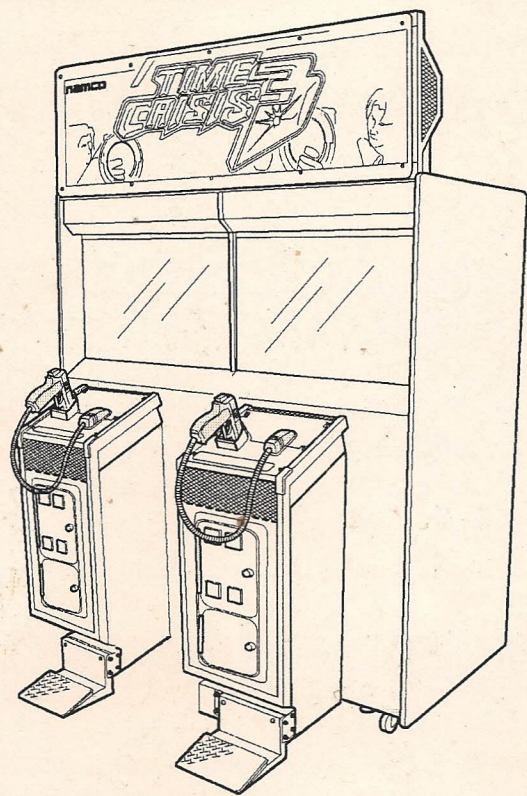


6-23-03?

**NAMCO®**



# Time Crisis 3 SD

## OPERATION MANUAL

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

### **WARNING**

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

**NAMCO AMERICA**



## **Important**

**Read PRECAUTIONS and INSTALLATION  
Sections before operating game**

## **RF Notice**

Note: 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.

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# INTRODUCTION

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Thank you for purchasing the "Time Crisis 3 SD" game machine (hereafter referred to as the "machine").

This operation manual describes:

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

Inquiries concerning the machine and repairs

- For further information about the machine and repairs, please contact your distributor.

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**MAGICGATE** is a trademark of Sony Corporation.

The DVD-ROM supplied with the machine must not be copied, converted, distributed publicly, or used for purposes other than the operation of the machine. The contents of the DVD-ROM are protected by copyright laws. Infringement of copyright laws may be subject to criminal penalties.

Do not use the supplied DVD-ROM with other product models or other media formats. Doing so may result in machine failure.



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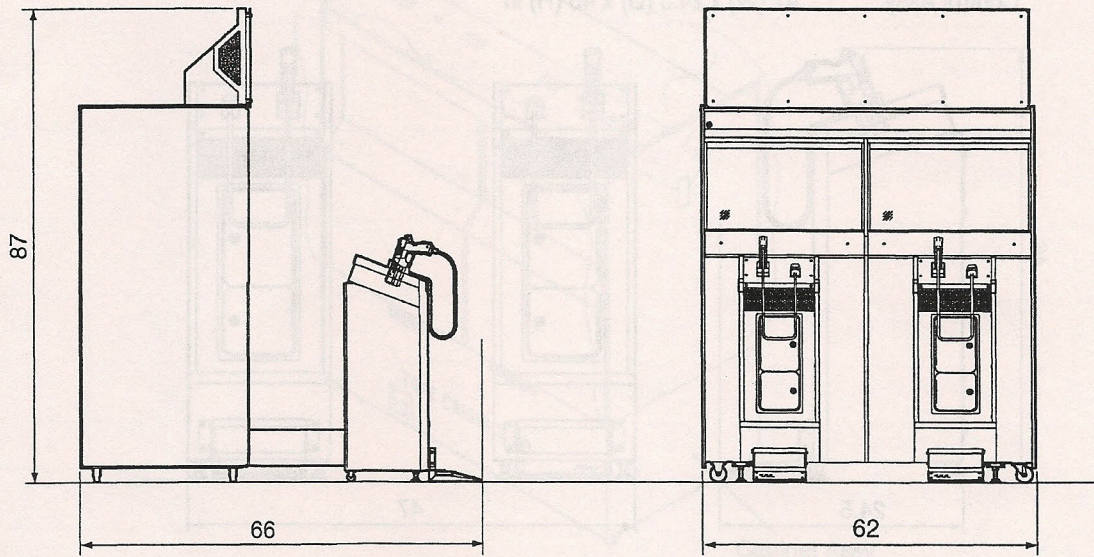
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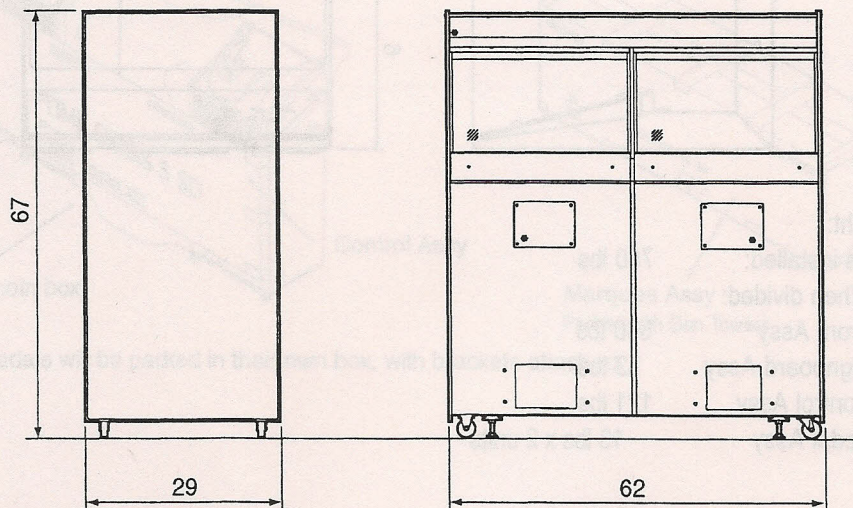


## 2. SPECIFICATIONS

- (1) Rated power supply: 110 VAC (60 Hz)
- (2) Maximum power consumption: 368 W
- (3) Maximum current consumption: 4.5 A
- (4) Coin box capacity: Approx. \$1350 in US quarters
- (5) Display: 27-inch color monitor CGA x 2 units
- (6) Dimensions:
  - ① As installed: 62 (W) x 66 (D) x 87(H) in



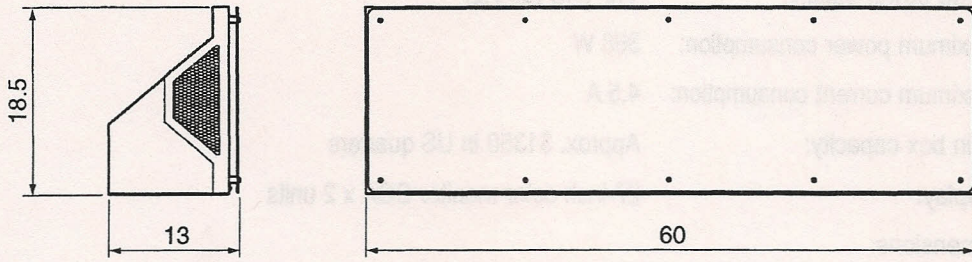
- ② When divided:  
Front Assy 62 (W) x 29 (D) x 62 (H) in



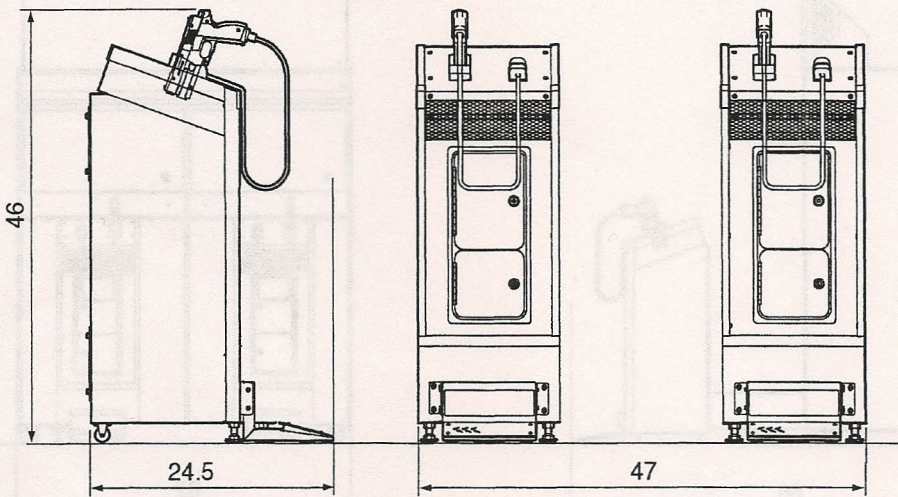


2. SPECIFICATIONS

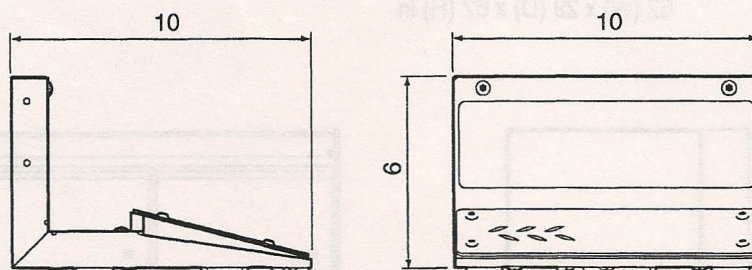
Signboard Assy 60 (W) x 13 (D) x 18.5 (H) in



Control Assy 47 (W) x 24.5 (D) x 46 (H) in



Pedal Assy 10 (W) x 10(D) x 6 (H) in



(7) Weight:

- ① As installed: 750 lbs
- ② When divided:
  - Front Assy 530 lbs
  - Signboard Assy 53 lbs
  - Control Assy 121 lbs
  - Pedal Assy 13 lbs x 2 units

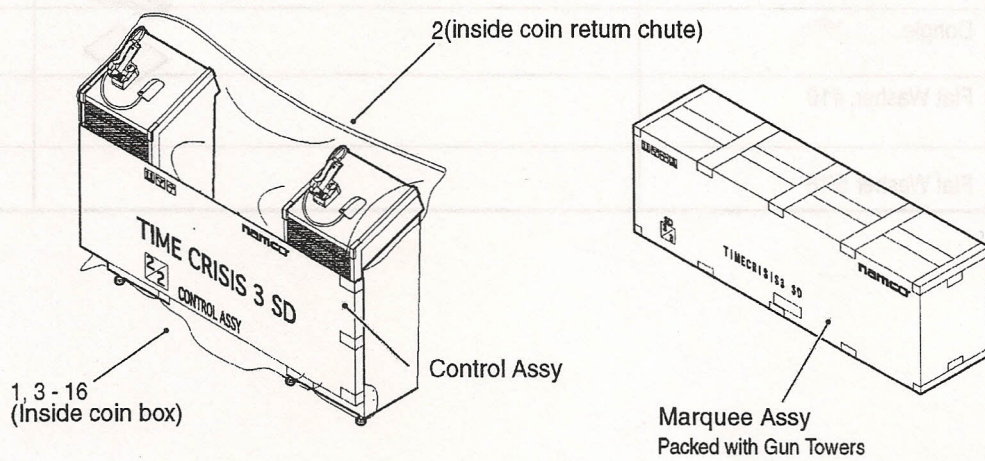
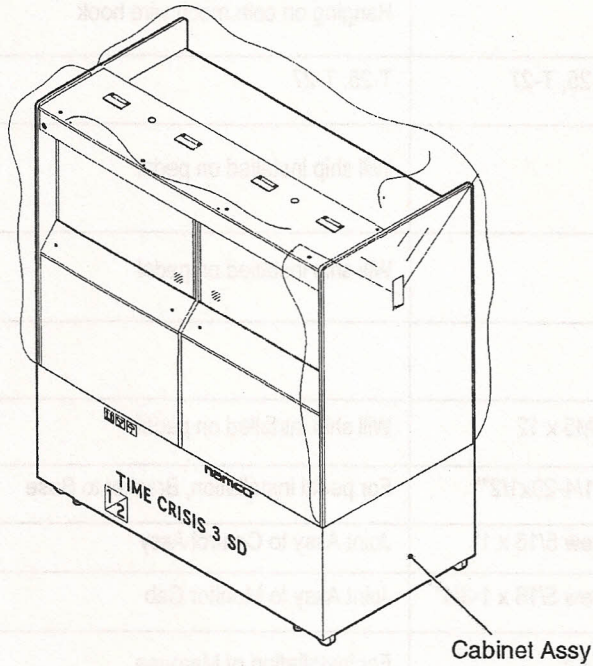


### 3. CHECKING THE PACKAGE CONTENTS

The product package contains the following parts when shipped.



- Make sure all the parts shown below are included in the product package.
- If parts are missing, contact your distributor.





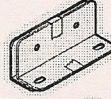
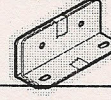




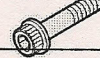






Foot pedals will be packed in their own box, with brackets attached.



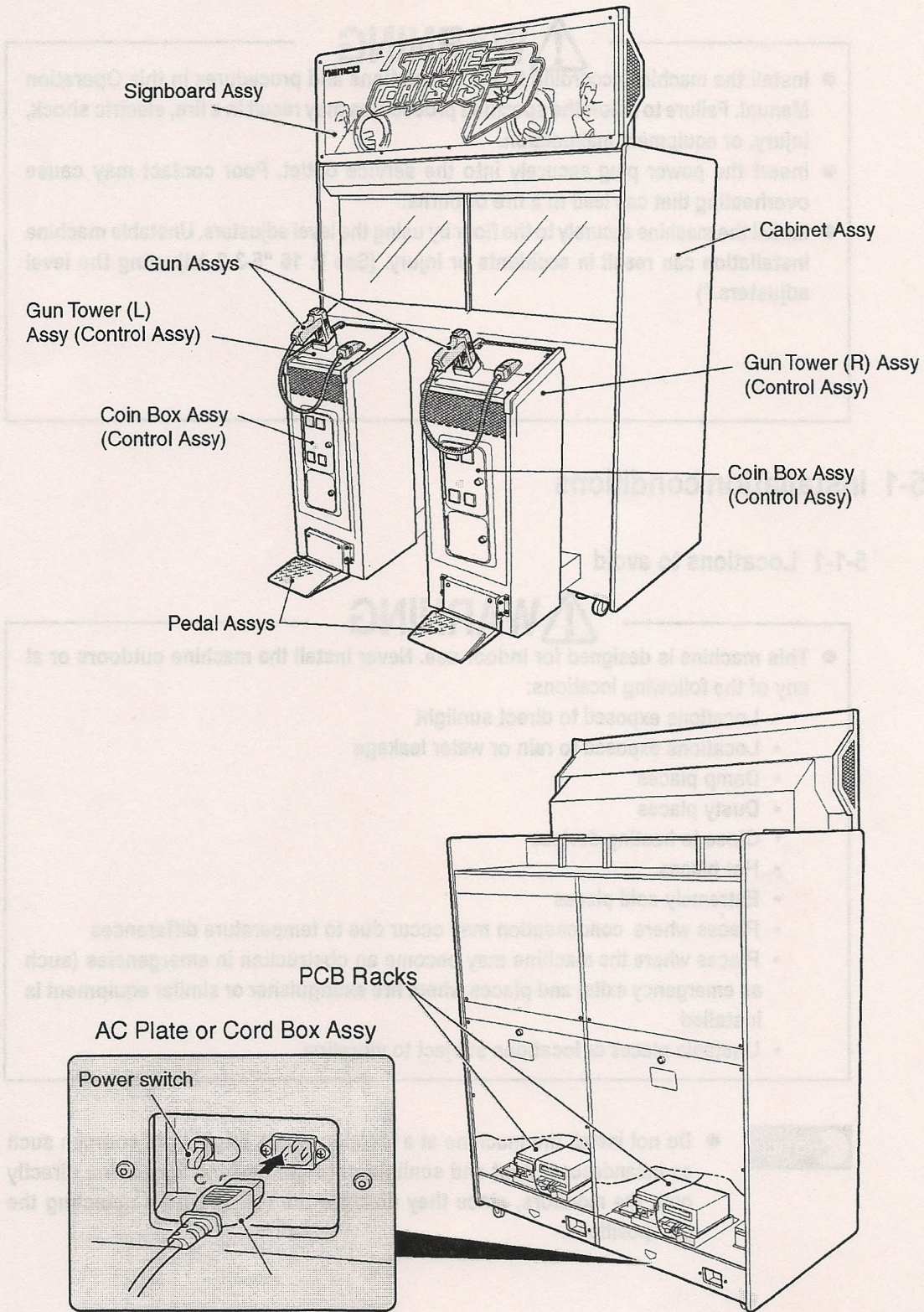
### 3. CHECKING THE PACKAGE CONTENTS

#### • Accessory list

No.	Name	Specification		Qty
1	"Time Crisis 3 SD" Operation Manual (this manual)			1
2	Coin mech door key	Inside coin return chute		2
3	Coin box key	Hanging on coin mech wire hook		2
4	Torx wrench, T-25, T-27	T-25, T-27		3
5	Pedal BK (A)	Will ship installed on pedal		2
6	Pedal BK (B)	Will ship installed on pedal		2
7	DVD-ROM			2
8	Socket Hd bolt M5 x 12	Will ship installed on pedal.		8
9	Socket Hd bolt 1/4-20x1/2**	For pedal installation, Bracket to Base		8
10	Hex Hd cap screw 5/16 x 1"	Joint Assy to Control Assy		8
11	Hex Hd cap screw 5/16 x 1-3/4"	Joint Assy to Monitor Cab		8
12	Torx bolt 10-24 x 1	For installation of Marquee		4
13	Power cord			1
14	Dongle			2
15	Flat Washer, #10			4
16	Flat Washer 5/16			8



# 4. OVERALL CONSTRUCTION (Components and Their Names)





## 5. INSTALLATION

### WARNING

- Install the machine according to the instructions and procedures in this Operation Manual. Failure to follow the specified procedures may result in a fire, electric shock, injury, or equipment malfunction.
- Insert the power plug securely into the service outlet. Poor contact may cause overheating that can lead to a fire or burns.
- Install the machine securely to the floor by using the level adjusters. Unstable machine installation can result in accidents or injury. (See P. 16 “5-3-2 Adjusting the level adjusters.”)

### 5-1 Installation conditions

#### 5-1-1 Locations to avoid

### WARNING

- This machine is designed for indoor use. Never install the machine outdoors or at any of the following locations:
  - Locations exposed to direct sunlight
  - Locations exposed to rain or water leakage
  - Damp places
  - Dusty places
  - Close to heating devices
  - Hot places
  - Extremely cold places
  - Places where condensation may occur due to temperature differences
  - Places where the machine may become an obstruction in emergencies (such as emergency exits) and places where fire extinguisher or similar equipment is installed
  - Unstable places or locations subject to vibration



- Do not install the machine at a location where bright light sources such as incandescent light and sunlight or bright flashing light shine directly onto the monitors, since they disallow the sensors from detecting the gun positions.



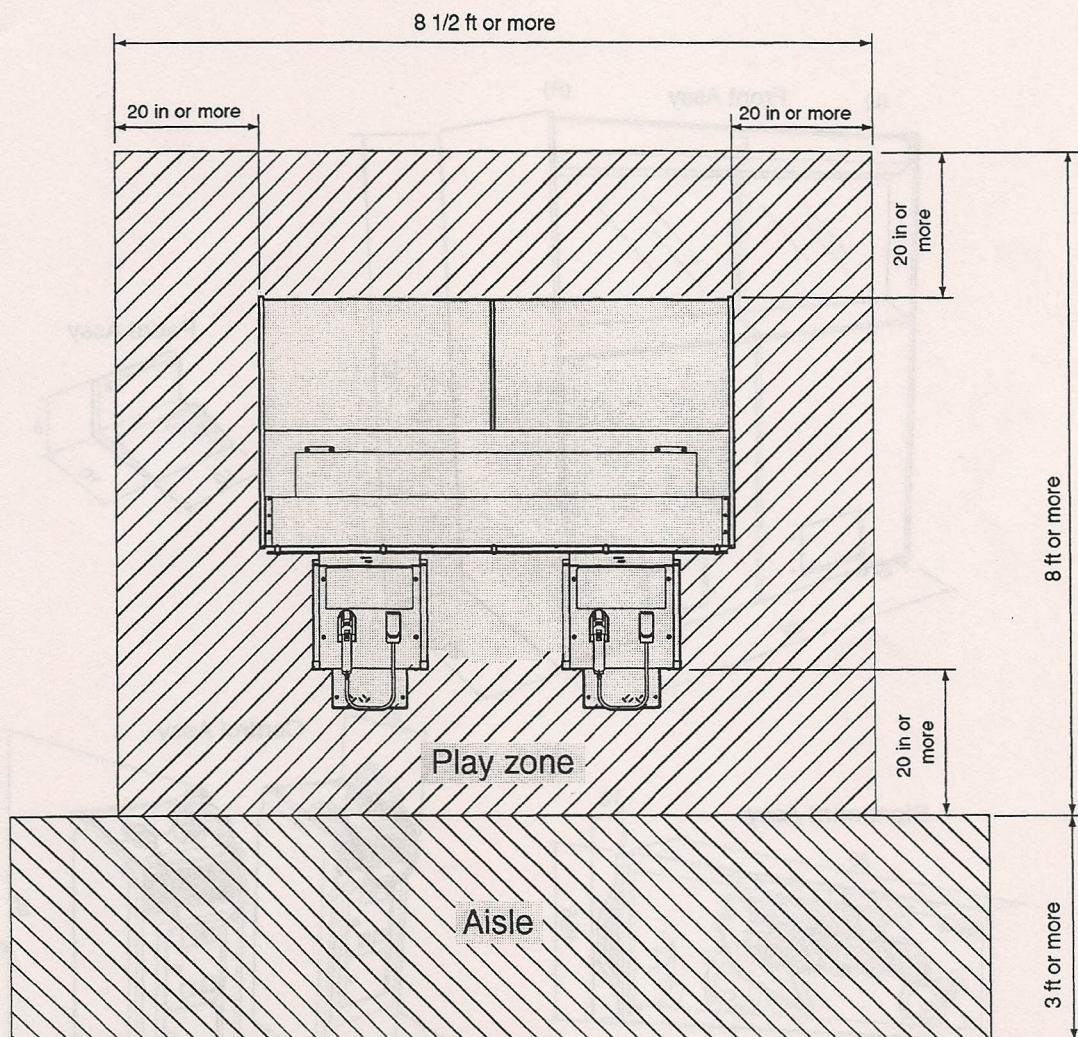
## 5-1-2 Play zone of installed machine

**WARNING**

- Set a play zone as illustrated in the diagram below to prevent contact between players and observers or passersby.

**NOTICE**

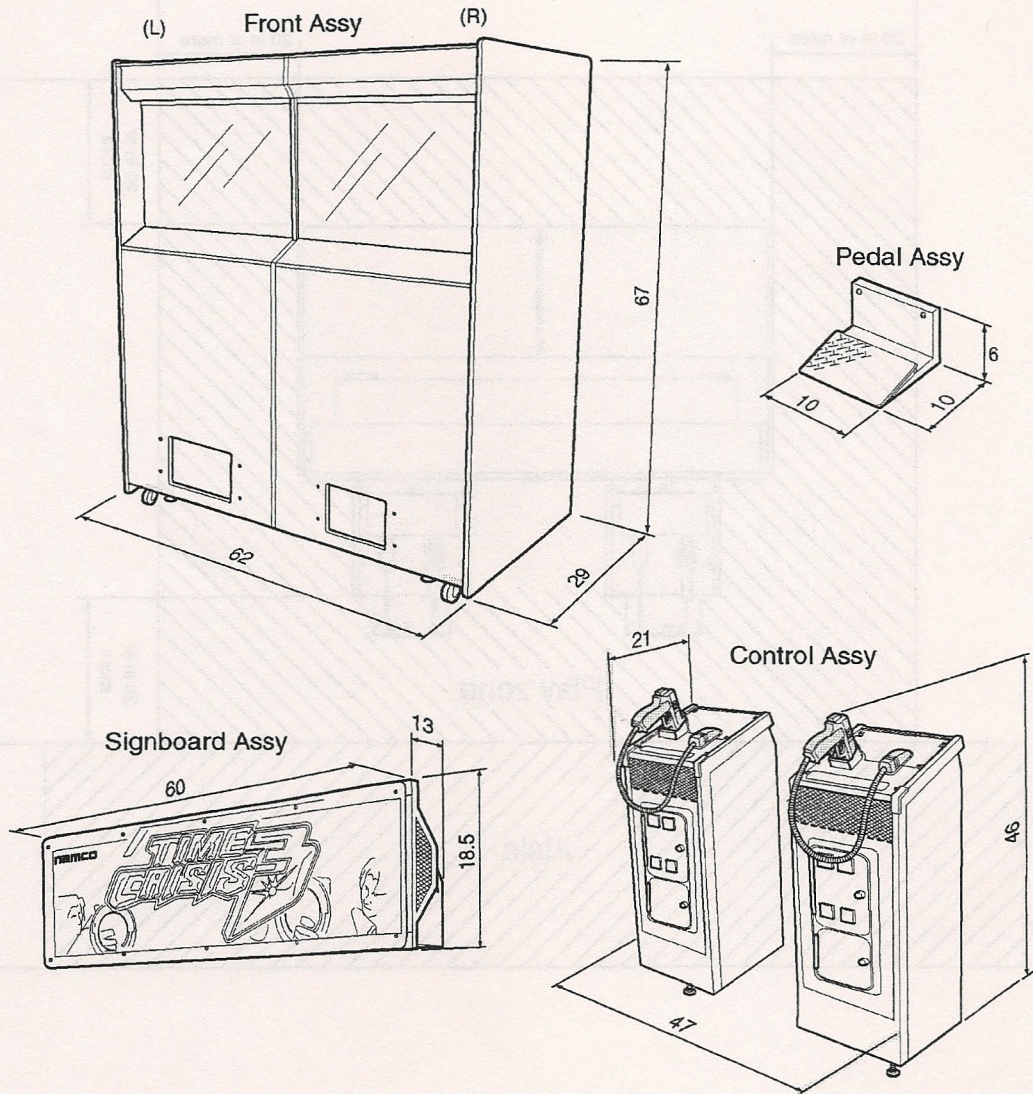
- A ceiling height of at least 8 ft is required.
- To facilitate maintenance work, provide a space of at least 20 in on the back side of the machine and from other equipment.





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

- Front Assy                    62 (W) x 29 (D) x 67 (H) in    Weight: 530 lbs
- Signboard Assy            60 (W) x 13 (D) x 18.5 (H) in    Weight: 53 lbs
- Control Assy                47 (W) x 21 (D) x 46 (H) in    Weight: 121 lbs
- Pedal Assy                 10 (W) x 10 (D) x 6 (H) in    Weight: 13 lbs





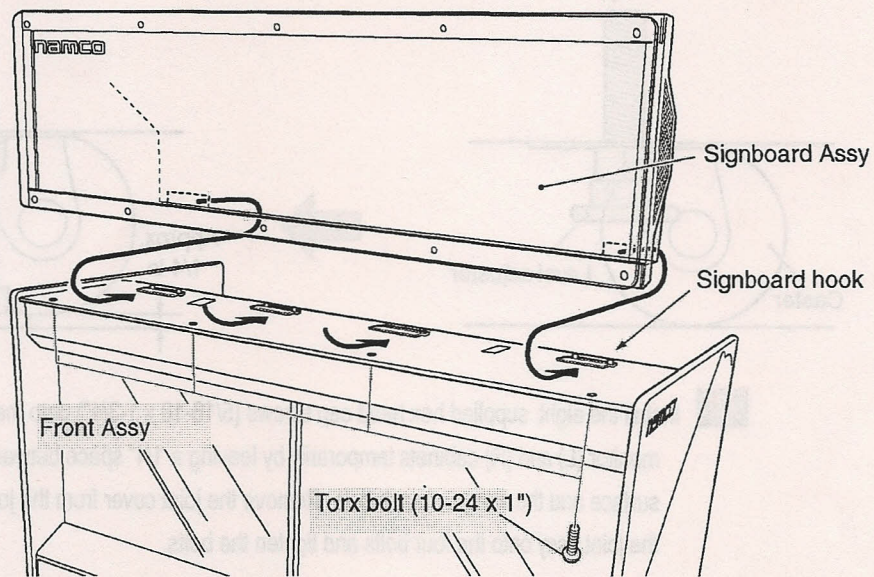
## 5-3 Assembly

### 5-3-1 Installing the Signboard Assy - To be conducted by a technician only -

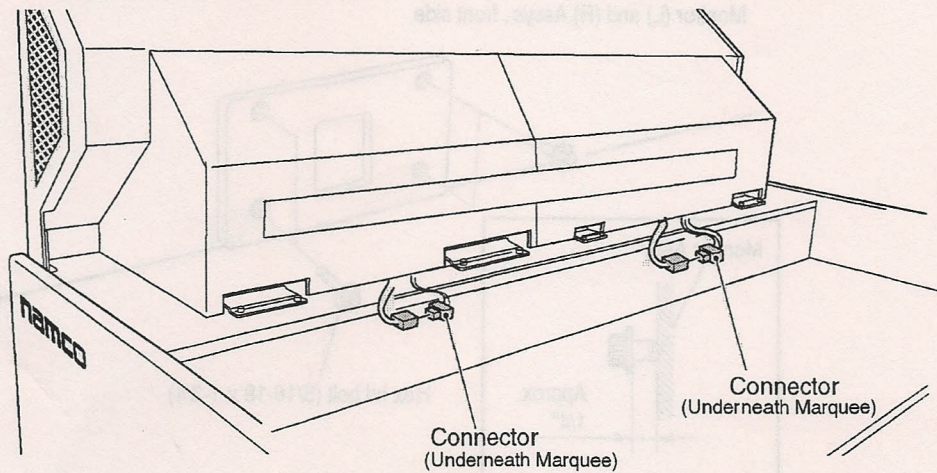
#### WARNING

- The signboard unit weighs approximately 55 lb. It should be installed by at least two persons in an ample work space in order to prevent accidents.

- 1** Position the Signboard Assy on the Cabinet Assy, and engage it with the signboard hooks.
- 2** Install the Signboard Assy using four supplied Torx bolts (10-24 x 1").



- 3** Connect the connector.
- 4** To disassemble, follow the above procedure in reverse.



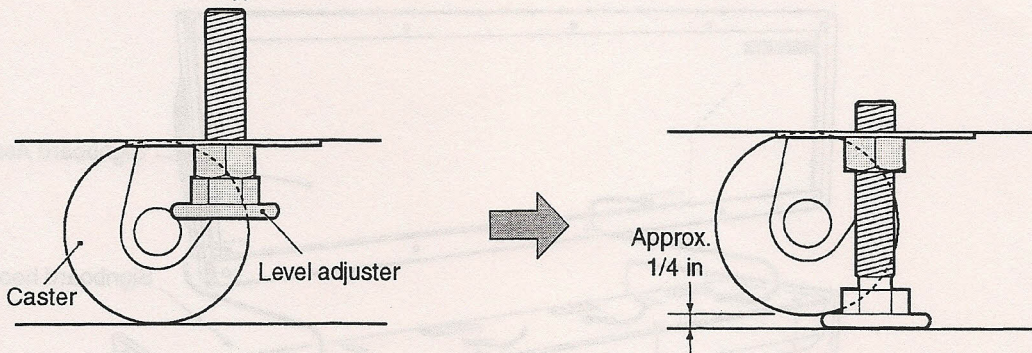


### 5-3-2 Adjusting the level adjusters and connecting the monitor cabinets to the joint assemblies.



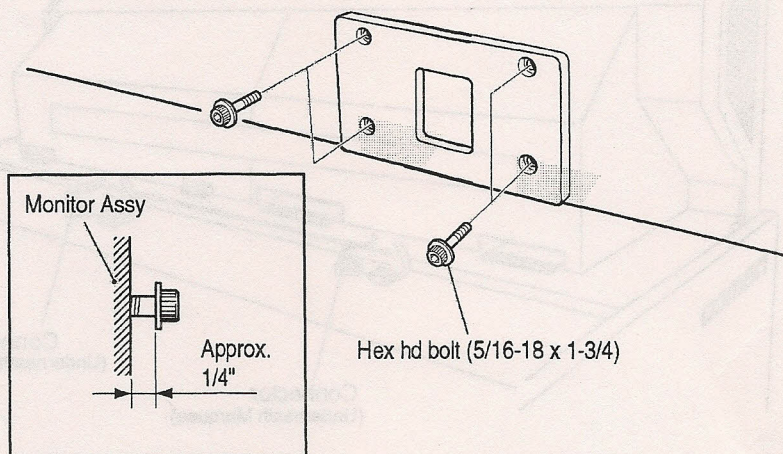
- Do not install the machine at a location where bright light sources such as incandescent light and sunlight or bright flashing light shine directly onto the monitors, since they disallow the sensors from detecting the gun positions.

- 1 After setting up the Assys in accordance with the directions in "5-1 Installation conditions" on page 12, and lower the level adjusters (2 locations) so that the casters are raised approximately 1/4" above the floor (casters should be able to rotate freely).



- 2 Install the eight supplied hex head cap screws (5/16-18 x 1-3/4") onto the front panels of the monitor (L) and (R) cabinets temporarily by leaving a 1/4" space between the front panel surface and the flange of each bolt. Remove the joint cover from the joint assembly. Place the joint assy onto the four bolts and tighten the bolts.

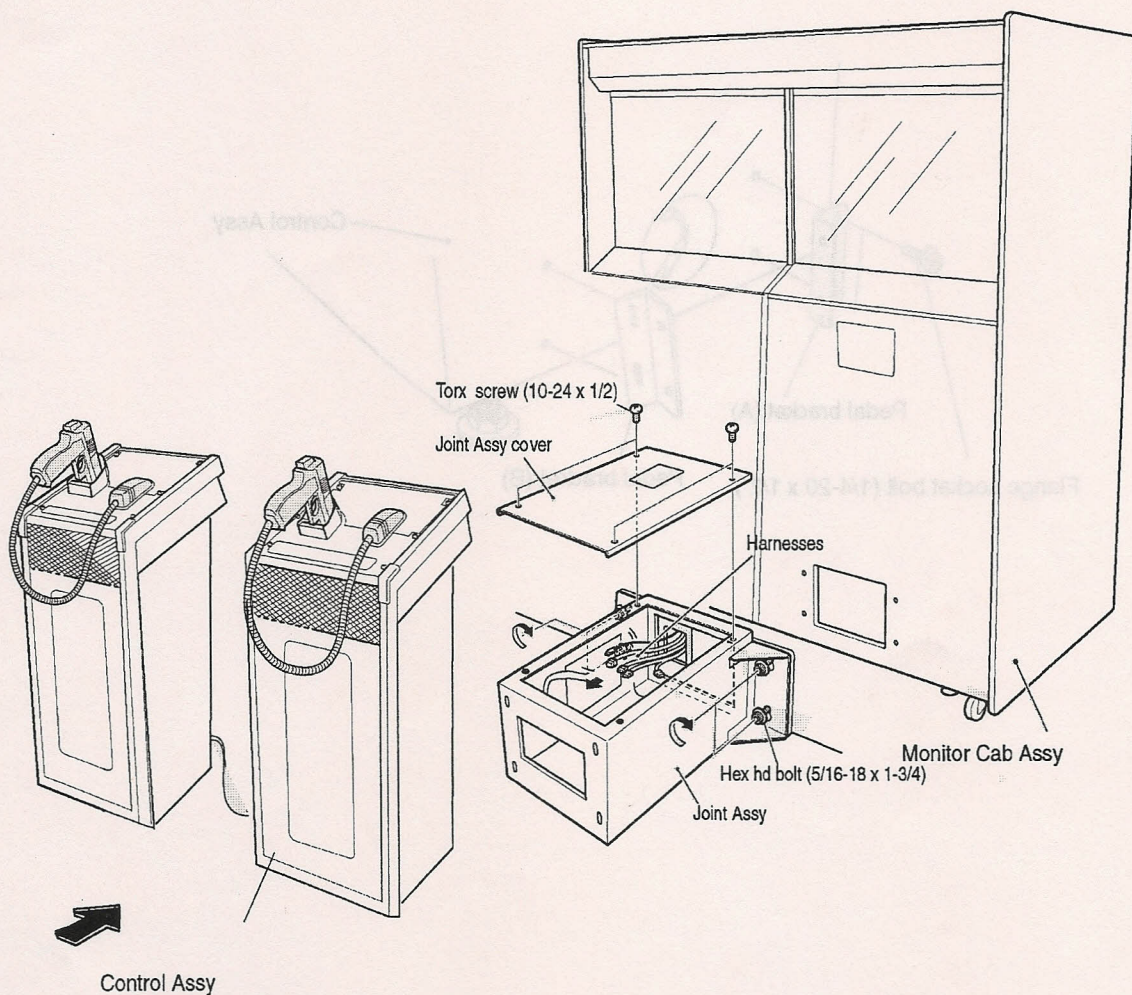
Monitor (L) and (R) Assys, front side





### 5-3-3 Connecting the Control Assy to Joint Assy

- 1** Adjust the level adjusters of the Control Assy so that it is at the same height as the Joint Assy.
- 2** Bring the Control Assy close to the Joint Assy. Connect the connectors, and install the Control Assy using eight hex hd bolts (5/16-18 x 1-3/4).
- 3** To disassemble, follow the above procedure in reverse.

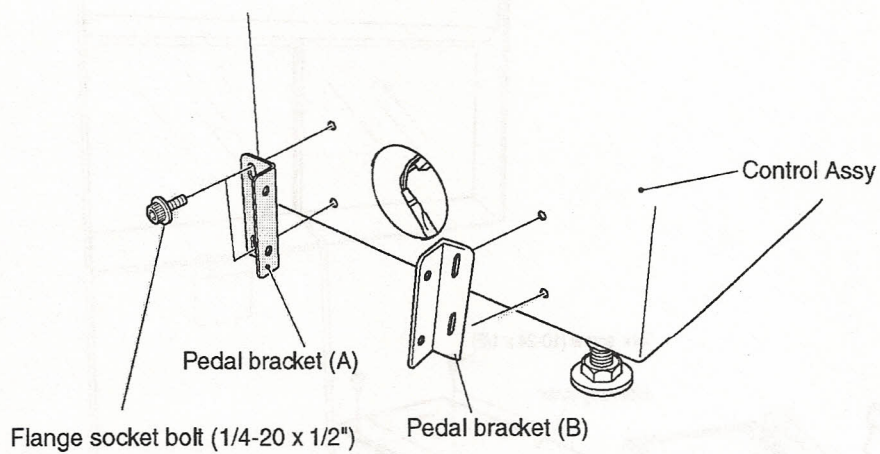




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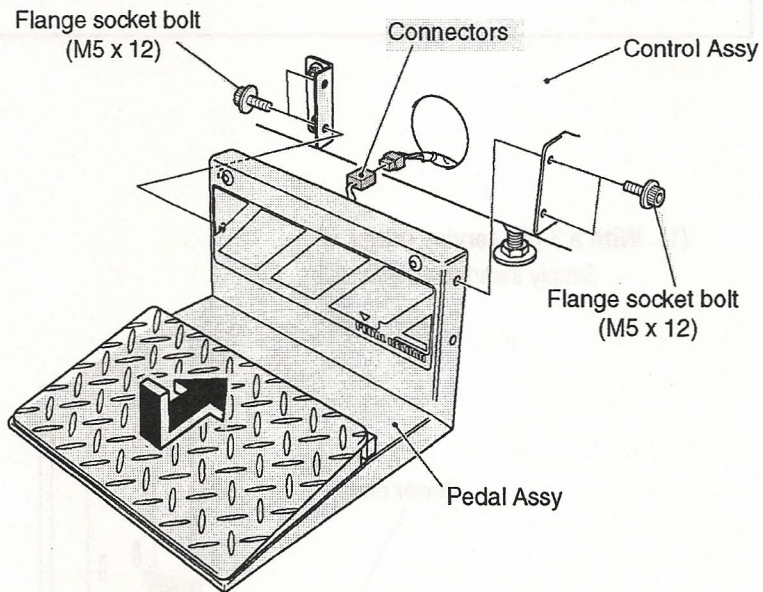
**5-3-4 Installing the Pedal Assys - To be conducted by a technician only -**

- 1** The Pedal Assemblies are packed in a box.
- 2** Temporarily install the pedal brackets (A) and (B) to the Control Assy with four flange socket bolts (1/4-20 x 1/2").





- 3** Connect the connector, and temporarily install the Pedal Assy with four flange socket bolts (M5 x 12).
- 4** Push down the Pedal Assy so that it contacts the floor, then tighten the eight flange socket bolts securely. (Make sure that there is no space between the Pedal Assy and floor.)



- 5** Install the Pedal Assy on the other side.
- 6** To disassemble, follow the above procedure in reverse.



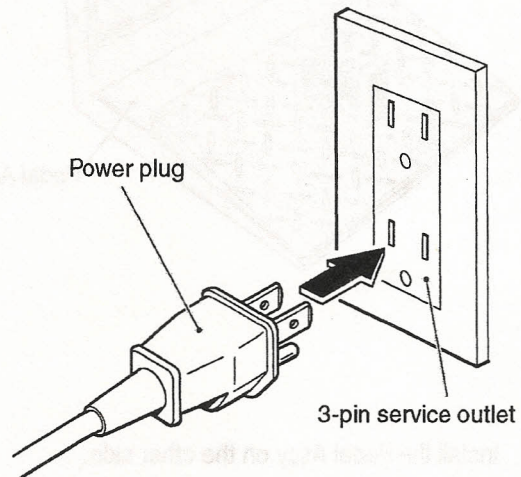
## 5-4 Connecting the power cord and the ground

### **WARNING**

Be sure to ground the machine using the following method. Failure to connect the ground conductor may cause an electric shock in the event of electric leakage.

- (1) Connect the ground conductor by using the 3-pin plug.

- (1) **With a 3-pin service outlet**  
Simply insert the power plug.





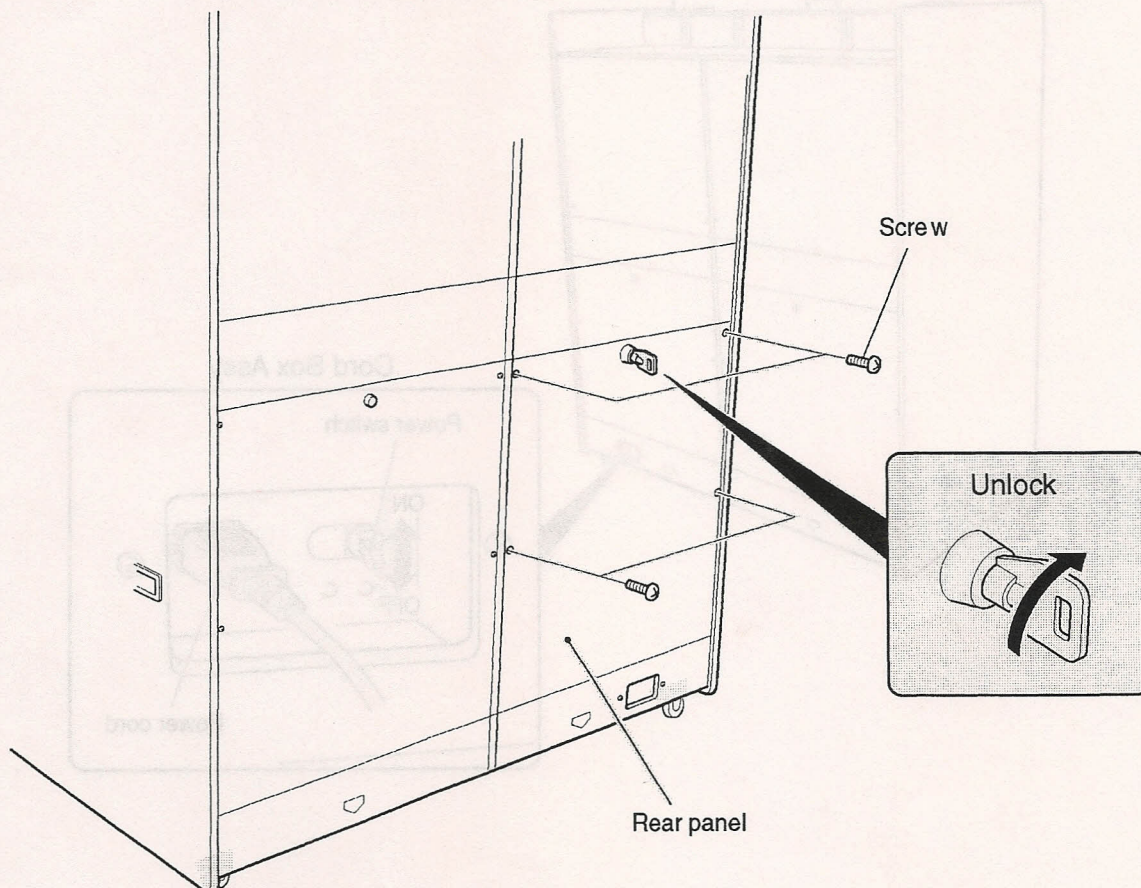
## 5-5 Removing and reinstalling the rear panels

- To be conducted by a technician only -

### WARNING

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

- 1** Remove the four screws, and unlock the lock located at the center of the rear panel using the provided key.

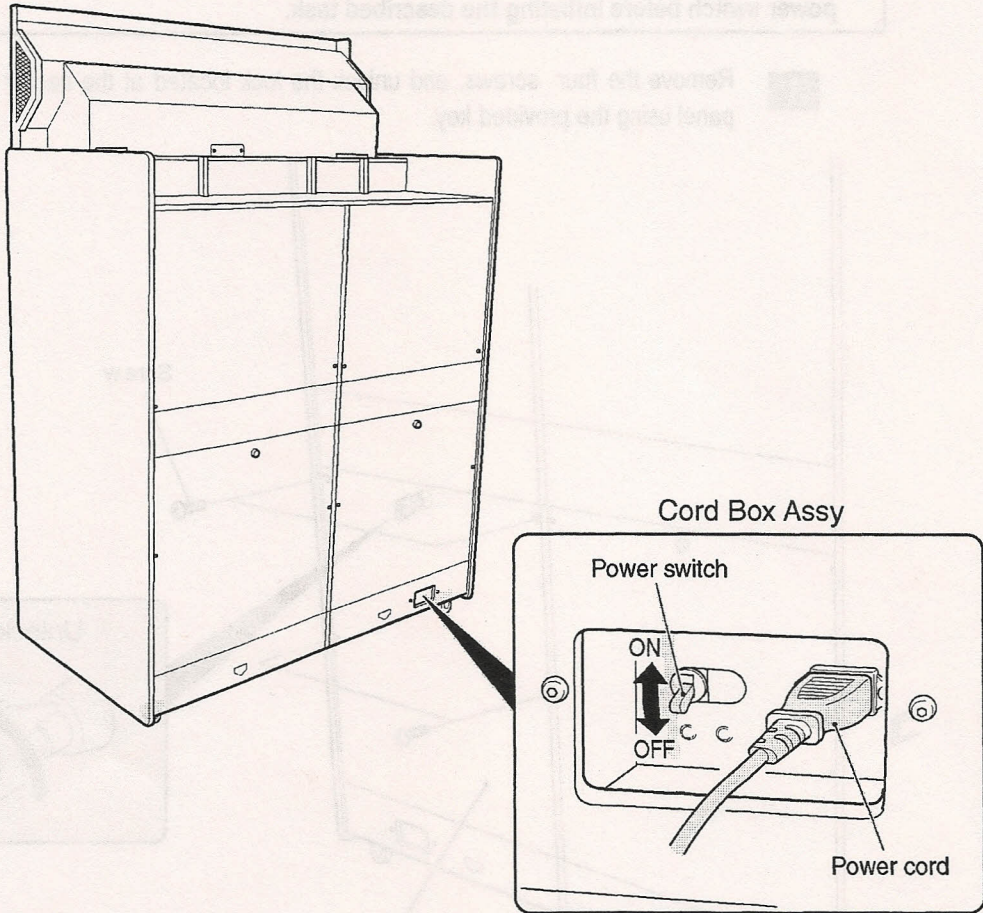


- 2** Open the rear panel on the other side.
- 3** To reinstall, follow the above procedure in reverse.



## 5-6 Switching on the power

- 1 After completing the procedures described in "5-3 Assembly" on page 15 and "5-4 Connecting the power cord and the ground" on page 22, turn on the power switch of the machine.





## 5-7 Inserting the DVD-ROM and DONGLE

### WARNING

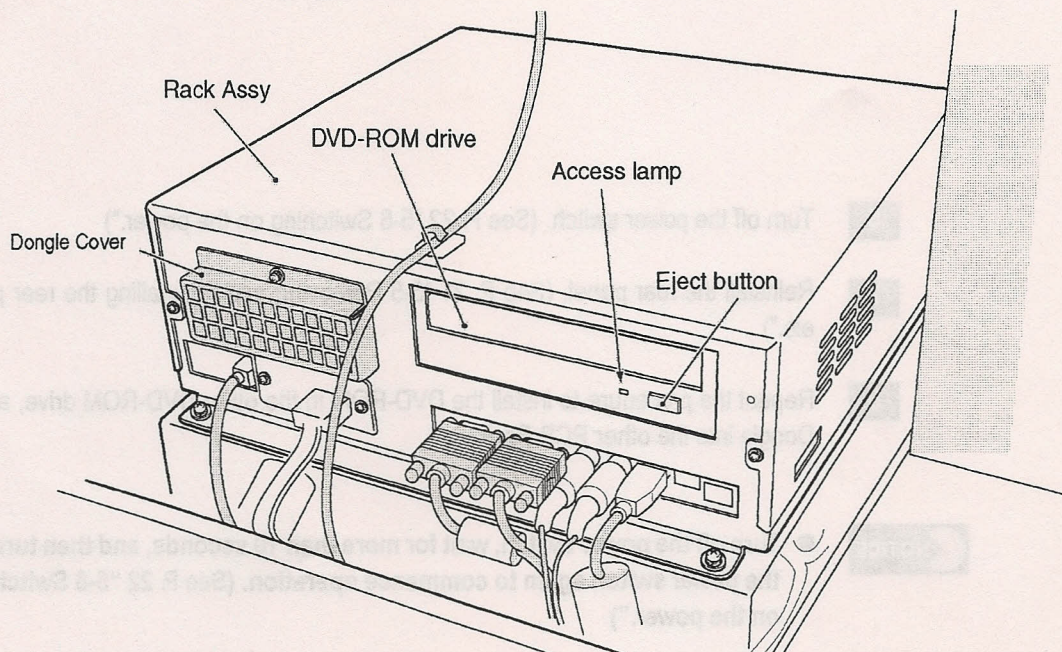
- The DVD-ROM must be inserted with the power switch turned on. To prevent electric shock, accident and injury, do not touch sections other than those specified in the work procedures.

### NOTICE

- The supplied DVD-ROM is designed exclusively for this product. Never use the provided DVD-ROM in another product model. Also, do not insert a DVD-ROM that is not designed for this product. Failure to observe this caution can result in machine malfunctions.
- Be careful of the tray as it automatically closes after about ten seconds.

- 1** After checking that the power switch is turned off, detach the rear panel. (See P. 21 "5-5 Removing and reinstalling the rear panels.")
- 2** Remove the Dongle Cover and insert the DONGLE into the plug on the left. Replace the Dongle Cover.
- 3** Turn on the power switch. (See P. 22 "5-6 Switching on the power.")

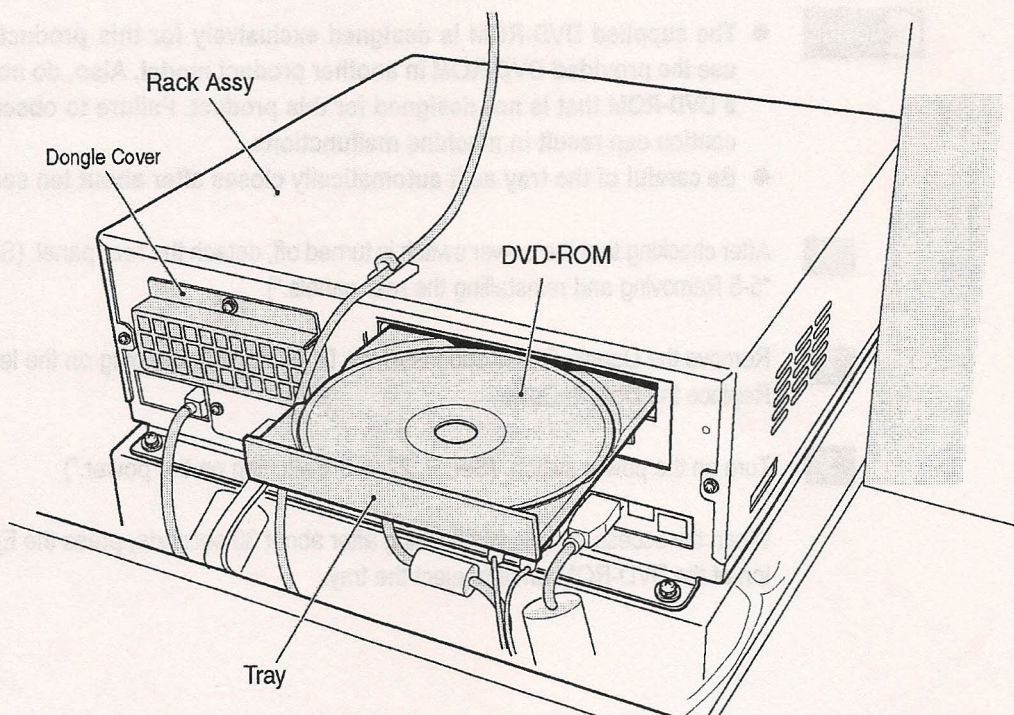
When the access lamp starts flashing after about 30 seconds, press the Eject button of the DVD-ROM drive to eject the tray.





## 5. INSTALLATION

- 4** With the label side (printed surface) of the DVD-ROM facing up, set the DVD-ROM disc on the tray.
- 5** Press the Eject button of the DVD-ROM drive to retract the tray.



- 6** Turn off the power switch. (See P. 22 "5-6 Switching on the power.")
- 7** Reinstall the rear panel. (See P. 21 "5-5 Removing and reinstalling the rear panels.")
- 8** Repeat the procedure to install the DVD-ROM in the other DVD-ROM drive, and Dongle into the other PCB Rack.



- Turn off the power switch, wait for more than 10 seconds, and then turn on the power switch again to commence operation. (See P. 22 "5-6 Switching on the power.")



## 6. MOVING AND TRANSPORTING

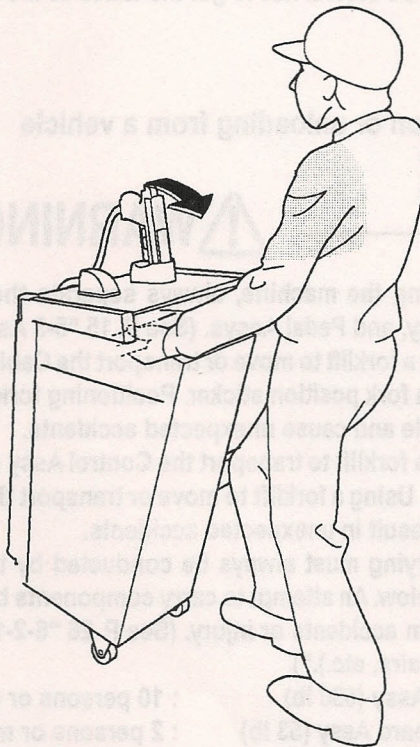
### WARNING

- Do not leave the machine on a slope; otherwise, the machine may topple or cause unforeseen accidents.

### 6-1 Moving (on the floor)



- Always detach the Pedal Assys when moving the machine. (See P. 18 “5-3-4 Installing the Pedal Assys.”)
- Always fully retract the level adjusters of the Front Assy when moving the machine even over a short distance. (See P. 16 “5-3-2 Adjusting the level adjusters.”) (Do not adjust the level adjusters of the Control Assy.)
- The overall height of the machine is approximately 87 inches. Check the heights of access doors before moving.  
(When removing the Signboard Assy, refer to P. 15 “5-3-1 Installing the Signboard Assy.”)
- To prevent machine damage, carefully move the machine.
- Do not drop the Gun Assys.
- Be careful not to get the tubes of the Gun Assys caught when moving.



Moving the Control Assy.



## 6-2 Transporting

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

#### **WARNING**

- When moving the machine, always separate the Front Assy, Signboard Assy, Control Assy, and Pedal Assys. Failure to divide the machine before carrying may cause unforeseen accidents or injury. (See P. 15 "5-3 Assembly.")
- Manual carrying must always be conducted by the appropriate number of people specified below. Any attempt to carry components by an insufficient number of people may result in accidents or injury.
  - Cabinet Assy (530 lb) : 10 persons or more
  - Signboard Assy (53 lb) : 2 persons or more
  - Control Assy (121 lb) : 3 persons or more



#### **NOTICE**

- Handle the machine with care to prevent damage.
- Be sure to fully retract the level adjusters of the Front Assy.  
(See P. 16 "5-3-2 Adjusting the level adjusters.")  
(Do not adjust the level adjusters of the Control Assy.)
- Do not drop the Gun Assys.
- Be careful not to get the tubes of the Gun Assys caught when moving.

### 6-2-2 Loading on or unloading from a vehicle

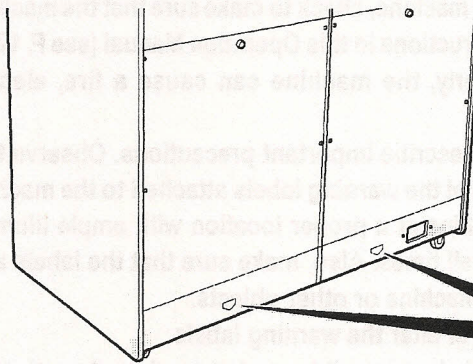
#### **WARNING**

- When moving the machine, always separate the Cabinet Assy, Signboard Assy, Control Assy, and Pedal Assys. (See P. 15 "5-3 Assembly.")
- When using a forklift to move or transport the Cabinet Assy, always lift at the position marked with fork position sticker. Positioning forks at other locations can cause the unit to topple and cause unexpected accidents.
- Do not use a forklift to transport the Control Assy since it is not designed to be lifted by a forklift. Using a forklift to move or transport the Control Assy can cause the unit to fall and result in unexpected accidents.
- Manual carrying must always be conducted by the appropriate number of people specified below. An attempt to carry components by an insufficient number of people may result in accidents or injury. (See P. 26 "6-2-1 Manual transport (carrying up or down the stairs, etc.).")
  - Front Assy (530 lb) : 10 persons or more
  - Signboard Assy (53 lb) : 2 persons or more
  - Control Assy (121 lb) : 3 persons or more

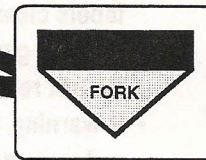




- Handle the machine with care to prevent damage.
- Be sure to fully retract the level adjusters of the Front Assy. (See P. 16 "5-3-2 Adjusting the level adjusters.") (Do not adjust the level adjusters of the Control Assy.)
- Do not subject components to shock when lowering the machine from a higher position.
- Do not drop the Gun Assys.
- Be careful not to get the tubes of the Gun Assys caught when moving.



Fork position sticker



### 6-2-3 Trucking

## WARNING

- When transporting the machine on a vehicle, secure the machine to prevent it from moving due to acceleration or deceleration of the vehicle. Failure to secure the machine may result in accidents.



## 7. OPERATION

---

### WARNING

- Should any problem occur, turn off the power switch immediately and stop operating the machine. Then, unplug the power cord. Operating the machine without correcting a problem may cause a fire or accident.
- Dust accumulated on the power plug may cause a fire. Check the power plug regularly and remove dust.
- Insert the power cord into the service outlet securely. Poor contact may cause overheating that can lead to a fire or burns.
- Before operating the machine, check to make sure that the machine has been installed according to the instructions in this Operation Manual (see P. 12 "5. INSTALLATION"). If installed improperly, the machine can cause a fire, electric shock, injury or malfunction.
- The warning labels describe important precautions. Observe the following.
  - To make sure that the warning labels attached to the machine are easily legible, install the machine at a proper location with ample illumination and keep the labels clean at all times. Also, make sure that the labels are not hidden behind another game machine or other objects.
  - Do not remove or alter the warning labels.
  - If warning labels become dirty or damaged, replace them with new labels. To order warning labels, contact your distributor.



## 7-1 Pre-service check

Check the items described below before commencing operation.  
If any problem is found, take appropriate action by referring to P. 52 "8-2 Troubleshooting."

### 7-1-1 External check

#### WARNING

- Check the points listed below before operating the machine. These inspections are essential for prevention of accidents and injury.
  - Are all warning labels legible? (See P. 3 "1-4 Description of warning labels attached to the machine.")
  - Are all the level adjusters adjusted properly? (See P. 16 "5-3-2 Adjusting the level adjusters.")
  - Is there sufficient space for the play zone? (See P. 12 "5-1 Installation conditions.")
  - Are both ends of the gun tubes secured in place? Are they free of damage?
  - Are the gun screws securely tightened?
  - Is the Cabinet Assy connected securely to the Joint Assy and Control Assy?
  - Are the Pedal Assys installed securely to the Control Assy?
  - Is the Signboard Assy securely installed to the Cabinet Assy?

### 7-1-2 Operation check

- Turn on the power switch, and check the following items.  
(See P. 22 "5-6 Switching on the power.")

- 1** Check the sound. (Is sound audible from all speakers?)
- 2** Check the fluorescent lamp. (Is the fluorescent lamp in the Signboard Assy illuminated?)
- 3** Check the cold cathode tubes. (Are the cold cathode tubes illuminated in the Gun Tower Assys?)
- 4** Check the displayed images. (Do the monitors display images properly?)

- To check the following items, press the Service switch and play the game. (See P. 31 "7-3-1 Adjustment switches.")

- 5** Check the guns for proper operation.  
\* Also, check the gun sight adjustments. (See P. 44 "7-4-9 Setting the gun sight (GUN INITIALIZE).")
- 6** Check the pedals for proper operation.



- Do not install the machine at a location where bright light sources such as incandescent light and sunlight or bright flashing light shine directly onto the monitors, since they disallow the sensors from detecting the gun positions.



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## 7-2 How to play

By using the pedal, the player can hide behind an item to dodge shots from enemies and move out from behind an item to shoot enemies.

### (1) Operation

1. Press the pedal - Attack mode: The player can shoot the gun, and can also be shot.
2. Release the pedal - Hide mode: The player hides behind an item. Enemies' shots cannot reach the player. Releasing the pedal also reload the hand gun.

### (2) Mode

1. Link play mode: Two players can play in a cooperative mode. The second player can join in the middle of a game.
2. Sole play mode: One player can play at a time. Another player cannot join in the middle of a game.

\* The mode can be selected on the Mode Select screen that appears immediately after coins are inserted.

### (3) Game rules

1. The player loses one "life" when shot by an enemy.  
When the time limit reaches zero, the player loses one "life."  
The time limit extends when the player destroys all the enemies in front of him/her, or receives attacks from enemies. The game ends when the player has no "life."
2. The player's performance level is indicated by the score display. The higher the score, the better the performance.
3. There are four types of weapons. The number of ammunitions is limited in all weapons except the hand gun. When the ammunitions run out, the weapon cannot be used. By hitting certain enemy characters, ammunition replenishing items appear on the screen.

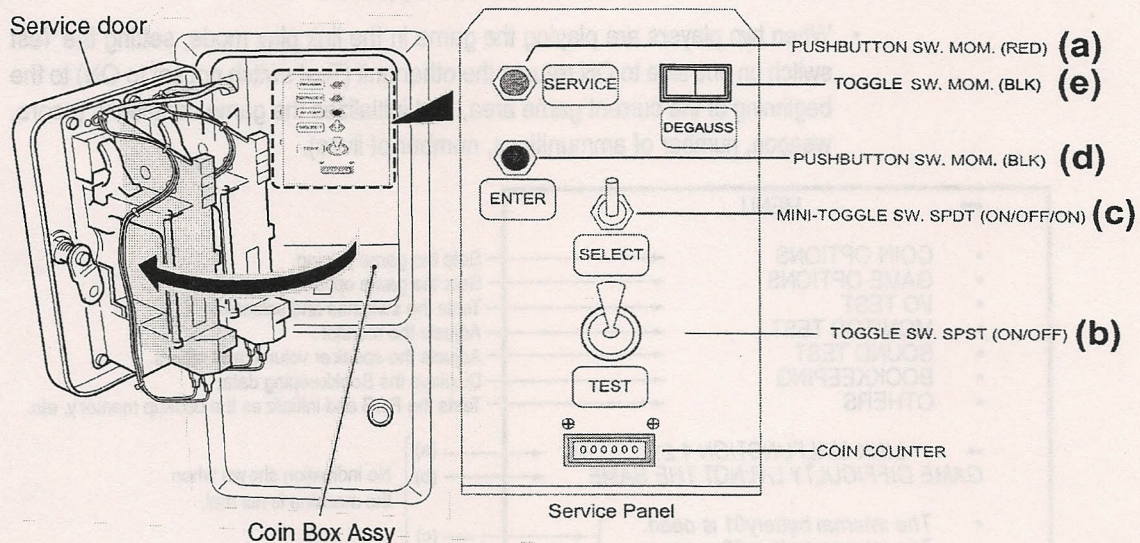
The demonstration scene inserted between game segments can be skipped by shooting toward the screen.



## 7-3 Adjustment

### 7-3-1 Adjustment switches

Open the service door of the Coin Box Assy to locate the adjustment switches.



#### (a) Service switch (red)

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

#### (b) Test switch

Set this switch to ON to activate the test mode.

The test mode is used to change parameters such as the game pricing, and conduct various tests. (See P. 32 "7-4 Test mode.")

#### (c) Select switch

Flick this switch up or down to select an item in the test mode.

#### (d) Enter switch

Press this switch to enter/execute the item selected with the Select switch.

#### (e) Degauss switch

Press this switch to demagnetize the monitor when the screen image become distorted by the earth's magnetism due to machine layout or building condition.



- Press the Service switch slowly and firmly. It may not operate if it pressed quickly.

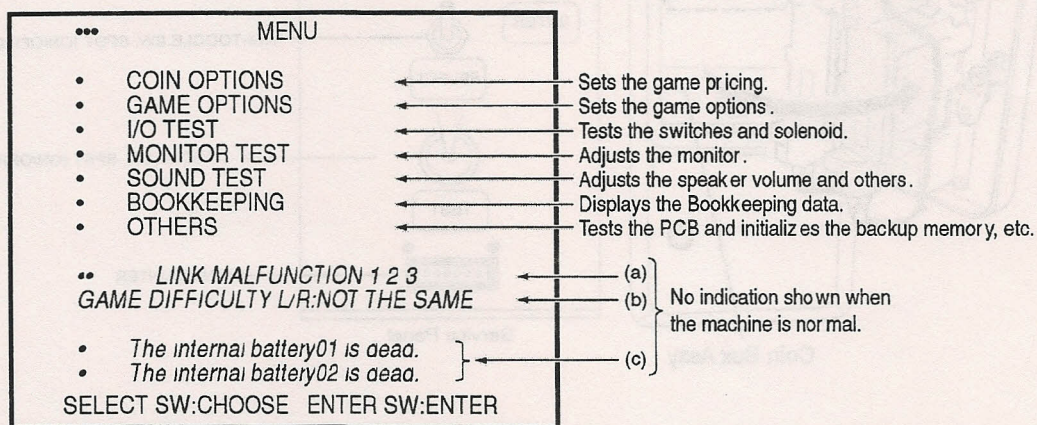


## 7-4 Test mode

### 7-4-1 Description of the MENU screen

**1** Unlock the service door with the supplied key, and set the Test switch to ON to activate the test mode. The MENU screen appears.

- When two players are playing the game in the link play mode, setting the Test switch on one side to ON returns the other unit (Test switch not set to ON) to the beginning of the current game area, and initializes the game conditions (score, weapon, number of ammunitions, number of lives).



MENU screen

**2** Flick the Select switch up or down to select an item. The selected item flashes.

**3** Press the Enter switch to confirm the selection.

**4** After adjustment is completed, select "EXIT" and press the Enter switch. The display returns to the MENU screen.

**5** After all adjustments are completed, set the Test switch to OFF. The display returns to the game screen.

- When there are machine problems or abnormalities, error messages are displayed at sections (a), (b) and (c).

#### (a) Error indications related to Link play

- An error message appears when there is an abnormality in the Link play function. When an error message is displayed, the game does not operate properly. The number shown at the right of the message indicates the error type.
- Numbers "1" and "2" indicate faults in a board (Game PC board board). (See P. 58 "8-3-1 (4) Replacing the Rack Assy.") When any of these error numbers is shown, contact your dealer.
- Number "3" indicates that the software versions of the right and left units do not match. When this number appears, contact your dealer.



**(b) Error indication related to difficulty level setting**

- This error message is displayed when the DIFFICULTY levels in the right and left units do not match in the test mode.

When the error message is displayed, the game does not operate properly. Activate the GAME OPTIONS mode, and set the same difficulty level in the right and left units.

**(c) Error indication for no internal battery power**

- When this message is displayed, turn off the power switch and wait for about 10 minutes.

Then, turn on the power switch again and check to see if the MENU screen in the test mode displays the same error message. If the error indication appears even after repeating the above process two or three times, the remaining power of the internal battery may be too low or the battery may be faulty.

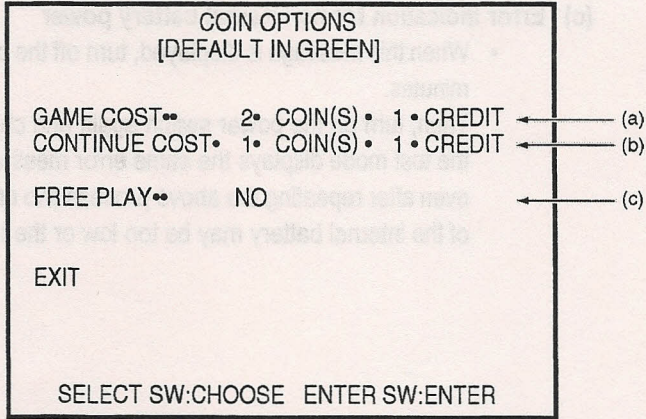
Option	Description	Default
(a) GAME PRIZE	Number of coins required for one game play (1 coin to 9 coins)	1
(b) CONTINUE GAME PRIZE	Number of coins required for one Continue play (1 coin to 9 coins)	1
(c) FREE PLAY PRIZE	NO (no free play) / YES (free play)	NO



### 7-4-2 Setting the game pricing and free play (COIN OPTIONS)

The COIN OPTIONS screen is used to set the game pricing and free play.

- 1** Select "COIN OPTIONS" on the MENU screen and press the Enter switch. The COIN OPTIONS screen appears.



COIN OPTIONS screen

COIN OPTIONS settings table

Option	Description	Default
(a) GAME pricing	Number of coins required for one game play (1 coin to 9 coins)	2
(b) CONTINUE game pricing *1	Number of coins required for one Continue play (1 coin to 9 coins)	1
(c) FREE PLAY pricing *2	NO (No free play) YES (Free play)	NO

\*1 The CONTINUE game pricing cannot be set higher than the GAME pricing setting. When increasing the GAME pricing and CONTINUE game pricing, increase the GAME pricing setting first.

\*2 When the FREE PLAY setting is set to YES, pressing the pedal starts the game.

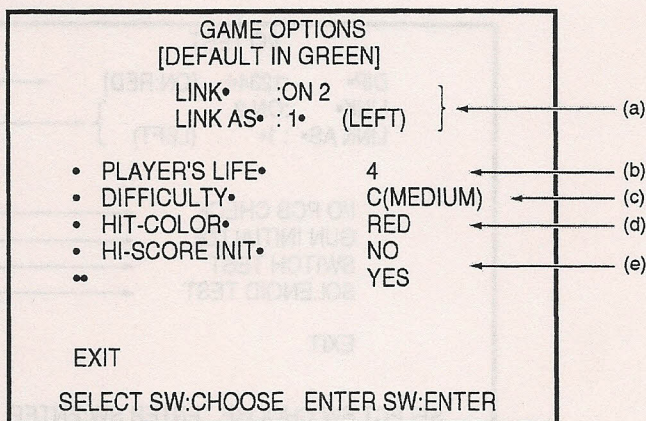
- 2** Using the Select switch, choose an item to be changed. The selected item flashes.
- 3** Press the Enter switch to confirm the item selection.
- 4** After confirming the item selection, use the Select switch to make a change.
- 5** After changing the setting, press the Enter switch to return to the item selection screen.
- 6** Select "EXIT" and press the Enter switch to return to the MENU screen.



### 7-4-3 Setting the game options (GAME OPTIONS)

The GAME OPTIONS screen is used to set game options.

- 1** Select "GAME OPTIONS" on the MENU screen and press the Enter switch. The GAME OPTIONS screen appears.



GAME OPTIONS screen

GAME OPTIONS settings table

Option	Description	Default
(a) Link status indication	(See P. 36 "7-4-4 I/O tests for switches (I/O TEST).")	
(b) Player's LIFE setting	Number of player's lives at start of game 1 to 9	4
(c) DIFFICULTY level setting	A (Very easy) B (Easy) C (Medium) D (Hard) E (Very hard)	C (Medium)
(d) HIT COLOR setting	Red/green	Red
(e) HIGH SCORE Initialization	To clear high score data stored in memory and restore default settings, select "YES" and press Enter switch.	

- 2** Using the Select switch, choose an item to be changed. The selected option flashes.
- 3** Press the Enter switch to finalize the item selection.
- 4** After confirming the item selection, use the Select switch to make a change.
- 5** After changing the setting, press the Enter switch to return to the item selection screen.
- 6** Select "EXIT" and press the Enter switch to return to the MENU screen.

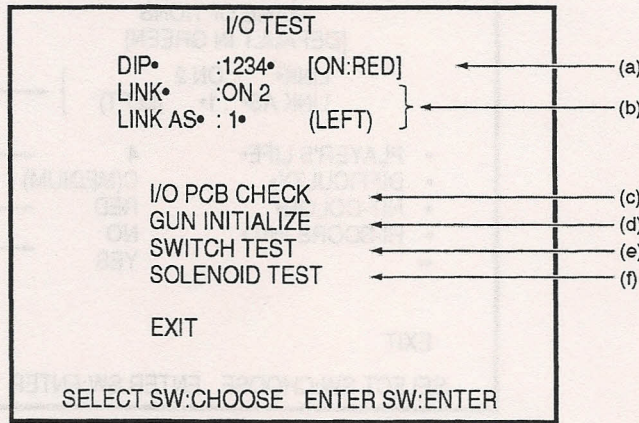
\* If the (c) DIFFICULTY level settings for the right and left units do not match in the test mode, the game does not operate properly.  
Be sure to set the same DIFFICULTY level for the right and left units in the test mode.



**7-4-4 I/O tests for switches (I/O TEST)**

The I/O TEST screen is used to test the input and output of each switch.

- 1** Select "I/O TEST" on the MENU screen, and press the Enter switch. The I/O TEST screen appears.



I/O TEST screen

- 2** Using the Select switch, choose an item to be executed. The selected item flashes.
- 3** Press the Enter switch to display the test screen of the selected (flashing) item.
- 4** Select "EXIT," and press the Enter switch to return to the MENU screen.

**(a) DIP switch settings**

- Indicates the settings of the DIP switches on the Game PC board. Switches indicated by red numbers are set to ON. (All DIP switches are set to OFF before shipment.)
- The DIP switches are should be set to OFF for normal operation.

**(b) Link check**

- Indicates the communication status.
- LINK:

Link check table 1

Indication	Communication status
ON2	Normal
OFF *	Data not received.
NG*	Unknown data received.

- LINK AS:

Link check table 2

Indication	Internal setting
1 (LEFT)	Left screen as viewed from front
2 (RIGHT)	Right screen as viewed from front



\* When "LINK OFF" or "LINK NG" is displayed, the game does not operate properly. If an combination other than that shown in the communication check table 2 is displayed, the game does not operate properly.

The board (Game PC board) may be defective. Contact your dealer.

- When one unit is under repair and only one Game PC board is used, the machine cannot operate in the Link Play mode. (See P. 30 "7-2 (2) Modes.")

### (c) I/O PCB CHECK

The I/O PCB CHECK screen is used to check the I/O board.

- Press the Enter switch to return to the I/O TEST screen.

I/O TEST		
DIP•	:1234•	[ON:RED]
LINK•	:ON 2	
LINK AS•	:1•	(LEFT)
I/O PCB CHECK:Connect OK		
• namco ltd.:MIU-I/O;ver2.05;JPN,		
• GUN-EXTENTION		
• EXIT		
SELECT SW:CHOOSE ENTER SW:ENTER		

I/O PCB CHECK screen

### (d) GUN INITIALIZE

The GUN INITIALIZE screen is used to adjust the gun sight.

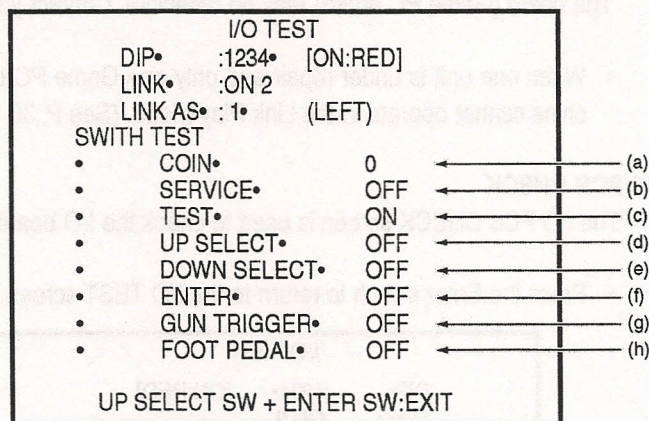
See P. 44 "7-4-9 Setting the gun sight (GUN INITIALIZE)."

### (e) SWITCH TEST



The SWITCH TEST screen is used to test the switches.

The SWITCH TEST screen indicates the switch conditions.



SWITCH TEST screen

- 1** When each switch is operated, the corresponding indication changes.
- 2**
  - (a) Increments each time the Coin switch is activated.
  - (b) Changes to ON when the Service switch is pressed.
  - (c) The Test switch is ON because the machine is in the Test mode.
  - (d) Changes to ON when the Select switch is flicked up.
  - (e) Changes to ON when the Select switch is flicked down.
  - (f) Changes to ON when the Enter switch is pressed.
  - (g) Changes to ON when the trigger of the gun is pulled.
  - (h) Changes to ON when the pedal is depressed.
- 3** Press the Enter switch while the Select switch is flicked upward to return to the I/O TEST screen.



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**(f) SOLENOID TEST**

The SOLENOID TEST screen is used to test the gun blowback mechanism.

```
I/O TEST
DIP•   :1234• [ON:RED]
LINK•  :ON 2
LINK AS• : 1• (LEFT)
SOLENOID TEST
• PULL GUN TRIGGER TO ACTION
• EXIT
SELECT SW:CHOOSE ENTER SW:ENTER
```

SOLENOID TEST screen

- 1** When the trigger of the gun is pulled, the gun blowback mechanism operates.
- 2** Select "EXIT" and press the Enter key to return to the I/O TEST screen.

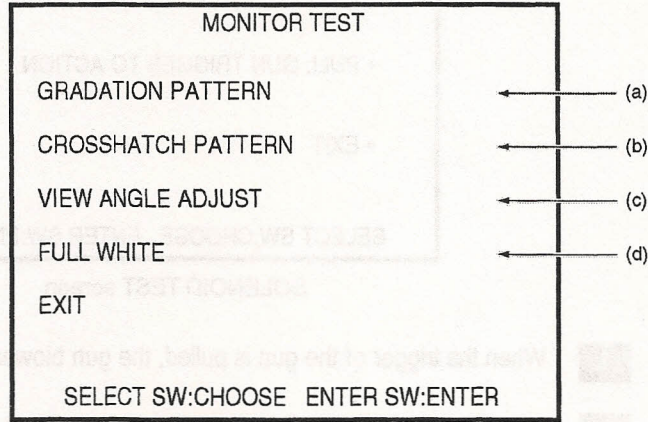


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### 7-4-5 Monitor test (MONITOR TEST)

The MONITOR TEST screen is used to adjust the monitor settings.

- 1** Select "MONITOR TEST" on the MENU screen, and press the Enter switch. The MONITOR TEST screen appears.



MONITOR TEST screen

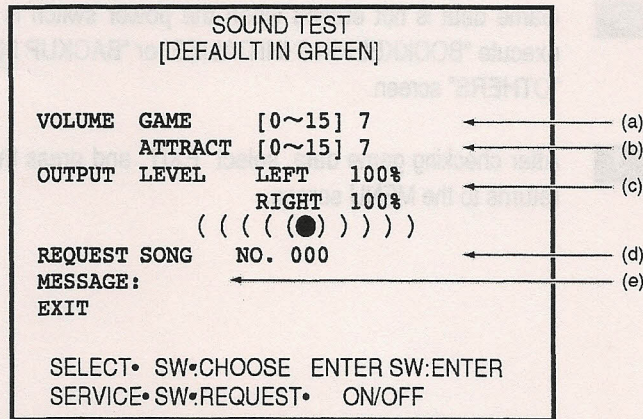
- 2** Using the Select switch, choose an item. The selected item flashes.
- 3** Press the Enter switch to display a pattern screen. To exit from the pattern screen, press the Enter switch again.
  - (a) Displays the gradation pattern.
  - (b) Displays the cross-hatching pattern.
  - (c) Displays the adjustment screen.
  - (d) Displays a white screen.
- 4** Select "EXIT" and press the Enter switch to return to the MENU screen.



## 7-4-6 Sound test (SOUND TEST)

The SOUND TEST screen is used to adjust the sound volume and check the stereo sound.

- 1 Select "SOUND TEST" on the MENU screen, and press the Enter switch. The SOUND TEST screen appears.



SOUND TEST screen

- 2 Using the Select switch, choose an item to be changed. The selected item flashes.
- 3 Select item (a), (b), (c), or (d), and press the Enter switch. The numeric indication of the selected item flashes. Flick the Select switch up or down to change the value.

SOUND TEST settings table

Option	Description	Default
(a) Game sound volume setting	00 (minimum) - 15 (maximum)	7
(b) Attract mode sound volume setting	00 (minimum) - 15 (maximum)	7
(c) Right/left speaker output level setting		100%
(d) Music selection		000

- 4 In the case of item (d), every time the Enter switch is pressed, the adjusting digit changes. Use the Select switch to adjust each digit and set a number. When the Service switch is pressed, the music or sound effect corresponding to the selected number is produced.
  - \* Set "000" for no sound, and "001" for a stereo sound test. When "001" is set and the Service switch is pressed, sound is produced from the left speaker, right speaker, and both speakers at the same time, in that order. During this speaker test, "LEFT," "RIGHT," or "CENTER" is displayed at section (e) in accordance with the speaker operation.

- 5 Select "EXIT" and press the Enter switch to return to the MENU screen.



### 7-4-7 Displaying and initializing game data (BOOKKEEPING)

The BOOKKEEPING screen displays various game data.

- 1** Select "BOOKKEEPING" on the MENU screen, and press the Enter switch. The BOOKKEEPING screen appears.
- 2** Game data is not erased when the power switch is turned off. To delete data, execute "BOOKKEEPING INITIALIZE" or "BACKUP MEMORY INITIALIZE" on the "OTHERS" screen.
- 3** After checking game data, select "EXIT" and press the Enter switch. The display returns to the MENU screen.

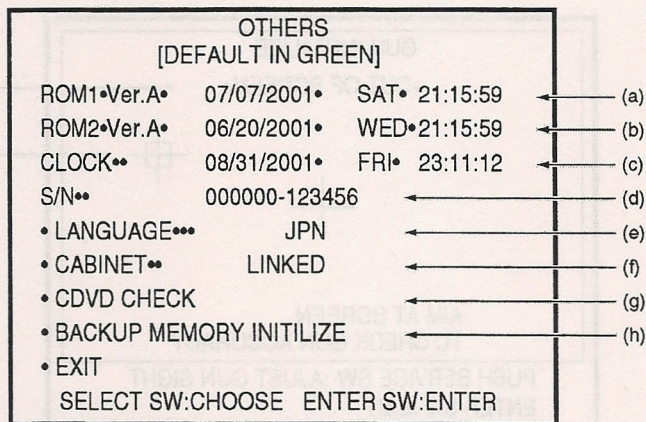
Option	Description	Default
1	Game sound volume setting (0 to maximum - 15)	7
2	Effect volume setting (0 to maximum - 15)	7
3	Music volume setting (0 to maximum - 15)	7
4	Music selection	000



## 7-4-8 Others (OTHERS)

The OTHERS screen is used to initialize the backup memory and others.

- 1 Select "OTHERS" on the MENU screen and press the Enter switch. The OTHERS screen appears.



OTHERS screen

- 2 Using the Select switch, choose an item to be executed. The selected item flashes.

- (a) Displays the version of the program ROM1.
- (b) Displays the version of the data ROM2.
- (c) Displays the current time of the internal clock.
- (d) Displays the serial number of the software.
- (e) Used to select the language shown in the game attract mode. (For overseas version. Only Japanese language is available in domestic model.)
- (f) Sets either communication cabinet mode or single cabinet mode. (Set to "LINKED" for normal operation.)
- (g) Checks data. (Not used in normal operation)
- (h) Initializes the backup memory.

When "YES" is selected and the Enter switch is pressed, all settings such as the gun sights and HIGH SCORE data are cleared and return to default settings.

- \* When the software versions of the right and left units displayed by item (a) in the test mode do not match, the game does not operate properly. Contact your dealer.

- 3 Press the Enter switch to execute the flashing item.

- 4 Select "EXIT" and press the Enter switch to return to the MENU screen.



### 7-4-9 Setting the gun sight (GUN INITIALIZE)

The GUN INITIALIZE screen is used to set the gun sight.

- 1 Select "GUN INITIALIZE" on the I/O TEST screen, and press the Enter switch.  
(Or hold the Service switch pressed and set the Test switch to ON.)  
The GUN INITIALIZE screen (Figure 1) appears.

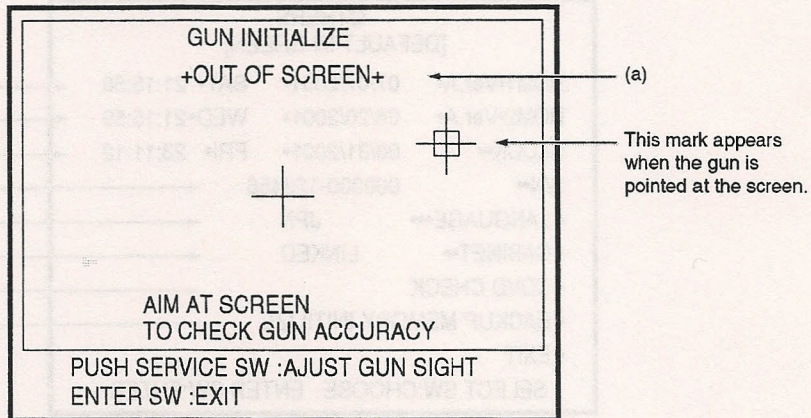


Figure 1 GUN INITIALIZE screen 1

- 2 The screen shown in Figure 1 is used to adjust the gun sight.  
The gun crosshair is displayed at the point on the screen at which the gun is pointed. Check that the gun crosshair appears exactly at the point aimed at. (Make sure that aiming is accurate over the entire screen frame from edge to edge.)  
When the gun crosshair is displayed outside the screen, "- OUT OF SCREEN -" is displayed in yellow at section (a).  
When the gun is pointed away from the screen, "+ OUT OF SCREEN +" is displayed in red at section (a).
- 3 Press the Enter switch to return to the I/O TEST screen.
- 4 When the Service switch (or pedal) is pressed while the screen in Figure 1 is shown, the display changes to the screen shown in Figure 2 for the gun sight adjustment. The gun sight adjustment is performed by shooting at the center of the screen.



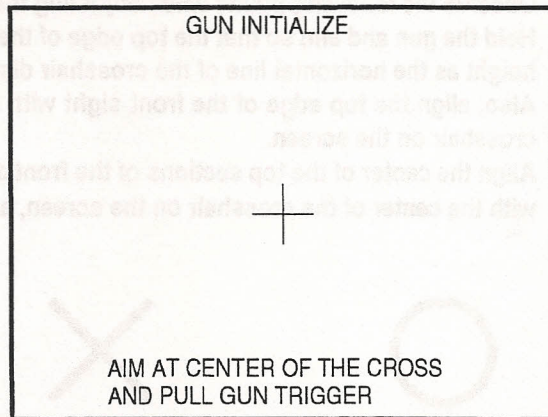


Figure 2 GUN INITIALIZE screen 2

- 5** On the screen shown in Figure 2, aim and shoot at the center of the crosshair displayed in the middle of the screen.
- 6** This completes the gun sight adjustment procedure.  
After the gun is shot, the display returns to the screen shown in Figure 1.

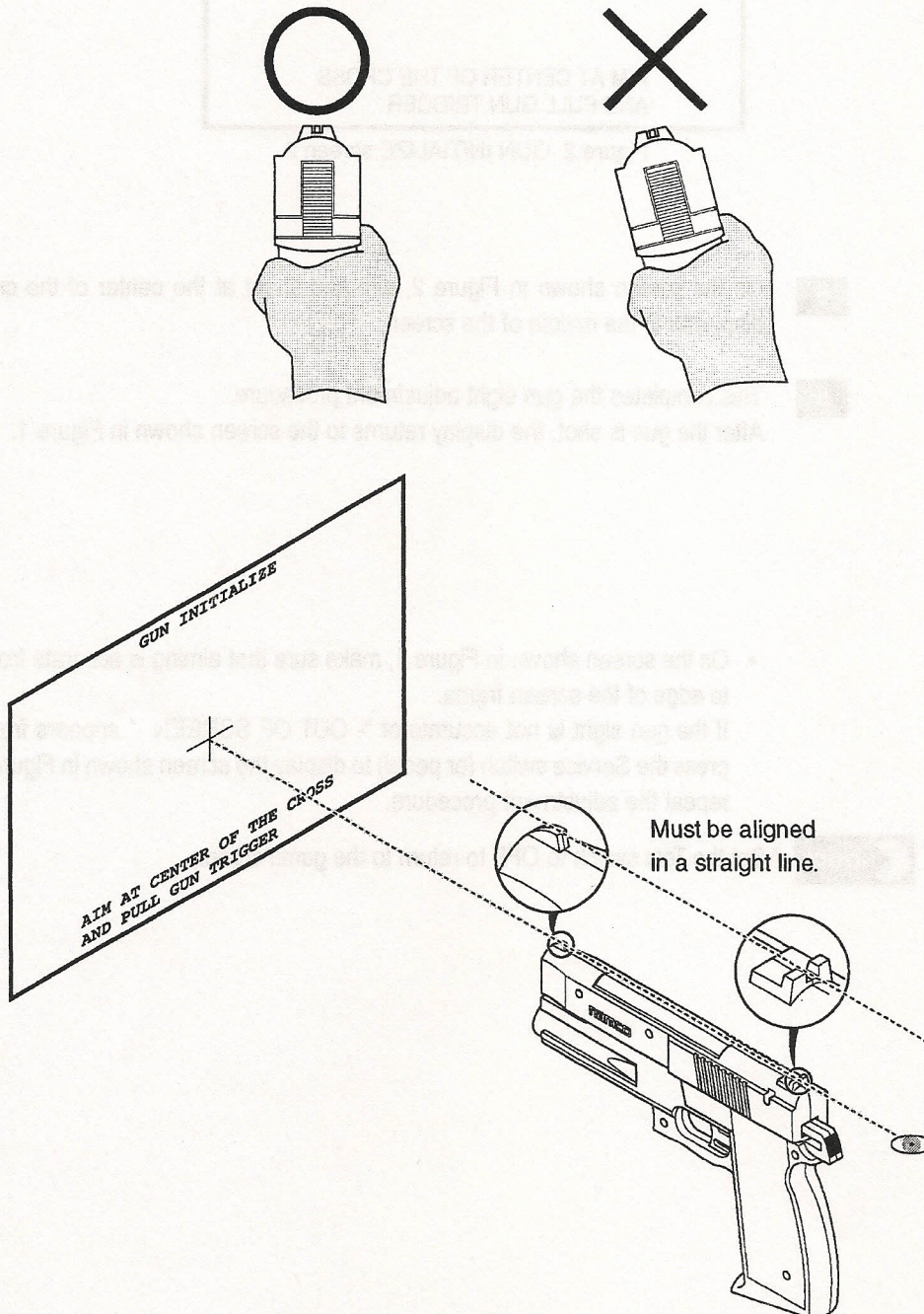
- On the screen shown in Figure 1, make sure that aiming is accurate from edge to edge of the screen frame.  
If the gun sight is not accurate or "- OUT OF SCREEN -" appears frequently, press the Service switch (or pedal) to display the screen shown in Figure 2, and repeat the adjustment procedure.

**NOTICE** \* Set the Test switch to OFF to return to the game screen.



## 7. OPERATION

- Observe the following points when adjusting the gun sight.
  - Hold the gun and aim so that the top edge of the rear sight is at the same height as the horizontal line of the crosshair displayed on the screen.
  - Also, align the top edge of the front sight with the horizontal line of the crosshair on the screen.
  - Align the center of the top sections of the front and rear sights of the gun with the center of the crosshair on the screen, and fire the gun.





## 7-5 Cleaning

### 7-5-1 Cleaning the Gun Assy lenses



- Clean the gun lenses everyday to maintain gun accuracy. Use a clean soft cloth to wipe the lenses.
- Do not use detergents or chemicals to clean the lenses.
- Be careful not to scratch the lenses.



## 8. MAINTENANCE

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### WARNING

- Before conducting maintenance (troubleshooting, repair, etc.), turn off the power switch to protect the service staff and other people from electric shock, accidents and injury.

### 8-1 Maintenance and inspection

### WARNING

- Conduct maintenance regularly to prevent unexpected accidents.
- Conduct a pre-service check everyday to prevent accidents. (See P. 29 "7-1 Pre-service check.")

#### 8-1-1 Inspection items

Be sure to check the following regularly after conducting the inspections described in "7-1-2 Operation check" on page 29.

##### (1) Inspection of the level adjusters

1. Make sure that the machine is installed securely. (See P. 16 "5-3-2 Adjusting the level adjusters.")

##### (2) Inspection of the power plug

1. Make sure that the power cord is connected securely to the Cord Box Assy and service outlet.
2. If the connector section is covered with dust, clean.
3. Check the power cord for cracks and dirtiness. If there is any abnormality in the power cord, be sure to replace it with a new cord.

##### (3) Inspection of bolts for tightness

Check the following bolts for tightness. If they are loose, tighten firmly.

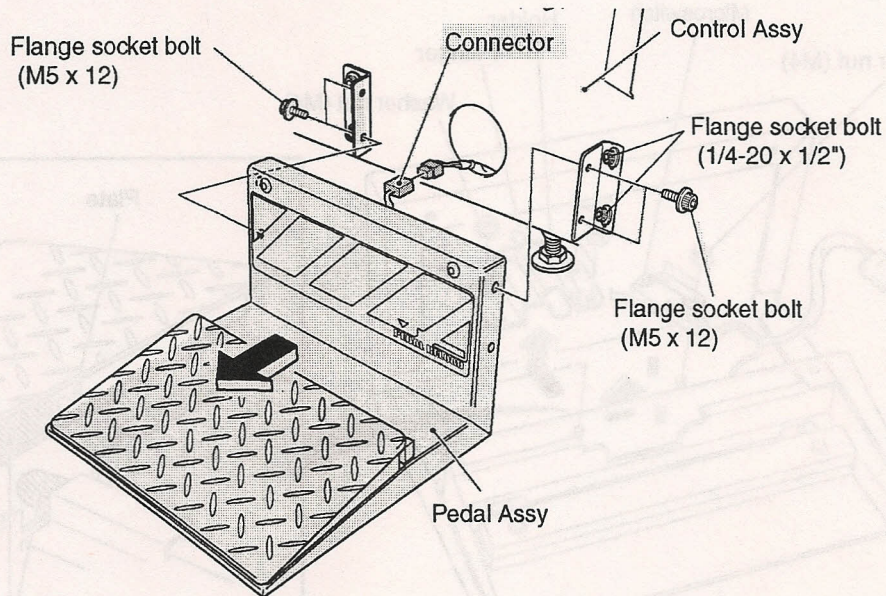
1. Signboard Assy mounting bolts (See P. 15 "5-3-1 Installing the Signboard Assy.")
2. Control Assy mounting bolts (See P. 17 "5-3-3 Connecting the Cabinet Assy to the Joint Assy.")
3. Pedal Assy mounting bolts (See P. 18 "5-3-1 Installing the Pedal Assys.")



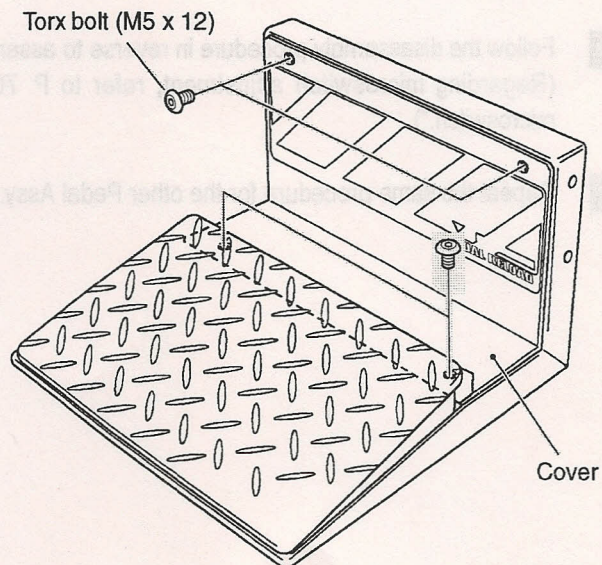
**8-1-2 Maintenance items - To be conducted by a technician only -****(1) Greasing the Pedal Assy plungers**

- Grease the Pedal Assy plungers once every six months.

- 1** Loosen the four bolts (1/4-20 x 1/2") on the Control Assy.
- 2** Remove the four bolts (M5 x 12) from the Pedal Assy, disconnect the connector, and dismantle the Pedal Assy.



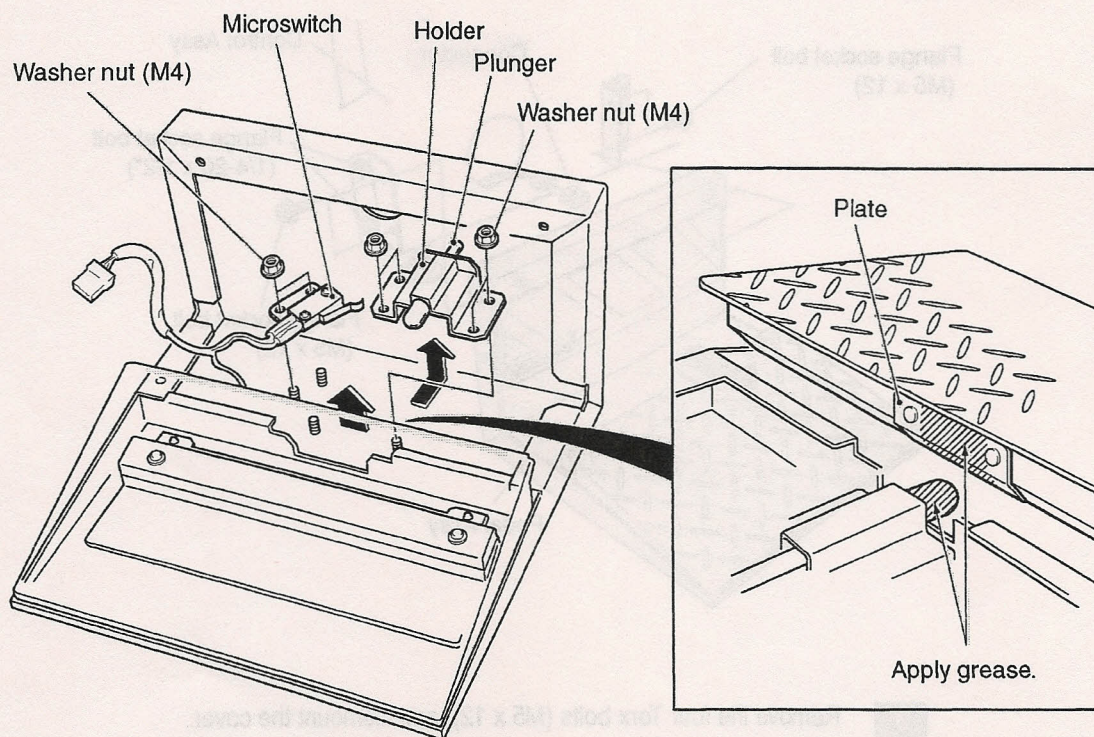
- 3** Remove the four Torx bolts (M5 x 12), and dismantle the cover.





## 8. MAINTENANCE

- 4** Remove the two washer nuts (M4), and remove the microswitch.
- 5** Remove the four washer nuts (M4) from the holder, and lift up the holder by pulling the plunger.
- 6** Wipe grease off the surface of the plate on the pedal side.
- 7** Apply grease to the plate and the plunger spherical surface.
  - Designated grease: Albania grease No. 2 (Showa Shell)

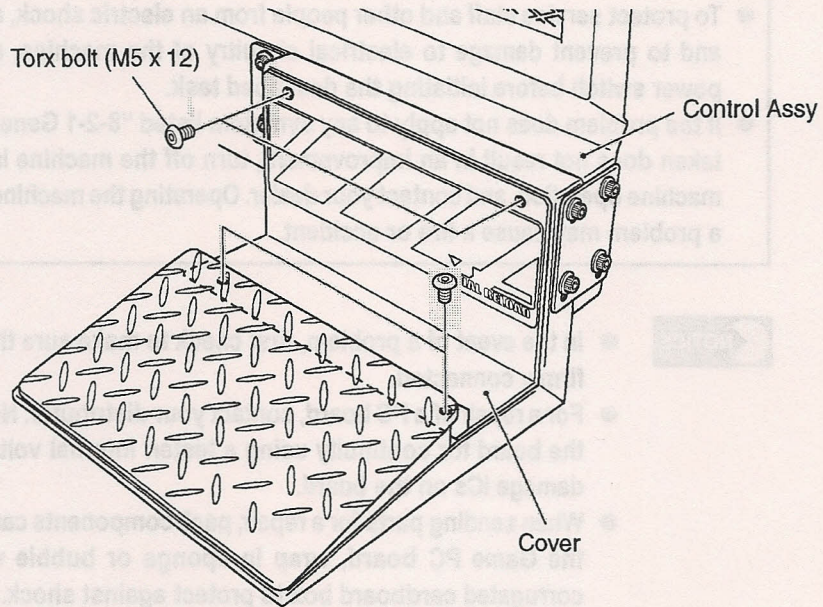


- 8** Follow the disassembly procedure in reverse to assemble the Pedal Assy. (Regarding microswitch adjustment, refer to P. 70 "8-3-5 (1) Replacing the microswitch.")
- 9** Repeat the same procedure for the other Pedal Assy.

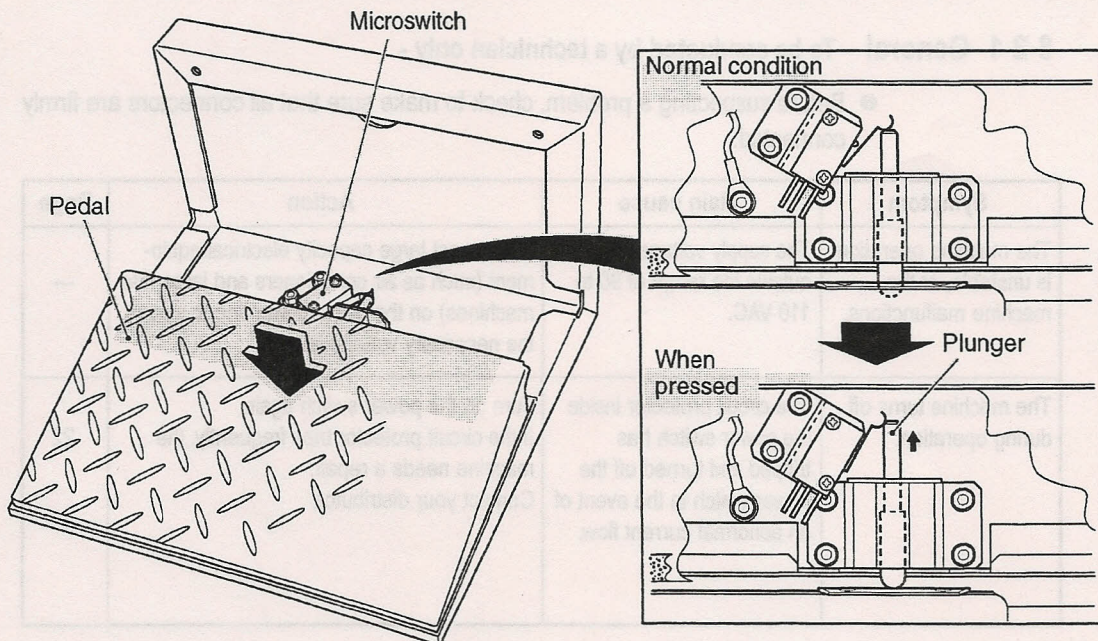


**(2) Checking the Pedal Assy plungers for wear**

- 1** Remove the four Torx bolts (M5 x 12), and dismount the cover.



- 2** Press the pedal by hand and check visually that the plunger pushes the microswitch.  
If the plunger is worn and does not push the microswitch, replace the plunger. (See



- 3** P. 71 "8-3-5 (2) Replacing the plunger.")
- 4** Repeat the same procedure to check the other Pedal Assy plunger.



## 8-2 Troubleshooting

### WARNING

- To protect service staff and other people from an electric shock, accident and injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.
- If the problem does not apply to any symptom listed "8-2-1 General," or if the action taken does not result in an improvement, turn off the machine immediately to stop machine operation, and contact your dealer. Operating the machine without correcting a problem may cause a fire or accident.

### NOTICE

- In the event of a problem, first check to make sure that all connectors are firmly connected.
- For a repair of a PC board, contact your distributor. Never attempt to check the board for continuity using a tester. Internal voltage of the tester can damage ICs on the board.
- When sending parts for a repair, pack components carefully. When sending the Game PC board, wrap in sponge or bubble wrap, and pack in a corrugated cardboard box to protect against shock.
- The PC boards can be easily damaged by static electricity. Handling of a PC board by a person charged with static electricity can damage parts on the PC board. Before touching the PC boards, be sure to remove static electricity from your body by touching a grounded metal.

#### 8-2-1 General - To be conducted by a technician only -

- Before suspecting a problem, check to make sure that all connectors are firmly connected.

Symptom	Main cause	Action	Page
The machine operation is unstable, or the machine malfunctions.	The supply voltage is outside the range of 90 to 110 VAC.	Disconnect large capacity electrical equipment (such as air conditioners and large ride machines) on the same power line to secure the necessary voltage level.	---
The machine turns off during operation.	The circuit protector inside the power switch has tripped and turned off the power switch in the event of an abnormal current flow.	Turn on the power switch again. If the circuit protector trips frequently, the machine needs a repair. Contact your distributor.	22



**8-2-2 Cabinet Assy - To be conducted by a technician only -**

Symptom	Main cause	Action	Page
The monitor does not display a picture.	The monitor connector is disconnected from the Rack Assy connector.	Open the rear panel, and reconnect the connectors.	58
There is no sound from the speakers.	Sound volume is too low.	Adjust the sound level.	41
	The pBASS AMP PC board is defective.	Replace the pBASS AMP PC board.	57

**8-2-3 Signboard Assy - To be conducted by a technician only -**

Symptom	Main cause	Action	Page
The fluorescent lamp does not light.	The connector is disconnected.	Reconnect the connector.	15
	The fluorescent lamp is burnt out.	Replace the fluorescent lamp.	59

**8-2-4 Gun Tower Assy - To be conducted by a technician only -**

Symptom	Main cause	Action	Page
The cold cathode tube does not turn on.	The connector is disconnected.	Reconnect the connector securely.	61
	The cold cathode tube is burnt out.	Replace the cold cathode tube.	61
	The Inverter PC board is defective.	Replace the Inverter PC board.	63



**8-2-5 Gun Assys - To be conducted by a technician only -**

Symptom	Main cause	Action	Page
The gun does not shoot correctly.	The lens is dirty.	Clean the lens.	47
	Microswitch is defective.	Replace the microswitch	67
	The gun has not been initialized correctly.	Repeat initialization.	44
	Surrounding is too bright.	Block the external light.	---
The Gun Assy does not operate.	The connector is disconnected.	Reconnect the connector firmly.	60
	Microswitch is defective.	Replace the microswitch.	68
The gun blowback mechanism does not operate.	The connector is disconnected.	Reconnect the connector.	67
	The solenoid is worn.	Replace the solenoid.	67

**8-2-6 Pedal Assys - To be conducted by a technician only -**

Symptom	Main cause	Action	Page
The pedal does not function properly.	Microswitch is defective.	Replace the microswitch.	70
	The connector is disconnected.	Reconnect the connector.	18
	The plunger is worn out.	Replace the plunger	71



## 8-3 Disassembly, reassembling and replacing the Assys and parts

### 8-3-1 Front Assy - To be conducted by a technician only -

#### (1) Removing and reinstalling the monitor bezel

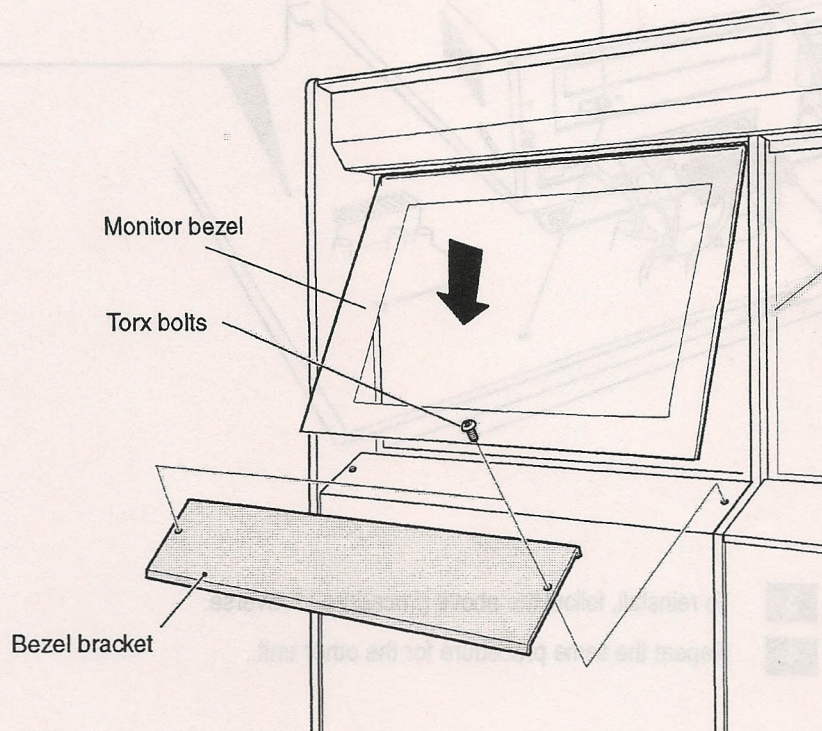
### WARNING

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

### NOTICE

- Handle the monitor bezel with care.

- 1** Remove the two Torx bolts, and dismount the bezel bracket .
- 2** Remove the screws from the upper edge of the bezel, and pull the lower section of the bezel forward. Hold both sides of the bezel with hands to remove.



- 3** To reinstall, follow the above procedure in reverse.

- 4** Repeat the same procedure for the other unit.

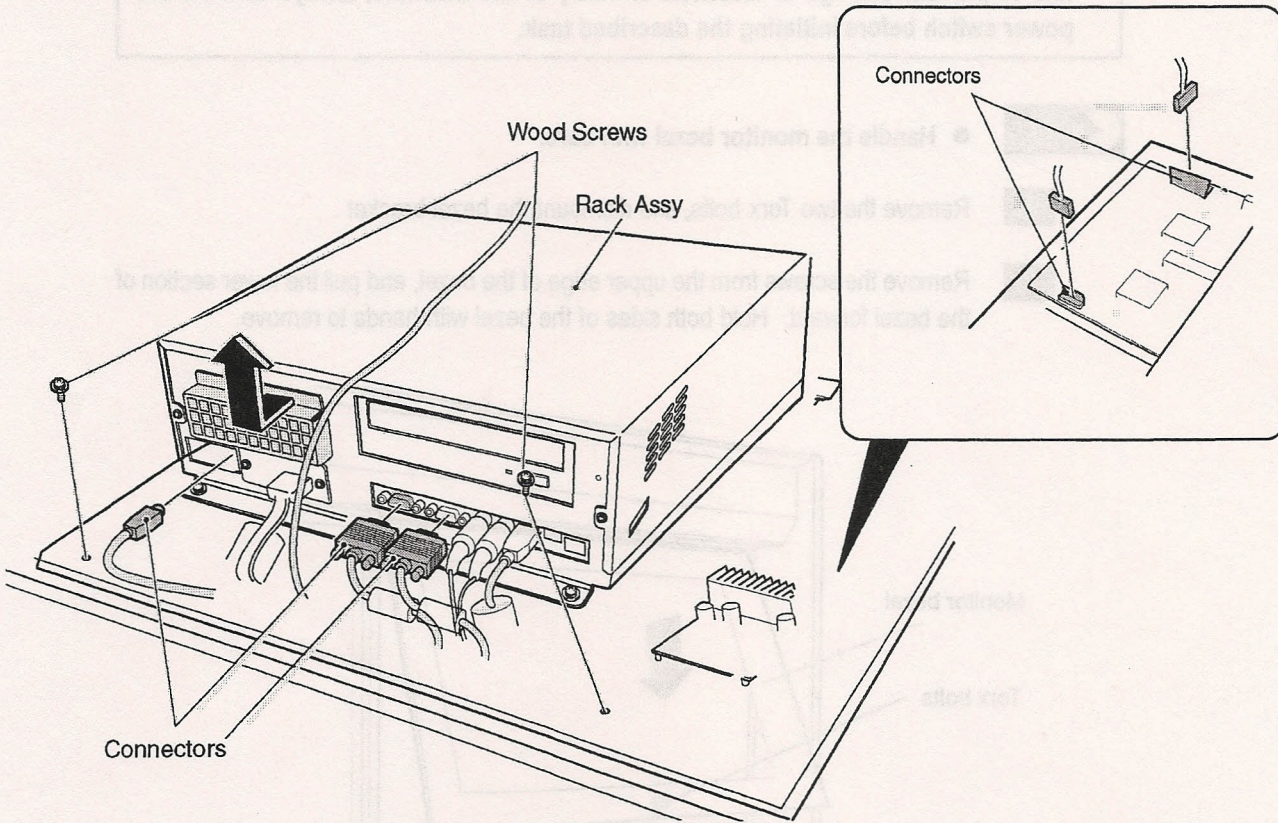


(2) Removing and reinstalling the rack base

**⚠ WARNING**

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

- 1** Remove the rear panel. (See P. 21 "5-5 Removing and reinstalling the rear panels.")
- 2** Disconnect the pbass connector and remove the four Phillips round-head wood screws and dismount the rack base by pulling forward.



- 3** To reinstall, follow the above procedure in reverse.
- 4** Repeat the same procedure for the other unit.

**NOTICE**

- To prevent damage to electrical circuits, check the direction of the connectors before connecting.
- The PC boards can be easily damaged by static electricity. Handling of a PC board by a person charged with static electricity can damage parts on the PC board. Before touching the PC boards, be sure to remove static electricity from your body by touching a grounded metal.



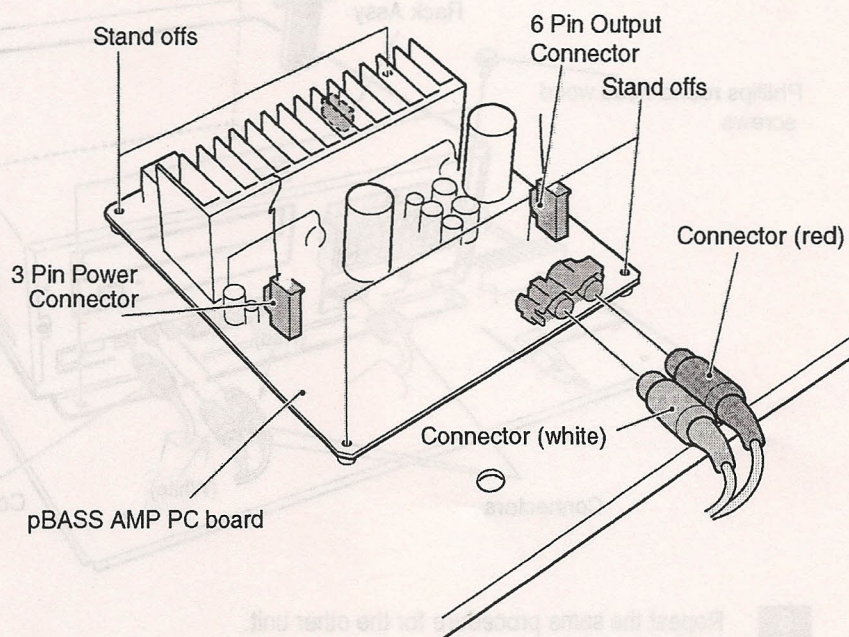
## (3) Replacing the pBASS AMP PC board

**⚠ WARNING**

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

**1** Remove the rear panel. (See P. 21 "5-5 Removing and reinstalling the rear panels.")

**2** Disconnect the two connectors, the RCA connectors, pinch the top of the nylon stand offs to release them, and dismount the pBASS AMP PC board.



**4** To reassemble, follow the above procedure in reverse.

**5** Repeat the same procedure for the other unit.

**NOTICE**

- To prevent damage to electrical circuits, check the direction of the connectors before connecting.
- The PC boards can be easily damaged by static electricity. Handling of a PC board by a person charged with static electricity can damage parts on the PC board. Before touching the PC boards, be sure to remove static electricity from your body by touching a grounded metal.

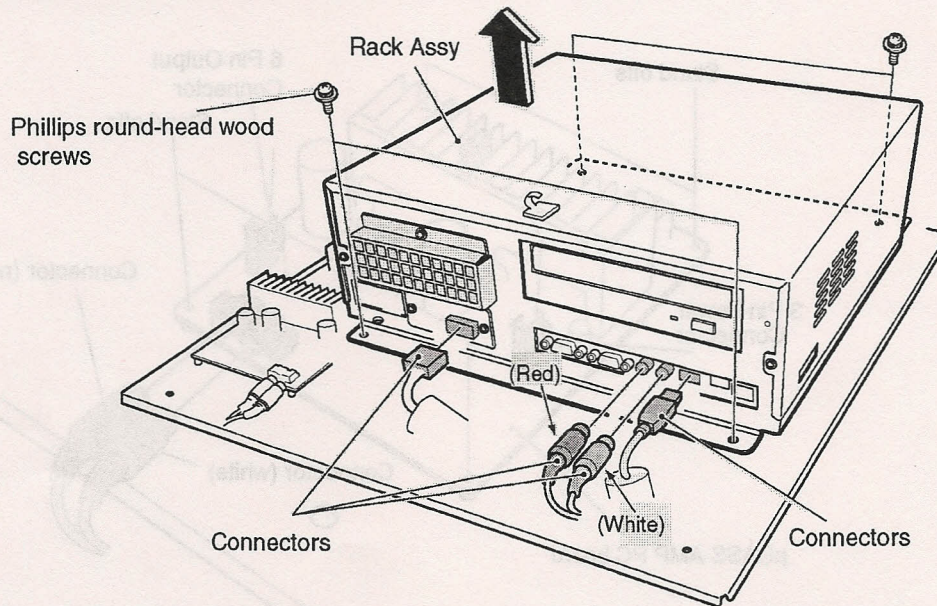


(4) Replacing the Rack Assy

**! WARNING**

- The power switch must be turned on when the Rack Assy is replaced. To prevent electric shock, accident and injury, do not touch sections other than those specified in the work procedures.

- 1** Remove the rear panel, and take out the DVD-ROM. (See P. 23 "5-7 Inserting the DVD-ROM.")
- 2** Press the Eject button to retract the tray. When the access lamp on the DVD-ROM drive turns off, turn off the power switch. (See P. 22 "5-6 Switching on the power.")
- 3** Disconnect the four connectors, and remove the four Phillips round-head wood screws .
- 4** Dismount the Rack Assy.
- 5** To reassemble, follow the above procedure in reverse.



- 6** Repeat the same procedure for the other unit.
- 7** After replacement, check the operation and settings. (See P. 32 "7-4 Test mode.")

**NOTICE**

- To prevent damage to electrical circuits, check the direction of the connectors before connecting.
- Be sure to turn off the power switch after the access lamp on the DVD-ROM drive turns off. If the power switch is turned off before the access lamp turns off, the internal mechanism may not lock in place and can become damaged during transportation.
- The PC boards can be easily damaged by static electricity. Handling of a PC board by a person charged with static electricity can damage parts on the PC board. Before touching the PC boards, be sure to remove static electricity from your body by touching a grounded metal.



**8-3-2 Signboard Assy - To be conducted by a technician only -****(1) Replacing the fluorescent lamp****! WARNING**

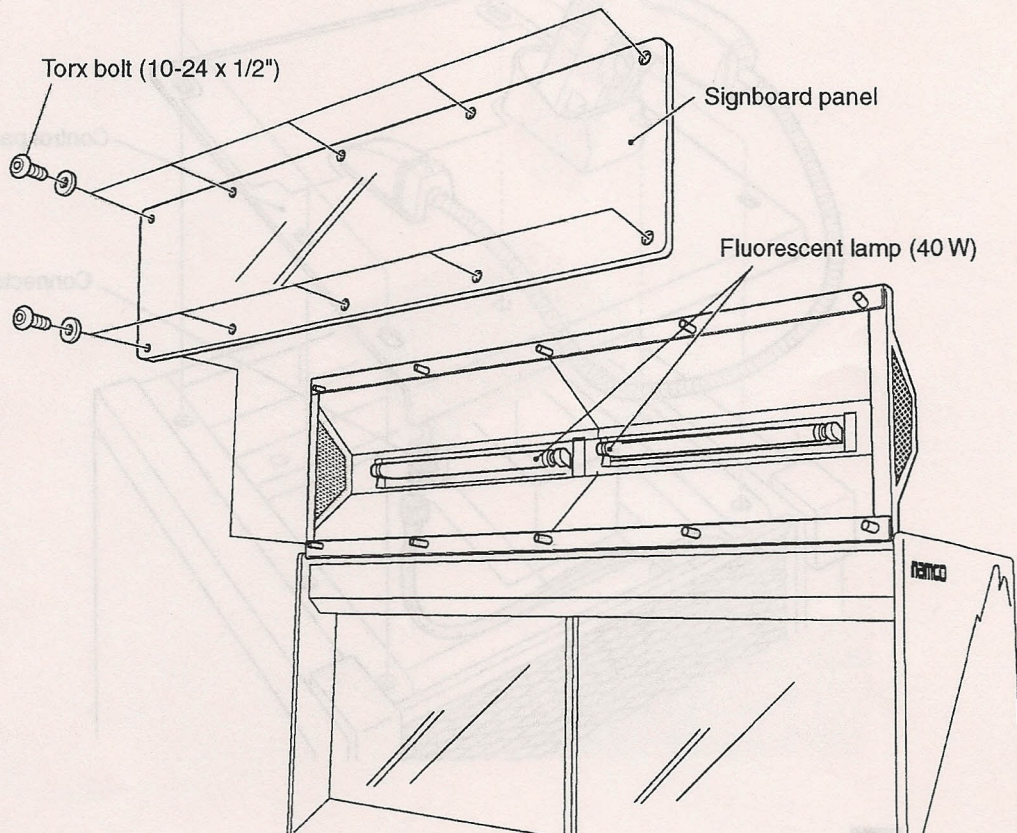
- To protect service staff and other people from an electric shock, accident and injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

**! CAUTION**

- The fluorescent lamp becomes hot. Exercise caution when removing.
- Be extra careful when replacing the fluorescent lamp since it involves working at a height.

**1** Remove the ten Torx bolts (10-24 x 1/2), and dismount the signboard panel.

**2** Remove the fluorescent lamp (40 W).



**3** To reinstall, follow the above procedure in reverse.



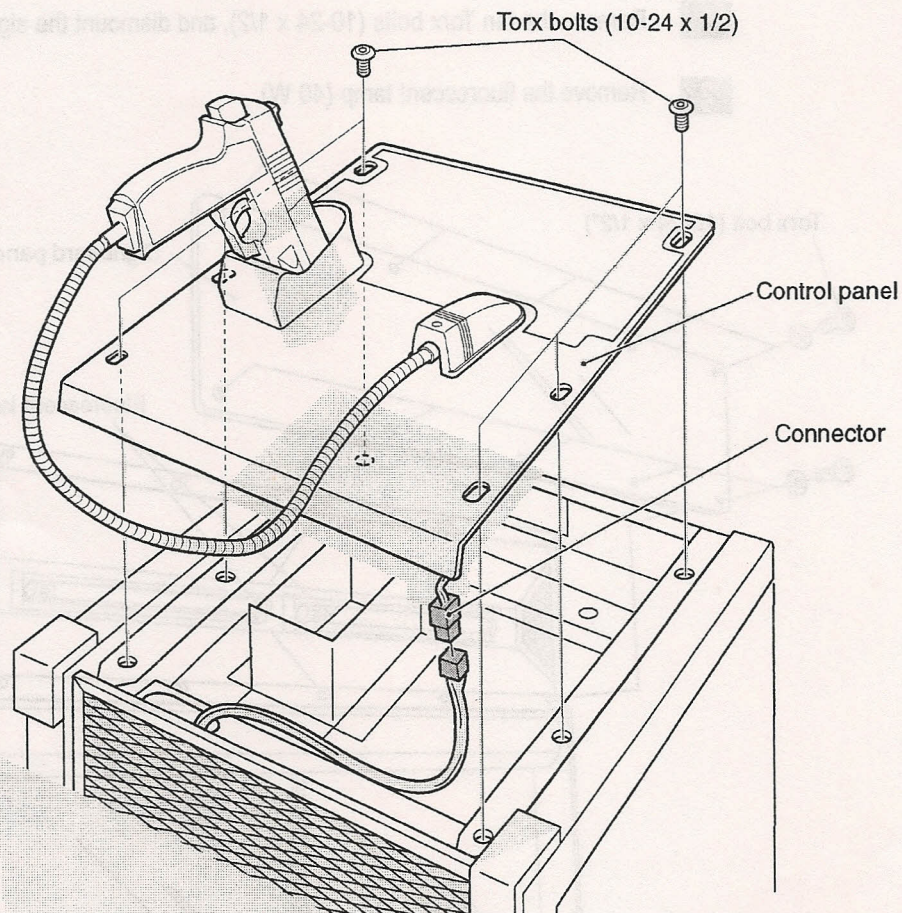
**8-3-3 Gun Tower Assys - To be conducted by a technician only -**

(1) Removing and reinstalling the control panel

**! WARNING**

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

- 1** Remove the six Torx bolts (10-24 x 1/2), disconnect the connector, and detach the control panel.
- 2** To reinstall, follow the above procedure in reverse.



- 3** Repeat the same procedure for the other unit.



## (2) Replacing the cold cathode tube

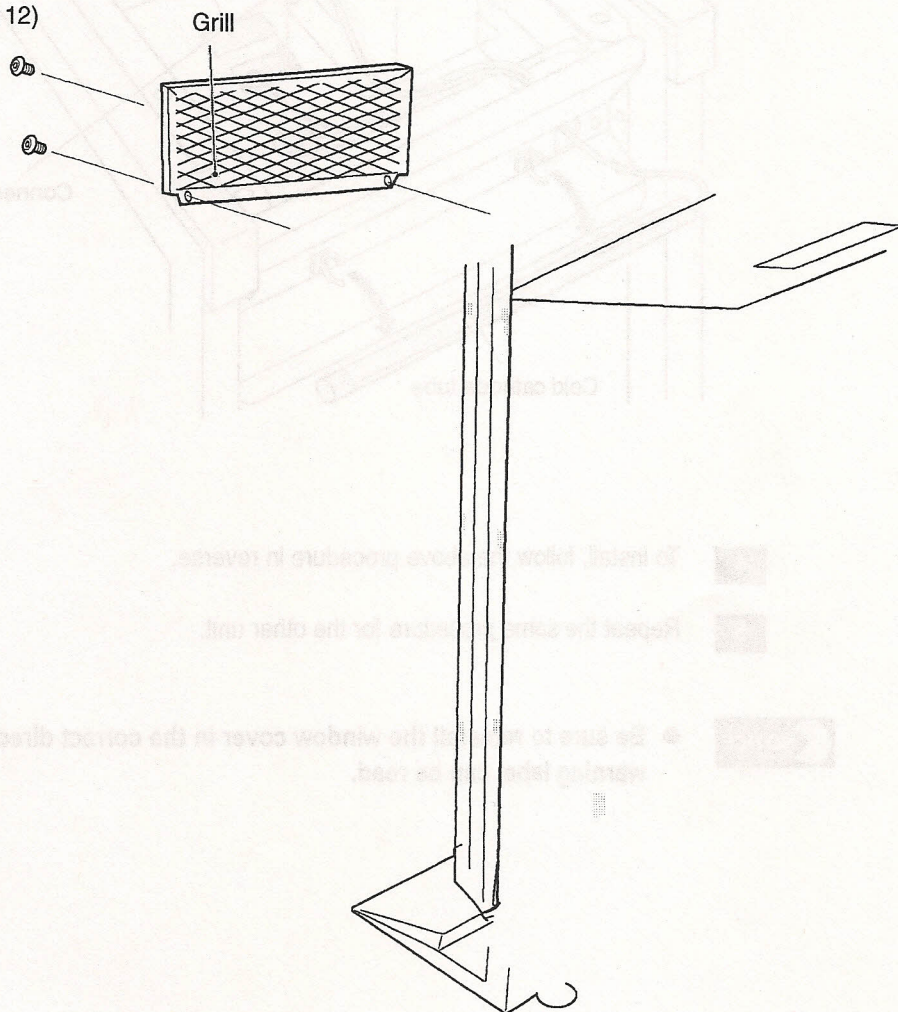
**! WARNING**

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

**1** Detach the control panel. (See P. 60 "8-3-3 (1) Removing and reinstalling the control panel.")

**2** Remove the two Torx bolts (M5 x 12), and dismount the grill.

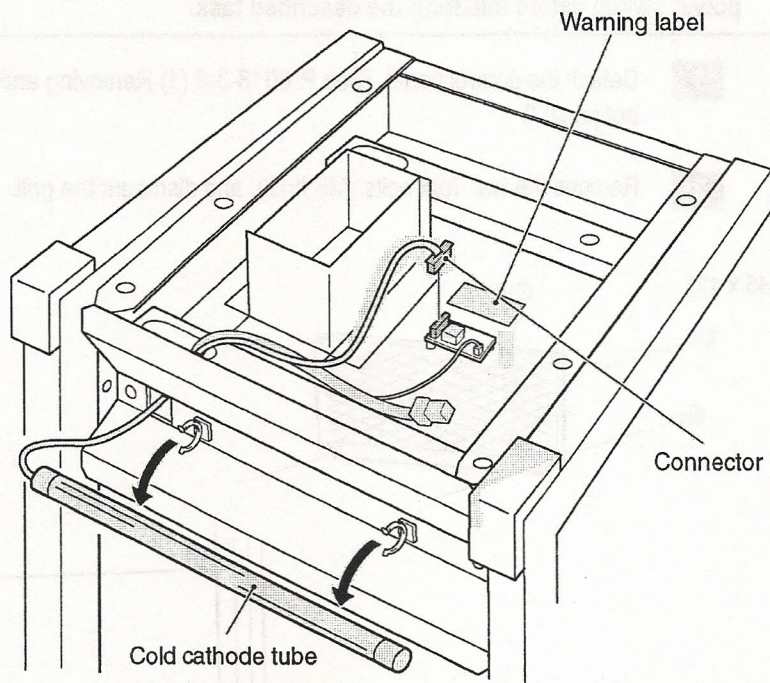
Torx bolt (M5 x 12)





## 8. MAINTENANCE

- 3 Disconnect the connector, and dismount the cold cathode tube.



- 4 To install, follow the above procedure in reverse.
- 5 Repeat the same procedure for the other unit.



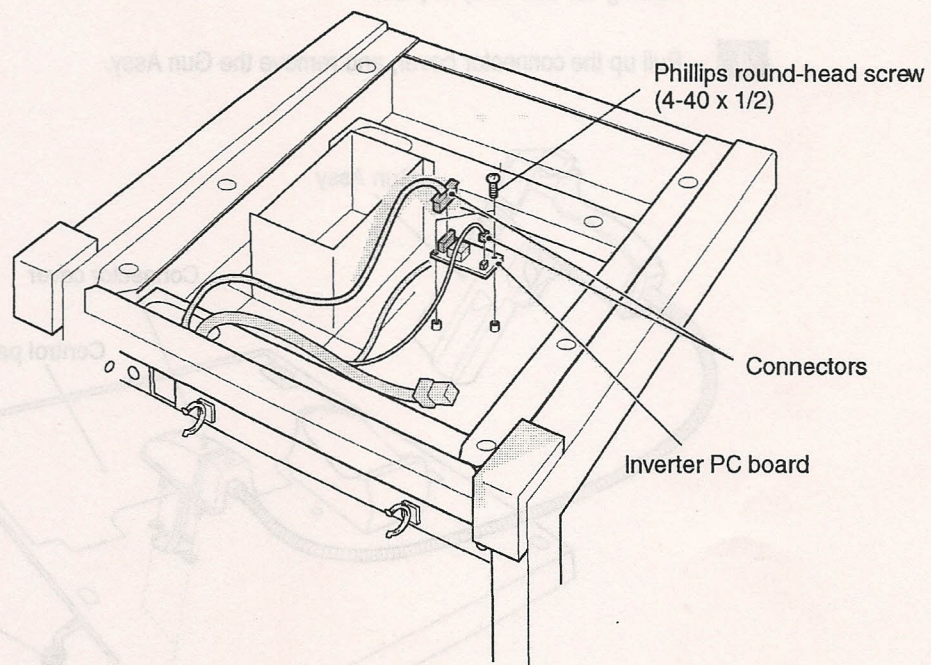
- Be sure to reinstall the window cover in the correct direction so that the warning label can be read.



**(3) Replacing the Inverter PC board****⚠ WARNING**

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

- 1** Detach the control panel. (See P. 60 "8-3-3 (1) Removing and reinstalling the control panel.")
- 2** Disconnect the two connectors, remove the two Phillips round-head screws (4-40 x 1/2), and dismount the Inverter PC board.



- 3** To install, follow the above procedure in reverse.
- 4** Repeat the same procedure for the other unit.



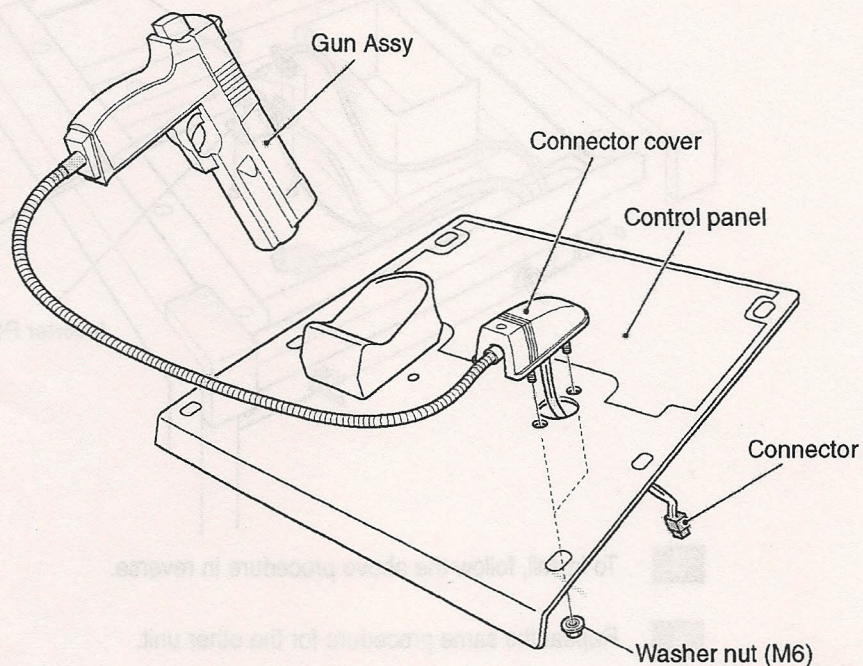
**8-3-4 Gun Assys - To be conducted by a technician only -**

(1) Replacing the Gun Assy

**! WARNING**

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

- 1** Detach the control panel. (See P. 60 "8-3-3 (1) Removing and reinstalling the control panel.")
- 2** From the back side of the control panel, remove the two washer nuts (M6) that are holding the Gun Assy in place.
- 3** Pull up the connector cover, and remove the Gun Assy.



- 4** To install, follow the above procedure in reverse.
- 5** Repeat the same procedure to remove the other Gun Assy.

**NOTICE**

- After the Gun Assy is replaced, be sure conduct adjustment. (See P. 44 "7-4-9 Setting the gun sight (GUN INITIALIZE).")

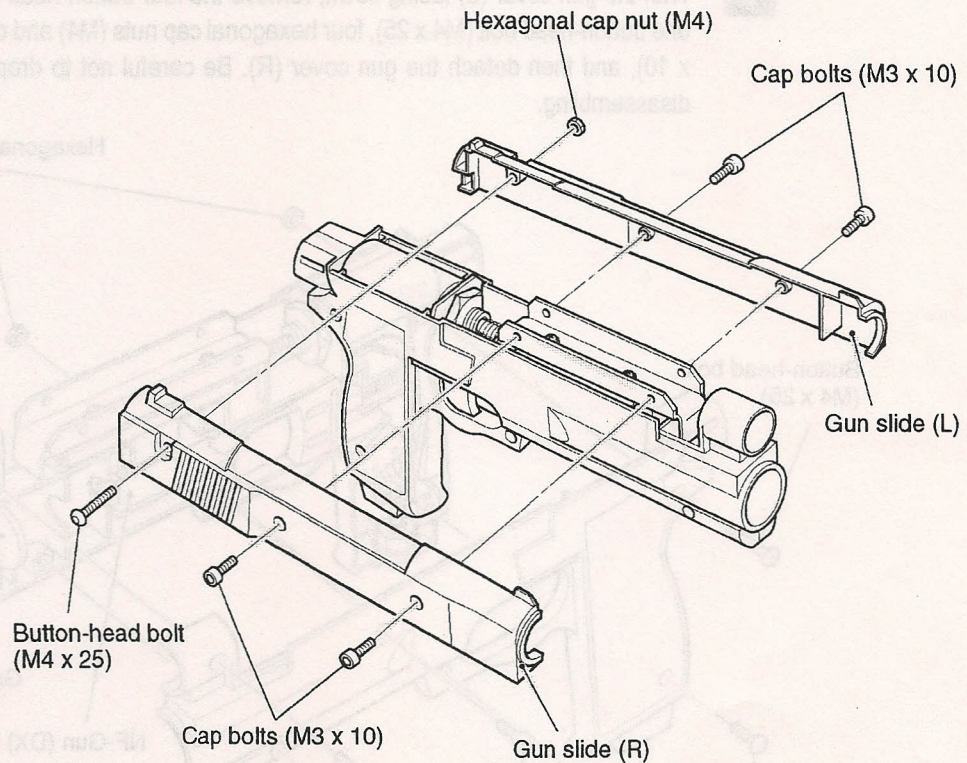


## (2) Opening the gun slide

**⚠ WARNING**

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

- 1** Remove the four cap bolts (M3 x 10), one button-head bolt (M4 x 25), and one hexagonal cap nut (M4), and then dismount the gun slides (L) and (R).



- 2** To reinstall, follow the above procedure in reverse.

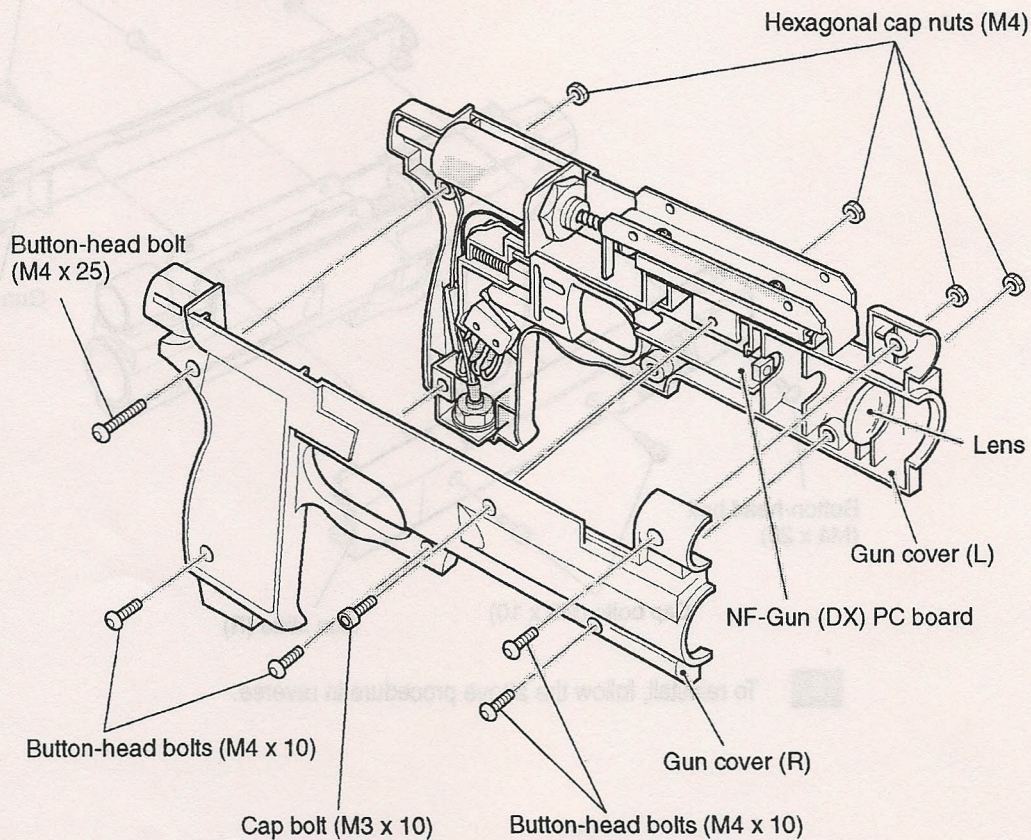


(3) Opening the gun cover

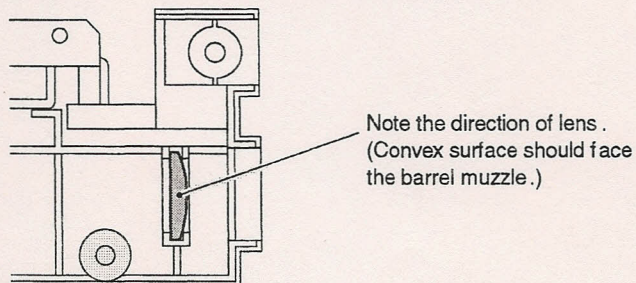
**! WARNING**

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

- 1** Remove the gun slides (L) and (R). (See P. 65 "8-3-4(2) Opening the gun slide.")
- 2** With the gun cover (L) facing down, remove the four button-head bolts (M4 x 10), one button-head bolt (M4 x 25), four hexagonal cap nuts (M4) and one cap bolt (M3 x 10), and then detach the gun cover (R). Be careful not to drop the lens when disassembling.



- 3** To reinstall, follow the above procedure in reverse. Note the direction of the lens when reinstalling. (Convex surface should face the barrel muzzle.)

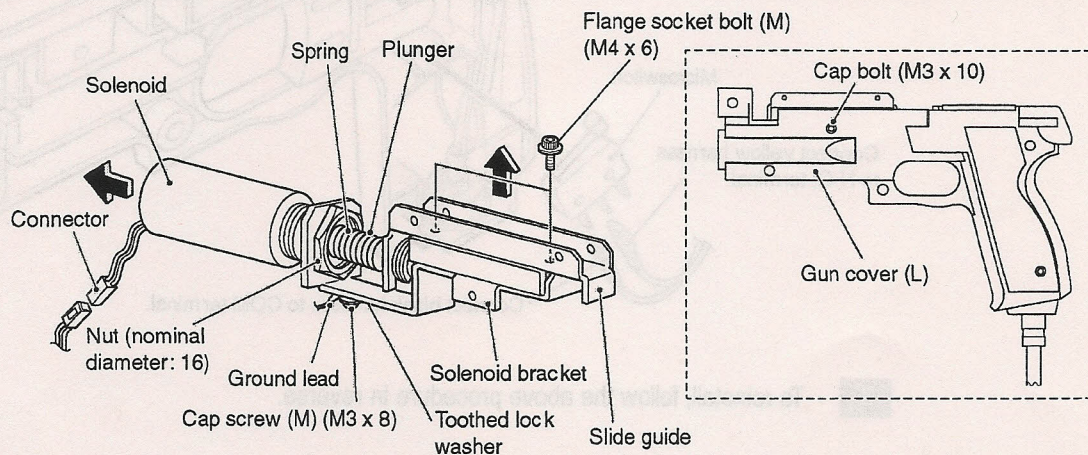




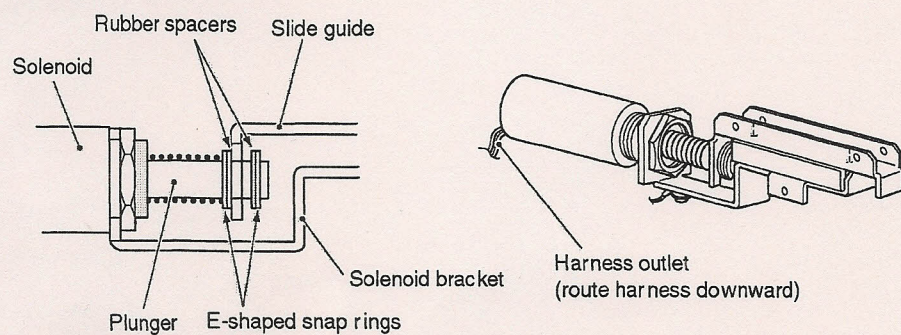
**(4) Replacing the solenoid****! WARNING**

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

- 1** Remove the gun covers and gun slides. (See P. 65 "8-3-4 (2) Opening the gun slide" and P. 66 "8-3-4 (3) Opening the gun cover.")
- 2** Disconnect the solenoid connector.
- 3** Remove the cap bolt (M3 x 10) from the gun cover (L) side, and dismount the solenoid bracket.
- 4** Remove the cap screw (M) (M3 x 8), and disconnect the ground lead.
- 5** Loosen the nut (nominal diameter: 16) that is holding the solenoid in place
- 6** Pull out the solenoid unit.
- 7** Remove the two flange socket bolts (M) (M4 x 6), and dismount the slide guide.
- 8** Pull out solenoid plunger. Be careful not to lose the spring during disassembly.



- 9** To reinstall, follow the above procedure in reverse. During reassembly, align the D-shaped hole of the solenoid bracket with the D-shaped part of the solenoid. Also, install the E-shaped snap rings and rubber spacers in the specified positions.

**(5) Replacing the microswitch**

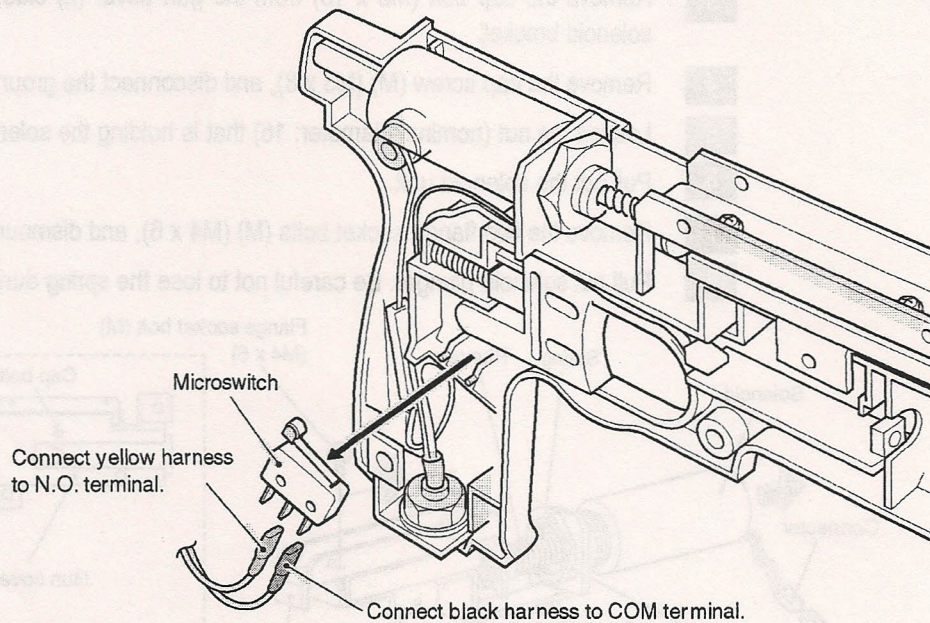


## WARNING

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

**1** Remove the gun slide (R) and gun cover (R). (See P. 65 "8-3-4 (2) Opening the gun slide" and P. 66 "8-3-4 (3) Opening the gun cover.")

**2** Replace the microswitch.



**3** To reinstall, follow the above procedure in reverse.

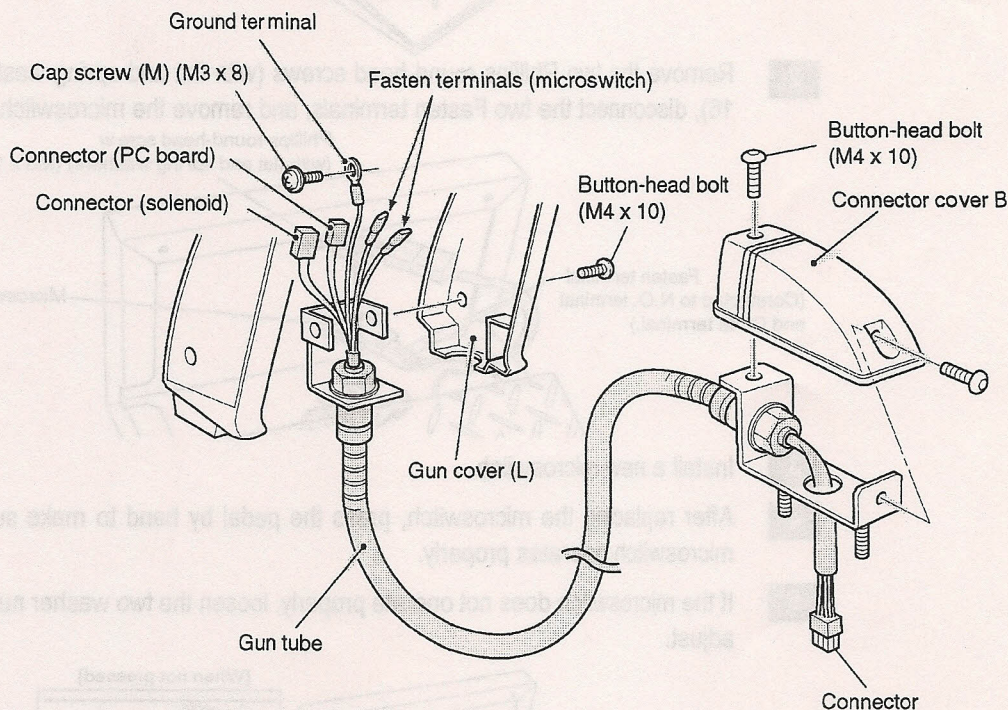


## (6) Replacing the tube

**! WARNING**

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

- 1** Remove the Gun Assy. (See P. 64 "8-3-4 (1) Replacing the Gun Assy.")
- 2** Remove the two button-head bolts (M4 x 10) and connector cover B.
- 3** Remove the gun slides (L) and (R) and gun cover (R). (See P. 65 "8-3-4 (2) Opening the gun slide" and P. 66 "8-3-4 (3) Opening the gun cover.")
- 4** Remove the cap screw (M) (M3 x 8), and disconnect the ground lead.
- 5** Disconnect the two connectors and the microswitch Fasten terminals. (See P. 67 "8-3-4 (5) Replacing the microswitch.")
- 6** Remove the one button-head bolt (M4 x 10) that holds the gun tube and gun cover (L) in place, and replace the gun tube.



- 7** To reinstall, follow the above procedure in reverse.



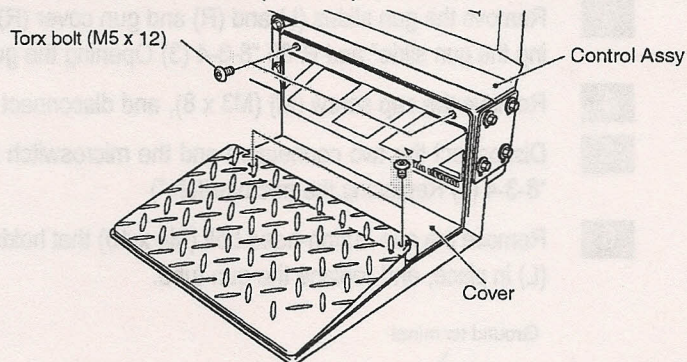
**8-3-5 Pedal Assys - To be conducted by a technician only -**

**(1) Replacing the microswitch**

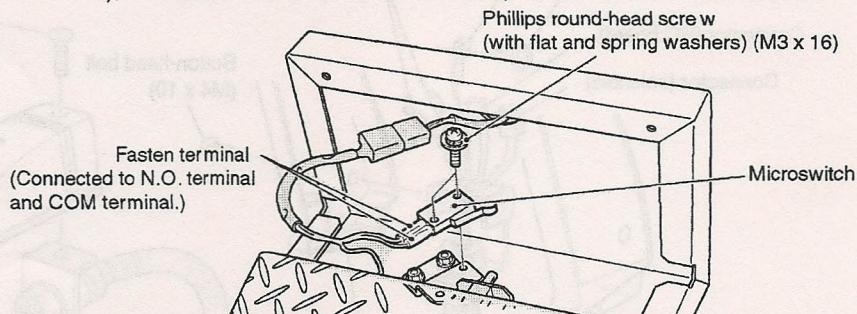
**⚠ WARNING**

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

- 1** Remove the four Torx bolts (M5 x 12), and detach the cover.



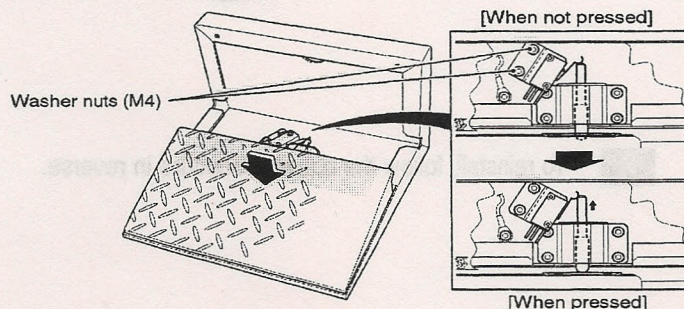
- 2** Remove the two Phillips round-head screws (with flat and spring washers) (M3 x 16), disconnect the two Fasten terminals, and remove the microswitch.



- 3** Install a new microswitch.

- 4** After replacing the microswitch, press the pedal by hand to make sure that the microswitch operates properly.

- 5** If the microswitch does not operate properly, loosen the two washer nuts (M4) and adjust.



- 6** To reinstall, follow the above procedure in reverse.

- 7** Repeat the same procedure for the other unit.

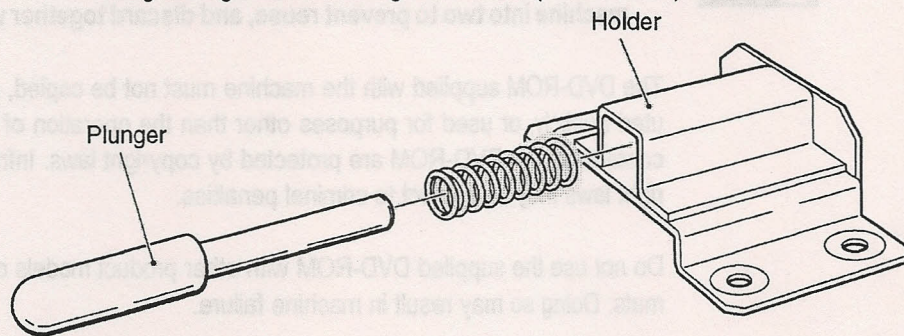


## (2) Replacing the plunger

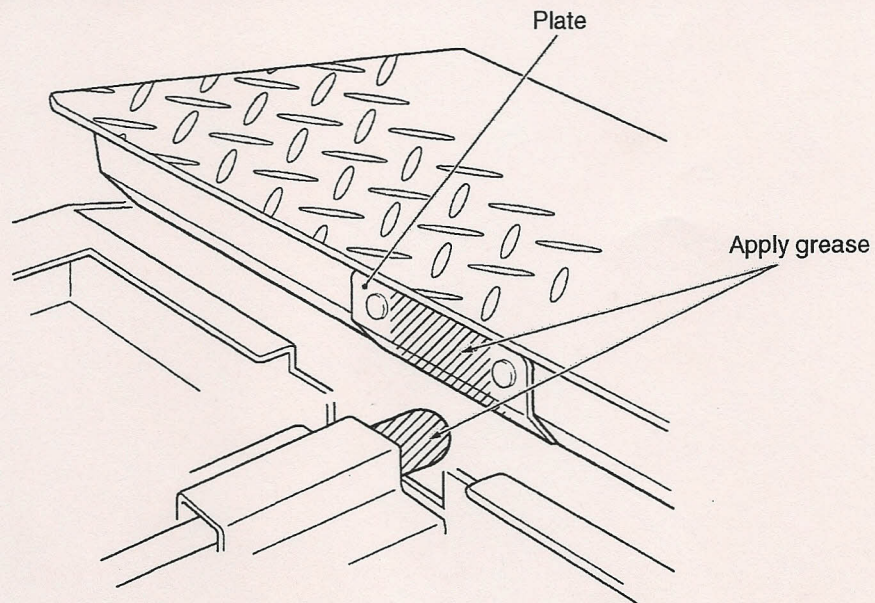
**! WARNING**

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

- 1** Remove the holder. (See P. 49 "8-1-2 (1) Greasing the Pedal Assy plungers.")
- 2** Pull out the plunger from the holder, and replace it with a new plunger. When installing, apply grease to the entire surface of the plunger.  
\* Designated grease: Albania grease No. 2 (Showa Shell)



- 3** Wipe old grease from the surface of the plate on the pedal, and apply new grease.



- 4** To reinstall, follow the above procedure in reverse. (Regarding microswitch adjustment, refer to P. 70 "8-3-5 (1) Replacing the microswitch.")
- 5** Repeat the same procedure for the other unit.



## 9. DISCARDING THE MACHINE

### WARNING

- The machine must be collected, transported and discarded in accordance with the local laws and regulations.
- When entrusting a third party to collect, transport and discard the machine, be sure to use specialist companies to perform each task.
- Do not remove the lenses from the Gun Assys when discarding the machine. Detached lenses can converge sunlight, causing a fire, blindness or burns.

### NOTICE

- When discarding the machine, break the DVD-ROM supplied with the machine into two to prevent reuse, and discard together with the machine.

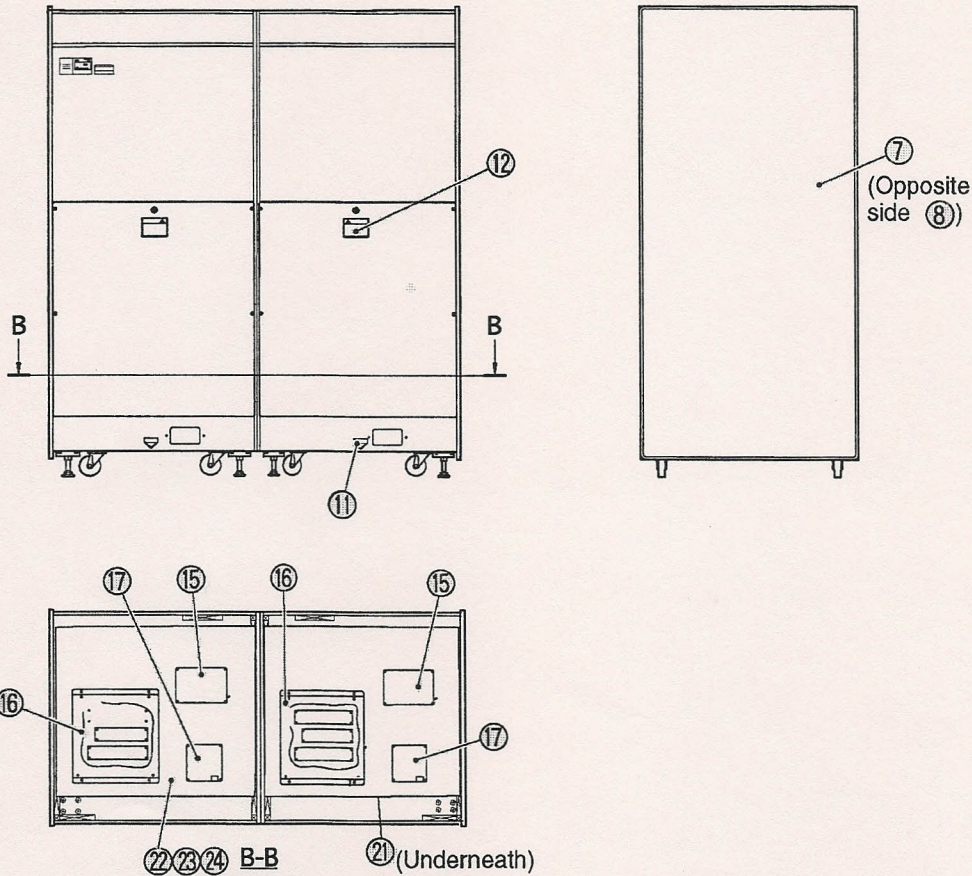
The DVD-ROM supplied with the machine must not be copied, converted, distributed publicly, or used for purposes other than the operation of the machine. The contents of the DVD-ROM are protected by copyright laws. Infringement of copyright laws may be subject to criminal penalties.

Do not use the supplied DVD-ROM with other product models or other media formats. Doing so may result in machine failure.



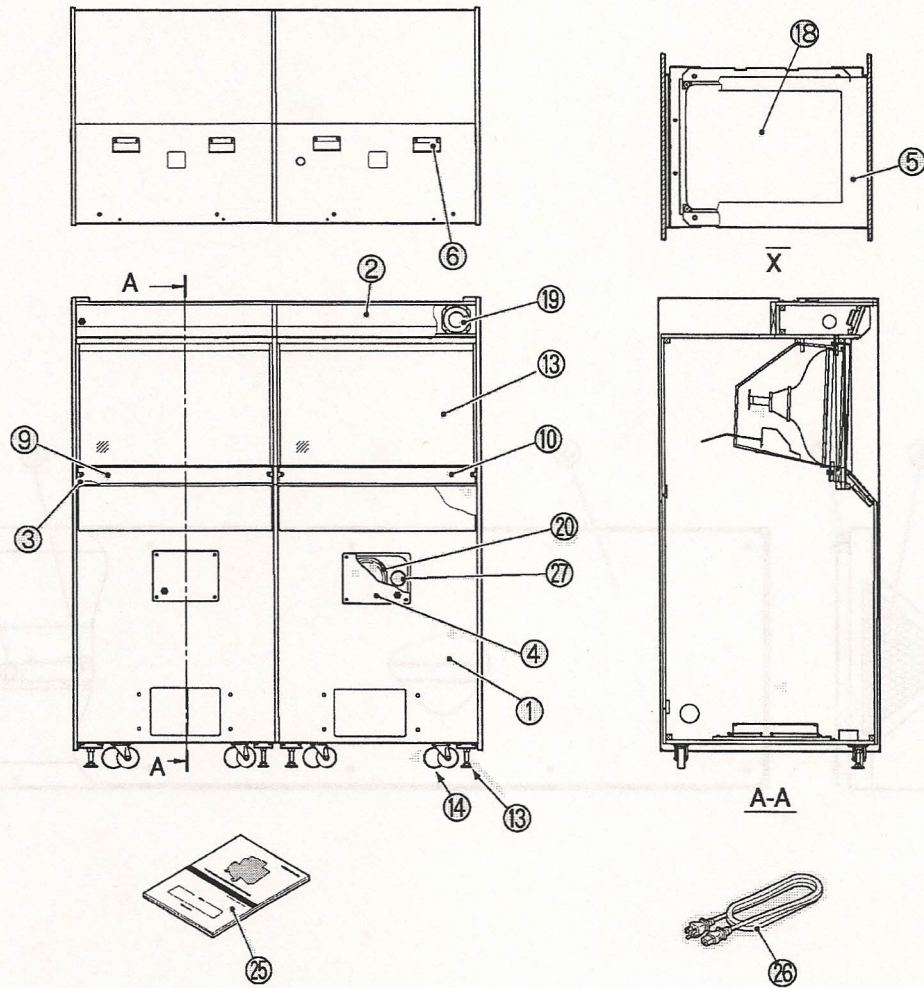
# 10. PARTS LIST

## 10-1 Monitor Base Assy



No.	Name	Qty	NAI Part No.	No.	Name	Qty	NAI Part No.
1	Monitor cabinet	2	TI63-10681-00	13	Leg leveler	8	
2	Speaker cover	2	TI10-10687-00	14	Caster, swivel	8	VG24-05309-00
3	Bezel bracket (U)	2	TI10-10682-00	15	Power Sply, 12V	2	VG88-07671-00
4	Woofers cover	2	TI10-10575-00	16	Rack Assy	2	TI05-10643-00
5	Monitor bezel	2	VG95-10455-00	17	P-Bass pcb	2	VG15-10674-00
6	Marquee bracket	4	TI10-10577-00	18	Monitor, 27" CGA	2	VG85-10562-00
7	Decal, Side Cab Left	1	TI40-10676-00	19	Speaker	4	VG54-09405-01
8	Decal, Side Cab Right	1	TI40-10676-01	20	Woofers	2	VG54-10625-00
9	Decal, Front Cab Left	1	TI40-10678-00	21	Transformer	1	VG56-10655-00
10	Decal, Front Cab Right	1	TI40-10678-01	22	RCA cable	2	VG50-06872-00
11	Fork Position Label	2	VG40-06882-00	23	IEEE cable	1	VG50-09714-00
12	Label, Warning, Hi Volt	2	VG40-10599-00	24	USB cable		



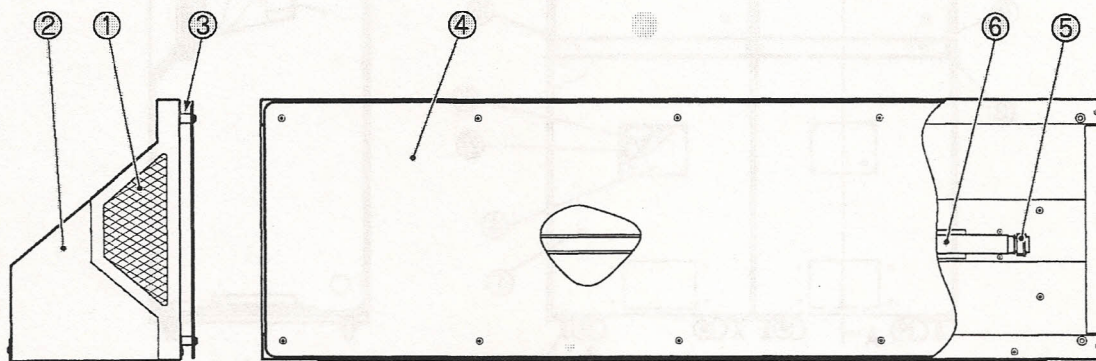


No.	Name	Qty	
25	Operation manual	1	TI45-10644-00
26	Power cord	1	
27	Pipe duct	2	VG54-07830-01

No.	Name	Qty	
1	Control panel	1	TI45-10644-00
2	Control panel base	1	TI45-10644-00
3	Control panel cover	1	TI45-10644-00
4	Control panel screws	1	TI45-10644-00
5	Control panel nuts	1	TI45-10644-00
6	Control panel pins	1	TI45-10644-00



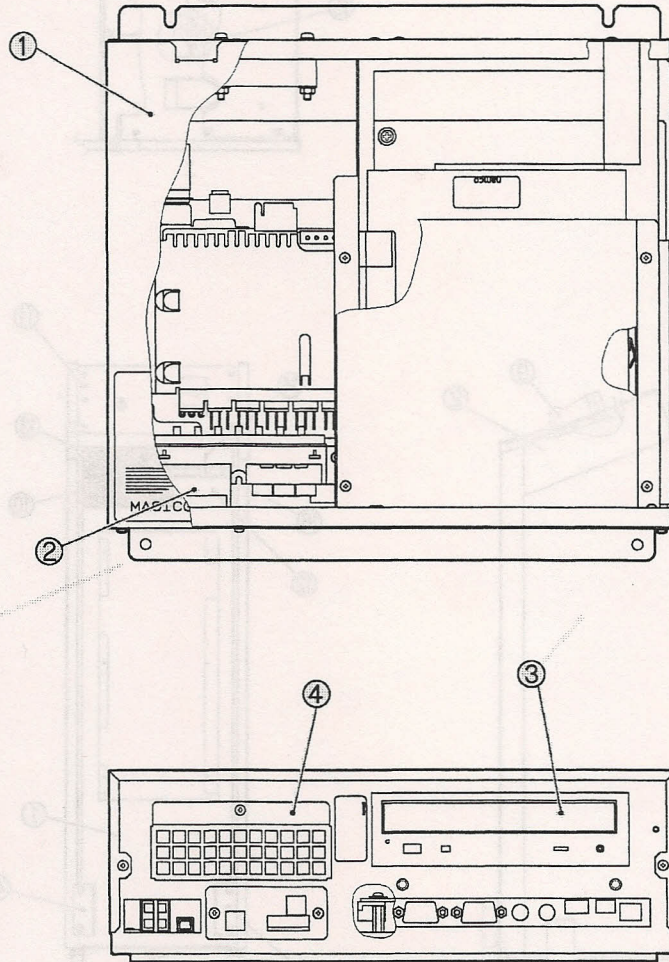
## 10-2 Signboard Assy



No.	Name	Qty	NAI Part No.
1	Marquee box	1	T110-10680-00 Left; T110-10680-01 Right
2	Marquee base	2	T110-10679-00
3	Panel pin	10	T110-10581-00
4	Marquee panel, silkscreen	1	T140-10570-00
5	Fluorescent lamp fixture	1	
6	Fluorescent tube	1	



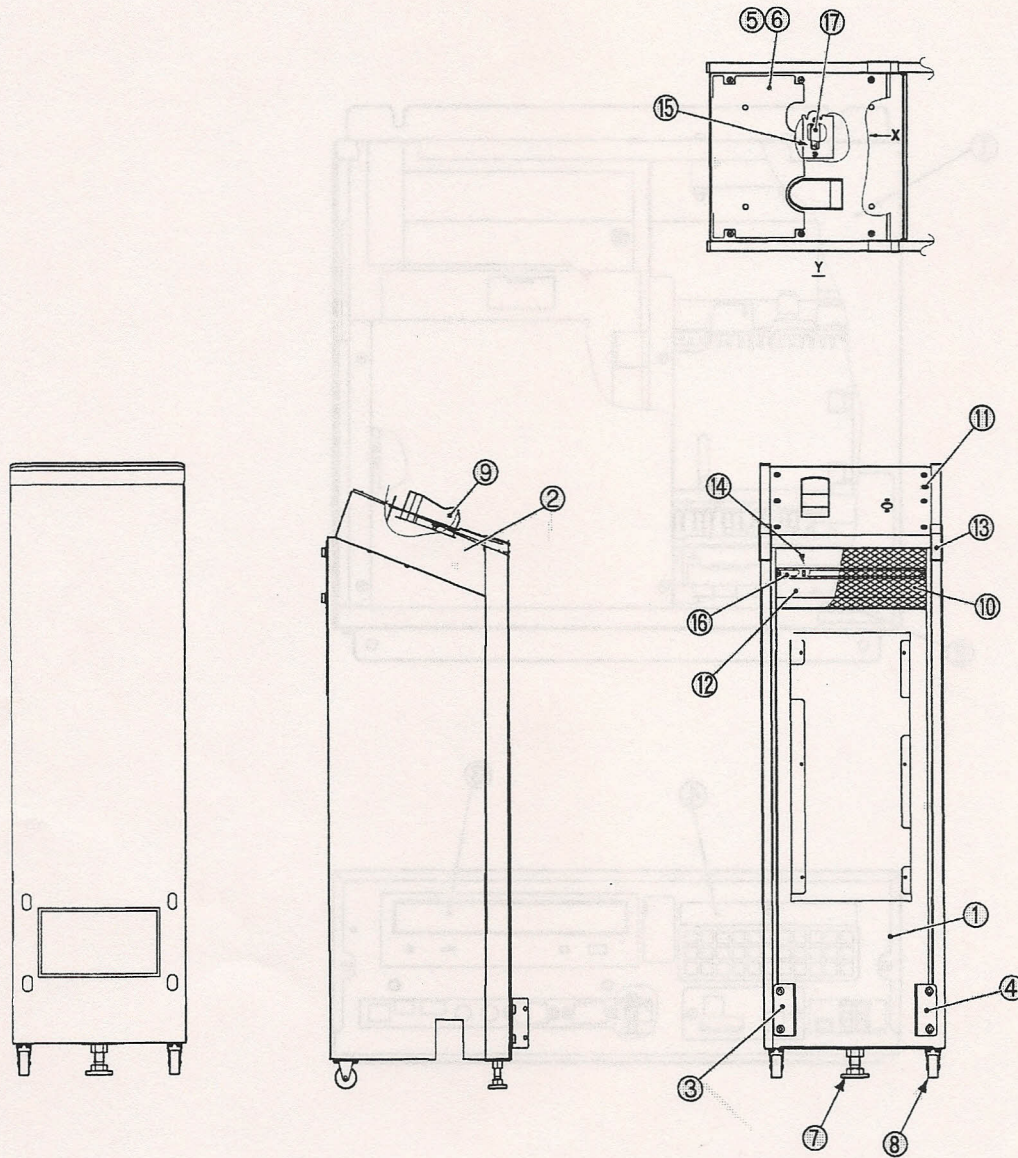
10-3 Rack Assy



No.	Name	Qty	NAI Part No.
1	Rack Assy	2	TI05-10643-00
2	Dongle card	2	TI05-10646-00
3	DVD drive	2	VG84-10453-00
4	Dongle cover	2	VG10-10671-00



# 10-4 Coin & Gun Tower Assy



No.	Name	Qty	NAI Part No.
1	Coin box	2	T110-10684-00
2	Gun Tower	2	T110-10686-00
3	Pedal bracket (A), Left	2	T110-10685-00
4	Pedal bracket (A), Right	2	T110-10685-01
5	Decal, Gun Tower, Left	1	T140-10566-00
6	Decal, Gun Tower, Right	1	T140-10566-01
7	Leg Leveler	4	
8	Stationary caster	4	
9	Gun holder	2	T110-10588-00
10	Grill	2	T110-10683-00
11	Control panel	2	T110-10591-00



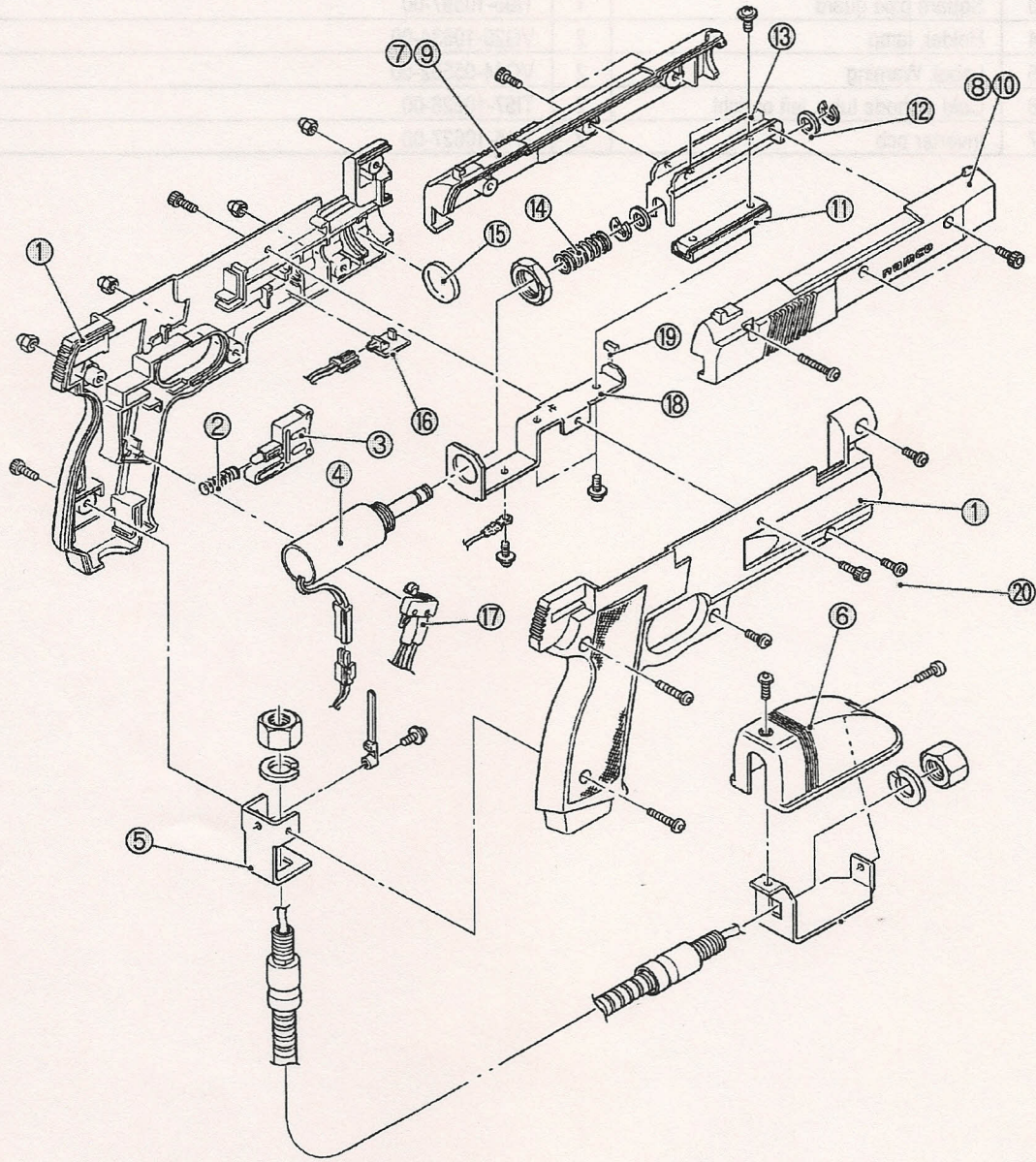
**10-4 Coin & Gun Tower Assy (cont'd)**

No.	Name	Qty	NAI Part No.
12	Lamp base	1	TI10-10592-00
13	Square pipe guard	1	TI96-10597-00
14	Holder, lamp	2	VG20-10634-00
15	Label, Warning	2	VG44-05532-00
16	Cold cathode tube, left or right	2	TI57-10628-00
17	Inverter pcb	2	TI15-10627-00



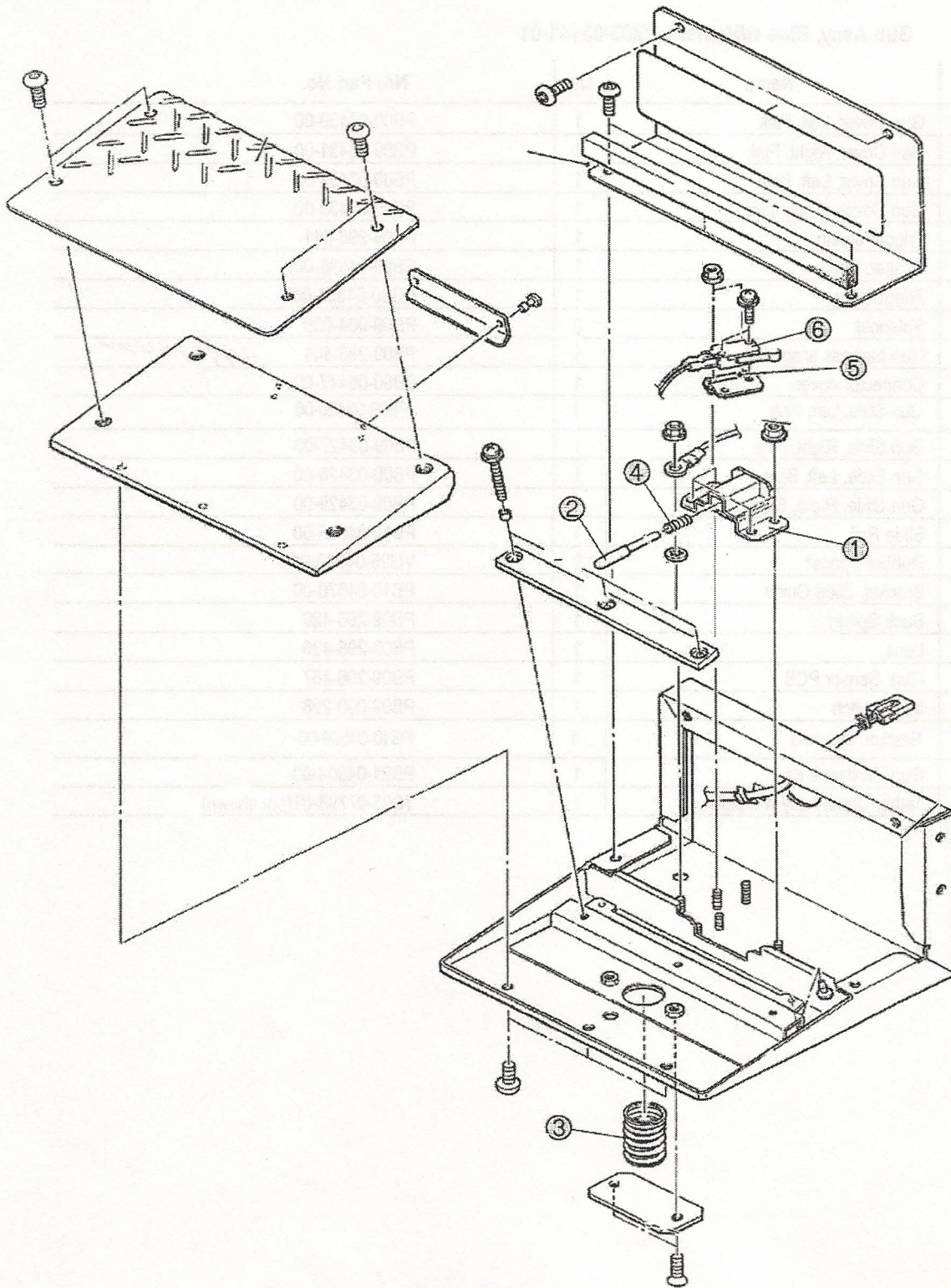
# 10-5 Gun Assy

Part No.	Qty	Name	Alt.
1	1	Slide	
2	1	Slide Stop	
3	1	Slide Stop Pin	
4	1	Slide Stop Spring	
5	1	Slide Stop Bracket	
6	1	Slide Stop Pin	
7	1	Slide Stop Pin	
8	1	Slide Stop Pin	
9	1	Slide Stop Pin	
10	1	Slide Stop Pin	
11	1	Slide Stop Pin	
12	1	Slide Stop Pin	
13	1	Slide Stop Pin	
14	1	Slide Stop Pin	
15	1	Slide Stop Pin	
16	1	Slide Stop Pin	
17	1	Slide Stop Pin	
18	1	Slide Stop Pin	
19	1	Slide Stop Pin	
20	1	Slide Stop Pin	





# 10-6 Pedal Assy





## 10-5 Gun Assy (cont'd)

Gun Assy, Pink w/Harness PB03-03141-00

Gun Assy, Blue w/Harness PB03-03141-01

No.	Name	Qty	NAI Part No.
1	Gun Cover, Left, Pink	1	PB09-03430-00
1	Gun Cover, Right, Pink	1	PB09-03431-00
1	Gun Cover, Left, Blue	1	PB09-03432-00
1	Gun Cover, Right, Blue	1	PB09-03433-00
2	Trigger spring	1	PB09-296-241
3	Trigger, Pink	1	PB90-04836-00
3	Trigger, Blue	1	VG90-04931-00
4	Solenoid	2	PB09-004-056
5	Gun harness assembly	1	PB09-296-401 <i>17500 BASSON</i>
6	Connector cover	1	PB90-05447-00
7	Gun Slide, Left, Pink	1	PB09-03426-00
8	Gun Slide, Right, Pink	1	PB09-03427-00
9	Gun Slide, Left, Blue	1	PB09-03428-00
10	Gun Slide, Right, Blue	1	PB09-03429-00
11	Slide Rail	1	PB10-04835-00
12	Rubber Spacer	2	VG95-04942-00
13	Bracket, Slide Guide	1	PB10-04670-00
14	Back Spring	1	PB09-296-420
15	Lens	1	PB09-296-426
16	Gun Sensor PCB	1	PB09-296-467
17	Microswitch	1	PB09-000-228
18	Bracket, Solenoid	1	PB10-04669-00
19	Gun Hardware Kit	1	PB21-04904-00
	Tether Chain Assy w/o plate	1	TS05-07798-01(not shown)



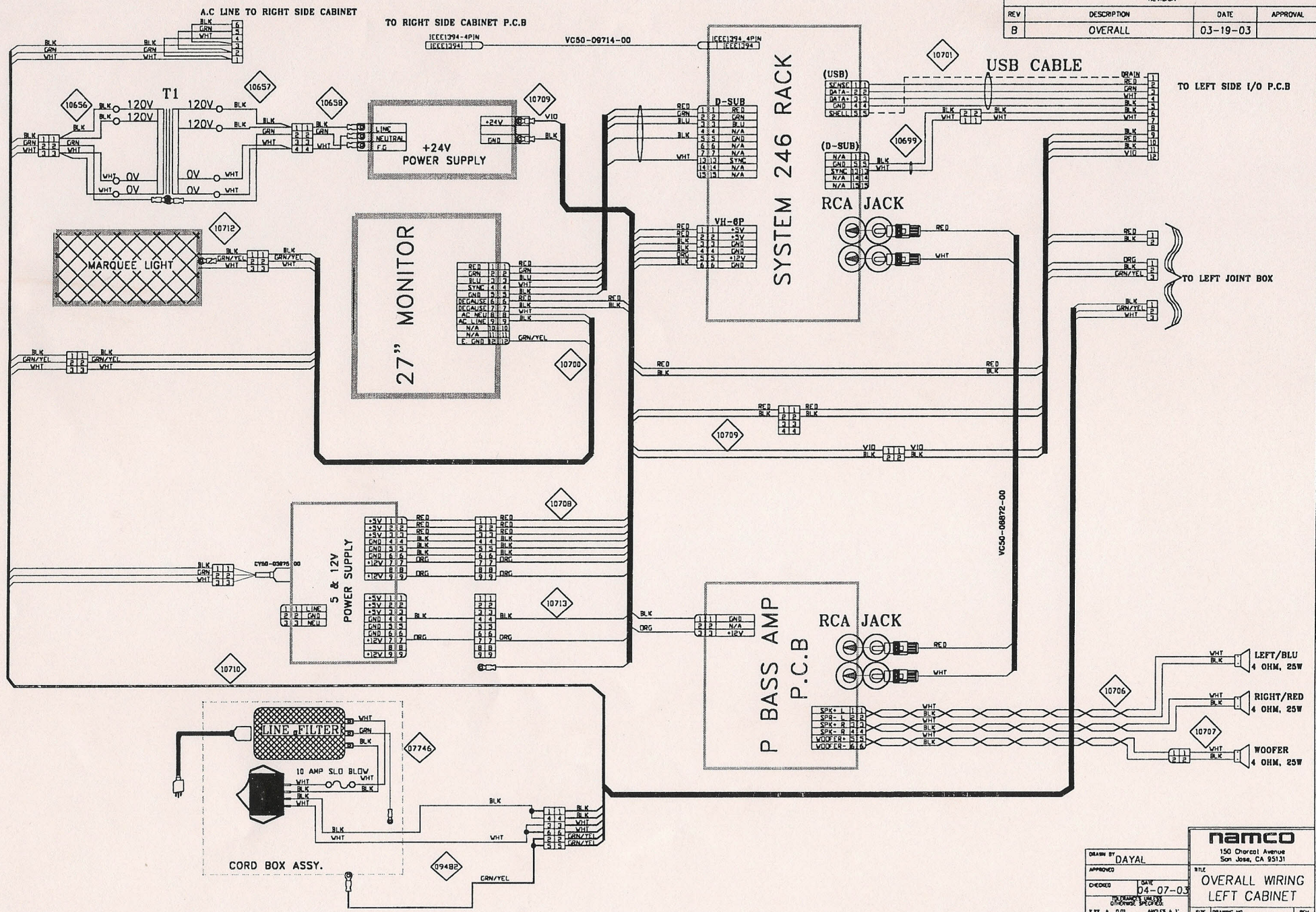
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**10-6 Pedal Assy**

No.	Name	Qty	NAI Part No.
1	Holder	1	TC80-04671-03
2	Plunger	1	TC80-04671-05
3	Spring A	1	TC80-04671-08
4	Spring B	1	TC80-04671-09
5	Switch stay	1	TC80-04671-11
6	Microswitch	1	TC80-04672-03



REVISION			
REV	DESCRIPTION	DATE	APPROVAL
B	OVERALL	03-19-03	



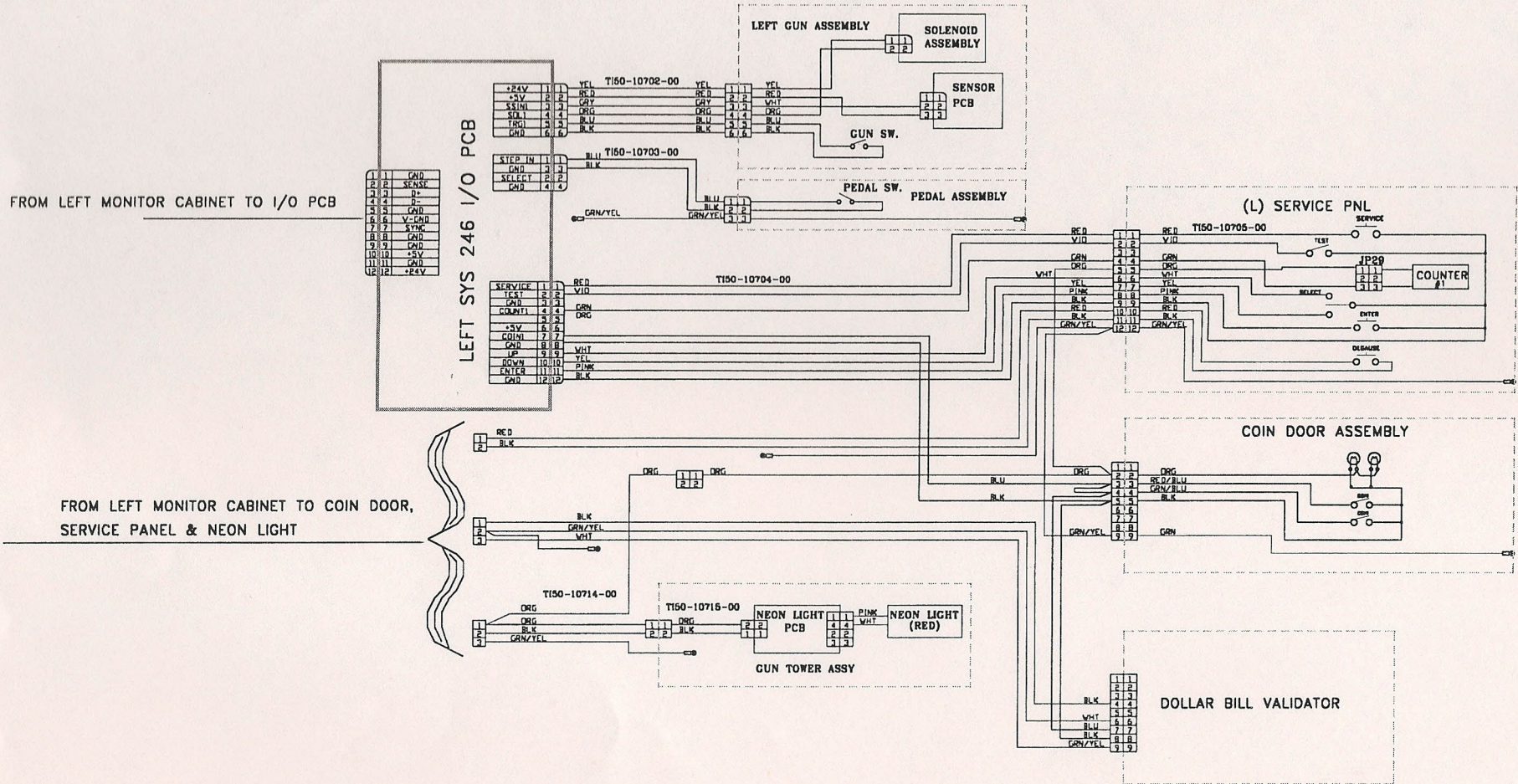
NOTES:

DESIGN BY	DAYAL		
APPROVED			
CHECKED	DATE 04-07-03		
OVERALL WIRING LEFT CABINET			
SHEET NO.	OF SHEETS		REV
D	OVERALL		B
DATE	T.C. 3.27"		DO NOT SCALE

**namco**  
 150 Choral Avenue  
 San Jose, CA 95131



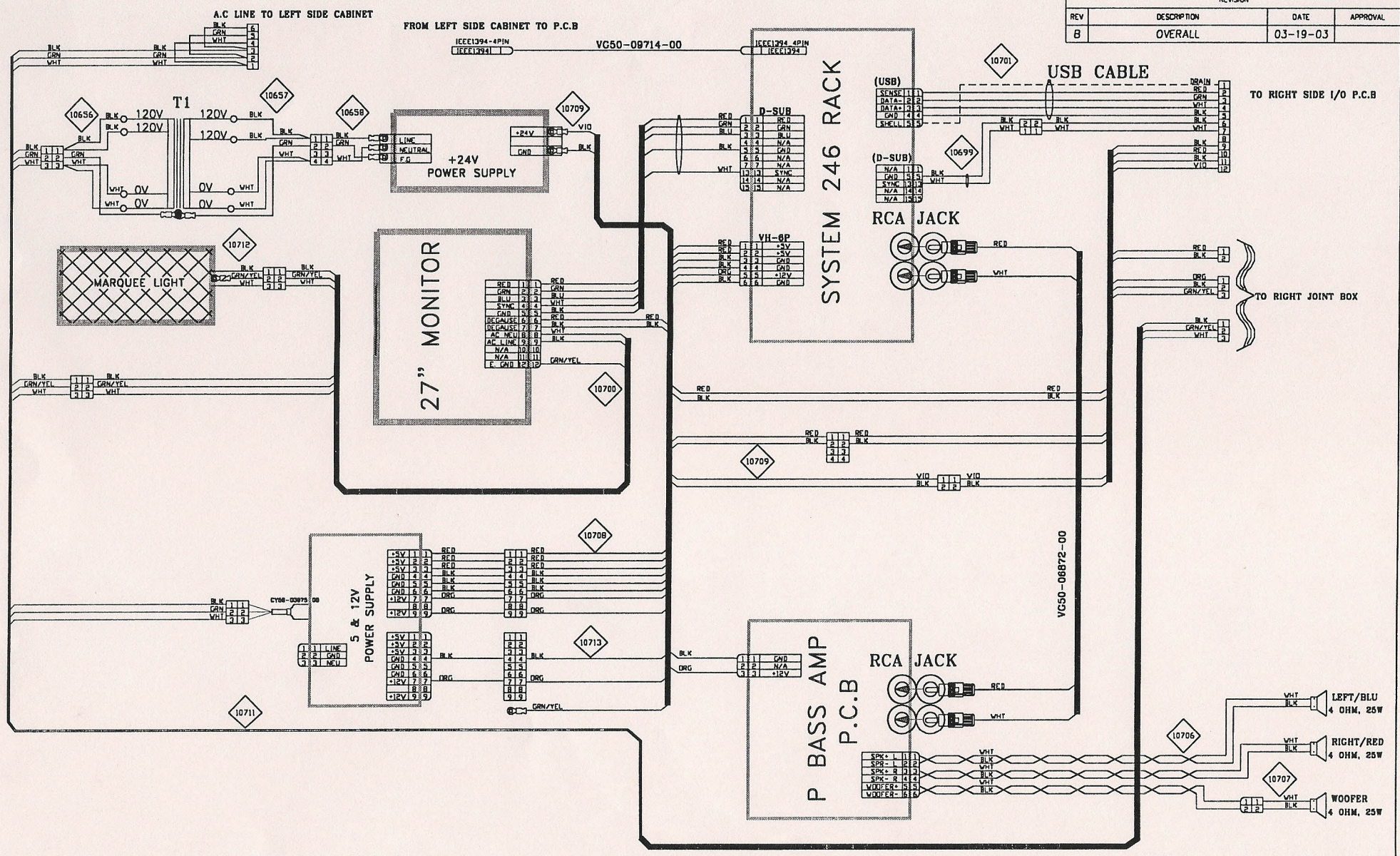
REVISION			
REV	DESCRIPTION	DATE	APPROVAL
B	OVERALL	03-19-03	



DRAWN BY DAYAL APPROVED CHECKED DATE 03-19-03 CHECKED BY SIZE A 0.01 B 0.003 USED ON TC 3 27"	TITLE <b>GUN TOWER LEFT SIDE</b>	<b>namco</b> 150 Choccol Avenue San Jose, CA 95131 SIZE D DRAWING NO. OVERALL REV B DO NOT SCALE SHEET 3 OF 4
--	-------------------------------------	---



REVISION			
REV	DESCRIPTION	DATE	APPROVAL
B	OVERALL	03-19-03	



NOTES:

DRAWN BY DAYAL		REV	
APPROVED		DATE	
CHECKED	DATE	OVERALL WIRING	
	04-07-03	RIGHT CABINET	
SHEET 2 OF 4		SHEET 2 OF 4	
SCALE 1" = 32"		SCALE 1" = 32"	
T C 3 27"		DO NOT SCALE	

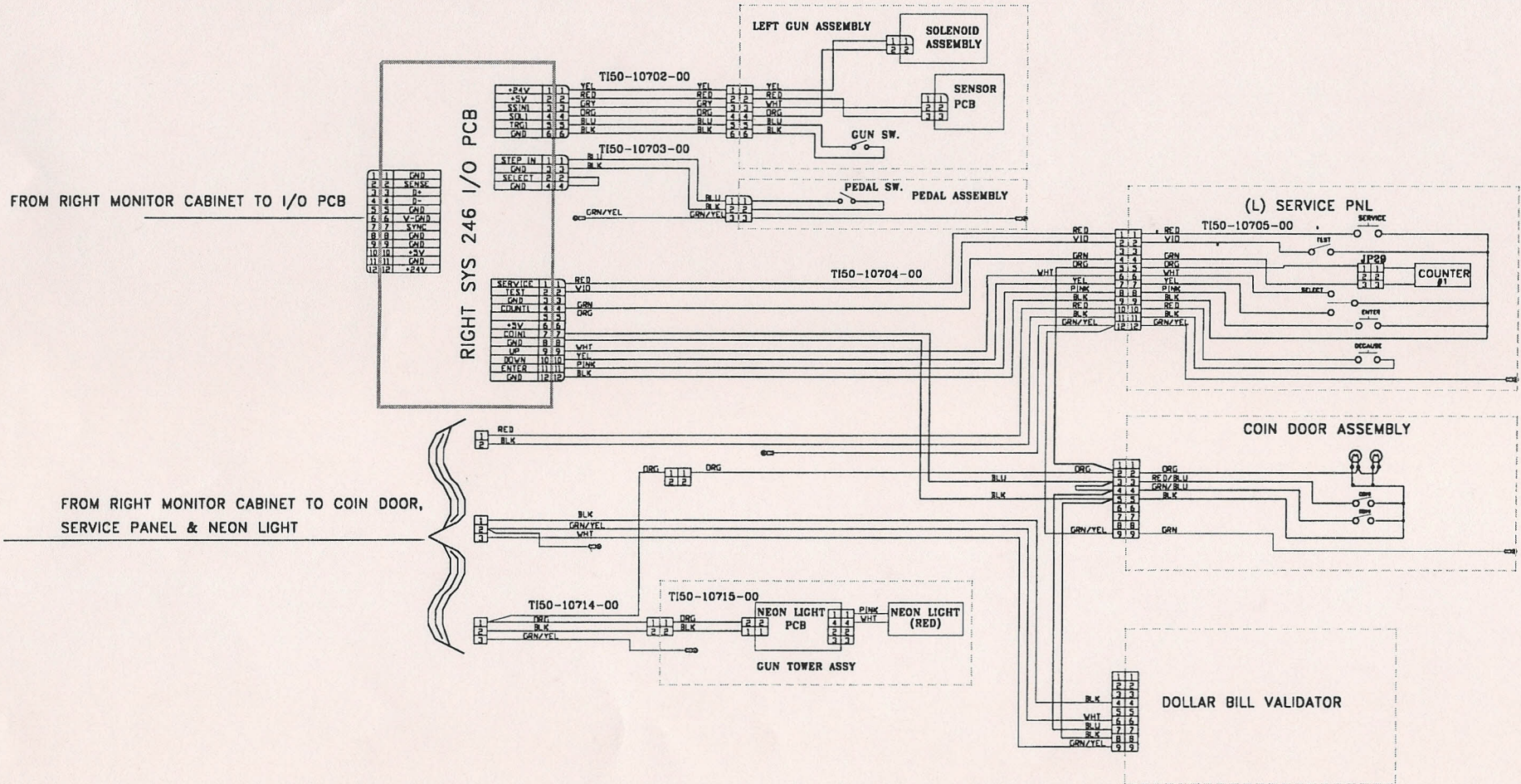
**namco**  
 150 Chertcot Avenue  
 San Jose, CA 95131

OVERALL WIRING  
 RIGHT CABINET

REV B  
 DATE 03-19-03



REVISION			
REV	DESCRIPTION	DATE	APPROVAL
B	OVERALL	04-07-03	



DESIGN BY	DAYAL
APPROVED	
CHECKED	DATE 03-19-03
SIZE	8 1/2" x 11"
SCALE	AS SHOWN
USED ON	TC 3 27

**namco**  
150 Charcoal Avenue  
San Jose, CA 95131

TITLE  
**GUN TOWER  
RIGHT SIDE**

SIZE: 8 1/2" x 11" HOLES: 1/8"  
SCALE: AS SHOWN

REV: B  
OVERALL

DO NOT SCALE



## 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:

(408) 383-3973 or FAX (408) 436-9554

Hours: 7:00 am - 4:00 pm PDT

Parts and repair services for **Namco America Inc.** products are available through your distributor.



**namco America Inc.**

890 Service St #C  
San Jose, CA 95112  
(408) 383-3900

**FAX: (408) 436-9554**

**Technical Assistance (USA)**

**(408) 383-3973**

**Fax: (408) 436-9554**

Reorder number: TI45-10675-00

Rev. B

RELEASED April 2003

The specifications of this machine and the instructions in this Operation Manual are  
subject to change without notice for enhancement.