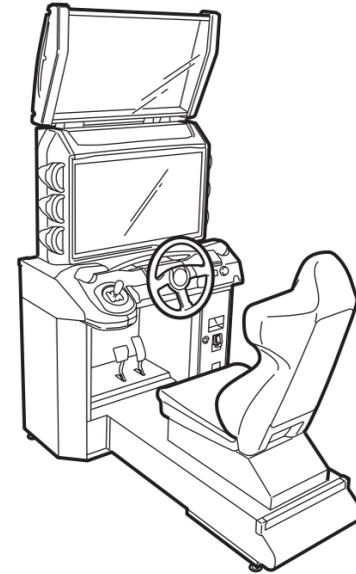




Amusement



MAXIMUM TUNE 5DX PLUS

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DRIVER CABINET OPERATION MANUAL

MAXIMUM TUNE 5DX PLUS

DRIVER CABINET OPERATION MANUAL

Part No.: 741-360
First edition issued in July 2016

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

BANDAI NAMCO Amusement Inc.

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BANDAI NAMCO Entertainment Inc.

DANGER

- To ensure safe operation of this product, be sure to read this Operation Manual before use.
- Keep this Operation Manual together with the "MAXIMUM TUNE 5 DX PLUS - WANGAN TERMINAL OPERATION MANUAL", the "MAXIMUM TUNE 5 DX PLUS - ADDITIONAL FUNCTION EVENT MODE SETTING MANUAL" and the "WANGAN MIDNIGHT MAXIMUM TUNE 5DX PLUS- EVENT MODE SETTING MANUAL" in a safe place for quick access whenever needed.

The machine specifications or the information in this Operation Manual may be changed without prior notice.

Introduction

Thank you very much for purchasing MAXIMUM TUNE 5DX PLUS (referred to as “this product” in this manual). This product consists of the Driver Cabinet (referred to as the “machine” in this manual) and the Wangan Terminal.

This Operation Manual describes:

- Information needed to correctly understand the machine.
- How to safely install, move, transport, operate, service and dispose of the machine.
- How to make full use of the machine’s functions and operate it correctly.
- How to ensure the safety of players and bystanders.

In addition to this Operation Manual, the following manual is also supplied separately.

- MAXIMUM TUNE 5DX PLUS - WANGAN TERMINAL OPERATION the Wangan Terminal MANUAL (supplied with Terminal)
- MAXIMUM TUNE 5DX PLUS - EVENT MODE SETTING MANUAL

Contact for this machine and machine repair inquiries

- For inquiries regarding the machine or machine repairs, contact your distributor.

The copyrights, trademarks and other rights used by the machine are noted at the end of this Operation Manual.

1. Safety Precautions – Be sure to read to ensure safe operation –

Instructions to the Owner

If you outsource the work for installing, moving, transporting, operating, servicing or disposing the machine to other people, ensure that these people read the relevant sections of this operation manual carefully and observe the corresponding precautions.

1-1 Levels of Risk

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

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

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

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

 **NOTICE** :Information about product functions or protection

1-2 Definition of “Technician”

This Operation Manual is designed for arcade personnel. However, the sections marked “Must be performed by a technician” in the Table of Contents are written for technicians. These tasks must be performed by technicians only.

Technician: A person involved in design, manufacture, inspection or service at an amusement device manufacturer, or a person involved routinely in the service or management (such as repair) of amusement devices and who has specialist knowledge of electricity, electronics or mechanical engineering equivalent to or higher than that of a technical high school graduate.

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1-3 Critical Safety Precautions

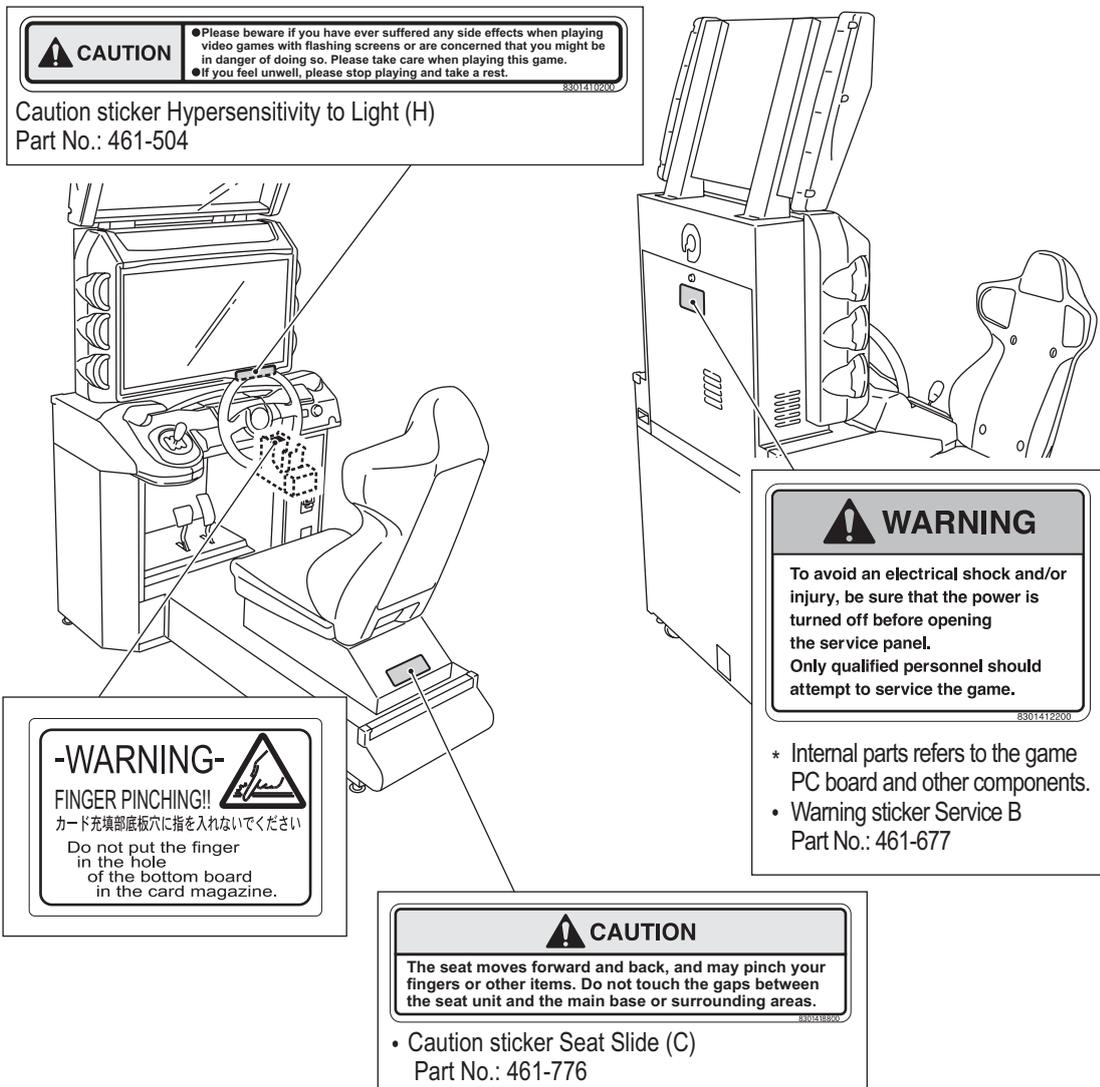
WARNING

- Should an abnormality occur, turn off the power switch immediately to stop operations. Then, be sure to disconnect the power cord plug from the outlet.
Operating the machine while the abnormality persists may result in fire or accident.
- Dust accumulating on the power cord plug may result in fire. Inspect the plug regularly and remove any dust.
- Fully insert the power cord plug into the outlet. Poor contact may generate heat and result in fire or burns.
- Damage to the power cord may result in fire, electric shock or electrical leakage. Be sure to observe the following.
 - Keep the power cord away from heaters.
 - Do not twist the power cord.
 - Do not forcibly bend the power cord.
 - Do not alter the power cord.
 - Do not bundle the power cord.
 - Do not pull the power cord. (Always unplug by holding the plug and not the power cord.)
 - Do not place objects on the power cord.
 - Do not allow the power cord to be caught between the machine and other devices or the wall.
 - Do not do anything else that might damage the power cord.
- Do not expose the power cord and power cord plug to water. It may result in electric shock or electrical leakage.
- Do not touch the power cord plug with wet hands. It may result in electric shock.
- The power capacity of the machine is AC 100 V (or AC 220 V), maximum current consumption 4.8 A. To prevent fire and electric shock, use indoor wiring that conforms to these power supply specifications.
- Use a power supply voltage range of AC 90 V to 110 V (or AC 220 V). Using a voltage outside this range may result in fire or electric shock. However, to ensure that the machine operates in the optimum condition, keep the voltage at AC 100 V (or AC 220 V) as much as possible.
- To ensure safe use of the machine, be sure to perform the pre-operation inspection (See “7-3 Pre-operation Inspection” on page 21) and service (See “8B Service” on page 90).
Omitting these inspections or service may result in an accident.
- Use the consumables and service parts (including screws) that are specified by BANDAI NAMCO Amusement Inc.
To order parts, contact your distributor.
- Do not modify the machine without permission. Do not perform any operations that are not described in this Operation Manual. Modifying the machine may create unforeseen hazards.

1-4 Machine Warning Labels

WARNING

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



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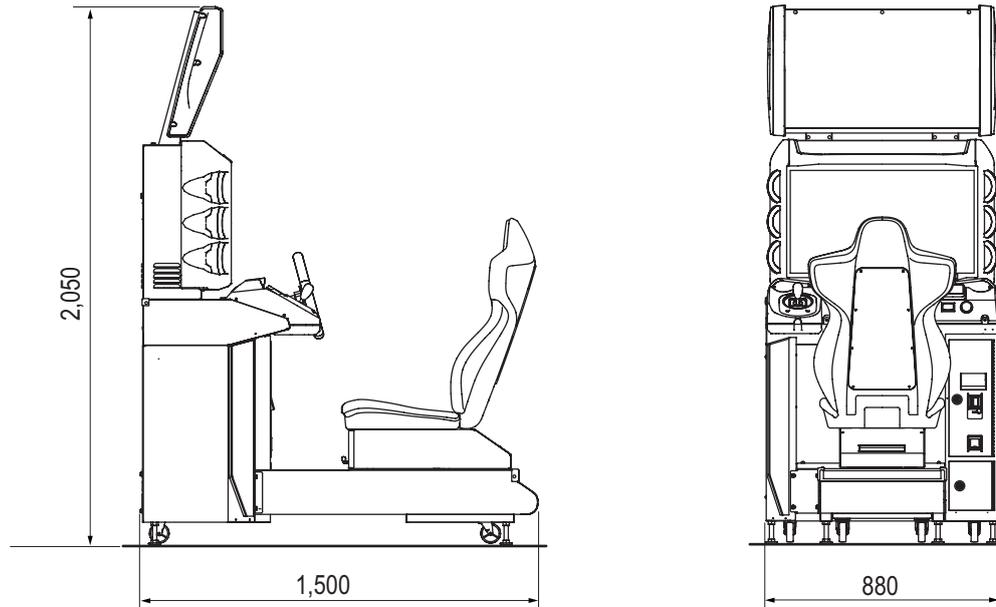
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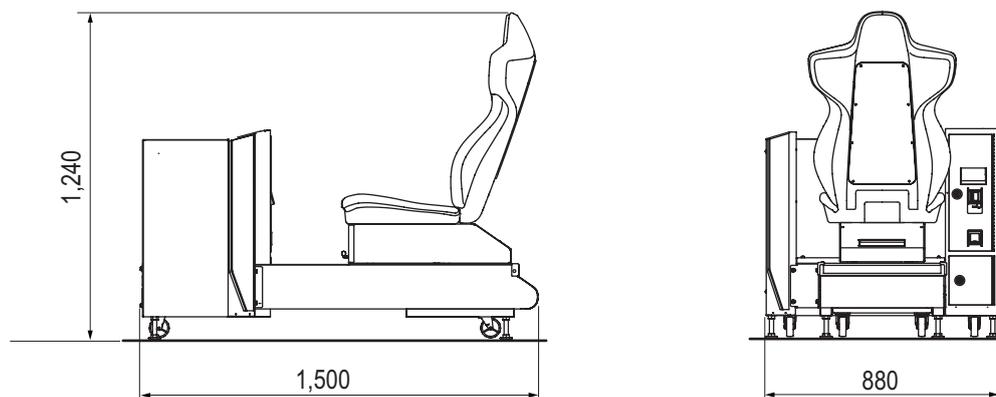
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2. Specifications

- | | |
|---------------------------------|--|
| (1) Power supply rate | AC 110 V \pm 10% (50/60 Hz), 220 V \pm 10% (50/60 Hz) |
| (2) Power consumption rate | 410 W |
| (3) Maximum current consumption | 4.8 A |
| (4) Cashbox capacity | Approx. 300,000 yen (3,000 100 yen coins) |
| (5) Display unit | 32-inch LCD monitor
Number of pixels: H 1,366 \times V 768 (pixels) |
| (6) Dimensions | |
| 1) When installed | Width (W) 880 \times Depth (D) 1,500 \times Height (H) 2,050 [mm] |

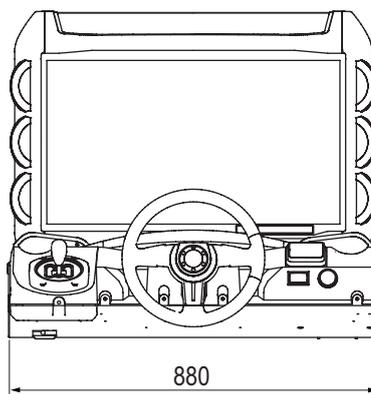
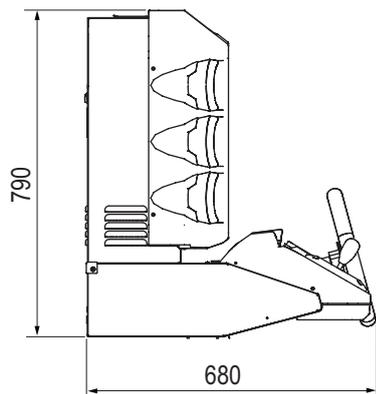


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|----------------------|---|
| 2) When disassembled | |
| Underbase | Width (W) 880 \times Depth (D) 1,500 \times Height (H) 1,240 [mm] |



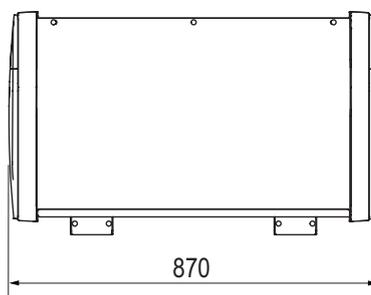
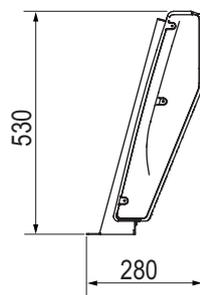
Monitor assembly

Width (W) 880 × Depth (D) 680 × Height (H) 790 [mm]



Signboard assembly

Width (W) 870 × Depth (D) 280 × Height (H) 530 [mm]



(7) Weight

1) When installed	210 kg
2) When disassembled	
Underbase	110 kg
Monitor assembly	90 kg
Signboard assembly	15 kg

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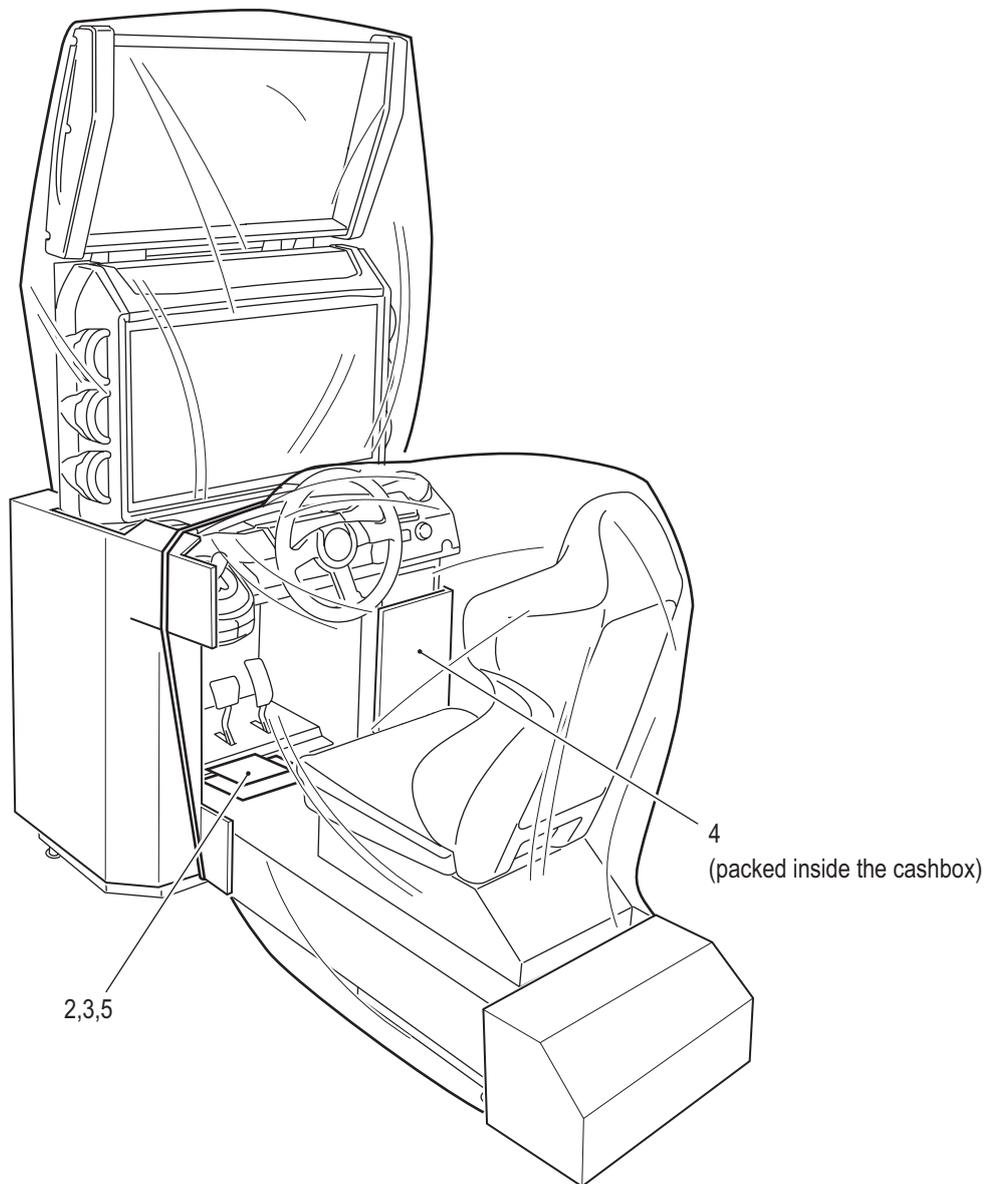
3. Package Contents

The following items are included when this machine is shipped.



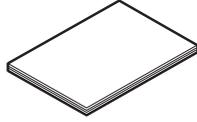
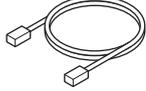
- Make sure that all the items below are contained in the product package.
- If any items are missing, contact your distributor.

- Driver Cabinet



3. Package Contents

● Supplied Item List

No.	Name	Specification	Qty.
1	Driver Cabinet Operation Manual	Included with the Wangan Terminal (this manual) 	1
2	Service key		2
3	Cash box key		2
4	LAN cable	10 m 	1
5	Coin sticker		1

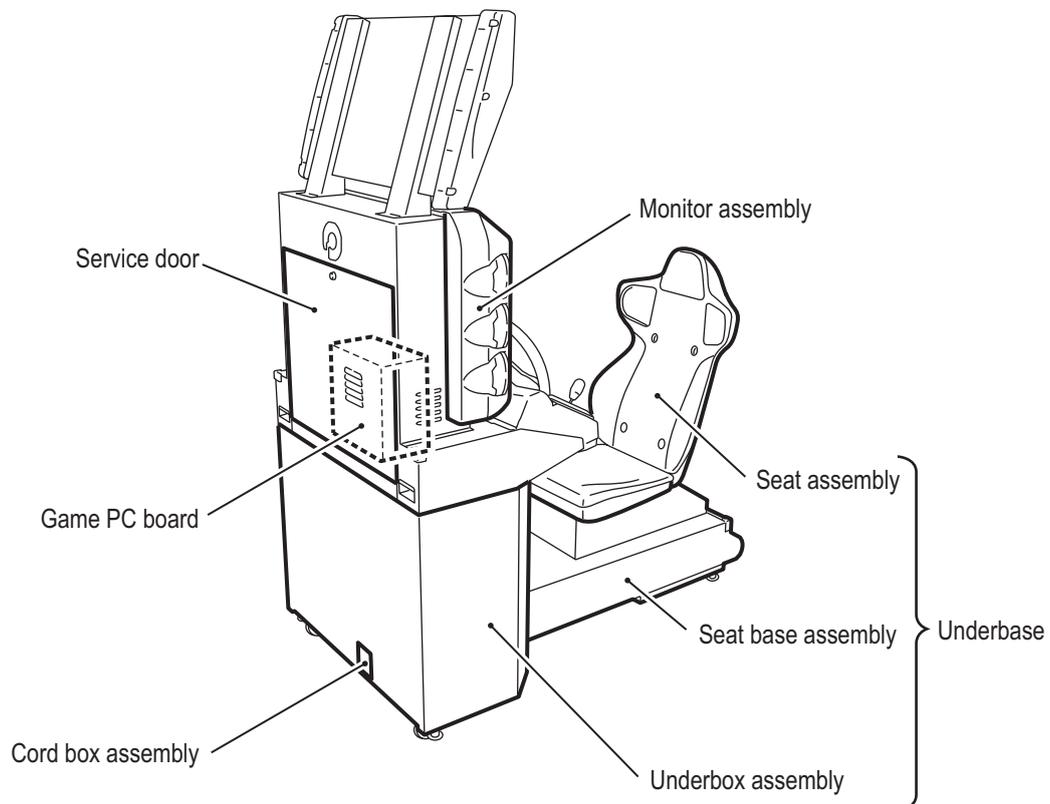
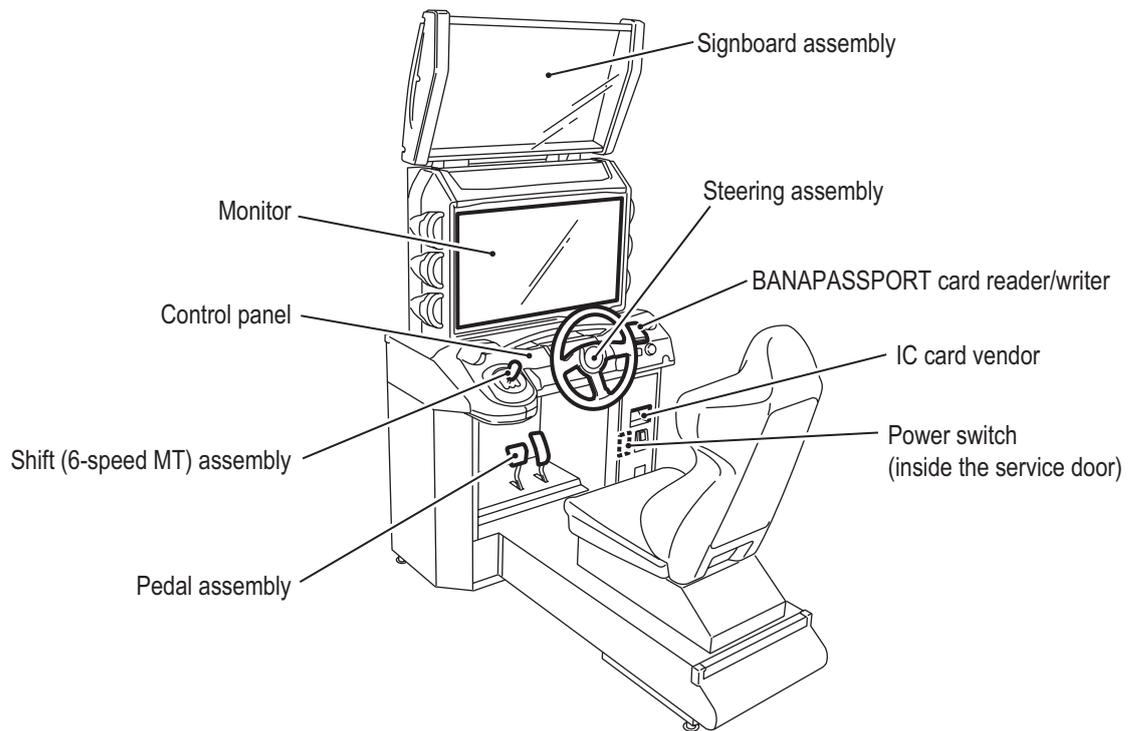
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4. Overall Structure (Part Name)



5. Installation

5-1 Installation Conditions

WARNING

- Do not block the ventilation holes on the back side of the machine with any objects or a wall, etc. If the ventilation holes are blocked, the inside of the machine may become hot and result in fire or malfunction.

5-1-1 Installation Locations to Avoid

WARNING

- The machine is designed for indoor use. Never install the machine outdoors or in the following locations.
 - A location exposed to direct sunlight
 - A location exposed to rain or water leaks
 - A damp location
 - A dusty location
 - A location close to heaters
 - A hot location
 - An extremely cold location
 - A location exposed to condensation caused by temperature differences
 - A location that obstructs an emergency exit or fire extinguishing equipment
 - An unstable location or a location exposed to vibration

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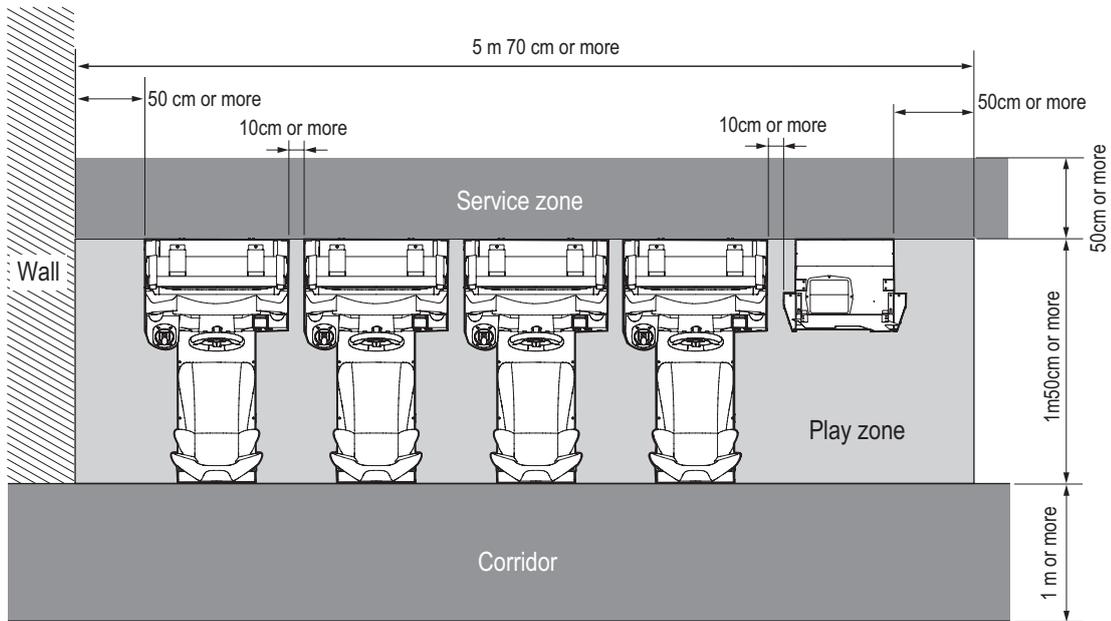
5-1-2 Play Zone for the Installed Machine

⚠ CAUTION

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

NOTICE

- When installing the machine, create a play zone as shown in the figures below. Be sure to maintain this play zone, as it is also needed for service work.
- A ceiling height of 2 m 10 cm or more is required.



5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors)

A delivery route sufficiently larger than the machine's height and width must be secured.
The sizes of the machine when installed and when shipped are as follows.
To move the machine, entryways and corridors need to be larger than the sizes below.

Width (W) 880 × Depth (D) 1,500 × Height (H) 2,050 [mm]
Weight 210 kg

When a delivery route with the following dimensions or larger can be secured, disassembly is not required.
In this case, go to "8A-2 Level Adjuster Adjustment" on page 81.

In addition, the machine can be disassembled as follows in accordance with the delivery route conditions.

- Underbase
Width (W) 880 × Depth (D) 1,500 × Height (H) 1,240 [mm]
Weight 110kg
- Monitor assembly
Width (W) 880 × Depth (D) 680 × Height (H) 790 [mm]
Weight 90kg
- Signboard assembly
Width (W) 870 × Depth (D) 280 × Height (H) 530 [mm]
Weight 15kg

For the disassembly method, see "8A-1-1 Removing the Signboard Assembly" on page 76 to "8A-1-2 Removing the Monitor Assembly" on page 78.

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Installation

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6. Moving and Transporting

WARNING

- Do not leave the machine on a slope. It may fall over or result in an accident.
- When transporting the machine, be sure to use two or more people. Attempting to move the machine with fewer people may cause the machine to fall over or result in an accident.

6-1 Moving (On the Same Floor)

NOTICE

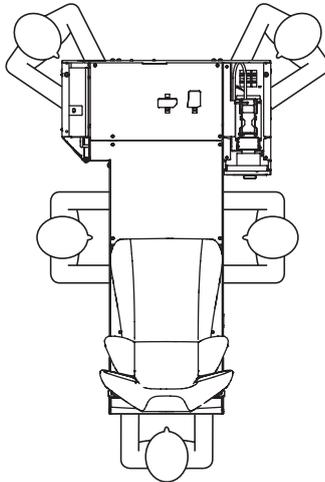
- Be sure to turn off the power switch before starting work.
- Move the machine carefully to avoid subjecting it to impact. (The LCD monitor is a precision electronic part.)
- Even when moving the machine only a short distance, be sure to raise the level adjusters to their highest level. (See “8A-2 Level Adjuster Adjustment” on page 81.)
- Handle the LAN cables and power cord carefully. Be especially careful when connecting and disconnecting the LAN cable connectors. (See “8A-3 Connecting the Power Cord and Ground” on page 82 and “8A-4 Connecting the LAN Cables” on page 83.)

6-2 Transporting

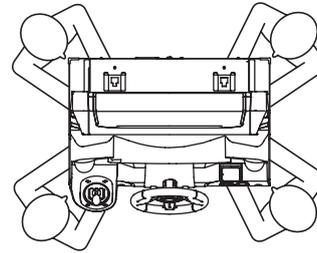
6-2-1 Transporting Manually (Such as Carrying on Stairs)

! WARNING

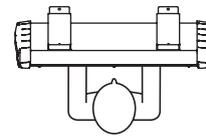
- Before transporting the machine manually, be sure to disassemble it into the underbase, monitor assembly and signboard assembly for easier carrying. Transporting the fully assembled machine manually (such as carrying on stairs) or loading and unloading it to and from a vehicle may result in an accident.
- When transporting the machine manually, be sure to use the following number of people. Overburdening yourself may result in an accident or injury.
 - Underbase (110 kg): 5 people or more
 - Monitor assembly (90 kg): 4 people or more
 - Signboard assembly (15 kg): 1 person or more



Underbase



Monitor assembly



Signboard assembly

NOTICE

- Do not subject the machine to impact while moving it.
- Move the machine carefully to avoid damaging it.
- Be sure to raise the level adjusters to their highest level. (See “8A-2 Level Adjuster Adjustment” on page 81.)

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Moving and Transporting

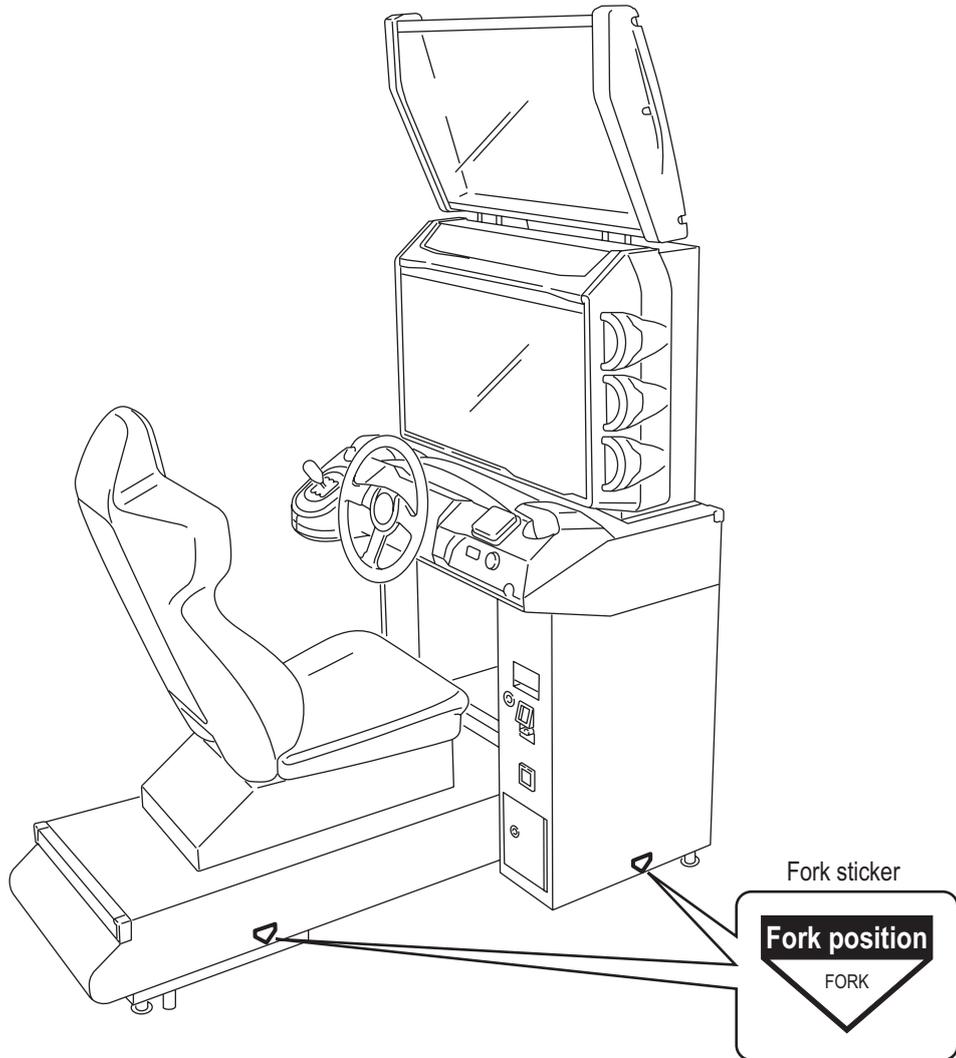
Test Mode

Troubleshooting

6-2-2 Loading and Unloading to and from a Vehicle

WARNING

- When using a fork lift to move or transport the machine, observe the fork sticker positions. If the fork is inserted to a different position than the fork stickers, the machine may become unbalanced and fall over or result in an accident.



NOTICE

- Do not subject the machine to impact while lowering it.
- Move the machine carefully to avoid damaging it. (The LCD monitor is a precision electronic part.)
- Be sure to raise the level adjusters to their highest level. (See "8A-2 Level Adjuster Adjustment" on page 81.)

6-2-3 Transporting on a Vehicle

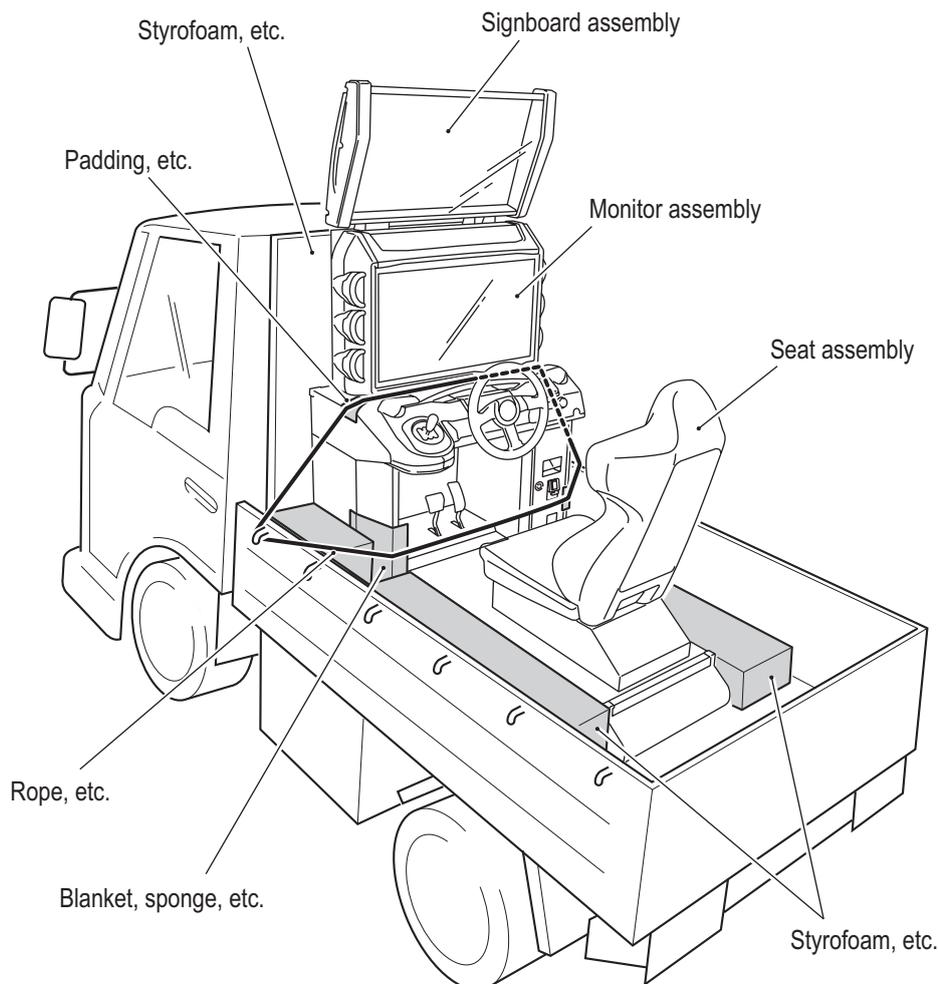
! WARNING

- When transporting the machine on a vehicle, secure the machine firmly so that it does not move during vehicle transport. Failure to secure the machine may result in an accident.

NOTICE

- Do not subject the machine to impact while lowering it.
- When securing the machine with a rope, observe the following:
 - Be sure to secure the machine with a rope or belt in the position shown in the figure below.
 - Place blankets or other shock absorbing material between the machine and the rope or belt to protect the machine surfaces.
- Place styrofoam or other shock absorbing material between the machine and the truck bed and any other equipment or items to protect the machine surfaces.
- When transporting the machine in rainy weather, use a vehicle with a cargo cover, a container truck, or similar vehicle to protect the machine from direct exposure to rain.
- Do not apply weight to the LCD monitor screen.

● Transporting the Driver Cabinet on a Vehicle



For movement and transport of the Wangan Terminal, see the "Wangan Terminal Operation Manual".

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Moving and Transporting

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7. Operation

WARNING

- Should an abnormality occur, turn off the power switch immediately to stop operations. Then, be sure to disconnect the power cord plug from the outlet. Operating the machine while the abnormality persists may result in fire or accident.
- Dust accumulating on the power cord plug may result in fire. Inspect the plug regularly and remove any dust.
- Fully insert the power cord plug into the outlet. Poor contact may generate heat and result in fire or burns.
- Before operating the machine, be sure to check that installation has been performed according to the instructions and specified procedures (see “5 Installation” on page 13) in this Operation Manual. Failure to install the machine correctly may result in fire, electric shock, injury or malfunction.
- The warning labels attached to the machine contain important information for ensuring safety. Be sure to observe the following. (For the warning label locations, see “1-4 Machine Warning Labels” on page 3.)
 - To ensure that the warning labels attached to the machine are always clearly visible, install the machine in an appropriate location with ample illumination and keep the labels clean at all times. Make sure that the labels are not hidden by other machines or objects.
 - Do not remove or alter the warning labels.
 - If a warning label becomes excessively dirty or damaged, replace it with a new one. To order warning labels, contact your distributor.
- To ensure safe use of the machine, be sure to perform the pre-operation inspection (see “7-3 Pre-operation Inspection” on page 21) and service (see “8B Service” on page 90) described in this Operation Manual. Omitting these inspections or service may result in an accident.

7-1 People Who Should Avoid Playing

WARNING

- For the safety of the players and to ensure that no accidents happen, it is recommended that the following people do not play:
 - People who are sensitive to strobe lights or light stimulation
 - People who disregard the warning labels attached to the machine

7-2 Safety Precautions for Playing

WARNING

- If players start feeling ill because of the game images or light stimulation, they must stop playing or take a break immediately.
- In rare cases, stimulation by lights or video images may cause the player to have a seizure or lose consciousness. If this happens, advise the player to consult a doctor as soon as possible. When pre-school children play, instruct their parents or guardians to observe them.

7-3 Pre-operation Inspection

Check the items below before starting machine operations.

If there is an abnormality, resolve it by referring to “8B-2 Troubleshooting” on page 94.

WARNING

- Before operating the machine, check the following locations. This is required to prevent accidents or injuries.
- Operating the machine while parts are broken, damaged or deteriorated, or with defective installation, may result in an injury to the player or other customers. If you discover an abnormality, replace the affected part immediately.
To order parts, contact your distributor.

7-3-1 Safety Inspection (Before Power On)

- (1) Are all warning labels in place? (See “1-4 Machine Warning Labels” on page 3.)
- (2) Are all warning labels legible? (See “1-4 Machine Warning Labels” on page 3.)
- (3) Are all level adjusters adjusted properly? (See “8A-2 Level Adjuster Adjustment” on page 81.)
- (4) Is the specified play zone provided? (See “5-1-2 Play Zone for the Installed Machine” on page 14.)
- (5) Are the power cord and LAN cables laid out safely so they will not cause players or other customers to trip over them?
- (6) Are the seat slide rails (front-to-back slide) securely locked in position?
- (7) Is the pedal boot damaged? (See “8B-3-6 (3) Replacing the boot” on page 149.)
- (8) Is the shift lever shutter damaged? (See “8B-3-5 (4) Replacing the Shutter” on page 143.)

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

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

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7-3-2 Function Inspection (After Power On)

- (1) Check the lights. (Do the fluorescent lights and illuminated buttons light up?)
(See "7-8-6 (b) LAMP TEST" on page 49.)
- (2) Check the displayed images. (Does the monitor operate properly?)
(See "7-8-7 Screen Adjustment (MONITOR TEST)" on page 50.)
- (3) Check the audio. (Is sound produced by each speaker?)
(See "7-8-8 Volume Adjustment (SOUND TEST)" on page 51.)
- (4) Check the LEDs. (Does each LED light up?)
(See "7-8-6 (b) LAMP TEST" on page 49.)
- (5) Check the analog interface initialization. (Are the analog interfaces initialized?)
(See "7-9 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)" on page 68)
- (6) Check the NB LINE connection status. (Check the network status icon on the title page.)
(See "7-7-2 Network Status Indication in the Title Screen" on page 34.)

To inspect the following items, press the Service switch and actually play the game.
(See "7-6-2 Adjustment Switches" on page 32.)

- (7) Check the steering operation. (Does your vehicle change direction properly when you turn the steering wheel? Does the feedback (reactive force) function operate?)
- (8) Check the pedal operations. (Does your vehicle speed change properly when you press the accelerator pedal and brake pedal?)
- (9) Check the shift lever operation. (Does your vehicle shift gears in accordance with lever operations?)
- (10) Check the button operations. (Does pressing the View Change button change the view? Does pressing the Challenge ON/OFF button change the VS Player mode?)
- (11) Check the BANAPASSPORT card reader/writer operation. (Can BANAPASSPORT cards be read?)
- (12) Check the IC card vendor operation. (Can cards be dispensed?)
- (13) Check the communication status. (When two to four machines are installed, can the cabinets operate in the communication-linked play mode?)

7-4 Playing the Game

WARNING

- Ensure that the following situations do not occur since they may cause an accident:
 - Two people sitting on the machine at the same time.
 - A person other than the player touching the control parts (steering wheel, shift lever).
- If players start feeling ill because of the game images or light stimulation, they must stop playing or take a break immediately.
- In rare cases, stimulation by lights or video images may cause the player to have a seizure or lose consciousness. If this happens, advise the player to consult a doctor as soon as possible. When pre-school children play, instruct their parents or guardians to observe them.

7-4-1 About BANAPASSPORT Cards

- BANAPASSPORT cards are user authentication cards that can be used with various BANDAI NAMCO Amusement arcade games.
- The play data for compatible games can be saved on the card.
In addition, by registering a card at the BANAPASSPORT card website, various operations can be performed via the website such as temporarily halting account use when a card is lost.
- BANAPASSPORT cards can be purchased at amusement facilities where BANAPASSPORT compatible games are installed.
- For details on BANAPASSPORT cards, see the following website.

BANAPASSPORT card website <https://www.bandainamcoid.com/banapassport/>

7-4-2 Using BANAPASSPORT Cards with This Machine

- When a BANAPASSPORT card is used with this game, play records and other information are automatically saved to the server.
- When an BANAPASSPORT card is used to play this game, the previous game results and tuning/dress-up status are read from the server, enabling players to continue playing from the end of the previous game play any time.
- When using an BANAPASSPORT card to play this game, you cannot use that same card to play another game until the play session using that card ends.

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Troubleshooting

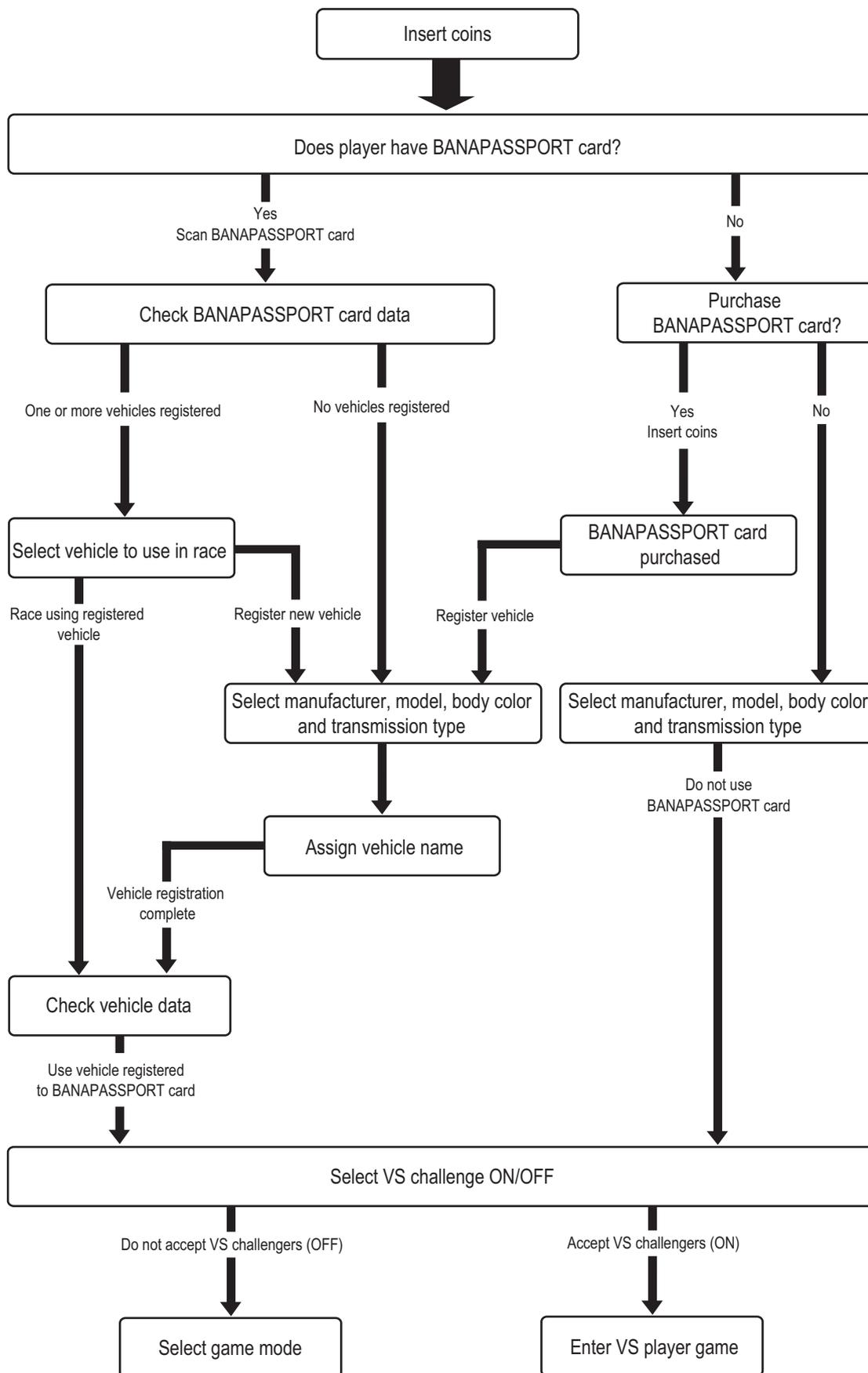
7-4-3 Game Overview

- The Wangan Terminal is equipped with convenient functions that help promote game play by letting players “Transfer data from MAXIMUM TUNE 5 (the previous game in the series)”, “Use Maxi G (gold) to obtain dress-up parts”, “Change dress-up parts”, “Check vehicle data”, “Give discarded vehicle cards (Present Cards) to friends”, “Create teams” and “Purchase new BANAPASSPORT cards”.
- In Online Ghost Versus Battle Mode, the player can call out a “ghost double” of an actual player to compete in a VS Player game. The player can customize their vehicle and accumulate ghost outrun trophies.
- In addition, by playing games in Time Attack Mode and VS Player Mode, the player can beat their best time, increase their level, obtain new titles, and accumulate VS Player outrun stars and VS Player awards.
- Players can transfer play data from the previous MAXIMUM TUNE 5 to continue game play.

■ BANAPASSPORT cards

- The machine can save game play information on BANAPASSPORT cards. When a player creates a card the first time they play, a card containing the information of the selected vehicle is dispensed after the game ends. In subsequent game play, the player can have the machine scan the card to continue the game from the end of the previous game play.
- When the BANAPASSPORT card scanned by the BANAPASSPORT card reader/writer has not yet been used with this game but data for MAXIMUM TUNE 5 exists on that BANAPASSPORT card, the data is automatically transferred and players can continue from the progress saved on the BANAPASSPORT card. If the BANAPASSPORT card was not used with MAXIMUM TUNE 5, a screen appears enabling the player to newly register the BANAPASSPORT card. By registering the BANAPASSPORT card, players can use the BANAPASSPORT card with this game.
- The information for up to 100 vehicles can be registered on a single BANAPASSPORT card. Of the vehicles registered on a card, the first through fifth vehicles in the lineup can be used with the Driver Cabinet. The lineup order can be changed using the Wangan Terminal.
- There is no limit on the number of times a card can be used. (There is no need to update a card.)
- By accessing the BANAPASSPORT card website URL noted on the back of a BANAPASSPORT card and registering the card, players can perform various operations such as transferring data to another card or locking data in the event that a card is lost or damaged.

■ Starting the game



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■ Check Vehicle Data screen

- When the player uses a BANAPASSPORT card to start a game and selects the vehicle to be used in the race, the Check Vehicle Data screen appears. The registered vehicle data can be checked at this screen. Press the View Change button to switch the page.

Page 1	.....	The player's name, level, title, vehicle model, body color, horsepower (step), mileage, registered region, the amount of Maxi G (gold) accumulated on the BANAPASSPORT card, and the number of discarded vehicle cards possessed can be checked here.
Page 2	.....	The cleared status in Story Mode can be checked here.
Page 3	.....	The VS Player Mode results can be checked and the aura motif can be switched here.
Page 4	.....	The player's own results in Online Ghost Versus Battle Mode can be checked here.
Page 5	.....	The stamp status in Online Ghost Versus Battle Mode can be checked here.
Page 6	.....	Ghosts' results in Online Ghost Versus Battle Mode can be checked here.
Page 7	.....	The Time Attack Mode results can be checked here.
Page 8	.....	The transmission type, retire settings, navigation map and instrument panel settings (when switching is allowed) can be set here.
Page 9	.....	The BGM volume and BGM type (when switching is allowed) and the team stickers can be set here.

■ Story Mode

- In Story Mode, the player can race against characters from the comic book following the comic book story. The purpose of the game in this mode is to win all races.
- The player selects the story to be played first. Next, the player selects the opponent from the rival characters in the selected story. The story and rival character can be selected freely within the time limit.
- To win a race, the player must cross the finish line before the rival character. If the rival character crosses the finish line first or the remaining time reaches 0 (Time Up), the player loses the race.
- The player may race against one character or against multiple characters.
- A player must clear the first four episodes (the four episodes from the left side of the screen) in each class to play the fifth episode (the rightmost episode shown on the screen) of that class, until reaching the 20th episode. The 20th episode cannot be played until the 1st to 19th episodes are all cleared.
- From the 21st episode, the player must clear each episode before proceeding to the next.
- When the 60th episode is cleared, the ending scene plays.

■ About vehicle tuning (step-up)

- In Story Mode, when a player defeats the comic book character or meets certain conditions, the player can tune (upgrade) their car.
- There are two types of tuning (upgrade): power and handling. The player can choose to modify either aspect to achieve the desired performance.
- Tuning (step-up) opportunities are provided 20 times before clearing the 20th episode in Story Mode, and 12 times between the 20th episode and the 59th episode, for a total of 32 times.
- When tuning is performed in the 21st or later episode, the tuning (step-up) gauge obtained in the 21st or later episode can be set freely to either "Power" or "Handling" on the setting screen that appears before the race starts. This allows the player to adjust the setting to achieve the desired performance.

■ **Online Ghost Versus Battle Mode** *"Online Ghost Versus Battle" is a trademark of BANDAI NAMCO Amusement Inc.

- In Online Ghost Versus Battle Mode, the player can race against a ghost double of an actual player who played the game on one of the machines installed throughout the country. The ghost is managed on the network, enabling players to select and race against the desired ghost from around the country.
- Ghosts can be selected as follows.
 - Selecting by level The player can select the opponent based on competence level.
 - Returning a stamp to a friend..... The player can select the opponent from those the player often races against.
 - Selecting the opponent from the player's race history The player can select the opponent from the player's own race history.
 - Searching for an opponent..... The player can search for an opponent based on the vehicle name, past opponents and other information.
 - JAPAN Challenge This mode is a game where you fill in a map of Japan by taking districts one by one. You take a district of Japan by choosing and defeating the ghost of a real person living in that district, who plays at your level.
- Ghosts are not simply ghost players. As such, they have material form in the game and can be crashed into during the race. In addition, the ghost's racing performance reflects the actual player's driving style and habits, so the player can enjoy tactical racing as if competing against a real player.
- The player wins by crossing the finish line before the ghost. If the ghost crosses the finish line first or the remaining time reaches 0 (Time Up), the player loses the race.
- When you defeat a ghost, a challenge is sent to the player whose ghost was defeated. A player who receives a challenge can then play a re-match. When a re-match is won, a challenge is sent back to the player whose ghost was defeated, creating another re-match. As challenges and re-matches are repeated, the number of re-matches you have played against that opponent is displayed.
- By defeating ghosts, the player can get a number of ghost outrun trophies according to the victory conditions.

About vehicle dress-up * Except some models

- The player can get Maxi G (gold) points to raise the shop grade gauge in order to make new dress-up parts available, and to obtain dress-up parts.
- The player can use the Maxi G (gold) accumulated on the BANAPASSPORT card to freely obtain the desired dress-up parts at any time from the Wangan Terminal MAXI SHOP.
- The following types of dress-up parts are available.
 - Aero parts set The vehicle body shape can be changed.
 - Aero mirror The side mirrors can be changed.
 - Hood The hood can be changed.
 - Sticker Various stickers can be attached to the body.
 - Wing A spoiler wing can be attached to the trunk and the wing type can be changed.
 - Neon tube Neon tubes can be attached to the lower part of the vehicle body.
 - Wheel..... The wheels can be changed.
 - Trunk The trunk can be changed.
- Dress-up parts do not affect the driving performance of the vehicle.

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■ **Time Attack Mode**

- In this game mode, the player races on a course alone, without any rival cars or other cars, to compete against time.
- When the player crosses the finish line within the specified time, the lap time is displayed on the result screen.
- When a player using a BANAPASSPORT card beats their best time for that course, the new record is registered to the server.
- When the player has raced on the course before, the split time difference from the player's best time is displayed at various locations along the course.
- If the player does not cross the finish line within the specified time, the game ends (Time Up).

■ **VS Player Mode**

- When "Accept VS Challengers" is selected at the start of game play, players at other communication-linked cabinets can intrude into the game.
- In a VS Player game, players race against each other.
- To win the race, a player must cross the finish line before the other players.
- When the remaining time reaches "0", the game ends (Time Up) and the player in the leading position at that point becomes the winner.
- The winning player receives VS Player stars according to the race results, and can play another game. (The display returns to the game mode selection screen.)
* Whether or not the winner remains and plays another game can be set in the Test mode.
- The players in second or following places can also receive VS Player stars according to the race results.
- Players can receive VS Player awards according to the number of opponents they beat. By collecting VS Player awards, players can raise their VS Player rank and at the same time receive an aura motif.
- Direction selection panels appear before branch points on the course. The player in the leading position can determine the direction of the race by passing either the left or right panel.

■ **About Discarded Vehicle Cards**

- Discarded Vehicle Cards can be given as presents to other BANAPASSPORT cards at the Wangan Terminal. They cannot be used with the player's own BANAPASSPORT card. (Cards are given using the Wangan Terminal.)
- The player gains a single Discarded Vehicle Card after every 60 game plays.
- A single BANAPASSPORT card can stock up to five Discarded Vehicle Cards.
* Discarded Vehicle Cards created up to Maximum Tune 3DX PLUS cannot be used.
- When a Discarded Vehicle Card is used, the game starts from the following status when registering a new vehicle.

Story Mode 20th episode cleared
Tuning 600 HP/B (Step 20)

■ **Obtaining and changing body colors** * Except some models

- The player gains a custom body color after every 60 game plays. This allows the player to paint their vehicle body any color from among those they have gained.

■ Transferring play data

- Players can transfer play data from MAXIMUM TUNE 5 to this game to continue game play.
- To transfer play data, scan the BANAPASSPORT card that was used with MAXIMUM TUNE 5. The play data is transferred automatically.
- The items transferred from MAXIMUM TUNE 5 are as follows.
Items transferred as is:
 - Vehicle model
 - Player's name
 - Body color (including body colors obtained by playing 60 games)
 - Custom parts
 - Tuning state (Step-up state)
 - Stage cleared in Story Mode
 - Results in VS Player Mode
 - Results in Online Ghost Versus Battle Mode
 - Distance traveled
 - Obtained BGM, meter, etc.
 - Teams started up by the player
 - Number of Discarded Vehicle Cards possessed
 - Discarded Vehicle Card usage rights
- Only play data currently active with the MAXIMUM TUNE 5 game can be transferred.
- Also, play data cannot be transferred from tuning cards (including Present Cards, Discarded Vehicle Cards and expended game cards) for the MAXIMUM TUNE 4, MAXIMUM TUNE 3DX PLUS, MAXIMUM TUNE 3DX, MAXIMUM TUNE 3, MAXIMUM TUNE 2 or MAXIMUM TUNE games.

■ Titles

- The player can gain various titles based on the results of play in each game mode and other conditions.
- There are several thousand types of titles available, and up to three titles can be gained in a single game. The player can chose one of the gained titles at the end of game play. The title cannot be changed until the next title is gained.

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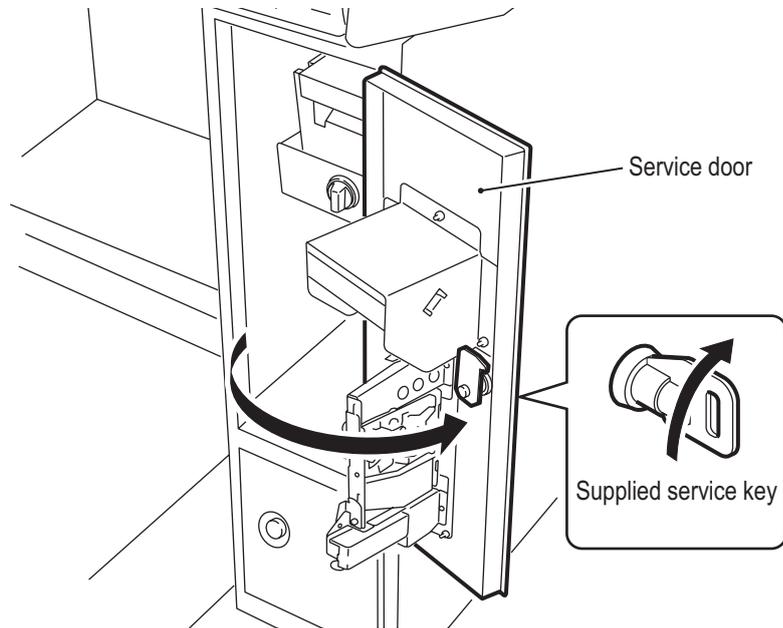
Operation

Test Mode

Troubleshooting

7-5 Opening and Closing the Service Door

- 1 Use the supplied service key to open the service door.



7-6 Power Switches and Adjustment Switches



- Be sure to turn on the power switches in the following order.

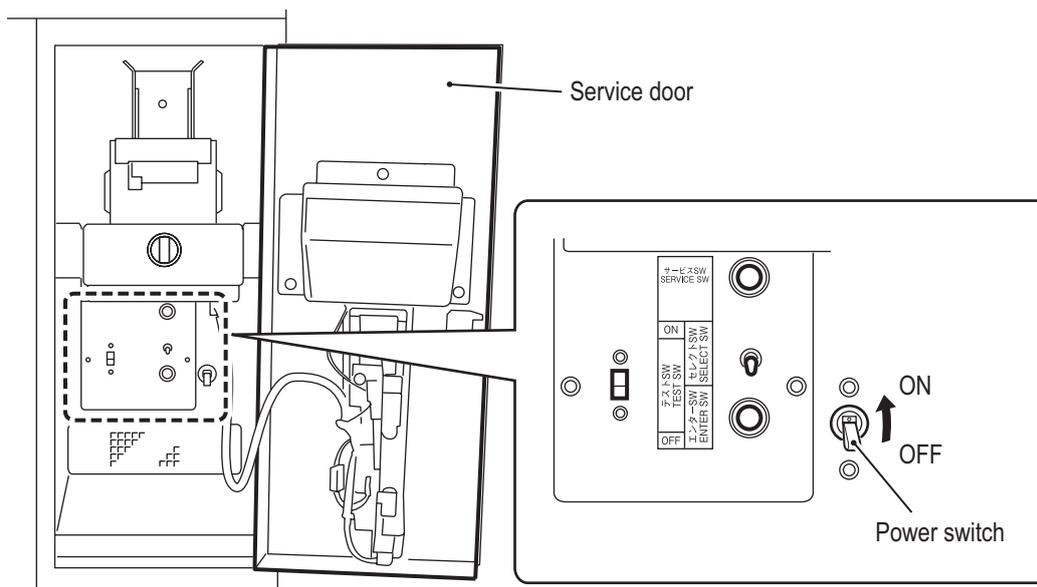
1. Wangan Terminal
2. Driver Cabinet (this machine)

If the power is turned on in the incorrect order, communication between the game server and the machine may not be performed correctly, and the game may not operate properly.

7-6-1 Turning the Power Switch On

If the installation work is not yet finished, go to “8A. Installation and Assembly” and complete the installation work correctly.

- 1 Use the supplied service key to open the service door. (See “7-5 Opening and Closing the Service Door” on page 30.)
- 2 Turn on the power switch.



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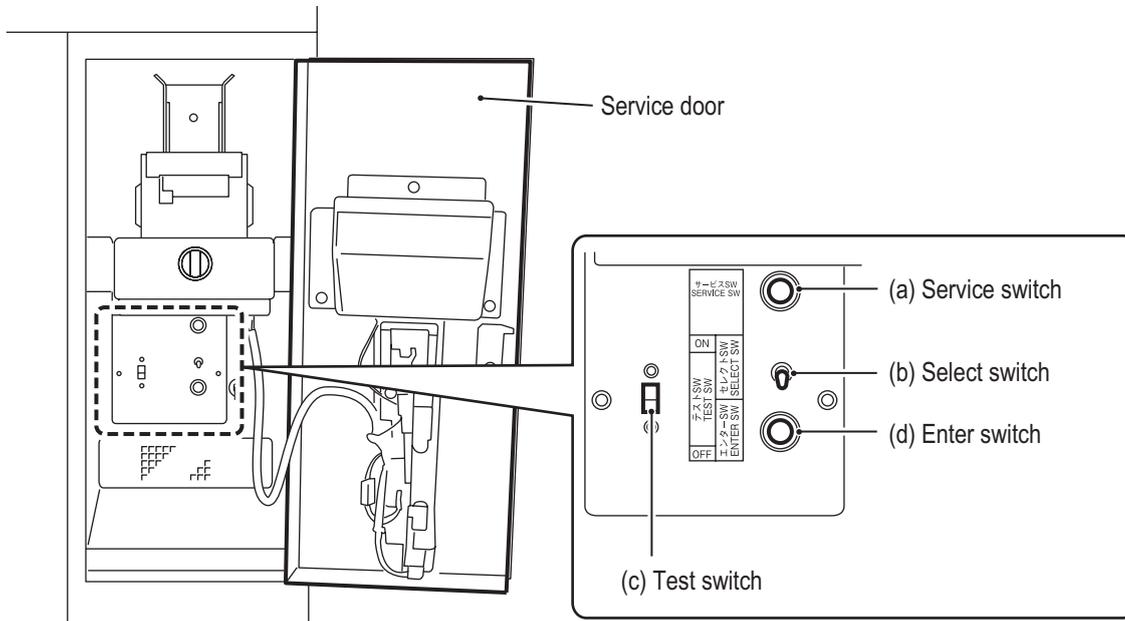
Operation

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Troubleshooting

7-6-2 Adjustment Switches

Open the service door for access to the adjustment switches.



(a) Service switch (red)

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

* When the Service switch is used to increase the credit count, the credits indication is displayed in red.

(b) Select switch

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

(c) Test switch

Set this switch to ON to enter Test mode.

Test mode is used to test the monitor and other parts.

(d) Enter switch (green)

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



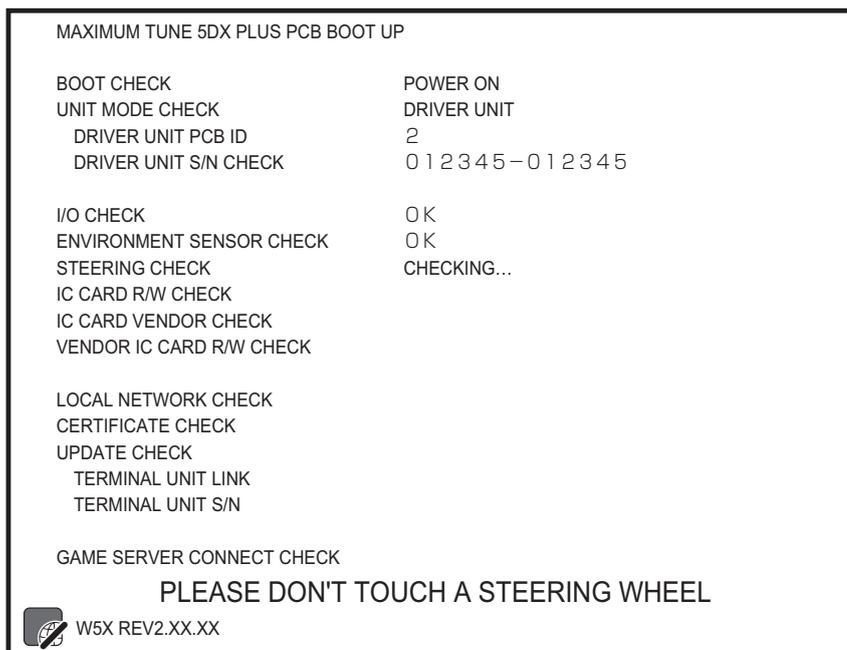
- Press the Service switch slowly and firmly.
If pressed too fast, the button may not operate.

7-7 Flow during Game Startup

7-7-1 Self-test

The machine automatically executes a self-test after the power is turned on. When the power switch is turned on, the self-test screen appears on the monitor. If no problems are found, the display then changes to the title screen. If an abnormality is found, an error message is displayed on the monitor and the machine stops operating.

When an error message is displayed, refer to “8B-2 Troubleshooting” on page 94 and cancel the error.



Self-test screen



- Do not touch the steering wheel while the self-test is underway. If the steering wheel is moved, the machine may display an error message and stop operating.

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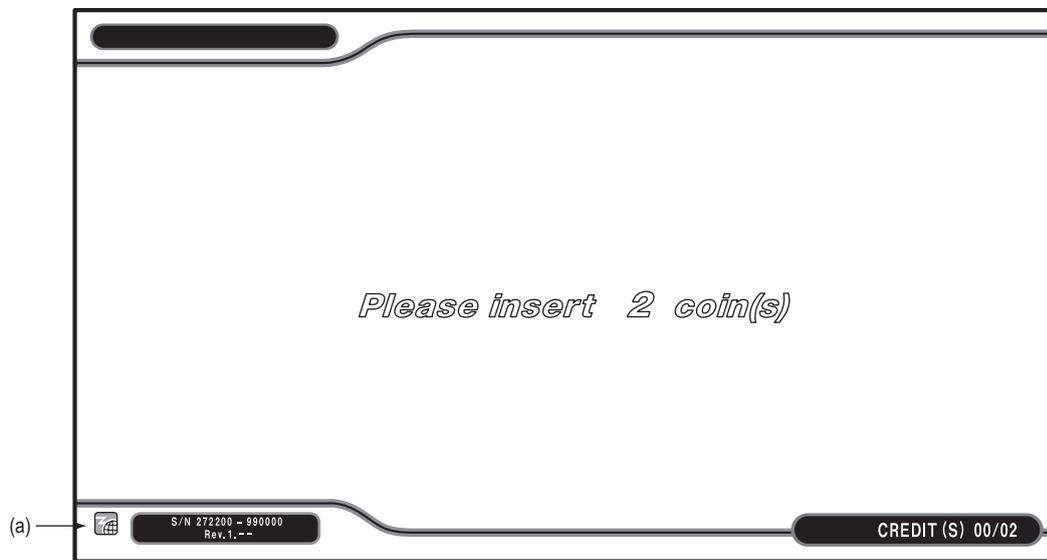
Operation

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7-7-2 Network Status Indication in the Title Screen

The NB LINE connection status is displayed in the title screen.



Title screen

(a) NB LINE Connection Status



Online: The machine is correctly connected to NB LINE.



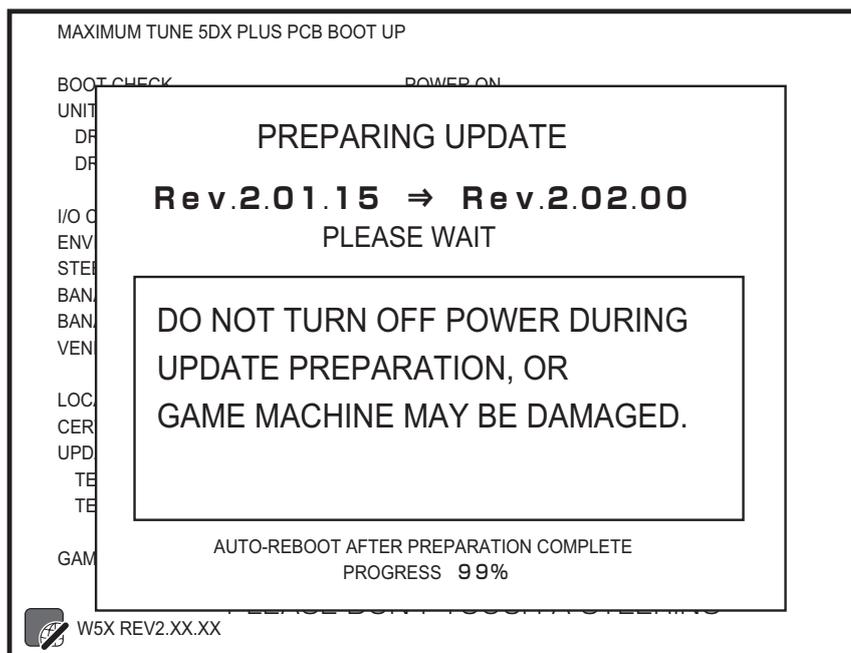
Offline: The machine is not connected to NB LINE. The game cannot be operated properly in this condition, so see "8B-2-2 (2) Network System Troubleshooting" on page 85 of the "Maximum Tune 5DX PLUS WANGAN TERMINAL OPERATION MANUAL" and resolve the problem.

7-7-3 Software Update



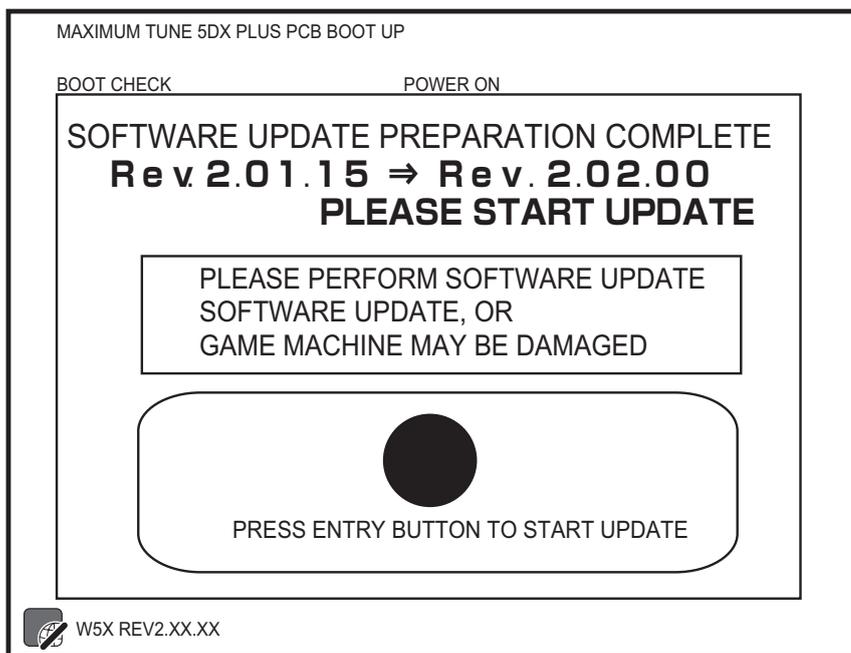
- Once the software update preparations have started, do not turn off the power switch until the update is complete and the title screen appears on the monitor. Turning off the power partway through the update may corrupt the data on the HDD.

- 1 When software update data is found on the network server during the self-test, the machine displays the “PREPARING UPDATE” screen and downloads the update data. The machine restarts automatically when the download is complete.



PREPARING UPDATE screen

- 2 After the machine restarts, the “SOFTWARE UPDATE PREPARATION COMPLETE” screen appears. Press the Challenge ON/OFF button to start the update. The game cannot be started unless the software is updated.



SOFTWARE UPDATE PREPARATION COMPLETE screen

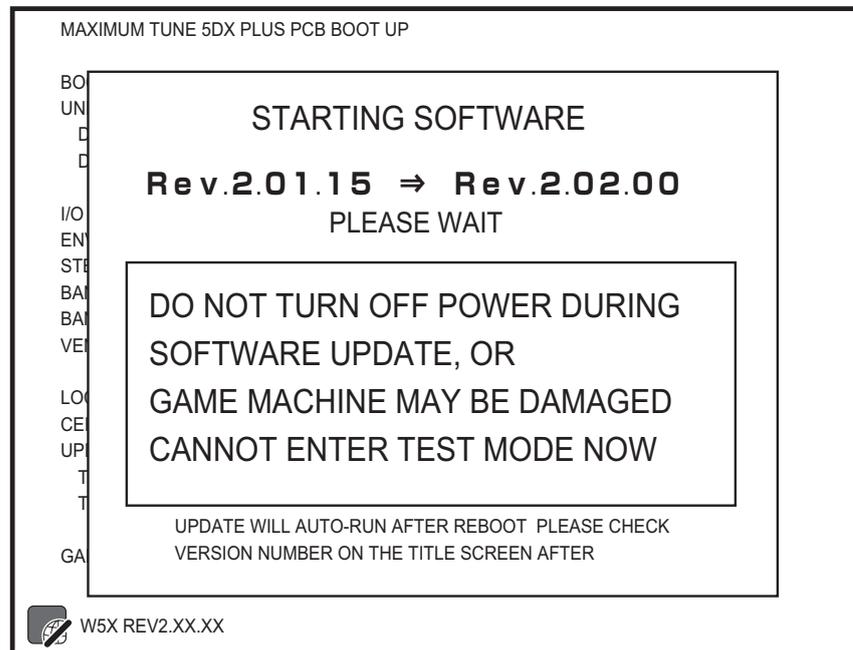
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- 3 Press the Challenge ON/OFF button to start data expansion. When data expansion is complete, the machine automatically restarts and rewrites the data.



STARTING SOFTWARE screen

- 4 After the update is complete, check the software revision number in the title screen.



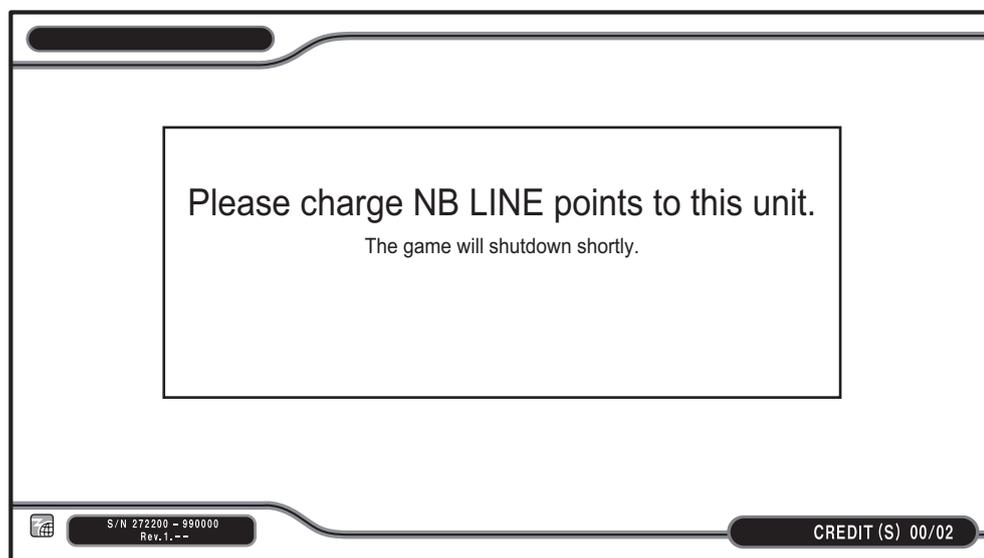
Title screen



- When an urgent update becomes necessary during operation, the message “Software update required” appears in the title screen. Follow the instructions on the screen, and turn the power switch off and then on again to update the software.

7-7-4 Reload NB LINE POINTS Notification Screen

- 1** When the remaining NB LINE POINTS become low during operation, a message notifying that the points are low appears.
Refer to “7-8-13 RELOAD NB LINE POINTS” on page 67 and reload the NB LINE POINTS.



Remaining NB LINE POINTS Low screen

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7-8 Test Mode

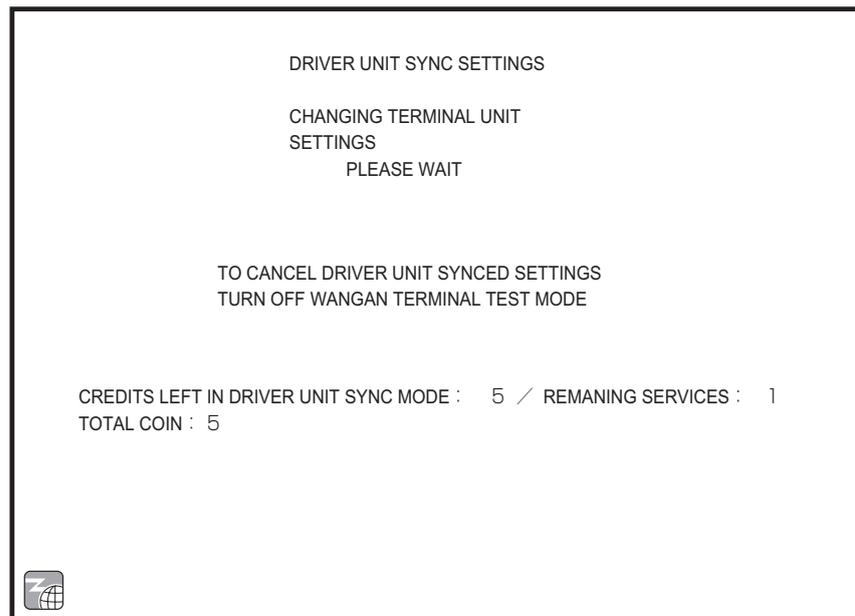
7-8-1 Collective Settings



- Do not turn off the power switch while making collective settings. It may corrupt the data on the HDD.
- Be sure to make the collective settings when the Wangan Terminal, a Driver Cabinet or the game PC board of a Cabinet are replaced.
- When making collective settings, check that the displayed number of Driver Cabinets matches the number of actually connected Driver Cabinets.
- After finishing the collective settings, check that each Driver Cabinet is set correctly.

The settings of the Wangan Terminal and all Driver Cabinets connected to the Wangan Terminal can be changed collectively. The collectively set contents can be checked using a Driver Cabinet, but the settings cannot be changed using a Driver Cabinet.

- Collective settings can be made using the Wangan Terminal when the Attract screen is displayed on all Driver Cabinet monitors.
- To exit the Driver Cabinet collective setting mode, set the Test mode of the Wangan Terminal to Off.
- The collective setting values are automatically loaded and reflected to the connected Driver Cabinets when the collective setting operation by the Wangan Terminal ends normally or when the Driver Cabinets are started up.
- The following screen appears on the Driver Cabinet monitors while collective setting is underway. (While making collective settings, the Test mode is not displayed even when the Test switch of a Driver Cabinet is set to On.)



DRIVER UNIT SYNC SETTINGS screen

Items that can be collectively set	Reference section
<p>COIN OPTIONS</p> <ul style="list-style-type: none"> • WHEN COIN SWITCH IS TOGGLED ONCE, INSERTED COINS BECOME ○○ CREDITS • CARD • DRIVER UNIT GAME • DRIVER UNIT CONTINUE • DRIVER UNIT EXTRA LAP • TERMINAL UNIT / DRIVER UNIT FREE PLAY 	See 7-8-3.

Items that can be collectively set	Reference section
GAME OPTIONS • WINS AND REMAINS setting in VS Player Mode	See 7-8-3.
EVENT MODE OPTIONS	See the separate MAXIMUM TUNE 5DX PLUS EVENT MODE SETTING MANUAL.
CLOSE SETTING	See 7-8-5.
OTHER OPTIONS • Initialization of collective setting items	See 7-8-12.

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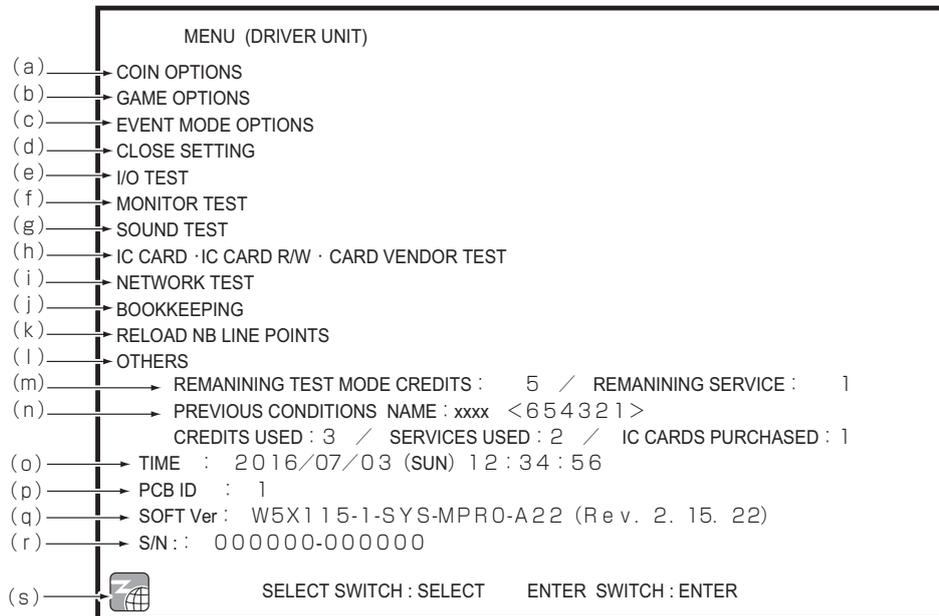
Operation

Test Mode

Troubleshooting

7-8-2 MENU Screen

- 1** Use the supplied service key to open the service door. (See “7-5 Opening and Closing the Service Door” on page 30.)
- 2** When the Test switch is set to ON, the MENU screen appears on the monitor. (See “7-6-2 Adjustment Switches” on page 32.)
- 3** Flip the Select switch up or down to select the item. The selected item blinks.
- 4** Press the Enter switch to enter the selected item. When the selection is entered, the Test menu for that item appears.
- 5** After finishing all the adjustments, set the Test switch to Off. The display returns to the game screen.



MENU screen

Item	Description	Reference section
(a) COIN OPTIONS	Game cost and other settings	See 7-8-3.
(b) GAME OPTIONS	Game contents and equipment use settings	See 7-8-4.
(c) EVENT MODE SETTINGS	Used to make EVENT MODE settings	See the separate MAXIMUM TUNE 5DX PLUS EVENT MODE SETTING MANUAL.
(d) CLOSE SETTING	Used to set the shop closing time	See 7-8-5.
(e) I/O TEST	Switch, light and other settings	See 7-8-6.
(f) MONITOR TEST	This displays the monitor adjustment screen.	See 7-8-7.
(g) SOUND TEST	Volume adjustment, etc.	See 7-8-8.
(h) IC CARD • IC CARD R/W • CARD VENDOR TEST	IC card, IC card R/W, and card vendor tests	See 7-8-9.
(i) NETWORK TEST	Network related settings	See 7-8-10.
(j) BOOKKEEPING	This displays play conditions and error log	See 7-8-11.
(k) RELOAD NB LINE POINTS	Displays the RELOAD NB LINE POINTS screen.	See 7-8-13.
(l) OTHERS	Rankings and setting initialization	See 7-8-12.
(m) REMAINING TEST MODE CREDITS	When Test mode is activated, all remaining credits (coins) and service credits disappear, so this displays the number of credits and service credits remaining just before Test mode activation.	
(n) PREVIOUS CONDITIONS NAME	This displays the play conditions (NAME, CREDITS USED, SERVICES USED, BANAPASSPORT CARDS PURCHASED) just before Test mode activation.	
(o) TIME	This displays the current date and time down to the seconds.	
(p) PCB ID	This displays the PCB ID.	See 7-8-4.
(q) SOFT Ver	This displays the software version and revision number.	
(r) S/N	This displays the serial number of the inserted USB dongle. When the serial number cannot be displayed, "-" appears.	
(s) Online/Offline icon	This indicates the online/offline status.	See 7-7-2.

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Operation

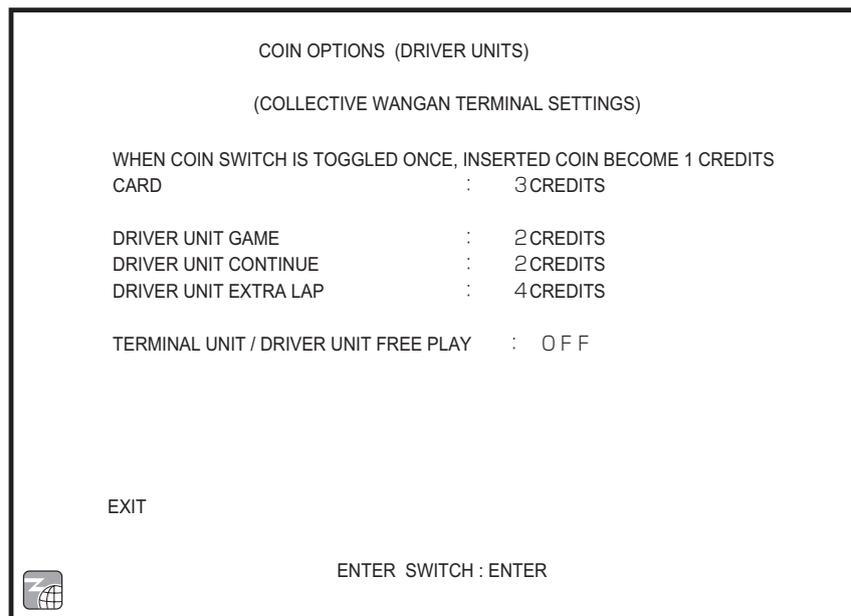
Test Mode

Troubleshooting

7-8-3 Game Cost and Free Play Settings (COIN OPTIONS)

This screen displays the various game cost settings. These settings are changed using the Wangan Terminal. (See "7-8-3 Game Cost and Free Play Settings (COIN OPTIONS)" on page 40 of the "MAXIMUM TUNE 5DX PLUS WANGAN TERMINAL OPERATION MANUAL.")

- 1** In the MENU screen, select COIN OPTIONS. The following screen appears.
- 2** After checking all the items, flip the Select switch up or down to select EXIT and press the Enter button to return to the MENU screen.

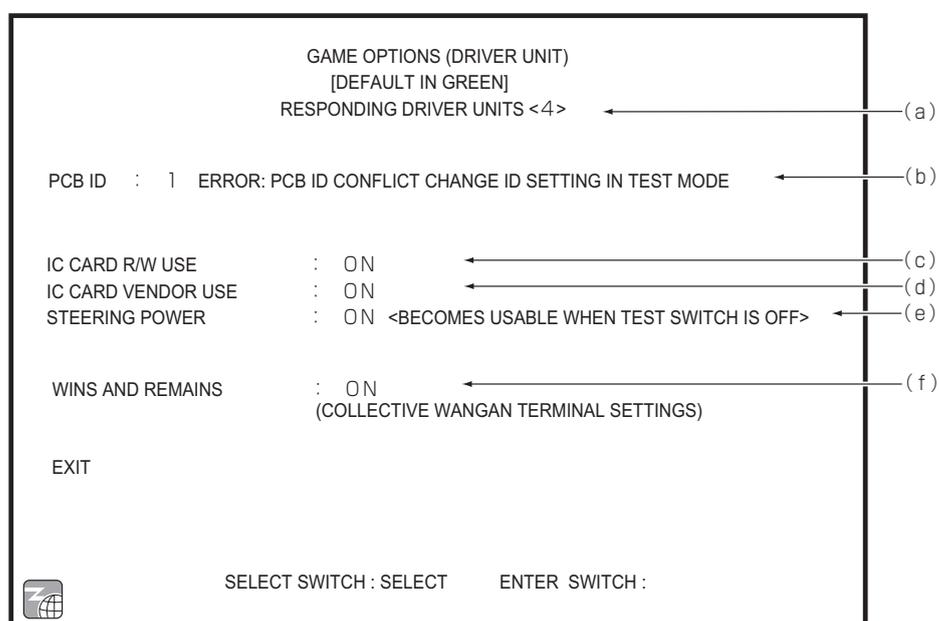


COIN OPTIONS screen

7-8-4 Game Contents Settings (GAME OPTIONS)

This screen is used to make various game settings.

- 1** In the MENU screen, select GAME OPTIONS. The following screen appears.
- 2** Flip the Select switch up or down to select the item. The selected item blinks.
- 3** Press the Enter switch to enter the selected item. When the selection is entered, the setting for that item can be changed.
- 4** Flip the Select switch up or down to set the desired setting. When the desired value is set, press the Enter switch to save the set value.
- 5** When finished making all the settings, flip the Select switch up or down to select EXIT and press the Enter switch to return to the MENU screen.



GAME OPTIONS screen

Default settings (factory settings) are indicated in green, and other settings are in yellow.

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Operation

Test Mode

Troubleshooting

7. Operation

Item	Description	Default
(a) RESPONDING DRIVE UNITS	This displays the number of communication-linked Driver Cabinets. RESPONDING DRIVE UNITS <4>: Proper communication by four machines RESPONDING DRIVE UNITS <3>: Proper communication by three machines RESPONDING DRIVE UNITS <2>: Proper communication by two machines RESPONDING DRIVE UNITS <1>: Proper communication by one machine	
(b) PCB ID and duplicate ID notice display	This sets the PCB ID. Setting range: 1→2→3→4→1... When the same PCB ID is already in use by another Driver Cabinet, the following notice appears. <ERROR: PCB ID CONFLICT CHANGE ID SETTING IN TEST MODE>	1
(c) IC CARD R/W USE *1	Enables or disables use of the IC card R/W unit ON: Uses the IC card R/W unit OFF : Does not use the IC card R/W unit. The title screen displays the message "BANAPASSPORT CARD cannot currently be used"	ON
(d) IC CARD VENDOR USE *1	Enables or disables use of the IC card vendor ON: Uses the IC card vendor OFF : Does not use the IC card vendor. The title screen displays the message "Cannot currently purchase a BANAPASSPORT CARD"	ON
(e) STEERING POWER *1	Enables or disables the steering wheel feedback (reactive force) feature. ON : Provides feedback (reactive force) to the steering wheel. OFF : Does not provide feedback (reactive force) to the steering wheel.	ON
(f) WINS AND REMAINS *2	Enables or disables the "remain as winner feature" for VS Player game. ON : Enables first place player to remain as winner in the game. (Only the first place player can continue playing the game.) OFF : No player remains as the winner to continue playing. (Game over for all players)	ON

*1 When IC CARD R/W USE, IC CARD VENDOR USE and STEERING POWER are set to OFF, the corresponding equipment cannot be tested in Test mode.
Even when the IC CARD R/W USE, IC CARD VENDOR USE and STEERING POWER settings are changed from OFF to ON, the Test switch must be set to Off and the self-test performed in order to check the usage and operation of the equipment.

Items for equipment that requires self-test are indicated by *1 in the table above.

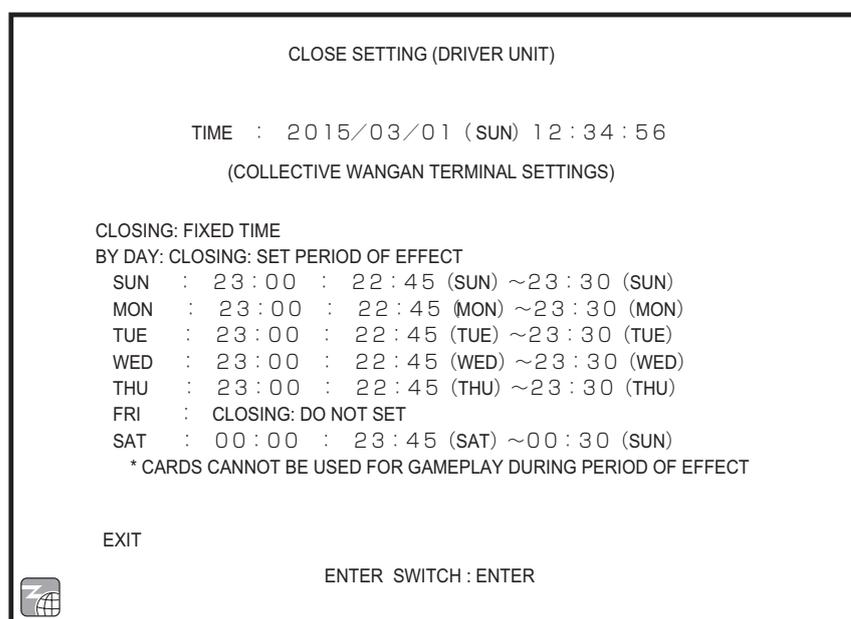
*2 The WINS AND REMAINS setting is changed by collective setting using the Wangan Terminal. (See "7-8-3 Game Cost and Free Play Settings (COIN OPTIONS)" on page 40 of the "MAXIMUM TUNE 5DX PLUS WANGAN TERMINAL OPERATION MANUAL.")

7-8-5 CLOSE SETTING

This screen is used to check the shop closing time for each day of the week.

- These settings are changed using the Wangan Terminal.
(See "7-8-5 CLOSE SETTING " on page 44 of the "MAXIMUM TUNE 5DX PLUS WANGAN TERMINAL OPERATION MANUAL".)
- A message notifying that the shop is about to close and that the machine will not accept BANAPASSPORT cards appears on the Attract screen for 45 minutes from 15 minutes before the set close time until 30 minutes after the set close time. The machine disallows card use during this period of effect.
- Games can be played without using a card during the period of effect, but cards cannot be purchased.
- When a player has been playing using a card before the close setting time, they cannot continue playing by selecting "Continue" or by remaining as winner in a VS Player game.

- 1** In the MENU screen, select CLOSE SETTING. The following screen appears.
- 2** After checking all the settings, select EXIT and press the Enter button to return to the MENU screen.



CLOSE SETTING screen

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Operation

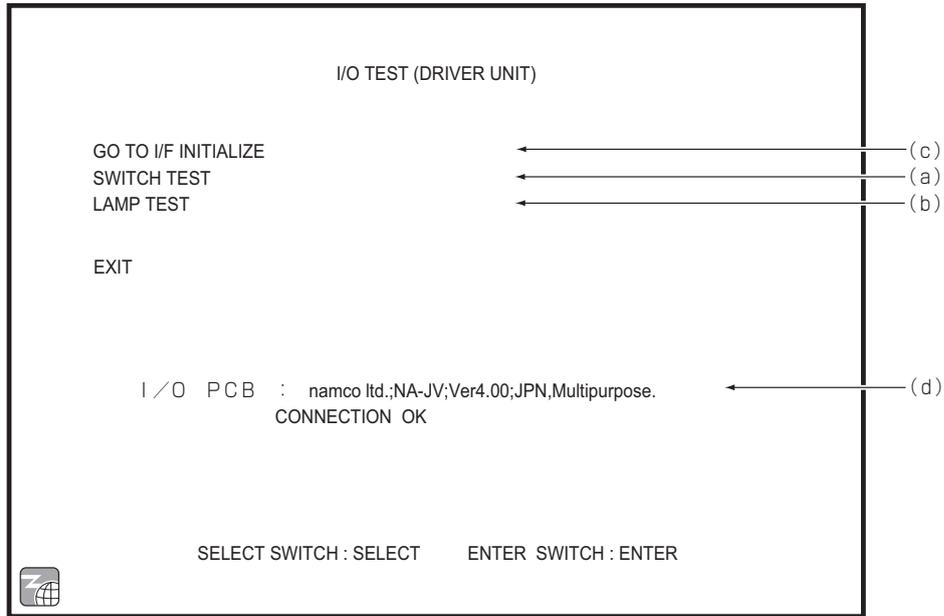
Test Mode

Troubleshooting

7-8-6 Input/Output Test of Switches (I/O TEST)

This screen is used to initialize the analog interfaces and perform tests for each switch and light, etc.

- 1** In the MENU screen, select I/O • TOUCH PANEL TEST. The following screen appears.
- 2** Flip the Select switch up or down to select the item. The selected item blinks.
- 3** Press the Enter button to enter the selected item. When the selection is entered, the Test menu for that item appears.
- 4** After checking all the items, flip the Select switch up or down to select EXIT and press the Enter button to return to the MENU screen.

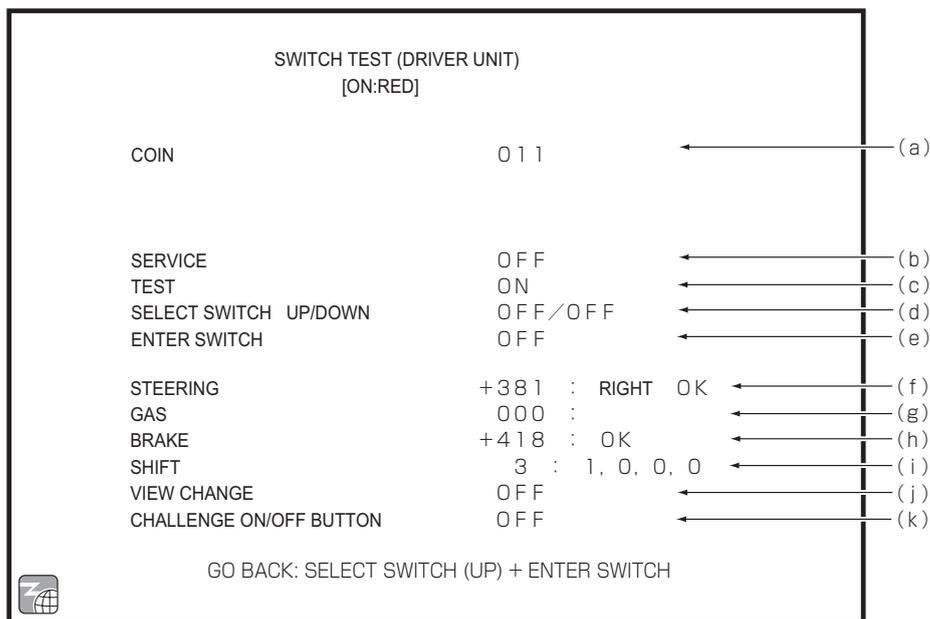


I/O • TOUCH PANEL TEST screen

Item	Description
(a) SWITCH TEST	This screen is used to test each switch and button.
(b) LAMP TEST	This screen is used to test the lighting of illuminated buttons and decorative lights.
(c) GO TO I/F INITIALIZE	This is used to initialize the analog interfaces.(See “7-9 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)” on page 68.)
(d) I/O PCB	This displays the I/O PCB connection status. CONNECTION OK (green): Communication can be performed normally. CONNECT ERROR (red): Communication cannot be performed normally. Check the I/O PCB connection.

(a) SWITCH TEST

This screen is used to test each switch and button.



SWITCH TEST screen

Item	Description
(a) COIN	Status of coin switch Each time the switch is activated, the counter increments by one. The coin counter also operates linked with the coin switch. 000 to 999 (The counter returns to 000 after 999.)
(b) SERVICE	Status of Service switch OFF : Normal ON (red) : Pressed in
(c) TEST	Status of Test switch OFF : Normal ON (red) : Pressed in
(d) SELECT SWITCH UP/DOWN	Status of Select switch OFF : Normal ON (red) : Flipped up or down
(e) ENTER SWITCH	Status of Enter button OFF : Normal ON (red) : Pressed in
(f) STEERING	Status of steering wheel Turning the steering wheel to the right changes the numerical value in the positive direction, and turning the steering wheel to the left changes the numerical value in the negative direction. RIGHT (LEFT) OK (red) appears on the screen when normal right (left) operation is detected. (* Note)
(g) GAS	Status of accelerator pedal Stepping on the pedal changes the numerical value in the positive direction. OK (red) appears on the screen near the setting limit. (* Note)

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Operation

Test Mode

Troubleshooting

7. Operation

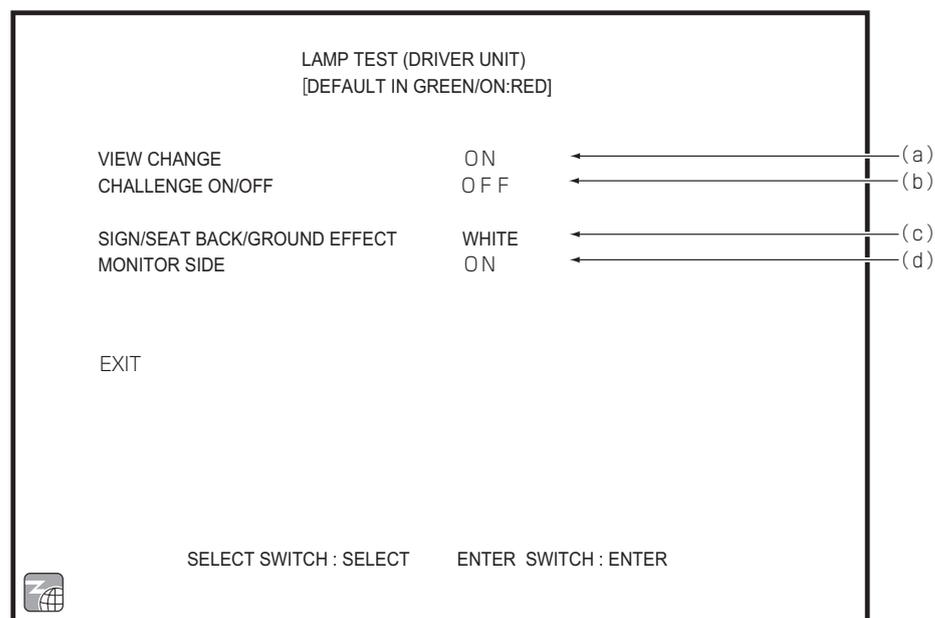
Item	Description
(h) BRAKE	Status of brake pedal Stepping on the pedal changes the numerical value in the positive direction. OK (red) appears on the screen near the setting limit. (* Note)
(i) SHIFT	Status of 6-speed gear shift N : Neutral 1 to 6 (red) : Displays a numerical value according to the shift position.
(j) VIEW CHANGE	Status of View Change button OFF : Normal ON (red) : Pressed in
(k) CHALLENGE ON/OFF BUTTON	Status of Challenge ON/OFF button OFF : Normal ON (red) : Pressed in

* If OK is not displayed when the steering wheel/pedal is turned/depressed fully, the steering wheel or pedal must be initialized.(See "7-9 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)" on page 68.)

Flip the Select switch up and press the Enter button to return to the I/O • TOUCH PANEL TEST screen.

(b) LAMP TEST

This screen is used to test the lighting of illuminated buttons and decorative lights.



LAMP TEST screen

Default settings (factory settings) are indicated in green, and other settings are in red.

Item	Description
(a) VIEW CHANGE	Lighting status of View Change button light OFF : Off ON (red) : Lighted
(b) CHALLENGE ON/OFF	Lighting status of Challenge ON/OFF button light OFF : Off ON (red) : Lighted
(c) SIGN/SEAT BACK/GROUND EFFECT	Lighting status of signboard, seat back and ground effect lights OFF : Off RED : Lighted red BLUE : Lighted blue GREEN : Lighted green WHITE : Lighted white
(d) MONITOR SIDE	Lighting status of monitor side lights OFF : Off ON (red) : Lighted

* Lights that are lighted turn off when the LAMP TEST screen is exited.

To return to the I/O • TOUCH PANEL TEST screen, select EXIT and press the Enter button.

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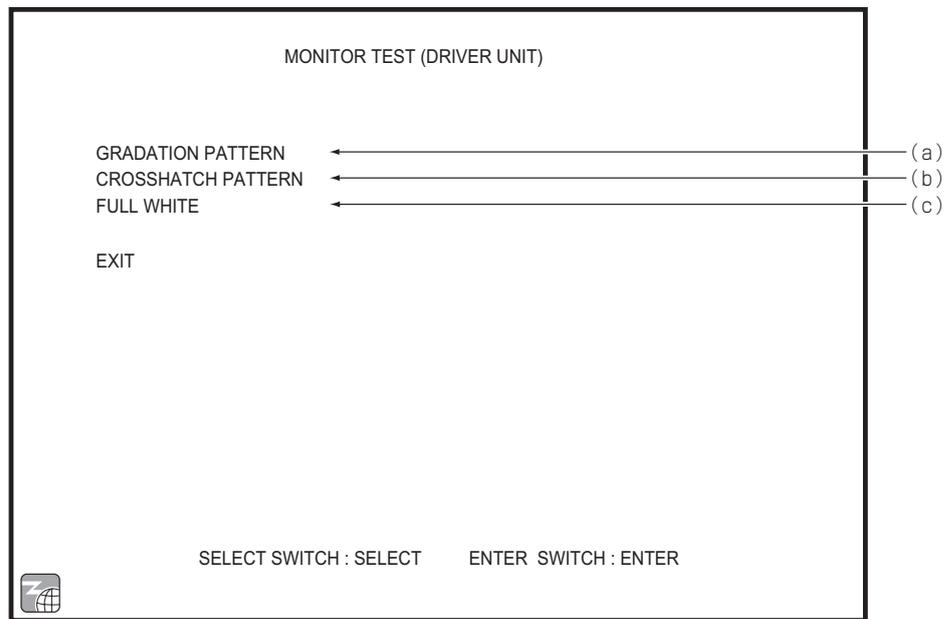
Test Mode

Troubleshooting

7-8-7 Screen Adjustment (MONITOR TEST)

This screen is used to make various monitor adjustments.

- 1** In the MENU screen, select MONITOR TEST. The following screen appears.
- 2** Flip the Select switch up or down to select the item. The selected item blinks.
- 3** Press the Enter switch to display the adjustment screen for the selected item.
- 4** Press the Enter switch again to return to the MONITOR TEST screen.
- 5** After finishing all the adjustments, flip the Select switch up or down to select EXIT and press the Enter button to return to the MENU screen.



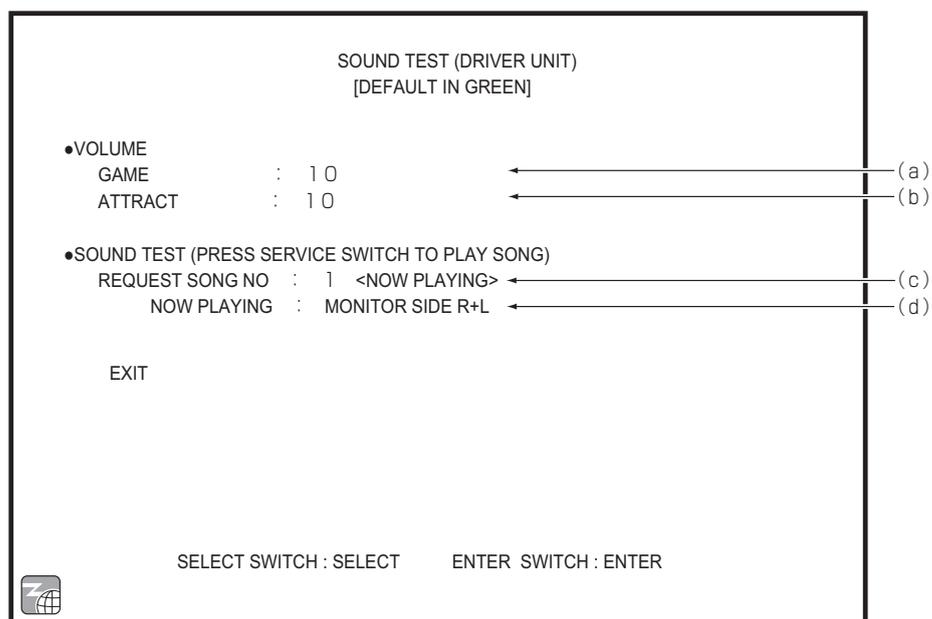
MONITOR TEST screen

Item	Description
(a) GRADATION PATTERN	Displays a gradation pattern.
(b) CROSSHATCH PATTERN	Displays a crosshatch pattern.
(c) FULL WHITE	Displays a white screen.

7-8-8 Volume Adjustment (SOUND TEST)

This screen is used to adjust the sound volume.

- 1** In the MENU screen, select SOUND TEST. The following screen appears.
- 2** Flip the Select switch up or down to select the item. The selected item blinks.
- 3** Press the Enter switch to enter the selected item. When the selection is entered, the setting for that item can be changed.
- 4** Flip the Select switch up or down to set the desired setting.
When the desired value is set, press the Enter switch to save the setting value.
- 5** Press the Service switch to play back the song selected by REQUEST SONG NO. Press the Service switch again to stop playback.
Change the REQUEST SONG NO. setting to switch the test sound and song.
- 6** After finishing all the adjustments, flip the Select switch up or down to select EXIT and press the Enter button to return to the MENU screen.



SOUND TEST screen

Default settings (factory settings) are indicated in green, and other settings are in yellow.

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Operation

Test Mode

Troubleshooting

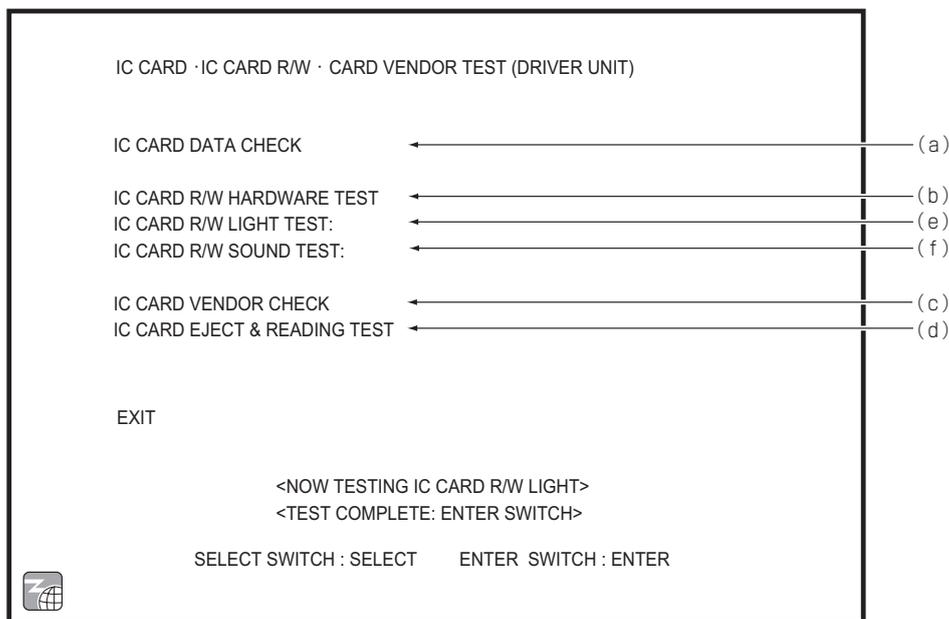
7. Operation

Item	Description	Default
(a) VOLUME - GAME	Sets the volume during game play. Setting range: 0 (min.) to 15 (max.) Flip the Select switch up or down to increase or decrease the numerical value.	10
(b) VOLUME - ATTRACT	Sets the volume in Attract mode. Setting range: 0 (min.) to 15 (max.) Flip the Select switch up or down to increase or decrease the numerical value.	10
(c) REQUEST SONG NO.	0 No sound 1 Stereo test (monitor side) 2 Stereo test (seat side) 3 Sample music (game) 4 Sample music (Attract)	0
(d) NOW PLAYING	Displays the name of the music selected by REQUEST SONG NO. 0 NO SOUND 1 MONITOR SIDE L MONITOR SIDE R MONITOR SIDE L+R WOOFER * The test sound is produced from the speakers in order. 2 SEAT SIDE L SEAT SIDE R SEAT SIDE L+R * The test sound is produced from the speakers in order. 3 SAMPLE (GAME) MIN VOL SAMPLE (GAME) STD VOL SAMPLE (GAME) MAX VOL Players using a BANAPASSPORT card can adjust the volume during game play in three levels. The sound level set by "(a) VOLUME - GAME" is the STD level. * The sound level increases every 5 seconds. 4 SAMPLE (ATTRACT)	

7-8-9 IC CARD • IC CARD R/W • CARD VENDOR TEST

This screen is used to test the BANAPASSPORT card reader and the IC card vendor.

- 1** In the MENU screen, select IC CARD • IC CARD R/W • CARD VENDOR TEST. The following screen appears.
- 2** Flip the Select switch up or down to select the item. The selected item blinks.
- 3** Press the Enter switch to enter the selected item. When the selection is entered, the Test menu for that item appears.
- 4** After checking all the items, flip the Select switch up or down to select EXIT and press the Enter switch to return to the MENU screen.



IC CARD • IC CARD R/W • CARD VENDOR TEST screen

Item	Description
(a) IC CARD DATA CHECK	Checks the BANAPASSPORT card data.
(b) IC CARD R/W HARDWARE TEST	Tests whether the IC card reader/writer can communicate properly with a BANAPASSPORT card.
(c) IC CARD VENDOR CHECK	Tests the IC card vendor.
(d) IC CARD EJECT & READING TEST	This screen is used to test the card reading and return operations of the IC card vendor.
(e) IC CARD R/W LIGHT TEST	Tests whether the IC card reader/writer LED lights up properly. The LED blinks in the following order: red → green → blue → red...
(f) IC CARD R/W SOUND TEST	Produces the test sound.

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Operation

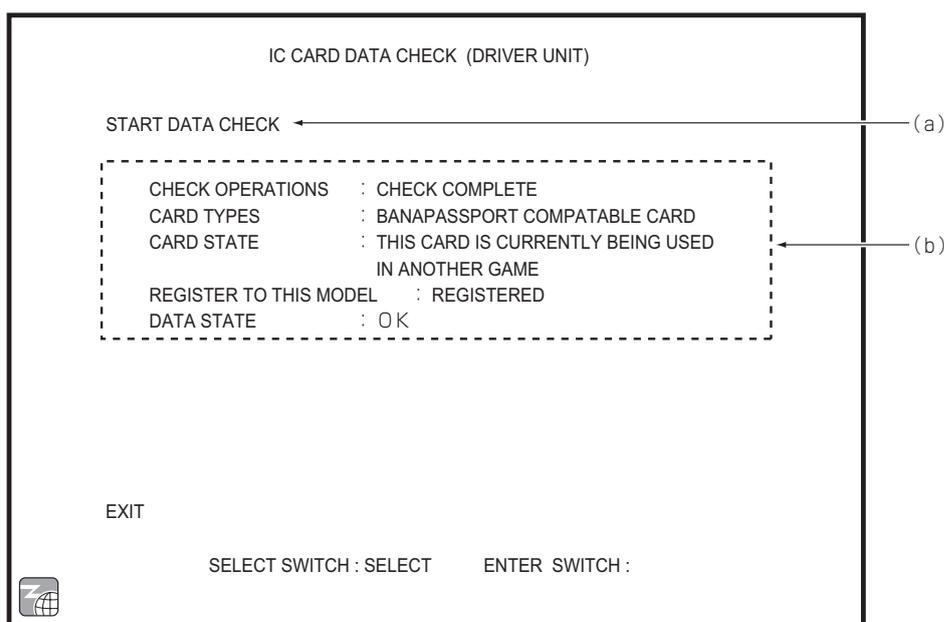
Test Mode

Troubleshooting

(a) IC CARD DATA CHECK

This screen is used to check the data on the BANAPASSPORT card scanned by the machine.

- 1** Flip the Select switch up or down to select START DATA CHECK and press the Enter button to set the card reader/writer to the read standby state.
- 2** Follow the instructions on the screen and scan the BANAPASSPORT card. The check results will appear.
- 3** To return to the IC CARD • IC CARD R/W • CARD VENDOR TEST screen, select EXIT and press the Enter switch.



IC CARD DATA CHECK screen

Item	Description
(a) START DATA CHECK	Select this item to start the check.
(b) Message display area	Displays work instructions and the data conditions.

■ Displayed message list

Item	Message	Description
CHECK OPERATIONS:	PLEASE SELECT AND CONFIRM "START DATA CHECK"	Displayed before starting the BANAPASSPORT card data check.
	PLEASE SCAN A BANAPASSPORT CARD THAT IS COMPATIBLE WITH THIS MACHINE	The machine stands by in the read status.
	NOW CHECKING PLEASE WAIT	The data check operation is in process. Wait until the check operation is completed.
	CHECK COMPLETE	The data check operation is finished.
	CARD COULD NOT BE READ ACCURATELY	Displayed when the card could not be read because it was touched to the machine too quickly, etc. This message appears for 5 seconds, then the message display returns to "PLEASE SCAN A BANAPASSPORT CARD THAT IS COMPATIBLE WITH THIS MACHINE".
CARD TYPES:	BANAPASSPORT CARD	The scanned card is a BANAPASSPORT card.
	THIS CARD IS NOT COMPATIBLE WITH BANAPASSPORT	The card can be read but is not compatible with BANAPASSPORT.
	CARD ACCESS IS BLOCKED	Access to online services is restricted for the card. Contact your distributor.
CARD STATE:	THIS CARD IS CURRENTLY BEING USED IN ANOTHER GAME	The BANAPASSPORT ID of the card has been registered to the server.
	BLANK CARD	The BANAPASSPORT ID of the card is not yet registered to the server.
REGISTER TO THIS MODEL:	REGISTERED	The card has been registered to "Maximum Tune 5DX PLUS".
	UNREGISTERED	The card is not yet registered to "Maximum Tune 5DX PLUS".
DATA STATE:	OK	The card can be used.
	LOCKED, PLEASE WAIT AND TRY AGAIN	The data is locked to prevent simultaneous use in multiple games. The data is automatically unlocked after a period of time.
OTHER OPTIONS	TO CANCEL THIS CHECK, PRESS THE ENTER SWITCH	Displayed in the card scan standby state. Press the Enter switch to cancel the check.
	E (Error code) (Error title)	Displays the error contents in case of an error. For the error contents, see "8B-2-10 Error Display" on page 99.
	COULD NOT COMMUNICATE WITH SERVER	Communication with the server is not possible for some reason. NB LINE must be in the online status to communicate. Check the network connection status.

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Operation

Test Mode

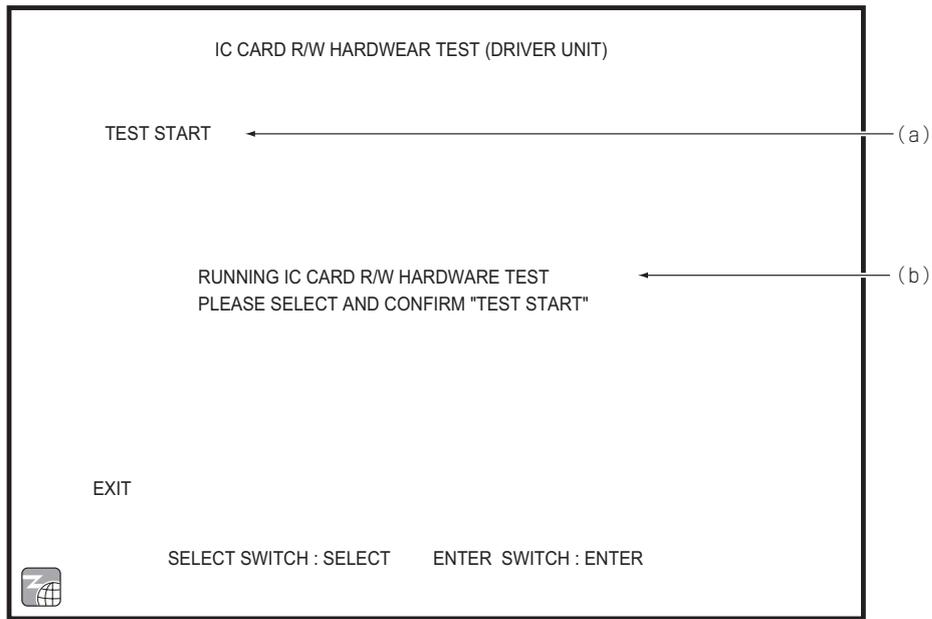
Troubleshooting

7. Operation

(b) IC CARD R/W HARDWARE TEST

This screen is used to test whether the BANAPASSPORT card reader can communicate correctly with an BANAPASSPORT card. Prepare a BANAPASSPORT card that can be used with the machine.

- 1** Flip the Select switch up or down to select TEST START and press the Enter switch to set the card reader/writer to the read standby state.
- 2** Follow the instructions on the screen and scan the BANAPASSPORT card. The check results appear.
- 3** To return to the IC CARD • IC CARD R/W • CARD VENDOR TEST screen, select EXIT and press the Enter switch.



IC CARD R/W HARDWARE TEST screen

Item	Description
(a) TEST START	Select this item to start the check.
(b) Message display area	Displays work instructions and the data conditions.

■ Displayed message list

Message	Description
RUNNING IC CARD R/W HARDWARE TEST PLEASE SELECT AND CONFIRM "START TEST"	Displayed before starting the IC card R/W hardware test.
TESTING IC CARD R/W HARDWARE PLEASE SCAN A COMPATIBLE CARD TO CANCEL THE TEST, PRESS THE ENTER SWITCH	The machine stands by in the read status. To cancel the test, press the Enter switch.
NOW CHECKING PLEASE WAIT A MOMENT	The data check operation is in process. Wait until the check operation is completed.
IC CARD R/W HARDWARE TEST COMPLETED NORMALLY	The IC card R/W hardware test ended successfully.
E (Error code) (Error title)	Displays the error contents in case of an error. For the error contents, see "8B-2-10 Error Display" on page 99.
CARD COULD NOT BE READ ACCURATELY	Displayed when the card could not be read because it was touched to the machine too quickly, etc. This message appears for 5 seconds, then the message display returns to "TESTING IC CARD R/W HARDWARE. PLEASE SCAN A COMPATIBLE CARD".

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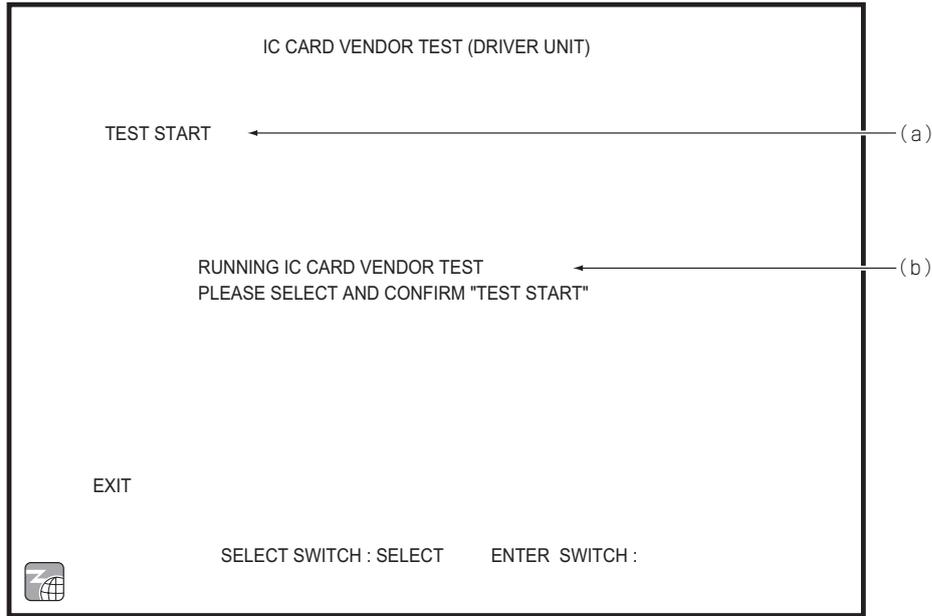
Test Mode

Troubleshooting

(c) IC CARD VENDOR TEST

This screen is used to test the reader unit of the IC card vendor.

- 1** Flip the Select switch up or down to select START TEST and press the Enter switch to execute the IC card vendor test.
- 2** Follow the instructions on the screen.
- 3** To return to the IC CARD • IC CARD R/W • CARD VENDOR TEST screen, select EXIT and press the Enter switch.



IC CARD VENDOR screen

Item	Description
(a) TEST START	Select this item to start the check.
(b) Message display area	Displays work instructions and the data conditions.

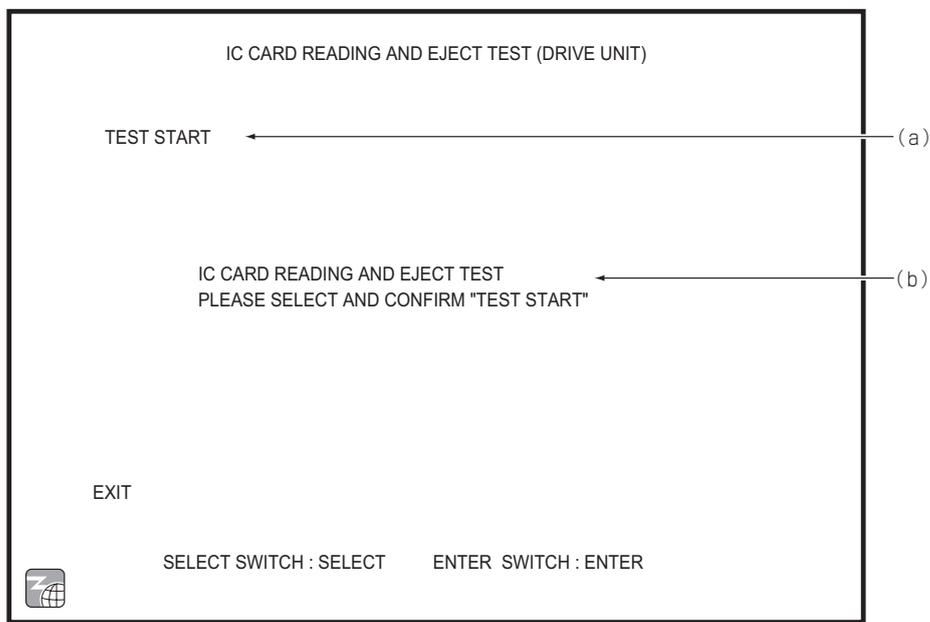
■ Displayed message list

Message	Description
RUNNING IC CARD VENDOR TEST PLEASE SELECT AND CONFIRM "START TEST"	Displayed before starting the IC card vendor test.
TESTING IC CARD VENDOR PLEASE WAIT	The IC card vendor test is in process. Wait until the test is completed.
TEST COMPLETE	The IC card vendor test ended successfully.
E (Error code) (Error title)	Displays the error contents in case of an error. For the error contents, see "8B-2-10 Error Display" on page 99.

(d) IC CARD READING AND EJECT TEST

This screen is used to test the card reading and return operations of the IC card vendor. Perform the test in the condition with BANAPASSPORT cards inside the card stocker of the IC card vendor. The card used for the test is not registered to the server, so it can be returned to the card stocker and sold.

- 1** Flip the Select switch up or down to select TEST START and press the Enter switch to execute the BANAPASSPORT card reading and return test.
- 2** Follow the instructions on the screen.
- 3** To return to the IC CARD • IC CARD R/W • CARD VENDOR TEST screen, select EXIT and press the Enter switch.



IC CARD READING AND EJECT TEST screen

Item	Description
(a) TEST START	Select this item to start the check.
(b) Message display area	Displays work instructions and the data conditions.

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Operation

Test Mode

Troubleshooting

7. Operation

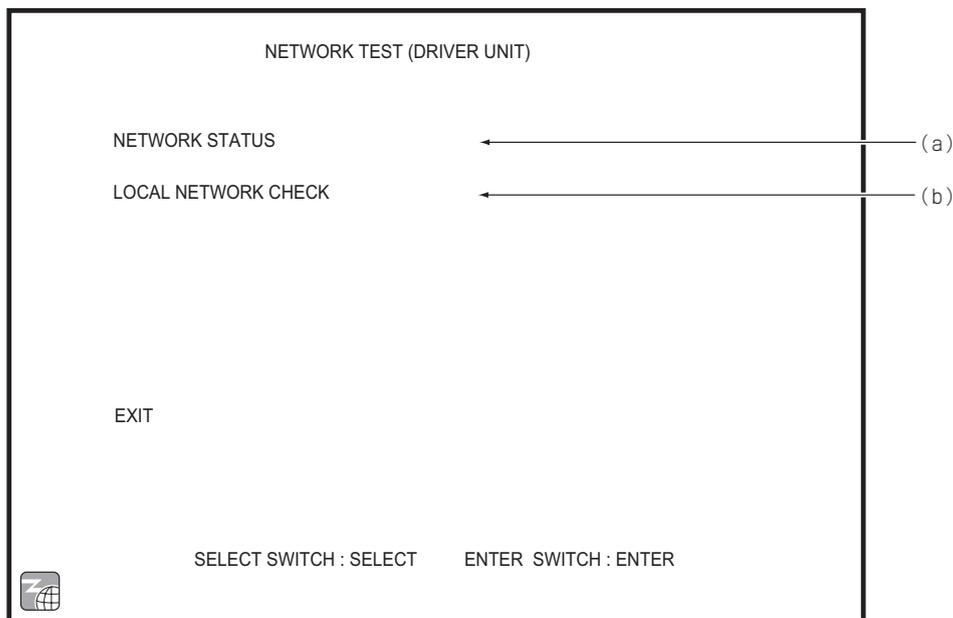
■ Displayed message list

Message	Description
RUNNING IC CARD READING AND RETURN TEST PLEASE SELECT AND CONFIRM "START TEST"	Displayed before starting the BANAPASSPORT card reading and return test.
TESTING IC CARD READING AND RETURN IC CARD WILL BE RETURNED AFTER SEVERAL SECONDS PLEASE WAIT	The BANAPASSPORT card reading and return test starts. A card is dispensed from the IC card vendor.
TEST COMPLETE PLEASE TAKE CARD	The BANAPASSPORT card reading and return test was completed successfully. Remove the card.
E (Error code) (Error title) PLEASE REMOVE MALFUNCTIONING CARD	Displays the error contents in case of an error. For the error contents, see "8B-2-10 Error Display" on page 99. Remove the card.
IC CARD VENDOR IS OUT OF STOCK	Displayed when there are no BANAPASSPORT cards in the card stocker when the test was started. Add cards to the card stocker and select START TEST again.

7-8-10 NETWORK TEST

This screen is used to test the network connection.

- 1** In the MENU screen, select NETWORK TEST. The following screen appears.
- 2** Flip the Select switch up or down to select the item. The selected item blinks.
- 3** Press the Enter switch to enter the selected item. When the selection is entered, the Test menu for that item appears.
- 4** After checking all the items, flip the Select switch up or down to select EXIT and press the Enter switch to return to the MENU screen.



NETWORK TEST screen

Item	Description
(a) NETWORK STATUS	This screen is used to check the network status and IP address, and to reacquire the network status.
(b) LOCAL NETWORK CHECK	This screen is used to check the connection to the local network.

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Operation

Test Mode

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7. Operation

(a) NETWORK STATUS

This screen is used to check the network status and IP address, and to reacquire the network status. These checks cannot be performed during network service periods.

NETWORK STATUS (DRIVER UNIT)

NB LINE LICENSE	OK	(a)
UPDATE SERVER	L I N K O K	
GAME SERVER	L I N K O K	
IP ADDRESS	000. 000. 000. 000	
SUBNET MASK	000. 000. 000. 000	
GATEWAY	000. 000. 000. 000	
NB LINE ROUTER	000. 000. 000. 000	
PRIMARY DNS	000. 000. 000. 000	
SECONDARY DNS	000. 000. 000. 000	
NB LINE VENUE		(b)
HongKong / wonder Park Plus		
REACQUIRE NETWORK STATUS		(c)
ACQUIRED		
TIME	: 2016/07/03 (SUN) 12:34:56	
PCB ID	: 1	
SOFT Ver	: W5X115-1-SYS-MPRO-A22 (Rev. 2. 15. 22)	
S/N	: 000000-000000	
SELECT SWITCH : SELECT ENTER SWITCH :		

NETWORK STATUS screen

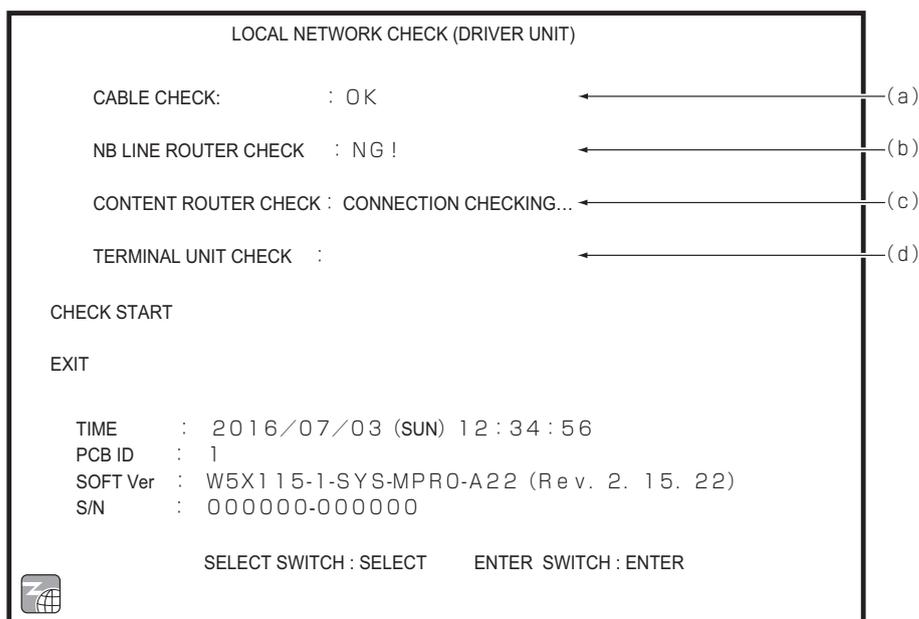
Item	Description
(a) Network status displays	The following items are displayed. <ul style="list-style-type: none"> • NB LINE LICENSE: NB LINE certification results • UPDATE SERVER: Connection status with update server • GAME SERVER: Connection status with game server • IP ADDRESS: IP address of this Driver Cabinet • SUBNET MASK: Subnet mask setting value • GATEWAY: IP address of gateway • NB LINE ROUTER: IP address of NB LINE router • PRIMARY DNS: IP address of primary DNS • SECONDARY DNS: IP address of secondary DNS
(b) NB LINE VENUE	Displays the shop name acquired during NB LINE certification
(c) REACQUIRE NETWORK STATUS	This performs the following operations. <ul style="list-style-type: none"> • Reacquires the DNS and DHCP address, the shop name and the time • Performs NB LINE certification again • Checks the game server • Updates the network status displays according to the results

To return to the NETWORK TEST screen, select EXIT and press the Enter switch.

(b) LOCAL NETWORK CHECK

This screen is used to check the connection to the local network.

- 1** Flip the Select switch up or down to select CHECK START and press the Enter switch. The local network check is executed.
- 2** To return to the NETWORK TEST screen after checking the connection status, select EXIT and press the Enter switch.



LOCAL NETWORK CHECK screen

Item	Description
(a) CABLE CHECK	Checks whether the LAN cable is connected to the game PC board.
(b) NB LINE ROUTER CHECK	Checks whether connection to the NB LINE router is possible.
(c) CONTENT ROUTER CHECK	Checks whether connection to the content router inside the Wangan Terminal is possible.
(d) TERMINAL UNIT CHECK	Checks whether connection to the game PC board inside the Wangan Terminal is possible.

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Operation

Test Mode

Troubleshooting

7-8-11 Displaying Game Data (BOOKKEEPING)

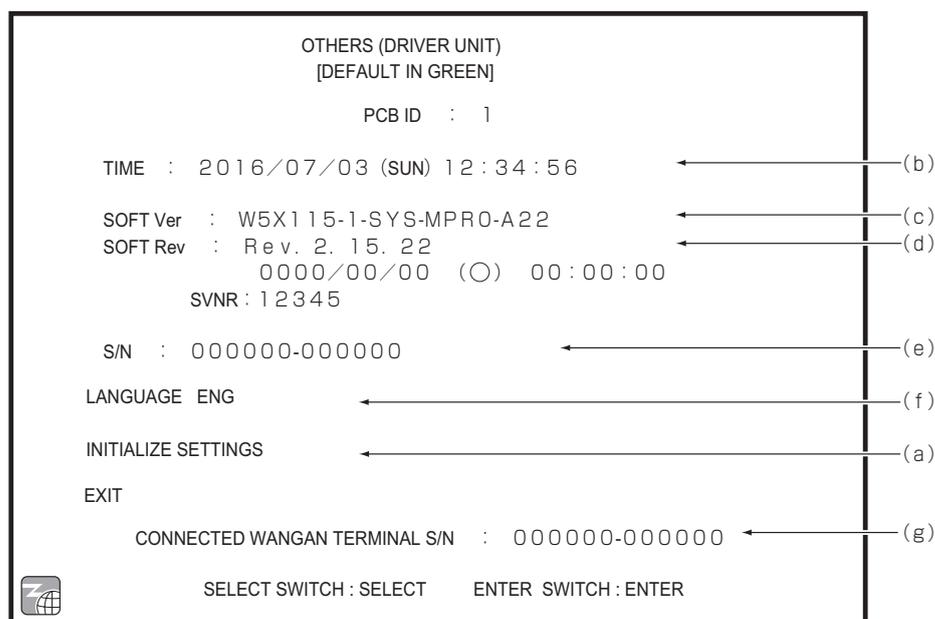
This screen displays various game related data.

- 1** In the MENU screen, select BOOKKEEPING to display the BOOKKEEPING screen.
- 2** Flip the Select switch up or down to select the item. The selected item blinks.
- 3** Press the Enter switch to enter the selected item. The screen for the selected item appears.
- 4** After checking all the items, flip the Select switch up or down to select EXIT and press the Enter switch to return to the MENU screen.

7-8-12 OTHER OPTIONS

This screen displays various information such as the current time and software version, and is used to access the INITIALIZE SETTINGS screen.

- 1** In the MENU screen, select OTHERS. The following screen appears.
- 2** Flip the Select switch up or down to select the item. The selected item blinks.
- 3** Press the Enter switch to enter the selected item. The screen for the selected item appears.
- 4** After checking all the items, flip the Select switch up or down to select EXIT and press the Enter switch to return to the MENU screen.



OTHERS screen

Default settings (factory settings) are indicated in green, and other settings are in yellow.

Item	Description
(a) INITIALIZE SETTINGS	Used to initialize settings.
(b) TIME	Displays the current time and date set in the internal clock.
(c) SOFT Ver	Displays the software version.
(d) SOFT Rev	Displays the software revision and the update date and time.
(e) S/N	Displays the serial number of the USB dongle.
(f) LANGUAGE	Displays the language setting.
(g) CONNECTED WANGAN TERMINAL S/N	Displays the serial number of the connected Wangan Terminal.

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Operation

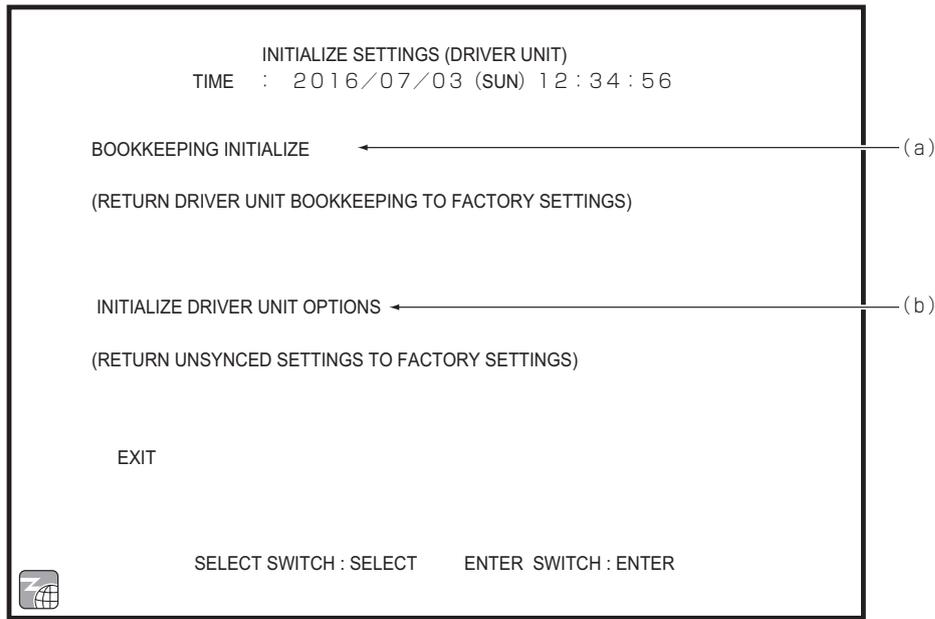
Test Mode

Troubleshooting

(a) INITIALIZE SETTINGS

This screen can be used to initialize individual Test mode settings. Note that items set collectively by the Wangan Terminal cannot be initialized.

- 1** In the OTHERS screen, select INITIALIZE SETTINGS. The following screen appears.
- 2** Flip the Select switch up or down to select the item. The selected item blinks.
- 3** Press the Enter switch to enter the selected item. The screen for the selected item appears.
- 4** When initialization is finished, flip the Select switch up or down to select EXIT and press the Enter switch to return to the OTHERS screen.



INITIALIZE SETTINGS screen

Item	Description
(a) BOOKKEEPING INITIALIZE	Initialized contents (only within bookkeeping) <ul style="list-style-type: none"> • All bookkeeping data • All error log entries
(b) INITIALIZE DRIVER UNIT OPTIONS	Initialized contents (not including collectively set items) <ul style="list-style-type: none"> • Game options • Analog interface initialize settings • Sound level settings • Remaining credits, remaining service credits and BANAPASSPORT cards purchased prior to Test mode activation • Play under the previous conditions displays

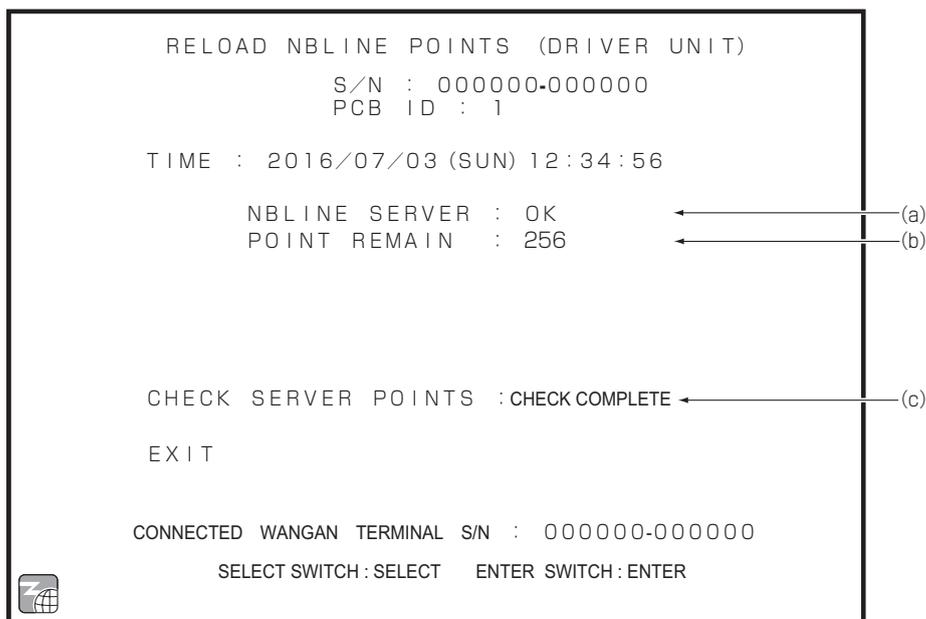
NOTICE

- After INITIALIZE DRIVER UNIT OPTIONS is executed, be sure to refer to “7-9 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)” on page 68 and initialize the analog interfaces.

7-8-13 RELOAD NB LINE POINTS

This screen displays the NB LINE POINTS charged in the machine.

- 1** In the MENU screen, select RELOAD NB LINE POINTS. The following screen appears.
- 2** Flip the Select switch up or down to select CHECK SERVER POINTS and press the Enter button. The charged NB LINE POINTS are displayed.
- 3** Select EXIT and press the Enter button to return to the MENU screen.



RELOAD NB LINE POINTS screen

Item	Description
(a) NB LINE SERVER	Displays the connection status with the NB LINE SERVER.
(b) POINT REMAIN	Displays the charged NB LINE POINTS.
(c) CHECK SERVER POINTS	Select this item to communicate with the server and check the remaining NB LINE POINTS.

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Operation

Test Mode

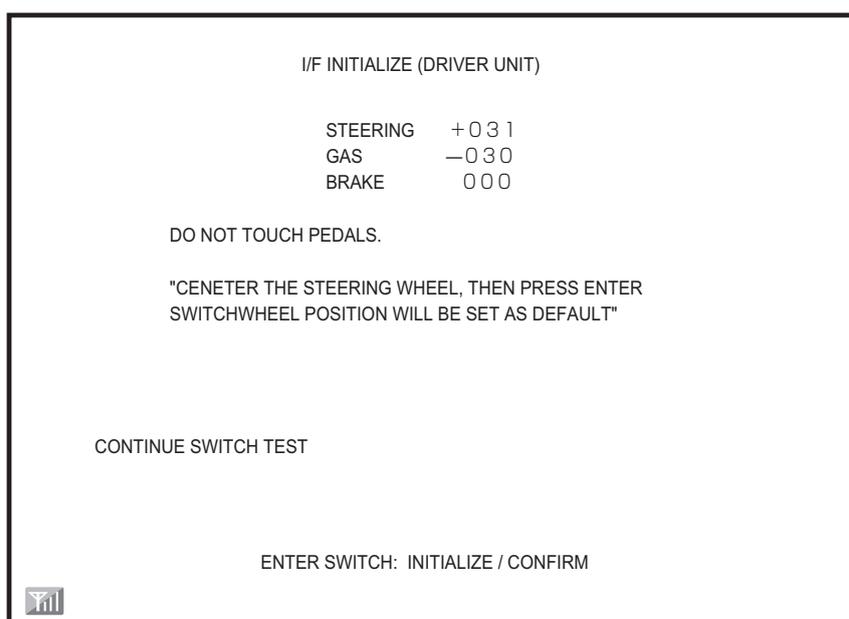
Troubleshooting

7-9 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)



- Be sure to perform the following initialization process after replacing the game PC board, steering assembly interface or pedal assembly interface, or after initializing the backup data. The game will not play properly without performing this initialization.
- After initializing the analog interfaces, the SWITCH TEST screen (see “7-8-6 (a) SWITCH TEST” on page 47) appears. Make sure that OK is displayed on the screen when the steering wheel, accelerator pedal and brake pedal are operated.

- 1** Set the Test switch to ON and select I/O TEST in the MENU screen. (See “7-8-6 Input/Output Test of Switches (I/O TEST)” on page 46.)
- 2** In the I/O • TOUCH PANEL TEST screen, select GO TO I/F INITIALIZE. The following screen appears.
- 3** Set the steering wheel to the center position, release your hands from the steering wheel, and also release your feet from the accelerator and brake pedals.
(* Initialization will not be completed successfully if the steering wheel or the accelerator or brake pedals are operated.)
- 4** In this condition, press the Enter switch.
The analog interfaces will be initialized.
- 5** After the initialization is complete, the SWITCH TEST screen (see “7-8-6 (a) SWITCH TEST” on page 47) appears. Turn the steering wheel fully to the right and then fully to the left, and make sure that RIGHT OK and LEFT OK are displayed on the screen.
- 6** Fully depress the accelerator pedal and then the brake pedal, and make sure that OK is displayed on the screen for each.
- 7** Flip the Select switch up and press the Enter switch to return to the I/O • TOUCH PANEL TEST screen.



I/F INITIALIZE screen

7-10 Servicing the IC Card Vendor

7-10-1 Adding BANAPASSPORT Cards

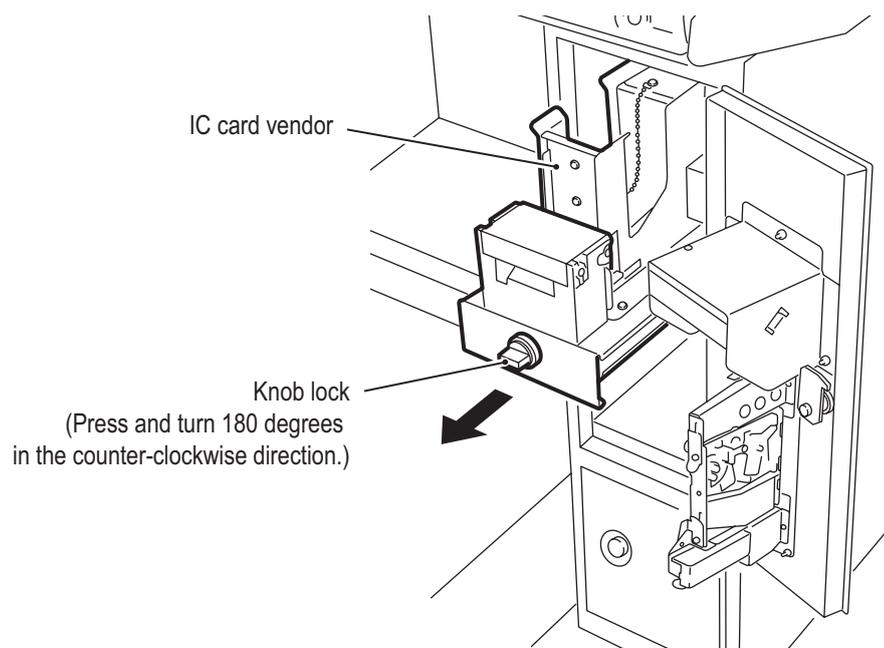
CAUTION

- To prevent injury, make sure that the machine is not in operation before opening and closing the IC card vendor.

NOTICE

- Before adding cards, make sure that the IC card vendor is not in operation.
- Do not add cards while the game is being played or during Test mode operation. In these cases, the IC card vendor may operate unexpectedly and become damaged.

- 1** Use the supplied service key to open the service door. (See “7-5 Opening and Closing the Service Door” on page 30.)
- 2** Press and turn the knob lock 180 degrees in the counter-clockwise direction to unlock it, and then slowly pull out the IC card vendor.



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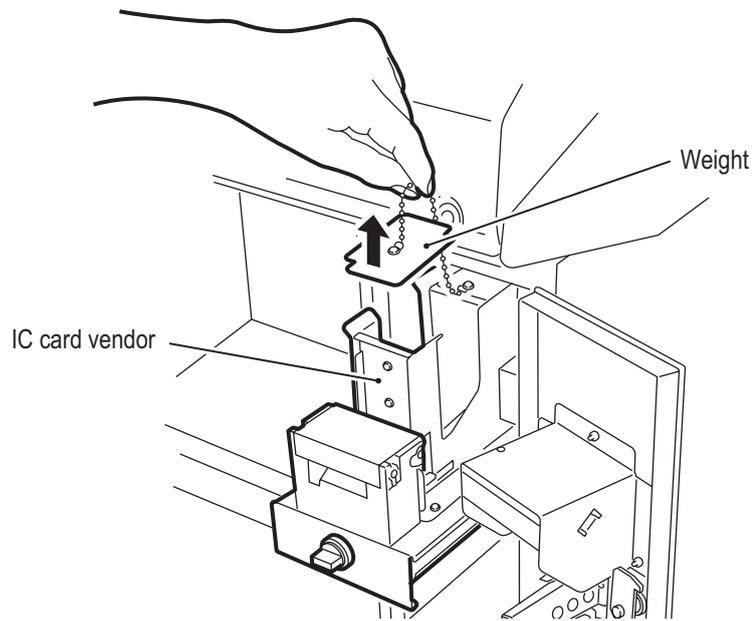
Operation

Test Mode

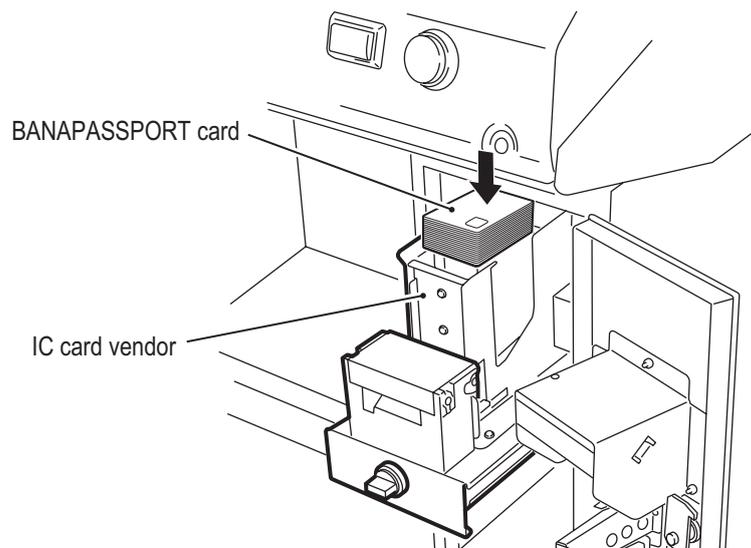
Troubleshooting

7. Operation

- 3 Remove the weight from the IC card vendor.



- 4 Add BANAPASSPORT cards to the IC card vendor.



NOTICE

- The IC card vendor can hold a maximum of 100 BANAPASSPORT cards. Overfilling the card vendor will cause cards to jam.

- 5 Place the weight back in the IC card vendor.

- 6 Firmly push in the IC card vendor all the way, and turn the knob lock 180 degrees in the clockwise direction to lock the IC card vendor in place.

NOTICE

- After locking the knob lock, pull lightly on the IC card vendor to make sure that the IC card vendor is securely locked in place.

- 7 Close the service door and lock it with the service key.

7-10-2 Removing Jammed Cards

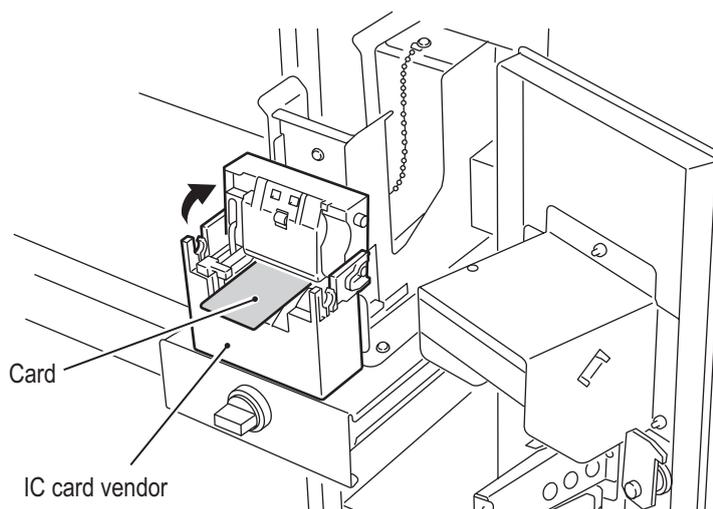

CAUTION

- To prevent injury, make sure that the machine is not in operation before opening and closing the IC card vendor.


NOTICE

- Before removing a jammed card, make sure that the IC card vendor is not in operation.
- After removing a jammed card, be sure to close the reader unit of the IC card vendor securely. If the reader unit is not closed, cards cannot be dispensed properly.

- 1** Use the supplied service key to open the service door. (See “7-5 Opening and Closing the Service Door” on page 30.)
- 2** Pull out the IC card vendor slowly. (See “7-10-1 Adding BANAPASSPORT Cards” on page 69.)
- 3** Open the reader unit of the IC card vendor, and remove the jammed card and any foreign objects.



NOTICE

- If dust or a foreign object other than a card is stuck, remove it thoroughly and clean the inside of the reader unit. (See “7-10-3 Cleaning the IC Card Vendor” on page 72.)

- 4** Close the reader unit of the IC card vendor securely.
- 5** Firmly push in the IC card vendor all the way, and turn the knob lock 180 degrees in the clockwise direction to lock the IC card vendor in place.


NOTICE

- After locking the knob lock, pull lightly on the IC card vendor to make sure that the IC card vendor is securely locked in place.

- 6** Close the service door and lock it with the service key.

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Operation

Test Mode

Troubleshooting

7-10-3 Cleaning the IC Card Vendor

When cards become jammed frequently, clean the IC card vendor.

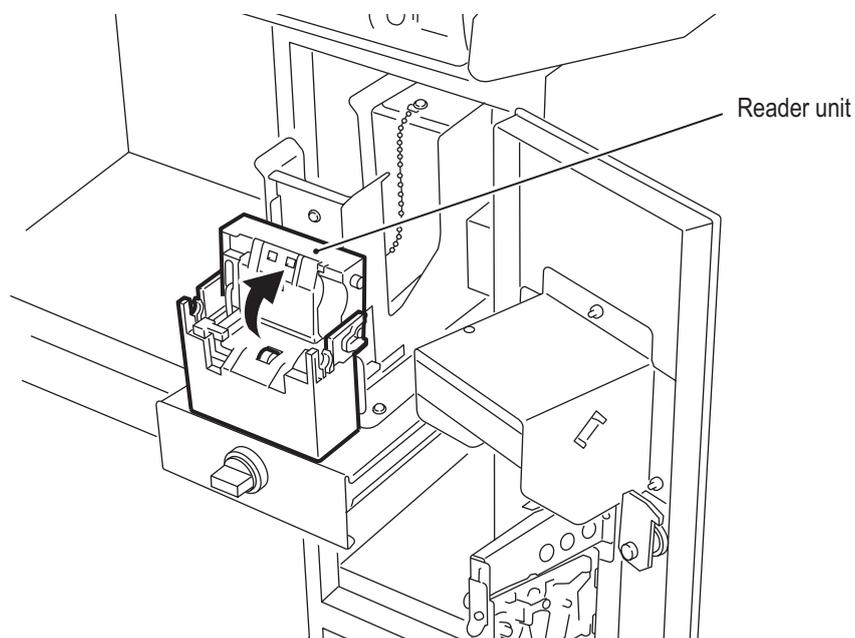
WARNING

- The cleaning pen and cleaning solution contain alcohol. Alcohol can cause a fire, so do not use or store the cleaning pen or cleaning solution near flames.

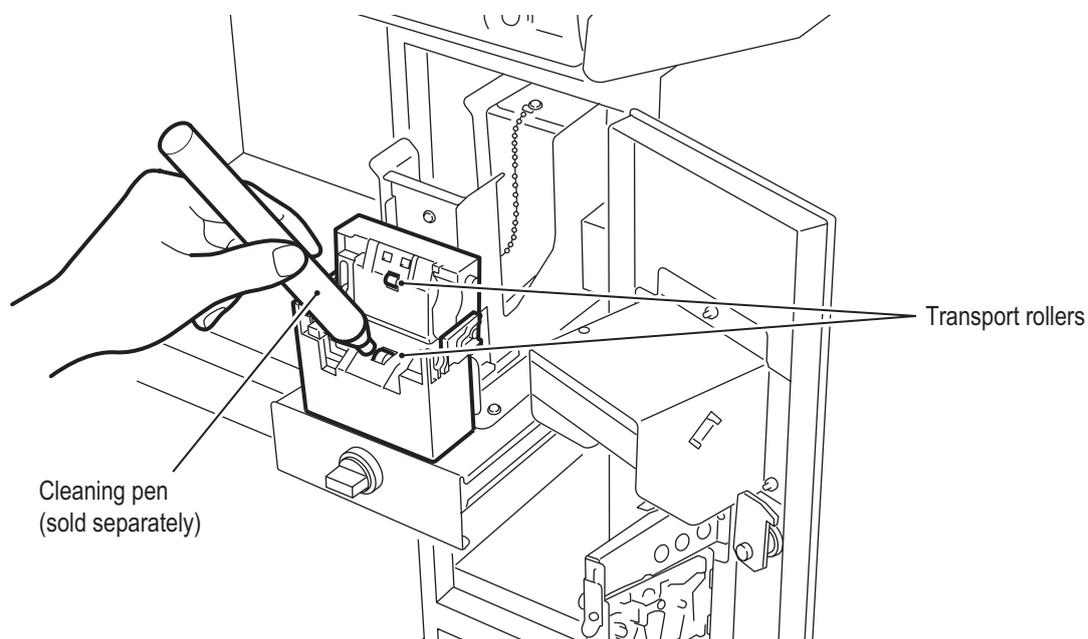
CAUTION

- To prevent injury, make sure that the machine is not in operation before opening and closing the IC card vendor.

- 1** Use the supplied service key to open the service door. (See “7-5 Opening and Closing the Service Door” on page 30.)
- 2** Turn off the power switch. (See step **2** of “7-6-1 Turning the Power Switch On” on page 31.)
- 3** Pull out the IC card vendor slowly. (See “7-10-1 Adding BANAPASSPORT Cards” on page 69.)
- 4** Open the reader unit of the IC card vendor.



- 5** Remove any dust or foreign objects.
Clean the transport rollers with the cleaning pen (sold separately) or a cotton swab moistened with the cleaning solution.
A cotton swab moistened with the cleaning solution or alcohol can be used in place of the cleaning pen. To order cleaning pens, contact your distributor.



- 6** After cleaning, wait for about one minute to let the alcohol content evaporate, and then close the reader unit of the IC card vendor.
- 7** Firmly push in the IC card vendor all the way, and turn the knob lock 180 degrees in the clockwise direction to lock the IC card vendor in place.



- After locking the knob lock, pull lightly on the IC card vendor to make sure that the IC card vendor is securely locked in place.

- 8** Close the service door and lock it with the service key.

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Operation

Test Mode

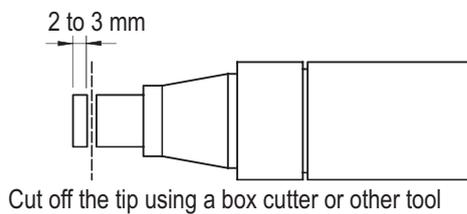
Troubleshooting

7. Operation

*After using the cleaning pen, be sure to replace the cap firmly. Otherwise, the ethyl alcohol will evaporate, reducing the cleaning effect.

When the tip of the cleaning pen becomes dirty, use a box cutter or other tool and cut 2 to 3 mm off the tip.

When the pen tip becomes short, grasp the tip with your fingers and pull out while rotating it.



When the alcohol has completely evaporated or the pen tip has become too short to use, replace the cleaning pen.

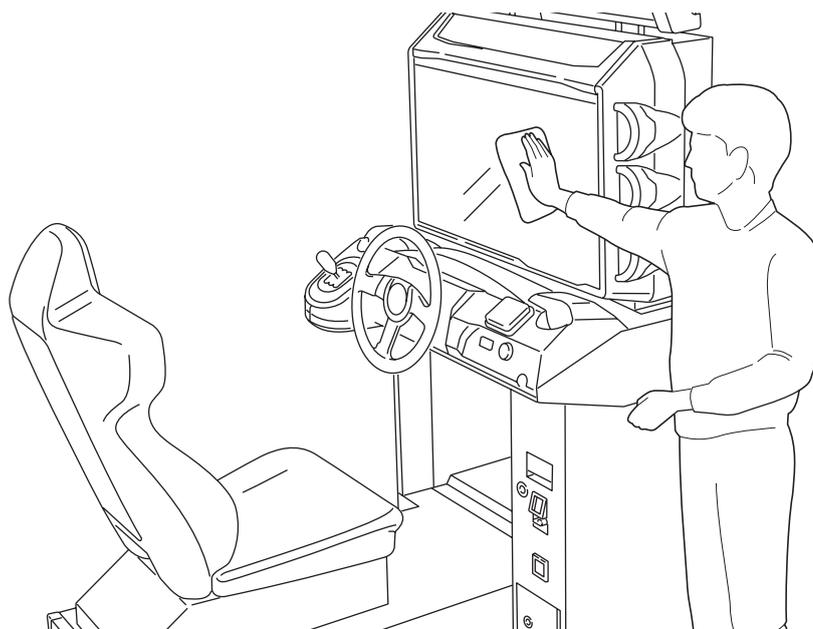
(2 to 3 mm can be cut off the tip approximately 20 to 30 times.)

7-11 Daily Cleaning



- Do not use alcohol or other organic solvents. This may degrade the materials.

- Wipe away any dirt with a dry soft cloth. When the machine becomes extremely dirty, wipe away the dirt using a soft cloth moistened with a neutral cleanser, then wipe lightly using a cloth dampened with a small amount of water, and finally wipe dry using a dry soft cloth.



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Operation

Test Mode

Troubleshooting

8. Technician's Manual - Must be performed by a technician -

8A. Installation and Assembly

! WARNING

- Install the machine according to the instructions in this Operation Manual. Failure to follow these instructions may result in fire, electric shock, injury or malfunction.
- Fully insert the power cord plug into the outlet. Poor contact may generate heat and result in fire or burns.
- Be sure to install the ground wire. Failure to install the ground wire may result in electric shock in the event of electrical leakage. (See "8A-3 Connecting the Power Cord and Ground" on page 82.)
- Install the machine securely by using the level adjusters. Unstable machine installation may result in an accident or injury. (See "8A-2 Level Adjuster Adjustment" on page 81.)

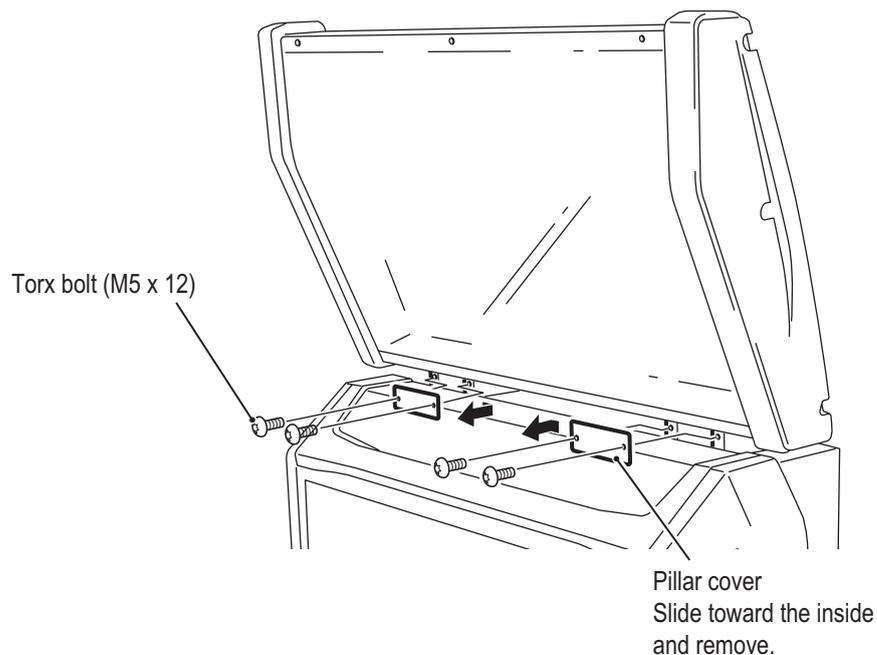
8A-1 Disassembly

8A-1-1 Removing the Signboard Assembly - Must be performed by a technician -

! CAUTION

- The signboard assembly weighs approximately 15 kg. To prevent accidents when removing the signboard assembly, use two or more people and secure sufficient work space.

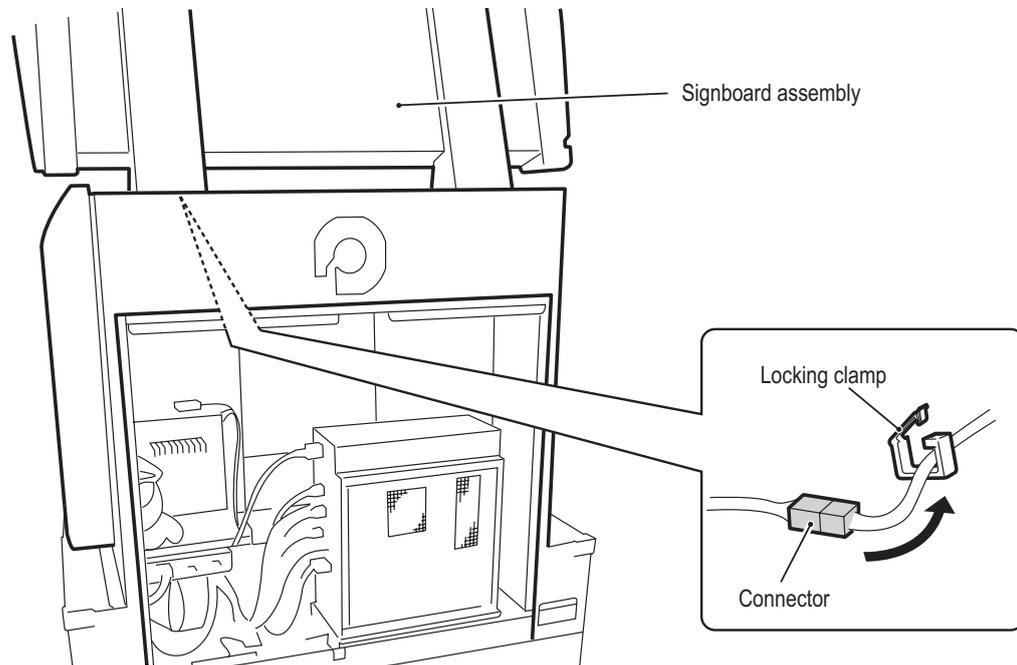
- 1** Remove the four Torx bolts (M5 x 12), and remove the two pillar covers.



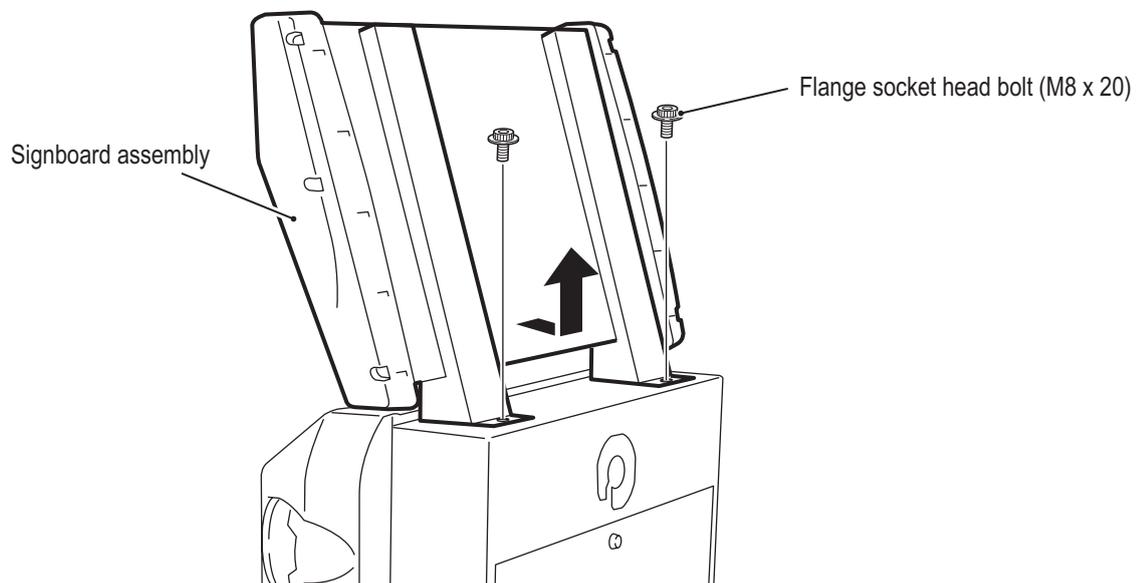
- 2** Remove the service door. (See "8B-3-2 (1) Removing and Installing the Service Door" on page 106.)

8A. Installation and Assembly
- Must be performed by a technician -

- 3** Disconnect the connector on top of the monitor assembly, open the arm of the locking clamp, and push the cable into the signboard assembly side.



- 4** Remove the two flange socket bolts (M8 x 20).
- 5** Pull the signboard assembly forward and remove it from the guide rails.



- 6** To install, perform the procedure in reverse.

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Installation and Assembly

Test Mode

Troubleshooting

8A. Installation and Assembly

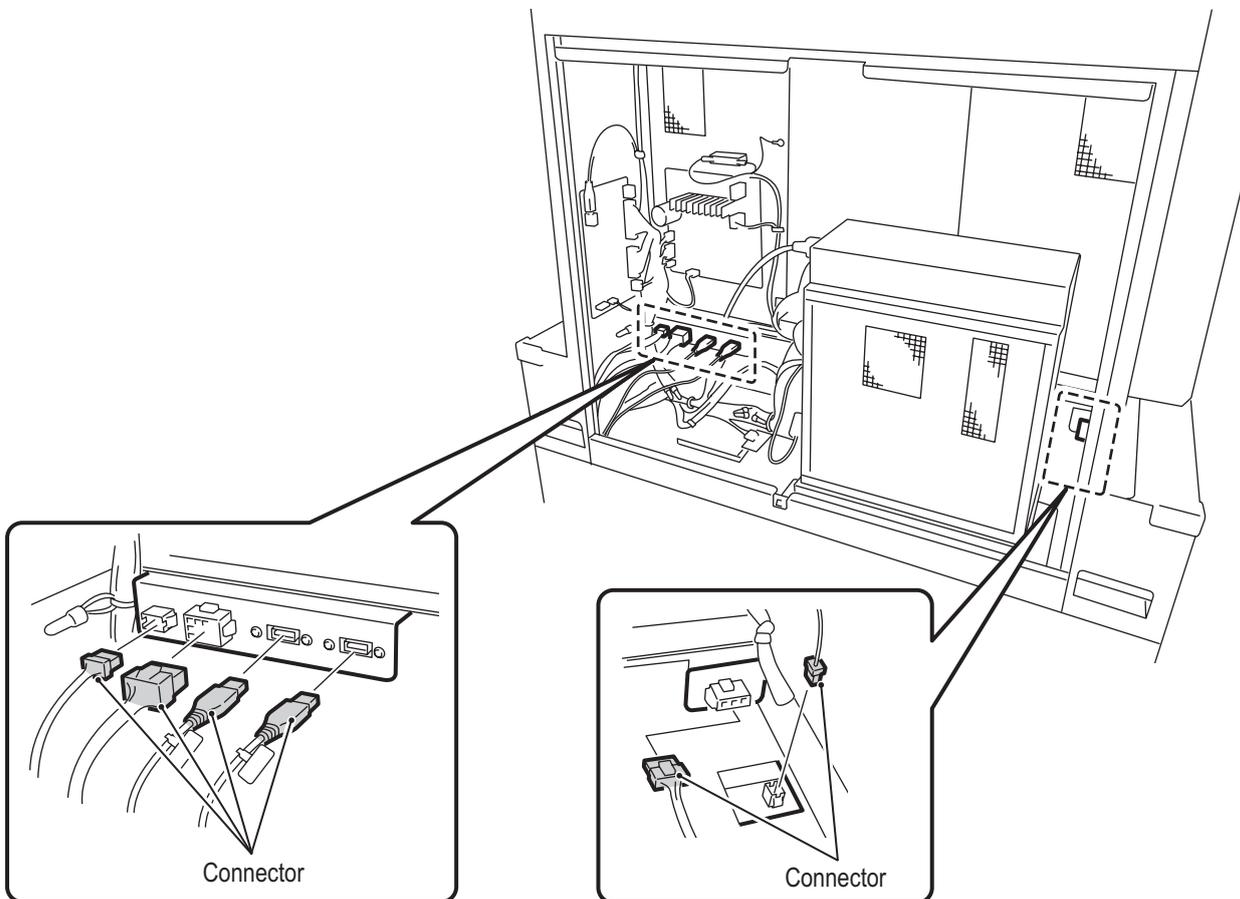
- Must be performed by a technician -

8A-1-2 Removing the Monitor Assembly - Must be performed by a technician -

CAUTION

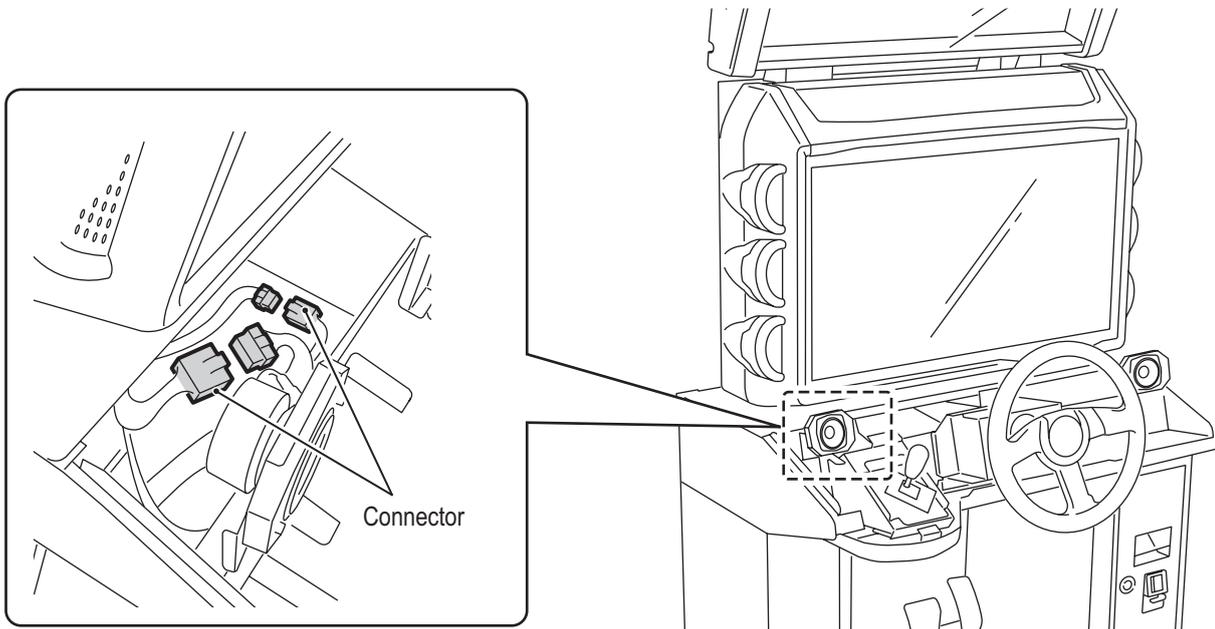
- The monitor assembly weighs approximately 90 kg. To prevent accidents when removing the signboard assembly, use four or more people and secure sufficient work space.

- 1** Remove the signboard assembly. (See “8A-1-1 Removing the Signboard Assembly” on page 76.)
- 2** Remove the service door. (See “8B-3-2 (1) Removing and Installing the Service Door” on page 106.)
- 3** Disconnect the six connectors.
* Place the disconnected connectors inside the underbox assembly.

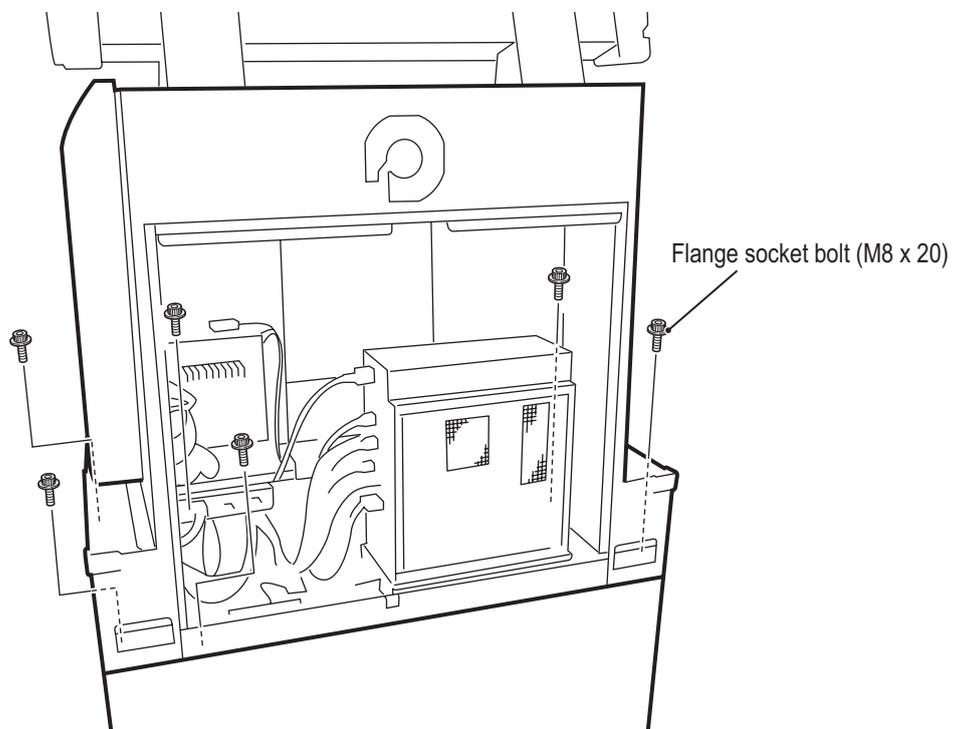


8A. Installation and Assembly
- Must be performed by a technician -

- 4** Remove the control panel. (See “8B-3-2 (8) Removing and Installing the Control Panel” on page 116.)
- 5** Disconnect the two connectors.
* Place the disconnected connectors inside the underbox assembly.



- 6** Remove the six flange socket bolts (M8 x 20).



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Installation and Assembly

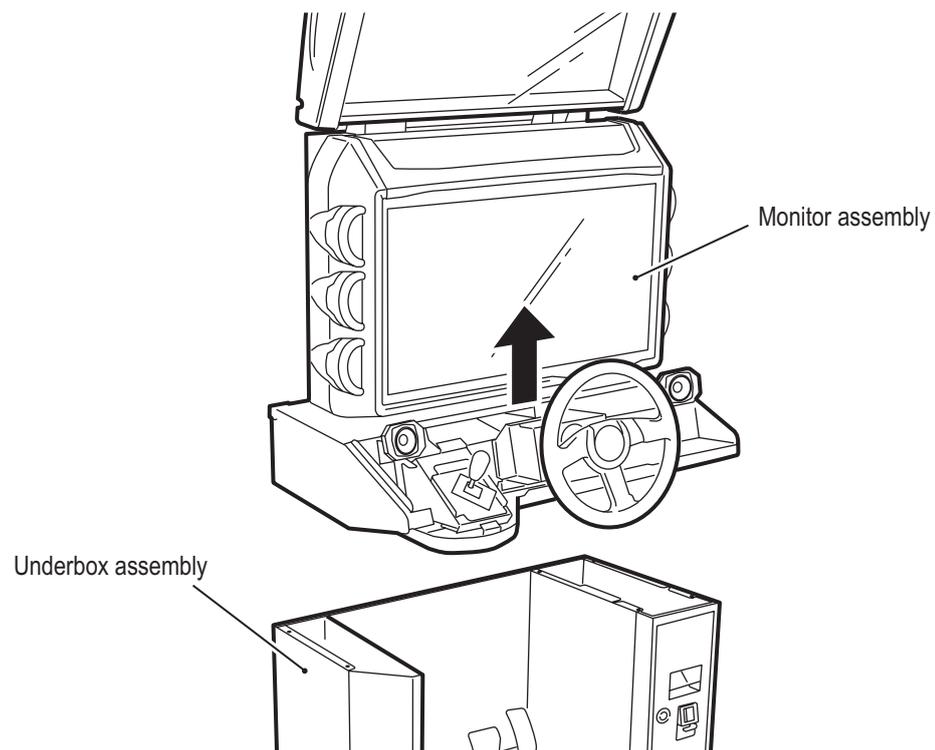
Test Mode

Troubleshooting

8A. Installation and Assembly

- Must be performed by a technician -

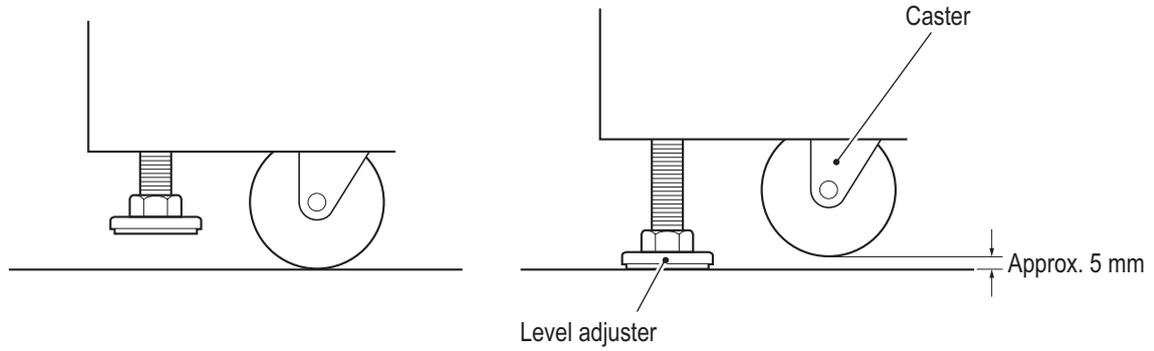
- 7** Lift up the monitor assembly and remove it from the underbox assembly.



- 8** To reassemble, perform the procedure in reverse.

8A-2 Level Adjuster Adjustment

Lower the level adjusters until the casters are at a height of approx. 5 mm from the floor.



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Installation and Assembly

Test Mode

Troubleshooting

8A-3 Connecting the Power Cord and Ground

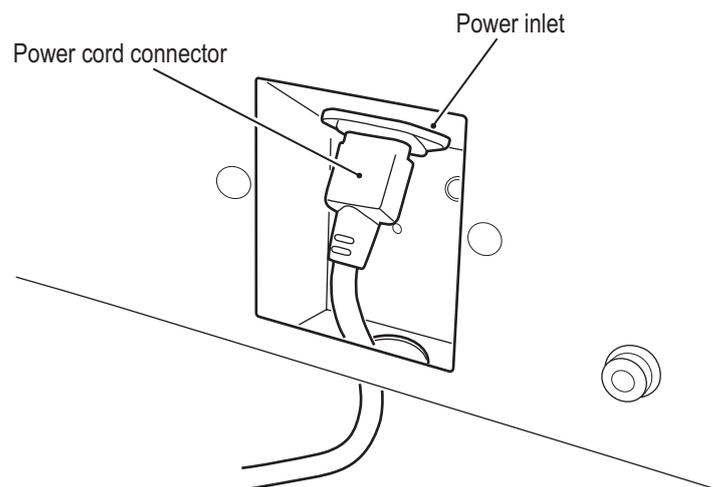
WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.
- Be sure to install the ground wire. Failure to install the ground wire may result in electric shock in the event of electrical leakage.

CAUTION

- Lay out the power cord safely so that it will not cause players, bystanders or passersby to trip over it.

- 1** Pass the connector side of the power cord through the hole in the bottom of the underbox assembly, and insert it into the power inlet.



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

8A-4 Connecting the LAN Cables

WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the cabinet power switch before starting work.
- Be careful not to let the cabinet sheet metal or other objects damage the cables extending from the bottom of the cabinet. It may result in fire or electric shock.

CAUTION

- Lay out the LAN cables safely so that they will not cause players, bystanders or passersby to trip over them.

NOTICE

- Careless network system installation or other work makes networks susceptible to hacking, and can result in communication errors, lost data, and other trouble. In consideration of recovery when trouble occurs and hacking countermeasures, it is recommended to commission installation and other work to professionals.
- When laying LAN cables on the floor, it is recommended to use commercially available cable molding to protect the cables.
- Failure to observe the following items may result in communication trouble and prevent proper game play. Be sure to connect the LAN cables correctly according to the instructions.
 - Disconnected LAN cables may result in communication trouble. When laying LAN cables on the floor, be sure to arrange the cables so that passersby do not trip over them.
 - Do not bundle LAN cables with power cords or pass them through the same cable moldings as power cords.
 - Install the LAN cables with sufficient leeway so that they are not forcibly bent or stretched and there is no excessive load applied.

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Installation and Assembly

Test Mode

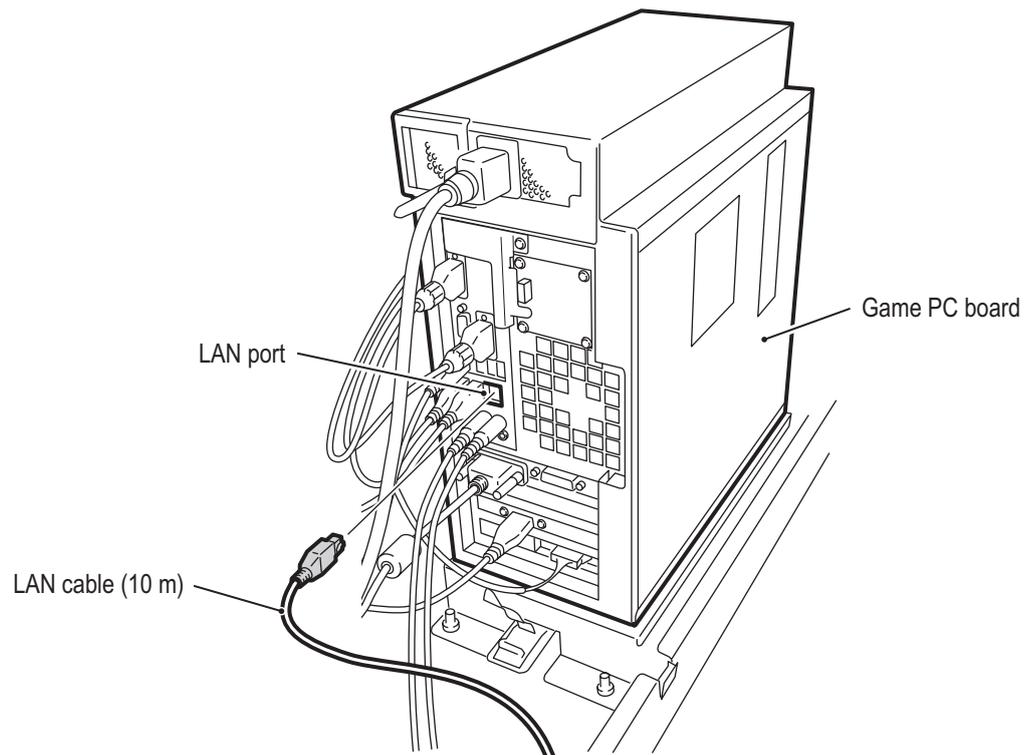
Troubleshooting

8A. Installation and Assembly

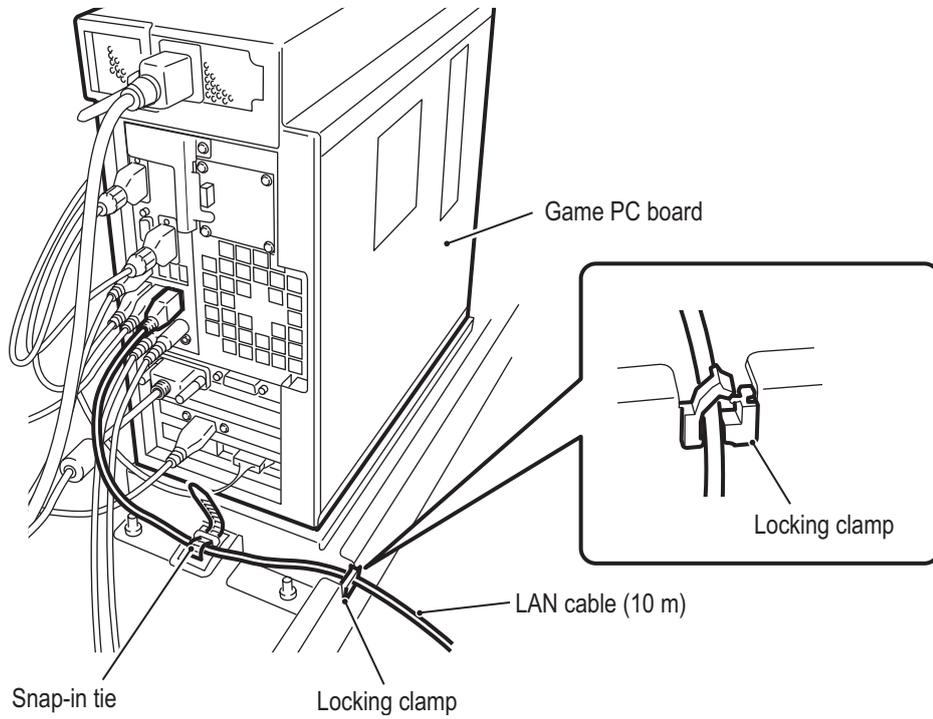
- Must be performed by a technician -

Connect the LAN cable (10 m) supplied with this machine to the hub of the Wangan Terminal.
For the overall connection diagram, see "8A-3 Connecting the LAN Cables" on page 73 of the "MAXIMUM TUNE 5DX PLUS WANGAN TERMINAL OPERATION MANUAL".

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the service door. (See "8B-3-2 (1) Removing and Installing the Service Door" on page 106.)
- 3** Connect the LAN cable (10 m) to the LAN port of the game PC board.



- 4** Secure the LAN cable (10 m) with the snap-in tie.
- 5** Open the arm of the locking clamp, pass the LAN cable (10 m) through the clamp, and close the arm.



- 6** Attach the service door.

NOTICE

- Check the shape of the LAN cable connectors and insert them with the proper alignment.
- Insert the LAN cable connectors firmly. If a connector becomes loose, communication will not operate properly.
- Secure the LAN cable firmly with the locking clamp and snap-in tie so that the LAN port of the game PC board will not be damaged even if the LAN cable is pulled.
- Clamp the harnesses and LAN cables with sufficient leeway so that they are not stretched and there is no excessive load applied.

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Installation and Assembly

Test Mode

Troubleshooting

8A-5 Inserting the USB Dongle

WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the cabinet power switch before starting work.

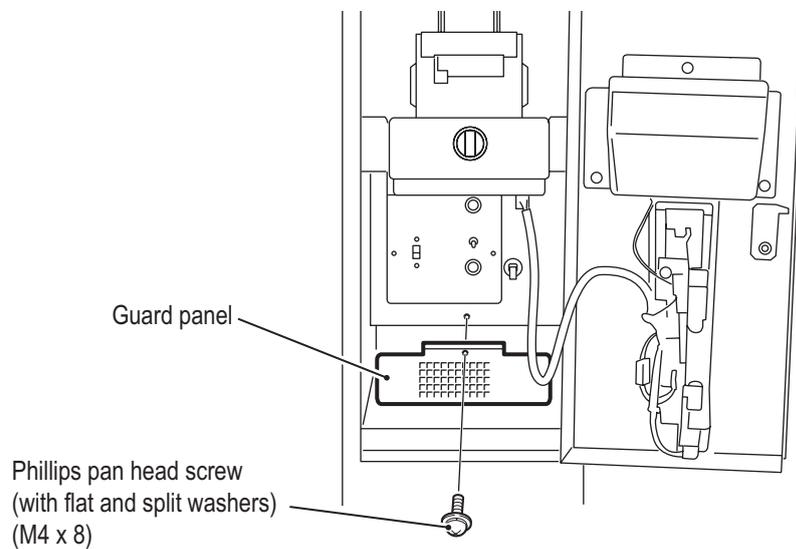
NOTICE

- Two types of USB dongles are included with this machine. The USB dongle for the Wangan Terminal has a light blue label, and the USB dongles for the Driver Cabinets have a white label.
- Use the Driver Cabinet USB dongle (white label) for the Driver Cabinet. Do not insert the USB dongle for the Wangan Terminal or any other machine into the Driver Cabinet. Doing so may cause the machine to malfunction.
- Be sure to turn off the power switch before inserting the USB dongle.
- Be sure to install one USB dongle in each Driver Cabinet.

1 Use the supplied service key to open the service door. (See “7-5 Opening and Closing the Service Door” on page 30.)

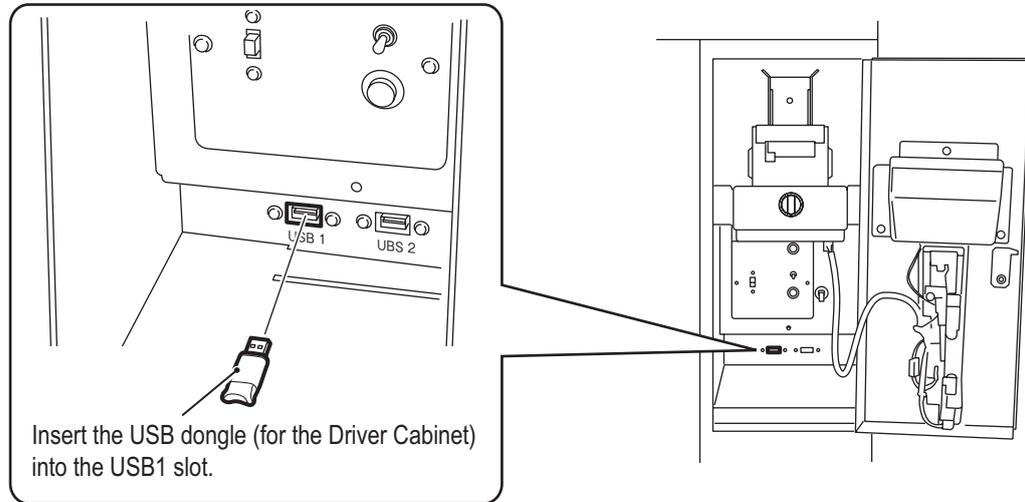
2 Turn off the power switch. (See “8A-6 Turning the Power Switch On” on page 88.)

3 Remove the Phillips pan head screw (with flat and split washers) (M4 x 8), and remove the guard panel.



8A. Installation and Assembly
- Must be performed by a technician -

- 4** Insert the Driver Cabinet USB dongle into the USB1 slot on the left side. Push in firmly until the USB dongle is secure.



- 5** Attach the guard panel with the Phillips pan head screw (with flat and split washers) (M4 x 8).
- 6** Close the service door and lock it with the service key.

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Installation and Assembly

Test Mode

Troubleshooting

8A-6 Turning the Power Switch On

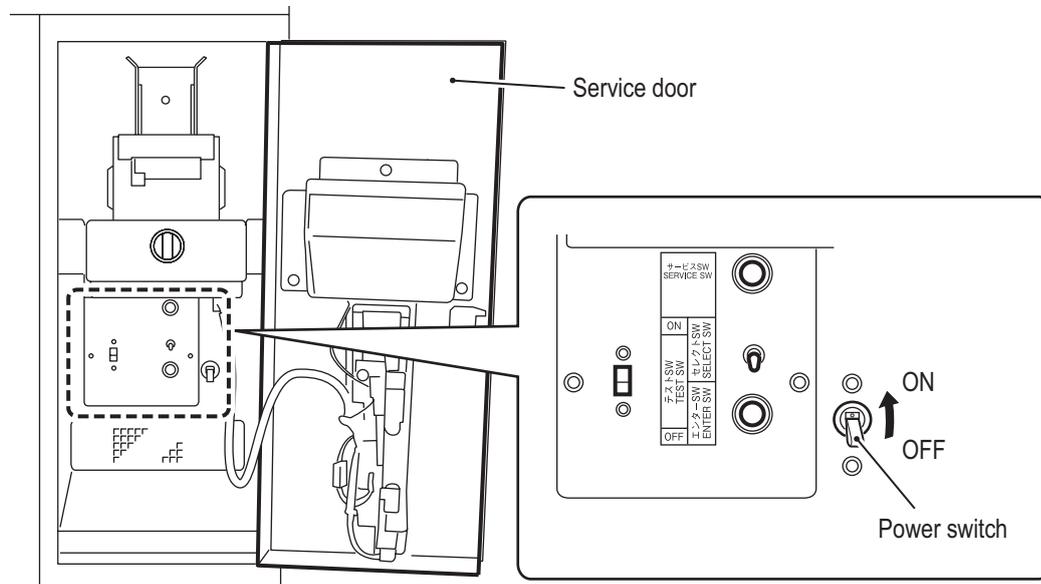


- Be sure to turn on the power switches in the following order.

1. Wangan Terminal
2. Driver Cabinet (this machine)

If the power is turned on in the incorrect order, communication between the game server and the machine may not be performed correctly, and the game may not operate properly.

- 1** Use the supplied service key to open the service door. (See “7-5 Opening and Closing the Service Door” on page 30.)
- 2** Turn on the power switch.

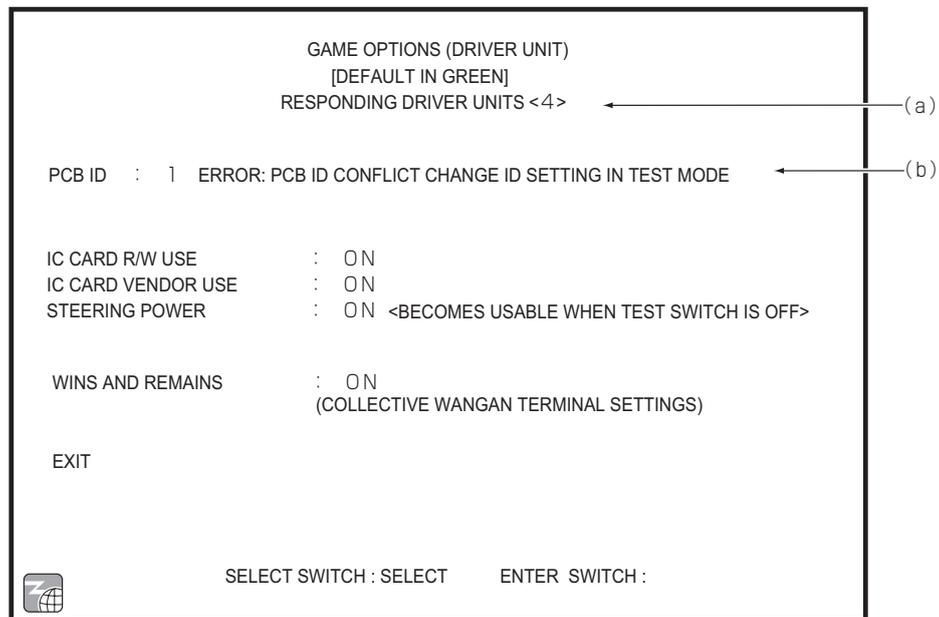


- 3** Close the service door and lock it with the service key.

8A-7 Setting the PCB ID

When connecting two to four machines to the Wangan Terminal for communication-linked VS Player game play, follow these directions.

- 1** Use the supplied service key to open the service door. (See “7-5 Opening and Closing the Service Door” on page 30.)
- 2** When the Test switch is set to ON, the MENU screen appears on the monitor. (See “7-6-2 Adjustment Switches” on page 32.)
- 3** Flip the Select switch up or down to select GAME OPTIONS and press the Enter switch to display the GAME OPTIONS screen.



GAME OPTIONS screen

- 4** Check that (a) RESPONDING DRIVE UNITS matches the number of actually connected Driver Cabinets with the power turned on.
- 5** Set (b) PCB ID to “1,” “2,” “3” and “4” in order from the leftmost Cabinet.
* The default setting is “1” for all Cabinets.
* If more than one Driver Cabinet has the same PCB ID, an error message appears.
- 6** Set the Test switch to OFF and close the service door.

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Installation and Assembly

Test Mode

Troubleshooting

8B. Service

WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, be sure to turn off the power switch before performing service work (such as repairs or correcting malfunctions).

8B-1 Inspection and Service

WARNING

- Perform periodic service. Failure to perform service may result in an accident.
- Perform the inspections every day before starting operations. These are required to prevent accidents. (See “7-3 Pre-operation Inspection” on page 21.)

8B-1-1 Inspection Items - Must be performed by a technician -

Check the following inspection items periodically for any abnormalities.

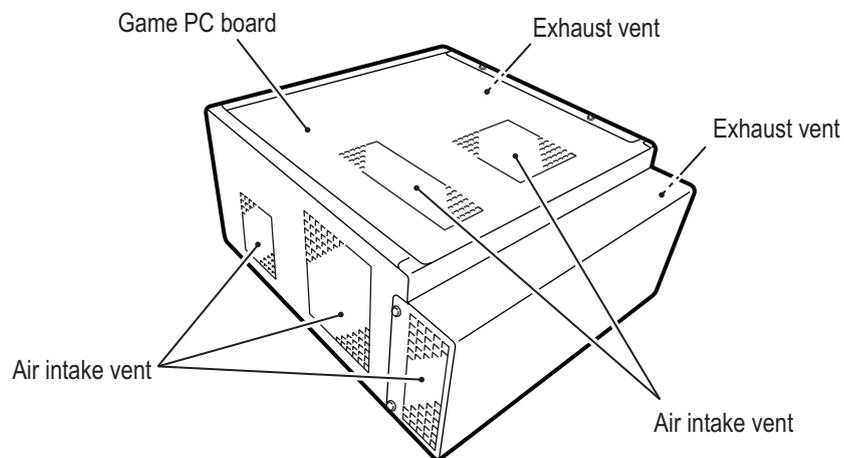
- (1) Level Adjuster Inspection
 - Check that the level adjusters are fixed securely. (See “8A-2 Level Adjuster Adjustment” on page 81.)
- (2) Power Cord Plug Inspection
 - Check that the power cord is firmly inserted into the power supply input socket in the machine's cord box and an outlet. (See “8A-3 Connecting the Power Cord and Ground” on page 82.)
 - Clean any dust or other dirt from the connection parts.
 - Check for cracks or dirt on the power cord covering. If there is any abnormality on the power cord, be sure to replace it.
- (3) Screw Looseness Inspection

Check the following parts for loose screws. Fully retighten any loose screws.

 - Steering assembly fixing screws
(See “8B-3-4 (1) Removing and Installing the Steering Assembly” on page 131.)
 - Steering wheel fixing screws
(See “8B-3-4 (3) Removing and Installing the Steering Wheel” on page 135.)
 - Shift (6-speed MT) assembly fixing screws
(See “8B-3-5 (1) Removing and Installing the Shift (6-Speed MT) Assembly” on page 139.)
 - Pedal assembly fixing screws
(See “8B-3-6 (1) Removing and Installing the Pedal Assembly” on page 146.)
 - Seat assembly fixing screws
(See “8B-3-8 (2) Replacing the Seat Rails” on page 157.)
 - OTHER OPTIONS

- Must be performed by a technician -

- (4) Cable Inspection
 - Check that the LAN cable connectors are inserted securely, and that there are no abnormalities on the LAN cables. (See "8A-4 Connecting the LAN Cables" on page 83.)
- (5) Game PC Board Inspection
 - Clean any dust accumulated near the game PC board air intake and exhaust vents.



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Service

Test Mode

Troubleshooting

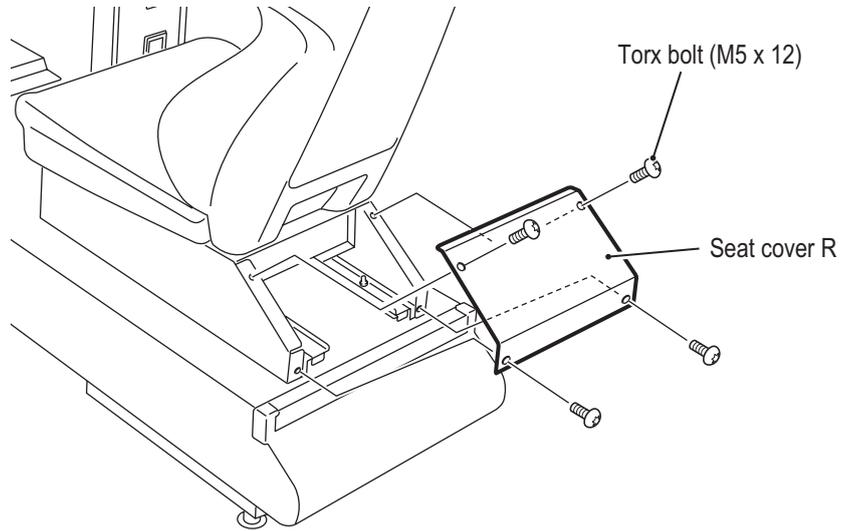
8B. Service

- Must be performed by a technician -

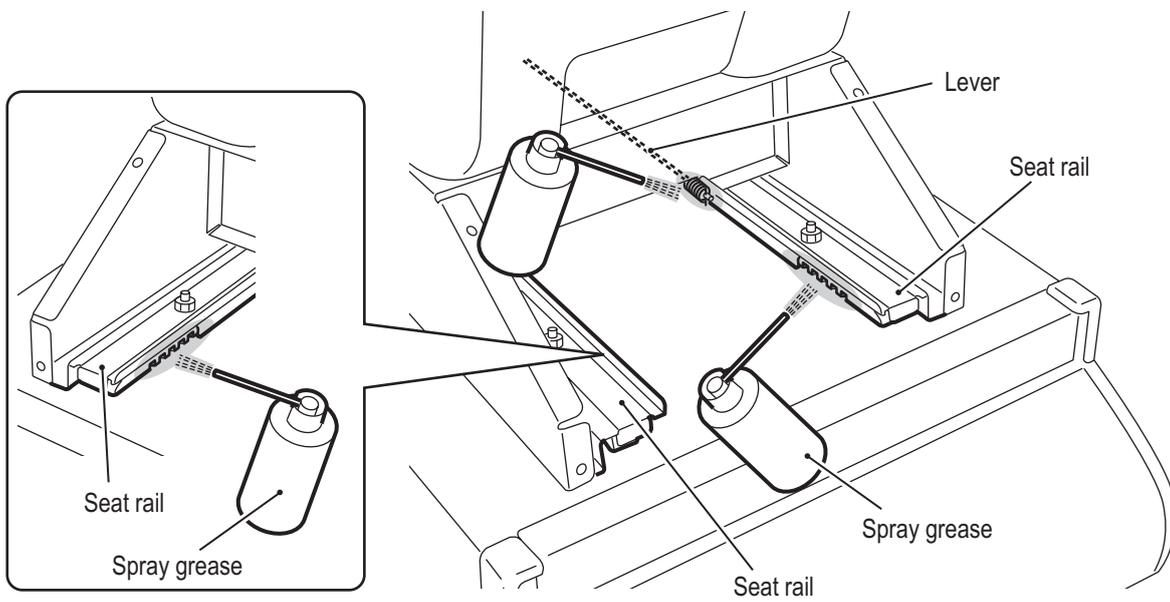
8B-1-2 Service - Must be performed by a technician -

Periodically grease the seat rails.

- 1** Pull up the seat adjustment knob and slide the seat all the way back.
- 2** Remove the four torx bolts (M5 x 12), and remove the seat cover R.

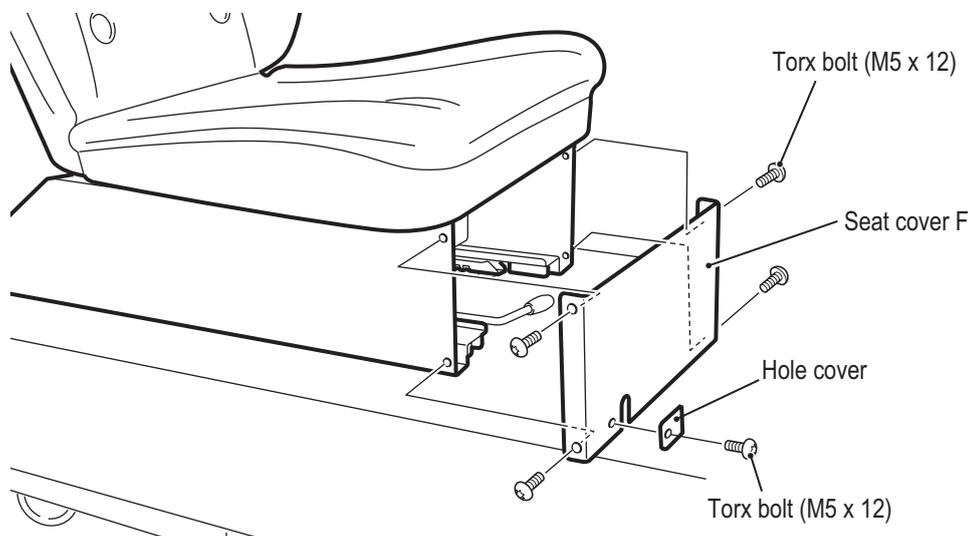


- 3** Spray grease (lithium-based grease) on the sliding surfaces of the seat rails.

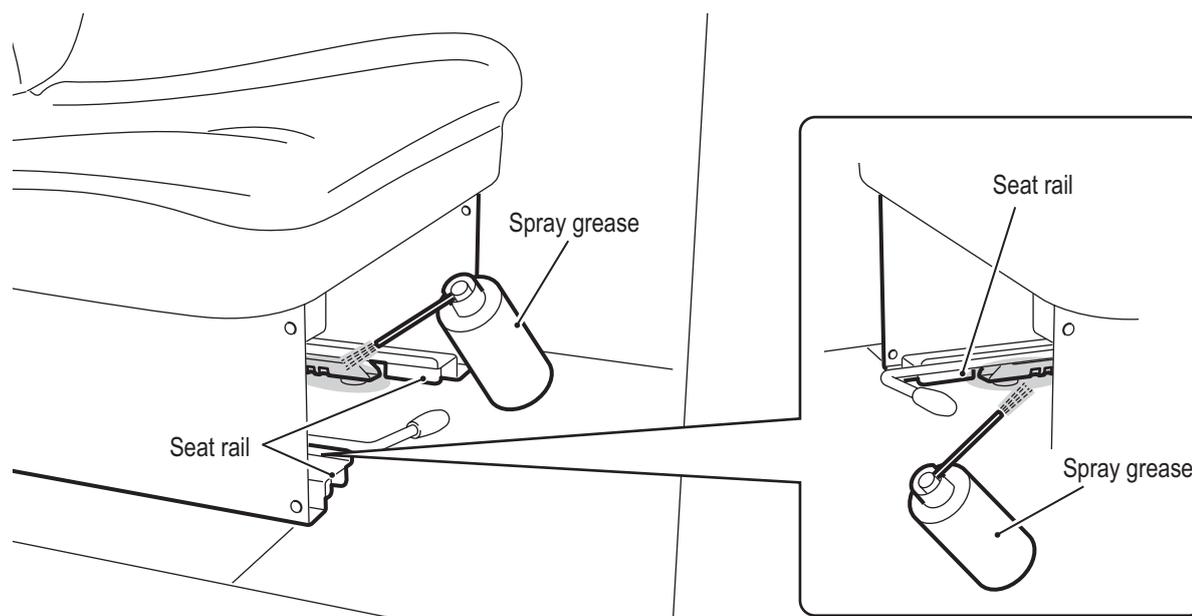


- Must be performed by a technician -

- 4** Pull up the seat adjustment knob and slide the seat all the way forward.
- 5** Remove the torx bolt (M5 x 12), and remove the hole cover.
- 6** Remove the four torx bolts (M5 x 12), and remove the seat cover F.



- 7** Spray grease (lithium-based grease) on the sliding surfaces of the seat rails.



- 8** After spraying grease, slide the seat back and forth two or three times to spread the grease over the entire sliding surfaces.
- 9** Reinstall the seat cover F and seat cover R.

NOTICE

- Be sure to wipe off any excess grease.
- Do not use an anti-rust lubricant spray, as it will cause the grease to run and drip from the sliding surfaces.

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Service

Test Mode

Troubleshooting

8B-2 Troubleshooting

WARNING

- To avoid electric shock, accidents or injuries, or damage to the electronic circuits, be sure to turn off the power switch before starting work.
- If the problem is not described in 8B-2-1 to 8B-2-10 or the problem persists despite taking the appropriate action, turn off the power switch immediately to stop operations, and contact your distributor. Continuing operations may result in an accident.

NOTICE

- If a malfunction occurs, first make sure that all the connectors are connected securely.
- Repair of the game PC board, steering PC board and other PC boards will be performed by the distributor, so never perform a conductivity check of the boards with a tester or any other tool. The IC may be damaged by the internal voltage of the tester.
- When sending parts for repair, be sure to pack them properly. Particularly when sending the game PC board, steering PC board or other PC board, wrap the part in sponge or air bubble wrapping before packing it in a cardboard box to make sure that the part is not exposed to external force.

- Must be performed by a technician -

8B-2-1 Overall - Must be performed by a technician -

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

Symptom	Cause	Action	Reference page
• The machine does not start.	• The game PC board connector is disconnected.	• Insert the connector securely.	Page 107
	• The USB dongle is not inserted.	• Insert the USB dongle securely.	Page 86
	• A game PC board malfunction.	• Contact your distributor.	
	• A USB dongle malfunction.		
• Communication-linked play is not possible.	• The LAN cable is not connected.	• Check the LAN cable connection.	Page 83
	• There is an open circuit in the LAN cable.	• Replace the LAN cable.	Page 83
	• The Wangan Terminal power is off.	• Turn off the Driver Cabinet power, then turn on the Wangan Terminal power and the Driver Cabinet power in that order.	Page 88, Page 80 (Wangan Terminal Operation Manual)
	• The contents router power is off.	• Turn on the contents router.	Page 75 (Wangan Terminal Operation Manual)
• Operation is not stable or the machine operates incorrectly.	• The power supply voltage is not within the range of AC 90 V to 110 V (or AC 210 V to 230 V).	• Disconnect any high-capacity devices (such as an air conditioner or large machine) from the same line to secure the specified power supply voltage.	
• The power turns off during operation.	• The circuit protector has operated to turn the power switch off. * The circuit protector turns off the current when an abnormal current occurs.	• Turn on the power switch again. If the circuit protector operates frequently, there is a mechanical abnormality. Contact your distributor.	Page 88
• The machine resets itself during startup.	• The internal battery of the game PC board has run down.	• Contact your distributor.	
	• A game PC board malfunction.		

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Troubleshooting

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8B. Service

- Must be performed by a technician -

8B-2-2 Underbox assembly

Symptom	Cause	Action	Reference page
• Sound is not output from the woofer speaker.	• The volume setting is low.	• Set the appropriate volume.	Page 51
	• The connector or Faston terminal is disconnected.	• Insert the connector and Faston terminals securely.	Page 113
	• A D2 Amp PC board malfunction.	• Replace the D2 Amp PC board.	Page 113
	• A DOT ONE PC board malfunction.	• Replace the DOT ONE PC board.	Page 115
• IC cards are not dispensed.	• There are no BANAPASSPORT cards in the IC card vendor.	• Add BANAPASSPORT cards.	Page 69
	• A BANAPASSPORT card is jammed.	• Remove the jammed BANAPASSPORT card.	Page 71
	• A connector is disconnected.	• Insert the connector securely.	Page 105

8B-2-3 Monitor assembly

Symptom	Cause	Action	Reference page
• Images are not displayed.	• The monitor power is off.	• Turn on the monitor power.	Page 127
	• A connector is disconnected.	• Insert the connector securely.	Page 124
	• A monitor malfunction.	• Replace the monitor.	Page 124
• Sound is not output from the monitor bottom speaker.	• The volume setting is low.	• Set the appropriate volume.	Page 51
	• The connector or Faston terminal is disconnected.	• Insert the connector and Faston terminals securely.	Page 113
	• A D2 Amp PC board malfunction.	• Replace the D2 Amp PC board.	Page 113
• The View Change button or Challenge ON/OFF button does not function.	• A connector is disconnected.	• Insert the connector securely.	Page 118
	• A button malfunction.	• Replace the button.	Page 118
• The View Change button or Challenge ON/OFF button does not light up.	• A connector is disconnected.	• Insert the connector securely.	Page 118
	• A button light malfunction.	• Replace the illuminated button light.	Page 118
• IC cards are not recognized. • The BANAPASSPORT card reader/writer LED does not light up.	• The card reader/writer connector is disconnected.	• Insert the connector securely.	Page 119
	• A card reader/writer malfunction.	• Contact your distributor.	
• The monitor side LEDs do not light up.	• A connector is disconnected.	• Insert the connector securely.	Page 123
	• A Squid Ring PC board malfunction.	• Replace the Squid Ring PC board.	Page 123

8B-2-4 Signboard assembly

Symptom	Cause	Action	Reference page
• The signboard internal lighting does not light up.	• A connector is disconnected.	• Insert the connector securely.	Page 127
	• A LED bar malfunction.	• Replace the LED bar.	Page 127
• The signboard side LEDs do not light up.	• A connector is disconnected.	• Insert the connector securely.	Page 129
	• A LED PC board malfunction.	• Replace the LED PC board.	Page 129

8B-2-5 Steering assembly

Symptom	Cause	Action	Reference page
• The car does not drive straight.	• The analog interface has not been initialized.	• Initialize the analog interface.	Page 68
• The steering wheel does not function.	• A connector is disconnected.	• Insert the connector securely.	Page 131
	• The fuse is burned out.	• Replace the fuse.	Page 112
	• The analog interface is installed incorrectly.	• Install the analog interface correctly.	Page 133
	• An analog interface malfunction.	• Replace the interface malfunction.	Page 133
	• A STR3 PC board malfunction.	• Replace the STR3 PC board.	Page 111
	• A motor malfunction.	• Replace the motor.	Page 136

8B-2-6 Shift (6-Speed MT)Assembly

Symptom	Cause	Action	Reference page
• The shift lever does not function.	• A connector is disconnected.	• Insert the connector securely.	Page 139
• The machine does not respond to shift lever motion in the right/left direction.	• A photosensor malfunction.	• Replace the photosensor.	Page 140
• The machine does not respond to shift lever motion in the up/down direction.	• A micro switch malfunction.	• Replace the micro switch.	Page 141

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8B. Service

- Must be performed by a technician -

8B-2-7 Pedal Assembly

Symptom	Cause	Action	Reference page
<ul style="list-style-type: none">The maximum speed is slow even when the accelerator pedal is fully depressed.The brake lamp lights even when the brake is not depressed.	<ul style="list-style-type: none">The analog interface has not been initialized.	<ul style="list-style-type: none">Initialize the analog interface.	Page 68
<ul style="list-style-type: none">The accelerator pedal does not function.The brake pedal does not function.	<ul style="list-style-type: none">A connector is disconnected.	<ul style="list-style-type: none">Insert the connector securely.	Page 146
	<ul style="list-style-type: none">The analog interface is installed incorrectly.	<ul style="list-style-type: none">Install the analog interface correctly.	Page 147
	<ul style="list-style-type: none">An analog interface malfunction.	<ul style="list-style-type: none">Replace the interface malfunction.	Page 147

8B-2-8 Seat base assembly

Symptom	Cause	Action	Reference page
<ul style="list-style-type: none">The LEDs at the rear of the seat base do not light up.	<ul style="list-style-type: none">A connector is disconnected.	<ul style="list-style-type: none">Insert the connector securely.	Page 153
	<ul style="list-style-type: none">A LED PC board malfunction.	<ul style="list-style-type: none">Replace the LED PC board.	Page 153

8B-2-9 Seat Assembly

Symptom	Cause	Action	Reference page
<ul style="list-style-type: none">Sound is not output from the seat speakers.	<ul style="list-style-type: none">The volume setting is low.	<ul style="list-style-type: none">Set the appropriate volume.	Page 51
	<ul style="list-style-type: none">The connector or Faston terminal is disconnected.	<ul style="list-style-type: none">Insert the connector and Faston terminals securely.	Page 113
	<ul style="list-style-type: none">A D2 Amp PC board malfunction.	<ul style="list-style-type: none">Replace the D2 Amp PC board.	Page 113
<ul style="list-style-type: none">The LEDs on the back of the seat do not light up.	<ul style="list-style-type: none">A connector is disconnected.	<ul style="list-style-type: none">Insert the connector securely.	Page 155
	<ul style="list-style-type: none">A LED PC board malfunction.	<ul style="list-style-type: none">Replace the LED PC board.	Page 155

8B-2-10 Error Display

When an error is detected at startup or during game play, an error screen appears and machine operation stops. Refer to the error code tables below to identify and resolve the cause of the error.

When a screen not described in the error code tables appears or the error occurs again despite taking the appropriate action, something else may be causing the error. In these cases contact your distributor.

(1) Network Errors

Error code	Error message	Cause	Action	Reference page
05-01	Content Router disconnect	<ul style="list-style-type: none"> An abnormality in the connections or settings of the "Maximum Tune 4" contents router within the shop. 	<ul style="list-style-type: none"> Check the connection between the contents router and Wangan Terminal. 	Pages 75, 89 and 102 (Wangan Terminal Operation Manual)
05-02	Content Router mismatch			
05-03	Not get IP address			
05-04	IP Address error			
05-05	Network disconnection error			
05-10	ERROR LIBRARY NOINT	<ul style="list-style-type: none"> An abnormality in the connection or certification to NB LINE. 	<ul style="list-style-type: none"> Check the connection between the NB LINE router and contents router within the shop. 	Page 86 and 86 (Wangan Terminal Operation Manual)
05-11	ERROR DEVICE			
05-12	ERROR TIP TIMEOUT			
05-13	ERROR TIP HOST NOT FOUND			
05-14	ERROR DNS TIMEOUT			
05-15	ERROR DNS HOST NOT FOUND			
05-16	ERROR AUTH NG			
05-17	ERROR AUTH TIMEOUT			
05-20	ERROR DEVICE	<ul style="list-style-type: none"> An abnormality in the connection or certification to the game server for this product 	<ul style="list-style-type: none"> Contact your distributor. 	
05-21	ERROR AUTH NG			
05-22	ERROR DNS TIMEOUT			
05-23	ERROR DNS HOST NOT FOUND			
05-24	ERROR SERVER NG			
05-30	ERROR TIP TIMEOUT	<ul style="list-style-type: none"> An abnormality in the connection or certification to the game PC board certification server 		
05-31	ERROR TIP HOST NOT FOUND			
05-32	ERROR DNS TIMEOUT			
05-33	ERROR DNS HOST NOT FOUND			
05-34	ERROR AUTH NG			
05-35	ERROR AUTH TIMEOUT			
05-38	NB LINE POINT balance error	<ul style="list-style-type: none"> No remaining NB LINE POINTS. 	<ul style="list-style-type: none"> Reload the NB LINE POINTS. 	Page 67
05-50	Revision error	<ul style="list-style-type: none"> The software revision differs from that of the game server. 	<ul style="list-style-type: none"> Execute the software update. 	Page 31, Page 33 and 86 (Wangan Terminal Operation Manual)
05-51	Internal Server error	<ul style="list-style-type: none"> The game server is shut down for servicing or some trouble. 	<ul style="list-style-type: none"> Wait several seconds and check the communication status again. 	
05-52	Service Unavailable			

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8B. Service

- Must be performed by a technician -

Error code	Error message	Cause	Action	Reference page
05-53	Inconsistent server error	• An abnormality in communication with the game server.	• Check the network connection.	Page 67
05-54	Certificate error	• The specified time passed (timeout) with no network connection, so machine operation stopped.		

(2) Steering Assembly Errors

Error code	Error message	Cause	Action	Reference page
22-01	STR PCB overrun error	• An abnormality in the STR3 PC board communication data.	• Replace the STR3 PC board.	Page 111
22-02	STR PCB framing error			
22-03	STR PCB parity error			
22-04	STR PCB RAM error	• An abnormality in the STR3 PC board memory.		
22-05	STR Volume device error	• The steering assembly analog interface is damaged.	• Replace the Analog interface.	Page 133
22-06	STR PCB over current error	• An overcurrent flowed to the STR3 PC board.	• Replace the STR3 PC board.	Page 111
22-07	STR Volume connection error	• The steering assembly analog interface is not connected.	• Check the analog interface connection.	Page 133
22-08	STR Volume over speed error	• The steering assembly analog interface is not connected.	• Replace the Analog interface.	Page 133
22-09	Motor current error	• An abnormality in the motor current.	• Replace the motor.	Page 136
22-10	Motor current sensor error			
22-11	Motor power ON error	• An abnormality in the motor or the power supply.		
22-12	STR PCB Link error	• Communication with the STR3 PC board is not possible.	• Check the STR3 PC board connection.	Page 111



- When an error related to the steering assembly occurs, first turn the power off and then on again.
If the error persists, check the connections and operation of each part.

- Must be performed by a technician -

(3) BANAPASSPORT Card Errors

Error code	Error message	Cause	Action	Reference page
07-11	IC CARD R/W Disconnect (UNIT1)	<ul style="list-style-type: none"> An abnormality in the BANAPASSPORT card reader/writer of the control panel. 	<ul style="list-style-type: none"> Check the connection of the BANAPASSPORT card reader/writer of the control panel. Then, turn the power off and then on again. If the same error repeats, replace the BANAPASSPORT card reader/writer. 	Page 119
07-12	IC CARD R/W Initialize error (UNIT1)			
07-21	IC CARD R/W Disconnect (UNIT2)	<ul style="list-style-type: none"> An abnormality in the IC card reader/writer built into the IC card vendor. 	<ul style="list-style-type: none"> Check the connection of the IC card vendor. Then, turn the power off and then on again. If the same error repeats, replace the IC card vendor. 	Page 105
07-22	IC CARD R/W Initialize error (UNIT2)			
23-01	IC card Vendor disconnect error	<ul style="list-style-type: none"> An abnormality in the IC card vendor. 		
23-02	IC card Vendor Initialize error			
23-03	IC card vendor jammed error	<ul style="list-style-type: none"> A card or foreign item is jammed in the IC card vendor. 	<ul style="list-style-type: none"> Remove the jammed card or foreign item from the IC card vendor. 	Page 71
23-04	IC card read error	<ul style="list-style-type: none"> The data on a BANAPASSPORT card dispensed from the IC card vendor cannot be read. 	<ul style="list-style-type: none"> Execute the BANAPASSPORT card data check, and check whether it is a BANAPASSPORT card that can be used by this machine. If a normal card cannot be read, the IC card vendor may have malfunctioned. 	Page 54

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8B. Service

- Must be performed by a technician -

(4) Other Hardware Errors

Error code	Error message	Cause	Action	Reference page
01-01	Coin error1	• A coin micro switch malfunction.	• Replace the coin micro switch.	Page 104
		• A NA-JV (S) PC board malfunction.	• Replace the NA-JV (S) PC board.	Page 110
01-02	Coin error2	• An abnormality in the Service switch.	• Contact your distributor.	
		• A NA-JV (S) PC board malfunction.	• Replace the NA-JV (S) PC board.	Page 110
01-03	Coin error3	• A coin counter malfunction.	• Contact your distributor.	
		• A NA-JV (S) PC board malfunction.	• Replace the NA-JV (S) PC board.	Page 110
02-06	Clock error1	• The time setting is incorrect.	• Contact your distributor.	
02-07	Clock error2	• A game PC board malfunction.		
03-01	I/O error1	• A connector is disconnected.	• Check the NA-JV (S) PC board connection.	Page 110
03-02	I/O error2	• A NA-JV (S) PC board malfunction.	• Replace the NA-JV (S) PC board.	Page 110
03-03	I/O error3			
08-01	ENVIRONMENT SENSOR error	• A connector is disconnected.	• Check the environment sensor connection.	Page 120
		• An environment sensor malfunction.	• Replace the environment sensor.	Page 120
19-10	USB DONGLE error1	• The USB dongle is not inserted.	• Insert the USB dongle for the Driver Cabinet. Then, turn the power off and then on again. If the same error repeats, contact your distributor.	Page 86
19-11	USB DONGLE error2	• The USB dongle for a different machine type is inserted.		
19-12	USB DONGLE error3	• The USB dongle malfunction.		
20-01	Version UP error1	• Version update failed.	• Turn the power off and execute the version update again.	Page 35
21-01	USB DONGLE mismatch1	• The USB dongle for the Wangan Terminal is inserted.	• Insert the USB dongle for the Driver Cabinet.	Page 86
24-01	Revision mismatch	• The software revisions of the Driver Cabinet and the Wangan Terminal do not match.	• Turn the power off and then on again, and execute the software update.	Page 63 (Wangan Terminal Operation Manual)

8B-3 Removing, Installing and Replacing Assemblies and Parts

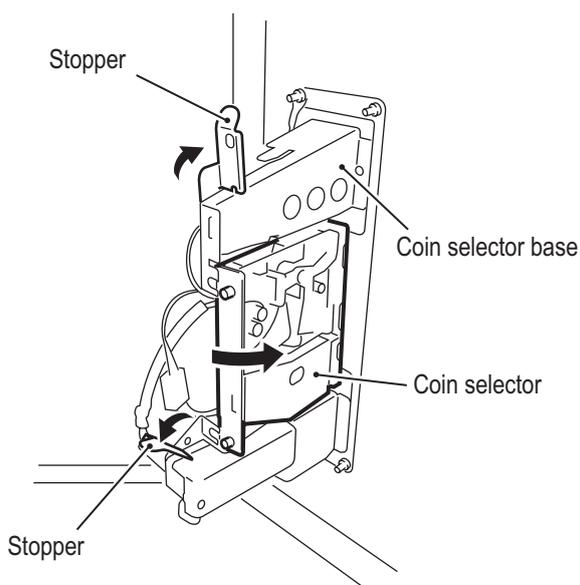
8B-3-1 Underbox Assembly - Must be performed by a technician -

(1) Replacing the Coin Selector

WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Use the supplied service key to open the service door. (See “7-5 Opening and Closing the Service Door” on page 30.)
- 3** Pull the two stoppers on the coin selector base toward you to unlock, and remove and replace the coin selector.



- 4** To install, perform the procedure in reverse.



- After replacement, insert a coin and check the operation of the coin switch. (See “7-8-6 (a) SWITCH TEST” on page 47.)

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Troubleshooting

Test Mode

Troubleshooting

8B. Service

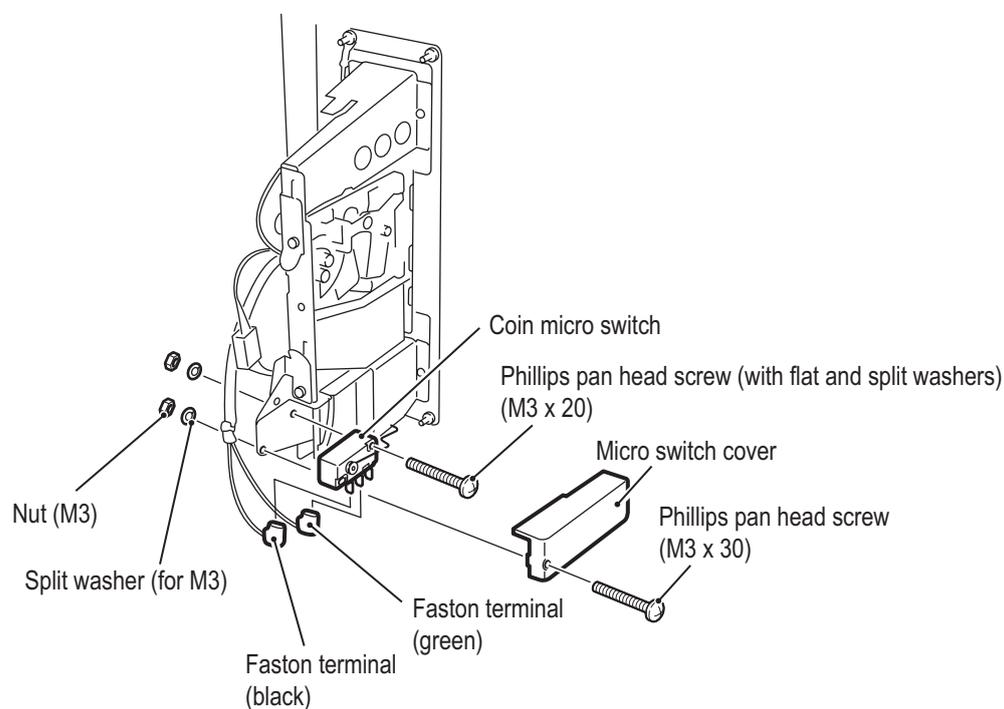
- Must be performed by a technician -

(2) Replacing the Coin Micro Switch

⚠ WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Use the supplied service key to open the service door. (See “7-5 Opening and Closing the Service Door” on page 30.)
- 3** Remove the Phillips pan head screw (M3 x 30), nut (M3) and split washer (for M3), and remove the micro switch cover.



- 4** Remove the Phillips pan head screw (M3 x 20), nut (M3) and split washer (for M3), disconnect the two Faston terminals, and replace the coin micro switch.
- 5** To install, perform the procedure in reverse.

NOTICE

- When installing, insert the micro switch terminals securely into the Faston terminals.
- When installing, be careful not to pinch the connectors and harness.
- There are two Faston terminals. When installing, refer to the figure above and connect the Faston terminals correctly.

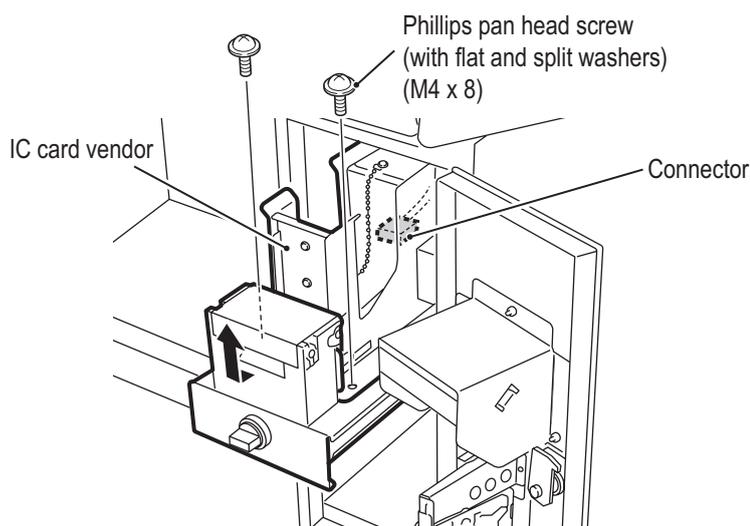
- Must be performed by a technician -

(3) Replacing the IC Card Vendor

! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Use the supplied service key to open the service door. (See "7-5 Opening and Closing the Service Door" on page 30.)
- 3** Press and turn the knob lock 180° degrees counter-clockwise to unlock, and then slowly pull out the IC card vendor. (See "7-10-1 Adding BANAPASSPORT Cards" in **2** on page 69.)
- 4** Remove any cards inside the IC card vendor. (See "7-10-1 Adding BANAPASSPORT Cards" on page 69.)
- 5** Remove the two Phillips pan head screws (with flat and split washers) (M4 x 8), disconnect the connector, pull out the IC card vendor toward you, and replace it.



- 6** To install, perform the procedure in reverse.

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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

8B. Service

- Must be performed by a technician -

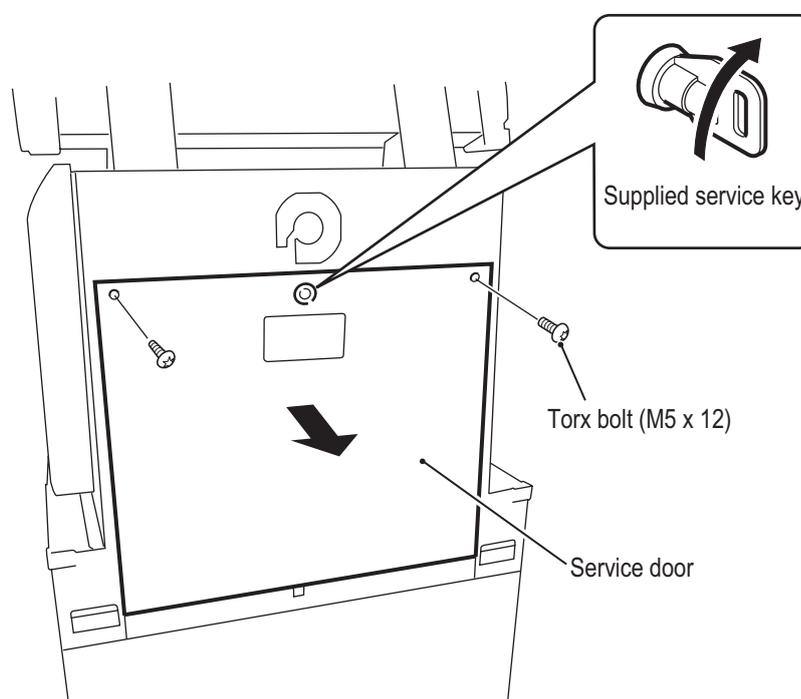
8B-3-2 Monitor Assembly - Must be performed by a technician -

(1) Removing and Installing the Service Door

WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Remove the two torx bolts (M5 x 12)
- 2** Use the supplied service key and remove the service door.



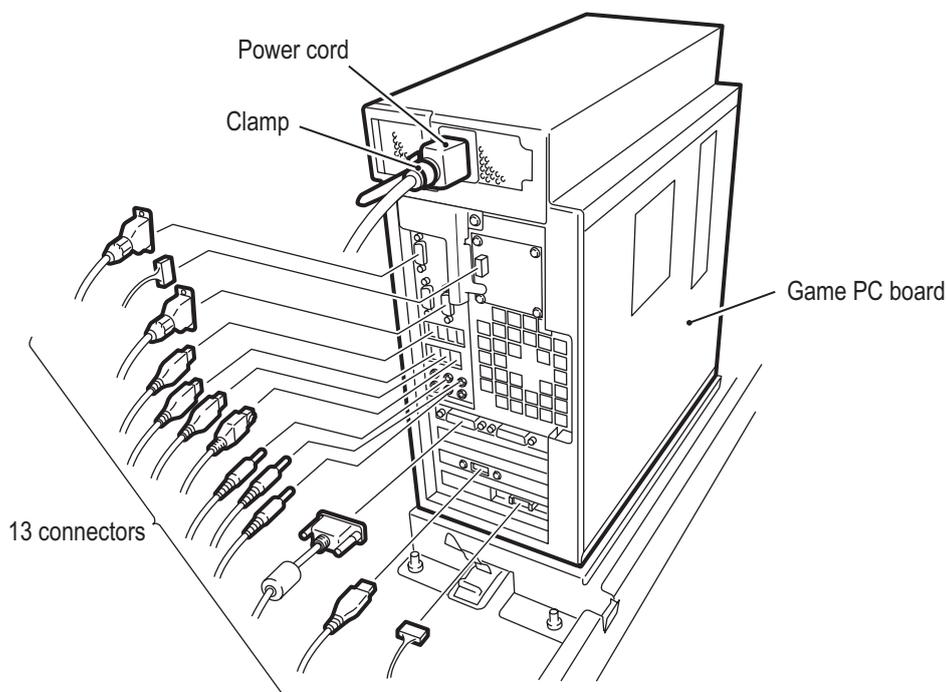
- 3** To install, perform the procedure in reverse.

(2) Replacing the Game PC Board

! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the service door. (See "8B-3-2 (1) Removing and Installing the Service Door" on page 106.)
- 3** Disconnect the LAN cable. (See "8A-4 Connecting the LAN Cables" on page 83.)
- 4** Remove the clamp, and remove the power cord of the game PC board.
- 5** Disconnect the 13 connectors.



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Removing and Installing Assemblies and Parts

Test Mode

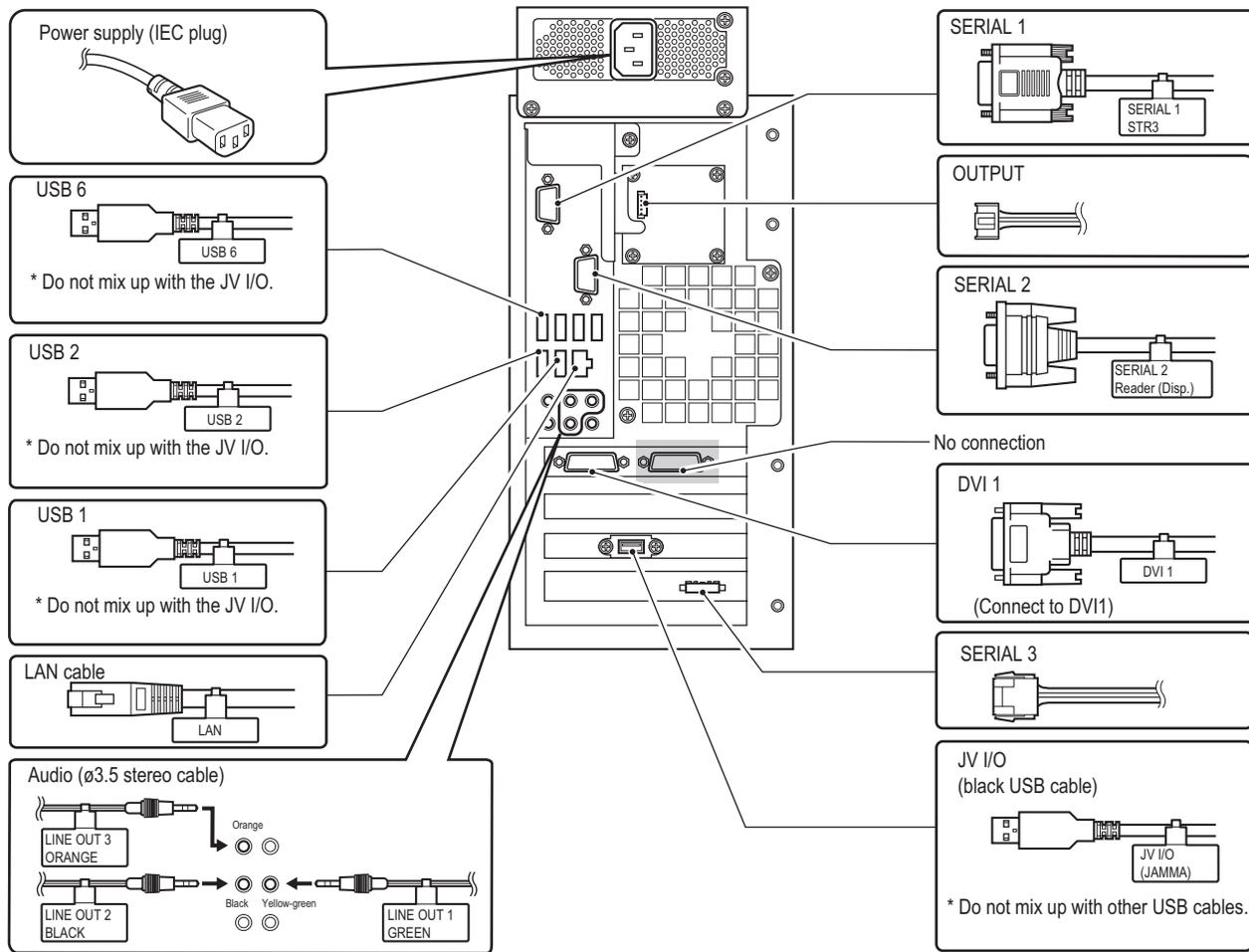
Troubleshooting

8B. Service

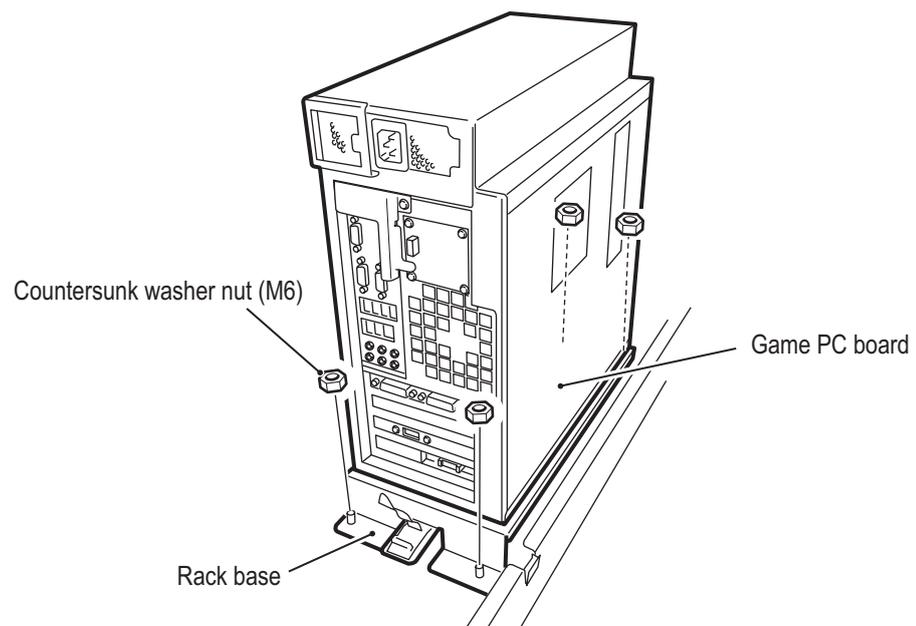
- Must be performed by a technician -



- When installing, follow the indications on the game PC board, and connect the connectors correctly.

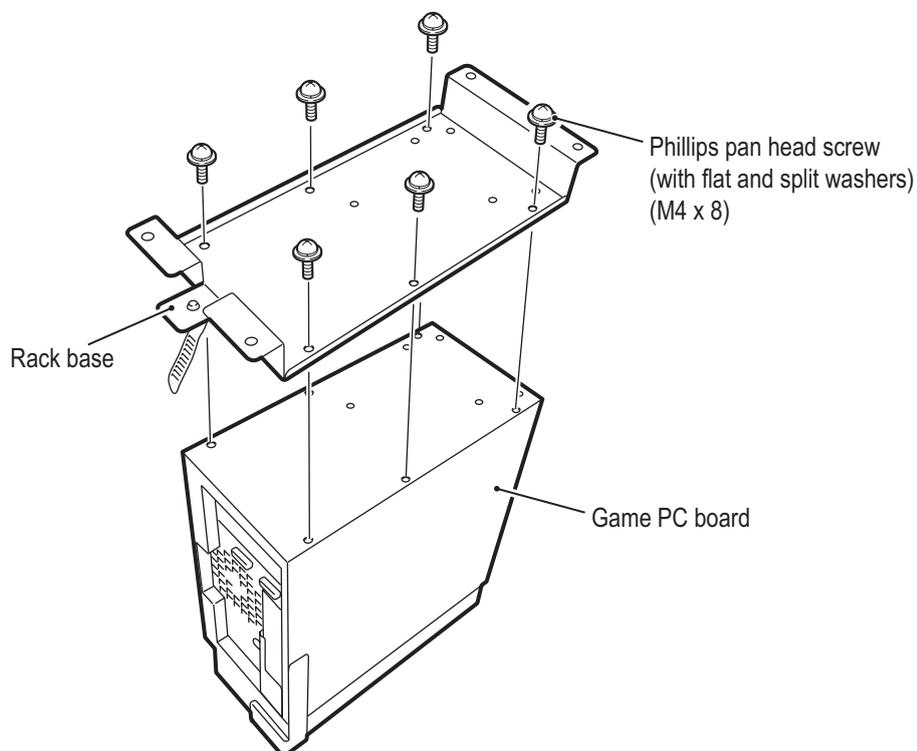


- 6 Remove the four countersunk washer nuts (M6), and remove the PC board together with the rack base.

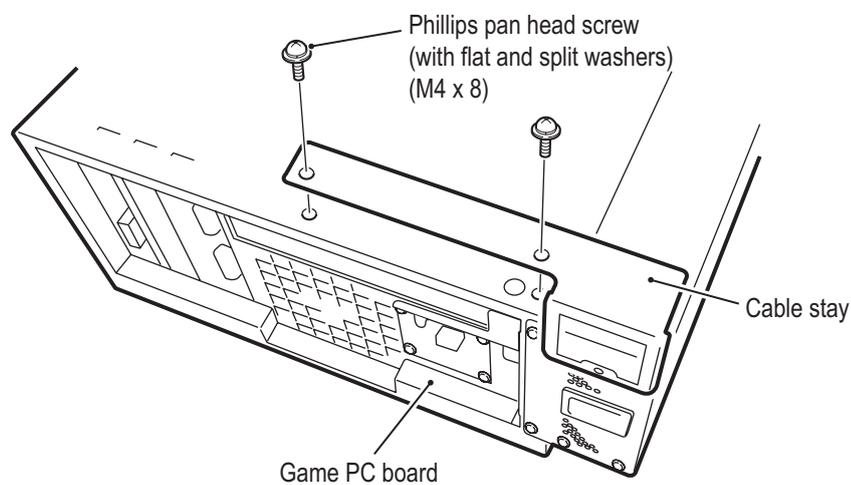


- Must be performed by a technician -

- 7** Remove the six Phillips pan head screws (with flat and split washers) (M4 x 8), and remove the rack base.



- 8** Remove the two Phillips pan head screws (with flat and split washers) (M4 x 8), and remove the cable stay.



- 9** Replace the game PC board, and then install the rack base and game PC board by reversing the procedure.



NOTICE

- When the game PC board is replaced, the Test mode settings are all cleared. Make the volume settings and initialize the analog interfaces. (See "7-8 Test Mode" on page 38.)

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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

8B. Service

- Must be performed by a technician -

(3) Replacing the NA-JV (S) PC Board

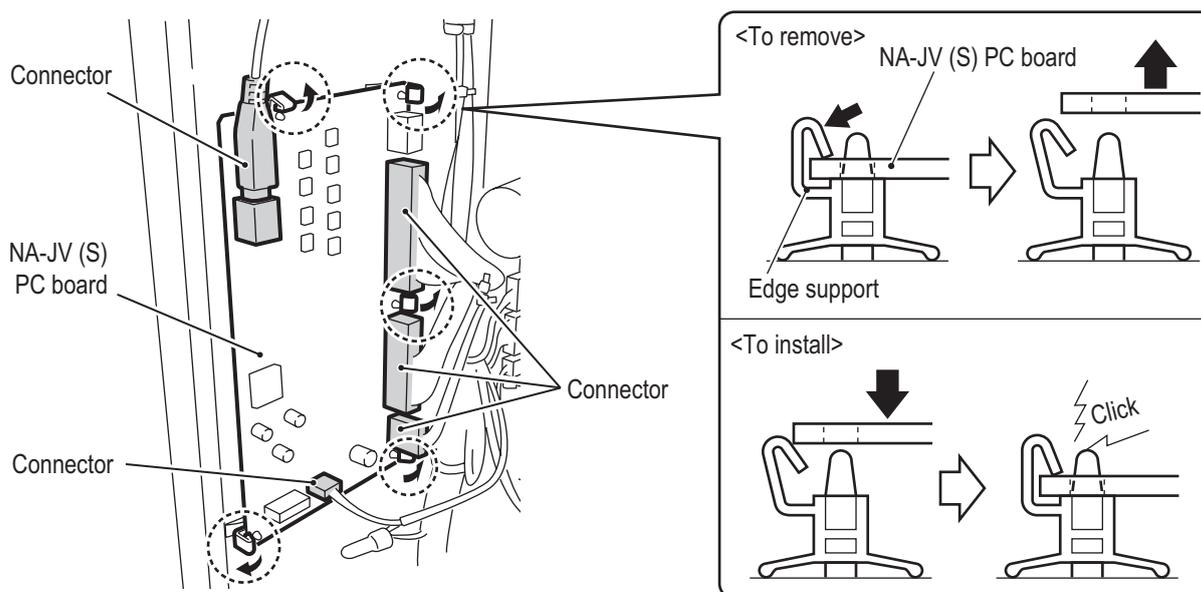
⚠ WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

NOTICE

- PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the service door. (See “8B-3-2 (1) Removing and Installing the Service Door” on page 106.)
- 3** Disconnect the five connectors from the NA-JV (S) PC board located on the left side inside the monitor assembly.
- 4** Open the levers at the tips of the five edge supports, and replace the NA-JV (S) PC board.



- 5** To install, align the holes of the NA-JV (S) PC board with the edge supports, and press in the PC board firmly until it clicks into place.

NOTICE

- After replacement, be sure to check the NA-JV (S) PC board connections. (See “7-8-6 Input/Output Test of Switches (I/O TEST)” on page 46.)

- Must be performed by a technician -

(4) Replacing the STR3 PC Board

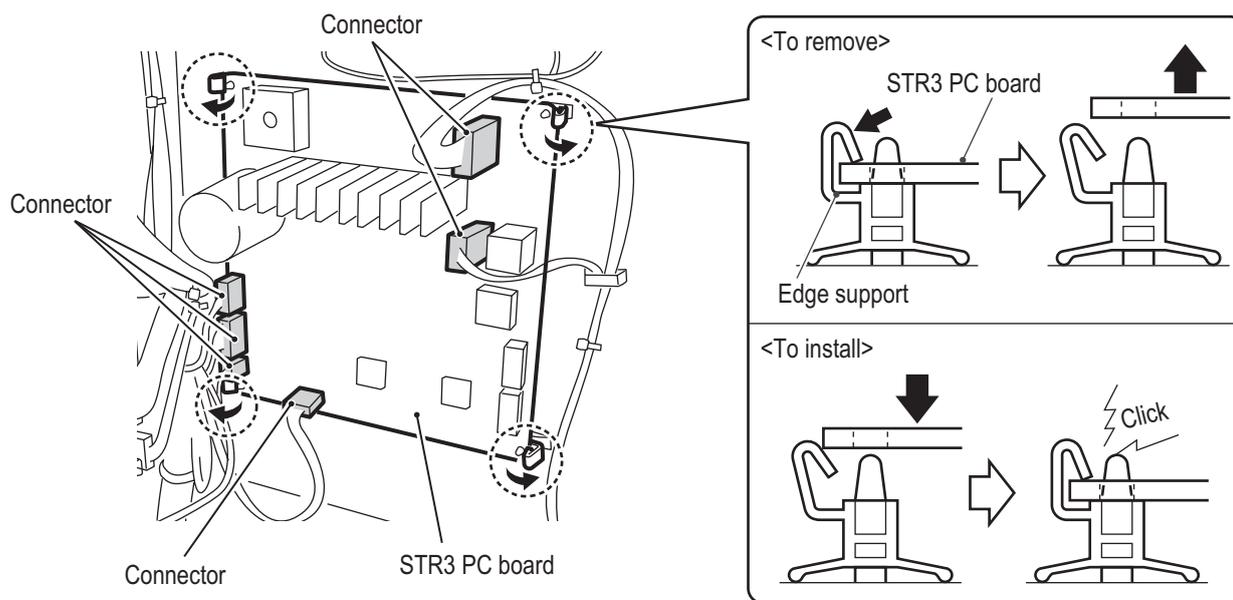
! WARNING

● To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

NOTICE

● PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the service door. (See “8B-3-2 (1) Removing and Installing the Service Door” on page 106.)
- 3** Disconnect the six connectors.
- 4** Open the levers at the tips of the four edge supports, and replace the STR3 PC board.



- 5** To install, align the holes of the STR3 PC board with the edge supports, and press in the PC board firmly until it clicks into place.

NOTICE

● After replacement, be sure to check the steering operation. (See “7-9 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)” on page 68.)

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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

8B. Service

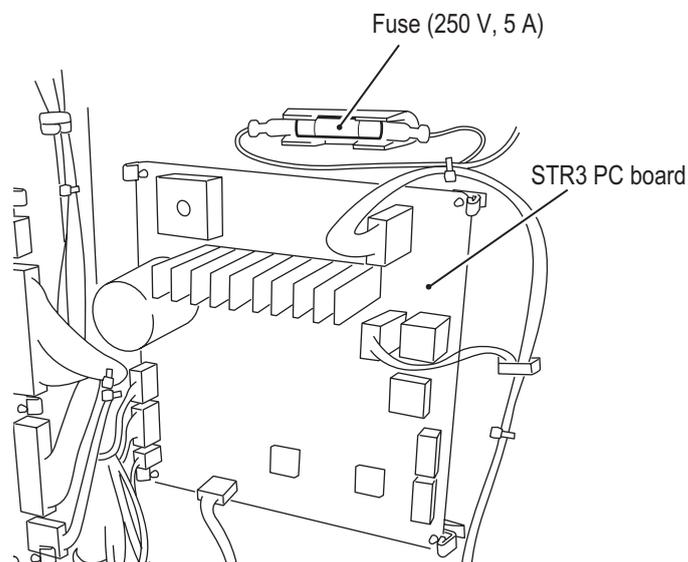
- Must be performed by a technician -

(5) Replacing the STR3 PC Board Fuse

WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.
- Never use a fuse other than the specified type (250 V, 5 A). Use of a different fuse may result in fire. The fuse must be installed to prevent fire and accidents. To order a fuse, contact your distributor.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the service door. (See “8B-3-2 (1) Removing and Installing the Service Door” on page 106.)
- 3** Replace the fuse (250 V, 5 A).

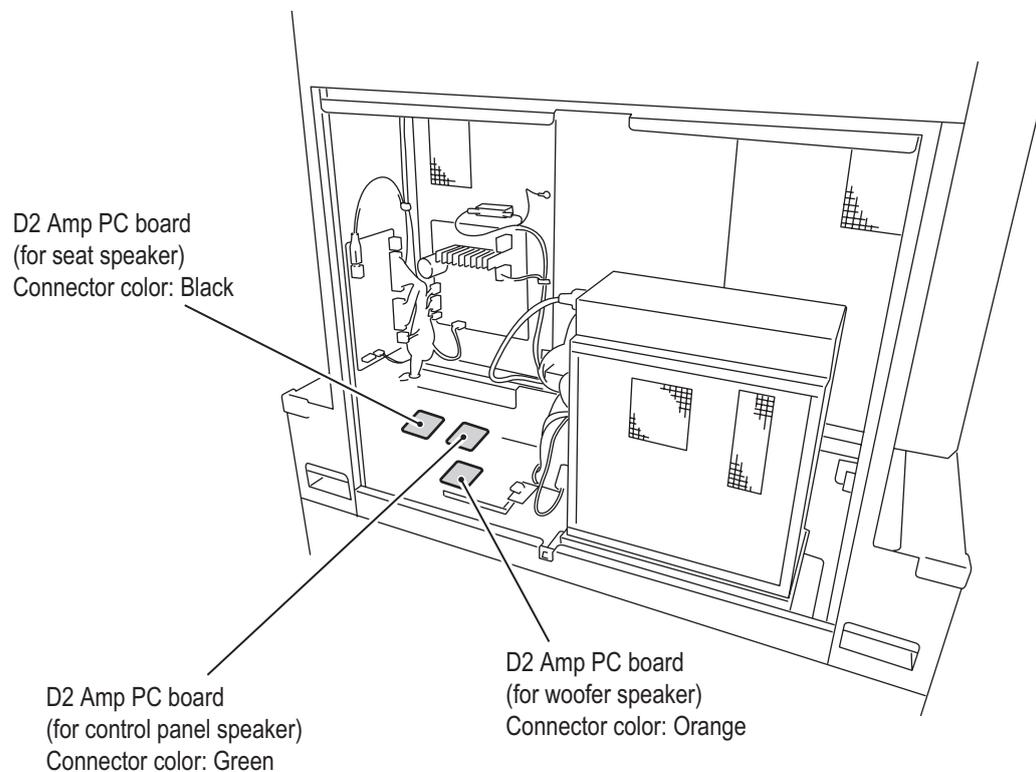


- 4** To install, reverse the procedure in steps **1** and **2**.

- Must be performed by a technician -

(6) Replacing the D2 Amp PC Boards

This machine uses three D2 Amp PC boards.
Refer to the procedure on the following page, and replace the D2 Amp PC board that corresponds to the malfunction location.



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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

8B. Service

- Must be performed by a technician -

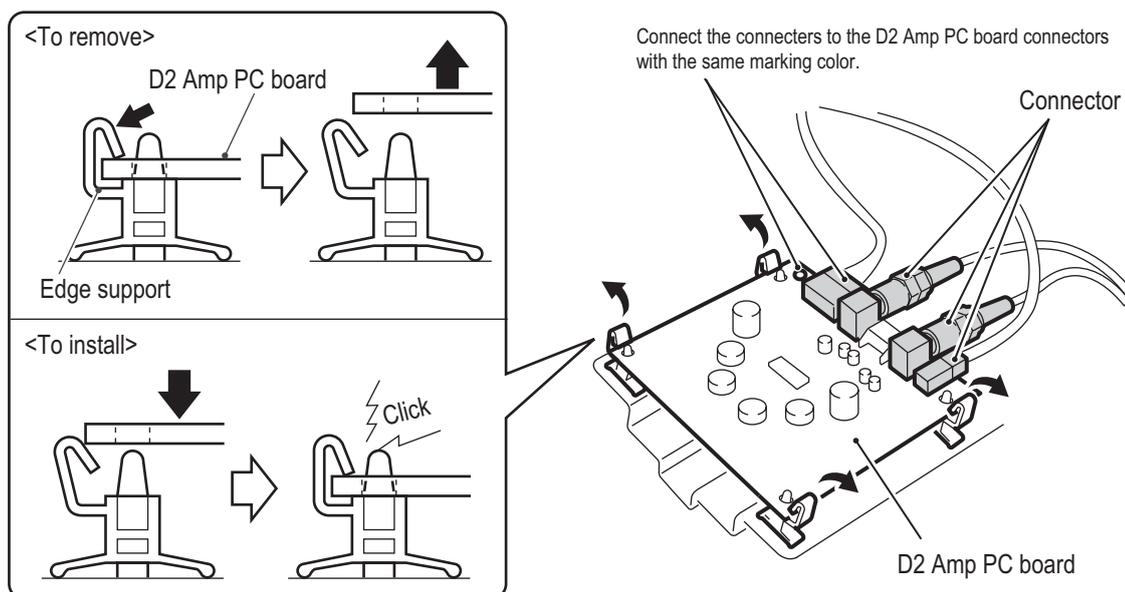
WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

NOTICE

- PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the service door. (See “8B-3-2 (1) Removing and Installing the Service Door” on page 106.)
- 3** Disconnect the four connectors.
- 4** Open the levers at the tips of the four edge supports, and replace the D2 Amp PC board.



- 5** To install, align the holes of the D2 Amp PC board with the edge supports, and press in the PC board firmly until it clicks into place.

NOTICE

- After replacement, be sure to check the D2 Amp PC board connections. (See “7-8-8 Volume Adjustment (SOUND TEST)” on page 51.)

- Must be performed by a technician -

(7) Replacing the DOT ONE PC Board

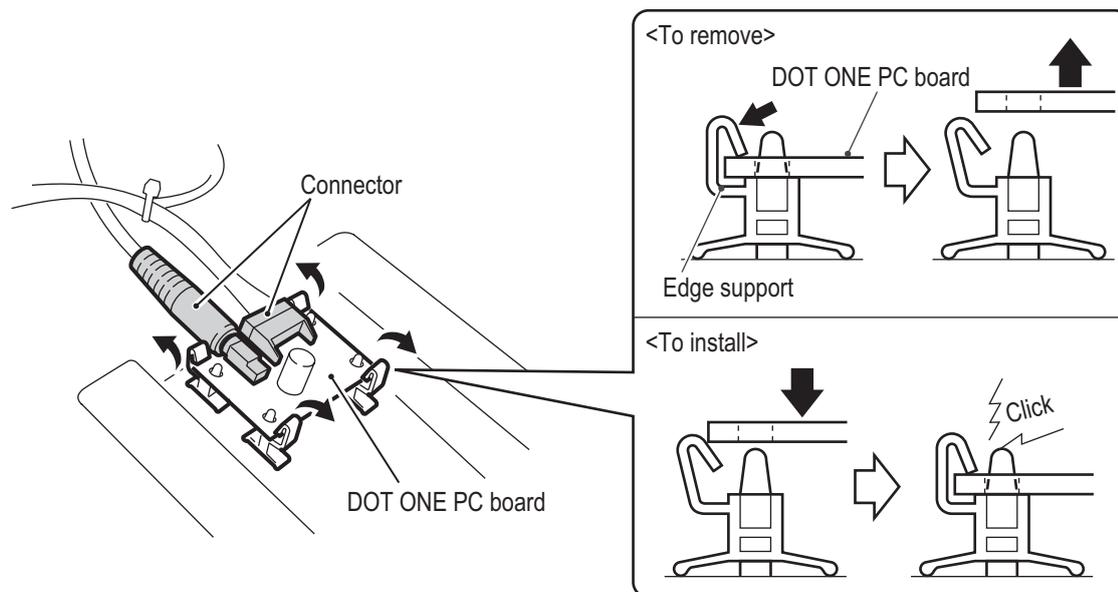
! WARNING

● To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

NOTICE

● PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge any static electricity; for example, by touching the surface of grounded metal.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the service door. (See “8B-3-2 (1) Removing and Installing the Service Door” on page 106.)
- 3** Remove the D2 Amp PC board. (See “8B-3-2 See “(6) Replacing the D2 Amp PC Boards” on page 113.)
- 4** Disconnect the two connectors.
- 5** Open the levers at the tips of the four edge supports, and replace the DOT ONE PC board.



- 6** To install, align the holes of the DOT ONE PC board with the edge supports, and press in the PC board firmly until it clicks into place.

NOTICE

● After replacement, be sure to check the DOT ONE PC board connections. (See “7-8-8 Volume Adjustment (SOUND TEST)” on page 51.)

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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

8B. Service

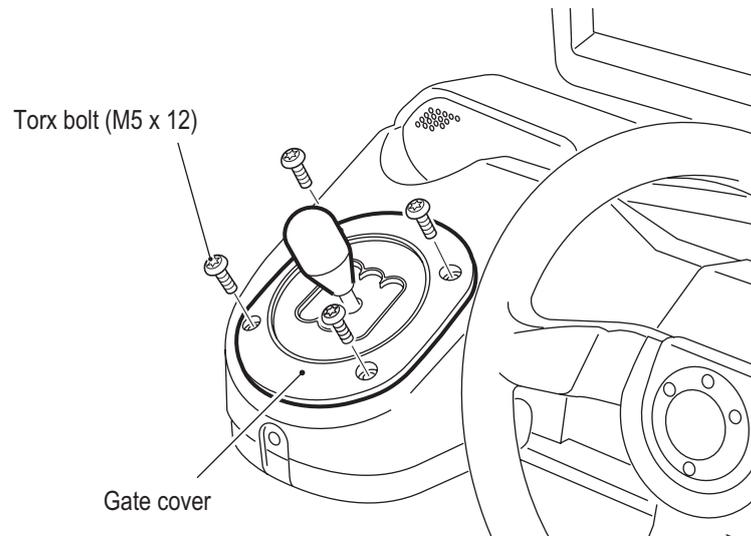
- Must be performed by a technician -

(8) Removing and Installing the Control Panel

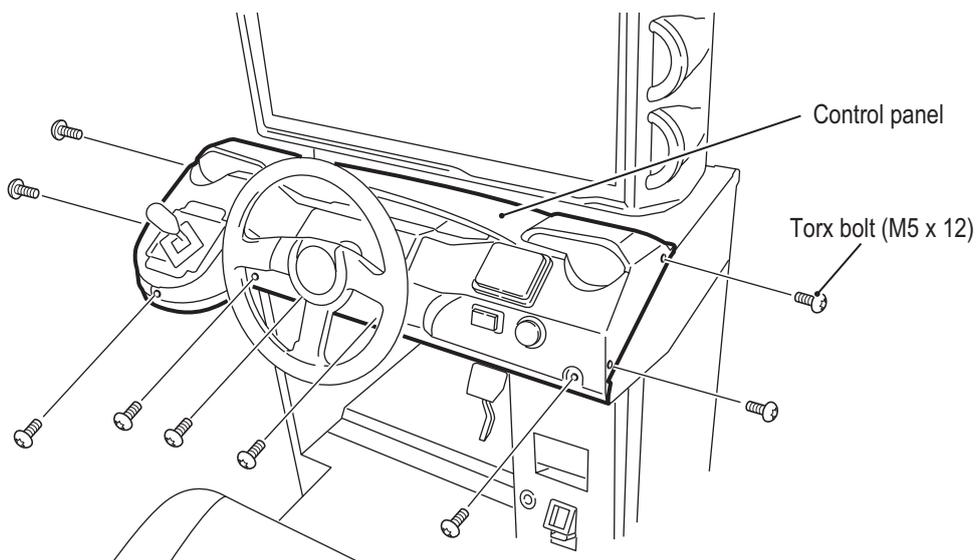
WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the four torx bolts (M5 x 12), and remove the gate cover.

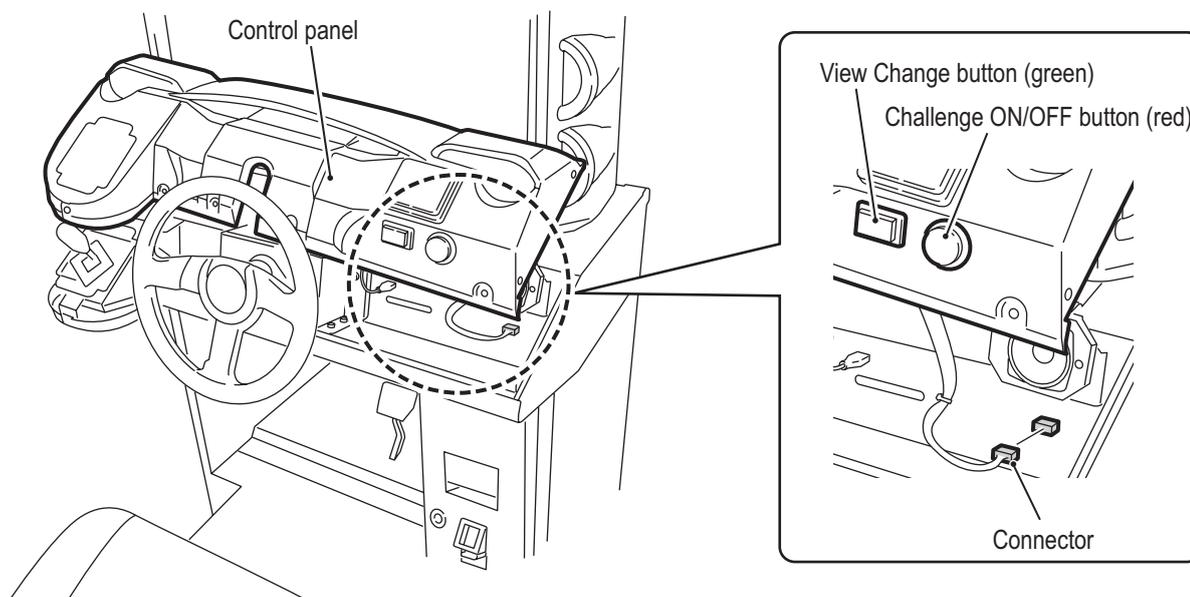


- 3** Remove the two torx bolts (M5 x 12)



- Must be performed by a technician -

4 Disconnect the connector on the back side of the control panel, and remove the control panel.



5 To install, perform the procedure in reverse.

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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

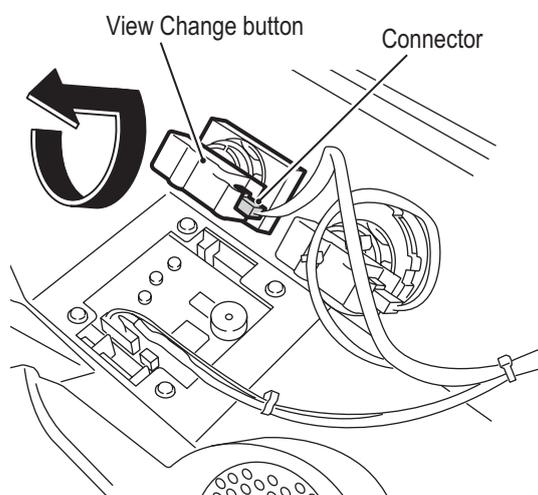
- Must be performed by a technician -

(9) Replacing the View Change Button, Challenge ON/OFF Button, and LEDs

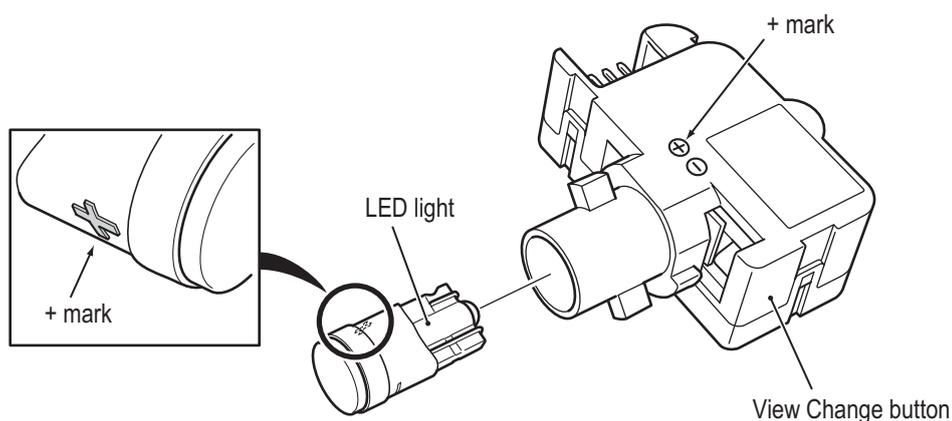
! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the control panel. (See “8B-3-2 (8) Removing and Installing the Control Panel” on page 116.)
- 3** Rotate the View Change button counter-clockwise to unlock, and remove the View Change button.



- 4** Remove the LED from the View Change button, and replace the malfunctioned part.
* The LED have a polarity. Align the + marks on the LED and the button for installation.



- 5** To install, perform the procedure in reverse.
* Follow the same procedure for replacement of the Challenge ON/OFF button and LED.

NOTICE

- Be careful of the LED polarity when installing the LED.
- After replacement, be sure to check the button operation and LED lighting. (See “7-8-6 Input/Output Test of Switches (I/O TEST)” on page 46.)

(10) Replacing the BANAPASSPORT Card Reader/Writer

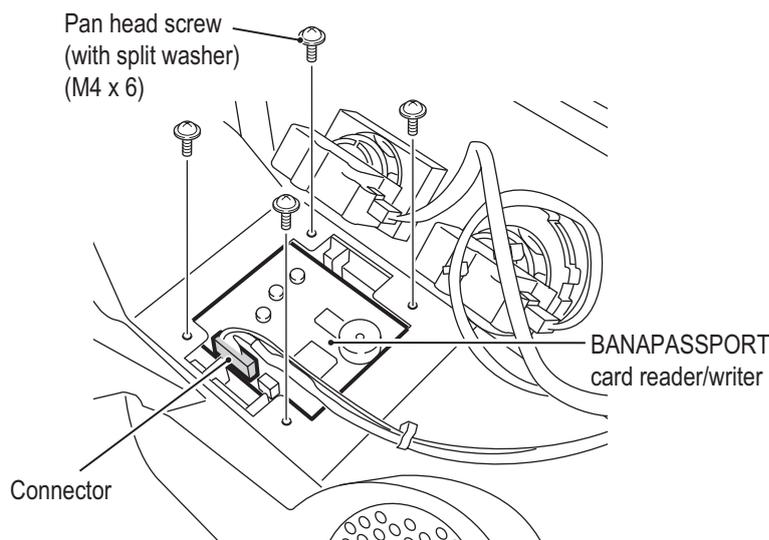
! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

NOTICE

- PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the control panel. (See “8B-3-2 (8) Removing and Installing the Control Panel” on page 116.)
- 3** Disconnect the connector.
- 4** Remove the four Phillips pan head screws (with split washer) (M4 x 6), and remove the BANAPASSPORT card reader/writer.



- 5** To install, perform the procedure in reverse.

NOTICE

- After replacement, be sure to check the BANAPASSPORT card reader/writer operation. (See “7-8-9 (b) IC CARD R/W HARDWARE TEST” on page 56.)

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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

8B. Service

- Must be performed by a technician -

(11) Replacing the Environment Sensor

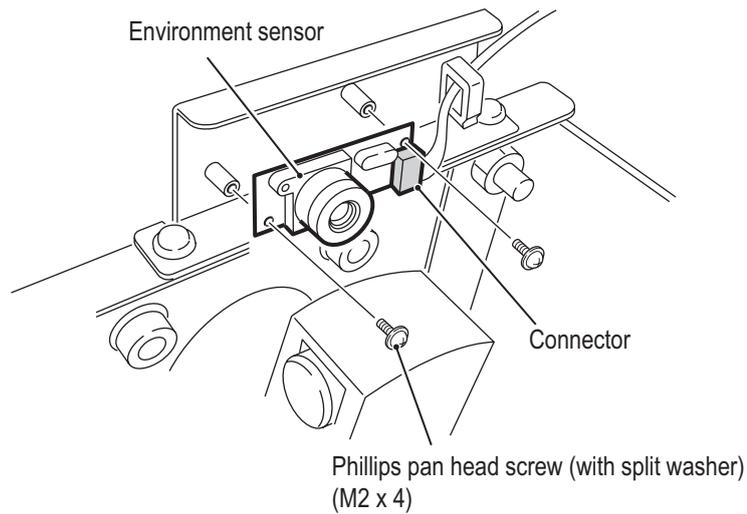
⚠ WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

NOTICE

- PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the control panel. (See "8B-3-2 (8) Removing and Installing the Control Panel" on page 116.)
- 3** Disconnect the connector.
- 4** Remove the two Phillips pan head screws (with split washer) (M2 x 4), and replace the environment sensor.



- 5** To install, perform the procedure in reverse.

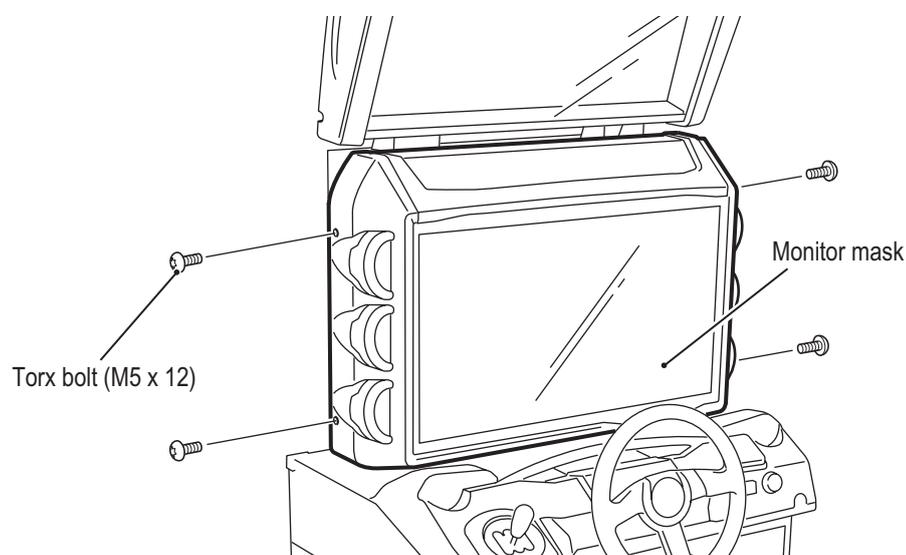
- Must be performed by a technician -

(12) Removing and Installing the Monitor Mask

! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.
- The monitor mask weighs approximately 10 kg. To prevent accidents when removing the monitor mask, use 2 or more people and secure sufficient work space.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the four torx bolts (M5 x 12)



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Removing and Installing Assemblies and Parts

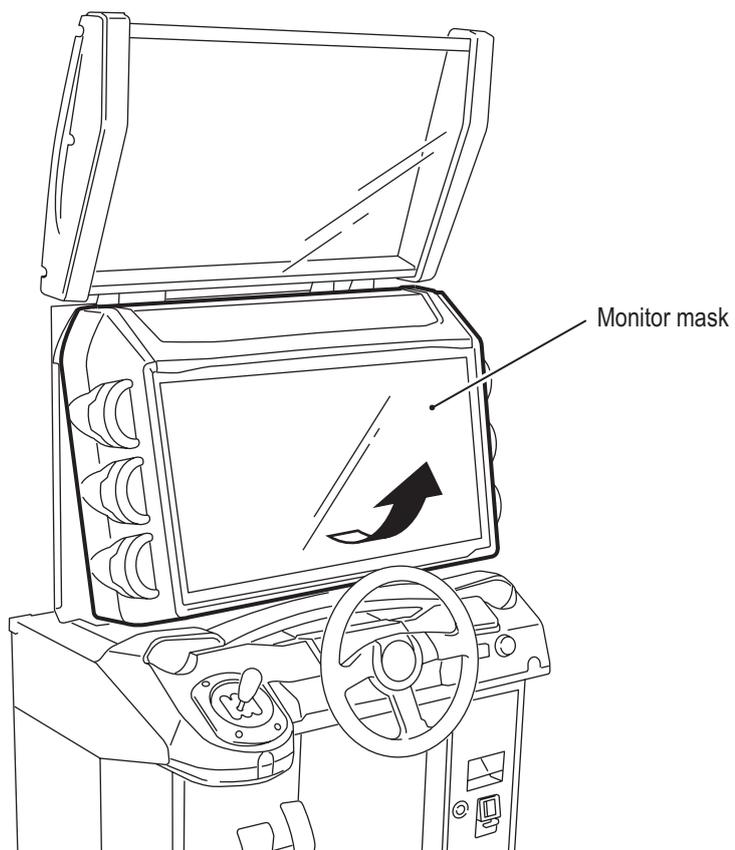
Test Mode

Troubleshooting

8B. Service

- Must be performed by a technician -

- 3** Move the bottom of the monitor mask toward you, and remove the monitor mask.



- 4** To install, perform the procedure in reverse.

(13) Replacing the squid ring PC Board

This machine uses six squid ring PC boards.
Refer to the procedure below, and replace the squid ring PC board that corresponds to the malfunction location.

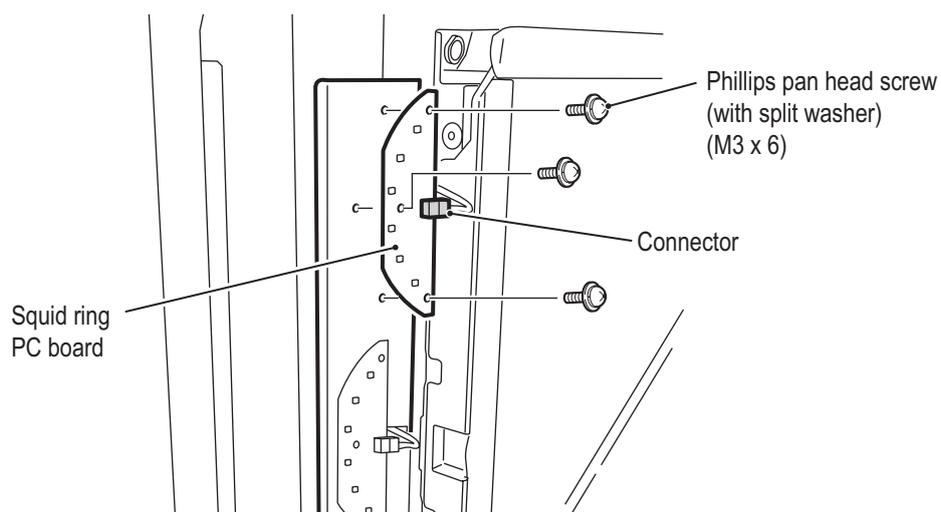
! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

NOTICE

- PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

- 1** Remove the monitor mask. (See "8B-3-2 (12) Removing and Installing the Monitor Mask" on page 121.)
- 2** Disconnect the connector.
- 3** Remove the three Phillips pan head screws (with split washer) (M3 x 6), and remove the squid ring PC board.



- 4** To install, perform the procedure in reverse.

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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

8B. Service

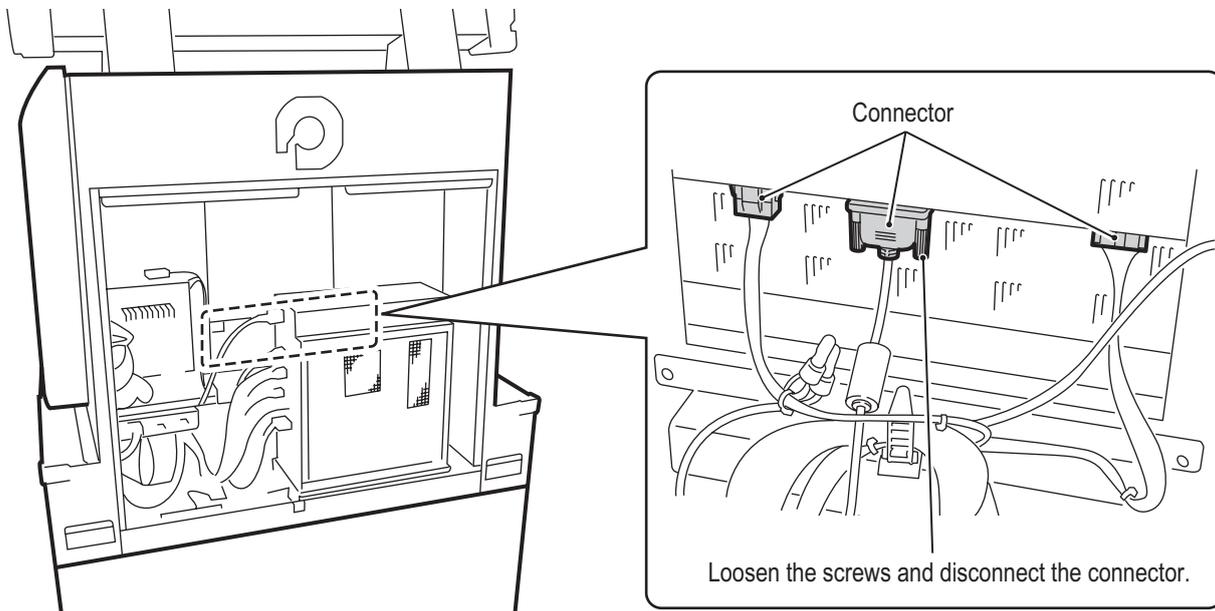
- Must be performed by a technician -

(14) Replacing the LCD Monitor

WARNING

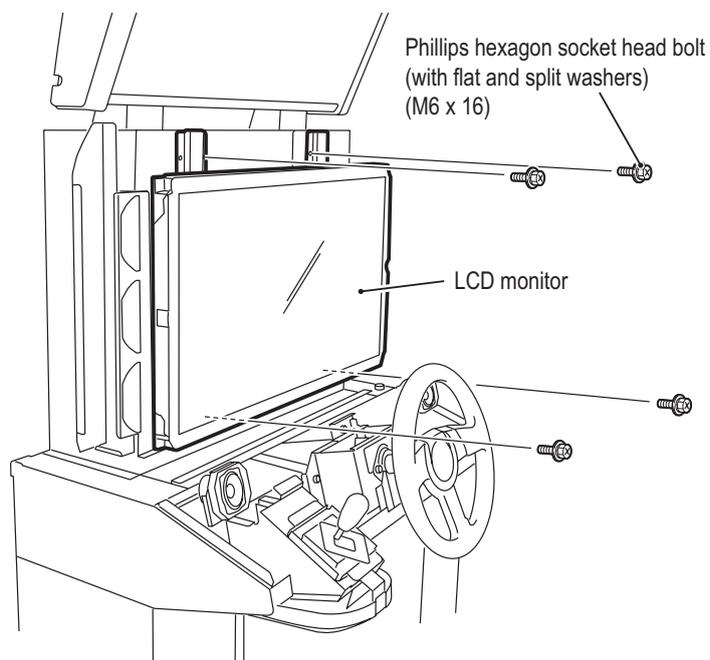
- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the service door. (See “8B-3-2 (1) Removing and Installing the Service Door” on page 106.)
- 3** Remove the game PC board. (See “8B-3-2 (2) Replacing the Game PC Board” on page 107.)
- 4** Disconnect the three connectors.

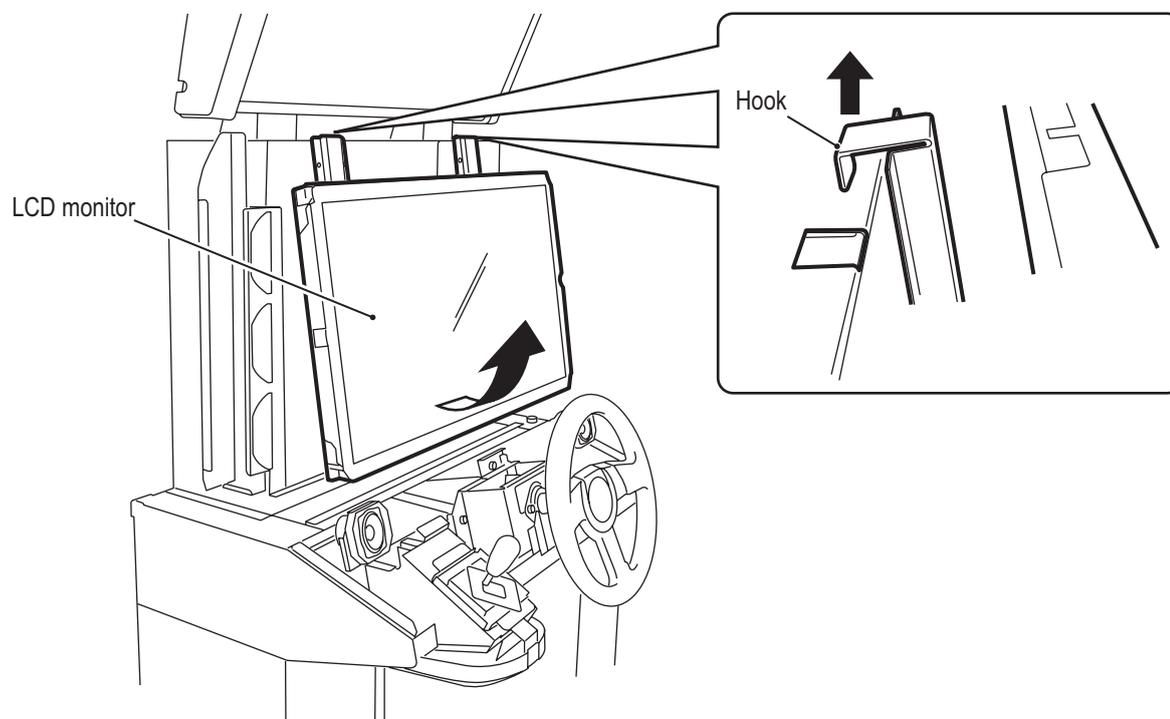


- Must be performed by a technician -

- 5** Remove the monitor mask. (See "8B-3-2 (12) Removing and Installing the Monitor Mask" on page 121.)
- 6** Remove the control panel. (See "8B-3-2 (8) Removing and Installing the Control Panel" on page 116.)
- 7** Remove the four Phillips hexagon socket head bolts (with flat and split washers) (M6 x 16).



- 8** There are two hooks on top of the LCD monitor. Pull the bottom of the LCD monitor in the direction indicated slightly, and lift up and remove the LCD monitor.



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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

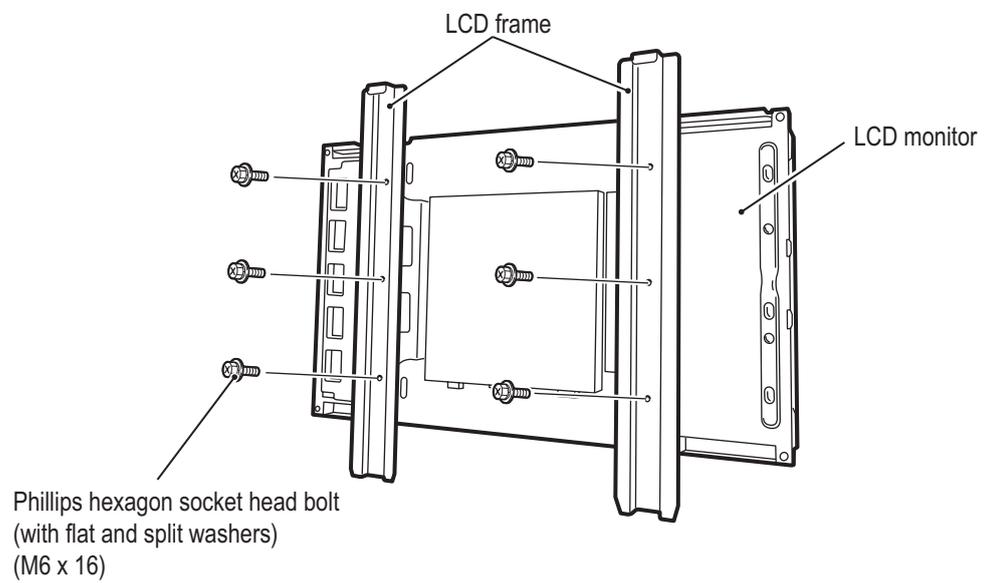
8B. Service

- Must be performed by a technician -

- 9 Remove the six Phillips hexagon socket head bolts (with flat and split washers) (M6 x 16), remove the LCD frames, and replace the LCD monitor.



- Lay a sheet over a flat surface such as a table or the floor, and place the LCD monitor face down on this sheet to prevent damaging the LCD monitor surface while performing the work.



- 10 To install, perform the procedure in reverse.

- Must be performed by a technician -

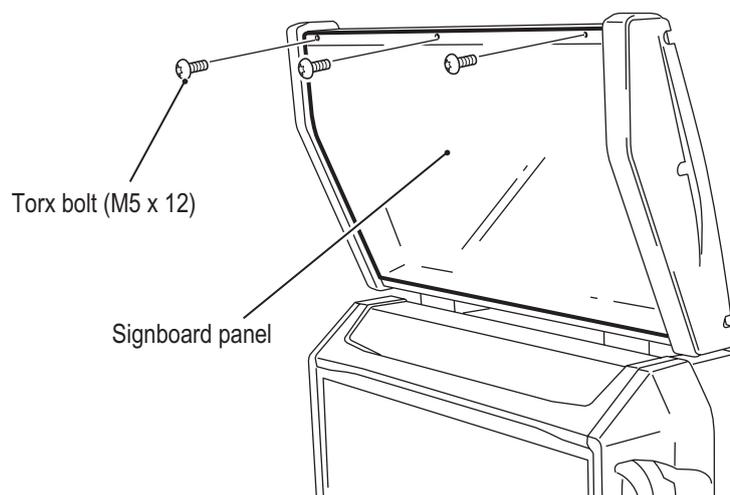
8B-3-3 Signboard Assembly - Must be performed by a technician -**(1) Replacing the LED Bar****! WARNING**

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

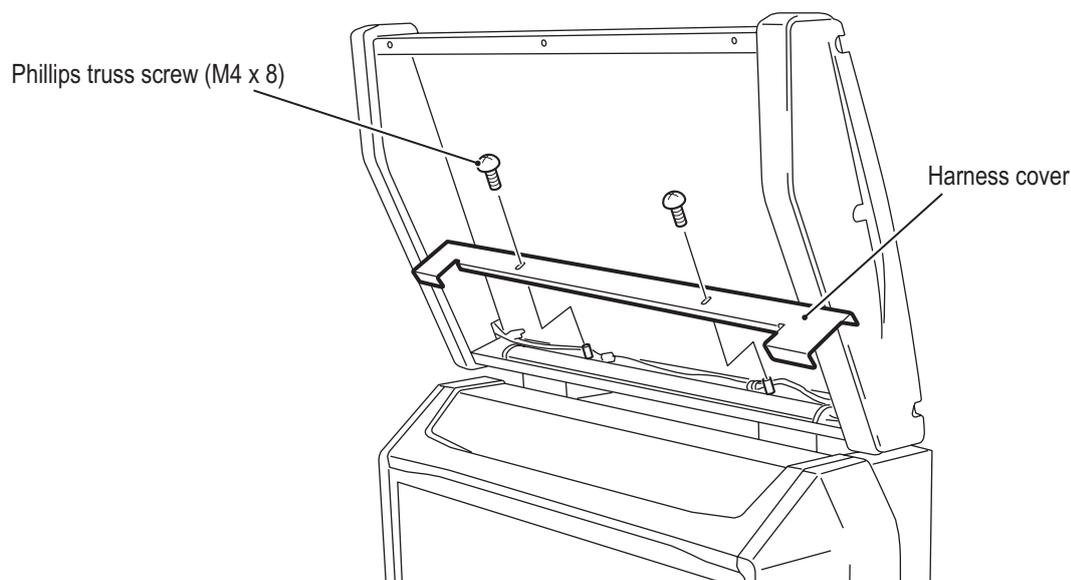
NOTICE

- PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the three torx bolts (M5 x 12), and remove the signboard panel.



- 3** Remove the two Phillips truss screws (M4 x 8), and remove the harness cover.



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Removing and Installing Assemblies and Parts

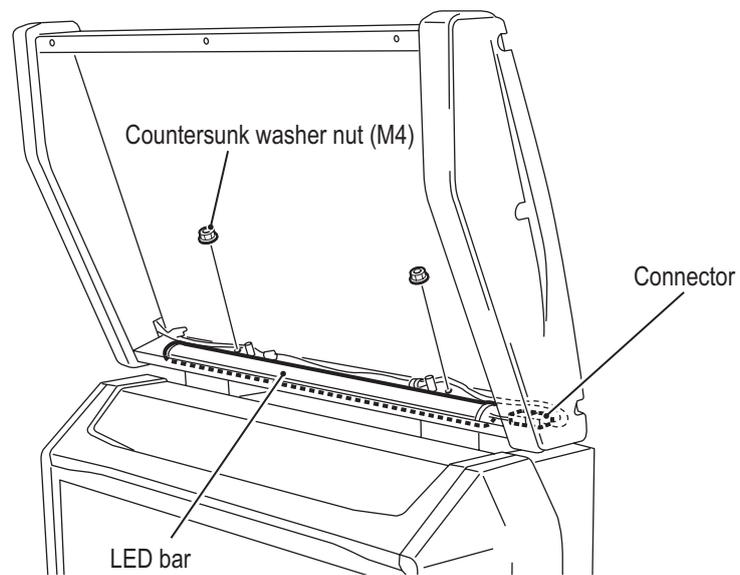
Test Mode

Troubleshooting

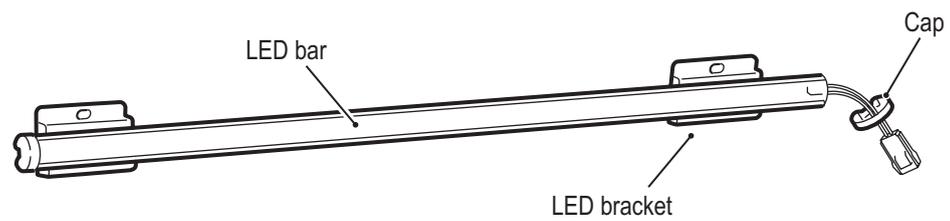
8B. Service

- Must be performed by a technician -

- 4** Remove the two countersunk washer nuts (M4), disconnect the connector, and remove the LED bar together with the LED brackets.



- 5** Remove the cap on the harness side of the LED bar, slide off the two LED brackets, and replace the LED bar.



- 6** To install, perform the procedure in reverse.

- Must be performed by a technician -

(2) Replacing the LED PC Board

This machine uses six LED PC boards.

Refer to the procedure below, and replace the LED PC board that corresponds to the malfunction location.

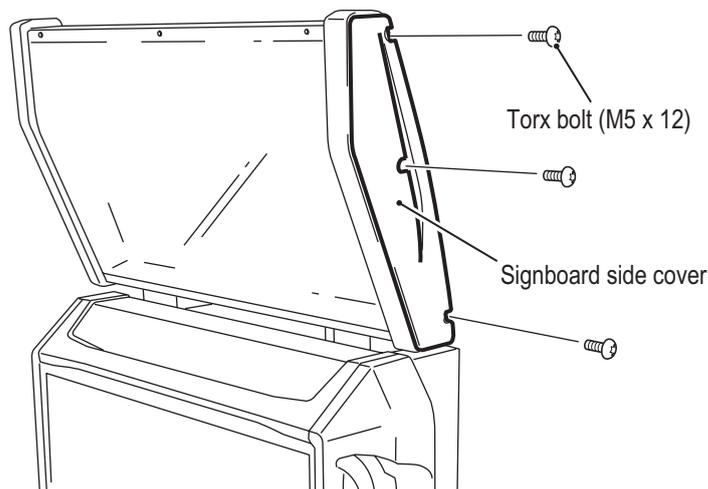
! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

NOTICE

- PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the three torx bolts (M5 x 12), and remove the signboard side cover.



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Removing and Installing Assemblies and Parts

Test Mode

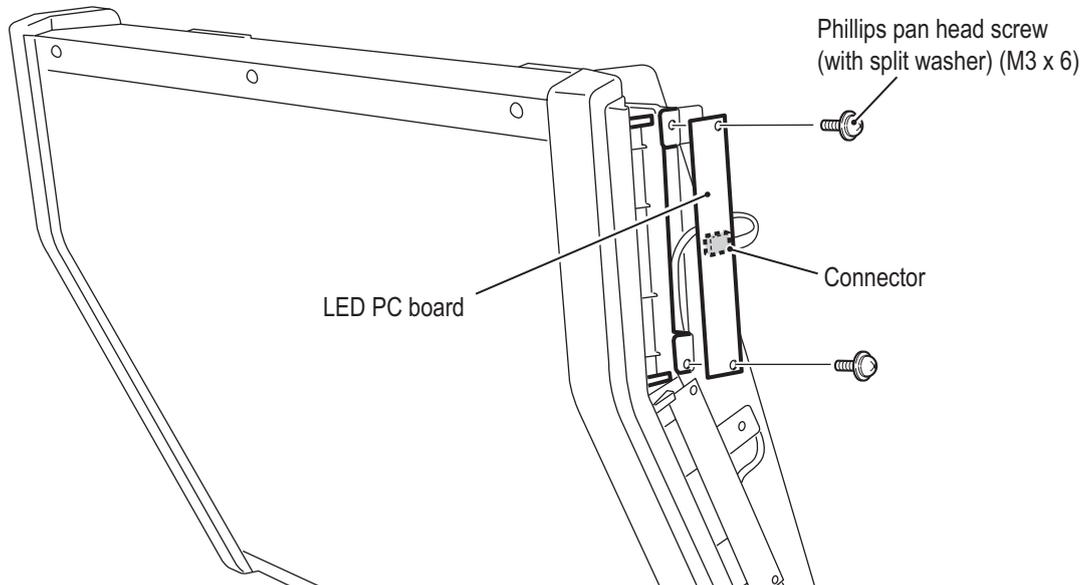
Troubleshooting

8B. Service

- Must be performed by a technician -

3 Disconnect the connector.

4 Remove the two Phillips pan head screws (with split washer) (M3 x 6), and remove the LED PC board



5 To install, perform the procedure in reverse.

- Must be performed by a technician -

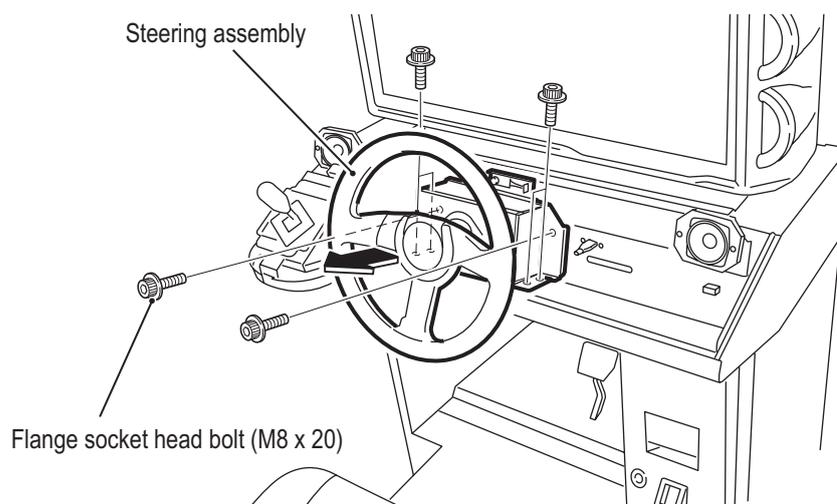
8B-3-4 Steering Assembly - Must be performed by a technician -**(1) Removing and Installing the Steering Assembly****! WARNING**

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

! CAUTION

- The steering assembly weighs approximately 12 kg. Perform the work carefully, as dropping the steering assembly may result in an injury.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the control panel. (See "8B-3-2 (8) Removing and Installing the Control Panel" on page 116.)
- 3** Remove the six flange socket head bolts (M8 x 20), and pull out the steering assembly toward the front.



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Removing and Installing Assemblies and Parts

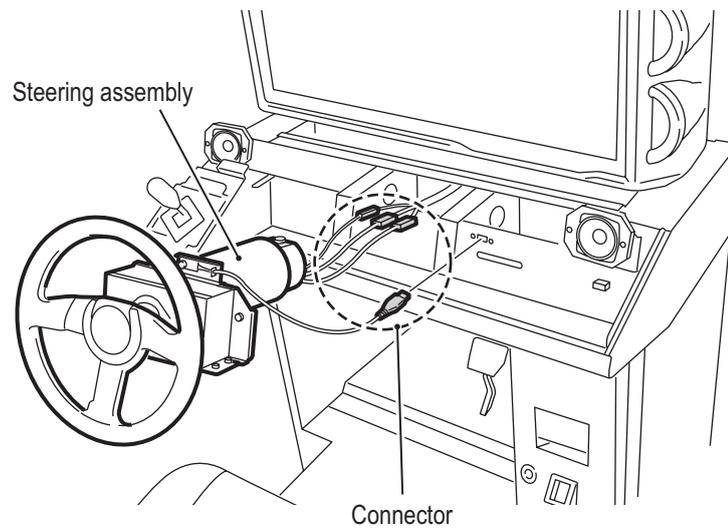
Test Mode

Troubleshooting

8B. Service

- Must be performed by a technician -

- 4 Disconnect the four connectors, and remove the steering assembly.



- NOTICE**
- The analog interface is easily damaged, so be careful not to bump the analog interface when removing the steering assembly.
- 5 To install, perform the procedure in reverse.
- NOTICE**
- After replacement, be sure to check the steering operation. (See “7-9 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)” on page 68.)

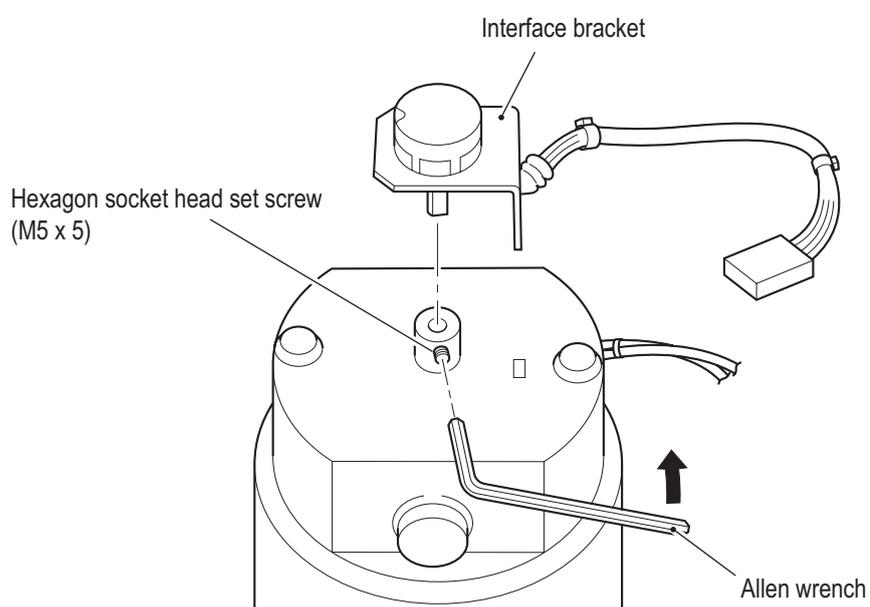
- Must be performed by a technician -

(2) Replacing the Steering Assembly Analog Interface

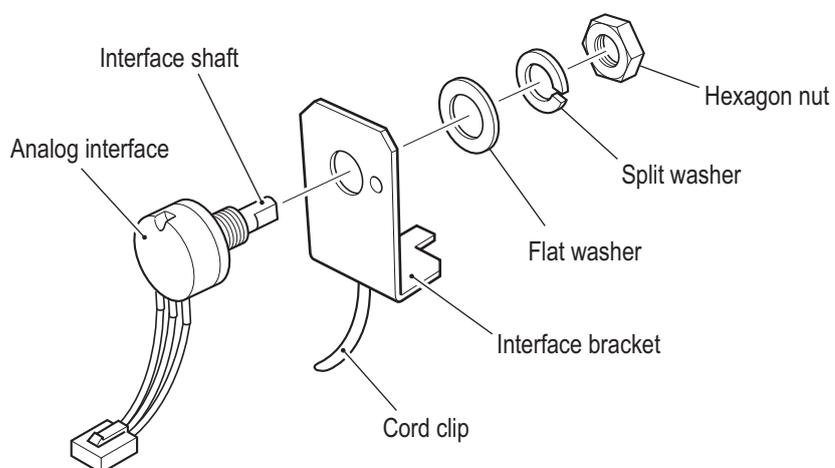
! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the steering assembly. (See "8B-3-4 (1) Removing and Installing the Steering Assembly" on page 131.)
- 3** Loosen the hexagon socket head set screw (M5 x 5), and remove the analog interface together with the interface bracket.



- 4** Remove the cord clips wrapped around the harness, and remove the analog interface from the interface bracket.



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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

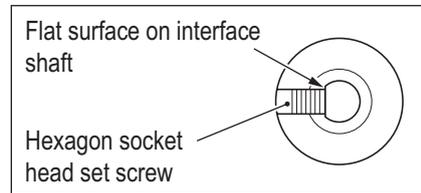
8B. Service

- Must be performed by a technician -

- 5** Replace the analog interface.



- When installing the analog interface, align the flat surface of the interface shaft with the position of the hexagon socket head set screw.



- 6** To install, perform the procedure in reverse.



- After replacement, be sure to check the steering operation.
(See “7-9 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)” on page 68.)

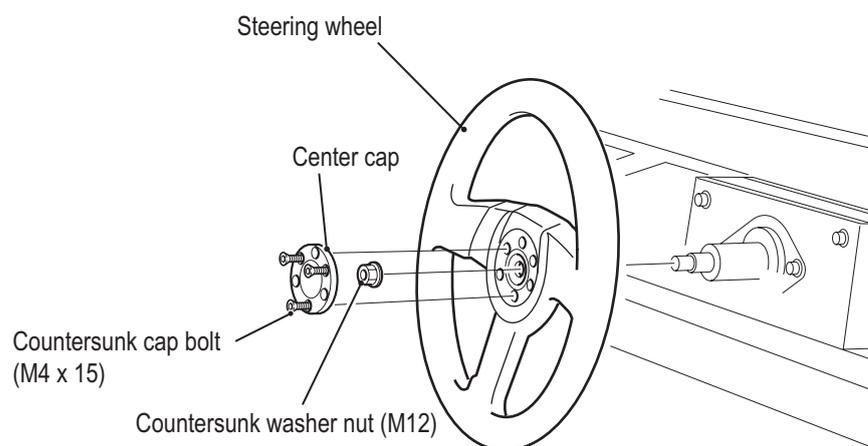
- Must be performed by a technician -

(3) Removing and Installing the Steering Wheel

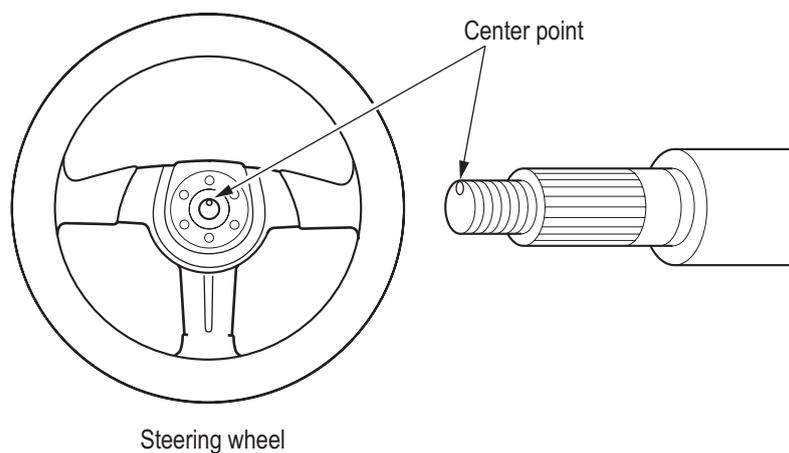
! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Remove the three countersunk cap bolts (M4 x 15), and remove the center cap.
- 2** Remove the countersunk washer nut (M12), and remove the steering wheel.



- 3** To install, perform the procedure in reverse. When installing, make sure that the both the top of the steering wheel and the center point are facing directly upward.



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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

- Must be performed by a technician -

(4) Replacing the Steering Motor

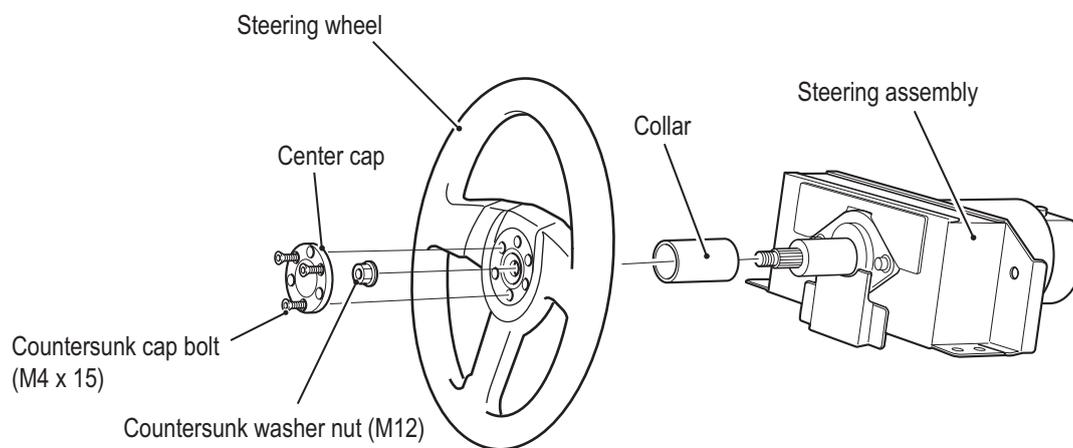
! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

NOTICE

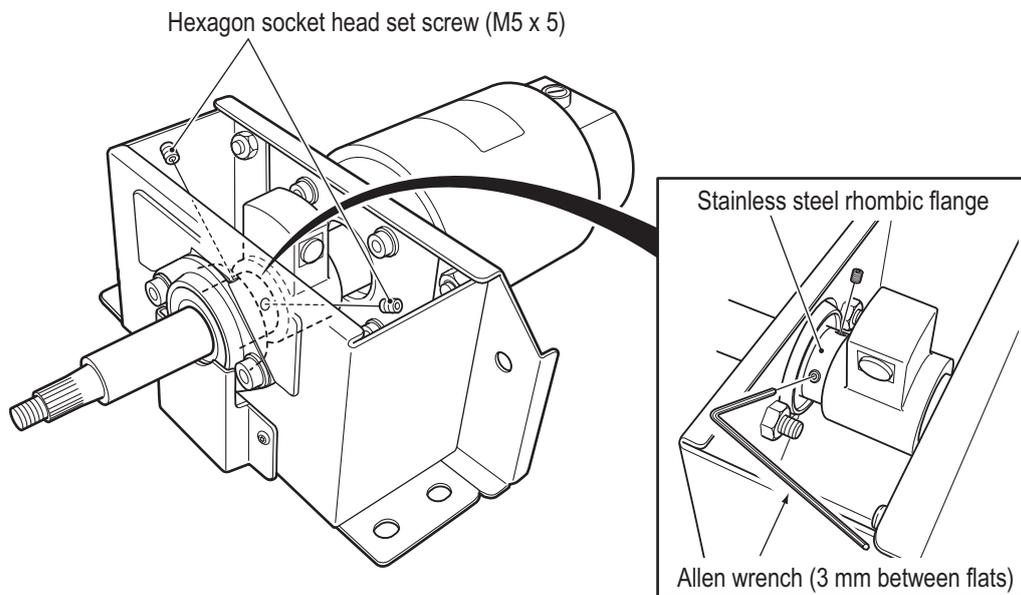
- When the steering wheel is difficult to remove, contact your distributor. Use of excessive force to remove the steering wheel may result in malfunction or damage.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the environment sensor. (See “8B-3-2 (11) Replacing the Environment Sensor” on page 120.)
- 3** Remove the steering assembly. (See “8B-3-4 (1) Removing and Installing the Steering Assembly” on page 131.)
- 4** Remove the analog interface together with the interface bracket. (See “8B-3-4 (2) Replacing the Steering Assembly Analog Interface” on page 133.)
- 5** Remove the steering wheel and the collar. (See “8B-3-4 (3) Removing and Installing the Steering Wheel” on page 135.)

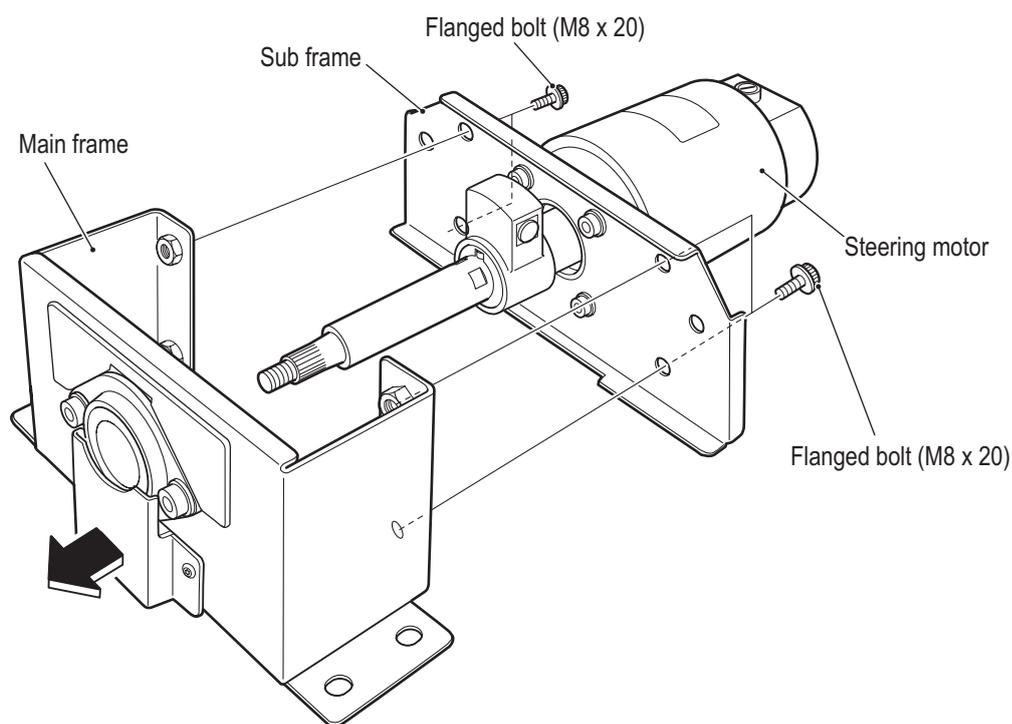


- Must be performed by a technician -

- 6** Remove the two stainless steel rhombic flanged hexagon socket head set screws (M5 x 5).



- 7** Remove the four flanged bolts (M8 x 20) on the sub frame, and remove the main frame.



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Removing and Installing Assemblies and Parts

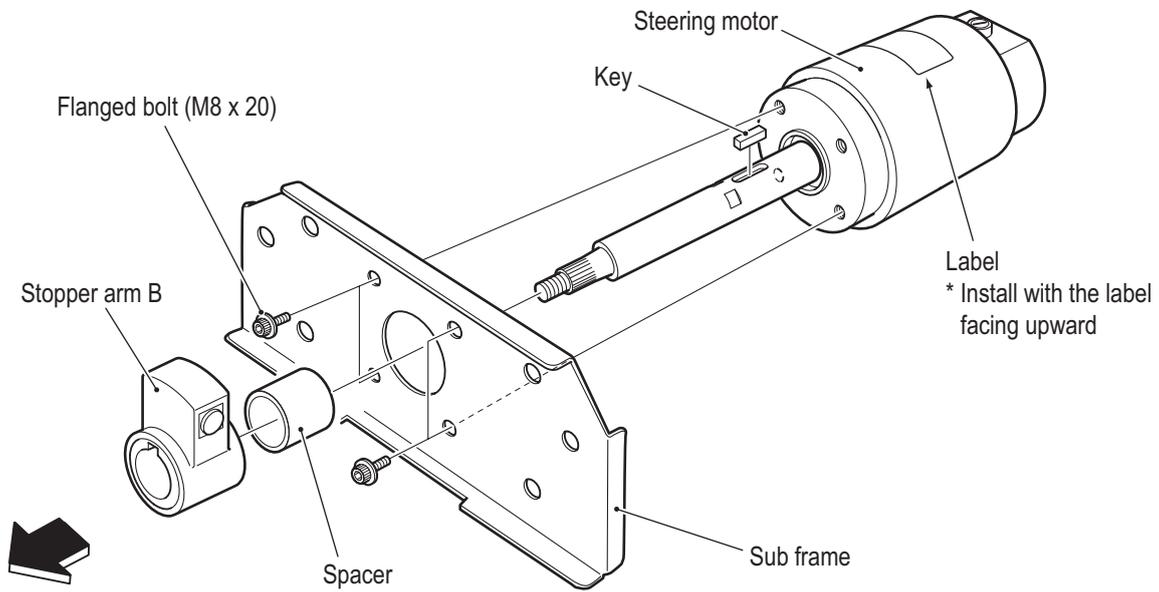
Test Mode

Troubleshooting

8B. Service

- Must be performed by a technician -

- 8** Remove the stopper arm B from the steering motor shaft, and remove the key and spacer.
- 9** Remove the four flanged bolts (M8 x 20), and remove the sub frame.
- 10** Replace the steering motor with a new one.



- 11** To install, perform the procedure in reverse.
Install the steering motor with the label facing upward.



- After replacement, be sure to check the steering operation.
(See "7-9 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)" on page 68.)

- Must be performed by a technician -

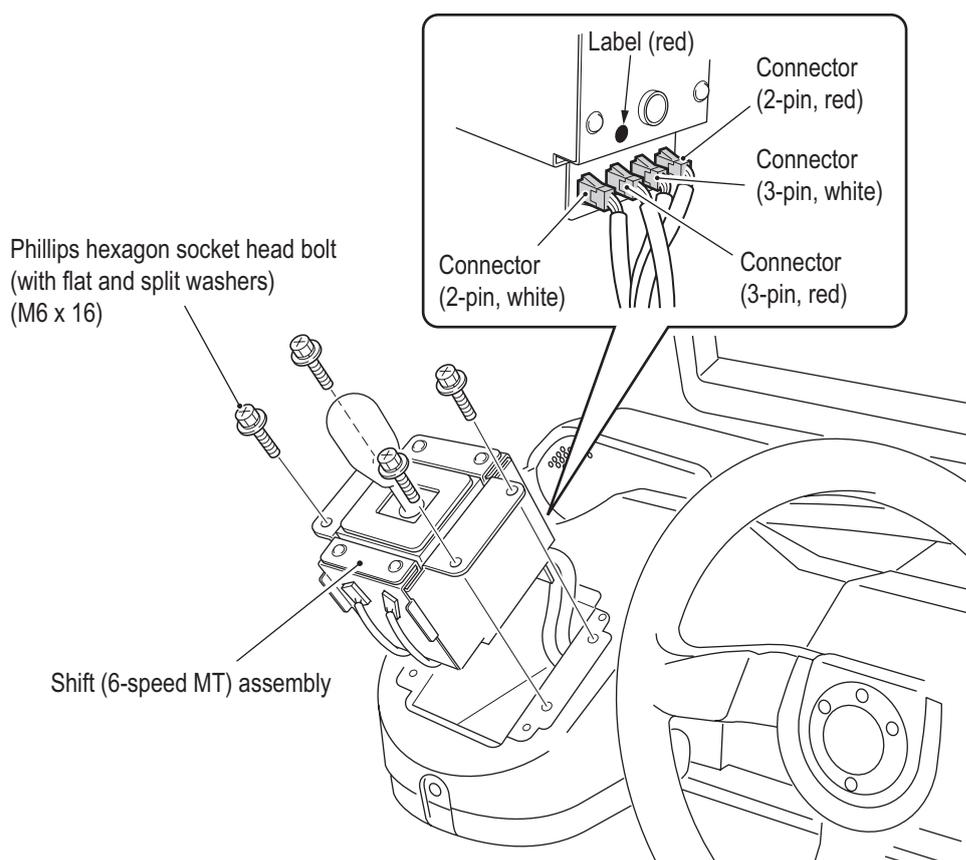
8B-3-5 Shift (6-Speed MT) Assembly - Must be performed by a technician -

(1) Removing and Installing the Shift (6-Speed MT) Assembly

! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the gate cover. (See “8B-3-2 (8) Removing and Installing the Control Panel” on page 116.)
- 3** Remove the four Phillips hexagon socket head bolts (with flat and split washers) (M6 x 16), and pull out the shift (6-speed MT) assembly
- 4** Disconnect the four connectors on the back side, and remove the shift (6-speed MT) assembly.



- 5** To install, perform the procedure in reverse. Refer to the figure above, and connect the connectors correctly.

NOTICE

- After replacement, be sure to check the switch operation. (See “7-8-6 Input/Output Test of Switches (I/O TEST)” on page 46.)

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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

8B. Service

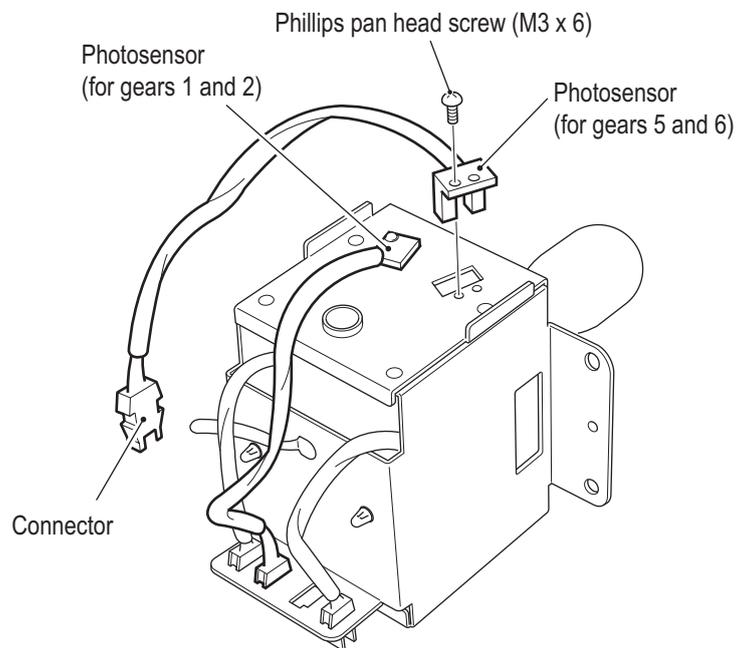
- Must be performed by a technician -

(2) Replacing the Photosensor

! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the shift (6-speed MT) assembly. (See “8B-3-5 (1) Removing and Installing the Shift (6-Speed MT) Assembly” on page 139.)
- 3** Disconnect the connector of the photosensor to be replaced.
- 4** Remove the Phillips pan head screw (M3 x 6), and replace the photosensor.



- 5** To install, perform the procedure in reverse.

NOTICE

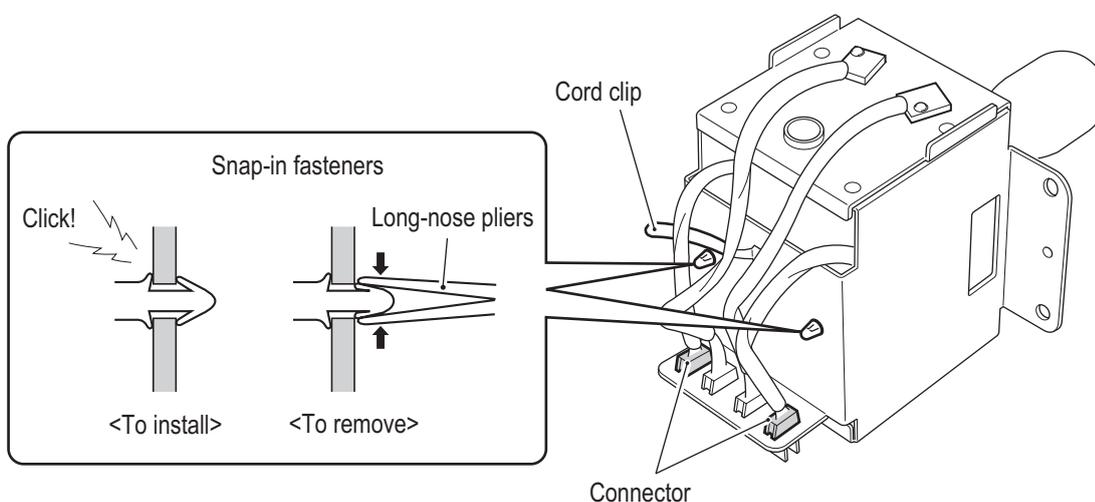
- After replacement, be sure to check the switch operation. (See “7-8-6 Input/Output Test of Switches (I/O TEST)” on page 46.)

(3) Replacing the Micro switch

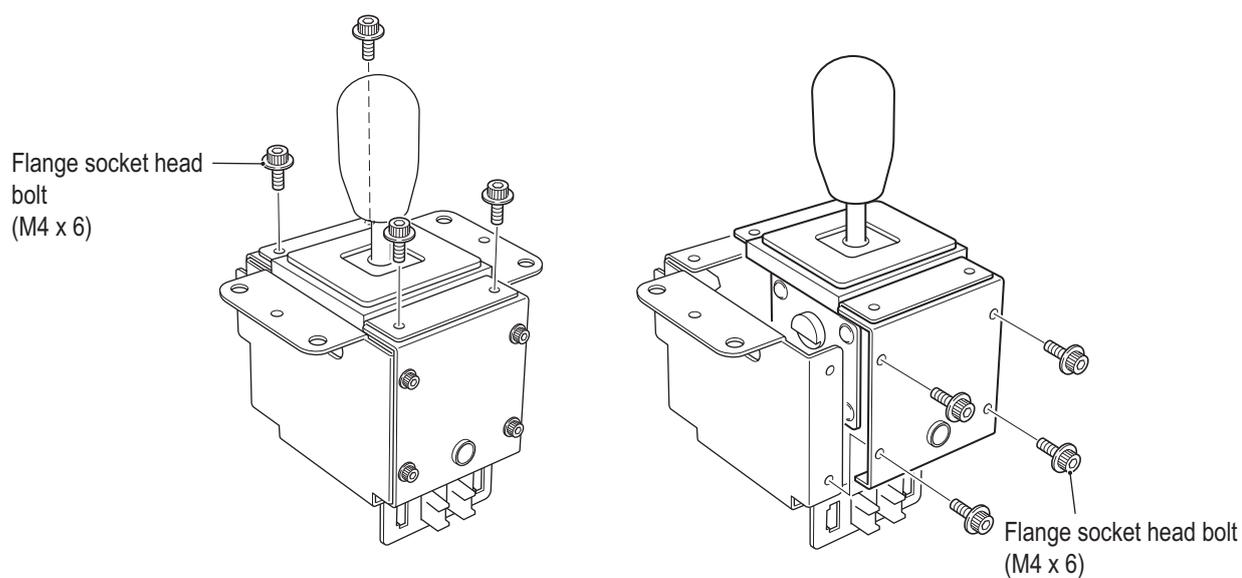
! WARNING

● To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the shift (6-speed MT) assembly. (See "8B-3-5 (1) Removing and Installing the Shift (6-Speed MT) Assembly" on page 139.)
- 3** Disconnect the two connectors as shown in the figure.
- 4** Open the cable clip and release the two snap-in fasteners.



- 5** Remove the eight flange socket head bolts (M4 x 6).



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Removing and Installing Assemblies and Parts

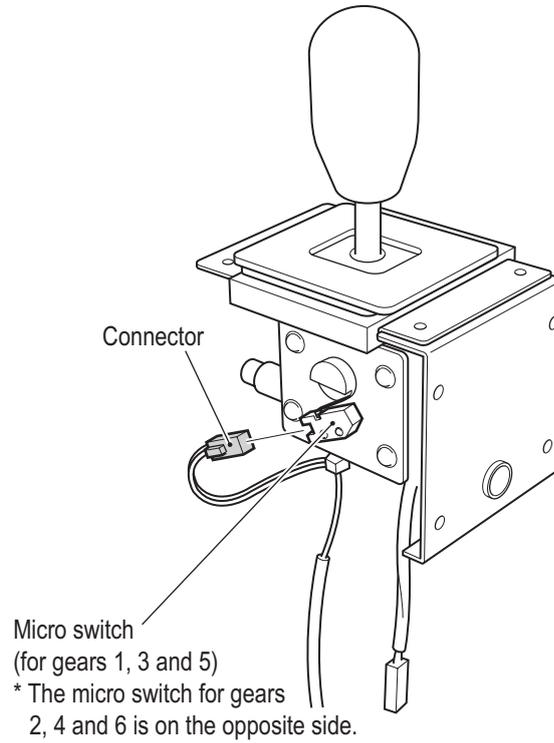
Test Mode

Troubleshooting

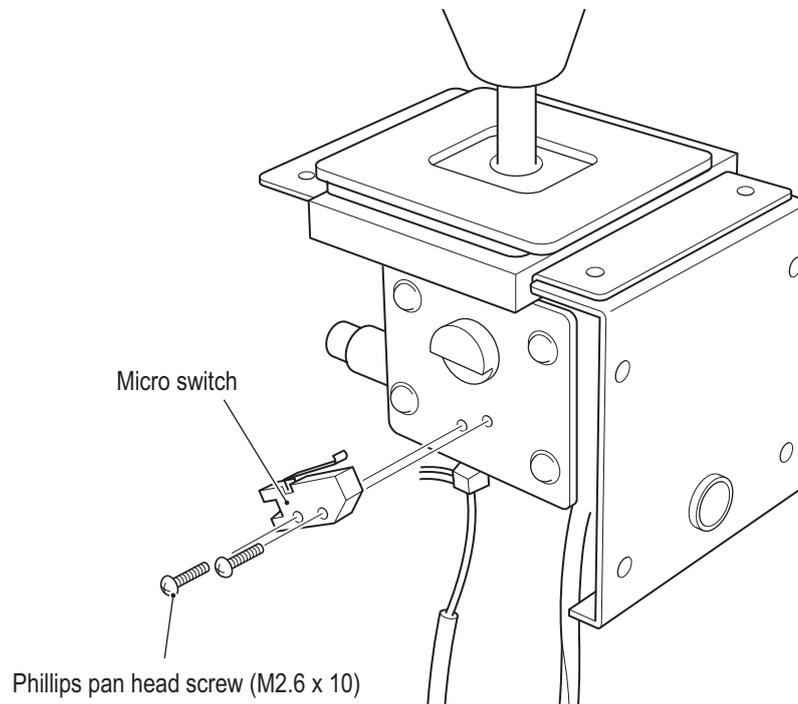
8B. Service

- Must be performed by a technician -

- 6** Disconnect the connector.



- 7** Remove the two Phillips pan head screws (M2.6 x 10), and replace the micro switch.



- 8** To install, perform the procedure in reverse.



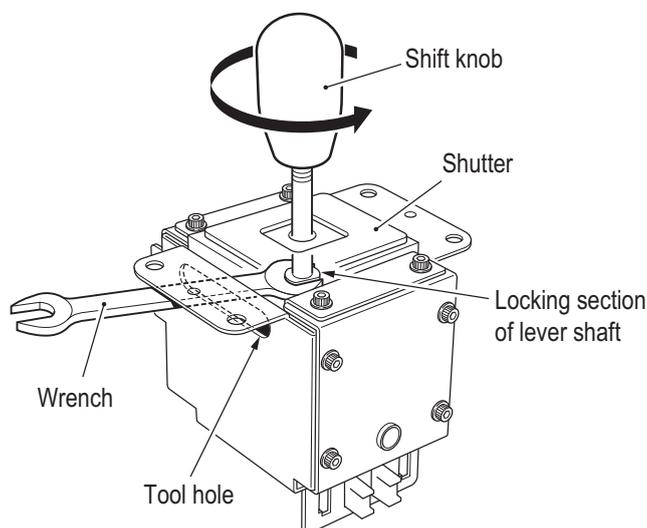
- After replacement, be sure to check the switch operation.
(See "7-8-6 Input/Output Test of Switches (I/O TEST)" on page 46.)

(4) Replacing the Shutter

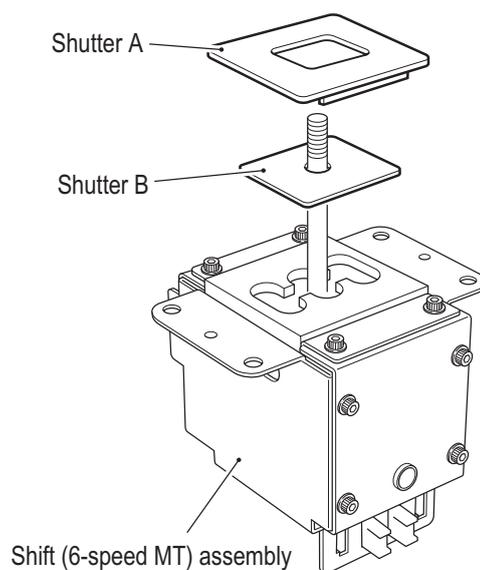
! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the shift (6-speed MT) assembly. (See "8B-3-5 (1) Removing and Installing the Shift (6-Speed MT) Assembly" on page 139.)
- 3** Insert an open-end wrench (14 mm across flats) through the tool hole, and engage it with the locking section (flat section) of the lever shaft to fix the lever shaft. With the wrench held in this condition, rotate the shift knob in the counter-clockwise direction to remove it. If the shift knob is too slippery to turn, wrap adhesive fabric tape or rubber bands around the shift knob.



- 4** Pull out shutter A and shutter B, and replace them.



- 5** To install, perform the procedure in reverse. Refer to the above figure and check the direction of the shutter carefully during reassembly.

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Removing and Installing Assemblies and Parts

Test Mode

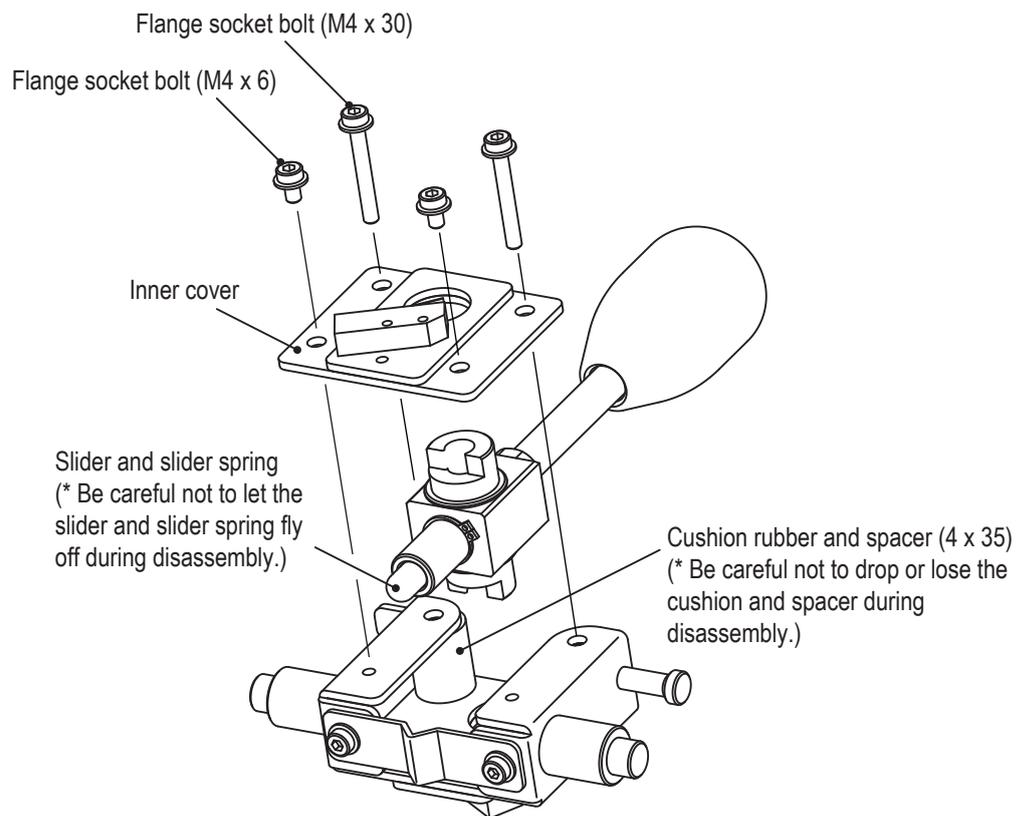
Troubleshooting

8B. Service

- Must be performed by a technician -

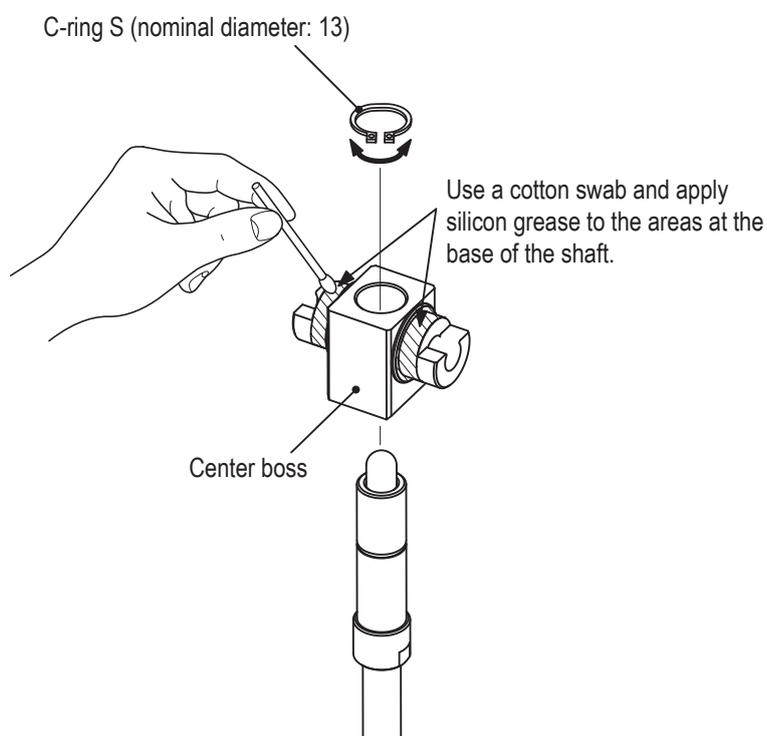
(5) Replacing the Center Boss

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the shift (6-speed MT) assembly.
(Refer to “8B-3-5 (1) Removing and Installing the Shift (6-Speed MT) Assembly” on page 139.)
- 3** Disconnect the two connectors, open the cable clip and remove the two snap-in fasteners. (See step **4** of “8B-3-5 (3) Replacing the Micro switch” on page 141.)
- 4** Remove the eight flange socket bolts (M4 x 6) and separate the outer and inner parts. (See step **5** of “8B-3-5 (3) Replacing the Micro switch” on page 141.)
- 5** Disconnect the connector of the micro switches on both sides. (See step **6** of “8B-3-5 (3) Replacing the Micro switch” on page 141.)
- 6** Remove the two flange socket bolts (M4 x 6) and two flange socket bolts (M4 x 30) and remove the inner cover. The slider at the tip of the lever has a built-in spring, so be careful not to allow the slider and spring fly off when removing the lever.



- Must be performed by a technician -

- 7** Remove the C-ring S (nominal diameter: 13) and replace the center boss. When assembling, apply silicon grease to the areas around the shaft of the center boss.



NOTICE

- Be sure to use silicon grease for plastic lubrication. Lithium and molybdenum type greases cannot be used.
- After assembly, wipe away any silicon grease that may have protruded around the micro switch.

- 8** Assemble the shift (6-speed MT) assembly by reversing the disassembly procedure.

NOTICE

- If you forget the part installation locations, refer to the exploded view in “10-5 Shift (6-speed MT) Assembly” on page 167.

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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

8B. Service

- Must be performed by a technician -

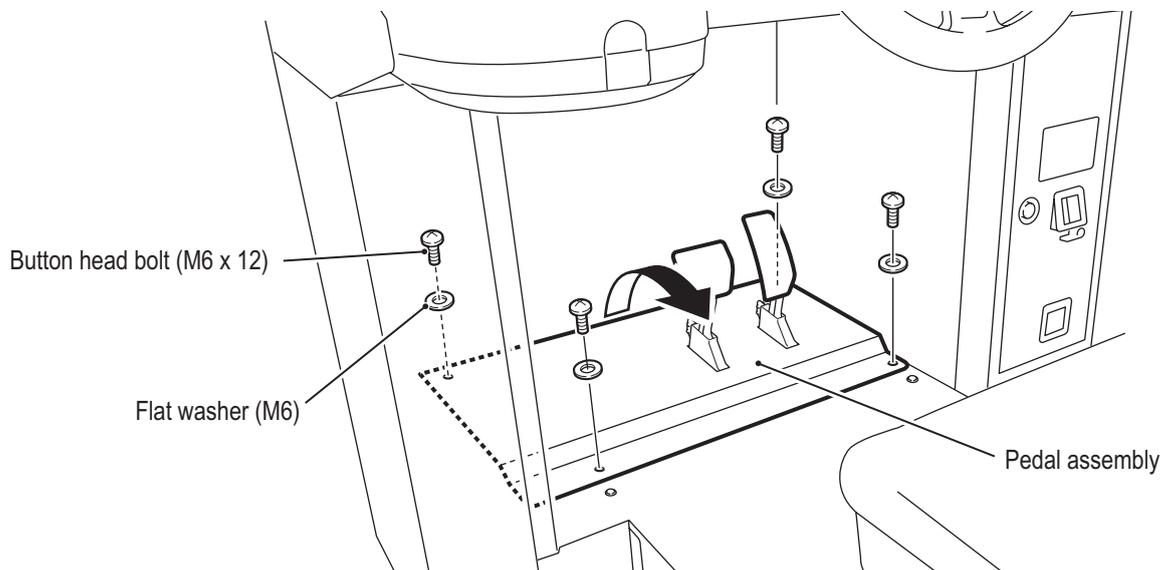
8B-3-6 Pedal assembly - Must be performed by a technician -

(1) Removing and Installing the Pedal Assembly

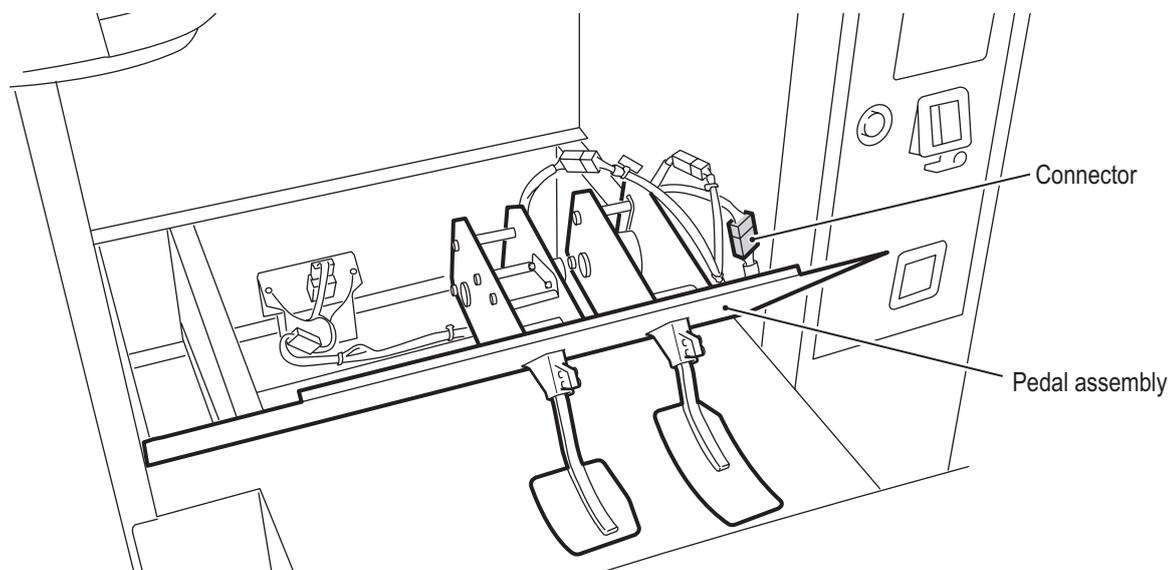
! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the four button head bolts (M6 x 12) and four flat washers (M6).
- 3** Rotate the back edge of the pedal assembly so it faces the user.



- 4** Disconnect the connector.
- 5** Remove the pedal assembly.



- 6** To install, perform the procedure in reverse.

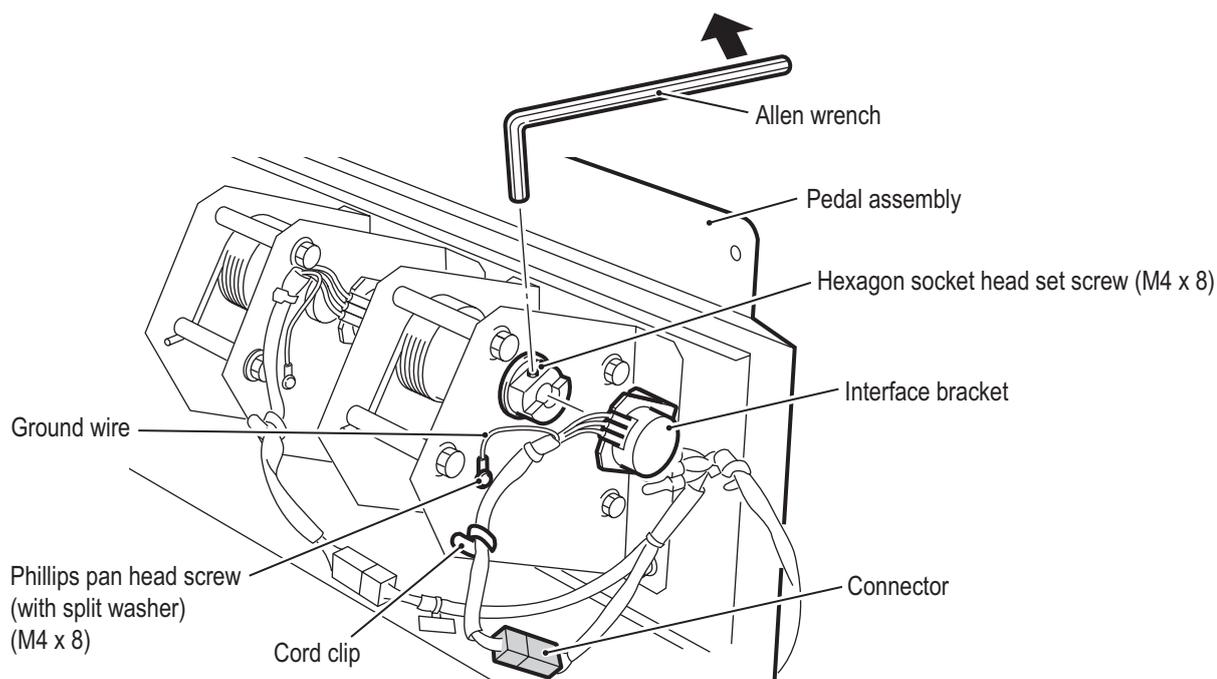
(2) Replacing the Pedal Assembly Analog Interface

The replacement method is the same for both the accelerator pedal and brake pedal.

! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the pedal assembly. (See "8B-3-6 (1) Removing and Installing the Pedal Assembly" on page 146.)
- 3** Disconnect the connector.
- 4** Remove the Phillips pan head screw (with split washer) (M4 x 8), and remove the ground terminal.
- 5** Using an Allen wrench, loosen the hexagon socket head set screw (M4 x 8), and remove the analog interface together with the interface bracket.



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Removing and Installing Assemblies and Parts

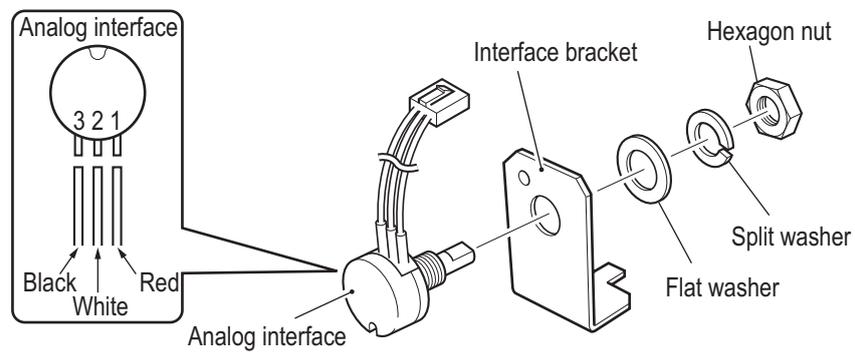
Test Mode

Troubleshooting

8B. Service

- Must be performed by a technician -

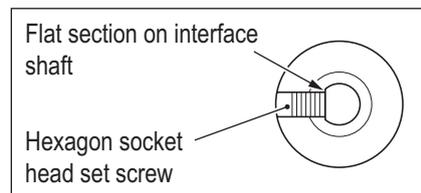
- 6 Remove the analog interface from the interface bracket, and replace the analog interface.



- 7 To install, perform the procedure in reverse.



- When installing the analog interface, align the flat surface of the interface shaft with the position of the hexagon socket head set screw.



- After replacement, be sure to check the analog interface operation. (See “7-9 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)” on page 68.)

- Must be performed by a technician -

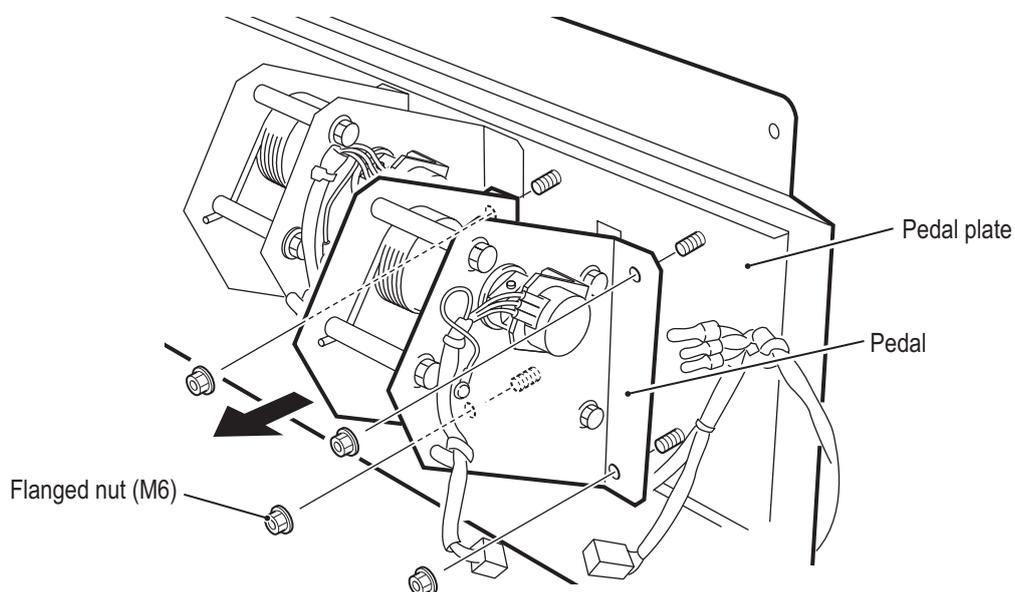
(3) Replacing the boot

The replacement method is the same for both the accelerator pedal and brake pedal.

! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the pedal assembly. (See "8B-3-6 (1) Removing and Installing the Pedal Assembly" on page 146.)
- 3** Remove the four flanged nuts (M6)



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Removing and Installing Assemblies and Parts

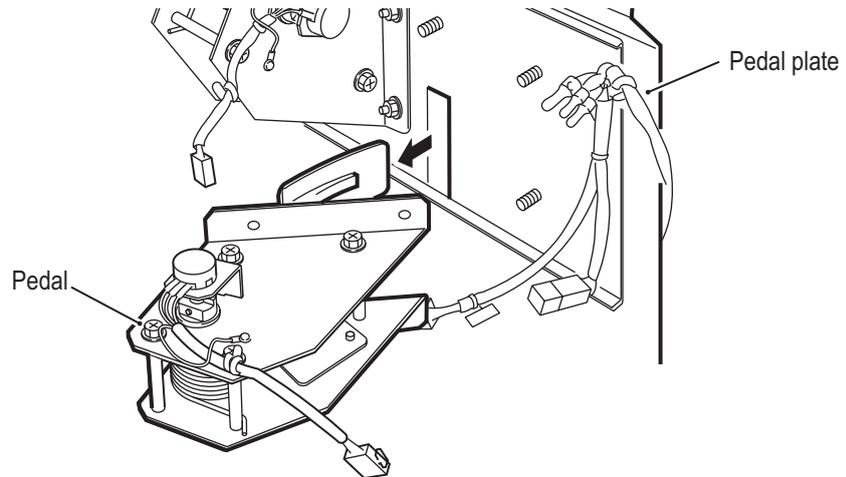
Test Mode

Troubleshooting

8B. Service

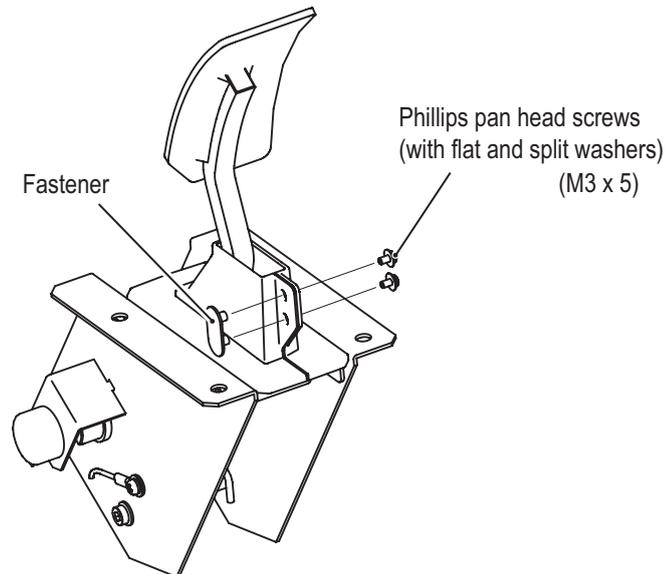
- Must be performed by a technician -

- 4** Rotate the pedal and remove it from the pedal plate.



- The analog interface is easily damaged, so be careful not to bump the analog interface when removing the pedal.

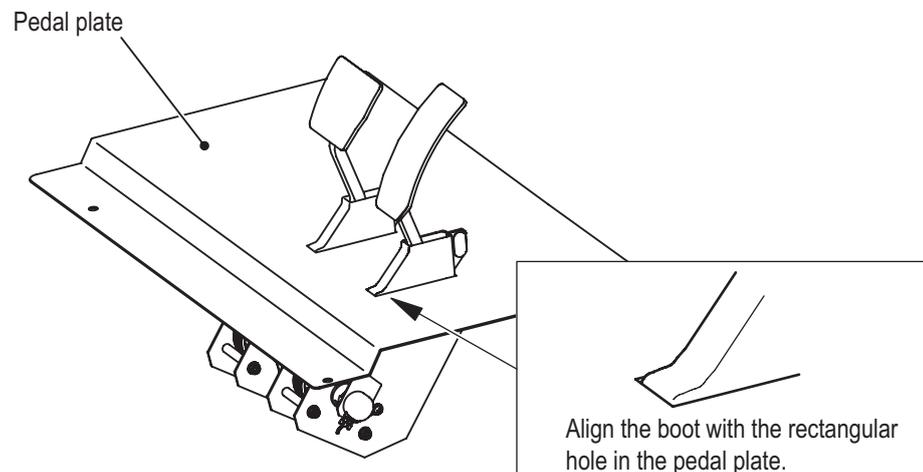
- 5** Remove the two Phillips pan head screws (with flat and split washers) (M3 x 5), remove the fastener, and replace the boot.



- 6** To install, perform the procedure in reverse.



- When inserting the pedal during installation, push in the pedal so that the base of the boot is aligned with the hole in the pedal plate.

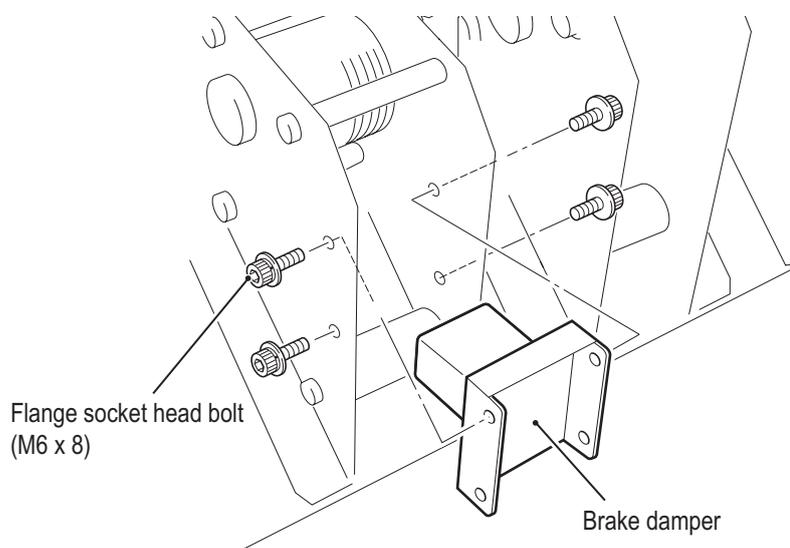


(4) Replacing the Brake Damper

! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the pedal assembly. (See "8B-3-6 (1) Removing and Installing the Pedal Assembly" on page 146.)
- 3** Remove the four flange socket head bolts (M6 x 8), and replace the brake damper.



- 4** To install, perform the procedure in reverse.

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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

8B. Service

- Must be performed by a technician -

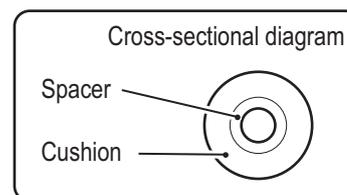
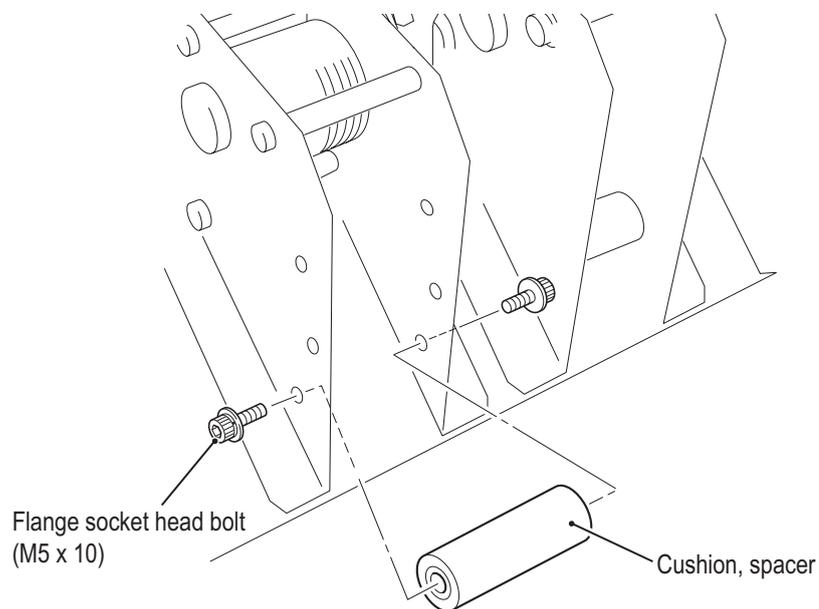
(5) Replacing the Cushion

The replacement method is the same for both the accelerator pedal and brake pedal.

WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the pedal assembly. (See "8B-3-6 (1) Removing and Installing the Pedal Assembly" on page 146.)
- 3** Remove the two flange socket head bolts (M5 x 10), and remove the cushion and spacer.



- 4** Replace the cushion.
- 5** To install, perform the procedure in reverse.

8B-3-7 Seat Base assembly – Must be performed by a technician-**(1) Replacing the LED PC Board**

This machine uses three LED PC boards.

Refer to the procedure below, and replace the LED PC board that corresponds to the malfunction location.

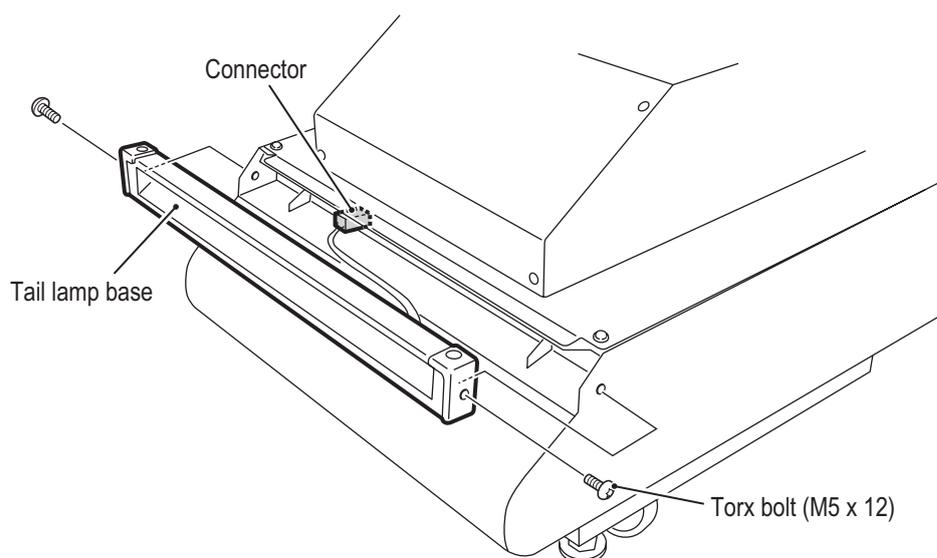
! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

NOTICE

- PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the two countersunk torx bolts (M5 x 12), and remove the tail lamp base.
- 3** Disconnect the connector.



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Removing and Installing Assemblies and Parts

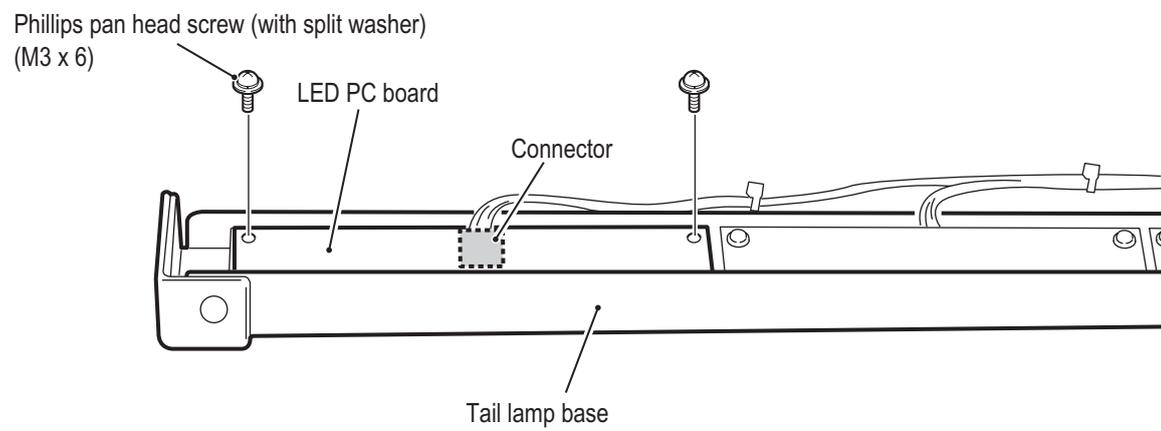
Test Mode

Troubleshooting

8B. Service

- Must be performed by a technician -

- 4** Remove the two Phillips pan head screws (with split washer) (M3 x 6), and remove the LED PC board.



- 5** To install, perform the procedure in reverse.

- Must be performed by a technician -

8B-3-8 Seat Assembly –Must be performed by a technician-**(1) Replacing the LED PC Board**

This machine uses four LED PC boards.

Refer to the procedure below, and replace the LED PC board that corresponds to the malfunction location.

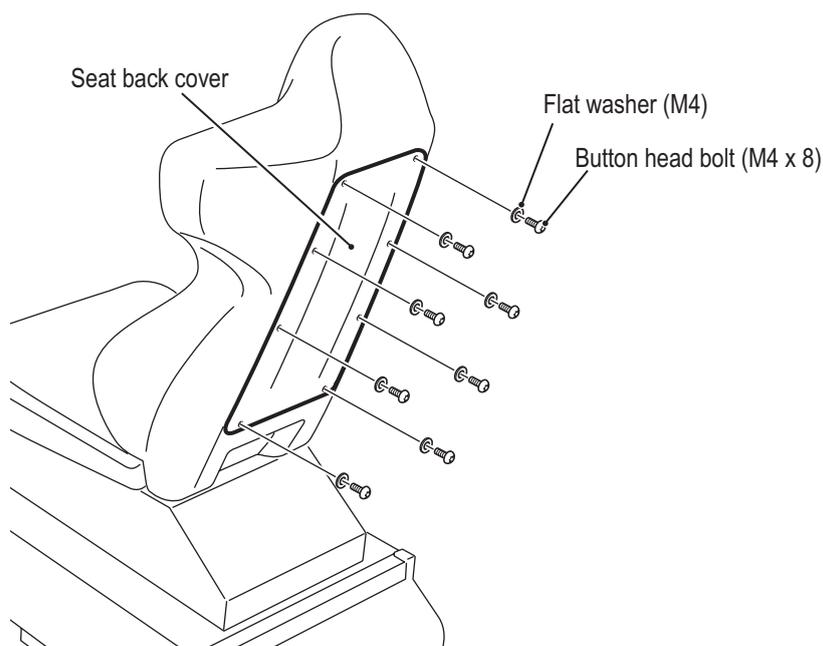
! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

NOTICE

- PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

- 1** Turn off the power switch. (See “7-6-1 Turning the Power Switch On” on page 31.)
- 2** Remove the eight button head bolts (M4 x 8) and eight flat washers (M4), and remove the seat back cover.



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Removing and Installing Assemblies and Parts

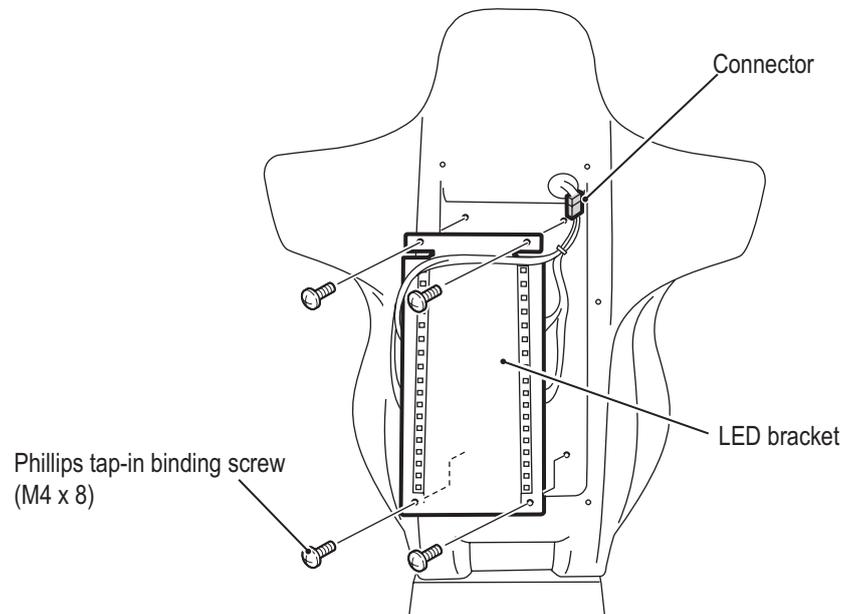
Test Mode

Troubleshooting

8B. Service

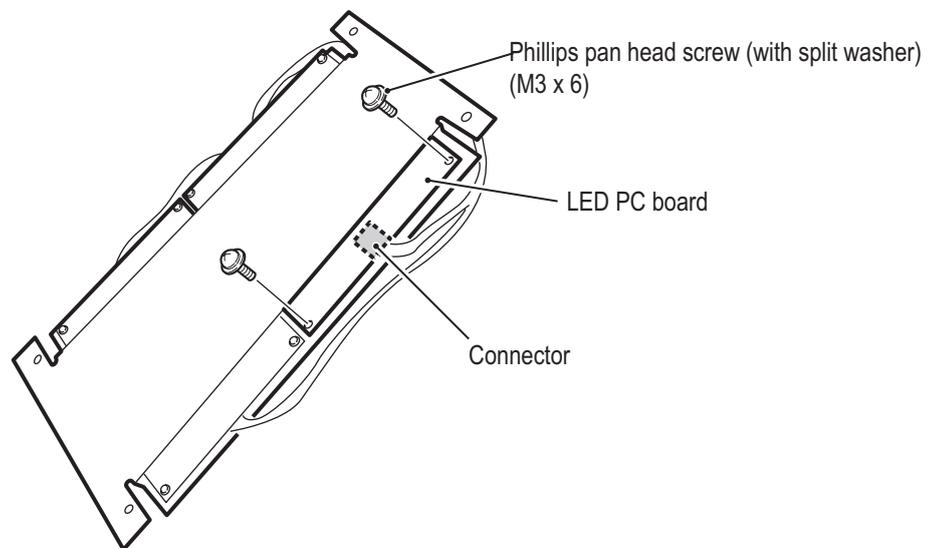
- Must be performed by a technician -

- 3** Disconnect the connector, remove the four Phillips tap-in binding screws (M4 x 8), and remove the LED bracket.



- 4** Remove the two pan head screws (with split washer) (M3 x 6).

- 5** Disconnect the connector, and remove the LED PC board.



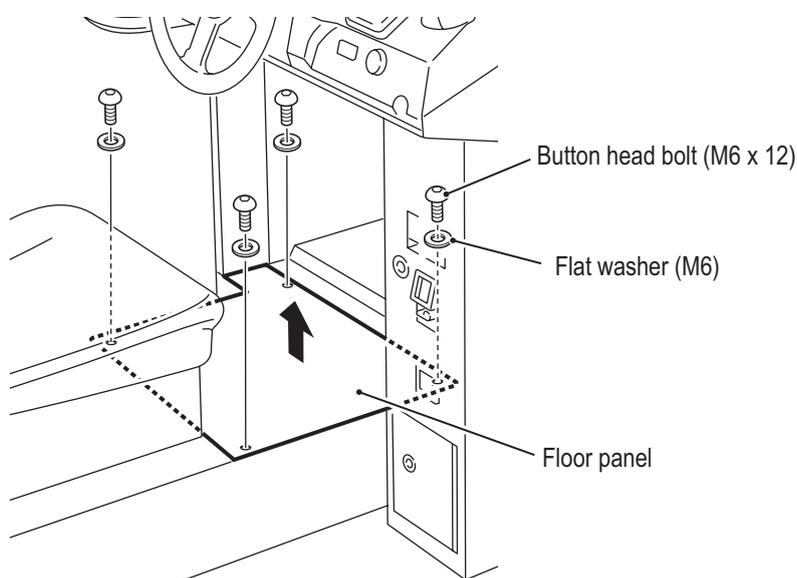
- 6** To install, perform the procedure in reverse.

(2) Replacing the Seat Rails

! WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.

- 1** Turn off the power switch. (See "7-6-1 Turning the Power Switch On" on page 31.)
- 2** Remove the pedal assembly. (See "8B-3-6 (1) Removing and Installing the Pedal Assembly" on page 146.)
- 3** Remove the four button head bolts (M6 x 12) and four flat washers (M6), and remove the floor panel.



- 4** Remove the tail lamp base. (See "8B-3-7 (1) Replacing the LED PC Board" on page 153.)

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Removing and Installing Assemblies and Parts

Test Mode

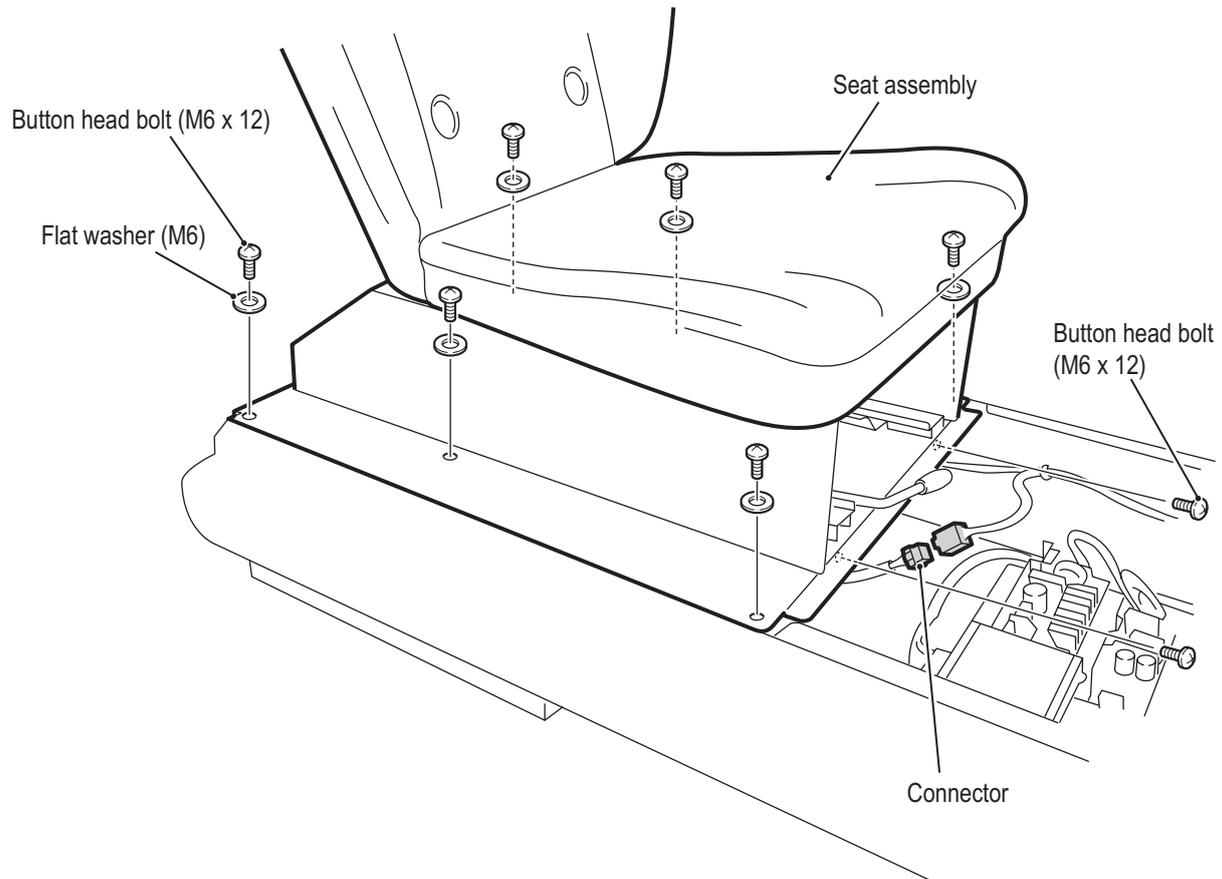
Troubleshooting

8B. Service

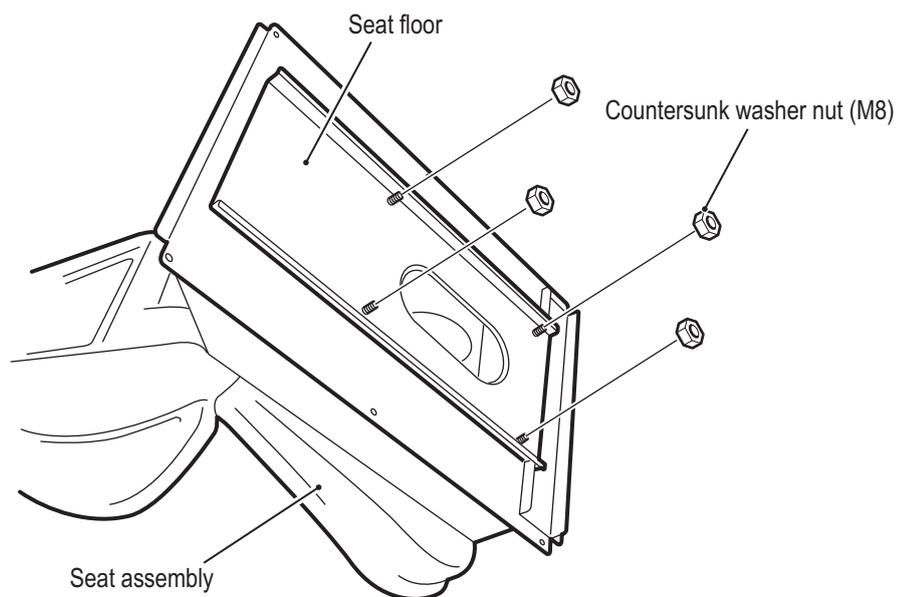
- Must be performed by a technician -

5 Disconnect the connector.

6 Remove the eight button head bolts (M6 x 12) and six flat washers (M6), and remove the seat assembly.

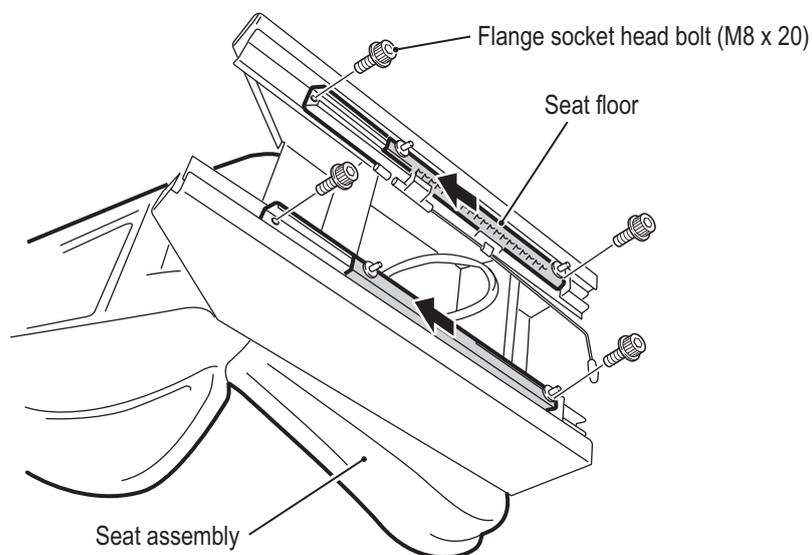


7 Remove the four countersunk washer nuts (M8), and remove the seat floor.



- Must be performed by a technician -

- 8** Slide each seat rail all the way forward and all the way back, remove the two flange socket head bolts (M8 x 20), and replace the seat rails.



CAUTION

- Be careful not to pinch your fingers or other items when sliding the seat rails.

- 9** To install, perform the procedure in reverse.

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- 8A
- 8B**
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Removing and Installing Assemblies and Parts

Test Mode

Troubleshooting

9. Disposal

WARNING

- When disposing of the machine, follow the applicable regulations for collection, transportation and disposal.
- When outsourcing the collection, transportation and disposal of the machine, be sure to delegate to specialists in each field.

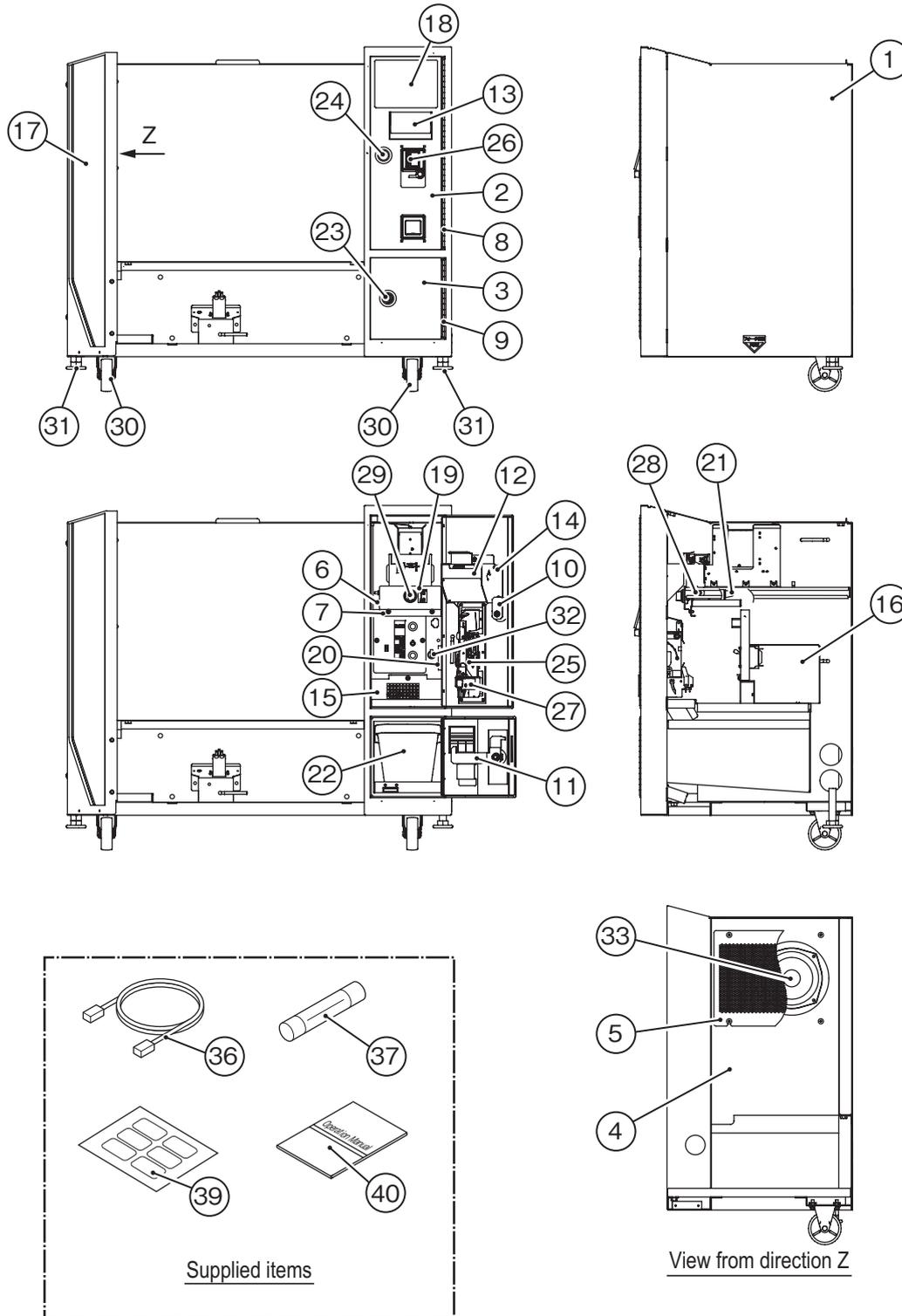
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Doing so may result in mechanical malfunction.
- The LCD contains substances corresponding to specially controlled industrial waste for which special collection, transportation and disposal are mandated by regulations.
When disposing of the LCD, contact your distributor.

*Special collection, transportation and disposal of specially controlled industrial waste may also be specified by local municipal regulations or other ordinances.

10. Parts List

10-1 Underbox Assembly



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 - 8A
 - 8B
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 - 12
- Parts List

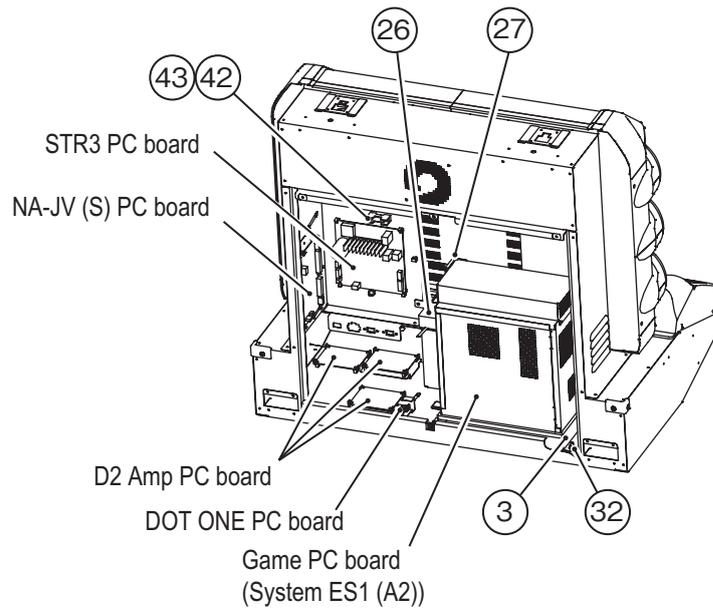
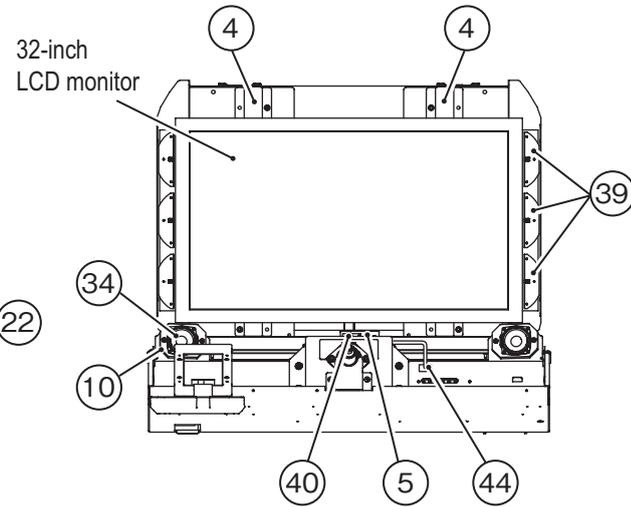
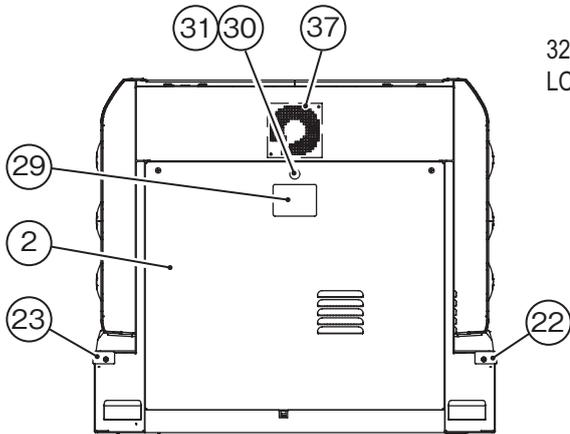
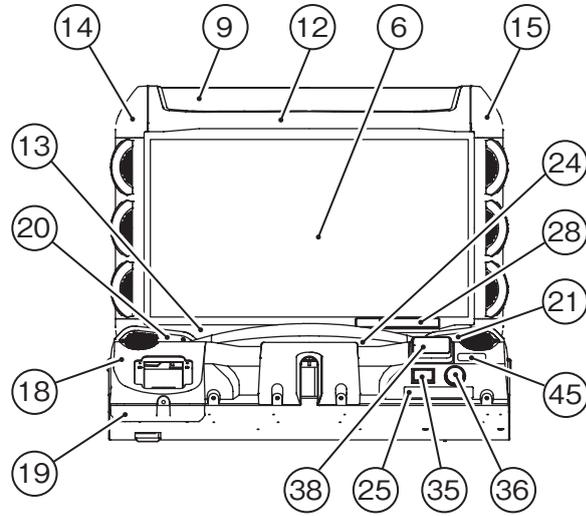
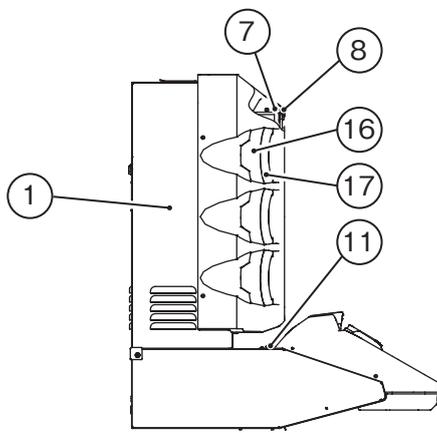
- Test Mode
- Troubleshooting

10. Parts List

No.	Name	Qty.	Type and rating	Part No.
1	Underbox	1		729-115
2	Service door	1		729-116
3	Coin box door	1		729-117
4	Woofers box	1		729-118
5	Woofers net	1		729-119
6	Slide rail	1		729-120
7	Stopper bracket	1		729-121
8	Service door hinge	1		729-122
9	Coin box door hinge	1		729-123
10	Stopper plate S	1		729-124
11	Stopper plate C	1		729-125
12	Prize frame	1		729-126
13	Flap	1		729-127
14	Flap shaft	1		729-128
15	Guard panel	1		729-129
16	AC cover	1		729-130
17	Underbox sticker	1		729-131
18	Driving fee sticker	1		729-377
19	Lock sticker	1		461-710
20	Power sticker	1		461-752
21	Rubber stopper CD	2		710-843
22	Cash box (K)	1		461-040
23	Cam lock	1	N92-L10	101-142
24	Coin box lock (*1)	1	F750-DS8	101-175
25	Coin selector	1	AD-81P3B5 (HK1\$ specification)	100-356
26	Coin FT bracket	1	NAD-FT(M) (with selector, HK1\$, without light)	100-450
27	Coin micro switch	1		000-698
28	Delrin bearing	4	DR-22-B5-M5-JH	103-152
29	Knob lock	1	TL-284	101-177
30	Caster (stationary type)	2	SKC-75NM	102-201
31	Adjusting bolt	2	KYW16-75-6B	102-045
32	Circuit protector (circuit breaker)	1	ICP30-L-11-608-7.5-Z811	000-760
33	Woofers speaker	1	FL130U70-4	006-184
36	LAN cable	1	10m	007-941
37	Fuse	1	250V 5A	001-104
39	Coin sticker	1		729-110
40	Driver Cabinet Operation Manual	1		741-360

*1 If you desire a non-random number for Part No. 24, consult your distributor when ordering.

10-2 Monitor Assembly



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 - 8B
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- Parts List

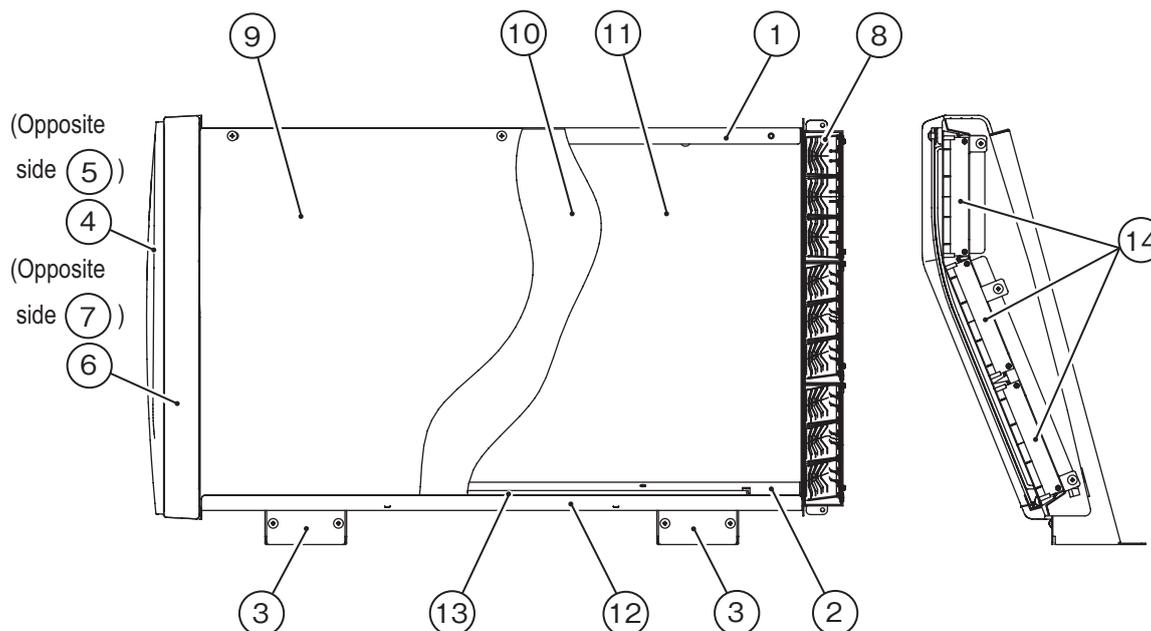
- Test Mode
- Troubleshooting

10. Parts List

No.	Name	Qty.	Type and rating	Part No.
1	Middle box	1		729-140
2	Service door	1		729-141
3	Rack base	1		729-142
4	LCD stay	2		729-143
5	Camera stay	1		729-144
6	Monitor glass	1		729-145
7	Glass retainer	2		729-146
8	Glass cushion	2		729-147
9	Punching sticker	1		729-148
10	Baffle board	2		729-149
11	Control panel retainer	1		729-150
12	Monitor mask A	1		729-151
13	Monitor mask B	1		729-152
14	Monitor mask L	1		729-153
15	Monitor mask R	1		729-154
16	Ring A	6		729-155
17	Ring B	6		729-156
18	Control panel	1		729-157
19	Shift bottom cover	1		729-158
20	Control panel speaker cover L	1		729-159
21	Control panel speaker cover R	1		729-160
22	Point cover L	1		729-161
23	Point cover R	1		729-162
24	Instrument panel sticker	1		729-163
25	View Change sticker	1		729-164
26	AC cover B	1		729-166
27	Cable stay	1		729-167
28	Caution sticker Hypersensitivity to Light (H)	1		461-504
29	Warning sticker Service (B) PH	1		461-677
30	Coin box lock (*1)	1	F750-DS8	101-175
31	Key tag	1	M7	101-229
32	Round anti-vibration rubber	4	KB-20	102-020
34	Speaker	1	F66U63-3	006-181
35	Illuminated button (green)	1	OBSA-45AK-G-1FLED-G-12V	000-827
36	Illuminated button (red)	1	OBSA-45AM-R-1FLED-R-12V	000-828
37	Fan motor	1	PAAD2A225BM-Y003	005-493
38	BNG card reader assembly	1	Cover, with sticker	307-516
39	Steering PC board	6		307-588
40	Environment sensor	1	KBCR-M05VU-HPB2010-CO	307-523
41	DVI cable	1	1000 mm (between game PC board and monitor)	007-929
42	Fuse holder	1	F-3321-F-1P	001-076
43	Fuse	1	AC250V 5A	001-104
44	USB-ZH5P cable	1	TYX3071-010107 (between environment sensor and USB connector)	007-930

*1 If you desire a non-random number for Part No. 30, consult your distributor when ordering.

10-3 Signboard Assembly



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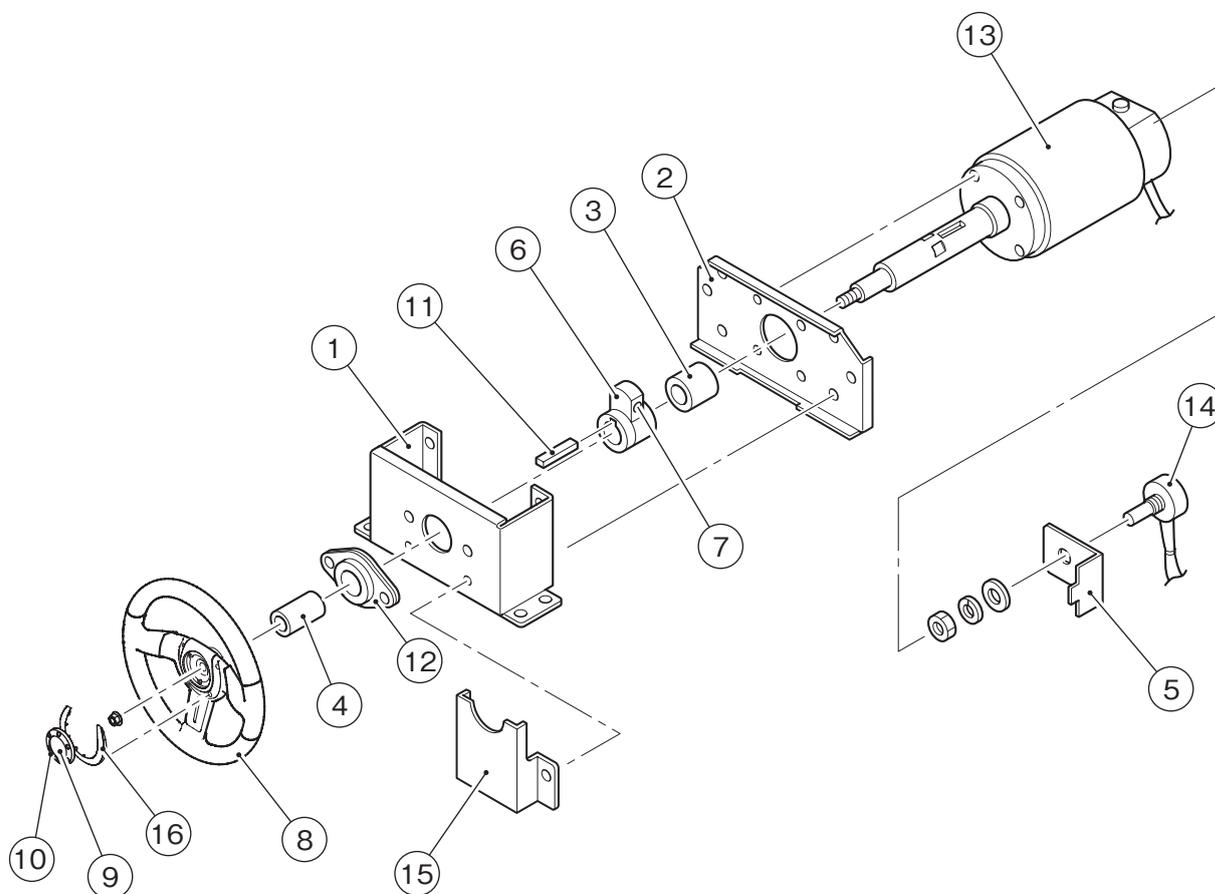
Parts List

No.	Name	Qty.	Type and rating	Part No.
1	Signboard box	1		729-344
2	Harness cover	1		729-345
3	Pillar cover	2		729-346
4	Signboard side cover L	1		729-347
5	Signboard side cover R	1		729-348
6	LED cover L	1		729-349
7	LED cover R	1		729-350
8	LED reflector	6		729-351
9	Signboard panel	1		729-352
10	Signboard sheet	1		735-193
11	Signboard	1		735-194
12	Panel retainer	1		729-355
13	LED bar	1	AD L_B-10W(600)_BN	307-585
14	LED PC board	6	LMRGB12-9-14622-C	002-617
15	LED bracket (L)	2		729-356

Test Mode

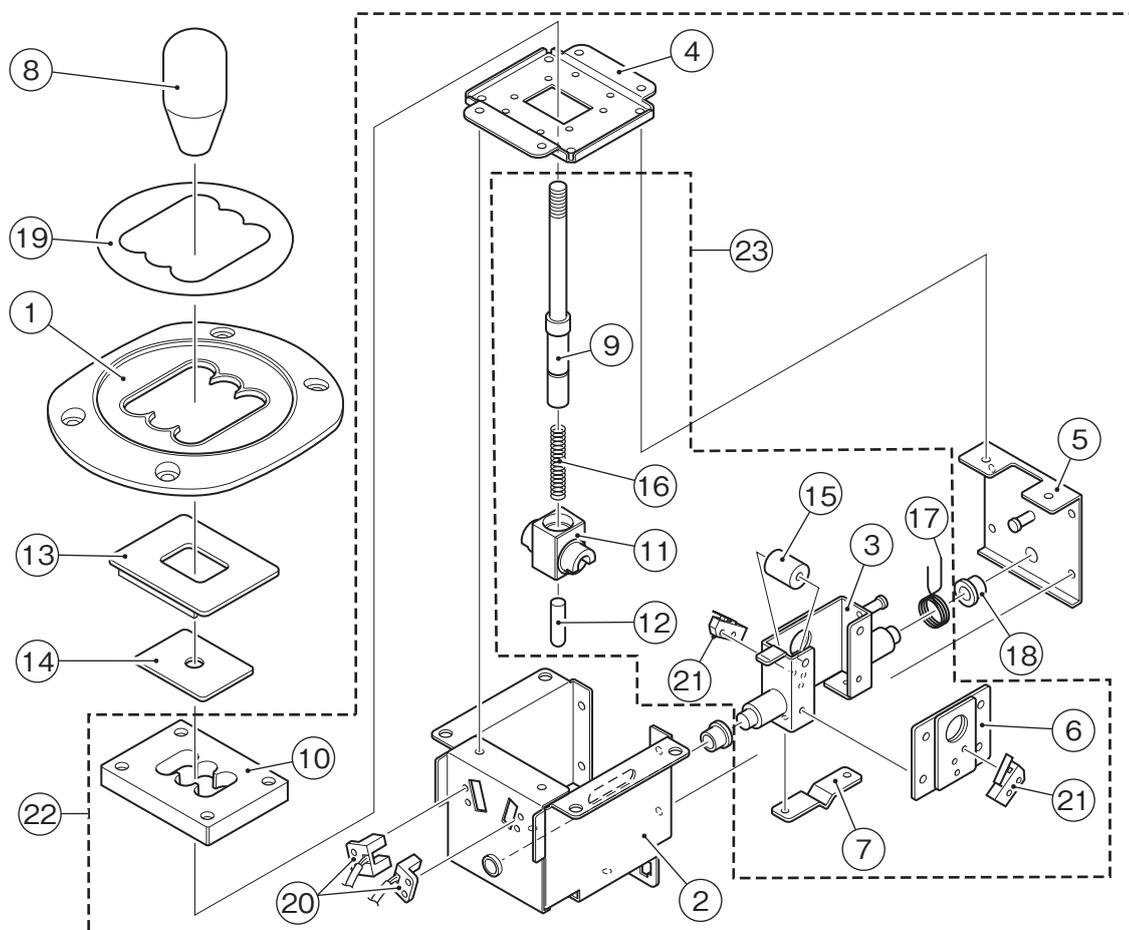
Troubleshooting

10-4 Steering Assembly



No.	Name	Qty.	Type and rating	Part No.
1	Main frame	1		729-364
2	Sub frame	1		729-365
3	Spacer	1		463-031
4	Collar	1		463-032
5	Steering interface bracket	1		729-363
6	Stopper arm B	1		464-011
7	Stopper rubber	2		455-017
8	Steering wheel	1		729-165
9	Emblem sticker	1		729-362
10	Center cap	1		463-113
11	Key (both-sided)	1	8X7X45 (S45C)	107-028
12	Steel plate housing unit	1	SBPFL205	103-095
13	DC motor	1	DTM-7060-2	005-494
14	Analog interface	1	RVQ24YNC0406 20F B102 (270°, without stopper)	008-078
15	Blind bracket	1		710-892
16	Decorative garnish	1		729-361

10-5 Shift (6-speed MT) Assembly



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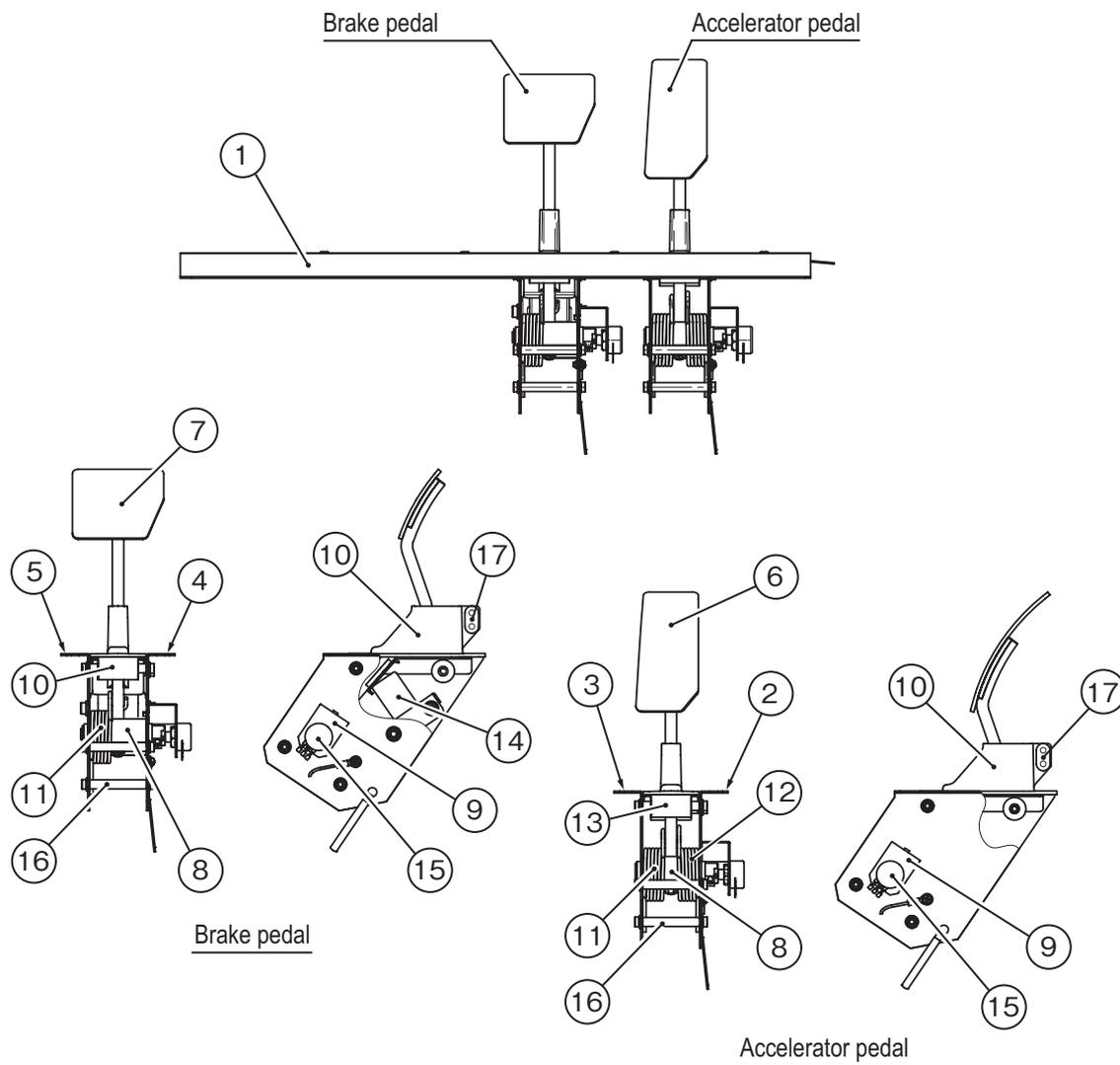
Parts List

No.	Name	Qty.	Type and rating	Part No.
1	Gate cover	1		719-218
2	Outer case	1		710-911
3	Inner case	1		710-912
4	Top bracket	1		710-913
5	Outer cover	1		710-914
6	Inner cover	1		710-915
7	V-plate	1		710-916
8	Shift knob	1	Hard alumite treated	719-217
9	Lever shaft	1		710-918
10	Shift gate	1		710-919
11	Center boss	1		710-920
12	Slider	1		710-921
13	Shutter A	1		710-922
14	Shutter B	1		710-923
15	Cushion rubber	2		710-924
16	Slider spring	1		710-925
17	Neutral spring	1		710-926
18	Flange bushing	2	LFF-1006	104-004
19	Gate cover sticker	1		729-170
20	Photo interrupter (with connector)	2	KI1520-NM	000-623
21	Micro switch	2	D3M-01L3-3	000-624
22	Shift (6-speed MT) assembly	1	Excludes Part Nos. 1, 8, 13, 14 and 19	710-805
23	Shift sub assembly	1	Excludes Part Nos. 2, 4, 5, 10, 18 and 20 from Part No. 22	711-014

Test Mode

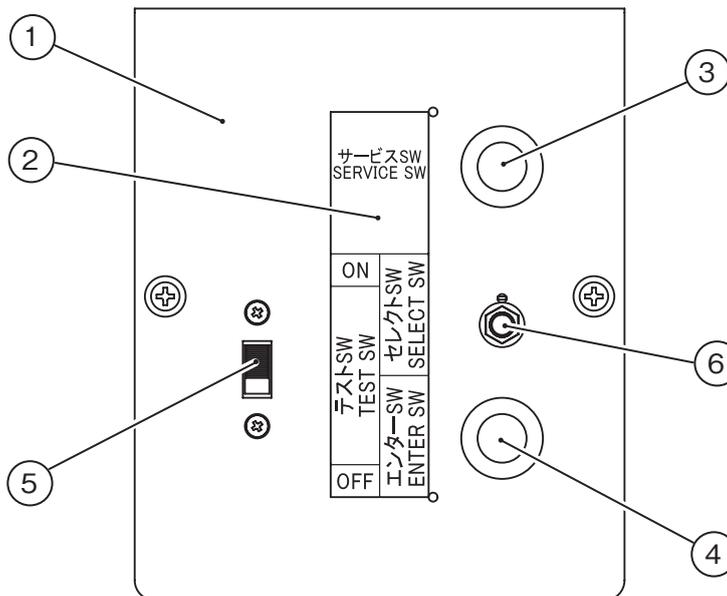
Troubleshooting

10-6 Pedal Assembly



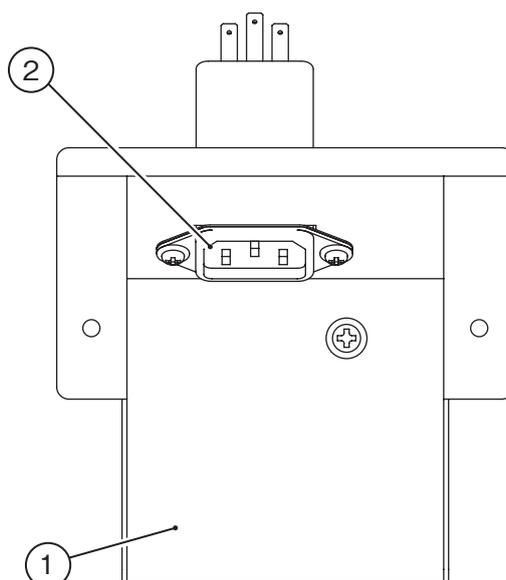
No.	Name	Qty.	Type and rating	Part No.
1	Pedal plate	1		729-175
2	Angle AL	1		729-176
3	Angle AR	1		729-177
4	Angle BL	1		729-178
5	Angle BR	1		729-179
6	Pedal A	1		729-180
7	Pedal B	1		729-181
8	Pedal shaft	2		729-182
9	Interface bracket	2		729-183
10	Boot	2		729-190
11	Spring A	2		729-185
12	Spring B	1		729-186
13	Cushion	4		729-187
14	Brake damper	1		463-028
15	Analog interface	2	RVQ24YN04-05 20F B102 (40°)	008-021
16	Spacer	8		729-188
17	Fastener	2		729-191

10-7 Service Plate Assembly



No.	Name	Qty.	Type and rating	Part No.
1	Service plate	1		729-195
2	Service sticker	1		729-196
3	Push button (red)	1	SDP-103-C22RB	000-336
4	Push button (green)	1	SDP-103-C22GB	000-619
5	Slide switch	1	SDS-103A-03#13BJ	000-681
6	Toggle switch	1	SDSA-331G-CR	000-337

10-8 Cord Box Assembly



No.	Name	Qty.	Type and rating	Part No.
1	Cord box	1		729-200
2	Noise filter	1	10GEEG3E-R (250VAC 10A)	007-205

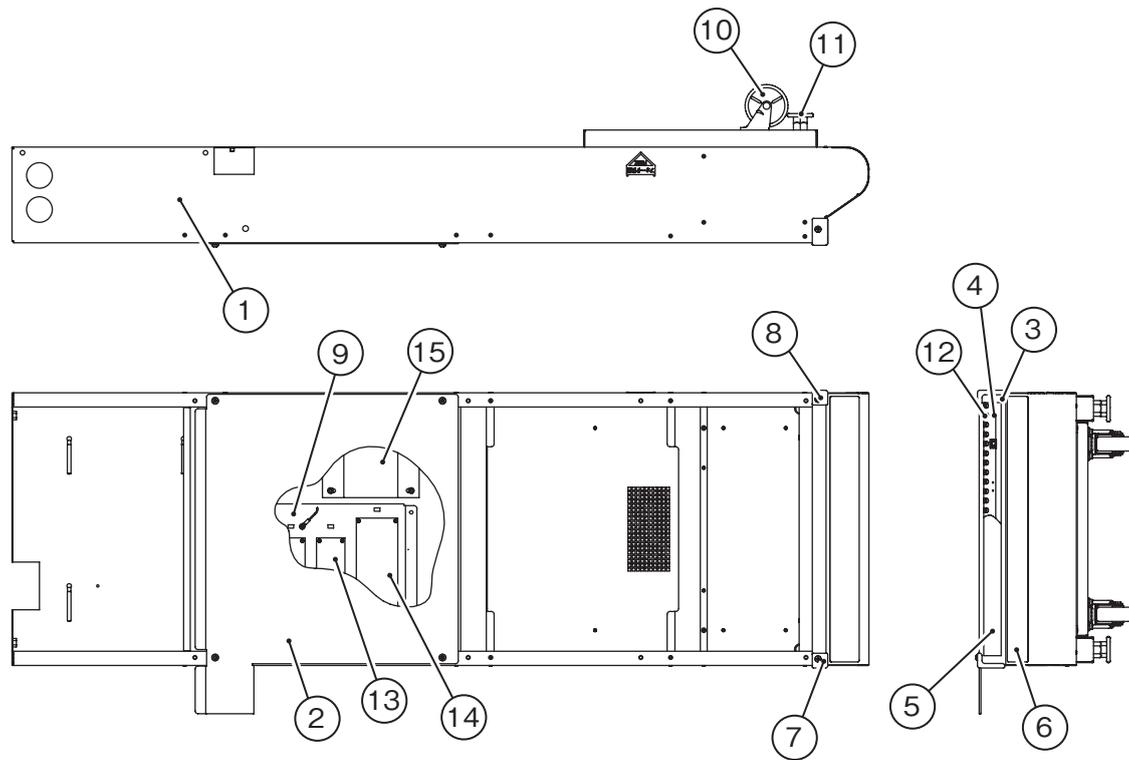
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Parts List

Test Mode

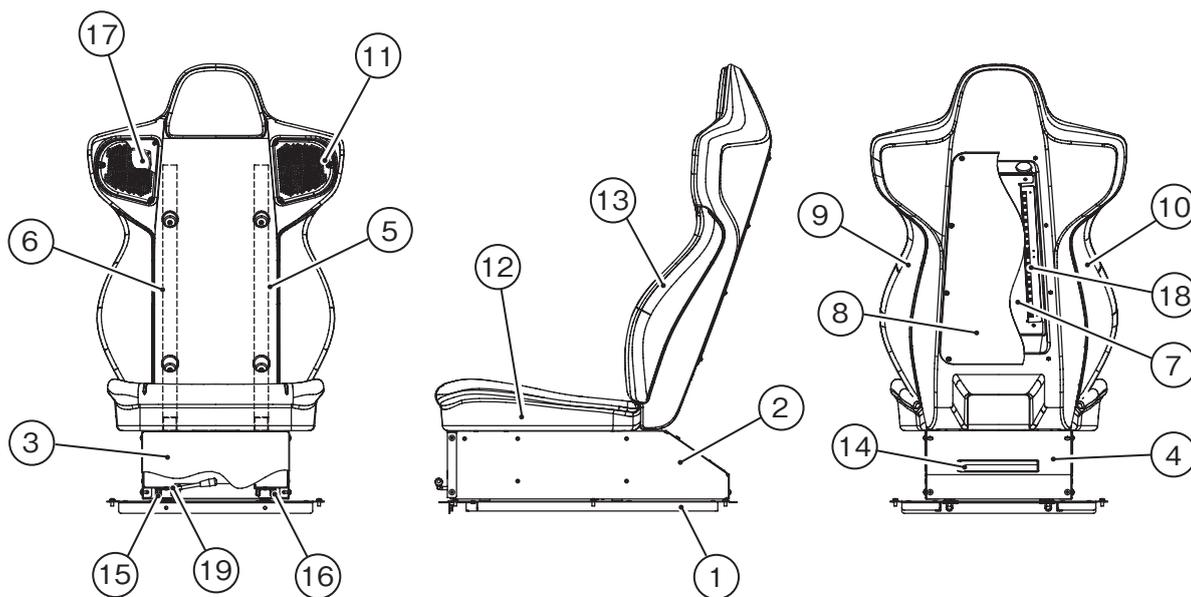
Troubleshooting

10-9 Seat Base Assembly



No.	Name	Qty.	Type and rating	Part No.
1	Seat base	1		729-204
2	Floor panel	1		729-205
3	Tail lamp base	1		729-206
4	Tail lamp reflector	1		729-207
5	Tail lamp cover	1		729-208
6	Seat base sticker	1		729-209
7	Point cover L	1		729-161
8	Point cover R	1		729-162
9	Regulator base	1		729-235
10	Caster (swivel type)	2	STC-75NM	102-199
11	Adjusting bolt	2	KYW16-75-6B	102-045
12	LED PC board	3	LMRGB12-9-14622-C	002-617
13	Switching regulator (12 V)	2	LGA50A-12-J1 SXNMK	009-257
14	Switching regulator (24 V)	1	OZP-170-24-J00	009-260
15	Transformer	1	S133V693PV	004-737

10-10 Seat Assembly



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Parts List

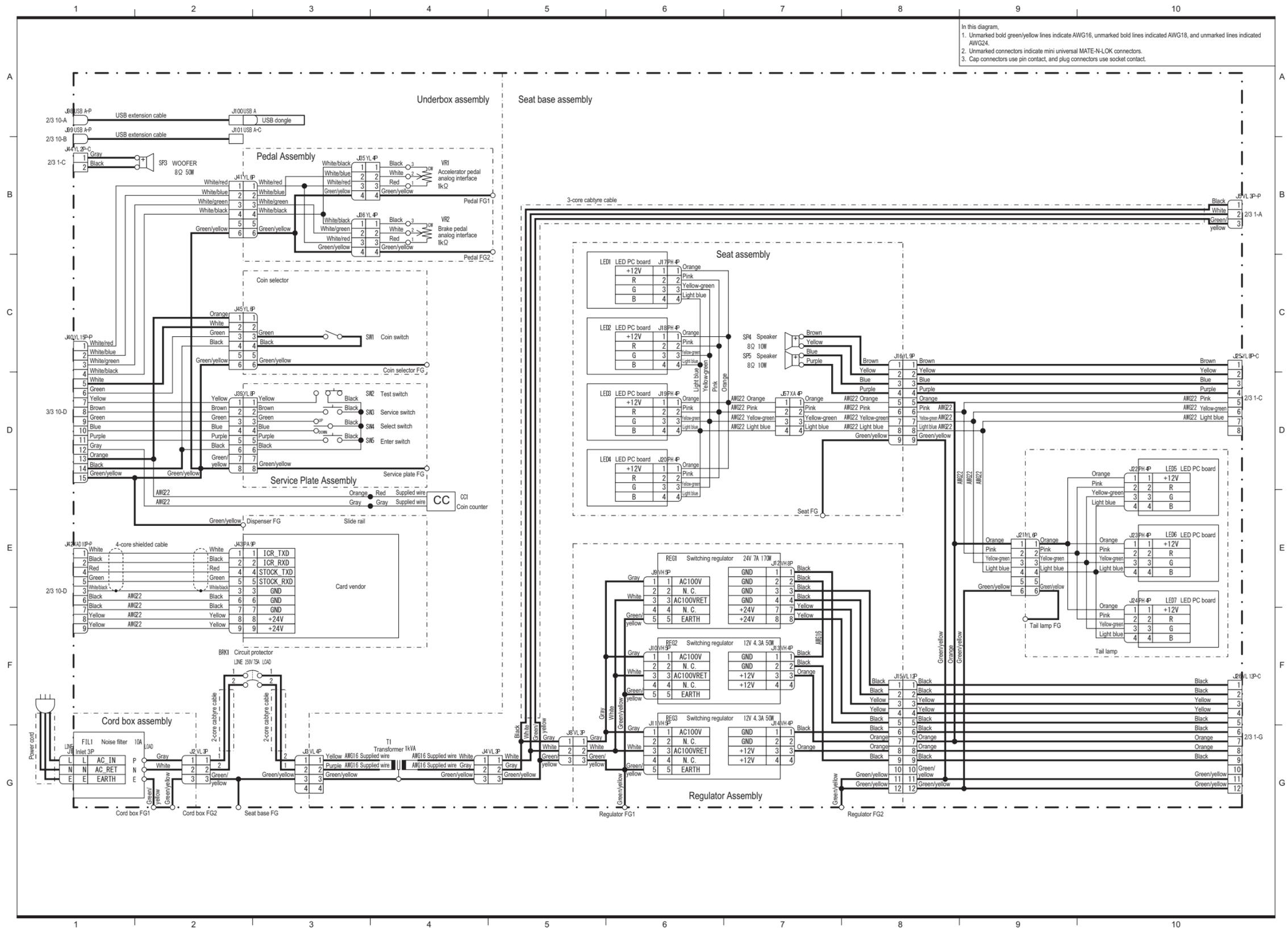
No.	Name	Qty.	Type and rating	Part No.
1	Seat floor	1		729-215
2	Seat adapter	1		729-216
3	Seat cover F	1		729-217
4	Seat cover R	1		729-218
5	Seat pipe L	1		729-219
6	Seat pipe R	1		729-220
7	Seat LED bracket	1		729-221
8	Seat back cover	1		735-195
9	Seat side sticker (L)	1		729-223
10	Seat side sticker (R)	1		729-224
11	Seat speaker cover	2		710-962
12	Seat cushion	1		729-225
13	Seat back	1		729-226
14	Caution sticker Seat slide (C)	1		461-776
15	Seat rail L	1		729-227
16	Seat rail R	1		729-228
17	Speaker	2	F66U63-3	006-181
18	LED PC board	4	LMRGB12-9-14622-C	002-617
19	Hole cover	1		729-229

Test Mode

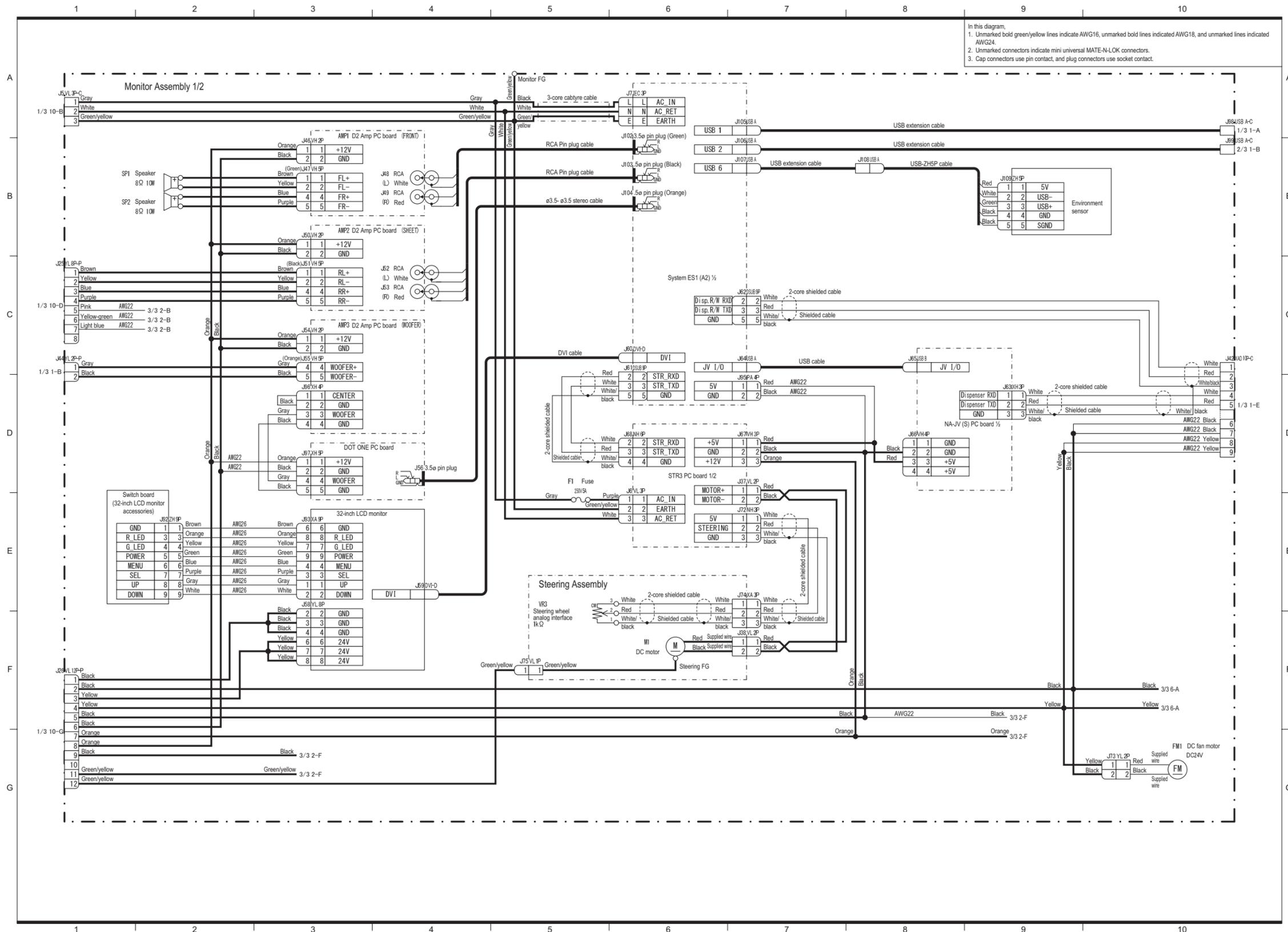
Troubleshooting

11. Wiring Diagram

(1/3)



Test Mode
 Troubleshooting



Test Mode

Troubleshooting

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SIMD oriented Fast Mersenne Twister(SFMT) pseudorandom number generator

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Camellia C-language Version Crypto Engine

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