

PAC-MAN SWIRL (U.S. ver.)

Operation Manual

The actual product may differ slightly from the illustrations in this Operation Manual.



- To ensure safe operation of the 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.

1. Safety

1-1 Precaution

Instructions to the Owner

If you delegate the work for installing, moving, transporting, operating, servicing or disposing the machine to other people, ensure that these people read the relevant sections of this Operation Manual carefully before starting work and observe the corresponding precautions.

Levels of Risk

The safety and property damage precautions on the machine warning labels and in this Operation Manual are classified according to their risk level, as follows.

WARNING: Failure to avoid these risks may result in serious injury or death.

CAUTION: Failure to avoid these risks may result in light injury or damage to other property.

Notes about functionality that are not linked to safety are indicated by the following symbol.

NOTICE: Information about product functions or protection

Definition of "Technician"

This Operation Manual is designed for arcade personnel. However, the sections marked "Must be performed by a technician" in the Table of Contents are written for technicians. These tasks must be performed by technicians only. Technician: A person involved in the design, manufacture, inspection, maintenance or service at an amusement device manufacturer, or a person involved routinely in the maintenance or management (such as repair) of amusement devices and has specialist knowledge of electricity, electronics or mechanical engineering equivalent to or higher than a technical high school graduate.

Critical Safety Precautions

-<u>(î</u>WARNING

- Should an abnormality occur, turn off the power switch immediately to stop operations. Then, be sure to disconnect the power cord plug from the outlet. Operating the machine while the abnormality persists may result in fire or accident.
- Dust accumulating on the power cord plug may cause fire. Inspect the plug regularly and remove any dust.
- Fully insert the power cord plug into the outlet. Poor contact may generate heat and cause fire or burns.
- Damage to the power cord may result in fire, electric shock or electrical leakage. Be sure to observe the following.
 - · Keep the power cord away from heaters.
 - Do not twist the power cord.
 - Do not forcibly bend the power cord.
 - Do not alter the power cord.
 - Do not bundle the power cord.
 - Do not pull the power cord. (Always unplug by holding the plug and not the power cord.)
 - · Do not place objects on the power cord.
 - Do not allow the power cord to be caught between the machine and other devices or the wall.
 - · Do not do anything else that might damage the power cord.
- Do not expose the power cord and power cord plug to water. It may result in electric shock or electrical leakage.
- Do not touch the power cord plug with wet hands. It may result in electric shock.
- The power capacity of the machine is maximum current consumption 3A in case of AC120V specifications. To prevent fire and electric shock, use indoor wiring that conforms to these power supply spacifications.
- Use a power supply voltage range of AC 120 V ± 10% (in case of AC 120 V specifications). Using a
 voltage outside this range may result in fire or electric shock. However, to ensure that the machine
 operates in the optimum condition,keep the voltage at AC 120 V ± 10% in case of AC 120 V
 specifications as much as possible.
- Be sure to use the power cord that matches the AC voltage for the machine. Use of an inappropriate power cord may result in electric shock or fire.
- Use the consumables and service parts (including screws) that are specified by our company. Use
 of non-specified consumables and parts may result in unforeseen hazards. To order parts, contact
 your distributor.
- Do not modify the machine without permission. Do not perform any operations that are not described in this Operation Manual. Modifying the machine may create unforeseen hazards.
- If you decide to transfer the ownership of this machine, be sure to provide this Operation Manual with the machine.

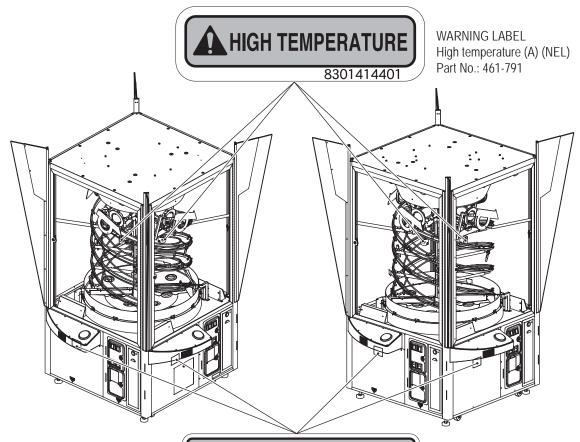
Test Mode

Troubleshooting

Machine Warning Labels

WARNING

- The warning labels contain important information for ensuring safety. Be sure to observe the following.
 - In order to ensure that the warning labels attached to the machine are always clearly visible, install the machine in an appropriate location with ample illumination and keep the labels clean at all times. Make sure that the labels are not hidden by other game machines or objects.
 - Do not remove or alter the warning labels.
 - If a warning label becomes excessively dirty or damaged, replace it with a new one. To order warning labels, contact your distributor.



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.

WARNING LABEL Service B (EXP) Part No.: 461-539

830141220

Precaution / Warning

1-2

OPERATION

Warning

Before operating the machine, read this Operation Manual. Failure to properly install and operate this machine could result in malfunction or accident. Operate the machine in accordance with the Operation Manual.

TRANSPORTATION

The cabinet is very heavy and contains fragile components. Use appropriate care when moving or transporting the cabinet. Avoid rough handling.

HANDLING COMPONENTS

Many components are extremely sensitive to handling, environmental and Electrostatic Discharge (ESD) events. Do not handle it roughly. Use proper ESD procedures when servicing. Protect components from harmful environmental conditions, such as extreme temperatures, excessive moisture or other damaging effects.

DISCONNECT POWER

Always turn off power and unplug the machine before servicing or making adjustments, unless otherwise instructed. Installing or repairing components while power is on can damage the components and void the warranty.

GROUNDING

Avoid electrical shock. Do not plug in AC power until you have inspected and properly grounded the machine. Only plug into a grounded, three-wire outlet. Do not use a "cheater" plug or cut off the ground pin on the line cord.

ELECTRICAL SHOCKS

Disconnect AC power before servicing. Verify that there is a working ground connection. If the machine sustains water damage, stop using it immediately and unplug AC power.

CONNECTORS

Ensure all connectors mate properly. If connectors do not slip in easily, do not force them. Connectors are often keyed and only connect one way. Check for correct orientation.

POWER CORD

If the power cord is damaged or lost, replace it with an identical cord as supplied by the manufacturer or an authorized service agent. To avoid fire or electric shock, be sure to use a power cord suitable for your local power specifications.

OPERATION MANUAL

Keep this Operation Manual available and ready for use. If the machine fails to function properly, turn off the machine and unplug the power cord. Contact your local distributor. Your warrantee, when applicable, lasts 60 days from your purchase date. You may not reproduce this document or any of its contents without written authorization from NAMCO BANDAI Games Inc.

SPECIFICATIONS

For reasons such as performance, this machine's specifications may change without notice. Federal patent, copyright and other intellectual property laws protect the content, devices and design of the machine and its equipment.

Test Mode

Troubleshooting

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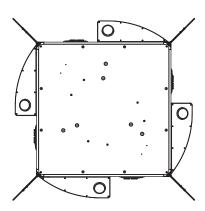
2. Product Specifications

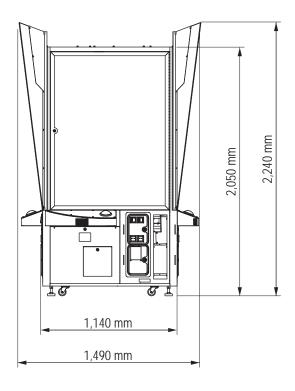
- (1) Rated power supply:
- (2) Rated power consumption:
- (3) Dimensions:

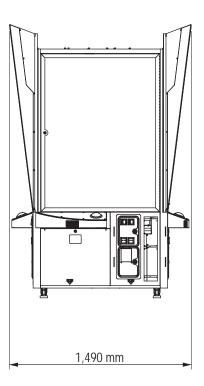
AC 120 V \pm 10% (60Hz)

280 W

Width (W) 1,490 x Depth (D) 1,490 x Height (H) 2,240 mm







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3. Setup - Must be performed by a technician -

3-1 **Verify Contents**

The following items are included when this machine is shipped.

Check all items packed with the product before use.

(1) Cabinet assembly: Width (W) 1,200 x Depth (D) 1,200 x Height (H) 2,050 mm

Weight 365 kg

(2), (3) Pillar assembly: Width (W) 410 x Depth (D) 1,630 x Height (H) 90 mm

Weight 16 kg

(4) Control panel assembly: Width (W) 390 x Depth (D) 730 x Height (H) 300 mm

Weight 16 kg

(5) Other items: Width (W) 480 x Depth (D) 500 x Height (H) 200 mm

Weight 12 kg



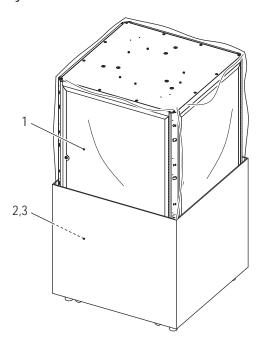
Make sure that all the items below are contained in the product package.

If any items are missing, contact your distributor.

3. Setup

- Must be performed by a technician -

(1) Cabinet assembly



Package contents

No	Name	Specification	Qty.
1	Cabinet assembly		1
2	Service key	Taped on the cabinet.	2
3	Cash box key	Taped on the cabinet.	2

(2), (3) Pillar assembly

Package contents

No	Name	Specification	Qty.
1	Pillar assembly		4 (2 per package)

(4) Control panel assembly

Package contents

No	Name	Specification	Qty.
1	Control panel assembly	yellow, blue, red, green	4 (one for each color)

(5) Other items

Package contents

No	Name	Specification	Qty.
1	BALL		30
2	Operation Manual (this manual)		1
3	Pocket sticker		2
6	AC POWER CORD (type B)	for 110 V AC	1
7	AC POWER CORD (type G)	for 230 V AC	1
8	CASHFLOW selector option wire harness		4
9	Cable tie		8
10	DOOR BAR A		4
11	DOOR BAR B		4
12	COIN RETURN SLOT BLANKING PLATE		4
13	Phillips pan head screw (w/washers)	M4 x 8	8
14	Phillips pan head screw (w/washers)	M4 x 16	8
15	Hexagon nut (w/flange)	M4	32
16	Torx wrench	T20, for M4	1

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10 Verify Contents

Troubleshooting

3-2 Installation Warnings

WARNING

- Install the machine according to the instructions in this Operation Manual. Failure to follow the instructions may result in a fire, electric shock, injury or malfunction. (See "3-5 Setup and Assembly" on page 18)
- Install the machine securely by using the level adjusters. Unstable machine installation may result in an accident or injury. (See "3-5 Setup and Assembly" on page 18)
- Two different types of power cords are supplied with the machine.
 Use the power cord with a plug that fits into your local AC outlet. Use of an inappropriate power cord may result in electric shock or fire.





- Fully insert the power cord plug into the outlet. Poor contact may generate heat and result in a fire or burns.
- Be sure to install the ground wire. Failure to install the ground wire may result in electric shock in the event of electrical leakage.

3-2-1 Unsuitable Installation Locations



- The machine is designed for indoor use. Do not install the machine outdoors. Also, never install the machine in the following locations.
 - · A location exposed to direct sunlight
 - A location exposed to rain or water leaks
 - A damp location
 - A dusty location
 - A location close to heaters
 - · A hot location
 - · An extremely cold location
 - A location exposed to condensation caused by temperature differences
 - · A location that obstructs an emergency exit or fire extinguishing equipment
 - An unstable location or a location exposed to vibration

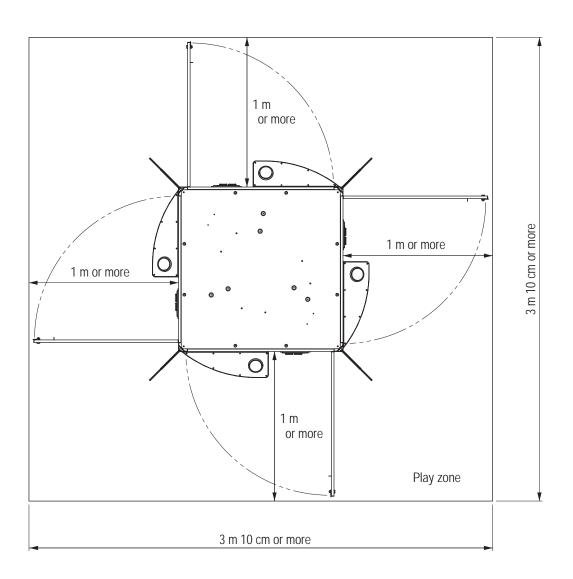
3-3 Play Zone for Installation



• Create a play zone around the machine so that players do not bump into bystanders or passersby.

NOTICE

- Leave a space of 1 m or more between the machine and the wall or other machines so that parts can be removed when performing service work.
- A ceiling height of 2 m 65 cm or more is required.



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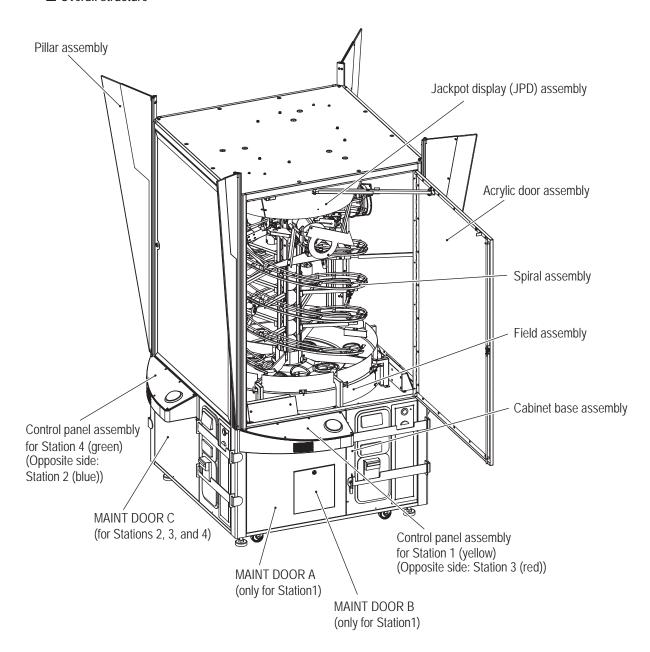
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Installation Warnings / Play Zone for Installation

3-4 Structure (Part Names)

Overall structure



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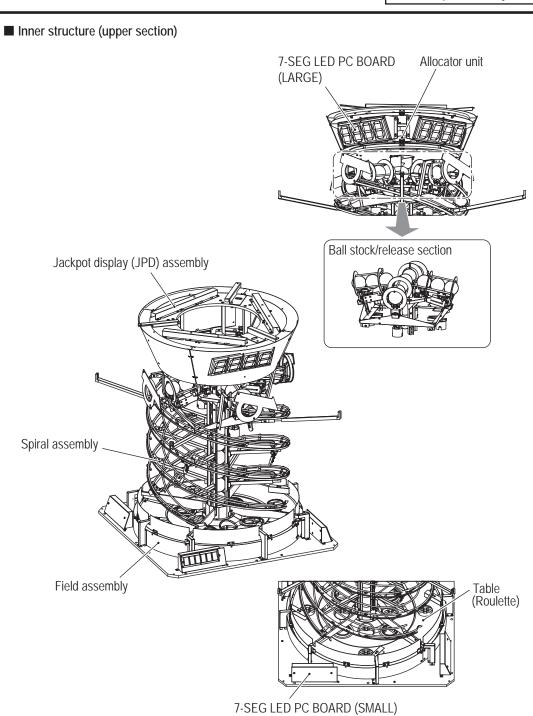
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Structure (Part Names)

Test Mode

Troubleshooting



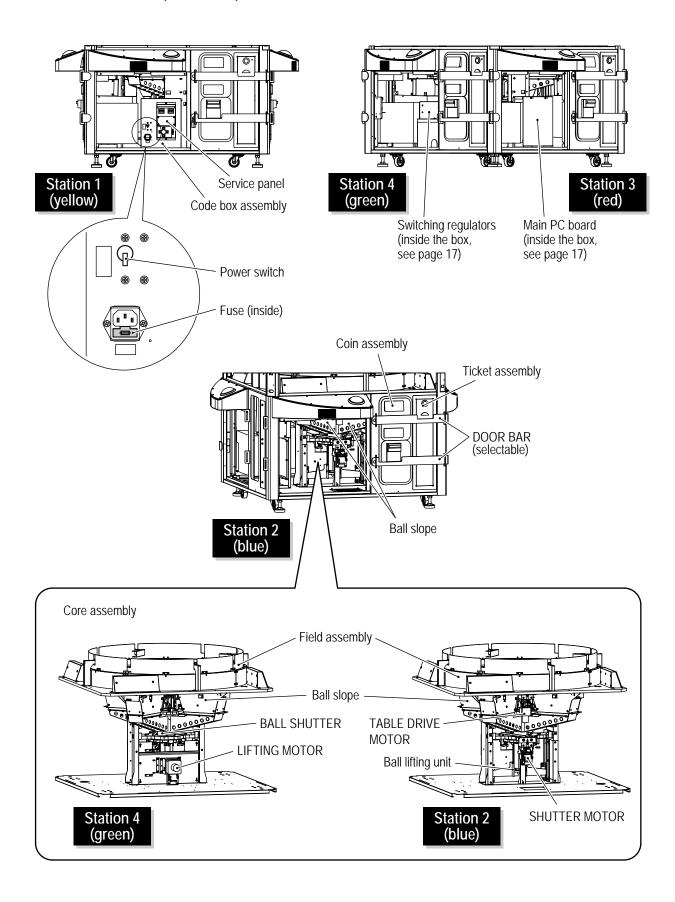


(inside the case)

3. Setup

- Must be performed by a technician -

■ Inner structure (lower section)



3. Setup

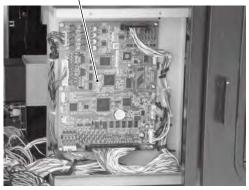
- Must be performed by a technician -

■ Circuit boards

SWITCHING REGULATOR (5 V) SWITCHING REGULATOR (24 V)

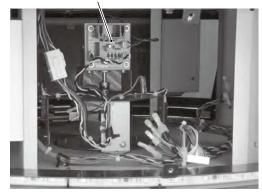
Inside Station 4 (green)

MAIN PC BOARD



Inside Station 3 (red)

ALLOCATOR MOTOR DRIVE PC BOARD



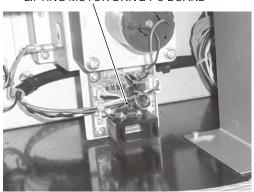
Inside the JP DISPLAY assembly for Station 3 (red)

SHUTTER MOTOR DRIVE PC BOARD



Inside Station 2 (blue)

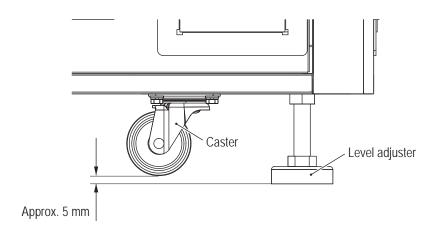
LIFTING MOTOR DRIVE PC BOARD



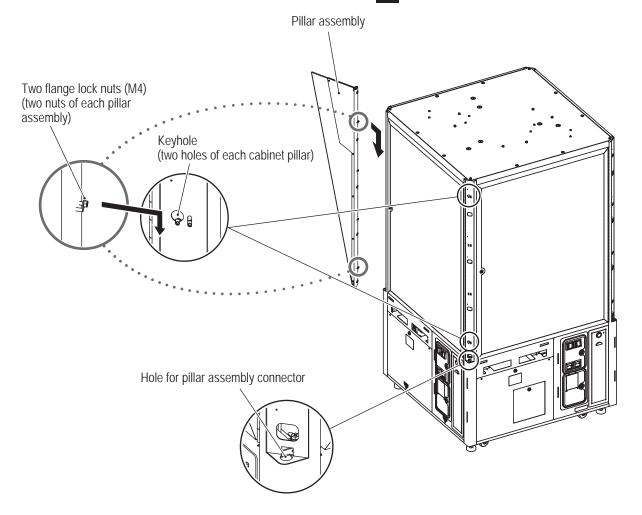
Inside Station 4 (green)

3-5 Setup and Assembly

Locate and secure the machine using the level adjusters.



- 2 Open the acrylic door using the key.
- Temporarily tighten the two flange lock nuts (M4) onto the stud bolts on the wider side of the pillar assembly.
- Pass the harness connector through the hole in the cabinet corner, and hook the two stud bolts using the flange lock nuts (M4) from Step 3 into the keyholes to hang the pillar assembly.



5 Secure the pillar assembly using the six flange lock nuts (M4) and the two nuts from Step 3.



- Open the MAINT DOOR A or MAINT DOOR C and the TICKET DOOR.
- Connect the pillar assembly harness connector to the cabinet assembly connector. (Repeat Steps 2 through 7 for the rest of the corners.)



Harness connector (4-pin)

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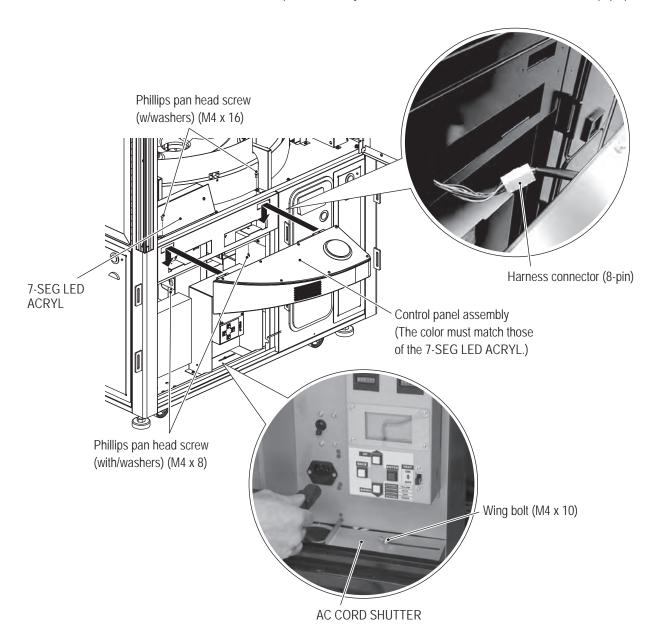
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Setup and Assembly

Test Mode

Troubleshooting

Secure the four control panel assemblies using the two Phillips pan head screws (w/washers) (M4 x 16) and the two Phillips pan head screws (w/washers) (M4 x 8) so that the color of the station and control panel assembly match, and then connect the harness connector (8-pin).



- 9 Open the MAINT DOOR A, pass the power cord through the slit on the bottom of the machine, and plug the power cord into the AC inlet. (Be sure to use the power cord with a plug that fits into the inlet.).
- Loosen the wing bolt (M4 x 10), slide the AC CORD SHUTTER to narrow the slit, and tighten the wing bolt.
- Put the machine in Ball Supply test mode and replenish with 26 balls (four spare balls will remain). (See "5-6-2 BALL SUPPLY" on page 43.)
- 12 Replenish the coupon tickets.
- 13 Exit test mode and close all open doors.

4-1 Warnings

WARNING

- Should an abnormality occur, turn off the power switch immediately to stop operations. Then, be sure to disconnect the power cord plug from the outlet. Operating the machine while the abnormality persists may result in a fire or accident.
- Dust accumulating on the power cord plug may result in a fire. Inspect the plug regularly and remove any dust.
- Fully insert the power cord plug into the outlet. Poor contact may generate heat and result in a fire
 or burns.
- Before operating the machine, be sure to check that installation has been performed according to the instructions and specified procedures (See "3-2 Installation Warnings" on page 12.) in this Operation Manual. Failure to install the machine correctly may result in a fire, electric shock, injury or malfunction.
- The warning labels attached to the machine contain important information for ensuring safety. Be sure to observe the following. (For the warning label locations, see "Machine Warning Labels" on page 4.)
 - In order to ensure that the warning labels attached to the machine are always clearly visible, install
 the machine in an appropriate location with ample illumination and keep the labels clean at all
 times. Make sure that the labels are not hidden by other machines or objects.
 - Do not remove or alter the warning labels.
 - If a warning label becomes excessively dirty or damaged, replace it with a new one. To order warning labels, contact your distributor.
- To ensure safe use of the machine, be sure to perform the pre-operation inspection (See "4-2 Daily inspection" on page 22.) and service (See "6-2 Service" on page 47.) in this Operation Manual. Omitting these inspections or service may result in an accident.

10

Setup and Assembly / Warnings

Troubleshooting

4-2 Daily inspection

4-2-1 Pre-operation Inspection

Check the items below before starting machine operations. If there is an abnormality, resolve it by referring to "7-2 Troubleshooting" on page 56.

4-2-2 Points for Safety Inspection (Before Power On)



- Before operating the machine, check the following items. This is required to prevent accidents or injury.
- (1) Are all warning labels in place? (See "Machine Warning Labels" on page 4.)
- (2) Are all warning labels legible? (See "Machine Warning Labels" on page 4.)
- (3) Are all level adjusters adjusted properly? (See "3-5 Setup and Assembly" on page 18.)
- (4) Is the specified play zone provided? (See "3-3 Play Zone for Installation" on page 13.)
- (5) Is the power cord laid out safely so that it will not cause players or other customers to trip over it?
- (6) Is the power cord securely connected to the outlet and the power supply input of the machine? (See "3-5 Setup and Assembly" on page 18.)
- (7) Is the power cord plug free from dust?

Inspect the following items after turning on the power switch. If you discover an abnormality, turn off the power switch immediately to stop operations. Then, disconnect the power cord plug from the outlet and contact your distributor.

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

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Daily inspe

- 4-2-3 Points for Function Inspection (After Power On)
 - (1) Check the lights. (Do the LED TAPE for the field, jackpot display, pillar, and spiral assemblies, LED LAMP for the spiral assembly, and the ILLUMINATED SWITCH for the control panel assembly light up?) (See "LED&LAMP TEST" in "5-5 Checking Machine Operation (I/O TEST)" on page 40.)
 - (2) Check the switch inputs. (See "SERVICE PANEL TEST" and "SW&SENSOR TEST" in "5-5 Checking Machine Operation (I/O TEST)" on page 41.)
 - (3) Check the field assembly function. (Does the ROULETTE rotate?)
 (See "DISC MOTOR FWD" and "DISC MOTOR RVS" in "5-5 Checking Machine Operation (I/O TEST)" on page 37.)
 - (4) Check if the balls are released by pressing the ILLUMINATED SWITCH? (See "5-6-1 SHOT TEST" on page 42.)
 - (5) Check the audio. (Is there sound coming from the speakers?)(See "5-7 Checking Machine Operation (SOUND TEST)" on page 44.)

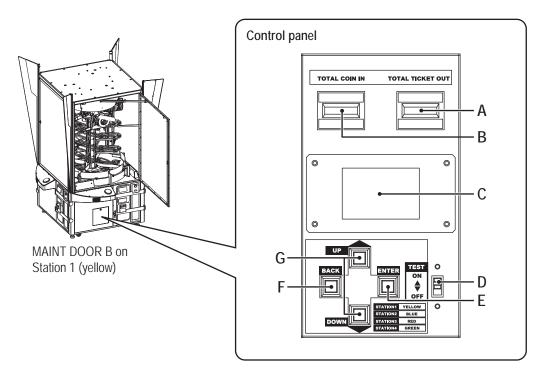
Test Mode

Troubleshooting

Test Mode

5-1 Service Panels

Machine tests and settings are performed in test mode using the control panel located inside the MAINT DOOR B on Station 1 (yellow), and counter check and service credit control are performed using the station panel located inside the COIN DOOR on each side of the cabinet base.



A TOTAL TICKET OUT counter

This counts the total number of tickets issued from all ticket dispensers.

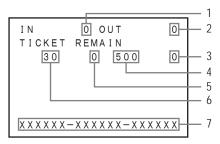
B TOTAL COIN IN counter

This counts the total number of coins inserted into all coin slots.

C VFD panel

In Test mode, a variety information such as game logs, error logs, machine settings and so on, is displayed on this panel. (See 5-2 through 5-5 for details.)

In normal mode, the following information is displayed.



	Description
1	The total number of coins inserted into the machine.*1
2	The total number of issued tickets (including Mercy tickets).*1
3	The number of remaining tickets for Station 4 (green).*2
4	The number of remaining tickets for Station 3 (red).*2
5	The number of remaining tickets for Station 2 (blue).*2
6	The number of remaining tickets for Station 1 (yellow).*2
7	Software version.

- *1 The data is not cleared even if the DATA CLEAR option is executed.
- *2 While tickets are issued, the number of remaining tickets for each station is displayed if they are remaining.

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Service Panels

D TEST switch

Set this switch to ON to enter Test mode. In Test mode, the game in progress is interrupted. Turning this switch ON and OFF also clears errors.

E ENTER button

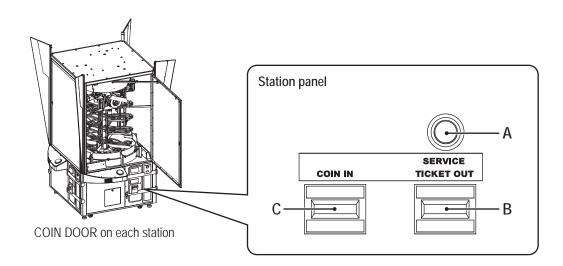
After selecting an item or setting (numerical value) using the UP/DOWN buttons, press this button to enter or execute the selection.

Press this button to return to the previous item or setting.

G UP/DOWN button

F BACK button

Press these buttons to select an item or setting (numerical value).



A SERVICE button

Press this button to increase the number of game credit without counting up the coin counter. Pressing and holding this switch also clears errors on each station.

B TICKET OUT counter

This counts the number of tickets issued from each station's ticket dispenser.

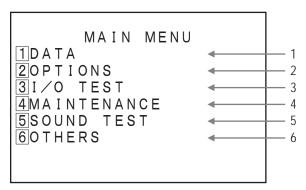
C COIN IN counter

This counts the number of coins inserted into each station's coin slot.

Troubleshooting

5-2 **Basic Operation (MAIN MENU)**

- Turn the TEST switch to ON.
- 2 Press the UP/DOWN button to select a menu item.
- 3 Press the ENTER button to enter or execute the menu item.
- 4 Press the BACK button to return to the MAIN MENU screen.
- If necessary, repeat step 2 through 4 to set/check the menu items or to check the data logs.
- After finishing all the settings or checking logs, turn the TEST switch to OFF to exit Test mode.



	Item	Description
1	DATA	Displays a variety of data logs and resets them. (See 5-3 for details.)
2	OPTIONS	Displays a variety of data logs and resets them. (See 5-3 for details.)
3	I/O TEST	Executes the I/O tests in a unit basis. (See 5-5 for details.)
4	MAINTENANCE	Executes the ball shooting functions and ball replenishing operation. (See 5-6 for details.)
5	SOUND TEST	Sets the game sound options and preview the sound. (See 5-7 for details.)
6	OTHERS	Initializes the backup memory and resets the game credit data. (See 5-8 for details.)

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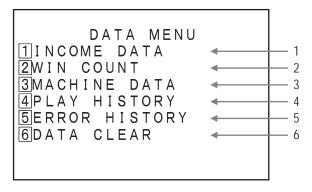
8

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5-3 Checking Logs (DATA MENU)

[Select MAIN MENU > DATA.]

This option displays a variety of data logs and resets them.



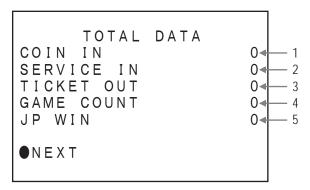
- 1 Press the UP/DOWN button to select a menu item.
- Press the ENTER button to enter or execute the menu item.
- 3 After all settings complete, press the BACK button to return to the MAIN MENU screen.

	Item	Description
1	INCOME DATA	Displays the total INCOME DATA of all stations or those for each station. (See 5-3-1 for details.)
2	WIN COUNT	Displays the total number of win of each pocket of all stations or those for each station. (See 5-3-2 for details.)
3	MACHINE DATA	Displays the number of operating times of each moving unit. (See 5-3-3 for details.)
4	PLAY HISTORY	Displays the play history of each station. (See 5-3-4 for details.)
5	ERROR HISTORY	Displays the error history. (See 5-3-5 for details.)
6	DATA CLEAR	Resets the logs. (See 5-3-6 for details.)

5-3-1 INCOME DATA

[Select MAIN MENU > DATA > INCOME DATA.]

This option displays the total INCOME DATA of all stations or those for each station.



This menu item consists of a page for the total number of INCOME DATA of all stations and those for each station.

To go to the next page, press the ENTER button.*

- 2 After checking logs, press the BACK button to return to the MAIN MENU screen.
- * Pressing the UP/DOWN button to select •NEXT and pressing the ENTER button is another way to go to the next page.

	Item	Description
1	COIN IN	Displays the total number of coins inserted into the machine.
2	SERVICE IN	Displays the total number of service credit.
3	TICKET OUT	Displays the total number of issued tickets (including the Mercy tickets).
4	GAME COUNT	Displays the total number of played games (excluding games that are interrupted by errors).
5	JP WIN	Displays the total number of the jackpot wins.

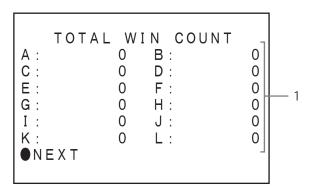
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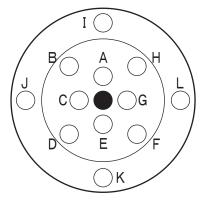
3

5-3-2 WIN COUNT

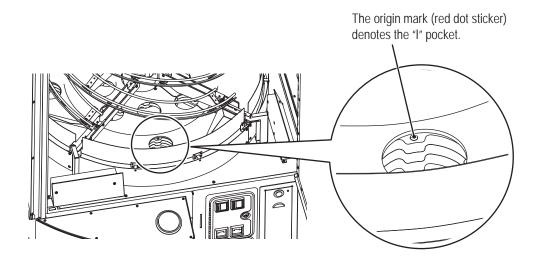
[Select MAIN MENU > DATA > WIN COUNT.]

This option displays the number of wins for each pocket (A to L) on the roulette.





Locations of pockets on the roulette



This menu item consists of a page for the total number of INCOME DATA of all stations and those for each station.

To go to the next page, press the ENTER button.*

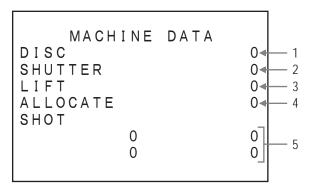
- 2 After checking logs, press the BACK button to return to the MAIN MENU screen.
- * Pressing the UP/DOWN button to select •NEXT and pressing the ENTER button is another way to go to the next page.

	Item	Description
1	A to L	Displays the number of wins for each pocket on the roulette. The values of 9,999,999 and higher are displayed as 9,999,999.

5-3-3 MACHINE DATA

[Select MAIN MENU > DATA > MACHINE DATA.]

This option displays the number of operating times of each moving unit.



1 After checking logs, press the BACK button to return to the MAIN MENU screen.

	Item	Description
1	DISC	Displays the number of operating times of the TABLE DRIVE MOTOR.*
2	SHUTTER	Displays the number of operating times of the SHUTTER MOTOR.*
3	LIFT	Displays the number of operating times of the LIFTING MOTOR.*
4	ALLOCATE	Displays the number of operating times of the ALLOCATOR MOTOR.*
5	SHOT	Displays the number of operating times of the SOLENOID for each station.* Upper left value shows the number of Station 1 (yellow), upper right: Station 2 (blue), lower left: Station 3 (red), and lower right: Station 4 (green).

^{*} The values of 9,999,999 and higher are displayed as 9,999,999.

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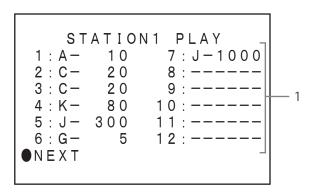
8

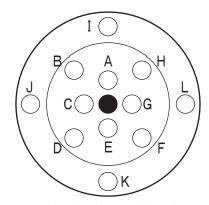
9

5-3-4 **PLAY HISTORY**

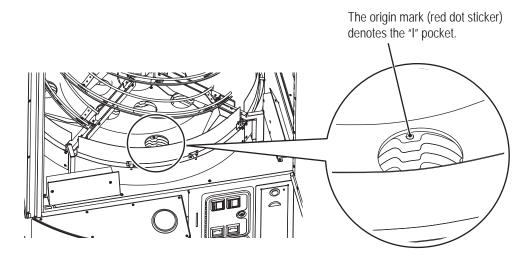
[Select MAIN MENU > DATA > PLAY HISTORY.]

This option displays the most recent twelve play histories.





Locations of pockets on the roulette



- This menu item consists of pages for each station.

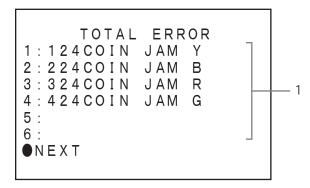
 To go to the next page, press the ENTER button.*
- 2 After checking logs, press the BACK button to return to the MAIN MENU screen.
- * Pressing the UP/DOWN button to select •NEXT and pressing the ENTER button is another way to go to the next page.

	Description
1	Displays the win pocket name (A to L) and its dividend.
	The most recent data is displayed at the top of the list.

5-3-5 **ERROR HISTORY**

[Select MAIN MENU > DATA > ERROR HISTORY.]

This option displays the most recent six error histories.



This menu item consists of pages for the errors of all stations, general errors, and the errors of each station.

To go to the next page, press the ENTER button.*

- 2 After checking logs, press the BACK button to return to the MAIN MENU screen.
- * Pressing the UP/DOWN button to select •NEXT and pressing the ENTER button is another way to go to the next page.

	Description
1	Displays the error code, error display, and station color.
	Ex.) 124 (error code) COIN JAM (error indication) Y (station color)
	The most recent data is displayed at the top of the list.
	If only five or less histories are displayed, "NO ERROR" is displayed at the bottom of the list.

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5-3-6 DATA CLEAR

[Select MAIN MENU > DATA > DATA CLEAR.]

This option resets all of the INCOME DATA, WIN COUNT, and ERROR HISTORY data.

DATA MENU

1 I NCOME DATA

2WIN COUNT

3MACHINE DATA

4PLAY HISTORY

5ERROR HISTORY

6DATA CLEAR

- Press the ENTER button.
 Y (Yes)/N (No) appears next to the menu item (DATA CLEAR).
- Press the UP/DOWN button to select Y (Yes) and press the ENTER button to reset the data. "CLEAR!" flashes for approx. two seconds and disappears.

To cancel resetting, select N (No). When N (No) is selected, Y (Yes)/N (No) disappears.

3 After resetting the data, press the BACK button to return to the MAIN MENU screen.

5-4 Setting the Machine (OPTION)

[Select MAIN MENU > OPTIONS.]

Sets a variety of game options.

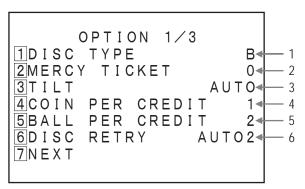
This option consists of three pages (OPTION 1/3 to 3/3).

To go to the next page, press the UP/DOWN button to select NEXT and press the ENTER button.

Press the UP/DOWN button to select a menu item and press the ENTER button to enter the menu item.

The current setting flashes.

- Press the UP/DOWN button to change the setting and press the ENTER button. While the setting is flashing, it can be changed.
 When the setting stops flashing, it is set.
- 3 If necessary, repeat steps 1 and 2 to set the menu items.
- 4 After all settings complete, press the BACK button to return to the MAIN MENU screen.



	Item	Description	Default setting
1	DISC TYPE	Sets the dividend for the roulette in use. The dividend varies depending on the DISC TYPE. A/B/C/Z	В
2	MERCY TICKET	Sets the number of tickets issued only by inserting coins. 0 to 20 (tickets)	0
3	TILT	Sets the functioning of the machine when it is tilted during a game. AUTO: The machine automatically recovers after the roulette rotates 360 degrees (approx. 20 seconds). MANUAL: The machine remains in an error status until the error is cleared manually. OFF: The tilt sensor is disabled.	AUTO
4	COIN PER CREDIT	Sets the number of coins required for one game credit. 0 (Free Play Mode)/1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16 (coins)	1
5	BALL PER CREDIT	Sets the number of balls available for one game credit. 1/2/3/4/5 (balls)	2

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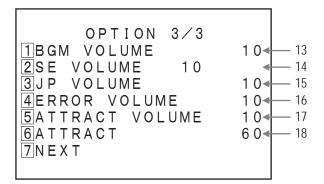
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	ltem	Description	Default setting
6	DISC RETRY	Sets the functioning of the machine when a disc error occurs. AUTO1: The machine automatically recovers after approx. 3 seconds. The jackpot win compensation* is disabled. AUTO2: The machine automatically recovers after approx. 3 seconds. The jackpot win compensation* is enabled. MANUAL: The machine remains in an error status until the error is cleared manually. * This counts the jackpot win as good if the ball jammed in the jackpot win pocket is retrieved and reinserted into the pocket during servicing (applied to all stations).	AUTO2

OPTION 2/3 1JP START 2JP MAX 3TICKET ADD JP 4GAME ADD JP 51/2TICKET OUT 6JP CONTROL 7NEXT	1 0 0 0 7 1 0 0 0 8 0 9 0 10 0 F F 11 0 . 6 8 12
--	---

	ltem	Description	Default setting
7	JP START	Sets the number of tickets that triggers jackpot accumulation. 100/150/200/250/300/350~/9950/9999 (tickets)	1000
8	JP MAX	Sets the maximum number of tickets that can be accumulated in the jackpot. 100/150/200/250/300/350~/9950/9999 (tickets)	1000
9	TICKET ADD JP	Sets the number of tickets added to the jackpot. 0/1/2/3/4/5/7/10/15/20/25/30/40/50/75/100 (tickets)	0
10	GAME ADD JP	Sets the number of the game credits added to the jackpot. 0 (no addition)/1/2/3/4/5/6/7/10/15/20/25/30/35/50/100 (credits)	0
11	1/2 TICKET OUT	Reduces the number of tickets to be issued to half.* OFF: Do not reduce. ON: Reduce. * When the number of tickets is odd, the reduced number is rounded up. Ex.) Five tickets reduced to three tickets.	OFF
12	JP CONTROL	Sets the jackpot win average and the upper limit based on the last 5000 games. OFF/0.02% to 5.0% (0.02% increments)	0.68

5. Test mode



	ltem	Description	Default setting
13	BGM VOLUME	Sets the BGM volume while playing games. 00 (min.) to 15 (max.)	10
14	SE VOLUME	Sets the volume of the sound effects other than the BGM sound. 00 (min.) to 15 (max.)	10
15	JP VOLUME	Sets the jackpot win sound volume. 00 (min.) to 15 (max.)	10
16	ERROR VOLUME	Sets the error sound volume. 00 (min.) to 15 (max.)	10
17	ATTRACT VOLUME	Sets the attraction sound volume. 00 (min.) to 15 (max.)	10
18	ATTRACT TIME	Sets the time until the attraction starts. 0/30/60/120/180 (seconds)/OFF (no attraction)	60

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5-5 Checking Machine Operation (I/O TEST)

[Select MAIN MENU > I/O TEST.]

This option executes the I/O tests in a unit basis.

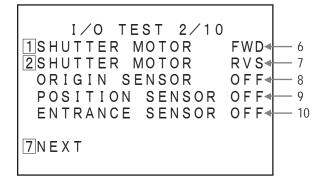
This option consists of ten pages (I/O TEST 1/10 to 10/10).

To go to the next page, press the UP/DOWN button to select NEXT and press the ENTER button.

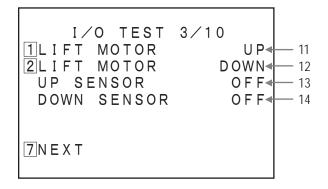
```
TEST
1DISC
       MOTOR
                      FWD-
2DISC
       MOTOR
                      RVS
 ORIGIN
          SENSOR
                      OFF
 POSITION
            SENSOR
                     O F F⊲
               ST2:-
               ST4:
   ST3
7 N E X T
```

- Press the UP/DOWN button to select a menu item, and then press and hold the ENTER button. While the ENTER button is pressed and held, the corresponding test is executed.
- 2 After all tests complete, press the BACK button to return to the MAIN MENU screen.

	Item	Description
1	DISC MOTOR FWD	Drives the DISC MOTOR to rotate the ROTARY TABLE clockwise.
2	DISC MOTOR RVS	Drives the DISC MOTOR to rotate the ROTARY TABLE counterclockwise.
3	ORIGIN SENSOR	Displays the status of the ORIGIN SENSOR that detects the proximity sensor target at the center of the roulette.
4	POSITION SENSOR	Displays the status of the ORIGIN SENSOR that detects the notch on the outer edge of the roulette.
pockets (normal) win and the outside pockets (jackpo		Displays the SLOPE SENSOR status. The left and right values for each station indicate the inside pockets (normal) win and the outside pockets (jackpot) win respectively. Also "-" and "o" denote OFF and ON respectively.

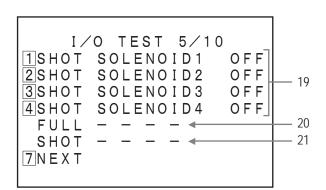


	Item	Description
6	SHUTTER MOTOR FWD	Drives the SHUTTER MOTOR to rotate the SHUTTER clockwise.
7	SHUTTER MOTOR RVS	Drives the SHUTTER MOTOR to rotate the SHUTTER counterclockwise.
8	ORIGIN SENSOR	Displays the SHUTTER ORIGIN SENSOR status.
9	POSITION SENSOR	Displays the SHUTTER POSITION SENSOR status.
10	ENTRANCE SENSOR	Displays the BALL DETECTING SENSOR status.



	Item	Description
11	LIFT MOTOR UP	Drives the LIFT MOTOR to raise the balls.
12	LIFT MOTOR DOWN	Drives the LIFT MOTOR to lower the balls.
13	UP SENSOR	Displays the UPPER LIFT SENSOR status.
14	DOWN SENSOR	Displays the LOWER LIFT SENSOR status.

	Item	Description
15	ALLOCATE MOTOR FWD	Drives the ALLOCATE MOTOR to rotate forward.
16	ALLOCATE MOTOR RVS	Drives the ALLOCATE MOTOR to rotate reverse.
17	ORIGIN SENSOR	Displays the ALLOCATE ORIGIN SENSOR status.
18	POSITION SENSOR	Displays the ALLOCATE POSITION SENSOR status.



	Item	Description
19	SHOT SOLENOID1 to 4	Activates the SOLENOID to release a ball.
20	FULL	Displays the status of the BALL FULL SENSOR for each station. "-" and "o" denote OFF and ON respectively.
21	SHOT	Displays the status of the BALL SHOT SENSOR for each station. "-" and "o" denote OFF and ON respectively.

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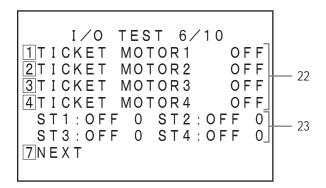
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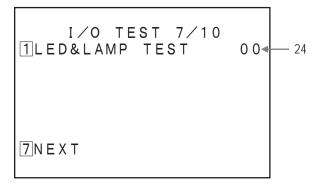
10

 $oxedsymbol{\square}$ Checking Machine Operation (I/O TEST)

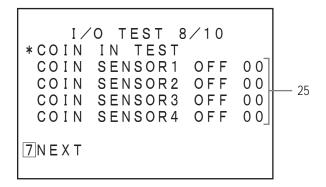
5. Test mode



	Item	Description
22	TICKET MOTOR1 to 4	While pressing the ENTER button, the motor is activated. The motor for the station is also activated while the PUSH START switch (ILLUMINATED SWITCH) for the corresponding station is being pressed.
23	ST1 to 4	Displays the number of times of detection made by the TICKET SENSOR for each station.



	Item	Description
24	LED&LAMP TEST	Executes LED and lamp tests.



	Item	Description
25	COIN IN TEST	Displays the number of times of coin detection made by the COIN
		SENSOR for each station.

```
I/O TEST 9/10
1 SERVICE PANEL TEST
            DOWN
UP
BACK
            ENTER
                            26
TEST
         0
7 N E X T
```

- Press the ENTER button to lock SERVICE PANEL TEST mode. Now the test of the TEST switch and the BACK button is available.
- 2 Operate the buttons and switch listed on the SERVICE PANEL TEST screen.
- After all tests complete, press simultaneously the ENTER button and the BACK button to unlock SERVICE PANEL TEST mode.
- 4 Press simultaneously the ENTER button and either of the UP/DOWN button to return to the I/O TEST screen.

	Item	Description
26	SERVICE PANEL TEST	Displays the status of the following controls displayed on the service panel: UP (button), DOWN (button), BACK (button), ENTER (button), and TEST (switch). "-" and "o" denote OFF and ON respectively.

```
I/O TEST 10/10
*SW&SENSOR
             TEST
 START
 SERVICE
                          27
 DOOR
 TILT
7NEXT
```

	Item	Description
27	SW&SENSOR TEST	Displays the status of the following controls/sensors for each station: START (button), SERVICE (button), DOOR (sensor), and TILT(sensor). The values (from right to left) are for Station 1 (yellow), Station 2 (blue), Station 3 (red), and Station 4 (green) respectively. "-" and "o" denote OFF and ON respectively.

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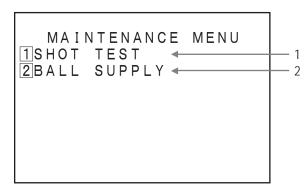
Checking Machine Operation (I/O TEST)

Troubleshooting

5-6 Replenishing Balls (MAINTENANCE MENU)

[Select MAIN MENU > MAINTENANCE.]

Executes the ball shooting functions and ball replenishing operation.

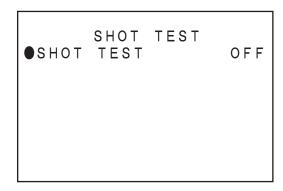


- Press the UP/DOWN button to select a menu item and press the ENTER button to enter the menu item.
- 2 Press the ENTER button to execute the menu item.
- After test and replenishing works complete, press the BACK button to return to the MAIN MENU screen.

	Item	Description
1	SHOT TEST	Executes the ball shooting test. (See 5-6-1 for details)
2	BALL SUPPLY	Executes the ball replenishing function. (See 5-6-2 for details)

5-6-1 **SHOT TEST**

[Select MAIN MENU > MAINTENANCE > SHOT TEST.]



- Press the UP/DOWN button to select SHOT TEST and press the ENTER button.

 When no balls remain in the REL (release) RAIL, the BALL LIFT functions to supply balls.
- 2 Check that the ILLUMINATED SWITCH lights up, and then press it to shoot balls.
- 3 After the test complete, press the BACK button to return to the MAINTENANCE screen.

[Select MAIN MENU > MAINTENANCE > BALL SUPPLY.]

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Press the UP/DOWN button to select BALL SUPPLY and press the ENTER button to rotate the roulette.

BALL SUPPLY

OFF

BALL SUPPLY

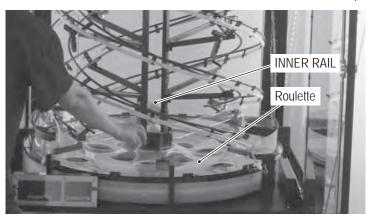
2 Put the ball into any pocket.

BALL SUPPLY

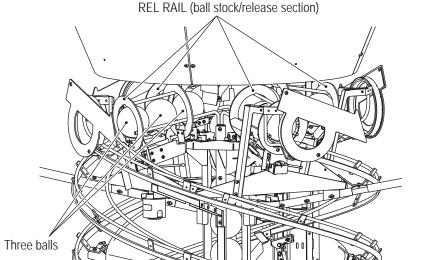
5-6-2



- Be sure to insert a ball after confirming that the previously inserted ball has been lifted up in the INNER RAILs located at the center of the machine.
- Be sure to insert the exact number of 26 balls. Otherwise, an error may occur.



When three balls are set in the ball stock/release section for all stations, the roulette stop rotating.

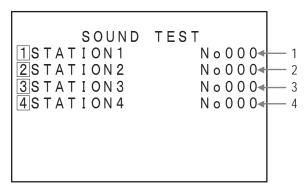


After replenishing work completes, press the BACK button to return to the MAINTENANCE screen.

5-7 Checking Machine Operation (SOUND TEST)

[Select MAIN MENU > SOUND TEST.]

This option sets the game sound options and preview the sound.



- Press the UP/DOWN button to select a station.
- Press the ENTER button to select a sound.

 Every time the ENTER button is pressed, the next sound is selected and the sound or sound effect is previewed.
- 3 If necessary, repeat steps 1 and 2 to set the sound.
- 4 After all settings complete, press the BACK button to return to the MAIN MENU screen.

	Item	Description	Default setting
1	STATION1	Sets the sound number. 0 to 46	No000
2	STATION2	Sets the sound number. 0 to 46	No000
3	STATION3	Sets the sound number. 0 to 46	No000
4	STATION4	Sets the sound number. 0 to 46	No000

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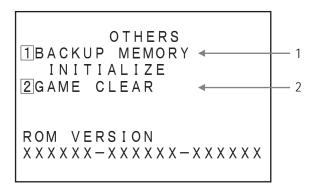
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5-8 Initializing the Machine (OTHERS)

[Select MAIN MENU > OTHERS.]

This option initializes the backup memory and resets the game credit data.



- Press the UP/DOWN button to select a menu item and press the ENTER button. Y (Yes)/N (No) appears next to the menu item.
- (Only for BACKUP MEMORY INITIALIZE) Press the UP/DOWN button to select a station and press the ENTER button.
- Press the UP/DOWN button to select Y (Yes) and press the ENTER button to initialize/reset the data.

"CLEAR!" flashes for approx. two seconds and disappears.

To cancel initializing/resetting, select N (No). When N (No) is selected, Y (Yes)/N (No) disappears.

4 After initializing/resetting completes, press the BACK button to return to the MAIN MENU screen.

	Item	Description
1	BACKUP MEMORY INITIALIZE	Clears INCOME DATA, hardware data, error logs, and other settings in the station basis and initial settings resumes.
2	GAME CLEAR	Clears the game credit logs.

6. Maintenance - Must be performed by a technician -

6-1 Periodic Inspection



Perform periodic service. Failure to perform service may result in an accident.

Check if there is no abnormality on the following item.

Item	Procedure			
Level adjuster	Check that the level adjusters are securely locked.			
	Check if the power cord plug is securely inserted into the power socket in the cord box.			
Power cord	Remove any dust or dirt on the plug.			
	Check if there is no crack or dirt on the insulation sheath of the power cord. If there is any abnormality on the cord, be sure to replace the cord.			
Screw	Check if any screw securing the following parts is not loosened. If any screw is loosen, tighten it securely. Pillar assembly Control panel assembly			

6-2 Service

6-2-1 BALL DETECTING SENSOR Cleaning

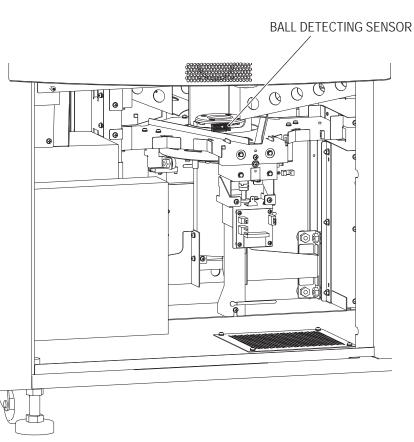
If an error (error code 011 or 012) frequently occurs, clean the BALL DETECTING SENSOR by following the procedures below.

WARNING

 To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.



- Do not use thinner, benzene, gasoline, alcohol or other organic solvents. This may degrade the materials.
- Turn the machine's power OFF.
- 2 Remove the MAINT DOOR C on Station 2 (blue).
- 3 Loosen four pan head screws with washers (M4 x 6) to remove the GUARD F.
- 4 Blow off the dust and dirt on the BALL DETECTING SENSOR using a blower or air duster.



Station 2 (blue)

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Periodic Inspection / Service

7. Troubleshooting - Must be performed by a technician -

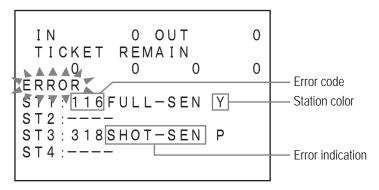
7-1 Error Display

7-1-1 Error Displays on the VFD Panel

When errors occur, error messages are displayed on the VFD panel inside the MAINT DOOR B on Station 1 (yellow). For details on the buttons and switches used to clear errors, see "5-1 Service Panels" on page 24.

When station errors occur

The error code flashes on the 7-SEG LED PC BOARD (SMALL) for the station where the error has occurred.



Ex.) Station 1 (yellow) is selected

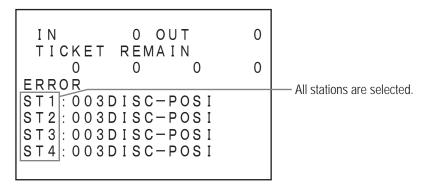
- When two or more errors occur in succession on the same station, the latest error is displayed.
- Due to the limit on the number of characters that can be displayed, the error indication may not be fully displayed.
- In cases of station errors, the errors can be cleared without interrupting games being played on other stations.
- Pressing the BACK button stops the error alarm.

Clearing the error

- Press the UP/DOWN buttons to select the station where the error occurred and press the ENTER button
- Pressing and holding the SERVICE button inside the COIN DOOR where the error occurred clear the error.

When general errors occur

The error code flashes on the 7-SEG LED PC BOARD (LARGE) on the Jackpot display assembly.



Clearing the error

· Turns the TEST switch inside the MAINT DOOR B ON and OFF.

PAC-MAN SWIRL

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Initialize Waiting

Ex.) During machine initialization

When starting the machine

7. Troubleshooting

- Must be performed by a technician -

- Check type and status

9

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Display

Test Mode

Troubleshooting

- Must be performed by a technician -

7-1-2 Error Display List



 Before checking for a malfunction, first make sure that all the connectors are connected securely.

Error code	Error indication	Error name	Cause	Solution	
001	DOOD ODEN	Decrease	A door is open.	Close the door to recover from the error.	
001	DOOR OPEN	Door open	DOOR SENSOR failure.	Replace the DOOR SENSOR. (See page 58.)	
002	TILT	Tilt error	The machine was shaken.	When an error occurs, the machine automatically recovers. An on/off setting for the auto recovery option is available on the TILT menu. (See page 34.)	
	003 DISC-POSI	C-POSI Disk stop error	The balls jammed.	When an error occurs, the machine retries operation and automatically recovers. An on/off setting for the retrial option is available on the DISC RETRY menu. (See page 35.)	
003				If the machine does not recover, remove the jammed balls.	
			The URETHANE ROLLER is slipping.	Tighten the screws on the ROLLER MOTOR BRACKET A and push the roller firmly against the disc. (See page 101.)	
			TABLE DIRVE MOTOR failure.	Replace the TABLE DIRVE MOTOR. (See page 67.)	
			The balls jammed.	When an error occurs, the machine retries operation and automatically recovers. An on/off setting for the retrial option is available on the DISC RETRY menu. (See page 35.)	
004	DISC-ORI	Disc origin detection error		Remove the jammed balls.	
			The URETHANE ROLLER is slipping.	Tighten the screws on the ROLLER MOTOR BRACKET A and push the roller firmly against the disc. (See page 101.)	
			TABLE DIRVE MOTOR failure.	Replace the TABLE DIRVE MOTOR. (See page 67.)	

9 10 Error Display

Test Mode

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7. Iroubleshooting	ļ
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- Must be	performed	by a technicia	n -
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Error code	Error indication	Error name	Cause	Solution
			The balls jammed in the ALLOCATOR ASSY.	Remove the balls.
005	ALLO-POSI	ALLOCATOR rotation	ALLOCATOR POSITION SENSOR failure.	Replace the ALLOCATOR POSITION SENSOR. (See page 72.)
003	ALLO-FOSI	error	ALLOCATOR MOTOR DRIVE PC BOARD failure.	Replace the ALLOCATOR MOTOR DRIVE PC BOARD. (See page 72.)
			ALLOCATOR MOTOR failure.	Replace the ALLOCATOR MOTOR. (See page 72.)
			The balls jammed in the ALLOCATOR ASSY.	Remove the balls.
00/	ALLO-ORI	ALLOCATOR origin detection error	ALLOCATOR ORIGIN SENSOR failure.	Replace the ALLOCATOR ORIGIN SENSOR. (See page 72.)
006			ALLOCATOR MOTOR DRIVE PC BOARD failure.	Replace the ALLOCATOR MOTOR DRIVE PC BOARD. (See page 72.)
			ALLOCATOR MOTOR failure.	Replace the ALLOCATOR MOTOR. (See page 72.)
			The balls jammed in the SHUTTER ASSY.	Remove the balls.
007			SHUTTER POSITION SENSOR failure.	Replace the SHUTTER POSITION SENSOR. (See page 66.)
007	SHUT-POSI	SHUTTER rotation error	SHUTTER MOTOR DRIVE PC BOARD failure.	Replace the SHUTTER MOTOR DRIVE PC BOARD. (See page 65.)
			SHUTTER MOTOR failure.	Replace the SHUTTER MOTOR. (See page 65.)
			The balls jammed in the SHUTTER ASSY.	Remove the balls.
008	SHUT-ORI	HUT-ORI SHUTTER origin detection error	SHUTTER POSITION SENSOR failure.	Replace the SHUTTER POSITION SENSOR. (See page 66.)
UUX			SHUTTER MOTOR DRIVE PC BOARD failure.	Replace the SHUTTER MOTOR DRIVE PC BOARD. (See page 65.)
			SHUTTER MOTOR failure.	Replace the SHUTTER MOTOR. (See page 65.)

- Must be performed by a technician -

Error code	Error indication	Error name	Cause	Solution	
		The jammed balls in the BALLLIFT ASSY prevent the lift from moving up.		Remove the balls.	
009	LIFT-UP	UPPER LIFT SENSOR	UPPER LIFT SENSOR failure.	Replace the UPPER LIFT SENSOR. (See page 64.)	
009	LIFT-UP	detection error	LIFTING MOTOR DRIVE PC BOARD failure.	Replace the LIFTING MOTOR DRIVE PC BOARD. (See page 62.)	
			LIFTING MOTOR failure.	Replace the LIFTING MOTOR. (See page 62.)	
			The foreign objects in the BALLLIFT ASSY prevent the lift from moving down.	Remove the foreign objects.	
010	LIFT DOWN	LOWER LIFT SENSOR	LOWER LIFT SENSOR failure.	Replace the LOWER LIFT SENSOR. (See page 64.)	
010	LIFT-DOWN	detection error	LIFTING MOTOR DRIVE PC BOARD failure.	Replace the LIFTING MOTOR DRIVE PC BOARD. (See page 62.)	
			LIFTING MOTOR failure.	Replace the LIFTING MOTOR. (See page 62.)	
	011 LIFT-ENT	No balls to be lifted error	No balls to be lifted.	Replenish balls.	
			The balls jammed in the ball slope.	Remove the balls.	
011			There are foreign objects on the BALL DETECTING SENSOR.	Remove the foreign objects.	
			BALL DETECTING SENSOR	Replace the BALL DETECTING	
012	LIFT MISS	Ball lift miss error	failure. There are foreign objects on the BALL DETECTING SENSOR.	SENSOR. (See page 61.) Remove the foreign objects.	
			BALL DETECTING SENSOR failure.	Replace the BALL DETECTING SENSOR. (See page 61.)	
013	SUB CPU- COM	SUB CPU communication error	MAIN PC BOARD failure.	Replace the MAIN PC BOARD. (See page 59.)	
014	DISPLAY-COM	ISPLAY-COM DISPLAY communication	7-SEG LED PC BOARD (large) failure.	Replace the 7-SEG LED PC BOARD (LARGE). (See page 71.)	
		error	MAIN PC BOARD failure.	Replace the MAIN PC BOARD. (See page 59.)	
015	BATTERY LOW	Low battery	The battery on the MAIN PC BOARD is low.	Replace the battery on the MAIN PC BOARD. (See page 59.)	

- Must be performed by a technician -

Error Display

Error code	Error indication	Err	or name	Cause	Solution	
116	FULL-SEN Y	Station 1 Yellow				
216	FULL-SEN B	Station 2 Blue	BALL FULL LOAD SENSOR	BALL FULL LOAD SENSOR	Replace the BALL FULL LOAD	
316	FULL-SEN R	Station 3 Red	unpassed error	failure.	SENSOR. (See page 77.)	
416	FULL-SEN G	Station 4 Green				
117	FULL JAM Y	Station 1 Yellow		The balls jammed.	Remove the balls.	
217	FULL JAM B	Station 2 Blue	BALL FULL LOAD	The balls jarillieu.	Nemove the balls.	
317	FULL JAM R	Station 3 Red	SENSOR jam error	BALL FULL LOAD SENSOR	Replace the BALL FULL LOAD	
417	FULL JAM G	Station 4 Green		failure.	SENSOR. (See page 77.)	
118	SHOT-SEN Y	Station 1 Yellow		The balls jammed.	Remove the balls.	
218	SHOT-SEN B	Station 2 Blue	BALL RELEASE SENSOR unpassed error	BALL RELEASE SENSOR failure.	Replace the BALL RELEASE SENSOR. (See page 76.)	
318	SHOT-SEN R	Station 3 Red		SOLENOID failure.	Replace the SOLENOID.	
418	SHOT-SEN G	Station 4 Green		SOLENOID failure.	(See page 74.)	
119	SHOT JAM Y	Station 1 Yellow			D	
219	SHOT JAM B	Station 2 Blue	BALL RELEASE	The balls jammed.	Remove the balls.	
319	SHOT JAM R	Station 3 Red	SENSOR jam error	BALL RELEASE SENSOR	Replace the BALL RELEASE	
419	SHOT JAM G	Station 4 Green		failure.	SENSOR. (See page 76.)	
120	B OVERPAY Y	Station 1 Yellow			Replace the BALL RELEASE SENSOR. (See page 76.)	
220	B OVERPAY B	Station 2 Blue	BALL RELEASE	BALL RELEASE SENSOR		
320	B OVERPAY R	Station 3 Red	SENSOR overpayment error	failure.		
420	B OVERPAY G	Station 4 Green				

Test Mode

Troubleshooting

- Must be performed by a technician -

Error code	Error indication	Err	or name	Cause	Solu	tion
121	T OVERPAY Y	Station 1 Yellow		The tickets were issued without payment. (Tickets may have been fraudulently removed.)	Check the number remaining in the TOISPENSER. (Se	TICKET
221	T OVERPAY B	Station 2 Blue	Ticket overpayment	TICKET DISPENSER failure.	Replace the TICK DISPENSER. (Se	
321	T OVERPAY R	Station 3 Red	error	MAIN PC BOARD failure.	Replace the MAIN	I PC BOARD.
421	T OVERPAY G	Station 4 Green		WAIN PC BOARD failure.	(See page 59.)	
122	T EMPTY Y	Station 1 Yellow	Ticket empty	There is no ticket left.	Replenish the dispenser's ticket roll.	The dot indicators on the 7-SEG
222	T EMPTY B	Station 2 Blue		The tickets jammed.	Reset the dispenser's ticket roll.	LED PC BOARD flash and
322	T EMPTY R	Station 3 Red		TICKET LEVEL SENSOR	Replace the TICKET LEVEL	the error log is recorded, however the game is not interrupted by the error. Slip the end
422	T EMPTY G	Station 4 Green		failure.	SENSOR.	
123	T TIMEOUT Y	Station 1 Yellow		The tickets jammed.	Reset the dispenser's	
223	T TIMEOUT B	Station 2 Blue	Ticket timeout	The tickets janimed.	ticket roll.	of a ticket roll through the
323	T TIMEOUT R	Station 3 Red	error	TICKET LEVEL SENSOR	Replace the TICKET LEVEL	dispenser. The machine
423	T TIMEOUT G	Station 4 Green		failure.	SENSOR.	automatically recovers.
124	COIN JAM Y	Station 1 Yellow		The coins jammed in the COIN SELECTOR.		3 .
224	COIN JAM B	Station 2 Blue	COIN			
324	COIN JAM R	OIN JAM R Station 3 Fed SELECTOR jam error	COIN SELECTOR failure	Replace the COIN SELECTOR.		
424	COIN JAM G	Station 4 Green				

Test Mode

Troubleshooting

- Must be performed by a technician -

7. Troubleshooting

Error code	Error indication	Error name		Cause	Solution		
125	SLO-IN Y	Station 1 Yellow		The balls jammed on the	Remove the balls.		
225	SLO-IN B	Station 2 Blue	The SLOPE SENSOR jam	inner ball slope.			
325	SLO-IN R	Station 3 Red	error	SLOPE SENSOR failure.	Replace the SLOI	PE SENSOR.	
425	SLO-IN G	Station 4 Green		SLOPE SENSOR Idilule.	ENSOR failure. (See page 69.)		
126	SLO-OUT Y	Station 1 Yellow		The balls jammed on the	Remove the balls.		
226	SLO-OUT B	Station 2 Blue	The JACKPOT SLOPE	outer ball slope .			
326	SLO-OUT R	Station 3 Red	SENSOR jam error	JACKPOT SLOPE SENSOR	Replace the JACKPOT SLOPE		
426	SLO-OUT G	Station 4 Green		failure.	SENSOR. (See p	page 69.)	
127	B TIMEOUT Y	Station 1 Yellow		The balls jammed on the rail or in the field.	Remove the balls.	The game ends with	
227	B TIMEOUT B	Station 2 Blue	Ball time out	SLOPE SENSOR failure.	Replace the SLOPE SENSOR. (See page 69.)	a score of zero and the next game is readied. The	
327	B TIMEOUT P	Station 3 Red			JACKPOT by the error.	not interrupted	
427	B TIMEOUT G	Station 4 Green		JACKPOT SLOPE SENSOR failure.		However, the error log is	

7-2 Troubleshooting

WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.
- If the problem is not described in "7-2 Troubleshooting" or the problem persists despite taking the appropriate action, turn off the power switch immediately to stop operation, and contact your distributor. Continuing operations may result in an accident.



- Before checking for a malfunction, first make sure that all the connectors are securely connected.
- Never perform a conductivity check of the boards using a tester or any other tool.
 The IC may be damaged by the internal voltage of the tester.
- When sending parts for repair, be sure to pack them properly. In particular, when sending the MAIN PC BOARD, wrap the part in sponge or air bubble wrapping before packing it in a cardboard box to make sure that the part is not exposed to external forces.

7-2-1 General

Symptom	Main cause	Solution	Reference page
The machine does not start	The power cord is disconnected from the outlet or the machine, or it is not connected securely.	 Connect the power cord correctly and securely. Turn the machine's power on again. 	-
even when the power switch is turned ON.	The MAIN PC BOARD is not attached correctly.	Attach the MAIN PC BOARD correctly.	59
	MAIN PC BOARD failure.	Replace the MAIN PC BOARD.	59
	SWITCHING REGULATOR failure.	Replace the SWITCHING REGULATOR.	60
The power turns off during operation.	The circuit protector has been tripped and has turned off the power switch.	* The circuit protector turns off the current when an abnormal current occurs.	_
The fuse is blown.	The fuse within the cord box is blown.	Replace the fuse.	16, 81
THE IUSE IS DIOWIT.	The fuse in the plug of the AC POWER CORD (type G) is blown.	Neplace life luse.	10, 01

7-2-2 Cabinet Assembly

Symptom	Main cause	Solution	Reference page
The balls jam frequently.	The parts are not attached correctly.	Attach the parts correctly.	_
	The balls are dirty.	Clean the balls.	_
	The balls are deformed.	Replace the balls with spare ones.	_
	There are foreign objects on the ball pathways.	Remove the foreign objects.	_
The LED TAPE does not light.	LED TAPE failure.	Replace the LED TAPE.	_
	MAIN PC BOARD failure.	Replace the MAIN PC BOARD.	59
The LED LAMP does not light.	LED LAMP failure.	Replace the LED LAMP.	_
	MAIN PC BOARD failure.	Replace the MAIN PC BOARD.	59
The game does not start even when sufficient coins are inserted.	COIN SELECTOR failure.	Replace the COIN SELECTOR.	_
	MAIN PC BOARD failure.	Replace the MAIN PC BOARD.	59

7-2-3 Pillar Assembly

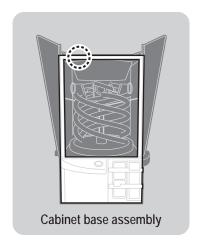
Symptom	Main cause	Solution	Reference page
LED TAPE does not light.	LED TAPE failure.	Replace the LED TAPE.	_
	MAIN PC BOARD failure.	Replace the MAIN PC BOARD.	59

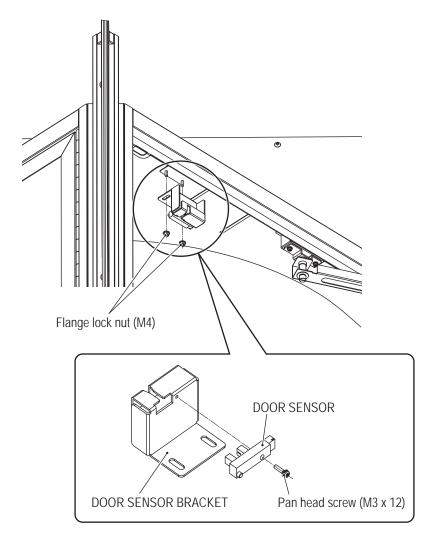
7-2-4 Control Panel Assembly

Symptom	Main cause	Solution	Reference page
ILLUMINATED SWITCH does not light.	ILLUMINATED SWITCH failure.	Replace the ILLUMINATED SWITCH.	78
	MAIN PC BOARD failure.	Replace the MAIN PC BOARD.	59
No sound effects are heard.	The sound volume is lowered.	Adjust the sound volume.	36
	MAIN PC BOARD failure.	Replace the MAIN PC BOARD.	59

7-3 Disassembling/Replacement Procedure

7-3-1 DOOR SENSOR





- 1 Open the acrylic door.
- Disconnect the harness connector and unscrew the two flange lock nuts (M4) to remove the DOOR SENSOR BRACKET.
- 3 Unscrew the pan head screw (M3 x 12) to replace the DOOR SENSOR.

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Test Mode

Troubleshooting

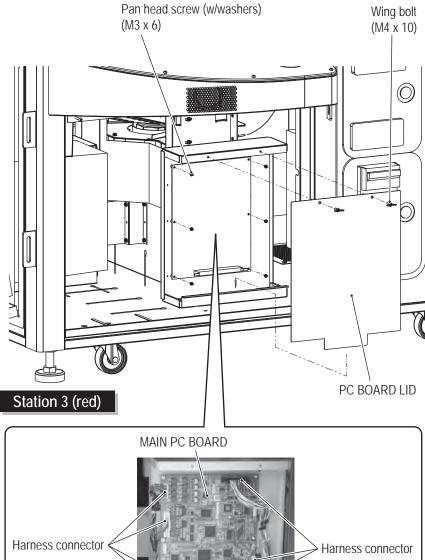




MAIN PC BOARD

7-3-2

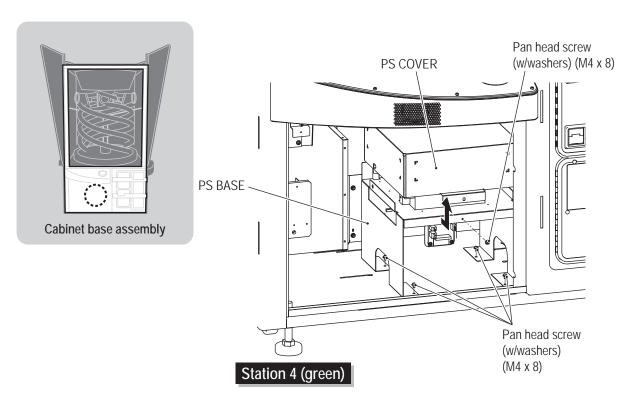
Cabinet base assembly

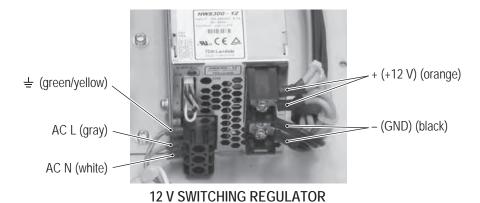


- Open the ticket door on Station 4 (green) to create workspace.
- Remove the MAINT DOOR C on Station 3 (red) using the service key.
- Unscrew the two wing bolts (M4 x 10) to remove the PC BOARD LID.
- Unscrew the six pan head screws with washers (M3 x 6) and disconnect the seven harness connectors to replace the MAIN PC BOARD.

- Must be performed by a technician -

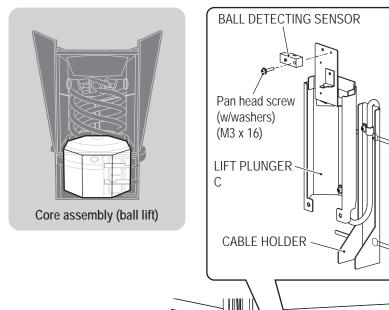
7-3-3 **SWITCHING REGULATOR**

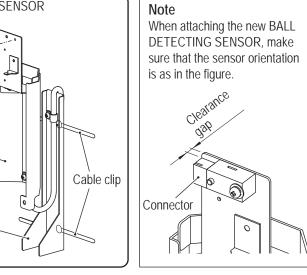


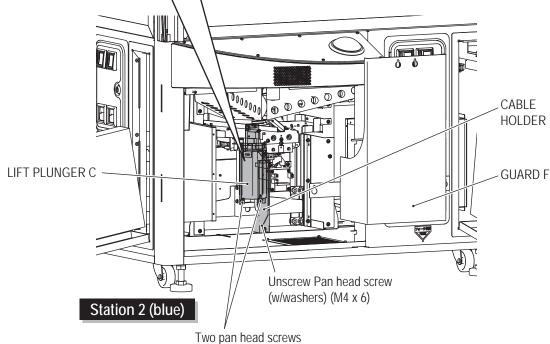


- Remove the MAINT DOOR C on Station 4 (green) using the service key.
- 2 Unscrew the pan head screw with washers (M4 x 8) to remove the PS COVER.
- Unscrew the four pan head screws with washers (M4 x 8) and disconnect five harness connectors to remove the PS BASE with the switching regulators still secured to it.
- Unscrew the two pan head screws with washers (M3 x 6) and disconnect the two connectors for the 5 V SWITCHING REGULATOR, the four pan head screws with washers (M4 x 8) and the seven terminal screws for the 12 V SWITCHING REGULATOR, and the four pan head screws with washers (M3 x 8) and disconnect the three connectors for the 24 V SWITCHING REGULATOR to replace each regulator.

7-3-4 BALL DETECTING SENSOR







Remove the MAINT DOOR C on Station 2 (blue) using the service key.

(w/washers) (M4 x 6)

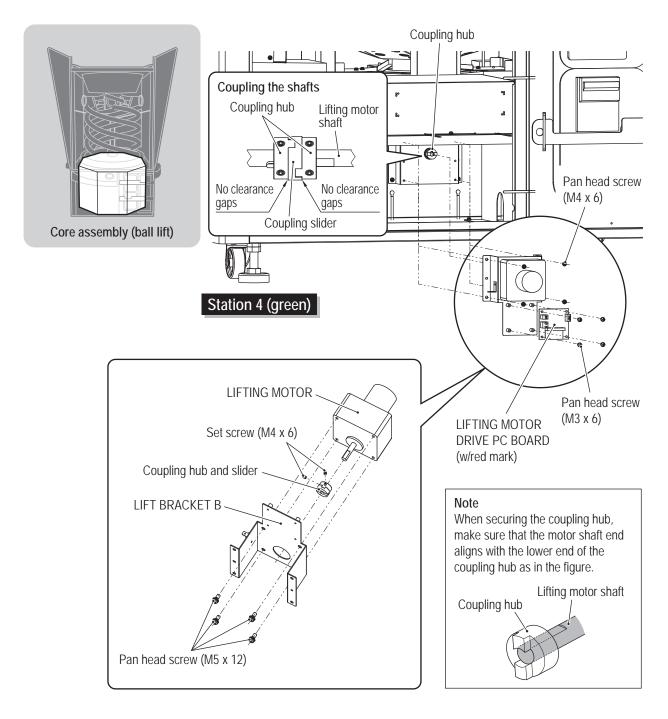
- 2 Loosen the four pan head screws with washers (M4 x 6) to remove the GUARD F.
- 3 Unscrew the pan head screw with washers (M4 x 6), disconnect the harness connector, and loosen the two cable clips to remove the CABLE HOLDER.
- 4 Unscrew the two pan head screws with washers (M4 x 6) to remove the LIFT PLUNGER C.
- Unscrew the pan head screw with washers (M3 x 16) and disconnect the harness connector to replace the BALL DETECTING SENSOR.

NOTICE

When attaching the new BALL DETECTING SENSOR, make sure that the sensor orientation is as in the figure above.

- Must be performed by a technician -

7-3-5 LIFTING MOTOR/ LIFTING MOTOR DRIVE PC BOARD

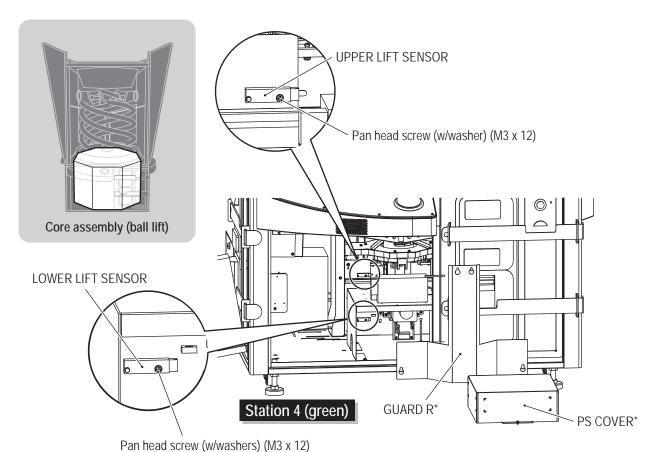


- Must be performed by a technician -

- 1 Remove the MAINT DOOR C on Station 4 (green) using the service key.
- Remove the PS COVER and PS BASE. For details, see "7-3-3 SWITCHING REGULATOR" on page 60.
- Unscrew the four pan head screws with washers (M4 x 6) and disconnect the three harness connectors from the LIFTING MOTOR DRIVE PC BOARD to remove the LIFT BRACKET B.
- 4 Unscrew the two set screws (double points) (M4 x 6) to remove the coupling hub.
- 5 Unscrew the four pan head screws with washers (M5 x 12) to replace the LIFTING MOTOR.
- Unscrew the four pan head screws with washers (M3 x 6) to replace the LIFTING MOTOR DRIVE PC BOARD with red mark.

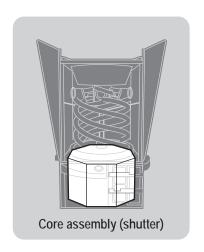
- Must be performed by a technician -

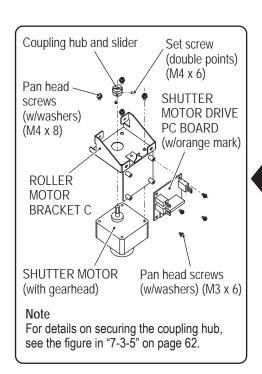
7-3-6 UPPER/LOWER LIFT SENSOR

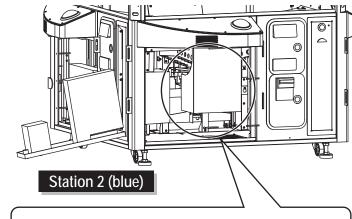


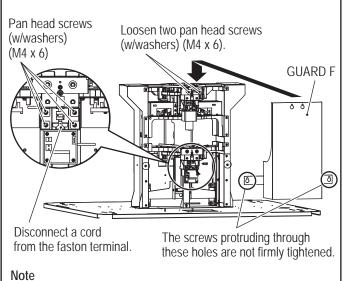
- , , , ,
 - Remove the MAINT DOOR C on Station 4 (green) using the service key.
 - Loosen the four pan head screws with washers (M4 x 6) to remove the GUARD R*.
 - Unscrew the pan head screw with washers (M3 x 12) and disconnect the harness connector to replace the UPPER LIFT SENSOR.
 - 4 Unscrew the pan head screw with washers (M4 x 8) to remove the PS COVER*.
 - Unscrew the pan head screw with washers (M3 x 12) and disconnect the harness connector to replace the LOWER LIFT SENSOR.
 - * Be sure to remove these parts only when the UPPER LIFT SENSOR is replaced. If necessary, remove the PS BASE. For details, see "7-3-3 SWITCHING REGULATOR" on page 60.

7-3-7 SHUTTER MOTOR/ SHUTTER MOTOR DRIVE PC BOARD









For details on coupling the shafts, see the figure in "7-3-5" on

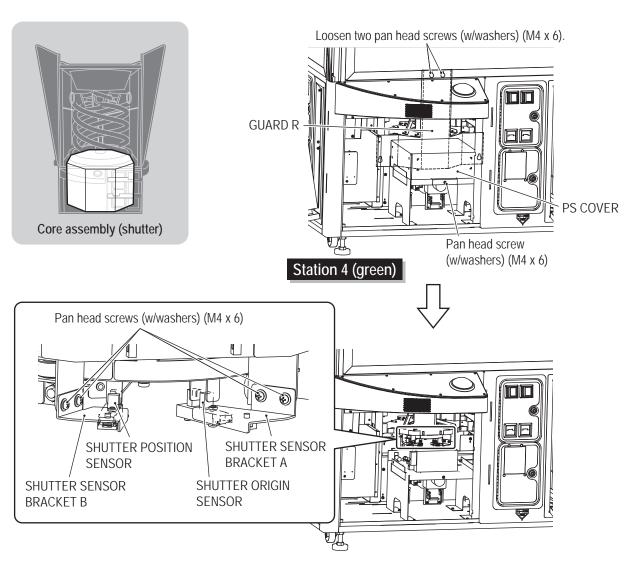
Remove the MAINT DOOR C on Station 2 (blue) using the service key.

page 62.

- 2 Loosen the upper two pan head screws with washers (M4 x 6) to remove the GUARD F.
- Unscrew the four pan head screws with washers (M4 x 8) and disconnect the three harness connectors from the SHUTTER MOTOR DRIVE PC BOARD to remove ROLLER MOTOR BRACKET C.
- 4 Unscrew the two set screws (double points) (M4 x 6) to remove the coupling hub.
- 5 Unscrew the four pan head screws with washers (M4 x 8) to replace the SHUTTER MOTOR.
- Unscrew the four pan head screws with washers (M3 x 6) to replace SHUTTER MOTOR DRIVE PC BOARD with orange mark.

- Must be performed by a technician -

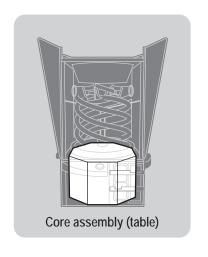
7-3-8 SHUTTER POSITION/SHUTTER ORIGIN SENSOR

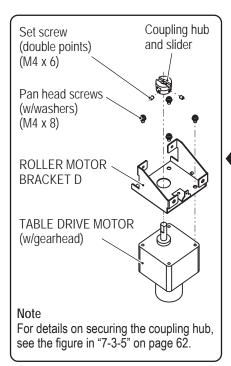


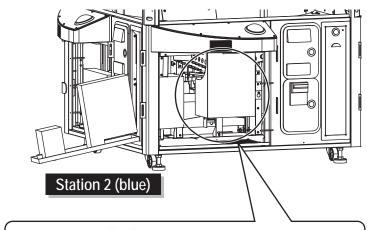
- Remove the MAINT DOOR C on the station 4 (green) using the service key.
- 2 Loosen the upper two pan head screws with washers (M4 x 6) to remove the PS COVER and GUARD R.
- Unscrew the two pan head screw with washers (M4 x 6) and disconnect the harness connector to remove the SHUTTER SENSOR BRACKET B.
- 4 Unscrew the pan head screw with washers (M3 x 12) to replace the SHUTTER POSITION SENSOR.
- Unscrew the two pan head screw with washers (M4 x 6) and disconnect the harness connector to remove the SHUTTER SENSOR BRACKET A.
- 6 Unscrew the pan head screw with washers (M3 x 12) to replace the SHUTTER ORIGIN SENSOR.

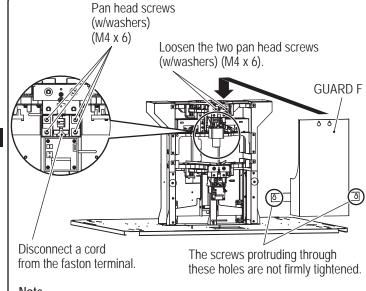
6

7-3-9 **TABLE DRIVE MOTOR**







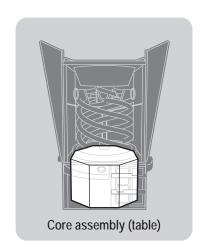


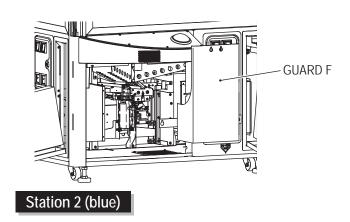
For details on coupling the shafts, see the figure in "7-3-5" on

- Remove the MAINT DOOR C on Station 2 (blue) using the service key.
- Loosen the upper two pan head screws with washers (M4 x 6) to remove the GUARD F.
- Unscrew the four pan head screws with washers (M4 x 6) and disconnect the faston terminal to remove the ROLLER MOTOR BRACKET D, and disconnect the harness connector from the TABLE DRIVE MOTOR.
- Unscrew the two set screws (double points) (M4 x 6) to remove the coupling hub.
- Unscrew the four pan head screws with washers (M4 x 8) to replace the TABLE DRIVE MOTOR.

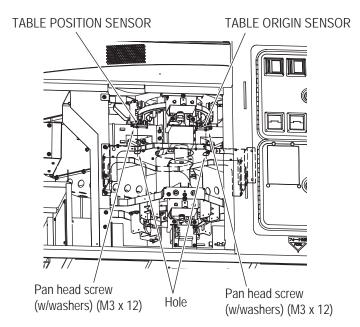
- Must be performed by a technician -

7-3-10 TABLE POSITION SENSOR/TABLE ORIGIN SENSOR



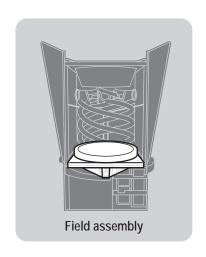


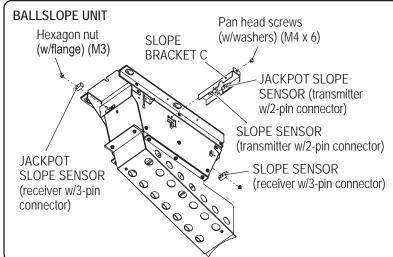


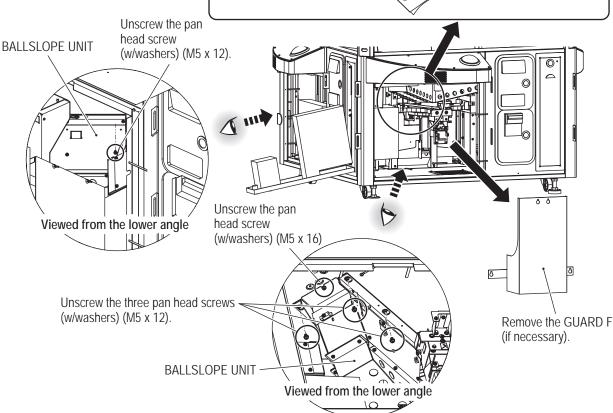


- Remove the MAINT DOOR C on Stations 2 and 3 (blue and red) using the service key.
- 2 Loosen the two upper pan head screws with washers (M4 x 6) to remove the GUARD F.
- Unscrew the pan head screws with washers (M5 x 12), unscrew the four pan head screws with washers (M5 x 12), that secure the BALLSLOPE UNIT to the MIDDLE PLATE, and disconnect the harness connectors to replace the BALLSLOPE UNIT on the left side.
- Insert the screwdriver into the slot on the MIDDLE FRAME A, unscrew the pan head screw with washers (M3 x 12), and disconnect the harness connector to replace the TABLE POSITION SENSOR.
- Insert the screwdriver into the slot on the MIDDLE FRAME A, unscrew the pan head screw with washers (M3 x 12), and disconnect the harness connector to replace the TABLE ORIGIN SENSOR.

7-3-11 JACKPOT SLOPE/SLOPE SENSOR (Receiver/Transmitter)







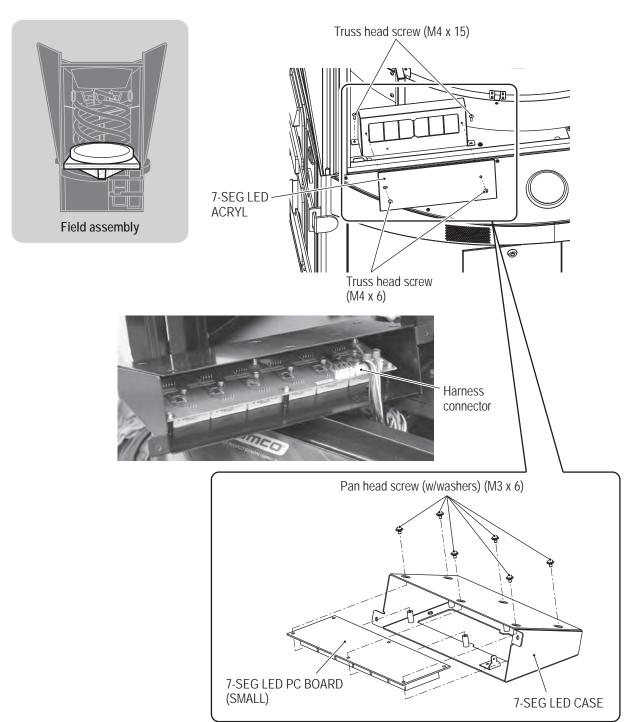
- Remove the MAINT DOOR UNIT or the MAINT DOOR C on the stations located on both side of the BALLSLOPE UNIT that needs a replacement sensor.
- 2 If necessary, loosen the two upper pan head screws with washers (M4 x 6) to remove the GUARD F.
- Unscrew the four pan head screws with washers (M5 x 12), that secure the BALLSLOPE UNIT to the MIDDLE PLATE, remove the pan head screws with washers (M5 x 12), disconnect the harness connectors, and remove the BALLSLOPE UNIT that needs a replacement sensor.
- 4 Unscrew the pan head screws with washers (M4 x 6) to remove the SLOPE BRACKET C.
- Remove the hexagon nut with flange (M3) that secures the sensor.

Notes

- The sensor module consists of a transmitter and a receiver.
- When the machine is assembled, the JACKPOT SENSOR is for the jackpot win pockets, and the SLOPE SENSOR is for the normal win pocket.

- Must be performed by a technician -

7-3-12 7-SEG LED PC BOARD (SMALL)



- 1 Open the acrylic door.
- 2 Unscrew the two truss head screws (M4 x 6) to remove the 7-SEG LED ACRYL.
- 3 Unscrew the two truss head screws (M4 x 15) and disconnect the harness connector to remove the 7-SEG LED CASE.
- Unscrew the six pan head screws with washers (M3 x 6) to replace the 7-SEG LED PC BOARD (SMALL).

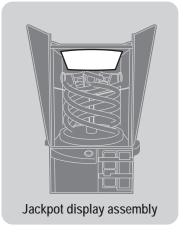
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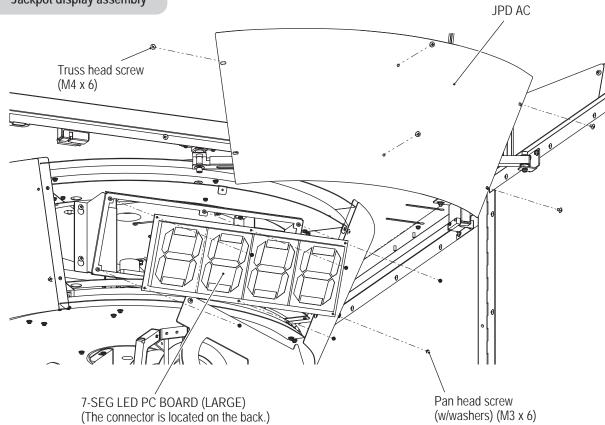
Disassembling/Replacement Procedure







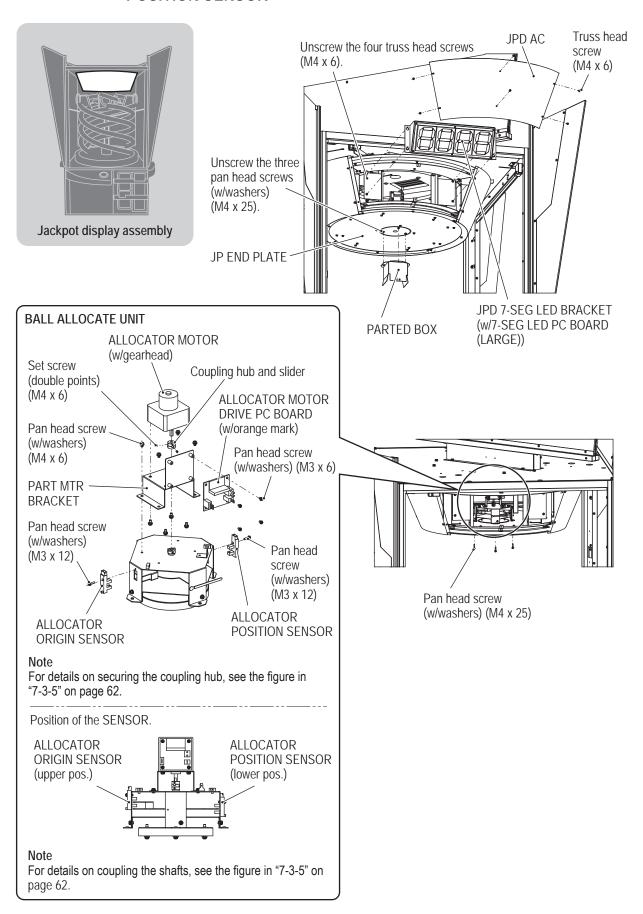




- 1 Open the acrylic door.
- 2 Unscrew the six truss head screws (M4 x 6) to remove the JPD AC.
- Unscrew the six pan head screws with washers (M3 x 6) and disconnect the harness connector to replace the 7-SEG LED PC BOARD (LARGE).

- Must be performed by a technician -

7-3-14 ALLOCATOR MOTOR/MOTOR DRIVE PC BOARD/ORIGIN SENSOR/ POSITION SENSOR



sure to rotate the PARTED BOX slowly while removing it.

Unscrew the six truss head screws (M4 x 6) to remove the JPD AC.

Open the acrylic door of Stations 1 and 3.

the JPD 7-SEG LED BRACKET.

the PART MTR BRACKET.

7. Troubleshooting

- Must be performed by a technician -

Unscrew the four pan head screws with washers (M4 x 8) to remove the ALLOCATOR MOTOR.

Unscrew the three pan head screws with washers (M4 x 25) to remove the PARTED BOX. Be

Unscrew the four truss head screws (M4 x 4) and disconnect the harness connector to remove

Unscrew the three pan head screws with washers (M4 x 25) located on the bottom of the JPD

Unscrew the four pan head screws with washers (M4 x 6), disconnect the three harness connectors from the ALLOCATOR MOTOR DRIVE PC BOARD, and disconnect the faston terminal to remove

END PLATE and disconnect the harness connector to remove the BALL ALOCATE UNIT.

- Unscrew the two set screws (double points) (M4 x 6) to remove the coupling hub and replace the ALLOCATOR MOTOR.
- Unscrew four pan head screws with washers (M3 x 6) to replace the ALLOCATOR MOTOR DRIVE PC BOARD with orange mark.
- Unscrew the pan head screw with washers (M3 x 12) and disconnect the harness connector to replace the ALLOCATOR ORIGIN SENSOR.
- Unscrew the pan head screw with washers (M3 x 12) and disconnect the harness connector to replace the ALLOCATOR POSITION SENSOR.

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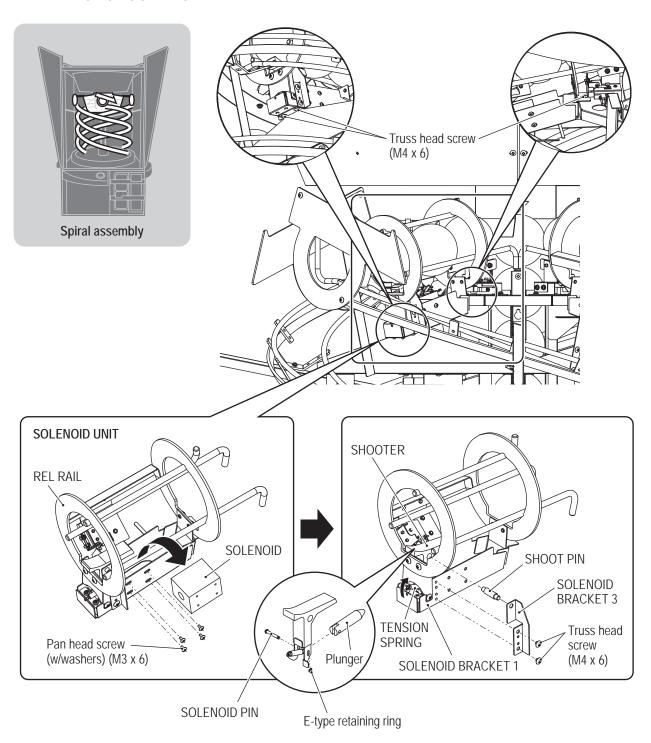
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Test Mode

- Must be performed by a technician -

7-3-15 SOLENOID



- Must be performed by a technician -

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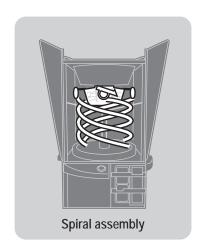
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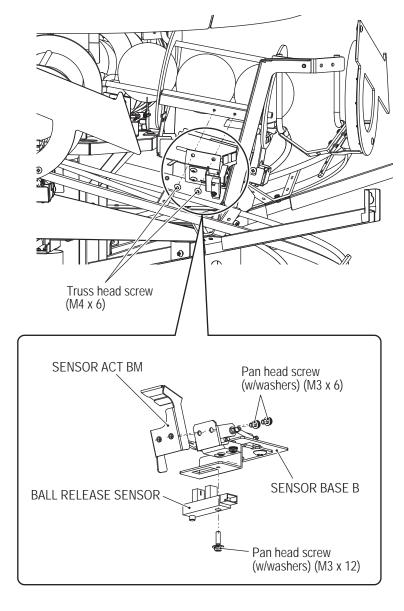
Disassembling/Replacement Procedure

- 1 Open the acrylic door.
- 2 Remove the balls in the REL RAIL to which the SOLENOID to be replaced is attached.
- Unscrew the three truss head screws (M4 x 6) and disconnect the two harness connectors to remove the SOLENOID UNIT.
- 4 Unscrew the four pan head screws with washers (M3 x 6) to replace the SOLENOID.
- 5 Unhook the TENSION SPRING from the SOLENOID BRACKET 1.
- Unscrew the two truss head screws (M4 x 6) to remove the SOLENOID BRACKET 3 and remove the SHOOTER PIN to remove the SHOOTER.
- Remove the E-type retaining ring and SOLENOID PIN to replace the plunger.

- Must be performed by a technician -

7-3-16 BALL RELEASE SENSOR



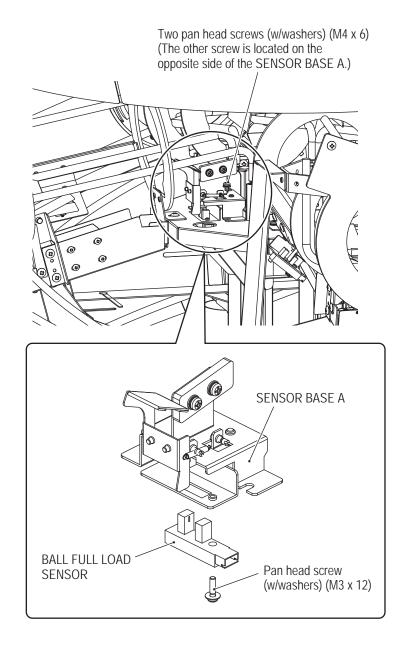


- 1 Open the acrylic door.
- Unscrew the two truss head screws (M4 x 6) and disconnect the harness connectors to remove the SENSOR BASE B.
- 3 Unscrew the two pan head screws with washers (M3 x 6) to remove the SENSOR ACT BM.
- 4 Unscrew the pan head screw with washers (M3 x 12) to replace the BALL RELEASE SENSOR.

- Must be performed by a technician -

7-3-17 BALL FULL LOAD SENSOR





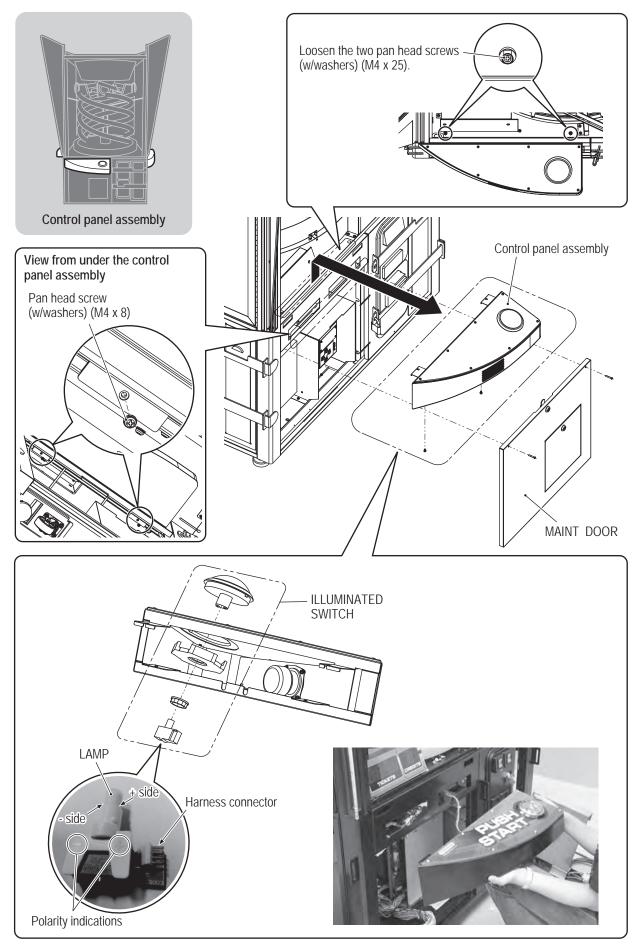
- 1 Open the acrylic door.
- Remove the balls in the REL RAIL to which the BALL FULL LOAD SENSOR to be replaced is attached.
- Unscrew the two pan head screws with washers (M4 x 6) and disconnect the harness connectors to remove the SENSOR BASE A.
- 4 Unscrew the pan head screw with washers (M3 x 12) to replace the BALL FULL LOAD SENSOR.

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Disassembling/Replacement Procedure

- Must be performed by a technician -

7-3-18 ILLUMINATED SWITCH/(LED) LAMP



- Must be performed by a technician -

- Open the MAINT DOOR A or the the MAINT DOOR C on the station that needs a replacement illuminated switch and remove the two pan head screws with washers (M4 x 8) that secure the control panel assembly.
- Open the acrylic door assembly of the station that needs a replacement ILLUMINATED SWITCH.
- Loosen the two pan head screws with washers (M4 x 25), and then lift and pull out the control panel assembly.
- 4 Disconnect the harness connector and remove the control panel assembly.
- 5 Disconnect the harness connector and turn the ILLUMINATED SWITCH to replace it.
- 6 Pull off the LAMP to replace it.

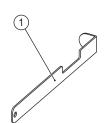
8. Disposal

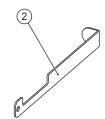
· **MARNING**·

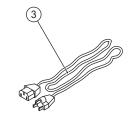
- When disposing of the machine, follow the applicable regulations for collection, transportation and disposal.
- In such cases, make sure that each operation is delegated to specialists in that field.

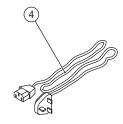
Parts List

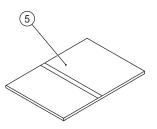
Overall Structure 9-1

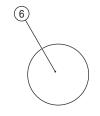




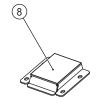


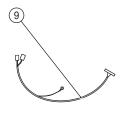


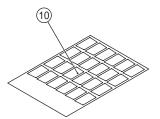










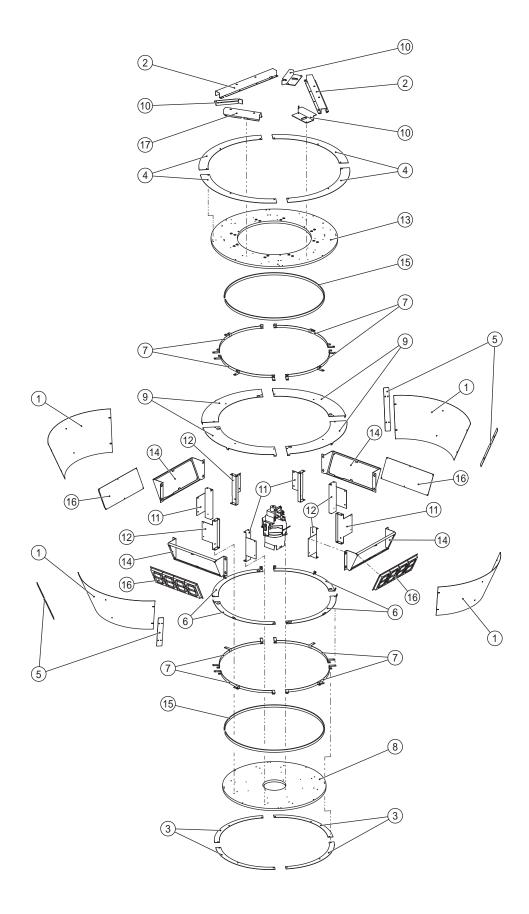


No.	Name	Qty.	Type and rating	Part No.
1	DOOR BAR A	4		734501
2	DOOR BAR B	4		734502
3	AC POWER CORD (type B)	1	for 120 V AC (2.4 m)	734503
4	AC POWER CORD (type G)	1	for 230 V AC (2.4 m)	734504
5	Operation Manual (U.S. ver.)	1		734796
6	BALL	30	incl. 4 spare balls	734506
7	TORX WRENCH	1	T-20	010004
8	COIN RETURN SLOT BLANKING PLATE	4		734507
9	CASH FLOW selector option wire harness	4		734508
10	Pocket sticker	2		734509

10 Disposal / Overall Structure

Test Mode

9-2 Jackpot Display (JPD) Assembly



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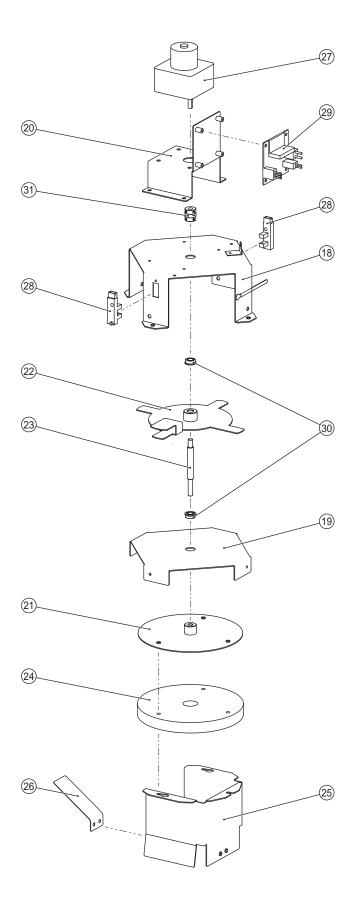
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Jackpot
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No.	Name	Qty.	Type and rating	Part No.
1	JPD AC	4		734510
2	JPD HOLDER 4	2		734511
3	JPD ROOF 2	4		734512
4	JPD ROOF 1	4		734513
5	JPD HOLDER 1	4		734514
6	JPD ROOF 4	4		734515
7	JPD ROOF 5	8		734516
8	JPD END PLATE	1		734517
9	JPD ROOF 3	4		734518
10	JPD HOLDER 3	3		734519
11	JPD PILLAR 2	4		734520
12	JPD PILLAR 1	4		734521
13	JPD TOP PLATE	1		734522
14	JPD 7-SEG LED BRACKET	4		734523
15	LED TAPE (2,000 mm)	2	5050RGB-D16726-12V-	002683
14	, ,	4	XA4R-L20000	724524
16	7SEG-LED PC BOARD (LARGE)	4		734524
17	JPD HOLDER Z	1		734525



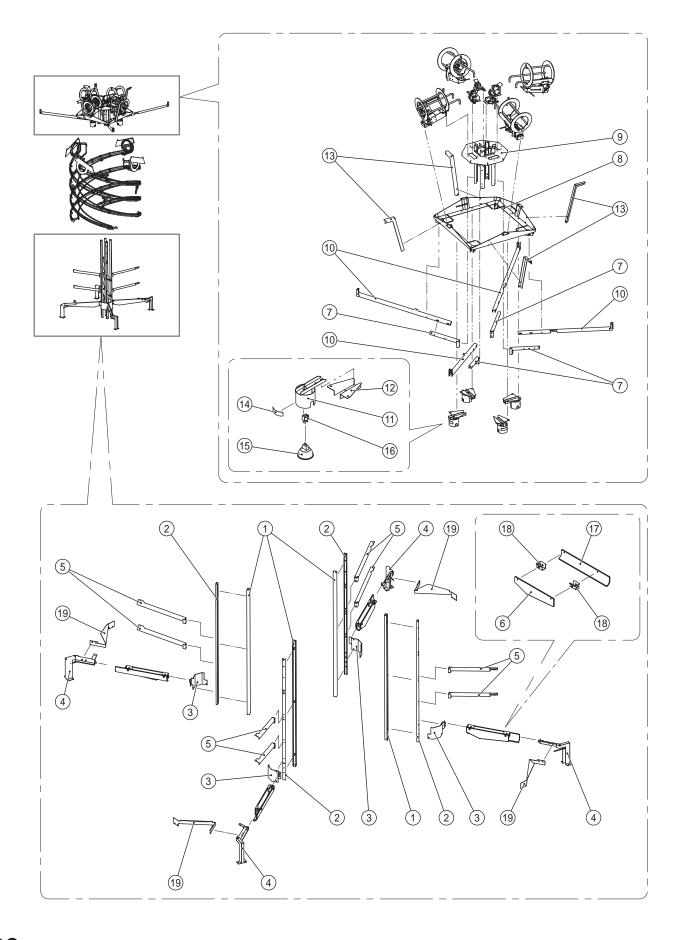
9. Parts List

No.	Name	Qty.	Type and rating	Part No.
18	PART BASE	1		734526
19	PART BASE B	1		734527
20	PART MTR BRACKET	1		734528
21	PARTED PLATE A	1		734529
22	PARTED SENSOR DG	1		734530
23	PARTED PIN	1		734531
24	PARTED PLATE B	1		734532
25	PARTED BOX	1		734533
26	SORTER BRACKET 6_1	1		734534
27	ALLOCATOR MOTOR	1	TG-05J-BE-150-F1332, 24V	005541
28	ALLOCATOR SENSOR (POSITION/ORIGIN)	2	KI1300-AA07LF	000677
29	ALLOCATOR MOTOR DRIVE PC BOARD	1	NTM-008RD3	005544
30	BEARING	2	FL686ZZ	103228
31	COUPLING	1	MCO15-6-6	107194

2 | Jackpot Display (JPD) Assembly

Test Mode

9-3 Spiral Assembly

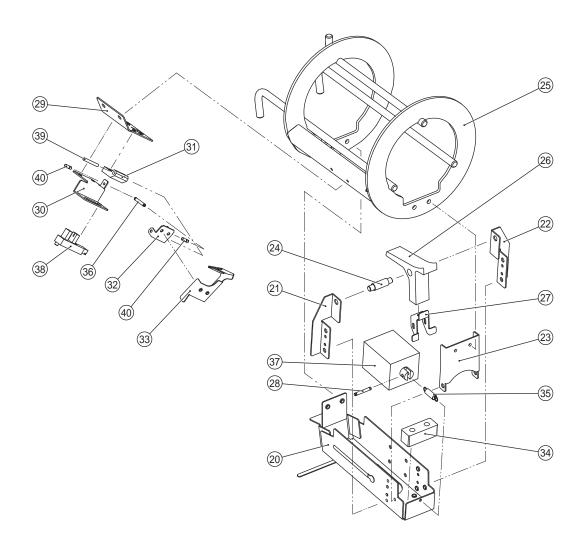


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No.	Name	Qty.	Type and rating	Part No.
1	INNER RAIL 1	4		734535
2	INNER RAIL 2	4		734536
3	RAIL WALL BRACKET 1	4		734537
4	CENTER WALL BRACKET 4	4		734538
5	REL PILLAR 2	8		734539
6	PARTITION	4		734540
7	REL PILLAR B	4		734541
8	RELEASE BASE	1		734542
9	RELEASE BASE 2	1		734543
10	REL PILLAR	4		734544
11	LAMP BRACKET A	4		734545
12	HGN BRACKET	4		734546
13	RAIL TOP BRACKET	4		734547
14	WARNING LABEL High temperature (A) (NEL)	4		461791
15	LED LAMP	4	PARATHIM MR16 50 24° ADV 7W GU5.3 827	002684
16	LAMP SOCKET	4	YX303RE/MR16	002685
17	PARTITION R	4		734789
18	PARTITION BRACKET	8		734790
19	CORNER WALL	4		734791

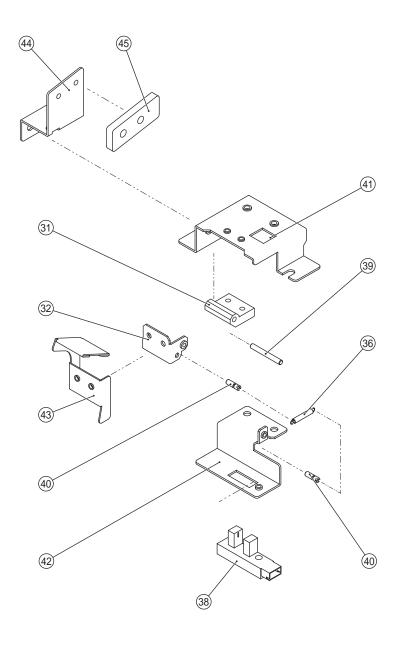
10 Spiral Assembly

Test Mode

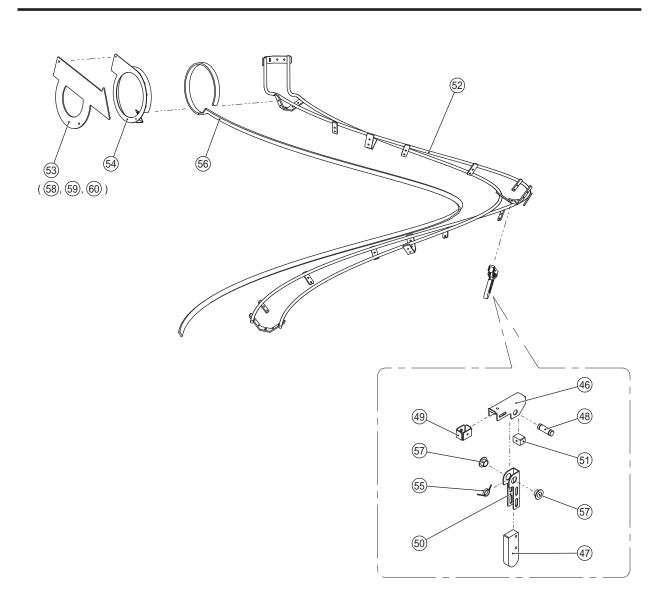


No.	Name	Qty.	Type and rating	Part No.
20	SOLENOID BRACKET 1	4	J1 5	734548
21	SOLENOID BRACKET 2	4		734549
22	SOLENOID BRACKET 3	4		734550
23	SOLENOID BRACKET 4	4		734551
24	SHOOT PIN	4		734552
25	REL RAIL	4		734553
26	SHOOTER	4		734554
27	SHOOT STOPPER	4		734555
28	SOLENOID PIN	4		734556
29	SENSOR BASE B	4		734557
30	SENSOR BRACKET A	4		734558
31	POM HINGE	8		734559
32	SHAFT BRACKET	8		734560
33	SENSOR ACT BM	4		734561
34	SOLENOID STOP RUBBER	4		734562
35	TENSION SPRING	4	AUA6-25	105204
36	TENSION SPRING	8	AUA3-20	105205
37	SOLENOID	4	SS-120-467B	004767
38	BALL RELEASE SENSER / BALL FULLLOAD SENSOR	8	KI1300-AA07LF	000677
39	KNOCK PIN	8	MS3-25	101259
40	SPRING POST	16	SBSPOZ3-10	105206

Spiral Assembly



No.	Name	Qty.	Type and rating	Part No.
41	SENSOR BASE A	4		734563
42	SENSOR BRACKET B	4		734564
43	SENSOR ACTUATOR	4		734565
44	BALL GUIDE BRACKET	4		734566
45	BALL GUIDE P	4		734567

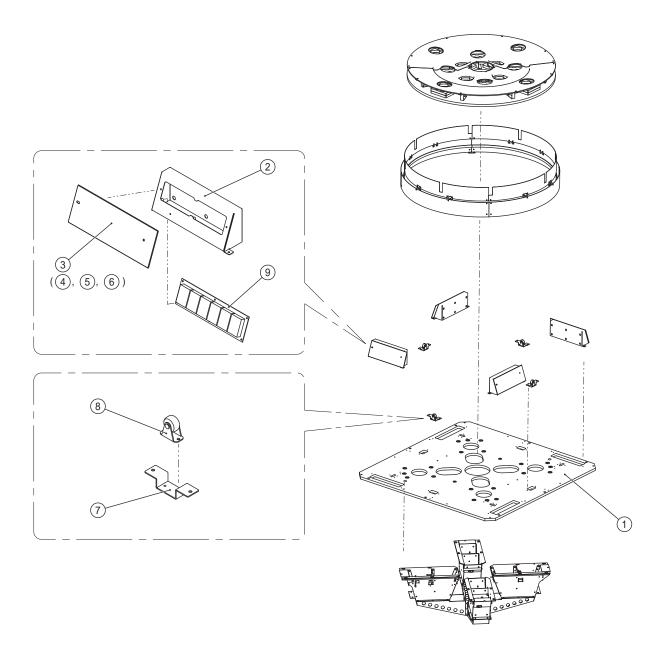


No.	Name	Qty.	Type and rating	Part No.
46	RAIL BRACKET	4		734568
47	SLOWDOWN ARM 2	4		734569
48	SLOWDOWN PIN 2	4		734570
49	SLOWDOWN BRACKET 2	4		734571
50	SLOWDOWN ARM BRACKET 2	4		734572
51	SLOWDOWN STOPPER 2	4		734573
52	BALL RAIL	4		734574
53	BALL OUT ACRYL (YELLOW)	4	Station 1	734576
54	RAIL RING	4		734577
55	SLOWDOWN SPRING	4		734578
56	LED TAPE	4	2,700 mm	002689
57	FLANGE BUSH	8	80F-0805	104014
58	BALL OUT ACRYL (BLUE)	1	Station 2	734793
59	BALL OUT ACRYL (RED)	1	Station 3	734794
60	BALL OUT ACRYL (GREEN)	1	Station 4	734795

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Spiral Assembly

9-4 Field Assembly



No.	Name	Qty.	Type and rating	Part No.
1	MIDDLE PLATE	1		734579
2	7-SEG LED CASE	4		734580
3	7-SEG LED ACRYL (YELLOW)	1		734581
4	7-SEG LED ACRYL (BLUE)	1		734582
5	7-SEG LED ACRYL (RED)	1		734583
6	7-SEG LED ACRYL (GREEN)	1		734584
7	CASTER BRACKET	4		734585
8	CASTER	4	420R-N25	102215
9	7-SEG LED PC BOARD (SMALL)	4	7SEG-S6	734730

No.	Name	Qty.	Type and rating	Part No.
10	SLOPE BRACKET A	4		734586
11	SLOPE BRACKET B	4		734587
12	SLOPE BRACKET C	4		734589
13	SLOPE BRACKET D	4		734590
14	SLOPE BRACKET E F	4		734591
15	SLOPE BRACKET G H	4		734592
16	SLOPE BRACKET K	4		734593
17	SLOPE BRACKET L	4		734594
18	SLOPE BOTTOM COVER	4		734595
19	SLOPE COVER A	4		734596
20	SLOPE COVER B	4		734597
21	SLOPE COVER C	4		734598
22	SLOPE BRACKET M	4		734599
23	PHOTO SENSOR (transmitter)	8	KB1281-AA12LF	000400*
24	PHOTO SENSOR (receiver)	8	KB1281-AA22LF	000690*

* No. 23 and No. 24 make a set

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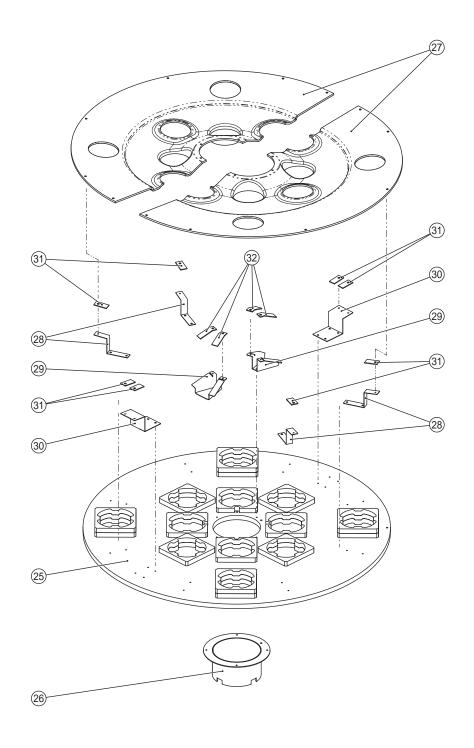
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Field Assembly

Test Mode



No.	Name	Qty.	Type and rating	Part No.
25	ROTARY TABLE	1		734600
26	ROTARY JOINT RING	1		734601
27	ROULETTE	2		734602
28	ROULETTE BRACKET 1	4		734603
29	ROULETTE BRACKET 2	2		734604
30	ROULETTE BRACKET 4	2		734605
31	HOOK RUBBER A	8		734606
32	HOOK RUBBER	4		734607

No.	Name	Qty.	Type and rating	Part No.
33	INNER WALL 1	4		734608
34	INNER WALL 2	4		734609
35	OUTER WALL 1	4		734610
36	OUTER WALL BRACKET	8		734611
37	LED TAPE (700 mm)	4	50501RGB-D16726-12V- XA4RP-L700	002686

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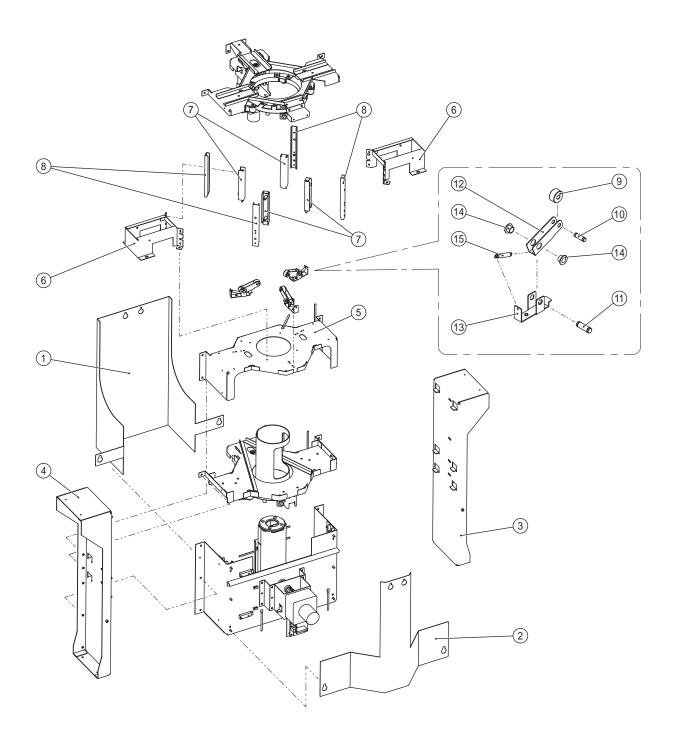
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10 Field Assembly

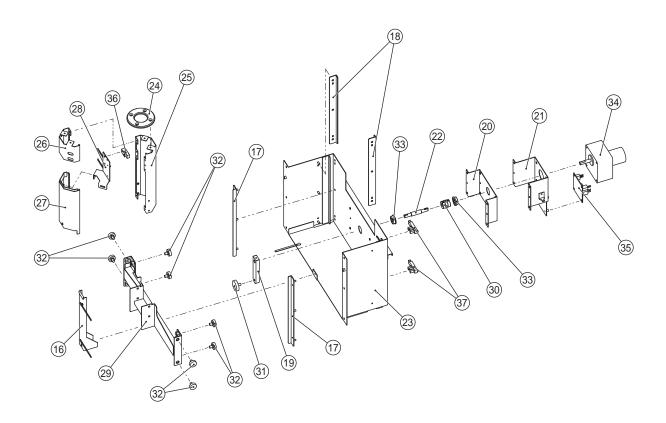
9-5 Core Assembly



No.	Name	Qty.	Type and rating	Part No.
1	GUARD F	1		734613
2	GUARD R	1		734614
3	UNDER FRAME A	1		734615
4	UNDER FRAME B	1		734616
5	MIDDLE FRAME A	1		734617
6	MIDDLE FRAME B	2		734618
7	MIDDLE RAIL	4		734619
8	MIDDLE RAIL B	4		734620
9	MIDDLE ROLLER	3		734621
10	MIDDLE PIN A	3		734622
11	MIDDLE PIN B	3		734623
12	MIDDLE STOPPER A	3		734624
13	MIDDLE STOPPER B	3		734625
14	FLANGE BUSH	6	LFF-0806	104006
15	TENSION SPRING	3	AUA4-20	105207

Core Assembly

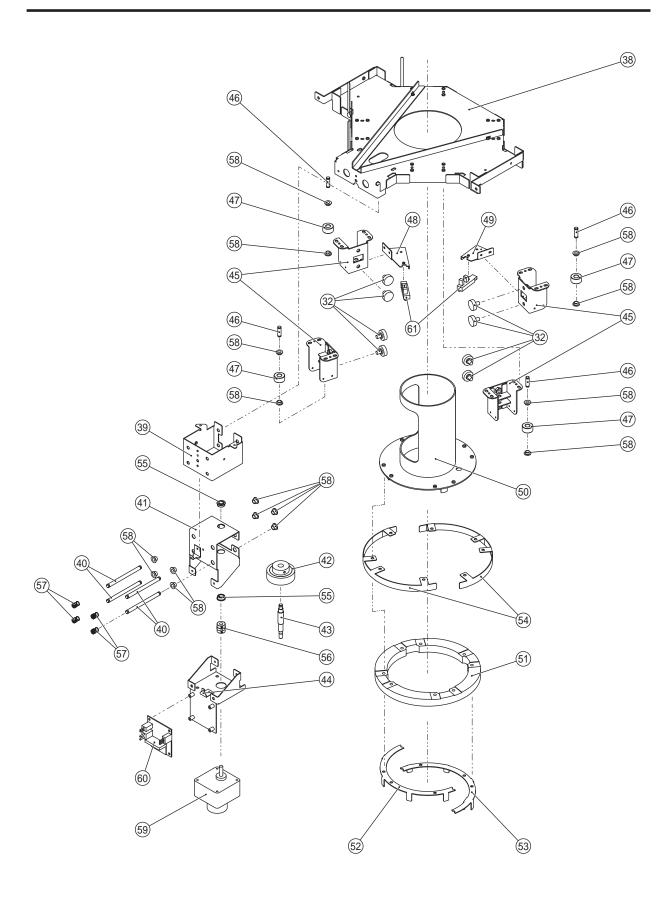
Test Mode



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Core Assembly	

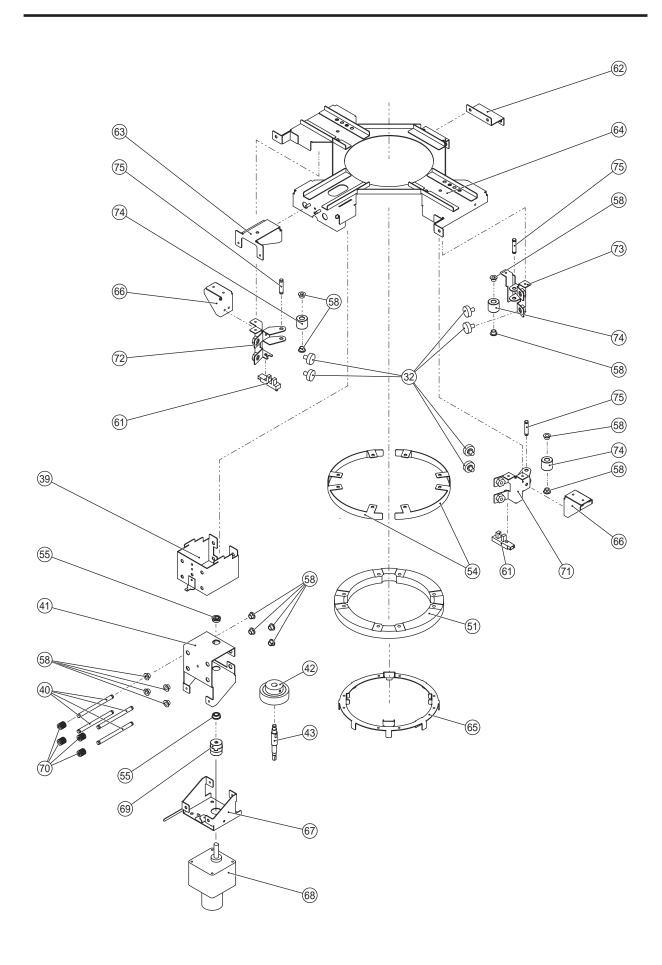
No.	Name	Qty.	Type and rating	Part No.
16	CABLE HOLDER	1		734626
17	LIFT RAIL A	2		734627
18	LIFT RAIL B	2		734628
19	LIFT LINK	1		734629
20	LIFT BRACKET A	1		734630
21	LIFT BRACKET B	1		734631
22	LIFT PIN	1		734632
23	LIFT CASE	1		734633
24	LIFT RING	1		734634
25	LIFT PLUNGER A	1		734635
26	LIFT PLUNGER B	1		734636
27	LIFT PLUNGER C	1		734637
28	LIFT SENSOR BRACKET	1		734638
29	LIFT ARM	1		734639
30	COUPLING	1	MCOLK20-8-8	107195
31	BEARING	1	DR-30-B3	103004
32	BEARING	22	DR-19-B2	103037
33	BEARING	2	F608ZZ	103229
34	LIFTING MOTOR	1	TG-30P-JM-180-F1333, 24V	005542
35	LIFTING MOTOR DRIVE PC BOARD	1	NTM-008RD2	005545
36	BALL DETECTING SENSOR	1	KR865-NMLF	000888
37	UPPER/LOWER LIFT SENSOR	2	KI1300-AA07LF	000677

Test Mode



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No.	Name	Qty.	Type and rating	Part No.
38	SHUTTER FRAME	1		734640
39	ROLLER MOTOR BRACKET A	2		734641
40	ROLLER PUSH PIN	8		734642
41	ROLLER MOTOR BRACKET B	2		734643
42	URETHANE ROLLER	2		734644
43	ROLLER MOTOR PIN	2		734645
44	ROLLER MOTOR BRACKET C	1		734646
45	RING HOLD BRACKET A	4		734647
46	RING OUTER PIN B	4		734648
47	RING OUTER ROLLER B	4		734649
48	SHUTTER SENSOR BRACKET A	1		734650
49	SHUTTER SENSOR BRACKET C	1		734651
50	BALL SHUTTER	1		734652
51	ROTARY RING	2		734653
52	SHUTTER SENSOR DG A	1		734654
53	SHUTTER SENSOR DG B	1		734655
54	DISC OUTER BRACKET	4		734656
55	BEARING	4	FL686ZZ	103228
56	COUPLING	1	MCO15-6-6	107194
57	SHUTTER SPRING	4		734657
58	FLANGE BUSH	30	80F-0603	104099
59	SHUTTER MOTOR	1	TG-05J-BE-150-F1332, 24V	005541
60	SHUTTER MOTOR DRIVE PC BOARD	1	NTM-008RD3	005544
61	SHUTTER SENSOR (POSITION/ORIGIN) TABLE SENSOR(POSITION/ORIGIN)	4	KI1300-AA07LF	000677

Test Mode

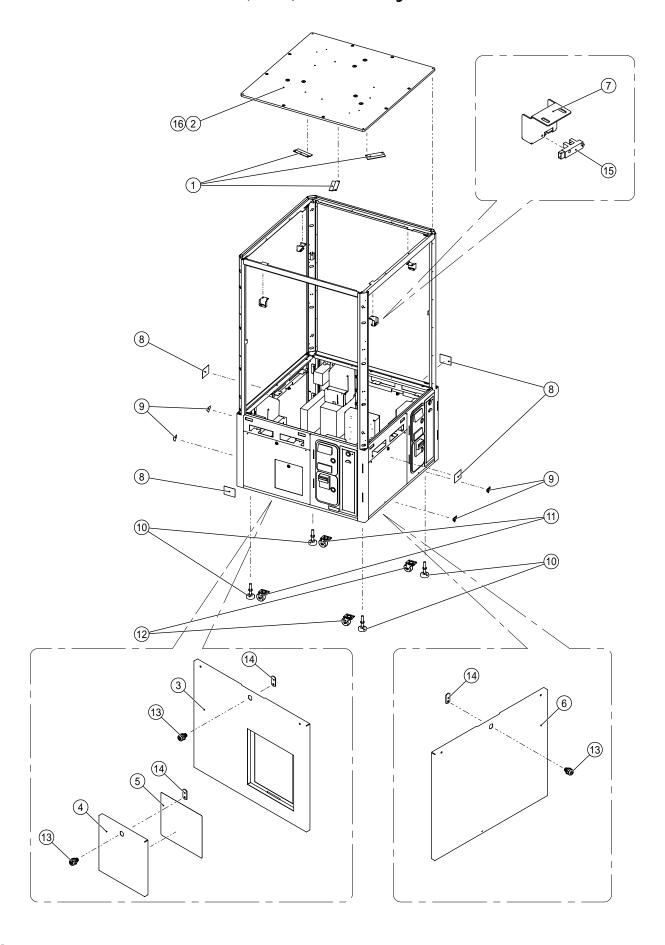


No.	Name	Qty.	Type and rating	Part No.
62	COVER HOOK	1		734658
63	TABLE JOINT	1		734659
64	ROTARY FRAME	1		734660
65	ROTARY SENSOR DG	1		734661
66	ROLLER SUPPORT	2		734662
67	ROLLER MOTOR BRACKET D	1		734663
68	TABLE DRIVE MOTOR	1	TG-MX2034(55)-BM-150-	005543
	WELL BRIVE MOTOR	'	R2193.24V	000010
69	COUPLING	1	MCO20-6-8	107196
70	COMPRESSION SPRING	4	SWU10.5-20	105208
71	RING OUTER BRACKET A	1		734664
72	RING OUTER BRACKET B	1		734665
73	RING OUTER BRACKET C	1		734666
74	RING OUTER ROLLER	3		734667
75	RING OUTER PIN	3		734668

Core Assembly

Test Mode

9-6 Cabinet Base(U.S.) Assembly

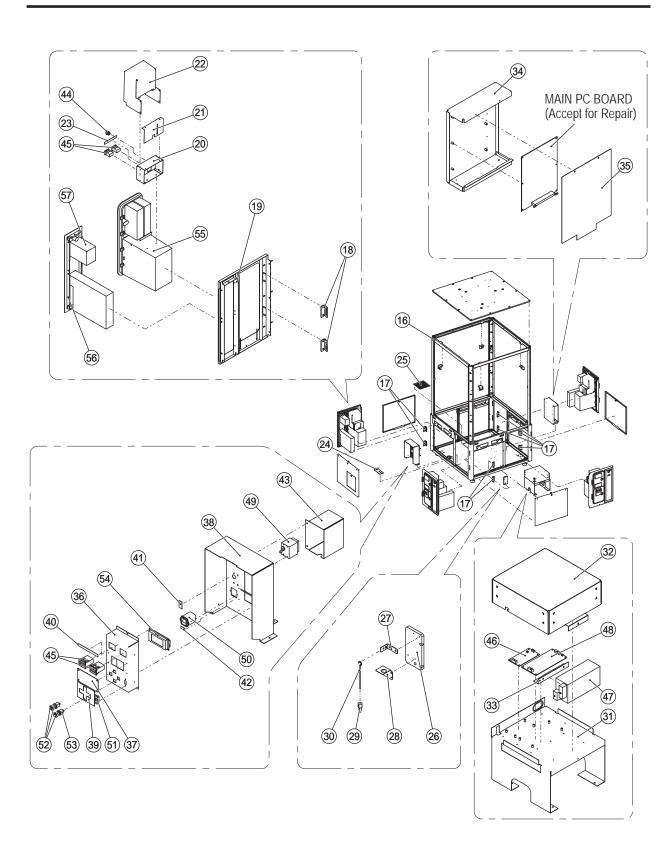


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No.	Name	Qty.	Type and rating	Part No.
1	ROOF HOOK	3		734669
2	ROOF PLATE	1		734670
3	MAINT DOOR A	1		734672
4	MAINT DOOR B	1		734673
5	ERROR LABEL	1		734674
6	MAINT DOOR C	3		734675
7	DOOR SENSOR BRACKET	4		734676
8	WARNING LABEL Maintenance (B) EXP	4		461539
9	FORK DECAL PH	4		461678
10	ADJUSTER	4	D-B3 16×100	102171
11	CASTER (swivel)	2	No.105-N	102278
12	CASTER (rigid)	2	No.605-N	102085
13	TUBULAR LOCK	5	F75-MSD	101260
14	A CAM	5	M7	101261
15	DOOR SENSOR	4	KI1301-AALF	000892
16	CEIL PLATE	1		734721



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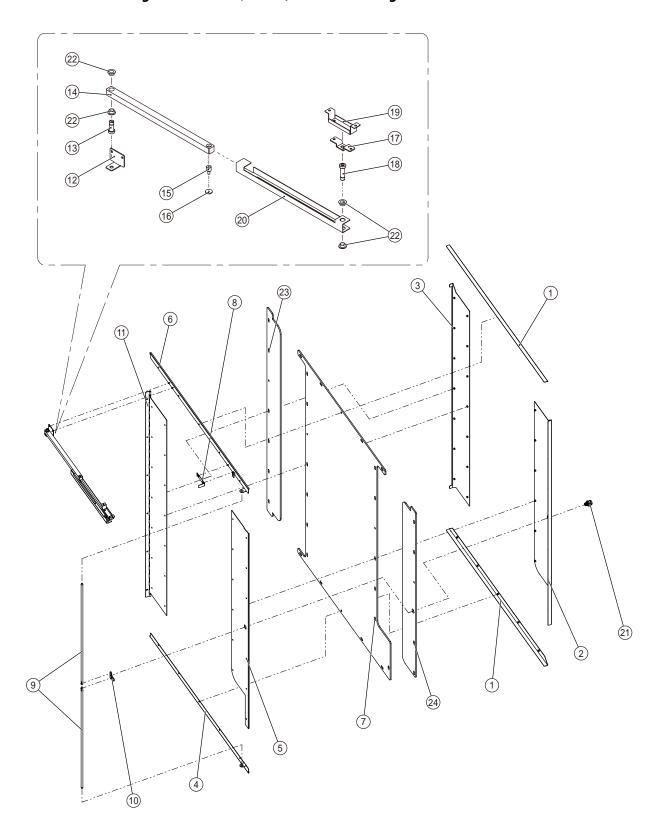
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No.	Name	Qty.	Type and rating	Part No.
16	CABINET	1		734679
17	DOOR BAR BRACKET A	8		734680
18	DOOR BAR BRACKET B	8		734681
19	COIN DOOR	4		734682
20	SERVICE SW BOX	4		734683
21	SERVICE SW LID	4		734684
22	SERVICE SW COVER	4		734685
23	SERVICE SW LABEL	4		734686
24	AC CORD SHUTTER	1		734687
25	DUCT PLATE	1		734688
26	TILT PLATE	1		734689
27	TILT BRACKET A	1		734690
28	TILT BRACKET B	1		734691
29	TILT HEAD	1		734692
30	TILT HOOK	1		734693
31	PS BASE	1		734694
32	PS COVER	1		734695
33	SW 12 BRACKET	1		734696
34	PC BOARD BOX	1		734697
35	PC BOARD LID	1		734698
36	SWITCH PANEL	1		734699
37	VFD AC	1		734505
38	MAINT BOX	1		734677
39	SLIDE LABEL	1		734678
40	COUNTER LABEL	1		734750
41	AC IN LABEL	1		734751
42	INLET LABEL	1		734752
43	AC COVER	1		734753
44	SERVICE SW	1	SDP-103C-22RB	000336
45	COUNTER	10	OA-126CL	003065
46	SWITCHING REGULATOR (5 V)	1	ZWS30B-5	009281
47	SWITCHING REGULATOR (12 V)	1	HWS300-12	009282
48	SWITCHING REGULATOR (24 V)	1	ZWS150BAF-24	009283
49	CIRCUIT PROTECTOR	1	CP32VM/5	004762
50	NOISE FILTER	1	RPE-2006F01	011037
51	SLIDE SW	1	SDS-103A-03#13BJ	000312
52	SWITCH	3	DS-430-W	000889
53	SWITCH	1	DS-430-R	000890
54	VFD	1	GU128X64D-7000	734755
55	COIN DOOR UNIT	4	BNW-L2SB	101262
56	TICKET DOOR	4	40-0390-00	101263
57	TICKET DISPENSER Entropy2000	4	TD963CR	307845

9-7 Acrylic Door(U.S.) Assembly



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Acrylic Door(U.S.) Assembly

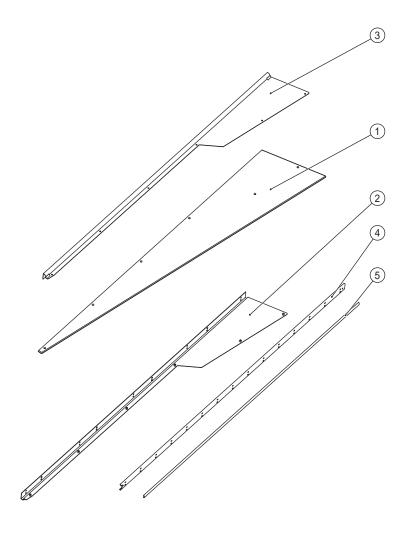
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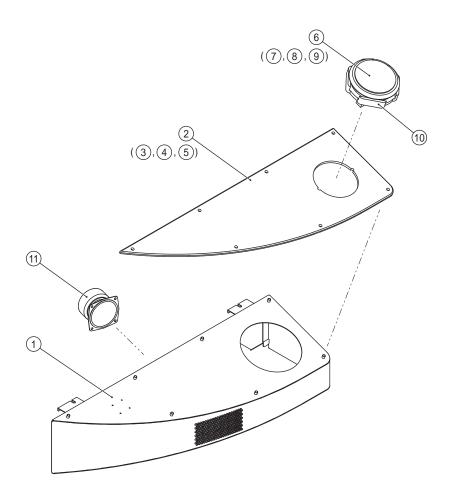
No.	Name	Qty.	Type and rating	Part No.
1	DOORFRAME A	8		734756
2	DOORFRAME B(US)	4		734722
3	DOORFRAME C(US)	4		734723
4	DOORFRAME D	4		734759
5	DOORFRAME E(US)	4		734724
6	DOORFRAME F	4		734761
7	DOOR AC(C)	4		734725
8	DOOR SENSOR DG	4		734763
9	DOOR ROD	8		734764
10	DOOR LOCK	4		734765
11	DOOR HINGE(US)	4		734726
12	DOOR BRACKET A	4		734767
13	DOOR PIN A	4		734768
14	DOOR BAR	4		734769
15	DOOR PIN B	4		734770
16	DOOR WASHER	4		734771
17	DOOR BRACKET B	4		734772
18	DOOR PIN B	4		734773
19	DOOR BRACKET C	4		734774
20	DOOR BRACKET D	4		734775
21	TUBULAR LOCK	4	F750-MSD	101260
22	FLANGE BUSH	16	LFF-1006	104004
23	DOOR AC(L)	4		734727
24	DOOR AC(R)	4		734728

9-8 Pillar Assembly



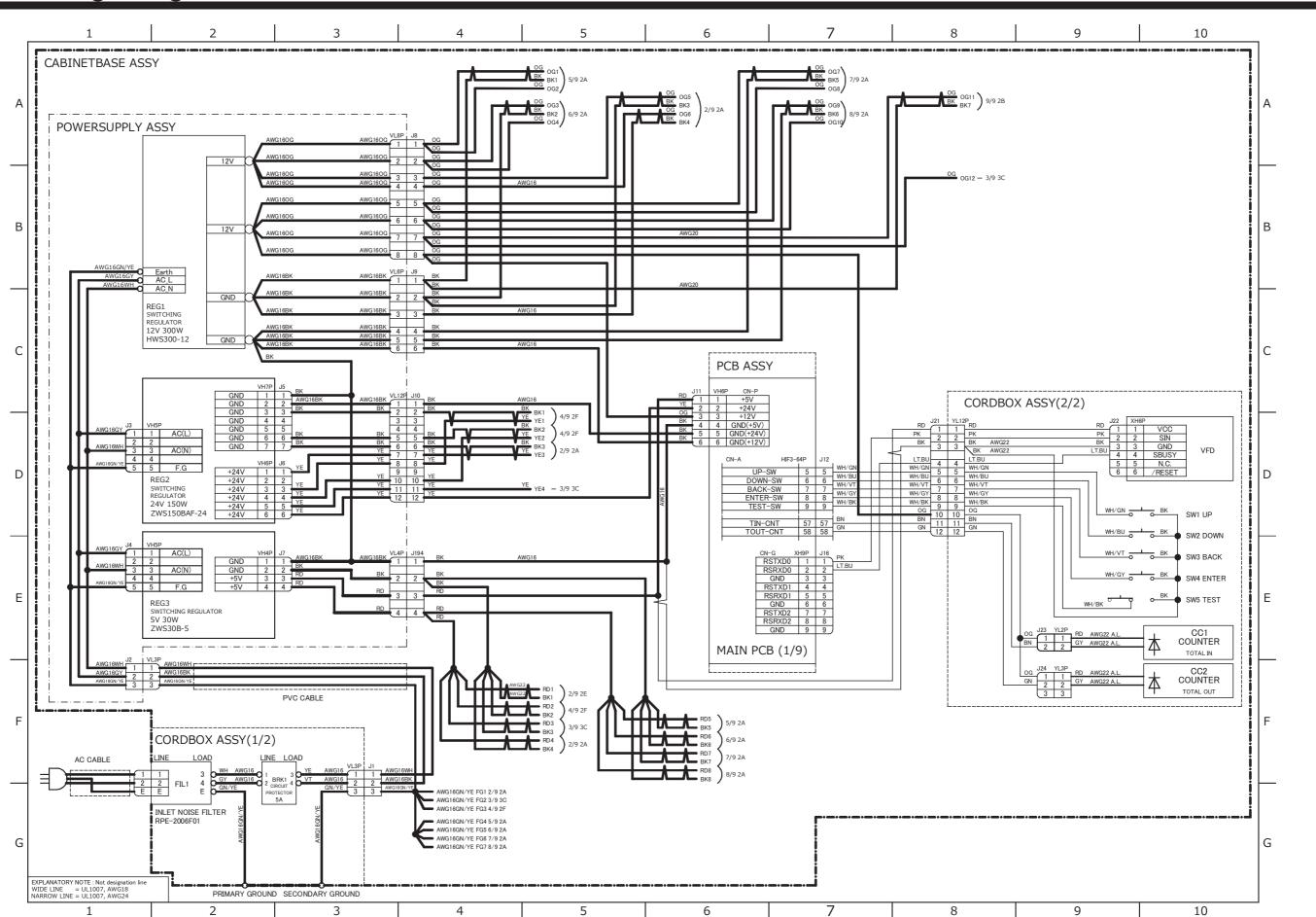
No.	Name	Qty.	Type and rating	Part No.
1	PILLAR AC	4		734776
2	PILLAR BRACKET 1	4		734777
3	PILLAR BRACKET 2	4		734778
4	PILLAR BRACKET 3	4		734779
5	LED TAPE (1,400 mm)	4	5050RGB-D16726-12V-XA4R-L1400	002687

9-9 Control Panel Assembly



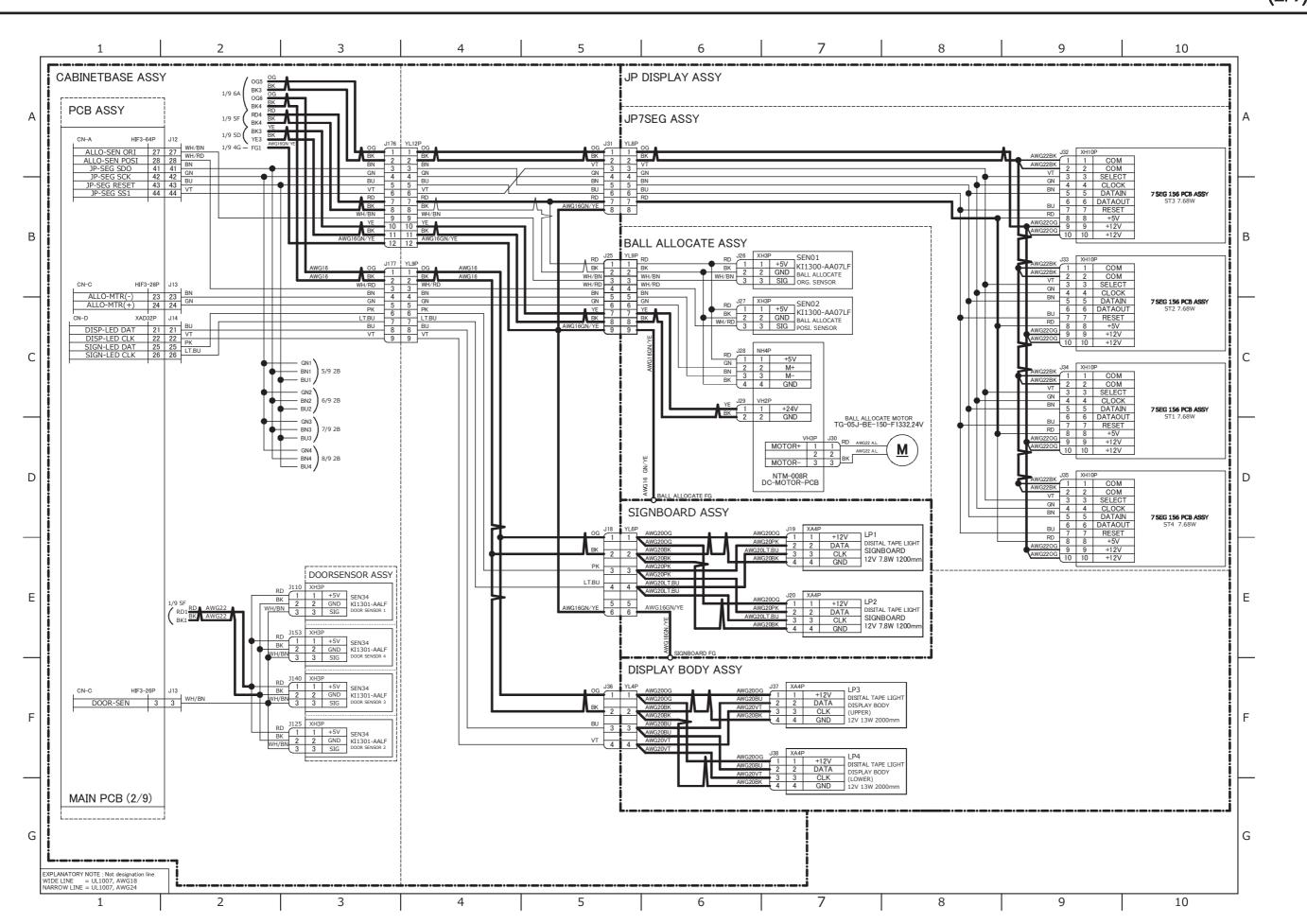
No.	Name	Qty.	Type and rating	Part No.
1	CONTROL PANEL	4		734780
2	CONTROL PANEL AC (YELLOW)	1	Station 1	734781
3	CONTROL PANEL AC (BLUE)	1	Station 2	734782
4	CONTROL PANEL AC (RED)	1	Station 3	734783
5	CONTROL PANEL AC (GREEN)	1	Station 4	734784
6	SWITCH SHEET (YELLOW)	1	Station 1	734785
7	SWITCH SHEET (BLUE)	1	Station 2	734786
8	SWITCH SHEET (RED)	1	Station 3	734787
9	SWITCH SHEET (GREEN)	1	Station 4	734788
10	ILLUMINATED SWITCH	4	BLC-BL-BK-H-CW-D#1	000891
11	SPEAKER	4	067PR16D10W-B1	006202

10. Wiring Diagrams

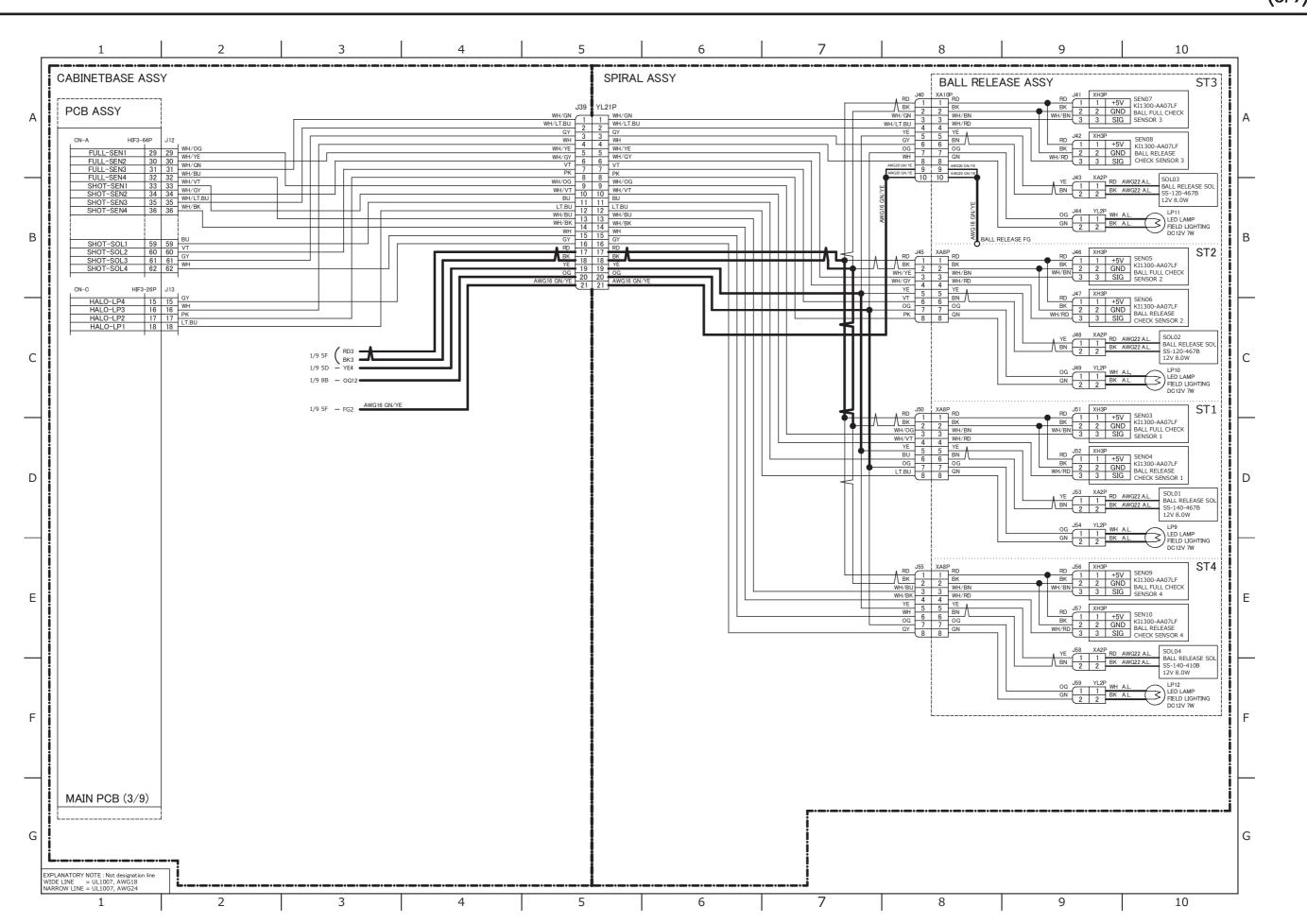


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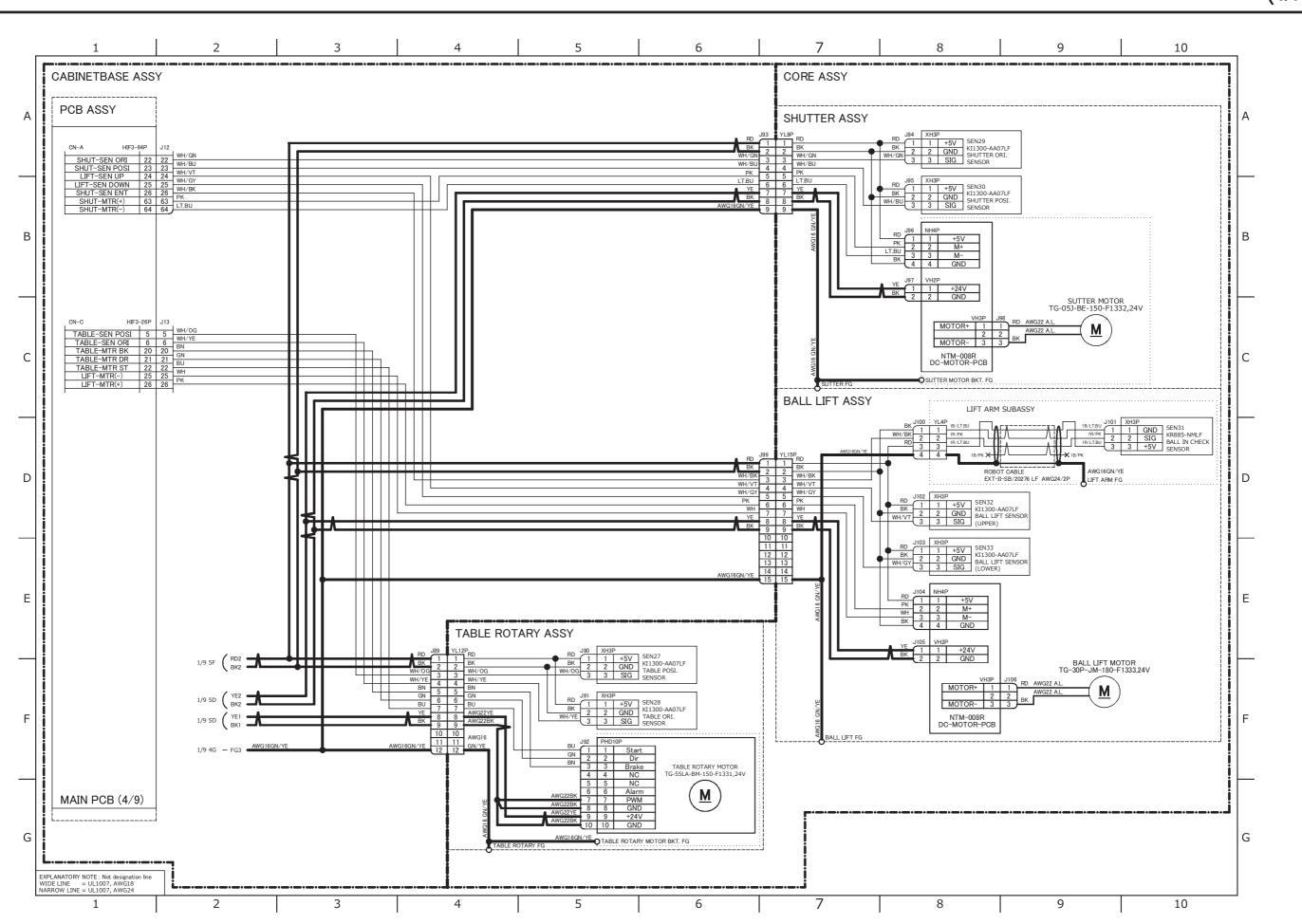
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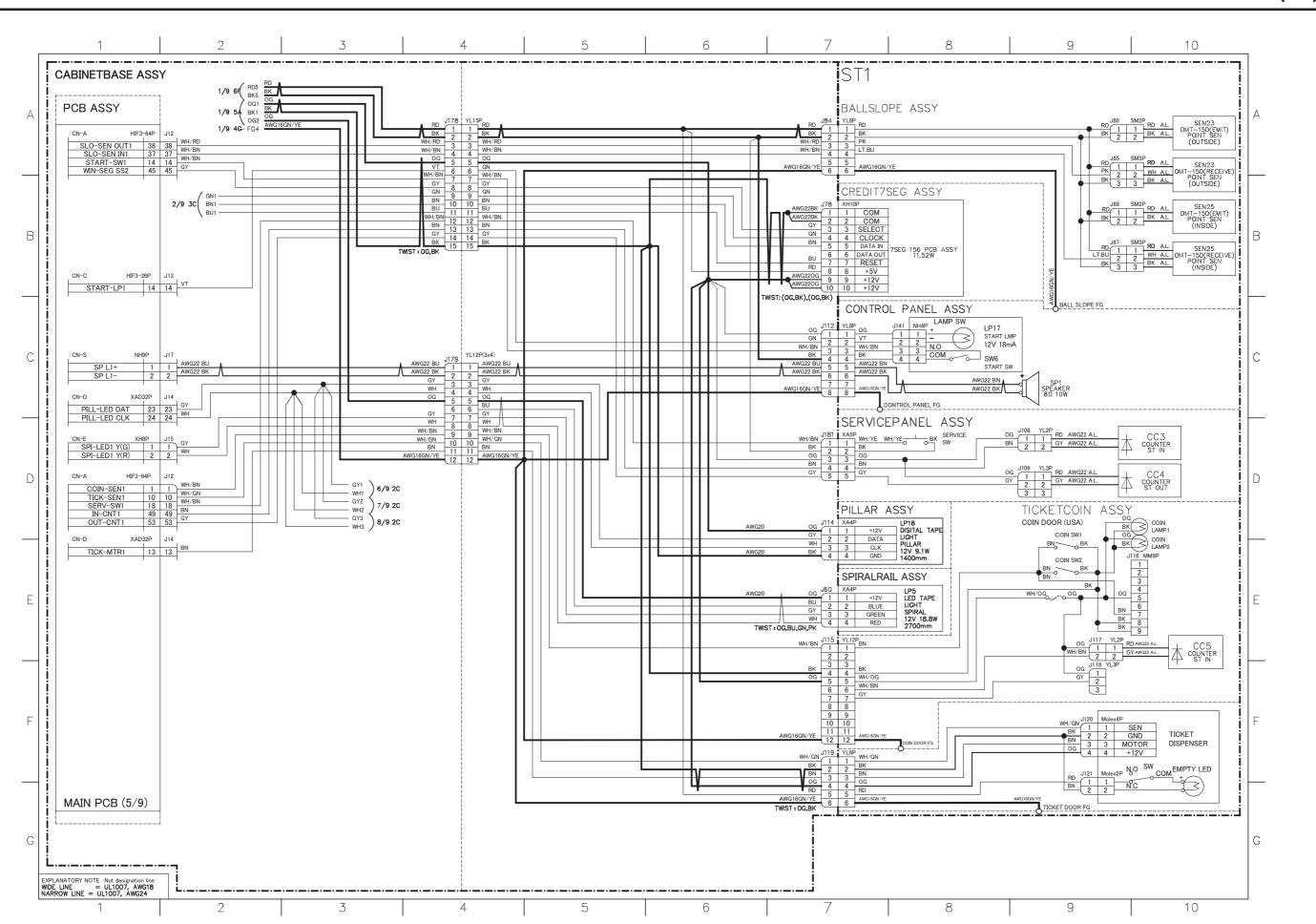
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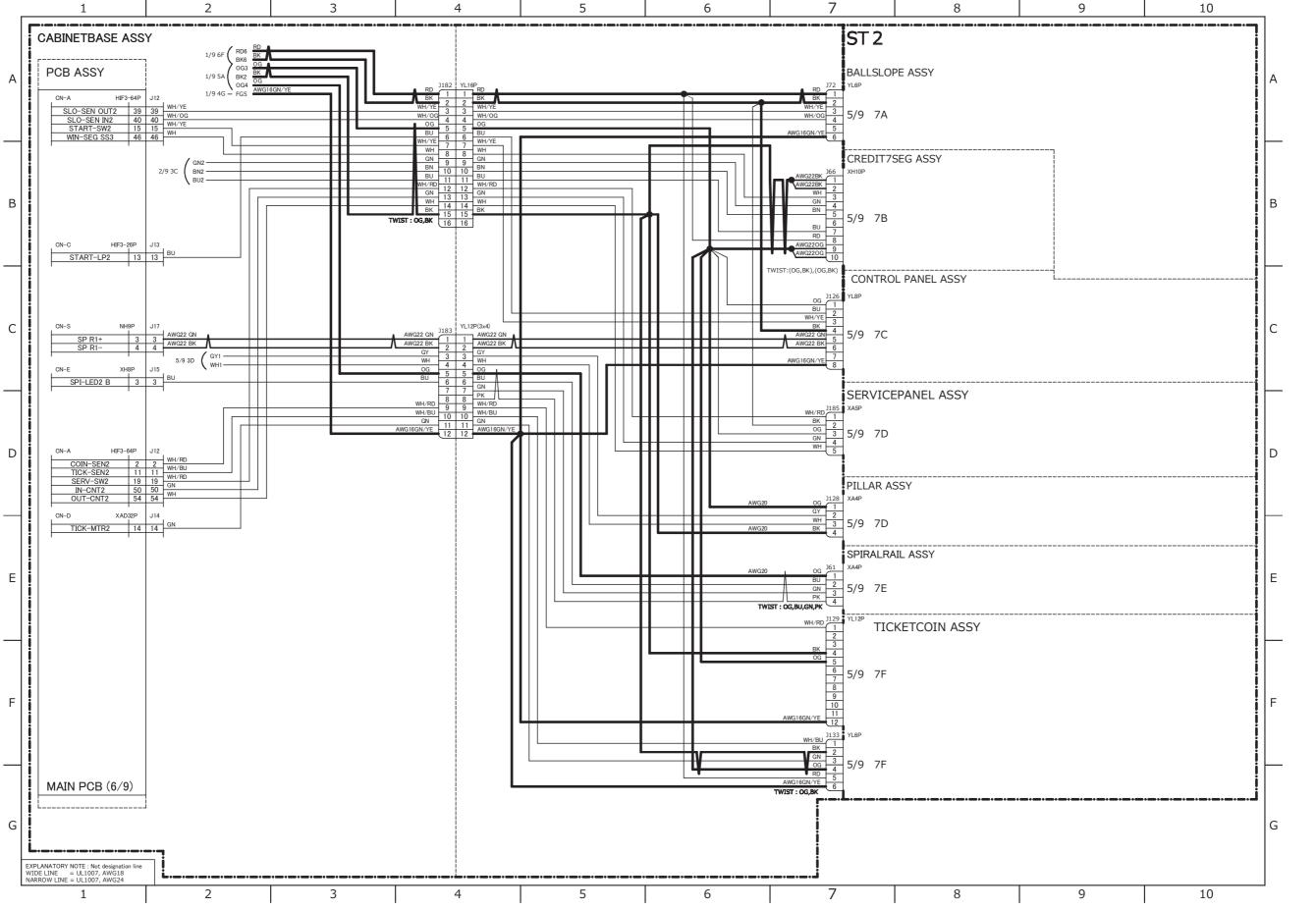
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