



NIRIN

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.

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.

Copyright 2008 NAMCO BANDAI GAMES All rights reserved

No part of this publication may be reproduced by any mechanical photographic, or electronic process, or in the form of a photographic recording, nor may it be stored in a retrieval system, transmitted, or otherwise copied for public or private use, without permission from NAMCO BANDAI GAMES.

INTRODUCTION

Thank you for purchasing the "Nirin" 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 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 must 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 software storage media in any other game machine; otherwise, machine malfunctions may result.

Some parts of the software used in this game machine are applicable to GNU General Public License ("GPL") and GNU Lesser General Public License ("LGPL"). The customer is allowed to obtain, modify and redistribute the source codes of these parts of the software. However, those source codes constitute only portions of this product, and it does not imply that the source codes of the entire product can be obtained, modified or redistributed.

Regarding GPL and LGPL, visit the following websites.

<http://www.fsf.org/licensing/licenses/gpl.html>

<http://www.fsf.org/licensing/licenses/lgpl.html>

If you wish to obtain GPL/LGPL source codes used in this machine, please contact your distributor.

Caution for Game Machine Transportation by Vehicle

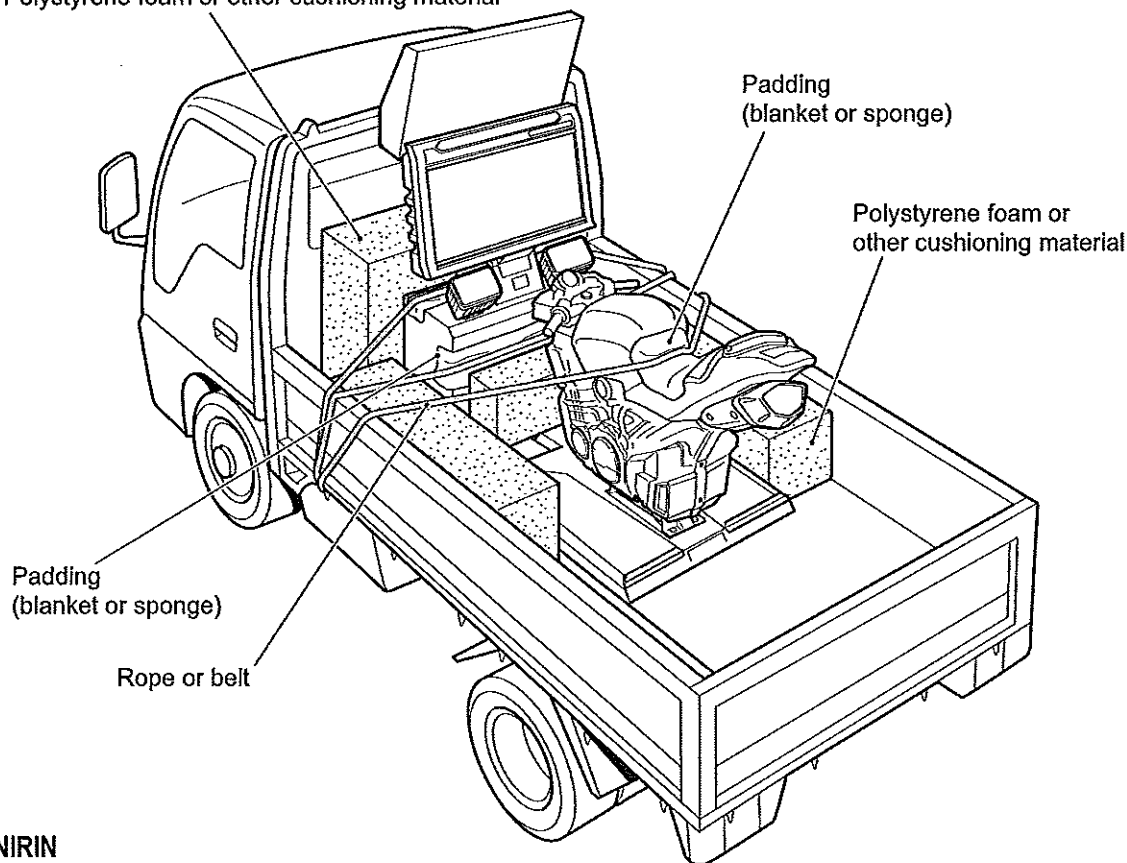
WARNING

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

NOTICE

- Do not apply impact to the machine when lowering the machine to a lower place.
- Be sure to attach the transport retaining bolts. ("5-3-2 Removing the transport retaining bolts.")
- Observe the following when tying the machine with a rope.
 - Be sure to position the rope at the locations indicated in the diagram below.
 - Place padding material such as blankets between the machine and rope to protect the machine surface.
- Place cushioning material such as polystyrene foam between the machine and cargo bed and between the machine and adjacent equipment.
- Wind pressure during transportation can damage the Signboard Assy. If the vehicle is not equipped with a cargo cover, dismount the Signboard Assy. ("5-2-1 Removing the Signboard Assy.")
- If the machine is transported on a rainy day, use a vehicle equipped with a cargo cover or container truck to protect the machine from rain.

Polystyrene foam or other cushioning material




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

Instructions to the owner

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

1-1 Magnitudes of risk

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

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

 **CAUTION** : Failure to prevent 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 the term “technician”

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

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

1-3 Top-priority 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.
- The monitor remains hot or charged with high voltage even after the power switch is turned off. Do not touch the monitor unnecessarily in order to prevent electric shock and injury.
- Dust accumulated on the power cord plug may cause a fire. Check the power cord plug regularly and remove dust.
- Insert the power cord plug firmly into the AC outlet. Poor contact may cause overheating that can lead to a fire or burns.
- A damaged power cord can cause a fire, electric shock or electrical leakage. Observe the following cautions.
 - Keep the power cord away from heating devices.
 - Do not twist the power cord.
 - Do not bend the power cord forcibly.
 - Do not alter the power cord.
 - Do not bundle the power cord.
 - Do not pull the power cord. (Always unplug by holding the power cord plug, and avoid pulling the power cord.)
 - Do not place anything on the power cord.
 - Do not get the power cord caught by the machine, other equipment or wall.
 - Do not do anything else that might damage the power cord.
- Do not wet the power cord or power cord plug with water. Water can cause an electric shock or electrical leakage.
- Do not touch the power cord plug with a wet hand. Doing so can result in an electric shock.
- The power ratings of the machine are 110 VAC and 4.6 A. To prevent fire and electric shock, be sure to use interior wiring that conforms to these power ratings.
- Operate the machine with a power supply voltage in the range of 100 to 120 VAC. 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 110 VAC.
- Use consumables and service parts (including fasteners) specified by our company. To order parts, contact your distributor.
- Do not place the machine for use in area where water jet could be used.
- 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.
- If the ownership of the machine is transferred, be sure to provide this operation manual together 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.

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

Front side

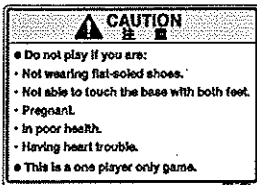


Caution sticker Hypersensitivity to light (H) EXP
Part No.: 461-512

Warning sticker Maintenance B (EXP)
Part No.: 461-539

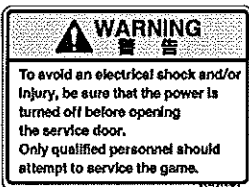


Caution sticker (Tandem prohibited) EXP
Part No.: 461-365



Caution sticker Player (EXP)
Part No.: 461-641

Rear side

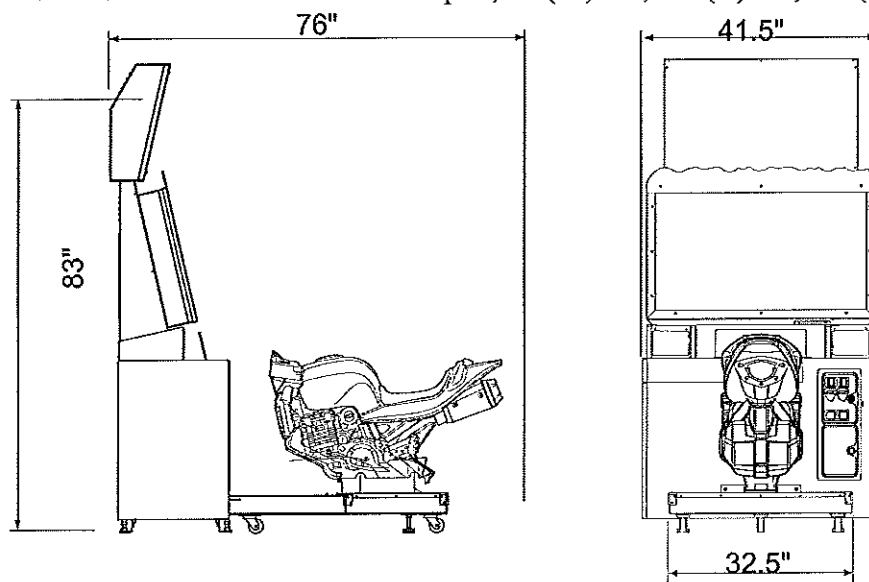


Warning sticker Maintenance B (EXP)
Part No.: 461-539

2. SPECIFICATIONS

- (1) Rated power supply 110 to 120 VAC (50/60 Hz), 220 to 240 VAC (50/60 Hz)
- (2) Maximum power consumption 458 W (with 100-110 VAC power supply),
450 W (with 200 VAC power supply)
- (3) Maximum current consumption 4.6 A (with 100-110 VAC power supply),
2.1 A (with 200 VAC power supply)
- (4) Coin box capacity 3,600 coins
- (5) Display device 42-inch LCD monitor
- (6) Dimensions

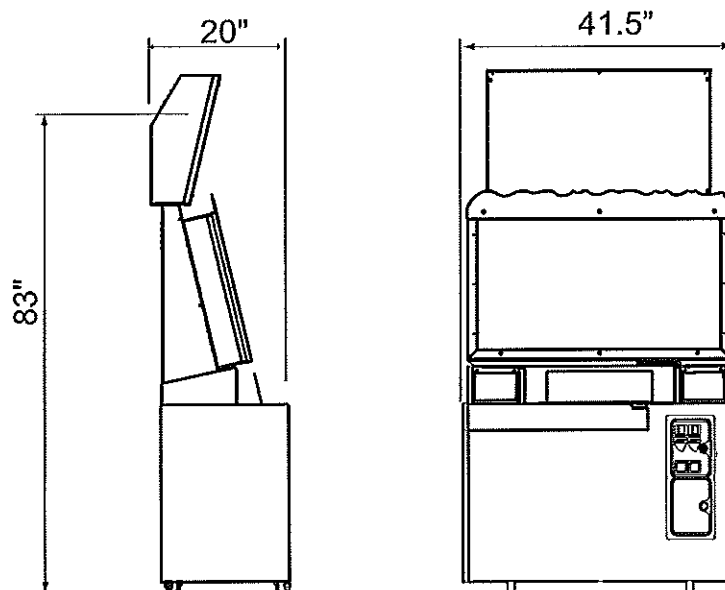
① As installed 1P setup 1,090(W) x 2,040 (D) x 2,050 (H) [mm]



② When divided
Front Cabinet Assy

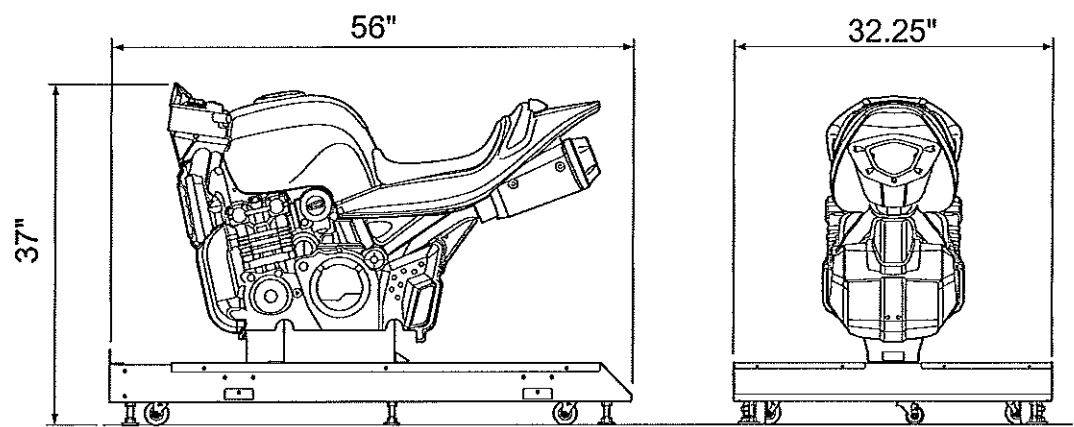
1,090 (W) x 670 (D) x 2,050 (H) [mm]

910 (W) x 670 (D) x 2,050 (H) [mm] (* without POPs)

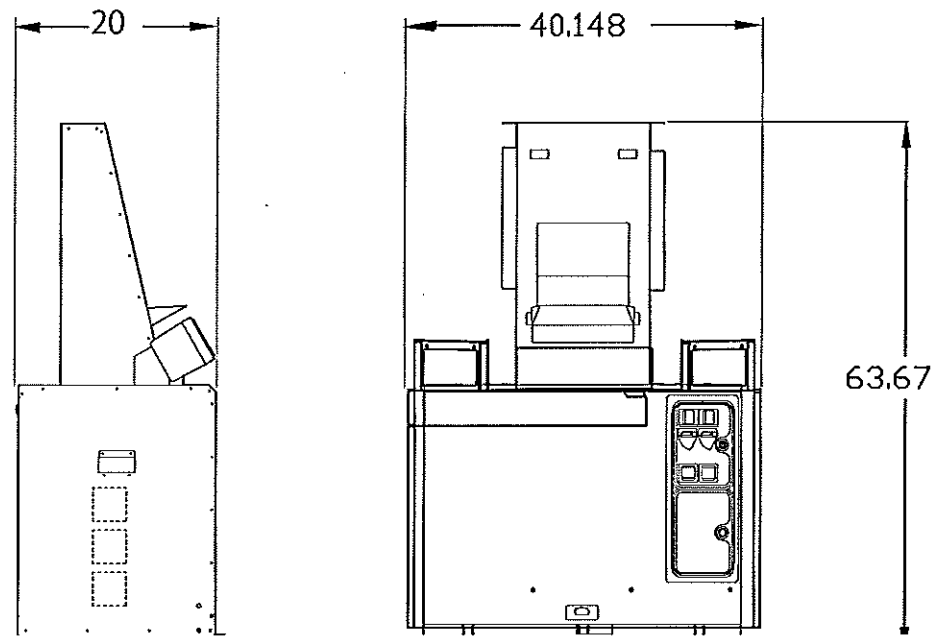


2. SPECIFICATIONS

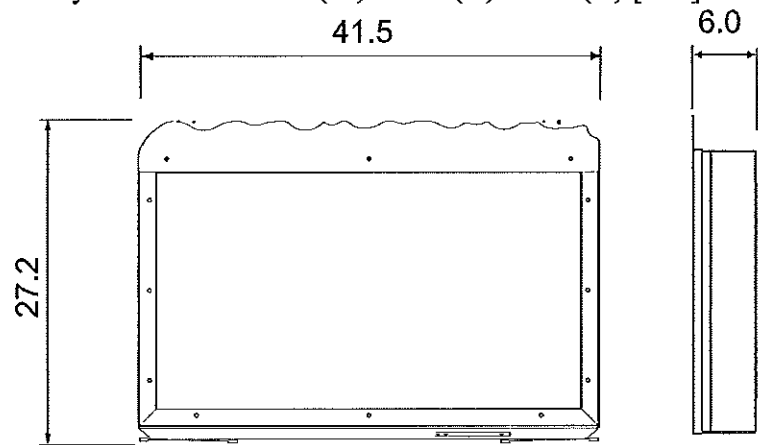
Ride Assy 900 (W) x 1,470 (D) x 960 (H) [mm]



Cabinet Assy 910 (W) x 670 (D) x 1,520 (H) [mm]

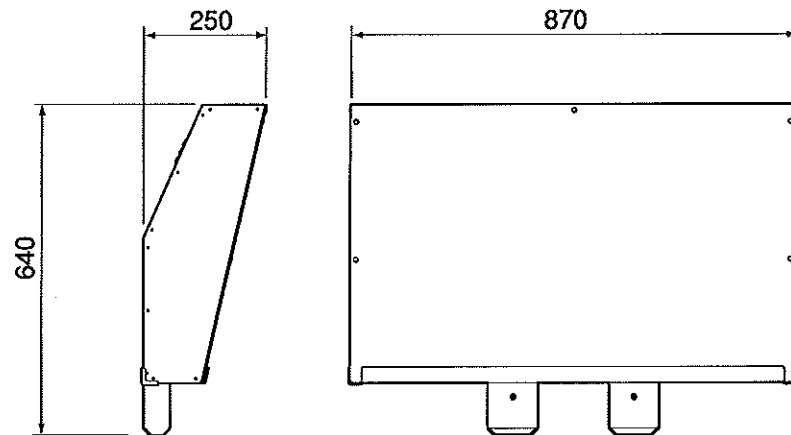


Monitor Assy 820 (W) x 150 (D) x 610 (H) [mm]



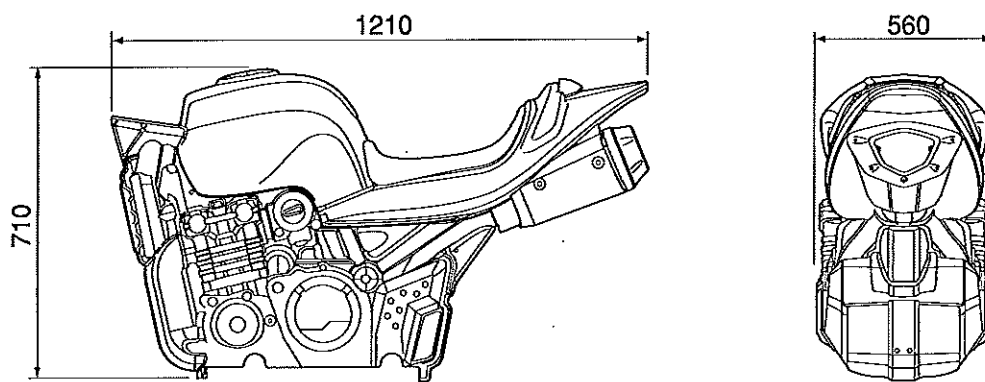
Signboard Assy

870 (W) x 250 (D) x 640 (H) [mm]



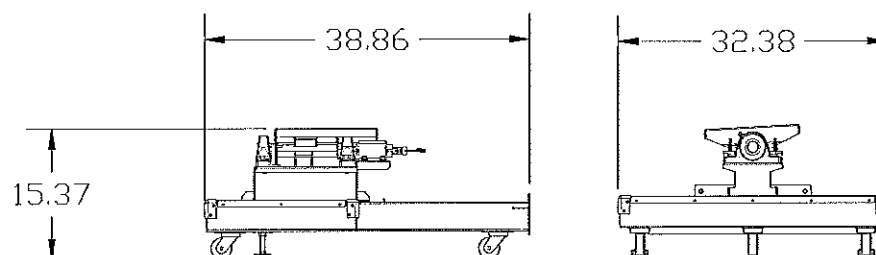
Bike Assy

560 (W) x 1,210 (D) x 710 (H) [mm]



Base Frame Assy

900 (W) x 1,470 (D) x 490 (H) [mm]



2. SPECIFICATIONS

(7) Weight

① As installed 270 kg

② When divided

Front Cabinet Assy 150 kg

Ride Assy 135 kg

Cabinet Assy 110 kg

Monitor Assy 26 kg

Signboard Assy 18 kg

Connection fitting 14 kg

Memo...

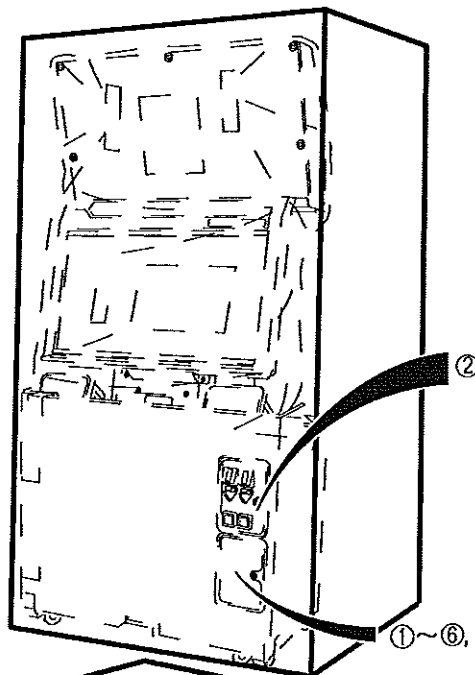
3. CHECKING THE PACKAGE CONTENTS

The product package shipped from the factory contains the following components and parts.



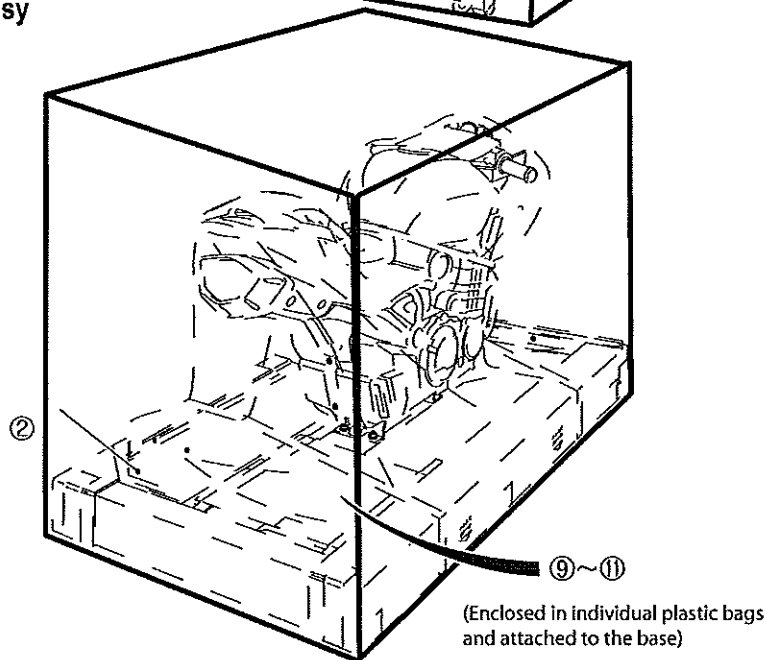
- Make sure that all items shown below are contained in the product package.
- If any item is missing, contact your distributor.

- Front Cabinet Assy





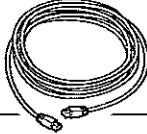
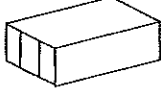




- Ride Assy

- Marquee Box Assy

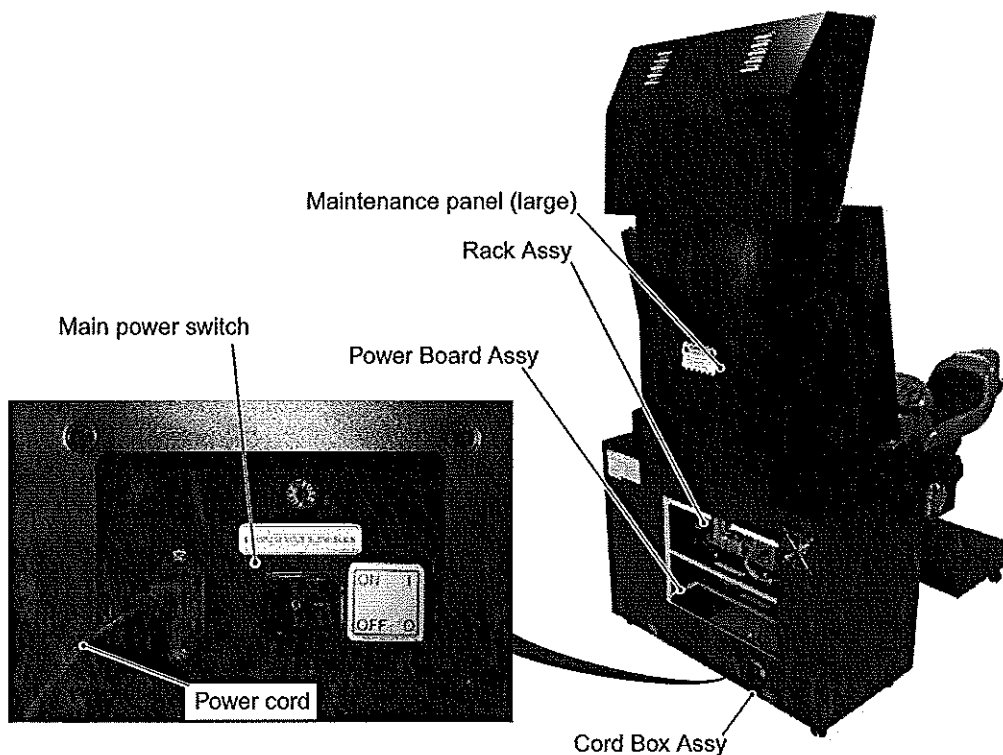
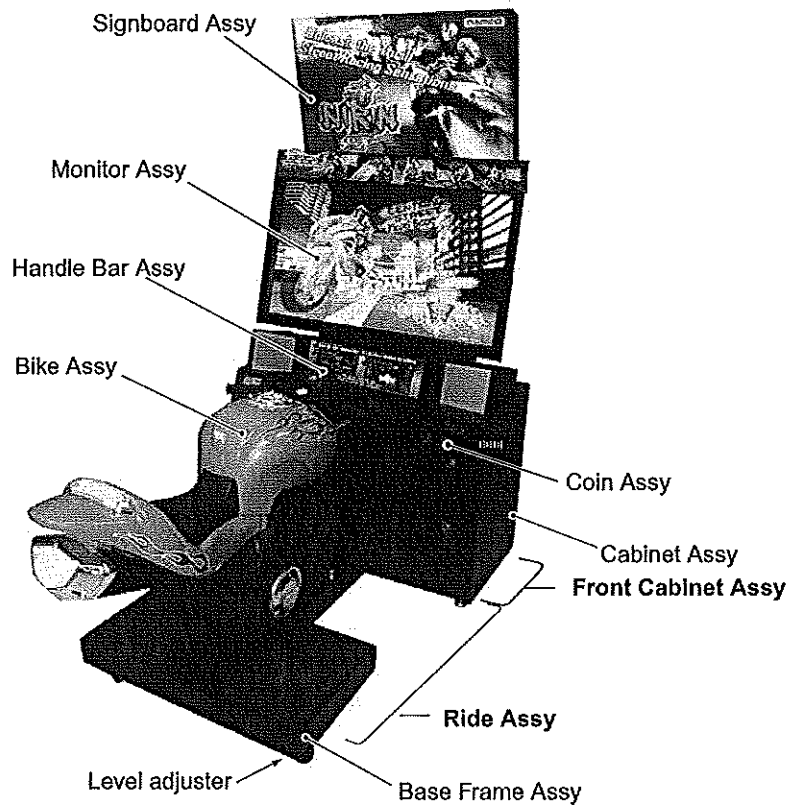


• Accessory list

No.	Name	Specification	Qty.
1	Operation Manual (this manual)		1
2	Maintenance key		2
3	Coin box key		2
4	Torx wrench	M5·T25 	1
5	LAN cable	7ft 	1
6	Coupler		1
7	Flange socket bolt	8 x 20 (black) (For connection of Ride Assy to Cabinet Assy) 	12
8	Flange socket bolt	6 x 20 (black) (For installation of connection fitting) 	8

*The bolts (No. 7 & 8) are attached to the game machine where they should be used.

4. OVERALL CONSTRUCTION (Names of Parts)



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.
- Be sure to connect the ground lead. If the ground lead is not connected, electric shock can result in case of electrical leakage. ("5-6 Connecting the power cord and ground lead.")
- Install the machine securely by using the level adjusters. Unstable machine installation can result in an accident or injury. ("5-3-3 Adjusting the level adjusters.")

5-1 Installation conditions

WARNING

- Do not place items near the air inlet or outlet openings on the rear panel or side panel or block them with a wall. If those openings are blocked, the inside of the machine becomes extremely hot and can cause a fire or malfunction.

5-1-1 Locations to avoid

WARNING

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

5-1-2 Play zone for installed machine



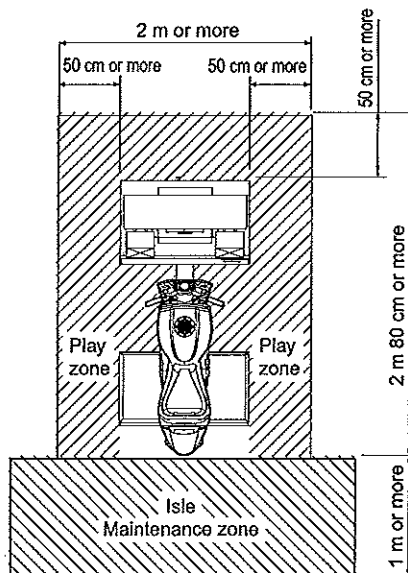
CAUTION

- Provide an appropriate play zone so that players do not accidentally bump into observers or passersby.

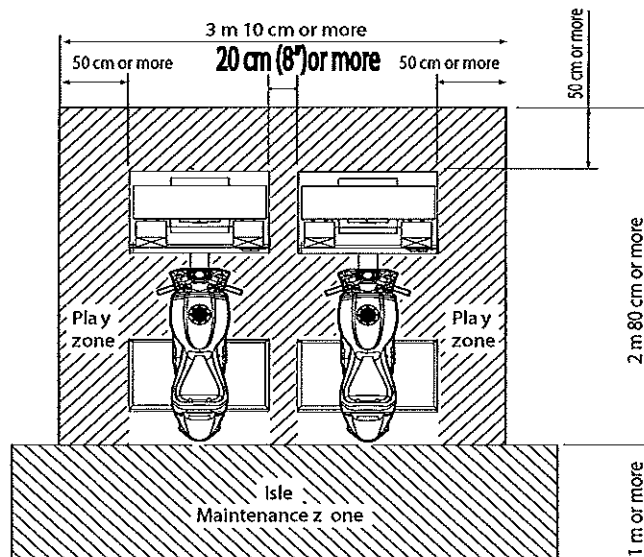


NOTICE

- Provide a space of at least 50 cm between the rear side of the machine and the wall or other machine in order to turn the power switch ON/OFF and open the maintenance panel for maintenance.
- The distance from the floor to the ceiling must be at least 2 m 10 cm.



- If two or more units are installed, use the provided connection fittings to connect the units.
 ("5-3-4 Installing the connection fitting (for 2P-4P setup).")
 [Example] Installation of two units



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

The carry-in passages must be sufficiently higher and wider than the dimensions indicated below.

The dimensions of the machine in shipping condition are as follows:

- Front Cabinet Assy
910 (W) x 670 (D) x 2,050 (H) [mm]
Weight: 150 kg
- Ride Assy
900 (W) x 1,470 (D) x 960 (H) [mm]
Weight: 110 kg

By referring to the above dimensions, make sure in advance that the machine can be carried smoothly to the installation site. The machine can be further separated into the following components, depending on the conditions of the carry-in passage.

* If it is not necessary to further separate the machine, proceed to “5-3 Assembly” on.

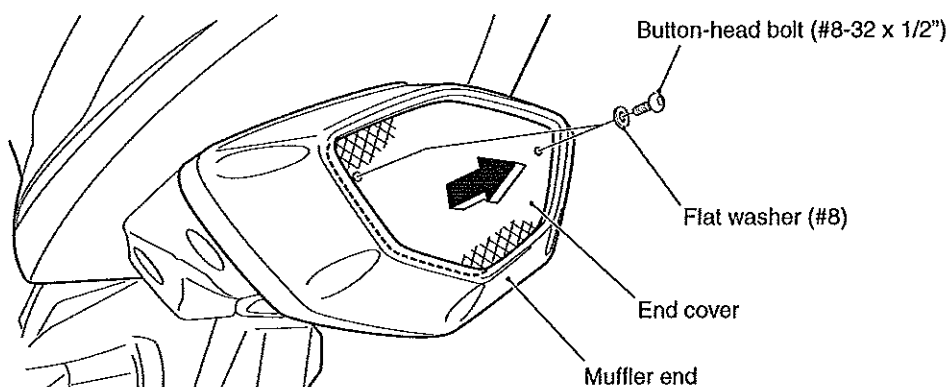
- Cabinet Assy
910 (W) x 670 (D) x 1,575 (H) [mm]
Weight: 110 kg
- Signboard Assy
870 (W) x 250 (D) x 640 (H) [mm]
Weight: 20 kg
- Bike Assy
560 (W) x 1,210 (D) x 710 (H) [mm]
Weight: 16 kg
- Base Frame Assy
900 (W) x 1,470 (D) x 490 (H) [mm]
Weight: 105 kg

5-2-3 Removing the Bike Assy (when required due to passage conditions)

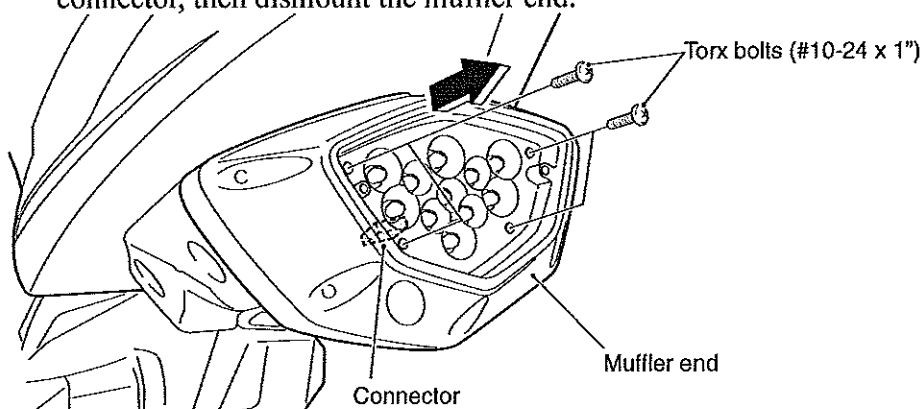
- To be conducted by a technician only -

* If it is not necessary to dismount the Bike Assy, proceed to "5-3 Assembly".

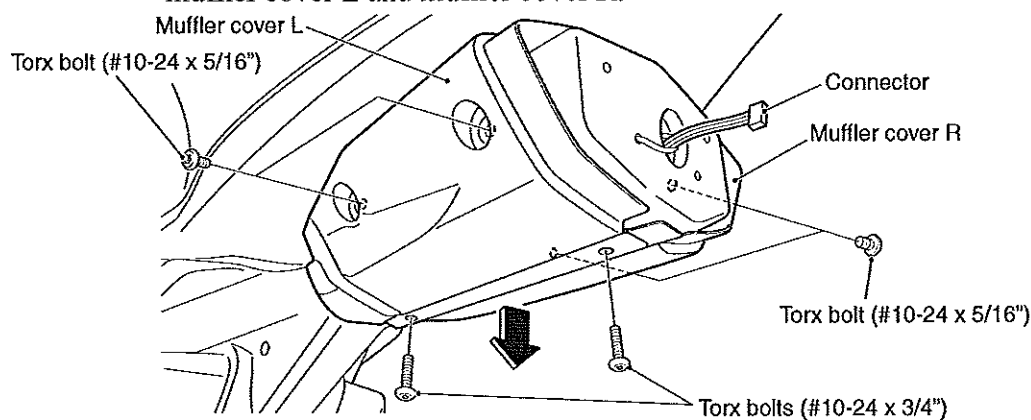
- 1** Remove the two button-head bolts (#8-32 x 1/2) and two flat washers (#8), then dismount the end cover.



- 2** Remove the four Torx bolts (#10-24 x 1), slide the muffler end, disconnect the connector, then dismount the muffler end.

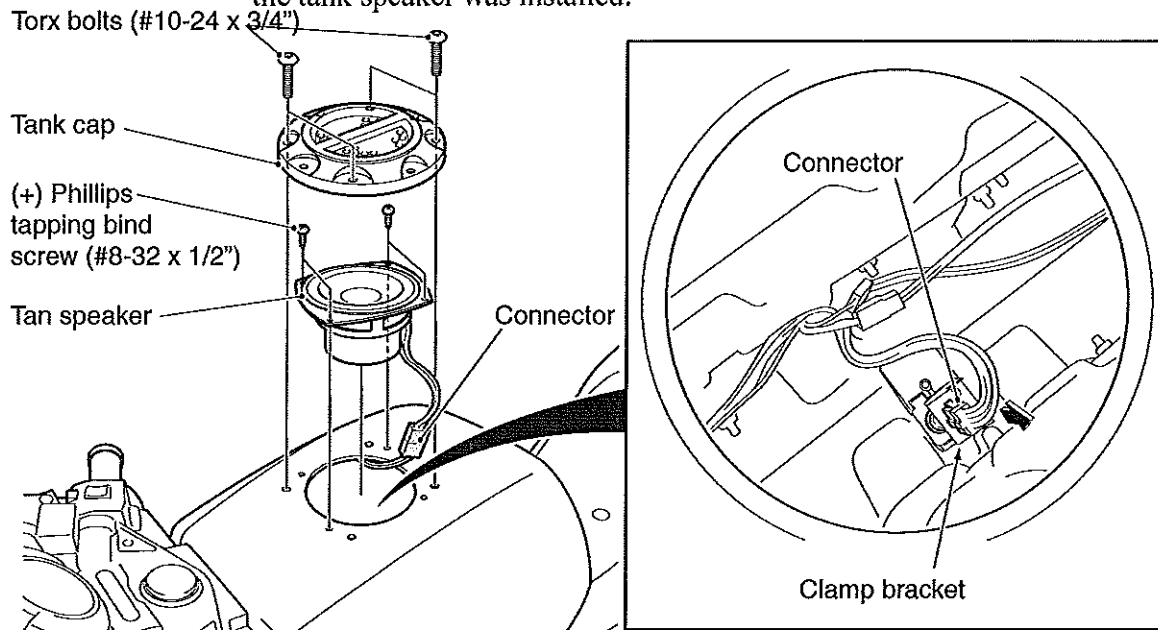


- 3** Remove the four Torx bolts (#10-24 x 5/16") from the right and left sides, remove the two Torx bolts (#10-24 x 3/4") from the bottom side, then dismount muffler cover L and muffler cover R.

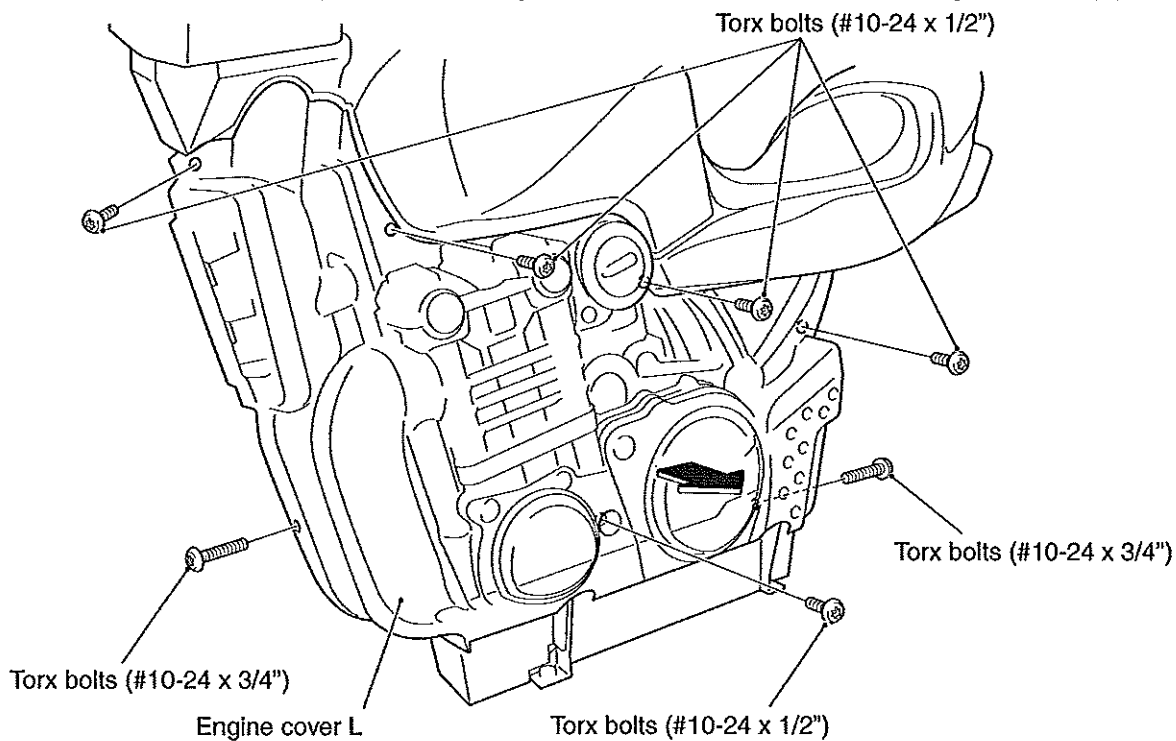


5. INSTALLATION

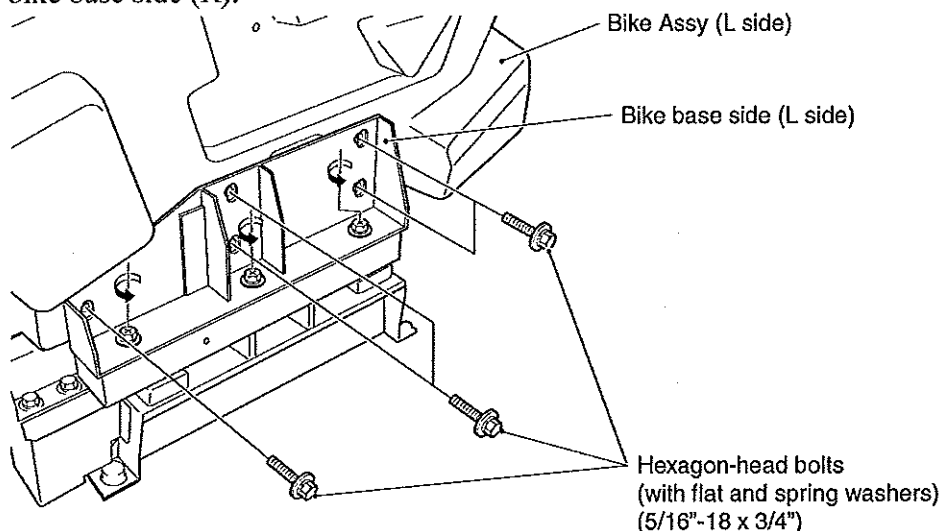
- 4** Remove the four Torx bolts (#10-24 x 3/4") and dismount the tank cap.
- 5** Remove the four Phillips tapping bind screws (#8-32 x 1/2") and pull out the tank speaker. Disconnect the connector and detach the speaker.
- 6** Disconnect the connector from the clamp bracket located inside the hole where the tank speaker was installed.



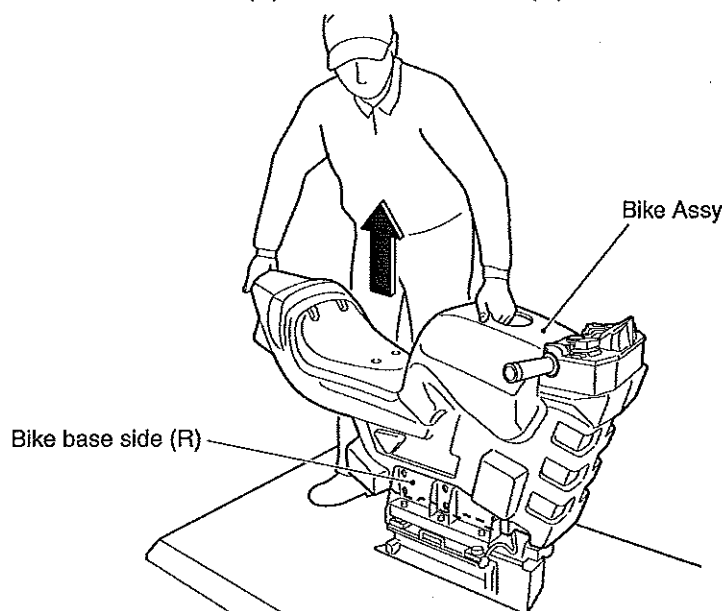
- 7** Remove the five Torx bolts (#10-24 x 1/2") and the two Torx bolts (#10-24 x 3/4") located on the joint section, then dismount the engine cover (L).



- 8** Following the procedure described in **7**, remove the five Torx bolts (#10-24 x 1/2") and dismount the engine cover (R).
- 9** Remove the five hexagon-head bolts (with flat and spring washers) (5/16"-18 x 3/4") and loosen the three bolts on the side of the bike base side (L).
- 10** Following the procedure described in **9**, remove the five hexagon-head bolts (with flat and spring washers) (5/16"-18 x 3/4") and loosen the three bolts on the side of the bike base side (R).



- 11** After checking the surrounding area for safety, pull the Bike Assy out of the bike base side (L) and bike base side (R) and dismount the Assy.



- 12** To reinstall, follow the removal sequence in reverse.



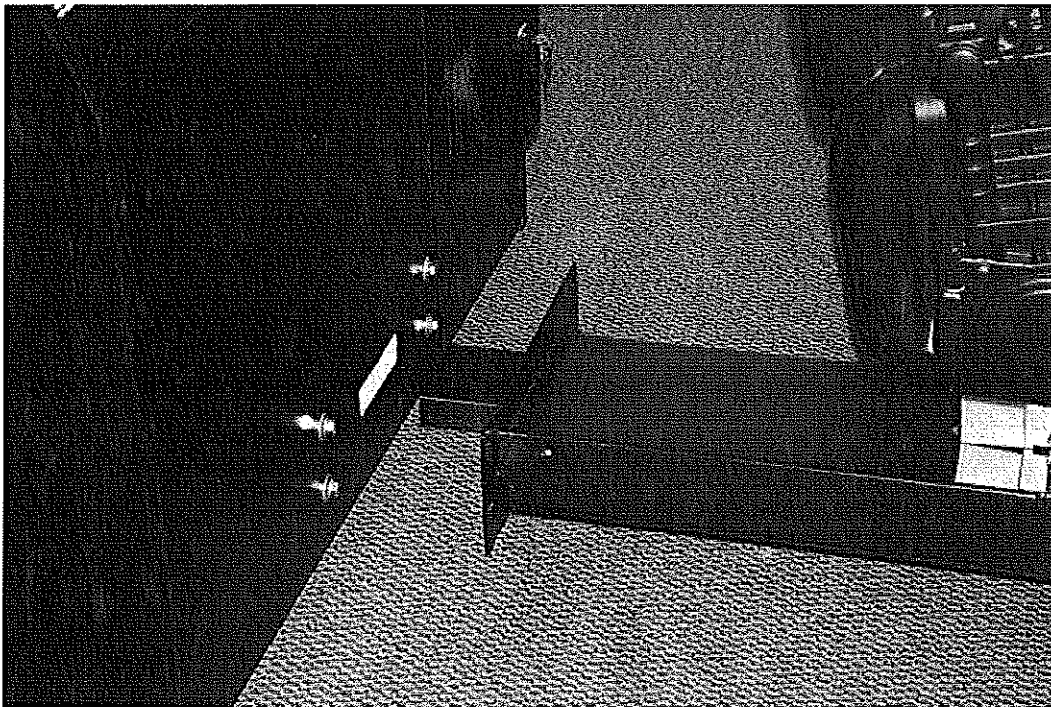
- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.

5-3 Assembly

5-3-1 Connecting the Ride Assy to the Front Cabinet Assy

- To be conducted by a technician only -

- 1** Position the Ride Assy close to the Front Cabinet Assy for installation.
Pull out the connector from the Base Frame Assy of the Ride Assy.
- 2** Connect the connector to the Front Cabinet Assy.
- 3** Slowly connect the Ride Assy to the Front Cabinet Assy, and securely install by using four provided flange socket bolts (5/16"-18 x 3/4").



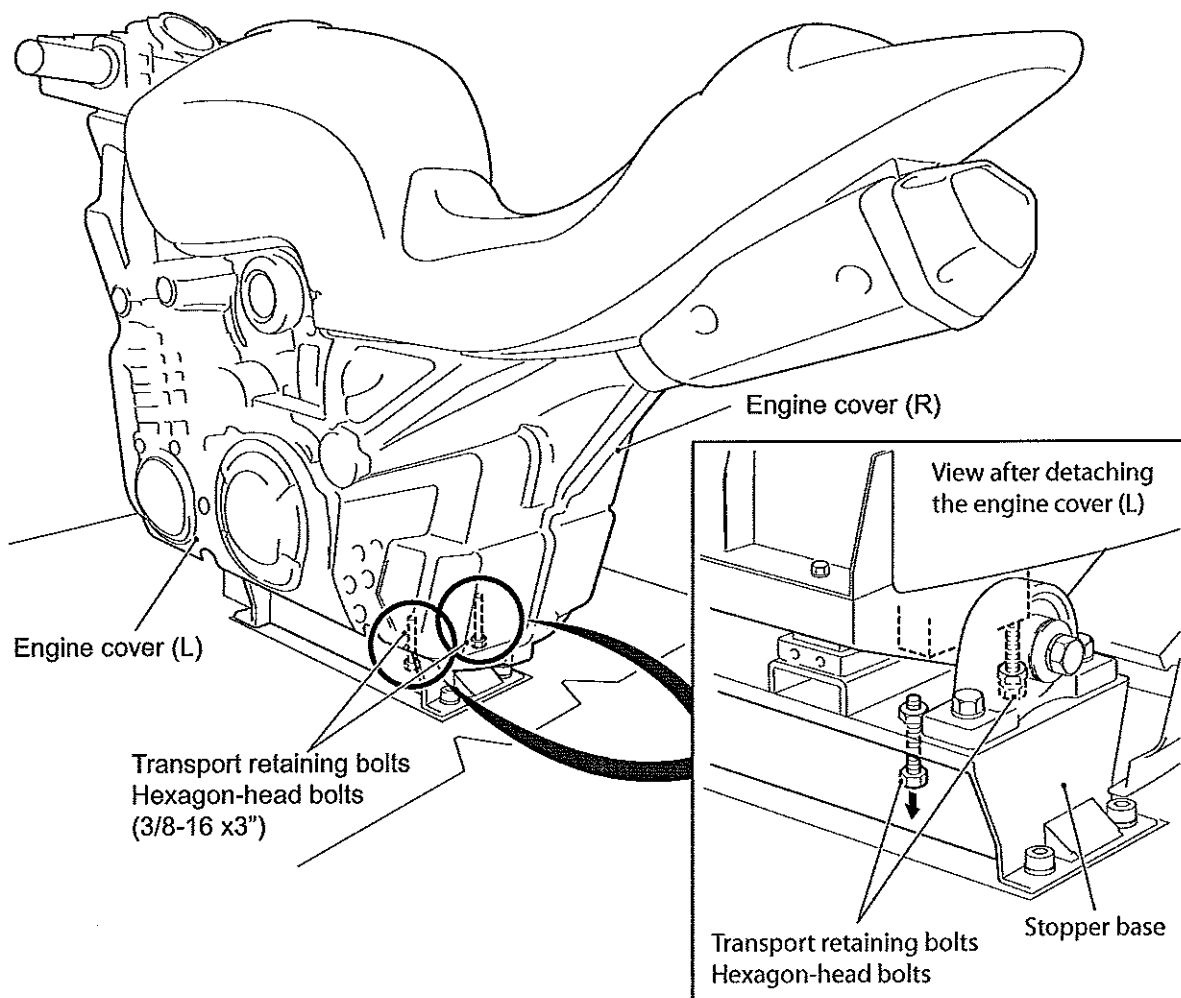
- Position each joint bracket in such a way that the vertically elongated holes are on the Ride Assy (Base Frame Assy) side.
- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.

- 5** To remove, follow the installation sequence in reverse.

5-3-2 Removing the transport retaining bolts

- To be conducted by a technician only -

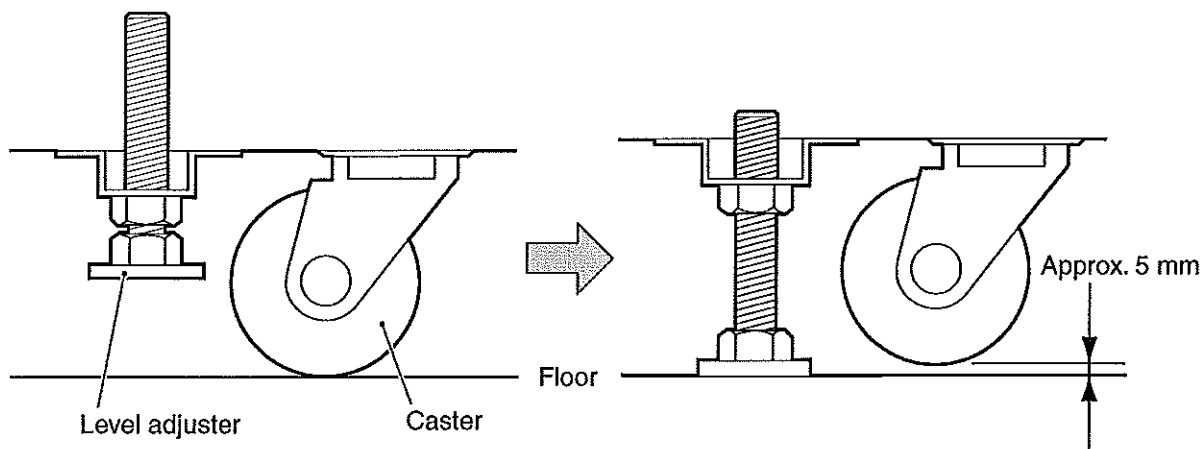
- 1** Remove the two transport retaining bolts (hexagon-head bolts (3/8"-18 x 3")) located inside the engine covers (L) (R) from the bottom of the stopper base.



- Keep the removed transport retaining bolts in a safe place. They will be used again when the machine is transported. When transporting the machine, be sure to use the transport retaining bolts in order to secure the Bike Assy in place.

5-3-3 Adjusting the level adjusters

- 1 After positioning the machine according to the procedure described in “5-1 Installation conditions,” lower the level adjusters (4 on the Front Cabinet Assy and 6 on the Base Frame Assy) so that the casters are lifted about 5 mm from the floor (the casters should swivel freely).

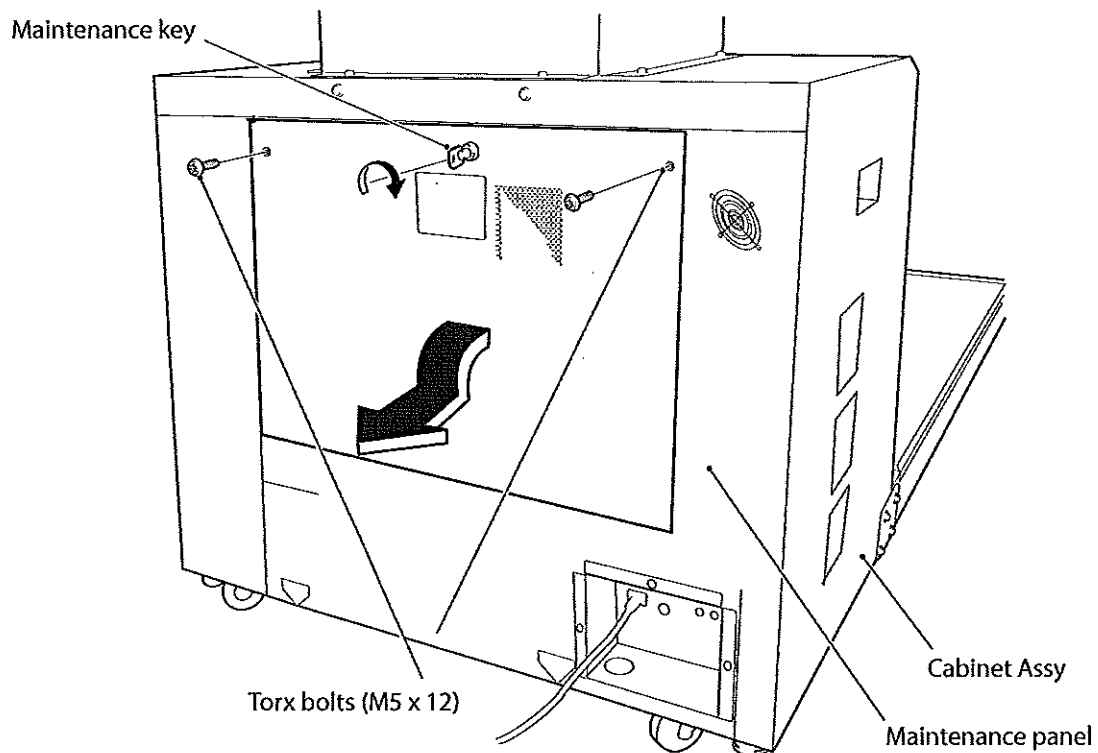


MEMO.....

5-4 Removing and installing the maintenance panel

- To be conducted by a technician only -

- 1 Remove the two Torx bolts (#10-24 x 1/2") from the rear side of the Cabinet Assy, unlock the lock by using the maintenance key, and dismount the maintenance panel.



5-5 Connecting the communication cable

⚠ CAUTION

- Route the communication cables out of the way so that players and observers do not trip over the cables.

5-5-1 When connecting 2 to 4 units

- To be conducted by a technician only -

Two to four units can be connected for communication-linked operation.

If only one unit is installed for standalone operation, skip the following procedures and proceed to "5-6 Connecting the power cord and ground lead".

(1) Connection diagram

Using the provided communication cables (as many cables as the number of installed units) and a hub (sold separately), connect the game machine units as shown below.

Before the setup, purchase one of the specified hub models at a PC store.

(Hub is not necessary when only one unit is installed.) Connecting two units can be done by a cross cable (peer to peer) connection

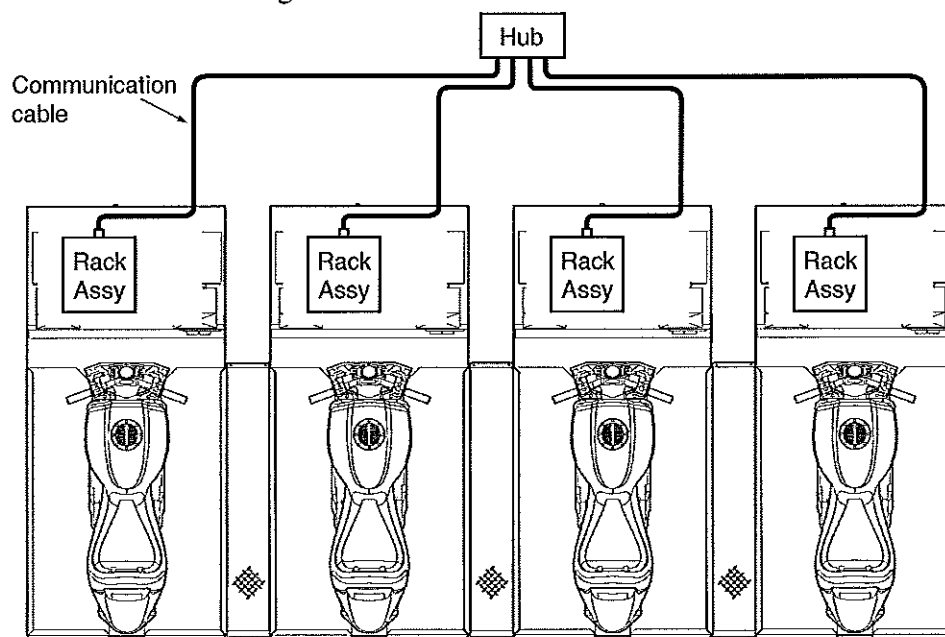
Proper communication-linked versus game operation cannot be guaranteed if a hub other than the specified models is used.

[Hub models]

Planex Communications

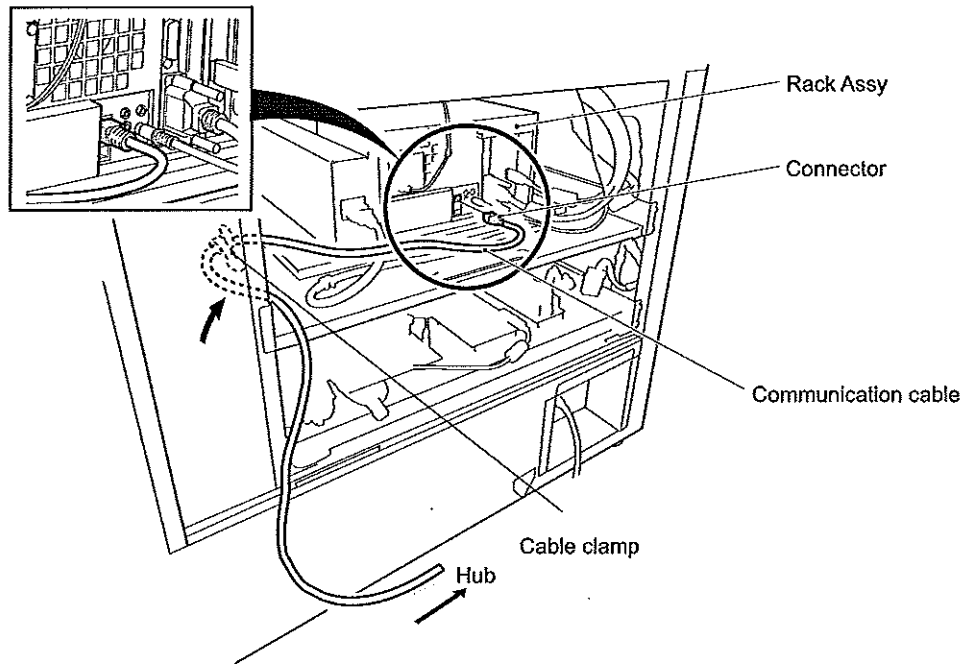
5-port 10M/100M switching hub FX-05ES

8-port 10M/100M switching hub FX-08IS



(2) Connection method

- 1** Dismount the maintenance panel. ("5-4 Removing and installing the maintenance panel.")
- 2** Put the provided communication cable through the hole located on the bottom side of the Cabinet Assy, secure it with a cable clamp, and connect the cable to the Rack Assy, as shown in the diagram below.



- 3** Likewise, connect communication cables to other game machine units, and connect the other end of each cable to the hub (sold separately). ("5-5-1 (1) Connection diagram.")
- 4** Connect the AC adaptor supplied with the hub to an AC outlet and make sure that the power (POWER) lamp lights.



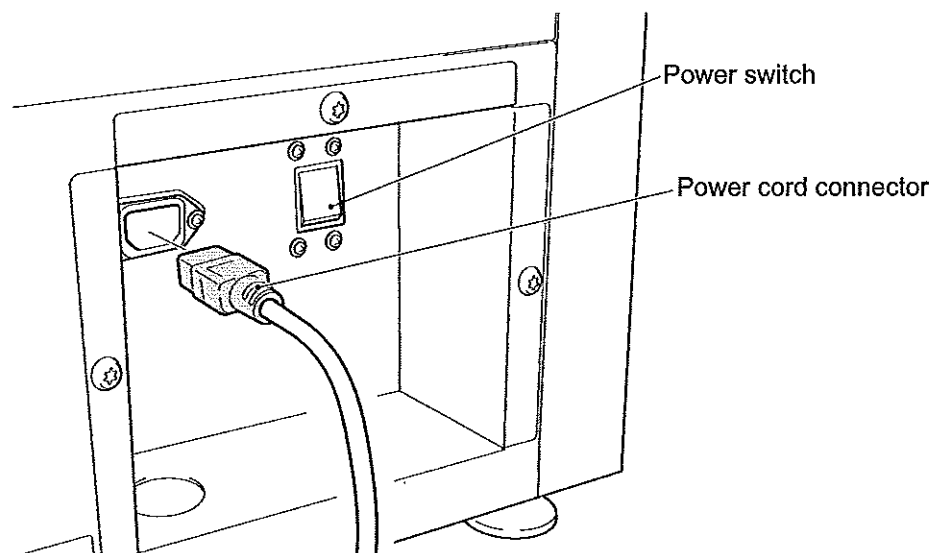
- Read the operation manual provided with the hub to handle the hub correctly.
- Install the hub on the rear panel or bottom side of the machine by using a magnet supplied with the hub. Do not place it on the floor in order to prevent water or floor wax from splashing on the hub.
- Supply power to the hub at the same time or before power is supplied to the game machine units. If power is not supplied to the hub when the self-test ("707 Self-test") is completed, the communication cannot function properly. If communication fails, turn off the power switches of the game machine units and make sure that the power lamp on the hub is lit, then turn on the power switches of the game machine units again.
- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.

5-6 Connecting the power cord and ground lead

WARNING

- Use the 3P plug for grounding the machine.

- 1** Insert the connector of the power cord into the noise filter socket located in the Cord Box Assy on the rear side of the Cabinet Assy.

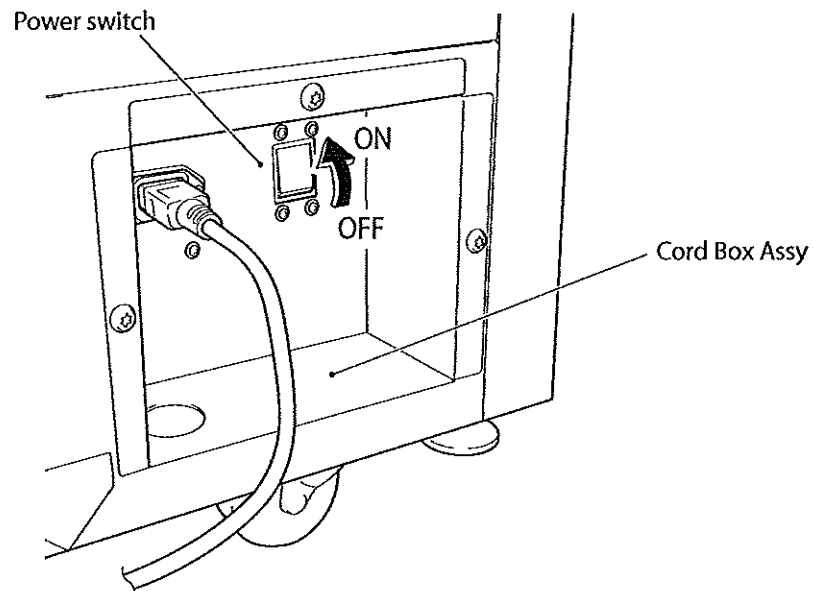


- 2** Insert the power cord plug into an AC outlet.

MEMO.....

5-7 Turning on the power switch

- 1 Turn on the power switch located on the Cord Box Assy.



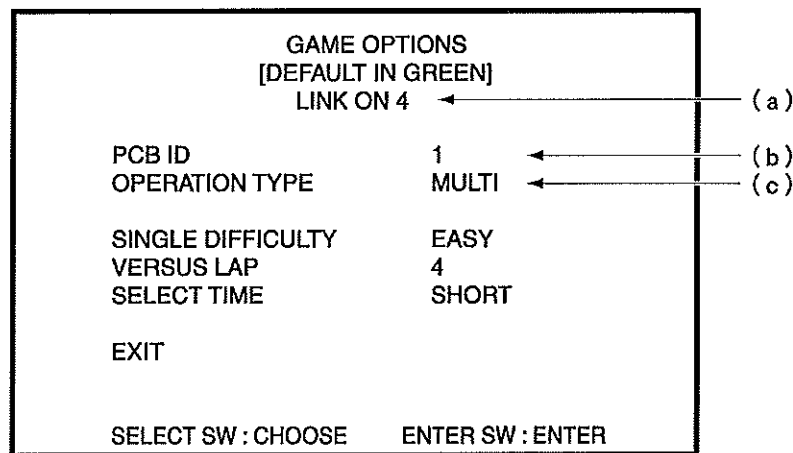
- Do not repeat turning the power switch ON/OFF unnecessarily. Repeated ON/OFF operations can cause equipment malfunctions. Otherwise, data in the backup memory may get damaged.
- When turning the power switch ON/OFF, wait at least 30 seconds between operating the switch.

5-8 Setting the communication parameters

Two to four units of this game machine can be connected for communication-linked versus game.

* The following settings are required even when only one unit is installed for stand-alone operation.

- 1** Turn on the power switch. (“5-7 Turning on the power switch.”)
- 2** Press the Test switch to display the Menu screen. (“7-3-1 Adjustment switches” and “7-4-1 Description of the Menu screen.”)
- 3** Press the Service switch to select “GAME OPTIONS,” and set the Test switch to ON to display the Game Options screen.



Game Options screen

- 4** Set the “PCB ID” (b) to “1,” “2,” “3” and “4” in that order in the units from left to right.
- 5** Set (c) to “MULTI” for communication-linked operation.
- 6** Make sure that the communication status shown at (a) is as follows:
 When communication-linked operation is disabled: LINK OFF
 When two units are connected for communication-linked operation: LINK ON 2
 When three units are connected for communication-linked operation: LINK ON 3
 When four units are connected for communication-linked operation: LINK ON 4
- 7** Select “EXIT” to return to the Game screen.



- The communication status can be checked with the indication, “Maximum number of communicable units: ○” (○ indicates the number of communicating units), which appears at the center of the title screen in the Attract mode.
- When turning off the power switch, wait until the game ends in all other communication-linked units.
 Turning off a unit while other units are being played can cause an adverse effect on the game machines being played.

5-9 Confirmation after machine installation

After the machine installation and setup has been completed, conduct the pre-service check (“7-1 Pre-service check”) and perform initialization (“7-5 Adjustment of the Ride Assy (Initialization).”

Also, set the game fee and sound level as needed (“7-3 Game setting” and “7-4 Test mode.”)



- Be sure to perform the initialization after the machine has been set up. The game cannot be played properly unless initialization is executed.

6. TRANSPORTATION

WARNING

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

6-1 Moving (on the floor)



- When moving the machine, be sure to separate the machine into the Front Cabinet Assy and Ride Assy. (See "5-3 Assembly.")
- If the connection fittings are used, remove them. (See "5-3-4 Installing the connection fitting (for 2P-4P setup).")
- Even when moving the machine for a short distance, be sure to raise the level adjusters on the Front Cabinet Assy and Ride Assy all the way. (See "5-3-3 Adjusting the level adjusters.")
- The overall height of the Front Cabinet Assy is approximately 2,050 mm. Check the heights of the doors and other openings in the carry-in passage. (See "5-2-1 Removing the Signboard Assy" when dismantling the Signboard Assy.)
- Do not apply strong force or impact on resin parts since resin parts can be easily damaged.
- Carefully transport the machine in order to prevent damage to the machine.
- Turn off the power switch before performing any procedure required for moving the machine.
- Be sure to carefully disconnect the communication cable and power cord from each unit. Be especially careful when disconnecting or connecting the communication cable connector. (See "5-5 Connecting the communication cable.")

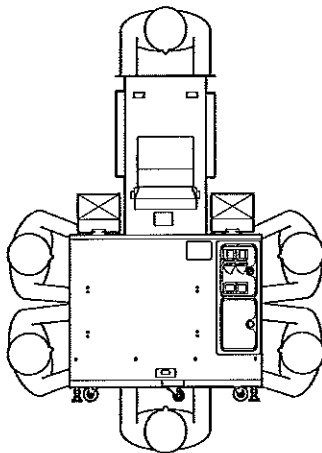
- 1** Raise the ten level adjusters on the machine all the way (See "5-3-3 Adjusting the level adjusters.")
- 2** After moving the machine, set up the machine in accordance with the procedures described in "5. INSTALLATION" on page 17.

6-2 Transportation

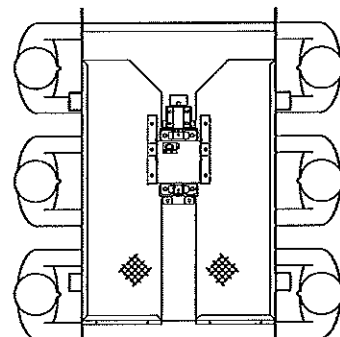
6-2-1 Manual transportation (carrying on stairs, etc.)

WARNING

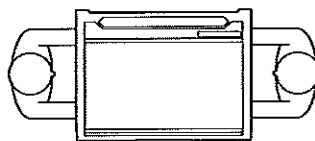
- When carrying the machine manually, be sure to separate the machine into the Cabinet Assy, Monitor Assy, Signboard Assy, Base Frame Assy and Bike Assy. If the connection fittings are used, be sure to dismount them. (See "5-3-4 Installing the connection fitting (for 2P-4P setup).") Moving the machine without disassembly can result in an accident or injury. (See "5-2 Required dimensions of carry-in passage (such as doors and corridors)" and "5-3 Assembly.")
- Make sure that the following number of persons are available for manual transportation of the machine. Attempting to carry the machine with a fewer persons can result in an accident or injury.
 - Front Cabinet Assy: 6 persons or more
 - Monitor Assy: 2 persons or more
 - Signboard Assy: 1 person or more
 - Base Frame Assy: 5 persons or more
 - Bike Assy: 1 person or more



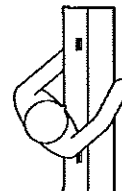
Front Cabinet Assy



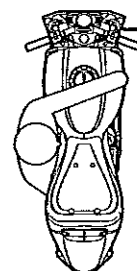
Base Frame Assy



Monitor Assy



Signboard Assy



Bike Assy



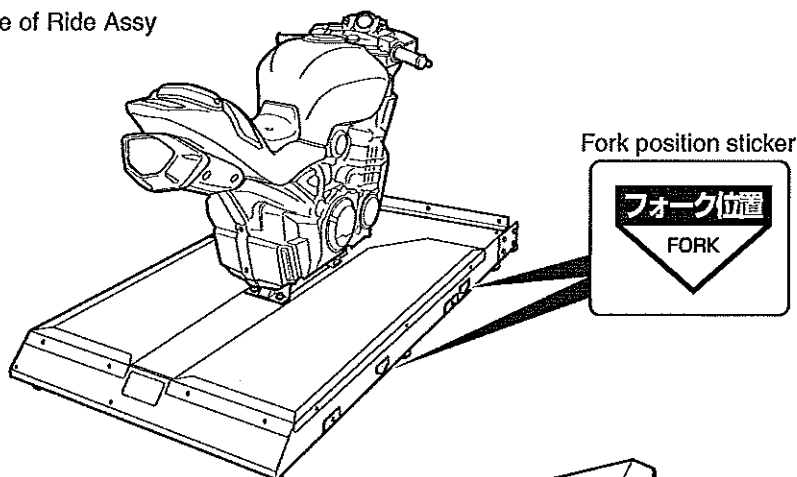
- Do not apply impact to the machine when lowering the machine to a lower level.

6-2-2 Unloading from a vehicle

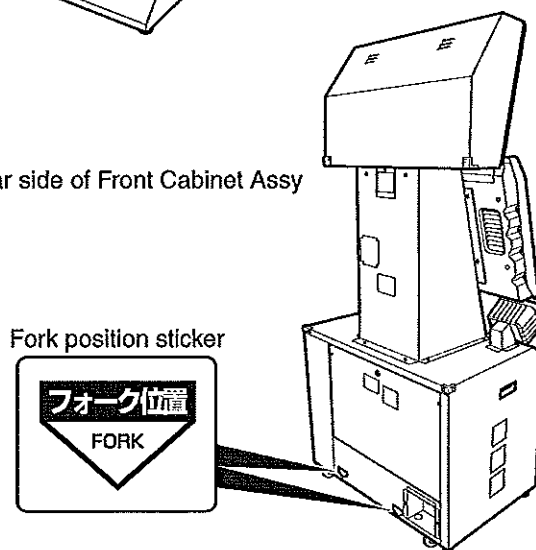
WARNING

- Make sure that the following number of persons are available for manual transportation of the machine. Attempting to carry the machine with a fewer persons can result in an accident or injury.
 - Front Cabinet Assy: 6 persons or more
 - Monitor Assy: 2 persons or more
 - Signboard Assy: 1 person or more
 - Base Frame Assy: 5 persons or more
 - Bike Assy: 1 person or more
- When using a forklift to transport the Front Cabinet Assy or Ride Assy, observe the following instructions. If the instructions are not followed, the Assy can tip over and cause an unexpected accident.
 - Insert the forks into the specified positions.
 - Pay close attention to the balance of the Assy being carried.

Side of Ride Assy



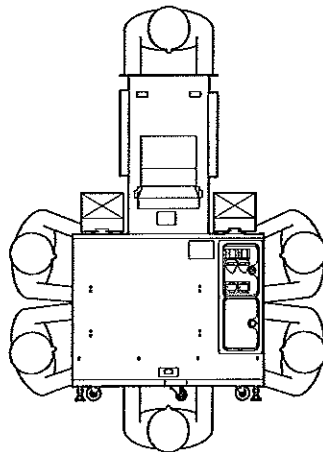
Rear side of Front Cabinet Assy



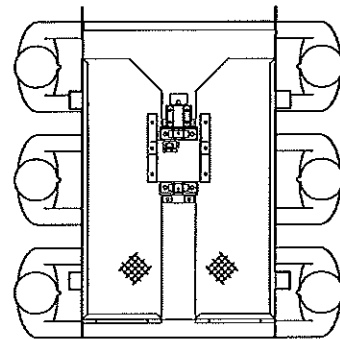
- Do not apply impact to the Assy when lowering it from the forklift.

! WARNING

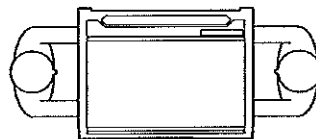
- When carrying the machine manually, be sure to separate the machine into the Cabinet Assy, Monitor Assy, Signboard Assy, Base Frame Assy and Bike Assy. Moving the machine without disassembly can result in an accident or injury. (See “5-2 Required dimensions of carry-in passage (such as doors and corridors)” and “5-3 Assembly.”)
- Make sure that the following number of persons are available for manual transportation of the machine. Attempting to carry the machine with a fewer persons can result in an accident or injury.
 - Front Cabinet Assy: 6 persons or more
 - Monitor Assy: 2 persons or more
 - Signboard Assy: 1 person or more
 - Base Frame Assy: 6 persons or more
 - Bike Assy: 1 person or more



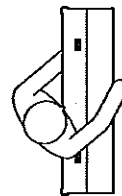
Front Cabinet Assy



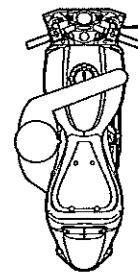
Base Frame Assy



Monitor Assy



Signboard Assy



Bike Assy



- Do not apply impact to the machine when lowering the machine to a lower level.

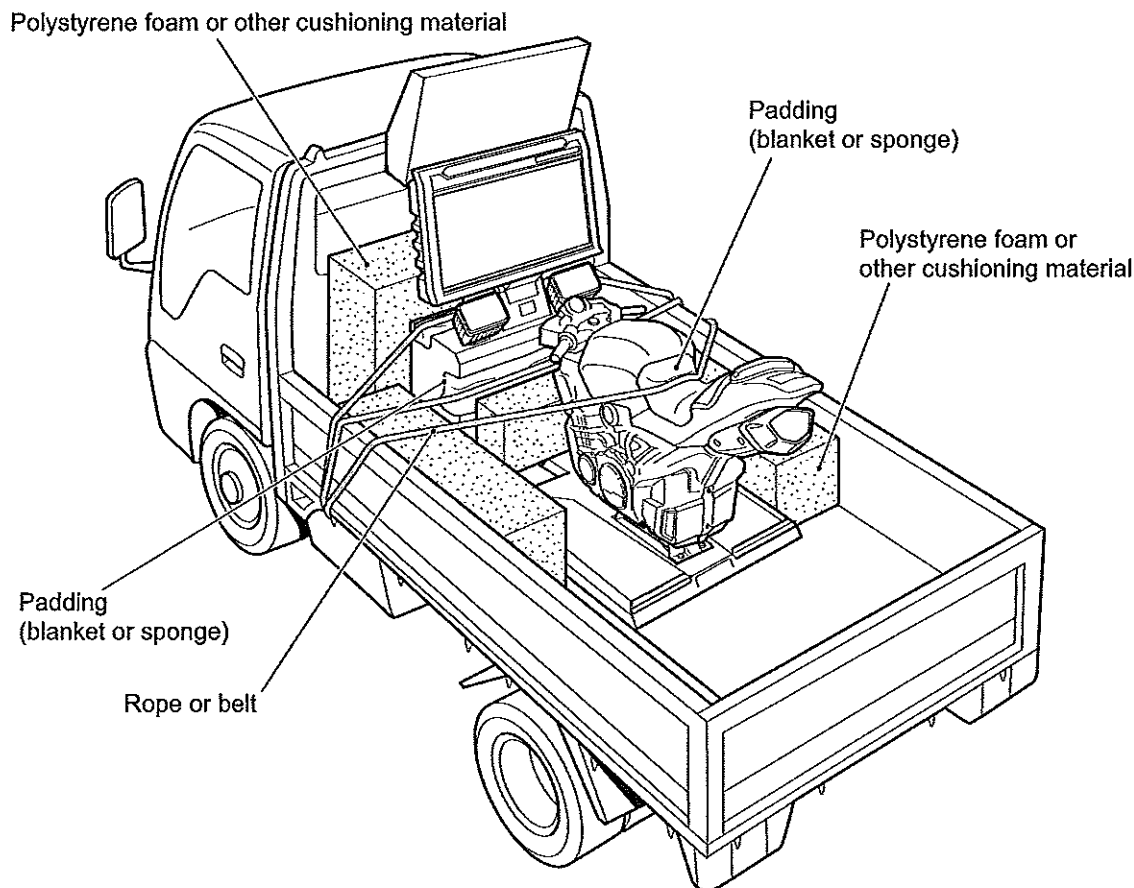
6-2-3 Trucking

WARNING

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

NOTICE

- Do not apply impact to the machine when lowering the machine to a lower level.
- When securing the machine in place by using ropes, observe the following.
 - Position the rope at the locations shown in the diagram below.
 - To protect the surface of the machine, place polystyrene foam or other padding material between the machine and rope.
- To protect the surface of the machine, place polystyrene foam or other cushioning material between the machine and cargo bed and between the machine and adjacent equipment.
- Wind pressure during transportation can damage the Signboard Assy. If the vehicle is not equipped with a cargo cover, dismount the Signboard Assy. (See "5-2-1 Removing the Signboard Assy.")
- If the machine is transported on a rainy day, use a vehicle equipped with a cargo cover or container truck to protect the machine from rain.



7. OPERATION

WARNING

- Since the bike section of the machine leans to right and left, it can collide with people who inadvertently get close to the machine, particularly small children. If people are standing near the machine, lead them promptly to a safe area.
- 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.
- 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 ("5. INSTALLATION") before operating the machine. If the machine is not installed properly, fire, electric shock 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 a proper location with ample illumination and keep the labels clean at all times. Also, make sure that the labels are not hidden behind another game machine or other objects.
 - Do not remove or alter the warning labels.
 - If the warning labels become 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 ("7-1 Pre-service check") and maintenance ("8. MAINTENANCE"). Failure to perform the specified inspections and maintenance can result in unexpected accidents.

CAUTION

- The Bike Assy of the machine is designed for a single player. If two persons ride on the Bike Assy, they may fall and get injured.
- To ensure safety of players, prevent the following people from playing the machine.
 - People wearing shoes with slippery soles or high heels
 - People whose legs do not reach the foot steps when sitting on the seat
 - Pregnant women
 - People with heart trouble
 - People under the influence of alcohol
 - People in bad physical shape

NOTICE

- Do not turn off the power switch while the machine is being played; otherwise, the Backup memory may become corrupted.
- When turning on the power switch of one unit, be sure to turn on the power switches of all communication-linked units within five minutes; otherwise, the communication function may not operate properly.
The communication status can be checked with the indication, "Maximum number of communicable units: ○" (○ indicates the number of communicating units), which appears at the center of the title screen when the units are communicating.
- When turning off the power switch of one unit, wait until the game play ends in all other communication-linked units. Turning off a unit while other units are being played can cause adverse effects on the game machines being played.

7-1 Pre-service check

Inspect the following items before commencing operation.

If any problem is found, take corrective measures by referring to "8-2 Troubleshooting".

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

WARNING

- To prevent accidents and injury, be sure to check the following items before commencing operation.
- " If the machine is operated with damaged, broken or deteriorated parts or incorrectly installed parts, players or observers may get injured. If any abnormal parts are found, replace them promptly.
- To obtain replacement parts, contact your distributor.

- (1) Are all warning indications legible? ("1-4 Description of warning labels attached to the machine.")
- (2) Are all level adjusters adjusted properly for stable machine installation? (Front Cabinet Assy, Ride Assy) ("5-3-3 Adjusting the level adjusters.")
- (3) Is the play zone established as specified? ("5-1-2 Installation conditions.")
- (4) Is the power cord routed properly so that players and other people will not trip over the cable?
- (5) Have the transport retaining bolts been removed. (Ride Assy) ("5-3-2 Removing the transport retaining bolts.")
- (6) Are the Ride Assy and Front Cabinet Assy connected securely?
- (7) Is the Monitor Assy installed securely to the Cabinet Assy?
- (8) Is the Signboard Assy installed securely to the Cabinet Assy?
- (9) Is the Bike Assy installed securely to the Base Frame Assy?

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

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

- (1) Is any part of the power cord or the plug abnormally hot?
- (2) Does touching the machine give a minor electric shock?
- (3) Is there a burning smell, abnormal noise or vibration?
- (4) Is there any other sign of abnormality or malfunction?

7-1-3 Operation check (after power ON)

Check the following items after turning on the power switch. ("5-7 Turning on the power switch.")

- (1) Check sound reproduction. (Is sound produced by each speaker?) ("7-4-6 Sound test (SOUND TEST).")
- (2) Check the fluorescent lamps in the Signboard Assy. (Are the fluorescent lamps lit?)
- (3) Check the muffler-end LEDs. (Are the LEDs lit?)
- (4) Check the tail lamp LEDs. (Are the LEDs lit?)
- (5) Check images displayed on the screen. (Does the monitor display images properly?) ("7-4-5 Monitor test (MONITOR TEST).")

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

- (1) Check the Handle Bar Assy for proper operation.
- (2) Check the bank angle volume for proper operation
- (8) Check all switches for proper operation. ("7-4-4 Switch input/output tests (I/O TEST).")

7-2 How to play

CAUTION

- Stop people taking any of the following actions to prevent accidents.
 - Tandem riding
 - People other than the player touching the ride while the machine is operating
- If a player becomes sick due to game images or stimulation by light, have the person stop playing the game immediately and let him/her rest.
- In rare cases, stimulation by light or video images can cause convulsions or a loss of consciousness. If such a symptom is observed, advise the player to see a doctor as soon as possible. When pre-school children play the game, request their parents or guardians to observe the children.

This game machine is based on the theme of motorcycle racing on public road.
 A player enjoys motorcycle racing on a circuit set up on a public road. The machine can be set up for communication-linked versus game.
 Up to four units can be connected for simultaneous communication-linked versus game.

[Operation]

- Leaning the bike
 When the bike is leaned to one side, it moves toward that direction.
- Turning the accelerator grip
 The bike accelerates according to the amount the accelerator grip is turned.
- Pulling the brake lever
 The bike decelerates according to the amount the lever is pulled.
- Pushing the Shift Up button
 The transmission shifts up to the next higher gear, if Manual Shift has been selected.
 This button is not used when Automatic is selected.
- Pushing the Shift Down button
 The transmission shifts down to the next lower gear, if Manual Shift has been selected.
 This button is not used when Automatic is selected.
- Pushing the View Change button
 The display changes between Rider's View and Third-person View alternately.

[Game story]

Inserting the required number of coins for one game credit while other connected units are not being played or when "Intrusion Allowed" is not selected in other connected units displays a screen for selecting whether to allow or disallow intrusion.

Lean the bike to the right or left to select an item and press the View Change button to enter the selection.

YES (Allows): Allows Intrusion from other units for a versus game play.

NO (Disallows): Does not allow Intrusion so that the player can play alone without being interrupted by intruders.

If the selection time expires, the one being selected at that moment will be entered as the final selection.

After the selection is entered, "Intrusion Welcome" or "Intrusion Not Accepted" is indicated at the lower left corner of the screen.

Inserting the required number of coins for one game credit while other connected units are being played and when intrusion is allowed in other machines displays a screen for selecting whether or not to intrude into the game currently played in other connected units.

Lean the bike to the right or left to select an item and press the View Change button to enter the selection.

YES (Intrusion): Intrudes into the game being played in other units for a versus game play.

NO (No Intrusion): Allows the player to play the game without intruding into the game being played in other units or being interrupted by intruders.

If the selection time expires, the one being selected at that moment will be entered as the final selection.

After the selection is entered, "Intrusion Welcome" or "Intrusion Not Accepted" is indicated at the lower left corner of the screen.

* It is possible to intrude at anytime into the game being played by units that permit Intrusion.

When the single-player game mode is selected, the monitor displays a mode selection screen.

Lean the bike to the right or left to select "Single" or "Time Attack" and press the View Change button to enter the selection.

When "Single" is selected, the Story mode starts. In this mode, the player races in order to defeat rivals in all courses.

When "Time Attack" is selected, the player competes against time on a selected course.

If the selection time expires, the one being selected at that moment will be entered as the final selection.

For further details, refer to the section, "Details of single-player mode."

Next, the screen prompts the player to choose a desired bike.

Lean the bike to the right or left to select from the five available motorcycle types: Naked, Super Sport, Big Scooter, American and Super Motoard. Enter the selection by pressing the View Change button before the selection time expires.

If the View Change button is pressed while the Shift Up/Down button is held down before the selection time expires, the player can choose a bike and rider with special color.

If the selection time expires, the bike/color being selected at that moment will be entered as the final selection.

There is some performance difference among bike types. The characteristics of each bike is described in the text in the border displayed at the bottom of the screen.

After the bike selection is entered, the display shows a screen for selecting a racing course.

Lean the bike to the right or left to select from the five available courses: Nishihama Industrial Complex, Central Boulevard, City Loop No. 2, Wangan Bridge and Higashiyama Resort Line. Enter the selection by pressing the View Change button before the selection time indicated at the upper right corner of the screen expires.

* In the case of versus game play, the course is selected based on the rule of majority.

After all items are selected and entered, the race starts.

[Race]

When the indication on the screen changes from "Ready" to "Go," the race starts. The race continues until the timer indication at the upper right corner of the screen reaches "0."

When a player completes the specified number of laps within the time limit, the player finishes the race (crosses the finish line).

When the Boost function is used during the race, the bike accelerates rapidly.

* For further details, refer to the section, "Boost function."

In a versus game play, the player finishing the race in first place can play another game. The number of consecutive wins shown at the lower left corner increments by 1 and the display changes to the mode selection screen.

If a player finishes second or later or if the time expires, a Continue screen appears.

If the player inserts the number of coins required for a Continue game, he/she can intrude into the game being played by the winning player. If there is no winning player at that time, the display shows the mode selection screen.

Regarding the Single and Time Attack game modes, refer to the section, "Details of single-player mode."

The game machine allows the change of viewpoint during the race.

Each time the View Change switch at the center of the handle bar is pressed, the displayed image changes between "First-person view" and "Third-person view."

[Boost function]

When the bike continues to be leaned during the race, the arch-shaped gauge at the left side of the screen increases. When the gauge reaches a certain level, the "Boost" indication flashes at the center and right and left edges. When the bike is brought back to a vertical position at this moment, it accelerates rapidly, consuming the "Boost" gauge level. When the gauge reaches "0," the rapid acceleration ends.

[Details of single-player mode]

Single:

In this mode, a player can choose a bike and a course, then races against seven CPU bikes. These CPU bikes vary in type according to the course selected.

If a player finishes the race ahead of all CPU bikes, he/she clears the stage and selects the next course. Normally, the CPU bike in the lead is considered as the "Boss" on the course and pressures the player through the illustration and message that appears on the screen.

A player cannot select any of the courses that he/she has cleared.

If a player finishes second or later, a Continue screen appears. If the player inserts the required number of coins on the Continue screen, he/she can continue playing the game with the data of cleared stages in memory.

If a player clears all courses, an ending screen appears and a more difficult expert mode starts up.

Time Attack:

In this mode, a player can choose a bike and a course, then races against time.

Following the bike selection screen and the course selection screen, a player selects whether or not to display "ghosts."

YES (with Ghosts): Displays the ghost of the fastest player in the selected course and the ghost of the player in the previous lap.

NO (without Ghosts): Does not show ghosts. The player competes against time alone.

If the selection time expires, the one being selected at that moment will be entered as the final selection.

After a race ends, the results of the race appears. If a player is in the Time Attack ranking list of the selected course, a name entry screen appears. In this screen, a player selects a character to enter by leaning the bike. Up to five characters can be entered as a name. The entered name can be viewed on the ranking screen that appears in the Attract mode.

When a player is in first place, the name and the riding line are saved in memory and displayed on the screen as a ghost rider.

Expert:

When a player clears all stages in the Single mode or enter a secret command (insertion of coins with the accelerator fully open and brake lever pull fully), the expert mode with the highest difficulty level can be initiated.

The game flow is the same as that of the Single mode, but the "Bosses" of all motorcycle types appear as CPU bikes, regardless of the course selected, and they travel at speed much faster than in the Single mode. Even if a player finishes in first place, the stage will not be cleared. A player can continue playing the game if he continues to win or choose to play the Continue game.

[Other information]

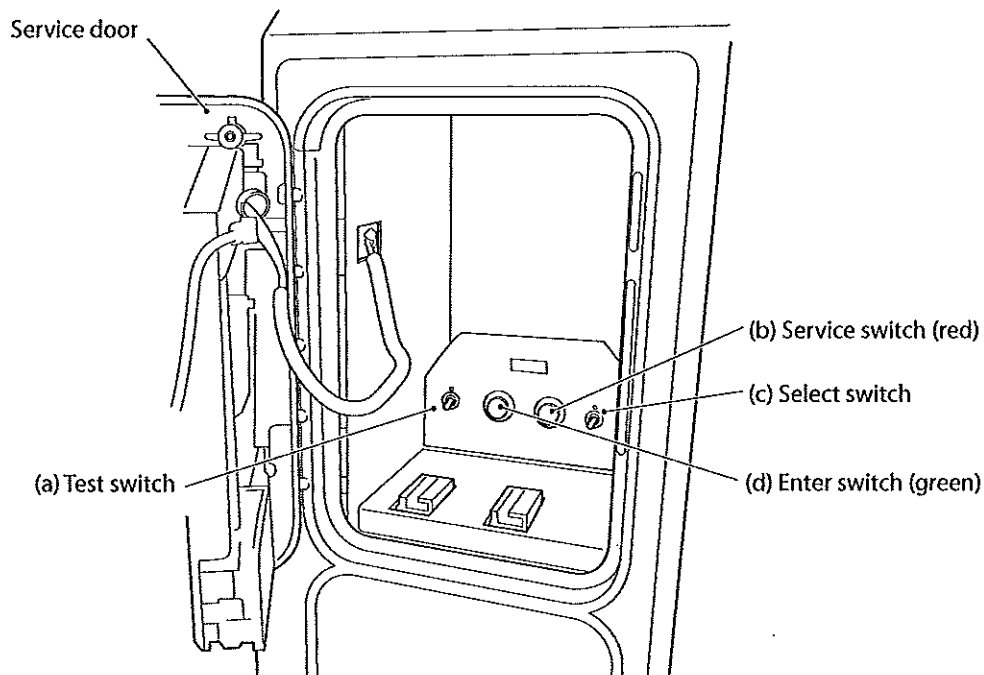
For a versus game play, "No handicap mode" can be selected. This mode is useful when holding a contest because it allows all players to compete on an equal basis.

If all players select a course using the secret command (pressing of the View Change button with the accelerator fully open and brake lever pull fully) in the course selection screen, a star (☆) mark appears at the lower right corner of the race screen on all units, and players play a versus game on an equal basis.

7-3 Adjustment

7-3-1 Adjustment switches

Open the service door to access the adjustment switches.



(a) Test switch

Set this switch to ON to activate the Test mode.

(b) Service switch (red)

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

(c) Select switch

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

(d) Enter switch (green)

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

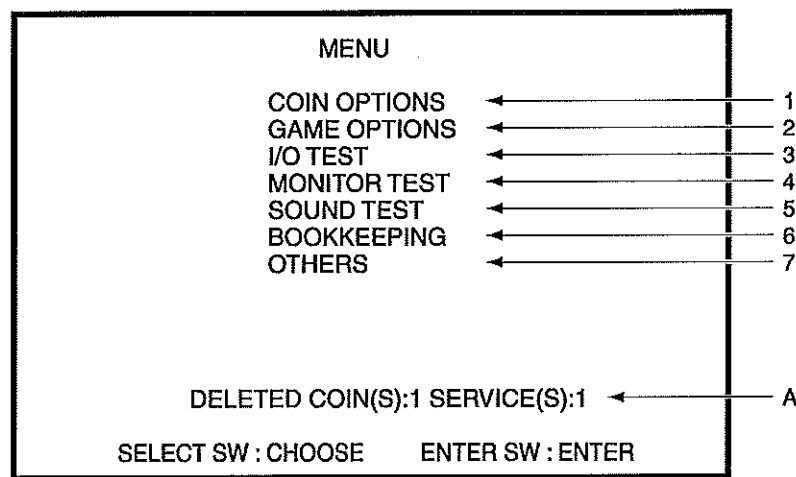


- Press the Service switch slowly and firmly.
Rapid pressing may not activate the function.

7-4 Test mode

7-4-1 Description of the Menu screen

- 1** Using the provided key, open the service door, and set the Test switch to ON.



Menu screen

- 2** Flip the Select switch up or down and select an item. The selected item is indicated by blinking.
- 3** Press the Enter switch to finalize the selection. When a selection is finalized, the screen shows the applicable setting screen.

	Item	Description	Reference section
1	COIN OPTIONS	Setting of game fees, etc.	Refer to 7-4-2.
2	GAME OPTIONS	Setting of game details	Refer to 7-4-3.
3	I/O TEST	Testing of switches, sensors, etc.	Refer to 7-4-4.
4	MONITOR TEST	Adjustment of monitor	Refer to 7-4-5.
5	SOUND TEST	Setting of sound level, etc.	Refer to 7-4-6.
6	BOOKKEEPING	Display of data such as machine operating hours and game count.	Refer to 7-4-7.
7	OTHERS	Initialization of backup memory, etc.	Refer to 7-4-8.

	Item	Description
A	DELETED COIN (Display of deleted coins)	When the Test mode is activated, the data of previously inserted coins will be deleted. If coins were inserted immediately before the activation of the Test mode, this screen shows "DELETED COIN(S) x SERVICE(S): y" at a specified location. This indication does not appear if there are no deleted coins. The displayed numeric value does not change if coins are inserted during the Test mode.

- 4** After all adjustments are completed, set the Test switch to OFF. The display returns to the Game screen.



- When activating the Test mode, wait until the game play ends in all other communication-linked units. Activating the Test mode in a unit while other units are being played can cause adverse effects on the units being played.
- The communication status can be checked with the indication, "Maximum number of communicable units: ○", which appears at the center of the title screen, or "LINK ON: ○" (○ indicates the number of communicating units) displayed on the screen shown in "7-4-3 Game setting (GAME OPTIONS)".

7-4-2 Game fee/free play setting (COIN OPTIONS)

This screen is used to set the game fees.

- 1** Select "COIN OPTIONS" in the Menu screen to display the following screen.

COIN OPTIONS
[DEFAULT IN GREEN]

GAME COST	2COIN(S)1CREDIT ← 1
CONTINUE COST	2COIN(S)1CREDIT ← 2
FREE PLAY	OFF ← 3
EXIT	

SELECT SW : CHOOSE ENTER SW : ENTER

Coin Options screen

- 2** Using the Select switch, choose an item. The selected item is indicated by blinking.
- 3** After selecting a desired item, press the Enter switch to change the setting of the selected item.
- 4** Use the Select switch to change the setting. Select a desired setting and press the Enter switch to apply the setting.

	Item	Description	Default
1	GAME COST	Set the number of coins required to start the game. 1 to 19 coins	2
2	CONTINUE COST ※1	Set the number of coins required for one "Continue" game play. 1 to 19 coins	2
3	FREE PLAY ※2	Set the free game function. OFF: Normal coin-activated operation ON: Free game	OFF

*1: The CONTINUE COST setting cannot be higher than the GAME COST setting.

When increasing the GAME COST and CONTINUE COST values from the current settings, set the GAME COST first.

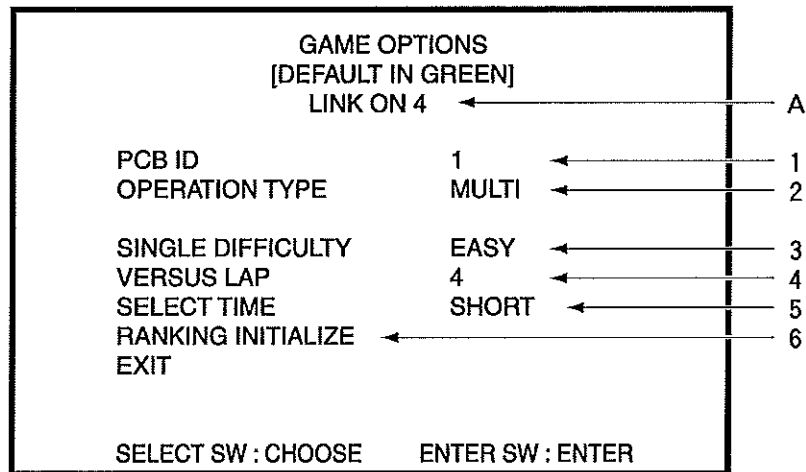
*2: When FREE PLAY is set to ON, pressing the View Change switch starts the game without inserting coins.

- 5** After all adjustments are made, select "EXIT" to return to the Menu screen.

7-4-3 Game setting (Game OPTIONS)

This screen is used to set game details.

- 1** Select "GAME OPTIONS" in the Menu screen to display the following screen.



Game Options screen

- 2** Using the Select switch, choose an item. The selected item is indicated by blinking.
- 3** After selecting a desired item, press the Enter switch to change the setting of the selected item.
- 4** Use the Select switch to change the setting. Select a desired setting and press the Enter switch to apply the setting.
- 5** After all adjustments are made, select "EXIT" to return to the Menu screen.

	Item	Description/machine condition	Communication status
A	LINK	Displays the communication status.	
	LINK ON X	Data is being received from other PCB PCB ID is correctly set. (X: The number of communicating units)	Communicating
	LINK OFF	Data cannot be received properly (Disconnection of cables, etc.)	Not communicating
	LINK NG	Overlapping PCB ID settings are detected	Not communicating

	Item	Description	Default
1	PCB ID	Set the PCB ID. *1 1 to 4	1
2	OPERATION TYPE	Set the communication function. SINGLE: No communication among units MULTI: Allows communication among units	MULTI
3	SINGLE DIFFICULTY	Set the game difficulty level for single-player mode. EASY: Easy to play NORMAL: Normal difficulty level HARD: Difficult to play	NORMAL
4	VERSUS LAP	Set the number of laps for versus game mode. 3 to 10	3
5	SELECT TIME	Set the selection time limit. SHORT: Short time length MEDIUM: Normal time length LONG: Long time limit	MEDIUM
6	RANKING INITIALIZE	Initializes the rankings data. Select "YES" and press the Enter switch to clear the ranking and ghost data in the backup memory and return the memory to default condition.	_____

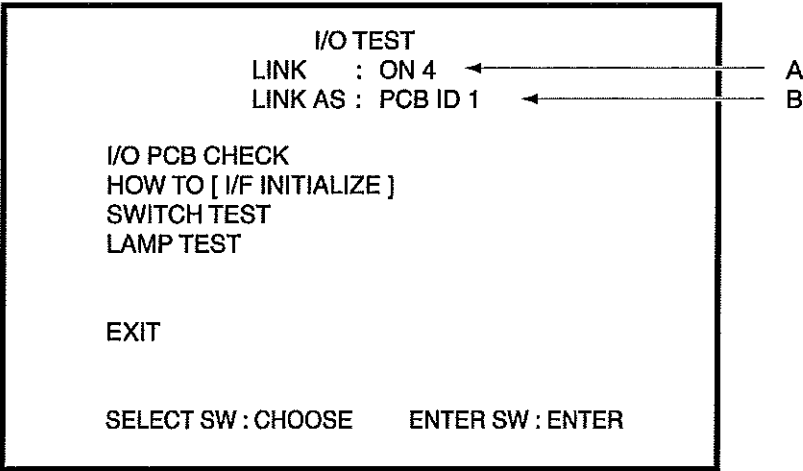
*1: Assign a number to each unit for communication-linked game play. Unless each unit is assigned with a unique number, connect units will not be able to communicate properly



- Do not turn off the power switch while the rankings data is being initialized. If the power switch is turned off during initialization, the machine may display an error message and initialize the backup memory during the next startup.

7-4-4 Switch input/output tests (I/O TEST)

- 1** Select "I/O TEST" in the Menu screen to display the following screen.



I/O Test screen

- 2** Using the Select switch, choose an item. The selected item is indicated by blinking.
- 3** After selecting a desired item, press the Enter switch to change the setting of the selected item.
- 4** Use the Select switch to change the setting. Select a desired setting and press the Enter switch to apply the setting.

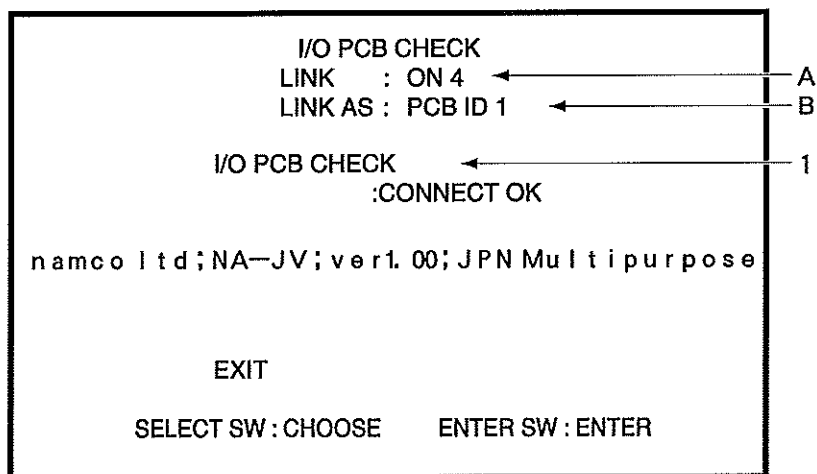
	Item	Description
A	LINK	Displays the communication status. Refer to 7-3-1.
B	LINK AS	Displays the set PCB ID.

- 5** After all adjustments are made, select "EXIT" to return to the Menu screen.

(1) I/O PCB CHECK

This screen is used to check the I/O PCB connection.

- 1** Select "I/O PCB CHECK" in the I/O Test screen to display the following screen.



I/O PCB CHECK

	Item	Description
1	I/O PCB CHECK	Displays the I/O PCB check results.

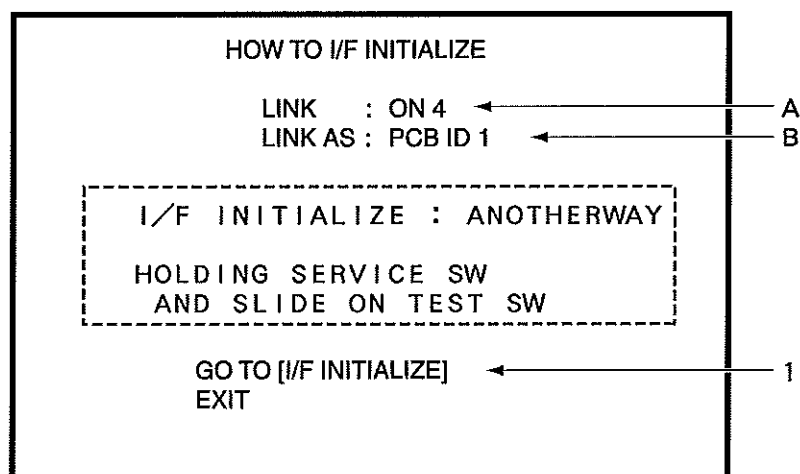
	Item	Description
A	LINK	Displays the communication status. Refer to 7-3-1.
B	LINK AS	Displays the set PCB ID.

- 2** After the confirmation, select "EXIT" to return to the I/O Test screen.

(2) HOW TO INITIALIZE I/F-2P)

This screen is used to initialize the operating section (volumes) of the machine

- 1** Select "HOW TO I/F INITIALIZE" in the I/O Test screen to display the following screen.



How to I/F Initialize screen

- 2** Using the Select switch, choose an item. The selected item is indicated by blinking.
- 3** To initialize volumes, select "GO TO [I/F INITIALIZE]" and press the Enter switch to open the I/F Initialize screen.
("7-5 Adjustment of the Ride Assy (Initialization).")

* The I/F Initialize screen for volume initialization can also be opened by setting the Test switch to ON while holding the Service switch down.

- 4** Select "EXIT" to return to the Menu screen.

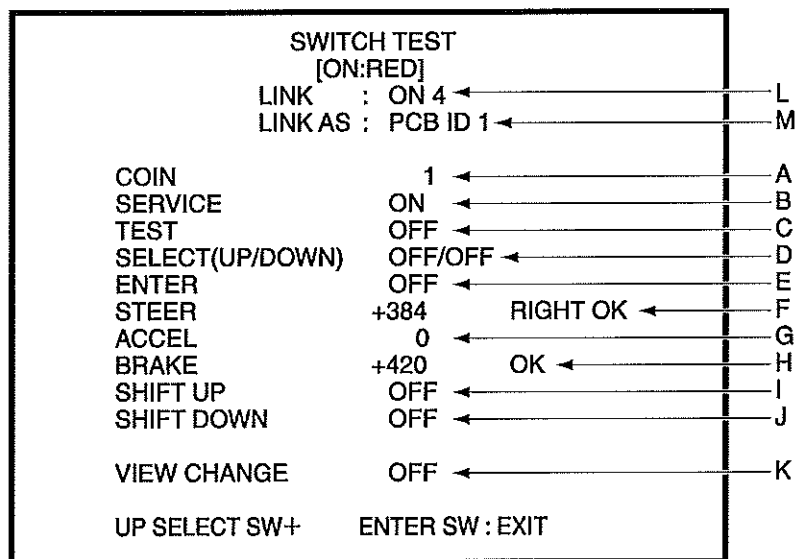
	Selection Item	Description
1	GO TO [I/F INITIALIZE]	Initializes the operating section (volumes) of the machine. The monitor displays the I/F Initialize screen. ("7-5 Adjustment of the Ride Assy (Initialization).")

	Indication	Description
A	LINK	Displays the communication status. Refer to 7-3-1.
B	LINK AS	Displays the set PCB ID.

(3) SWITCH TEST

This screen is used to display the input conditions of devices.

- 1** Select "SWITCH TEST" in the I/O Test screen to display the following screen.
The following screen also appears after the initialization is completed in the Go to [I/F Initialize] screen.



Switch Test screen

- 2** The screen displays the input conditions of switches in real time.
- 3** To return to the I/O Test screen, hold the Select switch up and press the Enter switch.

7. OPERATION

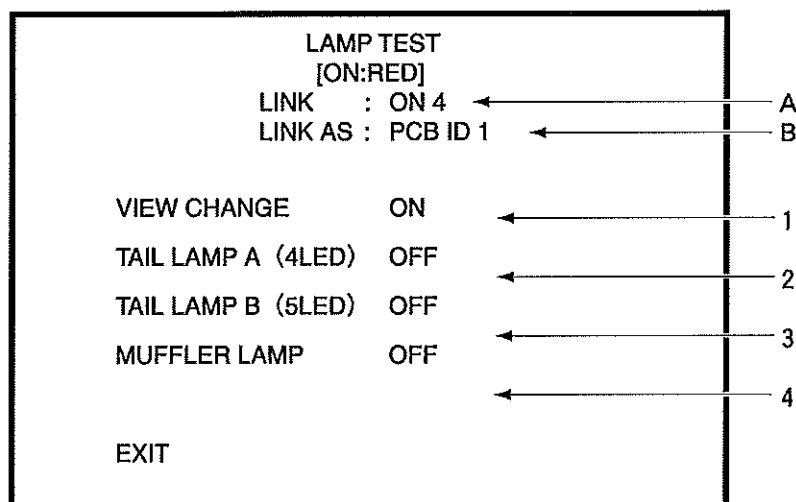
	Item	Description
A	COIN	Coin switch operation counter Each time the switch is activated, the displayed value increments by one.
B	SERVICE	Service switch status OFF: Normal condition ON (red): Depressed condition
C	TEST	Test switch status OFF: Normal condition ON (red): Depressed condition
D	SELECT (UP/DOWN)	Select switch status OFF: Normal condition ON (red): Tilted condition
E	ENTER	Enter switch status OFF: Normal position ON (red): Depressed condition
F	STEER	Ride section status With "0" indicating the center position, tilting to the right increases the value in the negative direction and tilting to the left changes the value in the positive direction. "RIGHT/LEFT OK" (green) is displayed near the rightmost (leftmost) position.
G	ACCEL	Accelerator status The displayed value increases in the positive direction when the accelerator grip is turned. "MAX/MIN" (green) is displayed near the maximum (minimum) position.
H	BRAKE	Brake lever status The displayed value increases in the positive direction when the brake lever is pulled. "MAX/MIN" (green) is displayed near the maximum (minimum) position.
I	SHIFT UP	Shift switch (UP) status OFF: Normal condition ON (red): Depressed condition
J	SHIFT DOWN	Shift switch (DOWN) status OFF: Normal condition ON (red): Depressed condition
K	VIEW CHANGE	View Change switch status OFF: Normal condition ON (red): Depressed condition
L	LINK	Displays the communication condition. Refer to 7-4-3.
M	LINK AS	Displays the PCB ID setting value.

* If "MAX/MIN" is not displayed when the ride section, accelerator grip or brake lever is operated to the maximum/minimum position, the corresponding operating section (volume) must be initialized.
("7-5 Adjustment of the Ride Assy (Initialization)."

(4) LAMP TEST

This screen is used to test the lamps and illuminated switch.

- 1** Select "LAMP TEST" in the I/O Test screen to display the following screen.
- 2** Conduct tests for the lamps and illuminated switch.
Using the Select switch, choose an item. The selected item is indicated by blinking.



Lamp Test screen

- 3** When a desired item is selected and the Enter switch is pressed, the test for the selected item can be conducted.
Use the Select switch to choose a desired item. After the test ends, press the Enter switch to return to the item selection screen.
- 4** After the tests are completed, select "EXIT" to return to the I/O Test screen.

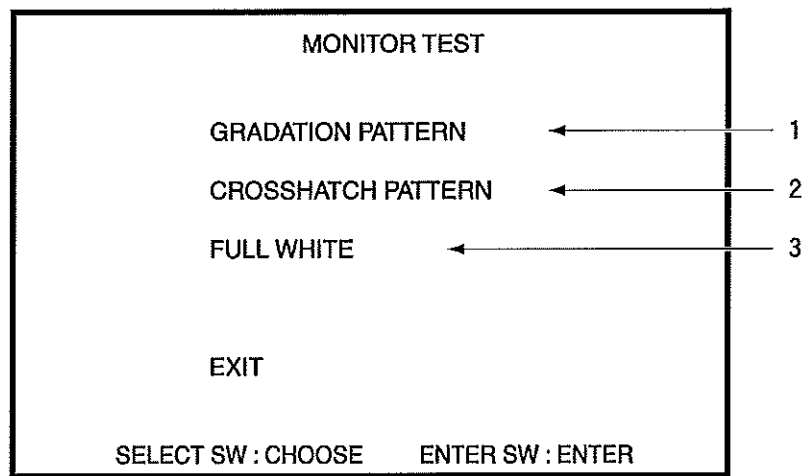
	Item	Description	Default
1	VIEW CHANGE	ON condition of the View Change switch lamp OFF: Lamp is turned off. ON: Lamp is lit.	OFF
2	TAIL LAMP A	ON condition of the Tail Lamp LED PC Board (4 lamps) OFF: Lamps are turned off. ON: Lamp is lit.	OFF
3	TAIL LAMP B	ON condition of the Tail Lamp LED PC Board (5 lamps) OFF: Lamps are turned off. ON: Lamp is lit.	OFF
4	MUFFLER LAMP	ON condition of the Muffler LED PC Board (5 lamps) OFF: Lamps are turned off. WHITE: While lamp is lit. BLUE: Blue lamp is lit.	OFF

	Indication	Description
A	LINK	Displays the communication status. Refer to 7-4-3.
B	LINK AS	Displays the set PCB ID.

7-4-5 Monitor test (MONITOR TEST)

This screen is used to make various monitor adjustments.

- 1** Select "MONITOR TEST" in the Menu screen to display the following screen.
- 2** Press the Select switch and choose an item. The selected item is indicated by blinking.
- 3** After selecting a desired item, press the Enter switch to display the corresponding test pattern.
- 4** With a test pattern screen displayed on the monitor, press the Enter switch again to return to the previous screen (shown below).



Monitor Test screen

- 5** After completing adjustments, select "EXIT" to return to the Menu screen.

	Item	Description
1	GRADATION PATTERN	Displays a gradation pattern.
2	CROSSHATCH PATTERN	Displays a crosshatch pattern.
3	FULL WHITE	Displays a white screen.

7-4-6 Sound test (SOUND TEST)

This screen is used to adjust the sound level and conduct a stereo check.

- 1** Select "SOUND TEST" in the Menu screen to display the following screen.
- 2** Press the Select switch and choose an item to be adjusted. The selected item is indicated by blinking.
- 3** After selecting a desired item, press the Enter switch to change the setting of the selected item.

SOUND TEST
[DEFAULT IN GREEN]

VOLUME

GAME (0~15)

ATTRACT (0~15)

REQUEST SONG NO.

MESSAGE RIGHT

EXIT

SELECT SW : CHOOSE ENTER SW : ENTER

SERVICE SW : REQUEST ON / OFF

8

8

1

1

2

3

A

←

←

←

←

Sound Test screen

- 4** After completing adjustments, select "EXIT" to return to the Menu screen.

	Item	Description	Default
1	VOLUME GAME	Set the sound level in Game mode. Setting range: 0 (low) to 15 (high)	8
2	VOLUME ATTRACT	Set the sound level in Attract mode. Setting range: 0 (low) to 15 (high)	8
3	REQUEST SONG NO.	Each time the Enter switch is pressed, the selected digit of the Song No. changes. Using the Select switch, change each digit and set a desired number. Press the Service switch to play the music or sound effect of the set Song No. No sound is produced when "000" is set. "001" is for a stereo test.	0

	Item	Description
A	MESSAGE	Displays which speaker is producing sound during a stereo test.

7-4-7 Game data display (BOOKKEEPING)

This screen is used to display various game data.

- 1** Select "BOOKKEEPING" in the Menu screen and press the Enter switch.
The Bookkeeping screen appears.
- 2** Data will not be lost even when the power switch is turned off. Not that data will be erased when "BOOK KEEPING INITIALIZE" or "BACKUP MEMORY INITIALIZE" (in "OTHERS") is executed.
- 3** After confirming data, select "EXIT" and press the Enter switch to return to the Menu screen.



- Do not turn off the power switch while "BOOK KEEPING INITIALIZE" is being executed. If the power switch is turned off during initialization, the machine may display an error and initialize the backup memory message during the next startup.

7-4-8 Others (OTHERS)

This screen is used to display the following.

- 1** Select "OTHERS" in the Menu screen to display the following screen.
- 2** Press the Select switch and choose a desired item. The selected item is indicated by blinking.
- 3** After selecting a desired item, press the Enter switch to change the setting of the selected item.

OTHERS [DEFAULT IN GREEN]		
VER	NRN100-1-NA-DATO-A00 2006/03/30 FRI 23:59:59	← A
CLOCK	2006/05/31 WED 22:50:12	← B
S/N	000000-000000	← C
LANGUAGE	JPN	← D
CLOCK SETTING		← (a)
BACKUP MEMORY INITIALIZE		← (b)
EXIT		
SELECT SW : CHOOSE ENTER SW : ENTER		

Others screen

- 4** After completing adjustments, select "EXIT" to return to the Menu screen.

	Item	Description
A	VER	Displays the software version.
B	CLOCK	Displays the clock data such as the current time and day of the week.
C	S/N	Displays the serial number.
D	LANGUAGE	Displays the language setting.

	Item	Description
(a)	CLOCK SETTING	Clock setting The display changes to the Clock Setting screen. ("7-4-8 (1) CLOCK SETTING.")
(b)	BACKUP MEMORY INITIALIZE	Initializes the backup memory. When "YES" is selected and the Enter switch is pressed, all data in the backup memory is deleted and the backup memory returns to the default condition.



- Do not turn off the power switch while "BACKUP MEMORY INITIALIZE" is being executed. If the power switch is turned off during initialization, the machine may display an error message and initialize the backup memory during the next startup.

(1) CLOCK SETTING

This screen is used to set the clock.

- 1** Select "CLOCK SETTING" in the Others screen to display the following screen.
- 2** Press the Select switch and choose a desired item. The selected item is indicated by blinking.
- 3** After selecting a desired item, press the Enter switch to change the setting of the selected item.

CLOCK SETTING
[DEFAULT IN GREEN]

CLOCK 2 0 0 6 / 0 5 / 3 1 W E D 2 2 : 5 0 : 1 2 ← 1

YEAR 0 6 + 2 0 0 0 ← 2

MONTH 1 2 ← 3

DAY 0 4 ← 4

HOUR 0 8 ← 5

MINUTE 1 5 ← 6

SET ← 7

EXIT

SELECT SW : CHOOSE ENTER SW : ENTER

Others screen

- 4** After completing adjustments, select "EXIT" to return to the Others screen.

	Item	Description	Default
1	CLOCK	Displays the current time and the day of the week set in the clock.	(Cannot be selected)
2	YEAR	Set the year in the clock.	Clock year
3	MONTH	Set the month in the clock.	Clock month
4	DAY	Set the day in the clock.	Clock day
5	HOUR	Set the hour in the clock.	Clock hour
6	MINUTE	Set the minute in the clock.	Clock minute
7	SET	Applies the clock settings. Sets the data (all clock settings from the year to the minute) in the internal clock.	—

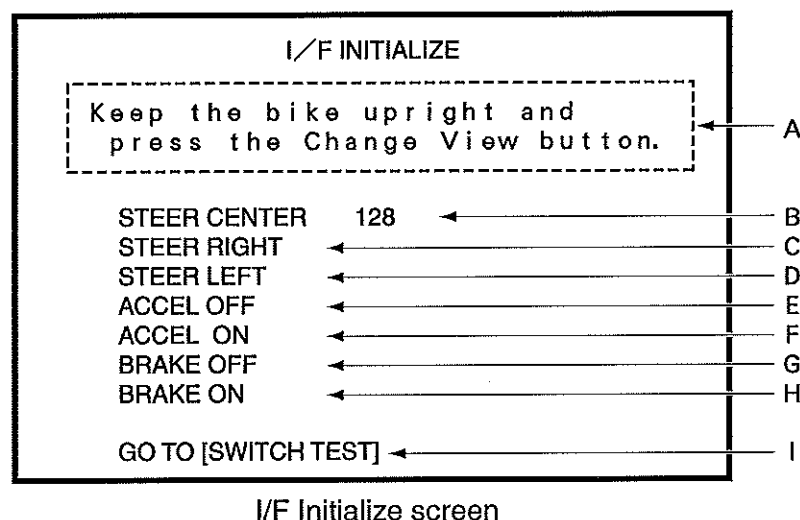
7-5 Adjustment of the Ride Assy (Initialization)



- Be sure to conduct the initialization after the product has been set up or relocated or after the accelerator volume, brake volume or bank angle volume has been replaced. The game will not play correctly unless the initialization is conducted.
- After initializing volumes, conduct a switch test ("7-4-4 (3) SWITCH TEST") and make sure that "OK" is displayed when the handle bar, accelerator grip and brake are operated.

7-5-1 Initializing volumes

- 1 Using the provided maintenance key, open the service door. While holding the Service switch pressed, set the Test switch to ON to display the I/F Initialize screen.
(* The I/F Initialize screen can also be opened from the Test mode. "7-4-4 (2) HOW TO I/F INITIALIZE.")



- Initialization will not be completed properly if the accelerator grip, brake lever or bike is moved during initialization.

- 2 The item blinks during setting.
Hold the operating section in the position/condition according to the instructions displayed at section A on the screen, then the View Change switch to acquire and store the analog value of the position/condition.
The analog value displayed on the screen changes in real time until the View Change switch is pressed.

7. OPERATION

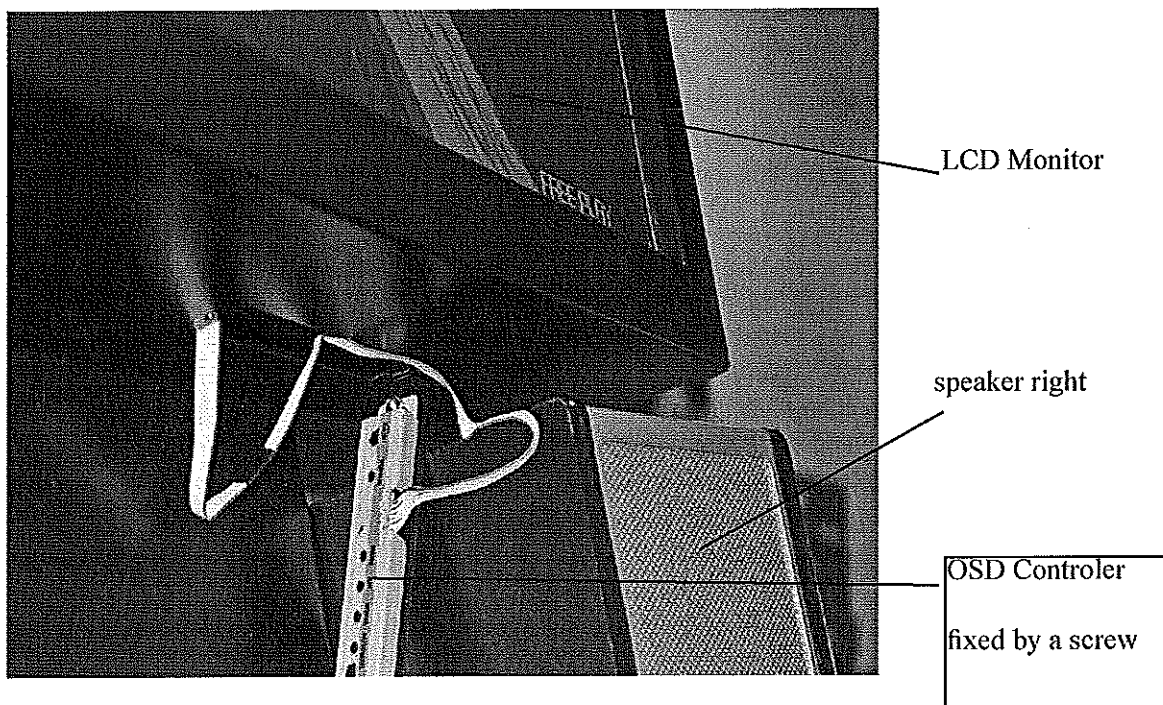
	Item	Description
A	Explanation of operation	Displays the operating instructions for the setting of B through H.
B	STEER CENTER	Set the STEER center position. Operating instructions: Position the bike at the center and press the View Change switch.
C	STEER RIGHT	Set the STEER rightmost position. Operating instructions: Lean the bike fully to the right and press the View Change switch.
D	STEER LEFT	Set the STEER leftmost position. Operating instructions: Lean the bike fully to the left and press the View Change switch.
E	ACCEL OFF	Set the accelerator release position. Operating instructions: Release the accelerator grip and press the View Change switch.
F	ACCEL ON	Set the full-throttle accelerator position. Operating instructions: Open the accelerator fully and press the View Change switch.
G	BRAKE OFF	Set the brake release position. Operating instructions: Release the brake lever and press the View Change switch.
H	BRAKE ON	Set the full brake position. Operating instructions: Pull the brake lever fully and press the View Change switch.
I	GO TO [SWITCH TEST]	Pressing the View Change switch terminates the initialization and displays the Switch Test screen.

- 3** After the initialization, the Switch Test screen appears. Conduct each test item to make sure that the machine operates properly. ("7-4-4 (3) SWITCH TEST.")
- 4** Hold the Select switch up and press the Enter switch to return to the I/O Test screen.

7-6 Adjustment of the LCD monitor

The following monitor adjustment switches are used for the adjustment of the LCD monitor.

- 1** To access the monitor adjustment switches, dismount the cable cover located on the front side of the Front Cabinet Assy under the Monitor Assy by removing the top two Torx bolts (#10-24) and loosening the bottom two bolts. The monitor lower decal bracket is affixed on the cable cover.



OSD Control

Thanks to the user-friendly design of OSD (On Screen Display), you can adjust your monitor by the keypads in monitor bezel.

6 5 4 3 2 1

1	Power Switch	Power On/Off
2	LED	Power Indicator
		Green:Normal
		Red:Power Saving
		Off:Power Off
3	Menu	Show OSD
4	+	Adjustment when OSD is shown
5	-	Adjustment when OSD is shown
6	Auto/Esc	Automatically optimize positions, phase&clock when OSD is shown,Exit OSD when OSD is shown

8. MAINTENANCE

WARNING

- To protect the service staff and other people from electric shock, accident and injury, be sure to turn off the power switch before conducting maintenance work (troubleshooting, repair, etc.).

8-1 Inspection and maintenance

WARNING

- Conduct maintenance periodically. Failure to conduct periodic inspection may result in unexpected accidents.
- Conduct the pre-service check everyday to prevent accidents. ("7-1 Pre-service check.")

8-1-1 Inspection items - To be conducted by a technician only -

Check the following inspection items regularly after performing the inspection described in "7-1 Pre-service check" on page 48.

(1) Inspecting the level adjusters

- Make sure that the machine is installed stably. ("5-3-3 Adjusting the level adjusters.")

(2) Inspecting the power cord plug

1. Make sure that the power cord is plugged firmly into the Cord Box Assy of the machine and the AC outlet.
2. If the connector sections of the power cord are dusty, clean them.
3. Check the power cord for cracks and dirty sheath. If there is any abnormality in the power cord, replace it with a new cord.

(3) Inspecting fasteners for tightness

Check the following screws and bolts for tightness. If any of them is loose, tighten firmly.

1. Bolts used for securing the Ride Assy to the Front Cabinet Assy ("5-3-1 Connecting the Ride Assy to the Front Cabinet Assy.")
2. Connection fitting mounting bolts ("5-3-4 Installing the connection fitting (for 2P-4P setup).")
3. Signboard Assy mounting bolts ("5-2-1 Removing the Signboard Assy.")
4. Monitor Assy mounting bolts ("5-2-2 Removing the Monitor Assy.")
5. Bike Assy mounting bolts ("5-2-3 Removing the Bike Assy.")

(4) Inspecting the Rack Assy

1. If the air inlet openings in the Rack Assy are covered with dust, clean.
2. If the air inlet openings or exhaust fan outlet openings in the Cabinet Assy are covered with dust, clean.
("8-1-2 Cleaning the air inlet and outlet openings.")

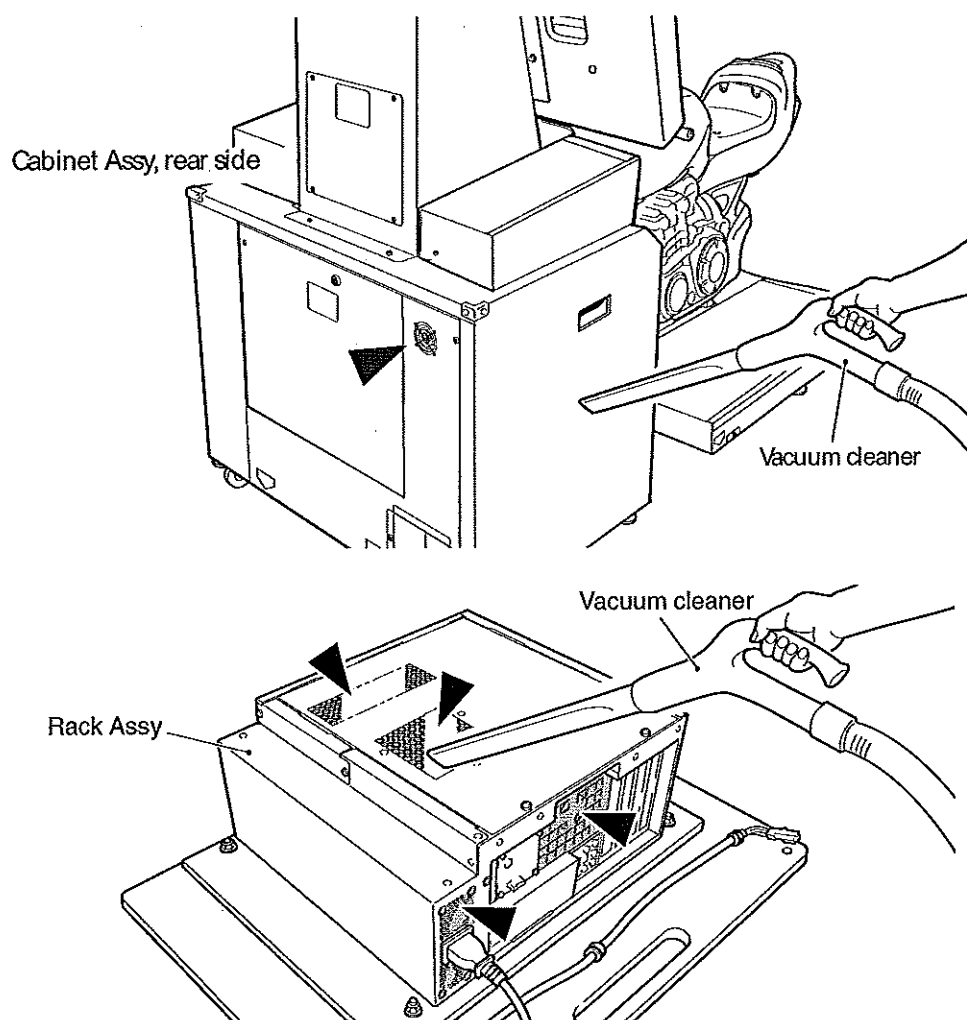
(5) Inspecting the communication cable

1. Check the communication cable connectors for secure connection. Also, check the cables for abnormality.

8-1-2 Cleaning the air inlet and outlet openings

- To be conducted by a technician only -

- 1** Turn off the power switch. ("5-7 Turning on the power switch.")
- 2** Take out the Rack Assy. ("8-3-2 (1) Replacing the Rack Assy" **1** through **4**.)



- Be careful not to damage the internal electrical parts when cleaning with a vacuum cleaner.

8-2 Troubleshooting

WARNING

- To protect the service staff and other people from electric shock, accident and injury and to prevent damage to the electric circuitry of the machine, be sure to turn off the power switch before initiating the described task.
- If the generated problem does not apply to any symptom described in sections 8-2-1 through 8-2-8 or if the action taken does not result in an improvement, turn off the power switch immediately to stop operating the machine, then contact your distributor. Operating the machine without correcting problems can result in an unexpected accident.

NOTICE

- In the event a problem occurs, first check to make sure that all connectors are connected securely.
- If there is a problem in any of the PC boards, contact your distributor. Never use a tester to conduct a continuity test. Internal voltage of a tester can damage ICs.
- When sending parts for repair, pack them carefully to protect them from damage during transportation. When sending the Rack Assy, PC boards or LCD monitor, enclose it with sponge or bubble wrap and place it in a corrugated cardboard box for protection against external impact.

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

Symptom	Cause	Remedy	Note
• The machine does not start up.	• The connector of the Rack Assy is disconnected.	• Insert the connector securely.	
• The communication-linked game cannot be played.	• The hub is not turned on.	• Turn on the power switch on the hub.	
	• The communication cable is not connected.	• Check the communication cable for secure connection.	
	• There is a broken wire in the communication cable.	• Replace the communication cable.	
• The machine does not operate stably or it malfunctions.	• The PCB ID is set incorrectly.	• Set the PCB ID correctly.	
	• The power supply voltage is outside the range of 100 to 120 V.	• 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	
• The machine turns off in the middle of operation.	• The circuit protector inside the power switch was activated and turned off the power switch.	• Turn on the power switch again.	
	* The circuit protector is designed to cut off the power supply when an abnormal current flows.	• If the circuit protector is activated frequently, there is a problem in the machine. Contact your distributor.	
• There is no sound from the speaker.	• The sound level is set very low.	• Adjust the sound level.	

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

Symptom	Cause	Remedy	Note
• There is no sound from the speaker.	• The sound level is set very low.	• Adjust the sound level.	
	• The connector is disconnected.	• Insert the connector firmly.	
	• The AMP PC Board is faulty.	• Replace the AMP PC Board.	
	• The speaker is faulty.	• Replace the speaker.	_____

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

Symptom	Cause	Remedy	Note
• There is no sound from the speaker.	• The sound level is set very low.	• Adjust the sound level.	
	• The connector is disconnected.	• Insert the connector firmly.	
	• The AMP PC Board is faulty.	• Replace the AMP PC Board.	
	• The speaker is faulty.	• Replace the speaker.	_____
• The muffler-end LEDs do not light.	• The connector is disconnected.	• Connect the connector securely.	
	• The Muffler-end LED PC Board is faulty.	• Replace the Muffler-end LED PC Board.	
• The tail lamp LEDs do not light.	• The connector is disconnected.	• Connect the connector.	
	• The Tail Lamp LED PC Board is faulty.	• Replace the Tail Lamp LED PC Board.	

8-2-4 Monitor Assy - To be conducted by a technician only -

Symptom	Cause	Remedy	Note
• The monitor does not display images.	• The power switch for the LCD monitor is turned off.	• Turn on the power switch for the LCD monitor.	
	• The connector is disconnected.	• Insert the connector firmly.	
	• The LCD monitor is faulty.	• Replace the LCD monitor.	

8-2-5 Signboard Assy - To be conducted by a technician only -

Symptom	Cause	Remedy	Note
• The fluorescent lamps do not light.	• The connector is disconnected.	• Connect the connector.	
	• The glow lamp is burned out.	• Replace the glow lamp.	
	• The fluorescent lamps are burned out.	• Replace the fluorescent lamps.	

8-2-6 Base Frame Assy - To be conducted by a technician only - .

Symptom	Cause	Remedy	Note
• The bike on the screen does not turn when the bike is leaned.	• The volumes have not been initialized.	• Initialize the volumes.	
	• The connector is disconnected.	• Connect the connector.	
	• The volumes are faulty.	• Replace the volumes.	

8-2-7 Handle Bar Assy - To be conducted by a technician only -

Symptom	Cause	Remedy	Note
• The brake does not work.	• The volumes have not been initialized.	• Initialize the volumes.	
	• The connector is disconnected.	• Connect the connector.	
	• The volumes are faulty.	• Replace the volumes.	
• The accelerator grip does not work.	• The volumes have not been initialized.	• Initialize the volumes.	
	• The connector is disconnected.	• Connect the connector.	
	• The volumes are faulty.	• Replace the volumes.	
• The View Change switch does not operate.	• The connector is disconnected.	• Connect the connector.	
	• The switch is broken.	• Replace the switch.	
• The View Change switch flashes when the game is not played.	• The connector is disconnected.	• Connect the connector.	
	• The switch is broken.	• Replace the switch.	
• The Shift switch does not operate.	• The connector is disconnected.	• Connect the connector.	
	• The switch is broken.	• Replace the switch.	

8-2-8 Error display - To be conducted by a technician only -

Symptom	Cause	Remedy	Note
• "LINK ERROR NETWORK TIMED OUT" appears on the Game screen.	• The PCB ID is not set correctly.	• Set the PCB ID correctly in all units.	
	• OPERATION TYPE is not set correctly.	• Set OPERATION TYPE correctly.	
	• The communication cable is not connected correctly.	• Connect the communication cable correctly.	
• "LINK ERROR PCB ID CORRUPTED" appears on the Game screen.	• The PCB ID is not set correctly.	• Set the PCB ID correctly in all units.	
• "BACKUP DATA ERROR" appears during the self-test at startup.	• Data in the backup memory has been initialized or is corrupted. • The Rack Assy is faulty.	• Check the settings. If they have been changed, reset them.	
		• If the error is generated repeatedly, the Rack Assy is faulty. • Contact your distributor	
• "BACKUP ERROR SOME BACKUP DATA INITIALIZED" appears at the upper right corner of the Game screen.	• Data in the backup memory has been initialized or is corrupted. • The Rack Assy is faulty.	• Check the settings. If they have been changed, reset them.	
		• If the error is generated repeatedly, the Rack Assy is faulty. • Contact your distributor	
• "CLOCK ERROR" appears during the self-test at startup.	• The Rack Assy is faulty.	• Replace the Rack Assy.	
• "CLOCK ERROR" appears at the upper right corner of the Game screen.	• The Rack Assy is faulty.	• Replace the Rack Assy.	
• "JV I/O ERROR" appears during the self-test at startup.	• The connector of the Rack Assy is disconnected.	• Connect the connector.	
	• The connector of the NA-JV PC Board is disconnected.	• Connect the connector.	
	• The NA-JV PC Board is faulty.	• Replace the NA-JV PC Board.	
• "COIN ERROR" appears on the Game screen.	• The coin device is faulty.	• Contact your distributor	
• "arcadedisk problem" appears during startup and the machine stops.	• The power switch was turned off immediately after it was turned on during the previous startup operation.	• Turn off the power switch, wait for 30 seconds, then turn on the power switch again.	

8-3 Removing and installing Assys and parts

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

(1) Replacing the fluorescent/glow lamp

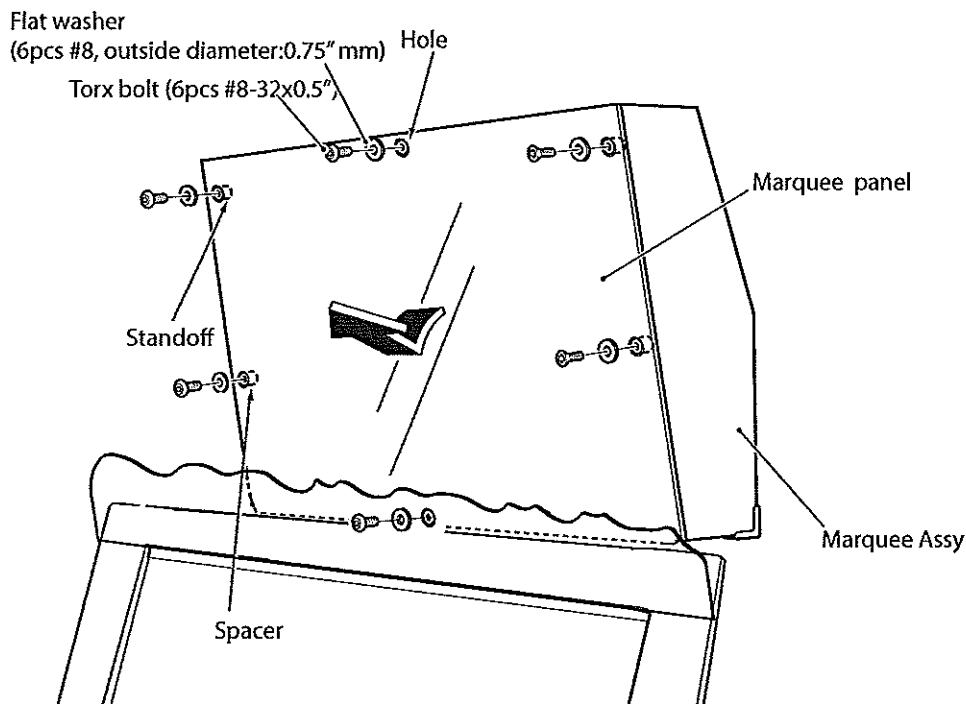
WARNING

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

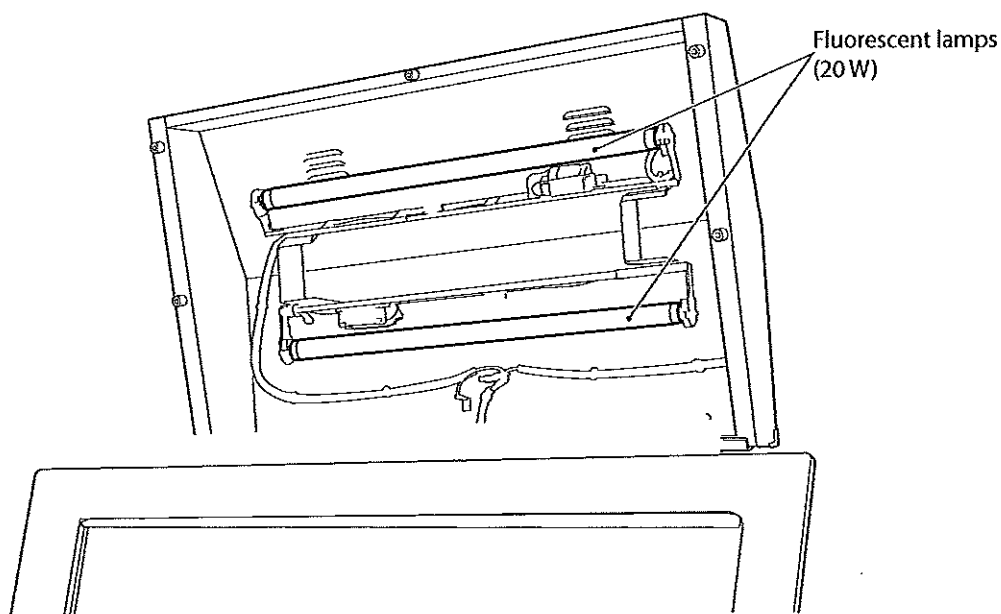
CAUTION

- The fluorescent lamps become hot. Be careful not to get burned when removing.
- Since the replacement of the fluorescent lamps or glow lamp must be conducted at a height, exercise caution.

- 1** Turn off the power switch. ("5-7 Turning on the power switch.")
- 2** Remove the five Torx bolts (#8-32 x 0.5") and five flat washers (#8, outside diameter: 3/4"), lift the signboard acrylic panel slightly and pull it forward to dismount.



- 3** Replace the fluorescent lamps (20 W) and glow lamp.



- In order to prevent fluorescent lamps from accidentally detaching, the fluorescent lamp fixture is designed in such a way that the fluorescent lamps do not come off easily. Push each fluorescent lamp toward one side to dismount it from the fixture.

- 4** To reinstall, follow the removal sequence in reverse.

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

(1) Replacing the Rack Assy

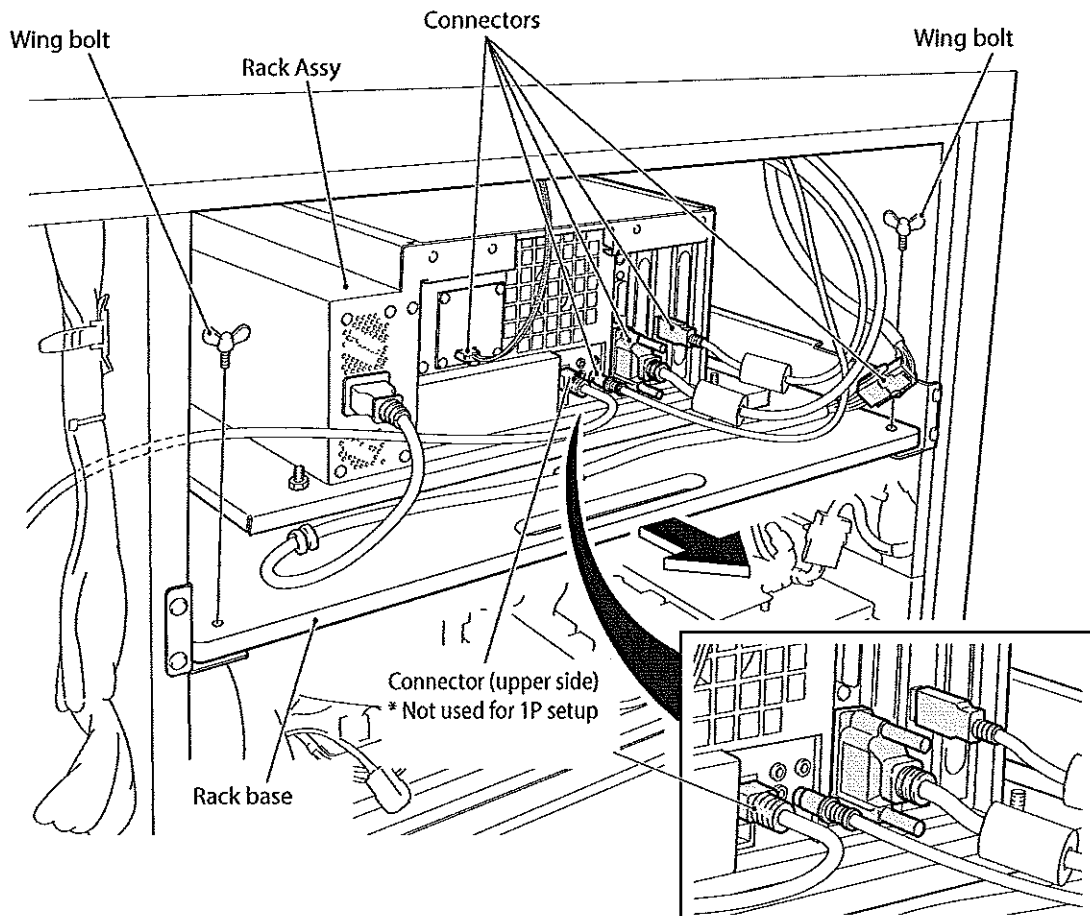
⚠ WARNING

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

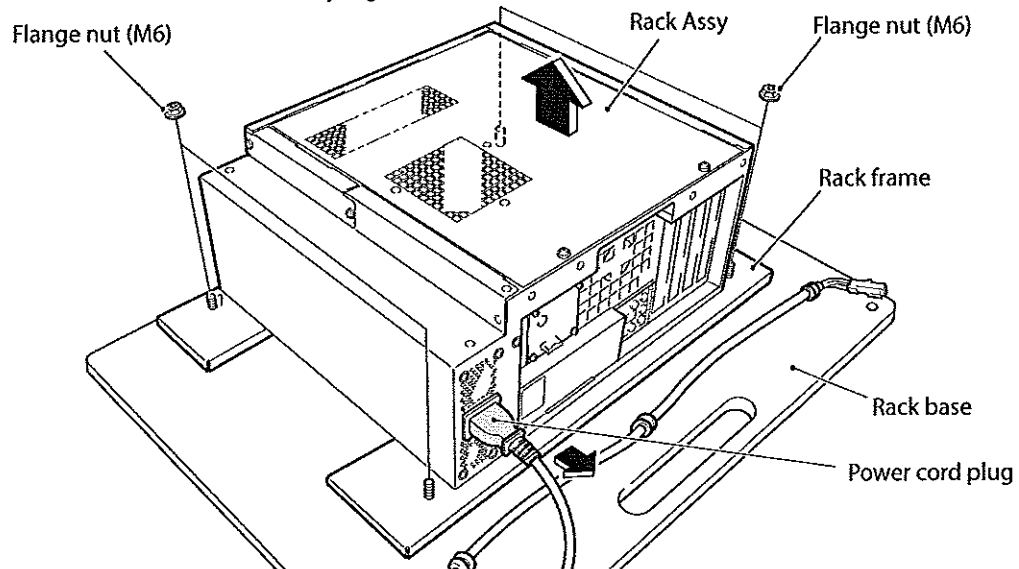
NOTICE

- The PC boards can be easily damaged by static electricity. If a PC board is handled by a person charged with static electricity, parts mounted on the PC board can become damaged.
Before touching PC boards, be sure to remove static electricity from your body by touching a grounded metal.

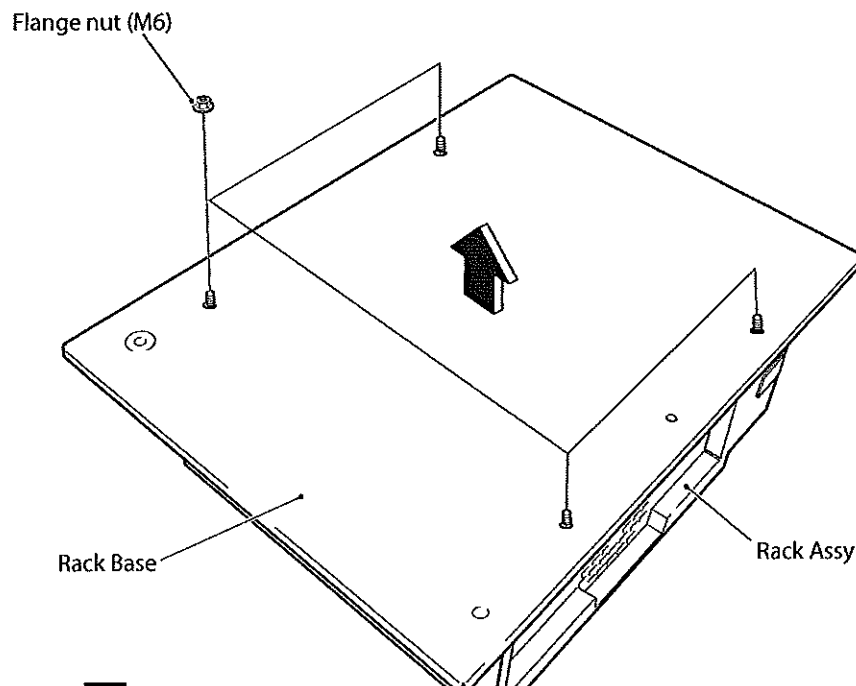
- 1** Turn off the power switch. ("5-7 Turning on the power switch.")
- 2** Dismount the maintenance panel. ("5-4 Removing and installing the maintenance panel.")
- 3** Disconnect the six connectors (five connectors in the case of 1P setup).
- 4** Remove the two wing bolts, pull the rack base forward and remove it.



- 5** Disconnect the power cord plug and remove the four flange nuts (M6), then remove the Rack Assy together with the rack frame.



- 6** Turn over the Rack Assy, remove the four flange nuts (M6), , and dismount the rack frame.



- 7** Replace the Rack Assy.

- 8** To reinstall, follow the removal sequence in reverse.



- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.
- Be sure to conduct an operation check and settings check after the replacement. ("7-4 Test mode.")

(2) Replacing the AMP PC Board

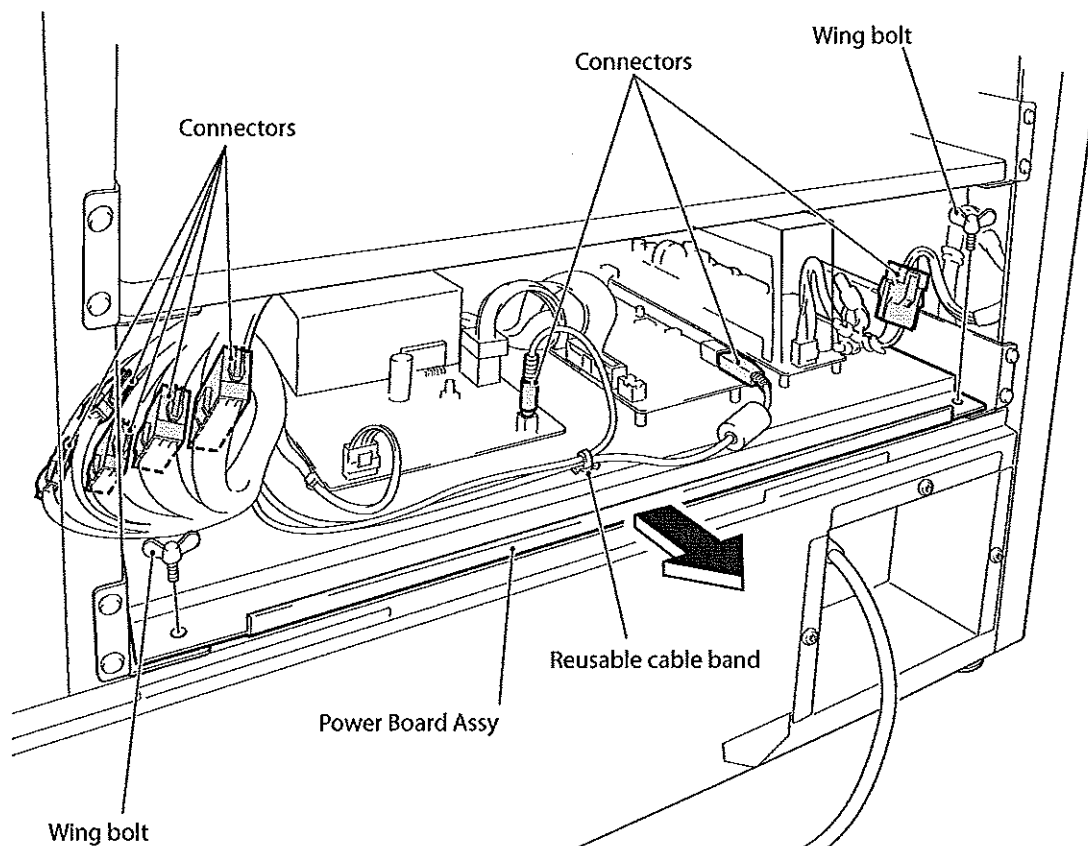
⚠ WARNING

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

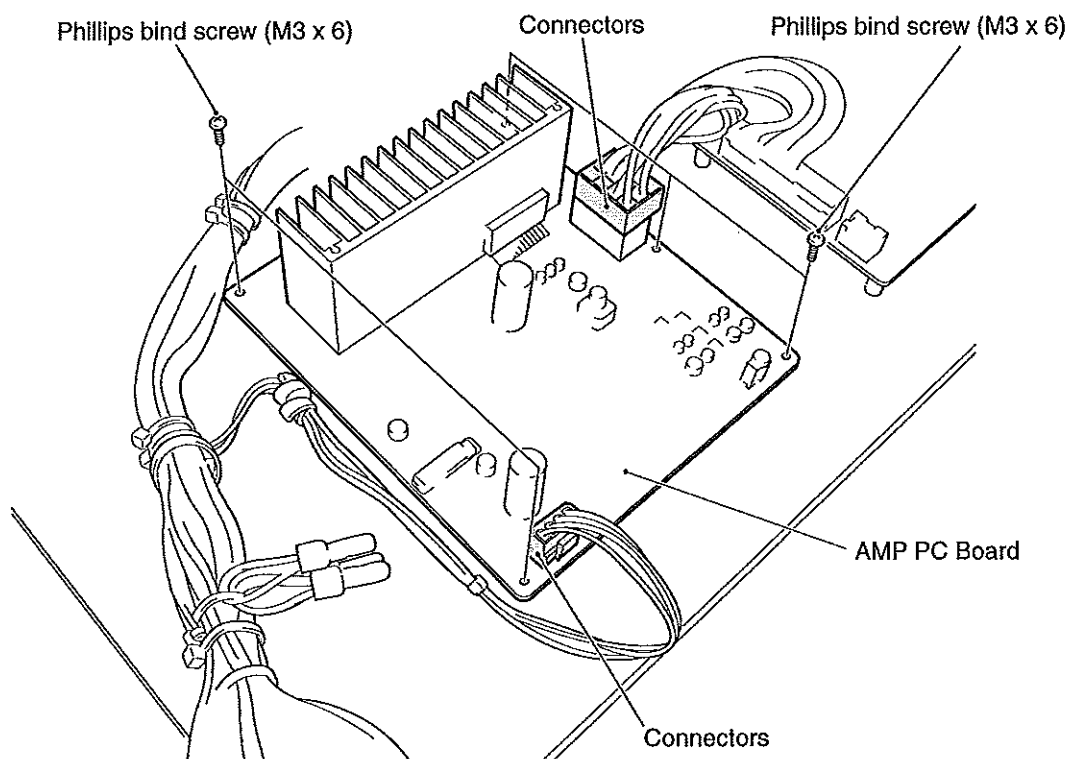
NOTICE

- The PC boards can be easily damaged by static electricity. If a PC board is handled by a person charged with static electricity, parts mounted on the PC board can become damaged.
Before touching PC boards, be sure to remove static electricity from your body by touching a grounded metal.

- 1** Turn off the power switch. ("5-7 Turning on the power switch.")
- 2** Dismount the maintenance panel. ("5-4 Removing and installing the maintenance panel.")
- 3** Disconnect the eight connectors and detach the reusable cable band.
- 4** Remove the two wing bolts and pull the Power Board Assy forward to dismount.



- 5** Disconnect the two connectors, remove the five Phillips bind screws, then replace the AMP PC Board.



- 6** To reinstall, follow the removal sequence in reverse.

NOTICE

- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.
- Be sure to conduct an operation check and settings check after the replacement. ("7-4-6 Sound test.")

(3) Replacing the NA-JV PC Board

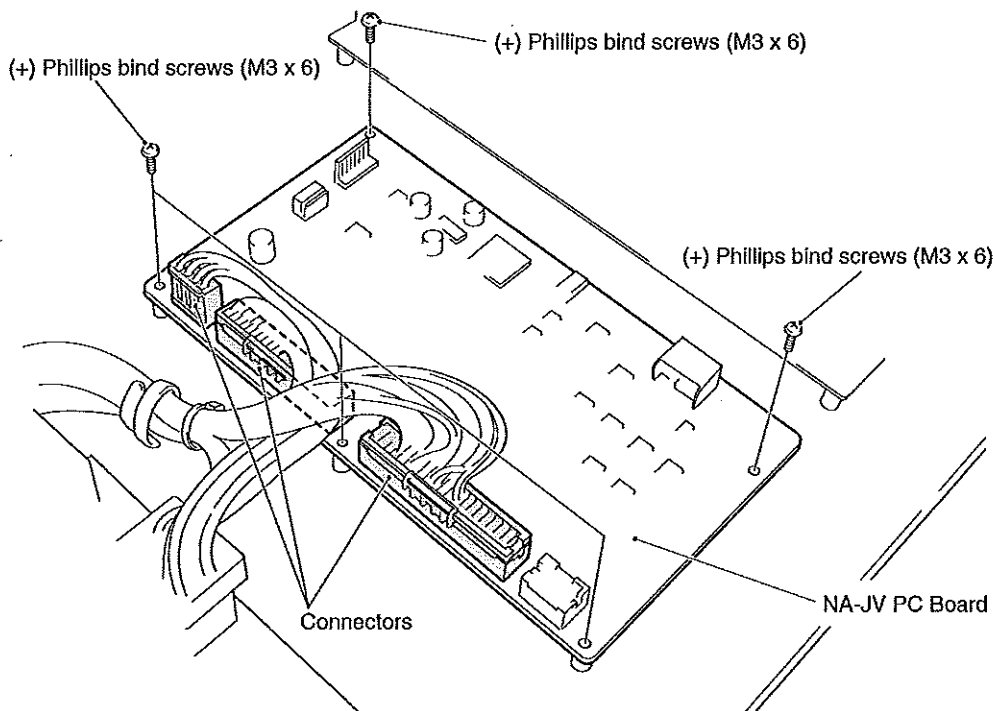
! WARNING

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

NOTICE

- The PC boards can be easily damaged by static electricity. If a PC board is handled by a person charged with static electricity, parts mounted on the PC board can become damaged.
Before touching PC boards, be sure to remove static electricity from your body by touching a grounded metal.

- 1** Turn off the power switch. ("5-71 Turning on the power switch.")
- 2** Dismount the Power Board Assy. ("8-3-2 (2) Replacing the AMP PC Board" **1** through **4**.)
- 3** Disconnect the three connectors, remove the five Phillips bind screws, then replace the NA-JV PC Board.



- 4** To reinstall, follow the removal sequence in reverse.

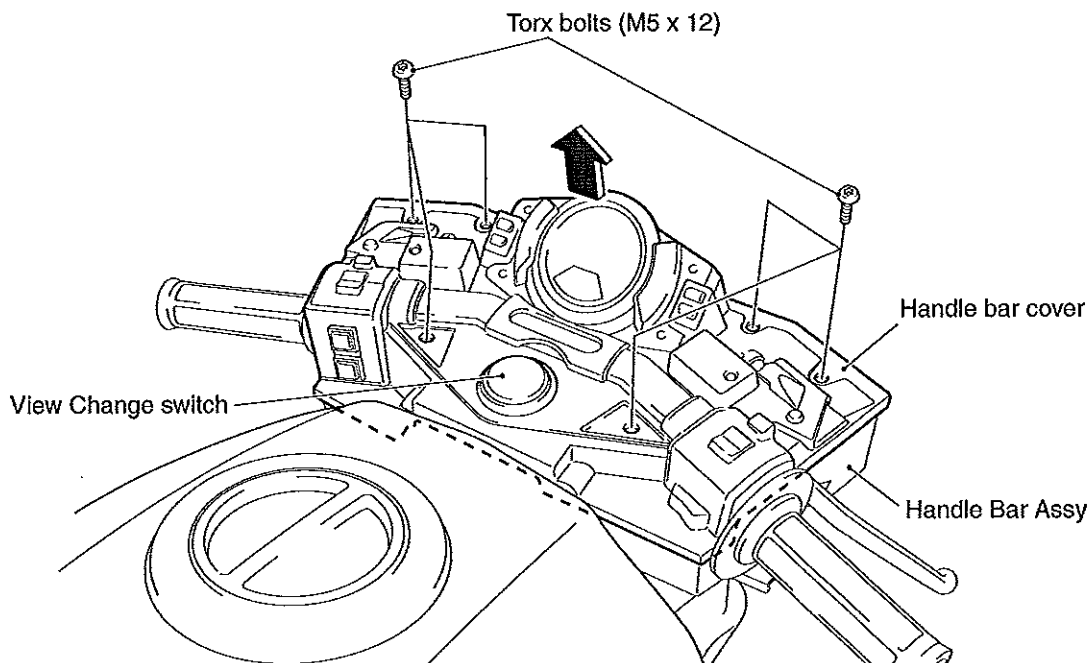
NOTICE

- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.
- Be sure to conduct an operation check and settings check after the replacement. ("7-4-4 Switch input/output tests.")

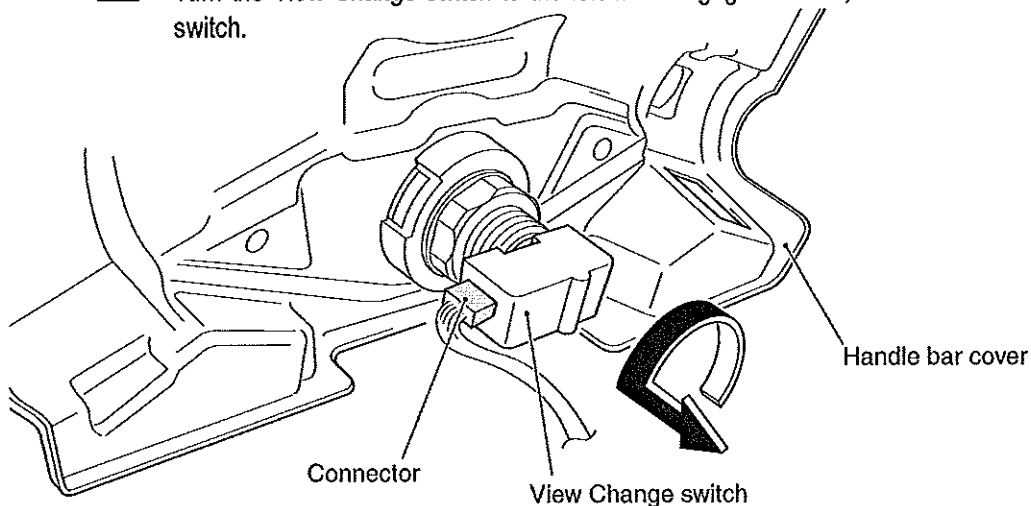
8-3-4 Handle Bar Assy - To be conducted by a technician only -**(1) Replacing the View Change switch and lamp****! WARNING**

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

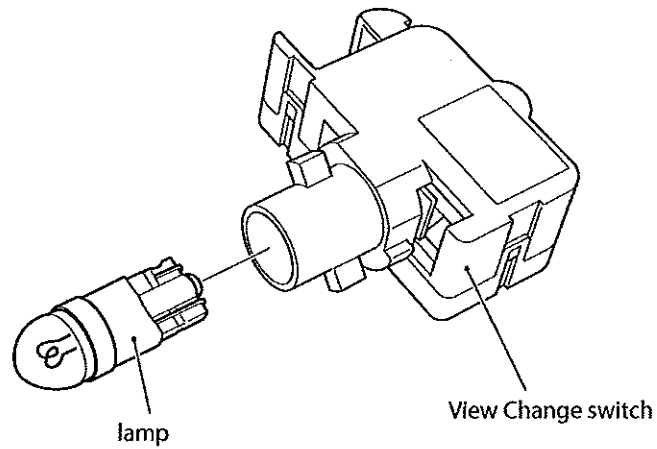
- 1** Turn off the power switch. ("5-7 Turning on the power switch.")
- 2** Remove the six Torx bolts (#10-24), disconnect the connector, then dismount the handle bar cover.



- 3** Turn the View Change switch to the left to disengage the lock, then remove the switch.



- 4** Pull out the LED lamp from the View Change switch.



- 5** Replace the View Change switch or LED lamp.
If the LED lamp is replaced, check the direction (see the diagram above) carefully during installation.

- 6** To reinstall, follow the removal sequence in reverse.



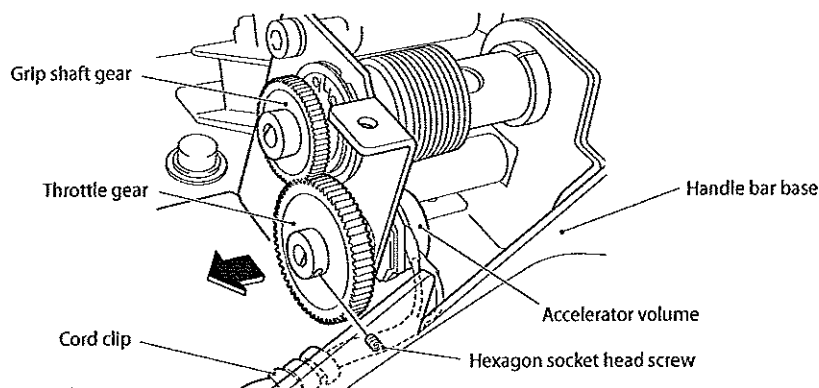
- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.
- After the replacement, be sure to check the switch for proper operation and make sure that the LED lamp lights.
- Be sure to conduct an operation check and settings check after the replacement. ("7-4-4 (3) SWITCH TEST.")

(2) Replacing the accelerator volume

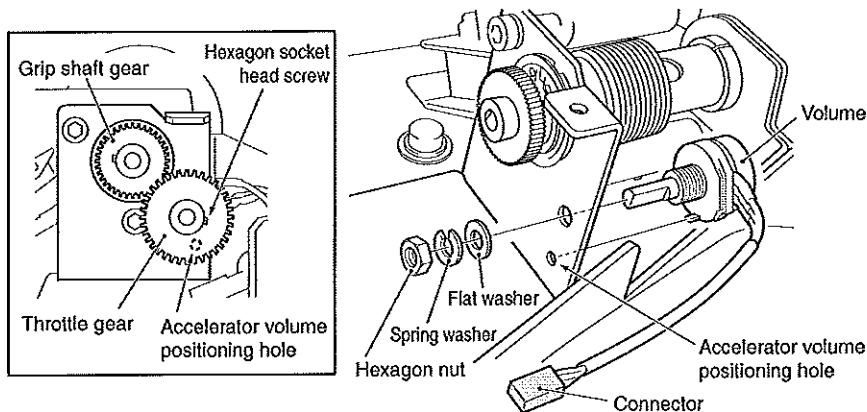
! WARNING

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

- 1** Turn off the power switch. ("5-7 Turning on the power switch.")
- 2** Remove the handle bar cover. ("8-3-4 (1) Replacing the View Change switch and LED lamp.")
- 3** Loosen the hexagon socket head screw and dismount the throttle gear from the handle bar base.



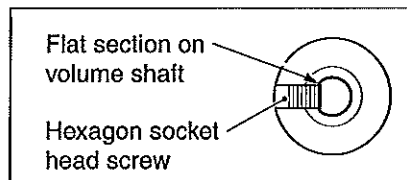
- 4** Remove the cord clip wrapped around the cord, disconnect the connector, and remove the flat washer, spring washer and hexagon nut from the volume, then dismount the volume from the handle bar base.



- 5** Replace the volume. To install the volume, align the protrusion on the volume with the hole.
* When installing the volume, return the accelerator to idle position, set the terminal on the volume toward you, and engage the gears so that the hexagon socket head screw on the throttle gear faces toward the right side when viewed from the throttle gear side.
- 6** To reinstall, follow the removal sequence in reverse.



- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.
- When installing the volume, align the flat section on the volume shaft with the hexagon socket head screw.



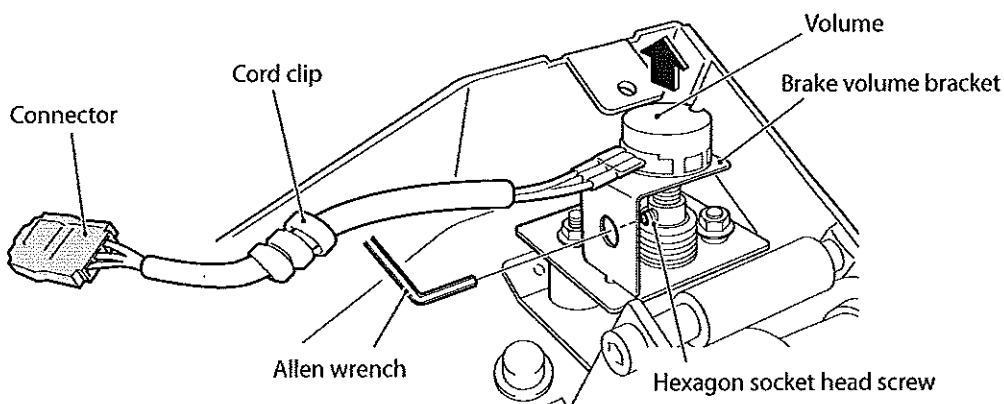
- Be sure to initialize the volume after the replacement. ("7-5-1 Initializing volumes.")

(3) Replacing the brake volume

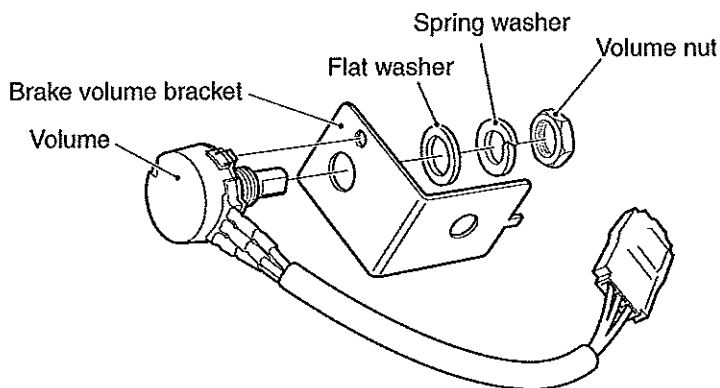
! WARNING

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

- 1** Turn off the power switch. ("5-7 Turning on the power switch.")
- 2** Remove the handle bar cover. ("8-3-4 (1) Replacing the View Change switch and LED lamp.")
- 3** Loosen the hexagon socket head screw and dismount the volume together with the brake volume bracket.



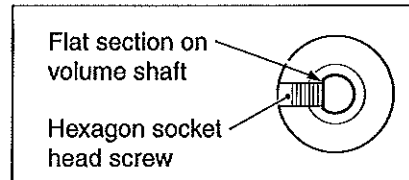
- 4** Remove the cord clip wrapped around the cord, disconnect the connector, and remove the flat washer, spring washer and volume nut from the volume, then dismount the volume from the brake volume bracket.



- 5** Replace the volume.
- 6** To reinstall, follow the removal sequence in reverse.



- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.
- When installing the volume, align the flat section on the volume shaft with the hexagon socket head screw.



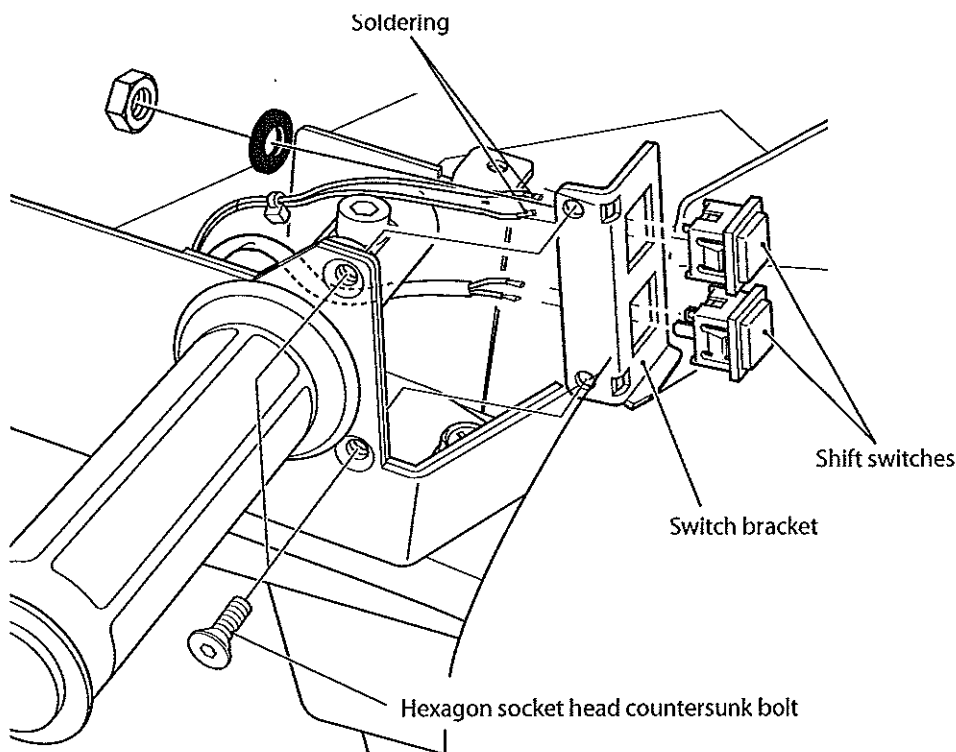
- Be sure to initialize the volume after the replacement. ("7-5-1 Initializing volumes.")

(4) Replacing the Shift switch

! WARNING

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

- 1** Turn off the power switch. ("5-7 Turning on the power switch.")
- 2** Remove the handle bar cover. ("8-3-4 (1) Replacing the View Change switch and LED lamp.")
- 3** Remove the two hexagon socket head countersunk bolts (#10-24) and dismount the switch bracket.
- 4** Disconnect the flat-type terminals, and dismount the Shift switches from the switch bracket by squeezing the claws on the Shift switch toward the inside, then replace the switches.
When installing the switches, connect the yellow/white harness to the top switch and the green/white harness to the bottom switch.

**NOTICE**

- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.
- Be sure to conduct an operation check and settings check after the replacement. (See P. 63 "7-4-4 (3) SWITCH TEST.")

8-3-5 Ride Assy - To be conducted by a technician only -

(1) Replacing the Muffler-end LED PC Board

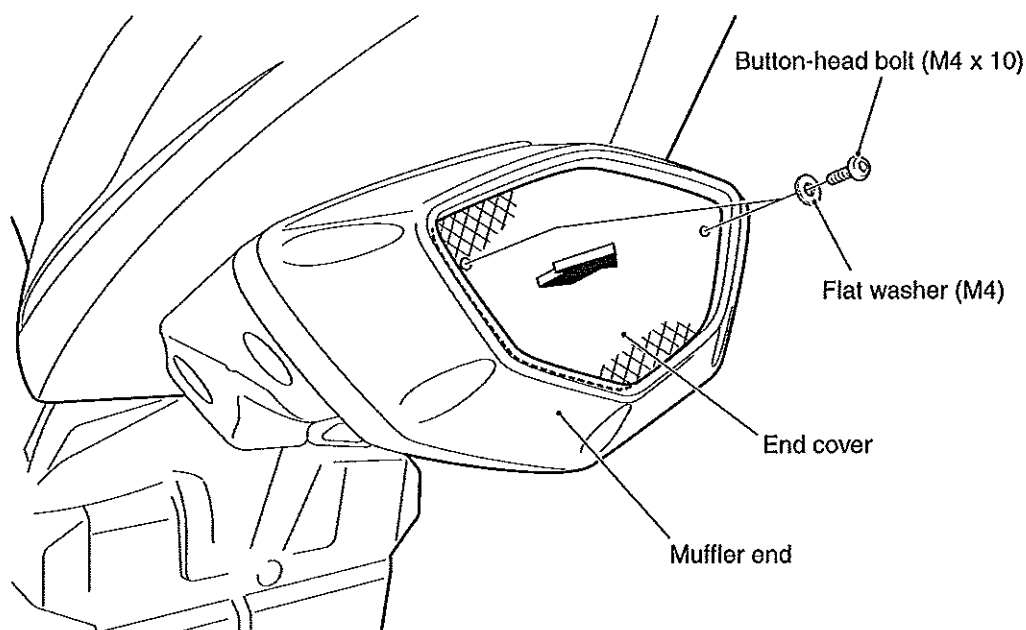
WARNING

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

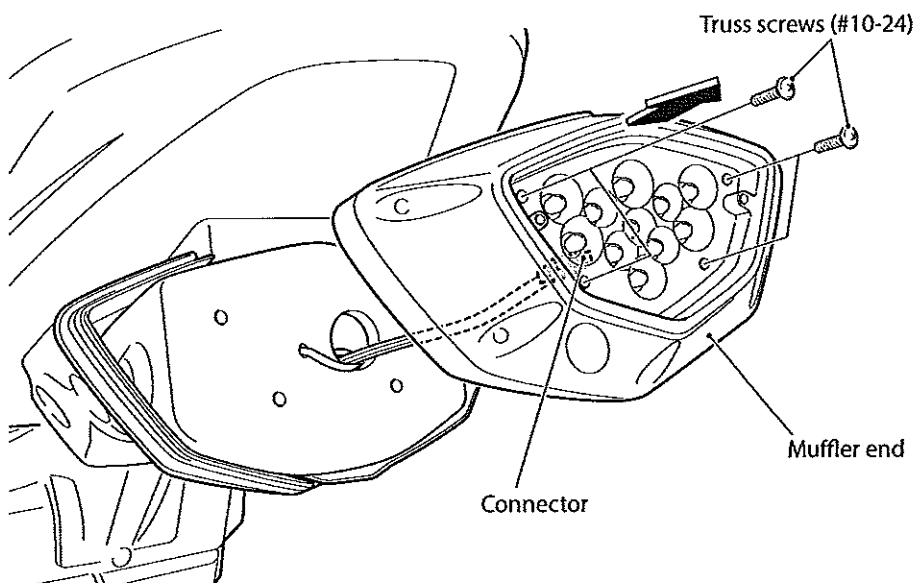
NOTICE

- The PC boards can be easily damaged by static electricity. If a PC board is handled by a person charged with static electricity, parts mounted on the PC board can become damaged.
Before touching PC boards, be sure to remove static electricity from your body by touching a grounded metal.

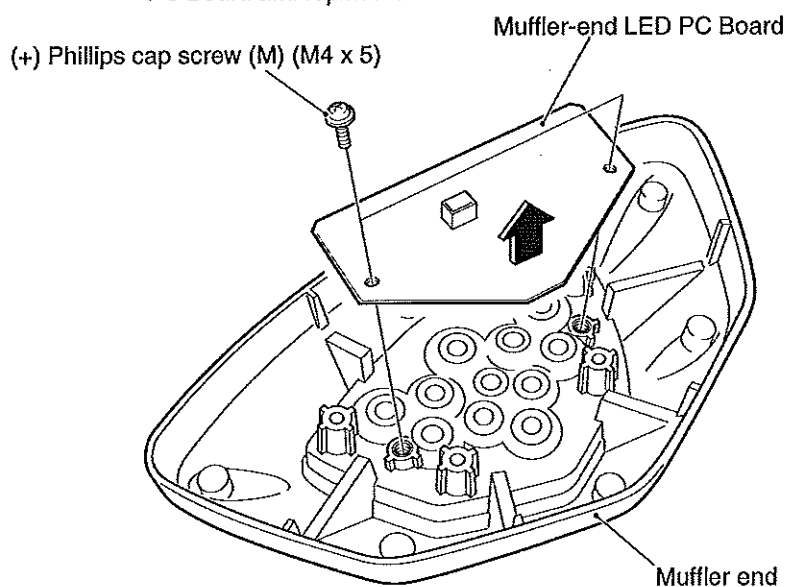
- 1** Turn off the power switch. ("5-7 Turning on the power switch.")
- 2** Remove the two button-head bolts (M4 x 10) and two flat washers (M4), then dismount the end cover.



- 3** Remove the four truss screws (#10-24), slide the muffler end, disconnect the connector, then dismount the muffler end.



- 4** Remove the two Phillips cap screws (M4 x 5), then remove the Muffler-end LED PC Board and replace it.



- 5** To reinstall, follow the removal sequence in reverse.



- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.
- Be sure to conduct an operation check and settings check after the replacement. ("7-4-4 (4) LAMP TEST.")

(2) Replacing the Tail Lamp LED PC Board

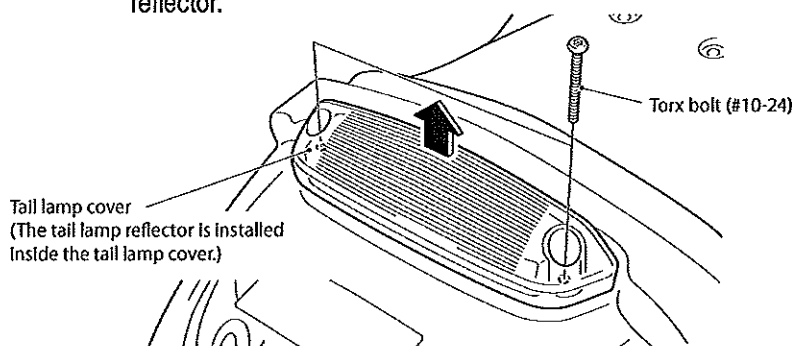
WARNING

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

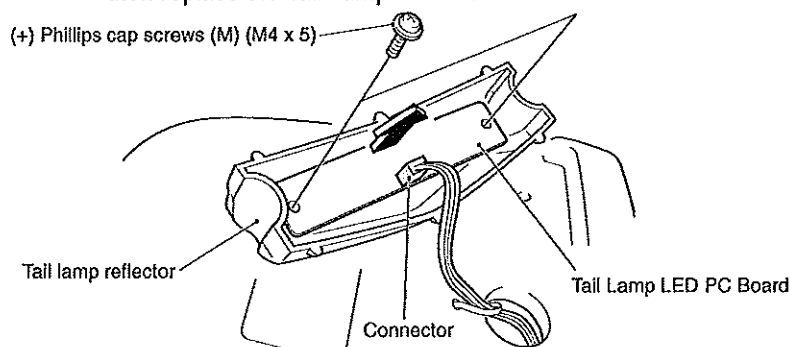
NOTICE

- The PC boards can be easily damaged by static electricity. If a PC board is handled by a person charged with static electricity, parts mounted on the PC board can become damaged.
Before touching PC boards, be sure to remove static electricity from your body by touching a grounded metal.

- 1 Turn off the power switch. ("5-7 Turning on the power switch.")
- 2 Remove the two Torx bolts (#10-24), then dismount the tail lamp cover and tail lamp reflector.



- 3 Remove the two Phillips cap screws (M) (M4 x 5) and disconnect the connector, then replace the Tail Lamp LED PC Board.



- 4 To reinstall, follow the removal sequence in reverse.

NOTICE

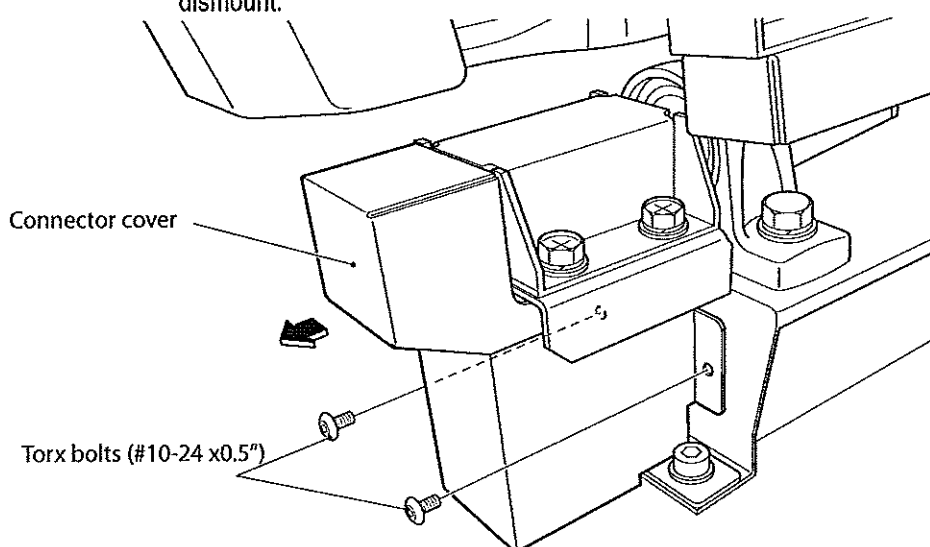
- During installation, be sure to engage the locking mechanism securely, making sure not to pinch the harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.
- Be sure to conduct an operation check and settings check after the replacement. ("7-4-4 (4) LAMP TEST.")

(3) Replacing the bank angle volume

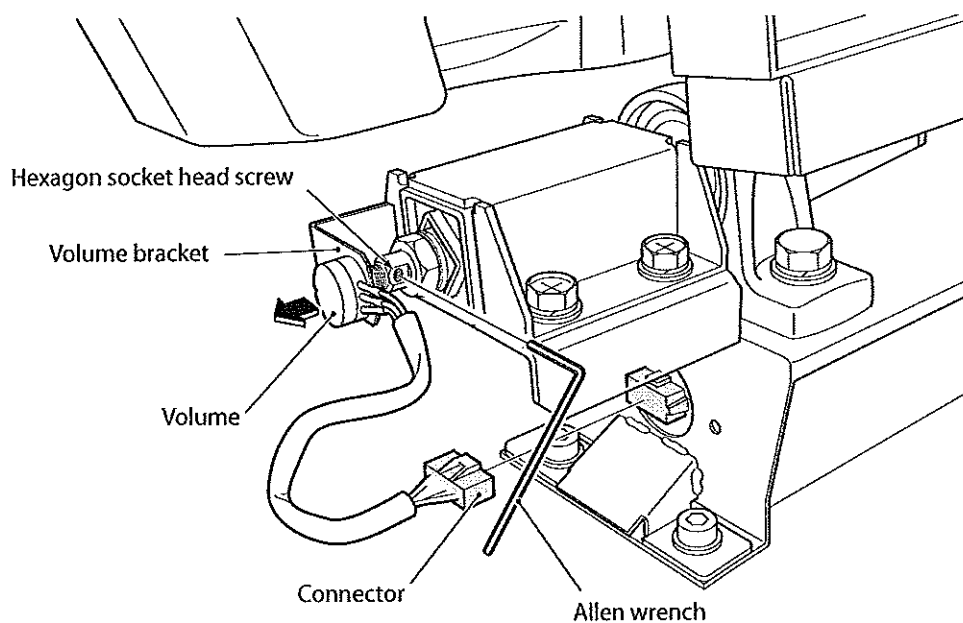
! WARNING

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

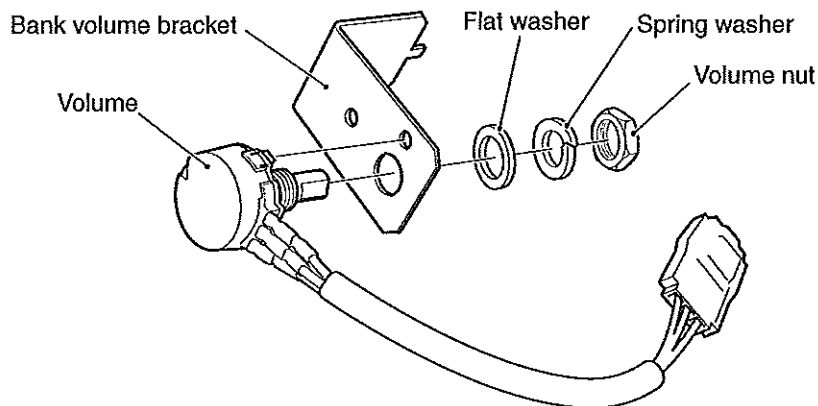
- 1** Turn off the power switch. ("5-7 Turning on the power switch.")
- 2** Dismount the engine covers (L) and (R). ("5-2-3 Removing the Bike Assy" **1** through **3**.)
- 3** Remove the two Torx bolts (#10-24x0.5") and slide the connector cover forward to dismount.



- 4** Disconnect the connector, loosen the hexagon socket head screw, and dismount the volume together with the volume bracket.



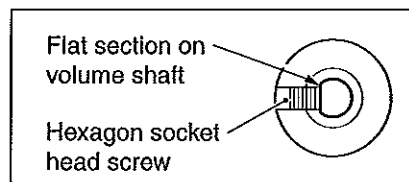
- 5** Remove the flat washer, spring washer and volume nut, then dismount the volume from the volume bracket.



- 6** Replace the volume



- During installation, be sure to lock the connector securely.
- During installation, be careful not to pinch the connector or harness.
- To prevent damage to electrical circuits due to incorrect connector connection, check the direction of the connector carefully when connecting.
- When installing the volume, align the flat section on the volume shaft with the hexagon socket head screw.



- Be sure to initialize the volume after the replacement. ("7-5-1 Initializing volumes.")

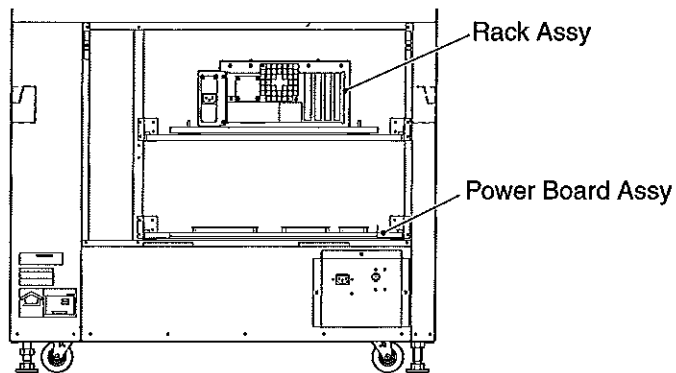
9. DISCARDING THE MACHINE



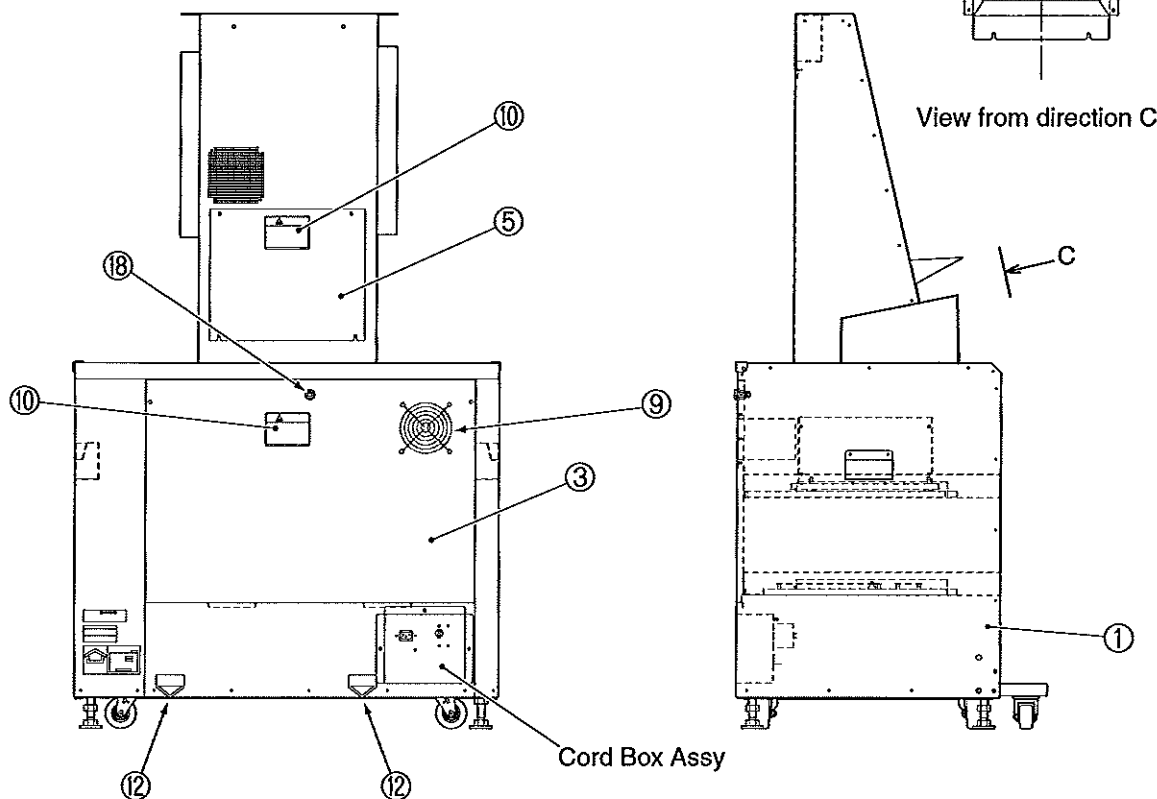
WARNING

- When the machine is discarded, it must be collected, transported and discarded in accordance with the laws and regulations.
- When entrusting third-party companies to collect, transport and discard the machine, be sure to use specialized companies to perform those tasks.

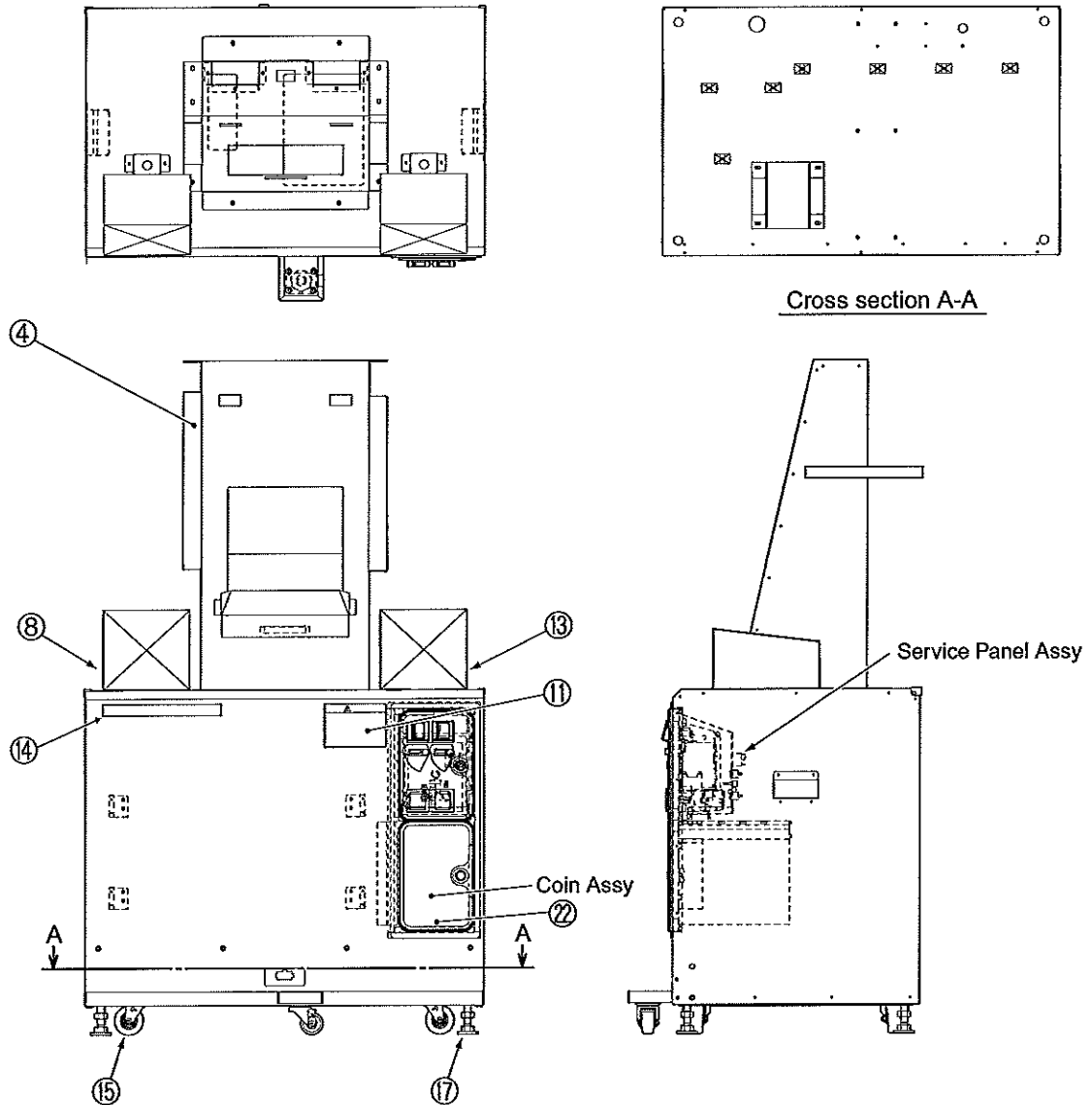
10-3 Cabinet Assy



③ Unassembled



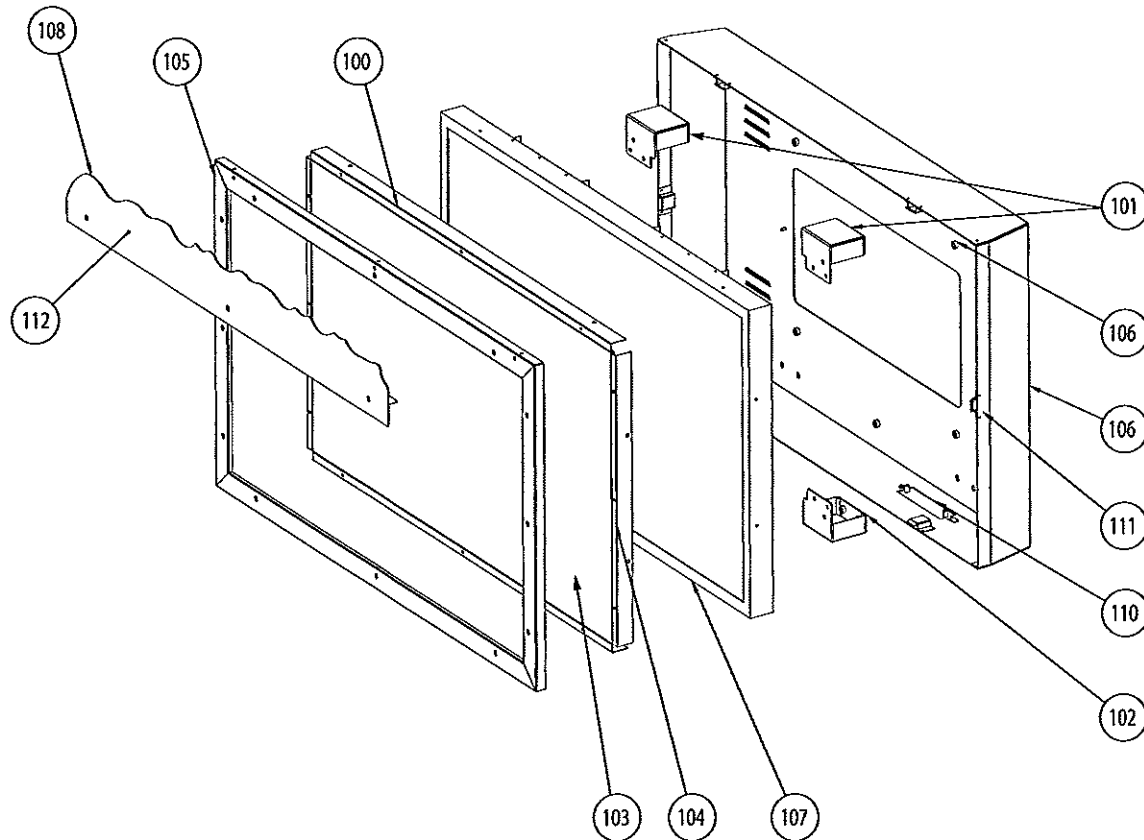
No.	Description	Qty	Part #
1	CABINET, NIRIN	1	NN63-12630-00
3	CABINET, MAINTENANCE PANEL	1	NN63-12631-00
5	MAINTENANCE PANEL (LARGE)	1	NN10-12633-00
9	EXHAUST BRKT. VENT	1	NN10-12635-00
10	LABEL, WARNING, HAZARDOUS AREA	2	VG40-10599-00
12	DECAL, FORK	2	VG40-06682-00
18	LOCK ASSY. W/CAM	1	NN26-12689-00



No.	Description	Qty	Part #
4	MONITOR FRAME BASE	1	NN10-12632-00
8	SPEAKER GRILL (L)	1	NN10-12634-00
11	DECAL, CAUTION PLAYER	1	NN40-12443-00
13	SPEAKER GRILL (R)	1	NN10-12634-01
14	LABEL, EPILEPTIC WARNING	1	VG44-07943-00
15	CASTER, SWIVEL TYPE	4	RM24-12554-00
17	LEG LEVELER	4	RM21-12480-00
22	COIN DOOR ASSY.	1	NN83-12636-00

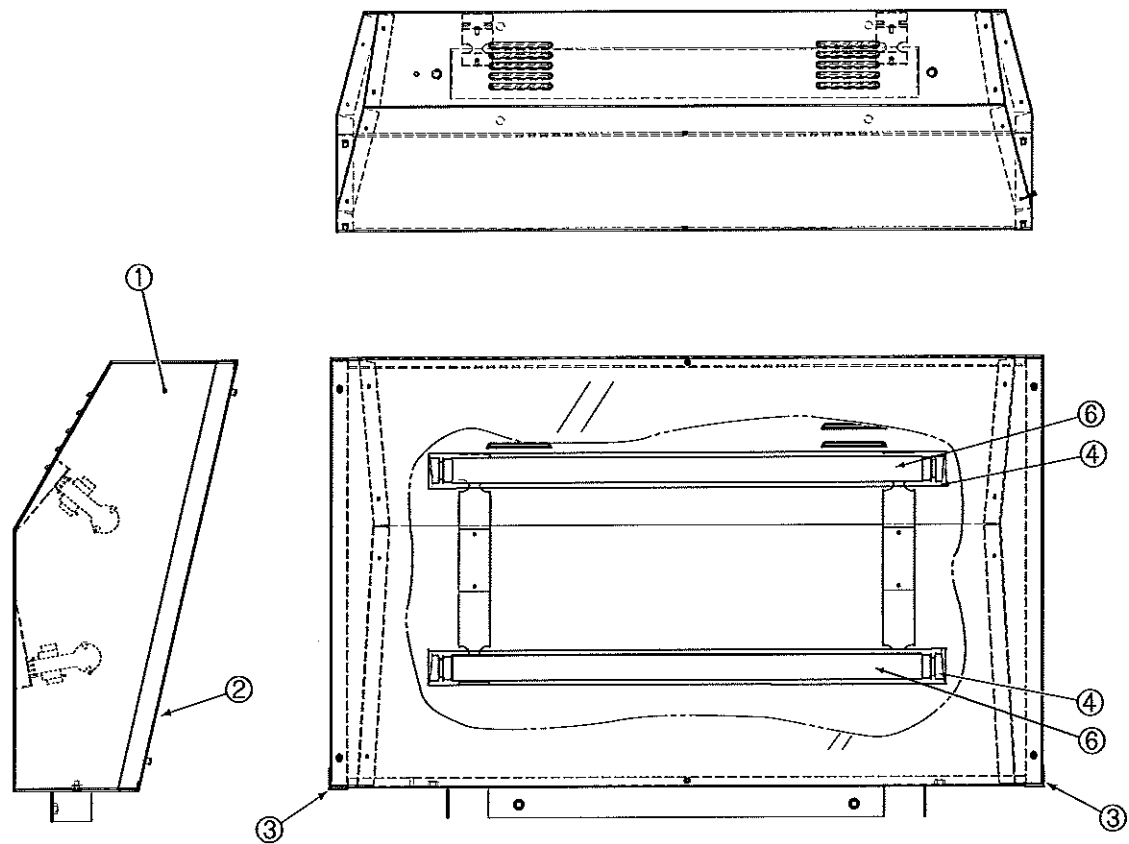
10. PARTS LISTS

10-4 Monitor Assy



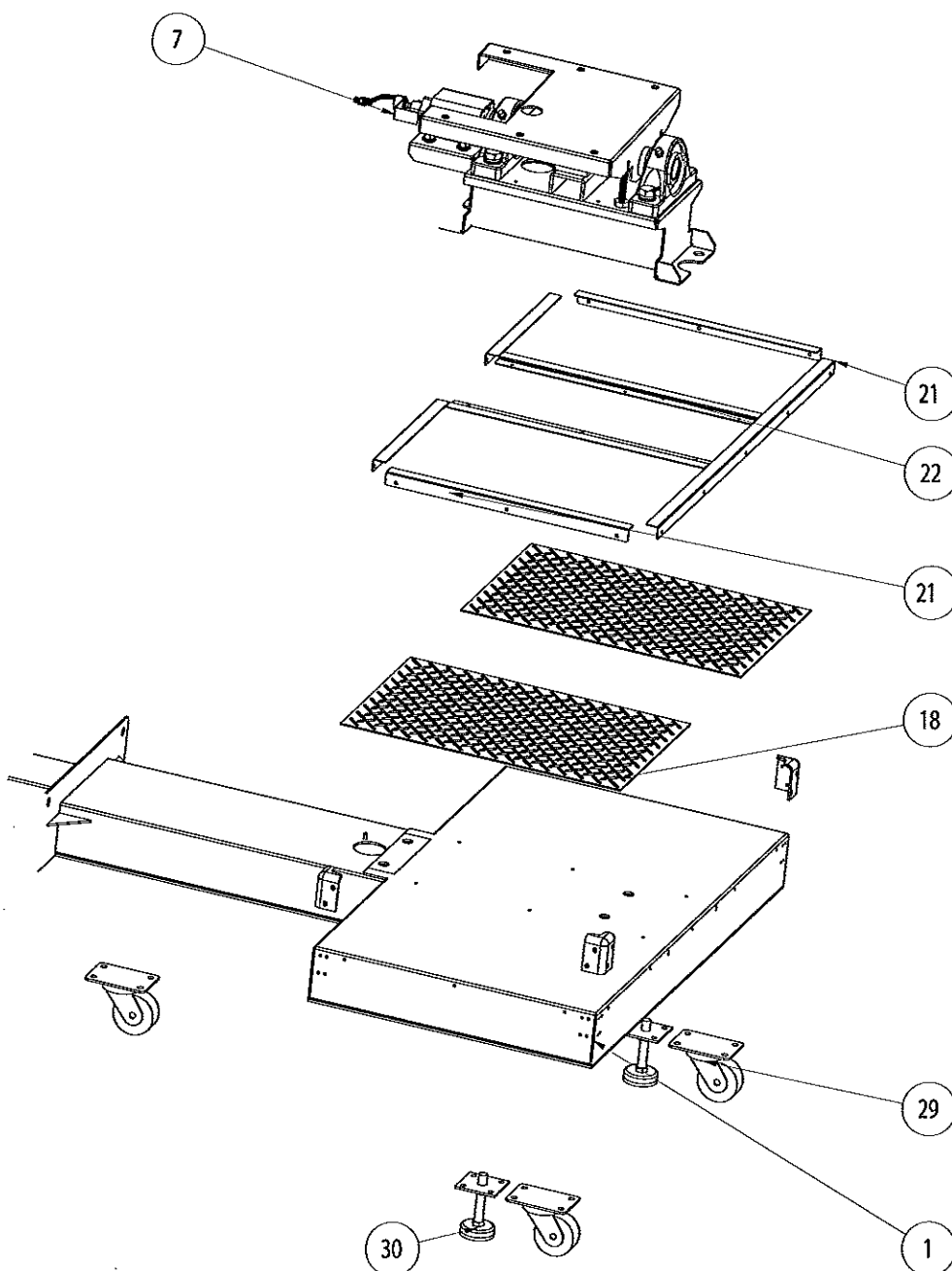
No.	Description	Qty	Part #
100	GLASS SUPPORT TOP/BOTTOM	2	NN10-12641-00
101	MONITOR MTG. BRKT. UPPER	2	NN10-12640-00
102	MONITOR, MTG. BRKT. (LOWER)	2	NN10-12704-00
103	MONITOR GLASS	1	NN99-12637-00
104	GLASS SUPPORT (LT/RT)	2	NN10-12700-00
105	FRONT MONITOR COVER	1	NN10-12638-00
106	REAR MONITOR COVER	1	NN10-12639-00
107	42" LCD-FHD MONITOR-1920X1080	1	VG85-12435-00
108	DECAL HOLDER	1	NN10-12629-00
110	MONITOR ACCESS PLATE	1	NN10-12705-00
111	MONITOR SUPPORT	6	NN10-12706-00
112	DECAL, MONITOR, UPPER	1	NN40-12444-00

10-5 Signboard Assy

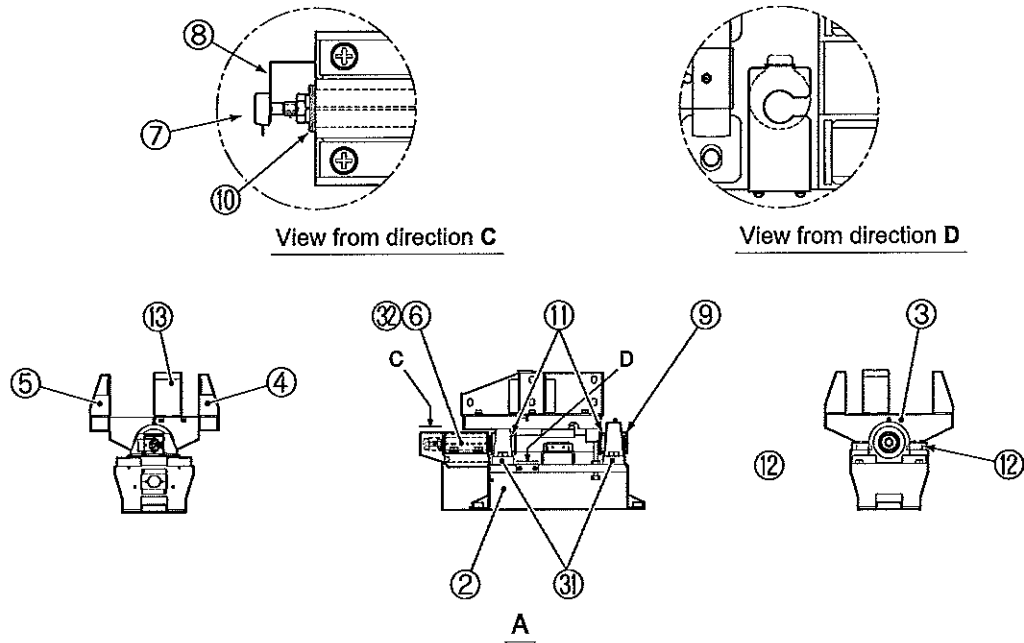


No.	Description	Qty	Part #
1	SIGNBOARD BASE	1	NN10-12642-00
2	MARQUEE PANEL NIRIN	1	NN40-12455-00
3	POINT COVER	2	NN90-12628-00
4	FLOURESCENT FIXTURE 24"	2	VG57-00058-01
6	LAMP (24")	2	VG57-02028-00

10-6 Base Frame Assy



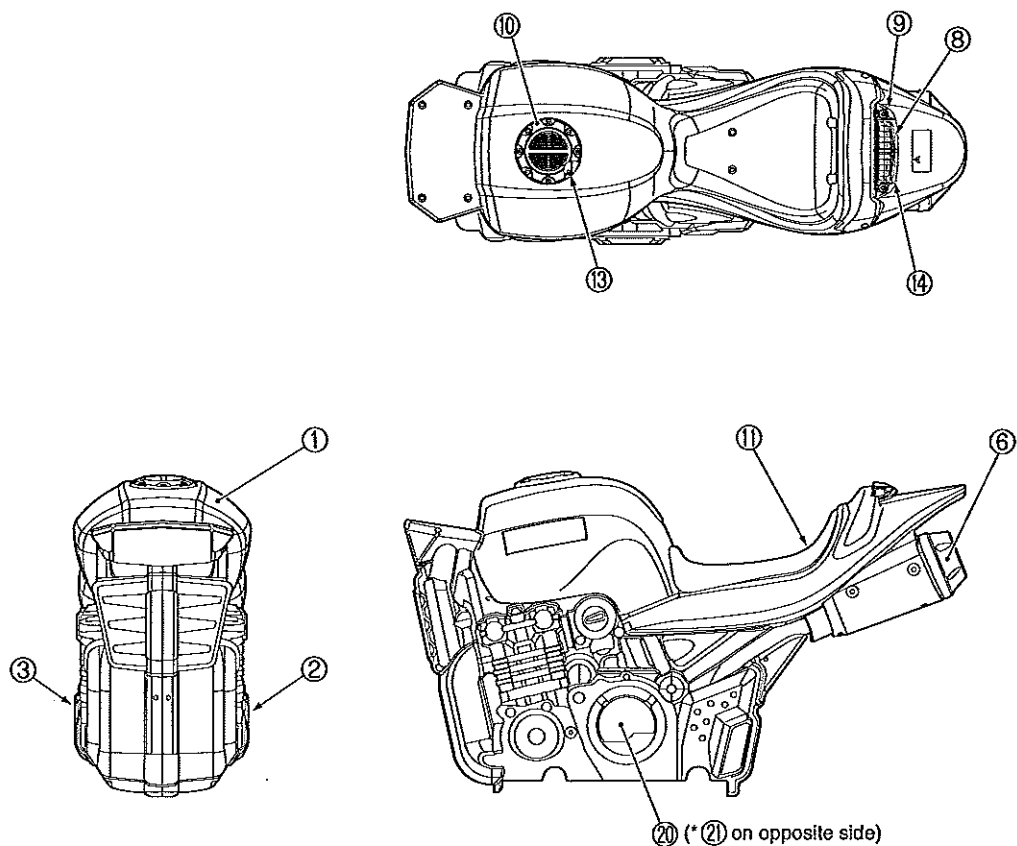
No.	Description	Qty	Part #
1	BASE FRAME	1	NN10-12643-00
7	POT COVER	1	NN10-12649-00
18	MAT, RUBBER, BIKE PLATFORM	2	NN96-12620-00
21	SIDE MOLDING	2	NN10-12657-00
22	REAR MOLDING	1	NN10-12658-00
29	CASTER, SWIVEL TYPE	3	RM24-12554-00
30	LEG LEVELER	3	RM21-12480-00



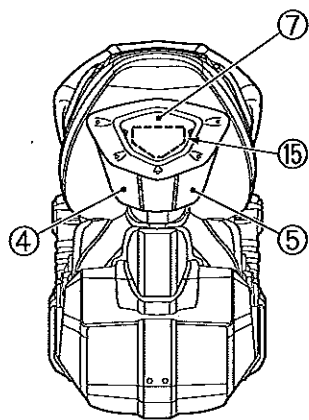
No.	Description	Qty	Part #
2	STOPPER BASE	1	NN10-12644-00
3	BIKE BASE	1	NN10-12645-00
4	BIKE BASE SIDE (L)	1	NN10-12646-00
5	BIKE BASE SIDE (R)	1	NN10-12647-00
6	ROSTER BRACKET	1	NN10-12648-00
7	POT COVER	1	NN10-12649-00
8	POTENTIOMETER BRACKET	1	NN10-12650-00
9	WASHER (A)	1	NN10-12651-00
10	WASHER (B)	1	NN10-12652-00
11	WASHER (C)	2	NN10-12653-00
12	STOPPER RUBBER	2	NN96-12654-00
13	CLAMP BRACKET	1	NN10-12655-00
31	PILLOW UNIT	2	NN10-12661-00
32	RUBBER SPRING	1	NN96-12662-00

10. PARTS LISTS

10-7 Bike Assy

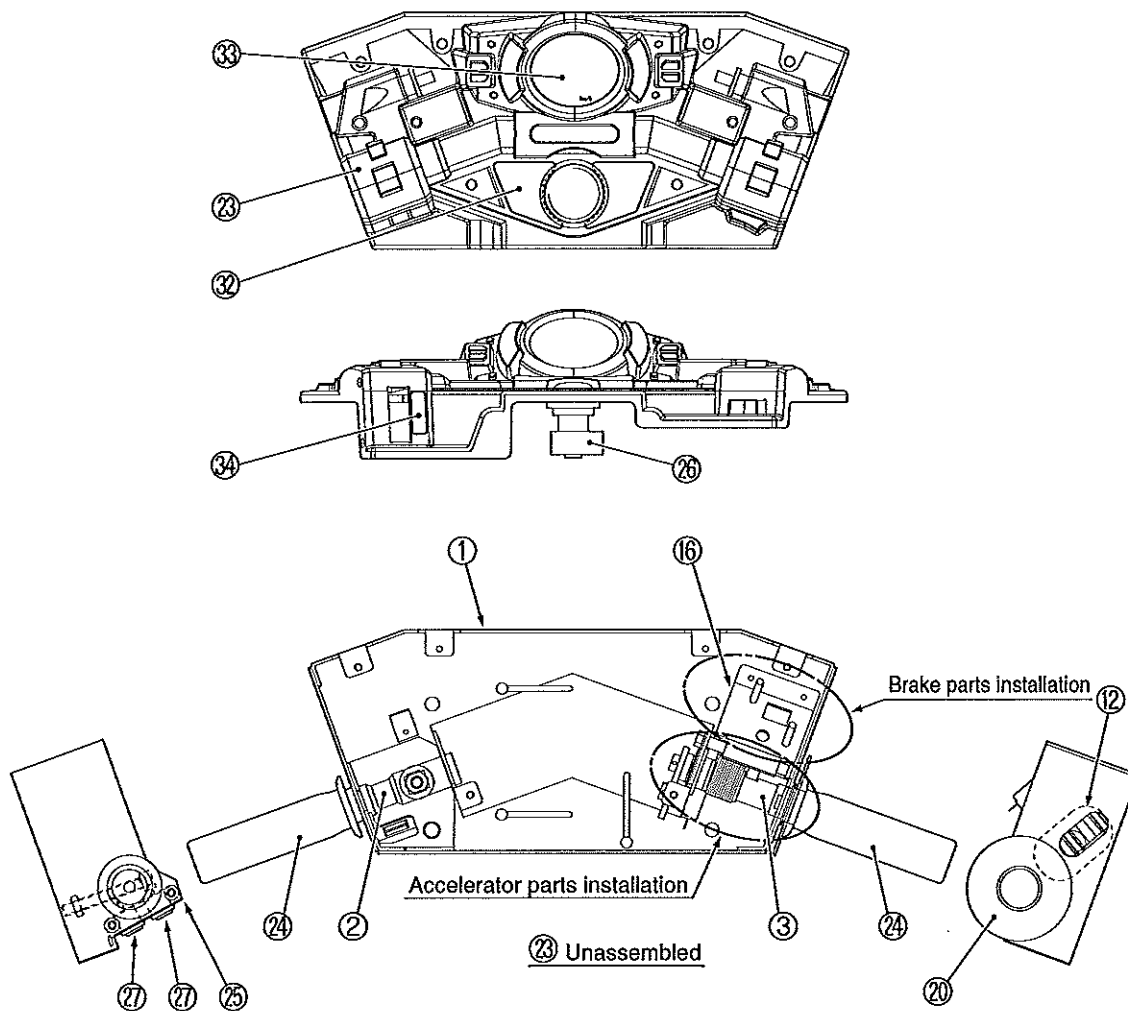


No.	Description	Qty	Part #
1	BODY, BIKE, NIRIN	1	NN90-12450-00
2	NIRIN, ENGINE COVER LT. EXP	1	NN03-12408-99
3	NIRIN, ENGINE COVER RT. EXP	1	NN03-12408-98
6	MUFFLER,END,NIRIN	1	NN03-12291-99
8	TAIL LAMP REFLECTOR	1	NN03-12291-98
9	TAIL LAMP COVER	1	NN03-12291-97
10	TANK CAP	1	NN03-12291-96
11	SEAT, BIKE, NIRIN	1	NN90-12451-00
13	SPEAKER, 40HM, 15W, 4"	1	VG54-11592-00
14	NIRIN, TAIL LED PCB KIT EXP	1	NN03-12273-00
20	PLASTIC, LEFT ENG CAP	1	NN40-12457-00
21	PLASTIC, RIGHT ENG CAP	1	NN40-12458-00

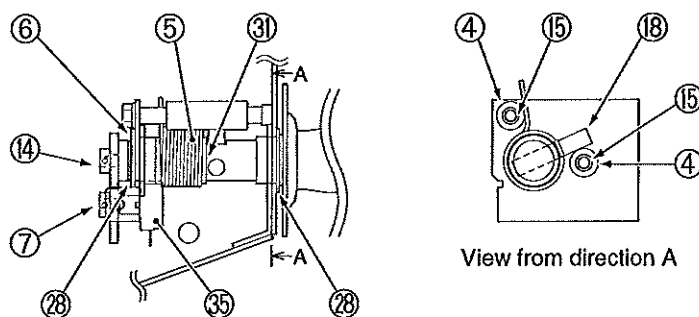


No.	Description	Qty	Part #
4	MUFFLER, LEFT, NIRIN	1	NN90-12453-00
5	MUFFLER, RIGHT, NIRIN	1	NN90-12452-00
7	END COVER	1	NN95-12621-00
15	NIRIN, MUFFLER LED PCB KIT EXP	1	NN03-12272-00

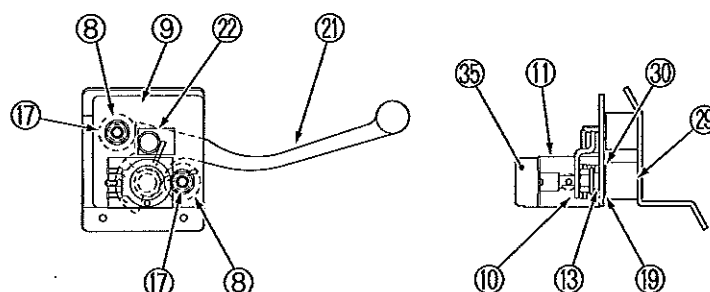
10-8 Handle Bar Assy



No.	Description	Qty	Part #
1	HANDLE BAR BASE	1	NN10-12666-00
2	GRIP SHAFT (A)	1	NN10-12667-00
3	GRIP SHAFT (B)	1	NN10-12668-00
12	SLIDE PLATE	1	NN95-12677-00
16	BRAKE BASE	1	NN10-12681-00
20	FINGER GUARD	1	NN10-12685-00
23	NIRIN, HANDLE COVER KIT EXP	1	NN03-12409-00
24	NIRIN, BIKE GRIPS STOP-BLK	2	NN96-12419-00
25	SWITCH BRACKET	1	NN10-12688-00
26	PUSHBUTTON W/MICROSWITCH	1	VG80-12623-00
27	PUSHBUTTON ILLUMINATED	2	VG80-12626-00
32	DECAL, START BUTTON	1	NN40-12446-00
33	PLASTIC, METER NIRIN	1	NN40-12456-00
34	DECAL, SHIFT	1	NN40-12448-00



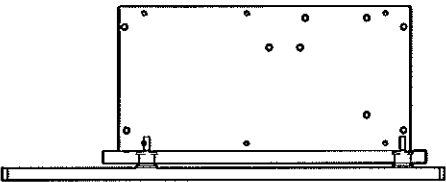
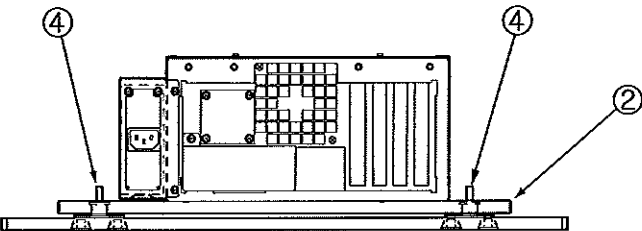
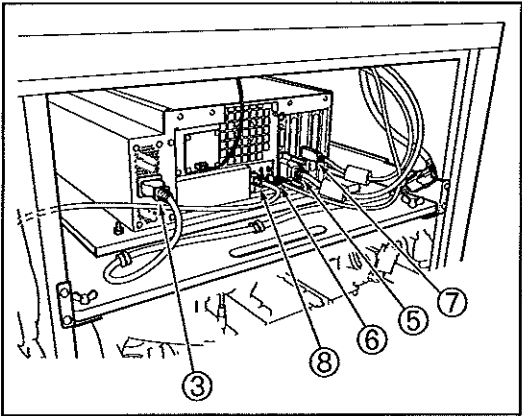
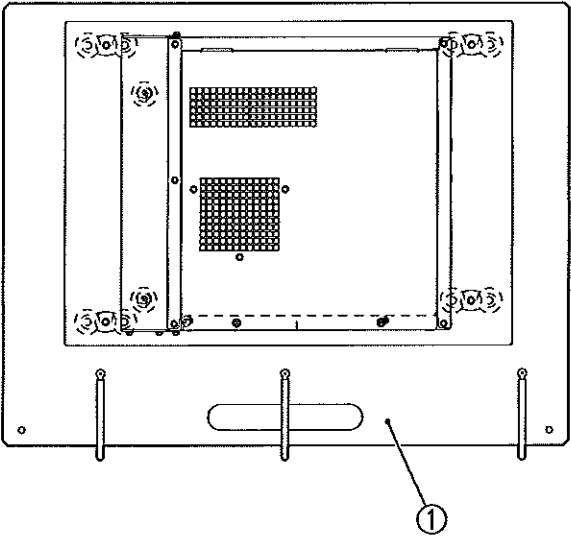
Details of accelerator parts installation



Details of brake parts installation

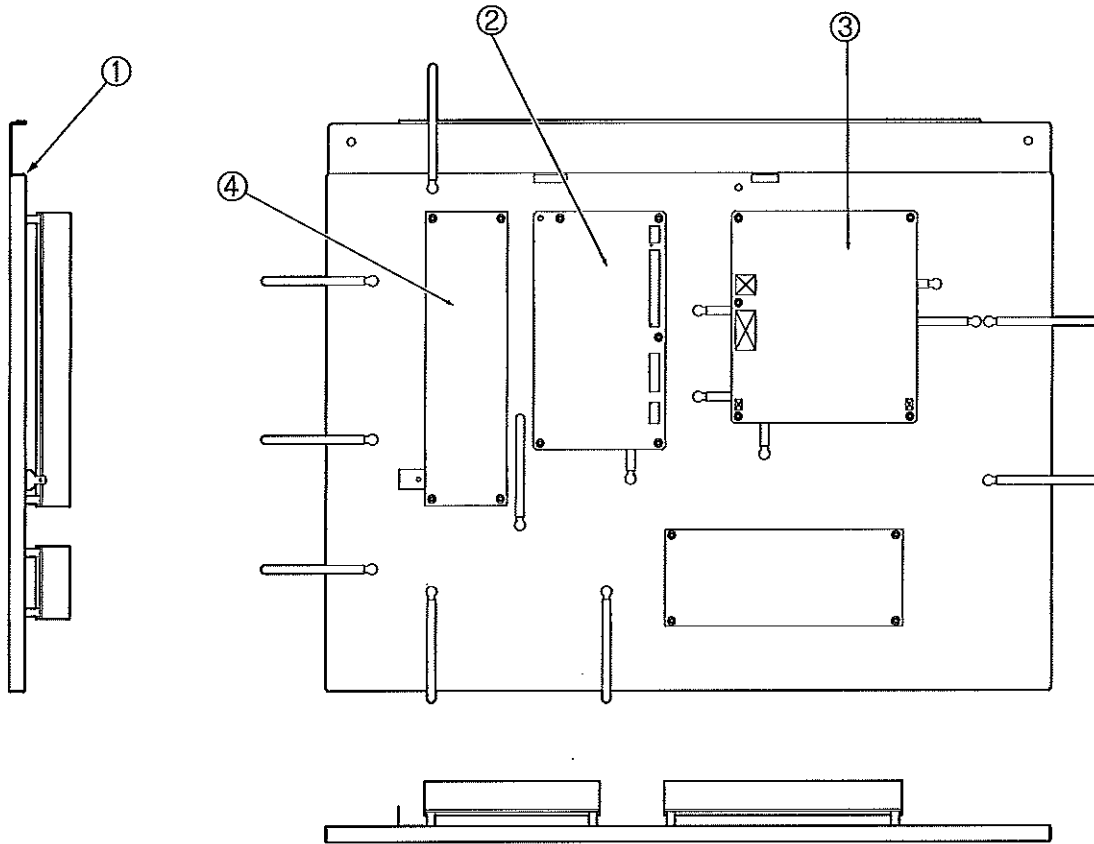
No.	Description	Qty	Part #
4	THROTTLE STOPPER	2	NN96-12669-00
5	THROTTLE SPRING	1	NN22-12670-00
6	WASHER PLATE	1	NN10-12671-00
7	THROTTLE GEAR	1	NN59-12672-00
8	BRAKE STOPPER	2	NN96-12673-00
9	BRAKE UPPER PLATE	1	NN10-12674-00
10	BRAKE SPRING	1	NN22-12675-00
11	POTENTIOMETER, BRACKET	1	NN10-12676-00
13	SPRING SEAT SPACER	1	NN59-12678-00
14	GRIP SHAFT GEAR	1	NN59-12679-00
15	ACCELERATOR SPACER	2	NN59-12680-00
17	BRAKE SPACER	2	NN59-12682-00
18	ACCELERATOR PIN	1	NN11-12683-00
19	BRAKE WASHER	1	NN21-12684-00
21	BRAKE	1	NN10-12686-00
22	STOPPER ROD	1	NN11-12687-00
28	FLANGE BUSHING (LFF)	2	NN59-12690-00
29	FLANGE BUSHING (LFF)	1	NN59-12691-00
30	FLANGE BUSHING (LFF)	1	NN59-12692-00
31	FLANGE BUSHING	1	NN59-12693-00
35	POT,1K 60 DEG,(PKG OF 1)	2	VG75-03824-00

10-9 Rack Assy



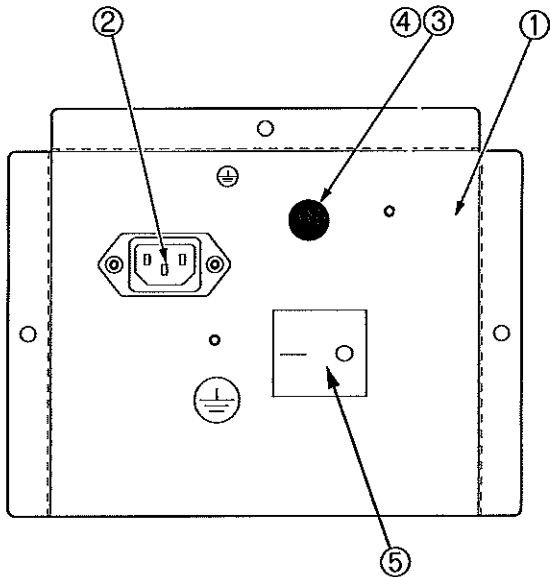
No.	Description	Qty	Part #
1	RACK BASE	1	NN63-12694-00
2	RACK FRAME	1	NN10-12627-00
3	AC-VL CABLE	1	NN51-12695-00
4	ROUND VIBRATION RUBBER	4	RM96-12602-00
5	DVI-D CABLE	1	RB50-11495-00
6	CABLE,AUDIO,3.5MM,MALE TO MALE	1	RB50-11497-00
7	CABLE, USB, A TO B, 3.5M	1	VG50-06800-01
8	CABLE,LAN,7FT,LINK,SHIELDED	1	VG50-11136-07

10-10 Power Board Assy



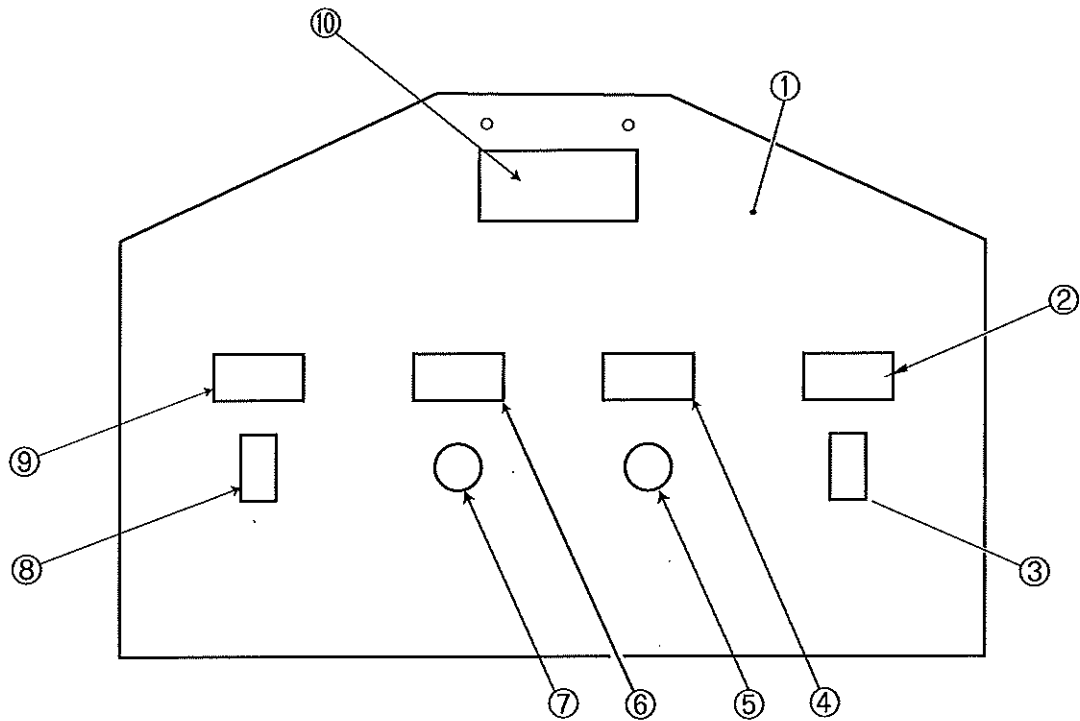
No.	Description	Qty	Part #
1	POWER BOARD BASE	1	NN63-12698-00
2	NIRIN NA-JV PCB KIT EXP	1	NN03-12271-00
3	NIRIN, CP06 AMP PCB KIT EXP	1	NN03-12274-00
4	POWER SUPPLY	1	VG88-12699-00

10-11 Cord Box Assy



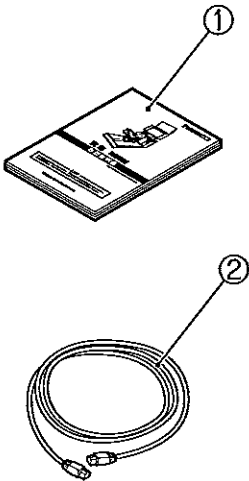
No.	Description	Qty	Part #
1	AC PLATE.	1	NN10-12696-00
2	NOISE FILTER	1	RM78-12495-00
3	FUSE, 6.3 AMP SLOW BLOW	1	RM52-12603-00
4	FUSE HOLDER	1	RM52-12604-00
5	SWITCH, ROCKER, DPST	1	VG53-04683-00

10-12 Service Panel Assy

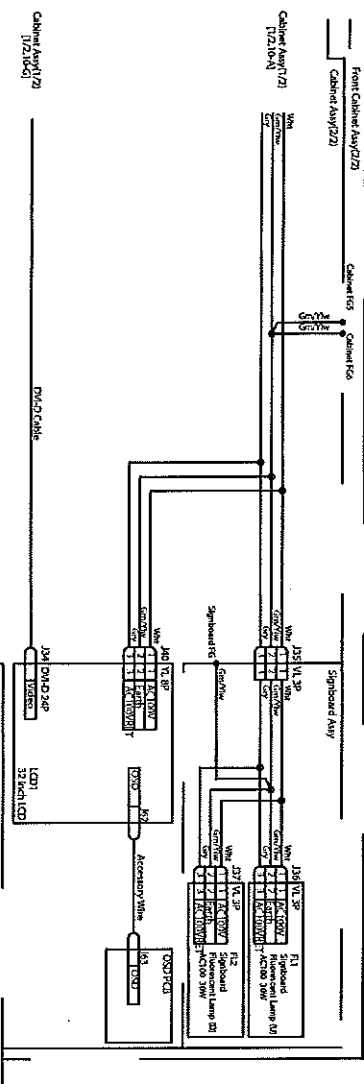


No.	Description	Qty	Part #
1	SERVICE PANEL	1	NN10-12697-00
2	LABEL, SERVICE PANEL, "SELECT"	1	VG44-02702-07
3	TOGGLE SWITCH	1	VG53-12703-00
4	LABEL, SERVICE PANEL, "SERVICE"	1	VG44-02702-01
5	MINI BTN, START, RED CTR GALAG	1	VG53-09641-00
6	LABEL, SERVICE PANEL, "ENTER"	1	VG44-02702-11
7	MINI BTN, START, GRN CTR GALAG	1	VG53-09641-01
8	SLIDE SWITCH	1	VG53-12702-00
9	LABEL, SERVICE PANEL "TEST"	1	VG44-02702-00
10	COIN METER, 5V W/HARNESS	1	VG83-09347-00

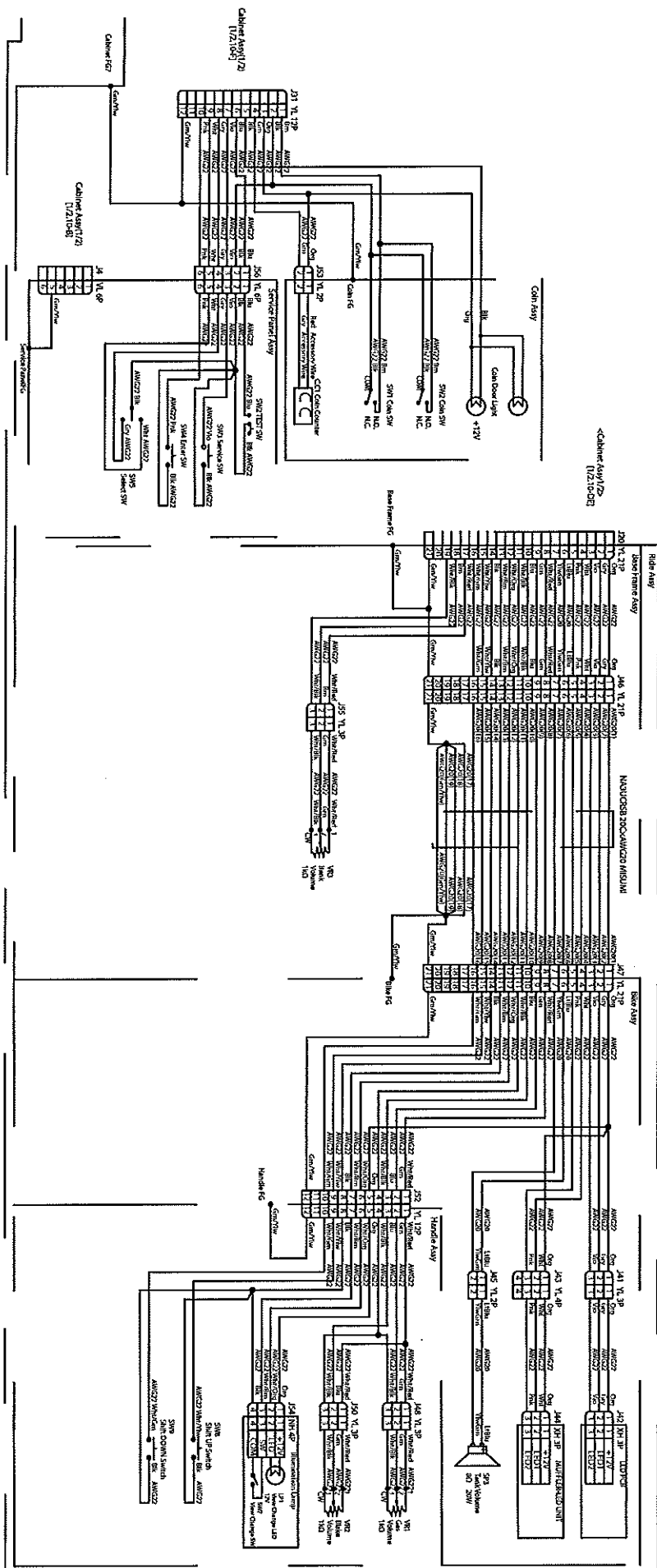
10-13 Other repair parts

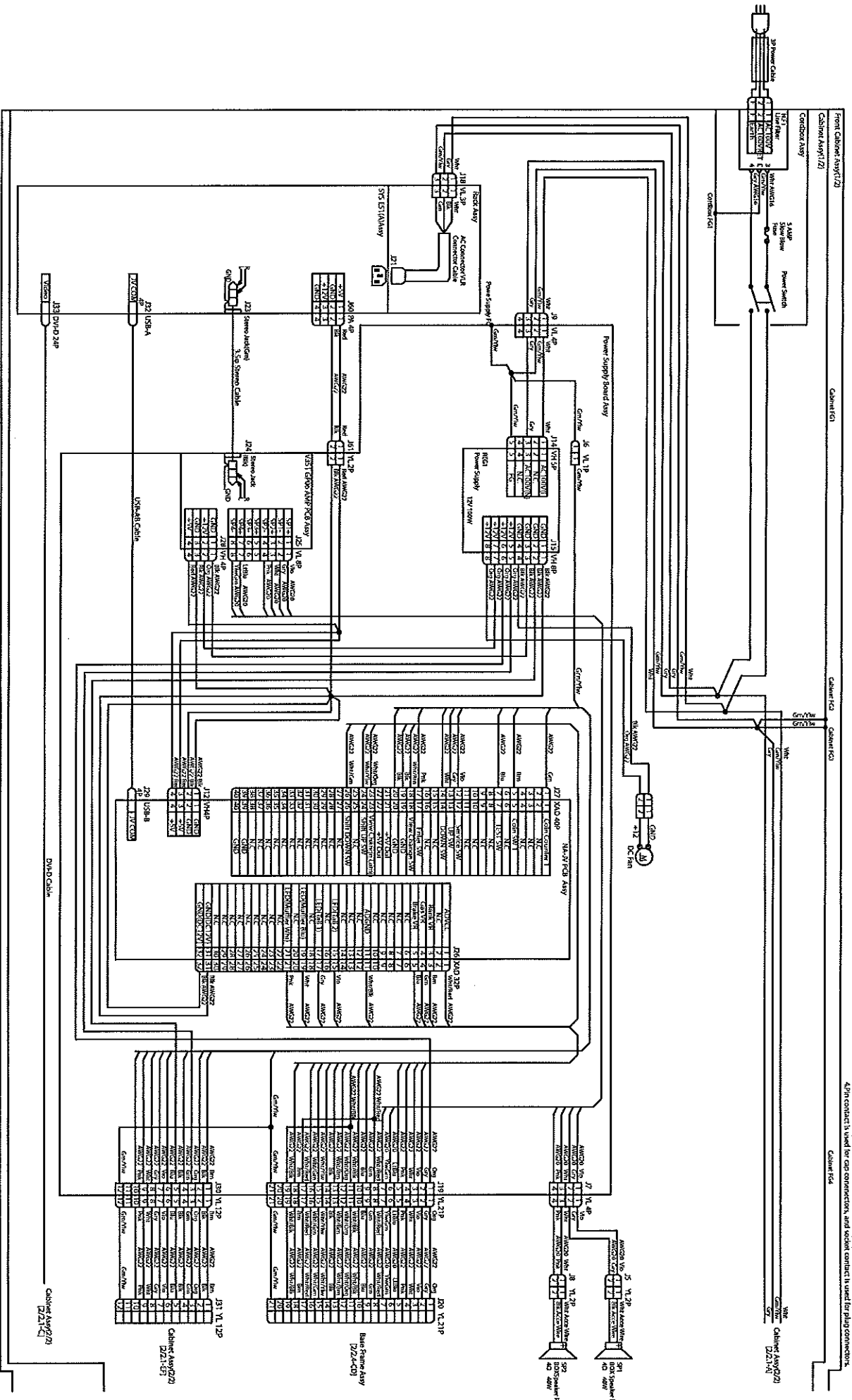


No.	Description	Qty	Part #
1	MANUAL,NIRIN GAME	1	NN45-12454-00
2	CABLE,LAN,7FT,LINK,SHIELDED	1	VG50-11136-07



1. Give priority to the measurements of drawing. In () in connection diagram, it is reference line. 2. Thick green/yellow line, thick line, and thin lines represent AWG16, AWG18, and AWG24, respectively, unless otherwise specified. 3. 4~2" marks is cap connector, and "P" marks is plug connector. 4. Plug contact is used for cap connectors, and socket contact is used for plug connectors.





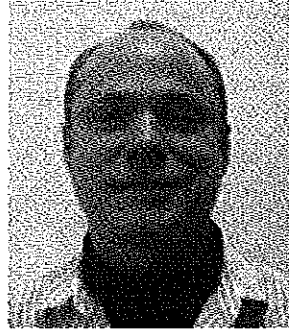
Notes:

1. Give priority to the measurements of drawing. In () in connection diagram, it is reference.
2. Thick green/yellow line, thick line, and thin line represent AMC1, ACUT8, and AMC24, respectively, unless otherwise specified.
3. If the drawing shows a plug connector, it is plug connector.
4. If a contact is used for on connection, and a contact is used for plug connector.

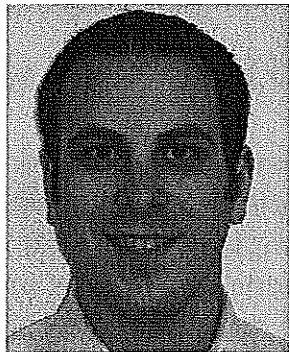
Note 1: CFI varies depending on the power supply voltage.
Note 2: Input voltage VIN must be adjusted according to the local power supply.

Customer Service

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



Ray Tanzer
Technical Director



Steve Ignarski
Customer Service Parts
847-264-5637



Wayne Steffl
Technical Service
847-264-5636

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.