For all Parts or Technical Support contact:

NAMCO US

NAMCO AMERICA INC.

951 Cambridge Drive Elk Grove Village, IL, 60007, USA

www.namcoamerica.com

Technical Assistance (USA)

Tech Service

Tel: +1.847.264.5614

Parts

Tel: +1.847.2645612

Fax for both: +1.847.264.5613

Copies of Namco Game Manuals can be downloaded from our website: www.namcoamerica.com/manuals.php

NAMCO UK

Brent Electronic,

Namco House,

Units 7-8, Acton Park Estate,

The Vale,

London. W3 7QE

www.brentelectronic.co.uk

For Technical Support, Warranty and

Advance Replacement Parts: Tel: +44 (0) 20 8324 6120

For Consumable Parts:

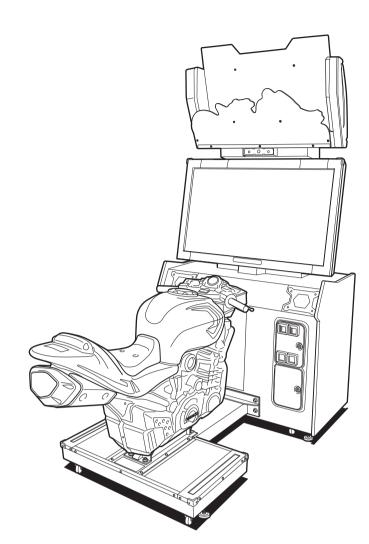
Tel: +44 (0) 20 8324 6102

Fax for both:- +44 (0) 20 8324 6126

Copies of Namco Game Manuals can be downloaded from our website:

www.namco.co.uk/brentelectronic/techni

cal-manuals/namco.html





DEAD HEAT RIDERS

Operation Manual

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

© NAMCO BANDAI Games Inc.

© NAMCO BANDAI Games Inc

DEAD HEAT RIDERS

Operation Manual

⚠ DANGER

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

© NAMCO BANDAI Games Inc.

2706101101

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

(

2013/05/22 10:24:4

AV0023_EN. indb 1



Introduction

Thank you very much for purchasing DEAD HEAT RIDERS (referred to as the "machine" in this manual).

This Operation Manual describes:

- 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.

Contact for machine and machine repair inquiries

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







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

Instructions to the Owner

· If you delegate 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 before starting work and observe the corresponding precautions.

Levels of Risk 1-1

The safety and property damage precautions on the machine warning 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 the design, manufacture, inspection, maintenance or service at an amusement device manufacturer, or a person involved routinely in the maintenance or management (such as repair) of amusement devices and has specialist knowledge of electricity, electronics or mechanical engineering equivalent to or higher than a technical high school graduate.

2

3

4

5 6

7

8A

8B

9

10

11

Troubleshooting



1-3 Critical Safety Precautions

- NWARNING -

- 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.
- Sections of the monitor remain at a high temperature and high voltage even after the power switch is turned off.
 - To avoid electric shock or burns, be careful not to accidentally touch these sections.
- Dust accumulating on the power cord plug may cause fire. Inspect the plug regularly and remove any dust.
- Fully insert the power cord plug into the outlet. Poor contact may generate heat and cause 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 maximum current consumption 1.8 A in case of AC 230 V specifications, or maximum current consumption 3 A in case of AC 120 V specifications. To prevent fire and electric shock, use indoor wiring that conforms to these power supply specifications.
- Use a power supply voltage range of AC 230 V ±10 V (in case of AC 230 V specifications) or AC 120 V ±10 V (in case of AC 120 V specifications). 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 230 V in case of AC230 specifications or at AC 120 V in case of AC120 V specifications as much as possible.
- Use the consumables and service parts (including screws) that are specified by our company.
 Use of non-specified consumables and parts may result in unforeseen hazards. 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.
- If you decide to transfer the ownership of this machine, be sure to provide this Operation Manual with the machine.





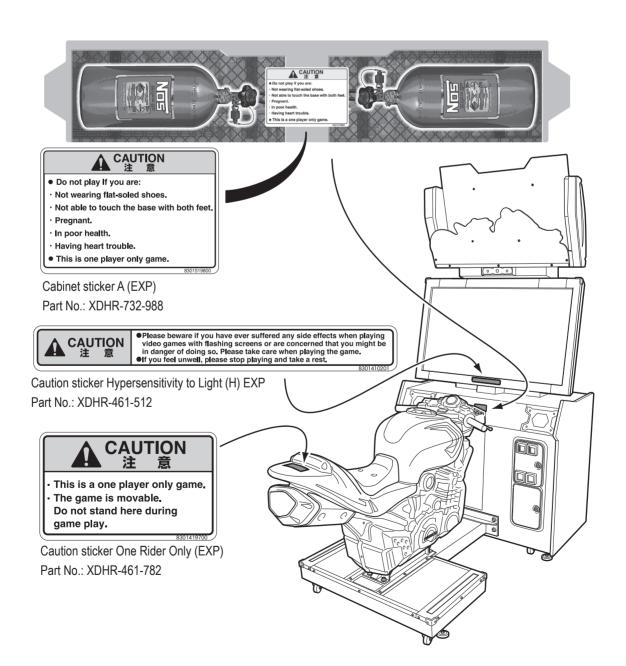


1-4 Machine Warning Labels

!WARNING

- The warning labels contain important information for ensuring safety. Be sure to observe the following.
 - ordeline 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 game machines or objects.
 - not Demove or alter the warning labels.
 - a wallfiing label becomes excessively dirty or damaged, replace it with a new one. To order warning labels, contact your distributor.

Front



1

2

3

4

5

6 7

8A

8B

9

10

11

Safety Precautions -Be sure to read to ensure safe operation-

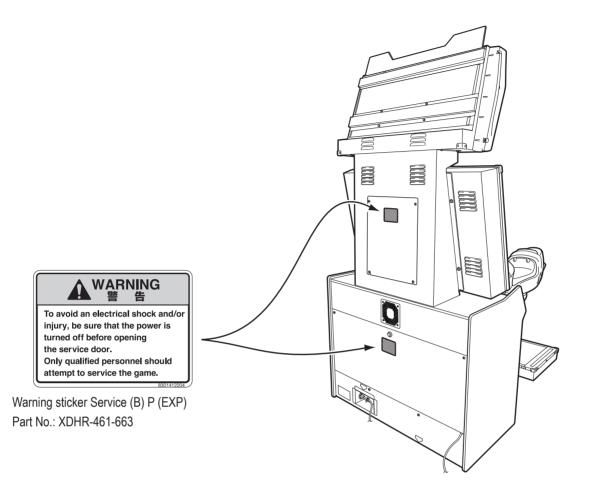
est Mode

Troubleshooting



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

Rear



(



Table of Contents

Introduction	
1. Safety Precautions -Be sure to read to ensure safe operation-	1
1-1 Levels of Risk	1
1-2 Definition of "Technician"	1
1-3 Critical Safety Precautions	2
1-4 Machine Warning Labels	3
Table of Contents	5
2. Specification	9
3. Package Contents	12
4. Overall Structure (Part Names)	14
5. Delivery and Installation Conditions	15
5-1 Installation Conditions	15
5-1-1 Unsuitable Installation Locations	
5-1-2 Play Area for the Installed Machine	16
5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors)	17
6. Moving and Transportation	19
6-1 Moving (Within the Same Floor)	19
6-2 Transportation	20
6-2-1 Manual Transportation (Such as Carrying on Stairs)	
6-2-2 Loading to and Unloading from a Vehicle	
6-2-3 Manual Transportation by Vehicle	
7. Operation	
7-1 People Who Should Avoid Playing	24
7-2 Safety Precautions for Playing	24
7-3 Important Parts for Ensuring Player and Bystander Safety	25
7-4 Pre-operation Inspection	26
7-4-1 Safety Inspection (Before Power On)	
7-4-2 Safety Inspection (After Power On)	
7-4-3 Function Inspection (After Power On)	
7-5 Playing the Game	
7-6 Turning the Power Switch On	
7-7 Adjustment	
7-7-1 Adjustment Switches	31

Troubleshooting





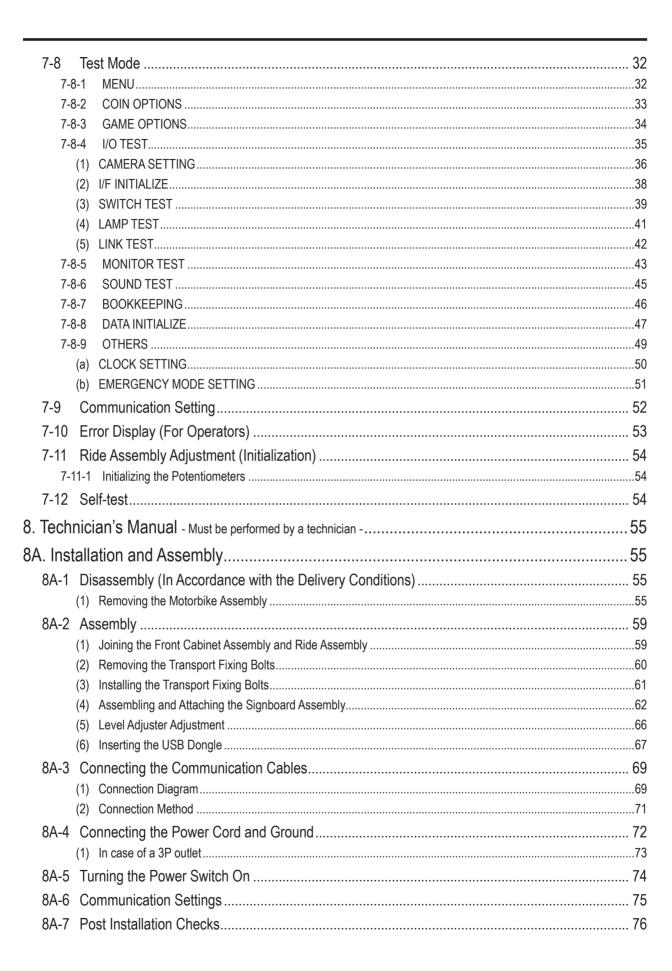






Table of Contents

3. Service	77
8B-1 Inspection and Service	77
8B-1-1 Points for Inspection	77
(1) Level Adjuster Inspection	77
(2) Power Cord Plug Inspection	77
(3) Screw Looseness Inspection	77
(4) Cable Inspection	77
8B-2 Troubleshooting	78
8B-2-1 Overall	
8B-2-2 Cabinet Assembly	
8B-2-3 Ride Assembly	
8B-2-4 Monitor Assembly	
8B-2-5 Signboard Assembly	80
8B-2-6 Base Frame Assembly	80
8B-2-7 Handlebar Assembly	80
8B-2-8 Error Display	81
8B-3 Removing, Installing and Replacing Assemblies and Parts	82
8B-3-1 Signboard Assembly	
(1) Replacing the LED Light Tube	
(2) Replacing the LED PC Board	
8B-3-2 Cabinet Assembly	
(1) Replacing the Game PC Board	
(2) Replacing the 4CH AMP PC Board	
(3) Replacing the NA-JV (S) PC Board	
(4) Replacing the Switching Regulator (12 V)	90
(5) Replacing the USB Camera	91
(6) Replacing the Coin Selector	93
Replacing the Micro Switch	94
Replacing the Lamp	95
(7) Replacing the Fuse	96
8B-3-3 Monitor Assembly	97
(1) Replacing the LCD Monitor	97
8B-3-4 Handlebar Assembly	100
(1) Replacing the View Change Button	100
(2) Replacing the Accelerator Potentiometer	102
(3) Replacing the Brake Switch	104
(4) Replacing the NITROUS Button Unit and LED Light	105
8B-3-5 Ride Assembly	106
(1) Replacing the Muffler End LED	106
(2) Replacing the Tail Lamp LED	108
(3) Replacing the Bank Angle Potentiometer	109
(4) Replacing the Base Frame LEDs	111
Disposal	113

•

6

7

8A 8B

9

10

Table of Contents

Test Mode

Troubleshooting

•







10. Part	ts List	114
10-1	Front Cabinet Assembly	114
10-2	Ride Assembly	115
10-3	Cabinet Assembly	116
10-4	Cord Box Assembly	118
10-5	Service Panel Assembly	119
10-6	Monitor Stand Assembly	120
10-7	Monitor Assembly	122
10-8	Signboard Assembly	124
10-9	Base Frame Assembly	126
10-10	Tilt Assembly	128
10-11	Motorbike Assembly	130
10-12	Handlebar Assembly	132
10-13	Other Repair Parts	134
11. Wiri	ng Diagrams	135
11-1	Overall Wiring Diagram (120 V) 1/3	135
11-2	Overall Wiring Diagram (120 V) 2/3	136
11-3	Overall Wiring Diagram (120 V) 3/3	137
11-4	Overall Wiring Diagram (230 V) 1/3	138
11-5	Overall Wiring Diagram (230 V) 2/3	139
11-6	Overall Wiring Diagram (230 V) 3/3	140
Copyrig	hts and Trademarks	

•







2. Specification

(1) Rated power supply AC 230 V specifications: AC 230 V ±10 V

AC 120 V specifications: AC 120 V \pm 10 V

(2) Rated power consumption 33

(3) Maximum current consumption AC 230 V specifications: 1.8 A

AC 120 V specifications: 3 A

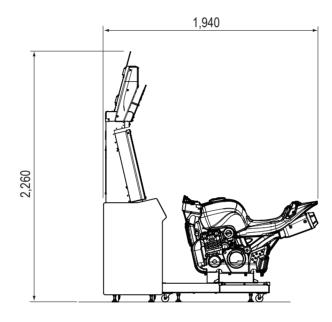
LCD monitor (42-inch)

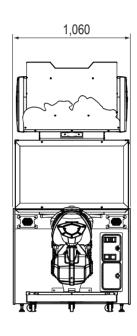
(4) Monitor

(5) Dimensions

1) When installed

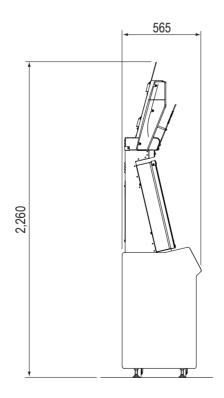
Width (W) 1,060 x Depth (D) 1,940 x Height (H) 2,260 [mm]

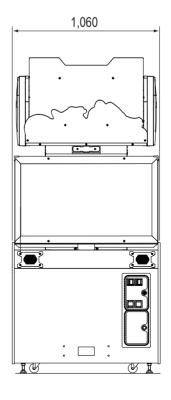




2) When disassembled Front cabinet assembly

Width (W) 1,060 x Depth (D) 565 x Height (H) 2,260 [mm]





2

3

4

5

6 7

8A

OA

8B 9

10

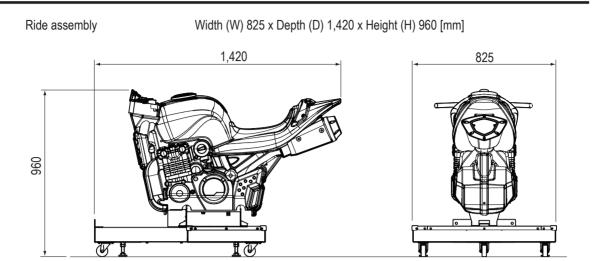
11

Specification

Test Mode Troubleshooting



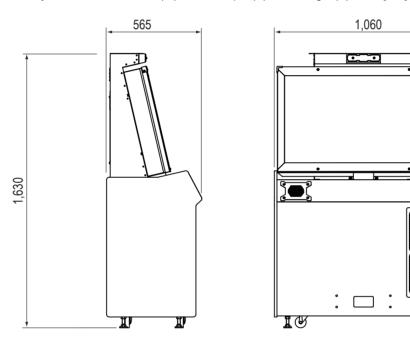




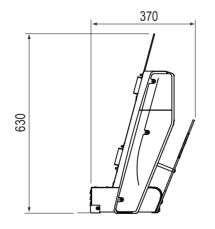
(

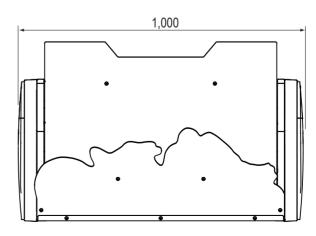
Cabinet assembly

Width (W) 1,060 x Depth (D) 565 x Height (H) 1,630 [mm]



Signboard assembly Width (W) 1,000 x Depth (D) 370 x Height (H) 630 [mm]









2. Specification

1

2

3

4 5

6

7

8A

8B 9

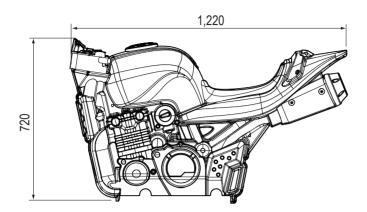
10

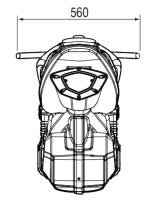
Specification

Motorbike assembly

Width (W) 560 x Depth (D) 1,220 x Height (H) 720 [mm]

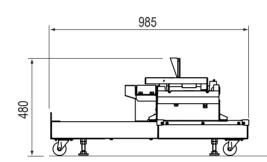
•

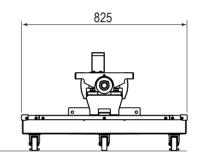




Base frame assembly

Width (W) 825 x Depth (D) 985 x Height (H) 480 [mm]





(6) Weight

(

1) When installed	230 kg
2) When disassembled	
Front cabinet assembly	146 kg
Cabinet assembly	130 kg
Signboard assembly	16 kg
Ride assembly	84 kg
Motorbike assembly	16 kg
Base frame assembly	68 kg

Test Mode

Troubleshooting



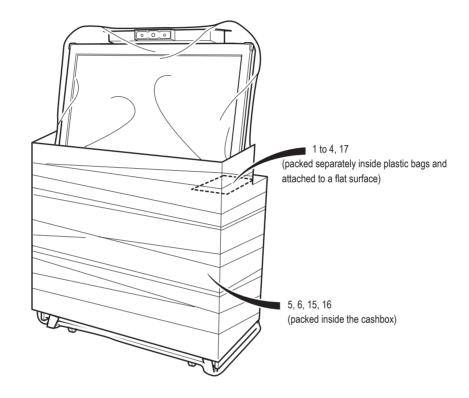
3. Package Contents

The following items are included when this machine is shipped.

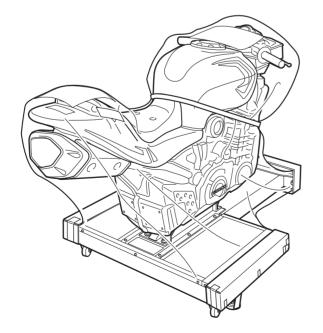


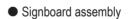
- Make sure that all the items below are contained in the product package.
- If any items are missing, contact your distributor.

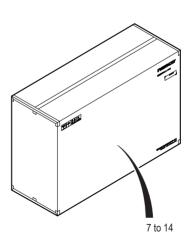
Front cabinet assembly















3. Package Contents

•	Supplied	Item	List

•

No.	Name	Specification	Qty.
1	Operation Manual (this manual)		1
2	Service key (FRONT)		2
3	Service key (BACK)		2
4	Cashbox key		2
5	Torx wrench	M5·T25	1
6	Communication cable	LAN cable (5 m)	1
7	Signboard assembly		1
8	Back board		1
9	Motorbike signboard A		1
10	POP bracket bottom (L)	For signboard assembly	1
11	POP bracket bottom (R)	For signboard assembly	1
12	Torx bolt (M5 x 12)	For signboard assembly	10
13	Hexagon cap nut (M5)	For signboard assembly	6
14	Phillips hexagon socket head bolt (with flat and spring washers) (M6 x 20)	For signboard assembly	4
15	Phillips hexagon socket head bolt (with flat and spring washers) (M8 x 35)	For connecting the front cabinet assembly and ride assembly	4
16	Phillips hexagon socket head bolt (with flat and spring washers) (M10 x 20)	For fixing the foot guard	2
17	USB dongle		1

•

1

2

3

4

5

6 7

8A

8B

9 10

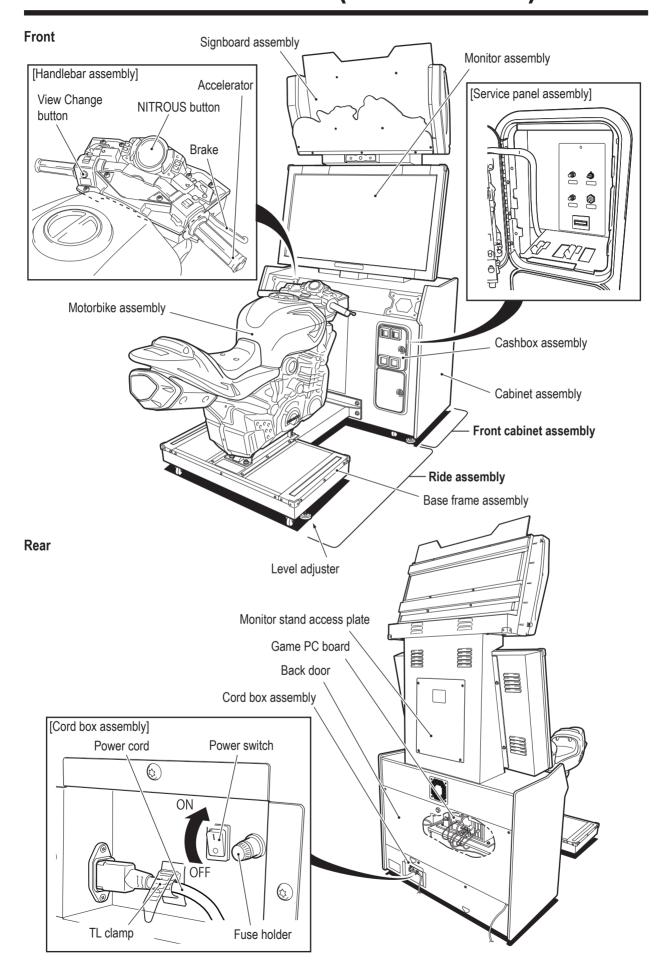
Package Contents

Test Mode

Troubleshooting



4. Overall Structure (Part Names)







5

11

Overall Structure (Part Names) / Delivery and Installation Conditions

5. Delivery and Installation Conditions

!WARNING —

- Install the machine according to the instructions in this Operation Manual. If you do not follow these instructions, it may result in fire, electric shock, injury or malfunction.
- Fully insert the power cord plug into the outlet. Poor contact may generate heat and cause fire
- 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-4 Connecting the Power Cord and Ground" on page
- Install the machine securely by using the level adjusters. Unstable machine installation may result in accident or injury. (See "8A-2 (5) Level Adjuster Adjustment" on page 66.)

Installation Conditions 5-1

!WARNING -

 Do not block the air intake and exhaust vents on the back and sides of the machine with any objects or a wall, etc. If the air intake and exhaust vents are blocked, the inside of the machine may become hot and result in fire or malfunction.

5-1-1 **Unsuitable Installation Locations**

!WARNING

- The machine is designed for indoor use. Never install the machine outside or in the following
 - · 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

(



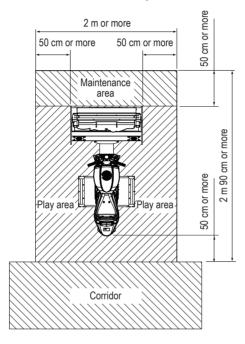
5-1-2 Play Area for the Installed Machine

CAUTION

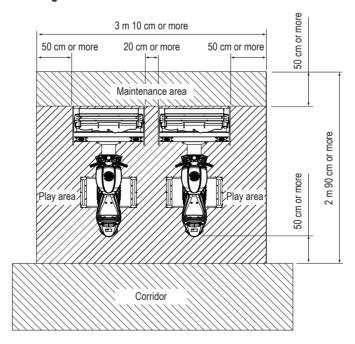
 Create a play area around the machine so that players leaving the machine do not bump into bystanders or passersby.



- Leave space of 50 cm or more between the back side of the machine and the wall or other machines to enable the back door to be removed for service.
- A ceiling height of 2 m 30 cm or more is required.



When installing two or more machines







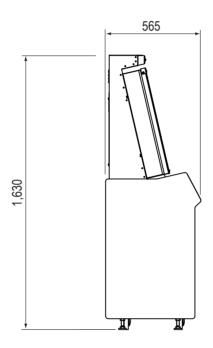


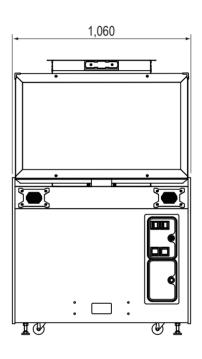
5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors)

Entryways and corridors must be larger than the dimensions noted below.

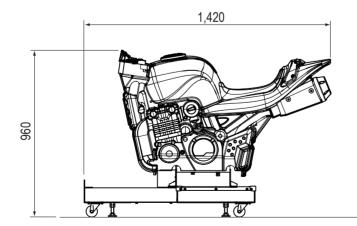
The machine is disassembled at the time of shipment. The dimensions of the main units are as follows.

Cabinet assembly
 Width (W) 1,060 x Depth (D) 565 x Height (H) 1,630 [mm]
 Weight 130 kg

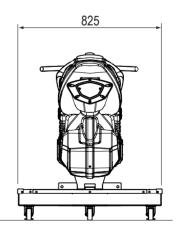




Ride assembly
 Width (W) 825 x Depth (D) 1,420 x Height (H) 960 [mm]
 Weight 84 kg



AV0023_EN. indb 17



1

2

3

4

5

6

7 8A

8B

9

10

<u> 11</u>

Delivery and Installation Conditions

Test Mode

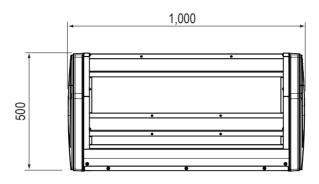
Troubleshooting

17

2013/05/22 10:25:27



Signboard assembly
 Width (W) 1,000 x Depth (D) 300 x Height (H) 500 [mm]
 Weight 16 kg

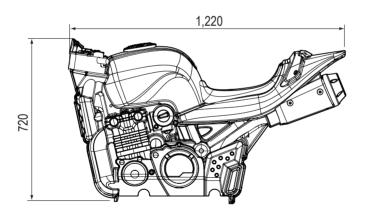


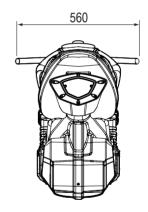


Refer to the above dimensions and check beforehand that the machine can be carried in without problem. In addition, the machine can be disassembled as follows in accordance with the delivery route conditions.

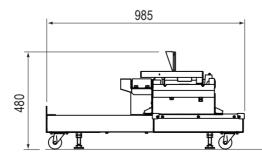
* When disassembly is not necessary, go to "8A-2 Assembly" on page 59.

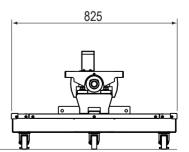
Motorbike assembly
 Width (W) 560 x Depth (D) 1,220 x Height (H) 720 [mm]
 Weight 16 kg





Base frame assembly
 Width (W) 825 x Depth (D) 985 x Height (H) 480 [mm]
 Weight 68 kg





For the disassembly method, see "8A-1 Disassembly (in Accordance with the Delivery Conditions)" on page 55.







6. Moving and Transportation

Do not leave the machine on a slope. It may fall over or cause accident.

6-1 Moving (Within the Same Floor)



- Even when moving the machine only a short distance, be sure to raise the level adjusters of the front cabinet assembly and ride assembly to their highest level. (See "8A-2 (4) Level Adjuster Adjustment" on page 66.)
- The plastic parts are weak. Do not apply strong force to these parts.
- Move the machine carefully to avoid damaging it.
- Be sure to turn off the power switch before starting work.
- Be sure to disconnect the communication cable and power cord from the machine and handle them carefully. Be especially careful when connecting and disconnecting the communication cable connectors. (See "8A-3 Connecting the Communication Cables" on page 69.)
- Turn off the power switch of the machine. (See "8A-5 Turning the Power Switch On" on page 74.)

 Disconnect the power cord and communication cable.
- Raise the level adjusters of the machine to their highest level. (seven locations total) (See "8A-2 (5) Level Adjuster Adjustment" on page 66.)
- 3 Disassemble and move the machine in accordance with the delivery route conditions.

4 After moving the machine, refer to "5-1 Delivery and Installation Conditions" on page 15 and install the machine.

1

2

3

4

5 6

7

8A

8B

9

10

11

Test Mode

Troubleshooting

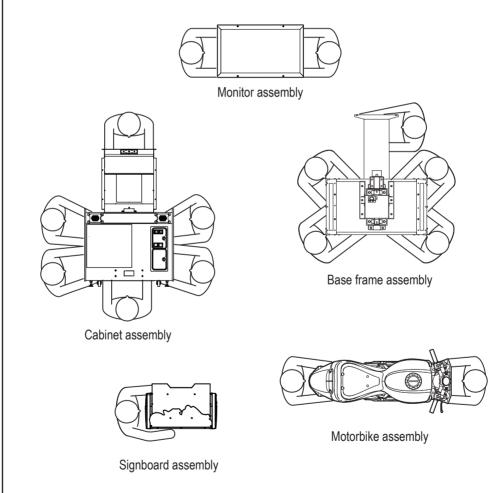


6-2 Transportation

6-2-1 Manual Transportation (Such as Carrying on Stairs)

- Before transporting the machine manually, be sure to disassemble it into the cabinet assembly, monitor assembly, signboard assembly, base frame assembly and motorbike assembly. Transporting the assembled machine manually may result in accident or injury. (See "8A-1 Disassembly (in Accordance with the Delivery Conditions)" on page 55 and "8A-2 Assembly" on page 59.)
- When transporting the machine manually, be sure to use the following number of people.
 Overburdening yourself may result in accident or injury.

Cabinet assembly : 6 people or more
 Signboard assembly : 1 person or more
 Base frame assembly : 5 people or more
 Motorbike assembly : 2 people or more
 Monitor assembly : 2 people or more





• Do not subject the machine to impact while lowering it.

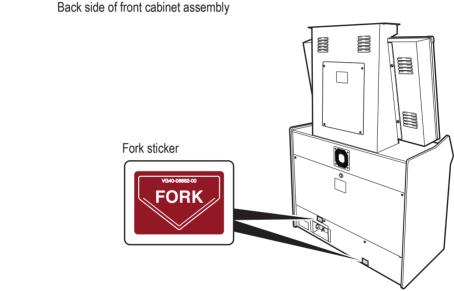




Loading to and Unloading from a Vehicle 6-2-2

- Before transporting the machine manually, be sure to disassemble it into the cabinet assembly, monitor assembly, signboard assembly, base frame assembly and motorbike assembly. Transporting the assembled machine manually may result in accident or injury. (See "8A-1 Disassembly (in Accordance with the Delivery Conditions)" on page 55 and "8A-2 Assembly" on page 59.)
- When using a forklift to transport the front cabinet assembly, observe the following. Failure to observe the following may result in accident, such as the front cabinet assembly falling over.
 - Be sure to insert the forks into the specified positions.
 - Make sure that the front cabinet assembly is balanced properly during transportation.

Back side of front cabinet assembly





(

Do not subject the front cabinet assembly to impact while raising or lowering it with the forklift.

2

3

4

5

6

7

8A

8B

9

10

11

Moving and Transportation

Troubleshooting



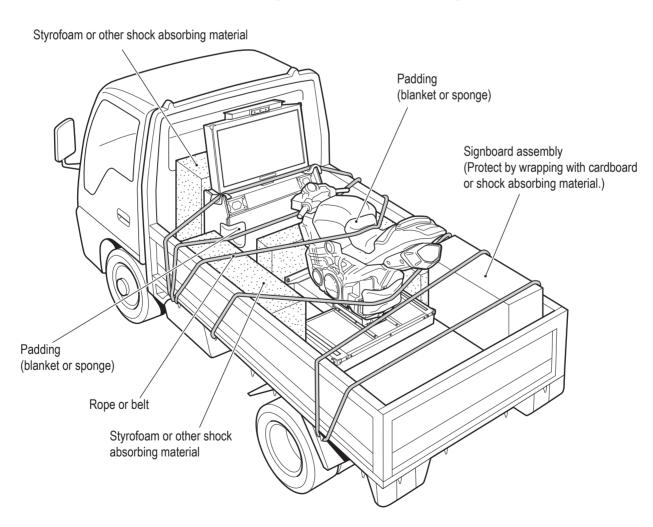
6-2-3 Manual Transportation by Vehicle

- <u>^</u>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 accident.



- Do not subject the machine to impact while lowering it.
- Be sure to attach the transport fixing bolts. (See "8A-2 (2) Removing the Transport Fixing Bolts" on page 60)
- When securing the machine with a rope, observe the following.
 - Be sure to secure the machine with the rope in the positions shown in the figure below.
 - Place blankets or other shock absorbing material between the machine and the rope 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.
- Be sure to disassemble the signboard assembly from the cabinet assembly, and remove the back board and motorbike signboard. Transporting the assembled machine manually may result in accident or injury. (See "8A-2 (4) Assembling and Attaching the Signboard Assembly" on page 62)
- 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.







6

4

10

11

WARNING

(

- The motorbike part of the machine moves to the right and left, so if bystanders or passersby, especially small children, carelessly approach the machine, they may get bumped by the machine and be injured. Post signs or take other measures to caution bystanders or passersby not to approach the machine too closely, and guide them to safe positions.
- Should an abnormality occur, turn off the power switch immediately to stop operation. 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 cause fire. Inspect the plug regularly and remove any dust.
- Fully insert the power cord plug into the outlet. Poor contact may generate heat and cause fire
 or burns.
- Before operating the machine, be sure to check that installation has been performed according to the instructions and specified procedures in this Operation Manual (see "5. Delivery and Installation Conditions" on page 15). Failure to install the machine correctly may result in fire, electric shock, injury or malfunction.
- The warning labels contain important information for ensuring safety. Be sure to observe the following.
 - In order 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 game 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 "7-4
 Pre-operation Inspection" on page 26) and service (see "8B. Service" on page 77) described in
 this Operation Manual. Omitting these inspections or service may result in accident.

NOTICE

7. Operation

- Do not turn off the power switch during game play. It may corrupt the Test mode settings.
- When turning on the power switch, make sure to turn on the power switches of all communication-linked machines within 5 minutes or the machines may not be able to communicate properly.
 The communication status can be assessed by checking the "UP TO × PLAYERS CAN RACE!" message (where × is the number of communicating machines) that is displayed in the center of the title screen.
- Make sure that games being played on other communication-linked cabinets have finished before turning off the power switch. Otherwise, the games being played may be affected.

Test Mod

Troubleshooting



7-1 People Who Should Avoid Playing

CAUTION -

- The machine is designed for one player (one rider) only. If two or more people attempt to ride
 at the same time, they may fall from the motorbike, resulting in injury.
- To ensure the safety of players, be careful not to let the following types of people play. Otherwise, this may result in accident.
 - People wearing slippery shoes or shoes with high heels, etc
 - People whose feet cannot reach the steps when sitting on the seat
 - · People who are pregnant
 - People with heart conditions
 - People under the influence of alcohol
 - · People with other ailments

7-2 Safety Precautions for Playing

CAUTION

- If a player starts feeling ill because of the game images or light stimulation, they must stop
 playing and 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.



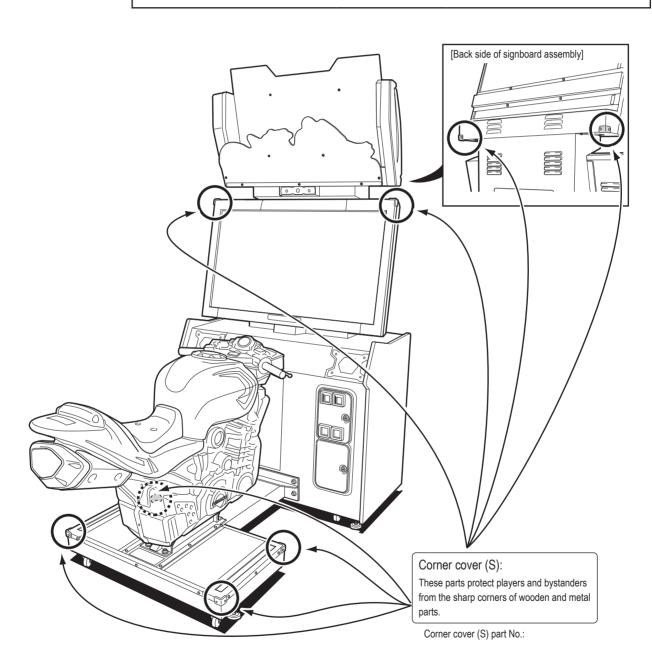




7-3 Important Parts for Ensuring Player and Bystander Safety

!WARNING -

This machine includes important parts used to ensure the safety of players and bystanders. Operating the machine while these "important parts for ensuring player and bystander safety" are broken, damaged or deteriorated, or with defective installation may result in injury to the players or bystanders. If you discover an abnormality, replace the affected part immediately. To order parts, contact your distributor.



1

2

3

4

5

6

7

8A

8B

9

11

Operation

Test Mode

Troubleshooting

(1)



7-4 Pre-operation Inspection

Check the items below before operating the machine.

If there is an abnormality, resolve it referring to "8B-2 Troubleshooting" on page 78.

7-4-1 Safety Inspection (Before Power On)

- /!\WARNING -

- Before operating the machine, check the following locations. This is required to prevent accident or injury.
- Operating the machine while parts are broken, damaged or deteriorated, or while the installation
 is defective, may result in injury to the player or a bystander. If you discover an abnormality,
 replace the affected part immediately.

To order parts, contact your distributor.

- (1) Are all warning labels legible?(See "1-4 Machine Warning Labels" on page 3.)
- (2) Are all level adjusters adjusted properly so that the machine is stable? (Front cabinet assembly and ride assembly) (See "8A-2 (5) Level Adjuster Adjustment" on page 66.)
- (3) Is the specified play area provided? (See "5-1-2 Play Area for the Installed Machine" on page 16.)
- (4) Are the power cord and communication cables laid out safely so that they will not cause players or other customers to trip over them?
- (5) Have the transport fixing bolts been removed? (Ride assembly) (See "8A-2 (2) Removing the Transport Fixing Bolts" on page 60.)
- (6) Are the front cabinet assembly and the ride assembly fixed securely to each other?
- (7) Are the monitor assembly and the cabinet assembly fixed securely to each other?
- (8) Are the signboard assembly and the cabinet assembly fixed securely to each other?
- (9) Are the motorbike assembly and the base frame assembly fixed securely to each other?
- (10) Are the corner covers (S) damaged, broken or deteriorated?

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

7-4-2 Safety Inspection (After Power On)

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







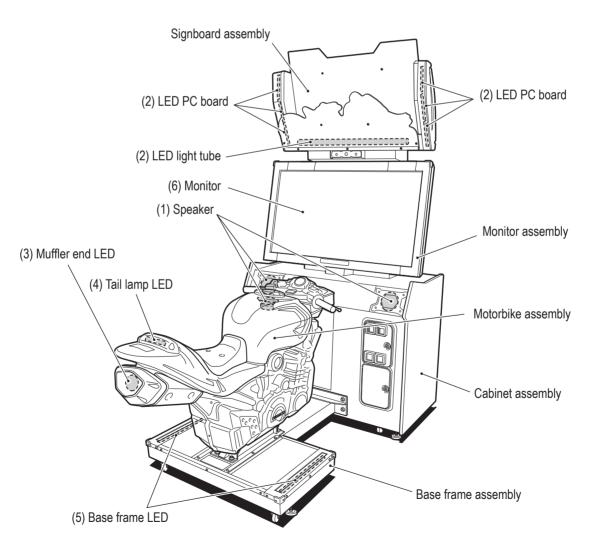
7-4-3 Function Inspection (After Power On)

Check the following items after turning on the power switch. (See "7-6 Turning the Power Switch On" on page 30.)

- (1) Check the audio. (Is sound produced by each speaker?) (See "7-8-6 SOUND TEST" on page 45.)
- (2) Check the LED light tube and LEDs of the signboard assembly. (Do the LED light tube and LEDs light up?)
- (3) Check the muffler end LED. (Does the LED light up?)
- (4) Check the tail lamp LED. (Does the LED light up?)
- (5) Check the base frame LEDs. (Do the LEDs light up?)
- (6) Check the monitor display. (Does the monitor operate properly?) (See "7-8-5 MONITOR TEST" on page 43.)

To check the following inspection items, test play the actual game, and perform the SWITCH TEST to check operation. (See "7-8-4 (3) SWITCH TEST" on page 39.)

- (7) Check the handlebar assembly operation.
- (8) Check the bank angle potentiometer operation.
- (9) Check the operation of each switch and button.



1

2

3

4

5

6

7

8A

8B

9

10

11

11

Operation

Test Mode

Troubleshooting



Playing the Game 7-5

CAUTION

- If you discover anyone behaving as follows, tell them to stop immediately. Such behavior may cause accident.
 - · Two people sitting on the machine at the same time.
 - · A person other than the player touching the motorbike assembly.
- If a player starts feeling ill because the game images or light stimulation, they must stop playing and 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.

This machine is a communication-linked racing game where players ride simulations of motorbikes on closed public road courses to compete for rankings.

Up to four players can race against each other using the communication function, and photos of opponents appear during the race.

[Controls during Game Play]

• Tilt the motorbike

The motorbike turns in the tilted direction.

Rotate the accelerator

The motorbike accelerates in accordance with the rotation amount.

· Pull the brake lever

The motorbike decelerates.

• Press the NITROUS button

The motorbike accelerates rapidly.

· Press the View Change button

The view on the display switches between third-person viewpoint and first-person viewpoint.

[Game Flow]

When coins equal to the credits required for game play are inserted, the player selects the course and motorbike type, the camera takes the player's photo, and then game play starts.

[Game Settings]

(1) Communication linked racing

When coins equal to the credits required for game play are inserted, the displays of other cabinets connected by communication cables change to the VS challenger entry screen. When coins equal to the credits required for game play are inserted into any of the linked cabinets within the time limit, a VS player mode game is established. When a VS player mode game is not established, operation switches to single-player mode.







(2) Course selection

Tilt the motorbike to the right or left to select the race course from the four cities of NEW YORK, SAN FRANCISCO, CHICAGO and LONDON, and press the NITROUS button to enter the selection.

If a selection is not entered within the time limit, the city selected when the time runs out is automatically selected as the course.

* The first player to insert coins equal to the credits required for game play selects the course.

(3) Motorbike selection

Tilt the motorbike to the right or left to select the motorbike from the five types of MX TYPE, STREET TYPE, SPORTS TYPE, SCOOTER TYPE and AMERICAN TYPE, and press the NITROUS button to enter the selection. If a selection is not entered within the time limit, the motorbike type selected when the time runs out is automatically selected.

(4) Photo shooting

The image viewed through the camera is displayed on the monitor.

Press the NITROUS button to take a photo. If the NITROUS button is not pressed within the time limit, a photo is automatically taken when the time runs out.

The taken photo is registered to the game.

(5) Accepting the photo

The player confirms whether to save the taken photo and register it in other player's games.

If YES is selected, the photo is saved in the cabinet and registered as a rival motorbike in other player's games.

If NO is selected, the photo is not saved and not registered as a rival motorbike in other player's games.

Up to 250 saved photos are stored between the communication-linked cabinets. Saved photos are automatically deleted 6 hours after they are taken or when the number of photos exceeds 250, whichever comes first. In the latter case, photos are deleted in order from oldest to newest.

In addition, the photo data can be initialized using PHOTO DATA INITIALIZE as described in "7-8-8 DATA INITIALIZE" on page 47.

Players can use these photos to distinguish between their opponents during races.

[Races]

Races start when the screen display changes from READY to GO.

Race play is possible until the timer showing the time limit at the upper right of the screen reaches "0".

When the specified distance is driven along the course within the time limit, the race finishes.

The NITROUS button can be used while racing to rapidly accelerate the motorbike.

The NITROUS button can be used up to three times per race.

The viewpoint displayed by the machine can be changed while racing.

Each time the View Change button is pressed, the display switches between first-person viewpoint and third-person viewpoint.

1

2

3

4

5

6 7

8A

8B

9

10

11

Operation

Toct N

│ Troubleshooting

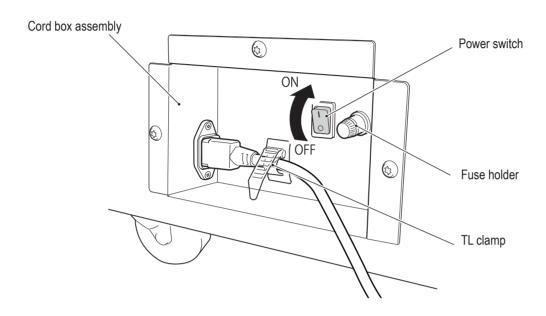






7-6 **Turning the Power Switch On**

Turn on the power switch located in the cord box assembly on the back side of the front cabinet assembly.







• Do not turn the power switch on and off repeatedly. Doing so may result in a machine malfunction. When turning the power switch off and on in succession (OFF \rightarrow ON \rightarrow OFF, ON \rightarrow OFF \rightarrow ON), wait 30 seconds or more between operations to protect the machine.

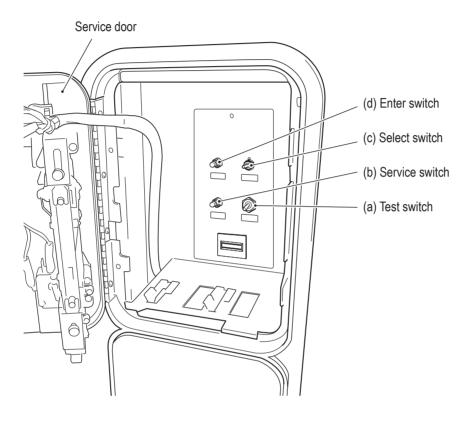




7-7 **Adjustment**

7-7-1 **Adjustment Switches**

Open the service door for access to the adjustment switches.



(a) Test switch

Set this switch to ON to enter Test mode.

(b) Service switch

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

(c) Select switch

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

(d) Enter switch

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



Press the buttons slowly and firmly. If pressed too fast, the buttons may not operate.

2

3

4

5

6

7

8A

8B

9

10

11

Troubleshooting

2013/05/22 10:25:39



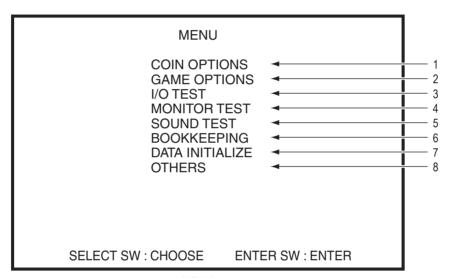
7-8 Test Mode



- Make sure that games being played on other communication-linked cabinets have finished before entering Test mode. Otherwise, the games being played may be affected.
- The number of communication-linked machines can be checked by referring to the "UP TO × PLAYERS CAN RACE!" message that is displayed in the center of the title screen or "LINKED=×" that is displayed in the GAME OPTIONS screen (see "7-8-3 GAME OPTIONS" on page 34). (× refers to the number of communicating machines.)

7-8-1 **MENU**

Use the supplied key to open the service door and set the Test switch to ON. The MENU screen appears.



MENU screen

- 2 Flip the Select switch up and down to select an item. The selected item blinks.
- Press the Enter switch to enter the selected item. When the selection is entered, the screen displays the detailed information for the selected item.

	Item	Description	Reference section
1	COIN OPTIONS	Game cost and other settings.	See 7-8-2.
2	GAME OPTIONS	Settings for communication between cabinets.	See 7-8-3.
3	I/O TEST	Switch and light tests.	See 7-8-4.
4	MONITOR TEST	Monitor adjustment. Pattern display.	See 7-8-5.
5	SOUND TEST	Volume adjustment, etc.	See 7-8-6.
6	BOOKKEEPING	Displays operating time, play count and other data.	See 7-8-7.
7	DATA INITIALIZE	Individual initialization of each backup data.	See 7-8-8.
8	OTHERS	Time, displayed distance unit, and camera OFF mode settings.	See 7-8-9.

⁴ After finishing all the adjustments, set the Test switch to OFF. The display returns to the game screen.





8B

10

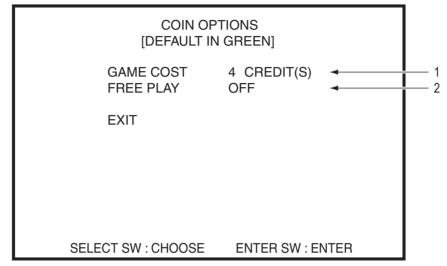
11

Operation

7-8-2 COIN OPTIONS

This screen is used to adjust the game cost and free play settings.

In the MENU screen, select COIN OPTIONS and press the Enter switch. The following screen appears.



COIN OPTIONS screen

- 2 Use the Select switch to select an item. The selected item blinks.
- 3 Select the desired item and press the Enter switch. When the selection is entered, the setting for that item can be changed.
- 4 Use the Select switch to change to the desired setting, then press the Enter switch to enter the setting.

	ltem	Description	Default
1	GAME COST	Setting for the number of coins required for a game. 1 to 19	4
2	FREE PLAY	Free play setting. Two settings: ON/OFF OFF: Normal coin-operated play ON: Free play operation	OFF

After finishing all the adjustments, select EXIT and press the Enter switch to return to the MENU screen.

Test Mode

Troubleshooting



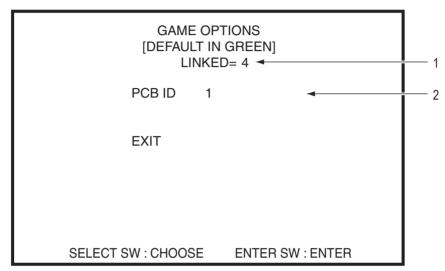
^{*} The maximum number of coins that the cash box can hold is 255.



7-8-3 GAME OPTIONS

This screen is used to adjust the communication settings.

In the MENU screen, select GAME OPTIONS and press the Enter switch. The following screen appears.



GAME OPTIONS screen

- 2 Use the Select switch to select an item. The selected item blinks.
- 3 Select the desired item and press the Enter switch. When the selection is entered, the setting for that item can be changed.
- 4 Use the Select switch to change to the desired setting, then press the Enter switch to enter the setting.

	Item		Description	Default
1	LINKED		Displays the communication status	
		LINKED= X	When receiving data from another PCB When the PCB ID is set correctly ("X" is the number of communicating cabinets) X = 2 to 4	Communicating
		LINKED= 1	When data cannot be received (The cable is not connected, etc.)	Not communicating
2	PCB ID		Sets the PCB ID. *1 After installing the machine, set this value to 1 to 4 in order from the cabinet on the left end. Setting range: 1 to 4	1

^{*1} Assign a value to each cabinet for communication-linked play. Make sure there are no duplicate or the cabinets will not be able to communicate with each other. In addition, the game will not start correctly.

5 After finishing all the adjustments, select EXIT and press the Enter switch to return to the MENU screen.





1

2

3

4

5

6

7

8A

8B

9

10

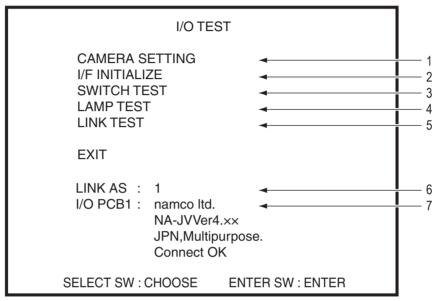
11

Operation

7-8-4 I/O TEST

This screen is used to test the switches and other components.

In the MENU screen, select I/O TEST and press the Enter switch. The following screen appears.



I/O TEST screen

- Use the Select switch to select an item. The selected item blinks.
- Select the desired item and press the Enter switch. When the selection is entered, the setting for that item can be changed.
- 4 Use the Select switch to change to the desired setting, then press the Enter switch to enter the setting.

	Item Description		
1	CAMERA SETTING	This screen is used to adjust the shooting position of the camera.	
2	I/F INITIALIZE	This screen is used to initialize the control parts (motorbike tilt, accelerator).	
3	SWITCH TEST	This screen is used to test each switch and button.	
4	LAMP TEST	This screen is used to test the lighting.	
5	LINK TEST	This screen is used to check the communication status.	
6	LINK AS	Displays the PCB ID of this cabinet.	
7	I/O PCB1	Displays the I/O PCB connection status. Normal: "Connect OK" (green) is displayed in the lowermost line. Abnormal: "Connect NG!" (red) is displayed in the lowermost line.	

After finishing all the adjustments, select EXIT and press the Enter switch to return to the MENU screen.

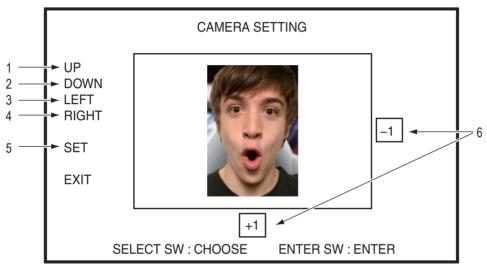
35



(1) CAMERA SETTING

This screen is used to adjust the shooting position of the camera.

- In the I/O TEST screen, select CAMERA SETTING and press the Enter switch. The following screen appears.
- 2 Use the Select switch to select an item. (movement direction) The selected item blinks.
- 3 Select the desired item and press the Enter switch to move the camera in that direction.



CAMERA SETTING screen (1)

	Item	Description	
1	UP	Moves the camera shooting position up.	
2	DOWN	Moves the camera shooting position down.	
3	LEFT	Moves the camera shooting position to the left.	
4	RIGHT	Moves the camera shooting position to the right.	
5	SET	Shoots a still image and temporarily saves the shooting position.	
6	Shooting position	Displays values indicating the offset from the default.	





1

2

3

4

5

6

7

8A 8B

9

10

11

Operation

CAMERA SETTING

CAMERA SETTING

CAMERA SETTING

-1

press the Enter switch again.

To save the changes, select SET and press the Enter switch, and then select SAVE SETTING and

(

CAMERA SETTING screen (2)

SELECT SW: CHOOSE

	Item	Description
7	CANCEL	Cancels the set shooting position and returns to step 1.
8	SAVE SETTING	Saves the set shooting position and returns to step 11.

Select CANCEL or SAVE SETTING and press the Enter switch to return to the CAMERA SETTING screen (1). Select EXIT and press the Enter switch to return to the I/O TEST screen.

ENTER SW: ENTER

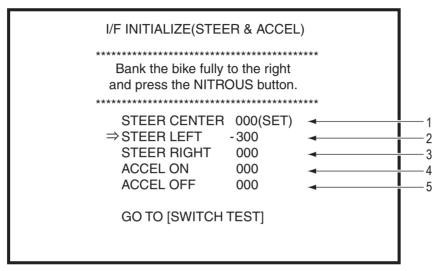
Test Mode



(2) I/F INITIALIZE

This screen is used to check the initialization of the control parts (potentiometer).

In the I/O TEST screen, select I/F INITIALIZE and press the Enter switch. The following screen appears.



I/F INITIALIZE screen

Perform initialization in order starting with the STEER CENTER item. "⇒" is displayed in front of the selected item, and the selected item blinks.

	Selection item Description		
1	STEER CENTER	Keep the bike fully upright and press the NITROUS button.	
2	STEER LEFT	Bank the bike fully to the left and press the NITROUS button.	
3	STEER RIGHT	Bank the bike fully to the right and press the NITROUS button.	
4	ACCEL ON	Turn the accel fully and press the NITROUS button.	
5	ACCEL OFF	Release the accel and press the NITROUS button.	

- After initializing each item, select GO TO [SWITCH TEST] and press the Enter switch. The screen changes to display the "(3) SWITCH TEST" items on page 39. Check that each item is normal.
- 4 Select EXIT and press the Enter switch to return to the MENU screen.





1

2

3

4

5

6

7

8A

8B

9

10

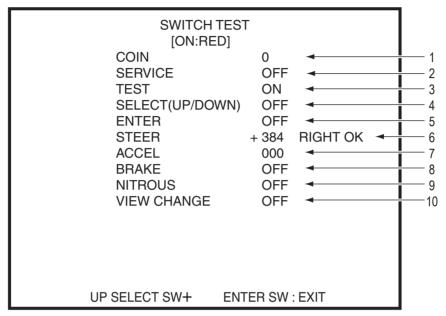
11

Operation

(3) SWITCH TEST

This screen is used to test each switch and button.

In the I/O TEST screen, select SWITCH TEST and press the Enter switch. The following screen appears.



SWITCH TEST screen

This screen displays the input status of each switch and control in real time.



- If OK is not displayed for STEER and ACCEL, perform initialization as described in "(2) I/F INITIALIZE" on page 38, then check these items again.
- Flip and hold the Select switch up and press the Enter switch to return to the I/O TEST screen.

(

39



7. Operation

	ltem	Description	
1	COIN	Each time there is input to the coin switch, the counter increments by +1. The coin counter is also triggered. When the count is incremented by +1 from 999, the value on the screen returns to 0.	
2	SERVICE	OFF: Normal ON (red): Pressed in	
3	TEST	As the machine is currently set to the mode, ON is normal. When the Test switch is set to OFF, the display returns to the game screen. ON (red): Normal	
4	SELECT (UP/DOWN)	UP: Flipped up DOWN: Flipped down	
5	ENTER	OFF: Normal ON (red): Pressed in	
6	STEER	Operate the motorbike assembly and check that the following are displayed. Upright: CENTER Tilted to the right stopper: RIGHT OK Tilted to the left stopper: LEFT OK	
7	ACCEL	Rotating the accelerator changes the value. Rotating the accelerator toward you increases the value. When the maximum value (1,000) is reached, OK is displayed.	
8	BRAKE	OFF: Normal ON (red): Lever squeezed	
9	NITROUS	OFF: Normal ON (red): Pressed in	
10	VIEW CHANGE	OFF: Normal ON (red): Pressed in	





(4) LAMP TEST

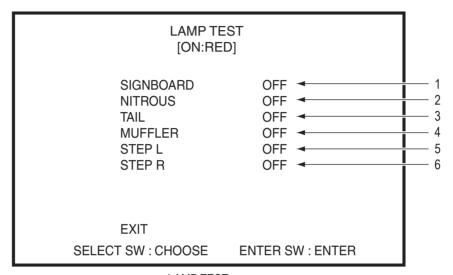
This screen is used to test the lighting.

See "7-4-3 Function Inspection (After Power On)" on page 27 for the lighting positions.

In the I/O TEST screen, select LAMP TEST and press the Enter switch. The following screen appears.

This screen is used to test the functionality of the lights and illuminated switches.

Use the Select switch to select an item. The selected item blinks.



LAMP TEST screen

3 Select the desired item and press the Enter switch. When the selection is entered, the test for that item can be performed.

Use the Select switch to set the desired lighting status. Press the Enter switch to return to the item selection status.

	Item	Description	Default
1	SIGNBOARD	Lighting status of signboard LED PC board OFF: Off ON: Lit	OFF
2	NITROUS	Lighting status of NITROUS button light OFF: Off ON: Lit	OFF
3	TAIL	Lighting status of tail lamp LED OFF: Off ON: Lit	OFF
4	MUFFLER	Lighting status of muffler end LED OFF: Off ON: Lit	OFF
5	STEP L	Lighting status of base frame LED (L side) OFF: Off ON: Lit	OFF
6	STEP R	Lighting status of base frame LED (R side) OFF: Off ON: Lit	OFF

4 After finishing all adjustments, select EXIT and press the Enter switch to return to the I/O TEST screen.

1

2

3

4

5

6

7

8A

8B

9

10

[11

Operation

Toet M

Troubleshooting

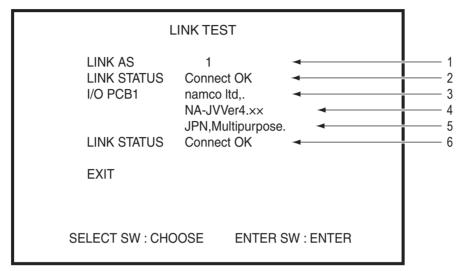
2013/05/22 10:25:41



(5) LINK TEST

This screen is used to check the communication status between cabinets connected by communication cables.

In the I/O TEST screen, select LINK TEST and press the Enter switch. The following screen appears.



LINK TEST screen

	Item	Description	
1	LINK AS	Displays the PCB ID of this cabinet.	
2	LINK STATUS	Displays the connection status between this cabinet and connected cabinets.	
3	I/O PCB1: namco ltd.	Displays the I/O PCB status of this cabinet.	
4	NA-JVVer4.xx	Same as above	
5	JPN, Multipurpose.	Same as above	
6	LINK STATUS	Displays the communication status between this cabinet and the I/O PCB. Connect OK (green): Communicating normally Connect NG (red): Not communicating normally	

2 After finishing all adjustments, select EXIT and press the Enter switch to return to the I/O TEST screen.





8B

10

11

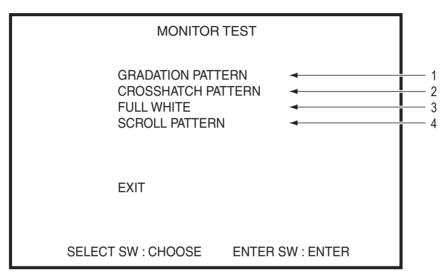
Operation

7-8-5 MONITOR TEST

This screen is used to display pattern screens for adjusting the monitor.

- In the MENU screen, select MONITOR TEST and press the Enter switch. The following screen appears.
- Press the Enter button to display the GRADATION PATTERN.

 The displayed pattern changes in the order shown below each time the Enter switch is pressed.
- 3 Press the Enter switch again while a pattern is displayed to return to the MONITOR TEST screen.



MONITOR TEST screen

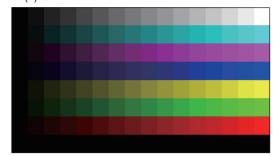
	Item	Description
1	GRADATION PATTERN	Displays a gradation pattern (16 gradations).
2	CROSSHATCH PATTERN	Displays a crosshatch pattern for checking the screen position.
3	FULL WHITE	Displays a white screen.
4	SCROLL PATTERN	Displays a scrolling pattern.

Test Mode

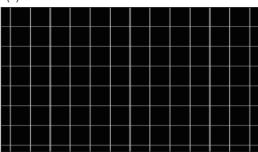


7. Operation

(1) GRADATION PATTERN



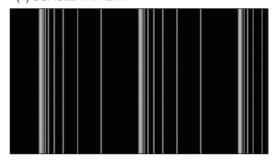
(2) CROSSHATCH PATTERN



(3) FULL WHITE



(4) SCROLL PATTERN



4 After finishing all adjustments, select EXIT and press the Enter switch to return to the MENU screen.





1

8B

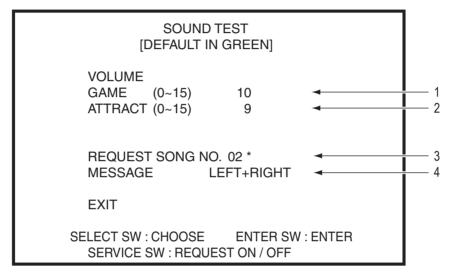
11

SOUND TEST 7-8-6

This screen is used to set the sound volume in Game mode and Attract mode.

(

- In the MENU screen, select SOUND TEST and press the Enter switch. The following screen appears.
- Use the Select switch to select an item. The selected item blinks.
- Select the desired item and press the Enter switch. When the selection is entered, the setting for that item can be changed.



SOUND TEST screen

	Set items	Description	Default
1	GAME	Sets the volume during game play. Setting range: 0 (min.) to 15 (max.)	10
2	ATTRACT	Sets the volume in Attract mode. Setting range: 0 (min.) to 15 (max.)	9
3	REQUEST SONG NO.	Use the Enter switch and Select switch to set the track number, and press the Service switch to play the music. 00: No sound 01: Stereo test Plays the music in order from the LEFT speaker, RIGHT speaker, and LEFT+RIGHT speakers. 02: Sample music for Game mode 03: Sample music for Attract mode	00
4	MESSAGE	Displays which speaker is producing the test sound during the stereo test.	

After finishing all adjustments, select EXIT and press the Enter switch to return to the MENU screen.



7-8-7 BOOKKEEPING

This screen displays various game related data.

In the MENU screen, select BOOKKEEPING and press the Enter switch. The BOOKKEEPING screen appears.

BOOKKEEPING EXIT SELECT SW : CHOOSE ENTER SW : ENTER

BOOKKEEPING screen

- As long as BOOKKEEPING INITIALIZE or ALL DATA INITIALIZE are not executed (see "7-8-8 DATA INITIALIZE" on page 47), the various data is not lost even if the power switch is turned off.
- 3 After checking the items, select EXIT and press the Enter switch to return to the MENU screen.



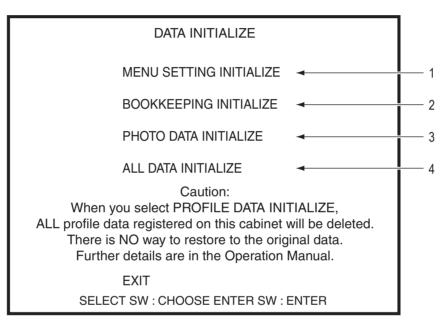


DATA INITIALIZE 7-8-8

This screen is used to initialize individual backup data items.



- Initialized data cannot be restored.
- Do not turn off the power switch while BOOKKEEPING INITIALIZE is underway. All game data may be reset.
- In the MENU screen, select DATA INITIALIZE and press the Enter switch. The following screen appears.



DATA INITIALIZE screen

- 2 Use the Select switch to select an item. The selected item blinks.
- Select the desired item and press the Enter switch. A question mark appears at the end of the selected item, followed by NO/YES.

Use the Select switch to select YES and press the Enter switch to initialize the corresponding data and return to the default settings.

After initialization is complete, the "COMPLETED!" message is displayed.

1

2

3

4

5 6

7

8A

8B

9

10

11

Operation







[When BOOKKEEPING INITIALIZE is entered]

DATA INITIALIZE

MENU SETTING INITIALIZE

BOOKKEEPING INITIALIZE? NO YES

PHOTO DATA INITIALIZE

ALL DATA INITIALIZE

Caution:

When you select PROFILE DATA INITIALIZE,
ALL profile data registered on this cabinet will be deleted.
There is NO way to restore to the original data.
Further details are in the Operation Manual.

EXIT

SELECT SW: CHOOSE ENTER SW: ENTER

"DATA INITIALIZE" BOOKKEEPING INITIALIZE select screen

	Item	Description
1	MENU SETTING INITIALIZE	Initializes the following settings that are stored in the cabinet • COIN OPTIONS settings • I/F INITIALIZE settings • SOUND settings • OTHERS settings * GAME OPTIONS settings cannot be initialized. Change these settings manually. NO: (Do not initialize) YES: (Initialize)
2	BOOKKEEPING INITIALIZE	Initializes the bookkeeping data that is stored in the cabinet. NO: (Do not initialize) YES: (Initialize)
3	PHOTO DATA INITIALIZE	Initializes all the player data (including photo data) that is stored in the cabinet. NO: (Do not initialize) YES: (Initialize)
4	ALL DATA INITIALIZE	Initializes all the data. Initializes the following settings that are stored in the cabinet • MENU SETTING • BOOKKEEPING • PHOTO DATA NO: (Do not initialize) YES: (Initialize)

4 After finishing initialization work, select EXIT and press the Enter switch to return to the MENU screen.





1

10

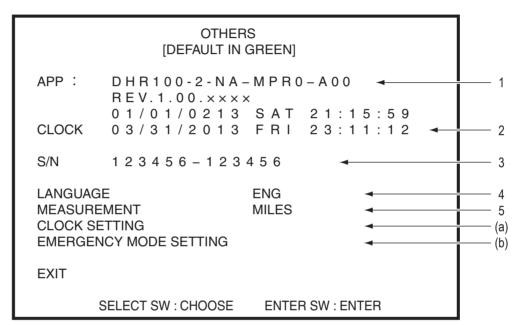
11

Operation

7-8-9 OTHERS

This screen is used to display and set other items.

- In the MENU screen, select OTHERS and press the Enter switch. The following screen appears.
- 2 Use the Select switch to select an item. The selected item blinks.
- 3 Select the desired item and press the Enter switch. When the selection is entered, the setting for that item can be changed.



OTHERS screen

	Item	Description	
1	APP	Displays the version of the program on the SSD.	
2	CLOCK	Displays the internal clock's current time and day of the week.	
3	S/N	Displays the software serial number.	
4	LANGUAGE	Displays the language of the text appearing on the screen.	
5	MEASUREMENT	Selects the displayed distance unit. MILES	
(a)	CLOCK SETTING	Sets the time of the internal clock. This setting can be made only using the cabinet with the PCB ID set to "1".	
(b)	EMERGENCY MODE SETTING	This screen is used to stop camera use and enable temporary operation when CAMERA ERROR E190 is displayed.	

4 After finishing all adjustments, select EXIT and press the Enter switch to return to the MENU screen.

Test Mod

Troubleshooting

AV0023_EN. indb 49

49



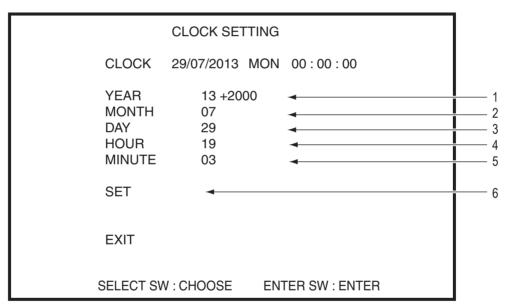
(a) CLOCK SETTING

This screen is used to set the time of the internal clock.

When multiple cabinets are connected by communication cables, the clock can be set only using the cabinet with the PCB ID set to "1". All connected cabinets will have identical clock settings to cabinet "1".



- Before adjusting any settings, check the number of communication-linked machines with the "UP TO × PLAYERS CAN RACE!" message (where × is the number of communicating machines) that is displayed in the center of the title screen in Attract mode.
- In the OTHERS screen, select CLOCK SETTING and press the Enter switch. The following screen appears.
- 2 Use the Select switch to select an item. The selected item blinks.
- 3 Select the desired item and press the Enter switch. When the selection is entered, the setting for that item can be changed.



CLOCK SETTING screen

	Item	Description	Default
1	YEAR	Year setting. 10 to 99	Year of the internal clock
2	MONTH	Month setting. 01 to 12	Month of the internal clock
3	DAY	Day setting. 01 to 31	Day of the internal clock
4	HOUR	Hour setting. 00 to 23	Hour of the internal clock
5	MINUTE	Minute setting. 00 to 59	Minute of the internal clock
6	SET	Sets the time. Sends the YEAR to MINUTE values to the internal clock. After the values are sent, the display changes to the MENU screen.	_

4 Select EXIT and press the Enter switch to return to the OTHERS screen.





1

2

3

4

5

6

7

8A

8B

9

10

11

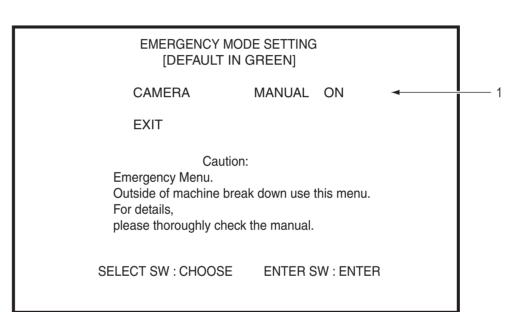
Operation

(b) EMERGENCY MODE SETTING

This screen is used to stop camera use and enable temporary operation when CAMERA ERROR E190 is displayed.



- This error affects game appeal, so the cause of the error should be resolved as quickly as possible.
- In the OTHERS screen, select EMERGENCY MODE SETTING and press the Enter switch. The following screen appears.
- Use the Select switch to select an item. The selected item blinks.
- Select the desired item and press the Enter switch. When the selection is entered, the setting for that item can be changed.



EMERGENCY MODE SETTING screen

	Item	Description	
1	CAMERA	When CAMERA ERROR E190 is displayed, the game can be temporarily operated by setting this to MANUAL OFF.	
		AUTO: Default The operation setting is changed automatically according to whether a camera is connected.	
		MANUAL ON: Game operation uses the camera. When the camera cannot be used, CAMERA ERROR E190 is displayed.	
		MANUAL OFF: Game operation does not use the camera.	

After finishing all adjustments, select EXIT and press the Enter switch to return to the OTHERS screen.



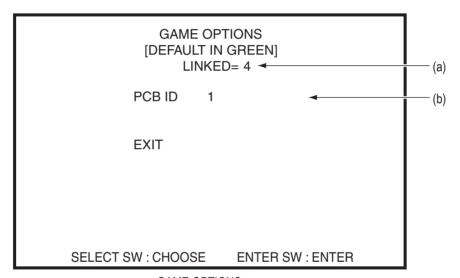
7-9 Communication Setting

Two to four machines can be connected for communication-linked VS player game play.

* Adjust the following settings even when operating only one machine.



- The communication status can also be checked with the "UP TO × PLAYERS CAN RACE!" message (where × is the number of communicating machines) that is displayed in the center of the title screen in Attract mode.
- Turn on the power switches of all connected cabinets. (See "7-6 Turning the Power Switch On" on page 30.)
- Turn on the Test switch to display the MENU screen. (See "7-7-1 Adjustment Switches" on page 31 and "7-8-1 MENU" on page 32.)
- 3 Select GAME OPTIONS and press the Enter switch to display the GAME OPTIONS screen.



GAME OPTIONS screen

- 4 Set the (b) PCB ID of the cabinets from 1 to 4 in order from left to right as you face them.
- 5 Check that the (a) communication status is as follows.

When not communicating: LINKED=1

When 2 machines are linked by communication: LINKED=2

When 3 machines are linked by communication: LINKED=3

When 4 machines are linked by communication: LINKED=4

- 6 Select EXIT and press the Enter switch to return to the MENU screen.
- 7 Set the time of the internal clock on the cabinet with the PCB ID set to "1". (See "7-8-9 (a) CLOCK SETTING" on page 50.)





When an error is detected, the error number and error description are displayed near the center of the screen.

When multiple errors occur simultaneously, the error that was detected first is displayed.

Error Display (For Operators)

7-10

2

4

6

8B

10

Symptom	Cause	Solution
"COIN ERROR E11" is displayed on the screen.	The coin selector is jammed.	Check the coin selector and resolve the problem.
	A coin selector malfunction.	Replace the coin selector.
	An abnormality in the harness around the coin selector.	Contact your distributor.
	A NA-JV(S) PC board malfunction.	Replace the NA-JV(S) PC board
"COIN ERROR E12" is displayed	A Service switch malfunction.	Replace the Service switch.
on the screen.	An abnormality in the harness around the Service switch.	Contact your distributor.
	A NA-JV(S) PC board malfunction.	Replace the NA-JV(S) PC board
"I/O PCB ERROR E30" is displayed	A NA-JV(S) PC board malfunction.	Replace the NA-JV(S) PC board
on the screen.	The JV IO cable is not connected.	Connect the JV IO cable correctly.
"CAMERA ERROR E190" is	A USB camera malfunction.	Replace the USB camera.
displayed on the screen.	The USB camera cable is not connected.	Insert the USB camera cable connector securely.
"Notice: Currently, the Camera is	A USB camera malfunction.	Replace the USB camera.
unavailable." is displayed on the screen.	The USB camera cable is not connected.	Insert the USB camera cable connector securely.
	The USB camera setting is MANUAL OFF.	Refer to "7-8-9 OTHERS (b) EMERGENCY MODE SETTING" and check the settings.
"REGION ERROR E210" is displayed on the screen.	The regions of the game PC boards of the communication-linked cabinets differ.	Contact your distributor.
"DONGLE ERROR E193" is displayed on the screen.	The USB dongle is not inserted correctly to the game PC board.	Insert the USB dongle securely.
	A USB dongle malfunction.	Contact your distributor.
	A game PC board malfunction.	Replace the game PC board.
"DONGLE ERROR 2 E194" is displayed on the screen.	An abnormality in the game PC board software.	Contact your distributor.
"DONGLE ERROR 3 E195" is displayed on the screen.	Multiple USB dongles are inserted to the game PC board.	Remove the unnecessary dongles, and restart the machine.



7-11 Ride Assembly Adjustment (Initialization)



- Be sure to initialize the ride assembly after installing or reinstalling the machine or replacing the
 accelerator potentiometer or bank angle potentiometer. If the ride assembly is not initialized, the
 game cannot be played properly.
- After initializing the potentiometers, perform the STEER and ACCEL operations in the switch test (see "7-8-4 (3) SWITCH TEST" on page 39) and check that STEER and ACCEL indicate OK.

7-11-1 Initializing the Potentiometers

In the MENU screen (see page 32), select I/O TEST and press the Enter switch, then select I/F INITIALIZE and press the Enter switch again. (See "7-8-4 (2) I/F INITIALIZE" on page 38.)

7-12 Self-test

The machine automatically executes a self-test after the power switch is turned on. If no problems are found, the monitor display switches to the startup screen after a short time. If an abnormality is found, the error sound is produced or an error message is displayed on the monitor, and the machine stops operating. (See "8B-2 Troubleshooting" on page 78.)





1

2

3

4

5

6

7

8A

8B

9

10

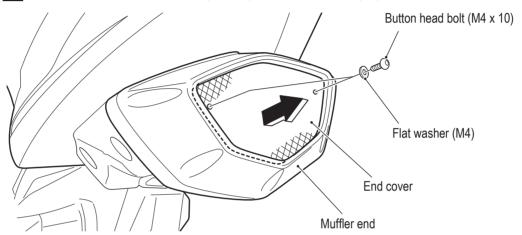
11

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

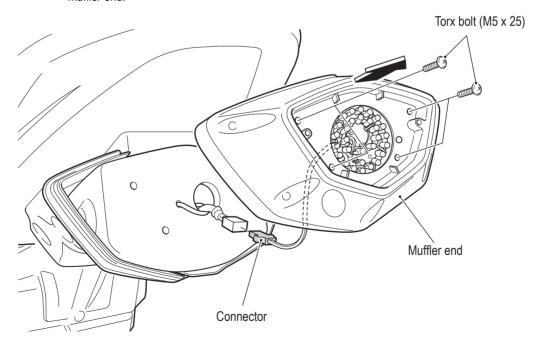
8A. Installation and Assembly

8A-1 Disassembly (In Accordance with the Delivery Conditions)

- (1) Removing the Motorbike Assembly
 - * When removal is not necessary, go to "8A-2 Assembly" on page 59.
 - Remove the two button head bolts (M4 x 10) and two flat washers (M4), and remove the end cover.



2 Remove the four torx bolts (M5 x 25), shift the muffler end, disconnect the connector, and remove the muffler end.

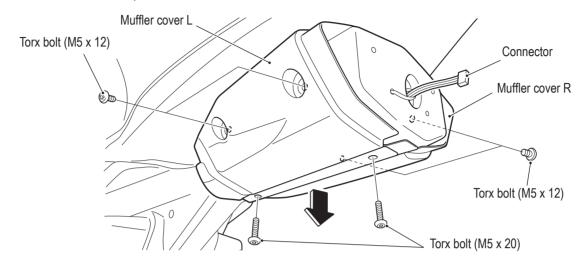


①

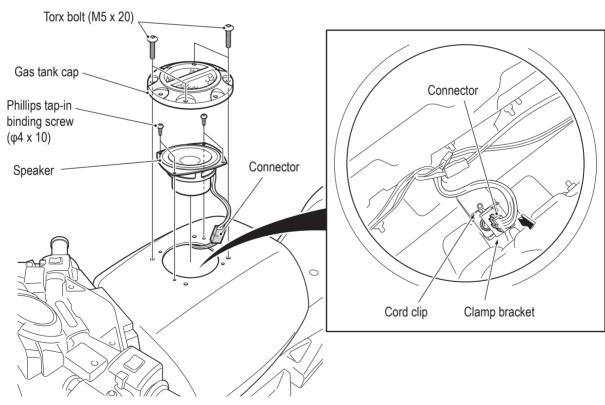
55



Remove the four torx bolts (M5 x 12) on the right and left, remove the two torx bolts (M5 x 20) on the bottom, and remove muffler cover L and muffler cover R.



- 4 Remove the four torx bolts (M5 x 20), and remove the gas tank cap.
- 8 Remove the four Phillips tap-in binding screws (φ4 x 10), and pull out the speaker. Disconnect the speaker connector, and remove the speaker.
- Disconnect the connector from the clamp bracket at bottom of the hole from where the gas tank speaker was removed, and remove the harness from the cord clip.



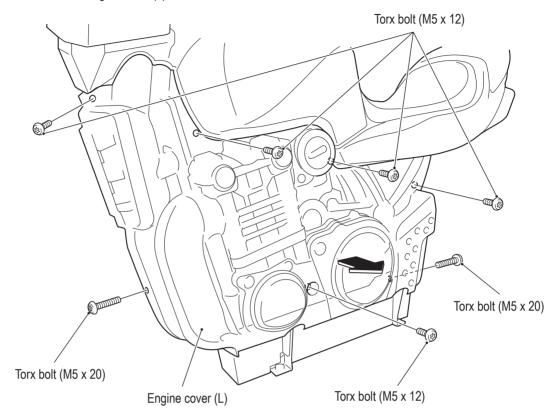




•

- Must be performed by a technician -

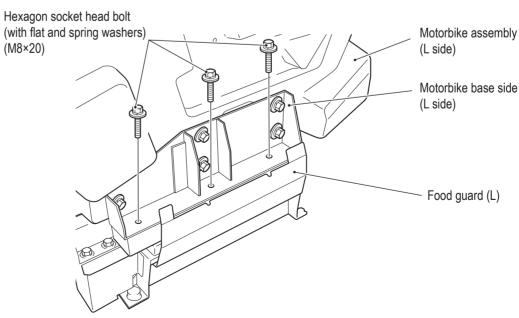
Remove the five torx bolts (M5 x 12), remove the two torx bolts (M5 x 20) at the joints, and remove the engine cover (L).



8 In the same manner as step 7, remove the five torx bolts (M5 x 12), and remove the engine cover (R).

(

- Pemove the three hexagon socket head bolts (with flat and spring washers) (M8 x 20) from the top of the motorbike base side (L).
- In the same manner as step 9, remove the three hexagon socket head bolts (with flat and spring washers) (M8 x 20) from the top of the motorbike base side (R).



1

2

3

4

5

6 7

8A

8A 8B

9

10

11

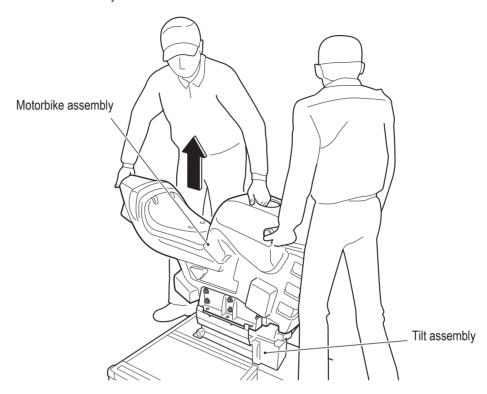
Installation and Assembly/Technician's Manual

Test Mode





Being careful of the surroundings, lift the motorbike assembly straight up approximately 150 mm from the tilt assembly and remove it.



To install, perform the procedure in reverse. (Step 11 → Step 1)

When reinstalling the bolts removed in steps 9 and 10, apply threadlocker (recommended: LOCTITE 243).



- When installing, be careful not to pinch the connectors and harness.
- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- When installing, lock the connectors securely.

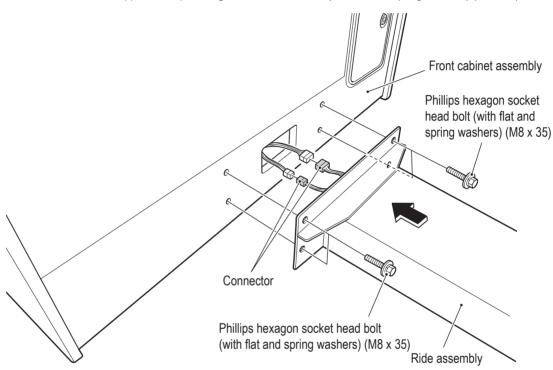






8A-2 Assembly

- (1) Joining the Front Cabinet Assembly and Ride Assembly
 - Align the front cabinet assembly and ride assembly with each other. Pull out the connectors from inside the ride assembly and front cabinet assembly.
 - Connect the two sets of connectors.
 - Gently join the ride assembly to the front cabinet assembly, and secure the assemblies together with the four supplied Phillips hexagon socket head bolts (with flat and spring washers) (M8 x 35).



To separate, perform the procedure in reverse. (Step $3 \rightarrow \text{Step } 2$)



- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- When installing, lock the connectors securely.
- When installing, be careful not to pinch the connectors and harness.

2

3

4

5

6

7

8A

8B

9 10

11

Installation and Assembly/Technician's Manual

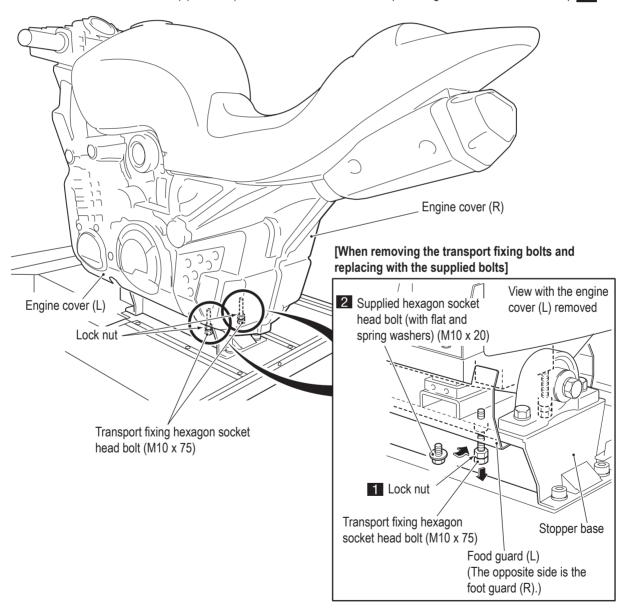




(2) Removing the Transport Fixing Bolts



- The motorbike assembly has been secured so that it is stable during transport. After installation, remove the transport fixing bolts prior to operation.
- The removed lock nuts and transport fixing bolts (total two bolts) are required during transport, so be sure to keep them in a safe place to prevent loss.
 In addition, be sure to secure the motorbike assembly with these transport fixing bolts when transporting the machine.
- Loosen the two lock nuts on the bottom of the engine covers (L) and (R), and then remove the two transport fixing bolts (hexagon socket head bolts (M10 x 75) and the two lock nuts from bottom of the stopper base.
- Fix the foot guards (L) and (R) with the two supplied hexagon socket head bolts (with flat and spring washers) (M10 x 20) in the locations where the transport fixing bolts were removed in step 1.





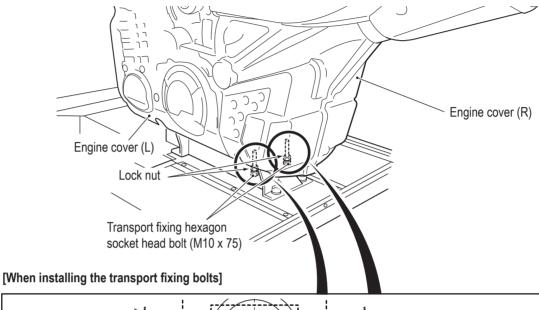


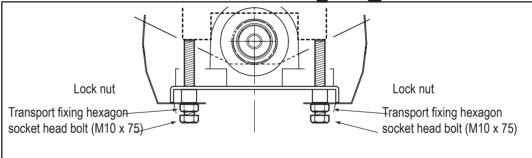


(3) Installing the Transport Fixing Bolts

(

- When installing the transport fixing bolts (for transport), remove the two hexagon socket head bolts (with flat and spring washers) (M10 x 20), and perform the removal procedure in reverse.
- Tighten the transport fixing hexagon socket head bolts so that the motorbike assembly is positioned upright, and secure the two transport fixing hexagon socket head bolts (M10 x 75) with lock nuts.





1

2

3

4

5

6

7

8A

8B

9 10

11

Installation and Assembly/Technician's Manual

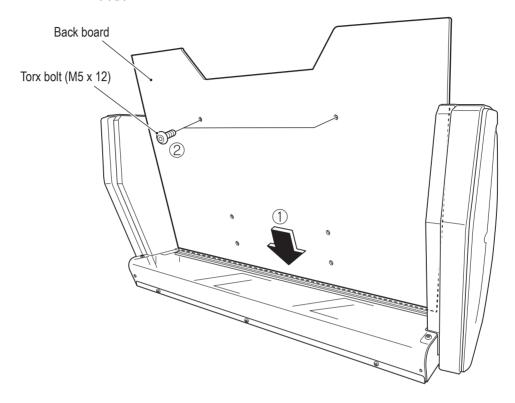


(

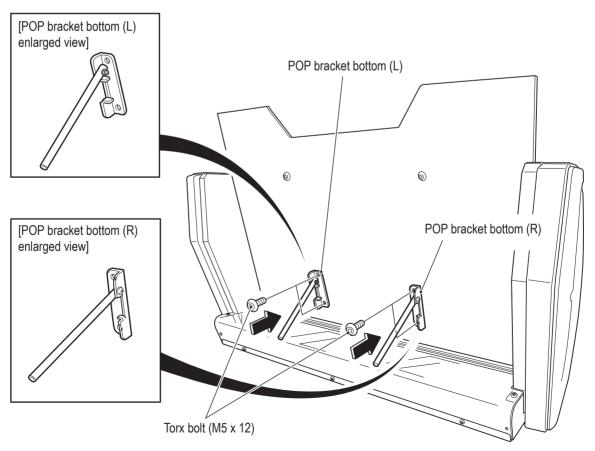
- Must be performed by a technician -

(4) Assembling and Attaching the Signboard Assembly

Insert the bottom edge of the back board into the groove (1), and secure it with two torx bolts (M5 x 12) (2).



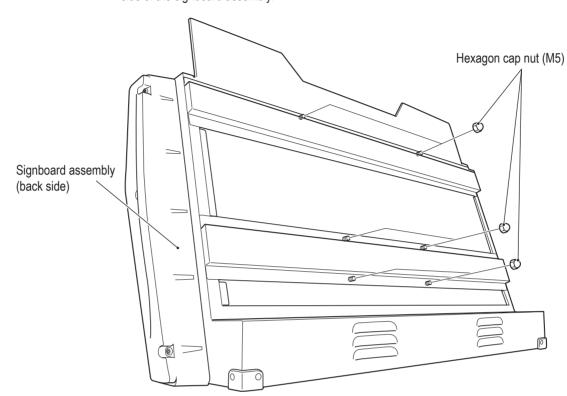
2 Attach the POP bracket bottom (L) and POP bracket bottom (R) with two torx bolts (M5 x 12) each.



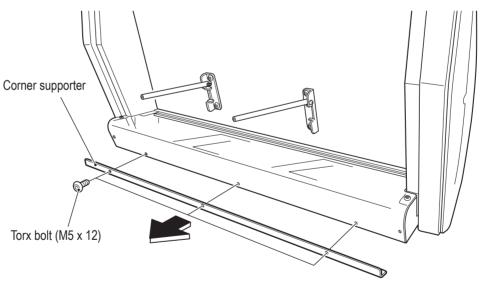
•

- Must be performed by a technician -

Attach six hexagon cap nuts (M5) onto the threads of the torx bolts (M5 x 12) protruding from the back side of the signboard assembly.



Remove the three torx bolts (M5 x 12), and remove the corner supporter.



1

2

3

4

5

6

7

8A

8B

9 10

11

Installation and Assembly/Technician's Manual

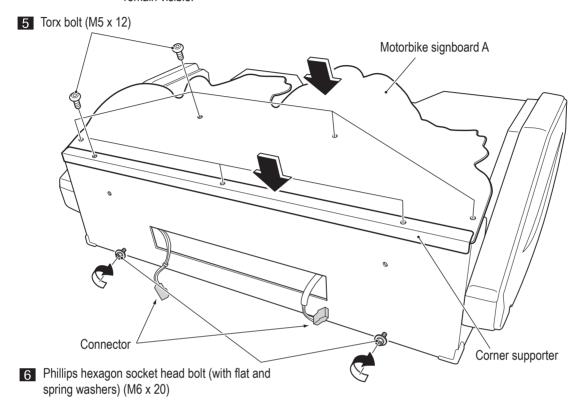
Test Mode

Troubleshooting

(

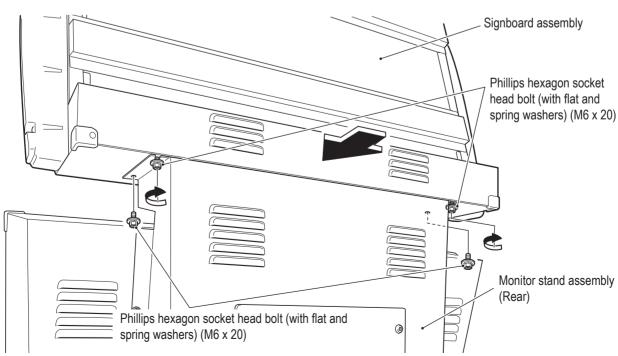


- 5 Attach the motorbike signboard A and the corner supporter with seven torx bolts (M5 x 12).
- Temporarily attach two Phillips hexagon socket head bolts (with flat and spring washers) (M6 x 20) to the rear of the bottom surface of the signboard assembly so that approximately 5 mm of the threads remain visible.



Place the signboard assembly on top of the monitor stand assembly from the back so that the temporarily attached bolts enter the slots, attach the two Phillips hexagon socket head bolts (with flat and spring washers) (M6 x 20), then fully tighten the two temporarily attached bolts.

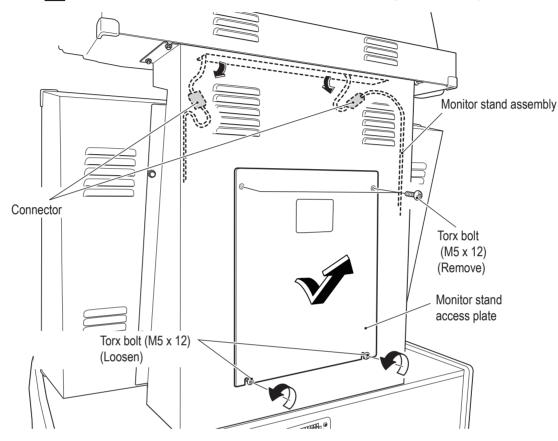
When placing the signboard assembly on top of the monitor assembly, be careful not to pinch the connectors or harnesses.







- Remove the two torx bolts (M5 x 12) from the top of the monitor stand access plate, loosen the two torx bolts (M5 x 12) at the bottom of the monitor stand access plate, and remove the monitor stand access plate.
- 9 Pull out and connect the two connectors from the bottom of the signboard assembly.



- 10 Reattach the monitor stand access plate.
- 11 To separate, perform the procedure in reverse. (Step $10 \rightarrow \text{Step} 1$)

1

2

3

4

5

6

7

8A 8B

9

10

11

Installation and Assembly/Technician's Manual

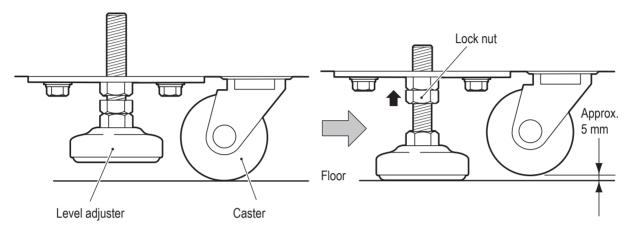
est Mode



(5) Level Adjuster Adjustment

After the machine is installed in accordance with "5-1 Installation Conditions" on page 15, lower the level adjusters (4 locations on the front cabinet assembly and 3 locations on the base frame assembly) until the casters are at a height of approximately 5 mm from the floor. (The casters should be able to turn freely.)

Then, secure the level adjusters of the base frame assembly with the lock nuts.





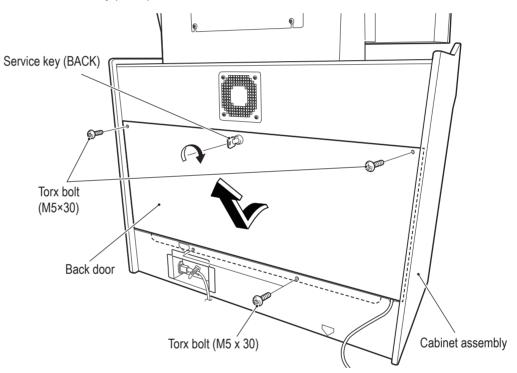




(6) Inserting the USB Dongle

!WARNING -

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- The USB dongle is for use exclusively with this machine. Do not use it with other equipment. Do not insert other USB dongles into this machine. Doing so may cause the machine to malfunction.
- Be sure to turn off the power switch before inserting the USB dongle.
- Remove the four torx bolts (M5 x 30) from the back side of the cabinet assembly, unlock the lock with the service key (BACK), and remove the back door.



1

2

3

4

5

6

7

8A

8B

9

10

11

Installation and Assembly/Technician's Manual

est Mode

Troubleshooting

2013/05/22 10:25:47



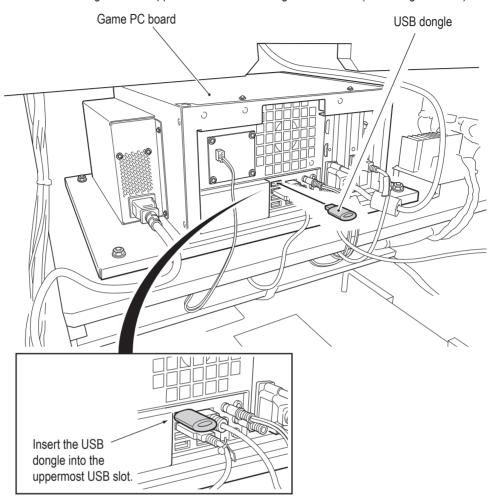
AV0023_EN. indb

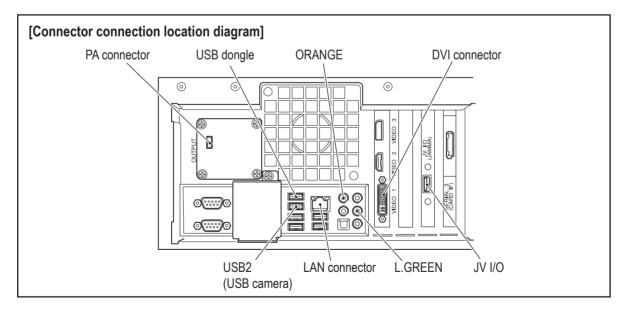
(

(

- Must be performed by a technician -

2 Insert the USB dongle into the uppermost USB slot of the game PC board (see the figure below).





Reattach the back door.





8A-3 Connecting the Communication Cables

CAUTION -

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

Up to four machines can be connected for communication-linked play.

When operating only one machine without communication, this procedure is not required.

When connecting two machines for communication, operation is possible using the supplied communication cable.

When connecting three or four machines for communication, a hub (sold separately) is necessary.



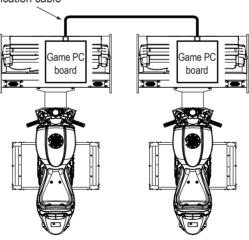
- After connecting the communication cables, be sure to check that the machines are connected correctly with "7-8-3 GAME OPTIONS" on page 34 and "7-8-4 (5) LINK TEST" on page 42.
- Provide a hub that meets the necessary specifications.

(1) Connection Diagram

• Connecting Two Machines for Communication

Connect using one of the supplied communication cables as shown in the figure below.

Communication cable



1

2

3

4

5

6 7

8A

8B

9

10

11

Installation and Assembly/Technician's Manual

est Mode



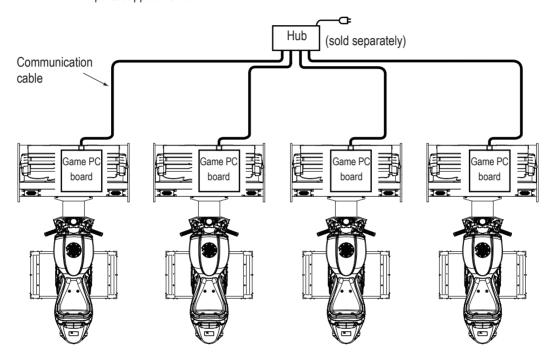


• Connecting Three or Four Machines for Communication

Connect using the supplied communication cables and a hub (sold separately) as shown in the figure below. Purchase the hub at a PC shop or other distributor before starting installation.

[Recommended specifications]

100BASE-TX/10BASE-T(RJ-45), 4 ports or more All ports support AUTO MDI/MDI-X





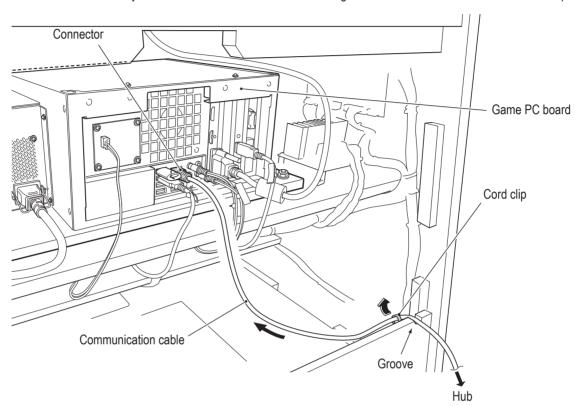
- See the hub instructions for details on handling the hub.
- To ensure that the hub is not exposed to water, wax or other substances, use the magnets supplied
 with the hub or other means and attach it to the rear or bottom panel of the machine. Do not place
 the hub on the floor.
- Turn on the power to the hub before or at the same time as the power to the machines. If power is not supplied to the hub at the time the self-test (see "7-12 Self-test" on page 54) finishes, communication cannot be performed correctly. If communication cannot be performed correctly, turn off the power switch of the machines, make sure that the POWER lamp of the hub is lit, then turn on the power switches again.





(2) Connection Method

- Remove the back door from each cabinet to be connected. (See step 1 of "8A-2 (6) Inserting the USB Dongle" on page 67.)
- Lead the supplied communication cable into one of the cabinet assemblies via the groove in the cabinet assembly. Connect the communication cable to the game PC board and secure it with the cord clip.



Connecting Two Machines for Communication

- Follow the same procedure as step 2 and connect the other end of the communication cable to the game PC board of the other machine.
- 4 Reattach the removed back doors.

Connecting Three or Four Machines for Communication

- Follow the same procedure as step 2 to connect communication cables to the game PC boards of all the other machines, and connect the other end of the communication cables to the hub (sold separately). (See "8A-3-1 (1) Connection Diagram" on page 69.)
- Insert the power cord plug of the hug into an outlet and confirm that the POWER lamp lights up.
- Reattach the removed back doors.



- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- When installing, lock the connectors securely.
- Secure the communication cables firmly with cord clips to prevent the game PC board connector from becoming damaged in the event the communication cable is pulled.
- When installing, be careful not to pinch the connectors and harness.

2

3

4 5

6

7

8A

8B

9 10

11

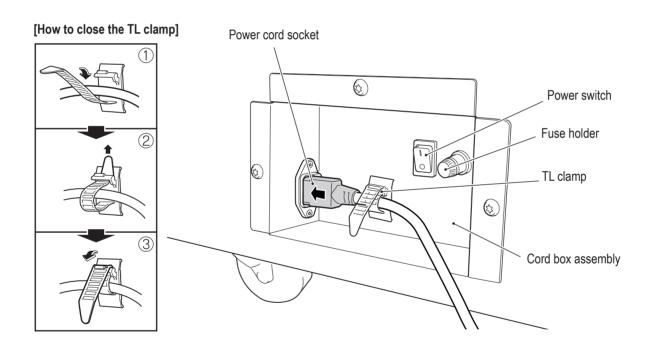
Installation and Assembly/Technician's Manual



8A-4 Connecting the Power Cord and Ground

MARNING ——

- Connect the ground lead. If the machine is not grounded properly, electric shock can occur in case of electrical leakage.
- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Insert the socket side of the power cord into the power supply input socket in the cord box assembly on the back side of the cabinet assembly.
- 2 Secure the power cord with the TL clamp.
- Insert the power cord plug into the outlet.





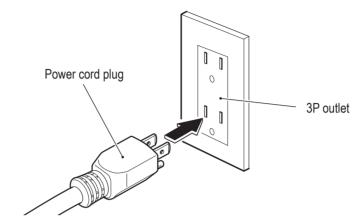




(1) In case of a 3P outlet

(

Insert the power cord plug directly into the outlet.



8A

8B

9 10

11

Installation and Assembly/Technician's Manual

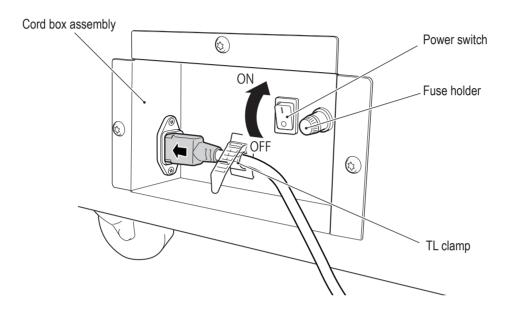
Troubleshooting

73



8A-5 Turning the Power Switch On

Turn on the power switch located in the cord box assembly.





 Do not turn the power switch on and off repeatedly. Doing so may result in a machine malfunction.

When turning the power switch off and on in succession (OFF→ON→OFF, ON→OFF→ON), wait 30 seconds or more between operations to protect the machine.

 Make sure that games being played on other communication-linked cabinets have finished before turning off the power switch.

Otherwise, the games being played may be affected.





1

2

3

4

5 6

7

8A

8B

9 10

11

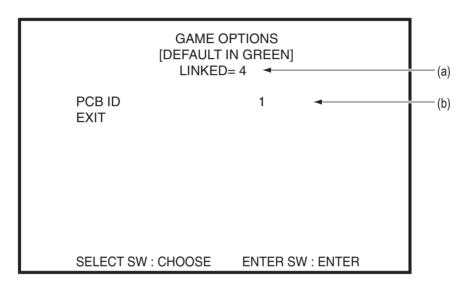
Installation and Assembly/Technician's Manual

8A-6 Communication Settings

Two to four machines can be connected for communication-linked VS player game play.

* Adjust the following settings even when operating only one machine. Refer to page 52 and adjust the communication settings.

- Turn on the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Set the Test switch to ON. The MENU screen appears. (See "7-7-1 Adjustment Switches" on page 31 and the description of the "7-8-1 MENU" screen on page 32.)
- Select GAME OPTIONS and press the Enter switch to display the GAME OPTIONS screen.



GAME OPTIONS screen

- Set the (b) PCB ID of the cabinets from 1 to 4 in order from left to right as you face them.
- Check that the (a) communication status is as follows.

When not communicating: LINKED=1

When 2 machines are linked by communication: LINKED=2

When 3 machines are linked by communication: LINKED=3

When 4 machines are linked by communication: LINKED=4

Select EXIT and press the Enter switch to return to the game screen.



lacktriangle The communication status can also be checked with the "UP TO imes PLAYERS CAN RACE!" message (where imes is the number of communicating machines) that is displayed in the center of the title screen in Attract mode.

Troubleshooting





8A-7 Post Installation Checks

After finishing all installation work, perform pre-operation inspection (see "7-4 Pre-operation Inspection" on page 26) and initialization (see "7-8-4 (2) I/F INITIALIZE" on page 38).

In addition, adjust the game cost, volume and other settings as necessary. (See "7-8-2 COIN OPTIONS" on page 33 and "7-8-6 SOUND TEST" on page 45.)



 Be sure to perform initialization after installation. If the ride assembly is not initialized, the game cannot be played properly.







2

3

4 5

6 7

8A

8B 9

10

11

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

WARNING

Inspection and Service

8B. Service

!WARNING

- Perform periodic service. Failure to perform service may result in accident or injury.
- Perform the inspections every day before starting operations. These are required to prevent accidents. (See "7-4 Pre-operation Inspection" on page 26.)

8B-1-1 Points for Inspection

After performing "7-4 Pre-operation Inspection" on page 26, check the following points for inspection for any abnormalities.

(1) Level Adjuster Inspection

1. Check that the level adjusters are set securely. (See "8A-2 (5) Level Adjuster Adjustment" on page 66.)

(2) Power Cord Plug Inspection

- 1. Check that both ends of the power cord plug are firmly inserted into the power supply input socket in the cord box assembly and an outlet respectively.
- 2. Clean any dust or other dirt from all parts of the power cord plug.
- 3. Check for any cracks or dirt on the power cord covering. If any abnormalities are found, the power cord must be replaced.

(3) Screw Looseness Inspection

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

- 1. Front cabinet assembly and ride assembly fixing screws (See "8A-2 (1) Joining the Front Cabinet Assembly and Ride Assembly" on page 59.)
- 2. Signboard assembly fixing screws (See "8A-2 (4) Assembling and Attaching the Signboard Assembly" on page 62.)

(4) Cable Inspection

1. Check that the cable connectors are inserted firmly, and that there are no abnormalities on the cables.

Troubleshooting

2013/05/22 10:26:05





8B-2 Troubleshooting

!WARNING -

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- If the problem is not described in "8B-2 Troubleshooting" 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 accident.



- When searching for the cause of a malfunction, first make sure that all the connectors are connected securely.
- When sending parts for repair, be sure to pack them properly. Particularly when sending the game PC board, other PC boards, or the LCD monitor, 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.

8B-2-1 Overall

Symptom	Cause	Solution	Reference page
The machine does not start.	The game PC board connector is disconnected.	Insert the connector securely.	Page 86
	The power supply fuse is burned out.	Replace the power supply fuse.	Page 96
Communication-linked play is	The hub power supply is not on.	Connect the hub power supply.	Page 69
not possible.	The communication cable is not connected.	Check the communication cable connection.	Page 69
	There is an open circuit in the communication cable.	Replace the communication cable.	Page 71
Operation is not stable or the	The PCB ID setting is incorrect.	Set the correct PCB ID.	Page 75
machine operates incorrectly.	The power supply voltage is not within the specified range.	Disconnect any high-capacity devices (such as an air conditioner or other large game machine) if connected to the same line to secure the specified power supply voltage.	-





8B-2-2 Cabinet Assembly

Symptom	Cause	Solution	Reference page
There is no sound coming from	The volume setting is low.	Set the appropriate volume.	Page 45
the speakers.	A connector is disconnected.	Insert the connector securely.	Page 86, 88
	A 4CH AMP PC board malfunction.	Replace the 4CH AMP PC board.	Page 88
	A speaker malfunction.	Replace the speaker.	-

8B-2-3 Ride Assembly

Symptom	Cause	Solution	Reference page
There is no sound coming from	The volume setting is low.	Set the appropriate volume.	Page 45
the speakers.	A connector is disconnected.	Connect the connector securely.	Page 88
	A 4CH AMP PC board malfunction.	Replace the 4CH AMP PC board.	Page 88
	A speaker malfunction.	Replace the speaker.	-
The muffler end LED does not	A connector is disconnected.	Connect the connector securely.	Page 106
light up.	A muffler end LED malfunction.	Replace the muffler end LED.	Page 106
The tail lamp LED does not light up.	A connector is disconnected.	Connect the connector.	Page 108
	A tail lamp LED malfunction	Replace the tail lamp LED.	Page 108

8B-2-4 Monitor Assembly

Symptom	Cause	Solution	Reference page
There is no picture on the	The LCD monitor power is off.	Turn on the LCD monitor power.	Page 97
monitor	A connector is disconnected.	Insert the connector securely.	Page 97
	A LCD monitor malfunction.	Replace the LCD monitor.	Page 97

(

8A

8B

9

10

11

Service/Technician's Manual

Test Mode

Troubleshooting



8B-2-5 Signboard Assembly

Symptom	Cause	Solution	Reference page
The LED light tube does not	A connector is disconnected.	Connect the connector.	Page 62
light up.	The LED light tube is burned out.	Replace the LED light tube.	Page 82
The LEDs on the LED PC	A connector is disconnected.	Connect the connector.	Page 84
board do not light up.	A LED PC board malfunction.	Replace the LED PC board.	Page 84

8B-2-6 Base Frame Assembly

Symptom	Cause	Solution	Reference page
The motorbike displayed on the screen does not turn even	The potentiometer has not been initialized.	Initialize the potentiometer.	Page 38
when the motorbike is tilted.	A connector is disconnected.	Connect the connector.	Page 109
	A potentiometer malfunction.	Replace the potentiometer.	Page 109
The base frame LEDs do not	A connector is disconnected.	Connect the connector.	Page 111
light up.	A base frame LED malfunction.	Replace the base frame LEDs.	Page 111

8B-2-7 Handlebar Assembly

Symptom	Cause	Solution	Reference page
The brake does not function.	A connector is disconnected.	Connect the connector.	Page 104
	The Brake switch is damaged.	Replace the Brake switch.	Page 104
The accelerator does not function.	The potentiometer has not been initialized.	Initialize the potentiometer.	Page 38
	A connector is disconnected.	Connect the connector.	Page 102
	A potentiometer malfunction.	Replace the potentiometer.	Page 102
The View Change button does	A connector is disconnected.	Connect the connector.	Page 100
not function.	A View Change Button malfunction.	Replace the View Change Button.	Page 100
The NITROUS button does not	A connector is disconnected.	Connect the connector.	Page 105
function.	A NITROUS switch malfunction.	Replace the NITROUS switch.	Page 105





8B-2-8 Error Display

Symptom	Cause	Solution
"COIN ERROR E11" is displayed on the screen.	The coin selector is jammed.	Check the coin selector and resolve the problem.
	A coin selector malfunction.	Replace the coin selector.
	An abnormality in the harness around the coin selector.	Contact your distributor.
	A NA-JV(S) PC board malfunction.	Replace the NA-JV(S) PC board.
"COIN ERROR E12" is displayed on	A Service switch malfunction.	Replace the Service switch.
the screen.	An abnormality in the harness around the Service switch.	Contact your distributor.
	A NA-JV(S) PC board malfunction.	Replace the NA-JV(S) PC board.
"I/O PCB ERROR E30" is displayed on	A NA-JV(S) PC board malfunction.	Replace the NA-JV(S) PC board.
the screen.	The USB cable is not connected.	Connect the USB cable correctly.
"CAMERA ERROR E190" is displayed	A USB camera malfunction.	Replace the USB camera.
on the screen.	The USB camera cable is not connected.	Insert the USB camera cable connector securely.
"Notice: Currently, the Camera is	A USB camera malfunction.	Replace the USB camera.
unavailable." is displayed on the screen.	The USB camera cable is not connected.	Insert the USB camera cable connector securely.
	The USB camera setting is MANUAL OFF.	Refer to "7-8-9 OTHERS (b) EMERGENCY MODE SETTING" and check the settings.
"REGION ERROR E210" is displayed on the screen.	The game PC board regions of communication-linked cabinets differ.	Contact your distributor.
"DONGLE ERROR E193" is displayed on the screen.	The USB dongle is not inserted correctly to the game PC board.	Insert the USB dongle securely.
	A USB dongle malfunction.	Contact your distributor.
	A game PC board malfunction.	Replace the game PC board.
"DONGLE ERROR 2 E194" is displayed on the screen.	An abnormality in the game PC board software.	Contact your distributor.
"DONGLE ERROR 3 E195" is displayed on the screen.	Multiple USB dongles are inserted to the game PC board.	Remove the unnecessary dongles, and restart the machine.

(

7

8A

8B

9

10

Service/Technician's Manual



Test Mode



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

8B-3-1 Signboard Assembly

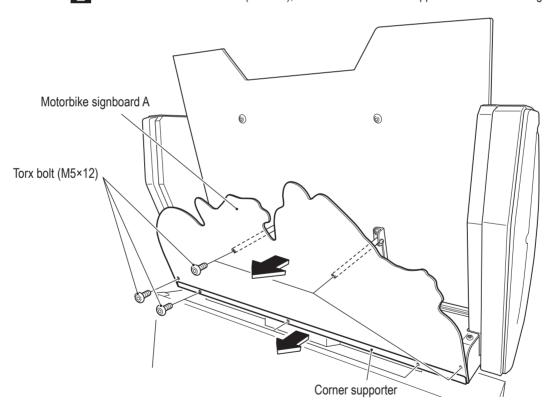
(1) Replacing the LED Light Tube

!WARNING -

 To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.

CAUTION

- The LED light tube becomes very hot during operation. Be very careful when removing it.
- Replacing the LED light tube requires standing at an elevated height. Be very careful while working.
- Turn off the power switch of the machine. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the seven torx bolts (M5 x 12), and remove the corner supporter and motorbike signboard A.



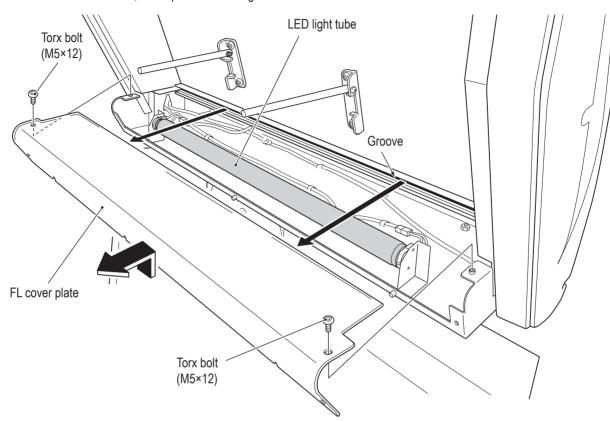




(

- Must be performed by a technician -

Remove the two torx bolts (M5 x 12), lift up the FL cover plate slightly and pull it towards you to remove it, and replace the LED light tube.





(

- Use only the LED light tube.
- Do not replace with other than the LED light tube.
- Do not use the LED light tube with other equipment.
- To install, perform the procedure in reverse. Insert the FL cover plate into the groove at the back, and then lower it on the signboard assembly and secure it with two torx bolts (M5 x 12).

1

2

3

4

5

6 7

BA

8B

9

11

<u>ရ</u>

Service/Technician's Manual

st Mode

Troubleshooting

83



(2) Replacing the LED PC Board

The description below explains how to replace the LED PC board on the (R) side. Follow the same procedure to replace the (L) side.

MARNING —

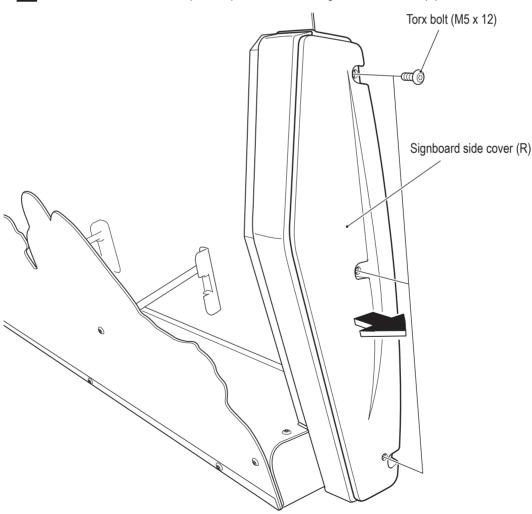
 To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.

! CAUTION -

 Replacing the LED PC boards requires standing at an elevated height. Be very careful while working.



- 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. (Example method: Touching the surface of grounded metal.)
- Turn off the power switch of the machine. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the three torx bolts (M5 x 12), and remove the signboard side cover (R).







1

2

3

4

5

6

7

8A

8B

9

10

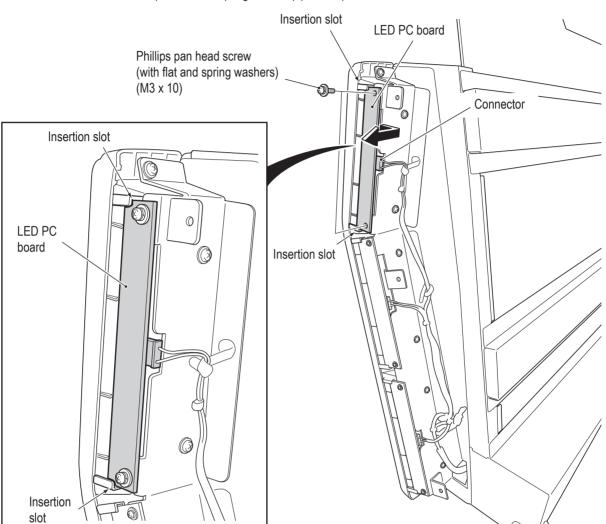
11

Service/Technician's Manual

(

- Must be performed by a technician -

3 Disconnect the connector from the LED PC board to be replaced, remove the two Phillips pan head screws (with flat and spring washers) (M3 x 10), and remove the LED PC board.



To install, perform the procedure in reverse.



● When installing, be sure to insert the LED PC board into both of the insertion slots.







8B-3-2 Cabinet Assembly

(1) Replacing the Game PC Board

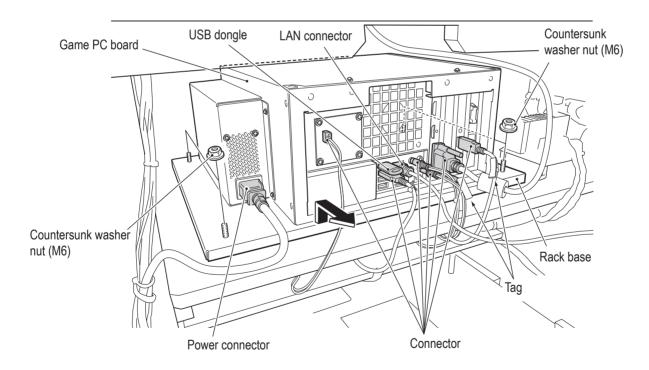
WARNING -

 To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.



 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. (Example method : Touching the surface of grounded metal.)

- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the back door. (See step 1 of "8A-2 (6) Inserting the USB Dongle" on page 67.)
- Disconnect the six connectors, the LAN connector and the power connector, remove the USB dongle and the four countersunk washer nuts (M6), and remove the game PC board together with the rack base.



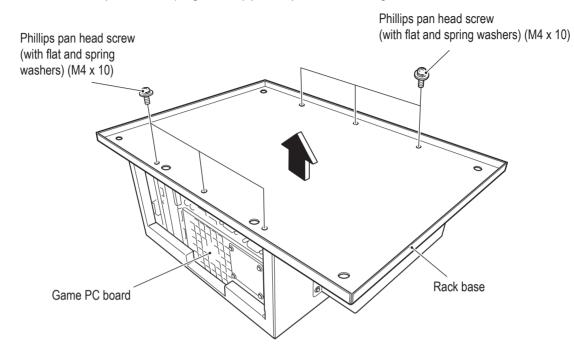




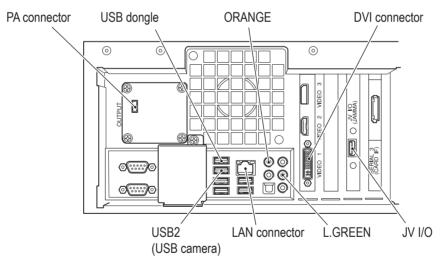
(

- Must be performed by a technician -

4 Turn over the game PC board together with the rack base, remove the six Phillips pan head screws (with flat and spring washers) (M4 x 10), and remove the game PC board.



- 5 Replace the game PC board.
- To install, perform the procedure in reverse. See the figure below for the connector connections.





- When installing, be careful not to pinch the connectors and harness.
- When connecting the connectors, check the connector alignments and tags carefully to avoid damaging the electronic circuitry.
- When installing, lock the connectors securely.
- After replacement, be sure to confirm that it operates correctly and check the settings. (See "7-8 TEST MODE" on page 32.)

1

2

3

4

5

6

7

8A

8B 9

10

11

Service/Technician's Manual

Test Mode

Troubleshooting





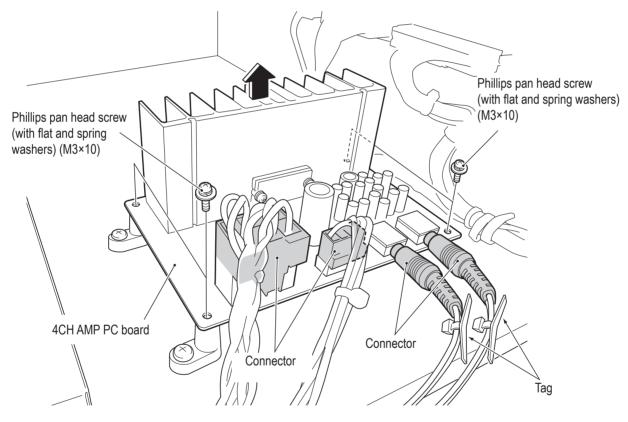
(2) Replacing the 4CH AMP PC Board

· NWARNING -

 To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.



- 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. (Example method : Touching the surface of grounded metal.)
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the back door. (See step 1 of "8A-2 (6) Inserting the USB Dongle" on page 67.)
- Disconnect the four connectors, remove the four Phillips pan head screws (with flat and spring washers (M3 x 10), and replace the 4CH AMP PC board.



To install, perform the procedure in reverse.



- When installing, lock the connectors securely.
- When installing, be careful not to pinch the connectors and harness.
- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- After replacement, be sure to confirm that it operates correctly and check the settings. (See "7-8-6 SOUND TEST" on page 45.)







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

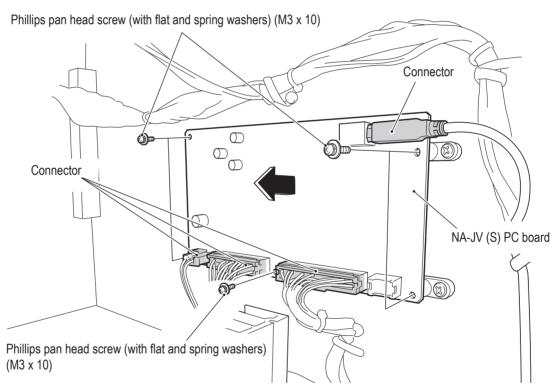
WARNING

■ To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.



 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. (Example method: Touching the surface of grounded metal.)

- 1 Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- 2 Remove the back door. (See step 1 of "8A-2 (6) Inserting the USB Dongle" on page 67.)
- Disconnect the four connectors, remove the five Phillips pan head screws (with flat and spring washers (M3 x 10), and replace the NA-JV (S) PC board.



To install, perform the procedure in reverse.



- When installing, lock the connectors securely.
- When installing, be careful not to pinch the connectors and harness.

- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- After replacement, be sure to confirm that it operates correctly and check the settings. (See "7-8-4")
 (3) SWITCH TEST" on page 39.)

1

2

3

<u>4</u>

6

7

8A

8B

9

10

11

Servic

Service/Technician's Manual

Test Mode

Troubleshooting



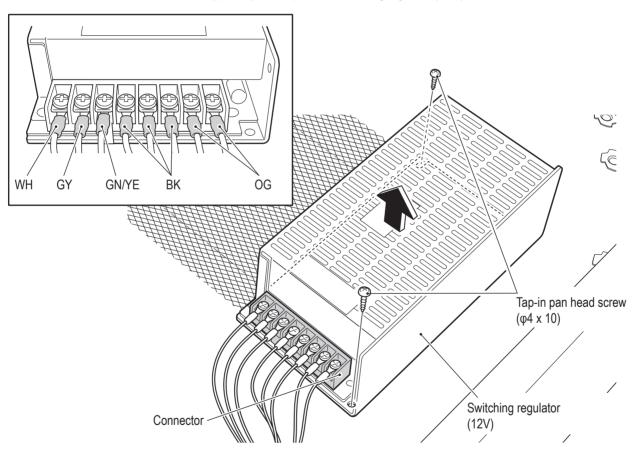
(4) Replacing the Switching Regulator (12 V)

- 🖭 WARNING -

 To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.



- 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. (Example method : Touching the surface of grounded metal.)
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- 2 Remove the back door. (See step 1 of "8A-2 (6) Inserting the USB Dongle" on page 67.)
- Remove the eight screws, disconnect the ring terminals from the regulator, remove the two tap-in pan head screws (ϕ 4 x 10), and replace the switching regulator (12 V).



To install, perform the procedure in reverse. Refer to the figure above for the ring terminal connection locations.



 When connecting the ring terminals, check the harness colors and contact conditions carefully to avoid damaging the electronic circuits.







(5) Replacing the USB Camera

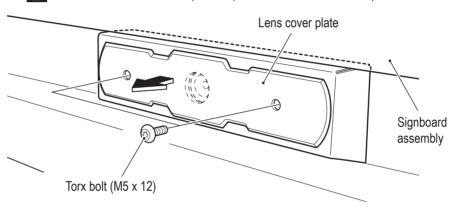
!WARNING

 To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.

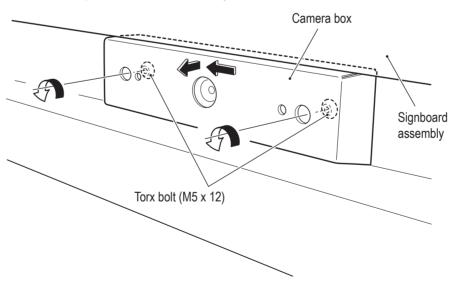


● PC boards are sensitive to static electricity. If a person handles a PC board while charged with static electricity, the parts on the PC board may be damaged. Before handling a PC board, discharge the static electricity from your body. (Example method : Touching the surface of grounded metal.)

- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the two torx bolts (M5 x 12) and remove the lens cover plate.



Loosen the two torx bolts (M5 x 12) at the back of the round holes, slide the camera box to the left and then pull the camera box forward you to remove it.



1

2

3

4

5

6

7

8A

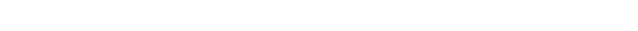
8B

9 10

11

Service/Technician's Manual

Troubleshooting



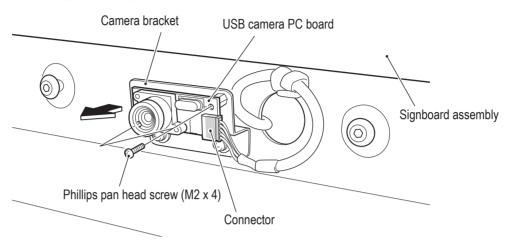
AV0023_EN. indb

2013/05/22 10:26:08

91



Disconnect the connector, remove the two Phillips pan head screws (M2 x 4), then remove and replace the USB camera PC board.



To install, perform the procedure in reverse.



- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- When installing, lock the connectors securely.
- When installing, be careful not to pinch the connectors and harness.
- After replacement, be sure to confirm that it operates correctly and check the settings. (See "7-8-4")
 (1) CAMERA SETTING" on page 36.)



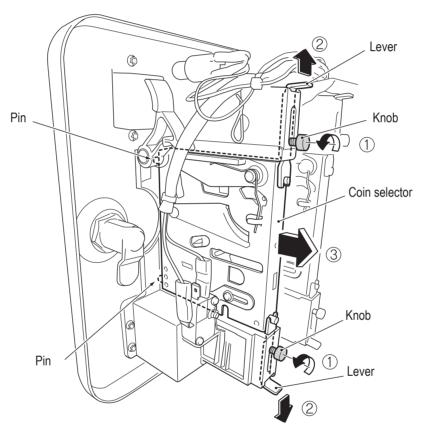




(6) Replacing the Coin Selector

!WARNING

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- 2 Unlock the lock with the service key (FRONT) and open the service door.
- Loosen the two knobs on the coin selector ①, then pull the upper lever up and the lower lever down to unlock ②.
- Grasp the coin selector, pull it out (③), and replace it.



5 To install, perform the procedure in reverse.



 After replacing the coin selector, enter Test mode, insert a coin and check that the coin counter operates properly. (See "7-8-2 COIN OPTIONS" on page 33.)

1

2

3

4

5

6 7

8A

8B

9

10

11

Service/Technician's Manual

Test Mode

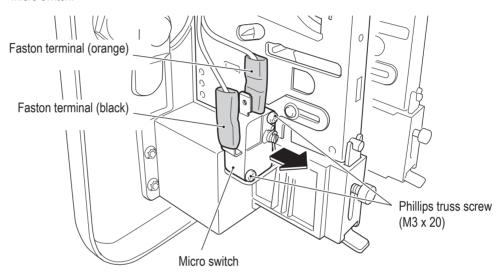
| Troubleshooting



• Replacing the Micro Switch

WARNING

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- 2 Open the service door. (See step 2 of "8B-3-2 (6) Replacing the Coin Selector" on page 93.)
- 3 Disconnect the two Faston terminals, remove the two Phillips truss screws (M3 x 20) and replace the micro switch.



To install, perform the procedure in reverse.



 After replacing the micro switch, enter Test mode, insert a coin and check that the coin counter operates properly. (See "7-8-4 (3) SWITCH TEST" on page 39.)



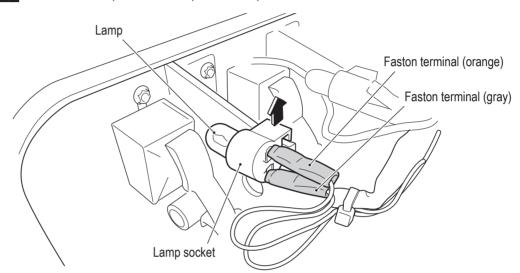




• Replacing the Lamp

WARNING

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Open the service door. (See step 2 of "8B-3-2 (6) Replacing the Coin Selector" on page 93.)
- Remove the lamp bracket and replace the lamp.



To install, perform the procedure in reverse.

1

2

3

4

5

6

7

8A

8B

9 10

11

Service/Technician's Manual

Troubleshooting

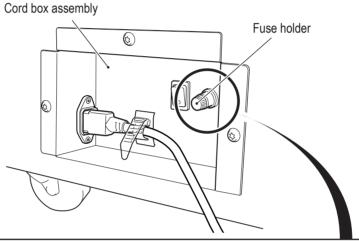
(1)

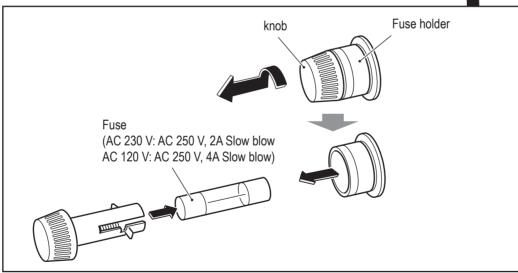


(7) Replacing the Fuse

WARNING

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Never use a fuse other than the specified type. Use of a different fuse may result in fire or accident.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Rotate the fuse holder knob and pull out the fuse holder.
- Replace the fuse mounted in the fuse holder.





To install, perform the procedure in reverse.



 If the fuse burns out again soon after replacement, it is a sign that there may be some other cause for the abnormality. Turn off the power switch immediately, disconnect the power cord plug from the outlet, and contact your distributor.







8B-3-3 Monitor Assembly

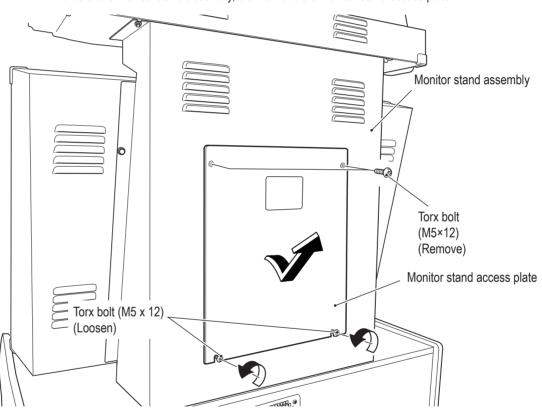
(1) Replacing the LCD Monitor

!WARNING -

• To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.

- ACCAUTION -

- The LCD monitor weighs approximately 9.5 kg. Be very careful when handling it.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the two upper torx bolts (M5 x 12) and loosen the two lower torx bolts (M5 x 12) on the back side of the monitor stand assembly, then remove the monitor stand access plate.



1

2

3

4

5

6

7

8A

8B

9 10

11

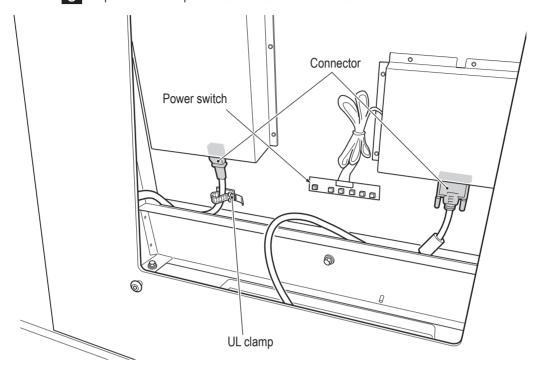
Service/Technician's Manual

Troubleshooting

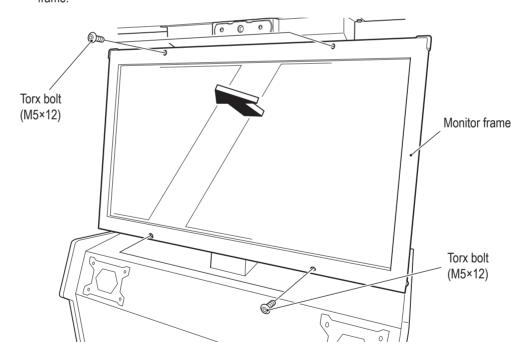




3 Open the UL clamp and disconnect the two connectors.



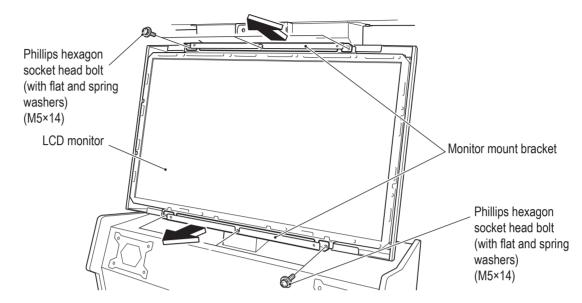
Remove the four torx bolts (M5 x 12) on the front of the monitor assembly and remove the monitor



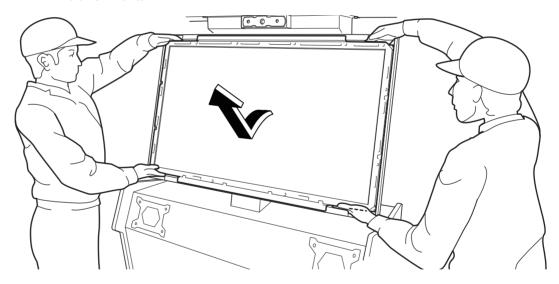




Remove the six Phillips hexagon socket head bolts (with flat and spring washers) (M5 x 14) and remove the two monitor mount brackets.



Insert your fingers into the gaps at the top and bottom of the LCD monitor, then lift up slowly to remove the LCD monitor.



To install, perform the procedure in reverse.



- Be sure to use two or more people when replacing the LCD monitor.
- When installing, lock the connectors securely.
- When installing, be careful not to pinch the connectors and harness.
- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- After replacement, be sure to confirm that it operates correctly and check the settings. (See "7-8-5 MONITOR TEST" on page 43.)

If there is no picture on the LCD monitor, press the power switch on the back side of the LCD monitor and check if the green lamp lights up. (See step 3.)

2

3

4

5

6

7

8A 8B

9

10

11

Service/Technician's Manual

Troubleshooting

99

2013/05/22 10:26:10

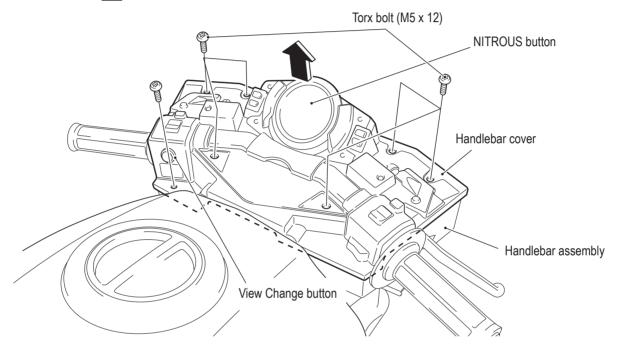


8B-3-4 Handlebar Assembly

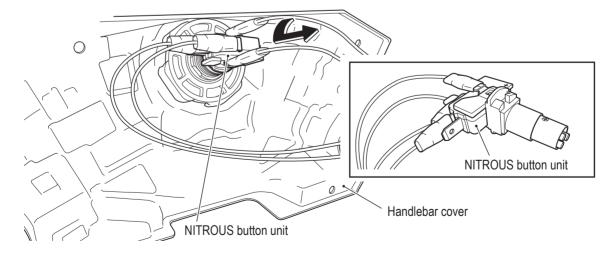
(1) Replacing the View Change Button

WARNING -

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- 2 Remove the seven torx bolts (M5 x 12) and remove the handlebar cover.



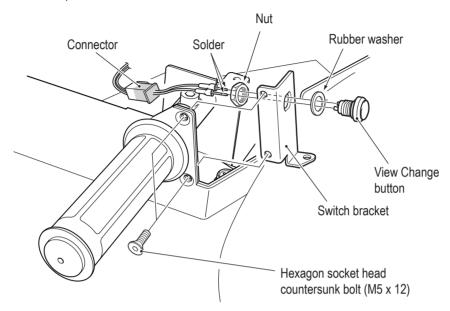
Turn over the handlebar cover, rotate the NITROUS button unit counterclockwise in the condition with the harness connected to unlock, then remove the NITROUS button unit.







- Disconnect the View Change button connector, remove the two hexagon socket head countersunk bolts (M5 x 12) and remove the switch bracket.
- Remove the nut and rubber washer, remove the View Change button from the switch bracket, and replace it.



To install, perform the procedure in reverse.



- When installing, lock the connectors securely.
- When installing, be careful not to pinch the connectors and harness.

- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- After replacement, be sure to confirm that it operates correctly and check the settings. (See "7-8-4 (3) SWITCH TEST" on page 39.)

1

2

3

4

5

6 7

8A

8B

9

10

11

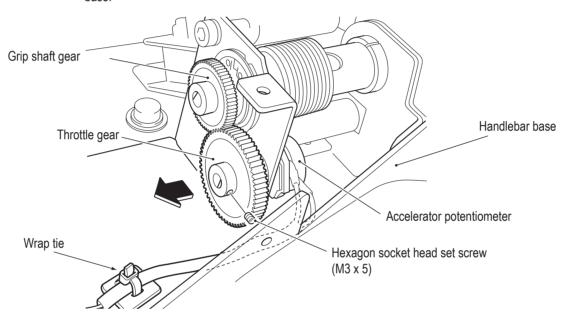
Service/Technician's Manual



(2) Replacing the Accelerator Potentiometer

WARNING

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the handlebar cover. (See "8B-3-4 (1) Replacing the View Change Button" on page 100.)
- 3 Loosen the hexagon socket head set screw (M3 x 5) and remove the throttle gear from the handlebar base.



4 Cut the wrap tie, and remove the cord.





1

2

3

4

5

6

7

8A

8B

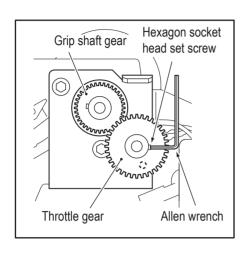
9

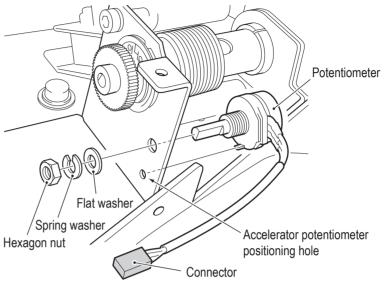
10

11

- Must be performed by a technician -

Disconnect the connector, remove the flat washer, spring washer and hexagon nut fixing the potentiometer, and remove the potentiometer from the handlebar base.

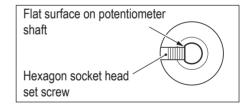




- Replace the potentiometer. Install the potentiometer so that the protrusion is aligned with the accelerator potentiometer positioning hole.
- 7 To install, perform the procedure in reverse.

When installing the throttle gear, engage it with the grip shaft gear so that the hexagon socket head set screw is positioned as shown in the figure above when the accelerator is returned to the unrotated position.

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





- When installing, lock the connectors securely.
- When installing, be careful not to pinch the connectors and harness.
- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- After replacement, be sure to initialize the potentiometer. (See "7-8-4 (2) I/F INITIALIZE" on page 38.)

Test Mode

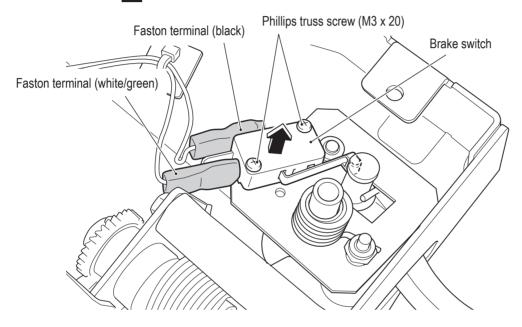
Troubleshooting

103



(3) Replacing the Brake Switch

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the handlebar cover. (See "8B-3-4 (1) Replacing the View Change Button" on page 100.)
- Remove the two Phillips truss screws (M3 x 20).
- 4 Disconnect the two Faston terminal and remove the brake switch.



To install, perform the procedure in reverse.



- When connecting the Faston terminals, check the Faston terminal harness colors carefully to avoid damaging the electronic circuitry.
- When installing, lock the Faston terminals securely.
- When installing, be careful not to pinch the connectors and harness.
- After replacement, be sure to confirm that it operates correctly and check the settings. (See "7-8-4 (3) SWITCH TEST" on page 39.)



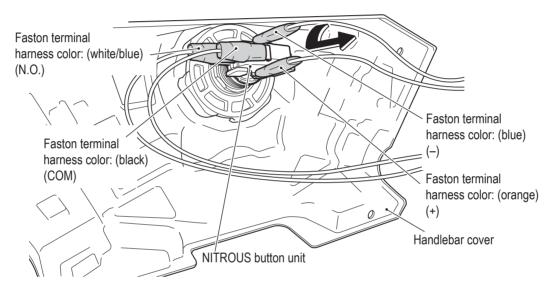




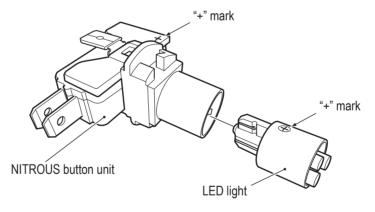
(4) Replacing the NITROUS Button Unit and LED Light

/!\WARNING

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the handlebar cover. (See "8B-3-4 (1) Replacing the View Change Button" on page 100.)
- Rotate the NITROUS button unit counterclockwise to unlock, then remove the NITROUS button unit and disconnect the four Faston terminals.



Pull out the LED light from the NITROUS button unit.



Replace the NITROUS button unit and / or the LED light. When replacing the LED light, align the + marks on the LED light and the NITROUS switch.



- When connecting the Faston terminals, make sure not to mistake the harness colors to avoid damaging the electronic circuitry.
- When installing, be careful of the wiring colors, and lock the connectors securely.
- When installing, be careful not to pinch the connectors and harness.
- After replacement, be sure to confirm that it operates correctly and check the settings. (See "7-8-4 (3) SWITCH TEST" on page 39.)

1

2

3

4

5 6

7

8A

8B

9

10

11

Service/Technician's Manual

Troubleshooting

105

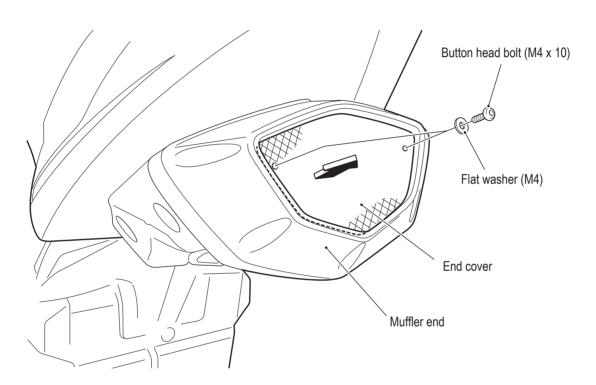


8B-3-5 Ride Assembly

(1) Replacing the Muffler End LED

WARNING -

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the two button head bolts (M4 x 10) and two flat washers (M4), then remove the end cover.



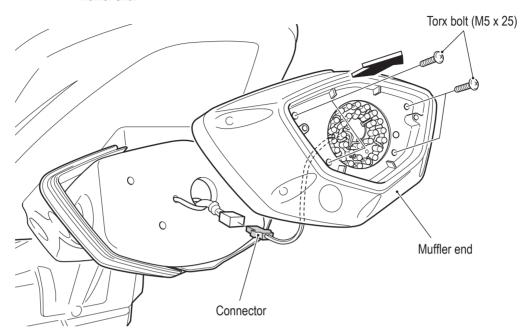




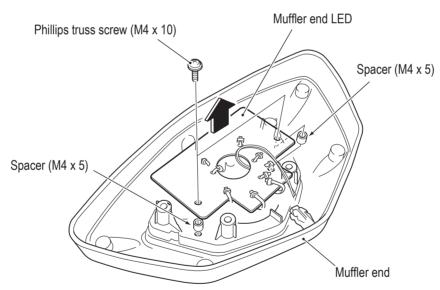
(

- Must be performed by a technician -

Remove the four torx bolts (M5 x 25), shift the muffler end, disconnect the connector, and remove the muffler end.



Remove the two Phillips truss screws (M4 x 10) and two spacers (M4 x 5), and remove and replace the muffler end LED.



To install, perform the procedure in reverse.



- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- When installing, lock the connectors securely.
- When installing, be careful not to pinch the connectors and harness.
- When installing, make sure that the flat surface of the end cover is facing outward.
- After replacement, be sure to confirm that it operates correctly and check the settings.
 (See "7-8-4 (4) LAMP TEST" on page 41.)

1

2

3

4

5

6

7

8A 8B

9

10

11

Service/Technician's Manual

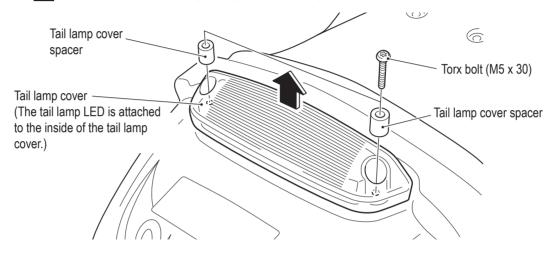
est Mode

Troubleshooting

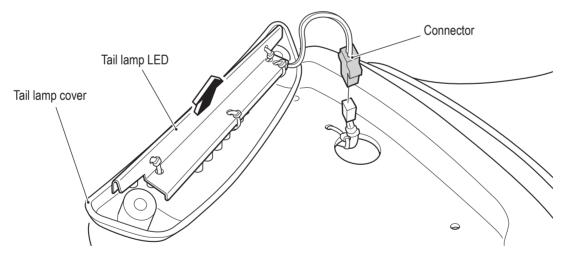


(2) Replacing the Tail Lamp LED

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the two torx bolts (M5 x 30) and two tail lamp cover spacers, then remove the tail lamp cover.



- 3 Disconnect the connector and replace the tail lamp LED.
- To install, perform the procedure in reverse.





- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- When installing, lock the connectors securely.
- When installing, be careful not to pinch the connectors and harness.
- After replacement, be sure to confirm that it operates correctly and check the settings. (See "7-8-4 (4) LAMP TEST" on page 41.)





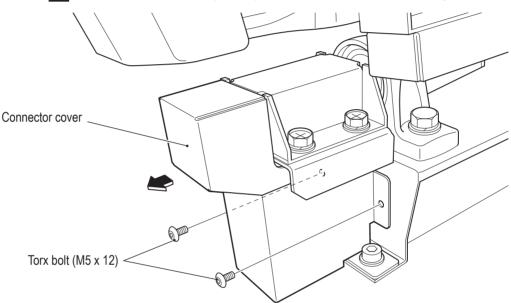


(3) Replacing the Bank Angle Potentiometer

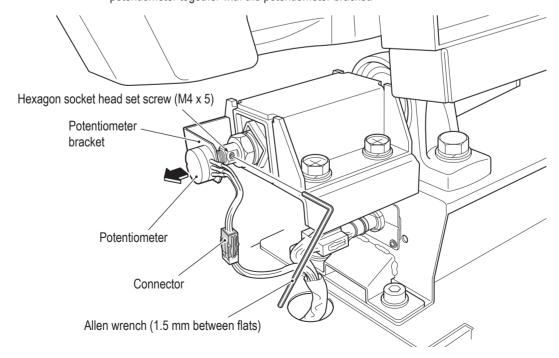
(

!WARNING

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the engine covers (L) and (R). (See steps 1 to 5 of "8A-1 (1) Removing the Motorbike Assembly" on page 55.)
- Remove the two torx bolts (M5 x 12) and slide the connector cover toward you to remove it.



Disconnect the connector, loosen the hexagon socket head set screw (M4 x 5) and remove the potentiometer together with the potentiometer bracket.



1

2

3

4

5

6

7

8A

8B

9 10

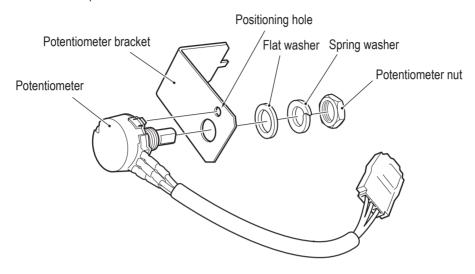
11

Service/Technician's Manual

Troubleshooting



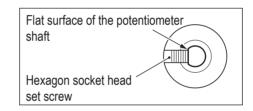
Remove the flat washer, spring washer and potentiometer nut, and remove the potentiometer from the potentiometer bracket.



Replace the potentiometer.

Install the potentiometer so that the protrusion is aligned with the potentiometer positioning hole.

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





- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- When installing, lock the connectors securely.
- When installing, be careful not to pinch the connectors and harness.
- After replacement, be sure to initialize the potentiometer. (See "7-8-4 (2) I/F INITIALIZE" on page 38.)





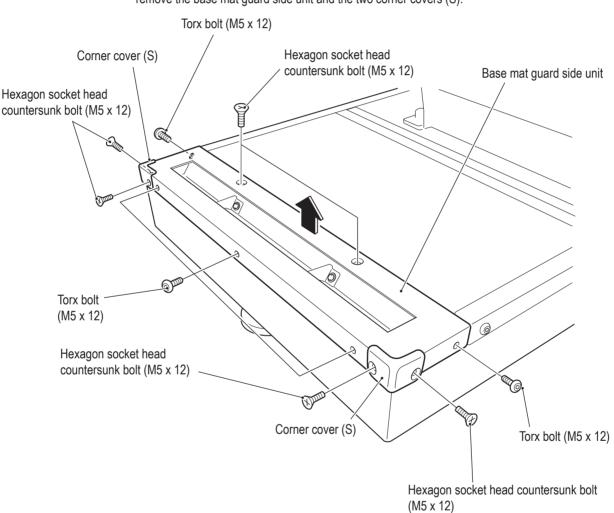


(4) Replacing the Base Frame LEDs

The description below explains how to replace the base frame LED on the (R) side. Follow the same procedure to replace the (L) side.

!WARNING -

- To avoid electric shock, accident or injury to yourself or others as well as damage to the electronic circuitry, be sure to turn off the power switch before starting this task.
- Turn off the power switch. (See "8A-5 Turning the Power Switch On" on page 74.)
- Remove the five torx bolts (M5 x 12) and six hexagon socket head countersunk bolts (M5 x 12) and remove the base mat guard side unit and the two corner covers (S).



1

2

3

4

5

6 7

8A

8B

9

10

11

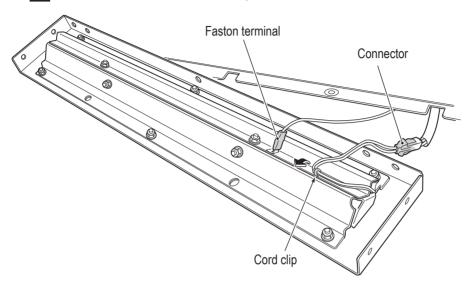
Service/Technician's Manual

est Mode

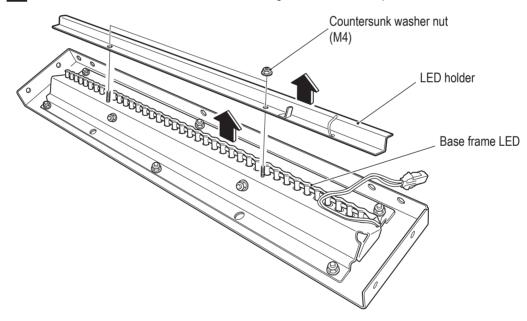
Troubleshooting



- 3 Turn over the base mat guard side unit and disconnect the Faston terminal and the connector.
- 4 Remove the harness from the cord clip.



- Remove the two countersunk washer nuts (M4) and remove the LED holder.
- Remove the base frame LED from the base mat guard side unit and replace it.



7 To install, perform the procedure in reverse.



- When connecting the connectors, check the connector alignments carefully to avoid damaging the electronic circuitry.
- When installing, be careful not to pinch the cable, and lock the connectors securely.
- After replacement, be sure to confirm that it operates correctly and check the settings.
 (See "7-8-4 (4) LAMP TEST" on page 41.)







•

Disposal

WARNING

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

2

3

4

5

6 7

8A

8B

9

10

11 Disposal

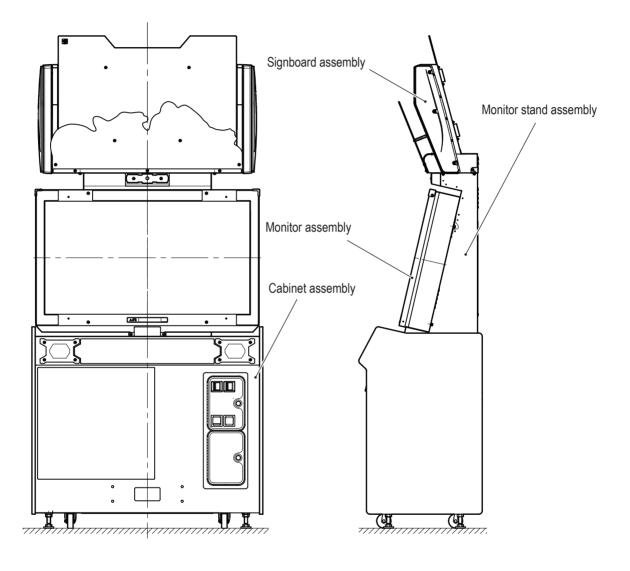
(

Troubleshooting



10. Parts List

10-1 Front Cabinet Assembly

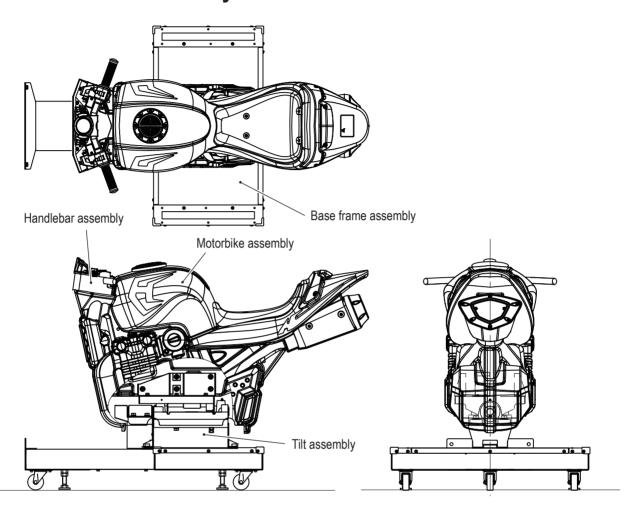






•

10-2 Ride Assembly



2

3

4

5

6 7

88

8B

9

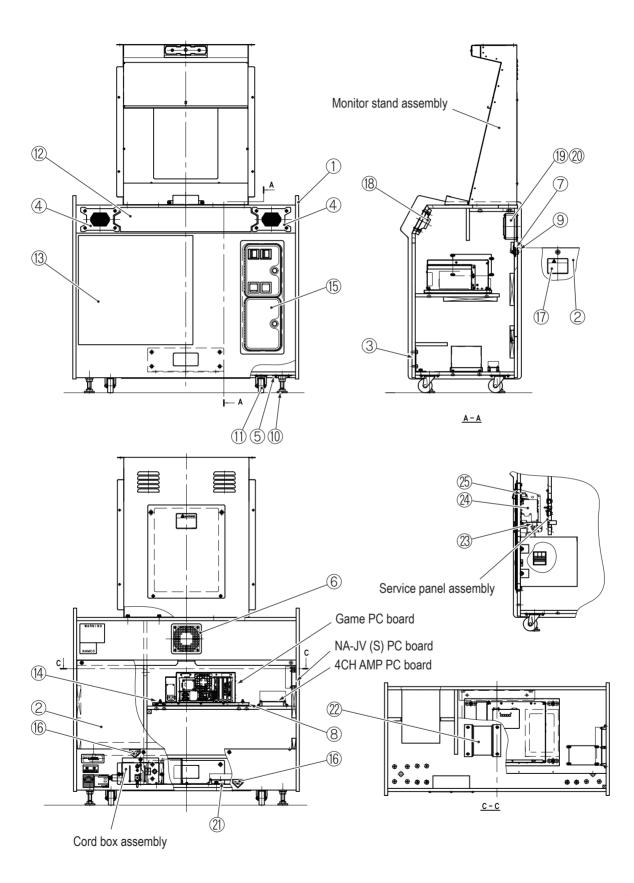
10

Parts List

Troubleshooting



10-3 Cabinet Assembly







10. Parts List

No.	Name	Qty.	Type and rating	Part No.
1	Cabinet	1		XDHR-N01-001
2	Back door	1		XDHR-N01-002
3	Base inter plate	1		XDHR-N01-003
4	Speaker cover plate	2		XDHR-N01-004
5	Adjuster furniture	4		XDHR-N01-005
6	Fan cover plate	1		XDHR-N01-006
7	Key washer	1		XDHR-N01-007
8	Rack base	1		XDHR-N01-008
9	Coin lock	1	HB25-01B	XDHR-N01-009
10	Level adjuster	4	D-B3 16X100	XDHR-102-171
11	Caster (swivel type)	4	412050S	XDHR-N01-010
12	Cabinet sticker A (EXP)	1		XDHR-732-988
13	Cabinet sticker B	1		XDHR-N01-011
14	Anti-vibration rubber	4	KB-20	XDHR-106-181
15	Over/under door	1	40-6000-12NM	XDHR-N01-012
16	Fork sticker	2		XDHR-N01-013
17	Warning sticker Service (B) P (EXP)	1		XDHR-461-663
18	Speaker	2	PS4-124A-HB φ100 mm 4Ω 20W	XDHR-N01-014
19	Fan	1	AFB1212SHE	XDHR-N01-015
20	Finger guard	1	8130-TR	XDHR-005-413
21	Switching regulator	1	80-0215-00	XDHR-N01-017
22	Transformer	1	B660-1328-GAF	XDHR-N01-018
23	Micro switch	2		XDHR-N01-019
24	Coin selector	2	42-3079-100	XDHR-N01-020
25	Lamp	2		XDHR-N01-021

•

1

2

3

4

5

6

7

8A

8B

9

10 Parts List

Test Mode

Troubleshooting

2013/05/22 10:26:23



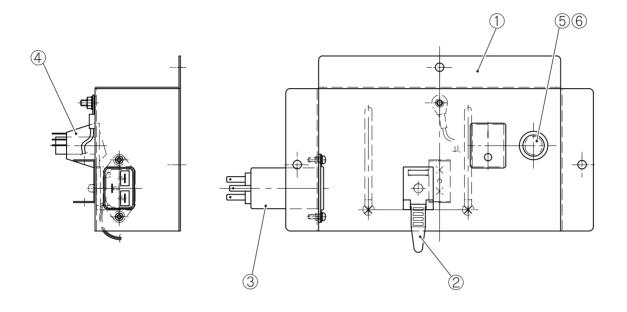
•

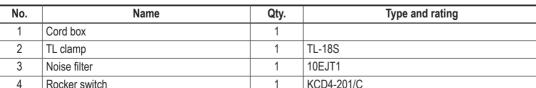
AV0023_EN. indb 117

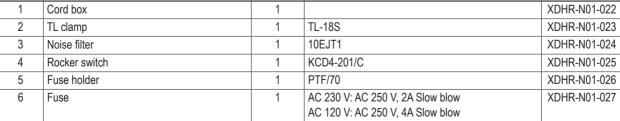




10-4 Cord Box Assembly







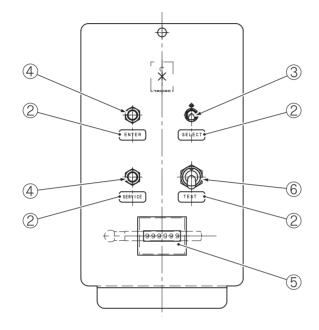


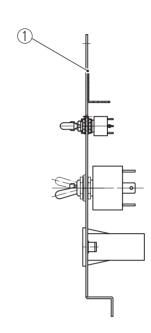


Part No.

•

10-5 Service Panel Assembly





2

3

4

5

6

7

88

8B 9

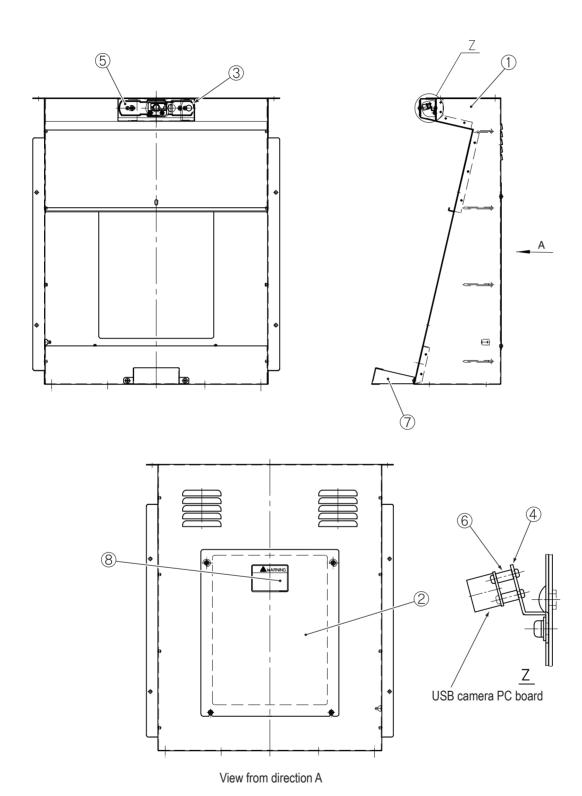
10

Parts List

No.	Name	Qty.	Type and rating	Part No.
1	Service panel	1		XDHR-N01-028
2	Service panel sticker	1		XDHR-N01-029
3	Toggle switch	1	MTS-123	XDHR-N01-030
4	Push button	2	PBS-10B	XDHR-N01-031
5	Coin counter	1	FX-06PD52	XDHR-N01-032
6	Toggle switch	1	KN3(B)-2-202AAP	XDHR-N01-033



10-6 Monitor Stand Assembly









No.	Name	Qty.	Type and rating	Part No.
1	Monitor stand base	1		XDHR-N01-034
2	Monitor stand access plate	1		XDHR-N01-035
3	Camera box	1		XDHR-N01-036
4	Camera bracket	1		XDHR-N01-037
5	Lens cover plate	1		XDHR-N01-038
6	Spacer	2	2MP-7	XDHR-N01-039
7	Monitor supporter	1		XDHR-N01-040
8	Warning sticker Service (B) P (EXP)	1		XDHR-461-663

•

•

1

2

3

5 6

7

8A

8B

9

10 1 Parts List

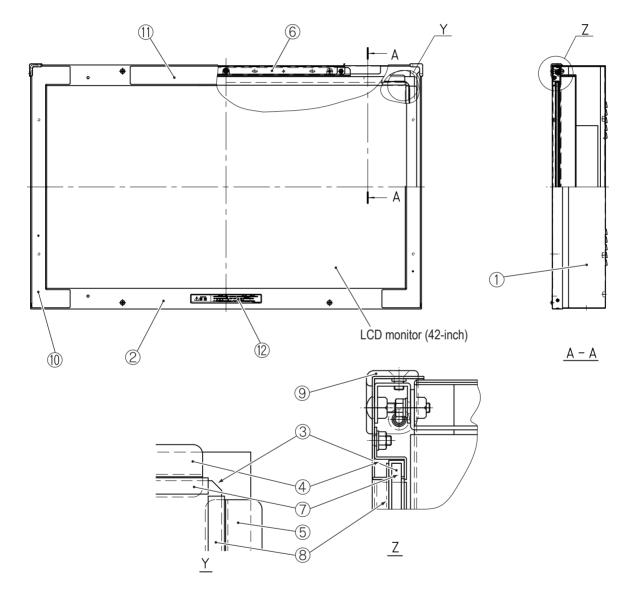
•

Test Mode

Troubleshooting



10-7 Monitor Assembly









No.	Name	Qty.	Type and rating	Part No.
1	Monitor back	1	i jpo and rating	XDHR-N01-041
2	Monitor frame	1		XDHR-N01-042
3	Glass	1		XDHR-N01-043
4	Glass support top/bottom	2		XDHR-N01-044
5	Glass support left/right	2		XDHR-N01-045
6	Monitor mount bracket	2		XDHR-N01-046
7	Rubber groove top/bottom	2		XDHR-N01-047
8	Rubber groove left/right	2		XDHR-N01-048
9	Corner cover (S)	2		XDHR-450-416
10	Monitor sticker A	2		XDHR-N01-049
11	Monitor sticker B	1		XDHR-N01-050
12	Caution sticker Hypersensitivity to Light (H)	1		XDHR-461-512
	EXP			

•

•

1

2

3

4

5

6

7

8A

8B

9

10 Parts List

•

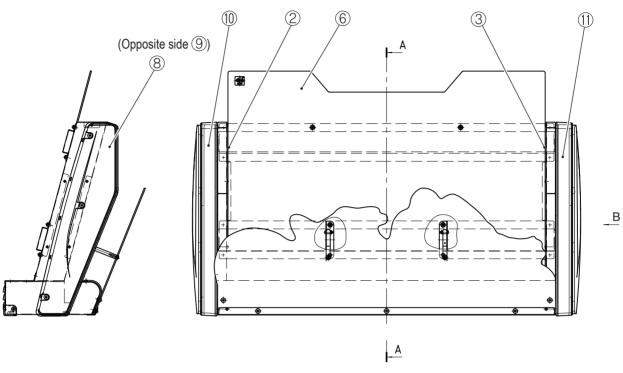


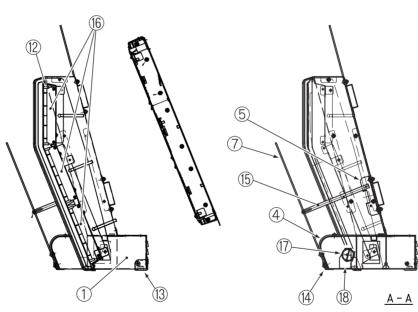
Test Mode

Troubleshooting



10-8 Signboard Assembly





View from direction B





10. Parts List

No.	Name	Qty.	Type and rating	Part No.
1	Mark base	1		XDHR-N01-051
2	Side cover L	1		XDHR-N01-052
3	Side cover R	1		XDHR-N01-053
4	FL cover plate	1		XDHR-N01-054
5	POP bracket bottom	2		XDHR-N01-055
6	Back board	1		XDHR-N01-056
7	Motorbike signboard A	1		XDHR-N01-057
8	Signboard side cover L	1		XDHR-729-347
9	Signboard side cover R	1		XDHR-729-348
10	LED cover L	1		XDHR-729-349
11	LED cover R	1		XDHR-729-350
12	LED reflector	6		XDHR-729-351
13	Corner cover (S)	2		XDHR-450-416
14	Corner supporter	1		XDHR-N01-058
15	Support rod	2		XDHR-N01-059
16	LED module	6	LMRGB12-9-14622-C	XDHR-002-617
17	LED light tube	1	CC-T8-60-9W-2835(6500K)	XDHR-N01-060
18	LED light tube socket	2		XDHR-N01-061

•

•

1

2

3

4

5

6

7

8A

8B

9

10 11 Parts List

•

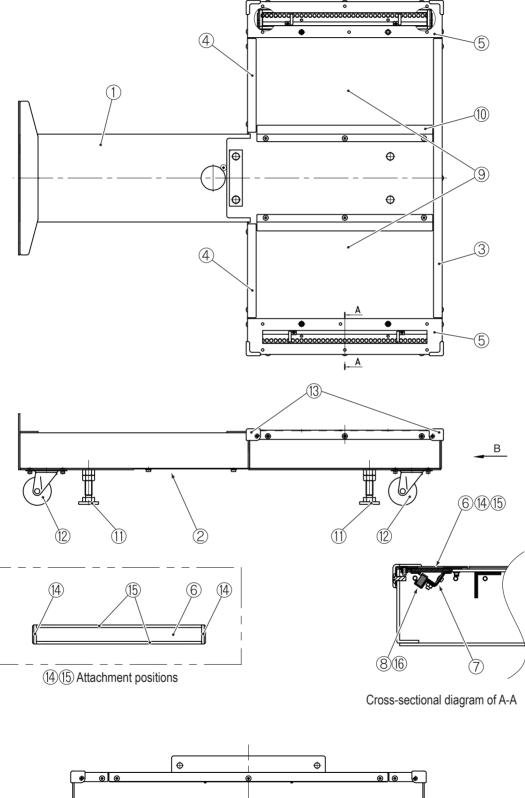


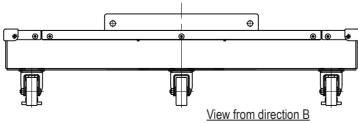
Test Mode

Troubleshooting



10-9 Base Frame Assembly









10. Parts List

No.	Name	Qty.	Type and rating	Part No.
1	Base frame	1		XDHR-N01-062
2	Base service plate	1		XDHR-N01-063
3	Base mat guard back unit	1		XDHR-N01-064
4	Base mat guard front unit	2		XDHR-N01-065
5	Base mat guard side unit	2		XDHR-N01-066
6	Reflector acrylic plate	2		XDHR-N01-067
7	Base reflector	2		XDHR-N01-068
8	LED holder	2		XDHR-N01-069
9	Base mat	2		XDHR-N01-070
10	Base mat guard offset	2		XDHR-N01-071
11	Adjuster bolt	3	D-B3 16X100	XDHR-102-171
12	Caster (swivel type)	3	412050S	XDHR-N01-072
13	Corner cover (S)	4		XDHR-450-416
14	EPT sealer (S)	4	L=44 mm	XDHR-N01-073
15	EPT sealer (L)	4	L=382 mm	XDHR-N01-074
16	Base frame LED	2	LED silicon tube blue 39	XDHR-N01-075

•

1

2

3

4

5

6

7

8A

8B

9

10 Parts List

•

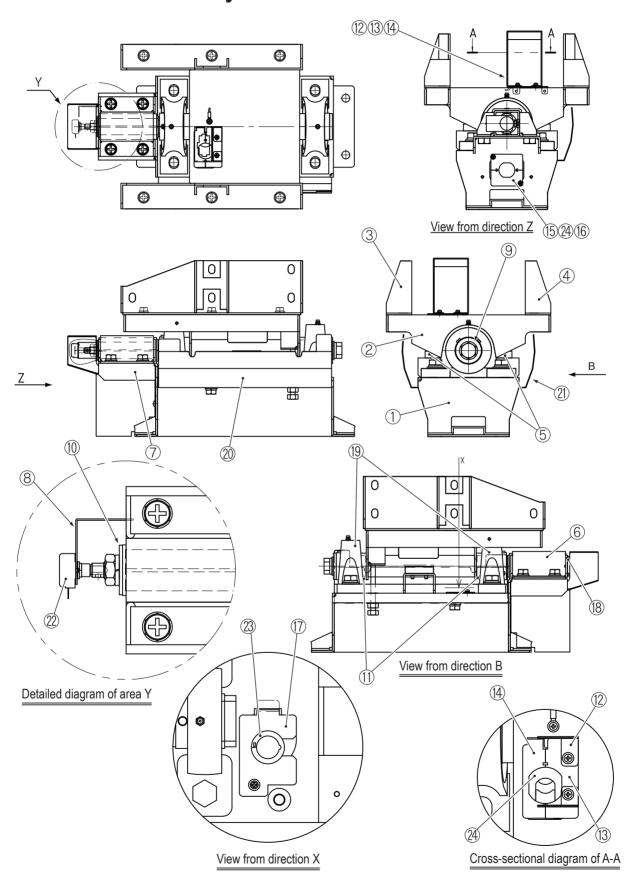


Test Mode

Troubleshooting



10-10 Tilt Assembly





(



10. Parts List

		01	T 1.0	D (N
No.	Name	Qty.	Type and rating	Part No.
1	Stopper base	1		XDHR-N01-076
2	Motorbike base	1		XDHR-N01-077
3	Motorbike base side (L)	1		XDHR-N01-078
4	Motorbike base side (R)	1		XDHR-N01-079
5	Stopper rubber	2		XDHR-N01-080
6	ROSTA (rubber spring) bracket	1		XDHR-N01-081
7	Connector cover	1		XDHR-N01-082
8	Potentiometer bracket	1		XDHR-N01-083
9	Washer (A)	1		XDHR-N01-084
10	Washer (B)	1		XDHR-N01-085
11	Washer (C)	2		XDHR-N01-086
12	Clamp bracket	1		XDHR-N01-087
13	Cord bush bracket (A)	1		XDHR-N01-088
14	Cord bush bracket (B)	1		XDHR-N01-089
15	Cord bush bracket (C)	1		XDHR-N01-090
16	Cord bush bracket (D)	1		XDHR-N01-091
17	Lock bush bracket	1		XDHR-N01-092
18	Rubber spring	1	ROSTA (rubber spring) DR-S27X100	XDHR-106-200
19	Pillow unit	2	UCP207H	XDHR-261-261
20	Foot guard (L)	1		XDHR-N01-093
21	Foot guard (R)	1		XDHR-N01-094
22	Potentiometer	1	RVQ24YN04-06 20F B102	XDHR-008-079
23	Open lock bush	1	OLBT-26	XDHR-N01-095
24	Strain relief bushing	2	SB10R2-7	XDHR-N01-096
24	•	2	SB10R2-7	

•

•

1

2

3

4

5

6 7

8A

8B

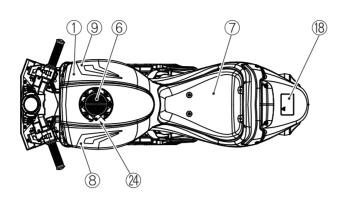
9

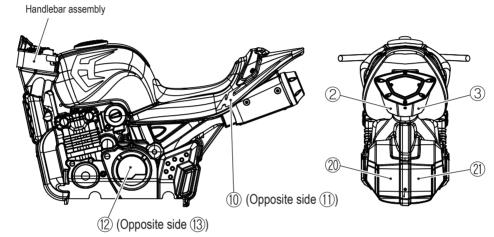
10 Parts List

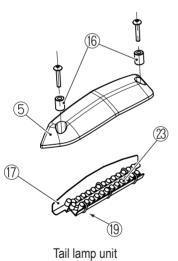


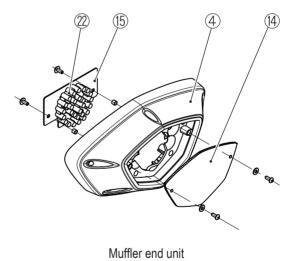


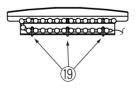
10-11 Motorbike Assembly



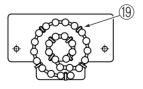








LED attachment position [tail lamp]



LED attachment position [muffler bracket]

10. Parts List

No.	Name	Qty.	Type and rating	Part No.
1	Motorbike main unit	1		XDHR-N01-097
2	Muffler cover L	1		XDHR-N01-098
3	Muffler cover R	1		XDHR-N01-099
4	Muffler end	1		XDHR-732-975
5	Tail lamp cover	1		XDHR-722-888
6	Gas tank cap	1		XDHR-722-889
7	Seat	1		XDHR-N01-100
8	Gas tank sticker L	1		XDHR-N01-101
9	Gas tank sticker R	1		XDHR-N01-102
10	Cowl sticker L	1		XDHR-N01-103
11	Cowl sticker R	1		XDHR-N01-104
12	Engine sticker L	1		XDHR-N01-105
13	Engine sticker R	1		XDHR-N01-106
14	End cover	1		XDHR-N01-107
15	Muffler end bracket	1		XDHR-N01-108
16	Tail lamp cover spacer	2		XDHR-N01-109
17	Tail lamp bracket	1		XDHR-N01-110
18	Caution sticker One Rider Only (EXP)	1		XDHR-461-782
19	Wrap tie	14		XDHR-N01-111
20	Engine cover L	1		XDHR-N01-112
21	Engine cover R	1		XDHR-N01-113
22	LED module	1	LED silicon tube blue 27	XDHR-N01-114
23	LED module	1	LED silicon tube blue 27	XDHR-N01-115
24	Speaker	1	PS4-124A-HB φ100 mm 4Ω 20W	XDHR-N01-116

•

•

1

2

3

4

5 6

7

8A

8B

9

10 Parts List

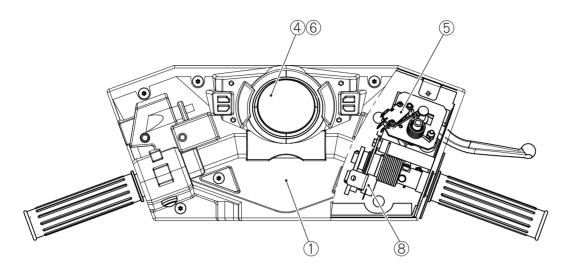
Troubleshooting

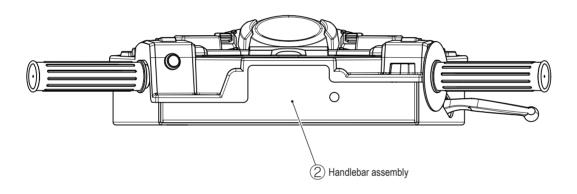
131

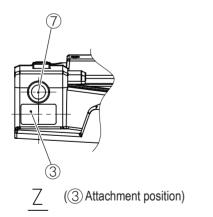
2013/05/22 10:26:35 • AV0023_EN. indb 131

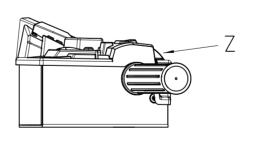


10-12 Handlebar Assembly











No.	Name	Qty.	Type and rating	Part No.
1	Handlebar cover	1		XDHR-N01-117
2	Handlebar assembly	1	50-2663-20S	XDHR-N01-118
3	View Change sticker	1		XDHR-N01-119
4	Illuminated push button switch	1	75-L012-600	XDHR-N01-120
5	Brake switch	1	42-7087-00	XDHR-N01-121
6	LED lamp	1	91-10WB-123W	XDHR-N01-122
7	View Change button	1	48-1RRNRDB	XDHR-N01-123
8	Potentiometer	1	RVQ24YN04-06 20F B102	XDHR-008-079

•

•

1

2

3

4

5 6 7

8A

8B

9

10 Parts List

•



Test Mode

Troubleshooting



10-13 Other Repair Parts



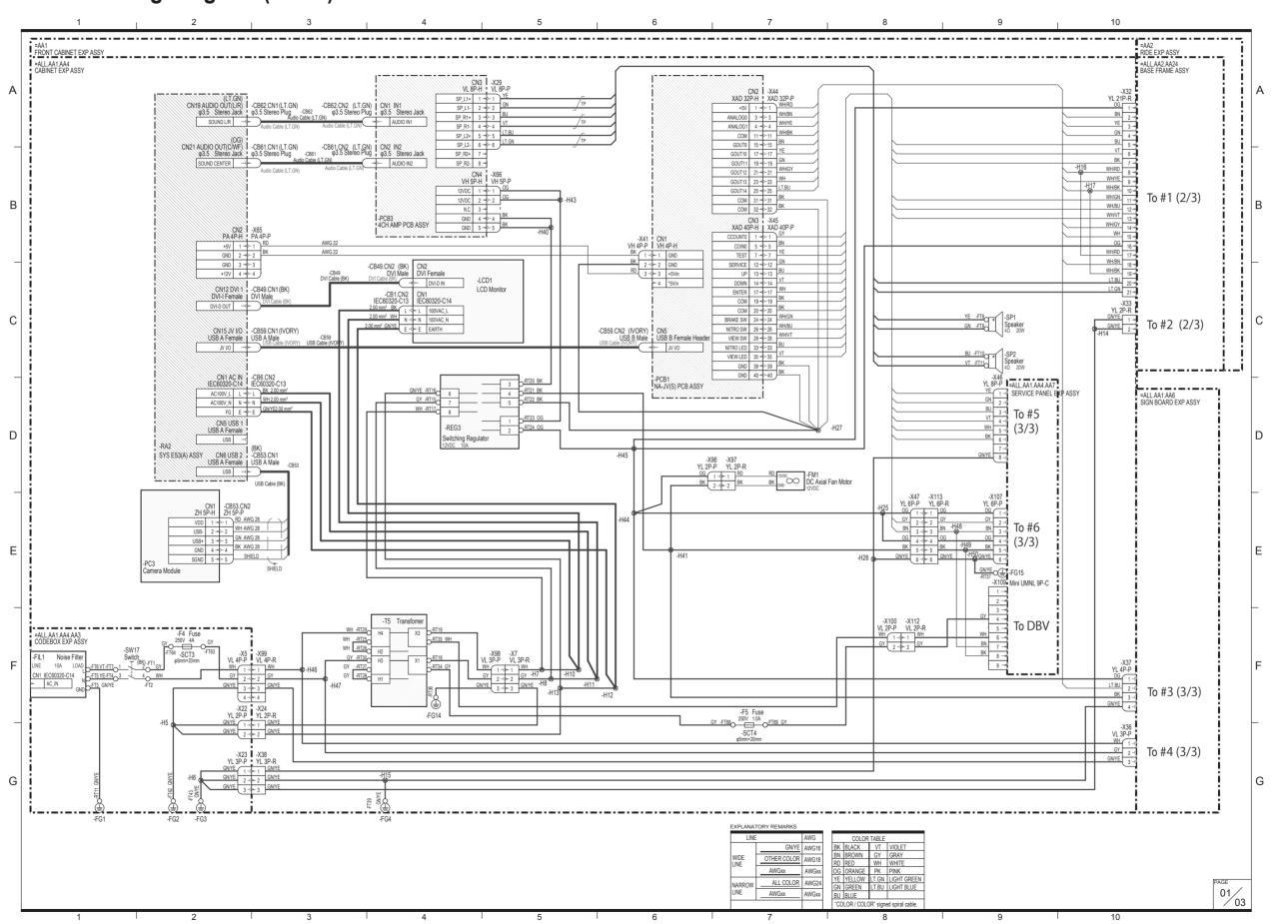


No.	Name	Qty.	Type and rating	Part No.
1	Operation Manual	1		XDHR-N01-124
2	LAN cable	1	CAT5S-S-L5000	XDHR-N01-125



11. Wiring Diagrams

11-1 Overall Wiring Diagram (120 V) 1/3



8A

8B

10

2013/05/22 10:26:41

BA

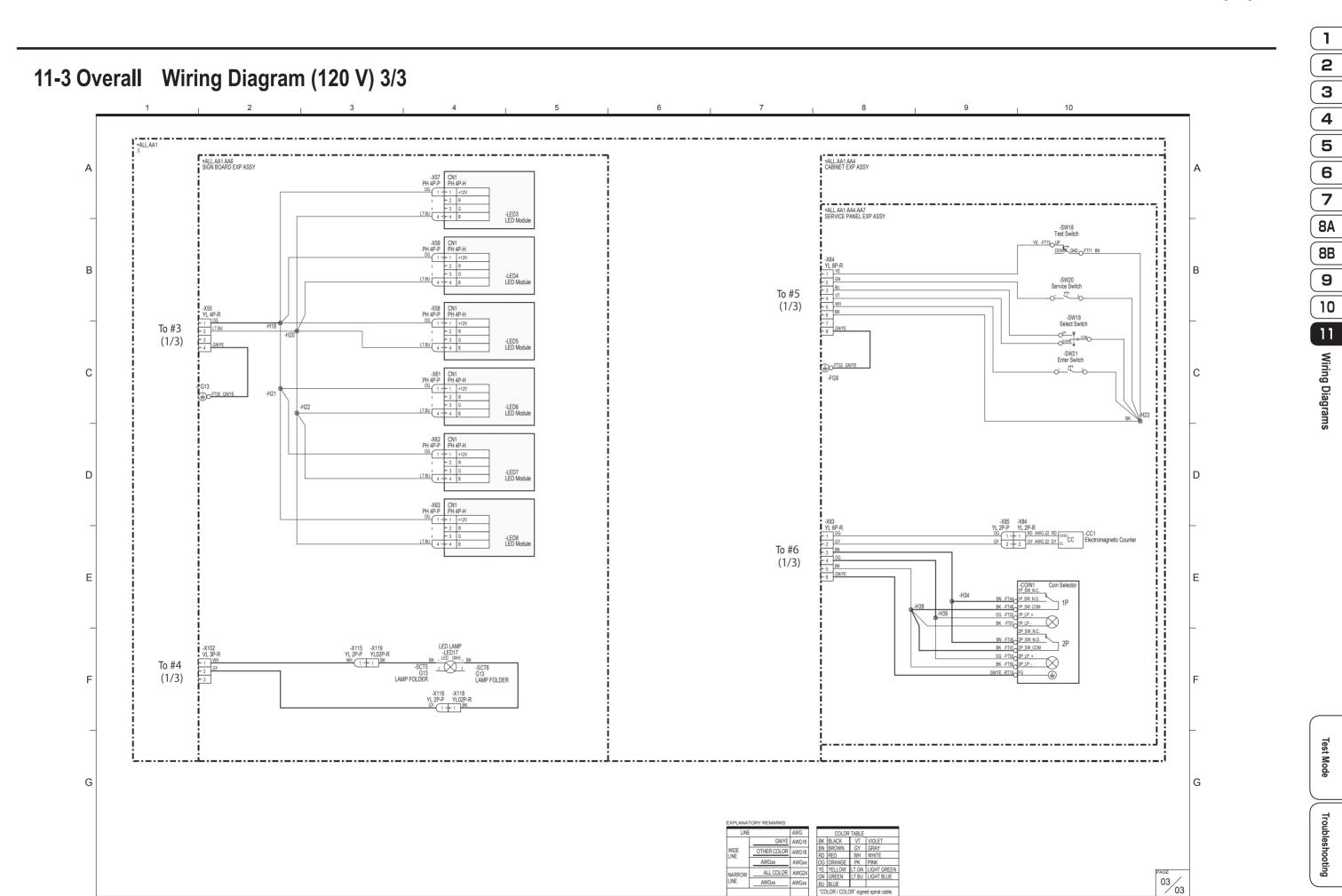
8B

10

11-2 Overall Wiring Diagram (120 V) 2/3 =ALL.AA1 FRONT CABINET EXP ASSY To #1 (1/3) GNYE GNYE GNYE GNYE GNYE To #2 (1/3)

Test Mode Troubleshoo

136

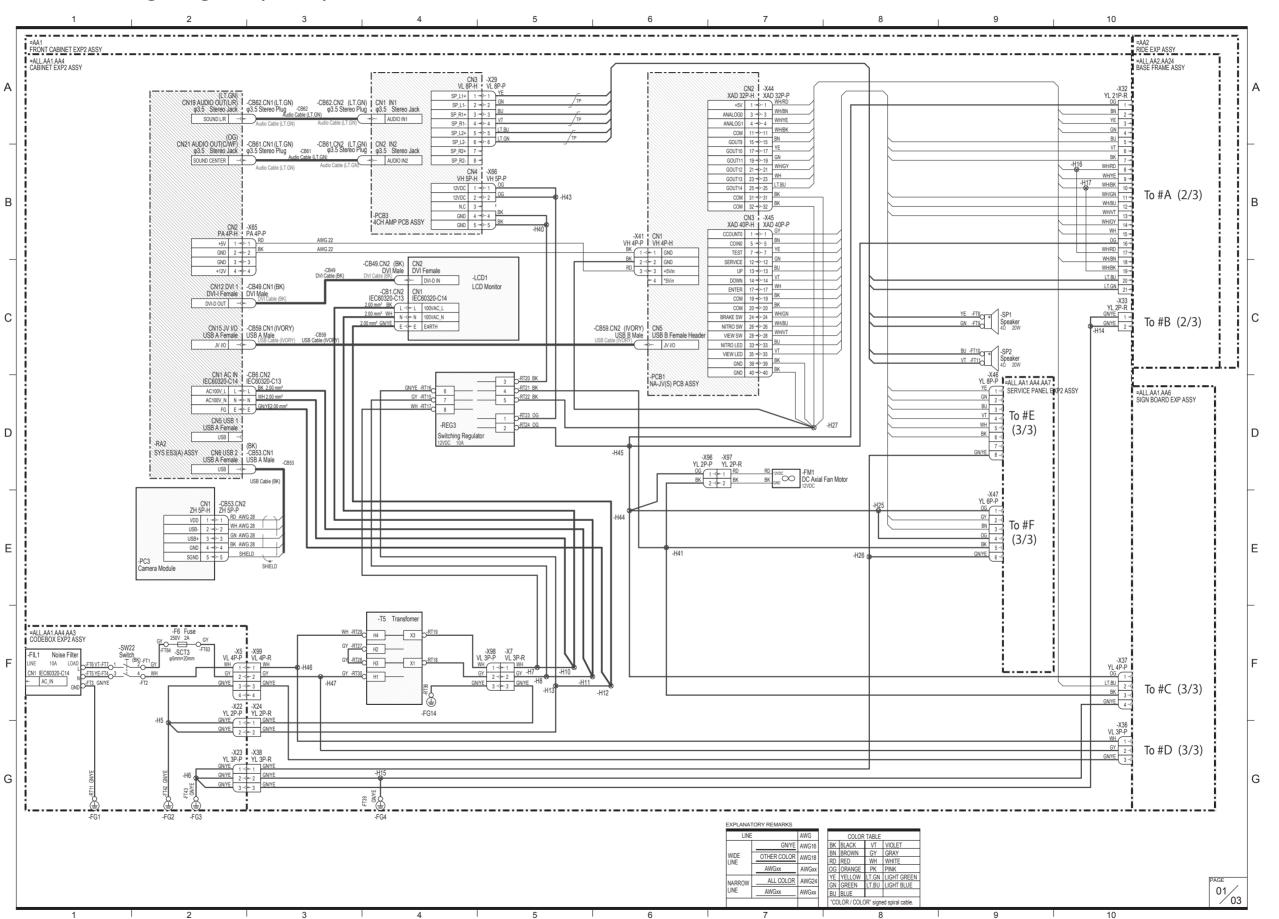


137

AV0023_EN. indb 137

2013/05/22 10:26:47

11-4 Overall Wiring Diagram (230 V) 1/3



(

8A

8B

10

11-5 Overall Wiring Diagram (230 V) 2/3 =ALL.AA1 FRONT CABINET EXP2 ASSY To #A (1/3) GNYE GNYE GNYE GNYE GNYE To #B (1/3)

BA

8B

10

11-6 Overall Wiring Diagram (230 V) 3/3 To #E (1/3) To #C (1/3) To #F (1/3) To CashFlow340 To #D (1/3) O^{FT74} OG O^{FT75} BU

140



Copyrights and Trademarks

The software used in this product is protected by copyright laws.

It is prohibited to copy, distribute publicly, or use the software for purposes other than the operation of this product. Infringement of copyright laws may subject persons to criminal penalties.

Parts of the software used in this product are protected by GNU General Public License Version 2, GNU General Public License Version 3, GNU Lesser General Public License Version 2.1 and GCC Runtime Library Exception. Customers are allowed to obtain, modify and redistribute the source codes of those parts of the software.

Notice that these parts of the software comprise only a part of this product, and this does not imply that the source codes of the entire software can be obtained, modified or redistributed

GNU GENERAL PUBLIC LICENSE

Copyright (C) 1989, 1991 Free Software Foundation, Inc. 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software—to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they

We protect your rights with two steps; (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all

The precise terms and conditions for conving distribution and modification follow

TERMS AND CONDITIONS FOR COPYING DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions.

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change

a) You must cause the modified lies to carry prominent notices stating that you changed the lies and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that here is no warrantly for else, saying that you provide a warrantly and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works, but when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other

licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you, rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or, of Accompany it with the information your received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer,

in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royally-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.







9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and 'any later version', you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECALISE THE PROGRAM IS LICENSED FREE OF CHARGE. THERE IS NO WARRANTY FOR THE PROGRAM TO THE EXTENT PERMITTED BY APPLICABLE LAW, EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS. AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS." WITHOUT WARRANTY OF ANY KIND. FITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE YOU ASSUME THE COST OF ALL NECESSARY SERVICING REPAIR OR CORRECTION

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1. February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc. 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to quarantee your freedom to share and change free software—to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages—typically libraries—of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) I ne modined work must itself be a software library.
b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the vert an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.
(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy







This option is useful when you wish to copy part of the code of the Library into a program that is not a library

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executa

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modificati

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
d) If distribution of the work is made by offering access to copy of mese materials or that you have already sent this user a copy.
For an executable, the required from of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

- 7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
 b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.
 8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
- 9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.
- 10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.
- 11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License, If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

- 12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
- 13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and 'any later version', you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation, we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY. TO THE EXTENT PERMITTED BY APPLICABLE LAW, EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY 'AS IS' WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIBBLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES

END OF TERMS AND CONDITIONS

GNU GENERAL PUBLIC LICENSE

Copyright c 2007 Free Software Foundation, Inc. http://fsf.org/

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed

The GNU General Public License is a free, copyleft license for software and other kinds of works.

The licenses for most software and other practical works are designed to take away your freedom to share and change the works. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change all versions of a pro-to make sure it remains free software for all its users. We, the Free Software Foundation, use the GNU General Public License for most of our software; it applies also to any other work released this way by its authors. You can apply it to your programs

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things.

To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.







Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise ubstantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow

TERMS AND CONDITIONS

0. Definitions.
"This License" refers to version 3 of the GNU General Public License.

"Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks

"The Program" refers to any copyrightable work licensed under this License. Each licensee is addressed as "you." "Licensees" and "recipients" may be individuals or organizations

To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work.

A "covered work" means either the unmodified Program or a work based on the Program.

To "propagate" a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network with no transfer of a copy, is not conveying

An interactive user interface displays "Appropriate Legal Notices" to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source

The Corresponding Source for a work in source code form is that same work

2. Basic Perinssions.
All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make run and propagate covered works that you do not convey without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on you behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed: section 10 makes it unnecessary

3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee

5. Conveying Modified Source Versions

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

a) The work must carry prominent notices stating that you modified it, and giving a relevant date.
b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".
c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will herefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permissions in bleans the work in any other way, but it does not invalidate such permission if you have separately received it.
d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.
A compliation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with It such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate! if the compliation and its resulting copyright are not used to limit the access or legal rights of the compliation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange

b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product model, to give anyone who possesses the object code with a copy of the Corresponding Source for all that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source form a network server at no charge.

o) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection

ou.

d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the

Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (perfect by you or a third party) that supports equivalent copying facilities, provided you maintain directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.
e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and of the work are being offered to the sign general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, "normally used" refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular users or expects or is expected to use, the product A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

"Installation Information" for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source installation information and a continued in a continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveved, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying

"Additional permissions" are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, of the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.







When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this License with terms:

a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or

a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or
b) Requiring reservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or
c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or
d) Limiting the use for publicity purposes of names of licensors or authors of the material; or
e) Declining to grant rights under trademark law for use of some trademarks, or service marks; or
f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on ors and authors

nose incensors and aumors.
All other non-permissive additional terms are considered "further restrictions" within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way

may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this I icense. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses

9. Acceptance Not Required for Having Copies

5. Acceptance with required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagating a covered work, you indicate your acceptance. of this License to do so

10. Automatic Licensing of Downstream Recipients

Each time you convey a covered work the recipient automatically receives a license from the original licensors, to nun, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License

An "entity transaction" is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party's predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royally, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it.

A contributor is a copyright holder who authorizes use under this License of the Program or a work on which the Program is based. The work thus licensed is called the contributor's "contributor version"

A contributor's "essential patent claims" are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, "control" includes the right to grant patent sublicenses in a manner consistent with the requirements of this License.

Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.

In the following three paragraphs, a "patent license" is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To "grant" such a patent license to a party means to make such an agreement or commitment not to enforce a patent against the party.

If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. "Knowingly relying" means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.

A patent license is "discriminatory" if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law

12. No Surrender of Others' Freedom

Tac No outled to Critical Freedom.

If conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royally for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

13. Use with the GNU Affero General Public License

Notwithstanding any other provision of this License, you have permission to link or combine any covered work with a work licensed under version 3 of the GNU Affero General Public License into a single combined work, and to convey the resulting work. The terms of this License will continue to apply to the part which is the covered work, but the special requirements of the GNU Affero General Public License, section 13, concerning interaction through a network will apply to the combination as such.

14. Revised Versions of this License

The Free Software Foundation may publish revised and/or new versions of the GNU General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns

Each version is given a distinguishing version number. If the Program specifies that a certain numbered version of the GNU General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of the GNU General Public License, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide which future versions of the GNU General Public License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program

Later license versions may give you additional or different permissions. However, no additional obligations are imposed on any author or copyright holder as a result of your choosing to follow a later version

13. DISCHAIRING IN WHITE THE PROGRAM TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

END OF TERMS AND CONDITIONS

GCC RUNTIME LIBRARY EXCEPTION

Copyright c 2009 Free Software Foundation, Inc. http://fsf.org/

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allo







This GCC Runtime Library Exception ("Exception") is an additional permission under section 7 of the GNU General Public License, version 3 ("GPLv3"). It applies to a given file (the "Runtime Library") that bears a notice placed by the copyright holder of the file stating that the file is governed by GPLv3 along with this Exception.

When you use GCC to compile a program, GCC may combine portions of certain GCC header files and runtime libraries with the compiled program. The purpose of this Exception is to allow compilation of non-GPL (including proprietary) programs to use, in this way, he header files and runtime libraries covered by this Exception.

A file is an "independent Module" if it either requires the Runtime Library for execution after a Compilation Process, or makes use of an interface provided by the Runtime Library, but is not otherwise based on the Runtime Library

"GCC" means a version of the GNU Compiler Collection, with or without modifications, governed by version 3 (or a specified later version) of the GNU General Public License (GPL) with the option of using any subsequent versions published by the FSF.

"GPL-compatible Software" is software whose conditions of propagation, modification and use would permit combination with GCC in accord with the license of GCC.

"Target Code" refers to output from any compiler for a real or virtual target processor architecture, in executable form or suitable for input to an assembler, loader, linker and/or execution phase. Notwithstanding that, Target Code does not include data in any format that is used as a compiler intermediate representation, or used for producing a compiler intermediate representation.

The "Compilation Process" transforms code entirely represented in non-intermediate languages designed for human-written code, and/or in Java Virtual Machine byte code, into Target Code. Thus, for example, use of source code generators and preprocessors need not be considered part of the Compilation Process, since the Compilation Process can be understood as starting with the output of the generators or preprocessors.

A Compilation Process is "Eligible" if it is done using GCC, alone or with other GPL-compatible software, or if it is done without using any work based on GCC. For example, using non-GPL-compatible Software to optimize any GCC intermediate representations would not qualify as an Eligible Compilation Process

1. Grant of Additional Permission

You have permission to propagate a work of Target Code formed by combining the Runtime Library with Independent Modules, even if such propagation would otherwise violate the terms of GPLv3, provided that all Target Code was generated by Eligible Compilation Processes. You may then convey such a combination under terms of your choice, consistent with the licensing of the Independent Modules.

2. No Weakening of GCC Copyleft.

The availability of this Exception does not imply any general presumption that third-party software is unaffected by the copyleft requirements of the license of GCC.

The rights to the fonts used in the game belong to:

The typefaces included herein are developed by DynaComware.

© Morisawa Inc.

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

PACMAN © 2012 NAMCO BANDAI Games Inc. RIDGERACER 3D © 2011 NAMCO BANDAI Games Inc. SOULCALIBURTM V& © 2012 NAMCO BANDAI Games Inc.

All trademarks and copyrights associated with the manufacturers, vehicles, models, trade names, brands and visual images depicted in this game are the property of their respective owners, and used with such permissions.

Fin.



