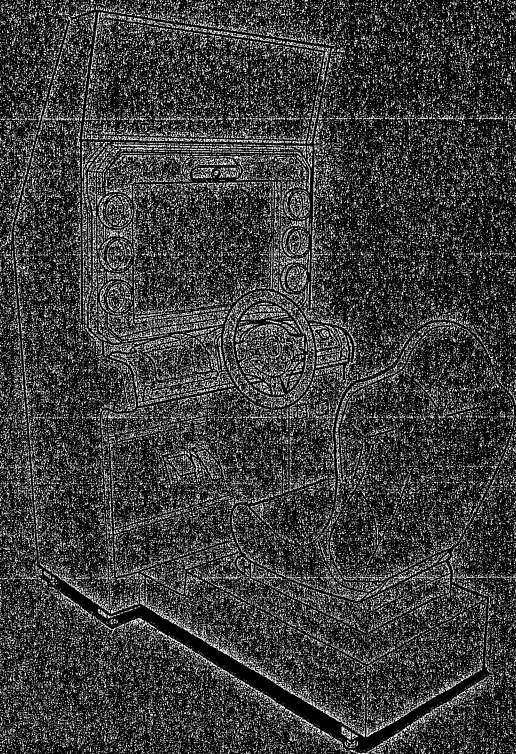


namco®



Mario Kart Arcade GP

OPERATION MANUAL

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

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

namco®

Important

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

RF Notice

Note: This equipment uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case, the user will be required to correct the interference at his own expense.

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INTRODUCTION

Thank you for purchasing the "Mario Kart Arcade GP" 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

The following supplementary manual is also provided.

- TRIFORCE Service Manual
Regarding the detailed procedures for handling the TRIFORCE PC Board (game PC board) not covered in this operation manual, refer to the TRIFORCE Service Manual.

Inquiries concerning the machine and repairs

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

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.

 **DANGER** : Failure to avoid the risk most certainly results in death or serious injury.

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

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

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



: Notes related to functions or protection of the machine.

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 must 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 technical high school graduates, and who is engaged routinely in the maintenance (repair) of amusement machines.

1-3 Top-priority safety precautions

WARNING

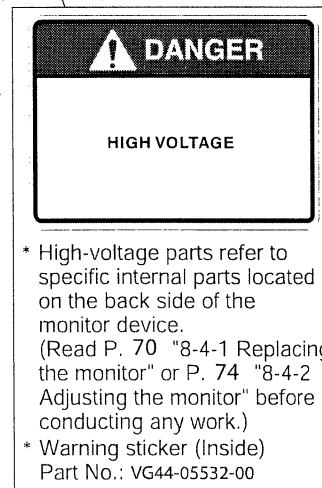
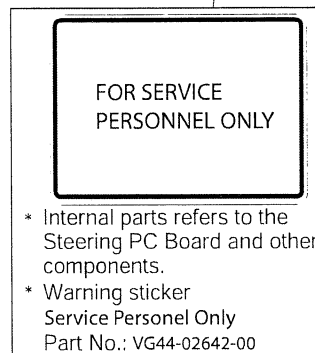
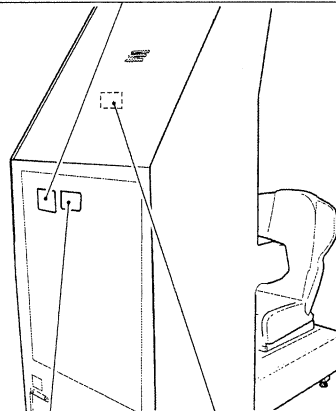
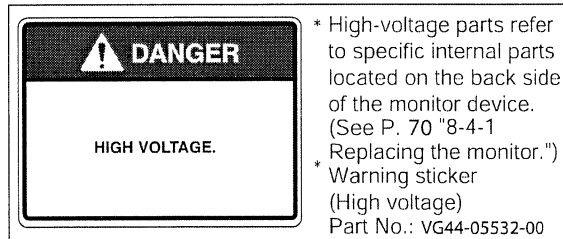
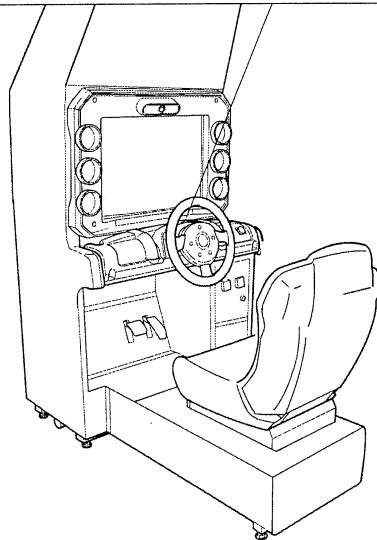
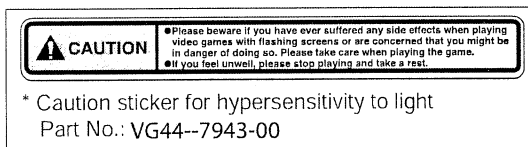
- Should any problem occur, turn off the power immediately to stop operating the machine. Then, unplug the power cord plug from the service outlet. Operating the machine without correcting a problem may cause a fire or accident.
- The monitor remains hot and charged with high voltage even after the power switch is turned off. Do not touch those parts to avoid electric shock and burns.
- Dust accumulated on the power cord plug may cause a fire. Check the power cord plug regularly to remove dust.
- Insert the power cord plug firmly into a service 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 instructions.
 - Keep the power cord away from heating devices.
 - Do not twist the power cord.
 - Do not bend the power cord forcibly.
 - Do not alter the power cord.
 - Do not bundle the power cord.
 - Do not pull the power cord. (Always unplug by holding the power cord plug, and avoid pulling the power cord.)
 - Do not place anything on the power cord.
 - Do not get the power cord caught by the machine, other products or wall.
 - Do not do anything else that might damage the power cord.
- Do not wet the power cord or power cord plug with water. Water can cause an electric shock or leakage.
- Do not touch the power cord with a wet hand. Doing so can result in an electric shock.
- The power rating for the machine is 110 VAC, 5.8 A (maximum power consumption). To prevent fire and electric shock, always use indoor wiring that conforms to the machine's power specifications.
- Operate the machine with a power supply voltage in the range of 90 to 110 VAC,. Using the machine with a supply voltage outside this range may cause a fire or electric shock. To ensure that the machine operates in optimum condition, it is recommended to maintain the power supply at 110 VAC.
- Use only specified parts to replace consumables and service parts (including fasteners). To order parts, contact your distributor.
- Do not convert the machine without permission. Do not perform any work that is not described in this operation manual. Unauthorized conversion of the machine may create unforeseen hazards.
- This product is designed for use in the United States, and does not comply with foreign specifications. Use of the product outside the United States can result in an electric shock or fire. Use the product only in the United States.
- When transferring the ownership of the machine, be sure to provide this operation manual and the TRIFORCE Service Manual together with the machine.

1-4 Description of warning labels attached to the machine

WARNING

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

* The labels indicated by dotted lines are pasted on the inside surfaces of covers.



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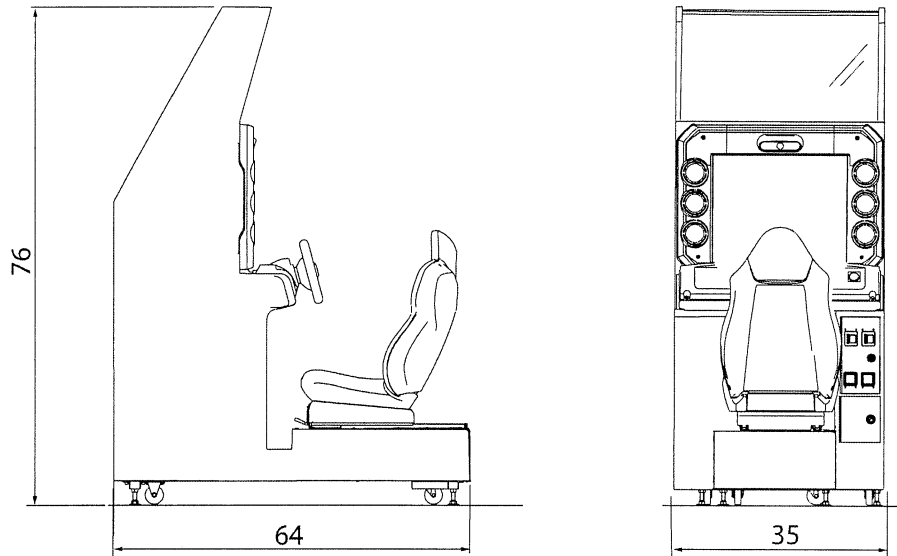
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2. SPECIFICATIONS

- | | |
|---------------------------------|--------------------------------------|
| (1) Rated power supply | 110 $\pm$ 10 VAC (50/60 Hz) |
| (2) Maximum power consumption | 330 W (110-VAC power supply) |
| (3) Maximum current consumption | 5.00A (110-VAC power supply) |
| (4) Capacity of coin box | Approx. \$1000.00 |
| (5) Monitor | 27-inch color monitor. VGA, pureflat |
| (6) Dimensions | |

As installed

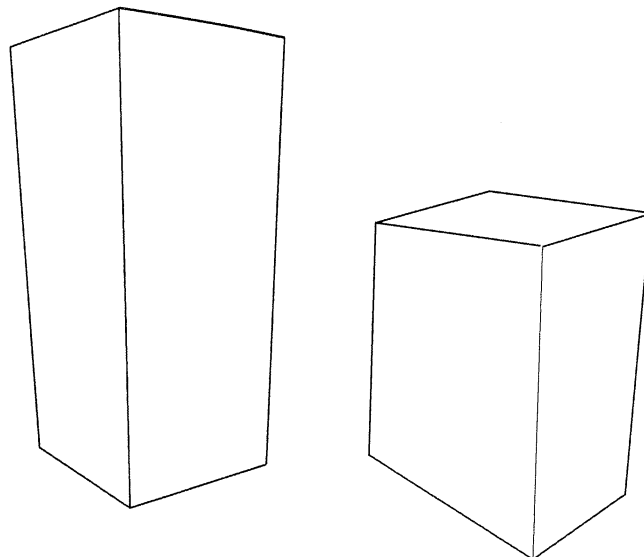
35 (W) x 64 (D) x 76 (H) [in]



When divided and packed for shipping: 2 boxes, total wt: 645 Lbs

Monitor Cabinet Section: 39 (W) x 40 (D) x 78 (H) [in] Wt: 500 Lbs

Seat Assembly Section: 22.5 (W) x 41 (D) x 43 (H) [in] Wt: 145 Lbs



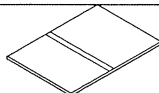
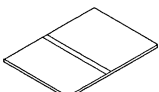
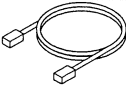
3. CHECKING THE PACKAGE CONTENTS

The product package contains the following parts.

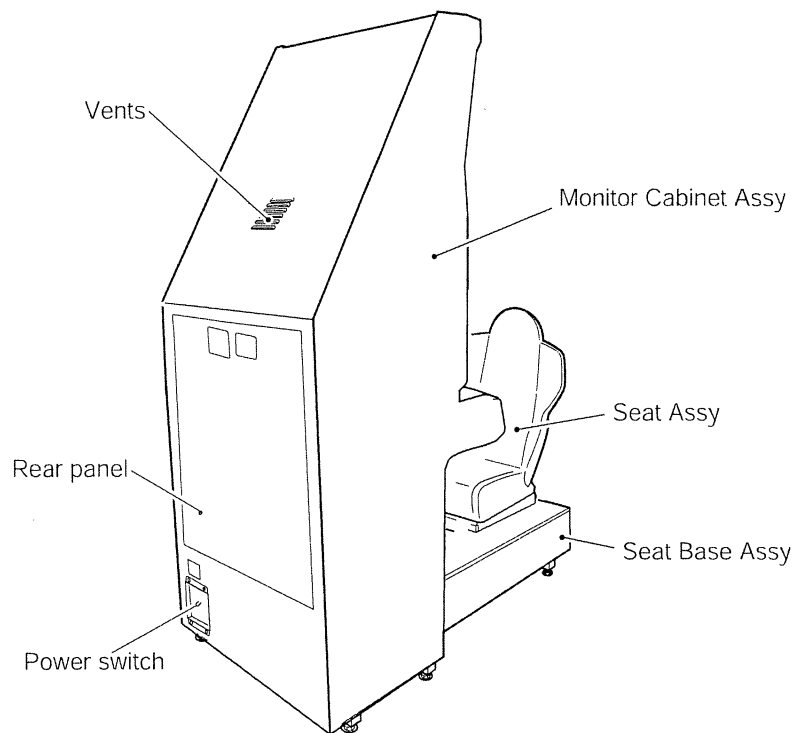
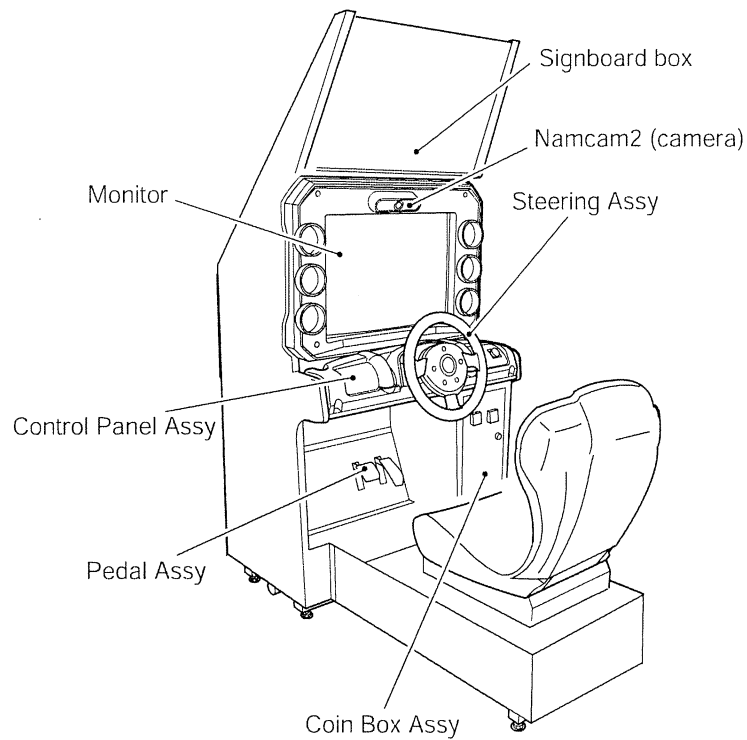


- Make sure all the parts shown below are contained in the product package.
- If parts are missing, contact your distributor.

• Accessory list

No.	Name	Specification	Qty
1	Operation Manual (this manual)		1
2	TRIFORCE Service Manual		1
3	Rear door key		2
4	Coin box key		2
5	Torx wrench	T15, T25, T27, T40 	1
6	Communication cable	15 ft 	1
7	Seat brackets		2
8	Seat bracket bolts	5/16-18 x 1" Tamper proof	16
9	Power cord	6 ft	1

4. OVERALL CONSTRUCTION (Components and Their Names)



5. INSTALLATION

WARNING

- Install the machine according to the instructions and procedures in this operation manual. Failure to follow the specified procedures may result in a fire, electric shock, injury, or machine malfunction.
- Insert the power cord plug firmly into the service outlet. Poor contact may cause overheating that can lead to a fire or burns.
- Be sure to connect the ground lead. Using the machine without proper grounding can result in an electric shock if electric leakage occurs. (See P. 18 "5-5 Connecting the power cord and ground lead.")
- Install the machine securely to the floor by using the level adjusters. Unstable machine installation can result in an accident or injury. (See P. 14 "5-3 Adjusting the level adjusters.")

5-1 Installation conditions

WARNING

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

5-1-1 Locations to avoid

WARNING

- The machine is designed for indoor use. Never install the machine outdoors or at any of the following locations:
 - Places in direct sunlight
 - Places exposed to rain or water leakage
 - Damp places
 - Dusty places
 - Close to heating devices
 - Hot places
 - Extremely cold places
 - Places where dew condensation may occur due to temperature differences
 - Places 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 places or locations where vibrations are produced



NOTICE

The machine is equipped with a function to receive images captured by the camera.

To obtain quality images, do not install the machine in any of the following places.

- Places where a bright light source such as the sun and spotlight directly enters the camera lens.
- Places where flashing lights such as strobes can cause large difference between light and dark.

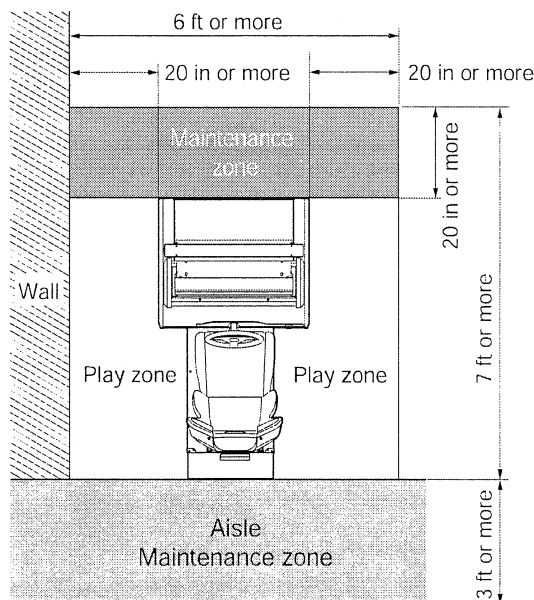
5-1-2 Play zone of installed machine

 CAUTION

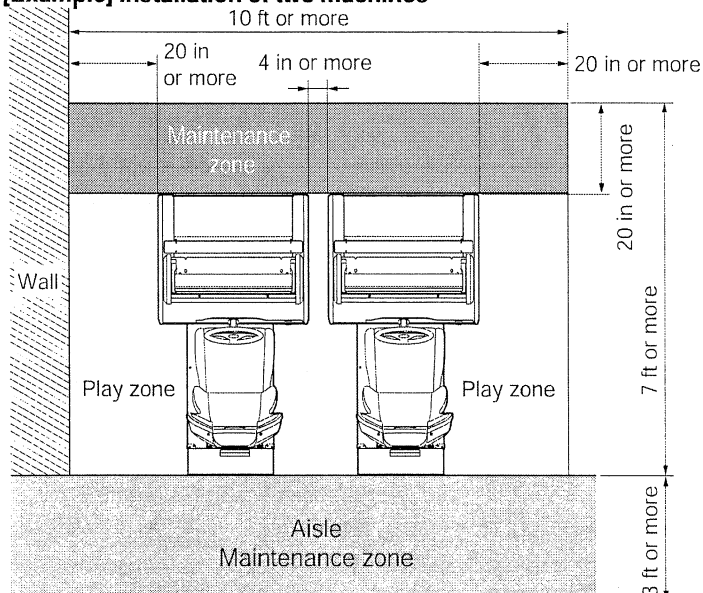
- Set a play zone so that players can move away from the machine without bumping into observers or passersby.



- Provide a space of at least 20 in between the back side of the machine and the wall or adjacent machine so that the rear panel can be easily removed for maintenance.
- A ceiling height of at least 7 ft is required.



- When two or more machines are installed, provide a space of at least 4 in between the units.

[Example] Installation of two machines

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

The doors and passages must be larger than the dimensions indicated below so that the machine can be moved to the installation site.

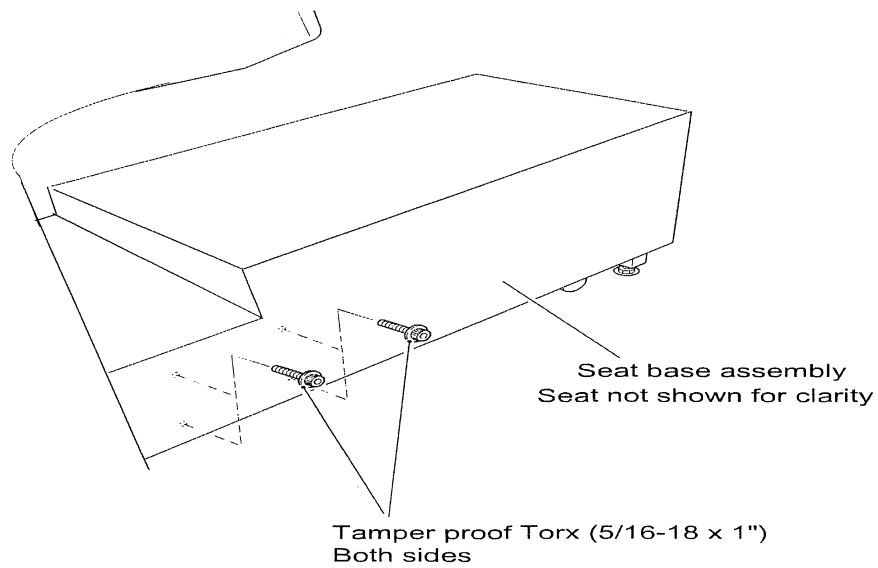
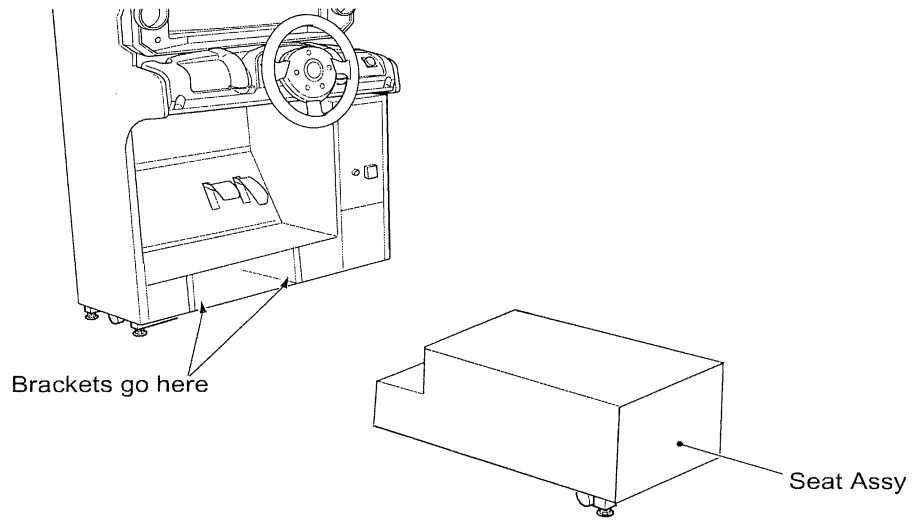
35 (W) x 76 (H) [in]

Weight: Approx. 575 lbs

5-2-1 Connecting and Separating the Monitor Cabinet Assy from the Seat Base Assy - To be conducted by a technician only

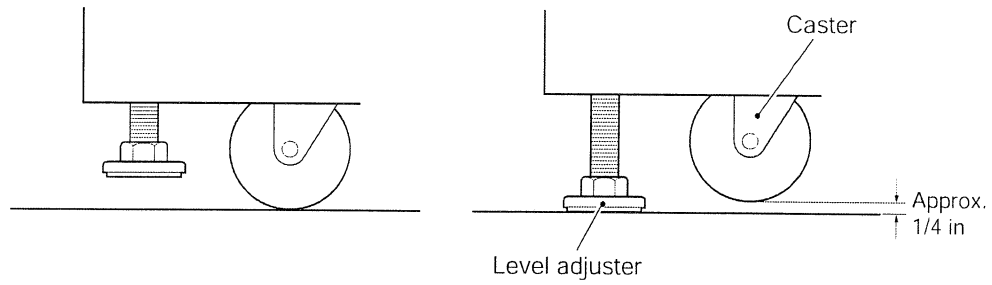
Two seat mounting brackets are provided with each Mario Kart game.

- 1** Slide the brackets into the hole in the front of the lowest section of the cabinet, just beneath the floor board panel.
- 2** Using the provided 5/16-18 x 1" tamper proof Torx screws provided, attach the two seat brackets to the monitor cabinet.
- 3** Tighten all the screws. Once the seat assembly is in place, these screws will not be accessible. There are four screws per bracket.
- 4** Once the brackets are in place and the bolts tightened, slide the seat assembly into place. It should fit over the brackets just installed. Slide the seat over the brackets until the front edge of the seat assembly contacts the front edge of the monitor cabinet assembly.
- 5** Use the leg levelers if needed to bring the seat assembly and the monitor cabinet assembly level with each other.
- 6** Install the remaining eight bolts (four per side) through the slotted holes in the sides of the seat base assembly into the threaded holes in the brackets, which are now inside the seat base assembly. Use the leg levelers to help with hole alignment if required.
- 7** Tighten the eight screws.



5-3 Adjusting the level adjusters

Lower the level adjusters until the casters are positioned about 1/4 in from the floor.



5-4 Connecting the communication cables - To be conducted by a technician only -

Two to four units of this game machine can be connected for interlinked operation.

* The following procedure is not necessary when the machine is used for a stand-alone operation.

WARNING

- To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.
- To prevent pinching of hands or other body parts, observe the following when opening or closing the base lid.
 - Make sure there is nobody in the area.
 - Hold the seatback securely when opening or closing the base lid.
 - Open the base lid fully until it locks in position.

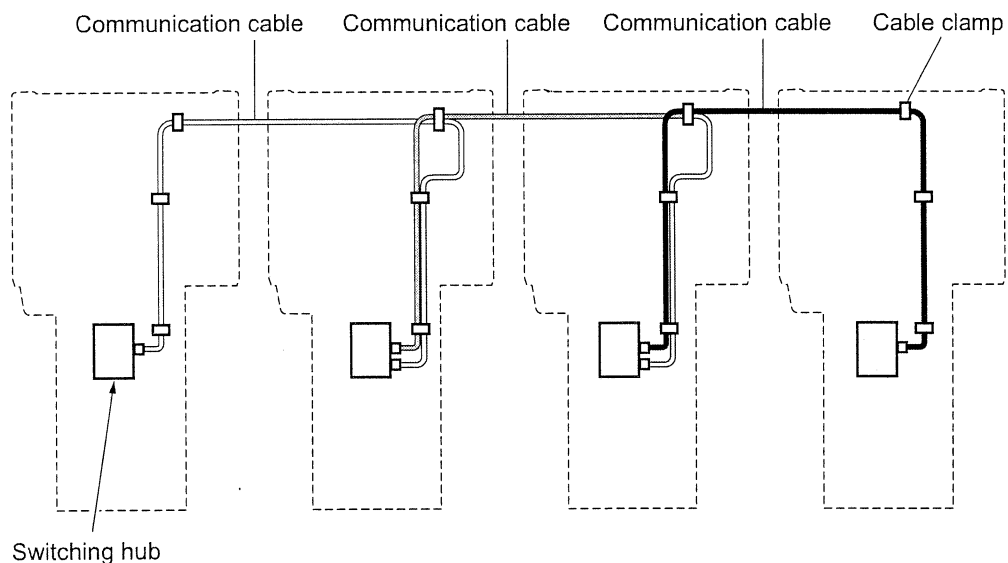
CAUTION

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

(1) Connection diagram

Connect the provided communication cables as shown below. (Note that there will be one unused communication cable.)

[Connection of four units]



(2) Change of connection in the event of malfunction

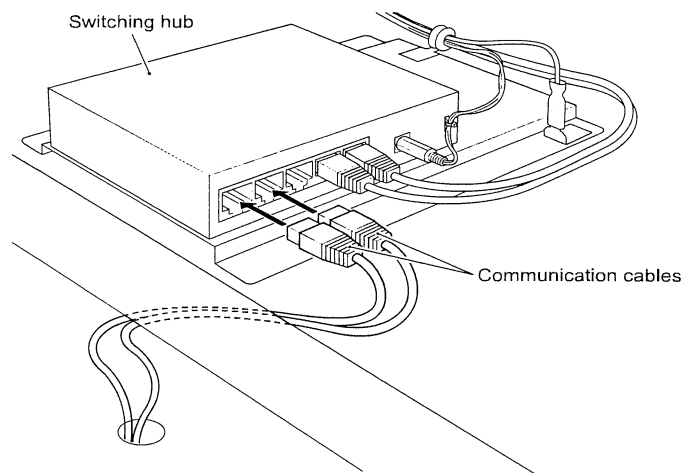
Remove the malfunctioning unit, and connect the communication cables in normal method.

(3) Connection method

! WARNING

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

- 1** Open the rear cabinet door.
- 2** Pull out the provided communication cables through the hole near the bottom edge of the rear door.
- 3** Connect the communication cables to the switching hub.



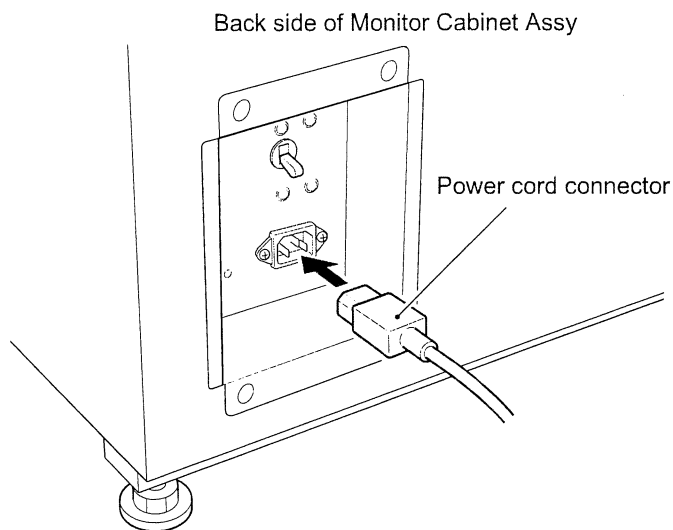
- 4** Follow the same procedure to install communication cables in other machines.

5-5 Connecting the power cord and ground lead

WARNING

- Be sure to ground the machine using the following method. Failure to ground the machine may cause an electric shock in the event of electric leakage. Use the 3-pin plug for grounding the machine.

- 1** Insert the connector of the power cord into the power supply input socket located on the back side of the Monitor Cabinet Assy.



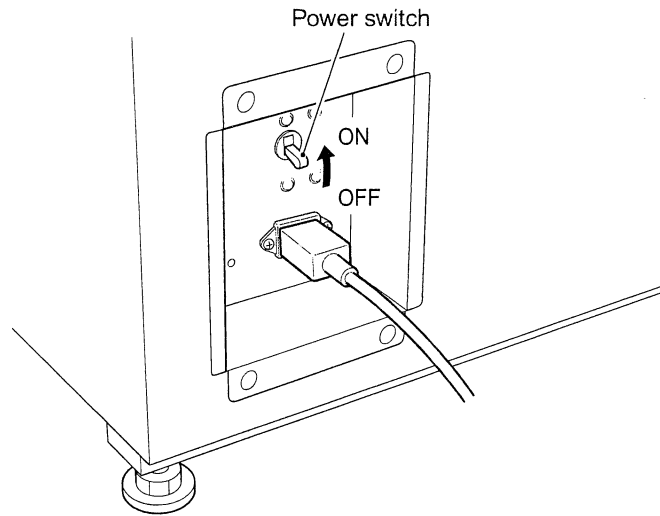
- 2** Insert the power cord plug into a service outlet.

With a 3-pin service outlet

Simply insert the power cord plug into the service outlet

5-6 Switching on the power

Turn on the power switch located at the lower section on the back side of the Monitor Cabinet Assy.



5-7 Setting the communication parameters

By connecting two to four units of this game machine, communication-linked competition game can be played.

* The following procedure is not necessary when the machine is used for a stand-alone operation.

Turn on the power switch. (See P. 18 "5-7 Switching on the power.")

Press the Test switch to display the SYSTEM MENU screen.
(See P. 27 "7-4-1 Description of the SYSTEM MENU screen.")

Press the Service switch and select "ENTER GAME TEST." Then, press the Test switch to display the ENTER GAME TEST screen.

Press the Service switch and select "GAME OPTIONS." Then, press the Test switch to display the GAME OPTIONS screen.

(b) Press the Service switch and select "PCB ID," and press the Test switch to activate the item. Press the Service switch to set the number. The PCB ID should be set to 1 through 4 in order from the unit at the farthest end of the communication cable connection to the closest. (see P. 15 "5-4 Connecting the communication cables").

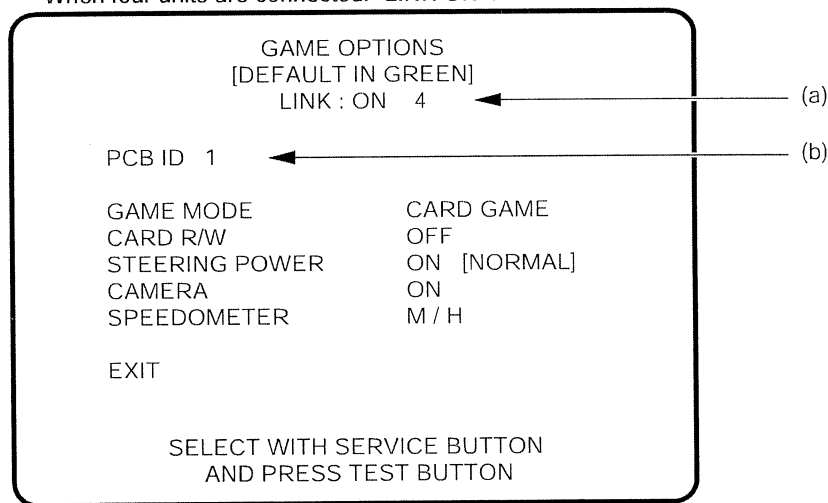
(a) After the PCB ID is set in all connected units, press the test switch of the units and display the GAME OPTION screen.

Make sure that the communication status (a) shows the following.

When two units are connected: "LINK ON 2"

When three units are connected: "LINK ON 3"

When four units are connected: "LINK ON 4"



GAME OPTIONS screen Standard settings (factory settings) are indicated in green, and others are in red.

Press the Service switch and select "EXIT," then press the Test switch to return to the game screen.

In this step, all connected units must be set to "EXIT" and return to the game screen within one minute. If they do not return to the game screen within one minute, proper communication may not be achieved. The communication condition can be checked with the indication "○P Versus Game Available" (○ indicates the number of communicating units) that appears on the title screen.

5-8 Confirmation after machine installation

After the machine has been installed and connected, perform the pre-service check (see P. 22 "7-1 Pre-service check").

Also, set the game pricing and sound level as needed. (See P. 26 "7-3 Adjustment" and P. 27 "7-4 Test mode.")

6. MOVING AND TRANSPORTING



WARNING

- Do not leave the machine on a slope. The machine may topple or cause an unforeseen accident if it is left on an inclined surface.

6-1 Moving (on the floor)



NOTICE

- Move the machine carefully to prevent damage to the machine.
- The overall machine height is 76 inches. Check the heights of doors and other openings.
- Do not apply excessive force to plastic parts since they can break easily.
- Always fully retract all level adjusters when moving the machine even for a short distance.
- Be sure to turn off the power and disconnect the power cord when moving the machine.
- Handle the communication cables and power cord carefully. Be especially careful when connecting or disconnecting the connectors of the communication cable. (See P. 15 "5-4 Connecting the communication cables.")

- 1** Fully retract all four level adjusters. (See P. 14 "Adjusting the level adjusters.")
- 2** After moving the machine, set up the machine in accordance with the directions in "5. INSTALLATION" on page 10.

7. OPERATION

WARNING

- Should any problem occur, turn off the power switch immediately to stop operating the machine. Then, unplug the power cord. Operating the machine without correcting a problem may cause a fire or accident.
- Dust accumulated on the power plug may cause a fire. Check the power plug regularly to remove dust.
- Insert the power cord firmly into the service outlet. Poor contact may cause overheating that can lead to a fire or burns.
- Before operating the machine, check to make sure that the machine has been installed according to the instructions in this operation manual. (See P. 10 "5. INSTALLATION.") If the machine is installed improperly, a fire, electric shock, injury or malfunction may result.
- The warning labels describe important precautions. Observe the following.
 - To make sure that the warning labels attached to the machine are easily legible, install the machine at a proper location with ample illumination and keep the labels clean at all times. Also, make sure that the labels are not hidden behind another game machine or other objects.
 - Do not remove or alter the warning labels.
 - If warning labels become dirty or damaged, replace them with new labels. To order warning labels, contact your distributor.
- To ensure safe operation of the machine, be sure to conduct the pre-service check (see P. 22 "7-1 Pre-service check") and maintenance (see P. 47 "8 MAINTENANCE"). Failure to perform the specified inspection and maintenance can result in unexpected accidents.



NOTICE

- To ensure proper communication, turn on all connected units within one minute.
The communication condition can be checked with the indication "○P Versus Game Available" (○ indicates the number of communicating units) that appears on the title screen. (See P. 13 "5-7 Setting the communication parameters.")
- When turning off the power switch, wait until the game play ends in all other connected units. Turning off the switch of a machine may affect the games being played in other connected units.

7-1 Pre-service check

Check the items described on the following page before commencing operation.
If any problem is found, take corrective measures by referring to "8-2 Troubleshooting" on page 47.

WARNING

- To prevent accidents and injury, be sure to check the following items before commencing operation.
- Operating the machine with damaged, broken or deteriorated parts, or with incorrectly installed parts can cause injury to players or people near the machine. If an abnormality is found, replace defective parts immediately.
To order parts, contact your distributor.

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

- (1) Are all warning indications in place? (See P. 3 "1-4 Description of warning labels attached to the machine.")
- (2) Are the warning indications legible? (See P. 3 "1-4 Description of warning labels attached to the machine.")
- (3) Are all level adjusters adjusted properly? (See P. 14 "5-3-1 Adjusting the level adjusters.")
- (4) Is the specified play zone area provided? (See P. 11 "5-1-2 Play zone of installed machine.")
- (5) Are the power cord and communication cables routed so that they will not cause customers to trip over?

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

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

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

- (1) Check the sound. (Is sound produced by each speaker?)
(See P. 41 "7-4-7 Sound test (SOUND TEST).")
- (2) Check the lamps. (Do the fluorescent lamp, view change switch, and intrusion selection switch light?)
(See P. 34 "7-4-5 Input/output test of switches (I/O TEST) (c) LAMP TEST.")
- (3) Check the displayed image. (Does the monitor show images properly?)
(See P. 40 "7-4-6 Monitor test (MONITOR TEST).")

• **To check the following items, press the Service switch and play the game. (See P. 27 "7-3-1 Adjustment switches.")**

- (4) Check the steering wheel operation. (Does turning of the steering wheel change the direction of the player's car? Does it provide feedback action?)
- (5) Check the pedal operations. (Does depressing of the acceleration pedal and brake pedal varies the vehicle speed?)
- (6) Check the Item button operation. (Does pressing the Item button enables the use of an item?)
- (7) Check the Versus Race Cancel button operation. (Does pressing the button cancel the Versus Race mode?)
- (8) Check the communication condition. (In the case two to four units are connected, can they operate in the communication-linked play mode?)

7-2 How to play

CAUTION

- If people are conducting the following actions, warn them of potential danger.
 - Two people are in the seat and playing the game.
 - A person other than the player is operating the steering wheel.
 - A person is touching the seat rail or slide section.
- If a player becomes sick due to game images or stimulation by lights, have the person stop playing the game immediately and let him/her rest.
- In rare cases, stimulation by lights or video images can cause convulsions or a loss of consciousness. If this happens, advise the person to see a doctor for medical examination as soon as possible. When pre-school children play, request their parents or guardians to observe the children.

This action racing game machine allows communication-linked Versus Race game play when two to four units are connected.

In the game, a player operates the kart driven by a game character and participates in a race. A player uses a pre-selected item to obstruct rivals in order to win the race. When a player wins a game, he/she gets a new item.

The ultimate purpose of the game is to collect many useful items by winning races and continue winning by using collected items.

General description of the game

■ About game modes

- Versus Race mode: In this mode, the player competes with other players in a communication-linked game. Up to four players can play in this mode. A winning player obtains an item.
- Grand Prix mode: This is a single-player mode. The player competes in each of the six Cup races in order. Each time the player wins, he/she obtains an item.
- Time Attack mode: This is a single-player mode. The player races against time on a course with no rival karts.

■ Versus Race mode

- When a player inserts the required number of coins, the screen displays a message "Please wait!" At this point, the player's entry in a Versus Race is registered. The other communicating units display "Waiting for entry!" and wait for players to join. When the Versus Race game is entered by one or more players, the game starts in the Versus Race mode.
- When the game starts, the screen displays the "Select Character" screen to let the player choose a character.
- When all participating players select their characters, the namcam2 (camera) captures the facial images of players and displays them on their respective screens.
- After images are captured, the machine units display the "Select Stage" screen. After all players enter their choices, a stage is decided by a majority vote. (If the number of votes is the same between two stages, the easier stage is selected.) Then, the machines display the "Select Course" screen. A course is selected in the same way as the stage. There are six stages and four courses for the Versus Race game.

- After a course is selected, three items are selected by the slot drawing.
- When items are selected by all players, the race starts. The purpose of the game is to win the race by using the three selected items skillfully.
- The winner receives a new item as a prize. The obtained item is registered on the player's card.

■ Grand Prix mode

- When no other players join while the message "Please wait!" is shown on the screen or when the entry to the Versus Race game is cancelled, the player plays the game in a single-player mode.
- When the machine enters a single-player game mode, the display changes to the "Select Character" screen to let the player choose a character. Then, the namcam2 captures the facial image of the player.
- After an image is captured, the screen displays a message "Select game mode." If the player chooses "Grand Prix," the game starts in the Grand Prix mode.
- When the screen displays a message "Which Cup will you challenge?", the player enters a choice. When the screen displays "Which Round will you challenge?", the player enters a choice. There are six Cup races in the Grand Prix mode. Each Cup race consists of four rounds and one Challenge game. After a player clears Round 4, he/she can play a Challenge game. When the player wins the Challenge game, the player earns the Cup championship. In the initial game, a player can select only Round 1 of five Cup races. The sixth Cup race can be selected only when the player wins all other five Cup races.
- In the Grand Prix mode, a player uses three preset items in the race.
- When items to be used are determined, the race starts. The purpose of the game is to cross the finish line ahead of all others by using the three selected items skillfully. When a player wins a race and clears a Round, he/she obtains a new item.
- When a player clears a Round, the screen displays "Do you want to challenge next round?" If the player chooses "YES" and inserts coins required for a Continue play, a race starts in the next round. If the player cannot clear this round, the screen displays "Continue?" When "YES" is selected and the required number of coins are inserted, a race starts in the same round.
- When a player chooses "NO," the game ends.
- When a player wins all six Cup races, an ending scene is shown on the screen.

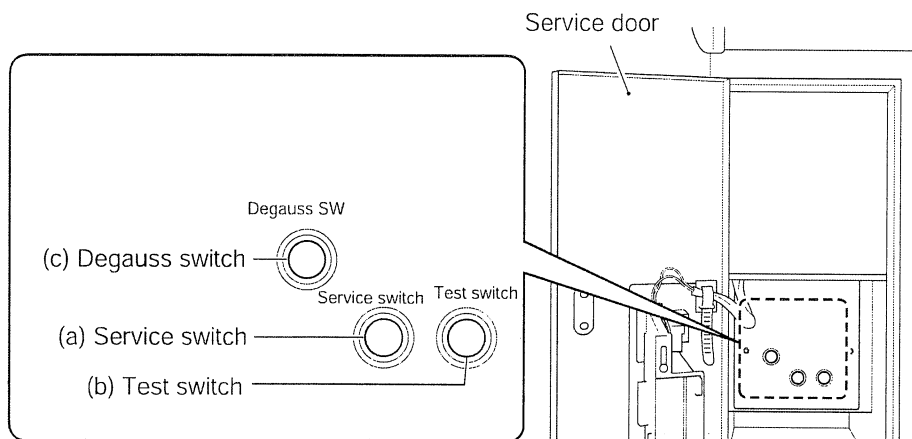
■ Time Attack mode

- If a player chooses "Time Attack" on the "Select game mode" screen, a game starts in the Time Attack mode.
- When a course to be played is determined, the race starts. The purpose of the game in the Time Attack mode is to go around the course a specified number of times in the shortest time possible. A player can use three Dash Mushroom items.
- If the player ranks within the top ten positions in that machine after the Time Attack game, a ranking chart is displayed and the player's name is recorded on the ranking table.
- After the Time Attack game, the screen displays "Continue?" When "YES" is selected, the player selects a course again and plays a new game in the Time Attack mode.

7-3 Adjustment

7-3-1 Adjustment switches

Open the service door to locate the adjustment switches.



The Test switch and Service switch shown above are used to perform various tasks in the Test mode.

	Function in Attract mode/game play	Function in Test mode
Test SW	• Activates the Test mode.	• Activates the item selected by the cursor. • Enters the selection.
Service SW	• Increases the credit count without activating the coin counter.	• Moves the cursor. • Increases the parameter value.

(a) Test switch

Press this switch to activate the Test mode.

The Test mode is used to activate or execute the selected item.

(b) Service switch

Press this switch to increase the credit count without activating the coin counter. In the Test mode, this switch is used to select an item.

(c) Degauss switch

Press this switch for degaussing when the monitor displays irregular color due to the earth magnetism at the installation location or building conditions.

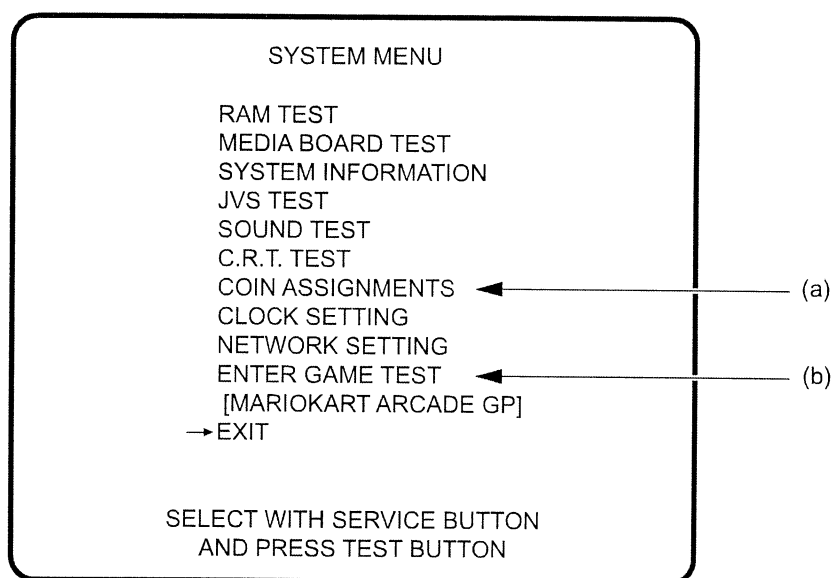


- Press the Service switch slowly and firmly. It may not operate properly if it is pressed quickly.

7-4 Test mode

7-4-1 Description of the SYSTEM MENU screen

- 1** Unlock the coin box door with the provided key, and press the Test switch. The SYSTEM MENU screen appears on the monitor.
- 2** Press the Service switch and select an item. The selected item is indicated with a "R" mark.
- 3** Press the Test switch to enter the selection. When a selection is entered, the screen shows the applicable setting items.
- 4** After all adjustments are completed, select "EXIT" and press the Test switch. The display returns to the game screen.



- (a) COINASSIGNMENTS Setting of game pricing and free game, See 7-4-2.
 (b) ENTER GAME TEST Explanation of GAME TEST MENU screen, See 7-4-3.



- The GAME TEST MENU screen is used for all settings, except for the setting of game pricing.
- To prevent game malfunctions, do not change the setting of any item other than those described in the manual.
- Before activating the Test mode, make sure that the game play has ended in all other connected units. Activating the Test mode may affect the games being played in other connected units.
- To exit the Test mode and return to the game screen, select "EXIT" in all connected units within one minute. If they do not return to the game screen within one minute, proper communication may not be achieved. The communication condition can be checked with the indication " P Versus Game Available" (indicates the number of communicating units) that appears on the title screen.

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

- The COIN ASSIGNMENTS screen is used to enter coin-related settings.

COIN ASSIGNMENTS

COIN CHUTE TYPE	COMMON
SERVICE TYPE	INDIVIDUAL

COIN CHUTE #1 COIN TO CREDIT RATE
 1 COIN(S) COUNT AS 1 CREDIT(S)
 COIN CHUTE #2 COIN TO CREDIT RATE
 1 COIN(S) COUNT AS 1 CREDIT(S)
 DETAIL SETTING
 GAME COST SETTING
 → EXIT

(a) ←

(b) ←

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON

(a) COIN CHUTE #1 COIN TO CREDIT RATE

This item is used for the free play setting.

Do not change the standard setting for normal use.

1 COIN(S) COUNT AS	1 CREDIT(S)	(Standard setting)
2 COIN(S) COUNT AS	1 CREDIT(S)	
3 COIN(S) COUNT AS	1 CREDIT(S)	
4 COIN(S) COUNT AS	1 CREDIT(S)	
5 COIN(S) COUNT AS	1 CREDIT(S)	(Must not be changed)
1 COIN(S) COUNT AS	2 CREDIT(S)	
1 COIN(S) COUNT AS	3 CREDIT(S)	
1 COIN(S) COUNT AS	4 CREDIT(S)	
1 COIN(S) COUNT AS	5 CREDIT(S)	
FREE PLAY		(Free play setting)

* When set to "FREE PLAY," pressing the accelerator pedal starts the game.



- To prevent game malfunctions, do not change the setting of any item other than those described in the manual.

(b) GAME COST SETTING

Set the number of credits required for one game play.

COIN ASSIGNMENTS
GAME COST SETTING

2 CREDIT(S) TO START
1 CREDIT(S) TO CONTINUE

EXIT

→

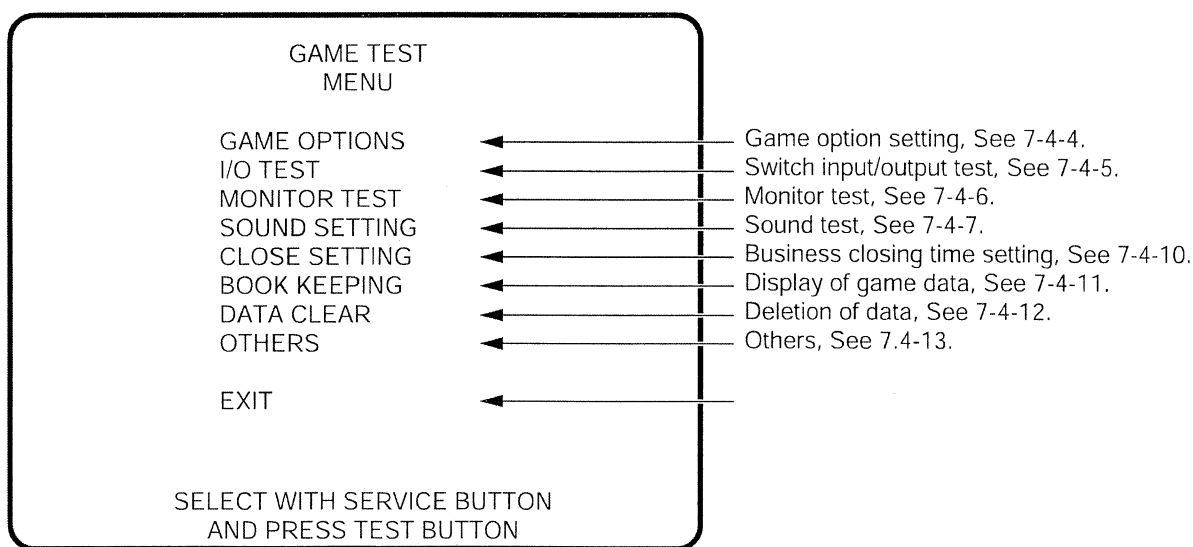
SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON

GAME COST SETTING screen

Item	Description	Default setting
2 CREDIT(S) TO START	Number of coins required to start a game play (1 to 9)	2
1 CREDIT(S) TO CONTINUE	Number of coins required for a Continue game play (1 to 9)	1

7-4-3 Description of the GAME TEST MENU screen

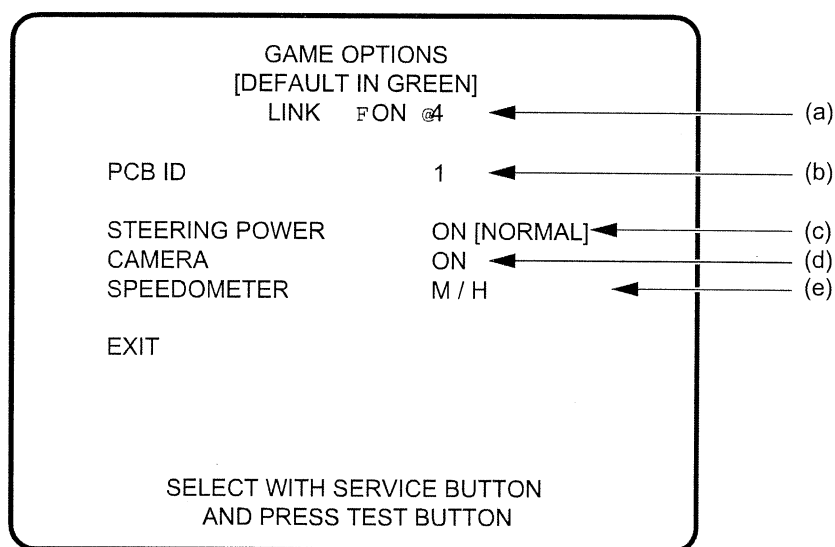
- 1** Select "ENTER GAME TEST" on the SYSTEM MENU screen to display the following MENU screen.
- 2** Using the Service switch, select an item. The selected item blinks.
- 3** After selecting an item, press the Test switch to enter the selection.
- 4** After all adjustments are completed, select "EXIT" to return to the SYSTEM MENU screen.



GAME TEST MENU screen

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

- 1** Select "GAME OPTIONS" on the GAME TEST MENU screen to display the following screen.
- 2** Using the Service switch, select an item. The selected item blinks.
- 3** After selecting an item, press the Test switch to enter the selection.
- 4** After all adjustments are completed, select "EXIT" to return to the GAME TEST MENU screen.



GAME OPTIONS screen Standard settings (factory settings) are indicated in green,

(a) Communication status

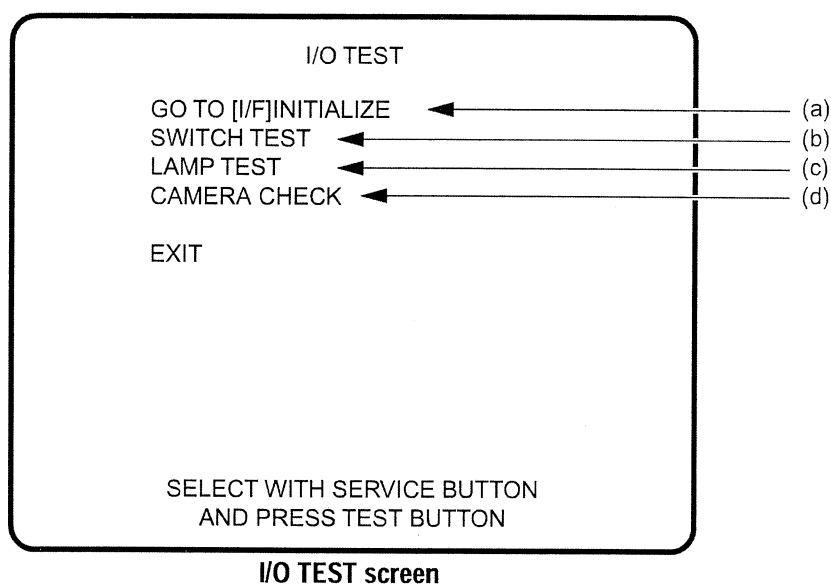
- LINK ON 4: Communicating with four units in normal condition.
- LINK ON 3: Communicating with three units in normal condition.
- LINK ON 2: Communicating with two units in normal condition.
- LINK OFF: Machine in standalone operation, or there is no communication with other machines.

7. OPERATION

Item	Description	Standard setting
(b) PCB ID	Set the ID of the PC Board. Set the ID of the unit at the left end viewed from the front, and set others to "2," "3," and "4" in order toward the right.	1
(c) STEERING POWER	ON [NORMAL]: Provides standard reactive force to the steering wheel. ON [LIGHT]: Provides low reactive force to the steering wheel. OFF: Does not provide reactive force to the steering wheel	ON [NORMAL]
(d) CAMERA	ON: Uses the camera for capturing facial image. OFF: Does not use the camera for capturing facial image.	ON
(e) SPEEDOMETER	Set the unit of speedometer display. KM/H: Displays vehicle speed in km/h.	M/H

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

- 1** Select "I/O TEST" on the GAME TEST MENU screen to display the following screen.
- 2** Using the Service switch, select an item. The selected item blinks.
- 3** After selecting an item, press the Test switch to enter the selection.
- 4** After all adjustments are completed, select "EXIT" to return to the GAME TEST MENU screen.



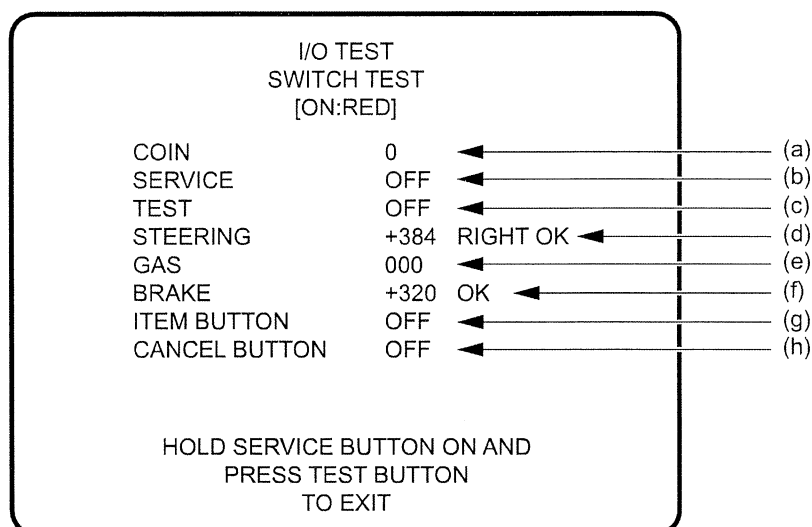
(a) GO TO [I/F] INITIALIZE

This item is used to initialize the operation section (interface).

When this item is selected, the screen for initializing the potentiometers of the steering wheel, accelerator pedal, and brake pedal appears. Use this screen to execute the initialization. (See P. 46 "7-5-1 Initializing the potentiometers.")

(b) SWITCH TEST

This screen is used to test the switches.

**SWITCH TEST screen**

Switches are indicated in red when they are not in the OFF status.

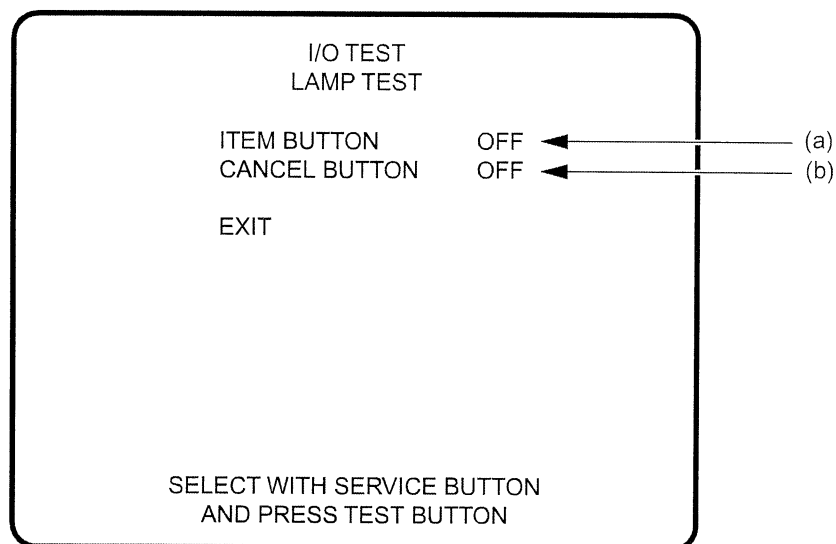
Item	Description
(a) COIN Coin switch status	Each ON operation of the switch increments the counter by one. 0 to 999 (The counter returns to 0 after 999)
(b) SERVICE Service switch status	OFF: Normal ON (red): Pressed in
(c) TEST Test switch status	OFF: Normal ON (red): Pressed in
(d) STEERING Steering wheel status	Right turn changes the numerical value in positive direction, and left turn changes the numerical value in negative direction. "RIGHT (LEFT) OK" (in green) appears on the screen near the right-turn (left-turn) limit. (* Note)
(e) GAS Accelerator pedal status	Depressing the pedal changes the numerical value in positive direction. "OK" (in green) appears on the screen near the right-side (left-side) limit. (* Note)
(f) BRAKE Brake pedal status	Depressing the pedal changes the numerical value in positive direction. "OK" (in green) appears on the screen near the right-side (left-side) limit. (* Note)
(g) ITEM BUTTON	OFF: Normal ON (red): Pressed in
(h) CANCEL BUTTON Versus Race Cancel button switch status	OFF: Normal ON (red): Pressed in

* If "OK" is not displayed when the steering wheel/pedal is turned/pressed fully, it is necessary to initialize the steering wheel or pedals. (See P. 46 "7-5-1 Initializing the potentiometers.")

- To return to the I/O TEST screen, hold down the Service switch and press the Test switch at the same time.

(c) LAMP TEST

This screen is used to test the lamps.



LAMP TEST screen

Switches are indicated in red

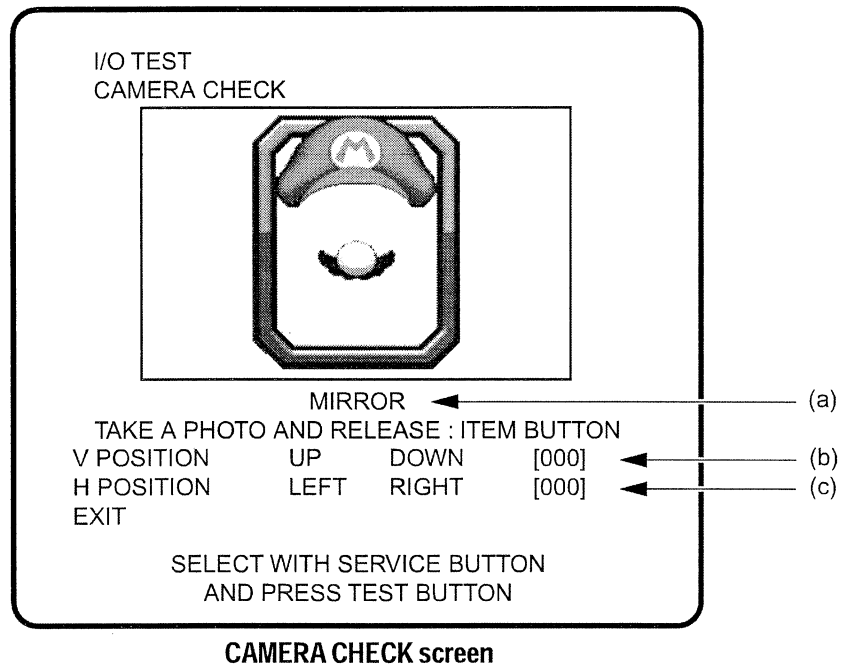
- (a) ITEM BUTTON: When "ON" is selected, the built-in lamp of the Item button switch lights.
- (b) CANCEL BUTTON: When "ON" is selected, the built-in lamp of the Versus Race Cancel button switch lights.

- Select and enter "EXIT" to return to the I/O TEST screen.

(d) CAMERA CHECK

This screen is used to check and set the face image capturing camera (namcam2).

- 1** Select "CAMERA CHECK" on the I/O TEST screen to display the following screen.
- 2** Using the Service switch, select an item. The selected item blinks.
- 3** Select a desired item and press the Test switch to enter the selection.
- 4** After all adjustments are completed, select "EXIT" to return to the I/O TEST screen.



- Standard settings (factory settings) are indicated in green, and others are in red.
- An image captured based on the current settings is shown at the center of the screen.

(a) MIRROR/PHOTO

When the Item button is pressed, the camera takes a picture.

When a picture is taken, the captured still image is shown at the center of the screen, and the indication below the image changes to "PHOTO." The photo taken by the camera is shown on the race scene during the game.

When the Item button is pressed again, the still image display is canceled, and moving images are displayed. In this mode, the indication below the image shows "MIRROR."

Set the image mode to "MIRROR" when adjusting the image quality or position. Set the image mode to "PHOTO" when checking the image shown during the game.

Item	Description
(b) V POSITION	This adjusts the position of the camera image in vertical direction. When "V POSITION" is selected using the Test switch, the cursor moves to the "UP" position. To move the image up, press the Service switch. To move the image down, press the Test switch to move the cursor to "DOWN," then press the Service switch. When the Test switch is pressed again, the cursor returns to "V POSITION." UP: The numerical value increases, and the displayed image moves in upward direction. DOWN: The numerical value decreases, and the displayed image moves in downward direction.
(c) H POSITION	This adjusts the position of the camera image in horizontal direction. When "H POSITION" is selected using the Test switch, the cursor moves to the "LEFT" position. To move the image to the left, press the Service switch. To move the image to the right, press the Test switch to move the cursor to "RIGHT," then press the Service switch. When the Test switch is pressed again, the cursor returns to "H POSITION." LEFT: The numerical value decreases, and the displayed image moves to the left. RIGHT: The numerical value increases, and the displayed image moves to the right.



- This game machine uses the namcam2 camera to capture the image of the face of a game player. To ensure clear pictures, do not install the machine in any of the following places.
- Places where a bright light source such as the sun and spotlight directly enters the camera lens.
- Places where flashing lights such as strobes can cause large difference between light and dark.

Namcam2 camera adjustment method

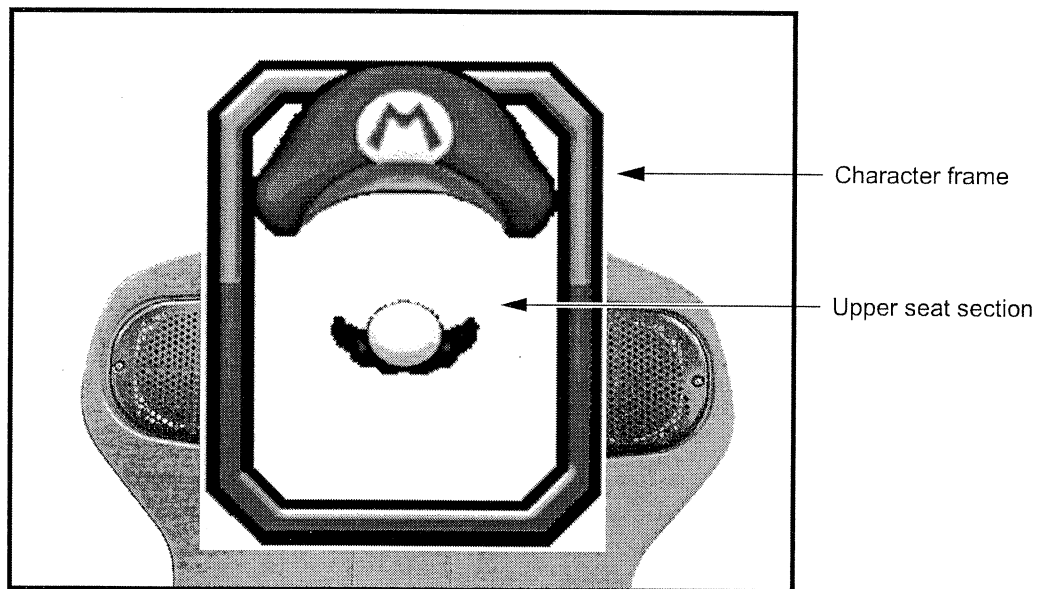
To ensure proper operation of the camera (namcam2), adjust the camera as described below after installing the game machine.

(1) Checking moving images

Make sure that moving pictures are shown at the center of the screen. When moving pictures are displayed, "MIRROR" is indicated below the image. If a still picture is displayed, press the Item button once.

(2) Adjusting the position

Make adjustments so that the face of the person sitting in the seat is positioned at the center. The adjustment procedure is described in (a) and (b) on pages 37 and 38. It is recommended to set the position as shown below.



Sample image for position adjustment

With the seat moved fully toward the front, make adjustments so that the seat and the character frame appear at the positions shown above.

(3) Checking still image

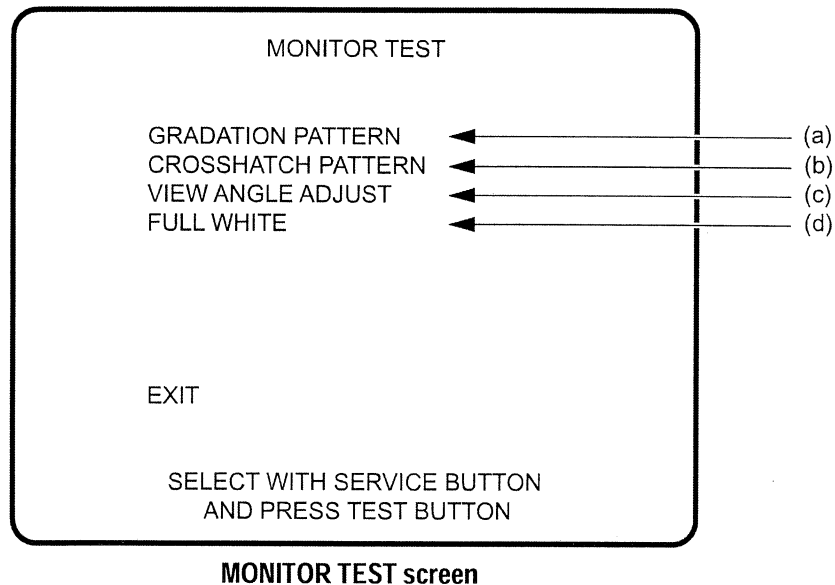
Sit in the seat and press the Item button to take a facial picture.

A captured still image is shown during the game. Check the image quality and the position of the image display. If there is any problem, press the Item button again to display moving pictures, then conduct the adjustment described in (2).

7-4-6 Monitor test (MONITOR TEST)

This screen is used for monitor adjustments.

- 1** Select "MONITOR TEST" on the GAME TEST MENU screen to display the following screen.
- 2** Using the Service switch, select an item. The selected item blinks.
- 3** Choose an item and press the Test switch to display the selected pattern. To exit the pattern screen, press the Test switch.
- 4** After all adjustments are completed, select "EXIT" to return to the GAME TEST MENU screen.

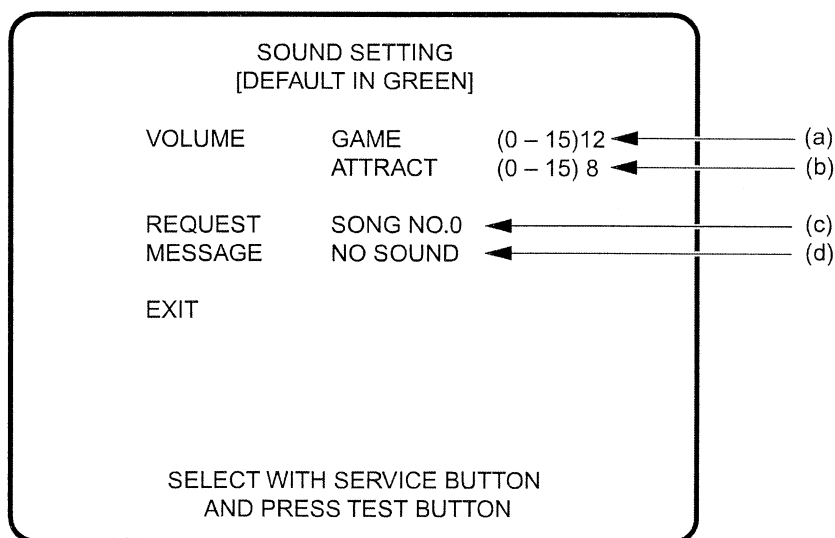


- (a) Displays a gradation pattern.
- (b) Displays a cross-hatch pattern.
- (c) Displays a field angle adjustment screen.
- (d) Displays a white screen.

7-4-7 Sound test (SOUND SETTING)

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

- 1** Select "SOUND SETTING" the GAME TEST MENU screen to display the following screen.
- 2** Using the Service switch, select an item. The selected item blinks.
- 3** After selecting an item, press the Test switch to enter the selection.
- 4** After all adjustments are completed, select "EXIT" to return to the GAME TEST MENU screen.



SOUND SETTING screen

Item	Operation and display	Factory setting
(a) GAME Game sound level setting	0 (min.) to 15 (max.) Each pressing of the Service switch increments the numerical value. If the Service switch is pressed when the setting is at 15 (max.), the setting returns to 0.	12
(b) ATTRACT Attract mode sound level setting	0 (min.) to 15 (max.) Each pressing of the Service switch increments the numerical value. If the Service switch is pressed when the setting is at 15 (max.), the setting returns to 0.	8
(c) REQUEST SONG No. Music selection	0: No sound 1: Stereo test 2: Sample music (Game) Music is produced at the Game sound level. 3: Sample music (Attract) Music is produced at the Attract sound level.	0
(d) MESSAGE Name of music	Displays the name of the sound selected with the REQUEST item. 0: No sound 1: Left, Right, Left + Right 2: Sample (Game) 3: Sample (Attract)	

7-4-8 Setting the business closing time (CLOSE SETTING)

This screen is used to set the arcade closing time for each day of the week.

- 1** Select "CLOSE SETTING" on the GAME TEST MENU screen to display the following screen.
- 2** Using the Service switch, select a day of the week, and press the Test switch. The hour indication of the selected day blinks. Use the Service switch to set the hours (24-hour system, 1-hour intervals).
After setting the hours, press the Test switch. The minute indication of the selected day blinks. Use the Service switch to set the minutes (15-minute intervals).
- 3** After all settings are entered, select "EXIT" to return to the GAME TEST MENU screen.

CLOSE SETTING

CLOCK 2005/12/1 THU 10:15:59

SUN	:	OFF	
MON	:	24:00	23:50 ⇄ 24:10
TUE	:	24:00	23:50 ⇄ 24:10
WED	:	24:00	23:50 ⇄ 24:10
THU	:	24:00	23:50 ⇄ 24:10
FRI	:	24:00	23:50 ⇄ 24:10
SAT	:	OFF	
EXIT			

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON

Time at which
CLOSE SETTING
becomes effective.

Set closing time

CLOSE SETTING screen



- When a player has been playing the machine using a card before the set time, the player will not be able to play a Continue game.

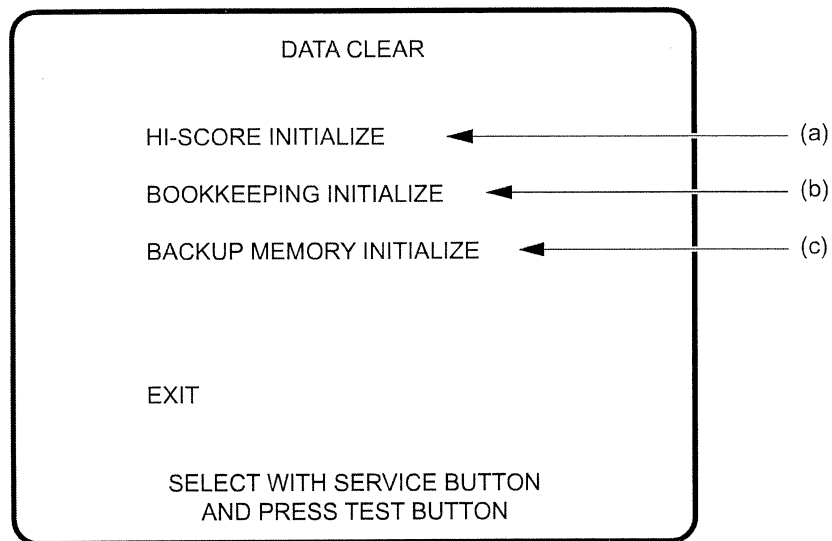
7-4-9 Displaying game data (BOOK KEEPING)

This screen displays various game data.

- 1** Select "BOOK KEEPING" on the GAME TEST MENU screen to display the BOOK KEEPING screen appears.
- 2** Game data will not be erased even when the power switch is turned off. To delete data, execute "BOOK KEEPING INITIALIZE" or "BACKUP MEMORY INITIALIZE" on the DATA CLEAR screen. When "BOOK KEEPING INITIALIZE" is executed, only the book keeping data is initialized.
- 3** Select "EXIT" and press the Test switch to return to the GAME TEST MENU screen.

7-4-10 Clearing data (DATA CLEAR)

- 1** Select "DATA CLEAR" on the GAME TEST MENU screen to display the following screen.
- 2** Using the Service switch, select an item. The selected item blinks.
- 3** After selecting an item, press the Test switch to enter the selection.
- 4** When an item is selected, "YES" and "NO" indications are shown on the screen. When "YES" is selected and the Test switch is pressed, data is cleared and the setting returns to the default value.
- 5** After all settings are made, select "EXIT" to return to the GAME TEST MENU screen.



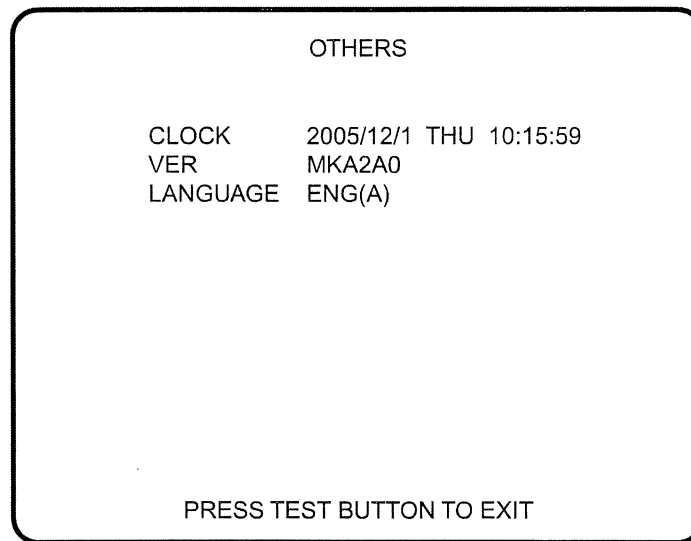
DATA CLEAR screen

Item	Description
(a) HI-SCORE INITIALIZE*	Clears the high score data. NO (Does not initialize) YES (Initializes)
(b) BOOK KEEPING INITIALIZE*	Clears the game data NO (Does not initialize) YES (Initializes)
(c) BACKUP MEMORY INITIALIZE*	Clears the data in the backup memory. (Returns all parameters to factory settings.) NO (Does not initialize) YES (Initializes)

* After "BACKUP MEMORY INITIALIZE" is executed, be sure to initialize the volumes. (See P. 45 "7-5-1 Initializing the potentiometers.")

7-4-11 Others (OTHERS)

- 1** Select "OTHERS" on the GAME TEST MENU screen to display the following screen.
- 2** Press the Test switch to return to the GAME TEST MENU screen.

**OTHERS screen**

Item	Description
(a) CLOCK	Displays the internal clock's current time and day of the week.
(b) VER	Displays the software serial number.
(c) LANGUAGE	Language setting.

7-5 Adjustments after parts replacement (INITIALIZE)



- Be sure to perform the following initialization process after replacing the Game PC Board, Steering Assy potentiometer, Pedal Assy potentiometer or after initializing the backup data. The game will not play properly without executing the initialization.
- After initializing potentiometers, conduct the switch test (see P. 33 "7-4-5 Input/output test of switches (I/O TEST)") to make sure that "OK" is shown when the steering wheel, accelerator pedal, and brake pedal are operated.

7-5-1 Initializing the potentiometers

(1) I/F INITIALIZE

I/O TEST
I/F INITIALIZE

STEERING	+000
GAS	000
BRAKE	000

KEEP HANDLEBAR CENTER AND
PRESS SERVICE BUTTON TO STORE THE RESULT

GO TO [SWITCH TEST]

INITIALIZE screen

- 1** While holding down the Service switch, press the Test switch.
(* The I/F INITIALIZE screen can be displayed from the Test mode. See P. 33 "7-4-5 Input/output test of switches (I/O TEST)".)
- 2** Position the steering wheel at the center, release your hands from the steering wheel, and also release your feet from the accelerator and brake pedals.
(* Initialization will not be completed normally if the steering wheel or accelerator/brake pedal is operated.)
- 3** In this condition, press the Service switch.
The volumes will be initialized.
- 4** After the initialization, the screen for the switch test (see P. 33 "7-4-5 Input/output test of switches (I/O TEST)") appears. Turn the steering wheel fully to the right and then to the left, and make sure "RIGHT OK" and "LEFT OK" are displayed on the screen.
- 5** Fully depress the accelerator pedal, then the brake pedal. Make sure that "OK" is displayed each time.
- 6** While holding down the Service switch, press the Test switch to return to the I/O TEST screen.

7-6 Self-test

The machine automatically executes a self-test (self diagnosis) immediately after the power is turned on. When the self-test finds no problem, the startup screen appears on the monitor after a short while. If there is an abnormality, an error message is displayed on the monitor and the machine stops operating. (See P. 81 "8-2 Troubleshooting.")

- **Do not touch the steering wheel while the self-test is in process. If the steering wheel is operated, the machine may display an error message and stops operating.**

8. MAINTENANCE

WARNING

- Before conducting maintenance (troubleshooting, repair, etc.), turn off the power switch to protect the service staff and other people from electric shock, accidents and injury.
- The monitor remains hot and charged with high voltage even after the power switch is turned off. Do not touch those parts to avoid electric shock and burns.

8-1 Maintenance and inspection

WARNING

- Conduct maintenance regularly. Failure to conduct periodic maintenance may lead to unexpected accidents.
- Conduct a pre-service check everyday. Pre-service check is important for preventing accidents. (See P. 36 "7-1 Pre-service check.")

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

Check the following regularly.

(1) Inspection of the level adjusters

- Make sure that the machine is stably installed. (See P. 14 "5-3 Adjusting the level adjusters.")

(2) Inspection of the power cord plug

- Make sure that the power cord is connected firmly to the cord box section of the machine and the service outlet.
- If the connecting section is covered with dust, clean.
- Check the power cord for cracks and dirtiness. If there is any abnormality in the power cord, be sure to replace it with a new cord.

(3) Inspection of screws and bolts for tightness

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

- Steering Assy fastening bolts
(See P. 62 "8-3-3 (1) Removing and reinstalling the Steering Assy.")
- Steering wheel B fastening bolts
(See P. 65 "8-3-3 (3) Removing and reinstalling steering wheel.")
- Others

(4) Inspection of communication cables

- Check the cable connectors for secure connection. Also, check each cable for damage or other abnormalities.

8-2 Troubleshooting

WARNING

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

NOTICE

- In the event of a problem, first check to make sure that all connectors are firmly connected.
- If there is a problem in the Game PC Board, Steering PC Board, or Amp PC Board, do not use a tester to conduct a continuity test. Internal voltage of a tester can damage ICs.
- When sending parts for a repair, pack them carefully. When sending the Game PC Board or Steering PC Board, wrap it in sponge or bubble wrap, and pack it in a corrugated cardboard box to protect against external impact. Be sure to attach a repair request form to the parts sent for a repair. Note that a carton box for the TRIFORCE PC Board is not provided with this product.

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

- Before conducting troubleshooting, check to make sure that all connectors are firmly connected.

Symptom	Main cause	Action	Page
The machine does not start up.	The connector of the TRIFORCE PC Board is disconnected.	Connect the connectors and Faston terminals securely.	67
	The TRIFORCE PC Board is malfunctioning.	Contact your distributor.	67
Communication-linked game cannot be played.	The communication cable is not connected.	Check the communication cable for secure connection.	15
	There is an open-circuit in the communication cable.	Replace the communication cable.	15
	The PCB ID is set incorrectly.	Set the PCB ID correctly.	19
	The hub is defective.	Replace the hub.	68
Machine operates unstably or generates malfunctions.	The power supply voltage is not within a range of 90 to 110 VAC.	Disconnect any large power consuming equipment (air conditioners, large ride attractions, etc.) to ensure that the machine receives the specified power voltage.	---
Power turns off in the middle of operation.	The circuit protector has activated and turned off the power switch. * The circuit protector is designed to cut off the power supply when an abnormal current flows.	Turn on the power switch again. If the circuit protector is activated frequently, there is a problem in the machine. Contact your distributor.	18

8. MAINTENANCE

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

Symptom	Main cause	Action	Page
There is no sound from the speakers.	The sound level is set too low.	Adjust the sound level.	40
	The connector or Fast on terminal is disconnected.	Connect the connector and Faston terminal securely.	58
	The IS Amp PC Board is malfunctioning.	Replace the IS Amp PC Board.	
No image is displayed on the monitor	The connector is disconnected.	Connect the connector securely.	74
	The monitor is malfunctioning.	Replace the monitor.	73
The fluorescent lamp does not light.	The connector is disconnected.	Connect the connector securely.	55
	The fluorescent lamp is burned out.	Replace the fluorescent lamp.	55
The Versus Race Cancel button does not function.	The connector is disconnected.	Connect the connector securely.	57
	The switch is defective.	Replace the switch.	57
The built-in lamp of the Versus Race Cancel button does not light.	The connector is disconnected.	Connect the connector securely.	57
	The wedge lamp is burned out.	Replace the wedge lamp.	57
The camera does not operate.	The connector is disconnected.	Connect the connector securely.	58
	The namcam2 (camera) is malfunctioning.	Replace the namcam2 (camera).	58

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

Symptom	Main cause	Action	Page
The steering wheel does not function.	The potentiometer has not been initialized.	Execute the initialization.	45
	The connector is disconnected.	Connect the connector securely.	62
	The fuse is blown.	Replace the fuse.	60
	The potentiometer is installed incorrectly.	Install the potentiometer correctly.	63
	The potentiometer is defective.	Replace the potentiometer.	63
	The motor is defective.	Replace the motor.	62
The Item button does not function or its built-in lamp does not light.	The connector is disconnected.	Connect the connector securely.	65
	There is a break in the harness.	Replace the harness.	65

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

Symptom	Main cause	Action	Page
The accelerator/brake pedals do not function.	The potentiometer has not been initialized.	Execute the initialization.	45
	The connector is disconnected.	Connect the connector securely.	
	The potentiometer is defective.	Replace the potentiometer.	

8-2-5 Error display

(1) Errors related to the Steering Assy

Symptom	Main cause	Action	Page
The self-test after power On results in the display of the "Wheel error E10" message on the monitor, and the machine does not start up. (There is a rotation abnormality in the motor of the Steering Assy.)	The connector is disconnected.	Connect the connector securely.	62
	The potentiometer is defective.	Replace the potentiometer.	63
	The fuse is burned.	Replace the fuse.	60
	The Steering PC Board is malfunctioning.	Replace the Steering PC Board.	60
	The motor is defective.	Replace the motor.	62
The self-test after power On results in the display of the "Wheel error E11" message on the monitor, and the machine does not start up. (There is a rotation abnormality in the motor of the Steering Assy.)	The potentiometer is defective.	Replace the potentiometer.	63
	The Steering PC Board is malfunctioning.	Replace the Steering PC Board.	60
	The motor is defective.	Replace the motor.	62
The self-test after power On results in the display of the "Wheel error E12" message on the monitor, and the machine does not start up. (There is a rotation abnormality in the motor of the Steering Assy.)	The Steering PC Board is malfunctioning.	Replace the Steering PC Board.	60
	The motor is defective.	Replace the motor.	62
The self-test after power On results in the display of the "Wheel error E20" message on the monitor, and the machine does not start up. (There is a rotation abnormality in the motor of the Steering Assy.)	The connector is disconnected.	Connect the connector securely.	62
	The Steering PC Board is malfunctioning.	Replace the Steering PC Board.	60
The self-test after power On results in the display of the "Wheel error E**" message on the monitor, and the machine does not start up. (** indicates a number other than 10, 11, 12 or 20.)	The Steering PC Board is malfunctioning.	Replace the Steering PC Board.	60

Symptom	Main cause	Action	Page
The self-test after power On results in the display of the "Item Button Error" message on the monitor, and the machine does not start up. (The Item button remains in ON status.)	The Item button is being pressed when the machine starts up.	Remove your hand from the Item button and restart the machine.	---
	The Item button is remaining in the depressed condition.	Contact your distributor.	62
The monitor displays the "Wheel error E07" message in the middle of a game play, and the machine stops operating.	The potentiometer is defective.	Replace the potentiometer.	63
The monitor displays the "Wheel error E08" message in the middle of a game play, and the machine stops operating.	The Steering PC Board is malfunctioning.	Replace the Steering PC Board.	60
The monitor displays the "Wheel error E**" message in the middle of a game play, and the machine stops operating. (** indicates a number other than 07 or 08.)	The Steering PC Board is malfunctioning.	Replace the Steering PC Board.	60

8. MAINTENANCE

(2) Errors related to namcam2 (camera)

Symptom	Main cause	Action	Page
The self-test after power On results in the display of the "Camera Error" message on the monitor, and the machine does not start up.	The connector is disconnected.	Connect the connector securely.	58
	The namcam2 (camera) is malfunctioning.	Replace the namcam2 (camera).	58
The Attract screen displays the "You may not use the camera now" message.	The camera is turned Off.	Turn the setting On in the Test mode.	31
The Attract screen does not display the image capture by the camera.	Communication is interrupted.	Insert the communication cables securely and check the ID setting.	15, 31
The monitor display the "You may not use the camera now" message during the photoshooting in a game play.	The camera is turned Off.	Change the camera setting from Off to On in the Test mode.	31

(3) Errors related to communication

Symptom	Main cause	Action	Page
The monitor displays the "Link error occurred" message during a game play.	Communication is interrupted.	Insert the communication cables securely, and restart all connected game machine units.	15, 31

8-3 Disassembling, reassembling and replacing Assys and parts

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

(1) Replacing the fluorescent lamp/glow lamp

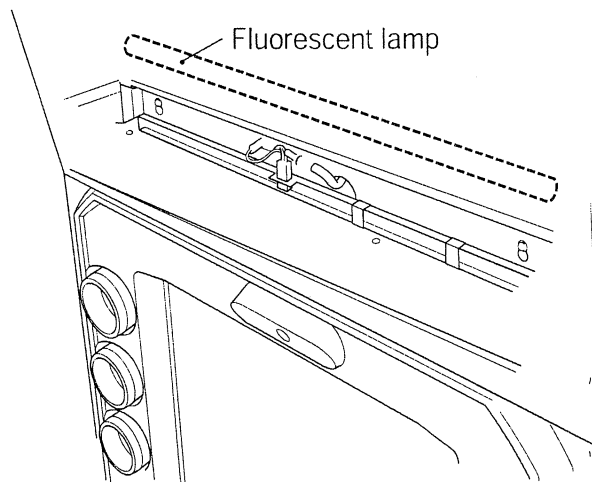
WARNING

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

CAUTION

- The fluorescent lamp becomes very hot. Be careful when removing the fluorescent lamp.
- Exercise caution when replacing the fluorescent lamp , since the replacement work must be conducted at a height.

- 1** Remove the four Torx bolts (8-32 x 3/8"), from the upper marquee retainer bracket and the four Torx bolts (8-32 x 1/4") from the lower marquee retainer bracket and dismount the marquee.



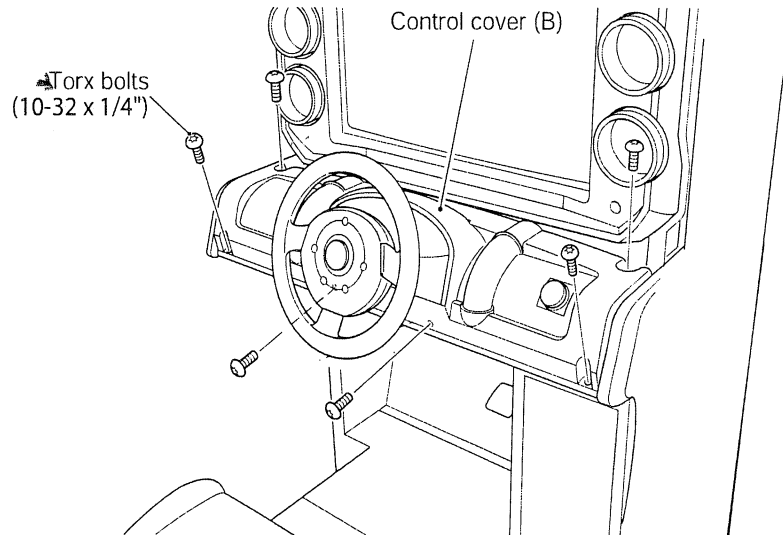
- 2** Replace the fluorescent lamp (20 W).

(2) Removing/reinstalling the control cover (B)

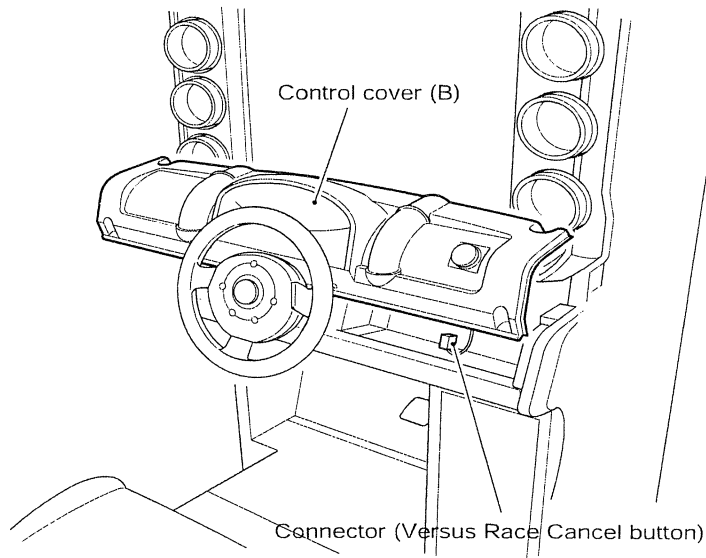
! WARNING

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

- 1** Remove the eight Torx bolts (10-32 x 1/4").



- 2** Unplug the one connector from the switch located on the back of the control cover, and remove the control cover.

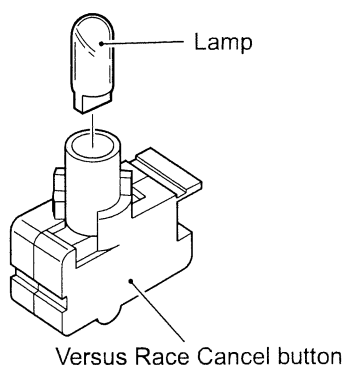


- 3** To reinstall, follow the removal sequence in reverse.

(3) Replacing the Versus Race Cancel button and lamp bulb**! WARNING**

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

- 1** Remove the control cover (B). (See P. 56 "8-3-1 (2) Removing/reinstalling the control cover (B).")
- 2** Turn the Versus Race Cancel button to the left to release the lock, and dismount the button switch.



- 3** Pull out the lamp bulb.
- 4** Replace the Versus Race Cancel button and lamp bulb.
- 5** To reinstall, follow the removal sequence in reverse.



- After the replacement, be sure to check the operation and settings. (See P. 33 "7-4-5 (b) SWITCH TEST.")

(4) Replacing the namcam2 (camera)

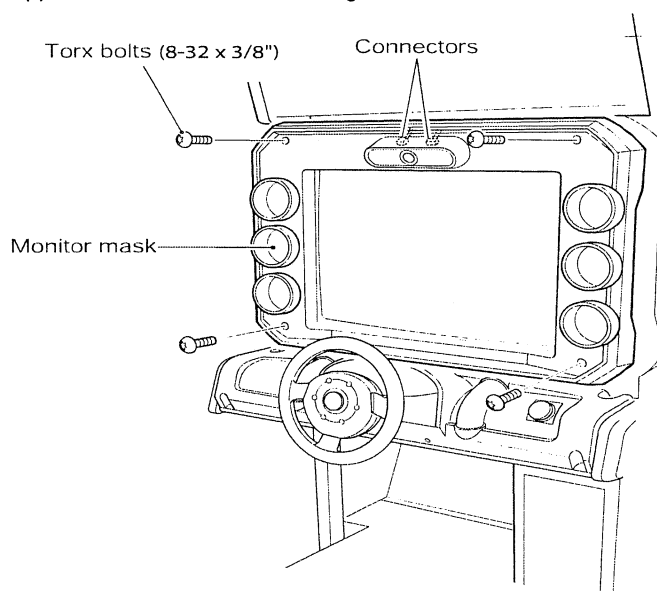
WARNING

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

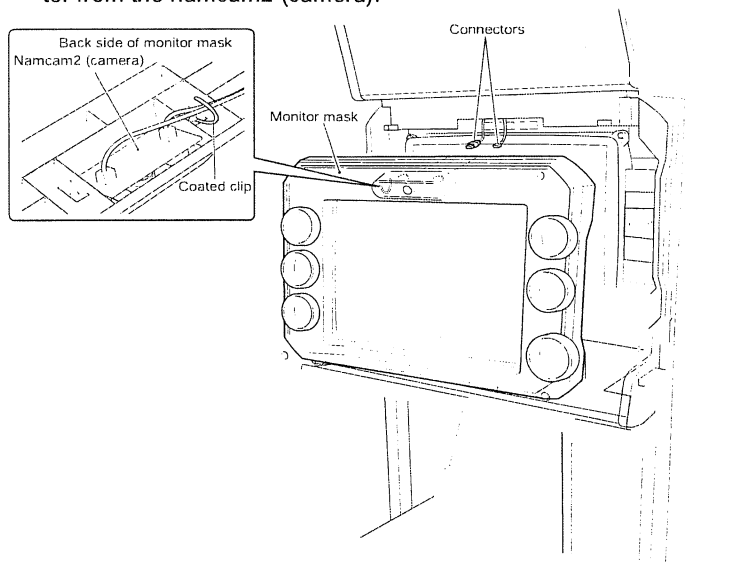
NOTICE

- The PC boards can be easily damaged by static electricity. Handling of a PC board by a person charged with static electricity can damage parts on the PC board. Before touching a PC board, be sure to remove static electricity from your body by touching a grounded metal.

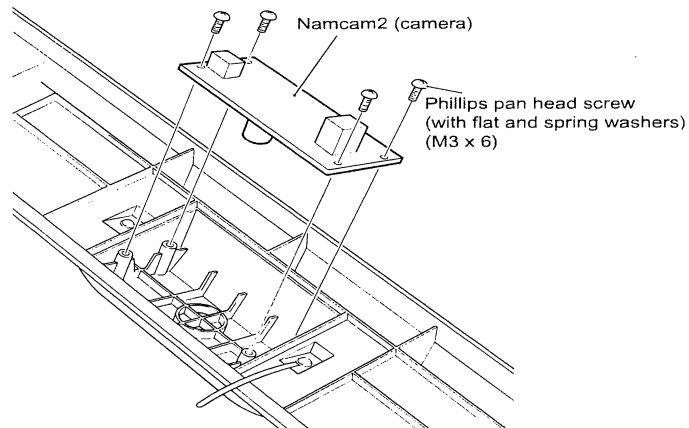
- 1 Remove the four Torx bolts (8-32 x 3/8") and dismount the monitor mask.
* Be careful of the connectors located on the back side of the monitor mask at the upper section when dismounting the monitor mask.



- 2 Detach the two harnesses from the coated clips, and disconnect the two connector from the namcam2 (camera).



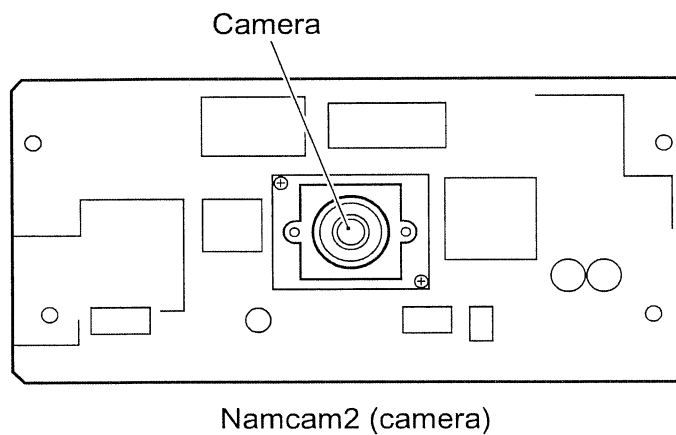
- 3** Remove the Phillips pan head screws (with flat and spring washers) (M3 x 6), then remove and replace the namcam2 (camera).



- 4** To reinstall, follow the removal sequence in reverse.
* During reassembly, make sure that the harnesses are not pinched by the monitor mask.



- Do not touch the camera in the namcam2 (camera). Touching the camera can lead to a camera malfunction.



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

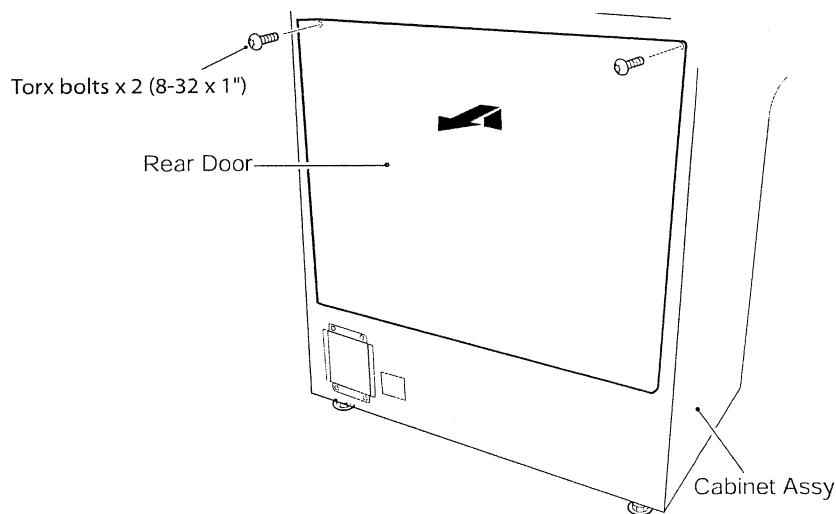
(1) Replacing the fuse for the Steering PC Board

WARNING

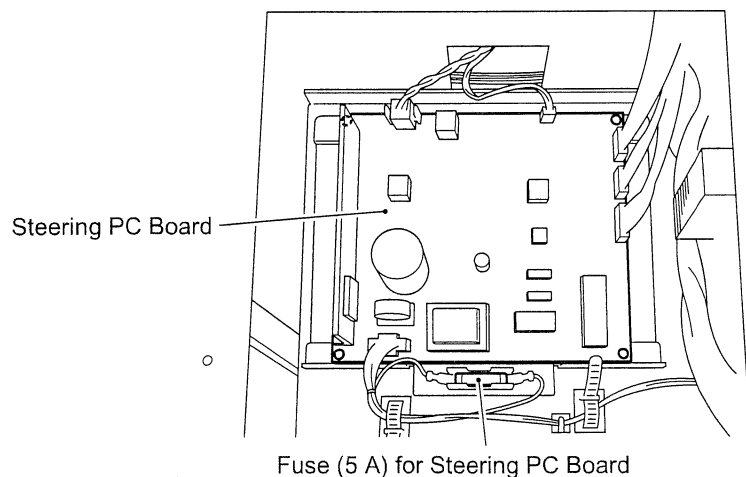
- To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.
- Never use a fuse other than the specified type (250 V, 5 A). Use of a different fuse can result in a fire. The fuse must be installed to prevent fires and accidents. To order a fuse, contact your distributor.

1 Remove the bolts holding the rear door in place.

2 Remove the rear door.



3 Replace the fuse (5 A) for the Steering PC Board.



4 To reinstall, follow the removal sequence in reverse.

(2) Replacing the Steering PC Board

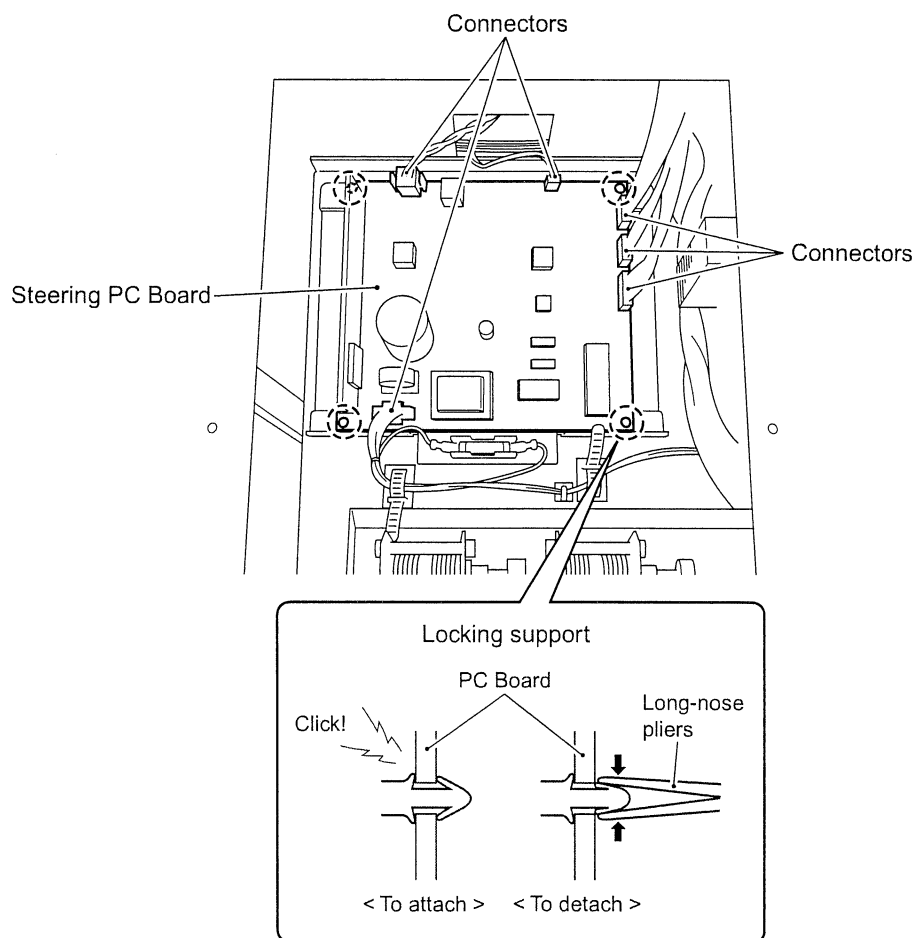
! WARNING

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



- The PC boards can be easily damaged by static electricity. Handling of a PC board by a person charged with static electricity can damage parts on the PC board. Before touching a PC board, be sure to remove static electricity from your body by touching a grounded metal.

- 1** Remove the rear door. (See P. 60 "8-3-2 (1) Replacing the fuse for the Steering PC Board.")
- 2** Disconnect the six connectors shown in the diagram.
- 3** Remove the four locking supports, or screws, and replace the Steering PC Board.



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

8-3-3 Steering Assy - To be conducted by a technician only -

(1) Removing and reinstalling the Steering Assy

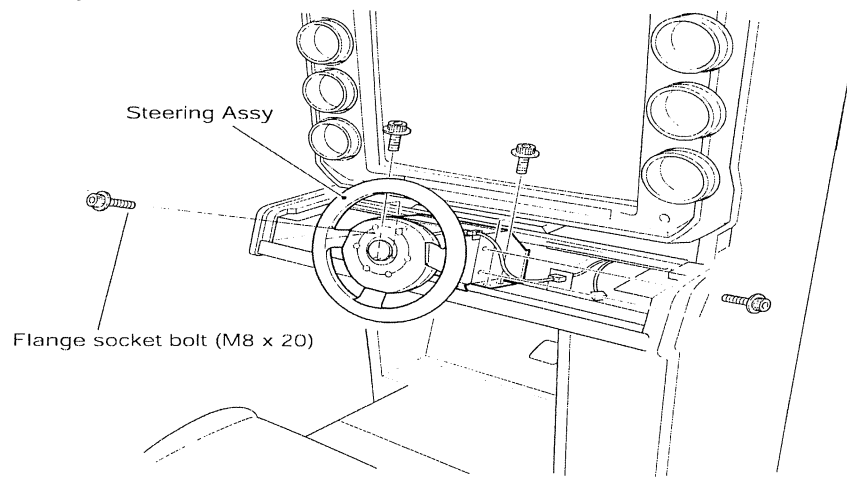
WARNING

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

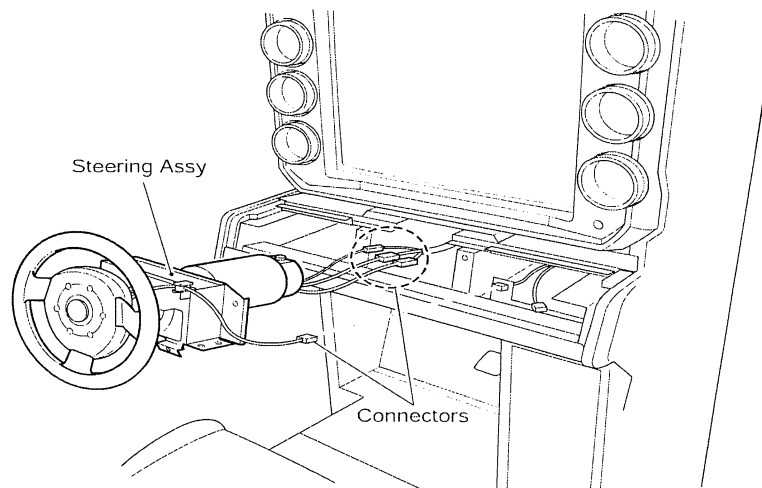
CAUTION

- The Steering Assy weighs approximately 10 lbs. Conduct the following task carefully since dropping the Steering Assy can cause injury.

- 1** Remove the control cover (B). (See P. 55 "8-3-1 (2) Removing/reinstalling the control cover (B).")
- 2** Remove the six flange socket bolts (M8 x 20), and dismount the Steering Assy by pulling it toward the front.



- 3** Disconnect the four connectors.

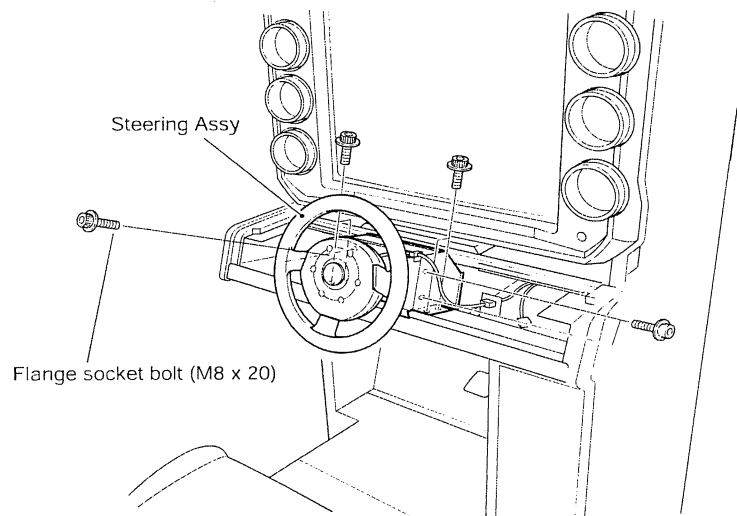


(2) Replacing the potentiometer

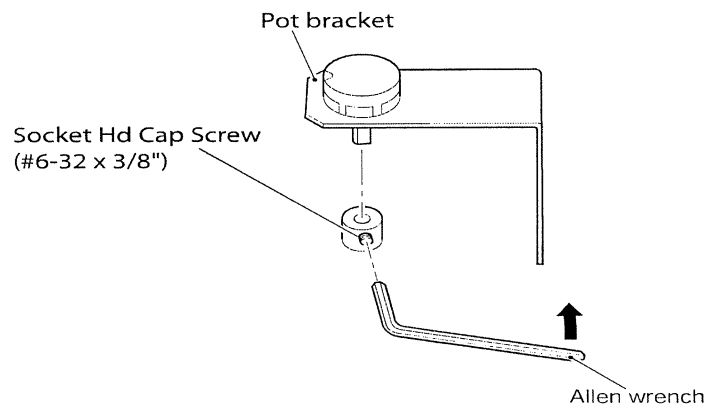
! WARNING

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

- 1** Remove the Steering Assy. (See P. 62 "8-3-3 (1) Removing and reinstalling the Steering Assy.")
- 2** Loosen the one socket head cap screw (#6-32 x 3/8"), remove the one pan head philips screw (#10-32 x 3/8"), and dismount the potentiometer together with the potentiometer bracket and ground lead.



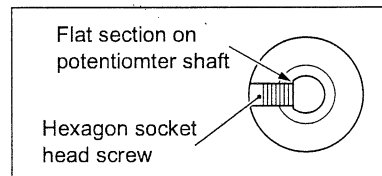
- 3** Detach the cable clip from the harness, and dismount the potentiometer from the potentiometer bracket.



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



- **When installing a potentiometer, align the flat section on the potentiometer shaft with the position of the hexagon socket head set screw. And apply Loctite to the set screw.**



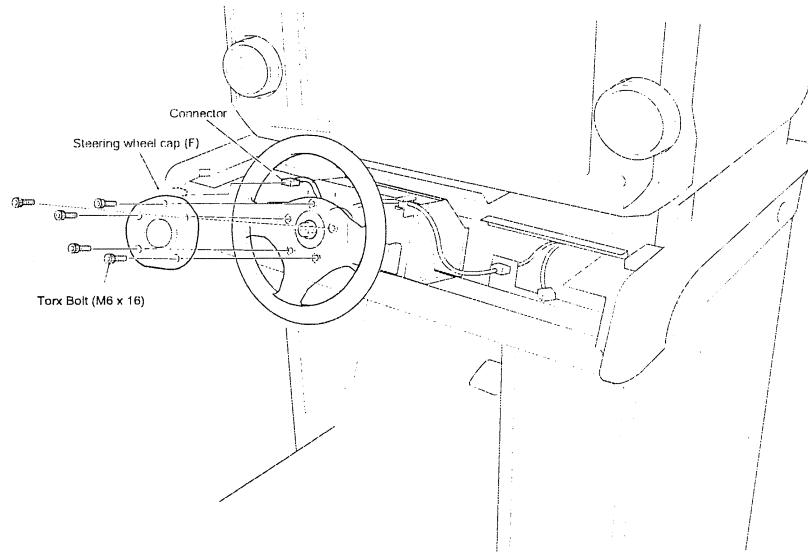
- **After the replacement, be sure to execute the initialization. (See P. 45 "7-5-1 Initializing the potentiometers.")**

(3) Removing and reinstalling the steering wheel

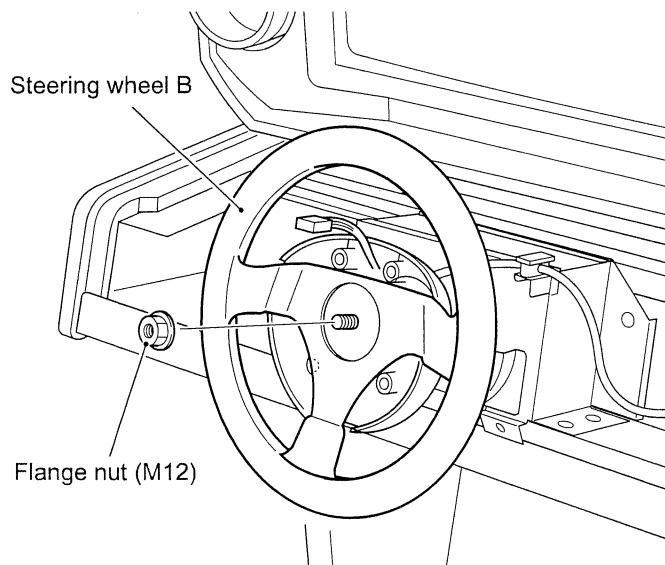
⚠ WARNING

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

- 1** Remove the five Torx bolts (M6 x 16), and dismount the steering wheel cap (F).
- 2** Disconnect the one connector.

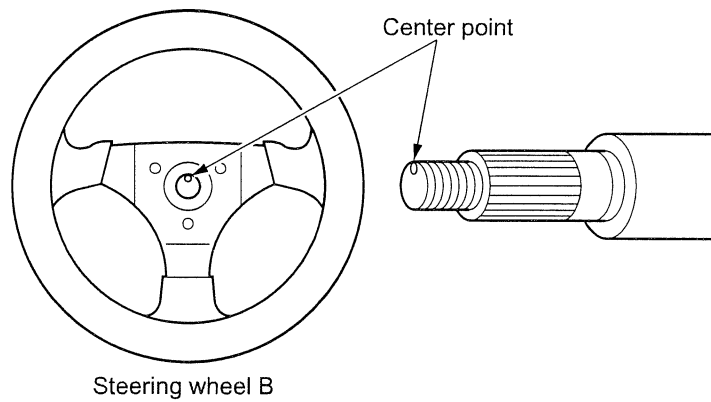


- 3** Remove the flange nut (M12), and dismount the steering wheel B.



8. MAINTENANCE

- 4** To reinstall, follow the removal sequence in reverse. Make sure that the steering wheel B and the center point on the shaft are positioned straight and at the top as shown in the diagram during the reassembly. Apply Loctite to the threads.



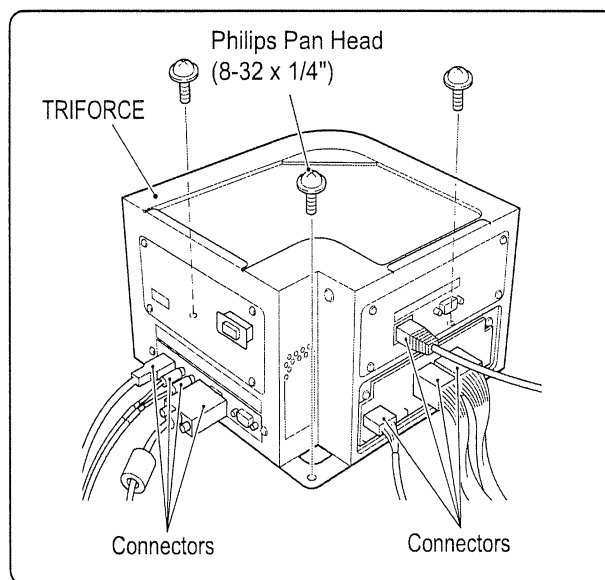
8-3-4 Monitor Cabinet Assy - To be conducted by a technician only -**(1) Replacing the TRIFORCE PC Board****! WARNING**

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

NOTICE

- The PC boards can be easily damaged by static electricity. Handling of a PC board by a person charged with static electricity can damage parts on the PC board. Before touching a PC board, be sure to remove static electricity from your body by touching a grounded metal.

- 1** Remove the rear door.
- 2** Disconnect the eight connectors shown in the diagram.
- 3** Remove the three Phillips pan head screws (8-32 x 1/4"), then remove and replace the TRIFORCE PC Board.



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

NOTICE

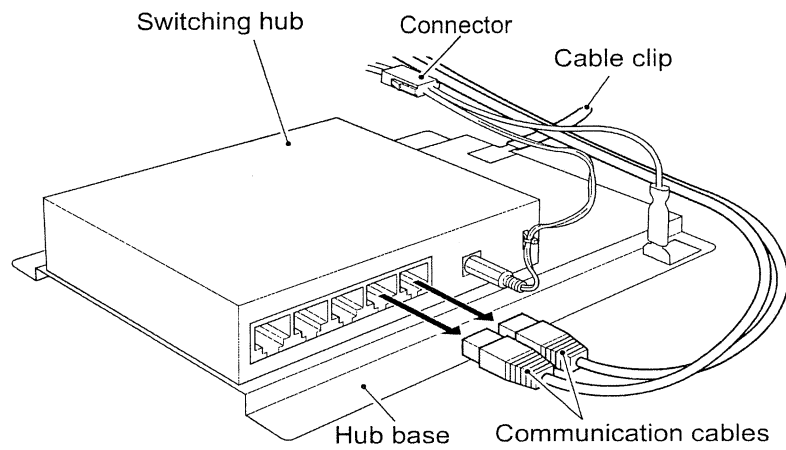
- When sending a part (TRIFORCE PC Board) for a repair, wrap it in sponge or bubble wrap, and pack it in a corrugated cardboard box to protect against external impact. Note that a carton box for the TRIFORCE PC Board is not provided with this product.

(2) Replacing the switching hub

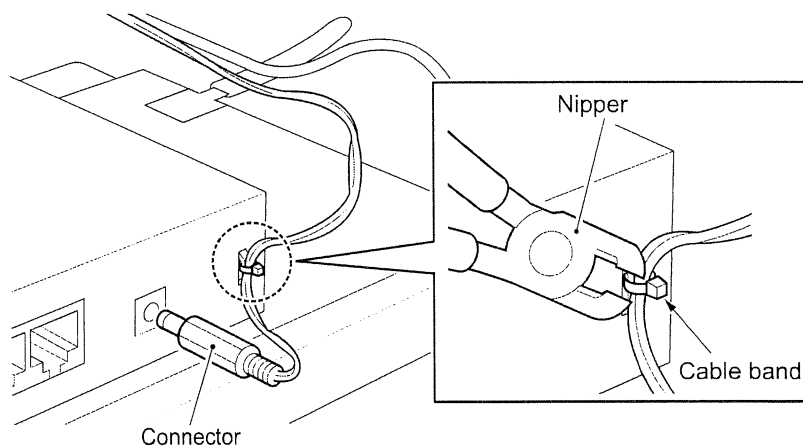
! WARNING

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

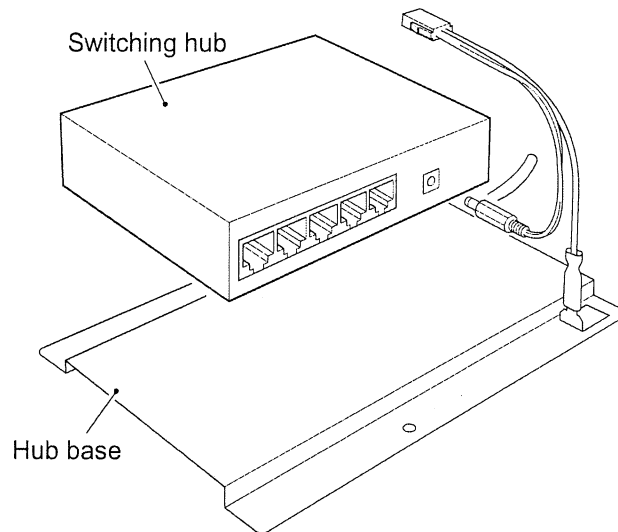
- 1** Remove the rear door.
- 2** Unplug the communication cables from the hub.



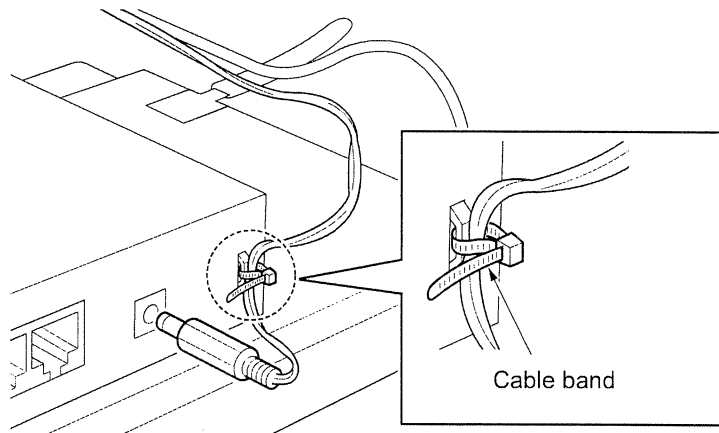
- 3** Disconnect the connector (round).



- 4** The hub is held in place by a magnet. Pull firmly on the hub to release it. Install a new switching hub to the hub base.



- 5** Connect the connector (round), then attach the harness to the switching hub by using a cable band.



- 6** Reinstall the hub by following the removal sequence in reverse (**3** to **1**).

(3) Replacing the FCA PC Board

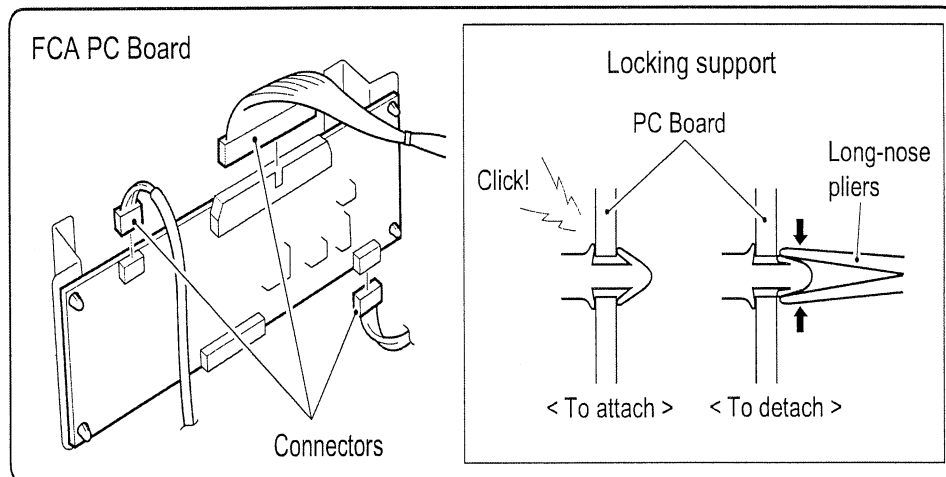
! WARNING

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

NOTICE

- The PC boards can be easily damaged by static electricity. Handling of a PC board by a person charged with static electricity can damage parts on the PC board. Before touching a PC board, be sure to remove static electricity from your body by touching a grounded metal.

- 1 Remove the rear door.
- 2 Disconnect the three connectors indicated in the diagram.
- 3 Remove the four locking supports, or screws and replace the FCA PC Board.
- 4 To reinstall, follow the removal sequence in reverse.



(4) Replacing the IS Amp PC Board

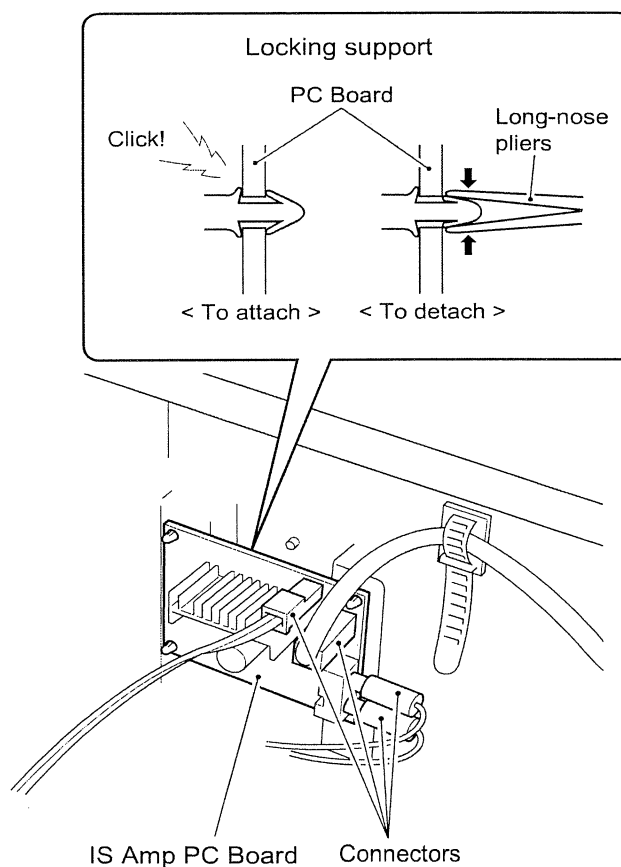
! WARNING

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

NOTICE

- The PC boards can be easily damaged by static electricity. Handling of a PC board by a person charged with static electricity can damage parts on the PC board. Before touching a PC board, be sure to remove static electricity from your body by touching a grounded metal.

- 1 Remove the rear door.
- 2 Disconnect the four connectors indicated in the diagram.
- 3 Remove the four locking supports, or mounting screws, and replace the IS Amp PC Board.
- 4 To reinstall, follow the removal sequence in reverse.



8-4 Replacement and adjustment of the monitor

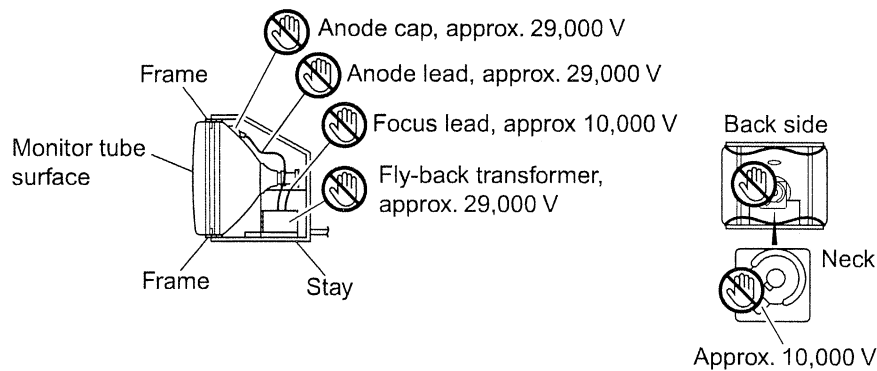
8-4-1 Replacing the monitor - To be conducted by a technician only -



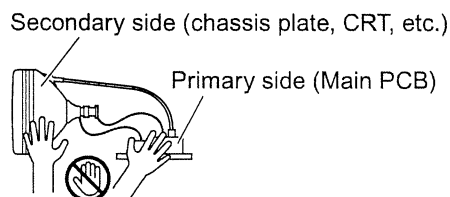
Do not touch the parts indicated with this mark.

! DANGER

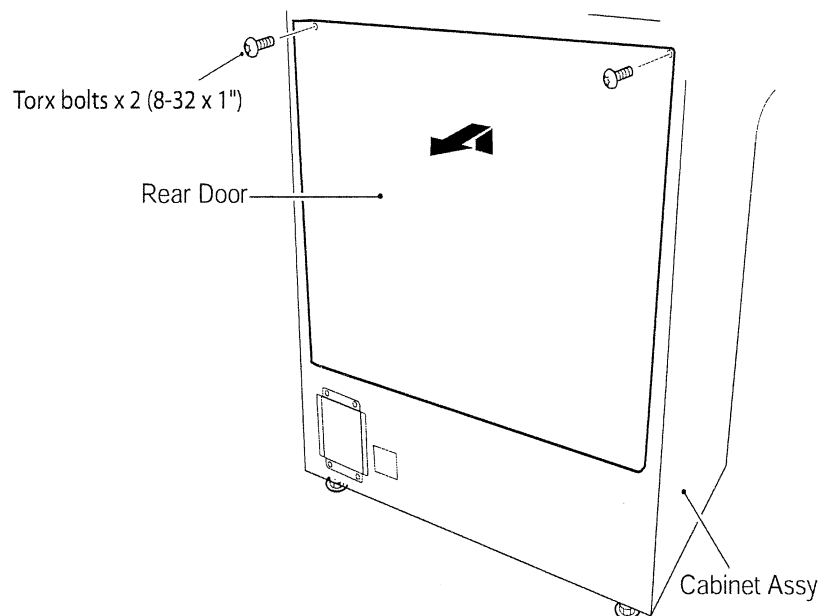
- To protect the service staff and other people from an electric shock, accident and injury, and to prevent damage to the electrical circuitry of the machine, always turn off the power switch before initiating the described task.
- Some internal parts of the monitor are charged with a voltage of 20,000 V or higher. To prevent an electric shock, do not touch any internal parts of the monitor.
- The anode caps, anode leads, and fly-back transformer retain high voltage even after the power switch is turned off. Never touch these parts to avoid an electric shock.
- When replacing the monitor, do not touch any parts other than the stay, frame and monitor screen.



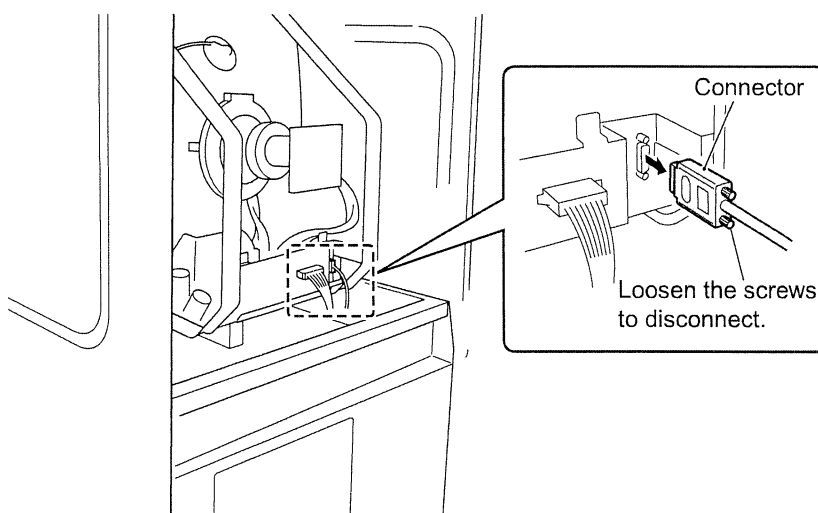
- The monitor circuitry consists of the primary side and secondary side, and they are electrically insulated from each other. Do not touch the primary side, or touch (short-circuit) the primary side and secondary side simultaneously. Touching these parts can result in an electric shock or machine malfunction.
- If solder chips, paper or other foreign matter enter the monitor, turn off the power switch to prevent a fire and machine malfunction, then contact your distributor.
- If the monitor generates an abnormality, turn off the power switch immediately and contact your distributor.
- The monitor weighs approximately 90 lbs. It should be handled by at least two persons.



- 1 Remove the monitor cabinet rear door.

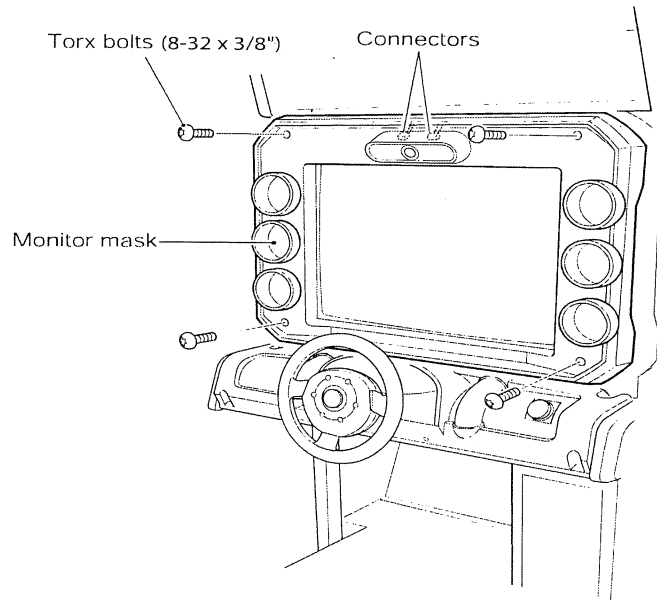


- 2 Disconnect the one connector from the monitor.



8. MAINTENANCE

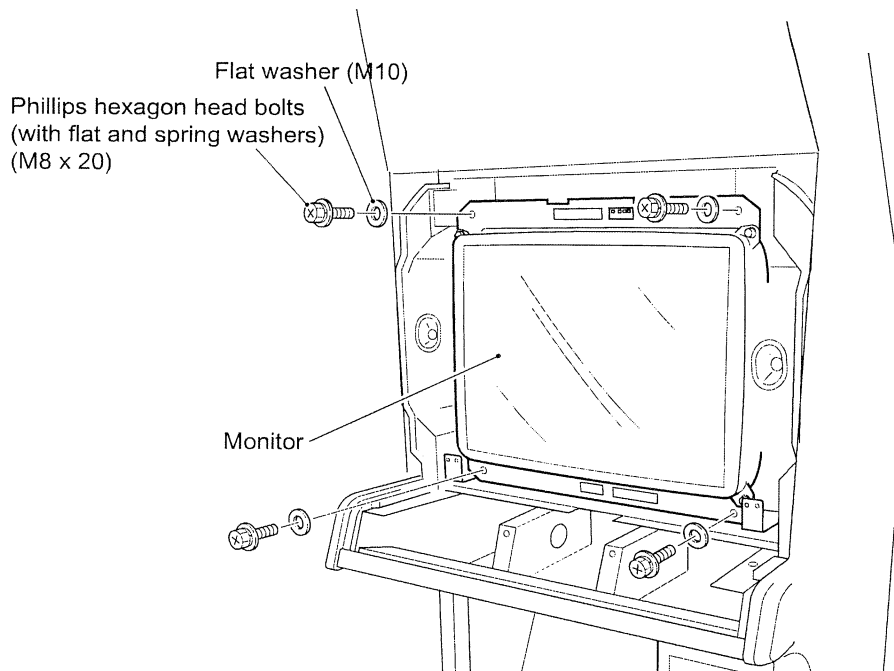
- 3** Remove the Control Cover Assy. (See P. 56 "8-3-1 (2) Removing/reinstalling the control cover .")
- 4** Remove the Steering Assy. (See P. 62 "8-3-3 (1) Removing and reinstalling the Steering Assy.")
- 5** Remove the four Torx bolts (8-32 x 3/8"), and dismount the monitor mask. (See P. 58 "8-3-1 (4) Replacing the namcam2 (camera).")



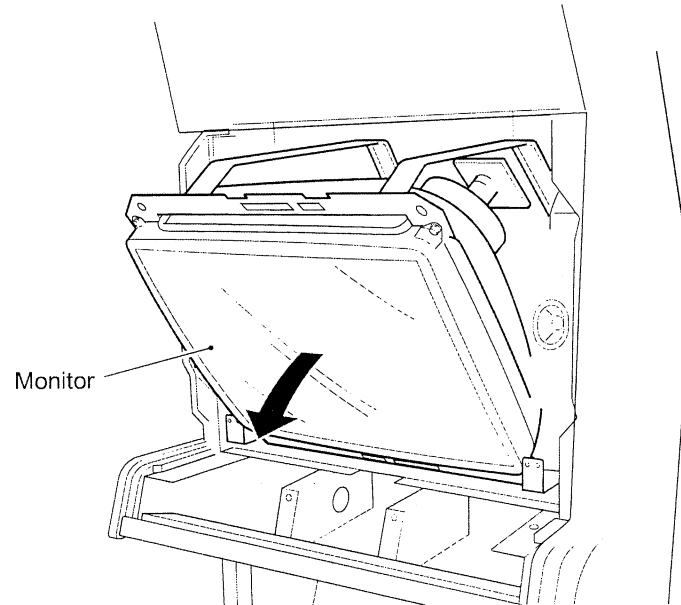
- 6** Remove the four hex nuts (with flat and spring washers) (1/4-20) and four flat washers (1" OD x 9/32") that are holding the monitor in place.



- Do not hold the monitor by the adjustment board mounted on the frame.



-
- 7** Slowly tilt the monitor forward first, and then dismount the monitor.
 - 8** Install a new monitor.



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

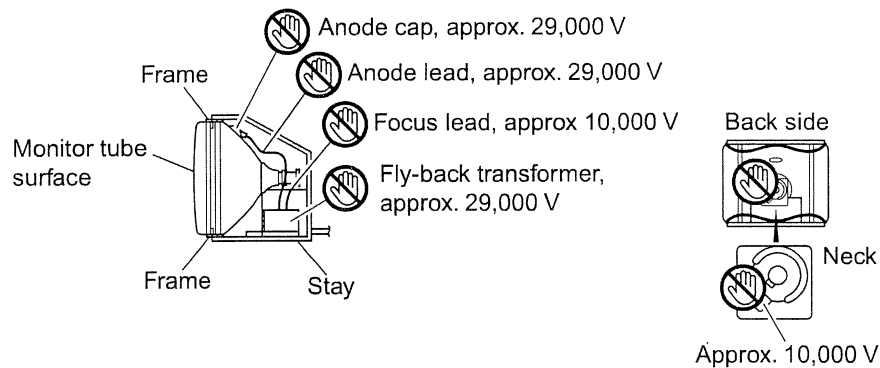
8-4-2 Adjusting the monitor - To be conducted by a technician only -



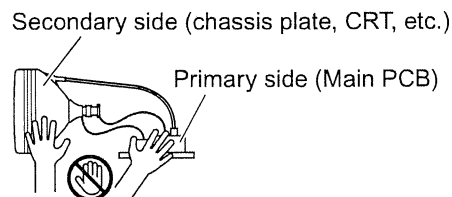
Do not touch the part indicate with this mark.

DANGER

- The monitor must be adjusted with the power switch turned on. To prevent electric shock, accident, and injury, do not touch any sections other than those specified in the work procedures.
- Some internal parts of the monitor are charge with a voltage of 20,000 V or higher. To prevent an electric shock, do not touch any internal parts of the monitor.



- The monitor circuitry consists of the primary side and secondary side, and they are electrically insulated from each other. Do not touch the primary side, or touch (short-circuit) the primary side and secondary side simultaneously. Touching these parts can result in an electric shock or machine malfunction.



- If solder chips, paper or other foreign matter enter the monitor, turn off the power switch to prevent a fire and machine malfunction, then contact your distributor.
- If the monitor generates an abnormality, turn off the power switch immediately and contact your distributor.



- The monitor has been adjusted to optimum condition at the factory before shipment. Normally, it does not need to be readjusted.

1 Remove the cabinet rear door.

(a) Adjustment function

The following shows the monitor adjustment board.

CONT	VSIZ
BRIT	VPOS
HSIZ	REST
HPOS	EXIT

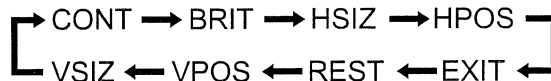
When the FUNC key is pressed, the following menu screen appears. The selected item is indicated in red, and others are in green.

* If no key input is made for six seconds, the adjustment mode is canceled and the menu items disappear from the screen.

CONT	VSIZ
BRIT	VPOS
HSIZ	REST
HPOS	EXIT

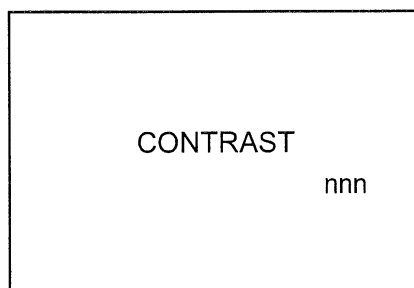
- (1) CONTRAST (CONT): Used to adjust the degree of difference between light areas and dark areas on the screen image.
 - Pressing the [UP] key increases the color density of the screen image.
 - Pressing the [DOWN] key decreases the color density of the screen image.
- (2) BRIGHT (BRIT): Used to adjust the brightness of the screen image.
 - Pressing the [UP] key increases the brightness of the screen image.
 - Pressing the [DOWN] key decreases the brightness of the screen image.
- (3) H.SIZE (HSIZ): Used to adjust the horizontal size of the screen image.
 - Pressing the [UP] key increases the width of the screen image in a horizontal direction.
 - Pressing the [DOWN] key decreases the width of the screen image in a horizontal direction.
- (4) H.POSI (HPOS): Used to adjust the horizontal position of the displayed screen image.
 - Pressing the [UP] key moves the screen image to the left.
 - Pressing the [DOWN] key moves the screen image to the right.
- (5) V.SIZE (VSIZ): Used to adjust the vertical size of the screen image.
 - Pressing the [UP] key moves the screen image to the left.
 - Pressing the [DOWN] key moves the screen image to the right.
- (6) V.POSI (VPOS): Used to adjust the vertical position of the displayed screen image.
 - Pressing the [UP] key moves up the screen image.
 - Pressing the [DOWN] key moves down the screen image.

When the FUNC key is consecutively pressed, the item selected (in red) changes in the following order.



When an adjustment item (in red) is selected and the UP/DOWN key is pressed once, the following screen appears. ("nnn" indicates the current adjustment value of the selected item.)

Example



The adjustment value can be changed by pressing the UP or DOWN key.

* The adjustment value is automatically stored in the memory when there is no UP/DOWN input for six seconds or the FUNC key is pressed to select the next adjustment item.

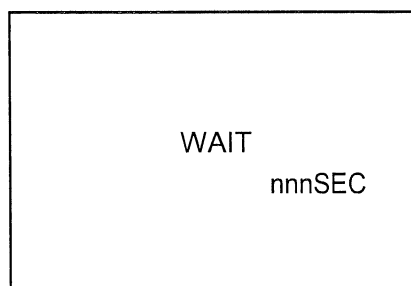
If the UP or DOWN key is pressed while the "EXIT" indication is in red, the adjustment mode is canceled.

RSET (Reset)

If the UP and DOWN keys are pressed simultaneously while the "RESET" indication is in red, "RSET" is displayed for three seconds and all adjustment items change back to the factory settings.

DEGAUSS key

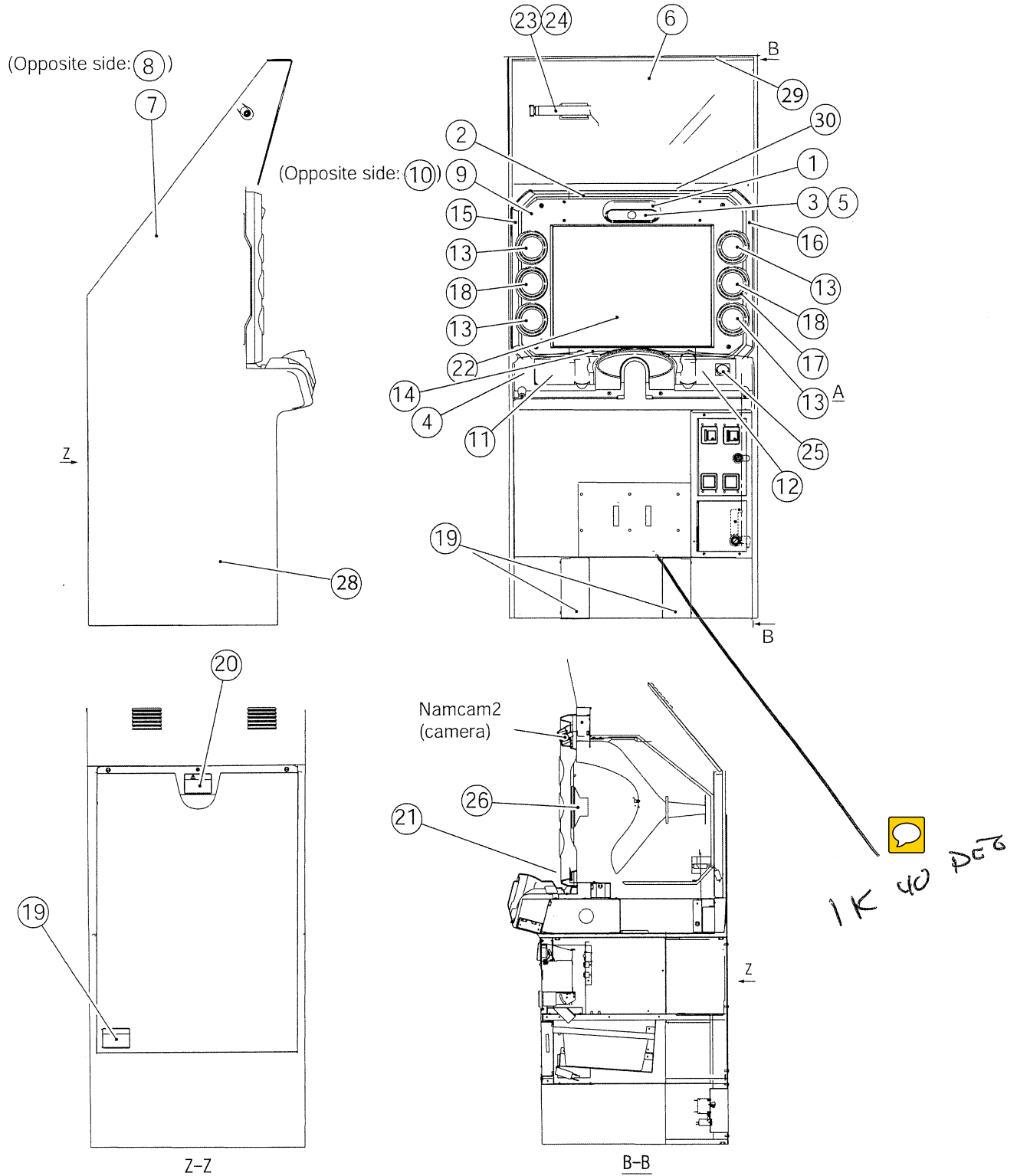
- (1) When the DEGAUSS key is pressed, the monitor is demagnetized and "DEGAUSS" is displayed on the screen for five seconds.
- (2) If the DEGAUSS key is pressed again within five minutes from the previous degaussing operation, the following screen appears and shows the remaining time before the degaussing operation is activated.



- (3) If the FUNC key is pressed while the remaining time is indicated, the menu screen appears to allow adjustment.
- (4) Even in the mode described in above step (3), the degauss standby status is effective and the degaussing operation is activated when the remaining time reaches zero.

9. PARTS LIST

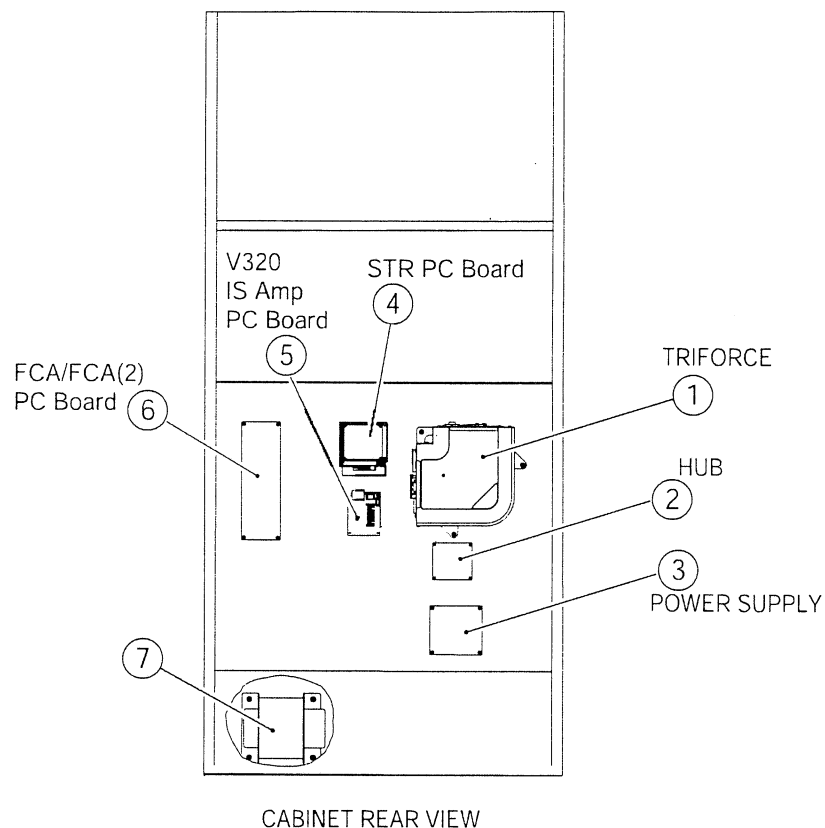
9-1 Monitor Cabinet Assy



9. PARTS LIST

No.	Name	Qty	NAI Part No.
1	Camera cover	1	MK90-11459-00
2	Monitor mask upper	1	MK90-11458-00
3	Decal, camera cover, silkscreen plex	1	MK40-11466-00
4	Dashboard	1	MK90-11456-00
5	PCB, GMEN, camera	1	MK05-11444-00
6	Marquee, silkscreen	1	MK40-11452-00
7	Decal, cabinet side, left	1	MK40-11453-00
8	Decal, cabinet side, right	1	MK40-11453-01
9	Decal, monitor bezel, left	1	MK40-11454-00
10	Decal, monitor bezel, right	1	MK40-11454-01
11	Decal, instructions, left, dashboard	1	MK40-11465-00
12	Decal, instructions, right, dashboard	1	MK40-11465-01
13	Speaker mask, no perfs	4	MB10-11092-00
14	Monitor mask B, lower	1	MK90-11458-01
15	Monitor mask L, left	1	MK90-11458-02
16	Monitor mask R, right	1	MK90-11458-03
17	Speaker ring	6	MK90-11457-00
18	Speaker mask, with perfs	2	MK10-11513-00
19, 20	Label, warning, high voltage	2	VG44-05532-00
20	Is inside the cabinet		
21	Label, warning, epileptic	1	VG44-07943-00
22	Monitor, 27", VGA, Pureflat	1	VG85-11119-00
23	Fluorescent lamp	1	
24	Fluorescent light fixture	1	
25	Illuminated switch, red	1	VG80-11112-00
26	Speaker	2	VG54-03201-00
27	Bracket, Cabinet to Seat	2	MK10-11512-00
28	Cabinet, wood	1	MK63-11505-00
29	Bracket, Retainer, Marquee, Upper	1	MK10-11507-00
30	Bracket, Retainer, Marquee, Lower	1	MK10-11507-01

9-2 Cabinet Component Assy, Rear View

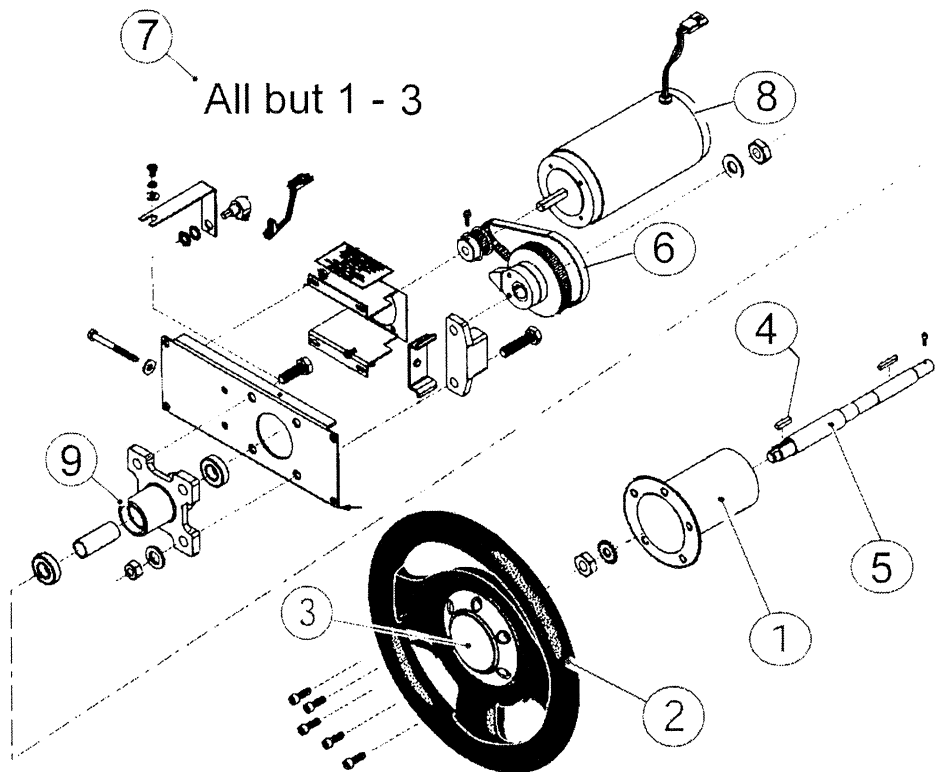


No.	Name	Qty	NAI Part No.
1	TRIFORCE System	1	MK03-11440-00
2	Hub, Link, 5 Port	1	MB05-11145-00
3	Power Supply, Switching, 5v, 12v, 3.3v, 300w	1	VG88-11121-01
4	Steering PCB	1	MK05-11441-00
5	IS Amp PCB	1	MK05-11443-00
6	FCA(2) PCB	1	MK05-11442-00
7	Isolation Transformer	1	VG56-09173-01

NOT: 412-5000
JAN 1

NOTES
→ K140-050-000
K149-051-000
CAN/SWICH/NORAL

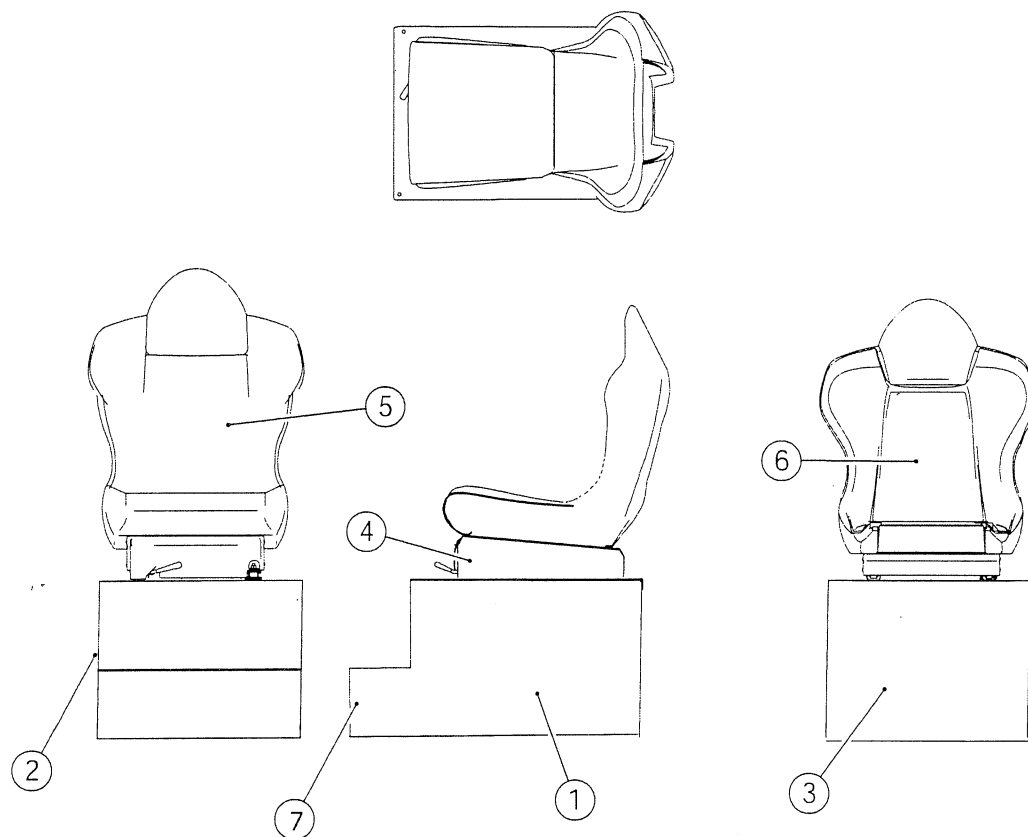
9-3 Steering Assy *MK80-11463-00*



No.	Name	Qty	NAI Part No.
1	Hub, Steering	1	MK11-11508-00
2	Steering Wheel w/ blue button	1	SM80-11447-00
3	Pushbutton, Steering, Blue	1	MK80-11463-00
4	Key	1	VG80-02975-06
5	Shaft	1	VG80-02975-05
6	Timing Belt	1	VG80-02975-16
7	Feedback Steering Assembly, all but 1 through 3	1	MK80-11463-00
8	Feedback Motor	1	VG59-10456-00
9	Bearing Holder	1	TW11-06148-00

*SMALL
PULLEY
WHEEL* → *VG80-02975-17*

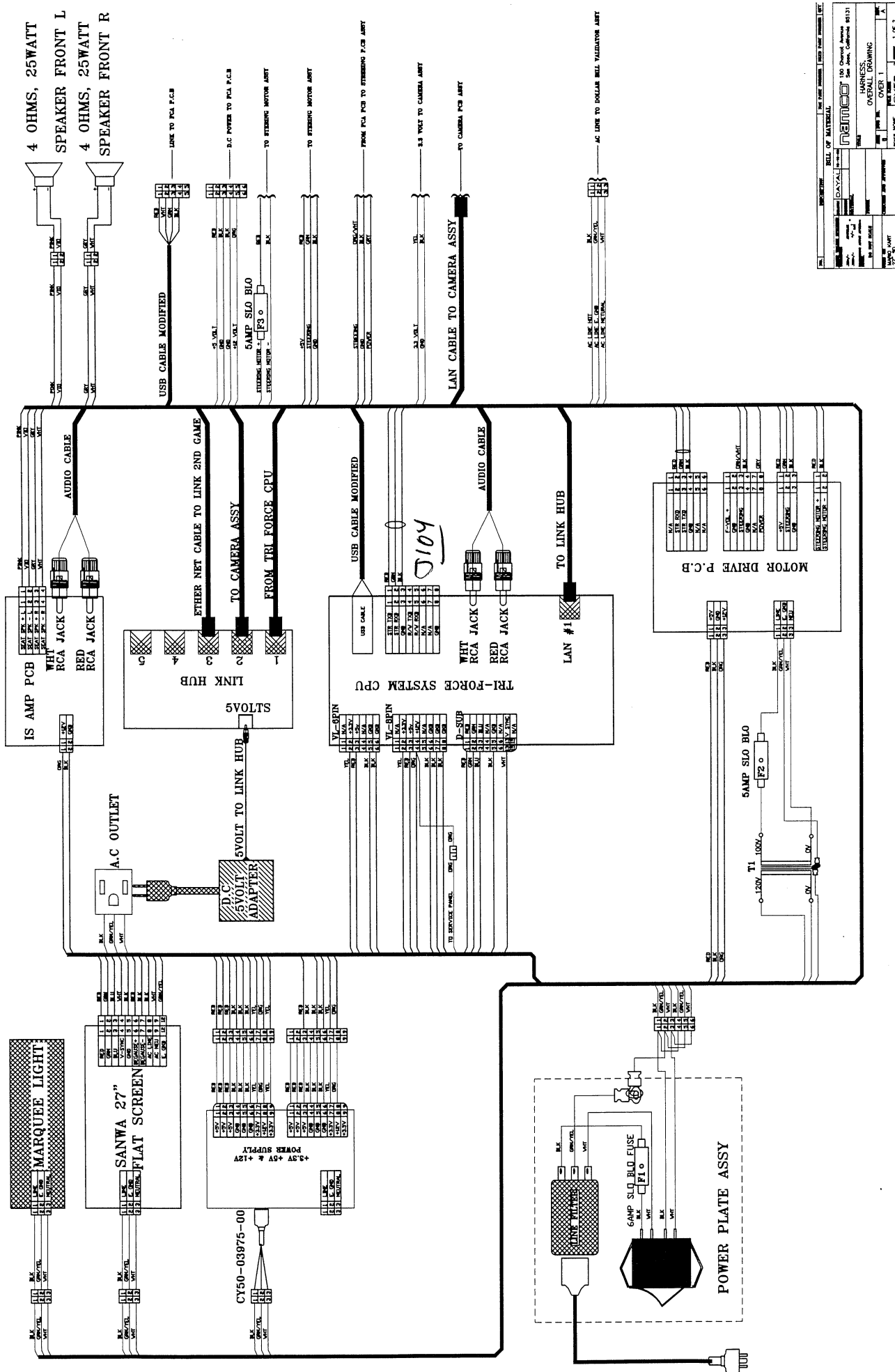
9-4 Seat Assy



No.	Name	Qty	NAI Part No.
1	Decal, lower side, left	1	MK40-11467-00
2	Decal, lower side, right	1	MK40-11467-01
3	Decal, lower side, back	1	MK40-11467-02
4	Seat slide assembly	1	R505-09677-00
5	Seat, molded, red	1	MK90-11449-00
6	Decal, seat back	1	MK40-11455-00
7	Cabinet, Seat	1	MK63-11506-00

10. WIRING DIAGRAMS

REVISION				
LTR	BOC	DATE	DESCRIPTION	BY
A		10-19-05	PRODUCTION RELEASE	DAYAL



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.

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Contact Namco America Inc. Customer Service at

(408) 200-7781 or FAX (408) 436-9554

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

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

namco America Inc.

890 Service St #C

San Jose, CA 95112

(408) 200-7781

FAX (408) 436-9554

Technical Assistance (USA)

(408) 200-7781

Fax (408) 436-9554

Reorder number MK45-11445-00

Rev A

RELEASED October 2005

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

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.

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