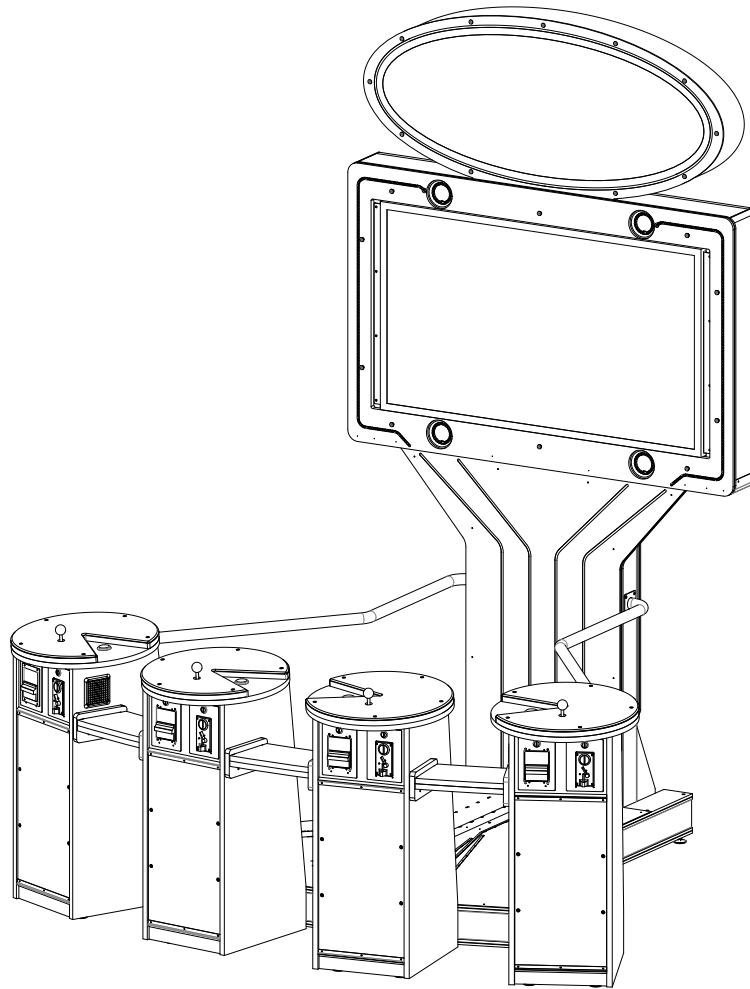**namco**®

PAC-MAN BATTLE ROYALE DELUXE

OPERATION MANUAL

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

⚠ WARNING

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

NAMCO BANDAI Games Inc.

IMPORTANT

Read PRECAUTIONS and INSTALLATION Sections before operating game

RF Notice

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operating in a commercial environment. This equipment uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

INTRODUCTION

Thank you for purchasing the "PAC-MAN BATTLE ROYALE" game machine (hereinafter referred to as the "machine").

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

Inquiries regarding this machine and its repair
- For further information about the machine and its repair, contact your distributor.

The software included in the machine is protected by copyright laws. The software may not be copied, modified, distributed publicly, or used for purposes other than the operation of this game machine. Violators of copyright laws may be subject to criminal penalties. Do not use the storage media containing software in any other game machine; doing so may cause that machine to malfunction.

This machine uses the following licenses.

Fonts used in-game are provided by Bitstream Inc. All rights reserved.

Copyright © 1997 - 2002, Makoto Matsumoto and Takuji Nishimura, All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The names of its contributors may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NOTES

1. SAFETY PRECAUTIONS – Be sure to read this section before installing or operating the machine. –

Instructions to the owner

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

1-1 Magnitudes of risk

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

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

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

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

◖**NOTICE** ● Note related to product function or protection.

1-2 Definition of "technician"

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

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

1. SAFETY PRECAUTIONS
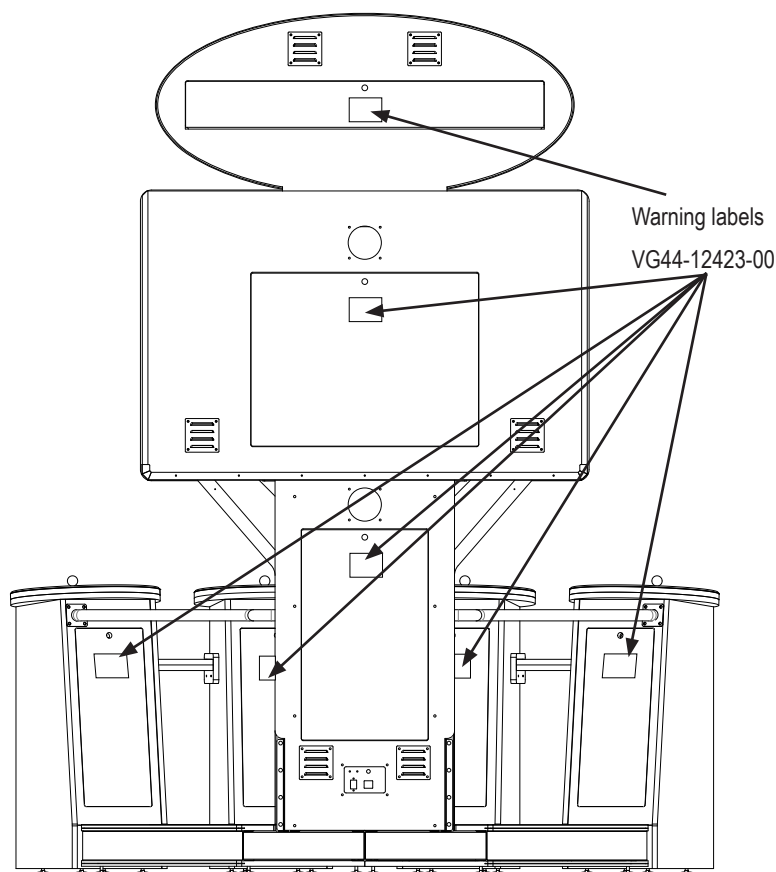
1-3 Critical safety precautions

⚠ **WARNING**

- Should any abnormality occur, turn off the power switch immediately to stop operating the machine. Then, unplug the power cord plug from the AC outlet. Operating the machine without correcting abnormalities can result in a fire or accident.
- Some monitor sections remain hot or charged with high voltage even after the power switch is turned off. Do not touch the monitor unnecessarily in order to avoid electric shock and burns.
- Dust accumulated on the power cord plug may cause a fire. Check the power cord plug regularly and remove dust.
- Insert the power cord plug firmly into the AC outlet. Poor contact may cause overheating that can lead to a fire or burns.
- A damaged power cord can cause a fire, electric shock or electrical leakage. Observe the following cautions.
  • Keep the power cord away from heating devices.
  • Do not twist the power cord.
  • Do not bend the power cord forcibly.
  • Do not alter the power cord.
  • Do not bundle the power cord.
  • Do not pull the power cord. (Always unplug by holding the power cord plug, and avoid pulling the power cord.)
  • Do not place anything on the power cord.
  • Do not allow the power cord to be caught under or between the machine, other equipment or the wall.
  • Do not do anything else that might damage the power cord.
- Do not wet the power cord or power cord plug with water. Water can cause an electric shock or electrical leakage.
- Do not touch the power cord plug with a wet hand. Doing so can result in an electric shock.
- The machine's rated power supply voltage and maximum consumption current are 120 V AC, 2 A, respectively. To prevent fire and electric shock, be sure to use interior wiring that conforms to these power supply specifications.
- Operate the machine with a power supply voltage in the range of 104 to 127 V AC. Operating the machine with a supply voltage outside the specified range may cause a fire or electric shock. To ensure that the machine operates in optimum condition, maintain the power supply at 120 V AC.
- To ensure safe operation of the machine, be sure to conduct the pre-service check (See P. 15 "7-1 Pre-service check") and service (See P. 44 "8B. SERVICES") described in this manual. Failure to conduct the pre-service check or service can result in an accident.
- Use consumables and service parts (including fasteners) specified by our company. To order parts, contact your distributor.
- Do not convert the machine without permission. Do not perform any work that is not described in this operation manual. Unauthorized conversion of the machine may create unforeseen hazards.
- When transferring ownership of the machine, be sure to provide this operation manual with the game machine.

1-4 Description of warning labels attached to the machine

⚠ **WARNING**

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

Warning labels

VG44-12423-00

CONTENTS

4

2. SPECIFICATIONS

(1) Rated power supply: US 120 ± 10% V AC (60 Hz) - UK 240 ± 10% VAC (50Hz)60
(2) Maximum power consumption: 600W
(3) Maximum current consumption: 5 A (120 V AC power supply) 2.5 A (240 V AC power supply)
(4) Coin box capacity: Approx. $750 in coins (3,000 25-cent coins)
(5) Display device: LCD monitor (54 -inch screen)
(6) Dimensions
        As installed: 95 x 86 x 115 in. (2,413 x 2,184 x 2,921 mm) (W x D x H)
(7) Weight   1050 lbs.

Left Side View
    .. Cabinet:
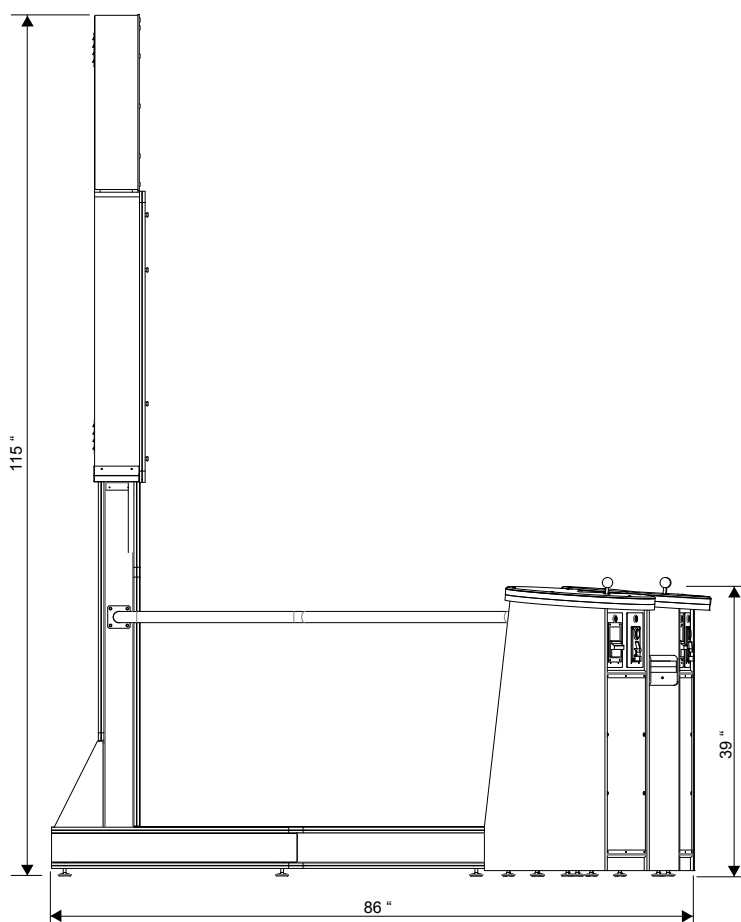
Top View
- Cabinet: 95 x 86 x 115 in. (2,413 x 2,184 x 2,921 mm) (W x D x H)

60"

95 "
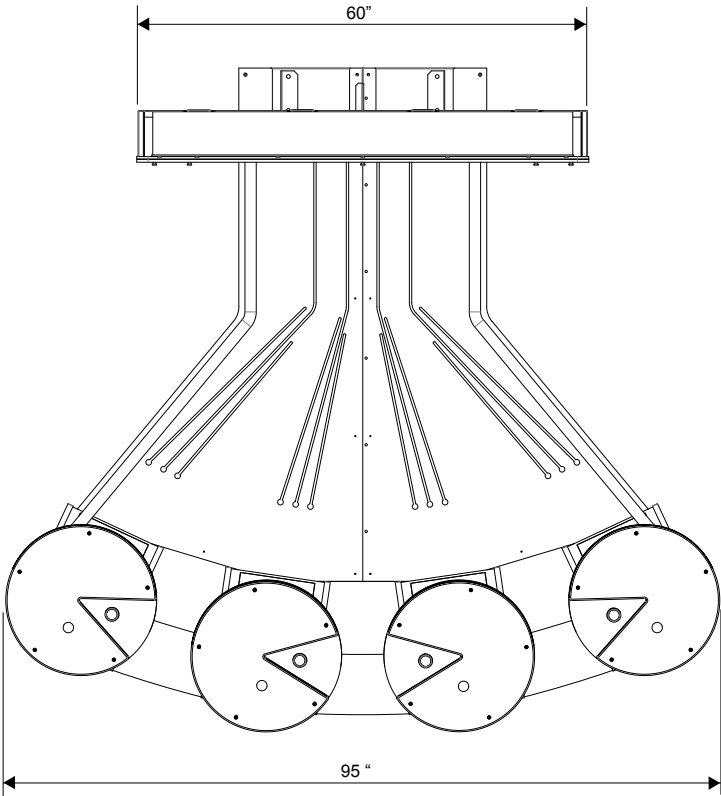
Front View
- Cabinet:

115 "

95 "

7
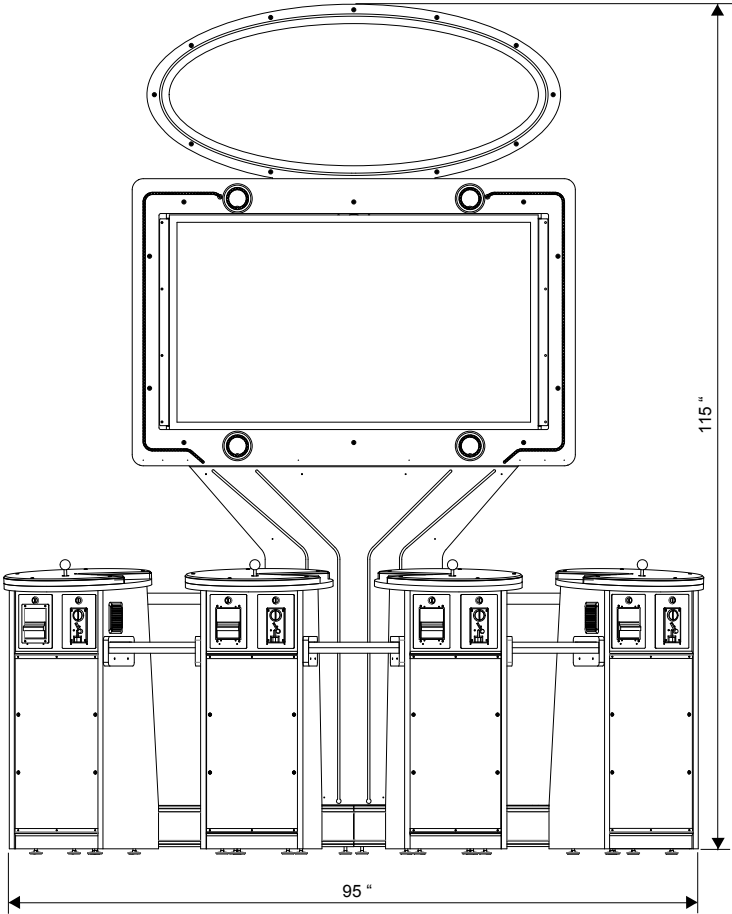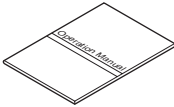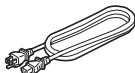
3. PACKAGE CONTENTS

The product packages shipped from the factory contain the following components and parts.

> **NOTICE**
> - **Make sure that all the items listed below (except the service key) are contained in the coin box.**
> - **If any item is missing, contact your distributor.**

■ **Accessory list**

No.	Name	Specification	Qty.
1	Operation Manual		1
2	Service key		2
3	Coin box key		2
4	Power cord		1

4. OVERALL CONSTRUCTION (Names of Parts)

■ **Front**

Marquee

Fluorescent lamps
(inside)

Fuse(5A 250V)

Control Panel assembly
(1P, Red)

Control Panel assembly
(2P, Yellow)

Bill acceptor
(option) X4

Cord box

Power switch

Control Panel assembly
(3P, Pink)

Coin Acceptor
X4

Control Panel assembly
(4P, Blue)
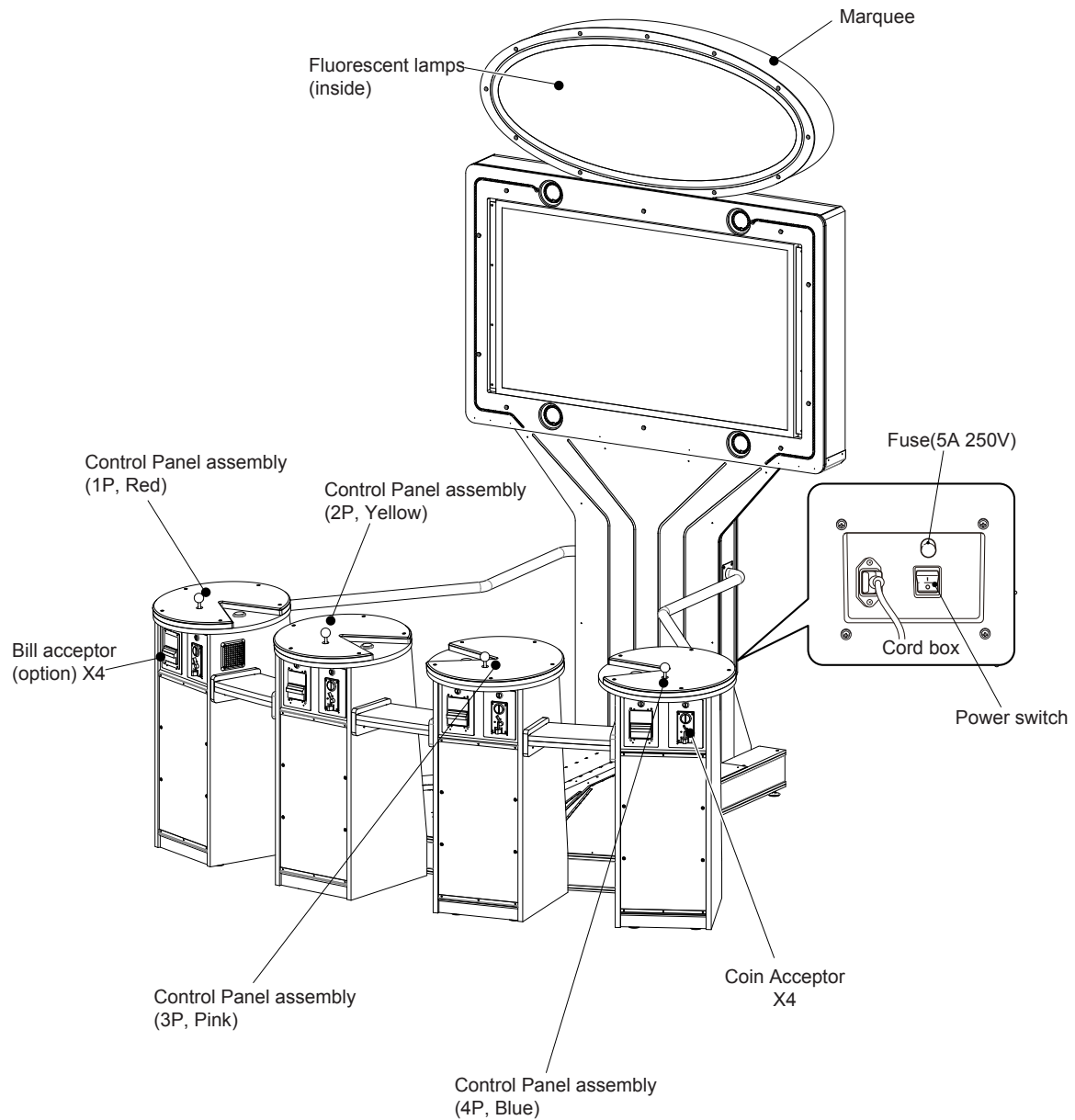
5. INSTALLATION

┌─────────────────── ⚠WARNING ───────────────────┐

- **Install the machine according to the instructions and procedures specified in this operation manual. Failure to follow the specified procedures may result in a fire, electric shock, injury or machine malfunctions.**
- **Insert the power cord plug firmly into the AC outlet. Poor contact may cause overheating that can lead to a fire or burns.**
- **Install the machine securely by using the level adjusters. Unstable machine installation can result in an accident or injury. (See P. 36 "8A-1-1 Securing the machine using level adjusters.")**

└───┘

5-1 Installation conditions

5-1-1 Locations to avoid when installing the machine

┌─────────────────── ⚠WARNING ───────────────────┐

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

└───┘

5-1-2 Play zone for installed machine

⚠WARNING

● Create a play zone around the machine (space as shown below) to prevent players coming into contact with bystanders or passers-by.

NOTICE ● The distance from the floor to the ceiling must be at least 10.6 ft. (3 m 23 cm).
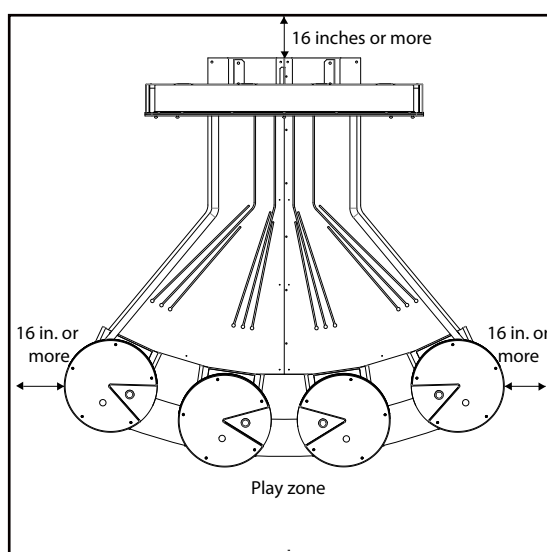
5-2 Required dimensions for bringing the machine inside (such as doors and corridors)

The machine is divided into separate components at the factory before shipping. Because of its size, the machine can not be moved fully assembled. The dimensions of main components are as follows:

● As installed:
   95 x 86 x 115 in. (2,413 x 2,184 x 2,921 mm) (W x D x H)
● Disassembled:
   Base Right: 37.89 x 68.13 x 6.58 in. (962.28 x 1730.54 x 167.17 mm) (W x D x H)
   Weight: Approx. 85 lb. (38.5554 kg)
   Base Left: 38.69 x 68.13 x 6.58 in. (982.60x 1730.54 x 167.17 mm) (W x D x H)
   Weight: Approx. 103 lb. (46.72 kg)
   Upright: 44.75 x 11.46 x 52 in. (1136.55 x 291.01 x 1320.80 mm) (W x D x H)
   Weight: Approx. 115 lb. (52.163 kg)
   Marquee: 56 x 6.20 x 23.75 in. (1422.40 x 157.50 x 603.75 mm (W x D x H)
   Weight: Approx. 62 lbs (28.1227kg)
   Monitor: 60 x 7.26 x 38.7 in. (1524 x 184.404 x 982.98 mm) (W x D x H)
   Pedestals: 20 x 21 x 39 in. (508 x 533 x 991 mm) (W x D x H)
Doors and corridors must be sufficiently higher and wider than the component dimensions indicated above.

6. MOVING AND TRANSPORTING

<div style="border:1px solid; text-align:center">

⚠WARNING

● **Do not leave the machine on a slope. If the machine is left on a slope, it may tip over and cause an accident.**

</div>

6-1 Moving (on the floor)

NOTICE ● **Carefully transport the machine so as not to cause excessive impacts to it, as the LCD monitor is a precision electronic component.**

6-2 Transportation

6-2-1 Manual transportation (carrying on stairs, etc.)

⚠️ **WARNING**

- When moving, always separate the machine into parts. (See P. 11 "5-2 Required dimensions for bringing the machine inside (such as doors and corridors).")
- When carrying the machine manually, the following number of people are needed. Attempting to carry the machine with fewer people can result in an accident or injury.

Right Base assembly:
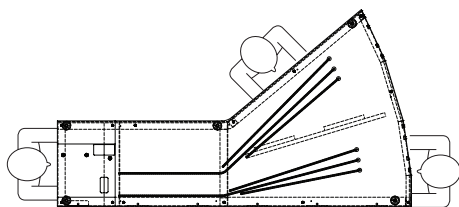
Left Base Assembly:
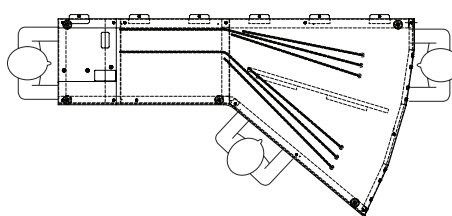
Upright Assembly:
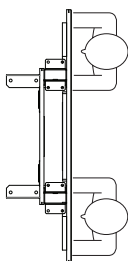
Monitor Assembly
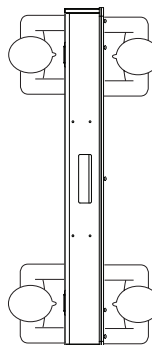
Marquee Assembly

Pedestal Assembly (X4)
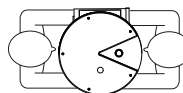
7. OPERATION

⚠WARNING

- Some monitor sections remain hot or charged with high voltage even after the power switch is turned off. Do not touch the monitor unnecessarily in order to avoid electric shock and burns.
- Dust accumulated on the power cord plug may cause a fire. Check the power cord plug regularly and remove dust.
- Insert the power cord plug firmly into the AC outlet. Poor contact may cause overheating that can lead to a fire or burns.
- Be sure to check that the machine has been installed according to the instructions and procedures specified in this operation manual (See P. 10 "5. INSTALLATION.") before operating the machine. If the machine is not installed properly, fire, electric shock, injury or equipment malfunction can occur.
- The warning labels describe important safety precautions. Be sure to observe the following:
  - To ensure that the warning labels attached to the machine are easily legible, install the machine at an appropriate location with ample illumination and keep the labels clean at all times. Also, make sure that the labels are not hidden behind another game machine or other objects.
  - Do not remove or alter the warning labels.
  - If the warning labels become excessively dirty or damaged, replace them with new labels. To order warning labels, contact your distributor.
- To ensure safe operation of the machine, be sure to conduct the pre-service check (see P. 15 "7-1 Pre-service check") and Service (see P. 44 "8B. SERVICES") described in this manual. Failure to conduct the pre-service check or service can result in an accident.

⚠CAUTION

- If a player becomes sick due to light stimulation or game images, have that person stop playing the game immediately and let him/her rest.
- In rare cases, stimulation by lights or video images can cause convulsions or a loss of consciousness. If this happens, advise the player to consult a doctor as soon as possible. When pre-school children play, request their parents or guardians to keep an eye on the children.

7-1 Pre-service check

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

⚠️ **WARNING**

● **To prevent accidents and injury, be sure to conduct the pre-service check described below before commencing operation.**

(1) Are all warning indications in place? (See P. 3 "1-4 Description of warning labels attached to the machine.")
(2) Are the warning indications legible? (See P. 3 "1-4 Description of warning labels attached to the machine.")
(3) Are all level adjusters adjusted properly? (See P. 36 "8A-1-1 Securing the machine using level adjusters.")
(4) Is the specified play zone provided? (See P. 11 "5-1-2 Play zone for installed machine.")
(5) Is the power cord routed so that it will not cause players or other customers to trip over it?
(6) Is the power cord securely connected to the AC outlet and the power input socket on the machine?
(7) Is the power cord plug free of dust?
(8) Is the Monitor securely attached to the Upright assembly?
(9) Is the Marquee securely attached to the Monitor Assembly?
(10) Is the rear cover securely attached to the Upright assembly?

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

(11) Is any part of the power cord or plug abnormally hot?
(12) Does touching the machine give an electric shock?
(13) Is there a burning smell, abnormal noise or vibration?
(14) Is there any other sign of abnormality or malfunction?

7. OPERATION

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

Check the following items in Test mode. (See P. 18 "7-2-2 Adjustment switches and buttons.")

(1)   Check the lamps for proper operation. (Do the fluorescent bulb and Start buttons light?)
(See P. 25 "7-4-4 Switch/sensor test (I/O TEST).")
(2)   Check the Start buttons for proper operation.
(See P. 25 "7-4-4 Switch/sensor test (I/O TEST).")
(3)   Check the displayed image. (Does the monitor show images properly?)
(See P. 28 "7-4-5 Monitor condition (MONITOR TEST).")
(4)   Check the sound. (Is sound produced by each loudspeaker?)
(See P. 29 "7-4-6 Sound adjustment (SOUND TEST).")
(5)   Check the clock.
(See P. 33 "7-4-8 (1) CLOCK SETTING.")

7-2 Explanation of the power switch and adjustment switches

7-2-1 Turning the power switch on
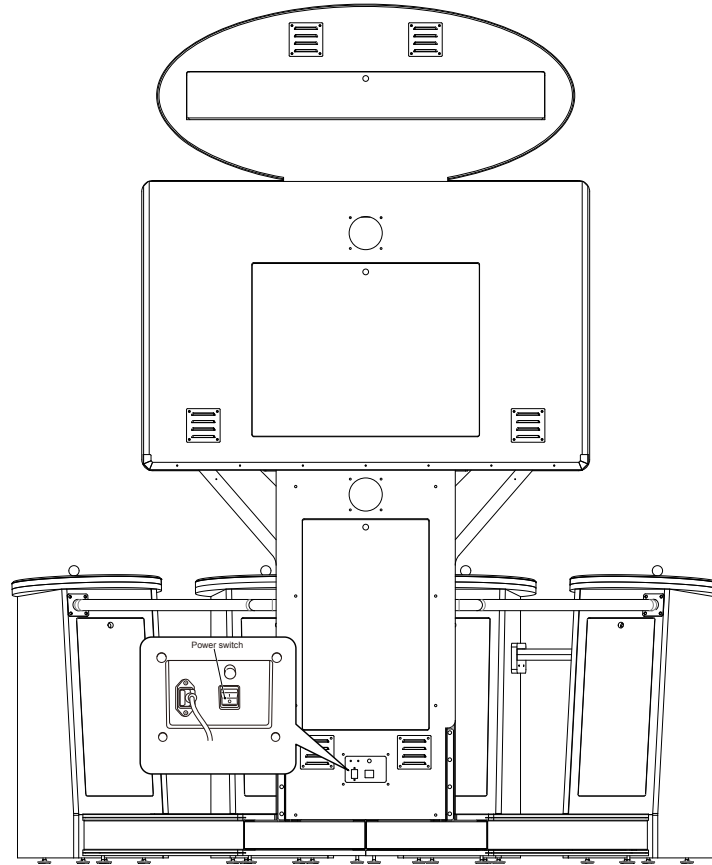
NOTICE	● **Be sure to complete the installation and setup of the machine before turning the power switch on.**
	● **When turning the power switch on or off, wait at least 30 seconds between switch operations. Do not repeat turning the power switch on and off unnecessarily. Repeated on/off operations can cause damage to the data in the backup memory.**

17

7. OPERATION

7-2-2 Adjustment switches and buttons

Open the service door on the first player station to gain access to the adjustment switches and buttons.
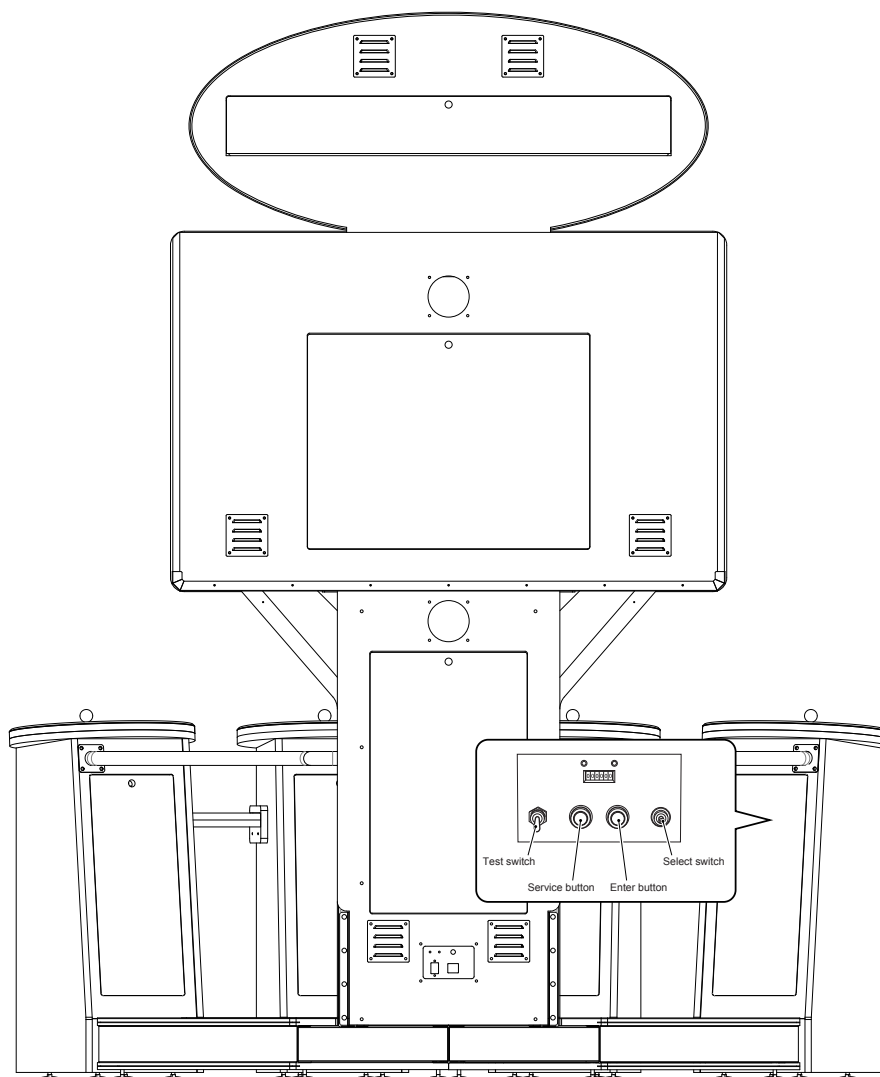
Test switch

Set this switch to ON to activate Test mode. Test mode is used to test the monitor and other parts. (See P. 21 "7-4 Test mode.")

Service button (red)

Press this button to increase the credit count without activating the coin counter.

Enter button (green)

After selecting an item or setting (a numeric value) using the Select switch, press this button to enter or execute the selection.

Select switch

In Test mode, flip this switch up or down to select an item or setting (a numeric value).

7-3 How to play PAC-MAN BATTLE ROYALE

7-3-1 Game rules

- Up to four players can battle together.
- If your Pac-Man has eaten a power pellet, he can eat other players' Pac-Men.
- The last one standing wins the round.
- Multiple rounds can be played per battle royale.

7-3-2 How to control your Pac-Man

Move your Pac-Man through the maze by moving your joystick up, down, left, and right.

7-3-3 Items and a strategy in the maze

Pac-dot

The pac-dot pattern is refreshed when all pac-dots have been eaten.

Food

The pac-dot pattern is refreshed when food is eaten, even if some pac-dots remain.

Power pellet

When a Pac-Man eats a power pellet, he grows larger and other Pac-Men turn blue. The large Pac-Man can devour other blue Pac-Men.

Takeouts

When two equally-sized Pac-Men bump into each other, they bounce off of each other. To kill an opposing Pac-Man, bump your Pac-Man into it and knock it against a ghost. (Note that Pac-Men do not bump or pass through each other when they are blue.)

19
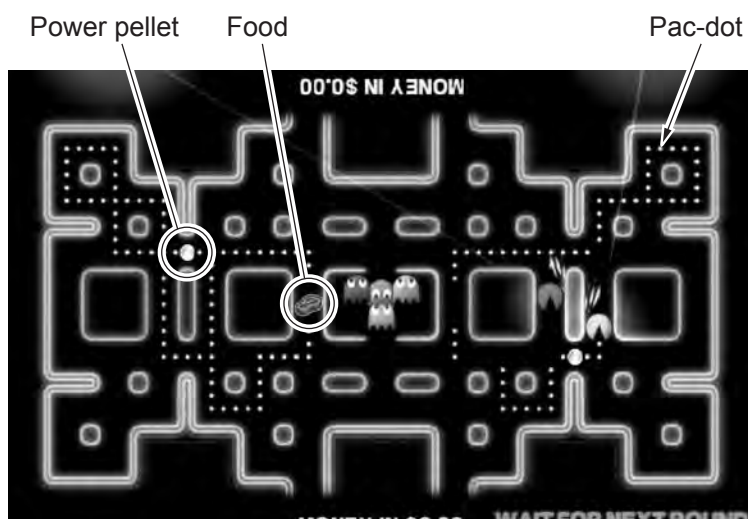
7. OPERATION

7-3-4 START button

● If any credits remain when you press the START button, you can start playing the game.

● When you press the START button during a game in progress (group play), you (a maximum of four players) can participate in the first available round of play.
(Note that this function is not available during the final round or in single mode.)

● When you (winner or loser) press the START button during intermission (while Winner is displayed), you can throw paint bombs at the loser (for winner) or winner (for loser) to taunt your opponent(s).
(In solo play, the game proceed directly to the next round of play.)

7-4 Test mode

7-4-1 Description of the menu screen (MENU)

1 Unlock the service door on the first player station and set the Test switch to ON. (See P. 18 "7-2-2 Adjustment switches and buttons.")
The Menu screen appears on the monitor.

```
                        MENU                          Game fee settings, etc.
                                                        See section 7-4-2
        COIN OPTIONS    ◄────────────                Game detail settings
        GAME OPTIONS    ◄────────────                  See section 7-4-3
        I/O TEST        ◄────────────                Switch/button/joystick testing, etc.
        MONITOR TEST    ◄────────────                  See section 7-4-4
        SOUND TEST      ◄────────────                Monitor testing
        BOOKKEEPING     ◄────────────                  See section 7-4-5
        OTHERS          ◄────────────                Sound adjustment, etc.
                                                       See section 7-4-6
                                                     Bookkeeping check
        CURRENT STATUS                                 See section 7-4-7
           BALANCE                     $1.00 ◄──(a)
           SERVICE                     $0.00 ◄──(b)
                                                     Clock setting and backup
                                                     memory initialization
                                                        See section 7-4-8
        SELECT SW:CHOOSE     ENTER SW:ENTER
```

Menu screen

Item	Description
(a) BALANCE	Amount of money inserted before starting test mode.
(b) SERVICE	The amount for service games provided before starting test mode.

2 Flip the Select switch up or down to select an item. The selected item will blink.

3 Press the Enter button to enter the selection. Applicable items under the selection appear.

4 After all settings are complete, set the Test switch to OFF. The game display returns to the screen.

21

7. OPERATION

7-4-2 Game fee settings (COIN OPTIONS)

This screen is used to set the game fee, free play, and other options.

1 Select "COIN OPTIONS" in the Menu screen and press the Enter button. (See P. 21 "7-4-1 Description of the menu screen (MENU).")
The Coin Options screen appears on the monitor.

```
                    COIN OPTIONS
                 DEFAULT IN GREEN

        GAME COST                       $2.00  ◄──── (a)
        FREE PLAY                         OFF  ◄──── (b)
        PLAY TYPE                       GROUP  ◄──── (c)
        CURRENCY                       DOLLAR  ◄──── (d)
        VALUE OF MECHANICAL COUNT       $0.25  ◄──── (e)
        VALUE OF COIN 1                 $0.25  ◄──── (f)
        VALUE OF COIN 2                 $0.25
        VALUE OF COIN 3/BILL PULSE      $0.25

        EXIT


           SELECT SW:CHOOSE     ENTER SW:ENTER
```

Coin Options screen

Item	Description	Factory settings

(a) GAME COST	Sets the game cost
	A value range varies depending on the currency.
	DOLLAR: $ 0.25 to $ 25.0
	POUND: £ 0.10 to £ 10.0
	         £ 0.20 to £ 20.0
	         £ 0.50 to £ 50.0
	         £ 1 to £ 100
	         £ 2 to £ 200
	EURO: € 0.10 to € 10.0
	         € 0.20 to € 20.0
	         € 0.50 to € 50.0
	         € 1 to € 100
	         € 2 to € 200
	COIN: 1 to 100
		$ 2.00

(b) FREE PLAY	Turns Free Play on or off ON/OFF	OFF

(c) PLAY TYPE	Sets the play type
	  GROUP: Up to four people can play during one play.
	  SINGLE: A game fee required for each player.
		SINGLE

(d) CURRENCY	Sets the currency DOLLAR/POUND/EURO/COIN	DOLLAR

Item	Description	Factory settings
(e) VALUE OF MECHANICAL COUNT	Sets the incremental value of the coin counter The value range varies depending on the currency. DOLLAR: $ 0.25 (fixed value) POUND: £ 0.10/£ 0.20/£ 0.50/£ 1/£ 20 EURO: € 0.10/€ 0.20/€ 0.50/€ 1/€ 20 COIN: 1 (fixed value) Each time the service button is pressed, the preset credit value increases in increments.	$ 0.25

(f) VALUE OF COIN 1 (Settings for VALUE OF COIN 2 and VALUE OF COIN 3/BILL PULSE are the same.)	Sets the pulse input weighting for a coin selector or bill acceptor connected to COIN UNIT 1
	(As the input pulse value varies depending on the connected equipment, be sure to set the appropriate value.)
	The value range differs depending on the currency.
	DOLLAR: $ 0.25 to $ 25.0
	POUND: £ 0.10 to £ 10.0
	            £ 0.20 to £ 20.0
	            £ 0.50 to £ 50.0
	            £ 1 to £ 100
	            £ 2 to £ 200
	EURO: € 0.10 to € 10.0
	            € 0.20 to € 20.0
	            € 0.50 to € 50.0
	            € 1 to € 100
	            € 2 to € 200
	COIN: 1 to 100
		$ 0.25

2 Flip the Select switch up or down to select an item. The selected item will blink.

3 Press the Enter button to enter the selection.

4 Flip the Select switch up or down to change the setting, and then press the Enter button to enter the change. The display returns to the previous selection screen.

5 To return to the Menu screen, select "EXIT" and press the Enter button.

7. OPERATION

7-4-3 Game detail settings (GAME OPTIONS)

This screen is used to set the game details.

1 Select "GAME OPTIONS" in the Menu screen and press the Enter button. (See P. 21 "7-4-1 Description of the menu screen (MENU).")
The Game Options screen appears on the monitor.

```
                    GAME OPTIONS
                  DEFAULT IN GREEN

        GAME SPEED                    NORMAL  ◄──── (a)
        ROUND NUMBERS                      5  ◄──── (b)
        TIME OUT                     NORMAL  ◄──── (c)
        BGM                               A  ◄──── (d)

        EXIT




            SELECT SW:CHOOSE    ENTER SW:ENTER
```

Game Options screen

Item	Description	Factory settings
(a) GAME SPEED	Sets the game speed FAST/NORMAL/SLOW	NORMAL
(b) ROUND NUMBERS	Sets the available round number. 3 to 9	5
(c) TIME OUT	Sets the time-out duration for one round. LONG/NORMAL/SHORT	NORMAL
(d) BGM	Sets BGM type on attract mode A/B	A

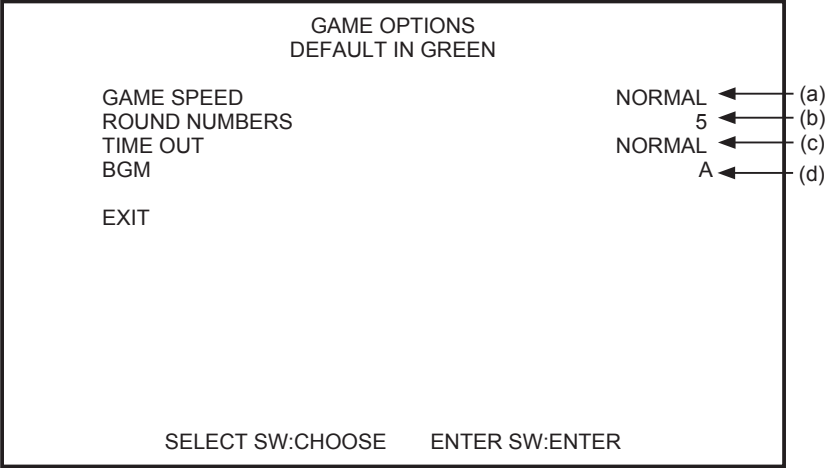**2** Flip the Select switch up or down to select an item. The selected item will blink.

3 Press the Enter button to enter the selection.

4 Flip the Select switch up or down to change the setting, and then press the Enter button to enter the change. The display returns to the previous selection screen.

5 To return to the Menu screen, select "EXIT" and press the Enter button.

7-4-4 Switch/sensor test (I/O TEST)

This screen is used to test the functions of the switches on the machine.

1 Select "I/O TEST" in the Menu screen and press the Enter button. (See P. 21 "7-4-1 Description of the menu screen (MENU).")
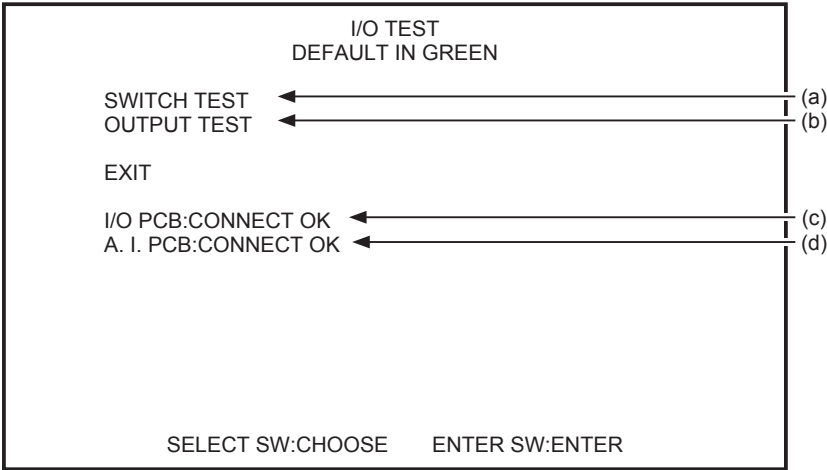The I/O Test screen appears on the monitor.

```
                    I/O TEST
                DEFAULT IN GREEN

        SWITCH TEST    ◄─────────────────────── (a)
        OUTPUT TEST    ◄─────────────────────── (b)

        EXIT

        I/O PCB:CONNECT OK   ◄──────────────────(c)
        A. I. PCB:CONNECT OK ◄──────────────────(d)




          SELECT SW:CHOOSE     ENTER SW:ENTER
```

I/O Test screen

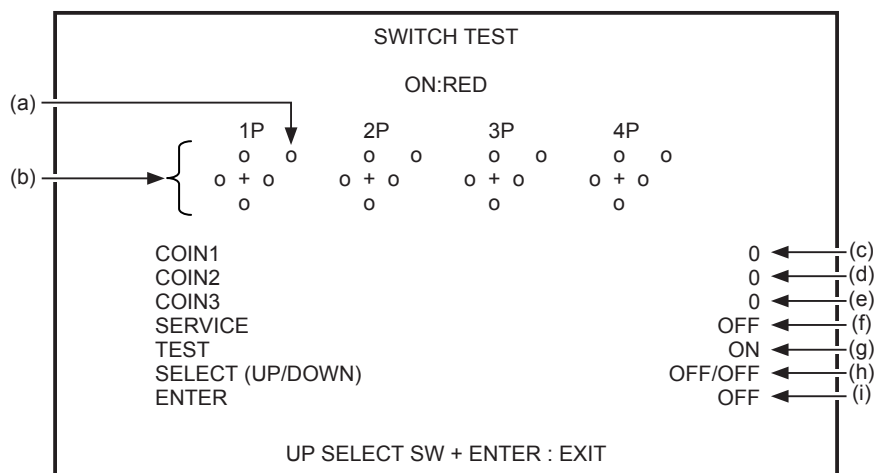| Item	Description
(a) SWITCH TEST	Proceeds to the Switch Test screen (See P. 26 "7-4-4 (1) SWITCH TEST.")
(b) OUTPUT TEST	Proceeds to the Output Test screen (See P. 27 "7-4-4 (2) OUTPUT TEST.")
(c) I/O PCB	Checks the I/O PCB connection. CONNECT OK (success) CONNECT NG! (failure)
(d) A. I. PCB	Checks the A. I. PCB connection. CONNECT OK (success) CONNECT NG! (failure)

2 Flip the Select switch up or down to select an item. The selected item will blink.

3 Press the Enter button to go to the screen under the selection.

4 To return to the Menu screen, select "EXIT" and press the Enter button.

25

7. OPERATION

(1) SWITCH TEST

This screen is used to test the respective switch functions.

1 Select "SWITCH TEST" in the "I/O TEST" screen and press the Enter button. (See P. 25 "7-4-4 Switch/sensor test (I/O TEST).")
The Switch Test screen appears on the monitor.

```
                      SWITCH TEST

                        ON:RED

(a) ─────────────┐
             1P        2P        3P        4P
             o   o     o   o     o   o     o   o
(b) ────┤    o + o     o + o     o + o     o + o
             o         o         o         o

        COIN1                              0  ◄─── (c)
        COIN2                              0  ◄─── (d)
        COIN3                              0  ◄─── (e)
        SERVICE                          OFF  ◄─── (f)
        TEST                              ON  ◄─── (g)
        SELECT (UP/DOWN)             OFF/OFF  ◄─── (h)
        ENTER                            OFF  ◄─── (i)

              UP SELECT SW + ENTER : EXIT
```

Switch Test screen

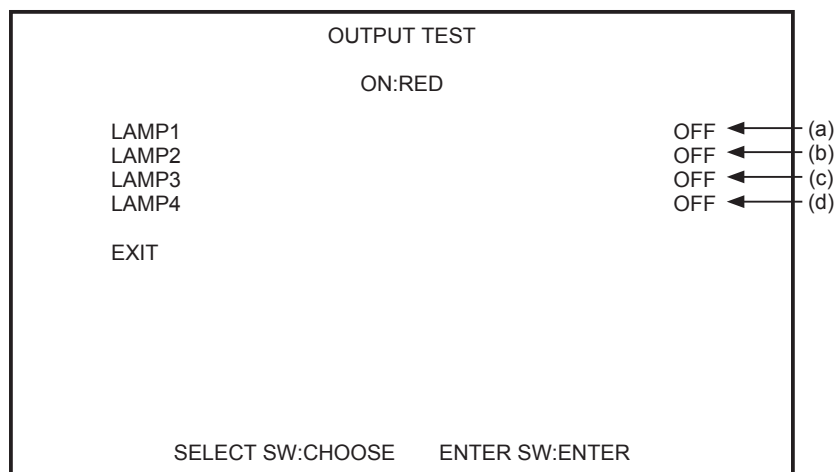| Item	Description
(a) Check indicator for the illuminated switch on the 1P Control Panel assembly	While the illuminated switch is pressed and held, the indicator lights in red. (Indicators for 2P thru 4P function as well.)
(b) Check indicators for the joystick on the 1P Control Panel assembly	While the joystick is tilted and held in a certain direction, the indicator corresponding to that direction lights in red. (Indicators for 2P thru 4P function as well.)
(c) COIN 1	Each time a coin switch on coin unit 1 is activated, the value increases by increments of one. When the value exceeds 255, the value is reset to zero. Note that the coin counter synchronizes to this test option.
(d) COIN 2	Each time a coin switch on coin unit 2 is activated, the value increases by increments of one. When the value exceeds 255, the value is reset to zero. Note that the coin counter synchronizes to this test option.
(e) COIN 3	Each time a coin switch on coin unit 3 is activated, the value increases by increments of one. When the value exceeds 255, the value is reset to zero. Note that the coin counter synchronizes to this test option.
(f) SERVICE	While the Service button is pressed and held, the value is "ON." (Note that the credit value does not increase during test mode.)
(g) TEST	While the Test switch is set to "ON", the value is "ON." (Note that the value is "ON" during test mode.)
(h) SELECT (UP/DOWN)	While the Select switch is tilted and held up, the value is "ON/OFF." While down, the value is "OFF/ON."
(i) ENTER	While the Enter button is pressed and held, the value is "ON."

2 Operate the switches listed in the screen and confirm the result.

3 To return to the I/O Test screen, hold the Select switch in the raised position and press the Enter button.

(2) OUTPUT TEST

This screen is used to test the illuminated switches.

1 Select "OUTPUT TEST" in the "I/O TEST" screen and press the Enter button. (See P. 25 "7-4-4 Switch/sensor test (I/O TEST).")
The Output Test screen appears on the monitor.

```
                    OUTPUT TEST

                      ON:RED

     LAMP1                              OFF  ←——— (a)
     LAMP2                              OFF  ←——— (b)
     LAMP3                              OFF  ←——— (c)
     LAMP4                              OFF  ←——— (d)

     EXIT




           SELECT SW:CHOOSE      ENTER SW:ENTER
```

Output Test screen

Item	Description
(a) LAMP1	When this item is set to "ON," the 1P Start button lights.
(b) LAMP2	When this item is set to "ON," the 2P Start button lights.
(c) LAMP3	When this item is set to "ON," the 3P Start button lights.
(d) LAMP4	When this item is set to "ON," the 4P Start button lights.

2 Flip the Select switch up or down to select an item. The selected item will blink.

3 Press the Enter button to enter the selection.

4 Flip the Select switch to turn on the illuminated switch corresponding to the selected item.

5 Before selecting the next item, press the Enter button. Repeat steps 2 thru 5 until all the switches have been checked.

6 To return to the I/O Test screen, select "EXIT" and press the Enter button.

27

7. OPERATION

7-4-5 Monitor condition test (MONITOR TEST)

This screen is used to check the monitor.

1 Select "MONITOR TEST" in the Menu screen and press the Enter button. (See P. 21 "7-4-1 Description of the menu screen (MENU).")
The Monitor Test screen appears on the monitor.

```
                    MONITOR TEST

       GRADATION PATTERN   ◄──────────────── (a)
       CROSSHATCH PATTERN  ◄──────────────── (b)
       FULL WHITE  ◄─────────────────────── (c)

       EXIT








          SELECT SW:CHOOSE     ENTER SW:ENTER
```

Monitor Test screen

Item	Description
(a) GRADATION PATTERN	Displays a 16-step gradation pattern.
(b) CROSSHATCH PATTERN	Displays a crosshatch pattern.
(c) FULL WHITE	Displays an all-white screen.

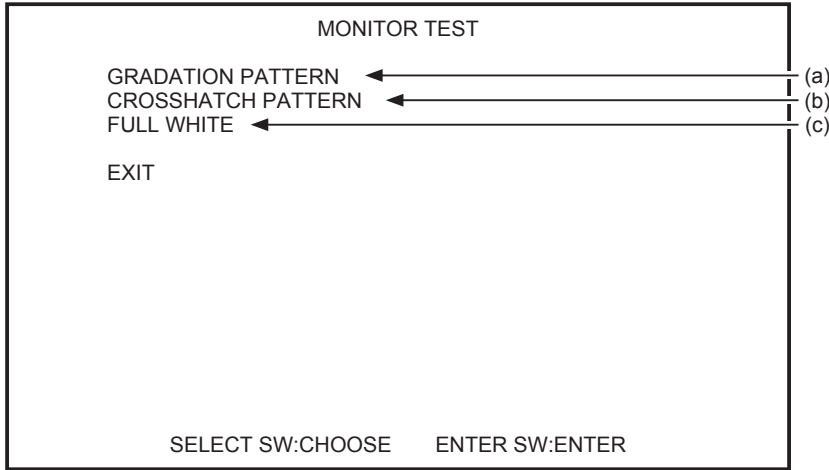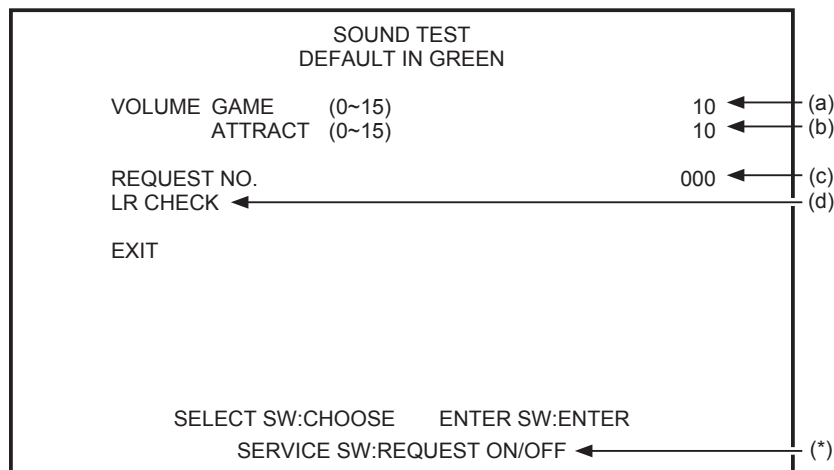**2** Flip the Select switch up or down to select an item. The selected item will blink.

3 Press the Enter button to go to the screen under the selection.

4 Press the Enter button again to return to the Monitor Test screen.

5 To return to the Menu screen, select "EXIT" and press the Enter button.

7-4-6 Sound adjustment (SOUND TEST)

This screen is used to adjust the sound volume, L/R channel balance, and other items.

1 Select "SOUND TEST" in the Menu screen and press the Enter button. (See P. 21 "7-4-1 Description of the menu screen (MENU).")
The Sound Test screen appears on the monitor.

```
                    SOUND TEST
                  DEFAULT IN GREEN

   VOLUME  GAME    (0~15)              10  ◄──── (a)
           ATTRACT (0~15)              10  ◄──── (b)

   REQUEST NO.                        000  ◄──── (c)
   LR CHECK  ◄───────────────────────────────── (d)

   EXIT



           SELECT SW:CHOOSE     ENTER SW:ENTER
           SERVICE SW:REQUEST ON/OFF  ◄───────── (*)
```

Sound Test screen

Item	Description	Factory settings
(a) VOLUME GAME	Sets the sound volume in Game mode. 0 (no sound) to 15 (max.)	10
(b) VOLUME ATTRACT	Sets the sound volume in Attract mode. 0 (no sound) to 15 (max.)	10
(c) REQUEST NO.	Sets the sound type for the service button 000 (no sound) to 095	000
(d) LR CHECK	Checks the loudspeakers The check tone is heard from the loudspeakers in the following order; LEFT speaker (1P and 2P side), RIGHT speaker (3P and 4P side), LEFT + RIGHT (both) speakers.	

* The sound set in the REQUEST NO. option is heard when the service button is pressed.
Press the service button while the VOLUME ATTRACT option is selected to check the volume set in the VOLUME ATTRACT option.
Press the service button while an option other than the VOLUME ATTRACT is selected to check the volume set in the VOLUME GAME option.
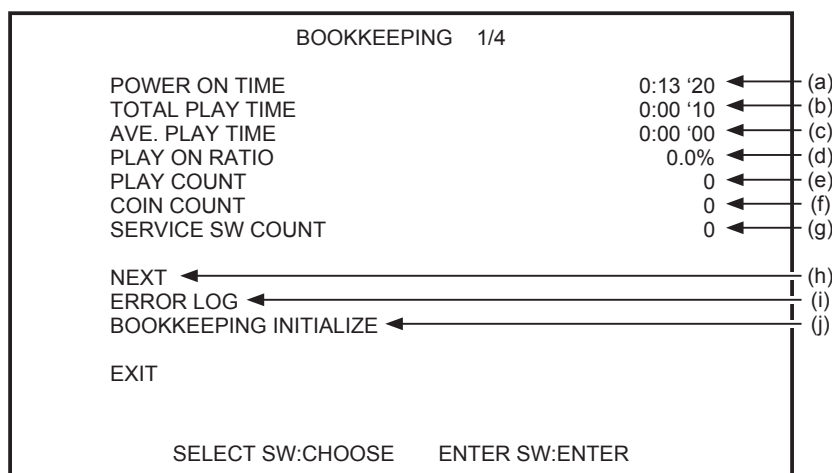
2 Flip the Select switch up or down to select an item. The selected item will blink.

3 Press the Enter button to enter the selection.

4 Flip the Select switch up or down to change the setting, and then press the Enter button to enter the change. The display returns to the previous selection screen.

5 To return to the Menu screen, select "EXIT" and press the Enter button.

29

7. OPERATION

7-4-7 Game data display/initialization (BOOKKEEPING)

This screen is used to display various game data.

1 Select "BOOK KEEPING" in the Menu screen and press the Enter button. (See P. 21 "7-4-1 Description of the menu screen (MENU).")
The Bookkeeping screen appears on the monitor.

```
                BOOKKEEPING   1/4

    POWER ON TIME                   0:13 '20  ◄──── (a)
    TOTAL PLAY TIME                 0:00 '10  ◄──── (b)
    AVE. PLAY TIME                  0:00 '00  ◄──── (c)
    PLAY ON RATIO                       0.0%  ◄──── (d)
    PLAY COUNT                            0   ◄──── (e)
    COIN COUNT                            0   ◄──── (f)
    SERVICE SW COUNT                      0   ◄──── (g)

    NEXT  ◄─────────────────────────────────────── (h)
    ERROR LOG  ◄────────────────────────────────── (i)
    BOOKKEEPING INITIALIZE  ◄───────────────────── (j)

    EXIT


        SELECT SW:CHOOSE      ENTER SW:ENTER
```

Bookkeeping screen

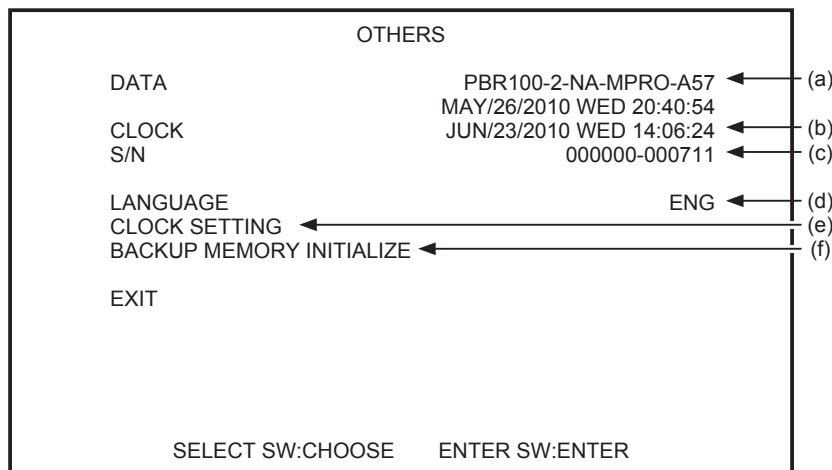| Item	Description
(a) POWER ON TIME	Shows the time when the machine is turned on
(b) TOTAL PLAY TIME	Shows the total playing time
(c) AVE. PLAY TIME	Shows the average playing time per play
(d) PLAY ON RATIO	Shows the game-playing ratio (POWER ON TIME divided by TOTAL PLAY TIME)
(e) PLAY COUNT	Shows the total number of plays
(f) COIN COUNT	Shows the total number of coins
(g) SERVICE SW COUNT	Shows the total number of time the service button is pressed
(h) NEXT	Goes to the next screen
(i) ERROR LOG	Shows the error log (See P. 31 "7-4-7 (1) ERROR LOG.")
(j) BOOKKEEPING INITIALIZE	Initializes bookkeeping YES: Start initialization/NO: Stop initialization Note that the BACK UP MEMORY INITIALIZE option (See P. 32 "7-4-8 (2) Initialization and other settings (OTHERS).") can also initialize bookkeeping.

2 Flip the Select switch up or down to select an item. The selected item will blink.

3 To return to the Menu screen, select "EXIT" and press the Enter button.

(1) ERROR LOG

This screen is used to check error logs.

1 Select "ERROR LOG" in the Bookkeeping screen and press the Enter button. (See P. 30 "7-4-7 Game data display/initialization (BOOKKEEPING).")
The Error Log screen appears on the monitor.

```
                    ERROR LOG 1/2

       01 COIN ERROR1           JAN/01/2010 FRI 10:09
       02 COIN ERROR1           JAN/01/2010 FRI 10:08
       03 COIN ERROR1           JAN/01/2010 FRI 10:07
       04 COIN ERROR1           JAN/01/2010 FRI 10:06
       05 COIN ERROR1           JAN/01/2010 FRI 10:05
       06 COIN ERROR1           JAN/01/2010 FRI 10:04
       07 COIN ERROR1           JAN/01/2010 FRI 10:03
       08 COIN ERROR1           JAN/01/2010 FRI 10:02
       09 COIN ERROR1           JAN/01/2010 FRI 10:01
       10 COIN ERROR1           JAN/01/2010 FRI 10:00

       NEXT
       EXIT


            SELECT SW:CHOOSE    ENTER SW:ENTER
```

Error Log screen

2 Flip the Select switch up or down to select an item. The selected item will blink.

3 To proceed to the next page, select "NEXT" and press the Enter button (available only when two or more pages exist).

4 To return to the Bookkeeping screen, select "EXIT" and press the Enter button.

7-4-8 Initialization and other settings (OTHERS)

This screen is used to initialize bookkeeping data (BOOKKEEPING) and other items.

1 Select "OTHERS" in the Menu screen and press the Enter button. (See P. 21 "7-4-1 Description of the menu screen (MENU).")
The Others screen appears on the monitor.
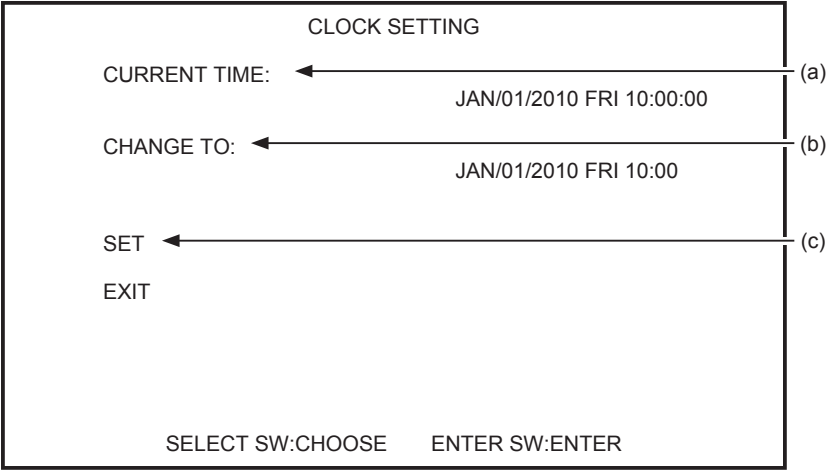
```
                      OTHERS

      DATA                PBR100-2-NA-MPRO-A57  ◄──── (a)
                          MAY/26/2010 WED 20:40:54
      CLOCK               JUN/23/2010 WED 14:06:24 ◄── (b)
      S/N                      000000-000711  ◄──── (c)

      LANGUAGE                           ENG  ◄──── (d)
      CLOCK SETTING  ◄────────────────────────────── (e)
      BACKUP MEMORY INITIALIZE ◄───────────────────── (f)

      EXIT




           SELECT SW:CHOOSE    ENTER SW:ENTER
```

Others screen

Item	Description
(a) DATA	Shows the version information.
(b) CLOCK	Shows the date and time.
(c) S/N	Shows the serial number.
(d) LANGUAGE	Shows the display language. ENG: English
(e) CLOCK SETTING	Sets the built-in clock. (See P. 33 "7-4-8 (1) CLOCK SETTING.")
(f) BACKUP MEMORY INITIALIZE	Initializes the respective backup memory. (YES: Starts initialization/NO: Stops initialization) (See P. 34 "7-4-8 (2) BACKUP MEMORY INITIALIZE.")

2 Flip the Select switch up or down to select an item. The selected item will blink.

3 Press the Enter button to enter the selection.

4 Flip the Select switch up or down to change the setting, and then press the Enter button to enter the change. The display returns to the previous selection screen.

5 To return to the Bookkeeping screen, select "EXIT" and press the Enter button.

(1) CLOCK SETTING

This screen is used to adjust the internal clock.

1 Select "CLOCK SETTING" in the Others screen and press the Enter button. (See P. 32 "7-4-8 Initialization and other settings (OTHERS).")
The Clock Setting screen appears on the monitor.

```
                    CLOCK SETTING

        CURRENT TIME:  ◄─────────────────────── (a)
                        JAN/01/2010 FRI 10:00:00

        CHANGE TO:  ◄────────────────────────── (b)
                        JAN/01/2010 FRI 10:00

        SET  ◄───────────────────────────────── (c)

        EXIT



              SELECT SW:CHOOSE    ENTER SW:ENTER
```

Clock Setting screen

Item	Description
(a) CURRENT TIME	Shows the current time.
(b) CHANGE TO:	Sets the time.
(c) SET	Enters the change.

2 Flip the Select switch up or down to select an item. The selected item will blink.

3 Press the Enter button to enter the selection.

4 Flip the Select switch up or down to change the setting, and then press the Enter button to enter the change. The display returns to the previous selection screen.

5 Flip the Select switch to select "SET" and press the ENTER button. The internal clock starts working.

6 To return to the Others screen, select "EXIT" and press the Enter button.

(2) BACKUP MEMORY INITIALIZE

This screen is used to initialize the backup memory.

1 Select "BACKUP MEMORY INITIALIZE" in the Others screen and press the Enter button. (See P. 32 "7-4-8 Initialization and other settings (OTHERS).")
The YES/NO option appears next to the selection.

2 Select the YES option to initialize the backup memory.
When initialization is complete, "COMPLETE!" appears on the screen.

BACKUP MEMORY INITIALIZE?	NO
	YES

↓

BACKUP MEMORY INITIALIZE	COMPLETE!

3 To return to the Others screen, select "EXIT" and press the Enter button.

7-5 Error display (for the arcade operator)

> **NOTICE** ● **The following shows items to be checked by the arcade operator. If an error other than the following is encountered, request a technician for service. (Technicians, see P. 48 "8B-3 Error display (for the technician).")**

Error code	Error indication	Cause	Remedy
2-3	BACKUP MEMORY ERROR 1	Backup memory damage	Initialize the backup memory. (See P. 34 "7-4-8 (2) BACKUP MEMORY INITIALIZE.")
		MAIN PCB failure	Request a technician for service. (See P. 48 "8B-3 Error display (for the technician).")
2-4	BACKUP MEMORY ERROR 2	Backup memory damage	Initialize the backup memory.(See P. 34 "7-4-8 (2) BACKUP MEMORY INITIALIZE.")
		MAIN PCB failure	Request a technician for service. (See P. 48 "8B-3 Error display (for the technician).")

8A. ASSEMBLY AND SETUP – To be conducted by a technician only –

8A-1 Assembly

8A-1-1 Securing the machine using level adjusters

After installing the machine in a location as described in "5-1 Installation conditions" on page 10, be sure to make the machine level and stable using the four level adjusters.

Level adjuster
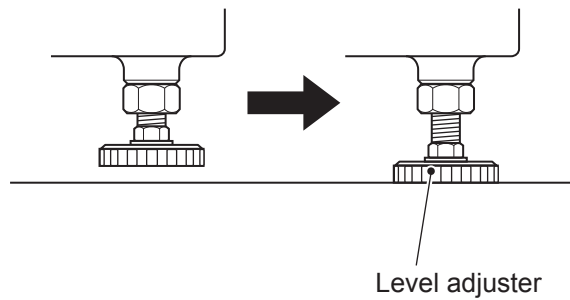
8A-1-2 Removing and attaching the rear service door

1 Unlock the door using the provided service key, and remove the door.

2 Attach the door following the above steps in reverse.
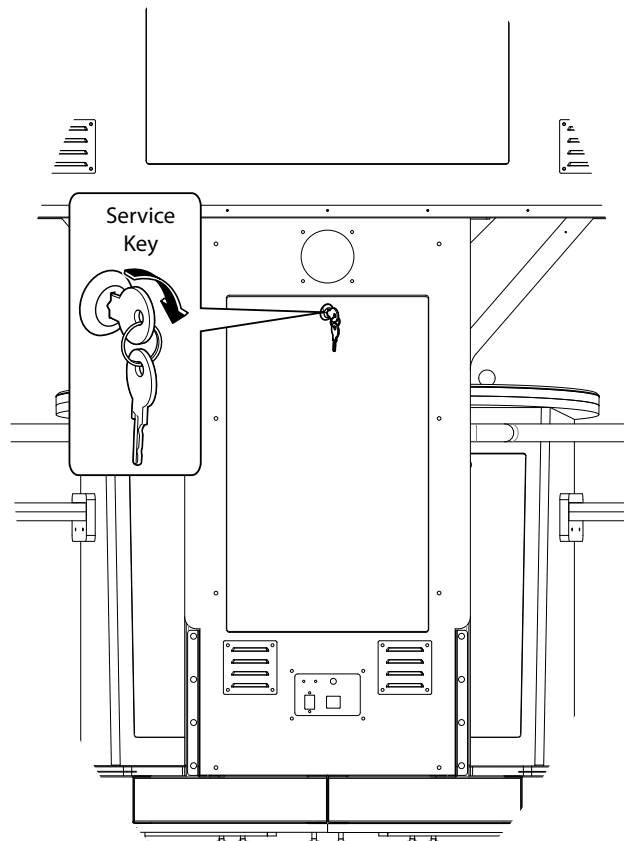
Service Key

⚠ **WARNING**

- **The Pacman Battle Royale is extremely heavy and should not be moved once installed. It should be assembled by four or more people in a large work area to prevent accidents.**
- **Since attachment of the Monitor and Marquee assembly is performed above waist level, prepare step ladders or platforms to stand on. Performing the task in an awkward position can result in injury or machine damage.**

8A-1-3 Assembling the Pacman Battle Royale Deluxe

1 Join the Right and Left base assemblys using the hardware mounted in the right assembly.

Upright Installation Screws
Wire Bundle
Wire Bundle
Wire Bundle
Wire Bundle
Wire Bundle
Upright Installation Screws
Wire Bundle
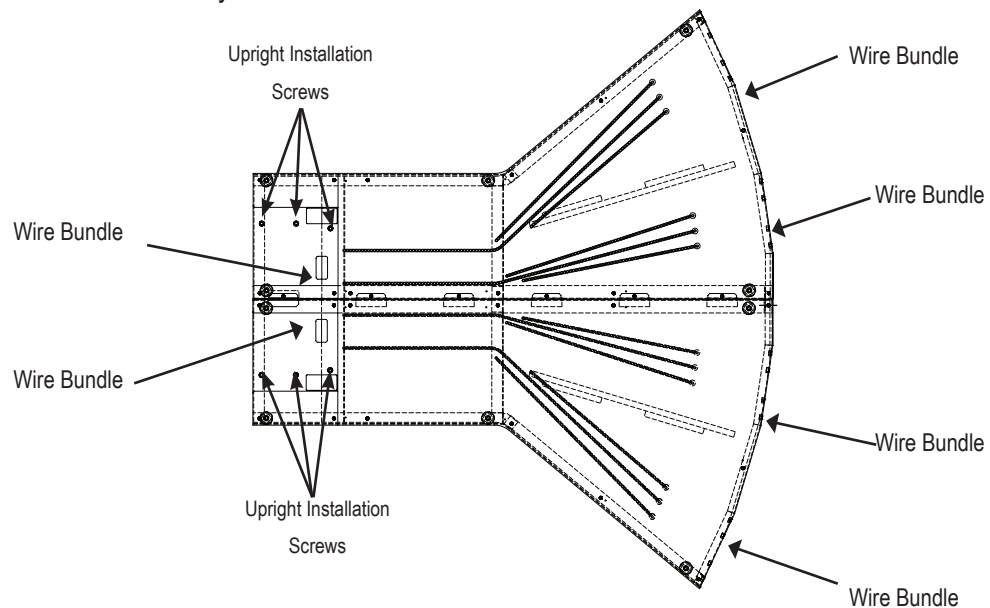
2 Extend the wire bundles from the above locations so they may be connected later to the various sub-assemblies of the game.

3 Remove the Upright rear service door as shown on page 36. Also remove the 6 Upright installation screws in preperation for mounting the upright. Using at least 2 people, place the Upright on top of the joined base using the tubes protruding from the bottom of the Upright as a placement guide and insuring the wire bundles are not pinched by the assembly.
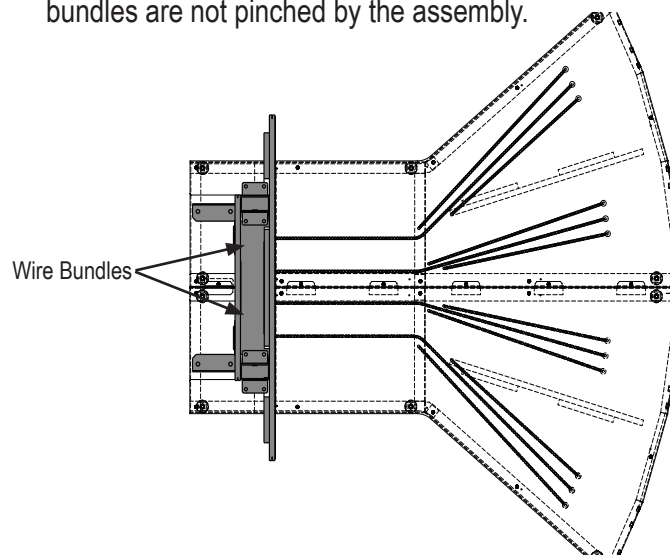
Wire Bundles

8A. Assembly and setup – To be conducted by a technician only –

---

4   Once the Upright is seated in place, reach through the back door and connect the wire bundles from the Base assemblies to the wire bundles in the Upright assembly.

5   Next, remove the back door of the Monitor assembly. Also remove the 8 installation screws from the top of the Upright Assembly for attaching the Monitor.
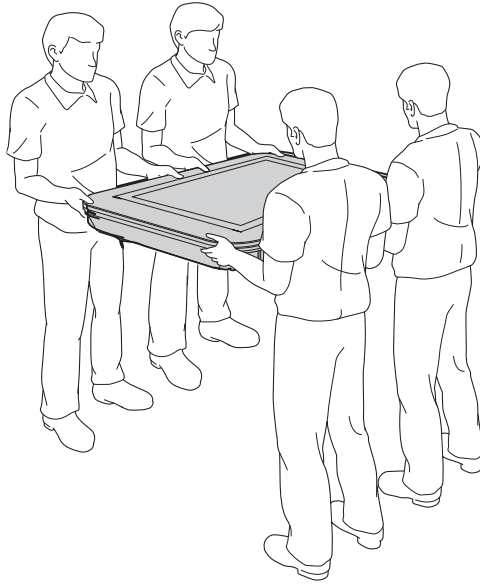

6   Using at least 4 people, move the monitor to the top of the Upright assembly rotating it up to align with the tubes of the Upright. Once seated, use the hardware removed in the previous step to secure the monitor to the Upright Assembly.
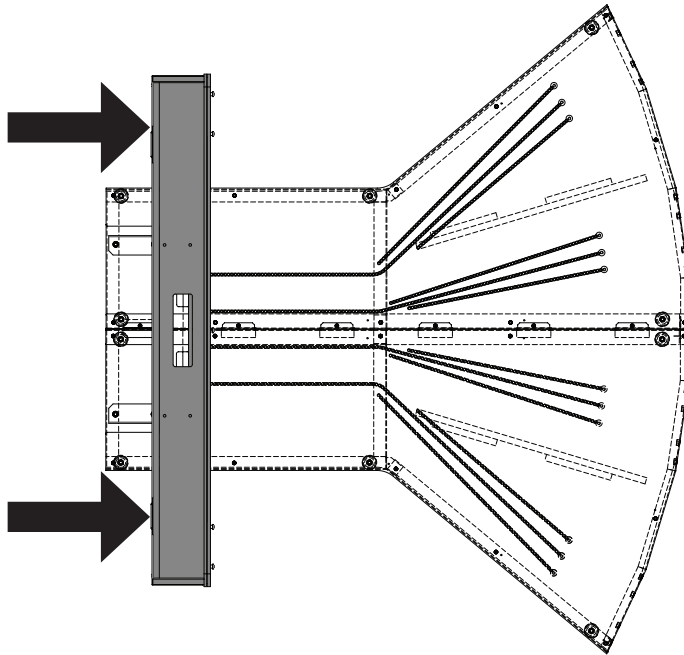
7   When the Monitor is secure, feed the power and video cables into the monitor and complete the connections. Remove the bolts on the top of the Monitor for use in installing the Marquee assembly.

8   Now, after opening the hinged back door on the Marquee and using at least two people with ladders, mount the Marquee Assembly on top of the Monitor using the hardware removed earlier and connect the AC power to the fluorescent lamp.
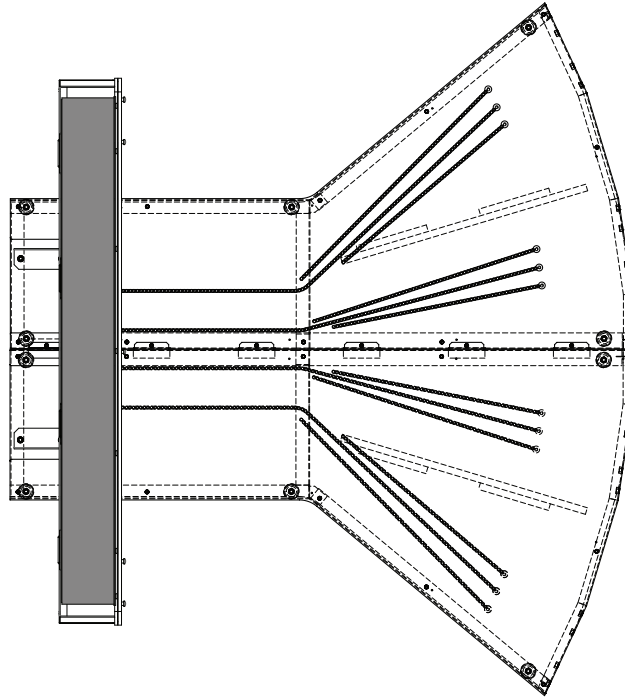
9   Next, feed the cable bundle through hole of the player pedestals and connect each pedestal to the base of the game using the 4 bolts installed in each connection point of Base assembly.   .
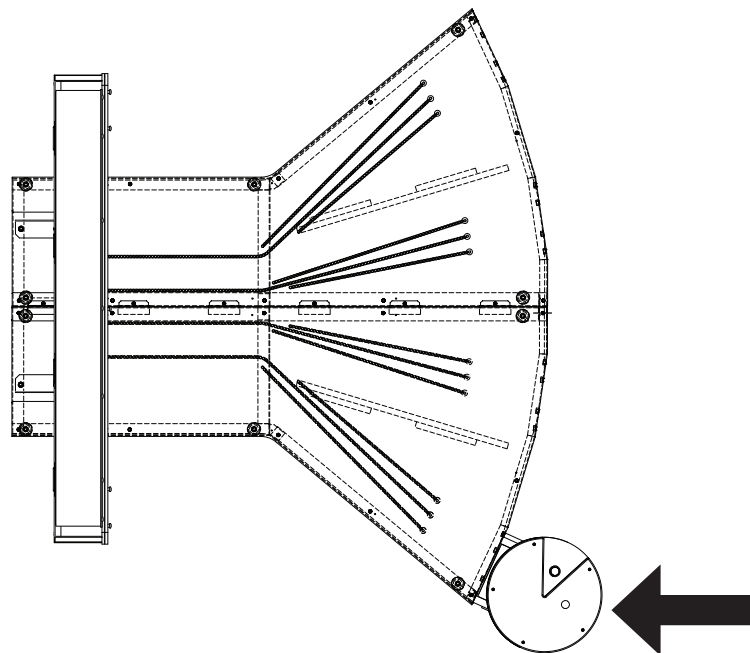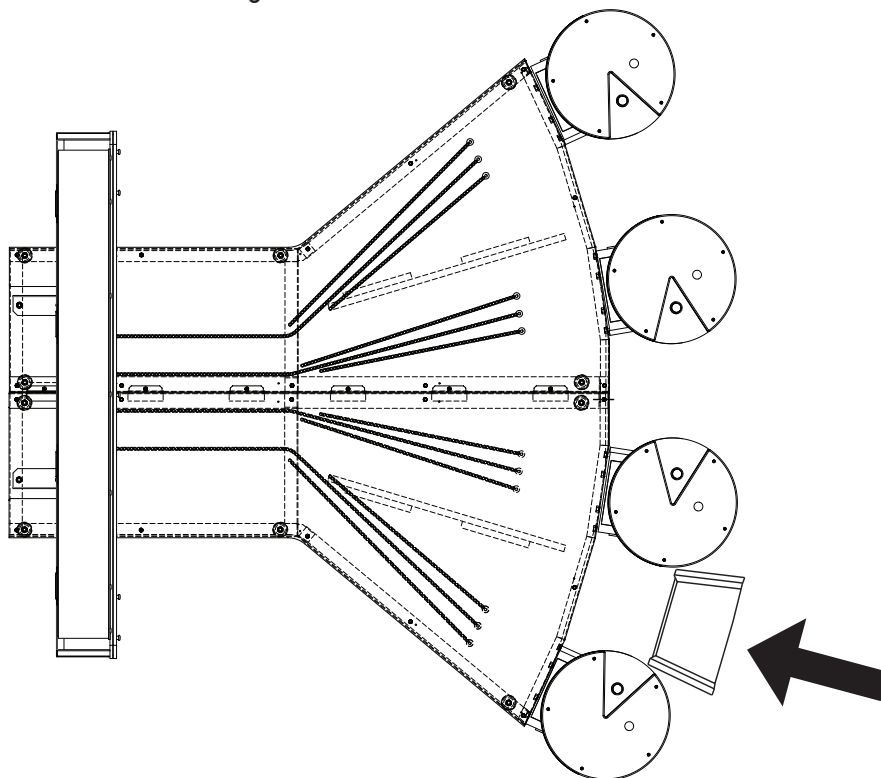
8A. Assembly and setup – To be conducted by a technician only –

10 Each player pedestal color corresponds to the LED strips pointing towards that player. (Player one is Red, two is Yellow, three is Pink and four is Blue). Both the Player pedestals and the bases are labeled R,Y,P and B to aid in assembly, should the technician have trouble distinguishing colors.
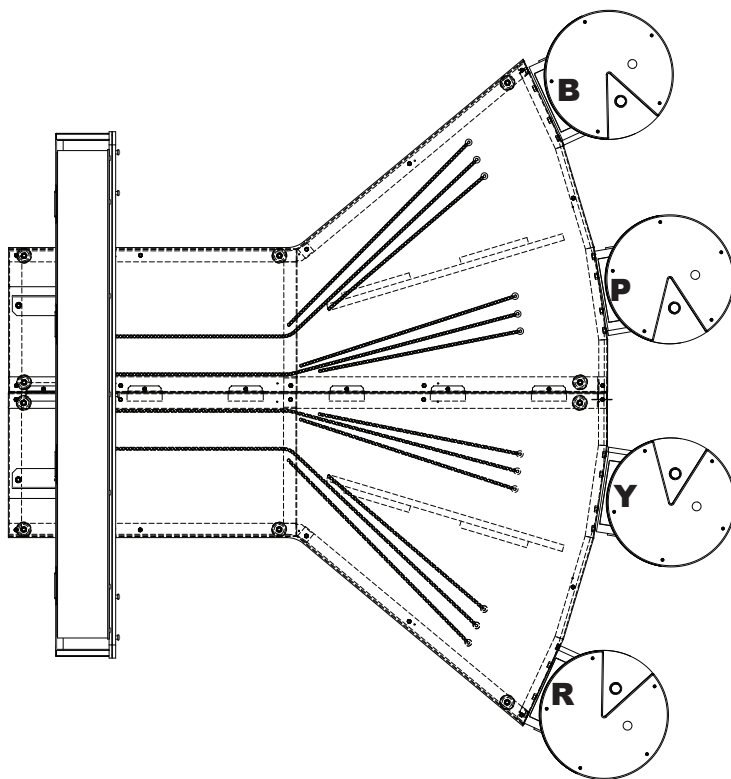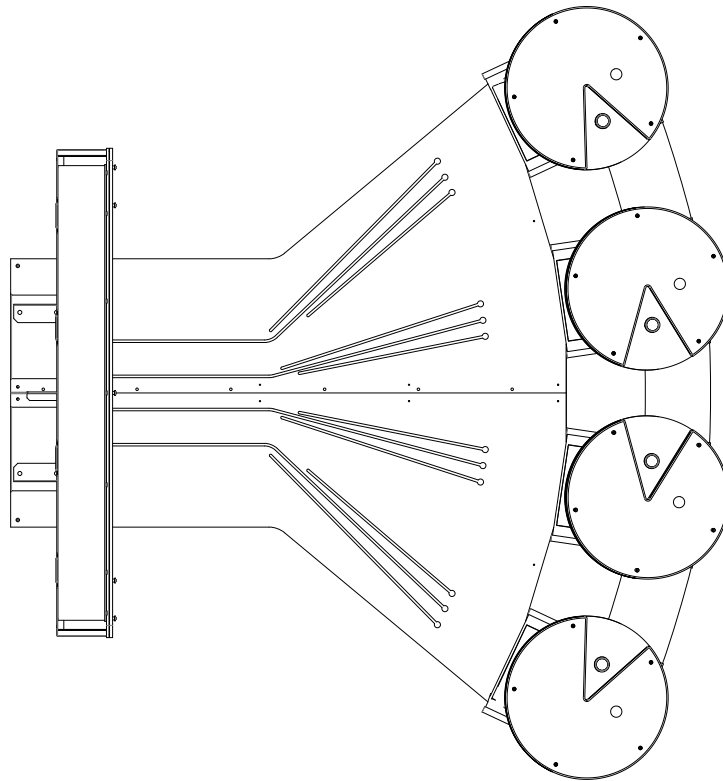
11 Next install the divider/shelf between players one and two, using the hardware mounted in the sides of the respective pedastels. Be sure the shelf is secured with the mounting hole on the bottom side of the shelf.
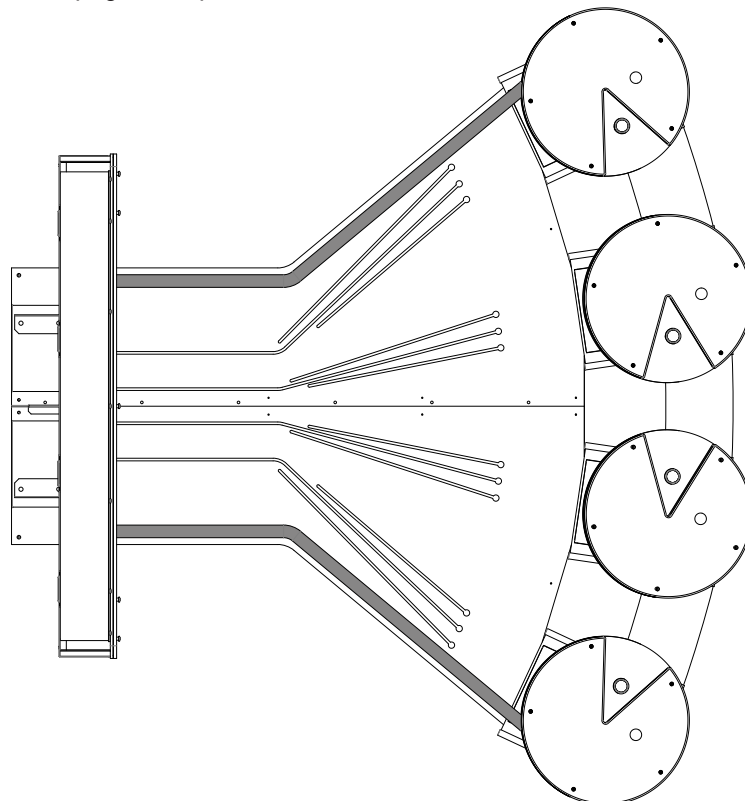
**12**   Continue adding the divider/shelves between players two and three and players three and four.

13   Once all the divider shelves are secured in place, connect the guard rails from the upright to both the 1st and 4th pedastals using the hardware provided on the upright and pedastels.
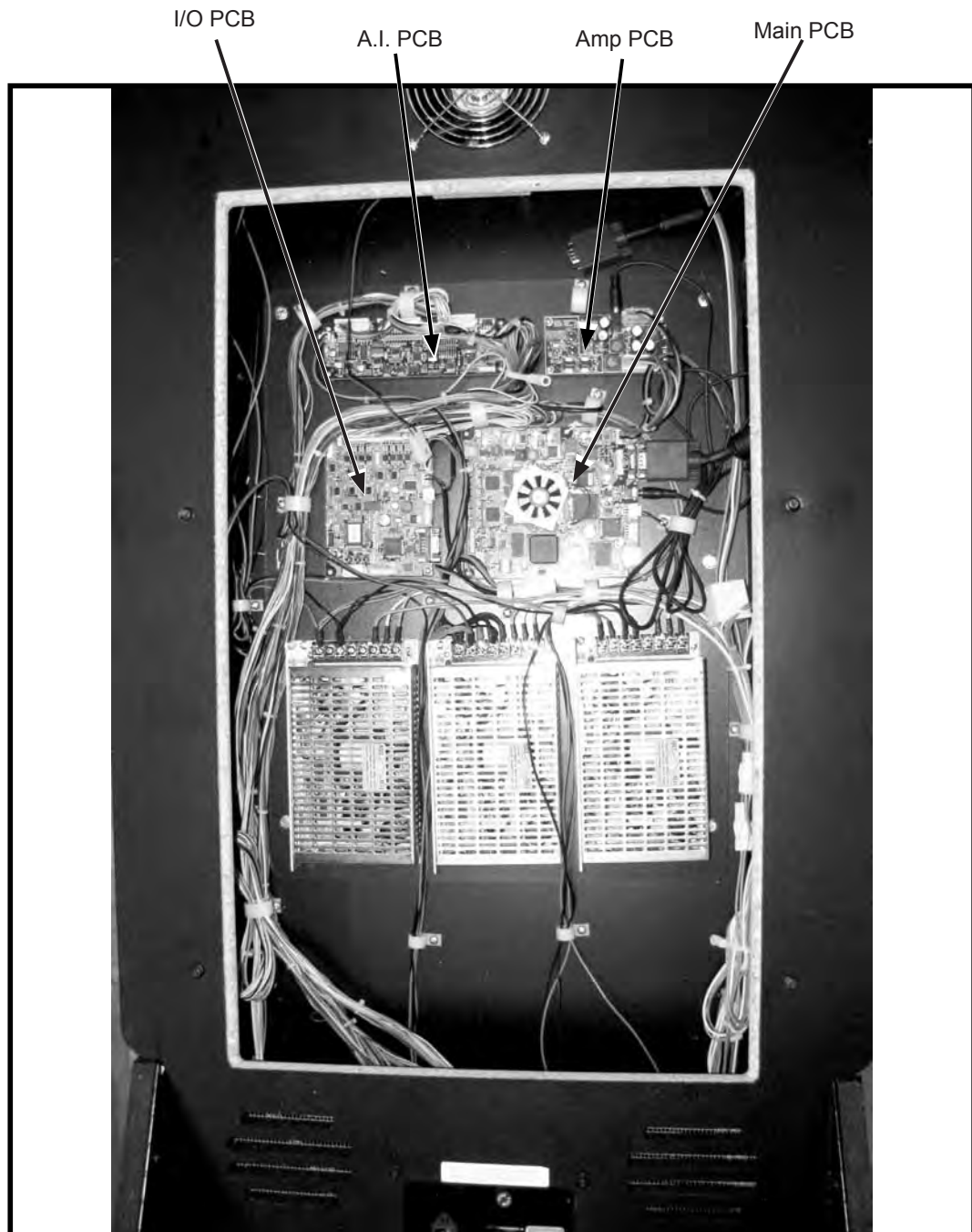
8A. Assembly and setup – To be conducted by a technician only –

14 When all the components are assembled, double check all the electrical connections behind each service door

Service Doors
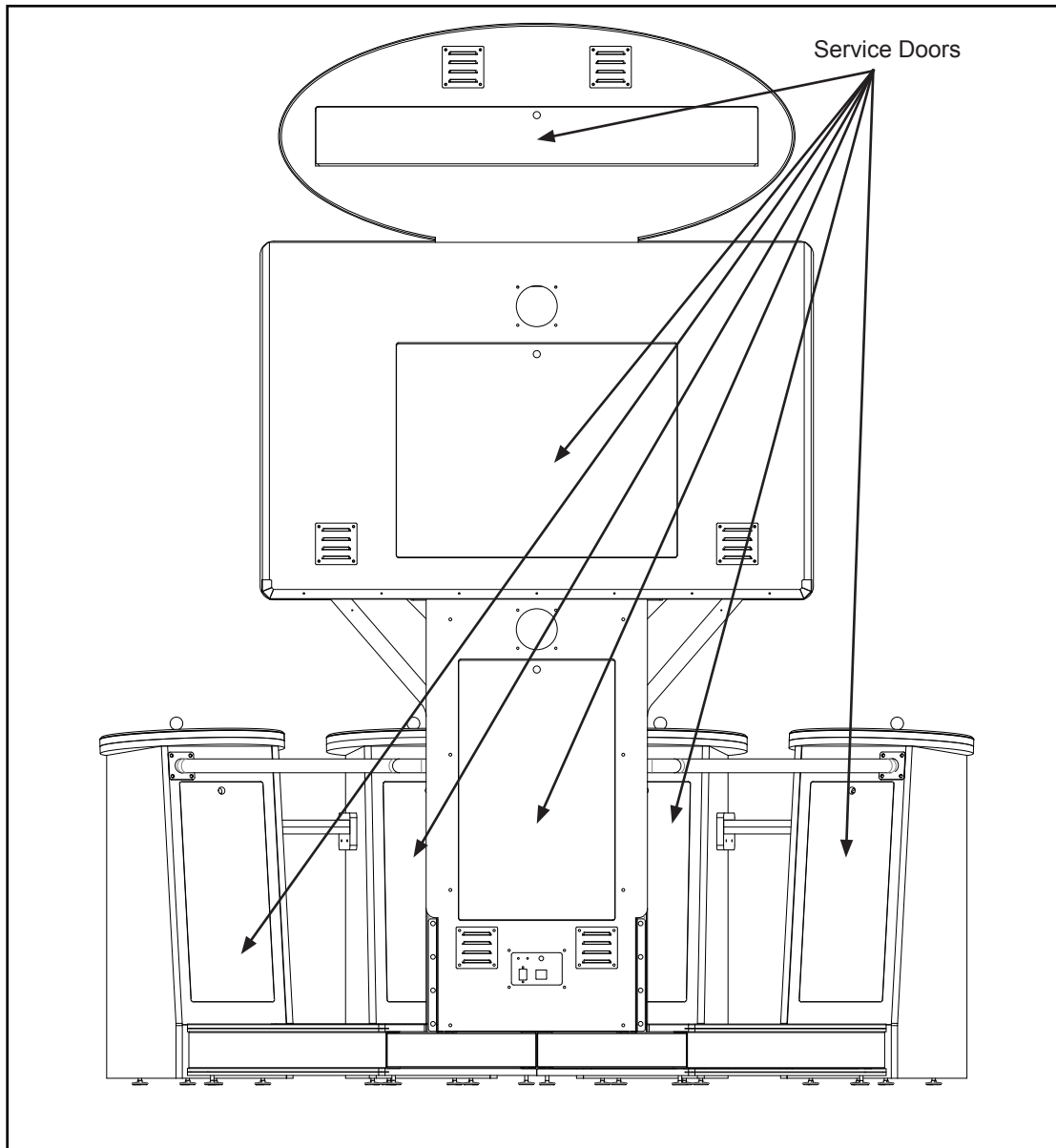
15   Use the picture below for identifying electronic circuit boards in the Upright assembly.

8B. SERVICES – To be conducted by a technician only –

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

⚠WARNING

● To prevent electric shock, accident or injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before servicing the machine (including preventive measures against failure and repairs).

</div>

8B-1 Inspections and services

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

⚠WARNING

● The machine should be inspected and serviced on a regular basis. Failing to do so may result in accidents or damage to the machine.

</div>

8B-1-1 Inspection items

Check the following inspection items regularly.

(1) Level adjuster
● Make sure that the machine is stable on the floor. (See P. 36 "8A-1-1 Securing the machine using level adjusters.")
(2) Power cord plug
● Make sure that the power cord is connected firmly to the cord box on the machine and the AC outlet.
● Be sure to keep the cord box free of dust and dirt.
● Check to see if there are any cracks in the power cord. If the power cord is abnormal in any way, replace it with a new one.
(3) Bolts and nuts
Check to be sure that the bolts and nuts used for the following parts are not loose. If any of them are loose, tighten them firmly.

8B-2 Troubleshooting

⚠️WARNING

- **To prevent electric shock, accident or injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before conducting the tasks described bellow.**
- **If the problems encountered are not found in 8B-2-1 thru 8B-2-5 or if the problem persists, immediately turn the power switch off to stop the operation of the machine, and contact your distributor. Operating the machine without fixing a problem can result in an accident.**

NOTICE

- **In the event a machine malfunctions, check to make sure that all connections are secure.**
- **If there is a problem in the MAIN, I/O, A.I., or AMP PCB, the faulty parts must be repaired by our company. Never use a tester to conduct a continuity test. The internal voltage of a tester can damage ICs.**
- **When sending parts for repair, pack them carefully. When sending the MAIN, I/O, A.I., or AMP PCB, wrap it completely in foam or bubble wrap and place it in a corrugated cardboard box to protect it from external impact.**

8B. SERVICES – To be conducted by a technician only –

8B-2-1 General

Problem	Main cause	Remedy	Page
The machine will not turn on.	The power cord is disconnected.	Connect the cord securely to the AC outlet.	——
	The fuse is blown.	Replace the fuse.	——
The game will not start. (The attraction is not displayed.)	The connectors on the MAIN PCB are disconnected.	Connect them securely.	Page 49
	MAIN PCB failure	Replace the PCB.	Page 49
The machine malfunctions or operation is unstable.	The power supply voltage is outside the range of 104 to 127 V AC	Disconnect large power consuming equipment (air conditioners, large rides, etc.) from the same power line, and ensure that the game machine receives the specified power supply voltage.	——

8B-2-2 Monitor assembly

Problem	Main cause	Remedy	Page
No images on the LCD monitor	The connectors to the LCD monitor are disconnected.	Connect them securely.	Page 38
	LCD monitor failure	Replace the LCD monitor.	——
	MAIN PCB failure	Replace the PCB.	Page 49

8B-2-3 Upright assembly

Problem	Main cause	Remedy	Page
No sound from the loudspeakers	The sound volume is set to the minimum.	Turn the volume up.	Page 29
	The connectors to the loudspeakers are disconnected.	Connect them securely.	——
	AMP PCB failure	Replace the PCB.	Page 53
	MAIN PCB failure	Replace the PCB.	Page 49

8B-2-4   Pedestal assembly

Problem	Main cause	Remedy	Page
One of the joysticks does not operate properly.	The connector on the joystick is disconnected.	Connect it securely.	Page 56
	Joystick failure	Replace the joystick.	Page 56
	A.I. PCB failure	Replace the PCB.	Page 52
There is no response from one of the illuminated switches.	The connector on the illuminated switch is disconnected.	Connect it securely.	Page 57
	Illuminated switch failure	Replace the switch.	Page 57
	I/O PCB failure	Replace the PCB.	Page 51
One of the illuminated switches does not light up.	The connector on the illuminated switch is disconnected.	Connect it securely.	Page 57
	The LED lamp is burnt out.	Replace the lamp.	Page 57
	I/O PCB failure	Replace the PCB.	Page 51

8B-2-5   Signboard assembly

Problem	Main cause	Remedy	Page
The fluorescent bulb does not light up.	The power cord connector for the Signboard assembly is disconnected.	Connect it securely.	Page 38 and 40
	The fluorescent bulb is burned out.	Replace the bulb.	Page 58
	Loose fluorescent bulb	Screw the bulb in securely.	Page 58

8B. SERVICES – To be conducted by a technician only –

8B-3 Error display (for the technician)

> ⊳**NOTICE** ● If the error indication remains after the appropriate countermeasures have been taken, set the Test switch to ON and then to OFF to cancel the error indication.

Error code	Error indication	Cause	Remedy	Page
1-2	COIN ERROR 2	Service button failure or some other problem near the button	Contact your distributor.	____
1-11	COIN ERROR 1 (COIN UNIT 1)	COIN UNIT 1 failure	Replace the coin selector or bill acceptor connected to COIN UNIT 1.	____
		COIN UNIT 1 wiring harness failure	Contact your distributor.	____
1-21	COIN ERROR 1 (COIN UNIT 2)	COIN UNIT 2 failure	Replace the coin selector or bill acceptor connected to COIN UNIT 2.	____
		COIN UNIT 2 wiring harness failure	Contact your distributor.	____
1-31	COIN ERROR 1 (COIN UNIT 3)	COIN UNIT 3 failure	Replace the coin selector or bill acceptor connected to COIN UNIT 3.	____
		COIN UNIT 3 wiring harness failure	Contact your distributor.	____
2-3	BACKUP MEMORY ERROR 1	Backup memory damage	Initialize the backup memory.	Page 34
		MAIN PCB failure	Replace the MAIN PCB.	Page 49
2-4	BACKUP MEMORY ERROR 2	Backup memory damage	Initialize the backup memory.	Page 34
		MAIN PCB failure	Replace the MAIN PCB.	Page 49
2-5	BATTERY ERROR	The MAIN PCB backup battery is dead.	Replace the battery.	Page 50
3-1	I/O ERROR 1	The connectors on the I/O PCB are disconnected.	Connect them securely.	Page 51
		I/O PCB failure	Replace the I/O PCB.	Page 51
3-3	I/O ERROR 2	The connectors on the I/O PCB are disconnected.	Connect them securely.	Page 51
		I/O PCB wiring harness failure	Contact your distributor.	____
3-11	I/O ERROR 3	The connectors on the A.I. PCB are disconnected.	Connect them securely.	Page 52
		A.I. PCB failure	Replace the A.I. PCB.	Page 52
3-13	I/O ERROR 4	The connectors on the A.I. PCB are disconnected.	Connect them securely.	Page 52
		A.I. PCB wiring harness failure	Contact your distributor.	____

8B-4-1 Upright assembly

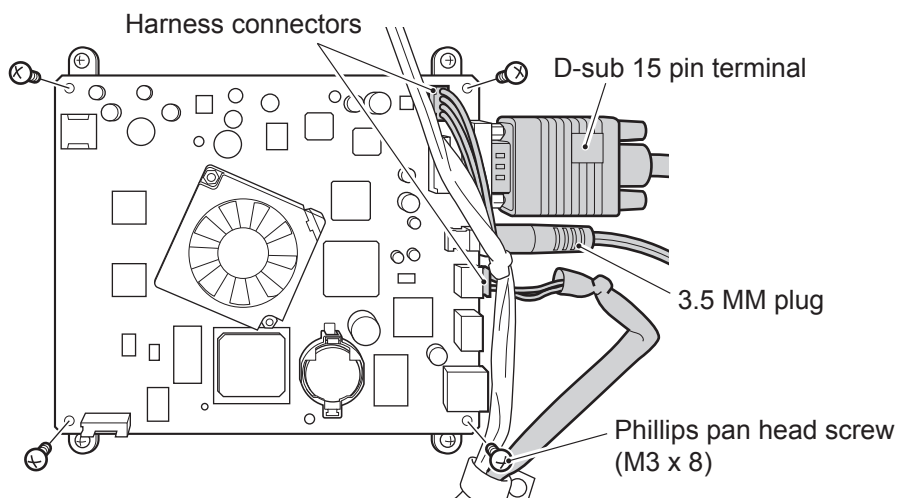#### (1) Replacing the MAIN PCB

⚠WARNING

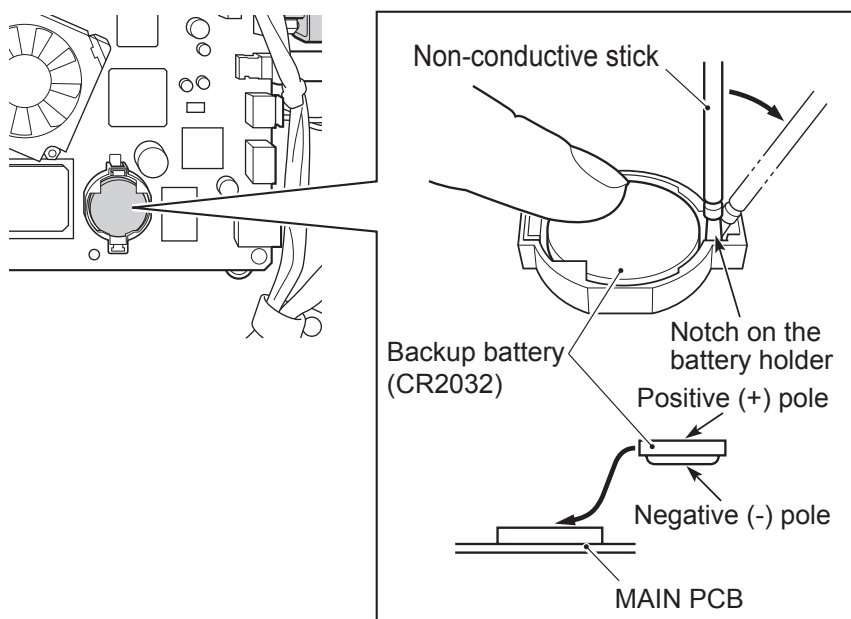● **To prevent electric shock, accident and injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before performing the tasks described below.**

> **NOTICE** ● **The PCB can be easily damaged by static electricity. If the PCB is handled by a person charged with static electricity, parts mounted on the PCB can be damaged. Before touching the PCB, be sure to remove static electricity from your body by touching a grounded metal object.**

1 Turn the power switch off. (See P. 17 "7-2-1 Turning the power switch on.")

2 Remove the rear service door.

3 Disconnect the two harness connectors, D-sub 15 pin terminal, and 3.5 MM plug.

4 Remove the four Phillips pan head screws (M3 x 8) with flat and spring washers to remove the MAIN PCB.

5 Attach the MAIN PCB following the above steps in reverse.

8B. SERVICES – To be conducted by a technician only –

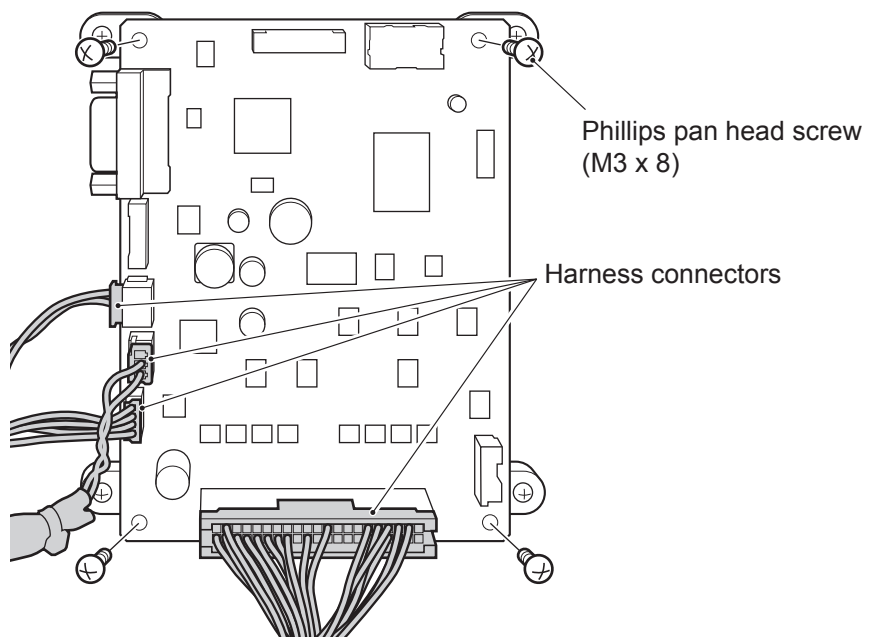**(2) Replacing the backup battery on the MAIN PCB**

⚠WARNING

● **To prevent electric shock, accident and injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before performing the tasks described below.**

NOTICE ● **The PCB can be easily damaged by static electricity. If the PCB is handled by a person charged with static electricity, parts mounted on the PCB can be damaged. Before touching the PCB, be sure to remove static electricity from your body by touching a grounded metal object.**

1 Turn the power switch off. (See P. 17 "7-2-1 Turning the power switch on.")

2 Remove the MAIN PCB. (See P. 49 "8B-4-1 (1) Replacing the MAIN PCB.")

3 Place the MAIN PCB on a flat surface such as a desk.

4 While gently pressing on the battery with your finger, insert a non-conductive small stick into the notch on the battery holder, and then tilt the stick to remove the battery.
* Use a CR2032 for the backup battery.

5 Attach the battery following the above steps in reverse.
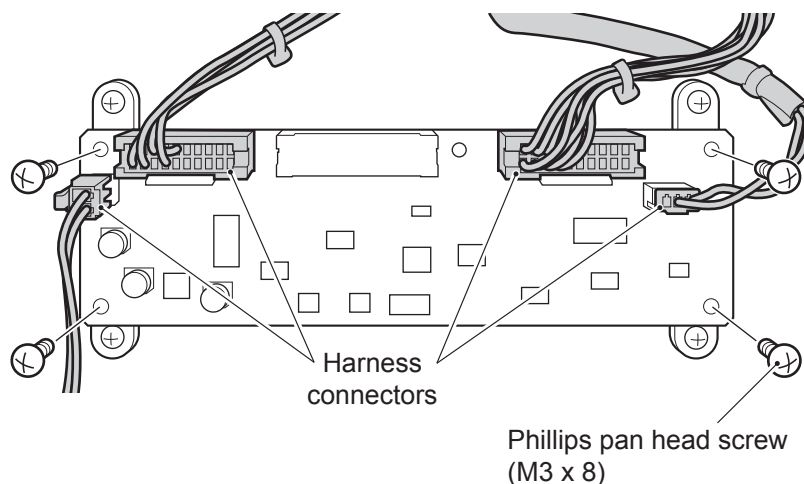
(3) Replacing the I/O PCB

⚠️**WARNING**

● **To prevent electric shock, accident or injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before performing the tasks described below.**

◤**NOTICE** ● **The PCB can be easily damaged by static electricity. If the PCB is handled by a person charged with static electricity, parts mounted on the PCB can be damaged. Before touching the PCB, be sure to remove static electricity from your body by touching a grounded metal object.**

1 Turn the power switch off. (See P. 17 "7-2-1 Turning the power switch on.")

2 Remove the rear service door.

3 Disconnect the four harness connectors.

Phillips pan head screw (M3 x 8)

Harness connectors

4 Remove the four Phillips pan head screws (M3 x 8) with flat and spring washers and remove the I/O PCB.

5 Attach the I/O PCB following the above steps in reverse.

8B. SERVICES – To be conducted by a technician only –
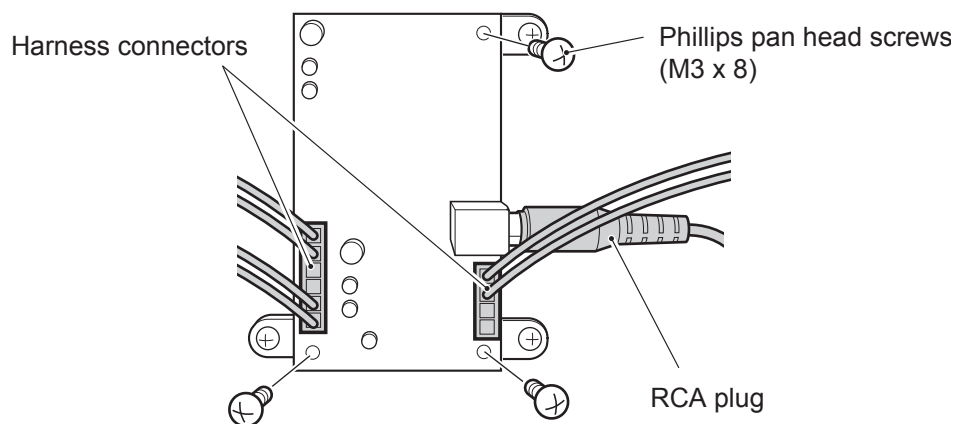
(4) Replacing the A.I. PCB

⚠ WARNING

● **To prevent electric shock, accident or injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before performing the tasks described below.**

NOTICE ● **The PCB can be easily damaged by static electricity. If the PCB is handled by a person charged with static electricity, parts mounted on the PCB can be damaged. Before touching the PCB, be sure to remove static electricity from your body by touching a grounded metal object.**

1 Turn the power switch off. (See P. 17 "7-2-1 Turning the power switch on.")

2 Remove the rear service door.

3 Disconnect the four harness connectors.

Harness connectors

Phillips pan head screw (M3 x 8)

4 Remove the four Phillips pan head screws (M3 x 8) with flat and spring washers and remove the A.I. PCB.

5 Attach the A.I. PCB following the above steps in reverse.
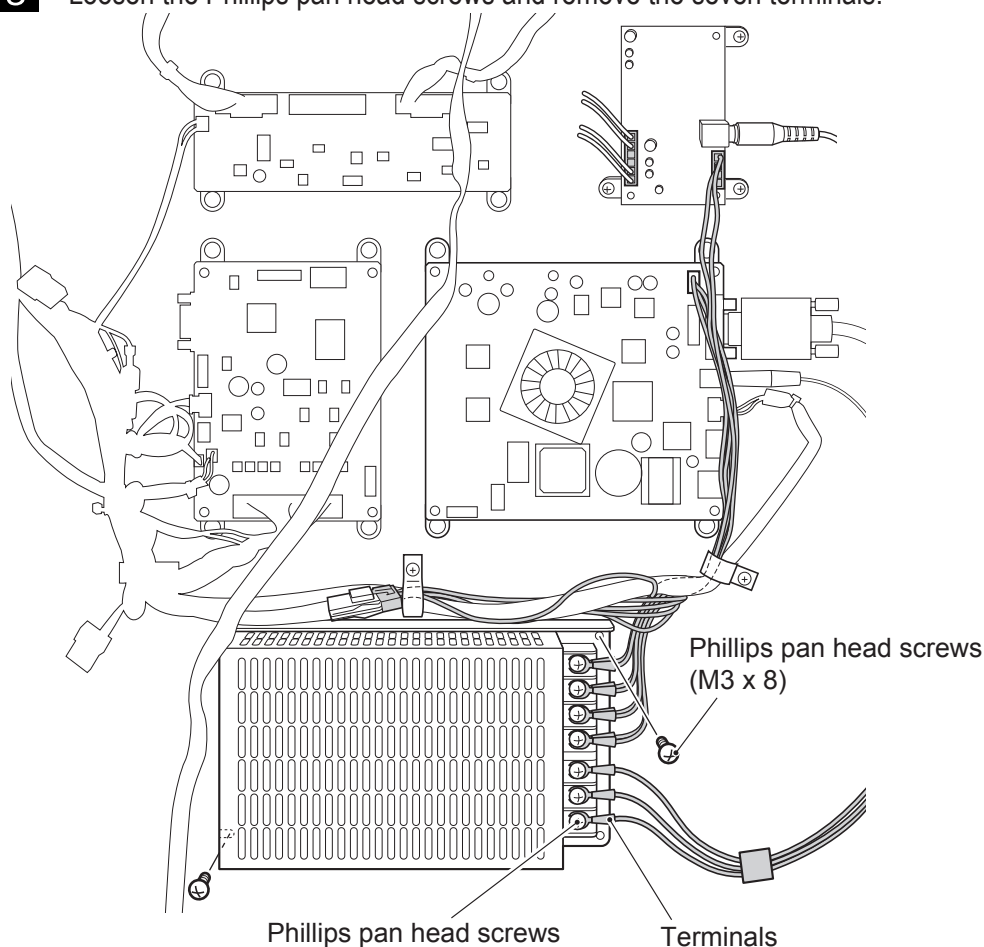
(5) Replacing the AMP PCB

⚠ **WARNING**

● **To prevent electric shock, accident or injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before performing the tasks described below.**

> **◀ NOTICE** ● **The PCB can be easily damaged by static electricity. If the PCB is handled by a person charged with static electricity, parts mounted on the PCB can be damaged. Before touching the PCB, be sure to remove static electricity from your body by touching a grounded metal object.**

1 Turn the power switch off. (See P. 17 "7-2-1 Turning the power switch on.")

2 Remove the rear service door.

3 Disconnect the two harness connectors and RCA plug.

4 Remove the three Phillips pan head screw (M3 x 8) with flat and spring washers and remove the AMP PCB.

5 Attach the AMP PCB following the above steps in reverse.

8B. SERVICES – To be conducted by a technician only –

---

(6) Replacing the power supply

⚠ WARNING

● **To prevent electric shock, accident or injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before performing the tasks described below.**

> **NOTICE** ● **The PCB can be easily damaged by static electricity. If the PCB is handled by a person charged with static electricity, parts mounted on the PCB can be damaged. Before touching the PCB, be sure to remove static electricity from your body by touching a grounded metal object.**

1 Turn the power switch off. (See P. 17 "7-2-1 Turning the power switch on.")

2 Remove the side service door. (See P. 36 "8A-1-2 Removing and attaching the side service door.")

3 Loosen the Phillips pan head screws and remove the seven terminals.

Phillips pan head screws
(M3 x 8)

Phillips pan head screws   Terminals

4 Remove the two Phillips pan head screws (M3 x 8) with flat and spring washers and remove the power supply.

**5** Attach the power supply following the above steps in reverse.

8B-4-4 Pedestal assembly

(1) Accessing the Control Panel area

⚠️**WARNING**

- **To prevent electric shock, accident and injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before performing the tasks described below.**

---

1   Remove the Service door on the back of the Pedestal assembly.

2   Release the harness from the harness clamp from the top of the pedestal assembly.

3   Disoconnect the appropriate harness to gain better access component you are servicing in the Control Panel area.

Harness clamp
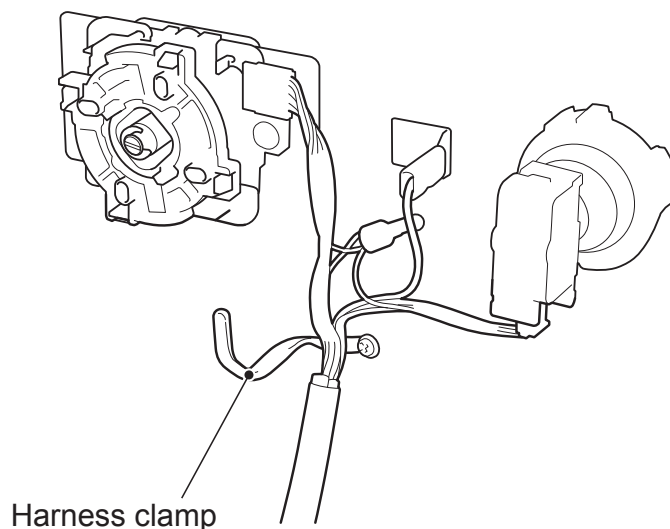
⯇**NOTICE**   ● **The Pedestals are color-coded for each player number. (See P. 9 "4 OVERALL CONSTRUCTION (Names of Parts).") Make sure that all the Pedastals assemblies are attached in the correct positions.**
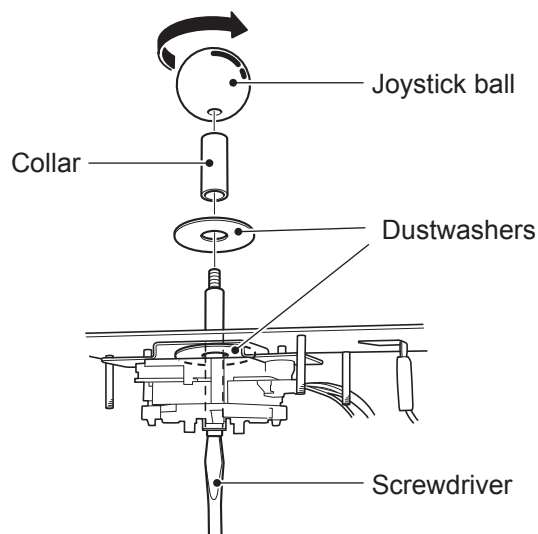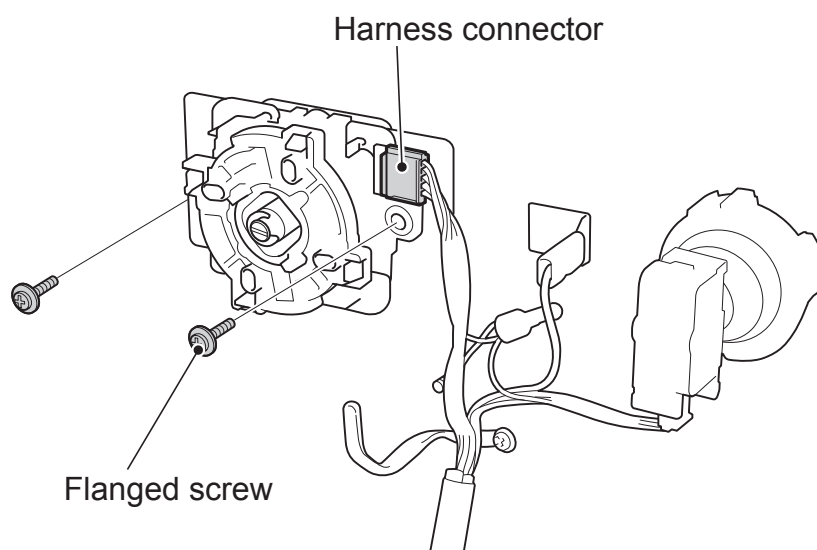
8B. SERVICES **– To be conducted by a technician only –**

(2) Replacing the joystick

⚠ WARNING

● **To prevent electric shock, accident and injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before performing the tasks described below.**

---

1 Open the service door on the back of the pedestal.

2 While holding the thread on the bottom of the joystick shaft using a screwdriver, turn the joystick ball counterclockwise to remove the ball, collar, and upper Dustwasher.

Joystick ball

Collar

Dustwashers

Screwdriver

3 Remove the two flanged screws and disconnect the harness connector to remove the joystick.

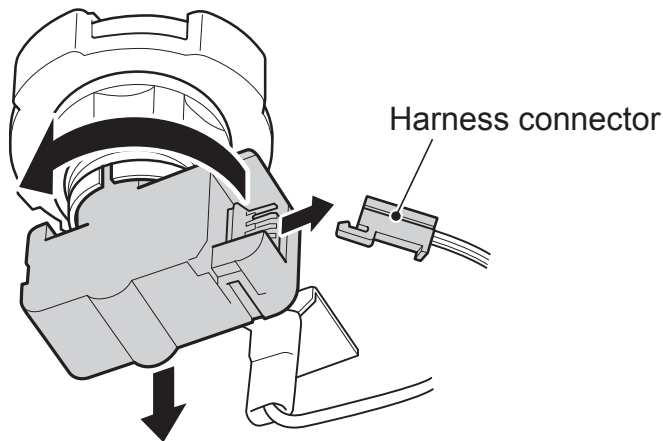Harness connector

Flanged screw

4 Attach the joystick following the above steps in reverse.

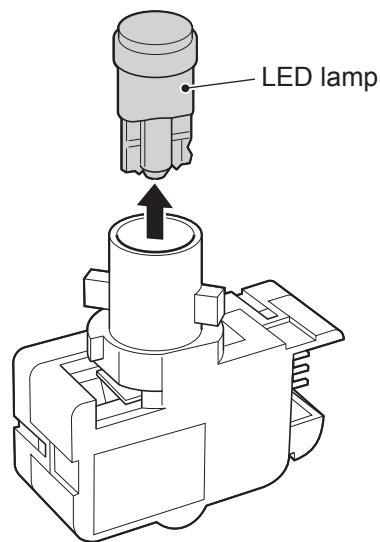**(3) Replacing the illuminated switch and its LED lamp**

⚠ WARNING

● **To prevent electric shock, accident and injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before performing the tasks described below.**

1 Open the service door on the back of the pedestal.

2 Remove the harness connector, and then turn the illuminated switch counterclockwise to remove it.

Harness connector

3 Pull out the LED lamp from the illuminated switch.

LED lamp

4 Replace the illuminated switch or LED lamp.

5 Attach the illuminated switch following the above steps in reverse, making sure that the connector orientation is correct.

**8B. SERVICES – To be conducted by a technician only –**

8B-4-5 Marquee assembly

(1) Replacing the fluorescent lamp

> ⚠ **WARNING**
>
> ● To prevent electric shock, accident or injury and to prevent damage to the electrical circuitry of the machine, be sure to turn the power switch off before performing the tasks described below.
> ● Since attachment of the Marquee assembly is performed above waist level, prepare a step ladder or platform to stand on. Performing the task in an awkward position can result in injury or machine damage.
> ● Be sure to replace with the proper fluorescent lamp. Don't install the other types of lamp.

1 Turn the power switch off.)

2 Turn the service key and rotate the rear access panel down on its hinge.
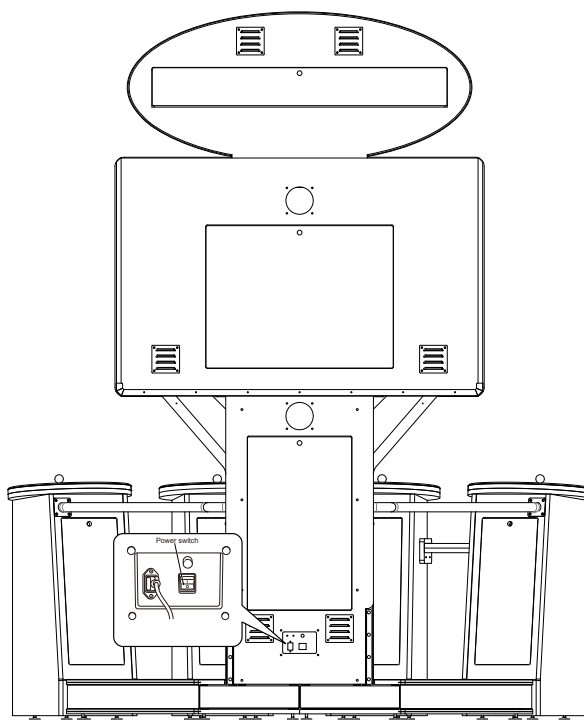
3 Replace the fluorescent lamp.

4 Attach the rear access panel following the above steps in reverse.

9. DISPOSAL OF THE MACHINE

⚠**WARNING**

- The machine must be collected, transported and discarded in accordance with applicable local laws and regulations.
- When entrusting a third party to collect, transport and discard the machine, be sure to select specialist companies.
- Dispose of used lithium batteries in accordance with local laws and regulations.
- Before disposing of lithium batteries, place pieces of electrical insulation tape over both the positive and negative electrodes. If the electrodes of the battery contact a metal object, a fire or explosion may result.

# 10. PARTS LISTS

10-1 Control Stand (Player 1 Shown)
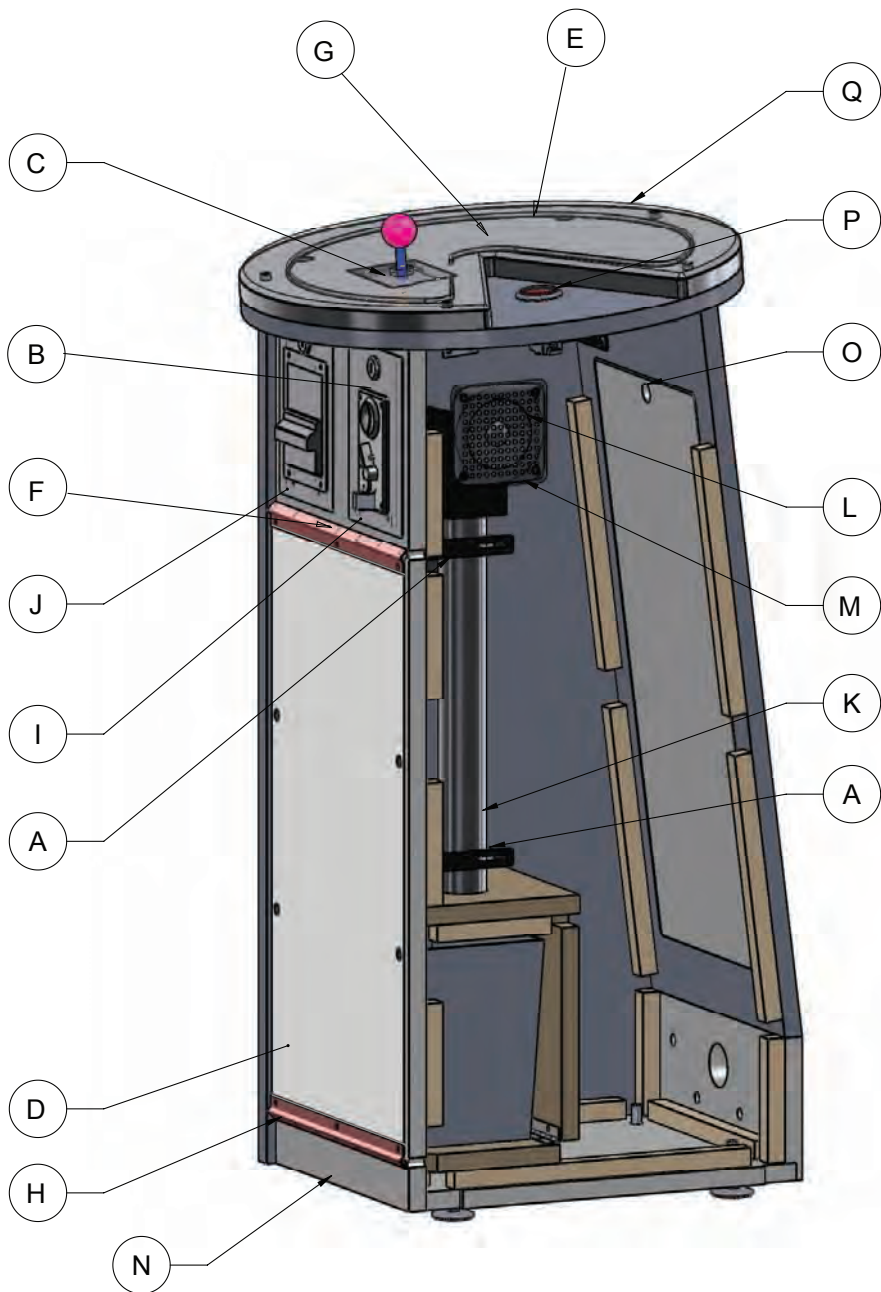
Control Stand Parts

Item.	Description	Part No.
A	POD COIN TUBE MTG. BRKT.	PG10-14031-00
B	ELECTRONIC ROLLDOWN MECH	VG83-14041-00
C_1	JOYSTICK 8-WAY (RED) - PLAYER 1	VG80-11244-00
C_2	JOYSTICK 8-WAY (YELLOW) - PLAYER 2	VG80-11244-01
C_3	JOYSTICK 8-WAY (PINK) - PLAYER 3	VG80-11244-02
C_4	JOYSTICK 8-WAY (BLUE) - PLAYER 4	VG80-11244-03
D	ACRYLIC, LIGHT PIPE PLATE FRONT	PG95-14012-00
E_1	RIBBON LED STRIP 84 LED (RED) - PLAYER 1	VG79-14047-84
E_2	RIBBON LED STRIP 84 LED(YELLOW) - PLAYER 2	VG79-14046-84
E_3	RIBBON LED STRIP 84 LED (PINK) - PLAYER 3	VG79-14045-84
E_4	RIBBON LED STRIP 84 LED (BLUE) - PLAYER 4	VG79-14044-84
F_1	RIBBON LED STRIP 18 LED (RED) - PLAYER 1	VG79-14047-18
F_2	RIBBON LED STRIP 18 LED(YELLOW) - PLAYER 2	VG79-14046-18
F_3	RIBBON LED STRIP 18 LED (PINK) - PLAYER 3	VG79-14045-18
F_4	RIBBON LED STRIP 18 LED (BLUE) - PLAYER 4	VG79-14044-18
G_1	DECAL, CONTROL PANEL (RED) - PLAYER 1	PG40-14006-00
G_2	DECAL, CONTROL PANEL (YELLOW) - PLAYER 2	PG40-14006-01
G_3	DECAL, CONTROL PANEL (PINK) - PLAYER 3	PG40-14006-02
G_4	DECAL, CONTROL PANEL (BLUE) - PLAYER 4	PG40-14006-03
H	POD FRONT LED LIGHT HOLDER	PG10-14033-00
I	FRONT PLATE COIN SELECTOR ASSY.	PG10-14034-00
J	DBA FRONT PLATE ASY.	PG10-14037-00
K	PVC, TUBE	PG96-14014-00
L	SPEAKER, 4" 4OHM 15w SHIELDED	VG54-12904-00
M	SPEAKER COVER, GRILL	PG90-13448-00
N	PBR-DX, POD LEFT W/SPKR (US)	PG63-14042-20
O	PBR-DX, POD BACK DOOR	PG63-14042-33
P	PUSHBUTTON W/MICROSWITCH	VG80-11112-03
Q	LED LIGHT	VG79-13434-00

10. PARTS LISTS

10-2 Base Assy. Left

SECTION AA
SCALE 1:2
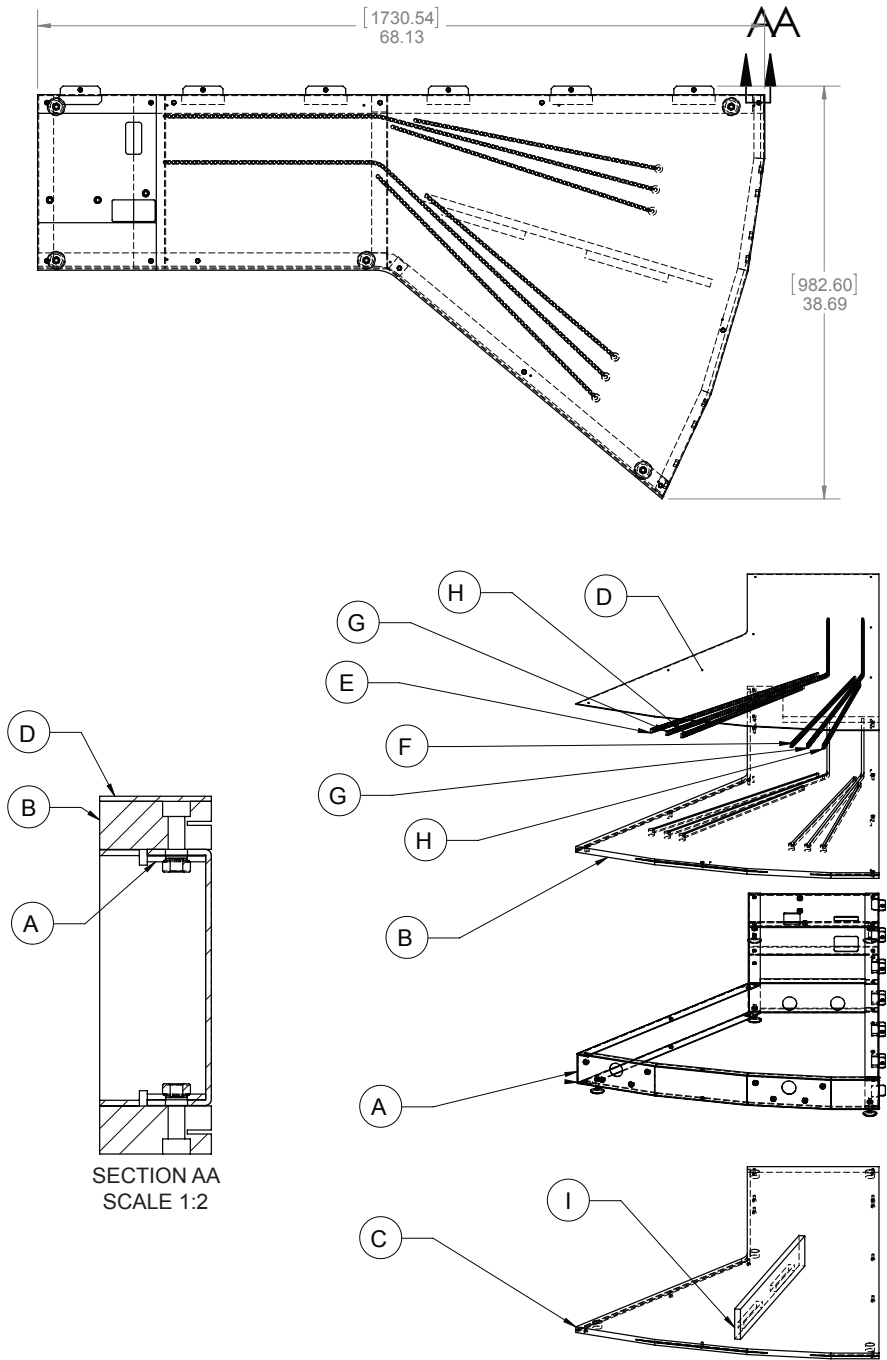
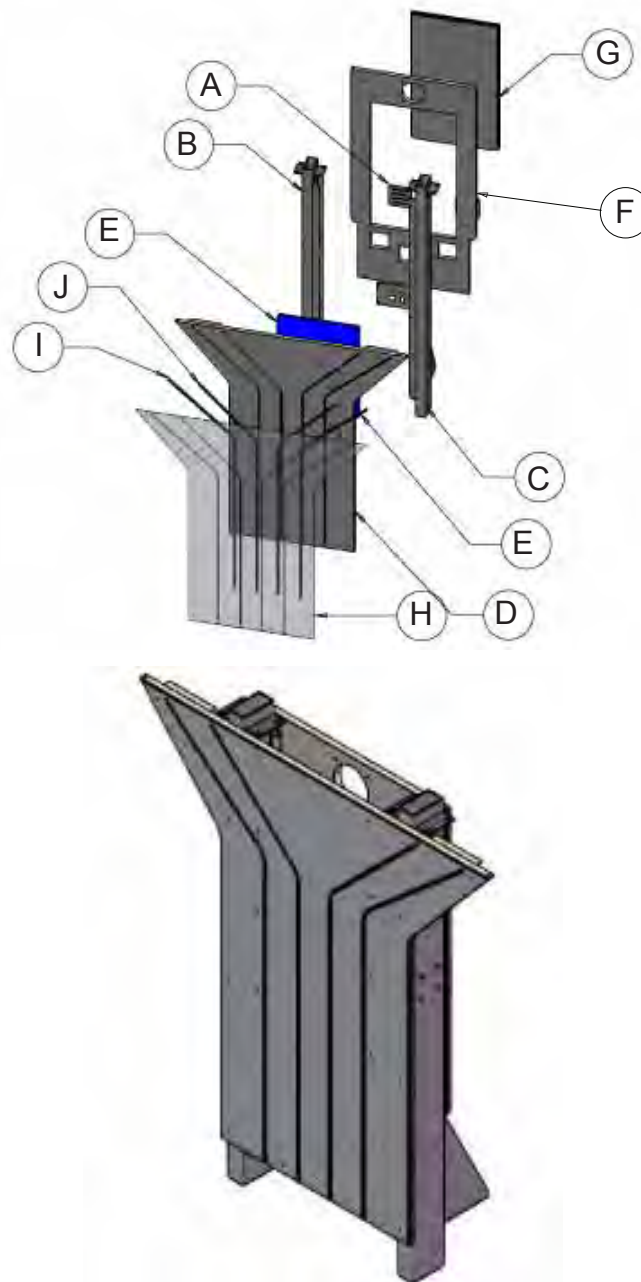| Item.	Description	Part No.
A	BASE LEFT WELDED ASSY.	PG10-14022-00
B	PBR-DX, FLOOR COVER TOP LEFT	PG63-14042-15
C	PBR-DX, FLOOR COVER BTM LEFT	PG63-14042-16
D	PLASTIC, FLOOR PANEL LEFT	PG40-14009-00
E	LED STRIP LIGHT 75cm (WHT)	VG79-14064-75
F	LED STRIP LIGHT 66cm (WHT)	VG79-14064-66
G	LED STRIP LIGHT 126cm (WHT)	VG79-14064-126
H	LED STRIP LIGHT 60cm (WHT)	VG79-14064-60

10-3 Base Assy. Right
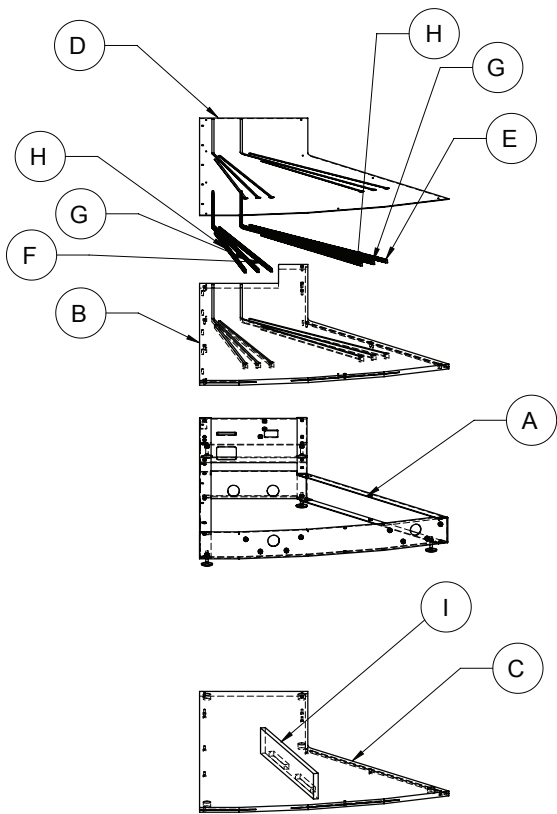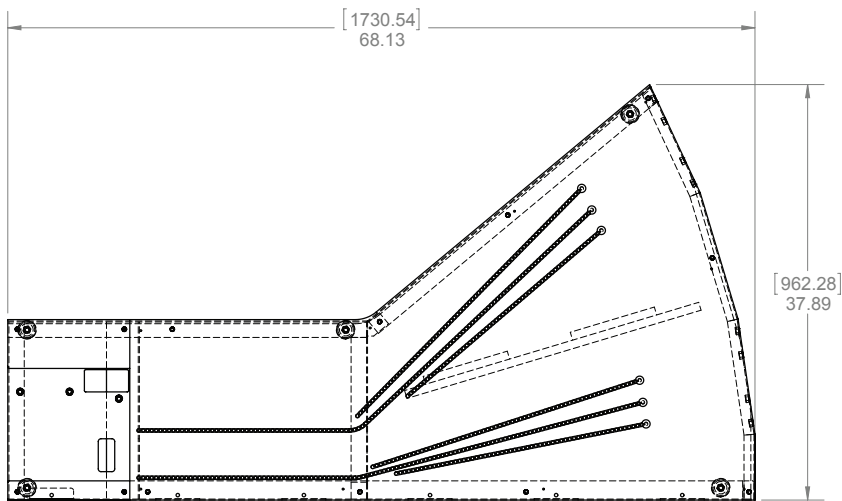
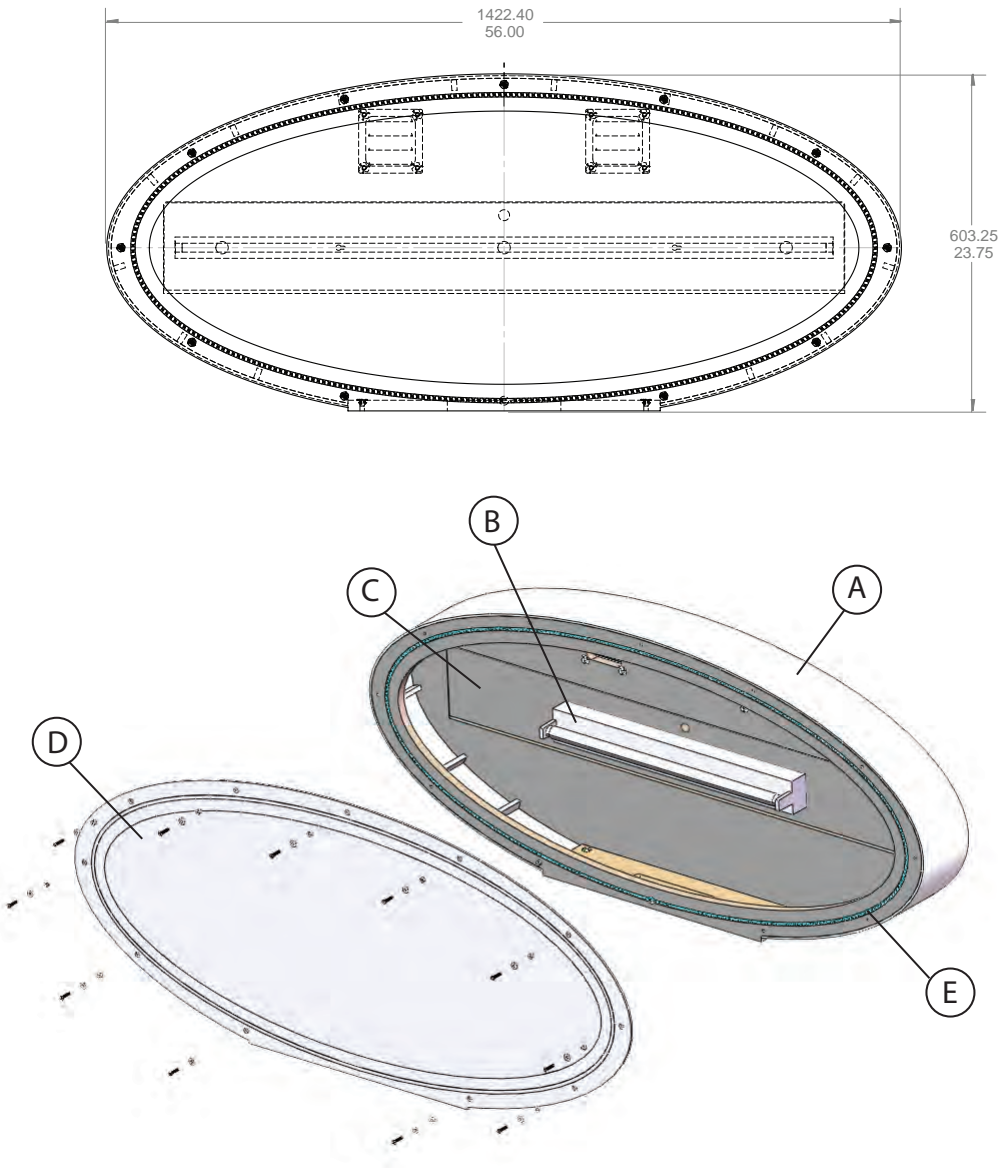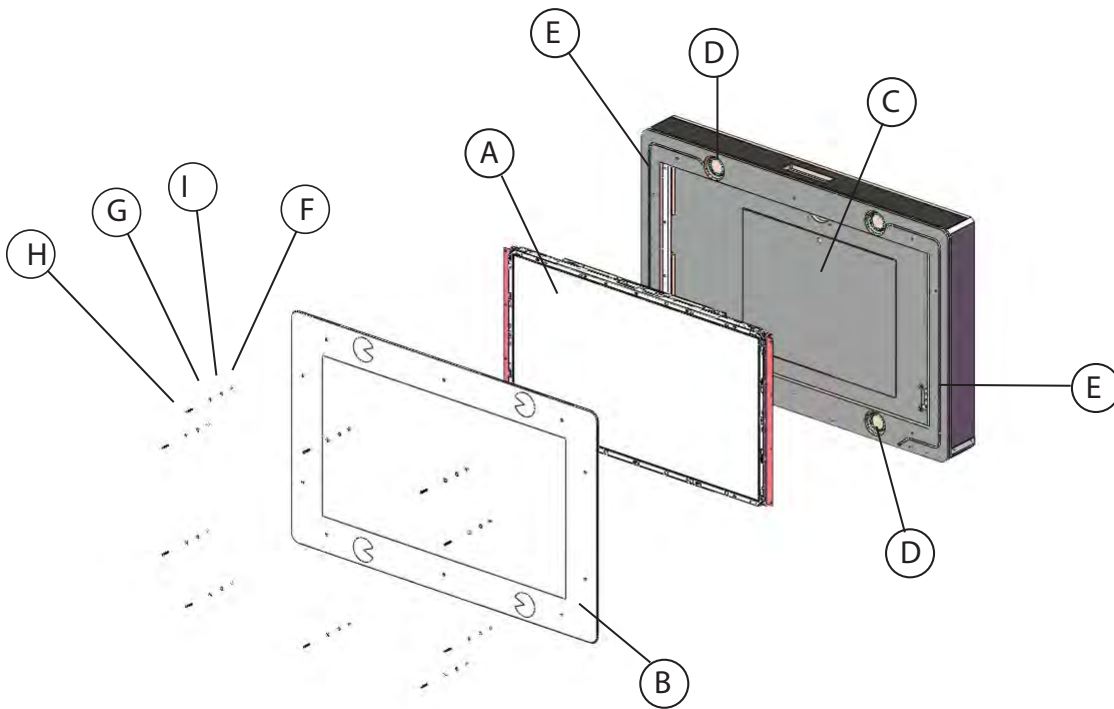| Item.	Description	Part No.
A	BASE RIGHT WELDED ASSY.	PG10-14023-00
B	PBR-DX, FLOOR COVER TOP RIGHT	PG63-14042-18
C	PBR-DX, FLOOR COVER BTM RIGHT	PG63-14042-19
D	PBR-DX, FLOOR BRACE	PG63-14042-17
E	LED STRIP LIGHT 75cm (WHT)	VG79-14064-75
F	LED STRIP LIGHT 66cm (WHT)	VG79-14064-66
G	LED STRIP LIGHT 126cm (WHT)	VG79-14064-126
H	LED STRIP LIGHT 129cm (WHT)	VG79-14064-129
I	PLASTIC, FLOOR PANEL RIGHT	PG40-14009-01

10. **PARTS LISTS**

10-4 Upright assembly

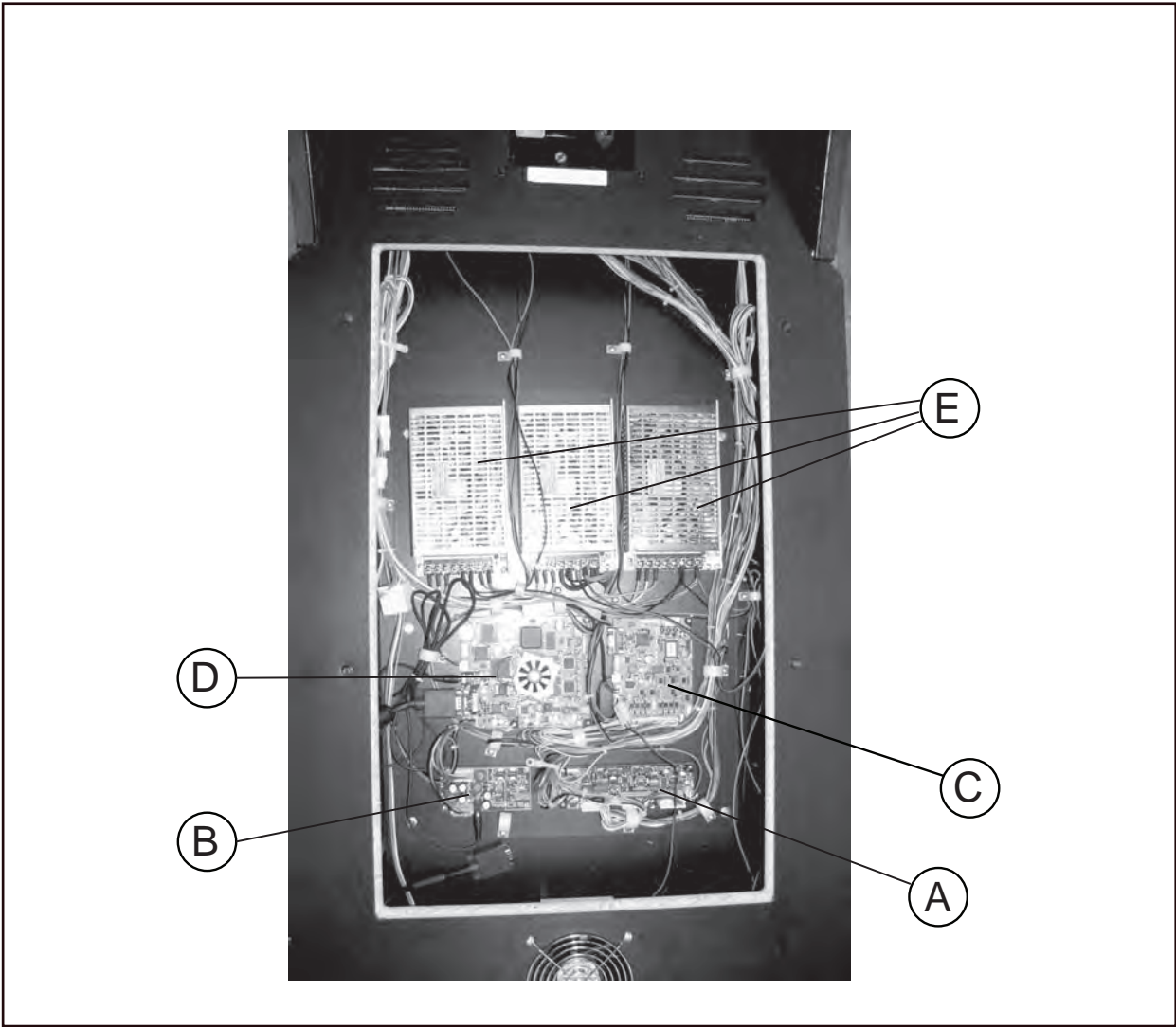| Item.	Description	Part No.
A	LOUVER PLATE	VG10-14019-00
B	UPRIGHT TUBE LEFT	PG10-14020-00
C	UPRIGHT TUBE RIGHT	PG10-14021-00
D	PBR-DX, STAND FRONT COVER	PG63-14042-11
E	PBR-DX, ELECTRIC BOARD	PG63-14042-12
F	PBR-DX, STAND BACK COVER	PG63-14042-13
G	PBR-DX, STAND BACK DOOR	PG63-14042-14
H	PLASTIC, MONITOR STAND - PBR DLX	PG40-14008-00
I	LED STRIP LIGHT 129cm (WHT)	VG79-14064-129
J	LED STRIP LIGHT 126cm (WHT)	VG79-14064-126

10-5 Marquee Box Assembly

Item.	Description	Part No.
A	PBR-DX, MARQUEE CABINET	PG63-14042-07
B$_1$	FIXTURE, FLUORESCENT, 36"	VG57-03870-00
B$_2$	LAMP, FLUORESCENT, 36	VG57-03871-00
C	PBR-DX, MARQUEE BACK DOOR	PG63-14042-10
D	PLASTIC, MARQUEE - PBR DLX	PG40-14007-00
E	LED STRIP LIGHT 309cm (WHT)	VG79-14064-309

10-6 Monitor assembly

Item.	Description	Part No.
A	MONITOR, 54.6" LCD MACVISION	VG85-12924-00
B	PLASTIC, MONITOR COVER	PG40-14010-00
C	PBR-DX, MONITOR BACK DOOR	PG63-14042-06
D	LED STRIP LIGHT 21cm (WHT)	VG79-14064-21
E	LED STRIP LIGHT 138cm (WHT)	VG79-14064-138
F	SPACER-MONITOR	
G	WASHER	
H	M4 X 35 mm SCREW	
I	RUBBER-WASHER	

10-7 Electrical Assembly

| Item.	Description	Part No.
A	PBR A.I. PCB	PG03-13393-00
B	AUDIO AMP PCB (GEMINI V3.1)	VG05-11852-02
C	PBR I/O PCB	PG03-13392-00
D	PBR MAIN BRD	PG03-13391-00
E	POWER SUPPLY 12V ONLY, 120W MFR #80-0215-00	VG88-10064-00

10. PARTS LISTS

10-8 AC Plate
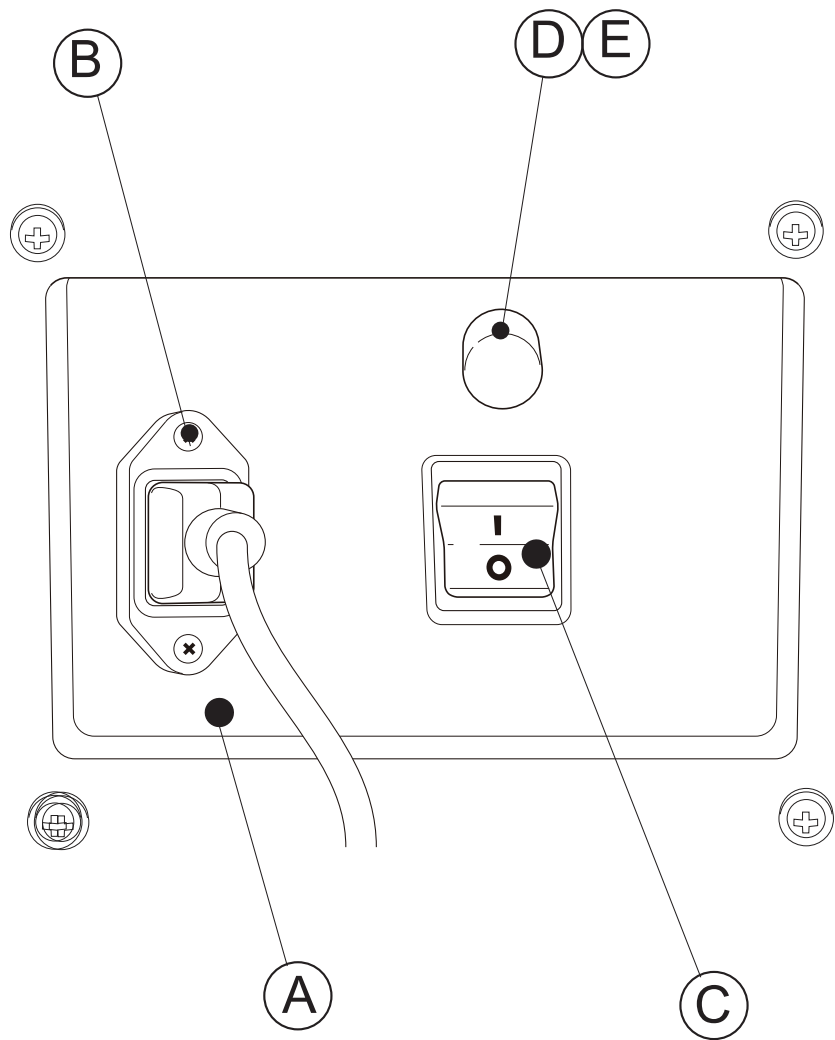
Item.	Description	Part No.
A	AC PLATE	VG10-09494-00
B	EMI FILTER	VG78-12947-00
C	ON/OFF SWITCH	VG53-04683-00
D	FUSE HOLDER	
E	FUSE 5 AMP SLO-BLOW	

11. WIRING DIAGRAMS
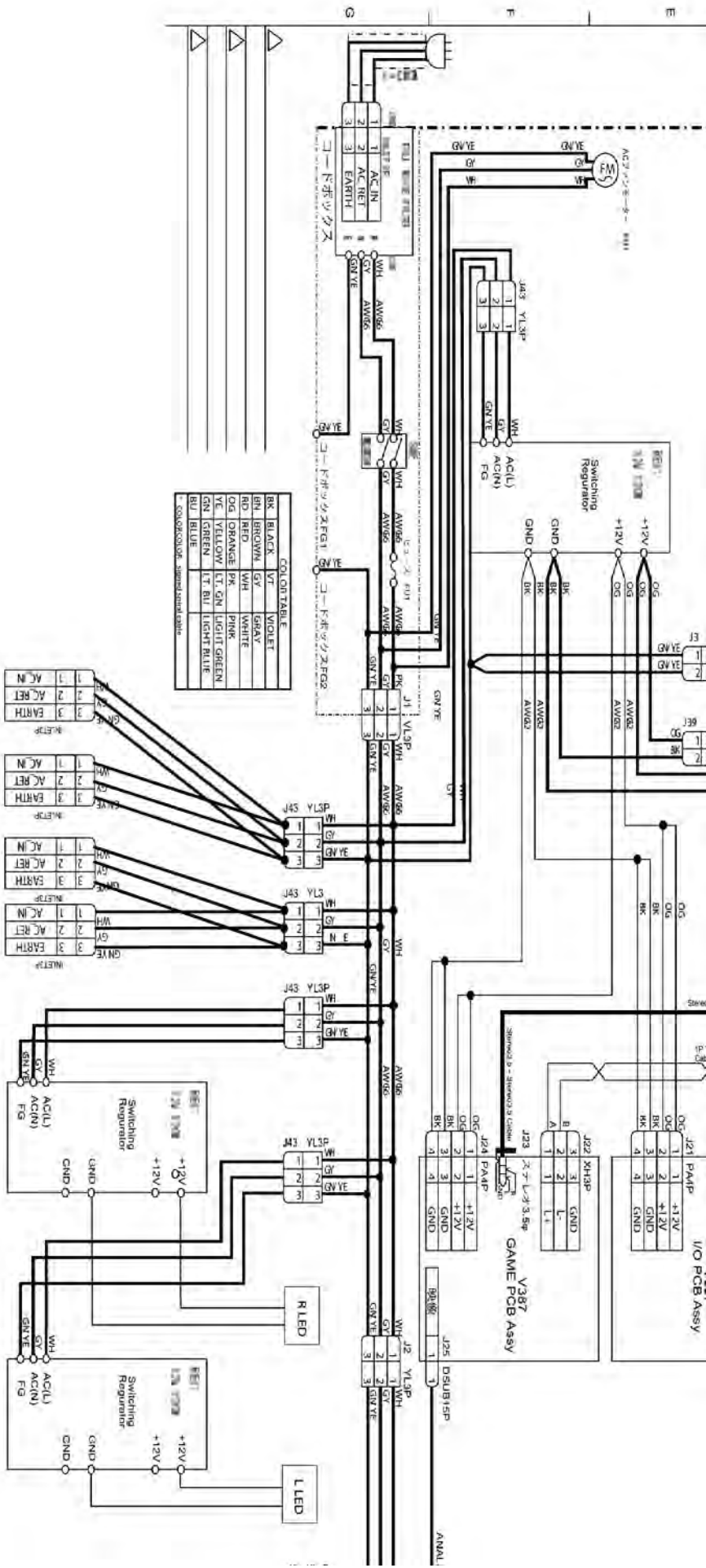
11.2 WIRING DIAGRAMS

COIN DOOR WIRING ENLARGEMENT
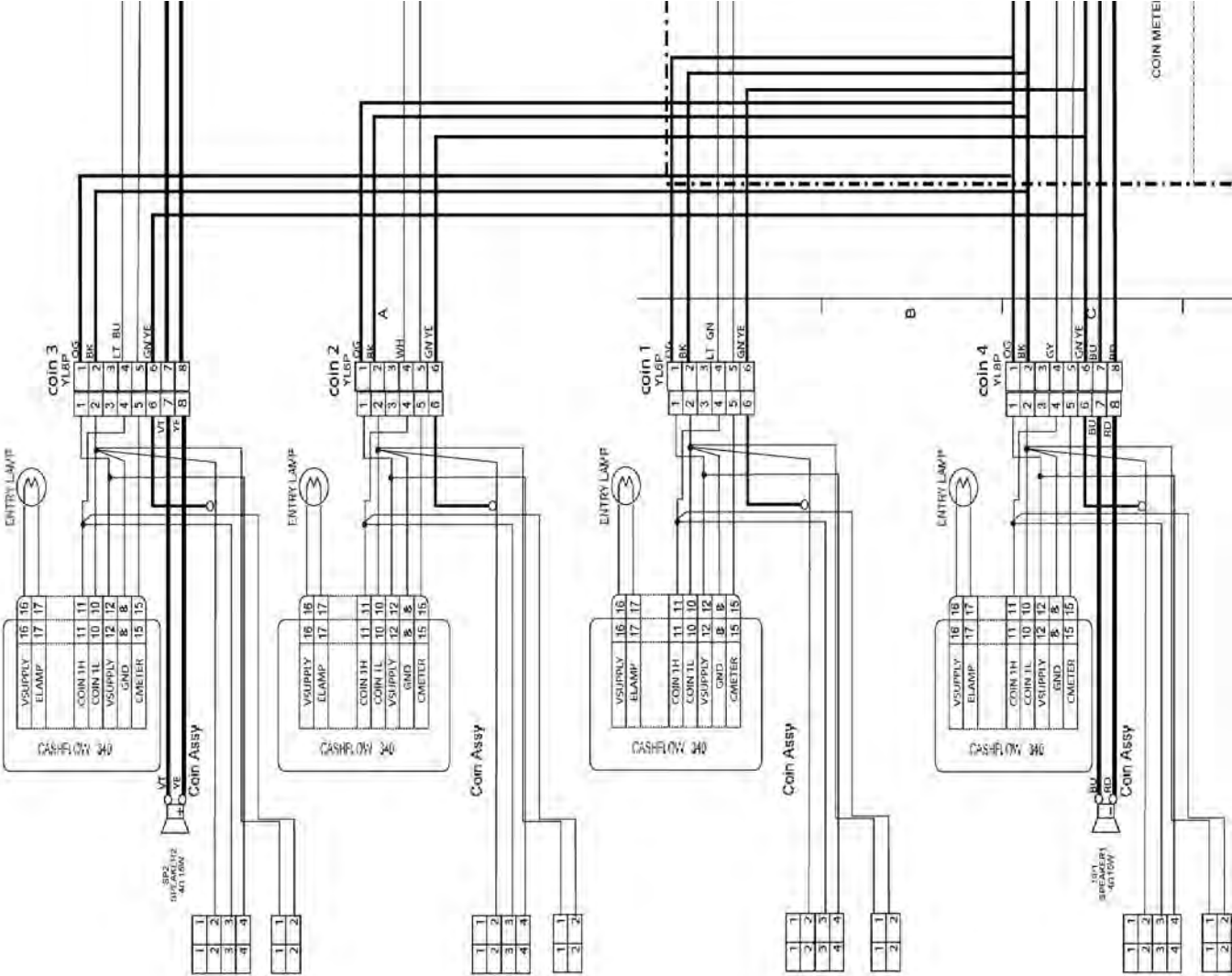
11.4 WIRING DIAGRAMS CONTROL PANEL WIRING ENLARGEMENT
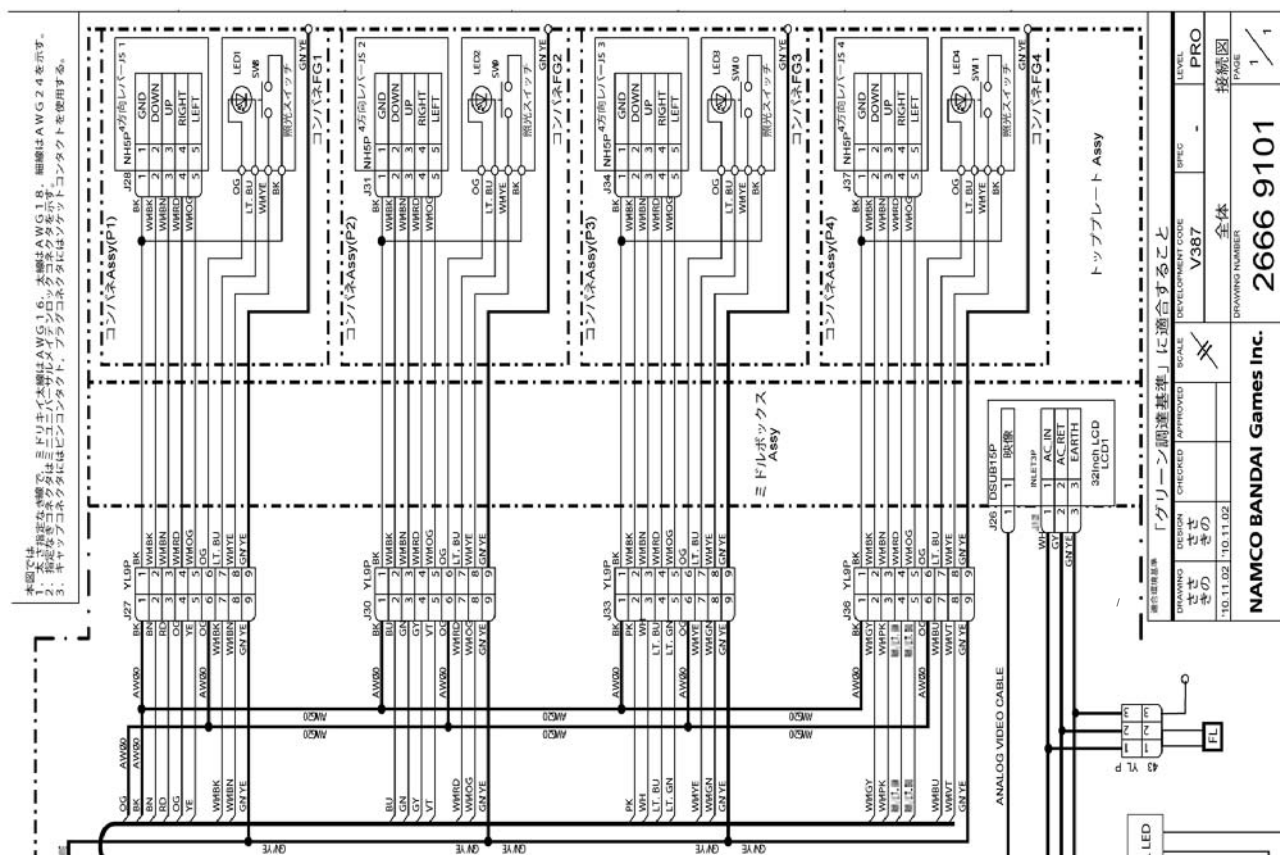
WARRANTY

Seller warrants that its printed circuit boards and parts thereon are free from defects in materials and workmanship under normal use and service for a period of ninety (90) days from the date of shipment. Seller warrants that its video displays (in games supplied with video displays) are free from defects in material and workmanship under normal use and service for a period of thirty (30) days from the date of shipment. None of the Seller's other products or parts thereof are warranted. Seller's sole liability shall be, at its option, to repair, replace, or credit Buyer's account for such products which are returned to Seller during said warranty period, provided:

      a) Seller is promptly notified in writing upon discovery by Buyer that said products are defective.

      b) Such products are returned prepaid to Seller's plant; and

      c) Seller's examination of said products discloses to Seller's satisfaction that such alleged defects existed and were not caused by accident, misuse, neglect, alteration, improper repair, improper installation, or improper testing.

In no event shall Seller be liable for loss of profits. loss of use, incidental or consequential damages.

Except for any express warranty set forth in a written contract between Seller and Buyer which contract supersedes the terms herein, this warranty is in lieu of all other warranties expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose, and all other obligations or liabilities on the Seller's part, and it neither assumes nor authorizes any other person to assume for the Seller any other liabilities in connection with the sale of products by Seller.

Namco America Inc. distributors are independent, being privately owned and operated. In their judgment they may sell parts or accessories other than Namco America Inc. parts or accessories. Namco America Inc. cannot be responsible for the quality, suitability or safety of any non-Namco America Inc. part or any modification including labor which is performed by such distributor.

SERVICE

If you have questions regarding any **Namco America Inc.** product or require technical support:
Contact **Namco America Inc.** Customer Service at:
1 (847) 264-5610 or FAX 1 (847) 264-5611
Hours: 9:00 am - 5:00 pm CDT
Parts and repair services for **Namco America Inc.**
products are available through your distributor.