	41
9-2	GAME STOP	Termination of game during dispensing operation.	This error is recorded when the power was shut down or the CPU was reset during dispensing operation.	The setting change was recorded, and it does not denote a malfunction.	41

8-2-2 Resetting errors - To be conducted by a technician only -

When the LCD screen displays an error message, reset the error by following the procedures described below.
After the error has been reset, the machine returns to the game screen immediately before the error occurred, as a general rule.

* If the machine is reset from a BACKUP MEMORY error, all data including the income data, security data, hardware data, error history and settings are cleared and returned to defaults.

1 Using the provided key, open the front door and take out the Main Unit Assy **(see P. 67 "7-6-1 Collection of coins from the cash box" 1).**

2 Check the cause of the error by referring to the error list **(see P. 79 "8-2-1 Error list").**

3 Remove the cause of the error according to the instructions in the error list.

4 Set the Test switch on the Service Panel Assy to ON and then to OFF to reset the machine.
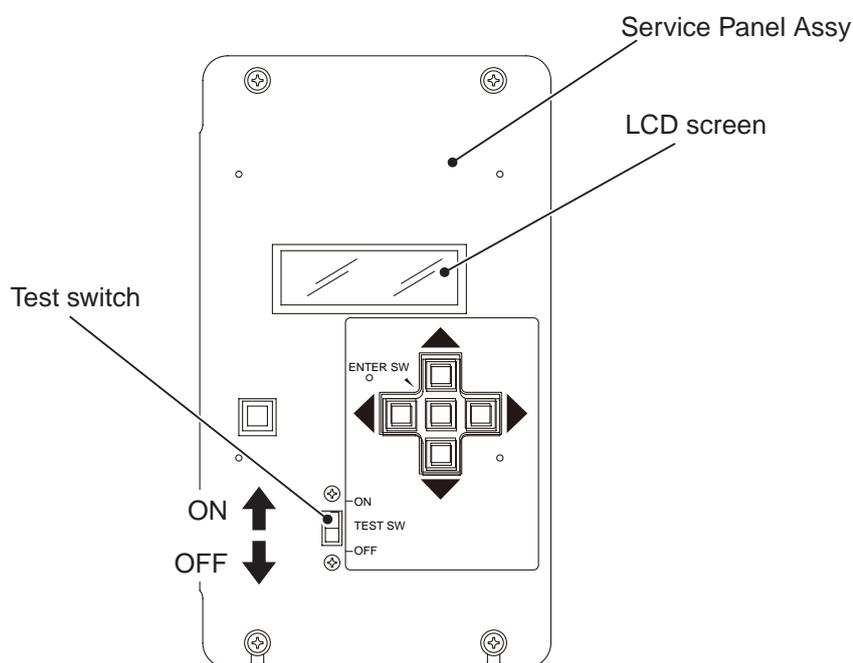
5 Attach the front door to the Main Unit Assy, and lock the front door with the key.

8-3 Troubleshooting   - To be conducted by a technician only -

⚠ **WARNING**

- To protect the service staff and other people from an electrical shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.
- If the generated problem is not described in the troubleshooting section or if the corrective measure taken does not result in an improvement, contact your distributor.

NOTICE

- In the event of a machine malfunction, first check to make sure that all connectors are firmly connected.
- PC boards can be easily damaged by static electricity. If a person charged with static electricity handles a PC board, electronic parts on the PC board can be damaged.
  Before handling a PC board, touch a grounded metal surface to release electrostatic charge from your body.
- Never use a tester to conduct a continuity test on a PC board. Internal voltage of a tester can damage ICs.
- When sending parts for repair, pack them carefully. When sending PC boards, wrap them in sponge or bubble wrap, and place them in a corrugated cardboard box to protect against external impact.

8-3-1　General - To be conducted by a technician only -

Symptom	Main cause	Remedy	Page
The machine does not operate when the power switch is turned on.	The power cord plug is disconnected from the AC outlet.	Insert the power cord plug firmly into the AC outlet.	21
	The fuse is blown.	Replace the fuse.	107
The machine operation is unstable, or the machine malfunctions.	The supply voltage is outside the range of 210 to 250 VAC.	Measure the power supply voltage, and ensure that the specified voltage is provided.	---
The coin hopper does not operate.	There are foreign items in the coin hoppers.	Remove the coin hopper, and remove foreign items from the coin hopper.	73
	The coin hopper is faulty.	Remove the coin hopper, and install a new coin hopper.	106
	The Game PC Board is faulty.	Replace the Main PC Board.	103
The coin hopper operates, but it does not dispense coins.	There are not enough coins in the coin hopper, or no coin in the hopper.	Add coins.	19
	Coins are jammed.	Remove the coin hopper, and remove jammed coins.	73
	The coin hopper is not installed properly.	Install the coin hopper in the proper position.	106
The coin hopper does not stop operation.	The coin hopper is faulty.	Replace the coin hopper.	106
	The Main PC Board is faulty.	Replace the Main PC Board.	103

8-3-2 Main Unit Assy   - To be conducted by a technician only -

Symptom	Main cause	Remedy	Page
The fluorescent lamp does not light.	The fluorescent lamp is burnt out.	Replace the fluorescent lamp.	88
	The starter is burnt out.	Replace the starter.	88
The halogen lamps do not light.	The halogen lamps are burnt out.	Replace the halogen lamps.	89
The tilt device is activated frequently.	The tilt detection sensitivity is out of adjustment.	Check to make sure that the Main Unit Assy is level.	

8-3-3 Slot Machine Assy   - To be conducted by a technician only -

Symptom	Main cause	Remedy	Page
The 7-Segment Display PC Board does not light.	The 7-Segment Display PC Board is faulty.	Replace the 7-Segment Display PC Board.	91
	There is no ticket in the ticket box.	Add tickets.	---
The dot on the 7-segment display is blinking.	The ticket dispenser is faulty.	Replace the ticket dispenser.	14

8-3-4 Redemption Door Assy   - To be conducted by a technician only -

Symptom	Main cause	Remedy	Page
The ticket dispenser does not operate.	The ticket dispenser is faulty.	Replace the ticket dispenser.	14
The ticket dispenser operates, but it does not dispense tickets.	There is no ticket in the ticket box.	Add tickets.	---
	Tickets are jammed.	Removed jammed tickets.	---
	The ticket dispenser is not installed properly.	Install the ticket dispenser in the proper position.	14
The ticket dispenser does not stop operation.	The ticket dispenser is faulty.	Replace the ticket dispenser.	14
There is no sound from the speaker.	The sound volume is set too low.	Adjust the sound volume.	49, 64
	The speaker is faulty.	Replace the speaker.	115

8-3-5 Coin Entry Door Assy   - To be conducted by a technician only -

Symptom	Main cause	Remedy	Page
When coins are inserted from the slot, they do not fall onto the field.	The selector rail is dirty.	Clean the selector rail.	71
	The drop rail is dirty.	Clean the drop rail.	75
	Foreign items are blocking the coin passage.	Remove foreign items.	71, 75

8-3-6 Roulette Assy   - To be conducted by a technician only -

Symptom	Main cause	Remedy	Page
The roulette does not rotate.	The AC motor is faulty.	Replace the AC motor.	102
	The SSR is faulty.	Replace the SSR.	105
	Field sensor 7 is faulty.	Replace field sensor 7.	95
Coins on the roulette are not detected.	Sensor A (light-receiving photosensor unit) is faulty.	Replace sensor A (light-receiving photosensor unit).	96
	Sensor B (light-emitting photosensor unit) is faulty.	Replace sensor B (light-emitting photosensor unit).	98
	Field sensor 6 is faulty.	Replace field sensor 6.	101
The LED PC Board does not light.	The LED PC Board is faulty.	Replace the LED PC Board.	94

8-4 Removing and installing Assys and parts

8-4-1 Main Unit Assy - To be conducted by a technician only -

⚠**WARNING**

- To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.

(1) Replacing the fluorescent lamp/starter

⚠**CAUTION**

- The fluorescent lamp becomes hot. Exercise caution when removing.

1 Turn off the power switch located at the lower section of the back panel of the Main Unit Assy. **(See P. 23 "6-1-1 Moving (on the floor)" 1 .)**

2 Using the provided key, open the Front Glass Assy, and remove the Front Glass Assy from the Main Unit Assy.

3 Replace the fluorescent lamp (20W) and/or starter (FG-1E).
[Replace with a 100V-20W fluorescent lamp.]

Fluorescent lamp (100V-20W)

Starter (FG-1E)

Main Unit Assy
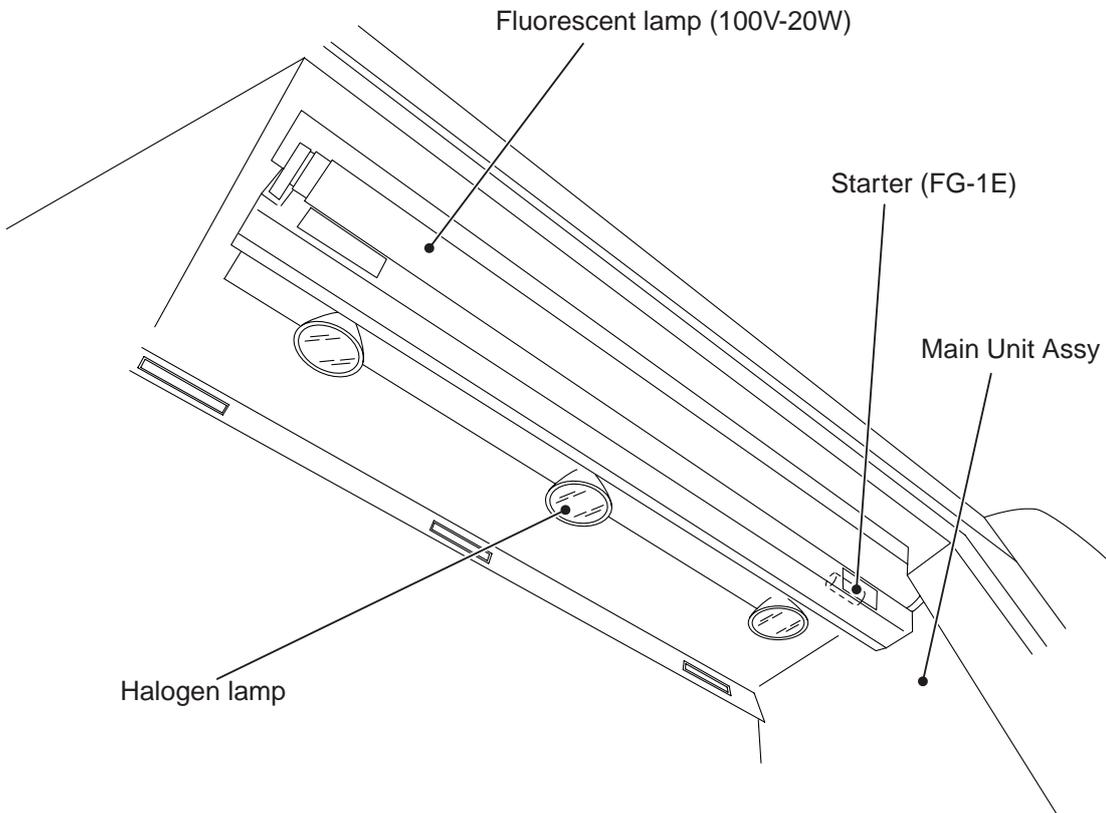
Halogen lamp

4 Reinstall the Front Glass Assy to the Main Unit Assy, and lock with the key.

(2) Replacing the halogen lamp

⚠ CAUTION

- **The halogen lamps remain hot even after the power switch is turned off. To prevent burns, make sure that the lamps have cooled sufficiently before initiating the described task.**

1 Remove the Front Glass Assy.
(See P. 88 "8-4-1 (1) Replacing the fluorescent lamp/glow lamp" 1, 2.)

2 Pull out the halogen lamps, and install new halogen lamps.
[Replace with 12VDC-35W halogen lamps.]

Main Unit Assy

Halogen lamp (12VDC-35W)
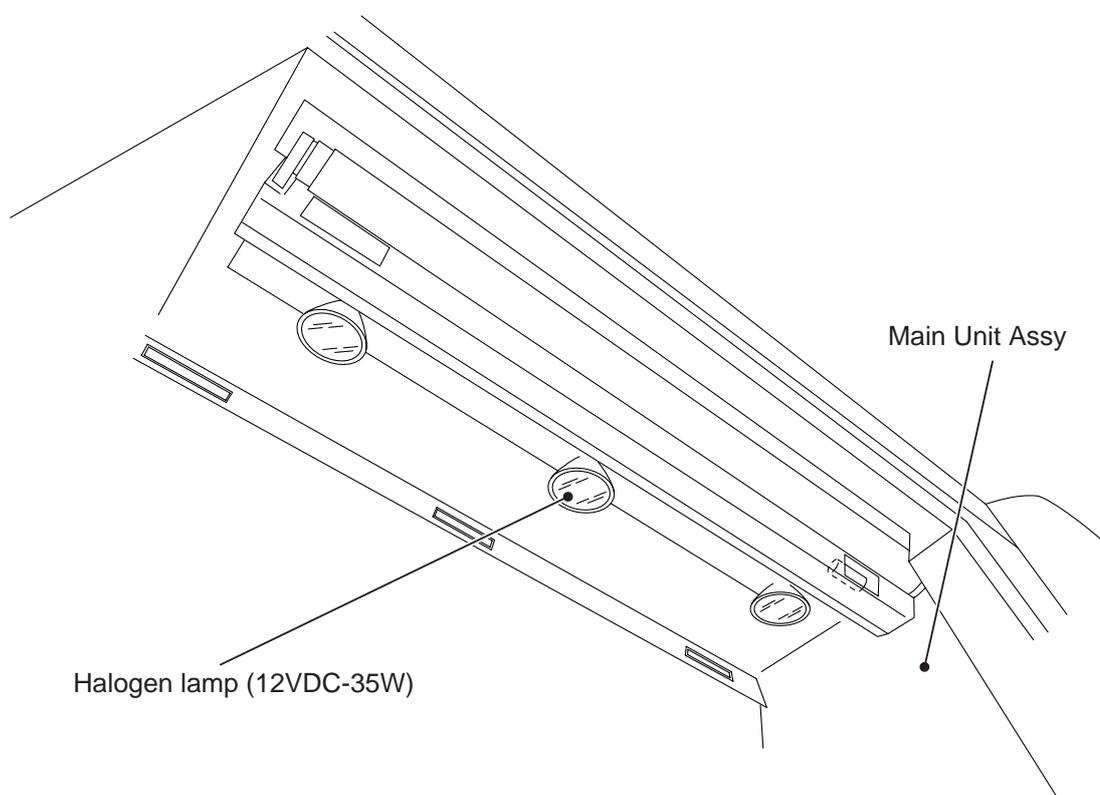
3 Reinstall the Assy by following the removal sequence in reverse.

(3) Replacing the coin checker sensor   - To be conducted by a technician only -

1   Remove the drop rail.
(See P. 75 "8-1-6 Cleaning the drop rail" 1 through 3.)

2   Remove the hexagon nut (M3), and replace the photosensor (light-receiving unit).

Phillips pan-head screw
(with flat and spring washers)
(M3 x 12)

Hexagon nut (M3)

Coin checker sensor
(light-receiving unit)
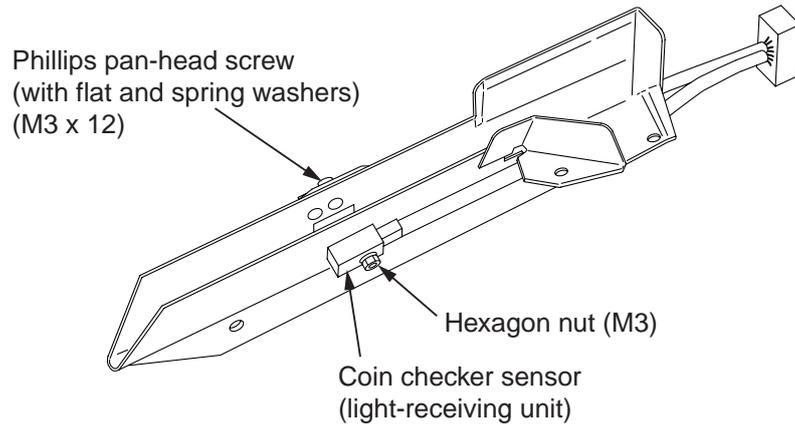
3   Remove the Phillips pan-head screw (with flat and spring washers) (M3 x 12), and replace the photosensor (light-emitting unit).

Coin checker sensor (light-emitting unit)

Drop rail

Phillips pan-head screw
(with flat and spring washers)
(M3 x 12)

4   Reinstall the parts by following the removal sequence in reverse.

(4) Replacing the 7-Segment Display PC Board - To be conducted by a technician only -

1 Remove the Front Glass Assy from the Main Unit Assy.
(See P. 75 "8-1-6 Cleaning the drop rail" 1, 2.)

2 Remove the four button-head bolts (M3 x 6), and remove the slot machine cover.

Slot Machine Assy

Button-head bolt
(M3 x 6) x 4

Slot machine cover
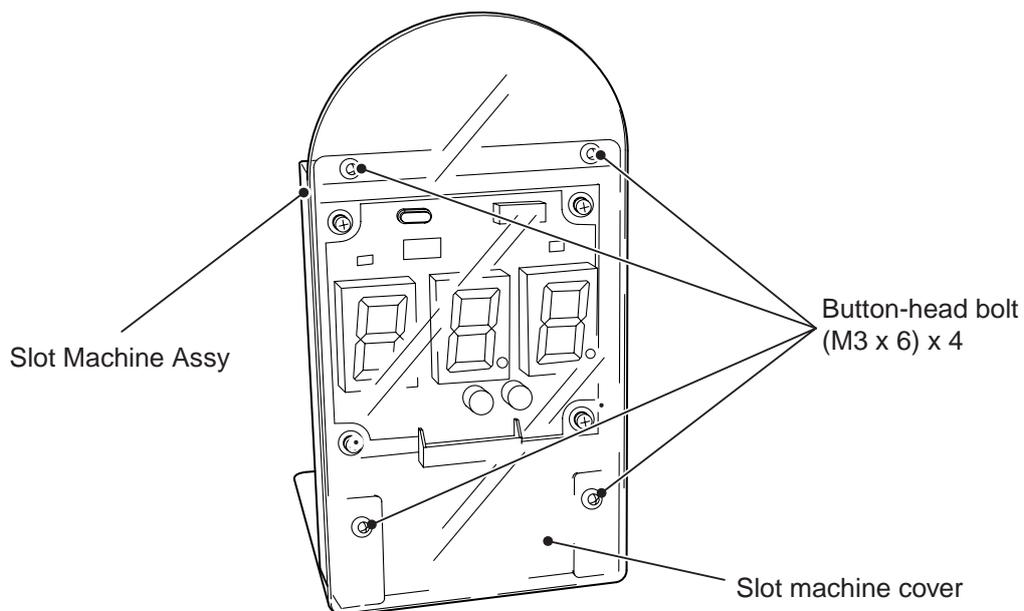
3 Disconnect the connector (12P), remove the four Phillips pan-head screw (with flat and spring washers) (M3 x 6), and replace the 7-Segment Display PC Board.

Phillips pan-head screw
(with flat and spring washers)
(M3 x 6) x 4

7-Segment Display
PC Board

Connector (12P)

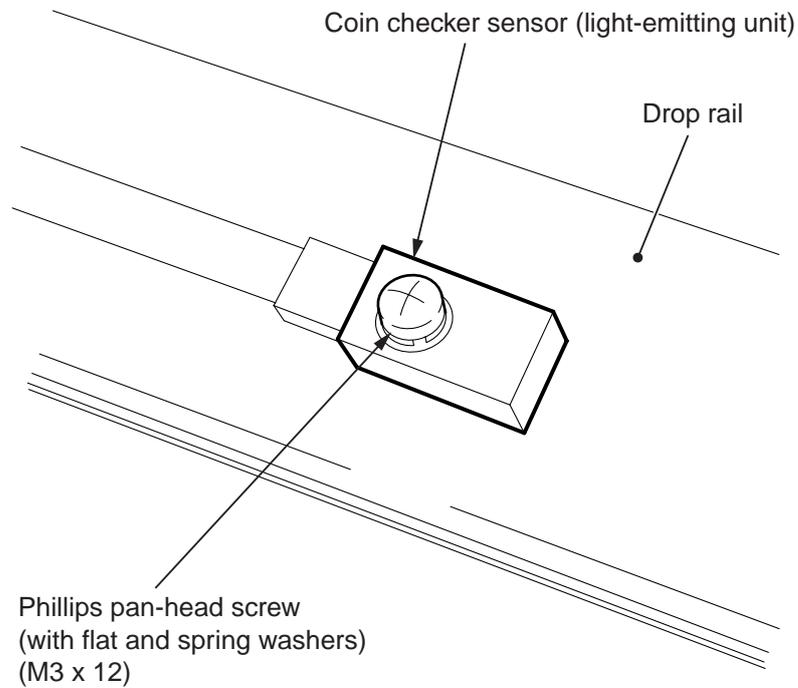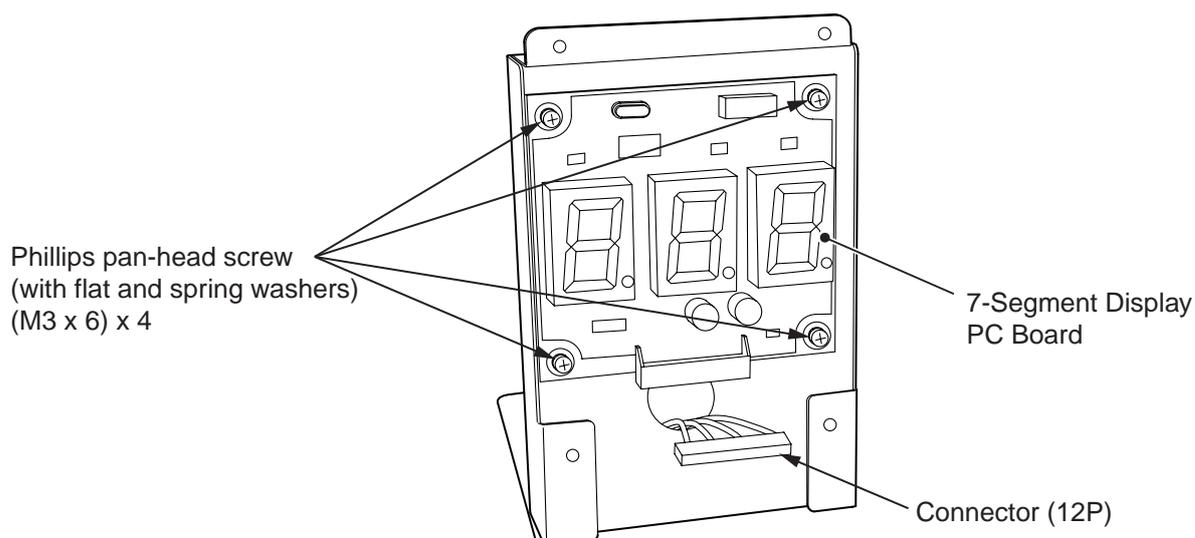**4** Reinstall the parts by following the removal sequence in reverse.

(5) Replacing the fan motors   - To be conducted by a technician only -

1   Turn off the power switch located at the lower section of the back panel of the Main Unit Assy. **(See P. 23 "6-1-1 Moving (on the floor)" 1 .)**

2   Four Phillips pan-head screws (with flat and spring washers) (M4 x 18) are holding the ventilation panel in place. Loosen the two bottom screws, and remove the two top screws.

Remove these two Phillips pan-head screws
(with flat and spring washers) (M4 x 18).

Ventilation panel

Upper section of
the back side of
Main Unit Assy
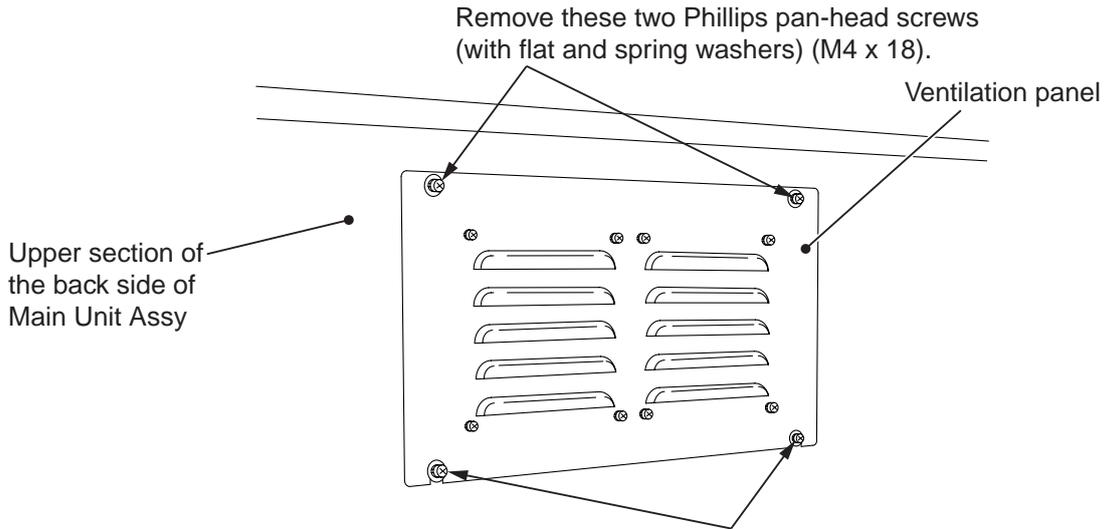
Loosen (do not remove) these two Phillips pan-head screws
(with flat and spring washers) (M4 x 18).

3   Disconnect the connector (3P), remove the four flanged hexagon nuts (M4) from each motor, and replace the fan motors.

Fan motors

Connector (3P)

Ventilation panel

Flanged hexagon nut (M4) x 4 x 2

4   Reinstall the parts by following the removal sequence in reverse.

92

8-4-2 Redemption Door Assy

⚠ **WARNING**

● **To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.**

(1) Replacing the ticket redemption unit - To be conducted by a technician only -

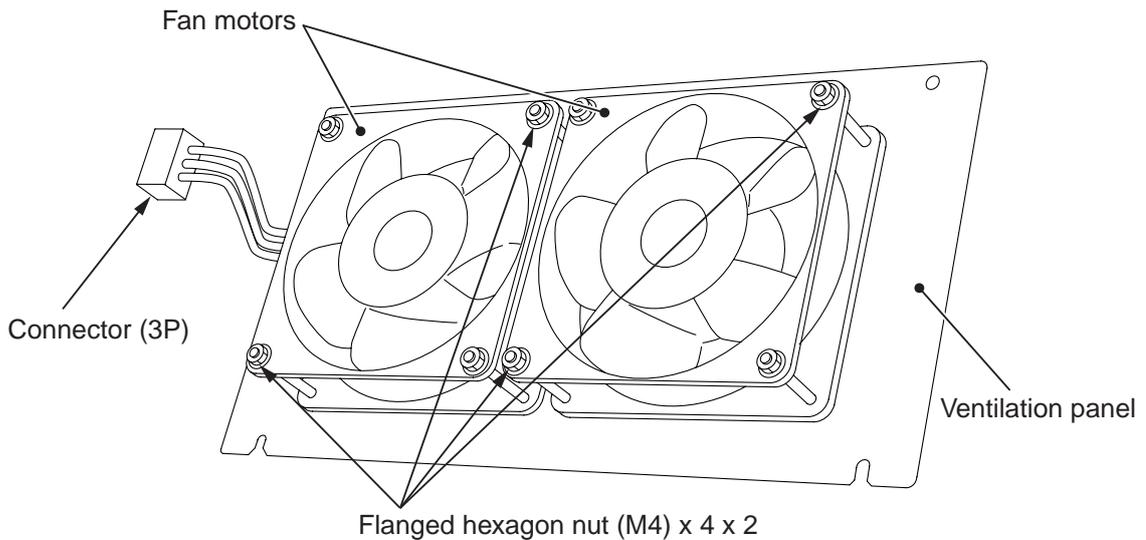**1** Turn off the power switch located at the lower section of the back panel of the Main Unit Assy. **(See P. 23 "6-1-1 Moving (on the floor)" 1.)**

2 Using the provided key, unlock the Redemption Door Assy, and pull it forward.

Key

Front Door Assy

Main Unit Assy

Redemption Door Assy

3 Disconnect the connector (4P), remove the four flanged hexagon nuts (M4), and replace the ticket redemption unit together with the dispenser bracket.

Flanged hexagon nut (M4) x 4

Speaker

Ticket redemption unit

Cam lock

Redemption Door Assy

Connector (4P)

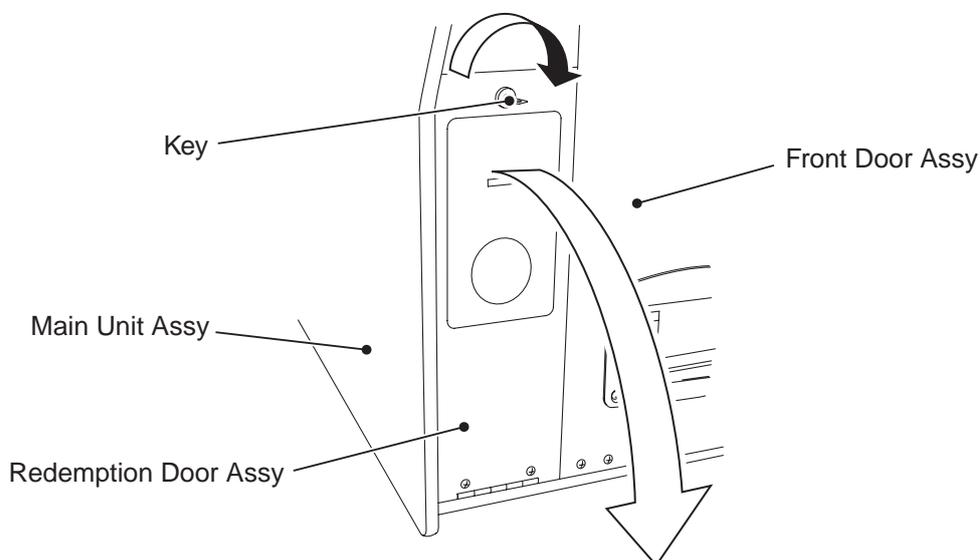**4** Reinstall the parts by following the removal sequence in reverse.
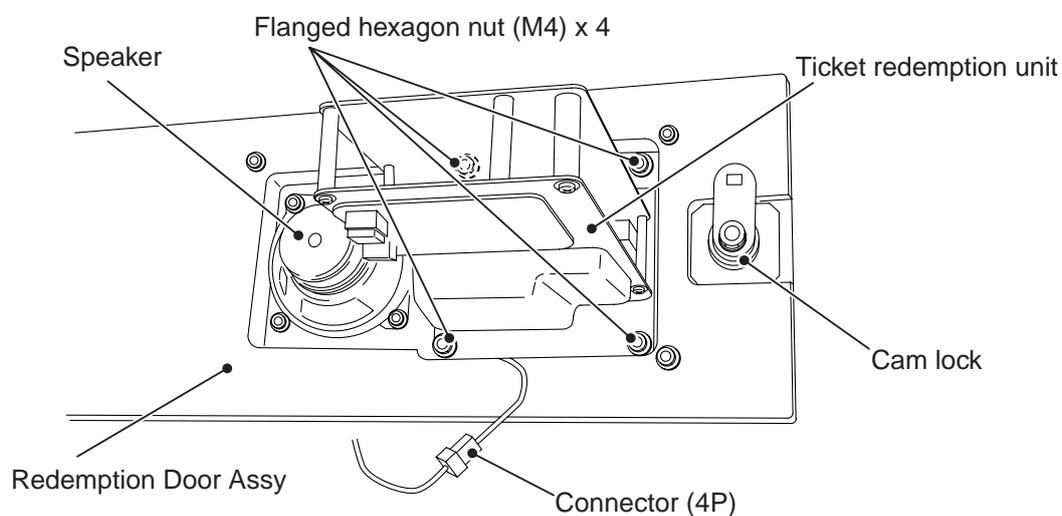
93

8-4-3 Roulette Assy

⚠ **WARNING**

● **To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.**

(1) Replacing the LED PC Board - To be conducted by a technician only -

1 Remove the Front Glass Assy from the Main Unit Assy.
(See P. 75 "8-1-6 Cleaning the drop rail" 1, 2.)

2 Remove the two Phillips truss screws (M4 x 8), and remove the sensor cover.

Origin sensor (field sensor 7)

Roulette panel (tempered glass)

Phillips truss screw (M4 x 8) x 2

Sensor cover

LED PC Board

Phillips pan-head screw (with flat and spring washers) (M3 x 8), 1 each (total of 2)

Area sensor (field sensor 6)
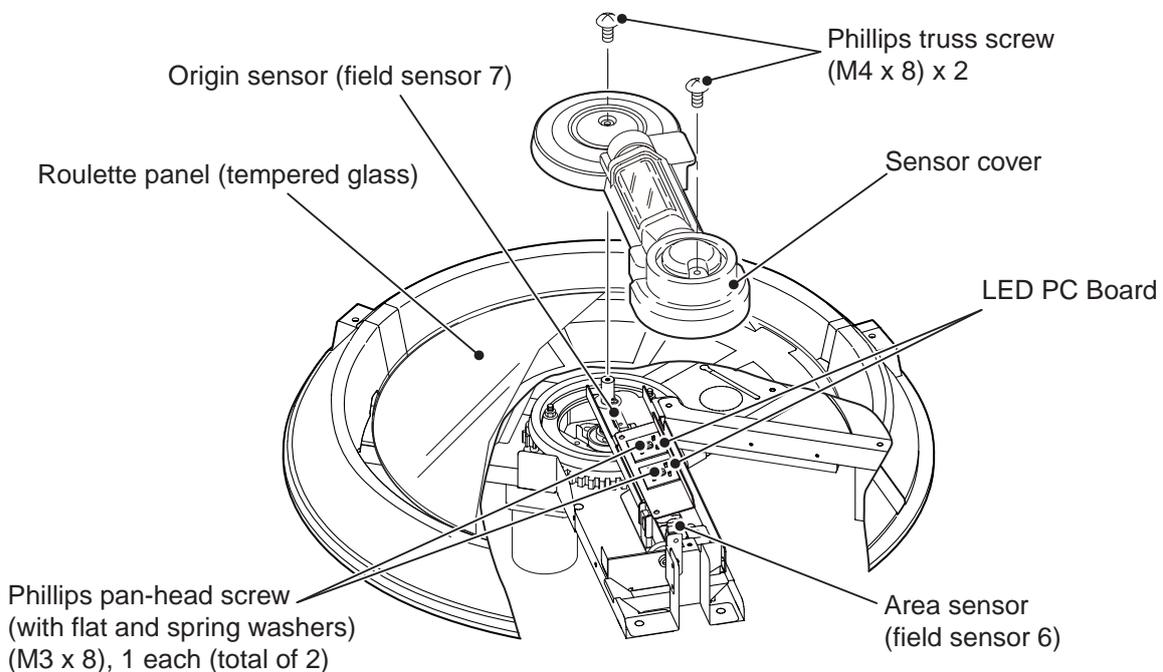
3 Remove the Phillips pan-head screw (with flat and spring washers) (M3 x 8), and remove the LED PC Board.
Then, disconnect the connector (2P) from the rear side of the removed LED PC Board.

4 Reinstall the parts by following the removal sequence in reverse.

Connector (2P)

LED PC Board (on back side)
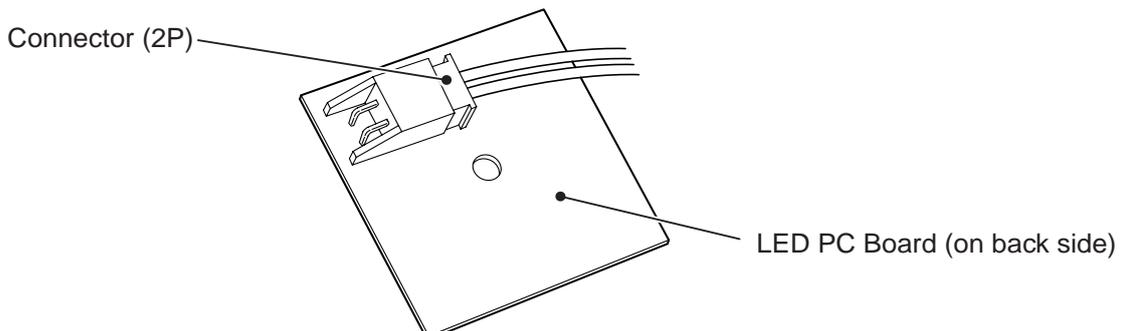
(2) Replacing the origin sensor

1 Remove the sensor cover.
(See P. 94 "8-4-3 (1) Removing the LED PC Board" **1**, **2**.)

2 Remove the Phillips pan-head screw (with flat and spring washers) small circular washer (M4 x 14), remove the origin sensor (field sensor 7), and disconnect the connector (3P).

Origin sensor
(field sensor 7)

Phillips pan-head screw
(with flat and spring washers)
small circular washer (M4 x 14)

Connector (3P)

Sensor base
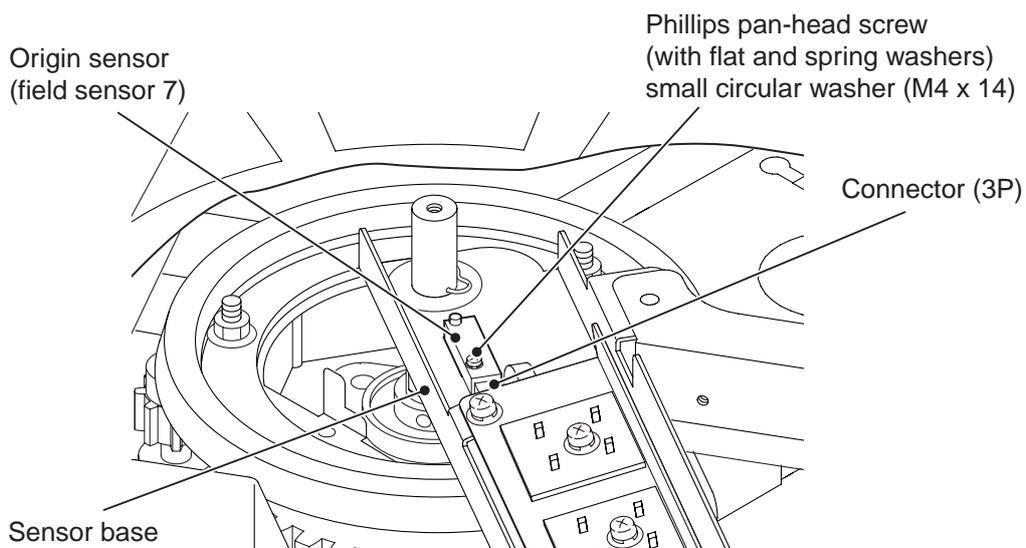
3 Reinstall the parts by following the removal sequence in reverse.

(3) Replacing sensor A (light-receiving photosensor unit) - To be conducted by a technician only -

● Each separated-type photosensor consists of a light-receiving unit on the sensor base and a light-emitting unit on the main base.

◤NOTICE ●**When replacing a separated-type photosensor, it is recommended to replace the light-emitting and light-receiving units as a set.**

1 Remove the sensor cover.
(See P. 94 "8-4-3 (1) Replacing the LED PC Board" 1, 2.)

2 Remove the two Phillips pan-head screws (with flat and spring washers) (M4 x 8), and remove the LED bracket together with the LED PC Board.

LED bracket
(with LED PC Board attached)

Phillips pan-head screw
(with flat and spring washers)
(M4 x 8) x 2

3 Remove the flanged hexagon nut (M3), and replace the faulty photosensor.
If the light-receiving unit of a photosensor is replaced, it is recommended to replace the corresponding light-emitting unit at the same time.
(See P. 98 "8-4-3 (4) Replacing sensor B (light-emitting photosensor unit)."）

Field sensor 5 (light-receiving unit)

Flanged hexagon nut (M3) x 5
Field sensor 4 (light-receiving unit)

Field sensor 3 (light-receiving unit)

Sensor base
Field sensor 2 (light-receiving unit)

Field sensor 1 (light-receiving unit)

Flanged hexagon nut (M3) x 5

Main base

Field sensor 5 (light-emitting unit)
Field sensor 1 (light-emitting unit)

Field sensor 4 (light-emitting unit)
Field sensor 2 (light-emitting unit)

Field sensor 3 (light-emitting unit)

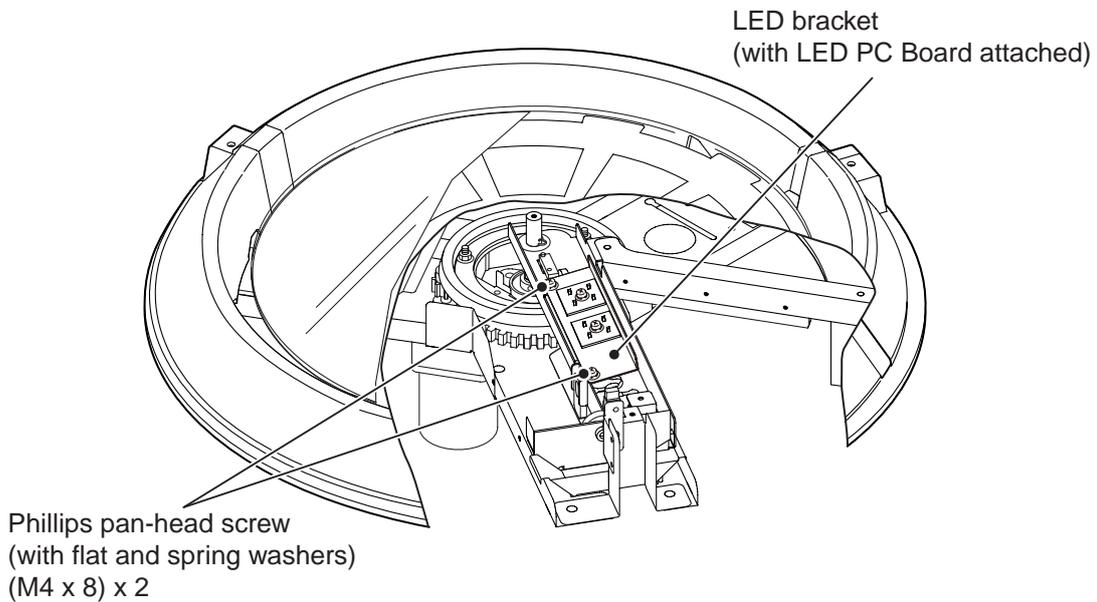**4** Reinstall the parts by following the removal sequence in reverse.

(4) Replacing sensor B (light-emitting photosensor unit) - To be conducted by a technician only -

● Each separated-type photosensor consists of a light-receiving unit on the sensor base and a light-emitting unit on the main base.
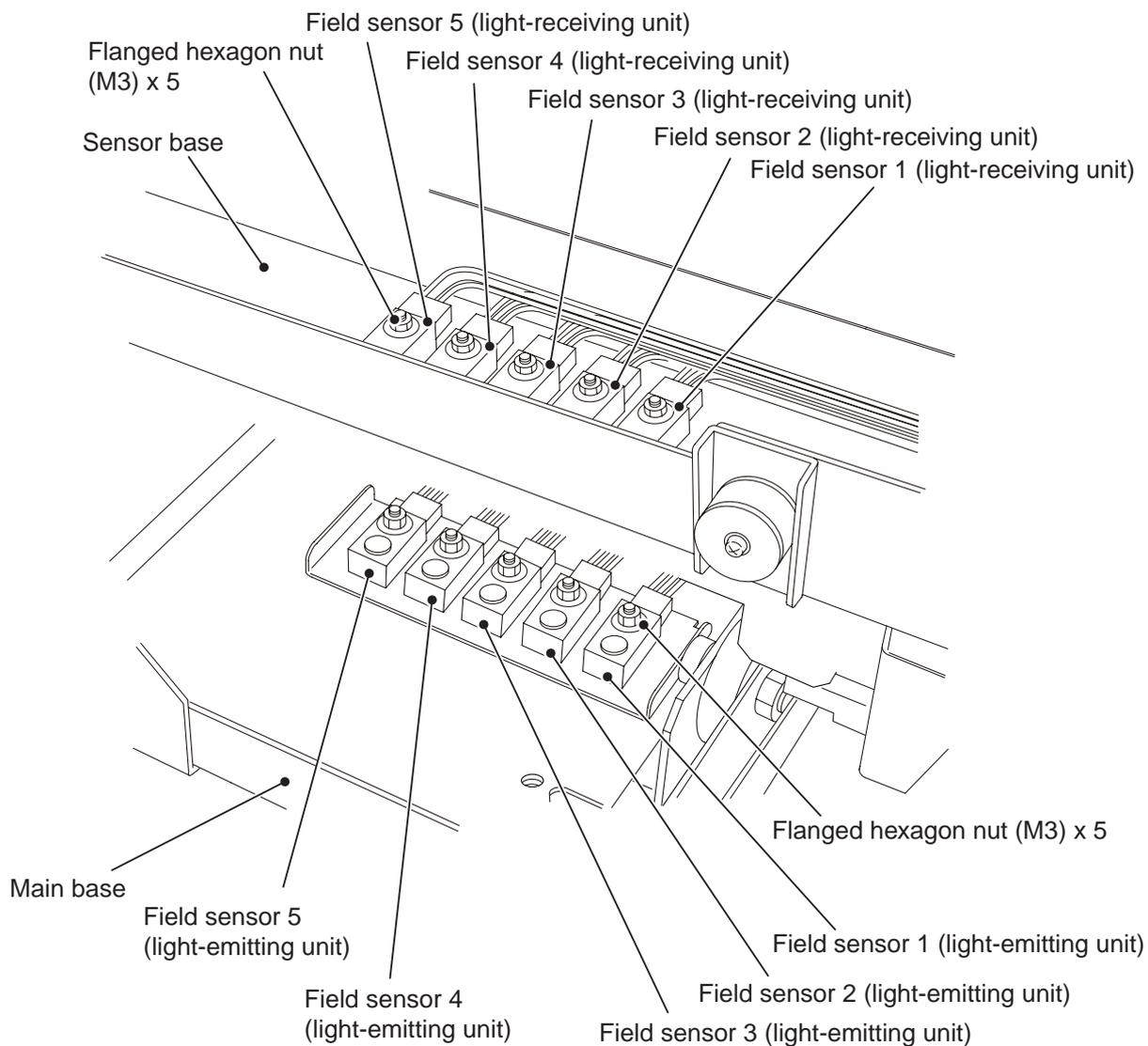
⬤ **NOTICE** ● **When replacing a separated-type photosensor, it is recommended to replace the light-emitting and light-receiving units as a set.**

1 Remove the sensor cover.
(See P. 94 "8-4-3 (1) Replacing the LED PC Board" 1, 2.)

2 Remove the two Phillips truss screws (M4 x 8), and remove the squeegee bar bracket from the sensor base.

Phillips truss screw (M4 x 8) x 2

Sensor base

Squeegee bar bracket
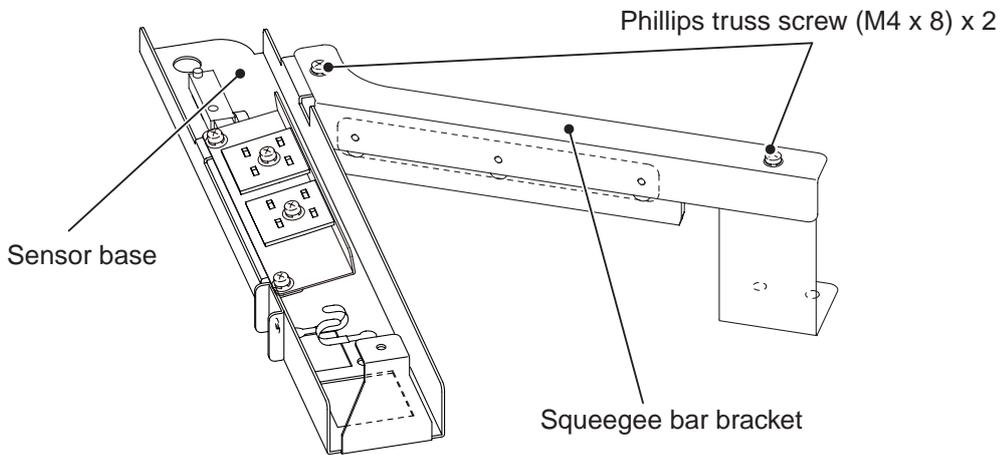
3 Remove the one Phillips pan-head screw (with flat and spring washers) (M4 x 8), one snap pin (nominal size: 12) and one flat washer (M12), and remove the sensor base together with the photosensors.

Flat washer (M12) x 1

Sensor base

Snap pin

Origin sensor
(field sensor 7)

Area sensor
(field sensor 6)

Phillips pan-head screw
(with flat and spring washers)
(M4 x 8) x 1
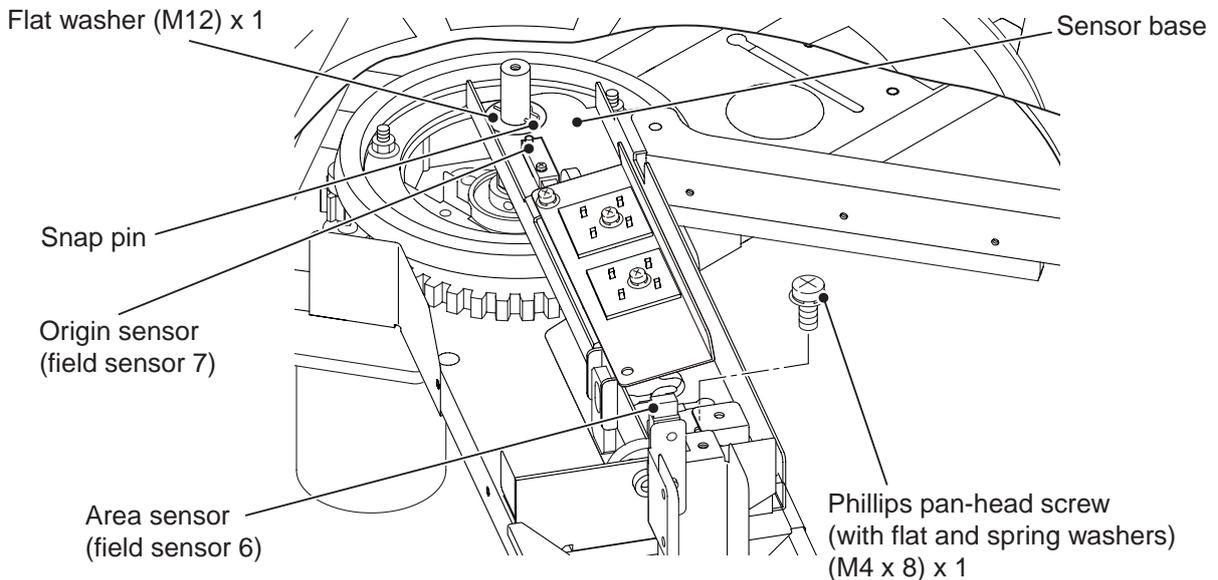
4   Remove the three flanged hexagon nuts (M5), and remove the middle cover, roulette panel and roulette sheets.
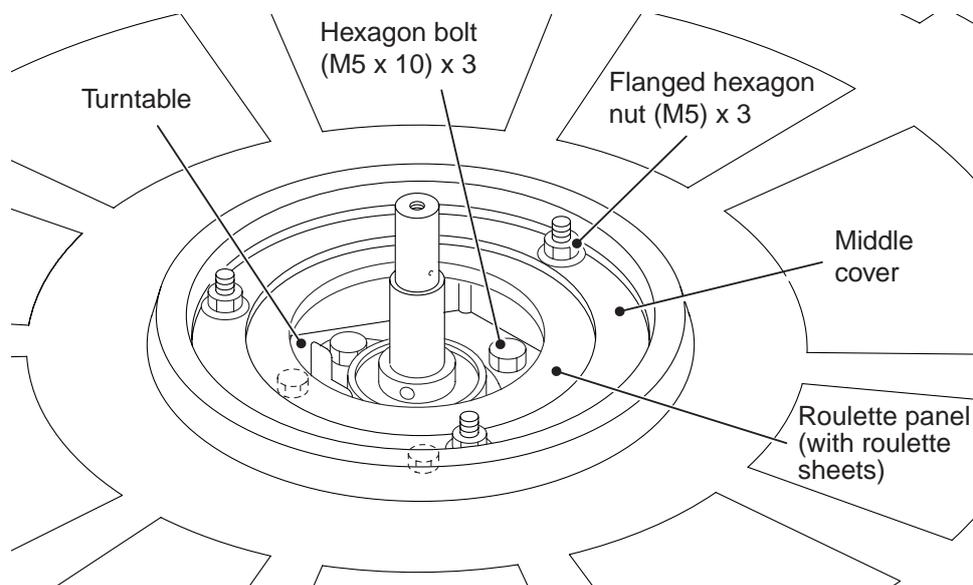
5   Remove the three hexagon-head bolts (M5 x 10), and remove the turntable.

6 Remove the flanged hexagon nut (M3), and replace the faulty photosensor.
If the light-emitting unit of a photosensor is replaced, it is recommended to replace the corresponding light-receiving unit at the same time.
(See P. 96 "8-4-3 (3) Replacing sensor A (light-receiving photosensor unit).")

Flanged hexagon nut (M3) x 5

Main base

Field sensor 5 (light-emitting unit)

Field sensor 4 (light-emitting unit)

Field sensor 3 (light-emitting unit)

Field sensor 2 (light-emitting unit)

Field sensor 1 (light-emitting unit)
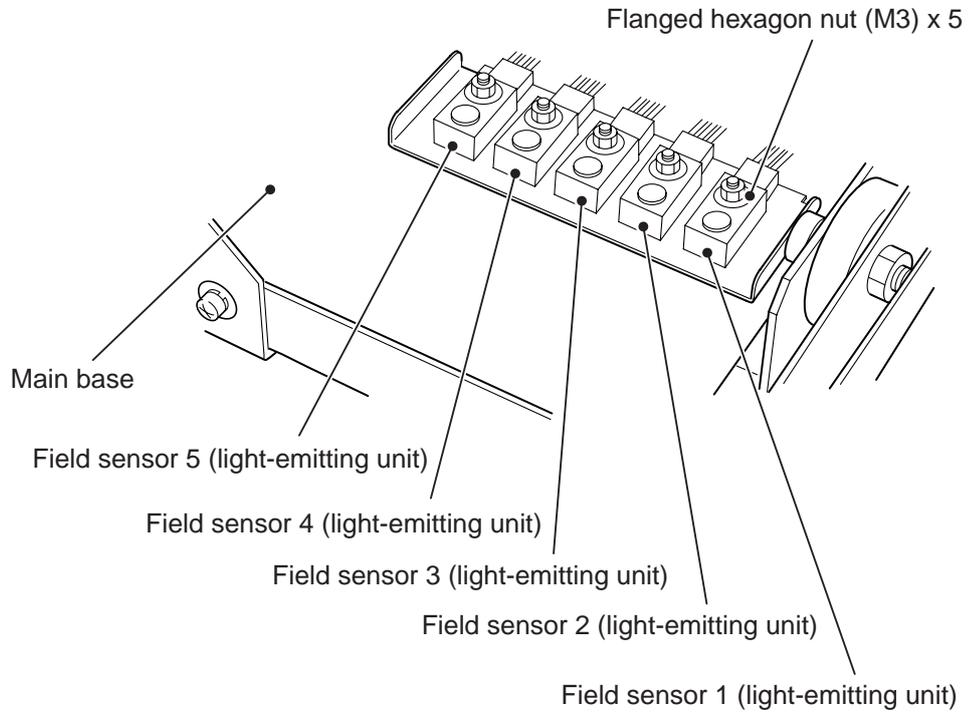
7 Reinstall the parts by following the removal sequence in reverse.

(5) Replacing the area sensor

1 Remove the sensor base.
(See P. 98 "8-4-3 (4) Replacing sensor B (light-emitting photosensor unit)" **1**
through 3 .)

2 Remove the Phillips pan-head screw (with flat and spring washers) small circular washer (M4 x 14), remove the area sensor, and disconnect the connector (3P).

Sensor base

Phillips pan-head screw
(with flat and spring washers)
small circular washer (M4 x 14)

Area sensor (field sensor 6)
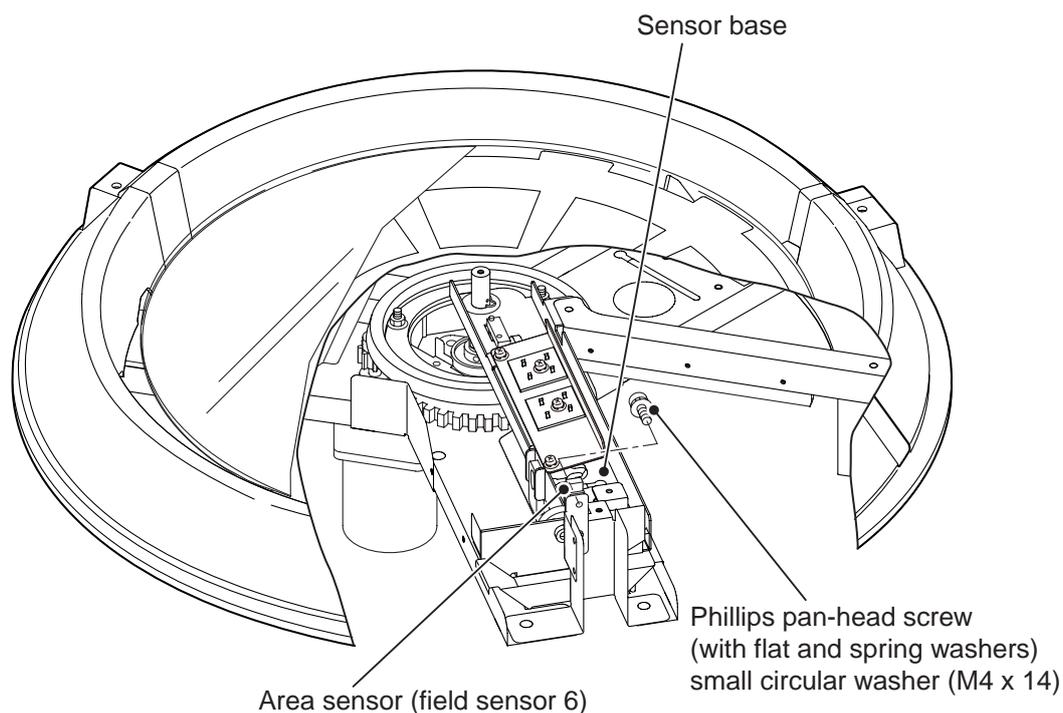
3 Reinstall the parts by following the removal sequence in reverse.

(6) Replacing the AC motor   - To be conducted by a technician only -

1 Remove the sensor base and turntable.
(See P. 98 "8-4-3 (4) Replacing sensor B (light-emitting photosensor unit) 1 through 5.")

2 Loosen the two hexagon-head bolts (M5 x 10), move the motor bracket with the motor in the direction of the arrow shown in the diagram, and disengage spur gears A and B.

Hexagon-head bolt (M5 x 10) x 2
Spur gear B
Spur gear A
Motor bracket
Main base
Hexagon-head bolt (M5 x 10) x 2
AC motor
Connector (3P)
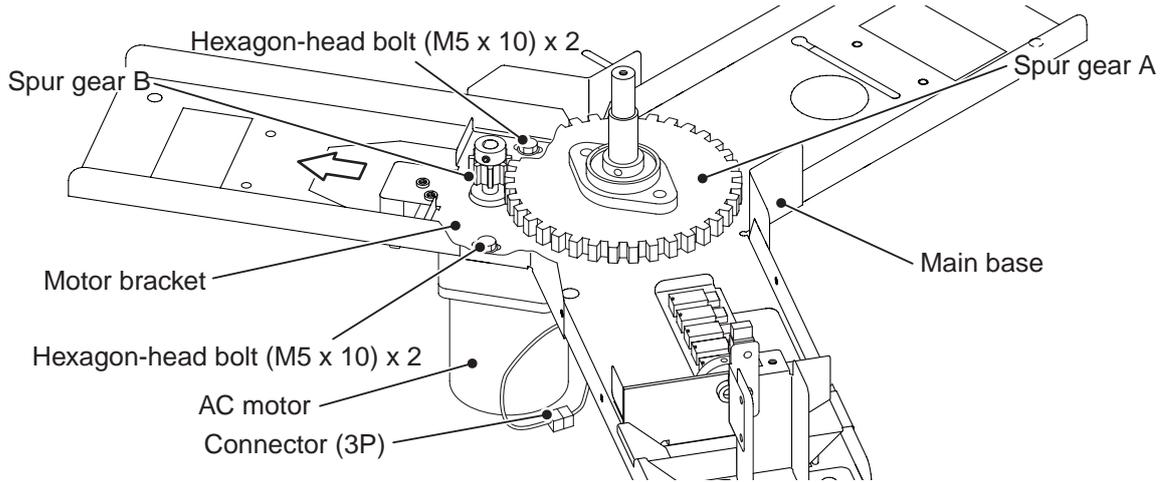
Then, disconnect the connector (3P), remove the two previously loosened hexagon-head bolts (M5 x 10), and remove the motor bracket with the motor from the main base.

3 Remove the one double-point (M4 x 8), remove spur gear B, remove the four hexagon nuts (M4), and detach the motor, reduction gears or capacitor for replacement.

Capacitor
Double-point (M4 x 8) x 1
Hexagon nut (M4) x 4
Motor bracket
Motor shaft end face
Reduction gears
Spur gear B end face
AC motor

(Fig. A)
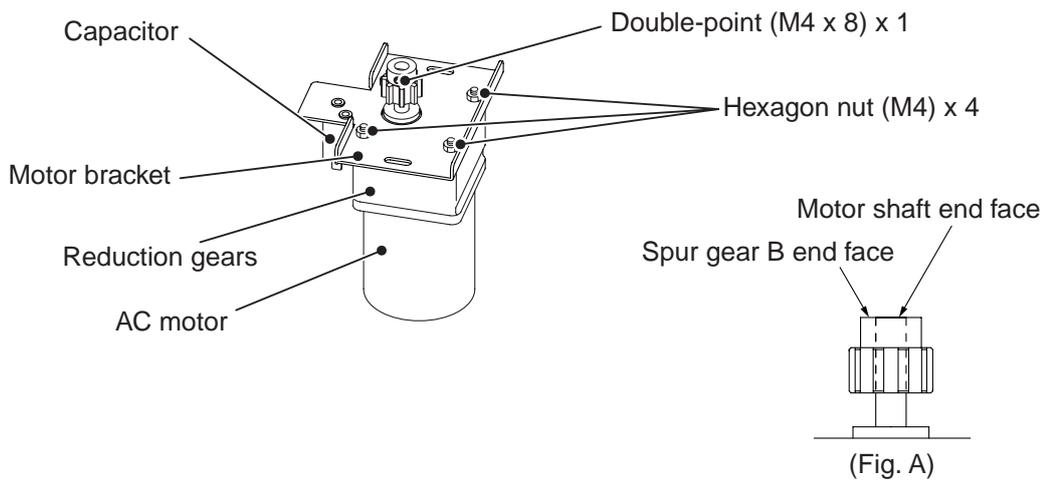
4 Reinstall the parts by following the removal sequence in reverse.

NOTICE
● **During reassembly, make sure that connectors are securely locked.**
● **When installing the double-point (M4 x 8), apply Loctite 242 and make sure that the AC motor shaft is perpendicular to the slice surface.**
● **When installing spur gear B, make sure that the AC motor shaft end face and spur gear B end face are flush with each other (see Fig. A).**

102

8-4-4 Control Panel Assy

⚠WARNING

● **To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.**

(1) Replacing the Main PC Board   - To be conducted by a technician only -

1 Turn off the power switch located at the lower section of the back panel of the Main Unit Assy.
(See P. 23 "6-1-1 Moving (on the floor)" 1 .)

2 Remove the four Torx screws (M5 x 40), and remove the rear panel.

Torx screw (M5 x 40) x 4

Main Unit Assy

Cord box
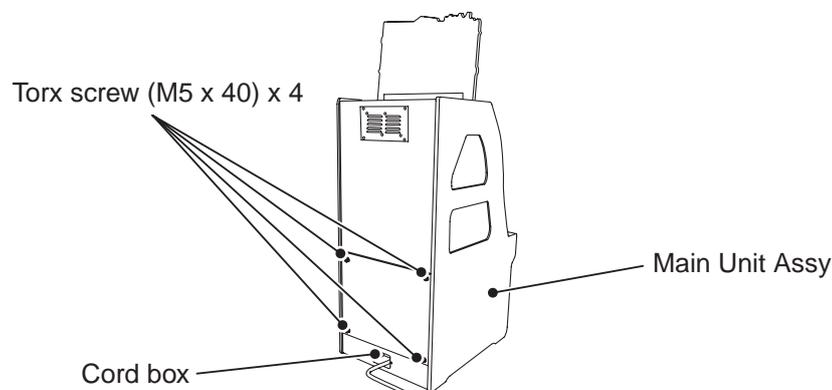
3 Disconnect the connectors (40P x 1, 36P x 2, 34P x 2, 16P x 1, 8P x 1, 4P x 1, 3P x 1), remove the six Phillips pan-head screws (with flat and spring washers) (M3 x 8), and replace the Main PC Board.

Connector (8P)

Connector (4P)

Phillips pan-head screw (with flat and spring washers) (M3 x 8) x 6

Connector (16P)

Connector (36P)

Connector (34P)

Connector (3P)

Main PC Board

Connector (34P)

Connector (40P)

Control Panel Assy

Connector (36P)
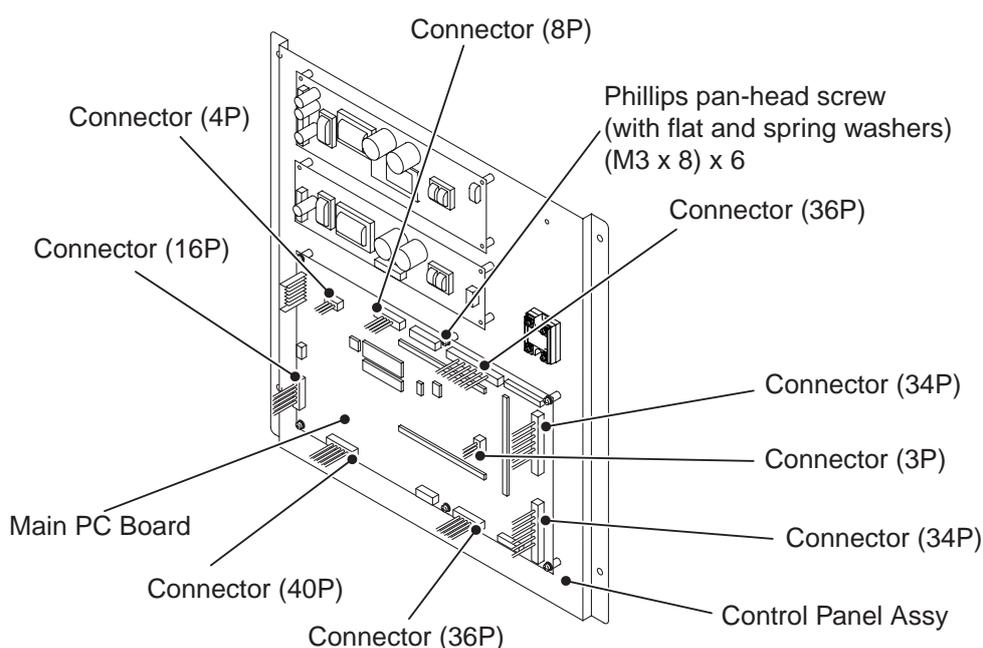
4 Reinstall the parts by following the removal sequence in reverse.

(2) Replacing the switching regulator - To be conducted by a technician only -

1 Remove the rear panel.
(See P. 103 "8-4-4 (1) Replacing the Main PC Board" 1, 2.)

2 Remove the four Phillips pan-head screw (with flat and spring washers) (M3 x 8). To remove the SW REG1 switching regulator (12V-150W), disconnect the three connectors (7P, 6P, 5P). To remove the SW REG2 switching regulator (24V-100W), disconnect the two connectors (8P, 5P). Then, replace the switching regulator.

Connector (6P)

Connector (7P)   Switching regulator (SW REG1)

Connector (8P)   Connector (5P)

Phillips pan-head screw
(with flat and spring washers)
(M3 x 8) x 4

Phillips pan-head screw
(with flat and spring washers)
(M3 x 8) x 4

Connector (5P)

Control Panel Assy

Switching regulator (SW REG2) (24V-100W)
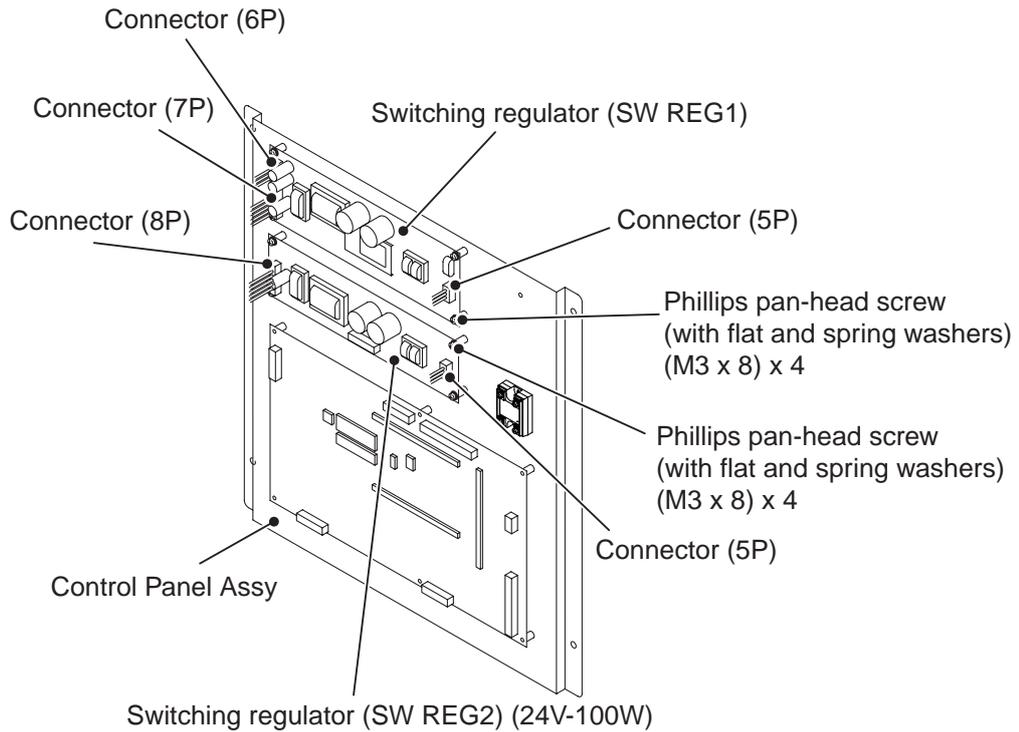
3 Reinstall the parts by following the removal sequence in reverse.

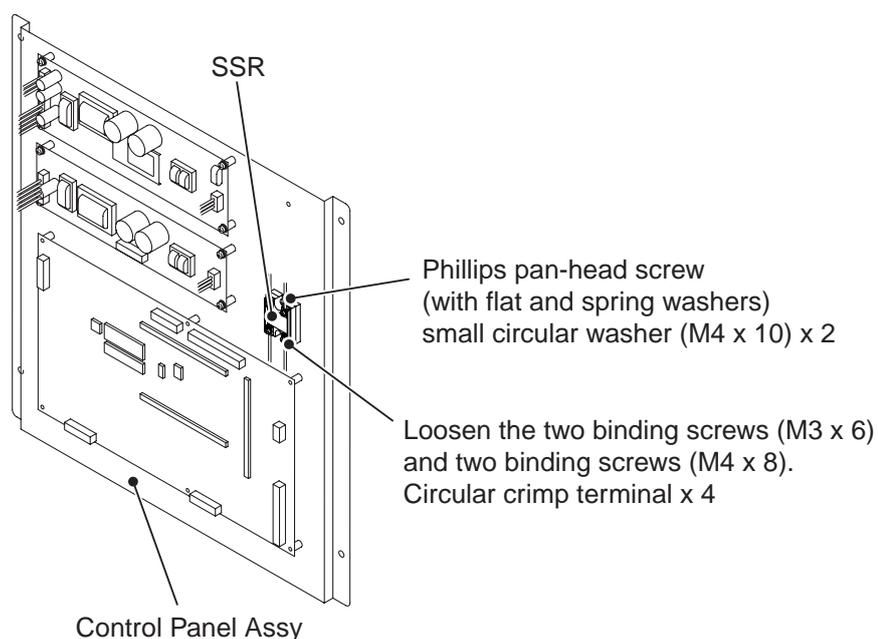**(3) Replacing the SSR - To be conducted by a technician only -**

1 Remove the rear panel.
   (See P. 103 "8-4-4 (1) Replacing the Main PC Board" 1, 2.)

2 Remove the two Phillips pan-head screw (with flat and spring washers) small circular washers (M4 x 10), loosen the two binding screws (M3 x 6) and two binding screws (M4 x 8) on the SSR, disconnect the circular crimp terminals, and replace the SSR.

SSR

Phillips pan-head screw
(with flat and spring washers)
small circular washer (M4 x 10) x 2

Loosen the two binding screws (M3 x 6)
and two binding screws (M4 x 8).
Circular crimp terminal x 4

Control Panel Assy

3 Reinstall the parts by following the removal sequence in reverse.

8-4-5 Replacing the coin hopper (cash dispensing model) - To be conducted by a technician only -

⚠WARNING

● **To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.**

1 Remove the hopper door.
(See P. 72 "8-1-4 Cleaning the coin hopper" **1** through **3**.)

2 Disconnect the connector (15P), remove the wing bolt (M4 x 15), remove the hopper holder (F), and replace the coin hopper.

3 Remove the one Phillips pan-head screw (with flat and spring washers) (M4 x 8), and remove the hopper head.

Phillips pan-head screw
(with flat and spring washers) (M4 x 8) x 1

Coin hopper

Wing bolt (M4 x 15)

Connector (15P)

Hopper holder F

Main Unit Assy
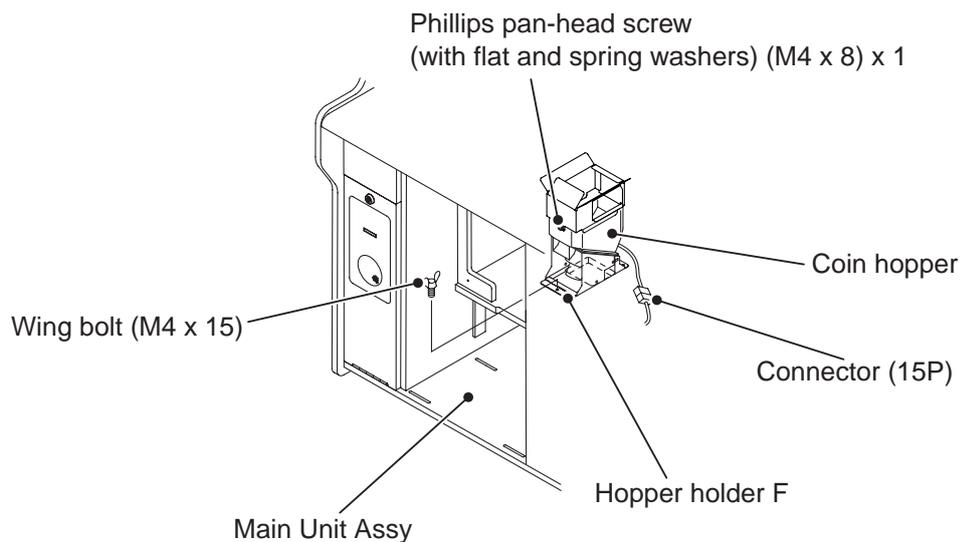
4 Reinstall the parts by following the removal sequence in reverse.

8-4-6 Replacing the fuse - To be conducted by a technician only -

⚠WARNING

● **To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.**

1 Unplug the power cord from the cord box located on the back side of the Main Unit Assy.

(See P. 23 "6-1-1 Moving (on the floor)" 1, 2.)

2 Pull out the fuse holder, and replace the blown fuse (glass tube fuse 250V-5A).

Power switch

Power cord socket

Cord box

Fuse holder

Fuse (250V-5A)
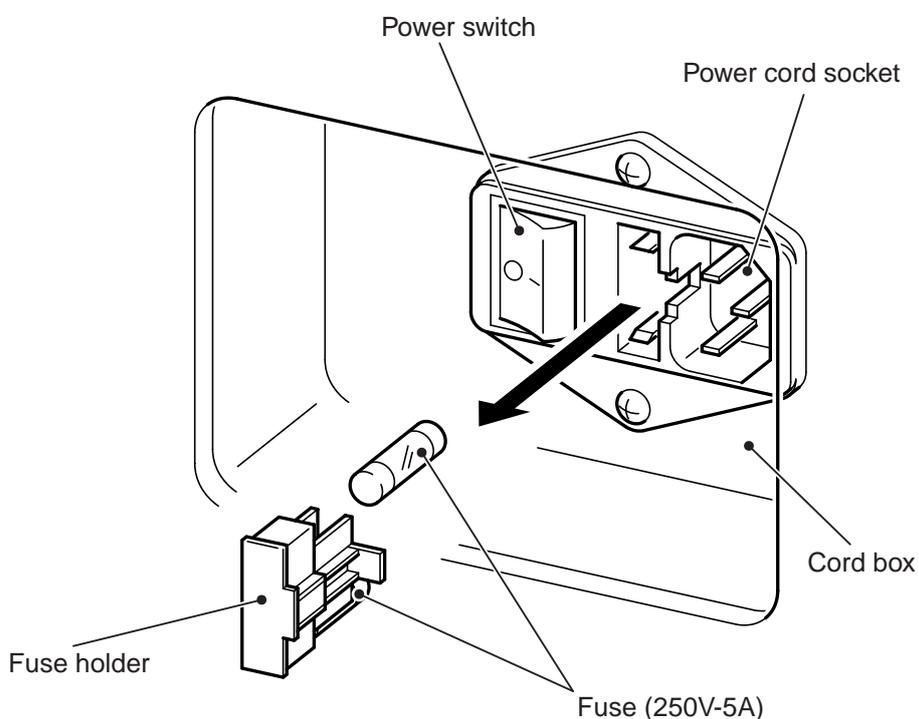
3 Reinstall the parts by following the removal sequence in reverse.

9. DISCARDING THE MACHINE

⚠WARNING

● When discarding the machine, the machine must be collected, transported and discarded in accordance with the EC Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) and/or any other local laws and regulations.
● When entrusting a third party to collect, transport and discard the machine, be sure to use specialized companies to perform each task.

10. PARTS LIST

10-1 Main Unit Assy

10-7-6 Signboard Assy

10-5 Roulette Assy

10-4 Coin Entry Door Assy

10-7-1 Lamp Assy

10-7-2 Front Glass Assy

10-3 Redemption Door Assy

10-7-3 Front Door Assy

10-7-4 Service Panel Assy

10-7-5 Cord Box Assy

10-2 Slot Machine Assy

10-6 Control Panel Assy
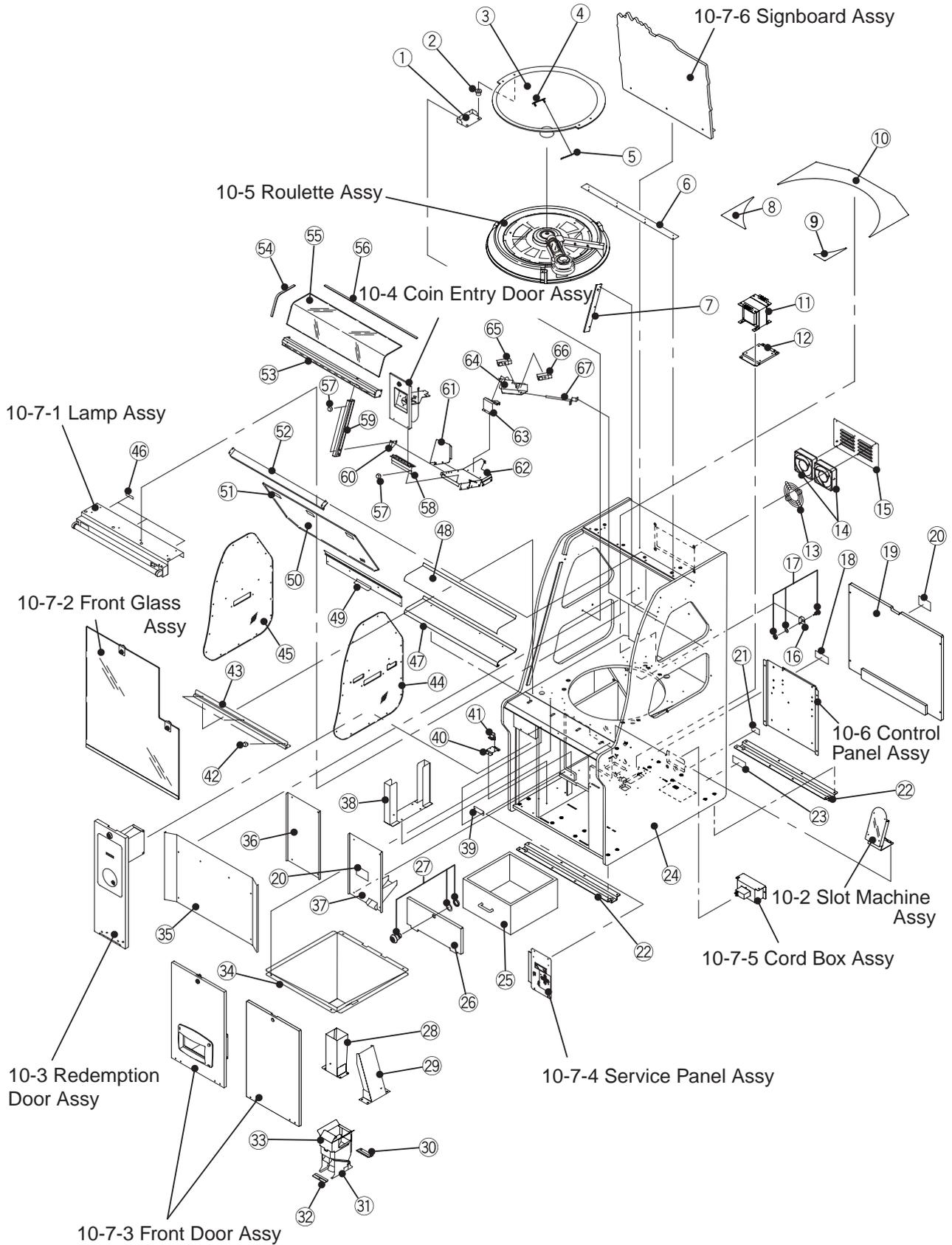
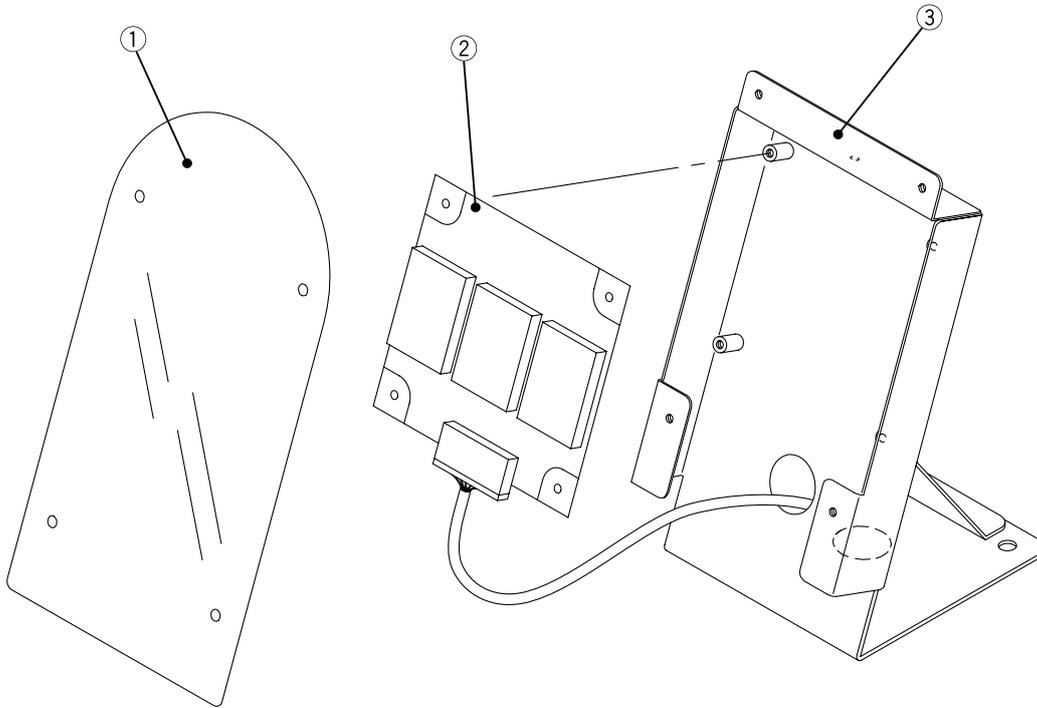| No.	Name	Qty	[Model and rating]	Parts No.
1	Field support	2		720-339
2	Kuratite rubber	4	KT-5	106-183
3	Field	1		720-343
4	Blocker plate (A)	1		720-369
5	Blocker plate (B)	1		720-370
6	Top panel retainer	1		720-338
7	Wire stay	1		720-365
8	Field sticker A (L)	1		720-373
9	Field sticker A (R)	1		720-374
10	Field sticker B	1		720-375
11	Insulated transformer for export model	1	SH704 14-65	004-658
12	Transformer base	1		720-371
13	Fan guard	2	8130-TR	005-413
14	Fan motor	2	CC12038B 110H	005-434
15	Ventilation panel	1		720-332
16	Door switch bracket (R)	1		720-350
17	Pushbutton switch	1	RL5-2	000-717
18	Caution sticker (5A)	1		461-591
19	Back door	1		720-344
20	Warning sticker Maintenance B (EXP)	2		461-534
21	Warning sticker (CE Earth)	1		461-581
22	Foot angle	2		720-366
23	Caution sticker (CE 230V)	1		461-580
24	Cabinet	1		720-330
25	Coin box	1	1171-15000201	720-440
26	Coin box door	1		720-360
27	Cam lock (one-position key removal)	1	C201-1 (with tongue)	101-218
28	Center coin duct	1	Part for ticket dispensing model only	720-315
29	Overflow coin duct	1		720-359
30	Hopper holder (R)	1		720-362
31	Hopper	1	SH400-0	
32	Hopper holder (F)	1		720-361
33	Hopper head	1		720-358
34	Collection duct	1		720-349
35	Rear panel	1		720-346
36	Center door	1	Part for ticket dispensing model only	720-316
37	Hopper door	1		720-357

10-1 Main Unit Assy

10-7-6 Signboard Assy

10-5 Roulette Assy

10-4 Coin Entry Door Assy

10-7-1 Lamp Assy

10-7-2 Front Glass Assy

10-6 Control Panel Assy

10-3 Redemption Door Assy

10-2 Slot Machine Assy

10-7-5 Cord Box Assy

10-7-4 Service Panel Assy

10-7-3 Front Door Assy
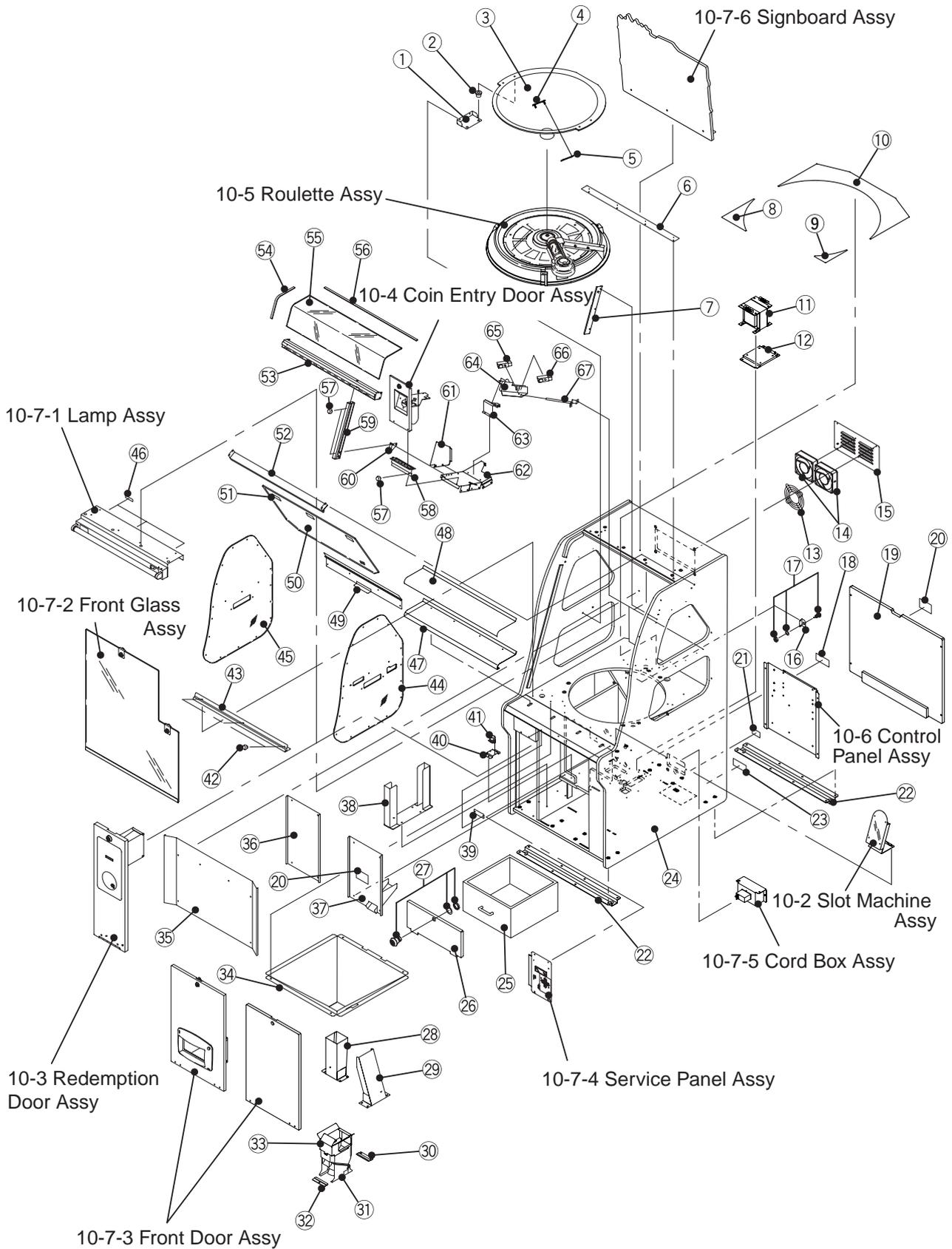
No.	Name	Qty	[Model and rating]	Parts No.
38	Ticket box	1	Part for ticket dispensing model only	720-448
39	Key receptacle plate	2		720-356
40	Tilt sensor stand	1		720-368
41	Tilt switch	1	D7E-2	000-604
42	Plug cushion	3	TM-96-3	106-017
43	Front glass support (C)	1		720-355
44	Side window (R)	1		720-353
45	Side window (L)	1		720-354
46	Warning sticker High Temperature (NEL)	3		461-544
47	Arm rest panel	1		720-367
48	Arm rest sticker	1		720-372
49	Mirror retainer (L)	1		720-337
50	Mirror	1		720-345
51	Warning sticker High Temperature (A)	3		461-590
52	Mirror retainer (U)	1		720-336
53	Front glass support (A)	1		720-333
54	Seal (A)	2		720-351
55	Top panel	1		720-331
56	Seal (B)	1		720-352
57	Plug cushion	7	TM-96-2	106-142
58	Front glass support (B)	1		720-334
59	Coin pillar	1		720-347
60	Pillar joint	1		720-348
61	Coin cover	1		720-364
62	Coin door base	1		720-355
63	Rail base	1		720-341
64	Drop rail	1		720-340
65	Separated-type photosensor	3	Combined with KB1281-AA22 (light-receiving unit) No. 66	000-690
66	Separated-type photosensor	1	Combined with KB1281-AA12 (light-emitting unit) No. 65	000-690
67	Rail holder	1		720-363

10-2 Slot Machine Assy

No.	Name	Qty	[Model and rating]	Parts No.
1	Slot machine cover	1		720-387
2	7-Segment Display PC Board	1		306-957
3	Slot machine base	1		720-386

10-3 Redemption Door Assy
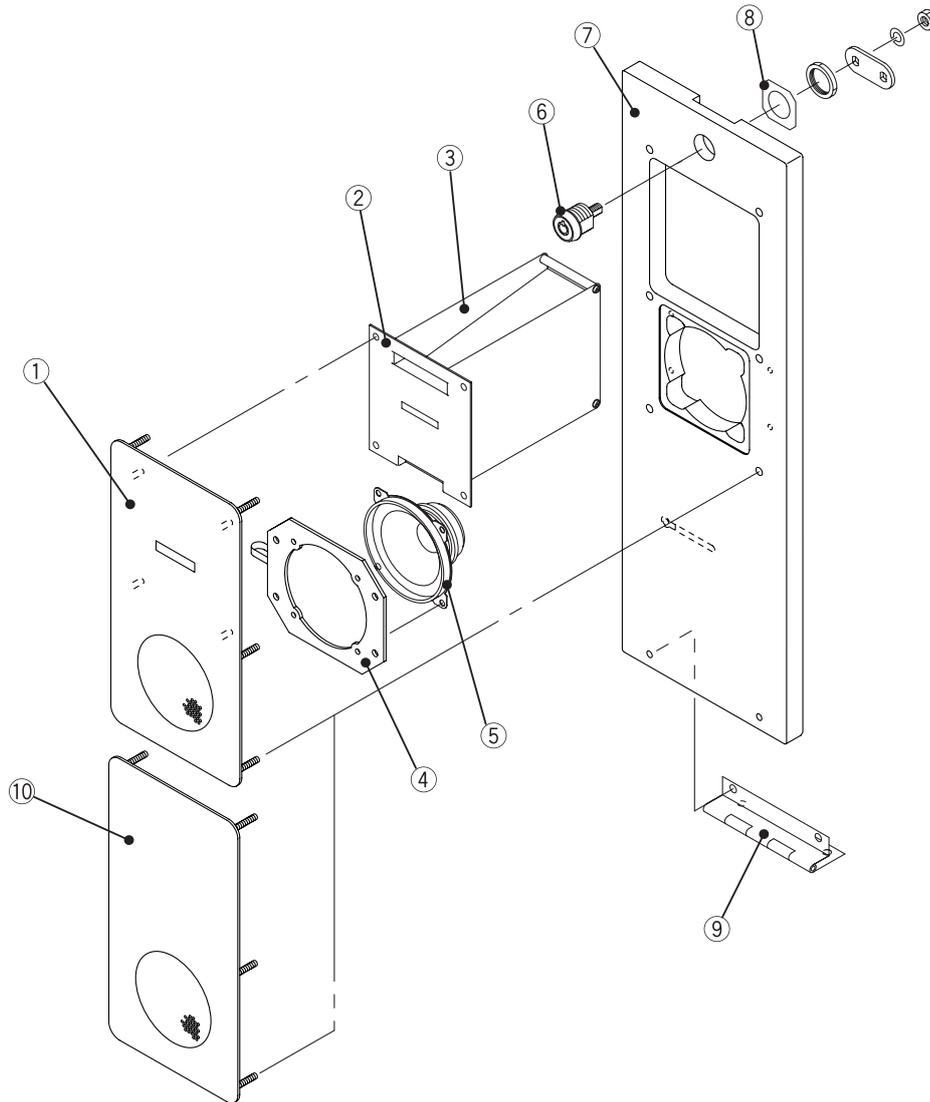
No.	Name	Qty	[Model and rating]	Parts No.
1	Dispenser base	1	Part for ticket dispensing model only	720-320
2	Dispenser bracket	1	Accessory part for TD-963CR Part for ticket dispensing model only	720-319
3	Ticket dispenser	1	TD-963CR Part for ticket dispensing model only	720-319
4	Speaker mount	1		720-397
5	Speaker	1	F00408H0	006-165
6	Cam lock (one-position key removal)	1	C201-1 (with tongue)	101-218
7	Redemption door	2		720-395
8	Key washer	1		720-383
9	Door hinge	1		720-398
10	Cover panel	1		720-396

10-4 Coin Entry Door Assy
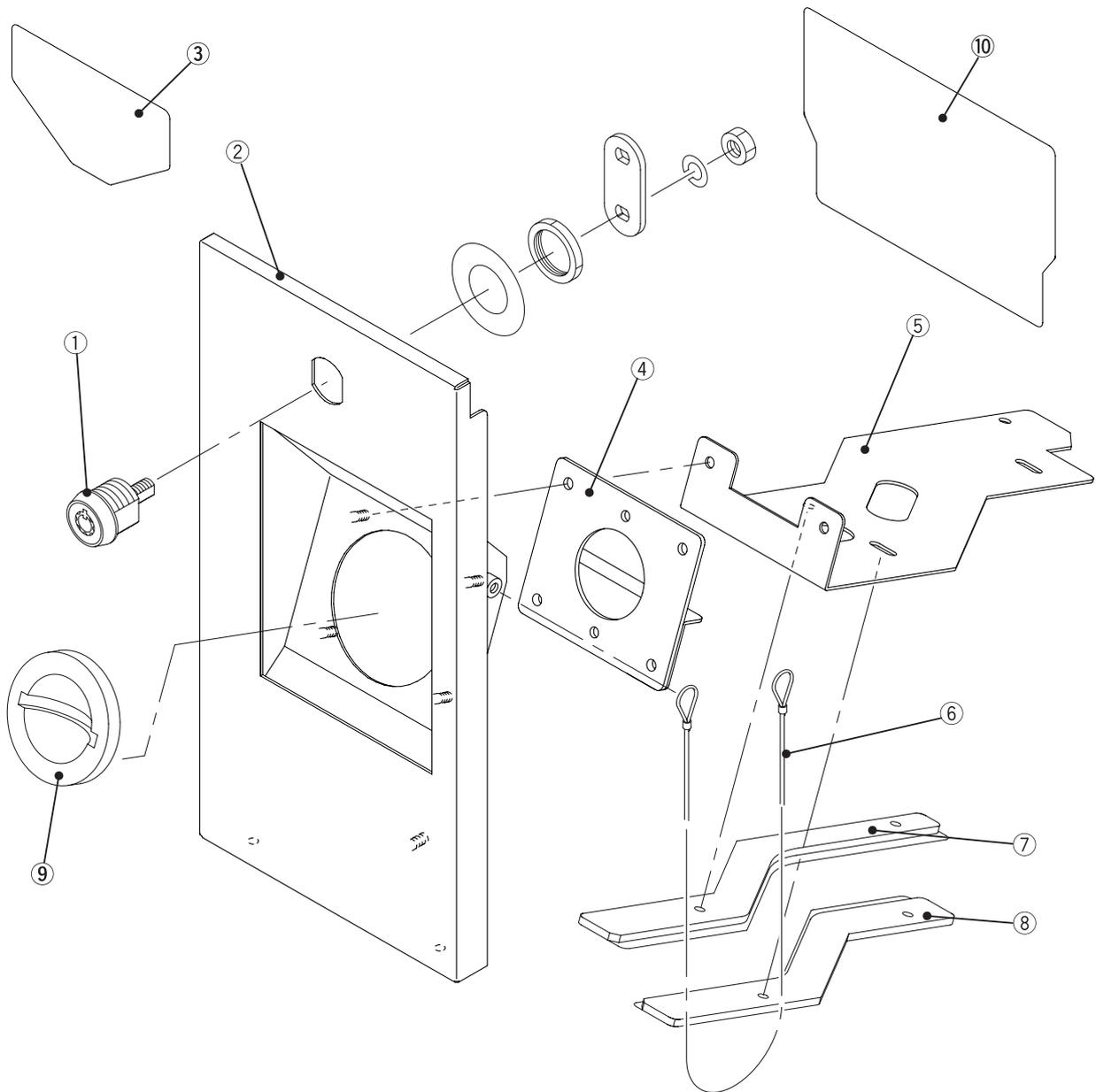
No.	Name	Qty	[Model and rating]	Parts No.
1	Cam lock (one-position key removal)	1	C201-1 (with tongue)	101-218
2	Coin entry door	1		720-400
3	Coin sticker (U)	1		720-406
4	Rail guide	1		720-405
5	Selector (U)	1		720-401
6	Door wire	1		720-404
7	Selector base rail	1		720-402
8	Selector slide rail	1		720-403
9	Coin entry	1	T0-800	100-092
10	Coin sticker (L)	1		720-407

10-5 Roulette Assy
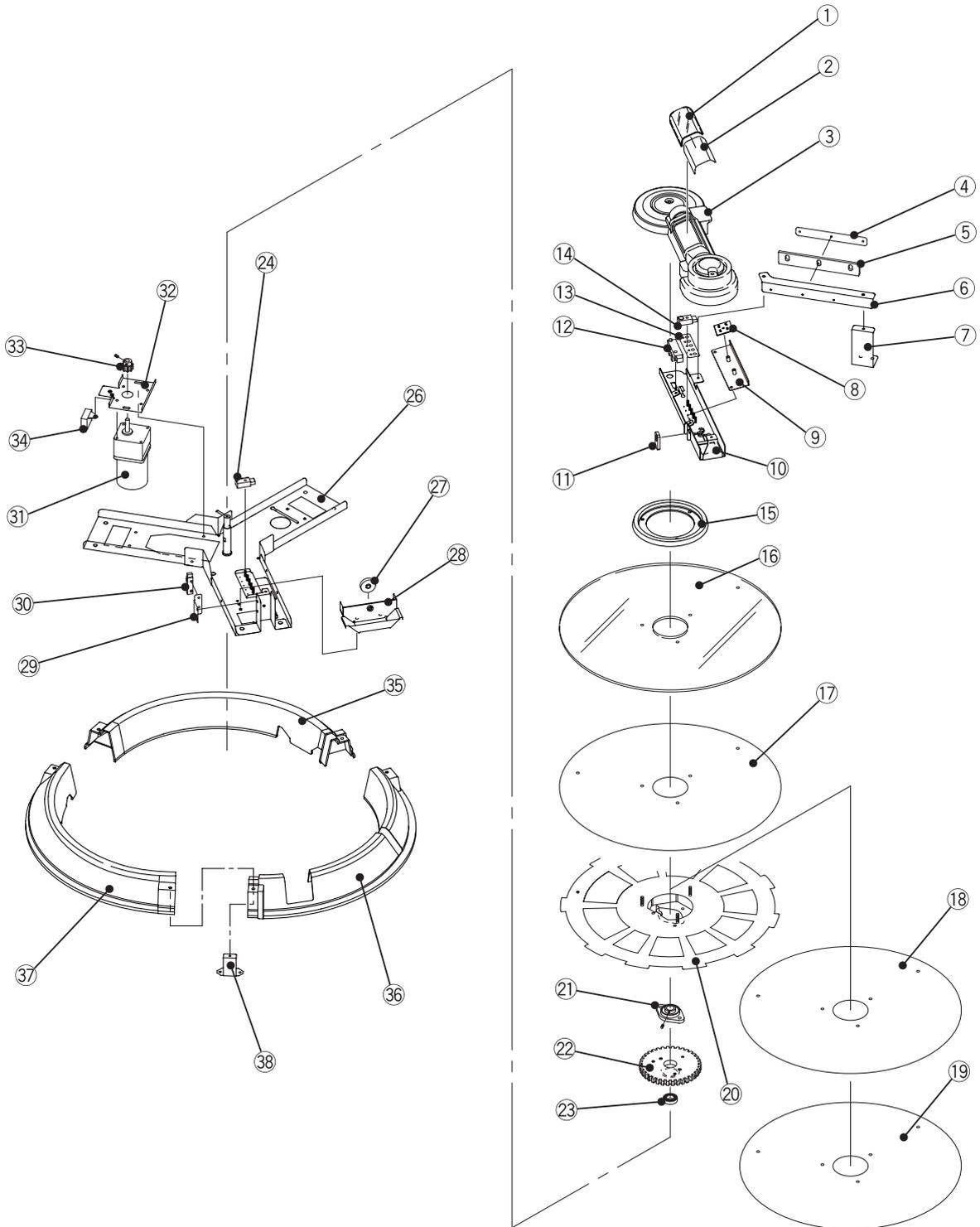
No.	Name	Qty	[Model and rating]	Parts No.
1	Win lamp cover	1		720-409
2	Win lamp sticker	1		720-441
3	Sensor cover	1		720-408
4	Squeegee bar plate	1		720-423
5	Squeegee bar	1		720-427
6	Squeegee bar bracket	1		720-425
7	Squeegee bracket	1		720-414
8	LED PC Board	2	12V LED	306-413
9	LED bracket	1		720-429
10	Sensor base	1		720-424
11	Sensor guard	1		720-428
12	Transmission-type photosensor	1	KI1300 (origin sensor)	000-534
13	Sensor plate	1		720-426
14	Separated-type photosensor	5	Combined with KB1281-AA12 (light-receiving unit) No. 24	000-690
15	Middle cover	1		720-415
16	Roulette panel	1		720-418
17	Roulette sheet (C)	1		720-430
18	Roulette sheet (M)	1	UK 10 pence, not for ticket dispensing model	720-313
19	Roulette sheet (T)	1	Part for ticket dispensing model only	720-321
20	Turntable	1		720-417
21	Rhomboid-shaped flange unit	1	UFL002	103-036
22	Spur gear A	1		720-744
23	Deep-grooved ball bearing	1	6902ZZ	103-109
24	Separated-type photosensor	5	Combined with KB1281-AA22 (light-emitting unit) No. 14	000-690
26	Main base	1		720-416
27	TOK bearing	3	DR-30-H6W1	103-191
28	Roller bracket	3		720-419
29	Area sensor bracket	1		720-421
30	Transmission-type photosensor	1	KI1248 (area sensor)	000-679
31	AC motor	1	IH6PF6N+6H30FBN	720-431
32	Motor bracket	1		720-420
33	Spur gear B	1		720-745
34	Capacitor	1	Accessory part for AC motor	---
35	Field cover (A)	1		720-410
36	Field cover (B)	1		720-411

10-5 Roulette Assy
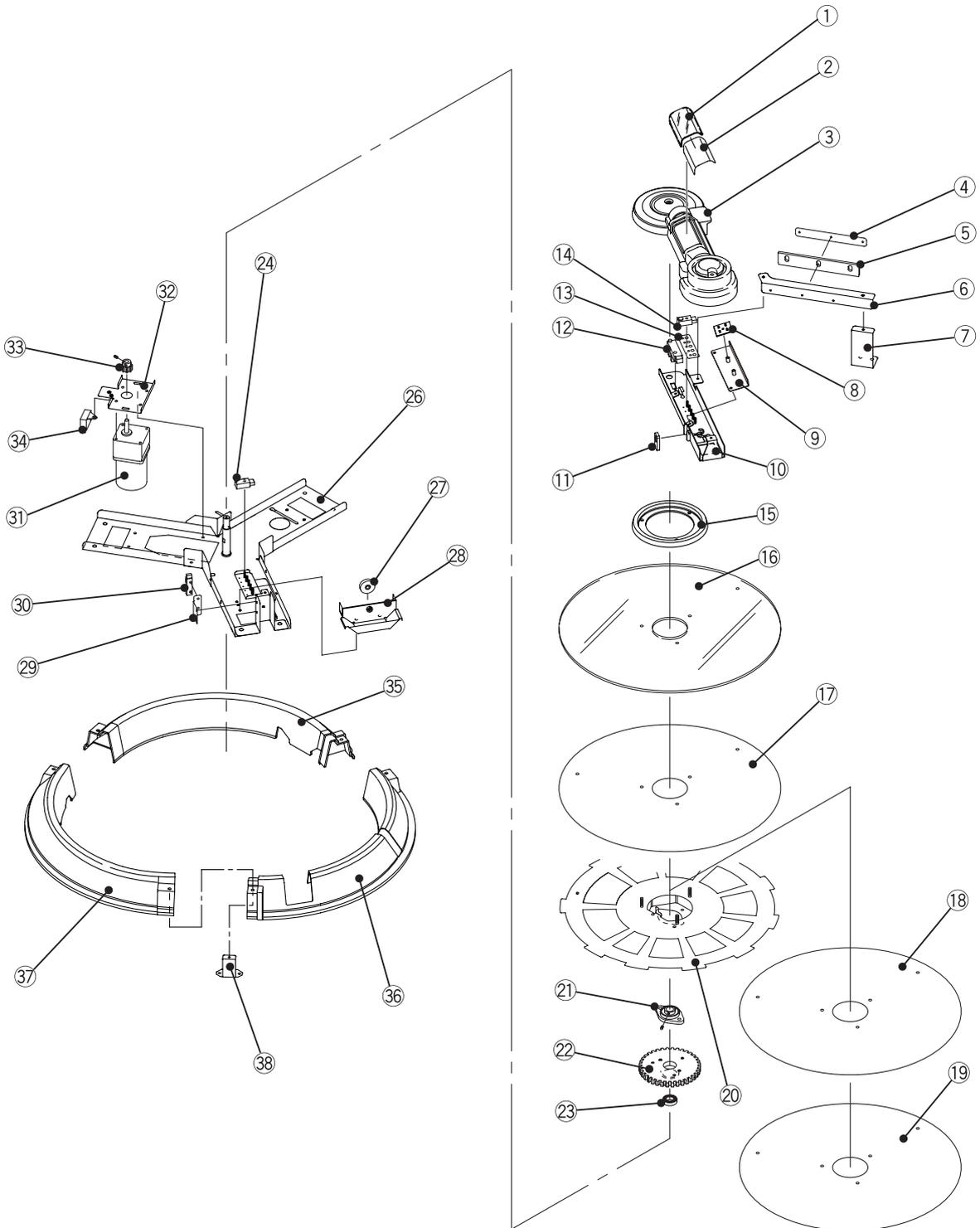
No.	Name	Qty	[Model and rating]	Parts No.
37	Field cover (C)	1		720-412
38	Field cover bracket	3		720-413

10-6 Control Panel Assy

Main PC Board
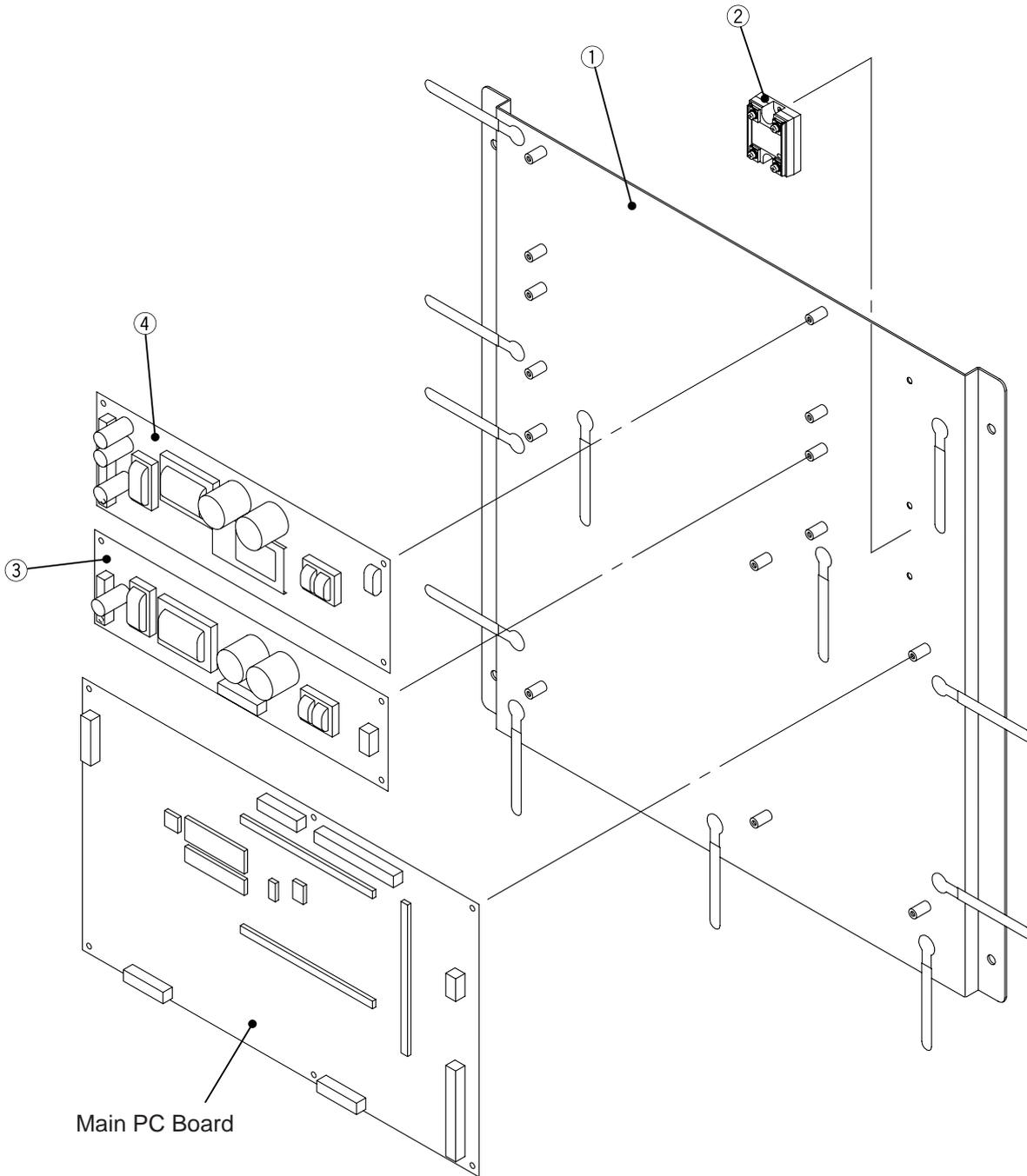
No.	Name	Qty	[Model and rating]	Parts No.
1	Control panel	1		720-432
2	SSR	1	KD20C15AX	
3	Switching regulator (24V)	1	LDA100W-24	009-199
4	Switching regulator (12V)	1	LDA150W-12	009-209

10-7 Other Assys

10-7-1 Lamp Assy
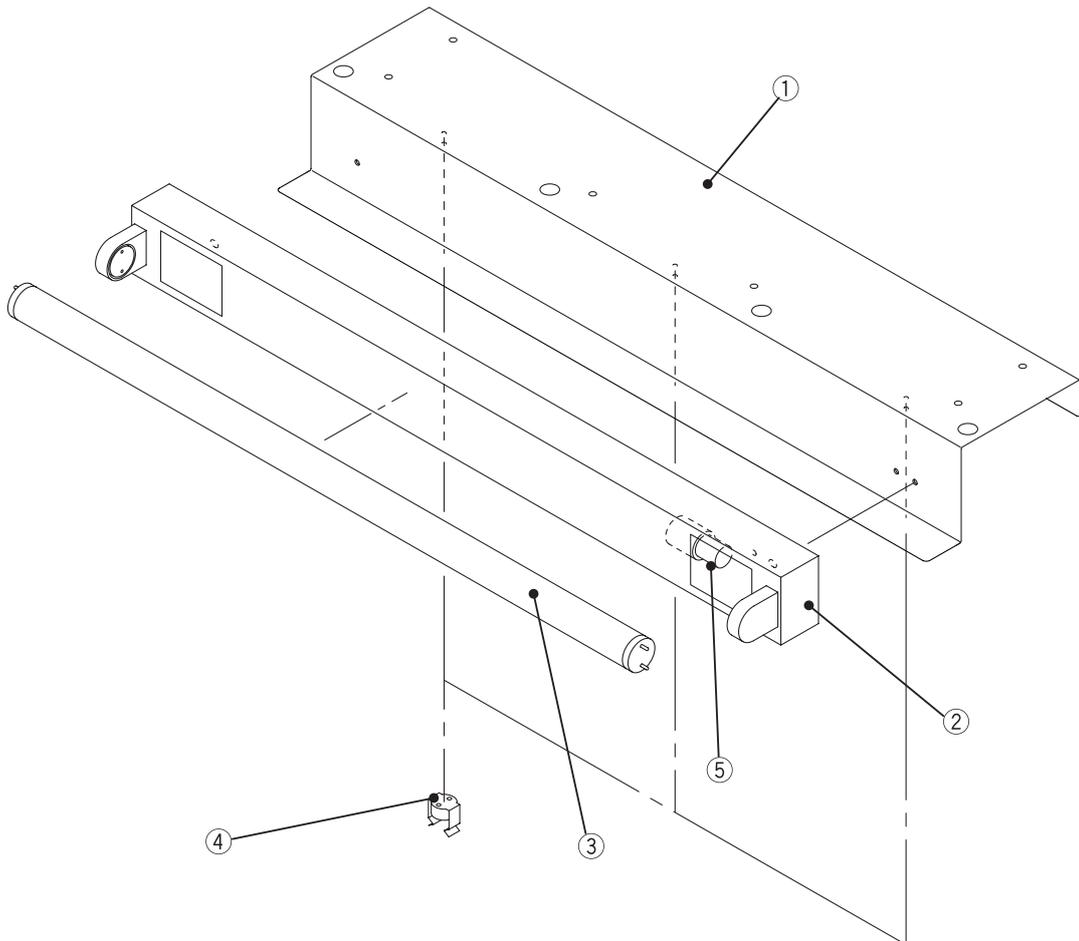
No.	Name	Qty	[Model and rating]	Parts No.
1	Lamp base	1		720-392
2	Fluorescent light fixture	1	LW-21223T1-A	002-501
3	Fluorescent lamp	1	FL20	002-045
4	Lamp socket	3	25. 105.3101	002-544
5	Glow lamp	1	FG-1E	002-089

10-7-2 Front Glass Assy
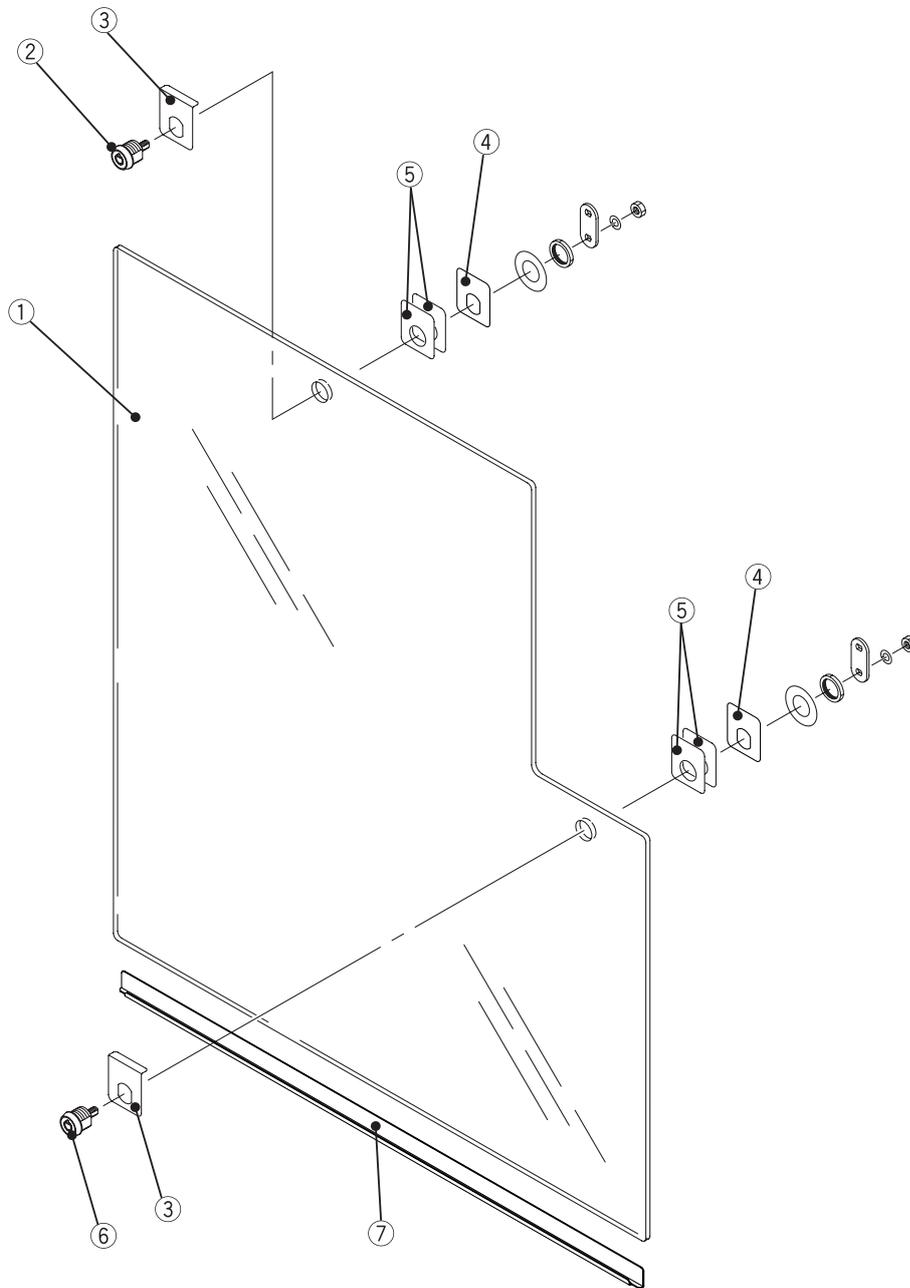
No.	Name	Qty	[Model and rating]	Parts No.
1	Front glass	1		720-376
2	Cam lock (one-position key removal)	1	C201-1 (with tongue)	101-218
3	Key plate (A)	2		720-377
4	Key plate (B)	2		720-378
5	Key plate (C)	4		720-379
6	Cam lock (two-position key removal)	1	C201-2 (with tongue)	101-219
7	Glass guard	1		720-380

10-7-3 Front Door Assy
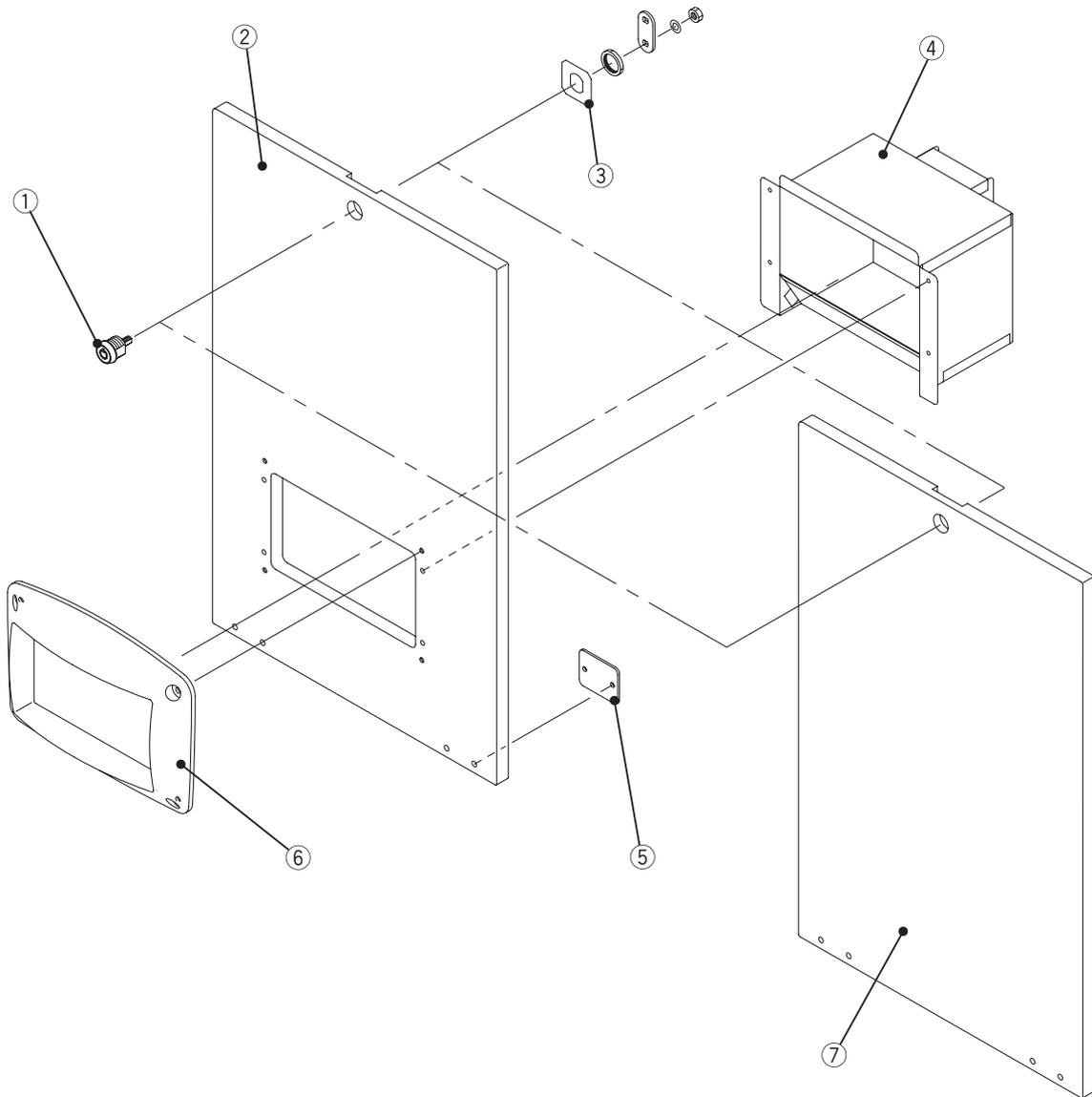
No.	Name	Qty	[Model and rating]	Parts No.
1	Cam lock (one-position key removal)	1	C201-1 (with tongue)	101-218
2	Front door (C)	1		720-381
3	Key washer	1		720-383
4	Dispensing outlet box	1		720-382
5	Hook	2		720-384
6	Frame (D)	1		695-701
7	Front door (T)	1	Part for ticket dispensing model only	720-317

10-7-4 Service Panel Assy

Service PC Board
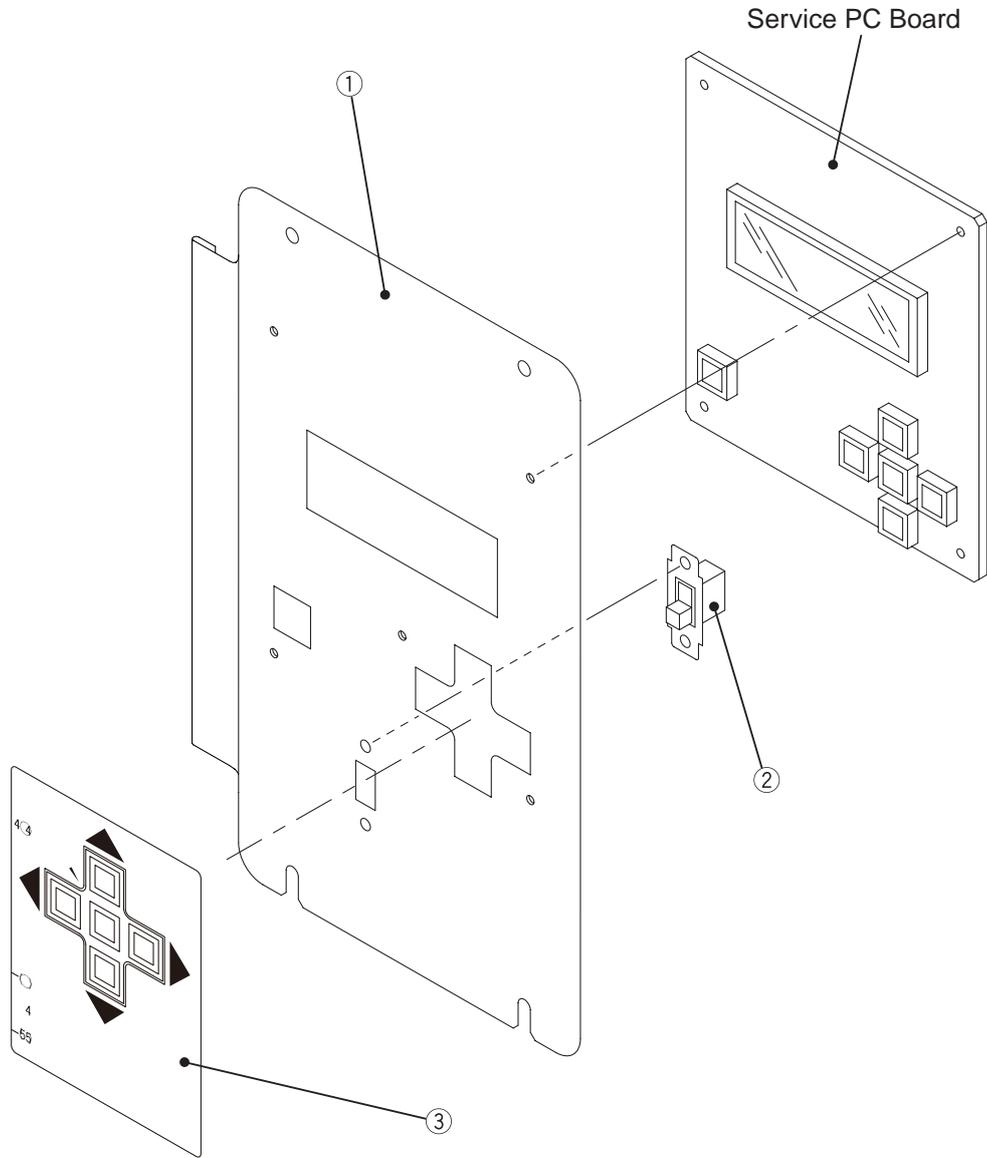
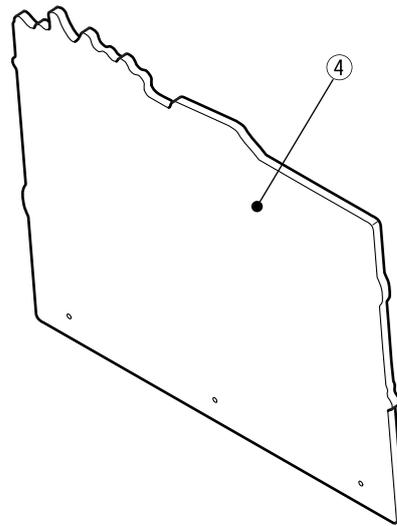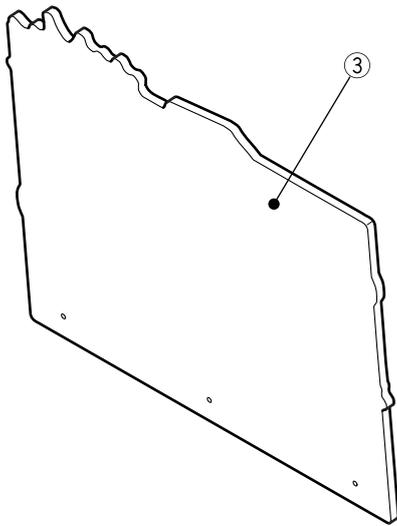| No.	Name	Qty	[Model and rating]	Parts No.
1	Service panel	1		720-388
2	Slide switch	1	PL 13-012P	000-718
3	Service sticker	1		720-389

10-7-5 Cord Box Assy
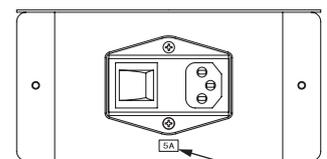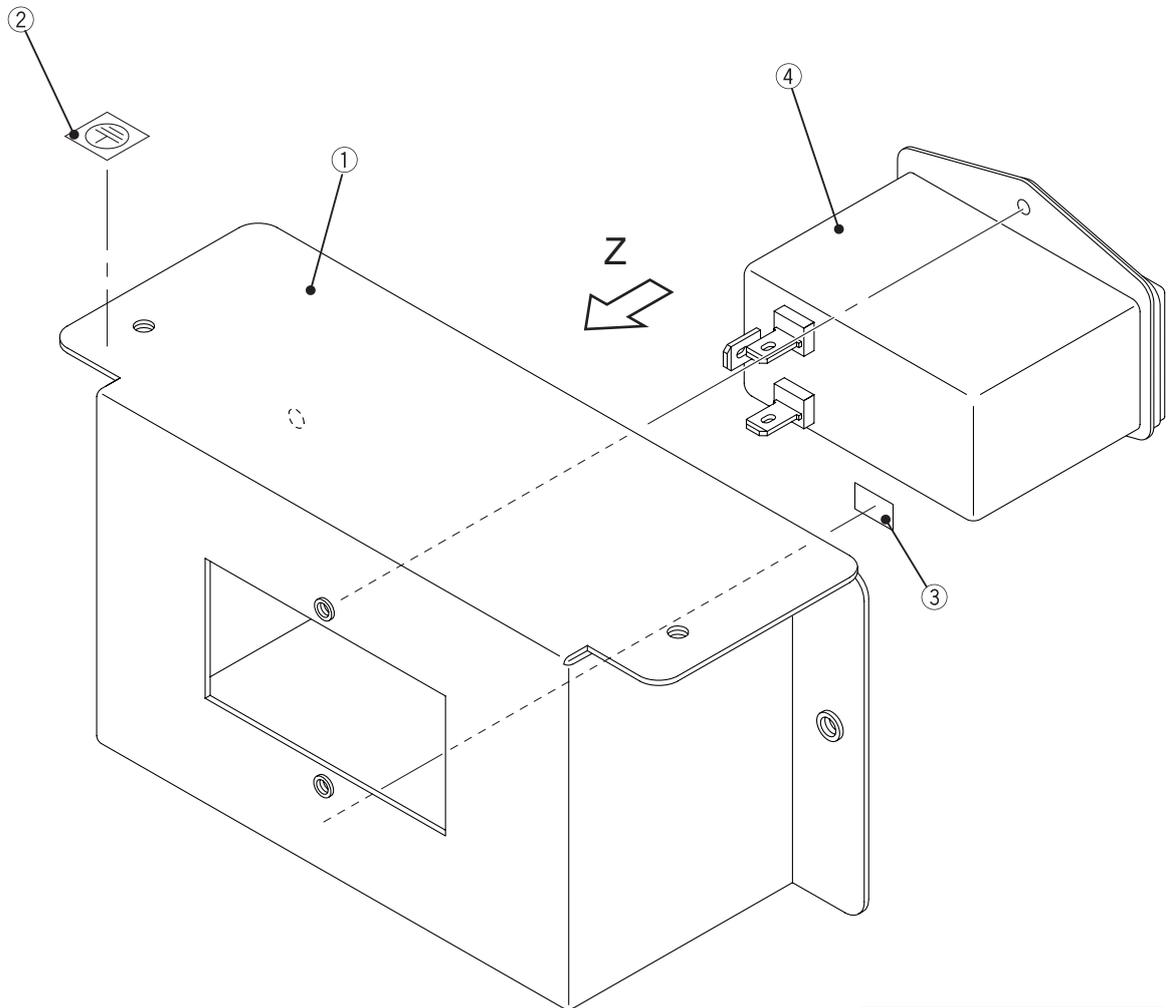
View from direction Z

No.	Name	Qty	[Model and rating]	Parts No.
1	Cord box	1		720-390
2	Earth sticker	1		720-391
3	5A seal	1		720-442
4	Noise filter	1	YQ10A1	007-729

10-7-6 Signboard Assy
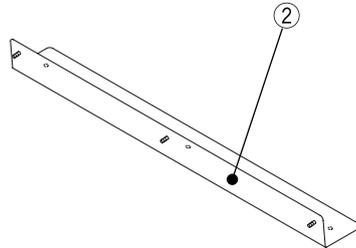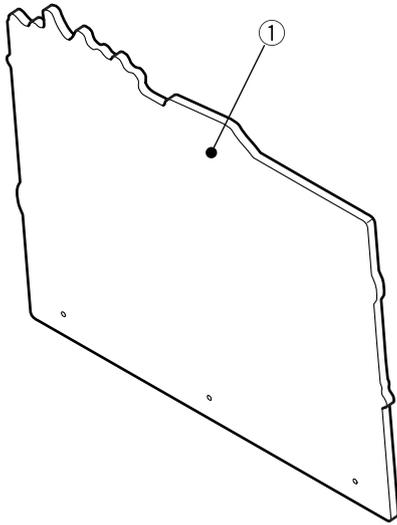
No.	Name	Qty	[Model and rating]	Parts No.
1	Title panel (C)	1		720-385
2	Signboard bracket	1		720-342
3	Title panel (M)	1	UK 10 pence, not for ticket dispensing model	720-312
4	Title panel (T)	1	Part for ticket dispensing model only	720-318

10-7-7 Other replacement parts
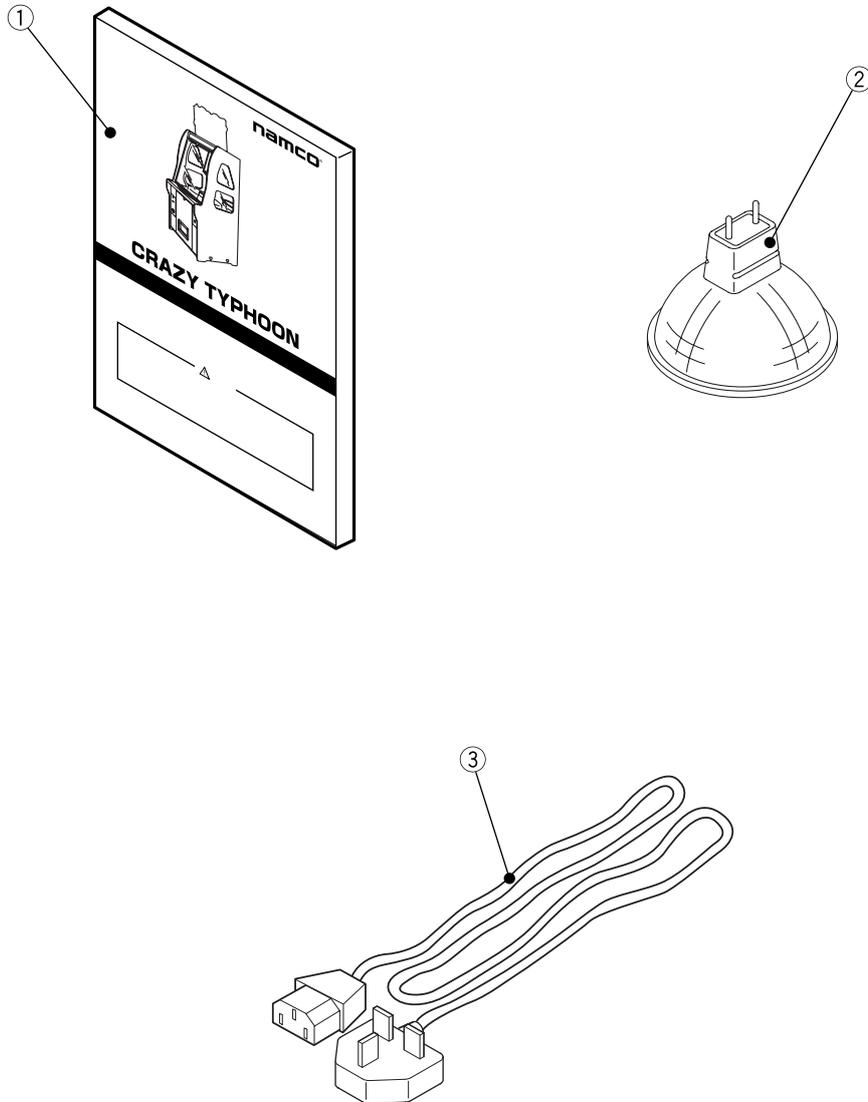
No.	Name	Qty	[Model and rating]	Parts No.
1	Operation Manual (this manual)	1		720-300
2	Halogen lamp	3	DC 12V 35W	000-720
3	Power cord	1	SY-029+SY-020 (3 m)	000-719

11. WIRING DIAGRAMS

MAIN PCB (2/2)
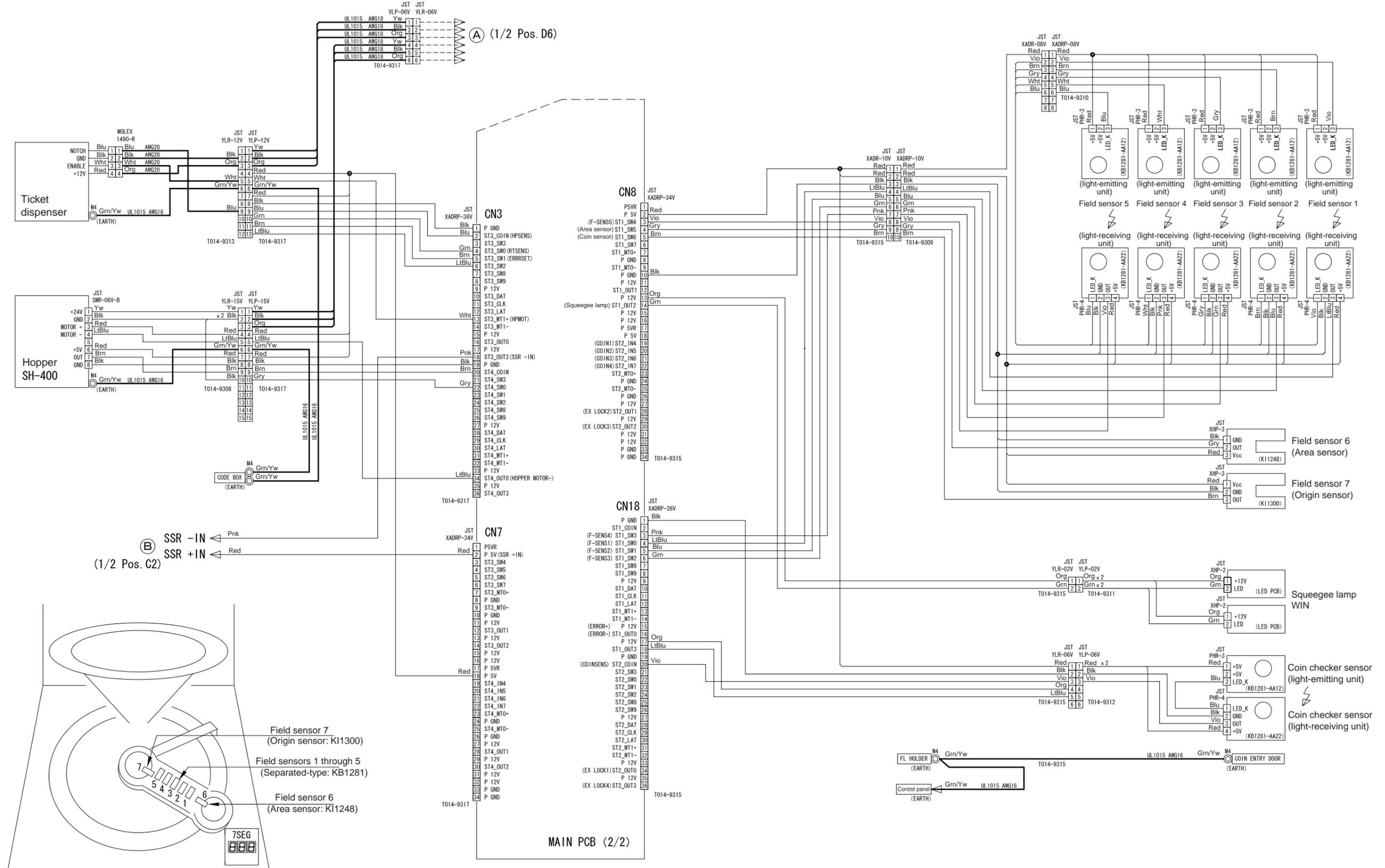
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