

MARIOKART ARCADE GP DX

Operation Manual

The actual product may differ slightly from the illustrations in this manual. AS OF 12/2016 ALL VERSIONS OF MARIO KART ARCADE GP DX ARE NOW OFFLINE VERSIONS

FOR MARIO KART SERIAL NUMBERS BEGINNING IN SERIAL NUMBERS MKFC2***** PLEASE USE THE WIRING DIAGRAMS STARTING ON PAGE 109

• 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.

Bandai Namco Amusement America Inc.

Introduction

Thank you very much for purchasing MARIOKARKARCADE GP DX (referred to as the "machine" in this manual).

This Operation Manual describes:

- How to safely install, operate, move, transport, maintain 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(

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

Instructions to the Owner

If you delegate the work for installing, operating, moving, transporting, maintaining 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.

1-1 Levels of Risk

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

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

: 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.



: 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 Kable of Contents are written for technicians. These must be performed by technicians only.

Kechnician: 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.

1-3 Critical Safety Precautions

/!\WARNING	
 Should an abnormality occur, turn off the power switch immediately to sto operations. Then, be sure to disconnect the power cord plug from the outle Operating the machine while the abnormality persists may result in a fire accident. 	et.
 Sections of the LCD 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 the 	•
 Dust accumulating on the power cord plug may cause a fire. Inspect the plue regularly and remove any dust. Fully insert the power cord plug into the outlet. Poor contact may generate here 	Ū
 Damage to the power cord may result in a 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.) 	ver
 Do not place objects on the power cord. Do not allow the power cord to be caught between the machine and oth devices or the wall. 	ier
 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 electric shock or electrical leakage. 	in
 Do not touch the power cord plug with wet hands. It may result in electric shoct The power capacity of the machine is AC 120 V (or AC 230 V), 3.2 A. To prever fire and electric shock, use interior wiring that conforms to these power suppressed specifications. 	ent
• Use a power supply voltage range of AC 110 V to 130 V (or AC 230 V). Using voltage outside this range may result in a fire or electric shock. However, ensure that the machine operates in the optimum condition, keep the voltage at AC 120 V (or AC 230 V) as much as possible.	to ge
 To ensure safe use of the machine, be sure to perform the pre-operation inspection (see "7-2 Pre-operation Inspection" on page 20) and service (se "8B. Service" on page 59) described in this Operation Manual. Omitting the inspections or service may result in an accident. 	ee
 Use the consumables and service parts (including screws) that are specific by our company. To order parts, contact your distributor. Do not modify the machine without permission. Do not perform any operation 	

- 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

- The warning labels contain important information for ensuring safety. Be sure to observe the following.
 - To ensure that the warning labels attached to the machine are always clearly visible, install the machine in an appropriate location with ample illumination, and keep the labels clean at all times. Make sure that the labels are not hidden by other 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.



Test Mode

Table of Contents

1. Safety Precautions - Be sure to read to ensure safe operation	Introduction	
1-2 Definition of "Technician" 1 1-3 Critical Safety Precautions 2 1-4 Machine Warning Labels 3 Kable of Contents 4 2 Specifications 8 3. Package Contents 10 4. Overall Structure (Part Names) 12 5. Delivery and Installation Conditions 13 5-1 Installation Conditions 13 5-1.1 Installation Conditions 13 5-1.2 Required Dimensions for the Delivery Route (Such as Doors and Corridors) 15 6. Moving and Kransporting 16 6.1 Moving (On the Same Floor) 16 6.2 Transporting 17 6-2.2 Transporting on a Vehicle 18 7. Operation 19 7.1 Safety Precautions for Playing 19 7.2 Pre-operation Inspection 20 7.2 Pre-operation Inspection (Metre Power On) 21 7.3 Playing the Game 22 7.4 Adjustment Switch and Adjustment Switches 24 7.4 Power Switch An Adjustment Switches 25 7.5 Flow during Game Startup 26 7.5 Flow during Game Startup 26 7.5 Flow during Game	1. Safety Precautions – Be sure to read to ensure safe operation –	1
1-3 Critical Safety Precautions 2 1-4 Machine Warning Labels 3 Kable of Contents 4 2. Specifications 8 3. Package Contents 10 4. Overall Structure (Part Names) 12 5. Delivery and Installation Conditions 13 5.1 Installation Conditions 13 5.1 Installation Conditions to Avoid 13 5.1 Installation Locations to Avoid 13 5.2 Required Dimensions for the Delivery Route (Such as Doors and Corridors) 15 6. Moving and Kransporting 16 6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2 Transporting Manually (Such as Carrying on Stairs) 17 6-2 Transporting on a Vehicle 18 7. Operation 19 7.1 Safety Precautions for Playing 19 7.2 Pre-operation Inspection (Before Power On) 20 7.3 Playing the Game 22 7.4 Explanation of the Power Switch and Adjustment Switches 24 7.4 Tower Switch Position and Kurning the Power Switch On 24 7.4-2 Adjustment Switches 25 7.5 Flow during Game Startup	1-1 Levels of Risk	1
1-4 Machine Warning Labels. 3 Kable of Contents. 4 2. Specifications 8 3. Package Contents 10 4. Overall Structure (Part Names) 12 5. Delivery and Installation Conditions 13 5.1 Installation Conditions 13 5.1 Installation Conditions to Avoid 13 5.1 Installation Locations to Avoid 13 5.1-1 Installation Locations to Avoid 13 5.1-2 Play Zone for the Installed Machine 14 5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors) 15 6. Moving and Kransporting 16 6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2 Transporting Manually (Such as Carrying on Stairs) 17 6-2 Transporting on a Vehicle 18 7. Operation 19 7.1 Safety Precautions for Playing 19 7.2 Pre-operation Inspection (Before Power On) 20 7.3 Playing the Game 22 7.4 Explanation of the Power Switch and Adjustment Switches 24 7.4-1 Power Switch Position and Kurning the Power Switch On 24 7.4-1 Pow	1-2 Definition of "Technician"	1
Kable of Contents 4 2. Specifications 8 3. Package Contents 10 4. Overall Structure (Part Names) 12 5. Delivery and Installation Conditions 13 5-1 Installation Conditions 13 5-1 Installation Conditions 13 5-1 Installation Conditions 13 5-1.1 Installation Locations to Avoid 13 5-1.2 Play Zone for the Installed Machine 14 5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors) 15 6. Moving and Kransporting 16 6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2.2 Transporting on a Vehicle 18 7. Operation 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection 20 7.2.2 Function Inspection (After Power On) 21 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-5 Flow during Game Startup 26 7-5 T Self-Lest 26	1-3 Critical Safety Precautions	2
2. Specifications	1-4 Machine Warning Labels	3
3. Package Contents 10 4. Overall Structure (Part Names) 12 5. Delivery and Installation Conditions 13 5-1 Installation Conditions 13 5-11 Installation Conditions 13 5-12 Play Zone for the Installed Machine 14 5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors) 15 6. Moving and Kransporting 16 6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2 Transporting Manually (Such as Carrying on Stairs) 17 6-2 Transporting Manually (Such as Carrying on Stairs) 17 6-2 Transporting Manually (Such as Carrying on Stairs) 17 6-2 Transporting Manually (Such as Carrying on Stairs) 17 6-2 Transporting Inspection 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection (Before Power On) 20 7-2 Function Inspection (Refer Power On) 21 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25	Kable of Contents	4
4. Overall Structure (Part Names) 12 5. Delivery and Installation Conditions 13 5-1 Installation Conditions 13 5-1.2 Play Zone for the Installed Machine 14 5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors) 15 6. Moving and Kransporting 16 6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2.1 Kransporting Manually (Such as Carrying on Stairs) 17 6-2.2 Transporting on a Vehicle 18 7. Operation 19 7.1 Safety Precautions for Playing 19 7.2 Pre-operation Inspection (After Power On) 20 7.2.2 Function Inspection (After Power On) 21 7.3 Playing the Game 22 7.4 Explanation of the Power Switch and Adjustment Switches 24 7.4-1 Power Switch Position and Kurning the Power Switch On 24 7.4-2 Adjustment Switches 25 7.5 Flow during Game Startup 26	2. Specifications	8
5. Delivery and Installation Conditions 13 5-1 Installation Conditions 13 5-11 Installation Conditions 13 5-11 Installation Conditions 13 5-12 Play Zone for the Installed Machine 14 5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors) 15 6. Moving and Kransporting 16 6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2 Transporting Manually (Such as Carrying on Stairs) 17 6-2.2 Transporting on a Vehicle 18 7. Operation 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection 20 7-2.2 Function Inspection (Before Power On) 20 7-2.2 Function Inspection (Before Power On) 21 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-5 Flow during Game Startup 26 7-5 Flow during Game Startup 26 7-6 Test Mode 27 7-6-1 MENU Screen 27 7-6-1 MENU Screen	3. Package Contents	10
5-1 Installation Conditions 13 5-1-1 Installation Locations to Avoid 13 5-1-2 Play Zone for the Installed Machine 14 5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors) 15 6. Moving and Kransporting 16 6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2 Transporting Manually (Such as Carrying on Stairs) 17 6-2.2 Transporting on a Vehicle 18 7. Operation 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection 20 7-2-1 Safety Inspection (Before Power On) 20 7-2-2 Function Inspection (After Power On) 21 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25 7-5 Flow during Game Startup 26 7-5-1 Self-test 26 7-6-1 MENU Screen 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29	4. Overall Structure (Part Names)	12
5-1-1 Installation Locations to Avoid 13 5-1-2 Play Zone for the Installed Machine 14 5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors) 15 6. Moving and Kransporting 16 6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2-1 Kransporting Manually (Such as Carrying on Stairs) 17 6-2-2 Transporting on a Vehicle 18 7. Operation 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection 20 7-2-1 Safety Inspection (Before Power On) 20 7-2-2 Function Inspection (Before Power On) 20 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25 7-5 Flow during Game Startup 26 7-5-1 Self-test 26 7-6 Test Mode 27 7-6-1 MENU Screen 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29	5. Delivery and Installation Conditions	13
5-1-2 Play Zone for the Installed Machine 14 5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors) 15 6. Moving and Kransporting 16 6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2-1 Kransporting Manually (Such as Carrying on Stairs) 17 6-2-2 Transporting on a Vehicle 18 7. Operation 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection (Before Power On) 20 7-2-1 Safety Inspection (Before Power On) 20 7-2-2 Function Inspection (After Power On) 21 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25 7-5 Flow during Game Startup 26 7-6-1 Self-test 26 7-6-1 MENU Screen 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29	-	
5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors) 15 6. Moving and Kransporting 16 6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2-1 Kransporting Manually (Such as Carrying on Stairs) 17 6-2-2 Transporting on a Vehicle 18 7. Operation 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection 20 7-2-1 Safety Inspection (Before Power On) 20 7-2-2 Function Inspection (After Power On) 21 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-5-5 Flow during Game Startup 26 7-5 Test Mode 27 7-6-1 MENU Screen 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29		
6. Moving and Kransporting 16 6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2-1 Kransporting Manually (Such as Carrying on Stairs) 17 6-2-2 Transporting on a Vehicle 18 7. Operation 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection 20 7-2-1 Safety Inspection (Before Power On) 20 7-2-2 Function Inspection (After Power On) 20 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25 7-5 Flow during Game Startup 26 7-5-1 Self-test 26 7-6-1 MENU Screen 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29		
6-1 Moving (On the Same Floor) 16 6-2 Transporting 17 6-2 Transporting Manually (Such as Carrying on Stairs) 17 6-2-1 Kransporting Manually (Such as Carrying on Stairs) 17 6-2-2 Transporting on a Vehicle. 18 7. Operation 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection 20 7-2-1 Safety Inspection (Before Power On) 20 7-2-2 Function Inspection (Before Power On) 20 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25 7-5 Flow during Game Startup 26 7-5-1 Self-test 26 7-6-1 MENU Screen 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29	5-2 Required Dimensions for the Delivery Route (Such as Doors and Corridors)	15
6-2 Transporting 17 6-2-1 Kransporting Manually (Such as Carrying on Stairs) 17 6-2-2 Transporting on a Vehicle 18 7. Operation 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection 20 7-2-1 Safety Inspection (Before Power On) 20 7-2-2 Function Inspection (After Power On) 20 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25 7-5 Flow during Game Startup 26 7-5-1 Self-test 26 7-6 Test Mode 27 7-6-1 MENU Screen 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29	6. Moving and Kransporting	16
6-2-1 Kransporting Manually (Such as Carrying on Stairs) 17 6-2-2 Transporting on a Vehicle 18 7. Operation 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection 20 7-2-1 Safety Inspection (Before Power On) 20 7-2-2 Function Inspection (After Power On) 20 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25 7-5 Flow during Game Startup 26 7-5-1 Self-test 26 7-6 Test Mode 27 7-6-1 MENU Screen 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29	6-1 Moving (On the Same Floor)	16
6-2-2 Transporting on a Vehicle 18 7. Operation 19 7-1 Safety Precautions for Playing 19 7-2 Pre-operation Inspection 20 7-2-1 Safety Inspection (Before Power On) 20 7-2-2 Function Inspection (After Power On) 20 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25 7-5 Flow during Game Startup 26 7-5-1 Self-test 26 7-6 Test Mode 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29	6-2 Transporting	17
7. Operation197-1 Safety Precautions for Playing197-2 Pre-operation Inspection207-2-1 Safety Inspection (Before Power On)207-2-2 Function Inspection (After Power On)217-3 Playing the Game227-4 Explanation of the Power Switch and Adjustment Switches247-4-1 Power Switch Position and Kurning the Power Switch On247-4-2 Adjustment Switches257-5 Flow during Game Startup267-6 Test Mode277-6-1 MENU Screen277-6-2 Game Cost and Free Play Settings (COIN OPTIONS)29		
7-1 Safety Precautions for Playing197-2 Pre-operation Inspection207-2-1 Safety Inspection (Before Power On)207-2-2 Function Inspection (After Power On)217-3 Playing the Game227-4 Explanation of the Power Switch and Adjustment Switches247-4-1 Power Switch Position and Kurning the Power Switch On247-4-2 Adjustment Switches257-5 Flow during Game Startup267-5-1 Self-test267-6 Test Mode277-6-1 MENU Screen277-6-2 Game Cost and Free Play Settings (COIN OPTIONS)29		
7-2 Pre-operation Inspection207-2-1 Safety Inspection (Before Power On)207-2-2 Function Inspection (After Power On)217-3 Playing the Game227-4 Explanation of the Power Switch and Adjustment Switches247-4-1 Power Switch Position and Kurning the Power Switch On247-4-2 Adjustment Switches257-5 Flow during Game Startup267-5-1 Self-test267-6 Test Mode277-6-1 MENU Screen277-6-2 Game Cost and Free Play Settings (COIN OPTIONS)29		
7-2-1 Safety Inspection (Before Power On)207-2-2 Function Inspection (After Power On)217-3 Playing the Game227-4 Explanation of the Power Switch and Adjustment Switches247-4-1 Power Switch Position and Kurning the Power Switch On247-4-2 Adjustment Switches257-5 Flow during Game Startup267-5-1 Self-test267-6 Test Mode277-6-1 MENU Screen277-6-2 Game Cost and Free Play Settings (COIN OPTIONS)29		
7-2-2 Function Inspection (After Power On) 21 7-3 Playing the Game 22 7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25 7-5 Flow during Game Startup 26 7-5-1 Self-test 26 7-6 Test Mode 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29		
7-3 Playing the Game227-4 Explanation of the Power Switch and Adjustment Switches247-4-1 Power Switch Position and Kurning the Power Switch On247-4-2 Adjustment Switches257-5 Flow during Game Startup267-5-1 Self-test267-6 Test Mode277-6-1 MENU Screen277-6-2 Game Cost and Free Play Settings (COIN OPTIONS)29		
7-4 Explanation of the Power Switch and Adjustment Switches 24 7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25 7-5 Flow during Game Startup 26 7-5-1 Self-test 26 7-6 Test Mode 27 7-6-1 MENU Screen 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29		
7-4-1 Power Switch Position and Kurning the Power Switch On 24 7-4-2 Adjustment Switches 25 7-5 Flow during Game Startup 26 7-5-1 Self-test 26 7-6 Test Mode 27 7-6-1 MENU Screen 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29		
7-5 Flow during Game Startup 26 7-5-1 Self-test 26 7-6 Test Mode 27 7-6-1 MENU Screen 27 7-6-2 Game Cost and Free Play Settings (COIN OPTIONS) 29		
7-5-1 Self-test	7-4-2 Adjustment Switches	25
7-6 Test Mode	5	
7-6-1 MENU Screen		
7-6-2 Game Cost and Free Play Settings (COIN OPTIONS)		

7-6-4 Input/Output Test of Switches (I/O TEST)	
(a) SWITCH TEST	
(b) LAMP TEST	
(c) NAMCAM (CAMERA) TEST	
7-6-5 Screen Adjustment (MONITOR TEST)	
7-6-6 Volume Adjustment (SOUND TEST)	
7-6-8 Displaying Game Data (BOOKKEEPING) 7-6-9 OTHER OPTIONS	
(a) REFORMAT OPTIONS	
7-6-11 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)	
7-7 Daily Cleaning	
8. Technician's Manual — Must be performed by a technician —	
8A. Installation and Assembly	45
8A-1. Assembly	55
8A-1-1 Installing the Signboard Assembly	
8A-1-2 Connecting the Front Assembly to the Seat Assembly and Level Adjuster Adjustment	47
8A-1-3 Inserting the USB Dongle	49
8A-2. Connecting the Communication Cables	51
8A-2-1 Connection Diagrams	
(1) Example of connection	52
8A-2-2 Connection Method	53
8A-2-3 Connecting the Power Cord and Ground	56
8A-2-4 Power Switch Position and Turning the Power Switch On	57
8A-3. Setting the PCB ID	58
8B. Service	59
8B-1 Inspections and Service	59
8B-1-1 Inspection Items	59
(1) Level Adjuster Inspection	59
(2) Power Cord Plug Inspection	59
(3) Screw Looseness Inspection	59
8B-2 Troubleshooting	60
8B-2-1 General	60
8B-2-2 Front Assembly	61
8B-2-3 Steering Assembly	
8B-2-4 Pedal Assembly	
8B-2-5 Seat Assembly	62

8B-3 Error Displays	
(2) Steering Assembly Errors	
(3) Other Hardware Errors	
8B-4 Removing and Installing Assemblies and Parts	
8B-4-1 Front Assembly	
(1) Replacing the Rainbow PC Board (top cover)	
(2) Removing and Installing the Control Cover	67
(3) Replacing the Item Button, Mario Button and Lamps	68
(4) Replacing the LCD Monitor	69
(5) Replacing the Steering Assembly	73
(6) Replacing the Rainbow PC Board (monitor side)	75
(7) Replacing the Camera	76
(8) Replacing the LED Bar (L)	77
8B-4-2 Front Assembly Rear Side	
(1) Replacing the Game PC Board	
(2) Replacing the STR4 (M) PC Board	81
(3) Replacing the NA-JV (M) PC Board	82
(4) Replacing the Amp PC Board	83
(5) Replacing the Switching Regulator (12 V)	84
(6) Replacing the Fuse	85
8B-4-3 Pedal Assembly	86
(1) Removing and Installing the Pedal Assembly	86
8B-4-4 Seat Assembly	87
(1) Replacing the Slide Unit	87
(2) Replacing the LED Bar (S)	
(3) Replacing the Rainbow PC Board (seat)	91
9.Disposal	
10.Parts List	
11. Wiring Diagram	
12.BNA1Lite Wiring Diagram	

MEMO

2. Specifications

- (1) Rated power supply AC
- (2) Rated power consumption
- (3) Maximum consumption current
- (4) Monitor
- (5) Dimensions when installed

120 ± 10 V (50/60 Hz)/230 V ± 10 V (50/60 Hz) 570 W 4.75 A/2.4 A LCD monitor (42-inch) Width (W) 40.476" × depth (D) 63" × height (H) 93.7" 103 cm 160 cm 238 cm





3. Package Contents



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

• Supplied Item List

No.	Name	Spec	ification	Qty.
1	Operation Manual	(this manual)		1
2	Service key (FRONT)			2
3	Service key (BACK)			2
4	Cashbox key			2
5	Communication cable	1 m	o Ç	1*2
6	Communication cable	5 m	e Ç	1
7	POP bracket (L)	e		1
8	POP bracket (R)	Ê		1
9	Title panel			1
10	Torx bolt	M5 x 16		8
11	Connection bracket			2
12	Button head bolt (black)	M8 x 30	O Mana	8
13	Flat washer	ø9 x 30 x 2.3	9	4
14	Torx wrench	M5-T25		1
15	Torx wrench	M8-T40		1
16	USB dongle		(III)	1
17	Power cord			1

*1 Keep any unused contents routers in a safe place to avoid losing them.

 *2 The quantity noted in the table above is the quantity per 2 ~ 4 machines.

MEMO

4. Overall Structure (Part Names)

Front



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 a fire, electric shock, injury or malfunction.
- Fully insert the power cord plug into the outlet. Poor contact may generate heat and cause a fire or burns.
- Be sure to install the ground wire. Failure to install the ground wire may result in electric shock in the event of electrical leakage. (See "8A-2-3 Connecting the Power Cord and Ground" on page 66.)
- Install the machine securely by using the level adjusters. Unstable machine installation may result in an accident or injury. (See "8A-1-2 Connecting the Front Assembly to the Seat Assembly and Level Adjuster Adjustment" on page <4!7

5-1 Installation Conditions

5-1-1 Installation Locations to Yvoid



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

5-1-2 Play Zone for the Installed Machine

• Create a play zone around the machine so that the player does not make contact with bystanders or passersby.

- Keep 19.7" (50 cm) or more between the rear of the machine and the wall or other machines to enable the rear door to be removed for service.
 - The room height must be 94.5" (240 cm) or more from the floor to the ceiling.



 When installing two or more machines, keep a gap of 3.9" (10 cm) or more between the machines.
 Example: Installing two machines

149.6" or more



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

The machine is disassembled at the time of shipment. The sizes of the main parts are as follows.

• Front assembly

Seat assembly

Width (W) 40.476" (103 cm.) (x depth (D) 30.3" (77cm.) x height (H) 74.8" (190 cm.) Weight 402.6 lb 183 Kg. Width (W) 22"(56 cm.) x depth (D) 33.9"(86 cm.) x height (H) 51.2"(130cm) H eight 96.8 lb 44 kg



Test Mode

6. Moving and Transporting

WARNING –

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

6-1 Moving (On the Same Floor)

- **WARNING** -
- When moving the machine on the same floor, first separate the front assembly from the seat assembly.

Failure to do this may result in floor damage, or the machine may block your view and result in a collision or other accident. (See "8A-1 Assembly" on page 55.)

• (See 6 in "8A-1-2 Connecting the Front Assembly to the Seat Assembly and Level Adjuster Adjustment" on page 57.)



- Move the machine carefully to avoid damaging it.
- The plastic areas are weak. Do not exert strong amounts of force on them.
- Even when moving the machine only a short distance, be sure to raise the level adjusters to their highest level.

(See "8A-1-2 Connecting the Front Assembly to the Seat Assembly and Level Adjuster Adjustment" on page 57.)

- Be sure to turn the power off before performing these operations.
- Handle the power cord carefully. (See "8A-2-3 Connecting the Power Cord and Ground" on page 66.)

6-2 Transporting

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





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

6-2-2 Transporting on a Vehicle





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

7. Operation

- 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 a fire or accident.
- Dust accumulating on the power cord plug may cause a 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 a fire or burns.
- Before operating the machine, be sure to check that installation has been performed according to the instructions and specified procedures (5. Delivery and Installation Conditions, page 13) in this Operation Manual. Failure to install the machine correctly may result in a fire, electric shock, injury or malfunction.
- The warning labels contain important information for ensuring safety. Be sure to observe the following.
 - To ensure that the warning labels attached to the machine are always clearly visible, install the machine in an appropriate location with ample illumination, and keep the labels clean at all times. Make sure that the labels are not hidden by other 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 "7-2 Pre-operation Inspection" on page 20) and service (see "8B. Service" on page 69) described in this Operation Manual. Omitting these inspections or service may result in an accident.

7-1 Safety Precautions for Playing

- If players start feeling ill because of the game images or light stimulation, they must stop playing 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.

7-2 Pre-operation Inspection

Check the items below before starting machine operations. If there is an abnormality, resolve it by referring to "8B-2 Kroubleshooting" on page 70.

7-2-1 Safety Inspection (Before Power On)

• Before operating the machine, perform "7-2-1 Safety Inspection (Before Power On)" on page 20.

This is required to prevent accidents or injuries.

• Before operating the machine, check "5-1-1 Installation Locations to Yvoid" on page 13. This is required to prevent accidents or injuries.

- 🥂 WARNING -

- Operating the machine while parts are broken, damaged or deteriorated, or while the installation is defective, may result in an 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 in place? (See "1-4 Machine Warning Labels" on page 3.)
- (2) Are all warning labels legible? (See "1-4 Machine Warning Labels" on page 3.)
- (3) Are all level adjusters adjusted properly? (See "8A-1-2 Connecting the Front Assembly to the Seat Assembly and Level Adjuster Adjustment" on page 57.)
- (4) Is the specified play zone provided? (See "5-1-2 Play Zone for the Installed Machine" on page 14.)
- (5) Are the power cord and communication cables laid out safely so they will not cause players or other customers to trip over them?
- (6) Is the power cord securely connected to the outlet and the cord box assembly on the bottom of the machine rear? (See "8A-2-3 Connecting the Power Cord and Ground" on page 66.)
- (7) Is the power cord plug free from dust? (See "8A-2-3 Connecting the Power Cord and Ground" on page 66.)
- (8) Are molded parts such as the seat assembly free from damage?

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

- (9) Is any part of the power cord or plug abnormally hot?
- (10) Does touching the machine give a tingling electric shock?
- !>1) Is there a burning smell, abnormal noise or vibration?
- (12) Is there any other abnormality, damage or malfunction?

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

Check the following items in Kest mode. (See "7-4-2 Adjustment Switches" on page 25.)

- (1) Check the lamps. (Do the fluorescent lamp and Mario button light up?) (See "7-6-4 (b) LAMP TEST" on page 39.)
- (2) Check the Mario button operation. (See "7-6-4 (a) SWITCH TEST" on page 37.)
- (3) Check the steering operation.(See "7-6-4 (a) SWITCH TEST" on page 37.)
- (4) Check the pedal operation. (See "7-6-4 (a) SWITCH TEST" on page 37.)
 (5) Check the displayed images (Deep the manitum)
- (5) Check the displayed images. (Does the monitor operate properly?) (See "7-6-5 Screen Adjustment (MONITOR TEST)" on page 41.)
- (6) Check the audio. (Is sound produced by each speaker?)(See "7-6-6 Volume Adjustment (SOUND TEST)" on page 42.)

7-3 Playing the Game

- If you discover anyone behaving as follows, tell them to stop immediately. Such behavior may cause an accident.
 - Two people sitting on the machine at the same time.
 - Y person other than the player touching the control parts (steering wheel).
- If players start feeling ill because the game images or light stimulation, they must stop playing 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.

Game Overview

- This action racing game allows communication-linked VS Race game play by up to four players. Players operate karts driven by game characters and participate in races. During a race players can use items to obstruct rival karts or power-up their own kart in order to gain advantages with the goal of ultimately winning the race.
- Three game modes are available to support game play by various numbers of players. These are the single-player GRAND PRIX mode, the Kwo Player CO-OP mode, and a VERSUS mode for two to four players (in case of two players this becomes Kwo Player VERSUS mode).

Flow when starting the game

When a player inserts the required number of coins, the player-s entry in a VS Race is registered.

At this time the displays of other communication-linked cabinets change to the VS Race entry screen and the game waits for other players to join. If other players insert the required number of coins within the time limit, a VS Race game is established. The game starts when VS Race entry is registered at all communication-linked cabinets or when the entry time limit counts down to "0". (When there are no VS Race challengers, a single-player game starts.)

• After that the players select their characters, shoot facial photos, and make other selections, and then operation shifts to the respective game mode according to the number of players.

GRAND PRIX Mode (single-player game)

- In this mode the player competes in various Cup races consisting of distinctive courses such as the KOAD CUP or the MARIO CUP(
- All race opponents are played by the CPU (computer).
- Each Cup race consists of four rounds. Rounds 1 and 3 and Rounds 2 and 4 use the same courses, but the difficulty level differs.
- One game play consists of a single round.

7. Operation

Two Player CO-OP mode (two-player game)

- Kwo Player CO-OP mode can be selected when two players register to enter a game. Unlike a normal race, in this mode the two players form a team and compete against teams played by the CPU. The race results convert each player-s ranking into a point score, and the total points of the two players in each team are compared to determine the team rankings.
- In Kwo Player CO-OP mode, players can use a special item called a Fusion Kart. When either player uses this item, the team member in the rear is instantly transported to the position of the team member in front, and the players' karts fuse together to form a single large kart.

In addition, in the Fusion Kart state, the player that used the item becomes the gunner and the other player becomes the driver(

The gunner rotates the turret by operating the steering wheel, and can fire projectiles to attack rival karts by pressing the Item button.

The driver performs the same operations as normal to drive the kart.

In addition, in the Fusion Kart state the players' kart becomes invincible and opponents' attacks have no effect. The Fusion effect ends after a certain time, and the Fusion Kart splits into two karts at that point. (* Fusion Kart is not available to CPU teams.)

• When the two players of the player team drive within a certain closeness to each other, a Friendship shield is generated.

This shield lets players defend against attacks from CPU teams. (* The Friendship shield effect is not available to CPU teams.)

VERSUS mode (2-player to 4-player game * In case of two players this is displayed as Two Player VERSUS mode.)

- This mode allows players within the same venue to race against each other(
- The course selection is decided by a majority vote. If two courses receive the same number of votes, the easier course is selected.

Auto-Accel function

Ko enable children who are too small to reach the accelerator pedal to play the game, all modes feature an Auto-Accel function that automatically starts running the kart when the accelerator pedal is not pressed for one second or more.
 The screen displays the message "Auto-Accel is on!" during auto acceleration.
 If the accelerator pedal or the brake pedal is pressed, the Auto-Accel function is canceled.

Easy facial photos

• This product has a function that uses software to automatically recognize the position of the player-s face and align the frame with that position when taking the facial photo displayed during the race.

This lets players take photos without having to adjust their face position.

Test Mode

NOTICE

7-4 Explanation of the Power Switch and Adjustment Switches

7-4-1 Power Switch Position and Turning the Power Switch On

1 Kurn on the power switch of the machine.



• Do not turn the power switch on and off repeatedly, because it may cause a machine malfunction.

7-4-2 Adjustment Switches

Open the service door for access to the adjustment switches.



(a) Service switch (red)

Press this button to increase the coin count without operating the coin counter(

(b) Select switch

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

(c) Test switch

Kurn this switch on to activate Kest mode. Test mode is used to test the monitor and other parts.

(d) Enter switch (red)

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

Test Mode

7-5 Flow during Game Startup

7-5-1 Self-test

The machine automatically executes a self-test after the power is turned on. When the power switch is turned on, the self-test screen appears on the monitor. If no problems are found, the display then changes to the title screen. If an abnormality is found, an error message is displayed on the monitor and the machine stops operating. When an error message is displayed, refer to "8B-2 Kroubleshooting" on page 70 and cancel the error.

MARIO KART ARCADE GP DX	PCB STARTUP		
BOOT CHECK DRIVE UNIT MODE CHECK DRIVE UNIT PCB ID DRIVE UNIT SERIAL NUMBER	POWER ON DRIVE UNIT 2 012345-012345		
I/O CHECK NAMCAM (CAMERA) CHECK STEERING CHECK	ОК ОК CHECKING		
LOCAL NETWORK CHECK AUTHENTICATION CHECK UPDATE CHECK GAME SERVER CONNECTION CHECK			
PLEASE DO NOT TOUCH THE STEERING WHEEL			

Self-test screen



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

7-6 Test Mode

7-6-1 MENU Screen

- **1** Use the supplied service key to open the service door(
- 2 When the Kest switch is set to ON, the MENU screen appears on the monitor. (See "7-4-2 Adjustment Switches" on page 25.)
- **3** Flip the Select switch up and down to select the item. The selected item blinks.
- 4 Press the Enter switch to enter the selected item. When the selection is entered, the Kest menu for that item appears.
- 5 After finishing all the adjustments, set the Kest switch to Off. The display returns to the game screen.

	MENU (DRIVE UNIT)
(b)	► GAME OPTIONS ► I/O TEST
(d) —	→ MONITOR TEST
(e)	► SOUND TEST
(f)——	► NETWORK TEST
(g)—— (h)——	► BOOKKEEPING ► OTHERS
	- RELOAD NBLINE POINTS
(j) (k)	
() (m) (n)	→ PCBID : 1 → SOFTWARE VERSION : MK3100-3-NA-MPRO-A01 (Rev. 1. 00. 01/EX) → SERIAL NUMBER : 012345-012345
(0)	SELECT SWITCH : SELECT ENTER SWITCH : ENTER

MENU screen

	ltem	Description	Reference section
(a)	COIN OPTIONS	Game cost and other settings	See 7-6-2.
(b)	GAME OPTIONS	Game contents and equipment use settings	See 7-6-3.
(c)	I/O TEST	Switch, light and other settings	See 7-6-4.
(d)	MONITOR TEST	This displays the monitor adjustment screen.	See 7-6-5.
(e)	SOUND TEST	[olume adjustment, etc.	See 7-6-6.
(f)	NETWORK TEST	Network related settings	See 7-6-7.
(g)	BOOKKEEPING	This displays play conditions and error log	See 7-6-8.
(h)	OTHERS	Setting initialization, etc.	See 7-6-9.
(i)	RELOAD NBLINE POINTS	Displays the RELOAD NBLINE POINTS screen.	See 7-6-10.
(j)	REMAINING TEST MODE CREDITS	When Kest mode is activated, all remaining credits (coins) and service credits disappear, so this displays the number of credits and service credits remaining just before Kest mode activation.	
(k)	PREVIOUS CONDITIONS NAME	This displays the play conditions (CREDITS USED, SERVICES USED) just before Kest mode activation.	
(I)	PCB ID	This displays the PCB ID.	See 7-6-3.
(m)	SOFTWARE VERSION	This displays the software version and revision number(
(n)	SERIAL NUMBER	This displays the serial number of the inserted USB dongle. When the serial number cannot be displayed, "-" appears.	
(0)	Online/Offline icon	This indicates the online/offline status.	See 7-5-4.

7-6-2 Game Cost and Free Play Settings (COIN OPTIONS)

This screen displays the various game cost settings.



1 In the MENU screen, select COIN OPTIONS. The following screen appears.

2 After checking all the items, flip the Select switch up or down to select EXIT and press the Enter switch to return to the MENU screen.



COIN OPTIONS screen

	Item	Description	Default
(a)	DRIVE UNIT GAME PRICE	Setting for the number of coins required for a game Setting range: 1 to 19	4
(b)	DRIVE UNIT FREE PLAY*1	Free play setting OFF: Normal coin operation ON: Free play operation	OFF

*1 When FREE PLAY is set to ON, all other COIN OPTIONS items appear grayed-out and cannot be selected. (The settings are held.)

When FREE PLAY is returned to OFF, operation returns to the held settings.

7-6-3 Game Contents Settings (GAME OPTIONS)

This screen is used to make various game settings.

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

GAME OPTIONS (DRIVE UNIT) [DEFAULT IN GREEN] NUMBER OF CONNECTED DRIVE UNITS <4>	(a
PCB ID :] -	
FOR USE ON STEERING WHEEL REACTION. : O N	
FOR USE ON NAMCAM (CAMERA).	
EXIT	
SELECT SWITCH : SELECT ENTER SWITCH : ENTER	

GAME OPTIONS screen

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

1

2

З

4

5

6

7

8A

8B

9

10

11

Operation

	Item	Description	Default
(a)	NUMBER OF CONNECTED DRIVE UNITS	This displays the number of communication-linked Driver Cabinets. NUMBER OF CONNECTED DRIVE UNITS <4>: Proper communication by four machines NUMBER OF CONNECTED DRIVE UNITS <3>: Proper communication by three machines NUMBER OF CONNECTED DRIVE UNITS <2>: Proper communication by two machines NUMBER OF CONNECTED DRIVE UNITS <1>: Proper communication by one machine	
(b)	PCB ID and duplicate ID notice display	This sets the PCB ID. Setting range: $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 1$ When the same PCB ID is already in use by another Driver Cabinet, the following notice appears. <pcb change="" conflict.="" id="" id.="" pcb="" please=""></pcb>	1
(c)	FOR USE ON STEERING WHEEL REACTION*1	Enables or disables the steering wheel feedback (reactive force) feature. ON : Provides feedback (reactive force) to the steering wheel. OFF : Does not provide feedback (reactive force) to the steering wheel.	ON
(d)	FOR USE ON NAMCAM (CAMERA)*1	Enables or disables use of NAMCAM (camera) game. ON : Uses NAMCAM (camera) OFF : Does not uses NAMCAM (camera)	ON

*1 When FOR USE ON STEERING WHEEL REACTION and FOR USE ON NAMCAM (CAMERA) are set to OFF, the corresponding equipment cannot be tested in Test mode.

Even when FOR USE ON STEERING WHEEL REACTION is changed from OFF to ON, the Kest switch must be set to Off and the self-test performed in order to check the usage and operation of the equipment.

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

7-6-4 Input/Output Test of Switches (I/O TEST)

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

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

I/O TEST (DRIVE UNIT)	
GO TO I/F INITIALIZE SWITCH TEST LAMP TEST NAMCAM (CAMERA) TEST	(c (a (b (d
I ∕ O P C B : NBGI.;NA-JV;Ver6.01;JPN, MK3100-1-NA-APR0-A01 ≺ CONNECT OK	(e
EXIT SELECT SWITCH : SELECT ENTER SWITCH : ENTER	

I/O TEST screen

Item	Description
(a) SWITCH TEST	This screen is used to test each switch and button.
(b) LAMP TEST	This screen is used to test the lighting of illuminated buttons and decorative lights.
(c) GO KO I/F INITIALIZE	This is used to initialize the analog potentiometer. (See "7-6-11 Adjustments after Parts Replacement (GO KO I/F INITIALIZE)" on page 53.)
(d) NAMCAM (CAMERA) TEST	This screen is used to test NAMCAM (camera).
(e) I/O PCB	This displays the I/O PCB connection status. CONNECT OK (green): Communication can be performed normally(CONNECT NG! (red): Communication cannot be performed normally. Check the I/O PCB connection.

(a) SWITCH TEST

This screen is used to test each switch and button.

	est (drive unit) (on:red]	
COIN 1 COIN 2	011 011	(b)
SERVICE SWITCH TEST SWITCH SELECT SWITCH UP/DOWN ENTER SWITCH	OFF ON OFF∕OFF OFF	(c) (d) (e) (f)
STEERING WHEEL GAS BRAKE ITEM BUTTON MARIO BUTTON	+381 : Right 000 : 0FF 0FF 0FF 0FF	OK (g) (h) (i) (j) (k)
EXIT: SELECT SWIT	CH (UP) + ENTER SWITCH	

SWITCH TEST screen

	ltem	Description	
(a)	COIN 1	Status of coin switch 1 Each time the switch 1 is activated, the counter increments by one. 000 to 999 (The counter returns to 000 after 999.)	
(b)	COIN 2	Status of coin switch 2 Each time the switch 2 is activated, the counter increments by one. 000 to 999 (The counter returns to 000 after 999.)	
(c)	SERVICE SWITCH	Status of Service switch OFF : Normal ON (red) : Pressed in	
(d)	TEST SWITCH	Status of Test switch OFF : Normal ON (red) : Pressed in	
(e)	SELECT SWITCH UP/DOWN	Status of Select switch OFF : Normal ON (red) : Flipped up or down	
(f)	ENTER SWITCH	Status of Enter switch OFF : Normal ON (red) : Pressed in	
(g)	STEERING WHEEL	Status of steering wheel Turning the steering wheel to the right changes the numerical value in the positive direction, and turning the steering wheel to the left changes the numerical value in the negative direction. Right (Left) OK (red) appears on the screen when normal right (left) operation is detected. (* Note)	

Test Mode

	ltem	Description	
(h)	GAS	Status of accelerator pedal Stepping on the pedal changes the numerical value in the positive direction. OK (red) appears on the screen near the setting limit. (* Note)	
(i)	BRAKE	Status of brake pedal OFF : Normal ON : Stepped on	
(j)	ITEM BUTTON	Status of Item button OFF : Normal ON (red) : Pressed in	
(k)	MARIO BUTTON	Status of Mario button OFF : Normal ON (red) : Pressed in	

* If OK is not displayed when the steering wheel/pedal is turned/depressed fully, the steering wheel or pedal must be initialized. (See "7-6-11 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)" on page 53.) Flip the Select switch up and press the Enter switch to return to the I/O TEST screen.
(b) LAMP TEST

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

	PTEST (DRIVE UNIT) LT IN:GREEN/ON:RED]		
ITEM BUTTON LAMP MARIO BUTTON LAMP	O N O F F	<	I	—(a) —(b)
SIGN MONITOR SIDE LAMP	WHITE O N	←		—(c) —(d)
UNDER LAMP	ON			
EXIT				
SELECT SWITCH : SEI	LECT ENTER SW	/ITCH : ENTER		

LAMP TEST screen

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

	Item		Description
(a) l'	TEM BUTTON LAMP	Lighting status of Item OFF ON (red)	button light : Off : Lighted
(b) N	MARIO BUTTON LAMP	Lighting status of Mario OFF ON (red)	o button light : Off : Lighted
(d) N	SIGN MONITOR SIDE LAMP JNDER LAMP	Lighting status of signt OFF RED GREEN BLUE WHITE PATTERN 1 PATTERN 2 PATTERN 3 PATTERN 3 PATTERN 4 PATTERN 5 PATTERN 5 PATTERN 6 PATTERN 7	Doard, monitor side lamp and under lamp : Off : Lighted red : Lighted green : Lighted blue : Lighted white Lighting variation patterns used in the game

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

To return to the I/O TEST screen, select EXIT and press the Enter switch.

Troubleshooting

(c) NAMCAM (CAMERA) TEST

This screen is used to adjust the facial recognition position of the NamCam (camera).



NAMCAM (CAMERA) TEST screen

NOTICE

- Adjust the cabinet installation position to enable facial recognition during game play.
 - Adjust the ambient lighting environment so that two or more frames appear around the player's face (Facial Recognition Level 2 or 3) when sitting in the seat and facing the camera.
 - At minimum adjust so that at least one frame appears around the player's face (Facial Recognition Level 1).
- When a Facial Recognition Level of 2 or more cannot be achieved, check the following points and adjust the environment.
 - Facial recognition may be difficult if there are bright lights around the seat or if bright light directly enters the camera lens.
 - · Facial recognition may be difficult if it is too dark around the seat.
 - Facial recognition may be difficult if a bright light such as a spotlight directly shines on the player's face.
 - When making the adjustment, do not wear sunglasses, a mask, or a cap, etc.

Item (Facial recognition range)	Setting value variable range	Default
Right/left adjustment	-15 to +15	0

7-6-5 Screen Adjustment (MONITOR TEST)

This screen is used to make various monitor adjustments.

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

	IOM	NITOR TEST (DF	RIVE UNIT)	
	GRADATION PATTERN CROSSHATCH PATTERN FULL WHITE SCROLL PATTERN EXIT			(a (b (c (d
ZÆ	SELECT SWIT	CH : SELECT	ENTER SWITCH : ENTER	

MONITOR TEST screen

	Item	Description
(a)	GRADATION PATTERN	Displays a gradation pattern.
(b)	CROSSHATCH PATTERN	Displays a crosshatch pattern.
(c)	0Y@@VHITE	Displays a white screen.
(d)	SCROLL PATTERN	Displays a screen scrolling test pattern.

7-6-6 Volume Adjustment (SOUND TEST)

This screen is used to adjust the sound volume.

- 1 In the MENU screen, select SOUND TEST. The following screen appears.
- 2 Flip the Select switch up and down to select the item. The selected item blinks.
- **3** Press the Enter switch to enter the selected item. When the selection is entered, the setting for that item can be changed.
- Flip the Select switch up or down to set the desired setting.When the desired value is set, press the Enter switch to save the setting value.
- 5 Press the Service switch to play back the song selected by REQUEST SONG NUMBER.

Press the Service switch again to stop playback.

Change the REQUEST SONG NUMBER setting to switch the test sound and song.

6 After finishing all the adjustments, flip the Select switch up or down to select EXIT and press the Enter switch to return to the MENU screen.

	EST (DRIVE UNIT) ULT IN GREEN]	
VOLUME SETTINGS GAME : 10 ATTRACTION : 10		(a (b
SOUND TEST (PRESS SERVICE SWITCH TO REQUEST SONG NUMBER :] < NOW PLAYING : MONITOR S EXIT	NOW PLAYING>	(c
SELECT SWITCH : SELECT	ENTER SWITCH : ENTER	

SOUND TEST screen

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

Item	Description	Default
(a) GAME	Sets the volume during game play(Setting range: 0 (min.) to 15 (max.) Flip the Select switch up or down to increase or decrease the numerical value.	10
(b) ATTRACTION	Sets the volume in Attract mode. Setting range: 0 (min.) to 15 (max.) Flip the Select switch up or down to increase or decrease the numerical value.	10
(c) REQUEST SONG NUMBER	0No sound1Stereo test (monitor side)2Sample music (game)3Sample music (Attract)	0
(d) NOW PLAYING	Displays the name of the music selected by REQUEST SONG NO. 0 NO SOUND 1 MONITOR SIDE L MONITOR SIDE R MONITOR SIDE L+R * The test sound is produced from the speakers in order. 2 SAMPLE (GAME) 3 SAMPLE (ATTRACT)	

7-6-8 Displaying Game Data (BOOKKEEPING)

This screen displays various game related data.

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

7-6-9 OTHER OPTIONS

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

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

OTHER (DRIVE UNIT) [DEFAULT IN GREEN]	
PCB ID : 1	
SOFTWARE VERSION : MK3100-3-NA-MPRO-A01 (Rev. 1.00.01/EX) SOFTWARE REVISION : Rev. 1.00.01/EX 2013/01/31 (THU) 23:59:44 SVNR : 12345	—(b) —(c)
SERIAL NUMBER : 0000000000000	—(d)
LANGUAGE : ENG	—(e)
REFORMAT OPTIONS	—(a)
EXIT	
SELECT SWITCH : SELECT ENTER SWITCH : ENTER	

OTHER screen

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

	ltem	Description
(a)	REFORMAT OPTIONS	Used to initialize settings.
(b)	SOFTWARE VERSION	Displays the software version.
(C)	SOFTWARE REVISION	Displays the software revision and the update date and time.
(d)	SERIAL NUMBER	Displays the serial number of the USB dongle.
(e)	LANGUAGE	Displays the language setting.

(a) REFORMAT OPTIONS

This screen can be used to initialize individual Test mode settings.

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

	REFORMAT OPTIONS (DRIVE UNIT)	
	REFORMAT BOOKKEEPING	(a
	BACKUP MEMORY INITIALIZATION -	(b
	EXIT	
Z	SELECT SWITCH : SELECT ENTER SWITCH : ENTER	

INITIALIZE SETTINGS screen

ltem	Description
(a) REFORMAT BOOKKEEPING	Initialized contents (only within bookkeeping) All bookkeeping data All error log entries
(b) BACKUP MEMORY INITIALIZA	TION Initialized contents • Game options • Analog potentiometer initialize settings • Sound level settings • Remaining credits, remaining service credits • Play under the previous conditions displays • All bookkeeping data • All error log entries



 After BACKUP MEMORY INITIALIZATION is executed, be sure to refer to "7-6-11 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)" on page 53 and initialize the analog potentiometers.

7-6-11 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)

NOTICE

- Be sure to perform the following initialization process after replacing the game PC board, steering assembly interface or pedal assembly interface, or after initializing the backup data. The game will not play properly without performing this initialization.
- After initializing the analog interfaces, the SWITCH TEST screen (see "7-6-4 (a) SWITCH TEST" on page 37) appears. Make sure that OK is displayed on the screen when the steering wheel, accelerator pedal and brake pedal are operated.
- 1 Set the Kest switch to ON and select I/O TEST in the MENU screen. (See "7-6-4 Input/ Output Kest of Switches (I/O TEST)" on page 36.)
- 2 In the I/O TEST screen, select GO KO I/F INITIALIZE. The following screen appears.
- 3 Set the steering wheel to the center position, release your hands from the steering wheel, and also release your feet from the accelerator and brake pedals. (* Initialization will not be completed successfully if the steering wheel or the accelerator or brake pedals are operated.)
- 4 In this condition, press the Enter switch. The analog interfaces will be initialized.
- 5 After the initialization is complete, the SWITCH TEST screen (see "7-6-4 (a) SWITCH TEST" on page 37) appears. Kurn the steering wheel fully to the right and then fully to the left, and make sure that RIGHT OK and LEFT OK are displayed on the screen.
- 6 Fully depress the accelerator pedal, and make sure that OK is displayed on the screen for each.
- 7 Flip the Select switch up and press the Enter switch to return to the I/O TEST screen.

I/F INI	TIALIZE (DRIVE UNIT)	
STEER GAS		
DO NOT TOUCH PE	DALS.	
	POSITION THE STEERING WHEEL TO THE CENTER AND PRESS ENTER TO SET THE POSITION.	
CONTINUE SWITCH TEST		
ENTER S	WITCH: INITIALIZE / CONFIRM	

7-7 Daily Cleaning



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

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



8A. Installation and Assembly

8A-1. Assembly

8A-1-1 Installing the Signboard Assembly

WARNING —

- The signboard assembly is installed while standing in a high location. Use a stool or similar platform. Working in an unnatural body posture may cause injury or machine damage.
- 1 On the top of the front assembly, install two torx bolts (M5 x 16) until the bolt heads protrude by approx. 0.1".
- Kemporarily attach POP bracket (R) and POP bracket (L) to the torx bolts installed in step 1, and then fully tighten the POP brackets with the torx bolts installed in step 1 and two more torx bolts (M5 x 16).



Test Mode

Troubleshooting

- Title panel Title panel Title panel Torx bolt (M5 x 16)
- 4 Ko remove, perform the procedure in reverse.

3 Fasten the title panel with four torx bolts (M5 x 16).

8A-1-2 Connecting the Front Assembly to the Seat Assembly and Level Adjuster Adjustment

The joint brackets for the seat are shipped inside the front assembly as shown in the figure on the left. Loosen the bolt retaining the bracket, remove the bracket and rotate it so the narrow slot is facing forward (away from the seat) as shown in the figure on the right. Then tighten the bolt and add a second bolt from the spare parts kit as shown. For ease of installation, the bolts (M8 x 30 torx bolt) may be installed by hand leaving a gap slightly larger than thickness of the bracket and then the bracket can be installed by placing the large holes of the bracket over the bolts and then sliding the bracket as shown toward the player. Once in place tighten using a ratchet wrench.



3 Pull out two connectors from inside the seat assembly, and connect them to the connector from step **2**.

Test Mode

- 4 Insert the joint bracket into the seat assembly. While connecting these parts, be careful not to pinch the connectors or harness.
- From the side surfaces of the seat assembly, fasten the seat assembly to the front assembly with two flat washers (ø9 x 30 x t2.3) on each side (four in total) and two torx bolts (M8 X 30) on each side (four in total).
- 6 Lower the level adjusters until the casters are at a height of approx. 0.2" (0.5 cm) from the floor. (Two on the front assembly and two on the seat assembly; four in total.)



8A-1-3 Inserting the USB Dongle



- 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 rear door. (See in "8B-4-1 (4) Replacing the LCD Monitor" on page 79.)



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





8A-2. Connecting the Communication Cables

WARNING -

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

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

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

- Must be performed by a technician -

8A-2-1 Connection Diagrams

WARNING -

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the main power switch before starting work.
- **1** Refer to the figure below, and connect the network switch and communication cables to connect 4 cabinets.
- Be sure to connect the communication cables from the Game PC Board to the Network switch to maintain a stable communication environment.
- Up to four machines can be connected to a single Network switch
- The connection work required for network communication differs according to the conditions of the installation location. Therefore, this Operation Manual describes an outline of the connections.
- For inquiries regarding individual support at each installation location, contact your distributor.

(1) Example of connection.



• Set the PCB ID of each machine before performing communication-linked VS Race game play. The setting method is described in "8A-3 Setting the PCB ID" on page 68.

8A-2-2 Connection Method

- Kurn off the power switch. (See "8A-2-4 Power Switch Position and Kurning the Power Switch On" on page 67.)
- **2** Remove the rear door. (See "8B-4-1 (4) Replacing the LCD Monitor" on page 79.)
- **3** Connect the communication cable (5 m) to the LAN port of the Game PC Board.



4 Position the communication cable (5 m) in the U-shaped cut-out on the lower panel, and return the rear door to its original position.



- Check the shape of the communication cable connectors and insert them with the proper alignment.
- Insert the communication cable connectors firmly. If a connector becomes loose, communication will not operate properly.
- Clamp the harnesses and communication cables with sufficient leeway so that they are not stretched and there is no excessive force applied.

1

8A-2-3 Connecting the Power Cord and Ground

- **WARNING** -• Be sure to install the ground wire using one of the methods below. Failure to install the ground wire may result in electric shock. Connect the ground using a 3P plug.
- **1** Insert the socket side of the power cord into the power input of the cord box assembly on the bottom of the front assembly rear panel.





2 Insert the power plug of the power cord into the outlet.

8A-2-4 Power Switch Position and Turning the Power Switch On

- Be sure to turn the power switches on in the following order.
 - 1. Contents router
 - 2. This machine

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

- Do not turn the power switch on and off repeatedly, because it may cause a machine malfunction.
- When turning the power switch off and on, wait 30 seconds or more between operations.

- Must be performed by a technician -

8A-3. Setting the PCB ID

When connecting two to four machines for communication-linked VS Race game play, make the following setting.



1 Use the supplied service key (FRONT) to open the service door.

When the Kest switch is set to ON, the MENU screen appears on the monitor. (See "7-4-2 Adjustment Switches" on page 25.)

3 Flip the Select switch up or down to select GAME OPTIONS and press the Enter switch to display the GAME OPTIONS screen.

GAME OPTIONS (DRIVE UNIT) [DEFAULT IN GREEN] NUMBER OF CONNECTED DRIVE UNITS <4>	(a)
PCB ID :] -	(b)
FOR USE ON STEERING WHEEL REACTION. : O N FOR USE ON NAMCAM (CAMERA). : O N	
EXIT	
SELECT SWITCH : SELECT ENTER SWITCH : ENTER	

GAME OPTIONS screen

- 4 Check that (a) NUMBER OF CONNECTED DRIVE UNITS matches the number of actually connected Driver Cabinets with the power turned on.
- Set (b) PCB ID to "1," "2," "3" and "4" in order from the leftmost Cabinet.
 * When more than one Driver Cabinet has the same PCB ID, an error message appears.
- 6 Set the Kest switch to OFF and close the service door(

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

8B-1 Inspections and Service

- 🕂 WARNING -
- Perform periodic service. Failure to perform service may result in an accident.
- Perform the inspections every day before starting operations. These are required to prevent accidents.
 - (See "7-2 Pre-operation Inspection" on page 20.)

8B-1-1 Inspection Items

After performing "7-2 Pre-operation Inspection" on page 20, check the following items periodically for any abnormalities.

(1) Level Adjuster Inspection

1. Check that the level adjusters are fixed securely. (See "8A-1-2 Connecting the Front Assembly to the Seat Assembly and Level Adjuster Adjustment" on page 57.)

(2) Power Cord Plug Inspection

- 1. Check that the power cord is firmly inserted into the machine's cord box and the power outlet.
- 2. Clean any dust or other dirt from the connection parts.
- 3. Check for cracks or dirt on the power cord covering. If there is any abnormality on the power cord, be sure to replace it.

(3) Screw Looseness Inspection

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

- Cap bolts (M6 x 30) for fastening the steering assembly (See "8B-4-1 (5) Replacing the Steering Assembly" on page 83.)
- Korx bolts (M5 x 25) for fastening the pedal assembly (See "8B-4-3 (1) Removing and Installing the Pedal Assembly" on page 96.)

Test Mode

Troubleshooting

8B-2 Troubleshooting

WARNING

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

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

Symptom	Cause	Action	Reference
The machine does not start.	A connector is disconnected.	Insert the connector securely(Page 88
	A Game PC Board malfunction.	Replace the Game PC Board. Contact your distributor(
Operation is not stable or the machine operates incorrectly(The power supply voltage is not in the range of AC 110 V to 130 V(Disconnect a high-capacity device (such as an air conditioner or large machine) from the same line to reduce the voltage to the specified power supply voltage. 	
 The power turns off during operation. 	 The circuit protector has operated to turn the power switch off. * The circuit protector turns off the current when an abnormal current occurs. 	 Kurn on the power switch again. If the circuit protector operates frequently, there is a mechanical abnormality. Contact your distributor(Page 67
 Resetting is performed during startup. 	The internal battery of the Game PC Board has run out.	Replace the Game PC Board. Contact your distributor(
	A Game PC Board malfunction.		

8B-2-1 General

8B-2-2 Front Assembly

Symptom	Cause	Action	Reference
Sound is not output from the	The volume setting is low(Reset the volume.	Page 42
speakers.	A connector or Faston terminal is disconnected.	 Insert the connector or Faston terminal securely. 	Page 93
	An amp PC board malfunction.	Replace the amp PC board.	Page 93
The monitor screen does not	A connector is disconnected.	Insert the connector securely(Page 79
operate.	A monitor malfunction.	Replace the monitor(Page 79
The title panel LEDs do not turn	A connector is disconnected.	Insert the connector securely(Page 87
on.	A LED bar (L) malfunction.	Replace the LED bar (L).	Page 87
The Mario button or Item button	A connector is disconnected.	Insert the connector securely(Page 78
does not function.	A switch malfunction.	Replace the switch.	Page 78
	A disconnection in the harness.	Connect the location of the disconnection.	
The lamp of the Mario button or	A connector is disconnected.	Insert the connector securely(Page 78
Item button does not turn on.	The lamp has burned out.	Replace the lamp.	Page 78
	A disconnection in the harness.	Connect the location of the disconnection.	
The top cover LEDs do not turn	A connector is disconnected.	Insert the connector securely(Page 76
on.	A Rainbow PC Board malfunction.	Replace the Rainbow PC Board.	Page 76
The monitor side LEDs do not	A connector is disconnected.	Insert the connector securely(Page 85
light up.	A Rainbow PC Board malfunction.	Replace the Rainbow PC Board.	Page 85

8B-2-3 Steering Assembly

Symptom	Cause	Action	Reference
The steering does not function.	 The volume has not been initialized. 	Perform initialization.	Page 53
	A connector is disconnected.	Insert the connector securely(Page 83
	A steering assembly malfunction.	 Replace the steering. Contact your distributor(Page 83
	 The fuse (5A) has burned out. * The fuse blows when an abnormal current occurs. 	 Replace the fuse. If the fuse blows frequently, there is a mechanical abnormality. Contact your distributor(Page 95

Troubleshooting

8B-2-4 Pedal Assembly

Symptom	Cause	Action	Reference
The accelerator or brake does not function.	The volume has not been initialized.	Perform initialization.	Page 53
	A connector is disconnected.	Insert the connector securely(Page 96
	A pedal assembly malfunction.	Replace the pedal assembly. Contact your distributor(Page 96

8B-2-5 Seat Assembly

Symptom	Cause	Action	Reference
The LEDs on the back of the	A connector is disconnected.	Replace the connector(Page 98
seat do not turn on.	A LED bar (s) malfunction.	Replace the LED bar (s).	Page 98
The LEDs on the back of the	A connector is disconnected.	Insert the connector securely(Page 101
seat base do not turn on.	A Rainbow PC Board malfunction.	Replace the Rainbow PC Board.	Page 101

8B-3 Error Displays

When an error is detected at startup or during game play, an error screen appears and machine operation stops.

Refer to the error code tables below to identify and resolve the cause of the error(When a screen not described in the error code tables appears or the error occurs again despite taking the appropriate action, something else may be causing the error. In these cases contact your distributor(

(1) Network Errors

Error code	Error message	Cause	Action	Reference page
05-01	CONTENT ROUTER DISCONNECTED	An abnormality in the connections or settings of	Contact your Distributor	
05-02	CONTENT ROUTER MISMATCH	the contents router(
05-03	NOT GET IP ADDRESS			
05-04	IP ADDRESS ERROR			
05-05	LOCAL NETWORK ERROR			
05-20	ERROR DEVICE	An abnormality in the		
05-21	ERROR AUTH NG	connection or certification to the game server		
05-22	ERROR DNS TIMEOUT			
05-23	ERROR DNS HOST NOT FOUND			
05-24	ERROR SERVER NG	1		
05-30	ERROR TIP TIMEOUT	An abnormality in the		
05-31	ERROR TIP HOST NOT FOUND	connection or certification to the Game PC Board		
05-32	ERROR DNS TIMEOUT	certification server		
05-33	ERROR DNS HOST NOT FOUND			
05-34	ERROR AUTH NG			
05-35	ERROR AUTH TIMEOUT			
05-38	NBLINE POINT BALANCE ERROR			
05-50	REVISION ERROR	The software revision differs from that of the game server(
05-51	GAME SERVER CONNECTION ERROR	The game server is shut down for servicing or some		
05-52	GAME SERVER UNDER MAINTENANCE	trouble.		
05-53	INCONSISTENT SERVER ERROR	 An abnormality in communication with the game server(
05-54	NETWORK AUTHENTICATION ERROR	The specified time passed (timeout) with no network connection, so machine operation stopped.		

Troubleshooting

Error code	Error message	Cause	Action	Reference page
05-55	NETWORK CONNECTION UNSTABLE	 An update required for operation has not been performed. 	Contact your Distributor	
05-56	INITIAL NETWORK AUTHENTICATION ERROR	 An abnormality in communication with the game server the first time the machine was started up after installation. 		

(2) Steering Assembly Errors

Error code	Error message	Cause	Action	Reference page
22-01	STR PCB OVERRUN ERROR	An abnormality in the	Replace the STR4 (M) PC	
22-02	STR PCB FRAMING ERROR	STR4 (M) PC board communication data.	board.	
22-03	STR PCB PARITY ERROR			Page 91
22-04	STR PCB RAM ERROR	An abnormality in the STR4 (M) PC board memory(
22-05	STEERING VOLUME DAMAGE ERROR	 The steering assembly analog potentiometer is damaged. 	 Replace the analog potentiometer. Contact your distributor(
22-06	STR PCB OVER CURRENT ERROR	 An overcurrent flowed to the STR4 (M) PC board. 	 Replace the STR4 (M) PC board. 	Page 91
22-07	STEERING VOLUME CONNECTION ERROR	 The steering assembly analog potentiometer is not connected. 	Check the analog potentiometer connection.	Page 83
22-08	STEERING VOLUME OVER SPEED ERROR	 The steering assembly analog potentiometer is not damaged. 	 Replace the analog potentiometer. Contact your distributor(
22-09	MOTOR CURRENT ERROR	An abnormality in the motor		
22-10	MOTOR CURRENT SENSOR ERROR	current.	Contact your distributor(
22-11	MOTOR POWER ON ERROR	An abnormality in the motor or the power supply(
22-12	STR PCB LINK ERROR	Communication with the STR4 (M) PC board is not possible.	Check the STR4 (M) PC board connection.	Page 91

• When an error related to the steering assembly occurs, first turn the power off and then on again.

If the error persists, check the connections and operation of each part.

• When turning the power switch off and then on again, wait 30 seconds or more between operations to protect the electronic circuits.

Error code	Error message	Cause	Action	Reference page
01-11	COIN ERROR1 (COIN UNIT1)	A coin micro switch malfunction.	Replace the coin micro switch. Contact your distributor(
01-11		A NA-JV (M) PC board malfunction.	Replace the NA-JV (M) PC board.	Page 92
01-12		An abnormality in the Service switch.	Contact your distributor(
01-12	COIN ERROR2	 A NA-JV (M) PC board malfunction. 	Replace the NA-JV (M) PC board.	Page 92
		• A bill validator malfunction.	Contact your distributor(
01-21	COIN ERROR1 (COIN UNIT2)	 A NA-JV (M) PC board malfunction. 	Replace the NA-JV (M) PC board.	Page 92
02-06	CLOCK ERROR1	The time setting is incorrect.	Contact your distributor(
02-07	CLOCK ERROR2	A Game PC Board malfunction.		
03-01	I/O ERROR1	A connector is	Check the NA-JV (M) PC	
03-02	I/O ERROR2	 disconnected. A NA-JV (M) PC board 	 board connection. Replace the NA-JV (M) PC board. 	Page 92
03-03	I/O ERROR3	malfunction.		
08-01	NAMCAM (CAMERA) ERROR	A connector is disconnected.	Check the NamCam (camera) connection.	Page 86
00-01		A NamCam (camera) malfunction.	Replace the NamCam (camera).	Page 86
19-10	USB DONGLE ERROR 1	The USB dongle is not inserted.	Insert the USB dongle for the machine. Then, turn the power	
19-11	USB DONGLE ERROR 2	The USB dongle for a different machine type is inserted.	off and then on again. If the same error repeats, contact your distributor.	Page 59
19-13	USB DONGLE ERROR4	• A different USB dongle than the USB dongle inserted at startup is inserted.	 Insert the USB dongle that was inserted at startup. 	Page 59
20-01	VERSION UP ERROR 1	Version update failed.	Contact Distributor	
24-03	DUPLICATE PCB ID ERROR	• The set PCB ID is already in use by another driver cabinet.	 Set the PCB ID so that there is no duplication. 	Page 68

8B-4 Removing and Installing Assemblies and Parts

8B-4-1 Front Assembly

(1) Replacing the Rainbow PC Board (top cover)





3 Ko install, perform the procedure in reverse.

(2) Removing and Installing the Control Cover



- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.
- Remove the two torx bolts (M5 x 25) from the front of the front assembly, and the six torx bolts (M5 x 25) from under the control cover(



2 While lifting up the control cover, remove it towards you. On the rear, disconnect and remove the two connectors of the Item button and Mario button.







• When installing the control cover, be careful not to trap the harness.

(3) Replacing the Item Button, Mario Button and Lamps

The Item button is used as an example in the following procedure. Use the same procedure to replace the Mario button.



(See "7-6-4 (a) SWITCH TEST" on page 37.)

NOTICE

(4) Replacing the LCD Monitor



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



• The LCD monitor weighs approx. 22 lb (10 kg). Be very careful while working, because dropping it may cause injury!

1 Remove the two torx bolts (M5 x 30) from the rear of the front assembly, and then unlock the rear door with the service key (BACK) and remove it.







Troubleshooting

- **3** Remove the control cover. (See "8B-4-1 (2) Removing and Installing the Control Cover" on page 77.)
- 4 Remove the top cover. (See "8B-4-1 (1) Replacing the Rainbow PC Board !Kop cover)" on page 76.)
- 5 Remove the three torx bolts (M5 x 25), disconnect the connector and then remove the monitor side BK (L). Remove the monitor side BK (R) in the same way(



6 Remove the three torx bolts (M5 x 25), and then remove the monitor stopper (lower).


7 Loosen the two torx bolts (M5 x 25) on the rear of the camera assembly, and then remove the monitor stopper (upper).



8 Lift up the monitor glass slightly, pull out the bottom side towards you and remove it.



71

Test Mode

Troubleshooting



9 Remove the four torx bolts (M5 x 25), and then remove the LCD monitor(

10 Remove the four Phillips pan head screws (M4 x 10), remove the LCD brackets and replace the LCD monitor(



11 Ko install, perform the procedure in reverse.



Test Mode

Troubleshooting

5 Remove the four cap bolts (M6 x 30) and the ground terminal, then slowly pull out the steering assembly and replace it.





6 Ko install, perform the procedure in reverse.

NOTICE

• After completing the replacement, be sure to initialize and check the operation. (See "7-6-11 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)" on page 53 and "7-6-4 (a) SWITCH TEST" on page 37.)

(6) Replacing the Rainbow PC Board (monitor side)

There are six LEDs. The replacement of the top left LED is described below(





• After completing the replacement, be sure to check the operation. (See "7-6-4 (b) LAMP TEST" on page 39.)

Test Mode

(7) Replacing the Camera

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

- Remove the top cover, monitor side cover (L) and monitor side cover (R).
 (See 1 in "8B-4-1 (1) Replacing the Rainbow PC Board (top cover)" on page 76.)
- 2 Disconnect the connector, remove the two Phillips pan head screws (with flat and spring washers) (M2 x 10), and remove the camera assembly(





3 Ko install, perform the procedure in reverse.

• After completing the replacement, be sure to check the operation. (See "7-4-6 (c) NAMCAM (CAMERA) TEST" on page 40.) (8) Replacing the LED Bar (L)



- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.
- The PC board is 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 the PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

Kurn off the power switch. (See "8A-2-4 Power Switch Position and Kurning the Power Switch On" on page 67.)





3 Remove the two Phillips pan head screws (with flat and spring washers) (M4 x 8), disconnect the connector and replace the LED bar (L).

4 Ko install, perform the procedure in reverse.

8B-4-2 Front Assembly Rear Side

(1) Replacing the Game PC Board



- The Game PC Board weighs approx. 17.6 lb (8 kg). Be very careful while working, because dropping it may cause injury!
- Remove the rear door. (See 1 in "8B-4-1 (4) Replacing the LCD Monitor" on page R]('
- **2** Disconnect the nine connectors, remove the four countersunk washer nuts (M6), and remove the Game PC Board together with the rack base.



3 Kurn over the Game PC Board. Remove the six Phillips pan head screws (with flat and spring washers) (M4 x 14), remove the rack base and replace the Game PC Board.



4 Ko install, perform the procedure in reverse.



- When sending a part for repair (Game PC Board), wrap it in sponge or bubble wrap before packing it in a cardboard box. Make sure that the box is not exposed to outside pressure.
- After completing the replacement, be sure to check the operation and initialize. (See "7-6 Test Mode" on page 31.)

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



(2) Replacing the STR4 (M) PC Board



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

NOTICE

- To avoid damaging the electronic circuits, make sure that the connector direction is correct when connecting the connectors.
- The PC board is 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 the PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.
- Remove the rear door. (See 1 in "8B-4-1 (4) Replacing the LCD Monitor" on page R]('
- Disconnect the six connectors, remove the STR4 (M) PC board from the locking spacers, and replace it.





3 Ko install, perform the procedure in reverse.



 After completing the replacement, be sure to check the operation and initialize. (See "7-6-11 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)" on page 53 and "7-6-4 (a) SWITCH TEST" on page 37.) Troubleshooting

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



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

- To avoid damaging the electronic circuits, make sure that the connector direction is correct when connecting the connectors.
- The PC board is 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 the PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.
- Remove the rear door. (See 1 in "8B-4-1 (4) Replacing the LCD Monitor" on page R]('

2 Disconnect the four connectors, remove the NA-JV (M) PC board from the locking spacers, and replace it.





1

2

З

4

5

6

7

8A

8B

9

10

11

Service • Kechnician's Manua

(4) Replacing the Amp PC Board



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

NOTICE

- To avoid damaging the electronic circuits, make sure that the connector direction is correct when connecting the connectors.
- The PC board is 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 the PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.
- Remove the rear door. (See 1 in "8B-4-1 (4) Replacing the LCD Monitor" on page R]('
- 2 Disconnect the four connectors, remove the amp PC board from the locking spacers, and replace it.



Test Mode

Troubleshooting

(5) Replacing the Switching Regulator (12 V)



- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.
- To avoid damaging the electronic circuits, make sure that the connector direction is correct when connecting the connectors.
- The PC board is vulnerable 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 the PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.
- Kurn off the power switch. (See "8A-2-4 Power Switch Position and Kurning the Power Switch On" on page 67)
- 2 Remove the rear door. (See 1 in "8B-4-1 (4) Replacing the LCD Monitor" on page R]('
- **3** Remove the eight screws, disconnect the ring terminals from the regulator, remove the two Phillips pan head screws (with flat and spring washers M4 x 12), and replace the switching regulator (12 V).



4 Ko 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.

(6) Replacing the Fuse



- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.
- Never use a fuse other than the specified fuse (250 V 5 A), because it may cause a fire. A fuse is required to prevent a fire or accident. To order a fuse, contact your distributor.
- 1 Remove the rear door. (See 1 in "8B-4-1 (4) Replacing the LCD Monitor" on page 79.)

2 Replace the fuse (5 A SB).





1

8B-4-3 Pedal Assembly

(1) Removing and Installing the Pedal Assembly

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

The pedal assembly weighs approx. 8.8 lb. Be very careful while working, because dropping it may cause an injury!

1 Remove the rear door. (See 1 in "8B-4-1 (4) Replacing the LCD Monitor" on page R](



3 Remove the four torx bolts (M5 x 25), and then slowly remove the pedal assembly(





4 Ko install, perform the procedure in reverse.

 After completing the replacement, be sure to check the operation and initialize. (See "7-6-11 Adjustments after Parts Replacement (GO TO I/F INITIALIZE)" on page 53 and "7-6-4 (a) SWITCH TEST" on page 37.)

8B-4-4 Seat Assembly

(1) Replacing the Slide Unit

WARNING

- To avoid electric shock, accidents or injuries to yourself or other people, or damage to the electronic circuits, be sure to turn off the power switch before starting work.
- The slide unit and seat weigh approx. 33.1 lb. When laying down and removing the slide unit and seat, there is a danger of trapping your hands or an object. Make sure there is no one in the surrounding area.
- 1 Remove the six Phillips pan head screws (M5 x 25), remove the under cover. Then remove the 10 flange socket bolts (M6 x 30) to remove the seat slide assembly.



2 Remove the four flange socket bolts (M8 x 40), and replace the slide unit.





(2) Replacing the LED Bar (S)

This machine uses two LED bars (S). Refer to the procedure below, and replace the LED bar (S) that corresponds to the malfunction location.



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

 The PC board is 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 the PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

- Kurn off the power switch. (See "8A-2-4 Power Switch Position and Kurning the Power Switch On" on page 67.)
- 2 Remove the eight button head bolts (M4 x 8) and eight flat washers (M4), and remove the seat back cover(



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



4 Remove the cord clip and the two Phillips pan head screws (with flat and spring washers) (M4 x 8), and remove the LED bar (S).



5 Ko install, perform the procedure in reverse.

• Install the LED bar (S) so that the light emitters face the direction shown in the figure below. (When installing, the light emitters face toward the inside.)



• When installing, take care to press the LED Bar (S) all the way into the guide in the center of the LED tube cap (L) so that it will not come loose.



(3) Replacing the Rainbow PC Board (seat)

This machine uses two Rainbow PC Board (seat). Refer to the procedure below, and replace the Rainbow PC Board (seat) that corresponds to the malfunction location.

WARNING

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

• The PC board is 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 the PC board, discharge the static electricity from your body; for example, by touching the surface of grounded metal.

Kurn off the power switch. (See "8A-2-4 Power Switch Position and Kurning the Power Switch On" on page 67.)

2 Remove the two torx bolts (M5 x 25), and remove the Kail Lamp Panel.

3 Remove the connector(



4 Disconnect the connector, remove the two Phillips pan head screws (with spring washer) (M3 x 6), and remove the Rainbow PC Board.



5 Ko install, perform the procedure in reverse.

9. Disposal

WARNING -

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

10. Parts List



No.	Name	Qty.	Type or Rating	Part No.
1	Main cabinet	1		
2	Rear door	1		
3	Top acrylic	1		M390-16349-00
4	Signboard reflector	1		
5	Cushion	2		
6	Monitor glass	1		M399-16370-00
7	Camera bracket	1		M319-18361-00
8	Steering stay (L)	1		HD10-13684-01
9	Steering stay (R)	1		HD10-13684-00
10	Monitor side bracket (L)	1		M310-735-022-0
11	Door key	1		VG26-13198-00
12	Service plate	1		VG10-06881-00
13	Led tube 600	1		VG15-16322-00
14	LCD bracket	1		
15	Monitor stopper (upper)	1		
16	Monitor stopper (lower)	1		
17	Ventilation panel	1		VG10-00066-08
18	Monitor side bracket (R)	1		M310-735-023-0
19	Control panel under cover	1		HD10-13694-00
20	Game PC Board	1	SYS ES3 (A) ASSY	
21	LCD monitor	1		
22	Led bar 600	1		M379-16357-00
23	POP LED bracket	1		
24	Rainbow PC Board	9	SCU02-A	M379-16357-00
25	Corner cover (M)	2		M390-16351-00
26	NA-JV (M) PC board	1	NA-JV (M) PCB (ROM) Assy	HD15-13661-00
27	Amp PC board	1	V389 C2-IS AMP PCB Assy	HD15-13663-00
28	Steering PC board	1	STR4 (M) PCB (ROM) Assy	M303-14160-00
29	Coin counter	2		
30	Switching regulator (12 V)	1	RS-150-12	VG88-14591-00
31	Switch (toggle)	1		
32	Switch (push)	1	PBS-10B	
33	Switch (push)	1	PBS-10B	
34	Switch (toggle)	1		
36	Current fuse (5A SB)	2		
37	Caster (adjustable)	4		VG24-00783-00
38	Adjustment bolt	4		VG20-04938-01



No.	Name	Qty.	Type or Rating	Part No.
40	Adjuster bracket	4		VG10-13164-00
41	Anti-vibration rubber	4	BG0MA25270	
42	Floor mat	1		HD96-14086-00
43	Floor mat retainer	1		HD10-13691-00
44	270 active steering wheel assembly	1	50-0102-50EX	R580-09704-01
45	Support bracket	2		
46	Dual pedal assembly paintloc std w/ms & 5k pot on gas	1		VG05-13755-00
47	Over/under door with cashbox	1	BNWCD-L2SB (US - 2 Slots) BNWCD-L10H (UK - 1 Slot)	VG83-13188-00
48	USB camera	1	KBCR-M05VU-HPB2010-C0	M315-16365-00
49	Power cord	1		VG51-01232-06
50	Top cover (M)	1		MT90-18787-01
51	Top filter (M)	6		MT90-18789-00
52	Camera cover (M)	1		HD40-14097-00
53	LED bracket (L)	1		
54	LED bracket (R)	1		
55	Side sheet	2		MT90-18787-01
56	Fork sticker	2		VG40-06882-00
58	Control cover (M)	1		HD90-13750-03
59	Meter sticker (A) (M)	1		M340-16332-00
60	Meter sticker (B) (M)	1		M340-16333-00
61	Meter sticker (C) (M)	1		M340-16334-00
62				
64	Item sticker	1		M340-16335-00
65	Mario button sticker	1		M340-16336-00
66	Illuminated switch (SQUARE)	1	BLC-DP-BK-G-CW	VG53-13753-03
67	Illuminated switch (ROUND)	1	BLC-DP-BK-D-CB	VG53-13754-02
68	LED LAMP	2	14 V	
69	Operation manual (this manual)	1		M345-16367-00
70	Communication cable (5 m)	1	5 m	VG50-11136-10
71	Communication cable (1 m)	1 *1	1 m	
72	Connection bracket	2		HD10-13701-00
73	Filter sheet (A)	1		
74	Filter sheet (B)	1		
75	Filter sheet (C)	1		
76	Manual sticker (A)	1		M340-16359-00
77	Manual sticker (B)	1		M340-16359-01
78	LED tube cap U	1		DE479-15891-0
79	LED tube cap L	1		DE479-15892-0

 $^{\star 1}$ The quantity noted in the table above is the quantity per 2 \sim 4 machines.

10-2 Cord Box Assembly





No.	Name	Qty.	Type or Rating	Part No.
1	Cord box	1		VG10-13674-00
2	Noise filter	1		VG78-12947-00



No.	Name	Qty.	Type or Rating	Part No.
1	Title panel	1		M340-16360-00
2	POP bracket (L)	1		M310-735-031-00
3	POP bracket (R)	1		M310-735-032-00
4	Security seal	1		VG44-13051-00

10-4 Seat Assembly







No.	Name	Qty.	Type or Rating	Part No.
1	Seat cushion	1		M390-16355-00
2	Seat back	1		M390-16356-01
3	Seat pipe	2		HD10-13697-00
4	Seat back cover	1		M340-733-366-0
5	Seat LED bracket	1		M310-733-365-0
6	LED tube cap (L)	2		DE479-15891-00
7	LED tube cap (R)	2		DE479-15892-00
8	Seat base	1		M363-14195-00
9	Under cover	1		HD63-13673-03
10	Seat rail stay	1		HD10-13700-00
11	Seat rail stay	1		HD10-13700-01
12	Washer B	4	φ11 x 32 x t 1.6	
13	Seat slide assembly	1		VG05-13709-00
14	LED bar 300	2		M379-16358-00
15	LED tube 300	2		M379-16348-00
16	Base end sticker (M)	1		M340-16368-00
17	Caster (adjustable)	3		VG24-00783-00
18	Adjustment bolt	4		VG20-04938-01
19	Adjuster bracket	4		VG10-13164-00
20	Tail lamp panel	1		M390-16352-00
21	Tail lamp reflector	1		
22	Tail lamp cover	1		MT90-18788-00
23	Emblem	1		M390-16371-00
24	Emblem sticker	1		M340-16346-00
25	Rainbow PC Board	2	SCU02-A	M315-16364-00
26	Caution sticker Seat Slide (C)	1		VG44-13675-00

10-5 Pedal Assembly



No.	Name	Qty.	Type or Rating	Part No.
1	Pedal A	1		VG05-13755-99
2	Pedal B	1		VG05-13755-98
3	Cushion	4		VG05-13755-97
4	Spring A	2		VG05-13755-96
5	Spring B	1		VG05-13755-95
6	POTENTIOMETOR	1	F24KN5-20 B1Kb7-B0 L20FC*8.5 (0)	VG75-05464-00
7	SENSOR	1	KI1300	VG05-13755-91
*	PEDAL ASSEMBLY FULL	1		VG05-13755-02



(
(
(
(
(
(
(
(

1

2

3

No.	Name	Qty.	Type or Rating	Part No.
1	Hub, Steering	1		DD11-04923-00
2	Steering Wheel	1		VG80-137744-00
3	Сар	1		VG90-13757-00
4	Кеу	1		VG80-02975-06
5	Shaft	1		VG80-02975-05
6	Timing Belt	1		VG80-02975-16
7	Feedback Steering Assembly, all but 2 & 3	1		R580-09704-01
8	Feedback Motor	1		VG59-13775-00
9	Bearing Holder	1		TW11-06148-00
10	5K Potentiometer	1		VG75-06089-11
11	Motor Gear Shaft	1		VG80-02975-17
*	STEERING HARDWARE KIT	1		HD21-13756-00

11. Wiring Diagram





105

Test Mode

Troubleshooting



З A 8B Wiring Diagram

Test Mode Troubleshooting

11. Wiring Diagram
Mario Kart Arcade GPDX made with Serial numbers that begin with MKFC2***** will be made with the BNA1 Lite version board. USE THE FOLLOWING WIRING DIAGRAMS IF YOU HAVE A MARIOKART ARCADE GPDX THAT BEGINS WITH SERIAL NUMBER MKFC2****

BNA1 Lite Assembly changes.



Assembly of TSIFPLUS PCB and TSIF HARNESS (MO) ASSY



12. Wiring Diagram

MK3 BNA1Lite ver.





Copyrights and Trademarks

The software used in this machine is protected by copyright laws. It is prohibited to copy, adapt, distribute publicly, or use the software for purposes other than the operation of this machine.

Infringement of copyright laws may subject persons to criminal penalties.

Do not use the recording media containing the software in a machine other than the specified game machine. Doing so may result in mechanical malfunction.

This software uses fonts by Fontworks Inc. The Fontworks company name and Fontworks font names are trademarks or registered trademarks of Fontworks Inc. This product uses fonts by Morisawa Inc.

BISHAMON Silicon Studio Corporation Matchlock Corporation. (3D VFX Kool BISHAMON)

This product includes the following software used under third party license. See below for the license conditions and other information.

cURL 7.22.0

COPYRIGHT AND PERMISSION NOTICE

Copyright (c) 1996 - 2012, Daniel Stenberg, <daniel@haxx.se>.

All rights reserved.

Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT W%00%'K6 OF %'6 KIND, EXPRESS &0

IMPLIED, INCLUDING BUT NOT LIMITED KO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR %P%0TICULAR PURPOSE AND NONINFRINGEMENT OF THIRD P%0K6 RIGHTS. IN

NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR %'6 CLAIM,

DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, K&0 K OR &K\$80 WISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE

OR OTHER DEALINGS IN THE SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder.

Camellia C-language Version Crypto Search Engine 1.2.0 Copyright (c) 2006,2007 'KK (Nippon Kelegraph and Kelephone Corporation) . All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer as the first lines of this file unmodified.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY NTT "AS IS" AND %'6 EXPRESS OR IMPLIED B ARRANTIES, INCLUDING, BUT NOT LIMITED KO, THE IMPLIED WARRANTIES OF !80(\$%'K ABILITY AND FITNESS FOR %P%0TICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL NTT BE LIABLE FOR %'6 DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLAR6, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED KO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DAKA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON %'6 K\$8&0 6 OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR K&0 K (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN %'6 W%6 OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

OpenSSL 1.0.1c This product includes software developed by the OpenSSL Project for use in the OpenSSL Koolkit (http://www.openssl.org/)

LICENSE ISSUES

The OpenSSL toolkit stays under a dual license, i.e. both the conditions of the OpenSSL License and the original SSLeay license apply to the toolkit. See below for the actual license texts. Actually both licenses are BSD-style Open Source licenses. In case of any license issues related to OpenSSL please contact openssl-core@openssl.org.

OpenSSL License

- * Copyright (c) 1998-2011 The OpenSSL Project. All rights reserved.
- * Redistribution and use in source and binary forms, with or without
- * modification, are permitted provided that the following conditions
- * are met:
- * 1. Redistributions of source code must retain the above copyright

* notice, this list of conditions and the following disclaimer.

*

* 2. Redistributions in binary form must reproduce the above copyright

- * notice, this list of conditions and the following disclaimer in
- * the documentation and/or other materials provided with the
- * distribution.

*

* 3. All advertising materials mentioning features or use of this

- software must display the following acknowledgment:
- * "This product includes software developed by the OpenSSL Project
- * for use in the OpenSSL Koolkit. (http://www.openssl.org/)"

,

- * 4. The names "OpenSSL Koolkit" and "OpenSSL Project" must not be used to
- endorse or promote products derived from this software without
- * prior written permission. For written permission, please contact
- * openssl-core@openssl.org.
- * 5. Products derived from this software may not be called "OpenSSL"
 - nor may "OpenSSL" appear in their names without prior written
 - * permission of the OpenSSL Project.

ż

- * 6. Redistributions of any form whatsoever must retain the following
- * acknowledgment:
- * "This product includes software developed by the OpenSSL Project
- * for use in the OpenSSL Koolkit (http://www.openssl.org/)"

*

* THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT "AS IS" AND %'6

* EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED KO, K\$8

- * IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR %P%0TICULAR
- * PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR
- * ITS CONTRIBUTORS BE LIABLE FOR %'6 DIRECT, INDIRECT, INCIDENTAL,
- * SPECIAL, EXEMPLAR6, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT
- * NOT LIMITED KO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES;
- * LOSS OF USE, DAKA, OR PROFITS; OR BUSINESS INTERRUPTION)
- * HOWEVER CAUSED AND ON %'6 K\$8&0 6 OF LIABILITY, WHETHER IN CONTRACT,
- * STRICT LIABILITY, OR K&0 K (INCLUDING NEGLIGENCE OR OTHERWISE)

* ARISING IN %'6 W%6 OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED

* OF THE POSSIBILITY OF SUCH DAMAGE.

* _____

*

- * This product includes cryptographic software written by Eric 6oung
- * (eay@cryptsoft.com). This product includes software written by Kim
- * Hudson (tjh@cryptsoft.com).
- */

Original SSLeay License

/* Copyright (C) 1995-1998 Eric 6oung (eay@cryptsoft.com)

* All rights reserved.

* This package is an SSL implementation written

* by Eric 6oung (eay@cryptsoft.com).

* The implementation was written so as to conform with Netscapes SSL.

*

* This library is free for commercial and non-commercial use as long as

* the following conditions are aheared to. The following conditions

* apply to all code found in this distribution, be it the RC4, RSA,

* Ihash, DES, etc., code; not just the SSL code. The SSL documentation

* included with this distribution is covered by the same copyright terms

* except that the holder is Kim Hudson (tjh@cryptsoft.com).

*

* Copyright remains Eric 6oung's, and as such any Copyright notices in * the code are not to be removed.

* If this package is used in a product, Eric 6oung should be given attribution

* as the author of the parts of the library used.

* This can be in the form of a textual message at program startup or

* in documentation (online or textual) provided with the package.

*

* Redistribution and use in source and binary forms, with or without * modification, are permitted provided that the following conditions * are met:

*

* 1. Redistributions of source code must retain the copyright

* notice, this list of conditions and the following disclaimer.

*

* 2. Redistributions in binary form must reproduce the above copyright

* notice, this list of conditions and the following disclaimer in the

* documentation and/or other materials provided with the distribution.

*

* 3. All advertising materials mentioning features or use of this software

- * must display the following acknowledgement:
- * "This product includes cryptographic software written by
- * Eric 6oung (eay@cryptsoft.com)"
- * The word 'cryptographic' can be left out if the rouines from the library
- * being used are not cryptographic related :-).
- *

* 4. If you include any Windows specific code (or a derivative thereof) from

* the apps directory (application code) you must include an acknowledgement:

* "This product includes software written by Kim Hudson (tjh@cryptsoft.com)"

,

* THIS SOFTWARE IS PROVIDED BY ERIC YOUNG "AS IS" AND

* %'6 EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED KO, K\$8

* IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR %P%0TICULAR

* PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS

* BE LIABLE FOR %'6 DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLAR6, OR

* CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED KO, PROCUREMENT OF

* SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DAKA, OR PROFITS; OR

* BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON %'6 K\$8&0 6 OF LIABILITY,

* WHETHER IN CONTRACT, STRICT LIABILITY, OR K&0 K (INCLUDING NEGLIGENCE OR

* OTHERWISE) ARISING IN %'6 W%6 OUT OF THE USE OF THIS SOFTWARE, EVEN IF

* ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

*

- * The licence and distribution terms for any publically available version or
- * derivative of this code cannot be changed. i.e. this code cannot simply be
- * copied and put under another distribution licence
- * [including the GNU Public Licence.]

*/

MICROSOFT SOFTWARE LICENSE TERMS

WINDOWS EMBEDDED STANDARD 7

These license terms are an agreement between you and NAMCO BANDAI Games Inc.("NBGI"). Please read them. They apply to the software included on this device. The software also includes any separate media on which you received the software.

The software on this device includes software licensed from Microsoft Corporation or its affiliate.

The terms also apply to any Microsoft

- updates,
- supplements,
- Internet-based services, and
- support services

for this software, unless other terms accompany those items. If so, those terms apply.

If you obtain updates or supplements directly from Microsoft, then Microsoft, and not NBGI, licenses those to you.

As described below, using the software also operates as your consent to the transmission of certain computer information for Internet-based services.

By using the software, you accept these terms. If you do not accept them, do not use the software. Instead, contact NBGI to determine its return policy for a refund or credit.

If you comply with these license terms, you have the rights below.

1. USE RIGHTS

Use. The software license is permanently assigned to the device with which you acquired the software. 6ou may use the software on the device.

2. ADDITIONAL LICENSING REQUIREMENTS AND/OR USE RIGHTS

- a. Specific Use. NBGI designed the device for a specific use. 6ou may only use the software for that use.
- **b.** Other Software. 6ou may use other programs with the software as long as the other programs
 - directly supports the manufacturer[s specific use for the device, or
 - provide system utilities, resource management, or anti-virus or similar protection.
 - Software that provides consumer or business tasks or processes may not be run on the device. This includes email, word processing, spreadsheet, database, scheduling and personal finance software. The device may use terminal services protocols to access such software running on a server.
- **c. Device Connections.** 6ou may not use the software as server software. In other words, more than one device may not access, display, run, share or use the software at the same time.

6ou may use terminal services protocols to connect the device to a server running business task or processes software such as email, word processing, scheduling or spreadsheets.

6ou may allow up to ten other devices to access the software to use

- File Services,
- Print Services,
- Internet Information Services, and
- Internet Connection Sharing and Kelephony Services.

The ten connection limit applies to devices that access the software indirectly through "multiplexing" or other software or hardware that pools connections. 6ou may use unlimited inbound connections at any time via TCP/IP.

d. Remote Access Technologies. 6ou may access and use the software remotely from another device using remote access technologies as follows.

<u>Remote Desktop</u>. The single primary user of the device may access a session from any other device using Remote Desktop or similar technologies. %"session" means the experience of interacting with the software, directly or indirectly, through any combination of input, output and display peripherals. Other users may access a session from any device using these technologies, if the remote device is separately licensed to run the software.

Other Access Kechnologies. 6ou may use Remote Assistance or similar technologies to share an active session.

Other Remote Uses. 6ou may allow any number of devices to access the software for purposes other than those described in the Device Connections and Remote Access Kechnologies sections above, such as to synchronize data between devices.

- e. Font Components. While the software is running, you may use its fonts to display and print content. 6ou may only
 - embed fonts in content as permitted by the embedding restrictions in the fonts; and
 - temporarily download them to a printer or other output device to print content.
- **f. Icons, images and sounds.** While the software is running, you may use but not share its icons, images, sounds, and media.

3. VHD BOOT. Additional copies of the software created using the software's Virtual Hard Disk functionality ("VHD Image") may be pre-installed on the physical hard disk of the device. These VHD Images may only be used for maintaining or updating the software installed on the physical hard disk or drive. If the VHD Image is the only software on your device, it may be used as the primary operating system but all other copies of the VHD Image may only be used for maintenance and updating.

- 4. POTENTIALLY UNWANTED SOFTWARE. The software may include Windows Defender. If Windows Defender is turned on, it will search this device for "spyware," "adware" and other potentially unwanted software. If it finds potentially unwanted software, the software will ask you if you want to ignore, disable (quarantine) or remove it. Any potentially unwanted software rated "high" or "severe," will be automatically removed after scanning unless you change the default setting. Removing or disabling potentially unwanted software may result in
 - · Other software on your device ceasing to work, or
 - 6our breaching a license to use other software on this device

By using this software , it is possible that you will also remove or disable software that is not potentially unwanted software.

5. SCOPE OF LICENSE. The software is licensed, not sold. This agreement only gives you some rights to use the software. NBGI and Microsoft reserve all other rights. Unless applicable law gives you more rights despite this limitation, you may use the software only as expressly permitted in this agreement. In doing so, you must comply with any technical limitations in the software that allow you to use it only in certain ways. For more information, see the software documentation or contact NBGI. 6ou may not:

- work around any technical limitations in the software;
- reverse engineer, decompile or disassemble the software;
- make more copies of the software than specified in this agreement;
- publish the software for others to copy;
- rent, lease or lend the software; or
- use the software for commercial software hosting services.

Except as expressly provided in this agreement, rights to access the software on this device do not give you any right to implement Microsoft patents or other Microsoft intellectual property in software or devices that access this device.

- 6. INTERNET-BASED SERVICES. Microsoft provides Internet-based services with the software. Microsoft may change or cancel them at any time.
 - a. Consent for Internet-Based Services. The device may contain one or more of the software features described below. These features connect to Microsoft or service provider computer systems over the Internet. In some cases, you will not receive a separate notice when they connect. For more information about these features, visit

go.microsoft.com/fwlink/?linkid=104604.

By using these features, you consent to the transmission of this information. Microsoft does not use the information to identify or contact you.

<u>Computer Information</u>. The following features use Internet protocols, which send to the appropriate systems computer information, such as your Internet protocol address, the type of operating system and browser, the name and version of the software you are using, and the language code of the device where you installed the software. Microsoft uses this information to make the Internet-based services available to you. NBGI has elected to turn on the following features on the device.

- <u>Plug and Play and Plug and Play Extensions.</u> 6ou may connect new hardware to your device. 6our device may not have the drivers needed to communicate with that hardware. If so, the update feature of the software can obtain the correct driver from Microsoft and install it on your device.
- <u>B eb Content Features</u>. Features in the software can retrieve related content from Microsoft and provide it to you. Examples of these features are clip art, templates, online training, online assistance and Appshelp. 6ou may choose to switch them off or not use them.
- <u>Digital Certificates</u>. The software uses x.509 version 3 digital certificates. These digital certificates confirm the identity of user sending information to each other and allow you to encrypt the information. The software retrieves certificates and updates certificate revocation lists over the Internet.
- <u>Auto Root Update</u>. The Auto Root Update feature updates the list of trusted certificate authorities. 6ou can switch off this feature.
- Windows Media Digital Rights Management. Content owners use Windows Media digital rights management technology (WMDRM) to protect their intellectual property, including copyrights. This software and third party software use WMDRM to play and copy WMDRM-protected content. If the software fails to protect the content, content owners may ask Microsoft to revoke the software's ability to use WMDRM to play or copy protected content. Revocation does not affect other content. When you download licenses for protected content, you agree that Microsoft may include a revocation list with the licenses. Content owners may require you to upgrade WMDRM to access their content. Microsoft software that includes WMDRM will ask for your consent prior to the upgrade. If you decline an upgrade, you will not be able to access content that requires the upgrade. 6ou may switch off WMDRM features that access the Internet. When these features are off, you can still play content for which you have a valid license.
- · Windows Media Player. When you use Windows Media Player, it checks with Microsoft for
 - compatible online music services in your region;
 - new versions of the player; and
 - · codecs if your device does not have the correct ones for playing content.

6ou can switch off this feature. For more information, go to: <u>go.microsoft.com/</u> fwlink/?LinkId=51331.

- Malicious Software Removal/Clean On Upgrade. Before installation of the software, the software will check and remove certain malicious software listed at www.support.microsoft. com/?kbid=890830 ("Malware") from your device. When the software checks your device for Malware, a report will be sent to Microsoft about any Malware detected or errors that occurred while the software was checking for Malware. No information that can be used to identify you is included in the report. 6ou may disable the software's Malware reporting functionality by following the instructions found at www.support.microsoft.com/?kbid=890830.
- <u>Network %wareness</u>. This feature determines whether a system is connected to a network by either passive monitoring of network traffic or active DNS or HTTP queries. The query only transfers standard TCP/IP or DNS information for routing purposes. 6ou can switch off the active query feature through a registry setting.
- Windows Kime Service. This service synchronizes with www.time.windows.com once a week to provide your I device with the correct time. The connection uses standard NTP protocol.
- <u>Search Suggestions Service.</u> In Internet Explorer, when you type a search query in the Instant Search box or type a question mark (?) before your search term in the Address bar, you will see search suggestions as you type (if supported by your search provider). Everything you type in the Instant Search box or in the Address bar when preceded by a question mark (?) is sent to your search provider as you type. Also, when you press Enter or click the Search button, the text in the Instant Search box or Address bar is sent to the search provider. If you use a Microsoft search provider, use of the information sent is subject to the Microsoft Online Privacy Statement. This statement is available at go.microsoft.com/fwlink/?linkid=31493. If you use a third-party search provider, use of the information sent will be subject to the third party's privacy practices. 6ou can turn search suggestions off at any time. Ko do so, use Manage Add-ons under the Kools button in Internet Explorer. For more information about the search suggestions service, see go.microsoft.com/fwlink/?linkid=128106.
- Consent to Update Infrared Emitter/Receiver. The software may contain technology to ensure the proper functioning of the infrared emitter/receiver device shipped with certain Media Center-based products. 6ou agree that the software may update the firmware of this device.
- Media Center Online Promotions. If you use Media Center features of the software to access Internet-based content or other Internet-based services, such services may obtain the following information from the software to enable you to receive, accept and use certain promotional offers:
 - certain device information, such as your Internet protocol address, the type of operating system and browser you are using, and the name and version of the software you are using,
 - the requested content, and
 - the language code of the device where you installed the software.
- 6our use of the Media Center features to connect to those services serves as your consent to the collection and use of such information.
- <u>Media Playback Updates.</u> The software on the device may include media playback features which receives updates directly from the MSCORP Media Playback Update servers. If activated by your manufacturer, these updates will be downloaded and installed without further notice to you. The manufacturer is responsible for ensuring these updates work on your device.

- Windows Update Agent. The software on the device includes Windows Update Agent ("WUA"). This feature enables your device to access Windows Updates either directly from MSCORP Windows Update server or from a server installed with the required server component and from the Microsoft Windows Update server. Ko enable the proper functioning of the Windows Update service will be required from time to time and downloaded and installed without further notice to you. Without limiting any other disclaimer in these license terms or any license terms accompanying a Windows Update, you acknowledge and agree that no warranty is provided by Microsoft Corporation or their affiliates with respect to any Windows Update that you install or attempt to install on your device.
- **b.** Use of Information. Microsoft may use the device information, error reports, and Malware reports to improve our software and services. We may also share it with others, such as hardware and software vendors. They may use the information to improve how their products run with Microsoft software.
- **c. Misuse of Internet-based Services.** 6ou may not use these services in any way that could harm them or impair anyone else's use of them. 6ou may not use the services to try to gain unauthorized access to any service, data, account or network by any means.
- 7. **PRODUCT SUPPORT.** Contact NBGI for support options. Refer to the support number provided with the device.
- 8. MICROSOFT .NET BENCHMARK TESTING. The software includes one or more components of the .NET Framework (".NET Components"). 6ou may conduct internal benchmark testing of those components. 6ou may disclose the results of any benchmark test of those components, provided that you comply with the conditions set forth at go.microsoft.com/fwlink/?LinkID=66406. Notwithstanding any other agreement you may have with Microsoft, if you disclose such benchmark test results, Microsoft shall have the right to disclose the results of benchmark tests it conducts of your products that compete with the applicable .NET Component, provided it complies with the same conditions set forth at go.microsoft.com/fwlink/?LinkID=66406.
- **9. BACKUP COPY.** 6ou may make one backup copy of the software. 6ou may use it only to reinstall the software on the device.
- **10. DOCUMENTATION.** Any person that has valid access to your device or internal network may copy and use the documentation for your internal, reference purposes.
- 11. PROOF OF LICENSE. If you acquired the software on the device, or on a disc or other media, a genuine Certificate of Authenticity label with a genuine copy of the software identifies licensed software. Ko be valid, this label must be affixed to the device, or included on or in NBGI's software packaging. If you receive the label separately, it is not valid. 6ou should keep the label on the device or packaging to prove that you are licensed to use the software. Ko identify genuine Microsoft software, see http://www.howtotell.com.
- **12. TRANSFER TO THIRD PARTY.** 6ou may transfer the software only with the device, the Certificate of Authenticity label, and these license terms directly to a third party. Before the transfer, that party must agree that these license terms apply to the transfer and use of the software. 6ou may not retain any copies of the software including the backup copy.

13. NOTICE ABOUT THE H.264/AVC VISUAL STANDARD, THE VC-1 VIDEO STANDARD, THE MPEG-4 VISUAL STANDARD AND THE MPEG-2 VIDEO STANDARD. This software may include H.264/ %/C, VC-1, MPEG-4 Part 2, and MPEG-2 visual compression technology. If the software includes those visual compression technologies MPEG LA, L.L.C. requires this notice:

THIS PRODUCT IS LICENSED UNDER ONE OR MORE VIDEO P%K8'K PORTFOLIO LICENSES SUCH AS, AND WITHOUT LIMIT%TION, THE %/C, THE VC-1, THE MPEG-4 P%0K 2 VISUAL, AND THE MPEG 2 VIDEO P%K8'K PORTFOLIO LICENSES FOR THE PERSONAL AND NON-COMMERCIAL USE OF %CONSUMER KO (i) ENCODE VIDEO IN COMPLIANCE WITH THE ABOVE #KANDARDS ("VIDEO STANDARDS") AND/OR (ii) DECODE VIDEO K\$%K WAS ENCODED BY % CONSUMER ENGAGED IN %PERSONAL AND NON-COMMERCIAL ACTIVITY OR WAS OBTAINED FROM %VIDEO PROVIDER LICENSED KO PROVIDE VIDEO UNDER SUCH P%K8'K PORTFOLIO LICENSES. NONE OF THE LICENSES EXTEND KO %'6 OTHER PRODUCT REGARDLESS OF WHETHER SUCH PRODUCT IS INCLUDED WITH THIS PRODUCT IN %SINGLE %0TICLE. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR %'6 OTHER USE. ADDITIONAL INFORMATION MA6 BE OBTAINED FROM MPEG LA, L.L.C. SEE WWW.MPEGLA.COM.

- 14. NOTICE ABOUT THE MP3 AUDIO STANDARD. This software includes MP3 audio encoding and decoding technology as defined by ISO/IEC 19172-3 and ISO/IEC 13818-3. It is not licensed for any implementation or distribution in any commercial product or service.
- 15. NOT FAULT TOLERANT. The software is not fault tolerant. NBGI installed the software on the device and is responsible for how it operates on the device.
- **16. RESTRICTED USE.** The Microsoft software was designed for systems that do not require fail-safe performance. 6ou may not use the Microsoft software in any device or system in which a malfunction of the software would result in foreseeable risk of injury or death to any person. This includes operation of nuclear facilities, aircraft navigation or communication systems and air traffic control.
- 17. NO WARRANTIES FOR THE SOFTWARE. The software is provided "as is". / ou bear all risks of using it. Microsoft gives no express warranties, guarantees or conditions. Any warranties you receive regarding the device or the software do not originate from, and are not binding on, Microsoft or its affiliates. When allowed by your local laws, NBGI and Microsoft exclude implied warranties of merchantability, fitness for a particular purpose and non-infringement.
- LIABILITY LIMIT TIONS. / ou can recover from Microsoft and its affiliates only direct damages up to two hundred fifty U.S. Dollars (U.S. \$250.00). / ou cannot recover any other damages, including consequential, lost profits, special, indirect or incidental damages. This limitation applies to:
 - anything related to the software, services, content (including code) on third party internet sites, or third party programs, and
 - claims for breach of contract, breach of warranty, guarantee or condition, strict liability, negligence, or other tort to the extent permitted by applicable law.

It also applies even if Microsoft should have been aware of the possibility of the damages. The above limitation may not apply to you because your country may not allow the exclusion or limitation of incidental, consequential or other damages.

- 19. EXPORT RESTRICTIONS. The software is subject to United States export laws and regulations. 6ou must comply with all domestic and international export laws and regulations that apply to the software. These laws include restrictions on destinations, end users and end use. For additional information, see ...microsoft.com/exporting.
- **20. ENTIRE AGREEMENT.** This agreement, additional terms (including any printed-paper license terms that accompany the software and may modify or replace some or all of these terms), and the terms for supplements, updates, Internet-based services and support services that you use, are the entire agreement for the software and support services.

21. APPLICABLE LAW

- **a. United States.** If you acquired the software in the United States, Washington state law governs the interpretation of this agreement and applies to claims for breach of it, regardless of conflict of laws principles. The laws of the state where you live govern all other claims, including claims under state consumer protection laws, unfair competition laws, and in tort.
- **b.** Outside the United States. If you acquired the software in any other country, the laws of that country apply.

22. Third Party Programs. Microsoft provides the following copyright notices for third party software included in the software. These notices are required by the respective copyright holders and do not change your license to use this software.

Portions of this software are based in part on the work of Spider Systems ® Limited. Because Microsoft has included the Spider Systems Limited software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright 1987 Spider Systems Limited Copyright 1988 Spider Systems Limited Copyright 1990 Spider Systems Limited

Portions of this software are based in part on the work of Seagate Software.

Portions of this software are based in part on the work of ACE*COMM Corp. Because Microsoft has included the ACE*COMM Corp. software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright 1995-1997 ACE*COMM Corp

Portions of this software are based in part on the work of Sam Leffler and Silicon Graphics, Inc. Because Microsoft has included the Sam Leffler and Silicon Graphics software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright © 1988-1997 Sam Leffler Copyright © 1991-1997 Silicon Graphics, Inc.

Permission to use, copy, modify, distribute, and sell this software and its documentation for any purpose is hereby granted without fee, provided that (i) the above copyright notices and this permission notice appear in all copies of the software and related documentation, and (ii) the names of Sam Leffler and Silicon Graphics may not be used in any advertising or publicity relating to the software without the specific, prior written permission of Sam Leffler and Silicon Graphics.

THE SOFTWARE IS PROVIDED "AS-IS" AND WITHOUT W%00%'K6 OF %'6 KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMIT%TION, %'6 B %00%'K6 OF MERCHANTABILITY OR FITNESS FOR %P%0TICULAR PURPOSE. IN NO EVENT SHALL SAM LEFFLER OR SILICON GRAPHICS BE LIABLE FOR %'6 SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF %'6 KIND, OR %'6 DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DAK%OR PROFITS, WHETHER OR NOT ADVISED OF THE POSSIBILITY OF DAMAGE, AND ON %'6 K\$8&0 6 OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Portions Copyright © 1998 PictureTel Corporation

Portions of this software are based in part on the work of Highground Systems. Because Microsoft has included the Highground Systems software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright © 1996-1999 Highground Systems

Windows 7 incorporates compression code from the Info-ZIP group. There are no extra charges or costs due to the use of this code, and the original compression sources are freely available from http://www.info-zip.org/ or ftp://ftp.info-zip.org/pub/infozip/src/ on the Internet.

Portions Copyright © 2000 SRS Labs, Inc

This product includes software from the 'zlib' general purpose compression library.

Portions of this software are based in part on the work of ScanSoft, Inc. Because Microsoft has included the ScanSoft, Inc. software in this product, Microsoft is required to include the following text that accompanied such software:

KextBridge® OCR © by ScanSoft, Inc.

Portions of this software are based in part on the work of University of Southern California. Because Microsoft has included the University of Southern California software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright © 1996 by the University of Southern California All rights reserved.

Permission to use, copy, modify, and distribute this software and its documentation in source and binary forms for any purpose and without fee is hereby granted, provided that both the above copyright notice and this permission notice appear in all copies, and that any documentation, advertising materials, and other materials related to such distribution and use acknowledge that the software was developed in part by the University of Southern California, Information Sciences Institute. The name of the University may not be used to endorse or promote products derived from this software without specific prior written permission.

THE UNIVERSITY OF SOUTHERN CALIFORNIA makes no representations about the suitability of this software for any purpose. THIS SOFTWARE IS PROVIDED "AS IS" AND WITHOUT %'6 EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMIT%TION, THE IMPLIED WARRANTIES OF !80(\$%'K ABILITY AND FITNESS FOR %P%0TICULAR PURPOSE.

Other copyrights might apply to parts of this software and are so noted when applicable.

Portions of this software are based in part on the work of James Kanze. Because Microsoft has included the James Kanze software in this product, Microsoft is required to include the following text that accompanied such software:

COPYRIGHT AND PERMISSION NOTICE

All rights reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, publish, distribute, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, provided that the above copyright notice(s) and this permission notice appear in all copies of the Software and that both the above copyright notice(s) and this permission notice appear in supporting documentation. Permission is also given to modify the software to any extend, under the condition that, in the modified software, the prefix "GB_" is changed to something else, and the name directories for includes files ("gb" in this distribution) is also changed.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT W%00%'K6 OF %'6 KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED KO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR %P%0TICULAR PURPOSE AND NONINFRINGEMENT OF THIRD P%0K6 RIGHTS. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR %'6 CLAIM, OR %'6 SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR %'6

DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DAK%OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER K&0 TIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder.

This product contains software from Cisco ISAKMP Services.

Portions of this software are based in part on the work of RSA Data Security, Inc. Because Microsoft has included the RSA Data Security, Inc. software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright © 1990, RSA Data Security, Inc. All rights reserved.

License to copy and use this software is granted provided that it is identified as the "RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing this software or this function. License is also granted to make and use derivative works provided that such works are identified as "derived from the RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing the derived work.

0#% Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

These notices must be retained in any copies of any part of this documentation and/or software.

Portions of this software are based in part on the work of OpenVision Kechnologies, Inc. Because Microsoft has included the OpenVision Kechnologies, Inc. software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright 1993 by OpenVision Kechnologies, Inc.

Permission to use, copy, modify, distribute, and sell this software and its documentation for any purpose is hereby granted without fee, provided that the above copyright notice appears in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of OpenVision not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. OpenVision makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty. OPENVISION DISCLAIMS %11WARRANTIES WITH REGARD KO THIS SOFTWARE, INCLUDING

%11IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL OPENVISION BE LIABLE FOR %'6 SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR %'6 DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DAK%OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER K&0 TIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Portions of this software are based in part on the work of Regents of The University of Michigan. Because Microsoft has included the Regents of The University of Michigan software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright © 1995, 1996 Regents of The University of Michigan. All Rights Reserved.

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appears in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of The University of Michigan not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. This software is supplied as is without expressed or implied warranties of any kind.

Copyright @ 1993, 1994 Regents of the University of Michigan. All rights reserved.

Redistribution and use in source and binary forms are permitted provided that this notice is preserved and that due credit is given to the University of Michigan at Ann Arbor. The name of the University may not be used to endorse or promote products derived from this software without specific prior written permission. This software is provided "as is" without express or implied warranty.

Portions of this software are based in part on the work of Massachusetts Institute of Kechnology. Because Microsoft has included the Massachusetts Institute of Kechnology software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright 1989, 1990 by the Massachusetts Institute of Kechnology. All Rights Reserved.

Export of this software from the United States of America may require a specific license from the United States Government. It is the responsibility of any person or organization contemplating export to obtain such a license before exporting.

WITHIN K\$%K CONSTRAINT, permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and

this permission notice appear in supporting documentation, and that the name of M.I.T. not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. M.I.T. makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

Under U.S. law, this software may not be exported outside the US without license from the U.S. Commerce department.

Copyright 1994 by the Massachusetts Institute of Kechnology. All Rights Reserved.

Export of this software from the United States of America may require a specific license from the United States Government. It is the responsibility of any person or organization contemplating export to obtain such a license before exporting.

WITHIN K\$%K CONSTRAINT, permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of M.I.T. not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. M.I.T. makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

This product includes software developed by the University of California, Berkeley and its contributors.

Portions of this software are based in part on the work of the "Entrust" security technology licensed from Northern Telecom.

Portions of this software are based in part on the work of Hewlett-Packard Company. Because Microsoft has included the Hewlett-Packard Company software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright © 1994 Hewlett-Packard Company

Permission to use, copy, modify, distribute and sell this software and its documentation for any purpose is hereby granted without fee, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation. Hewlett-Packard Company and Microsoft Corporation make no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

This product includes software from the 'libpng' PNG reference library.

Portions of this software are based in part on the work of Autodesk, Inc. Because Microsoft has included the Autodesk, Inc. software in this product, Microsoft is required to include the following text that accompanied such software:

© Copyright 1995 by Autodesk, Inc.

This product contains graphics filter software; this software is based in part on the work of the Independent JPEG Group.

This product includes "True Verb" technology from KS Waves Ltd.

Portions of this software are based in part on the work of SGS-Thomson Microelectronics, Inc. Because Microsoft has included the SGS-Thomson Microelectronics, Inc. software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright 1996 SGS-Thomson Microelectronics, Inc. All Rights Reserved

Portions of this software are based in part on the work of Unicode, Inc. Because Microsoft has included the Unicode, Inc. software in this product, Microsoft is required to include the following text that accompanied such software:

COPYRIGHT AND PERMISSION NOTICE

Copyright © 1991-2005 Unicode, Inc. All rights reserved. Distributed under the Kerms of Use in http:// .unicode.org/copyright.html.

Permission is hereby granted, free of charge, to any person obtaining a copy of the Unicode data files and any associated documentation (the "Data Files") or Unicode software and any associated documentation (the "Software") to deal in the Data Files or Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, and/or sell copies of the Data Files or Software, and to permit persons to whom the Data Files or Software are furnished to do so, provided that (a) the above copyright notice(s) and this permission notice appear with all copies of the Data Files or Software, (b) both the above copyright notice(s) and this permission notice appear in associated documentation, and © there is clear notice in each modified Data File or in the Software as well as in the documentation associated with the Data File(s) or Software that the data or software has been modified.

THE DAK%FILES AND SOFTWARE ARE PROVIDED "AS IS", WITHOUT W%00%'K6 OF %'6 KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED KO THE WARRANTIES OF !80(\$%'K ABILITY, FITNESS FOR %P%0TICULAR PURPOSE AND NONINFRINGEMENT OF THIRD P%0K6 RIGHTS. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR %'6 CLAIM, OR %'6 SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR %'6 DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DAK%OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER K&0 TIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE DAK%FILES OR SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in these Data Files or Software without prior written authorization of the copyright holder.

The Combined PostScript Driver was the result of a cooperative development process by Adobe Systems Incorporated and Microsoft Corporation.

Portions of this software are based in part on the work of Media Cybernetics. Because Microsoft has included the Media Cybernetics software in this product, Microsoft is required to include the following text that accompanied such software:

HALO Image File Format Library © 1991-1992 Media Cybernetics, Inc.

Portions of this software are based in part on the work of Luigi Rizzo. Because Microsoft has included the

Luigi Rizzo software in this product, Microsoft is required to include the following text that accompanied such software:

© 1997-98 Luigi Rizzo (luigi@iet.unipi.it)

Portions derived from code by Phil Karn (karn@ka9q.ampr.org), Robert Morelos-Zaragoza (robert@ spectra.eng.hawaii.edu) and Hari Thirumoorthy (harit@spectra.eng.hawaii.edu), Aug 1995

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE AUTHORS "AS IS" AND %'6 EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED KO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR %P%0TICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHORS BE LIABLE FOR %'6 DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLAR6, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED KO, 50&(/08!8'K OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DAKA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON %'6 K\$8&0 6 OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR K&0 K (INCLUDING NEGLIGENCE OR &K\$80 WISE) ARISING IN %'6 W% OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Portions of this software are based in part on the work of W3C. Because Microsoft has included the W3C software in this product, Microsoft is required to include the following text that accompanied such software:

W3C ® SOFTWARE NOTICE AND LICENSE

http://www.w3.org/Consortium/Legal/2002/copyright-software-20021231

This work (and included software, documentation such as READMEs, or other related items) is being provided by the copyright holders under the following license. By obtaining, using and/or copying this work, you (the licensee) agree that you have read, understood, and will comply with the following terms and conditions.

Permission to copy, modify, and distribute this software and its documentation, with or without modification, for any purpose and without fee or royalty is hereby granted, provided that you include the following on %11copies of the software and documentation or portions thereof, including modifications:

The full text of this NOTICE in a location viewable to users of the redistributed or derivative work.
Any pre-existing intellectual property disclaimers, notices, or terms and conditions. If none exist, the W3C Software Short Notice should be included (hypertext is preferred, text is permitted) within the body of any redistributed or derivative code.

3. Notice of any changes or modifications to the files, including the date changes were made. (We recommend you provide URLs to the location from which the code is derived.)

THIS SOFTWARE AND DOCUMENT% ION IS PROVIDED "AS IS," AND COPYRIGHT HOLDERS MAKE NO REPRESENT% IONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT '&K LIMITED KO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR %'6 P%0TICULAR PURPOSE OR K\$% THE USE OF THE SOFTWARE OR DOCUMENT% ION WILL NOT INFRINGE %'6 THIRD P%0K6 P% TENTS, COPYRIGHTS, TRADEMARKS OR OTHER RIGHTS.

COPYRIGHT HOLDERS WILL NOT BE LIABLE FOR %'6 DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF %'6 USE OF THE SOFTWARE OR DOCUMENT%TION.

The name and trademarks of copyright holders may NOT be used in advertising or publicity pertaining to the software without specific, written prior permission. Kitle to copyright in this software and any

associated documentation will at all times remain with copyright holders.

Portions of this software are based in part on the work of Sun Microsystems, Inc. Because Microsoft has included the Sun Microsystems, Inc. software in this product, Microsoft is required to include the following text that accompanied such software:

Sun RPC is a product of Sun Microsystems, Inc. and is provided for unrestricted use provided that this legend is included on all tape media and as a part of the software program in whole or part. Users may copy or modify Sun RPC without charge, but are not authorized to license or distribute it to anyone else except as part of a product or program developed by the user.

SUN RPC IS PROVIDED AS IS WITH NO WARRANTIES OF %'6 KIND INCLUDING THE B ARRANTIES OF DESIGN, MERCHANTIBILITY AND FITNESS FOR %P%0TICULAR PURPOSE, OR ARISING FROM %COURSE OF DEALING, USAGE OR TRADE PRACTICE.

Sun RPC is provided with no support and without any obligation on the part of Sun Microsystems, Inc. to assist in its use, correction, modification or enhancement.

SUN MICROSYSTEMS, INC. SHALL HAVE NO LIABILITY WITH RESPECT KO THE INFRINGEMENT OF COPYRIGHTS, TRADE SECRETS OR %'6 P%TENTS BY SUN RPC OR %'6 P%0K THEREOF.

In no event will Sun Microsystems, Inc. be liable for any lost revenue or profits or other special, indirect and consequential damages, even if Sun has been advised of the possibility of such damages.

Sun Microsystems, Inc. 2550 Garcia %/enue Mountain View, California 94043

Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories. Confidential unpublished works. Copyright 1992-1997 Dolby Laboratories. All rights reserved.

Portions of this software are based in part on the work of Andrei Alexandrescu. Because Microsoft has included the Andrei Alexandrescu software in this product, Microsoft is required to include the following text that accompanied such software:

The Loki Library Copyright © 2001 by Andrei Alexandrescu

This code accompanies the book:

Alexandrescu, Andrei. "Modern C++ Design: Generic Programming and Design Patterns Applied." Copyright © 2001. Addison-Wesley.

Permission to use, copy, modify, distribute and sell this software for any purpose is hereby granted without fee, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation.

The author or Addison-Welsey Longman make no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

Portions Copyright © 1995 by Jeffrey Richter

Portions of this software are based in part on the work of the Distributed Management Kask Force, Inc. (DMTF). Because Microsoft has included software based on DMTF specifications in this product, Microsoft is required to include the following text:

Copyright © 2007 Distributed Management Kask Force, Inc. (DMTF). All rights reserved.

Portions of this work are derived from "The Draft Standard C++ Library" Copyright © 1995 by P.J. Plauger published by Prentice-Hall and are used with permission.

Portions of this software are based in part on the work of Hewlett-Packard Company. Because Microsoft has included the Hewlett-Packard Company software in this product, Microsoft is required to include the following text that accompanied such software:

Copyright © 2002, 2003 Hewlett-Packard Company.

About Notice:

This software is based on software available from http://mpvtools.sourceforge.net.

This software processes a format called MPV. MPV is an open specification for managing collections and multimedia playlists of photo, video, and music content and associated metadata and is available at no cost from the Optical Storage Kechnology Association. More information about the MPV specification can be found at http://www.osta.org/mpv.

Permission Notice:

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice, this permission notice, and the above About Notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT W%00%'K6 OF %'6 KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED KO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR %P%0TICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR %'6 CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, K&0 K OR

&K\$80 WISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder.

All other trademarks are property of their respective owners.

Bandai Namco Amusement America Inc.

1550 Glenlake Ave Itasca, IL 60143

www.bandainamco-am.com

Technical Support (USA)

Technical Service: +1 (847) 264-5614

Parts: +1 (847) 264-5612 www.namcoparts.com

Fax: +1 (847) 264-5613

Copies of the manual can be downloaded from our website: www.bandainamco-am.com

Bandai Namco Amusement Europe Ltd.

37-39 Kew Foot Road Richmond, England TW9-2SS +44 (0) 20 8324 6101 www.bandainamco-am.co.uk

Technical Support (Europe)

Technical Service: +44 (0) 20 8324 6120

Consumable Parts: +44 (0) 20 8324 6102

Fax: +44 (0) 20 8324 6126

Copies of the manual can be downloaded from our website: www.bandainamco-am.co.uk/support

Revised: 04-10-2025

First Edition Published in December 2013 Part No: M345-16387-00

The specifications of the machine and the contents of this operation manual are subject to change without prior notice due to product improvements.