## SEE®

## SEGA CORPORATION

TRC Haneda Building, 2-13-1, Higashikojiya, Ohta-ku, Tokyo 144-0033, Japan Telephone: +81-3-6863-8401 Facsimile: +81-3-6863-8407
© SEGA
Tetris ® \& © 1985-2009 Tetris Holding, LLC. Tetris logo, Tetris theme song and Tetriminos are trademarks of Tetris Holding, LLC. Licensed to The Tetris Company. Game Design by Alexey Pajitnov. Logo Design by Roger Dean. All Rights Reserved. Sub-licensed to SEGA

The typefaces included herein are solely developed by DynaComware.


## BEFORE USING THE PRODUCT, be sure to read the followng:

## To maintain safety:

To ensure the safe operation of this product, be sure to read the following before usage. The following instructions are intended for the users, operators and the personnel in charge of the operation of the product. After carefully reading and sufficiently understanding the warning displays and cautions, handle the product appropriately. Be sure to keep this manual close to the product or in a convenient place for future reference.
Herein, explanations which require special attention are enclosed with dual lines. Depending on the potentially hazardous degrees, the terms of DANGER, WARNING, CAUTION, etc. are used. Be sure to understand the contents of the displays before reading the text.

Indicates that mishandling the product by disregarding this pictograph will cause severe injury or death.

Indicates that mishandling the product by disregarding this warning will cause a potentially hazardous situation which can result in death or serious injury.

Indicates that mishandling the product by disregarding this caution will cause a slight hazardous situation which can result in personal injury and/or material damage.

For the safe usage of the product, the following pictographs are used:


Indicates "HANDLE WITH CARE." In order to protect the human body and equipment, this display is attached to places where the instruction manual should be referred to.


Indicates a "protective earth terminal." Before operating the equipment, be sure to connect it to the ground.
(The step may be omitted for products in which a power cable with earth is used.)

## - Perform work in accordance with the instructions herein stated.

Instructions for work are explained by paying attention to the aspect of accident prevention. Failing to perform work as per the instructions can cause accidents. In the case where only those who have technical expertise should perform the work to avoid hazardous situation, the instructions herein state that the site maintenance personnel should perform such work.

- Be sure to turn off the power before working on the machine.

To prevent an electric shock, be sure to turn off the power and unplug the power cable before carrying out any work that requires direct contact with the interior of the product. If the work is to be performed in the power-on status, the instruction manual herein always states to that effect.

- Be sure to ground the earth terminal.
(This is not required in the case where a power cable with earth is used.)
This product is equipped with the earth terminal. When installing the product, connect the earth terminal to the "accurately grounded indoor earth terminal" by using an earth wire. Unless the product is grounded appropriately, the user can be subject to an electric shock. After performing repair, etc. for the control equipment, ensure that the earth wire is firmly connected to the control equipment.
- Ensure that the power supply used is equipped with an earth leakage breaker. Using a power supply which is not equipped with the earth leakage breaker can cause a fire when earth leakage occurs.
- Be sure to use fuses which meet the specified rating. (Only for the machines which use fuses.)
Using fuses exceeding the specified rating can cause a fire and an electric shock.
- Specification changes (removal of equipment, conversion and addition) not designated by SEGA are not allowed.
The parts of the product include warning labels for safety, covers for personal protection, etc. It is very hazardous to operate the product by removing parts and/or modifying the circuits. Should doors, lids and protective parts be damaged or lost, refrain from operating the product, and contact where the product was purchased from or the office herein stated.
SEGA shall not be held responsible for any accidents, compensation for damage to a third party, resulting from the specifications not designated by SEGA.
- Ensure that the product meets the requirements of appropriate electrical specifications.
Before installing the product, check for electrical specifications. SEGA products have a nameplate on which electrical specifications are described. Ensure that the product is compatible with the power supply voltage and frequency requirements of the location. Using any electrical specifications different from the designated specifications can cause a fire and an electric shock.
- Install and operate the product in places where appropriate lighting is available, allowing warning labels to be clearly read.
To ensure safety for the customers, labels and printed instructions describing potentially hazardous situations are applied to places where accidents can be caused. Ensure that where the product is operated has sufficient lighting allowing the warnings to be read. If any label is peeled off, apply it again immediately. Please place an order with where the product was purchased from or the office herein stated.
- When handling the monitor, be very careful. (Applies only to products with monitors.)
Some of the monitor parts are subject to high tension voltage. Even after turning off the power, some portions are still subject to high tension voltage sometimes. Monitor repair and replacement should be performed only by those technical personnel who have knowledge of electricity and technical expertise.
- Be sure to adjust the monitor properly. (Applies only to products with monitors.)
Do not operate the product leaving on-screen flickering or blurring as it is. Using the product with the monitor not properly adjusted may cause dizziness or a headache to an operator, a player, or the customers.
- When transporting or reselling this product, be sure to attach this manual to the product.
* In the case where commercially available monitors and printers are used in this product, only the contents relating to this product are explained herein. Some commercially available equipment has functions and reactions not stated in this manual. Read this manual together with the specific instruction manual of such equipment.
* Descriptions herein contained may be subject to improvement changes without notice.
* The contents described herein are fully prepared with due care. However, should any question arise or errors be found, please contact SEGA.


## INSPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION

Normally, at the time of shipment, SEGA products are in a status allowing for usage immediately after transporting to the location. Nevertheless, an irregular situation may occur during transportation. Before turning on the power, check the following points to ensure that the product has been transported in a satisfactory status.
$\square$ Are there any dented portions or defects (cuts, etc.) on the external surfaces of the cabinet?Are casters and adjusters damaged?Do the power supply voltage and frequency requirements meet with those of the location?
$\square$ Are all wiring connectors correctly and securely connected? Unless connected in the correct way, connector connections can not be made accurately. Do not insert connectors forcibly.Do power cables have cuts and dents?Are all accessories available?Can all doors and lids be opened with the accessory keys? Can doors and lids be firmly closed?

## TABLE OF CONTENTS

BEFORE USING THE PRODUCT, BE SURE TO READ THE FOLLOWING:
TABLE OF CONTENTS ..... i
INTRODUCTION ..... iv
Definition of 'Site Maintenance Personnel or Other Qualified Individuals' ..... v
1 HANDLING PRECAUTIONS ..... 1
2 PRECAUTIONS REGARDING INSTALLATION LOCATION ..... 5
2-1 LIMITATIONS OF USAGE. ..... 5
2-2 OPERATION AREA ..... 6
3 PRECAUTIONS REGARDING PRODUCT OPERATION ..... 7
3-1 BEFORE OPERATION ..... 7
3-2 DURING OPERATION ..... 8
4 PART DESCRIPTIONS ..... 10
5 ACCESSORIES ..... 12
6 ASSEMBLY AND INSTALLATION ..... 16
6-1 ASSEMBLING THE SCREEN STAND ..... 18
6-1-1 Assembling the Frame ..... 18
6-1-2 Attaching the Roof Panel ..... 26
6-1-3 Attaching the Banner ..... 30
6-2 ASSEMBLING THE CONTROLLER CABINET ..... 33
6-2-1 Attaching the Projector ..... 33
6-2-2 Attaching the Halogen Lamp Cover ..... 38
6-3 SETTING UP THE CONTROLLER CABINET ..... 41
6-4 CONNECTING THE POWER CABLE AND GROUNDING THE CABINET ..... 43
6-5 ADJUSTING THE POSITION OF THE PROJECTOR (POWER ON) ..... 46
6-6 ATTACHING THE CHAIN ..... 50
6-7 ASSEMBLY CHECKS ..... 52
6-8 USING ONLY THE CONTROLLER CABINET ..... 53
6-9 KIDS MODE (ATTACHING THE DESIGN PIECES) ..... 55
6-10 REPLACING THE DENOMINATION SHEET. ..... 58
7 PRECAUTIONS WHEN MOVING THE MACHINE ..... 61
8 GAME DESCRIPTION ..... 63
8-1 GAME OUTLINE ..... 63
8-2 GAME MODE EXPLANATIONS ..... 64
8-3 GAME FLOW ..... 66
8-4 KIDS MODE ..... 68
9 EXPLANATION OF TEST AND DATA DISPLAY ..... 69
9-1 SWITCH UNIT AND COIN METER ..... 70
9-2 SYSTEM TEST MODE ..... 71
9-2-1 SYSTEM MENU ..... 72
9-2-2 SYSTEM INFORMATION ..... 73
9-2-3 RAM TEST ..... 73
9-2-4 I/O TEST ..... 74
9-2-5 SOUND TEST ..... 75
9-2-6 C.R.T. TEST ..... 76
9-2-7 SYSTEM ASSIGNMENTS ..... 77
9-2-8 COIN ASSIGNMENTS ..... 78
9-2-9 BOOKKEEPING ..... 83
9-2-10 BACKUP DATA CLEAR ..... 83
9-2-11 CLOCK SETTING ..... 84
9-2-12 ROM TEST ..... 85
9-2-13 COMPACT FLASH TEST ..... 85
9-2-14 NETWORK SETTING ..... 87
9-3 GAME TEST MODE ..... 91
9-3-1 INPUT TEST ..... 93
9-3-2 OUTPUT TEST ..... 94
9-3-3 STICK SWING TEST ..... 95
9-3-4 GAME ASSIGNMENTS ..... 96
9-3-5 BOOKKEEPING ..... 98
9-3-6 BACKUP DATA CLEAR ..... 101
9-3-7 RANKING DATA CLEAR ..... 102
10 COIN SELECTOR ..... 103
10-1 COIN INSERTION TEST ..... 104
10-2 CLEANING THE COIN SELECTOR ..... 105
10-3 HANDLING A COIN JAM ..... 107
11 PROJECTOR108
11-1 NOTES RELATED TO THE PROJECTOR ..... 109
11-2 CLEANING THE PROJECTOR ..... 110
11-3 LAMP REPLACEMENT ..... 111
12 REPLACING THE HALOGEN LAMP ..... 112
13 REPLACING THE BUTTON SWITCHES ..... 114
14 PERIODIC INSPECTION ..... 119
15 TROUBLESHOOTING ..... 121
15-1 TROUBLESHOOTING TABLE ..... 121
15-2 REPLACING THE SCREEN ..... 123
16 GAME BOARD (SystemSP) ..... 125
16-1 EXTERNAL VIEW ..... 126
16-2 COMPOSITION OF THE GAME BOARD. ..... 128
16-3 REMOVING THE GAME BOARD ..... 129
16-4 REPLACING THE LITHIUM BATTERY ..... 132
16-5 INSTALLING THE SOFTWARE ..... 134
16-6 KEY CHIP ..... 136
17 ERROR MESSAGE ..... 137
18 SWITCHING TO A NAOMI BOARD ..... 139
19 REPLACING THE SHAFT STOPPER (WITH 8-DIRECTION STOPPER) ..... 144
20 DESIGN RELATED PARTS ..... 148
21 PARTS LIST ..... 149
22 WIRE COLOR CODE TABLE ..... 200
23 WIRING DIAGRAM ..... 201
SEGA AMUSEMENTS OFFICES

## INTRODUCTION

This manual is intended to provide detailed descriptions together with all the necessary information covering the general operation of electronic assemblies, electro-mechanicals, servicing control, spare parts, etc. for the product, "TETRIS ${ }^{\circledR}$ GIANT."

This manual is intended for the owners, personnel and managers in charge of operation of the product. Operate the product after carefully reading and sufficiently understanding the instructions.

In the unlikely event that the product does not function correctly, DO NOT allow anyone other than a technician to touch the internal system. Turn off the power to the product, making sure to unplug the electrical cord from the outlet, and contact the office listed in this manual or the point-of-purchase for this product.

Use of this product is unlikely to cause physical injuries or damage to property. However, points that require special attention are indicated by bold text, the word "IMPORTANT" and the symbol below.

## stop IMPORTANT

Indicates important information that, if ignored, may result in the mishandling of the product and cause faulty operation or damage to the product.

## SPECIFICATIONS

| Installation space | $1.5 \mathrm{~m} \mathrm{(59.1} \mathrm{in)} \mathrm{[Width]} \mathrm{x} 1.78 \mathrm{~m}$ (70.1 in) [Depth] |  |
| :--- | :--- | :--- |
| Height | $2.03 \mathrm{~m}(79.9 \mathrm{in})$ |  |
| Weight | $208 \mathrm{~kg}(458.6 \mathrm{lb})$ |  |
|  | $530 \mathrm{~W}, 4.70 \mathrm{~A}$ | Single phase AC $120 \mathrm{~V}, 60 \mathrm{~Hz}$ Area |
|  | $544 \mathrm{~W}, 2.60 \mathrm{~A}$ | Single phase AC $220 \mathrm{~V}, 50 \mathrm{~Hz}$ Area |
|  | $530 \mathrm{~W}, 2.50 \mathrm{~A}$ | Single phase AC $220 \mathrm{~V}, 60 \mathrm{~Hz}$ Area |
|  | $544 \mathrm{~W}, 2.50 \mathrm{~A}$ | Single phase AC $230 \mathrm{~V}, 50 \mathrm{~Hz}$ Area |
|  | $542 \mathrm{~W}, 2.40 \mathrm{~A}$ | Single phase AC $240 \mathrm{~V}, 50 \mathrm{~Hz}$ Area |
| Power, current | $538 \mathrm{~W}, 5.1 \mathrm{~A}$, (Max.) | AC $110 \mathrm{~V}, 60 \mathrm{~Hz}$; Taiwan |
|  | $420 \mathrm{~W}, 3.8 \mathrm{~A}$, (Min.) | AC $110 \mathrm{~V}, 60 \mathrm{~Hz}$; Taiwan |
| Screen Size | 70 Type (with screen stand attached) |  |

## Definition of 'Site Maintenance Personnel or Other Qualified Individuals'

## WARNING

Procedures not described in this manual or marked as 'to be carried out by site maintenance personnel or other qualified professionals' should not be carried out by personnel without the necessary skill or technology. Work carried out by unqualified persons may cause serious accidents, including electrocution.

Parts replacement, maintenance inspections and troubleshooting should be carried out by site maintenance personnel or other qualified professionals. This manual includes directions that potentially dangerous procedures should only be carried out by professionals with the appropriate specialized knowledge.
The 'site maintenance personnel or other qualified professionals' mentioned in this manual are defined as follows:

## Site maintenance personnel:

Persons with experience in maintaining amusement equipment, vending machines, etc., working under the supervision of the owner/operator of this product to maintain machines within amusement facilities or similar premises by carrying out everyday procedures such as assembly, maintenance inspections, and replacement of units/expendable parts.

Activities to be carried out by site maintenance personnel:
Amusement equipment/vending machine assembly, maintenance inspection and replacement of units/expendable parts.

Other qualified professionals:
Persons employed by amusement equipment manufacturers, involved in design, production, testing or maintenance of amusement equipment. Should have graduated from technical school or hold similar qualifications in electrician/ electronics/mechanical engineering.

Activities to be carried out by other qualified professionals:
Amusement equipment/vending machine assembly, repair/adjustment of electrical/electronic/mechanical parts.

## 1 HANDLING PRECAUTIONS

When installing or inspecting the product, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.
Non-compliance with the following points or inappropriate handling running counter to the cautionary matters herein stated can cause personal injury or damage to the product.

## WARNING

- Before performing work, be sure to turn the power off. Performing the work without turning the power off can cause an electric shock or short circuit. In the case work should be performed in the status of power on, this manual always states to that effect.
- To avoid an electric shock or short circuit, do not plug in or unplug quickly.
- To avoid an electric shock, do not plug in or unplug with a wet hand.
- Do not expose power cables or earth (ground) wires on the surface, (floor, passage, etc.). If exposed, the power cables and earth (ground) wires are susceptible to damage. Damaged cables and wires can cause an electric shock or short circuit.
- To avoid causing a fire or an electric shock, do not put things on or damage the power cables.
- When or after installing the product, do not unnecessarily pull the power cable. If damaged, the power cable can cause a fire or an electric shock.
- In case the power cable is damaged, ask for a replacement through where the product was purchased from or the office listed in this manual. Using the power cable as is damaged can cause fire, an electric shock or leakage.
- Be sure to perform grounding appropriately. Inappropriate grounding can cause an electric shock.
- Be sure that connections such as IC board are made properly. Insufficient insertion can cause an electric shock.
- Specification changes, removal of equipment, conversion and/or addition, not designated by SEGA are not permitted.
- Failure to observe this may cause a fire or an electric shock. Non-compliance with this instruction can have a bad influence upon physical conditions of the players or the onlookers, or result in injury during play.
- SEGA shall not be held responsible for damage, compensation for damage to a third party, caused by specification changes not designated by SEGA.
- Be sure to perform periodic maintenance inspections herein stated.


## stop IMPORTANT

- For the IC board circuit inspections, only the logic tester is allowed. The use of a multiple-purpose tester is not permitted, so be careful in this regard.
- Do not turn the power on and off continuously. Repeatedly turning the power on and off may cause product malfunction or parts damage.
- Some parts are not designed and manufactured specifically for this game machine. The manufacturers may discontinue, or change the specifications of such general-purpose parts. If this is the case, SEGA cannot repair or replace a failed game machine whether or not a warranty period has expired.


## CONCERNING THE STICKER DISPLAY

This SEGA product has stickers attached describing the product manufacture No. (Serial No.) and Electrical Specifications. It also has a Sticker describing where to contact for repair and for purchasing parts. When inquiring about or asking for repairs, mention the Serial No. and Name of Machine indicated on the Sticker. The Serial Number indicates the product register. Identical machines could have different parts depending on the date of production. Also, improvements and modifications might have been made after the publication of this manual. In order to ensure you order the correct parts, mention the Serial No. when contacting the applicable places.

## CONCERNING WARNING DISPLAYS

This SEGA product has warning displays on stickers, labels and/or printed instructions adhered/attached to or incorporated in the places where a potentially hazardous situation could arise. The warning displays are intended for accident prevention for customers and for avoiding hazardous situations relating to maintenance and servicing work. Some portions of the cabinet contain high voltage and may cause accidents if touched. When performing maintenance, be very careful of the warning displays. It is especially important that any complex repair and replacement work not mentioned herein should be performed by those technical personnel who have knowledge of electricity and technical expertise.
In order to prevent accidents, caution any customer ignoring the warnings to cease and desist immediately.

## CONTROLLER CABINET




## 2 PRECAUTIONS REGARDING INSTALLATION LOCATION

## $\triangle$ WARNING

This product is an indoor game machine. Do not install it outside. Even indoors, avoid installing in places mentioned below so as not to cause a fire, electric shock, injury and/or malfunction.

- Places subject to rain or water leakage, or places subject to high humidity in the proximity of an indoor swimming pool and/or shower, etc., or places where a water jet (high pressure washing device) could be used.
- Places subject to direct sunlight, or places subject to high temperatures in the proximity of heating units, etc.
- Places filled with inflammable gas or vicinity of highly inflammable/volatile chemicals or hazardous matter.
- Dusty places.
- Sloped or unstable surfaces.
- Places subject to any type of violent impact.
- Vicinity of anti-disaster facilities such as fire exits and fire extinguishers.
- Areas where the temperature exceeds the applicable temperature (ambient temperature) range of 5 to 30 degrees centigrade ( 41 to 86 degrees Fahrenheit.)


## 2-1 LIMITATIONS OF USAGE

## \. WARNING

- Be sure to check the electrical specifications. Ensure that this product is compatible with the location's power supply, voltage, and frequency requirements. A plate describing electrical specifications is attached to the product. Non-compliance with the electrical specifications can cause a fire and electric shock.
- This product requires a breaker and earth mechanism as part of the location facilities. Using the product without these can cause a fire and electric shock.
- Be sure to use an independent power supply equipped with an earth leakage breaker. Using a power supply without an earth leakage breaker can cause an outbreak of fire if a power surge occurs.
- Putting many loads on one electrical outlet can cause generation of heat and a fire resulting from overload.
- Ensure that the indoor wiring for the power supply is rated at 15 A or higher (AC single phase $100 \mathrm{~V} \sim 120 \mathrm{~V}$ area), and 7 A or higher (AC $220 \mathrm{~V} \sim 240 \mathrm{~V}$ area). Noncompliance with the electrical specifications can cause a fire and electric shock.
- When using an extension cord, ensure that the cord is rated at 15 A or higher (AC $100 \mathrm{~V} \sim 120 \mathrm{~V}$ area) and 7 A or higher (AC $220 \mathrm{~V} \sim 240 \mathrm{~V}$ area). Using a cord rated lower than the specified rating can cause a fire and electric shock.

Electricity Consumption:

| MAX. 4.70 A | AC $120 \mathrm{~V}, 60 \mathrm{~Hz}$ |
| :--- | :--- |
| MAX. 2.60 A | AC $220 \mathrm{~V}, 50 \mathrm{~Hz}$ |
| MAX. 2.50 A | AC $220 \mathrm{~V}, 60 \mathrm{~Hz}$ |
| MAX. 2.50 A | AC $230 \mathrm{~V}, 50 \mathrm{~Hz}$ |
| MAX. 2.40 A | AC $240 \mathrm{~V}, 50 \mathrm{~Hz}$ |
| MAX. 5.1 A | AC $110 \mathrm{~V}, 60 \mathrm{~Hz}$ Area <TAIWAN $>$ |

## 2-2 OPERATION AREA

## $\triangle$ WARNING

- For safe operation, use and operate this product in an area measuring at least $1.7 \mathrm{~m}(66.9 \mathrm{in})$ in width and $2.4 \mathrm{~m}(94.5 \mathrm{in})$ in depth. The area prescribed in this manual is certainly necessary at least, for if one should fall over and hit their head against something, there could be a serious accident.


NOTE: The height of the cabinet is 2.03 m (79.9 in), but a space with a height of at least 2.3 m (90.6 in) will be necessary when assembling it.

- Be sure to provide sufficient space specified in this manual. Do not allow objects to block the ventilation ports. It can cause generation of heat and a fire.
- SEGA shall not be held responsible for damage or compensation for damage to a third party, resulting from the failure to observe this instruction.


## STop IMPORTANT

To install this product, the entrance must be at least $0.8 \mathrm{~m}(31.5 \mathrm{in})$ in width and 1.5 $\mathrm{m}(59.1 \mathrm{in})$ in height when packing.

## 3 PRECAUTIONS REGARDING PRODUCT OPERATION

To avoid injury and trouble, be sure to pay attention to the behavior of visitors and players.

## 3-1 BEFORE OPERATION

In order to avoid accidents, check the following before starting the operation:

- To ensure maximum safety for the players and the customers, ensure that where the product is operated has sufficient lighting to allow any warnings to be read. Operation under insufficient lighting can cause bodily contact with each other, hitting accident, and/or trouble between customers.
- Check if all of the adjusters are in contact with the surface. If they are not, the cabinet can move and cause an accident.
- Do not put any heavy item on this product. Placing any heavy item on the product can cause a falling down accident or parts damage.
- Do not climb on the product. Climbing on the product can cause falling down accidents. To check the top portion of the product, use a step/stepladder.
- To avoid electric shock, check to see if door \& cover parts are damaged or omitted.
- Do not place the following items on top of the product, inside the bucket, nearby the product or hang them from the ceiling. Doing so could result in electric shock, short circuits and/or damage to the parts.

Flower vases, flowerpots, cups, water tanks, cosmetics, and receptacles/ containers/vessels containing chemicals and water.

## CAUTION

- Be sure to perform appropriate adjustment of projector. For operation of this product, do not leave monitor's flickering or deviation as is. Failure to observe this can have a bad influence upon the players' or the customers' physical conditions.
- It is suggested to ensure a space allowing the players who feel sick while playing the game to take a rest.
- To avoid injury, be sure to provide sufficient space by considering the potentially crowded situation at the installation location. Insufficient installation space can cause contact, collisions, and/or trouble between customers.
- Clean the places that are touched directly by customers (players) on a daily basis, and check to make sure that there are no scratches or cracks on the surface. Scratches or cracks can cause injury to the customer.
- Customers could get their fingers caught in between or cut on the joints of the door and cabinet. Check to make sure that the door is not loose and the joints are properly aligned before operation each day.


## 3-2 DURING OPERATION (PAYING ATTENTION TO CUSTOMERS)

To avoid injury and trouble, be sure to pay attention to the behavior of visitors and players.

## WARNING

- For safety reasons, do not allow any of the following people to play the game.
- Those who need assistance such as the use of apparatus when walking.
- Those who are intoxicated or under the influence of drugs.
- Persons who disregard the product's warning displays.
- Instruct those who feel sick during play to have a medical examination.
- To avoid injury from falls and electric shocks due to spilled drinks, instruct the player not to place heavy items or drinks on the product.
- To avoid electric shock and short circuits, do not allow customers to put hands and fingers or extraneous matter in the openings of the product or small openings in or around the doors.
- To avoid falls and resulting injury, immediately stop the customer from leaning against or climbing on the product, etc.
- To avoid electric shock and short circuit, do not allow customers to unplug the power plug without a justifiable reason.


## CAUTION

- For safety reasons, do not allow any of the following people to play the game.
- Those who have experienced muscle convulsion or loss of consciousness when playing video games, etc.
- Those who have neck or spinal cord problems.
- Those who have high blood pressure or a heart problem.
- Those who are not in good health.
- Pregnant women.
- Persons susceptible to motion sickness.
- Even players who have never been adversely affected by light stimulus might experience dizziness or headache depending on their physical condition when playing the game. Small children are especially likely to experience these symptoms. Caution guardians of small children to keep watch on their children during play.
- Immediately stop such violent acts as hitting and kicking the product. Such violent acts can cause parts damage or falling down, resulting in injury due to fragments and falling down.
- The recommended height for playing the game is at least 130 cm (51.2 in). Do not set up a stool in front of the product for customers who are not tall enough to play the game as it could result in injury. Also, caution customers who attempt to play while sitting or standing on top of the controller cabinet.

There is a vent on the controller cabinet. Be careful not to set objects on top of it.

## 4 PART DESCRIPTIONS




## CONTROLLER CABINET



Dimensions and Weights for Major Parts

| ITEMS | Width x Depth x Height | Weight |
| :--- | ---: | :--- |
| SCREEN | $1,482 \mathrm{~mm}(58.3 \mathrm{in}) \times 1,126 \mathrm{~mm}(44.3 \mathrm{in}) \times 40 \mathrm{~mm}(1.6 \mathrm{in})$ | $26 \mathrm{~kg}(57.3 \mathrm{lb})$ |
| ROOF PANEL | $1,491 \mathrm{~mm}(58.7 \mathrm{in}) \times 1,213 \mathrm{~mm}(47.8 \mathrm{in}) \times 15 \mathrm{~mm}(0.6 \mathrm{in})$ | $22 \mathrm{~kg}(48.5 \mathrm{lb})$ |
| BACK PANEL | $1,038 \mathrm{~mm}(40.9 \mathrm{in}) \times 677 \mathrm{~mm}(26.7 \mathrm{in}) \times 15 \mathrm{~mm}(0.6 \mathrm{in})$ | $9 \mathrm{~kg}(19.8 \mathrm{lb})$ |
| FOOT FRAME | $33 \mathrm{~mm}(1.3 \mathrm{in}) \times 1,517 \mathrm{~mm}(59.7 \mathrm{in}) \times 75 \mathrm{~mm}(3.0 \mathrm{in})$ | $6 \mathrm{~kg}(13.2 \mathrm{lb})$ |
| POST FRAME | $33 \mathrm{~mm}(1.3 \mathrm{in}) \times 1,750 \mathrm{~mm}(68.9 \mathrm{in}) \times 70 \mathrm{~mm}(2.8 \mathrm{in})$ | $5 \mathrm{~kg}(11.0 \mathrm{lb})$ |
| ROOF FRAME | $31 \mathrm{~mm}(1.2 \mathrm{in}) \times 1,110 \mathrm{~mm}(43.7 \mathrm{in}) \times 51 \mathrm{~mm}(2.0 \mathrm{in})$ | $4 \mathrm{~kg}(8.8 \mathrm{lb})$ |
| CROSS FRAME | $140 \mathrm{~mm}(5.5 \mathrm{in}) \times 1,040 \mathrm{~mm}(40.9 \mathrm{in}) \times 52 \mathrm{~mm}(2.0 \mathrm{in})$ | $3 \mathrm{~kg}(6.6 \mathrm{lb})$ |
| CONTROLLER CABINET | $1,324 \mathrm{~mm}(52.1 \mathrm{in}) \times 778 \mathrm{~mm}(30.6 \mathrm{in}) \times 1,098 \mathrm{~mm}(43.2 \mathrm{in})$ | $106 \mathrm{~kg}(233.7 \mathrm{lb})$ |

## 5 ACCESSORIES

Confirm that the accessories listed in the table below are present when setting up the product. Accessories marked Spare in the note column are consumable items but included as spares.

Parts not labeled with part numbers are as yet unregistered or cannot be registered. Be sure to handle all parts with care, as some parts are not available for purchase separately.

| Part name/Part no. | Diagram/Use etc. | Quantity |
| :---: | :---: | :---: |
| OWNER'S MANUAL 420-7246-01 |  | 1 |
| KEY MASTER <br> 220-5793-2-A001 | Open and Close the door | 2 |
| KEY | For cash box The keys are placed inside the coin chute box for shipping. | 2 |
| POWER CABLE 600-6619-02 <Hong Kong> |  | 1 ea . |
| ALLEN WRENCH <br> (measuring distance of 4 mm to opposite side) <br> 540-0023 <br> ALLEN WRENCH <br> (measuring distance of 5 mm to opposite side) <br> 540-0062 <br> ALLEN WRENCH <br> (measuring distance of 6 mm to opposite side) 540-0028 |  | 1 ea . |


| Part name/Part no. |  | Quantity |
| :--- | :--- | :--- | :--- |
| TAMPERPROOF WRENCH <br> (for M4 screws) <br> 540-0006-01 <br> TAMPERPROOF WRENCH <br> (for M5 screws) <br> 540-0007-01 | Tools |  |
| 40 W HALOGEN LAMP |  |  |
| 390-6732-40N |  |  |


| Part name/Part no. | Diagram/Use etc. | Quantity |
| :---: | :---: | :---: |
| INSTRUCTION STICKER DKC-0008-01 | Refer to 6-9. | 1 |
| SHAFT STOPPER (8-direction) DKC-2214 | Refer to Chapter 19. <br> Spare (for 8-direction lever) | 2 |
| JVS CABLE 600-7141-91-100 | Refer to Chapter 18. <br> Used with NAOMI board. | 1 |
| WIRE (DKC-60036) DKC-60036 | Refer to Chapter 18. <br> Used with NAOMI board. | 1 |
| WIRE (DKC-60037) DKC-60037 | Refer to Chapter 18. <br> Used with NAOMI board. | 1 |


| Part name/Part no. | Diagram/Use etc. | Quantity |
| :---: | :---: | :---: |
| WIRE (DKC-60038) DKC-60038 | Refer to Chapter 18. <br> Used with NAOMI board. | 1 |
| $\begin{aligned} & \text { LAMP } \\ & 200-6156 \end{aligned}$ | Spare (for Projector lamp), refer to 11-3. | 1 |

## 6 ASSEMBLY AND INSTALLATION

## WARNING

- Perform assembling as per this manual. Since this is a complex machine, incorrect assembling can cause an electric shock, machine damage and/or improper functioning as per specified performance.
- When assembling, be sure to use plural persons. Depending on the assembly work, there are some cases in which working by one person alone can cause personal injury or parts damage.
- Ensure that connectors are accurately connected. Incomplete connections can cause electric shock.
- This work should be carried out by site maintenance personnel or other qualified professionals. Work performed by non-technical personnel can cause a severe accident such as electric shock. Failing to comply with this instruction can cause a severe accident such as electric shock to the player during operation. If no one with proper technological expertise is available, request service from the office indicated in this document or the point-of-purchase so as to ensure safety.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a risk of fire.
- Do not leave power cable exposed over passageways. Exposure could lead to damage, electric shock or short circuit. Wherever wiring has been laid out on a floor surface, use a wiring protection cover. (Wiring diameter: Power cable, approx. 8 mm )


## CAUTION

- Be careful in handling plastic parts. Be sure not to tighten screws or nuts too tightly. Do not apply excessive force or shock to these parts. Failure to observe this instruction may result in breakage, and broken pieces and cracks or chips in these parts may cause personal injury.
- When opening/closing or attaching/removing doors or lids, be careful that your hand or finger does not get caught in anything.
- Use a stable stool so that work can be carried out safely and securely. Working without a stable stool could result in a fall or injury.
- Wear appropriate work clothing so that work can be performed safely. Use gloves and safety shoes to prevent accidents or injuries.
- Make sure there is a level, 5 m square space in which to perform the work. If the space is too small, sloped, uneven, or has grooves, it could lead to an accident. It will also make the assembly work more difficult to perform.
- When installing a wire protection cover over a floor, use a material shaped so that no one passing by will stumble over it. Using a material that could be stumbled over might lead to an accidental fall.


## stop IMPORTANT

- Since the screen is susceptible to damage, pay careful attention to its handling.
- Be careful not to touch the glass at the front of the halogen lamp. There is danger that oil from your finger will be burnt, resulting in damage.


## Tools necessary for work

- Phillips screwdrivers (for M4, M5 screws)

- Socket wrench (for M4, M8 hexagon bolts and nuts)


- Wrench with measuring distance of 24 mm to opposite side (adjust adjusters)

- Allen wrench (with measuring distance of 5 mm to opposite side)

- Tamperproof wrench (for M4 screws)

- Master key

- Gloves

- Steptool or Stepladder

- Flashlight or other supplementary lighting

- Protective material, cloth, etc. (for preventing damage to the screen)
- Work table (for assembling the screen stand)


## 6-1 ASSEMBLING THE SCREEN STAND

## 6-1-1 Assembling the Frame

For your safety, make sure that the work is performed with at least 3 other people.
1 Cover the work table with protective material (such as a cloth) and place the screen on top with the back side up. Wear gloves while performing this work to prevent the screen (white surface) from getting dirty.


Insert the hooks on the post frame into the holes on the screen frame, and fasten it in place with 2 hexagon bolts.


HEXAGON BOLT (2), black M8 x 80, w/spring washer, large flat washer used


Refer to Step 2 to attach the post frame using 2 hexagon bolts on the opposite side in the same way.



Attach roof bracket R (DKC-0674) to the opposite side of roof bracket L (DKC-0673), which was lightly fastened in place in Step 4. Insert the protruding part of the screw holes on the post frame into the holes on the bracket, and lightly fasten it in place with 2 hexagon bolts.



Fully tighten the 4 hexagon bolts to fasten the brackets in place, making sure that they are even as shown in the figure.


7 Refer to Steps 4 to 6 to attach the roof bracket L (DKC-0673) and the roof bracket R (DKC-0674) to the post frame on the opposite side in the same way.


Wear gloves and perform the following work with at least 1 other person. Turn the screen over and be careful not to damage it while doing so.


Attach the foot frame bracket (DKC-0672) to the post frame. Insert the protruding part of the screw holes on the post frame into the holes on the bracket, and lightly fasten it in place with 2 hexagon bolts.


Attach the foor frame bracket (DKC-0672) to the post frame on the opposite side. Insert the protruding part of the screw holes on the post frame into the holes on the bracket, and lightly fasten it in place with 2 hexagon bolts.

HEXAGON BOLT (2)
M8 x 20, w/flat \& spring washers, large flat washer used


There is an $L$ and an $R$ foot frame. Be careful with the direction of the frames. Attach the foot frame to the foot frame bracket. 1 person should support the foot frame and insert the protruding part of the screw holes on the foot frame into the holes on the foot frame bracket, while the other person lightly fastens it in place with 3 hexagon bolts.


Picture with Foot Frames Attached


12
Attach the foot frame bracket (DKC-0672). Place the holes on the bracket over the protruding part of the screw holes, and lightly fasten it in place with 5 hexagon bolts.


Refer to Steps 11 and 12, and lightly fasten the foot frame bracket (DKC-0672) to the foot frame on the opposite side as well.
14
Attach the cross frame to the foot frame L/R. Place the holes on the bracket over the protruding part of the screw holes, and lightly fasten it in place with 4 hexagon bolts.

HEXAGON BOLT (4), black
M8 x 20, w/flat \& spring washers, large flat washer used


16
Perform this step with at least 3 other people. Put the screen stand upright and move it to the installation site. Wear gloves to prevent the screen (white surface) from getting dirty.


The drawing is $1 / 100$ of the actual size. Use it as a reference for the layout at the installation site.


17
From the back of the screen stand, fasten the 2 back panel brackets to it using 2 truss screws. Place the holes on the bracket over the protruding part of the screw holes, and fasten it in place with truss screws.


18 Affix the back panel with 4 truss screws.


## 6-1-2 Attaching the Roof Panel

For your safety, perform this work with at least 3 other people.
1 Cover the work table with protective material (such as a cloth) and place the roof panel on it with the side with the truss screws facing up.


2
Remove the 4 truss screws and take off the side banner sash. Support the side banner sash so that it does not fall off while removing the truss screws.


Refer to Step 2 and remove the side banner sash on the opposite side as well.

Remove the 5 truss screws and take off the front center banner sash. Another person should support the front center banner sash so that it does not fall off.


Pick up the roof panel and turn it over with at least 1 other person.


Remove the 5 truss screws and take off the rear center banner sash.


Line up the 2 roof frames as shown in the figure. Pick up the roof panel with at least 1 other person and place it on the roof frames with the side with the counter-sunk holes up. Line up the screw holes and fasten the roof panel to the roof frames with 8 hexagon bolts.


Perform this step with at least 3 other people. At least 2 people should pick up the roof panel, and at least 2 others should support the screen stand. With the side with the counter-sunk holes down, lift the roof panel and insert the 2 roof frames all the way before attaching the roof bracket. Be careful not to damage the screen (white surface) while performing this work.

NOTE: If the roof panel is difficult to attach, another person should lift the roof panel in the center and straighten out any warping while inserting it.


With 2 people still supporting the roof panel, another person should fasten it in place with 12 hexagon bolts.


## 6-1-3 Attaching the Banner

1 Pass the shanks on the side banner sash removed in Step 2 of "6-1-2 Attaching the Roof Panel" through the holes on side banner R (4 places). Make sure that the side banner sash is facing the direction shown in the figure.


Be careful with the direction of the banner sash

Insert the shanks on the side banner sash into the counter-sunk holes on the roof panel and support it. Another person should fasten it in place with the 4 truss screws removed in Step 2 of "6-1-2 Attaching the Roof Panel." Be careful not to damage the screen (white surface) with the side banner sash while performing this work.


Support.


Affix the side banner $R$ to the back of screen with velcro. Be careful not to leave any wrinkles.


Refer to Steps 1 to 3 to attach the side banner $L$ on the opposite side in the same way.

Insert the rear center banner sash removed in Step 6 of "6-1-2 Attaching the Roof Panel" at the bottom of the center banner. Make sure that the screw holes line up.


Pass the shanks on the front center banner sash that was removed in Step 4 of "6-1-2 Attaching the Roof Panel" through the holes on the center banner ( 5 places.)

FRONT CENTER BANNER SASH


Insert the shanks on the front center banner sash into the counter-sunk holes on the roof panel. Another person should fasten it in place with the 5 truss screws removed in Step 4 of "6-1-2 Attaching the Roof Panel."


Fasten the bottom of the center banner to the roof panel with the 5 truss screws removed in Step 6 of "6-1-2 Attaching the Roof Panel."

TRUSS SCREW (5), black M5 x 12, large flat washer used


## 6-2 ASSEMBLING THE CONTROLLER CABINET

## 6-2-1 Attaching the Projector

Remove the 2 wing bolts on the front of the projector base and loosen the 2 wing bolts on the back to open the projector base.


M4 x 10, large flat \& spring washers used

Lay out some protective material and place the projector on it upside down.

Set down the projector as shown in the figure and retighten the 2 wing bolts that were loosened in Step 1 as well as the 2 wing bolts that were removed. Line up the tops of the 2 metal plates when fastening the projector in place.


5 Remove the 2 truss screws, unlock the projector door with the master key, and take it off.


Put the projector inside the projector door and lightly fasten it in place with 1 wing bolt. Put the wing bolt in the center of the elongated hole.
NOTE: The other wing bolt is tightened from the service door side.
$\frac{\text { WING BOLT (1) }}{\mathrm{M} 4 \times 20, \text { large flat \& spring washers used }}$


Remove the lens cover.


Unlock the service door with the master key and open it.


Affix the projector with 1 wing bolt. Tighten the wing bolt in the center of the elongated hole.


10
Undo the cord clamp and connect 2 connectors to the projector. Fasten the D-SUB 15 P in place with 2 fastening screws. After connecting the connector, affix the cord clamp.


1 Close the service door and lock it with the mater key.

Fully tighten the wing bolt that was lightly tightened in Step 6.

Attach the projector door, lock it with the master key, and fasten it in place with 2 truss screws.

## 6-2-2 Attaching the Halogen Lamp Cover

1 Remove the 2 truss screws, unlock the back door with the master key, and take it off.


2
Pull out the connector and ground terminal from the square hole.


3
Lightly tighten the 2 truss screws.


Attach the halogen lamp to the halogen lamp cover. Be careful not to touch the glass surface of the halogen lamp. Oil from your fingers or hands could cause burning. NOTE: 1 of the 3 supplied halogen lamps is a spare.


Attach the ground terminal, flat washer, spring washer, and hexagon nut to the threaded shaft inside the halogen lamp cover in that order, and fasten it in place.


Connect the connector.



Fully tighten the 2 truss screws.

TRUSS SCREW (2), chrome
M4 x 16


Refer to Steps 2 to 8 to attach the halogen lamp cover on the opposite side in the same way.


Attach the back door, lock it with the master key, and fasten it in place with 2 truss screws.

## 6-3 SETTING UP THE CONTROLLER CABINET

Use an Allen wrench with a WAF (with across flats) of 5 mm to remove the 4 hexagon socket bolts on the
sides of the controller cabinet.


HEXAGON SOCKET BOLT (total 4)
M8 x 35, large flat \& spring washers used

Attach joint bracket R and lightly tighten the hexagon socket bolts removed in Step 1. Attach joint bracket L on the other side and lightly tighten the 2 hexagon socket bolts.


Insert the screen stand foot frame into the cutout on the controller cabinet, and line up the screw hole on the foot frame with the elongated hole on the joint bracket as shown in the figure (second elongated hole from the outside). Move the controller cabinet slowly. A heavy jolt could damage the parts. Also, be careful not to push on the joystick.


## 6-4 CONNECTING THE POWER CABLE AND GROUNDING THE CABINET

## $\triangle$ WARNING

- Use the power supply equipped with an earth leakage breaker. Use of power supply without such a breaker could result in fire if there is a current leakage.
- Have available a securely grounded indoor earth terminal. Without proper grounding, customers could be electrocuted and product operations might not always be stable.
- Do not expose the power cable or earth wire. If these are exposed, customers could stumble over them, for instance, and easily damage them. Additionally, if these lines are damaged, there could be a risk of electrical shock or short circuit. Set these lines at locations where they will not interfere with customer traffic, or attach covers to them.
- After laying out the power cable on the floor, be sure to always protect it. If the power cable is left exposed, it can easily be damaged, resulting in electrical shock.


## stop IMPORTANT

If using a different power supply cable equipped with an earth (ground) wire, do not ground it with the ground screw on the AC unit.

The AC unit has main switch, circuit protector, earth (ground) screw (Taiwan only) and the inlet which connects the power cable.


Confirm that the main switch is at OFF.


Insert the power cable connector firmly into the inlet on the AC unit and the plug firmly into the power outlet. Run the power cable behind the cabinet.


## Using a power outlet with an earth terminal

The accessory power cable contains earth wire. Connect power cable to AC unit inlet, and then insert power plug into "power outlet with earth terminal".


Example using power outlet with earth terminal

## Using the earth terminal on the AC unit

If there are no power outlets that have earth terminals, connect the earth terminal on the AC unit and the earth mechanism using a separately prepared earth wire. Always make sure that the cabinet is grounded. Temporarily remove the earth screw on the AC unit and pass it through the round terminal on the earth wire. Put the spring and flat washers on the screw. Connect the opposite side to an indoor earth terminal.


## Using a commercially available conversion adapter (Taiwan only)

When using a conversion adapter sold on the market to provide power, connect the adaptor's earth wire terminal to an "earth terminal that is securely grounded".


3
The power cable is laid out indoors. Protect the power cable by attaching wire cover to it. If the cabinet was grounded using a separately prepared earth wire, cover the indoor wiring at the same time.


## 6-5 ADJUSTING THE POSITION OF THE PROJECTOR (POWER ON)

## A WARNING

When adjusting the projector screen, be careful not to look directly into the projector lens. Doing so could hurt your eyes.

## stop IMPORTANT

- When turning on the power again, wait about 5 minutes until the projector lamp cools off. If the power is turned on before the lamp cools, it will take several minutes before the screen is shown. Also, note that turning the power switch to the ON position immediately after turning it to the OFF position can damage the projector.
- Read the manual included in the box for instructions on how to operate the projector and replace the lamp.

Turn the power on, project the image onto the screen, and adjust the screen size.


Turn the power on.


Once the advertisement screen comes up, unlock the service door with the master key and open it.


Press the TEST Button on the switch unit inside the service door to enter TEST MODE. Select C.R.T TEST to display the grid pattern for checking adjustments on the screen (see Chapter 9).

Move the controller cabinet forward or backwards to set the screen display size.


Move joint bracket R to the left and right to line it up with the screw holes and lightly fasten it in place with 2 hexagon bolts. Lightly fasten joint bracket L in place on the other side with 2 hexagon bolts as well.

HEXAGON BOLT (2), black
M8 x 20, w/flat \& spring washers, large flat washer used


Use a hexagon wrench with a WAF of 5 mm to fully tighten the 2 hexagon socket bolts and fasten joint bracket R to the controller cabinet. Fasten joint bracket L on the other side in the same way.


7
The controller cabinet has 4 casters and 4 adjusters. Make sure that all the adjusters are in contact with the floor directly. Use a wrench to set adjuster heights so that the controller cabinet will stay level.



Fully tighten the hexagon bolts that were lightly tightened and fasten joint bracket R to the foot frame. Fasten bracket L on the other side in the same way.


Remove the 2 truss screws, unlock the projector door with the master key, and take it off.


10
Loosen the wing bolts, move the projector, and adjust the position of the image on the screen. Adjust the outline of the image so that it is within the screen. Retighten the wing bolts and fasten the projector in place.


11
Refer to the projector manual (CD) to adjust the focus.
12
Exit TEST MODE and turn off the power (see Chapter 9).

## 6-6 ATTACHING THE CHAIN

Attach the chain to the controller cabinet and the screen stand. Refer to the figure and make sure the plate is attached in the correct direction.


1 Affix the chain holder B to the controller cabinet and fasten it in place with the screw and the bush.


Fastening Chain Holder B in Place
2
Affix the chain holder A and the chain with 1 truss screw.


Put the large flat washer and collar on the truss screw in that order, and put the screw through the plastic chain before screwing it into the screen stand. Adjust the chain to the desired length when doing so.


Refer to Steps 1 to 3 to attach thechain on the opposite side in the same way.

## 6-7 ASSEMBLY CHECKS

Flip the power switch to the ON position to turn on the machine. Check the following items to make sure that the machine is operating normally.
$\square$ The halogen lamp is on.
$\square$ The input buttons (START button and Left and Right buttons on the joystick) are flashing.
$\square$ The advertisements (game title) screen is displayed.
$\square$ Press the TEST Button on the switch unit inside the service door to enter TEST MODE and check the input and output devices (see Chapter 9).
$\square$ The joystick moves automatically to the left and right in sync with the screen (including vibrations). Note that this can be turned off in the TEST MODE settings (see 9-3-4)
$\square$ Check the screen to make sure that the game progresses.

Thorough testing has been performed prior to shipping, but factors such as age-related wear and vibrations during transport can cause problems or make adjustments necessary. If the adjustments described in this manual do not work, contact the office listed in this manual or the point-of-purchase for this product.

## 6-8 USING ONLY THE CONTROLLER CABINET

## stop IMPORTANT

Set up a wall or other barrier so that customers cannot look directly into the projector lens. Also, make sure to attach the support bracket to the controller cabinet.

The controller cabinet can be used without the screen stand, projecting the images onto a wall or your own screen.


## Attaching the Support Bracket

1 Refer to "6-2 Assembling the Controller Cabinet" and "6-4 Connecting the power cable and Grounding the Cabinet" to assemble the controller cabinet.

2 Move the controller cabinet to the installation site. Be careful not to push on the joystick.
3
Refer to Steps 1-4 of "6-5 Adjusting the Position of the Projector" and adjust the screen size while displaying the image on your own screen.
4
The controller cabinet has 4 casters and 4 adjusters. Make sure that all the adjusters are resting on the floor. Use a wrench to set adjuster heights so that the controller cabinet will stay level.


Refer to Steps 9-13 of "6-5 Adjusting the Position of the Projector" and adjust the position of the image.

Attach the support bracket and fasten it in place with 4 hexagon socket bolts. Make sure that the support bracket touches the ground.


## 6-9 KIDS MODE (ATTACHING THE DESIGN PIECES)

If Kids Mode is enabled in the TEST MODE settings (see 9-3-4), attach the instruction sticker and 2 swinging POP displays.


Attach the instruction sticker to the upper instruction sheet.

4. Affix the upper instruction plate (transparent plate) with 8 tamperproof screws.

5 Fold the swinging POP displays along the dotted line (2 sets).


6
Remove the truss screws on both sides.


7
Affix the swinging POP displays using double-sided tape. Put the tape over the screw hole.


8 Affix the front of center sash barner with 1 truss screw.


Refer to Steps 6 to 8 to attach the swing POP on the opposite side in the same way.


## 6-10 REPLACING THE DENOMINATION SHEET

If the coin credit settings are changed in TEST MODE (see 9-2-8 and 9-3-4), replace the denomination sheet as necessary.

## 1 <br> Turn the power off.

Unlock the service door with the master key and open it.


## 3

Grab both sides of the switch with your fingers and rotate it approximately 45 degrees in the direction of the arrow in the figure to take it off.


Remove the nut and supporter at the base of the button and take off the button.


5 Refer to Steps 3 and 4 to remove the button on the opposite side in the same way.


Remove the 8 tamperproof screws and take off the lower instruction plate (transparent plate).



Refer to Steps 1 to 6 and work in reverse order to assemble.

## 7 PRECAUTIONS WHEN MOVING THE MACHINE

## . WARNING

- Always disconnect the power cable before moving the product. If it is moved with the power cable connected, the cable could be damaged, causing fire or electric shock.
- To move the unit over the floor, pull in the adjustors and have the casters contact the floor. While moving the unit, be careful that the casters do not roll over the power cable. If power cable is damaged, there could be electrical shocks and/or short circuits.
- Always follow the instructions in this manual when lifting the cabinet. Failure to do so could result in damage to the parts and fittings, or physical injury due to the weight of the cabinet.


## CAUTION

Do not push on the joystick or molded parts when moving the machine. Doing so could break the parts and fittings, and the fragments could cause an injury.

## stop IMPORTANT

- When moving the machine across an uneven floor, take it apart into individual units beforehand. Tilting the machine while it is assembled or setting the cabinet on an uneven surface could damage the joints on the units.
- In order to prevent scratching the surface of the cabinet, do not tie a rope around it directly. Place protective material over the places where the rope will touch.



Do not push the product holding the gray areas.


When moving the screen stand after it has been detached, do so with at least 3 other people and support the screen and the post frames on either side.


## 8 GAME DESCRIPTION

The following is an explanation of how the product functions under normal conditions. If any operation other than that detailed below occurs, it can be considered a malfunction. Try to ascertain the cause of malfunctions right away and fix them to return the product to normal operating conditions.
The advertise screen (waiting for customer stand-by screen) is always displayed while the power is on, in order to promote advertising. Game explanations and demos accompanied by voice and music are displayed repeatedly until a coin is inserted.

- Advertise screen sound output can be turned ON/OFF under TEST MODE settings. (See 9-2-7.)
- Joystick vibration function can be turned ON/OFF under TEST MODE settings. (See 9-3-4.)


## 8-1 GAME OUTLINE

This product is TETRIS, the classic puzzle game.
There are three available game modes: SINGLE MODE, CO-OP MODE, and VERSUS MODE. When selecting SINGLE MODE or CO-OP MODE, players can choose either Line Challenge or Score Challenge. The following are game ending conditions.

| SINGLE MODE | Line Challenge | GAME OVER when time reaches 0. |
| :--- | :--- | :--- |
|  | Score Challenge | GAME OVER when a block, known as a TETRIMINO, goes over <br> the line. There is no time limit. |
| CO-OP MODE | Line Challenge | GAME OVER when time reaches 0. |
|  | Score Challenge | GAME OVER when a TETRIMINO goes over the line. There is no <br> time limit. |
| VERSUS MODE | - | The game ends after a player scores 2 points. |



Mode Select Screen

## 8-2 GAME MODE EXPLANATIONS

## SINGLE MODE

In this mode, one player plays alone. The two available game modes are Line Challenge and Score Challenge. The player can play with either the left (green) or right (pink) joystick.


SINGLE MODE: Line Challenge GAME OVER when time in the upper-left reaches 0 . The player is evaluated according to the number of lines they cleared.


SINGLE MODE: Score Challenge
GAME OVER when a TETRIMINO goes over the line.
The player is evaluated according to the score they obtained.

## CO-OP MODE

In this mode, two players play together in the same Matrix.
The leftside player plays in the Player 1 Area on the left, while the rightside player plays in the Player 2 Area on the right. The two columns in the center are the Shared Area, which either player may enter. The players must clear TETRIMINOS by filling horizontal lines from left to right.


CO-OP MODE: Movable Areas Explanation Screen

As with SINGLE MODE, players can select either Line Challenge or Score Challenge.
Also, in CO-OP MODE, pressing either START button will exchange the TETRIMINOS being dropped. (This can be done up to three times.)


CO-OP MODE: Line Challenge
GAME OVER when time reaches 0 .
Players are evaluated according to the number of lines they cleared.


CO-OP MODE: Score Challenge
GAME OVER when a TETRIMINO goes over the line.
Players are evaluated according to the score they obtained.

In this mode, two players compete against each other in separate Matrices.
Players compete for the NEXT TETRIMINO (shown in the top-center of the screen). The player who drops their TETRIMINO first will receive the NEXT TETRIMINO.

The following are the three attack methods players can use.

| 2 Lines | Drop Speed Boost |
| :--- | :--- |
| 3 Lines | 2X Drop Speed Boost |
| 4 Lines | 2X Drop Speed Boost + Line Attack |



VERSUS MODE Explanation Screen


VERSUS MODE Win Screen

## 8-3 GAME FLOW

Starting the Game
After sufficient coins have been inserted to obtain the required credit(s), the waiting screen appears.
If the required credit(s) have not been obtained, a message asking for additional coin(s) will appear.


Selecting a Mode
The START button pressed at the waiting screen determines which joystick is used to navigate the game's menus.

Select SINGLE MODE, CO-OP MODE, or VERSUS MODE and press the START button. If the game's TEST MODE has been set to require additional credit(s) for multiplay, players can only select CO-OP MODE or VERSUS MODE after inserting additional credit(s). If selecting SINGLE MODE or CO-OP MODE, select Line Challenge or Score Challenge and press the START button again.


Playing the Game
For details on each mode, see "8-2 GAME MODE EXPLANATIONS."

4. Game Over

In Score Challenge only, if the player makes it into the ranking, they can enter their name after the game is over.


## 8-4 KIDS MODE

By setting KIDS MODE to ON under GAME ASSIGNMENTS in GAME TEST MODE, players can select between KIDS and STANDARD at the MODE SELECT screen. Selecting KIDS will limit the types of TETRIMINOS that appear to five. It will also limit play to either Line Challenge or VERSUS. Selecting STANDARD makes all modes available for play.


Mode Select Screen

## STANDARD MODE TETRIMINOS



## KIDS MODE TETRIMINOS



## 9 EXPLANATION OF TEST AND DATA DISPLAY

Perform tests and data checks periodically by manipulating the TEST Button and SERVICE Button in the cabinet. Follow the instructions in this chapter to conduct checks when the game machine is first installed, when money is being collected, or when the game machine does not operate properly.

Shown below are the tests and screens to be used for different problems.
This product uses a SystemSP game board.

## Explanation of Test Mode

| ITEMS | DESCRIPTION | REFERENCE SECTIONS |
| :---: | :---: | :---: |
| Game machine installation | When the game machine is installed, perform the following. |  |
|  | 1. Confirm that all settings are set to defaults. | 9-2, 9-3 |
|  | 2. Investigate each input device on the input test screen. | 9-2, 9-3 |
|  | 3. Investigate each output device on the output test screen. | 9-2, 9-3 |
|  | 4. Test the IC on the IC board with the automatic selftest. | 9-2 |
| Automatic self-test | On the menu screen, select "RAM TEST" and "ROM TEST" to perform a self-test. | 9-2-3, 9-2-12 |
| Periodic maintenance | Periodically perform the following maintenance. |  |
|  | 1. Automatic self-test | 9-2 |
|  | 2. Check settings. | 9-2, 9-3 |
|  | 3. Test each input device on the input test screen. | 9-2, 9-3 |
|  | 4. Test each output device on the output test screen. | 9-2, 9-3 |
| Control problem | 1. Investigate each input/output device on the input/ output test screen. | 9-2, 9-3 |
|  | 2. Adjust or replace each input/output device. | 9-2, 9-3, Chapter 16 |
|  | 3. If the problem persists, examine the mechanical components of each input/output device. | Chapter 10 |
| Image problem | Confirm that the monitor settings on the C.R.T. test screen are correct. | 9-2-6 |
| IC board problem | Automatic self-test, SystemSP board settings. | 9-2, Chapter 16 |

## 9-1 SWITCH UNIT AND COIN METER

## $\triangle$ WARNING

Do not touch any parts that are not specified in these directions. Touching unspecified locations may lead to electric shock or cause short circuits.

Open the service door, and the switch unit shown will appear. The function of each button is as listed below.

| TEST Button (TEST) | Press to enter TEST MODE. Used to execute or change selected item in TEST <br> MODE. |
| :--- | :--- |
| SERVICE Button (SERVICE) | Gives credits without registering on the coin meter. <br> Used to move the cursor in TEST MODE. |
| SOUND VOLUME Knob <br> (SOUND VOLUME) | Adjust the sound volume of the speakers. |



Switch Unit

## Coin Meter

After using the special-purpose key to unlock the cashbox door, the coin meter can be found at the bottom of the cashbox. The coin meter counts the number of coins inserted into the coin insert slot.


## 9-2 SYSTEM TEST MODE

## STOP IMPORTANT

- The details of changes to TEST MODE settings are saved when you exit from TEST MODE by selecting EXIT from the SYSTEM TEST MODE menu. Be careful because if the power is turned off before that point, changes to the settings will be lost.
- Executing BACKUP DATA CLEAR in the SYSTEM TEST MODE does not clear the BOOKKEEPING data in the GAME TEST MODE.
- Use with the specified settings. If settings other than those specified are used, inappropriate operations or malfunction may occur.

SYSTEM TEST MODE is used mainly to check that the IC board is operating normally and to change the coin/

## 9-2-1 SYSTEM MENU

Press the TEST Button after powering on the cabinet to display the following SYSTEM MENU screen.
Use the SERVICE Button to move the cursor to the desired test item. Press the TEST Button to display the test screen of the selected item.

| SYSTEM MENU |
| :---: |
| SYSTEM INFORMATION |
| RAM TEST |
| I/O TEST |
| SOUND TEST |
| C.R.T. TEST |
| SYSTEM ASSIGNMENTS |
| COIN ASSIGNMENTS |
| BOOKKEEPING |
| BACKUP DATA CLEAR |
| CLOCK SETTING |
| ROM TEST |
| COMPACT FLASH TEST |
| NETWORK SETTING |
| GAME TEST MODE |
| [GAME TITLE NAME] |
| ->EXIT |
| SELECT WITH SERVICE BUTTON |
| AND PRESS TEST BUTTON |

SYSTEM MENU Screen

## 2 <br> Each item is explained below.

| $9-2-2$ | SYSTEM INFORMATION | Checks the version of each system program of the SystemSP board. |
| :--- | :--- | :--- |
| $9-2-3$ | RAM TEST | Checks the operation of the RAM on the SystemSP board. |
| $9-2-4$ | I/O TEST | Checks the operation of the coin meters and switches connected to the <br> SystemSp board. |
| $9-2-5$ | SOUND TEST | Performs a sound output test. |
| $9-2-6$ | C.R.T. TEST | Checks the monitor color settings and size. |
| $9-2-7$ | SYSTEM ASSIGNMENTS | Changes the settings of sound output during advertising and the <br> direction of the monitor. |
| $9-2-8$ | COIN ASSIGNMENTS | Changes the settings of the credit increments for each coin inserted. |
| $9-2-9$ | BOOKKEEPING | Checks data for operation time, coins inserted and number of credits. |
| $9-2-10$ | BACKUP DATA CLEAR | Clears the contents of BOOKKEEPING. |
| $9-2-11$ | CLOCK SETTING | Changes the settings of the internal calendar of the SystemSP board. |
| $9-2-12$ | ROM TEST | Checks the operation of the ROM on the SystemSP board. |
| $9-2-13$ | COMPACT FLASH TEST | If CompactFlash (CF) is recognized, tests that the contents are correct. |
| $9-2-14$ | NETWORK SETTING | Tests the connection and change the settings so that the network can <br> connect. |
| $9-3$ | GAME TEST MODE | Moves to each game's individual TEST MENU. (Refer to "9-3 GAME <br> TEST MODE".) |
| - | [GAME TITLE NAME] | Displays the game name. |

When all tests are completed, select EXIT and press the TEST Button. The advertising screen reappears.

## 9-2-2 SYSTEM INFORMATION

Checks the version of each system program of the SystemSP board.


PRESS TEST BUTTON TO EXIT

Each item is explained below.

| REGION | This is the region code of the SystemSP board. |
| :--- | :--- |
| BOOT VERSION | This displays the version of the SystemSP board boot program. |
| FIRM VERSION | This displays the version of the SystemSP network firmware. |
| SERIAL NO. | This displays the SystemSP board serial number. |

Press the TEST Button to move to the SYSTEM MENU screen.

## 9-2-3 RAM TEST

## stop IMPORTANT

## Do not turn the power off while performing the RAM TEST as it may damage the machine.

Checks the operation of the RAM on the SystemSP board. If operation is normal, "GOOD" will be displayed, and if there is a problem, "BAD" will be displayed.

| RAM TEST |  |  |  |
| :---: | :---: | :---: | :---: |
| TESTING NOW |  |  |  |
| IC71 | GOOD |  |  |
| IC52S | GOOD |  |  |
| IC33S | GOOD | IC34 | GOOD |
| IC35 | GOOD | IC36S | GOOD |
| IC37 | GOOD | IC39 | GOOD |
| IC38S | GOOD | IC40S | GOOD |
| IC41 | GOOD | IC43 | GOOD |
| IC42S | GOOD | IC44S | GOOD |
| PRESS | TEST BUTTON | TO | EXIT |

The test begins immediately after entering this TEST MODE.

During the test, "TESTING NOW" is displayed on the screen.

When all tests are completed, press the TEST Button. The SYSTEM MENU screen reappears.

## 9-2-4 I/O TEST

Checks the operation of the coin meters and switches connected to the SystemSp board.
The " 1 "s and " 0 "s displayed will differ based on game title.

|  | I/O TEST |
| :--- | :--- |
|  |  |
| SW1 | OFF |
| SW2 | OFF |
| TEST | OFF |
| SERVICE | OFF |
| COIN1 | OFF |
| COIN2 | OFF |
| COIN METER1 OFF |  |
| COIN METER2 OFF |  |
|  |  |
| IN_PORTO | 111111111 |
| IN_PORT1 | 11111111 |
| IN_PORT2 | 11110111 |
| G_PORT | 11111111 |
| PRESS | TEST AND |

Each item is explained below.
See "16-1 External Appearance" for the location of each of the switches on the SystemSP board.

| SW1, SW2 | When the switches SW1 and SW2 on the SystemSP board are operated, the display changes <br> from "OFF" to "ON." |
| :--- | :--- |
| TEST, SERVICE, <br> COIN1, COIN2 | When the switches TEST, SERVICE, COIN1, and COIN2 are operated, the display changes <br> from "OFF" to "ON." |
| COIN METER1, <br> COIN METER2 | When the switches COIN1 and COIN2 are operated, the display changes from "OFF" to <br> "ON." The coin meter operates simultaneously. |
| IN_PORT0 | When the switches with connections to the 17-24 pins on CN9 are operated, the display <br> changes from "1" to "0." |
| IN_PORT1 | When the switches with connections to the $41-48$ pins on CN9 are operated, the display <br> changes from "1" to "0." |
| IN_PORT2 | When the DIP switch (SW3) and the push switches (SW1, SW2) are operated or when the <br> switches with connections to the 5 and 6 pins on CN19 are operated, the display changes <br> from "1" to "0." |
| G_PORT | When the switches with connections to the $9-16$ pins on CN10 are operated, the display <br> changes from "1" to "0." |

When all checks are completed, press the TEST Button and the SERVICE Button simultaneously. The SYSTEM MENU screen reappears.

## 9-2-5 SOUND TEST

Performs a sound output test.
A beep will be output through each speaker.
NOTE: RIGHT SPEAKER is assigned to Speaker $R$ on the right side of the cabinet, and LEFT SPEAKER is assigned to Speaker L on the left side of the cabinet.

| SOUND TEST |  |
| :---: | :---: | :---: |
| RIGHT SPEAKER | OFF |
| LEFT SPEAKER | OFF |
| ->EXIT |  |
| SELECT WITH |  |
| AND |  |
|  |  |

Press the SERVICE Button to move the cursor and select an item. Press the TEST Button to check the selected item.

Each item is explained below.

| RIGHT SPEAKER | Setting this to ON will output a beep from Speaker $R$ on the right side of the cabinet. |
| :--- | :--- |
| LEFT SPEAKER | Setting this to ON will output a beep from Speaker $L$ on the left side of the cabinet. |

## 9-2-6 C.R.T. TEST

Checks the monitor color settings and size.
Adjust the tone of each color.

> First enter the monitor color check screen.
> Red, green, blue, and white can all be adjusted to 32 different levels of brightness with the left being the darkest and the right being the brightest. The monitor brightness is normal if the white color bar is black on the left end and white on the right end.
C.R.T.TEST 1/2


PRESS TEST BUTTON TO CONTINUE

Press the TEST Button to move to the SYSTEM MENU screen reappears.

## 9-2-7 SYSTEM ASSIGNMENTS

Changes the settings of sound output during advertising and the direction of the monitor.

NOTE: Set the MONITOR TYPE of this game to HORIZONTAL.

SYSTEM ASSIGNMENTS

```
    ADVERTISE SOUND ON
    MONITOR TYPE HORIZONTAL
->EXIT
    SELECT WITH SERVICE BUTTON
        AND PRESS TEST BUTTON
```

Use the SERVICE Button to move the cursor to the desired test item. Press the TEST Button to confirm selection of the item.


Each item is explained below.

| ADVERTISE SOUND | Set whether or not to output sound during advertising. |  |
| :--- | :--- | :--- |
|  | ON | Enables sound during advertising. |
|  | OFF | Disables sound (no sound) during advertising. However, there <br> will be a sound when coins are inserted. |
| MONITOR TYPE | HORIZONTAL | When the monitor is positioned horizontally. |
|  | VERTICAL | When the monitor is positioned vertically. |

[^0]
## 9-2-8 COIN ASSIGNMENTS

Changes the settings of the credit increments for each coin inserted.
The game program uses the credit setting set here to manage the number of credits. Credit settings are saved to the main board after exiting from SYSTEM TEST MODE. Changing credit settings will clear the current credit number saved as backup.

NOTE: This game keeps record of credits even if the power is turned off.
However, if the game is set to " $2+$ Coins = 1 Credit", turning the power off and back on or entering and leaving TEST MODE will clear any fractional credit amounting to less than 1 credit. Also, if the BONUS ADDER is set to ON, any bonus will be cleared as well. For example, the game being set to five coins equaling one bonus. If the power is turned off and back on or the game enters and leaves TEST MODE after three coins have been inserted, inserting the remaining two required coins will not result in a bonus.


COIN CHUTE TYPE is set to "COMMON"

Use the SERVICE Button to move the cursor to the desired test item. Press the TEST Button to confirm selection of the item.


Each item is explained below.

| COIN CHUTE TYPE | Set this according to the specifications of the cabinet's coin chute. NOTE: Set the COIN CHUTE TYPE to COMMON for this game. |  |
| :---: | :---: | :---: |
|  | COMMON | This is for cabinets where multiple players use a shared coin chute. Coins inserted by each player are counted towards a shared number of credits. Up to 2 coin chutes (\#1, \#2) can be used, and COIN CHUTE \#1 and COIN CHUTE \#2 can also be set separately. |
|  | INDIVIDUAL | This is for cabinets that have separate coin chutes available for each player. Coins inserted by each player are counted towards their respective number of credits. COIN CHUTE \#2 COIN TO CREDIT RATE cannot be set. |
| COIN CHUTE \#1 COIN TO CREDIT RATE, COIN CHUTE \#2 COIN TO CREDIT RATE | Set the number of inserted coins that count toward what portion of a credit. " $\mathrm{O} \operatorname{COIN}(\mathrm{S})$ COUNT AS $\triangle \operatorname{CREDIT(S)"~displays~the~ratio~of~coins~to~credits.~}$ If COIN CHUTE TYPE is set to COMMON, COIN CHUTE \#1 and COIN CHUTE \#2 can also be set separately. |  |
| DETAIL SETTING | Go to this page to set the credit increments for coin insertion on COIN CHUTE \#* COIN TO CREDIT RATE in further detail. For details, see DETAIL SETTING. |  |
| GAME COST SETTING | Go to this page to set the credits required to start and to continue. For details, see GAME COST SETTING. |  |

Select EXIT and press the TEST Button. The SYSTEM MENU screen reappears.

## DETAIL SETTING

Sets the credit increments for coin insertion on COIN
CHUTE \#* COIN TO CREDIT RATE in further detail.

NOTE: If DETAIL SETTING is set, the setting for COIN CHUTE \#* COIN TO CREDIT RATE becomes invalid.


COIN CHUTE TYPE is set to "COMMON"

Use the SERVICE Button to move the cursor to the desired test item. Press the TEST Button to confirm selection of the item.


Each item is explained below.

| COIN CHUTE \#1 MULTIPLIER, <br> COIN CHUTE \#2 MULTIPLIER | Set the number of inserted coins that count toward what portion of a credit. <br> "O COIN(S) COUNT AS $\triangle$ CREDIT(S)" displays the ratio of coins to <br> credits. <br> If COIN CHUTE TYPE is set to COMMON, COIN CHUTE \#1 and COIN <br> CHUTE \#2 can also be set separately. See "9-2-8 TABLE 04" and "9-2-8 <br> TABLE 05" for a detailed display. |
| :--- | :--- |
| BONUS ADDER | Set the number of coins exchanged in COIN CHUTE \#* COIN TO <br> CREDIT RATE required to receive 1 bonus coin. |
|  | If COIN CHUTE TYPE is set to COMMON, the bonus coins are added to <br> the total number of coins in COIN CHUTE \#1 and COIN CHUTE \#2. <br> "O COINS GIVE 1 EXTRA COIN" displays the number of coins required <br> to receive bonus coins. NO BONUS ADDER is the setting for no bonus <br> coins. See "9-2-8 TABLE 06" for a detailed display. |
| COIN TO CREDIT | Set the number of coins that correspond to 1 credit. <br> "O COIN(S) $\triangle$ CREDIT" displays the number of coins that correspond to <br> 1 credit. For example, if set to "3," and COIN CHUTE \#1 MULTIPLIER <br> and COIN CHUTE \#2 MULTIPLIER are set to "1," then inserting 1 coin <br> will add $1 / 3$ credit. See "9-2-8 TABLE 07" for a detailed display. |

Select EXIT and press the TEST Button. The COIN ASSIGNMENTS screen reappears.

## GAME COST SETTING

Sets the credits required to start and to continue. The number will differ depending on the game title.

NOTE: There are no continues in this game.

COIN ASSIGNMENTS
GAME COST SETTING

1 CREDIT(S) TO START
1 CREDIT(S) TO MULTIPLAY
->EXIT
SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON

Use the SERVICE Button to move the cursor to the desired test item. Press the TEST Button to confirm selection of the item.

Each item is explained below.

| 1 CREDIT(S) TO START <br> (at the time of shipment) | Set the number of credits required to start the game. <br> 9 different settings can be selected from 1 CREDIT(S) TO START to 9 <br> CREDIT(S) TO START. |
| :--- | :--- |
| 1 CREDIT(S) TO MULTIPLAY <br> (at the time of shipment) | Set the number of additional credits required for multiplay. <br> However, if MULTIPLAY NO-COST is set to ON under GAME <br> ASSIGNMENTS in GAME TEST MODE, additional credits are not required. |

3
Select EXIT and press the TEST Button. The COIN ASSIGNMENTS screen reappears.

9-2-8 TABLE 01 COIN CHUTE \#* COIN TO CREDIT RATE (COIN CHUTE TYPE "COMMON") (When operating COIN CHUTE \#1, COIN CHUTE \#2 will operate in tandem and change.)

| COIN CHUTE \#1 COIN TO CREDIT RATE <br> Operation |
| :--- |
| 1 COIN(S) COUNT AS 1 CREDIT(S) |
| 2 COIN(S) COUNT AS 1 CREDIT(S) |
| 3 COIN(S) COUNT AS 1 CREDIT(S) |
| $4 \operatorname{COIN}(S)$ COUNT AS 1 CREDIT(S) |
| $5 \operatorname{COIN}(S)$ COUNT AS 1 CREDIT(S) |
| $1 \operatorname{COIN}(S)$ COUNT AS 2 CREDIT(S) |
| $1 \operatorname{COIN}(S)$ COUNT AS 3 CREDIT(S) |
| $1 \operatorname{COIN}(S)$ COUNT AS 4 CREDIT(S) |
| $1 \operatorname{COIN}(S)$ COUNT AS 5 CREDIT(S) |
| FREE PLAY |


| COIN CHUTE \#2 COIN TO CREDIT RATE <br> Operation |
| :--- |
| 1 COIN(S) COUNT AS 1 CREDIT(S) |
| 2 COIN(S) COUNT AS 1 CREDIT(S) |
| 3 COIN(S) COUNT AS 1 CREDIT(S) |
| 4 COIN(S) COUNT AS 1 CREDIT(S) |
| 5 COIN(S) COUNT AS 1 CREDIT(S) |
| 1 COIN(S) COUNT AS 2 CREDIT(S) |
| 1 COIN(S) COUNT AS 3 CREDIT(S) |
| 1 COIN(S) COUNT AS 4 CREDIT(S) |
| 1 COIN(S) COUNT AS 5 CREDIT(S) |
| FREE PLAY |

9-2-8 TABLE 02 COIN CHUTE \#* COIN TO CREDIT RATE (COIN CHUTE TYPE "COMMON") (When operating COIN CHUTE \#2, COIN CHUTE \#1 will not change.)

| COIN CHUTE \#1 COIN TO CREDIT RATE <br> Operation |
| :--- |
| 1 COIN(S) COUNT AS 1 CREDIT(S) |
| 2 COIN(S) COUNT AS 1 CREDIT(S) |
| 3 COIN(S) COUNT AS 1 CREDIT(S) |
| 4 COIN(S) COUNT AS 1 CREDIT(S) |
| $5 \operatorname{COIN}(S)$ COUNT AS 1 CREDIT(S) |
| 1 COIN(S) COUNT AS 2 CREDIT(S) |
| 1 COIN(S) COUNT AS 3 CREDIT(S) |
| $1 \operatorname{COIN(S)~COUNT~AS~} 4$ CREDIT(S) |
| $1 \operatorname{COIN(S)~COUNT~AS~} 5$ CREDIT(S) |
| FREE PLAY |


| COIN CHUTE \#2 COIN TO CREDIT RATE <br> Operation |
| :--- |
| 1 COIN(S) COUNT AS 1 CREDIT(S) |
| 1 COIN(S) COUNT AS 2 CREDIT(S) |
| 1 COIN(S) COUNT AS 3 CREDIT(S) |
| 1 COIN(S) COUNT AS 4 CREDIT(S) |
| 1 COIN(S) COUNT AS 5 CREDIT(S) |

9-2-8 TABLE 03 COIN CHUTE \#* COIN TO CREDIT RATE (COIN CHUTE TYPE "INDIVIDUAL")

| COIN CHUTE \#1 COIN TO CREDIT RATE <br> Operation |
| :--- |
| 1 COIN(S) COUNT AS 1 CREDIT(S) |
| 2 COIN(S) COUNT AS 1 CREDIT(S) |
| 3 COIN(S) COUNT AS 1 CREDIT(S) |
| 4 COIN(S) COUNT AS 1 CREDIT(S) |
| 5 COIN(S) COUNT AS 1 CREDIT(S) |
| 1 COIN(S) COUNT AS 2 CREDIT(S) |
| 1 COIN(S) COUNT AS 3 CREDIT(S) |
| 1 COIN(S) COUNT AS 4 CREDIT(S) |
| 1 COIN(S) COUNT AS 5 CREDIT(S) |
| FREE PLAY |


| COIN CHUTE \#2 COIN TO CREDIT RATE |
| :--- |
| Operation |
| When set to INDIVIDUAL, cannot be set separately. |
|  |
|  |
|  |
|  |

9-2-8 TABLE 04 DETAIL SETTING (COIN CHUTE TYPE "COMMON")

| COIN CHUTE \#1 COIN TO CREDIT RATE <br> Operation |
| :--- |
| 1 COIN COUNT AS 1 CREDIT(S) |
| 1 COIN COUNT AS 2 CREDIT(S) |
| 1 COIN COUNT AS 3 CREDIT(S) |
| 1 COIN COUNT AS 4 CREDIT(S) |
| 1 COIN COUNT AS 5 CREDIT(S) |
| 1 COIN COUNT AS 6 CREDIT(S) |
| 1 COIN COUNT AS 7 CREDIT(S) |
| 1 COIN COUNT AS 8 CREDIT(S) |
| 1 COIN COUNT AS 9 CREDIT(S) |


| COIN CHUTE \#2 COIN TO CREDIT RATE <br> Operation |
| :--- |
| 1 COIN COUNT AS 1 CREDIT(S) |
| 1 COIN COUNT AS 2 CREDIT(S) |
| 1 COIN COUNT AS 3 CREDIT(S) |
| 1 COIN COUNT AS 4 CREDIT(S) |
| 1 COIN COUNT AS 5 CREDIT(S) |
| 1 COIN COUNT AS 6 CREDIT(S) |
| 1 COIN COUNT AS 7 CREDIT(S) |
| 1 COIN COUNT AS 8 CREDIT(S) |
| 1 COIN COUNT AS 9 CREDIT(S) |

9-2-8 TABLE 05 DETAIL SETTING (COIN CHUTE TYPE "INDIVIDUAL")

| COIN CHUTE \#1 COIN TO CREDIT RATE <br> Operation | COIN CHUTE \#2 COIN TO CREDIT RATE <br> Operation |
| :--- | :--- |
| 1 COIN COUNT AS 1 CREDIT(S) |  |
| 1 COIN COUNT AS 2 CREDIT(S) |  |
| 1 COIN COUNT AS 3 CREDIT(S) |  |
| 1 COIN COUNT AS 4 CREDIT(S) |  |
| 1 COIN COUNT AS 5 CREDIT(S) |  |
| 1 COIN COUNT AS 6 CREDIT(S) |  |
| 1 COIN COUNT AS 7 CREDIT(S) |  |
| 1 COIN COUNT AS 8 CREDIT(S) |  |
| 1 COIN COUNT AS 9 CREDIT(S) |  |

## 9-2-8 TABLE 06 DETAIL SETTING (BONUS ADDER)

| BONUS ADDER Operation |
| :--- |
| NO BONUS ADDER |
| 2 COINS GIVE 1 EXTRA COIN |
| 3 COINS GIVE 1 EXTRA COIN |
| 4 COINS GIVE 1 EXTRA COIN |
| 5 COINS GIVE 1 EXTRA COIN |
| 6 COINS GIVE 1 EXTRA COIN |
| 7 COINS GIVE 1 EXTRA COIN |
| 8 COINS GIVE 1 EXTRA COIN |
| 9 COINS GIVE 1 EXTRA COIN |

## 9-2-8 TABLE 07 DETAIL SETTING (COIN TO CREDIT)

| COIN TO CREDIT Operation |
| :--- |
| 1 COIN(S) 1 CREDIT |
| $2 \operatorname{COIN}(\mathrm{~S}) 1$ CREDIT |
| $3 \operatorname{COIN}(\mathrm{~S}) 1$ CREDIT |
| $4 \operatorname{COIN}(\mathrm{~S}) 1$ CREDIT |
| $5 \operatorname{COIN}(\mathrm{~S}) 1$ CREDIT |
| $6 \operatorname{COIN}(\mathrm{~S}) 1$ CREDIT |
| $7 \operatorname{COIN}(\mathrm{~S}) 1$ CREDIT |
| $8 \operatorname{COIN}(\mathrm{~S}) 1$ CREDIT |
| $9 \operatorname{COIN}(\mathrm{~S}) 1$ CREDIT |

## 9-2-9 BOOKKEEPING

Checks data for operation time, coins inserted and number of credits.

| BOOKKEEPING |  |
| :---: | :---: | :---: |
| TOTAL TIME |  |
| $* D * * H ~ * * M * * S$ |  |
| COIN 1 | $*$ |
| COIN 2 | $*$ |
| TOTAL COIN | $*$ |
| COIN CREDIT | $*$ |
| SERVICE CREDIT | $*$ |
| TOTAL CREDIT | $*$ |
| PRESS TEST BUTTON TO EXIT |  |

Each item is explained below.

| TOTAL TIME | Amount of time the cabinet has been in operation. (Time connected to power not <br> including time spent in TEST MODE.) |
| :--- | :--- |
| COIN 1 | Number of coins inserted in coin chute 1. |
| COIN 2 | Number of coins inserted in coin chute 2. |
| TOTAL COIN | Total number of coins inserted in all coin chutes. |
| COIN CREDIT | Number of credits for coins inserted. |
| SERVICE CREDIT | Number of credits entered with the SERVICE Button. |
| TOTAL CREDIT | Total number of all credits. |

## 2 <br> Press the TEST Button to move to the SYSTEM MENU screen reappears.

## 9-2-10 BACKUP DATA CLEAR

When YES (CLEAR) has been selected and the TEST Button pressed, all data is cleared. Then "COMPLETED" is blinked and press the TEST Button to return to the SYSTEM MENU screen.

Move the cursor to NO (CANCEL) and press the TEST Button to return to the SYSTEM MENU screen without clearing the data.

## 9-2-11 CLOCK SETTING

Changes the settings of the internal calendar of the SystemSP board.


1 Use the SERVICE Button to move the cursor to the desired test item.


Press the TEST Button to confirm selection of the item. The YEAR can be set forward to "2030" or returned to "1998."

3
Select EXIT and press the TEST Button. The SYSTEM MENU screen reappears.

## 9-2-12 ROM TEST

Checks the operation of the ROM on the SystemSP board.
If operation is normal, "GOOD" will be displayed, and if there is a problem, "BAD" will be displayed.


The test begins immediately after entering this TEST MODE.

When all tests are completed, press the TEST Button. The SYSTEM MENU screen reappears.

## 9-2-13 COMPACT FLASH TEST

If CompactFlash (CF) is recognized, tests that the contents are correct.
If the STATUS is normal, "GOOD" will be displayed, and if there is a problem, "BAD" will be displayed.


1 The test begins immediately after entering this TEST MODE.

[^1]If CF is not recognized or if the keychip is not inserted, the
following screen will be displayed.

NOTE: Titles that do not use CF will display this screen on startup.

COMPACT FLASH TEST
COMPACT FLASH NOT READY

PRESS TEST BUTTON TO EXIT

The following screen will be displayed if the required sum data cannot be found on the CF.

The following screen will be displayed if the format of the sum data on the CF is not correct or if the CF and the key chip do not match.

COMPACT FLASH TEST
THIS COMPACT FLASH
IS NOT ACCEPTABLE

PRESS TEST BUTTON TO EXIT

## 9-2-14 NETWORK SETTING

Tests the connection and change the settings so that the network can connect.
The title program connects using the network settings set here. Unlike other settings, network settings are saved to the network memory section in the SystemSP board the instant that the settings are changed.

Reset the power when network settings have been changed. Be careful because if the power is not reset, the program will continue to operate without reflecting the setting changes, and this may cause unexpected operation.

NOTE: This product does not use a network connection. Do not change the NETWORK TYPE from the NONE setting.

## NETWORK TYPE (NONE/ETHER)

Set whether or not to use a network connection.


Network Setting is Set to "ETHER"


Network Setting is Set to "NONE"

Use the SERVICE Button to move the cursor to the desired test item.
2
Align the cursor with the desired item and press the TEST Button to change the setting or to go to the detailed setting screen.

| NONE | This is the setting not to connect. Use this setting when not using a network connection. |
| :--- | :--- |
| ETHER | This is the setting to use Ethernet for a network connection. |

## SET IP ADDRESS

Sets detailed settings required for network connection. Content of the settings will change based on NETWORK TYPE. This will not be displayed if it is set to NONE.


REMOTE is set to "ENABLE"

| REMOTE DISABLE <br> IP ADDRESS (E) |  |  |
| :---: | :---: | :---: |
|  |  |  |
| -> 10. 0. 0 . | 1 | SET |
| SUBNET MASK (E) |  |  |
| GATEWAY (E) |  |  |
| $\begin{array}{cllll} 0 . & 0 . & 0 . & 0 & \text { SET } \\ \text { PRIMARY } & \text { DNS } & & & \end{array}$ |  |  |
|  |  |  |
| 0. 0. 0. 0 SET |  |  |
| SECONDARY DNS |  |  |
| 0.0 .0. | 0 | SET |
| EXIT |  |  |
| CURRENT ************ |  |  |
| 0. 0. 0. 0 |  |  |
| SELECT WITH SERVICE BUTTON |  |  |
| AND PRESS TEST BUTTON |  |  |

REMOTE is set to "DISABLE"

[^2]Each item is explained below.

| REMOTE | Set whether or not to set network settings automatically. |  |
| :--- | :--- | :--- |
|  | ENABLE | Obtain network settings automatically. PRIMARY DNS and <br> SECONDARY DNS can be set. |
|  | DISABLE | Set network settings manually. IP ADDRESS(E), <br> SUBNETMASK(E), GATEWAY(E), PRIMARY DNS, and <br> SECONDARY DNS can be set. |
| IP ADDRESS(E) | Set your own IP address. After entering the numbers, align the cursor with <br> SET and press the TEST Button to save the setting. <br> When REMOTE is set to ENABLE, this cannot be selected. |  |
| SUBNET MASK(E) | Set the subnet mask. After entering the numbers, align the cursor with SET <br> and press the TEST Button to save the setting. <br> When REMOTE is set to ENABLE, this cannot be selected. |  |
| GATEWAY(E) | Set the GATEWAY. After entering the numbers, align the cursor with SET <br> and press the TEST Button to save the setting. <br> When REMOTE is set to ENABLE, this cannot be selected. |  |
| PRIMARY DNS | Set the PRIMARY DNS. After entering the numbers, align the cursor with <br> SET and press the TEST Button to save the setting. |  |
| SECONDARY DNS | Set the SECONDARY DNS. After entering the numbers, align the cursor <br> with SET and press the TEST Button to save the setting. |  |
| CURRENT ************,**.*.* | Displays the current setting for the item you are setting. |  |

## CLEAR NETWORK SETTING

Returns all the network settings to default and sets the game not to connect.
The NETWORK TYPE display will become "NONE."
When YES (CLEAR) has been selected and the TEST Button pressed, all data is cleared. Then "WRITING DONE." is blinked and press the TEST Button to return to the NETWORK SETTING screen.


Move the cursor to NO (CANCEL) and press the TEST Button to return to the NETWORK SETTING screen without clearing the data.

## NETWORK TEST

Checks the operation of the network connection.


1 The test begins immediately after entering this TEST MODE.

If the test finishes normally, "GOOD" will flash, and if it finishes and there is a problem, "BAD" will flash. If connection was not allowed, "N/A" will flash.

NOTE: Tests performed immediately after changing settings may not display results correctly. Reset the power and perform the test again.

## 9-3 GAME TEST MODE

## stop IMPORTANT

- To change settings in the GAME TEST MODE, simply making changes on the setting screen will not be effective. Complete the TEST MODE in normal fashion.
- Executing BACKUP DATA CLEAR in the GAME TEST MODE does not clear the BOOKKEEPING data in the SYSTEM TEST MODE.
- Use with the specified settings. If settings other than those specified are used, inappropriate operations or malfunction may occur.

In GAME TEST MODE you can change game settings, check the status of cabinet equipment, and check play data.

Select GAME TEST MODE from the SYSTEM MENU screen to display the GAME TEST MODE screen as follows.

2
Use the SERVICE Button to move the cursor to the desired test item. Press the TEST Button to select the test item.

GAME TEST MODE

INPUT TEST
OUTPUT TEST
STICK SWING TEST
GAME ASSIGNMENTS
BOOKKEEPING
BACKUP DATA CLEAR
RANKING DATA CLEAR
-> EXIT

SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON

## Game Test Mode Screen

| 3 Each item is explained below. |
| :--- |
| $9-3-1$ INPUT TEST Tests each input device used for game. <br> $9-3-2$ OUTPUT TEST Tests each output device used for game. <br> $9-3-3$ STICK SWING TEST Tests joystick vibration function. <br> $9-3-4$ GAME ASSIGNMENTS Ajust all game settings. <br> $9-3-5$ BOOKKEEPING Displays all recorded game data. <br> $9-3-6$ BACKUP DATA CLEAR Clears the BOOKKEEPING data stored within GAME TEST MODE. <br> $9-3-7$ RANKING DATA CLEAR Initialize ranking data. |

4
When all tests are completed, select EXIT and press the TEST Button. The SYSTEM MENU screen reappears.

## 9-3-1 INPUT TEST

Select INPUT TEST to display the following screen and check the status of input devices.
This test should be used periodically to check that each input device is functioning correctly.

| GAME TEST MODE <br> INPUT TEST |  |  |
| :---: | :---: | :---: |
| PLAYER | OP |  |
| START | OFF | OFF |
| RIGHT | OFF | OFF |
| LEFT | OFF | OFF |
| UP | OFF | OFF |
| DOWN | OFF | OFF |
| BUTTON L | OFF | OFF |
| BUTTON R | OFF | OFF |
| SERVICE |  | OFF |
| TEST |  | OFF |
| PRESS TEST AND |  |  |

1
If the display on the right changes from "OFF" to "ON" when input devices are operated, the switches and wiring are functioning correctly.


Each item is explained below.

| START | START Button |
| :--- | :--- |
| RIGHT | Move joystick to the right |
| LEFT | Move joystick to the left |
| UP | Move joystick toward the screen |
| DOWN | Move joystick away from the screen |
| BUTTON L | Joystick Left Button |
| BUTTON R | Joystick Right Button |
| SERVICE | SERVICE Button |
| TEST | TEST Button |



Press the TEST Button and the SERVICE Button simultaneously. The GAME TEST MODE screen reappears.

## 9-3-2 OUTPUT TEST

This screen is for confirming the proper operation of each output device used by the game.
Periodically use this screen to check the status of each output device.


1 Use the SERVICE Button to move the cursor to the item you would like to check. Press the TEST Button, and the display on the right will change from "OFF" to "ON," and the lamp will turn on.
Press the TEST Button again, and the display will change from "ON" to "OFF," and the lamp will turn off. If the lamp turns on and off, the wiring is functioning normally.


Each item is explained below.

| LAMP 1P START | Player 1 START Button |
| :--- | :--- |
| LAMP 2P START | Player 2 START Button |
| LAMP 1P LEFT | Player 1 joystick Left Button |
| LAMP 2P LEFT | Player 2 joystick Left Button |
| LAMP 1P RIGHT | Player 1 joystick Right Button |
| LAMP 2P RIGHT | Player 2 joystick Right Button |



When all tests are completed, move the cursor to EXIT and press the TEST Button. The GAME TEST
MODE screen reappears.

## 9-3-3 STICK SWING TEST

This is a joystick operations test which should be performed periodically.


Use the SERVICE Button to move the cursor to the item you want to check. Press the TEST Button and the display on the right will change from "OFF" to "ON," and the corresponding joystick function will begin operating. Press the TEST Button again or highlight another function and the display will change from "ON" to "OFF," and the joystick function will cease.


Each item is explained below.

| CLUTCH 1P | Player 1 joystick clutch ON/OFF. |
| :--- | :--- |
| CLUTCH 2P | Player 2 joystick clutch ON/OFF. |
| LEFT SWING 1P | Move Player 1 joystick to the left. |
| LEFT SWING 2P | Move Player 2 joystick to the left. |
| RIGHT SWING 1P | Move Player 1 joystick to the right. |
| RIGHT SWING 2P | Move Player 2 joystick to the right. |
| ALL SWING 1P | Move Player 1 joystick to the left and the right. |
| ALL SWING 2P | Move Player 2 joystick to the left and the right. |

[^3]
## 9-3-4 GAME ASSIGNMENTS

Changes individual game settings.


Use the SERVICE Button to move the cursor to the desired test item. Press the TEST Button to select the test item.

Each item is explained below.

| MULTIPLAY NO-COST | Set whether or not additional credits are required for multiplay. |  |
| :---: | :---: | :---: |
|  | ON | Additional credits are not required. |
|  | OFF | Additional credits are required, and are determined by cost setting. |
| STICK SWING | Joystick vibration setting. |  |
|  | ON | The joysticks will vibrate. |
|  | OFF | The joysticks will not vibrate. |
| ADVERTISE STICK SWING | Advertise screen joystick vibration setting. |  |
|  | ON | The joysticks will vibrate at the advertise screen. NOTE: Only if STICK SWING is set to ON. If set to OFF, all joystick vibration is locked to OFF. |
|  | OFF | The joysticks will not vibrate at the advertise screen. |
| 1P LINE CHALLENGE TIME | Set one-player Line Challenge time limit (120 or 150 seconds). |  |
| 2P LINE CHALLENGE TIME | Set two-player Line Challenge time limit (120, 150, or 180 seconds). |  |
| KIDS MODE | Turn ON/OFF this mode for children and beginners. |  |
|  | ON | At the mode select screen, players can choose from KIDS or STANDARD. In KIDS, the number of TETRIMINO types is reduced from seven to five. Also, players can only play Line Challenge or VERSUS. |
|  | OFF | KIDS MODE will not be available. |


| BGM TYPE | Set the type of music that will play during the game. |  |
| :--- | :--- | :--- |
|  | JAPANESE SONG | Only Japanese songs will play during the game. |
|  | INSTRUMENTAL | Only instrumental songs will play during the game. |
| BGM TEST | Test game music playback. <br> Each time the TEST Button is pressed, the first few seconds of the type of <br> music set under BGM TYPE will play. |  |
| DEFAULT SETTING | Return all settings under GAME ASSIGNMENTS to their default settings. |  |

When all setting adjustments are completed, select EXIT and press the TEST Button. The GAME TEST MODE screen reappears.

## 9-3-5 BOOKKEEPING

View various game records.
BACKUP CLEAR TIME displays the last time BACKUP DATA CLEAR was executed.


1 Use the SERVICE Button to move the cursor to the desired test item. Press the TEST Button to select the test item.

## 2 Each item is explained below.

| PLAY TIME | View play time and number of times played for all games. |
| :--- | :--- |
| TIME HISTOGRAM | View play time for a single play session. |

When all checkings are completed, select EXIT and press the TEST Button. The GAME TEST MODE screen reappears.

## - PLAY TIME

View number of times game has been played as well as play times.


Each item is explained below.

| TOTAL GAMES | The total number of games played |
| :--- | :--- |
| 1P SCORE CHALLENGE | The total number of one-player Score Challenge games played |
| 1P LINE CHALLENGE | The total number of one-player Line Challenge games played |
| 2P SCORE CHALLENGE | The total number of multiplayer Score Challenge games played |
| 2P LINE CHALLENGE | The total number of multiplayer Line Challenge games played |
| VERSUS | The total number of VERSUS MODE games played |
| KIDS | The total number of KIDS MODE games played |
| TOTAL TIME | The total operation time |
| PLAY TIME | The total play time |
| AVERAGE PLAY TIME | The average play time |
| LONGEST PLAY TIME | The longest play time |
| SHORTEST PLAY TIME | The shortest play time |

2
Press the TEST Button to return to the BOOKKEEPING screen.

- TIME HISTOGRAM

View the time spent on one play session from each mode (10 screens total).

| Screens 1 and 2 | 1P SCORE CHALLENGE |
| :--- | :--- |
| Screens 3 and 4 | 1P LINE CHALLENGE |
| Screens 5 and 6 | 2P SCORE CHALLENGE |
| Screens 7 and 8 | 2P LINE CHALLENGE |
| Screens 9 and 10 | VERSUS |



1 Each item is explained below.
To advance through Screens 1 to 9, press the TEST Button.

| PLAY TIME | Play time by mode |
| :--- | :--- |
| AVERAGE PLAY TIME | Average play time by mode |
| LONGEST PLAY TIME | Longest play time by mode |
| SHORTEST PLAY TIME | Shortest play time by mode |

Press the TEST Button at Screen 10 to return to BOOKKEEPING screen.

## 9-3-6 BACKUP DATA CLEAR

Clears the BOOKKEEPING data stored within GAME TEST MODE.


1
Use the SERVICE Button to move the cursor to the desired test item. Press the TEST Button to select the test item.


Each item is explained below.

| YES (CLEAR) | Clear the data in BOOKKEEPING. Then "COMPLETED" is displayed. <br> Press the TEST Button to return to the GAME TEST MODE screen. |
| :--- | :--- |
| NO (CANCEL) | Do not clear the data in BOOKKEEPING. <br> Press the TEST Button to return to the GAME TEST MODE screen without clearing the <br> data. |



## Screen After Clearing Backup Data

Press the TEST Button to return to the GAME TEST MODE screen.

## 9-3-7 RANKING DATA CLEAR

Delete game ranking data.


1 Use the SERVICE Button to move the cursor to the desired test item. Press the TEST Button to select the test item.

2 Each item is explained below.

| YES (CLEAR) | Clear the ranking data in this game. Then "COMPLETED" is displayed. <br> Press the TEST Button to return to the GAME TEST MODE screen. |
| :--- | :--- |
| NO (CANCEL) | Do not clear the ranking data in this game. <br> Press the TEST Button to return to the GAME TEST MODE screen without clearing the <br> ranking data. |



## Screen After Clearing Ranking Data

[^4]
## 10 COIN SELECTOR

## WARNING

- When working with the product, be sure to turn the power off. Working with the power on may cause an electric shock or short circuit.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a risk of fire.
- Do not touch any parts that are not specified in these directions. Touching unspecified locations may lead to electric shock or cause short circuits.
- This work should be carried out by the site maintenance personnel or other qualified professionals. Work performed by non-technical personnel can cause a severe accident such as electric shock.


## $\triangle$ CAUTION

Be careful that a finger or hand does not get caught when opening/closing the door.

## stop IMPORTANT

- When cleaning the coin selector, remove and clean smears by using a soft cloth dipped in water or diluted chemical detergent and then squeezed dry.
- Never apply machine oil, etc. to the coin selector.
- After cleaning the coin selector, insert a regular coin in the normal working status and ensure that the selector correctly functions.


## 10-1 COIN INSERTION TEST

Once every month, when performing the coin switch test, simultaneously check the following:
$\square$ Does the coin meter count satisfactorily?
$\square$ Does the coin drop into the cashbox correctly?
$\square$ Is the coin rejected when inserted while keeping the reject button pressed down?


## 10-2 CLEANING THE COIN SELECTOR

The coin selector should be cleaned once every 3 months.
When cleaning, follow the procedure below:
1 Turn the power off.
2 Unlock the service door with the master key and open it.


3
Undo the cord clamp, and use a slotted screwdriver to remove the 3 screws and bracket.


Take off the coin selector from the service door.

5 Open the gate and dust off by using a soft brush (made of wool, etc.).


Remove and clean smears by using a soft cloth dipped in water or diluted chemical detergent and then squeezed dry.

Remove the cradle. When removing the retaining ring (E ring), be very careful so as not to bend the rotary shaft.


Remove stain from the rotary shaft and shaft receiving portions by wiping off with a soft cloth, etc.

After wiping off as Steps above, further apply a dry cloth, etc. to cause the coin selector to dry completely.


Refer to Steps 1 to 4 and work in reverse order to attach the coin selector.
NOTE: Hold the reject button lever up while attaching the coin selector so that the reject button lever catches


## 10-3 HANDLING A COIN JAM

If the coin is not rejected when the reject button is pressed, open the coin chute door and open the selector gate. After removing the jammed coin, put a normal coin in and check to see that the selector correctly functions.

## 11 PROJECTOR

## $\triangle$ WARNING

- When working with the product, be sure to turn the power off. Working with the power on may cause an electric shock or short circuit.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a risk of fire.
- Be careful not to lose any fasteners (screws or nuts). They could come in contact with live parts, resulting in electrical shock, short circuits or fires.


## $\triangle$ CAUTION

Be careful when handling the plastic parts. Placing undue stress on them could cause them to break, and the fragments could cause an injury. Also, exercise caution when tightening the screws to attach the parts and when setting them down.

## stop IMPORTANT

Refer to the included manual (CD) for instructions on how to operate the projector and replace the lamp.

## 11-1 NOTES RELATED TO THE PROJECTOR

## stop IMPORTANT

- When turning on the power again, wait about 5 minutes until the projector lamp cools off. If the power is turned on before the lamp cools, it will take several minutes before the screen is shown. Also, note that turning the power switch to the ON position immediately after turning it to the OFF position can damage the projector.
- The average life of a high-pressure mercury lamp in energy-saving mode (the default setting) is approximately 3,000 hours. This is based on the average time it takes for it to go down to $50 \%$. A life of 3,000 hours does not mean that the lamp cannot last beyond 3,000 hours. The actual life may vary depending on how it is used.
- The lamp is a consumable part. If used for an extended amount of time, the image may become dark or it may go out and not come back on. This is a characteristic of the lamp and is not a defect.
- Replace the lamp every 3,000 hours or so (approximately 7 months at 14 hours of operation a day).
- If the lamp goes out, the projector screen will go blank, and the game will not work. Always have a spare lamp available by ordering a new one or extras immediately after replacing the lamp.
- The projector (200-6155) in this product requires a special lamp (200-6156). Do not use lamps with other part numbers.

This product is equipped with an industrial projector to display the game on the screen.
Instructions for operating the projector and other information can be found in the included manual (CD). Refer to it when configuring the settings and making adjustments.

## How to operate the remote control

Open the service door and point the remote control towards the back of the projector inside the cabinet.

## Function settings

The projector has various functions with many different settings. The settings necessary for this product have already been configured, so it is normally not necessary to make changes. If the settings are changed accidentally, change them back as follows [refer to the included manual (CD)]:

- Menu $\rightarrow$ Projection Settings $\rightarrow$ Direct Power on: ON
- Menu $\rightarrow$ Projection Settings $\rightarrow$ Energy-saving mode: ON

Use the factory defaults for the other settings.
There is an item on the status display menu, "Lamp Timer (Hours of Lamp Use)," which can be used to check how many hours the lamp has been used.

## 11-2 CLEANING THE PROJECTOR

## $\triangle$ WARNING <br> Do not use water as a cleaning agent. Water could get inside the projector, resulting in electrical shock or short circuits.

## stop IMPORTANT

- Clean the lens with a store-bought blower or lens cleaner.
- The surface of the lens is easily scratched, so do not rub it with hard materials or hit it.
- Gently wipe dirt off the projector with a soft cloth.
- Do not use benzine, thinner, or other chemicals and solvents. Doing so could result in deformation, discoloration, or peeling of the paint.
- Do not use chemical wipes.

If dirt or dust builds up on the projector, particularly the lens, it will affect the image on the screen. Clean the projector and lens once a month.
This is only a rough guide. Some places may be more prone to dust and will require more frequent cleaning. Refer to "6-2-1 Attaching the Projector" and work in reverse order to take the projector out of the controller cabinet for cleaning.

## Cleaning the lens

Clean the lens with a store-bought blower or cloth for cleaning glasses, cleaning paper, lens cleaner, etc. The surface of the lens is easily scratched, so do not rub it with hard materials or hit it with a duster.

## Cleaning the projector

Wipe the dirt off lightly with a soft cloth.
If water is used, it could get inside and cause electrocution or damage the product.
Do not use chemicals, solvents, bleach or detergent as they can cause deformation, discoloration, or peeling of the paint. Also, do not use treated wipes.

## 11-3 LAMP REPLACEMENT

## $\triangle$ WARNING

When replacing the lamp, use only special projector lamps. Using any other lamp could result in serious accidents including fires.

## $\triangle$ CAUTION

- The lamp will be very hot immediately after use. Do not touch it or you could be burned. Wait at least an hour for the lamp to cool off before replacing it.
- The lamp is made with glass, so do not touch it with bare hands, subject it to heavy impact, or scratch it. Dirt, scratches, and heavy impact can break the lamp, resulting in injury.
- If the lamp breaks, be careful not to cut yourself with the broken pieces of glass. If the lamp breaks inside the projector, contact the office listed in this manual or the point-of-purchase for this product.


## stop IMPORTANT

- The projector (200-6155) in this product requires a special lamp (200-6156). Do not use lamps with other part numbers.
- After replacing the lamp, reset the "Lamp Timer (Hours of Lamp Use.)" Refer to the included manual (CD) for instructions on how to perform the reset operation.
- The lamp contains a minute amount of inorganic mercury, which is harmful to the environment. When disposing of used lamps, be careful not to break them, and do so according to the rules and regulations set forth by the local authority. Contact your local authority for details.

To replace the lamp, refer to "6-2-1 Attaching the Projector" and work in reverse order to take the projector out of the controller cabinet.
Refer to the included manual (CD) for instructions on how to replace the lamp.

## 12 REPLACING THE HALOGEN LAMP

## $\triangle$ WARNING

- When working with the product, be sure to turn the power off. Working with the power on may cause an electric shock or short circuit.
- There is danger that hot lamps can cause burns. Exercise due caution when replacing lamps.
- Use lamps of the specified ratings. Using lamps with different ratings may cause fires or damage.
- Such things as deteriorated insulation in lighting fixtures can cause a short circuit and/or smoke. Make sure there are no abnormalities. For example, check if you can smell anything burning, if any sockets have been discolored and if the lamp has to be replaced frequently.


## CAUTION

When fastening plastic parts, be careful not to tighten screws and nuts excessively. Otherwise parts may be damaged, resulting in injuries from fragments, etc.

## stop IMPORTANT

Never touch the glass surface of the lamp with your hands. Oil from your hands may damage the lamp.

There are 2 halogen lamps inside the controller cabinet. Replace them using the following procedures:


Turn the power off.

Remove the 4 truss screws after the halogen lamp has sufficiently cooled, and take off the lamp plate.


Replace the halogen lamp. Be careful at this time not to touch the glass at the front of the lamp. There is danger that oil from your finger will be burnt, resulting in damage.


Refer to Steps 1 and 2 and work in reverse order to attach the lamp plate.

## 13 REPLACING THE BUTTON SWITCHES

## $\triangle$ WARNING

When working with the product, be sure to turn the power off. Working with the power on may cause an electric shock or short circuit.

## $\triangle$ CAUTION

When fastening plastic parts, be careful not to tighten screws and nuts excessively. Otherwise parts may be damaged, resulting in injuries from fragments, etc.

There are button switches on the control panel and joystick. If they stop working correctly, they need to be replaced. After replacing them, bring up TEST MODE and make sure they are working correctly.

## START button

| 1P START button | $509-6240-01 /$ SW PB WH OBSA-100UMQ DKC 1P |
| :--- | :--- |
| 2P START button | $509-6240-02 /$ SW PB WH OBSA-100UMQ DKC 2P |

NOTE: The button switches are comprised of a button, switch, supporter, and nut.


Turn the power off.

2 Unlock the service door with the master key and open it.


3
Grab both sides of the switch with your fingers and rotate it approximately 45 degrees in the direction of the arrow in the figure to take it off.


Disconnect the connector and take off the switch to replace it.



Refer to Steps 3 to 5 and replace the 2P START button the same way.


## Left and Right Buttons on the Joystick

| Left and right buttons on 1P/2P joysticks (same) | 509-6241/SW PB WH OBSA-45UM DKC |
| :--- | :--- |

NOTE: The button switches are comprised of a button, switch, supporter, and nut.
Perform this work with at least 1 other person to keep from dropping the parts.


Remove the 6 tamperproof screws and lift up the joystick ball. The wires are still connected at this point, so be careful not to damage them.


Another person should disconnect the 2 connectors.

Disconnect the connector SM4P (white), SM4P (black)


Grab both sides of the switch with your fingers and rotate it approximately 45 degrees in the direction of the arrow in the figure to take it off.


5 Disconnect the connector and take off the switch to replace it.




NOTE: The button is not in the center of the joystick ball, so place the button below the center as shown in the figure, and attach it so that the letters on the button can be read.

Refer to Steps 1 to 5 and work in reverse order to assemble the left/right buttons on the joystick. Be careful with the direction of the joystick ball when attaching it.


Cross-section Drawing of Joystick Ball


To replace the left and right buttons on the 2P joystick, refer to Steps 1 to 7 and replace them in the same way.

## 14 PERIODIC INSPECTION

The items listed below require periodic check and maintenance to retain the performance of this machine and to ensure safe business operation.

## $\triangle$ WARNING

- The site maintenance personnel or other qualified professionals should perform work that involves touching the inside of this product. Otherwise, it could lead to electrocution or other serious accidents.
- Be sure to check once a year to see whether power cords are damaged, the plug is securely inserted, dust has accumulated between the socket outlet and the power plug, etc. Using the product with accumulated dust can cause fire and electric shock.
- Periodically, around once a year, get in touch with the office herein stated or the distributor, etc. where the product was purchased from, regarding internal cleaning. Using the product with accumulated dust in the interior can cause a fire or accident. Note that professional cleaning will require a fee.
- There is the danger of accidents involving electrical shorts circuits or fire caused by factors such as the deterioration of insulation in electrical and electronic equipment over time. Check that there are no abnormalities such as odors from burning.
- For all normal maintenance procedures, always turn off the power before beginning. Starting the procedures with the power still on can result in electric shocks or short circuits.
- Never use a water jet, etc. to clean this product. It was not designed to be cleaned by a water jet. Water could get inside and cause electrocution or short circuits. The product could also be damaged in such a way that it is difficult to repair.


## Periodic Inspection Table

| PERIOD | ITEMS | DESCRIPTION | REFERENCE |
| :--- | :--- | :--- | :--- |
| Daily | CABINET | Confirm that adjusters contact floor | 6 |
|  | JOYSTICK | Check operation | 9 |
|  | CONTROL PANEL | Check switches and lamps | 9 |
|  | COIN SELECTOR | Check coin input | 10 |
|  |  | Coin insertion test | 10 |
|  |  | Check adjustments | 6,9 |
|  |  | Cleaning | $11-2$ |
|  | GAME BOARD | Settings check | 16 |
| Every 3 months | COIN SELECTOR | Cleaning | 10 |


| PERIOD | ITEMS | DESCRIPTION | REFERENCE |
| :--- | :--- | :--- | :--- |
| As appropriate | ELECTRONIC/ELECTRICAL <br> PARTS | Inspection | As above |
|  | CABINET SURFACES | Cleaning | See below |
|  | PROJECTOR DOOR | Cleaning | See below |
|  | SCREEN | Cleaning | See below |

## Cleaning the Cabinet Surfaces and Cabinet Interior

When the cabinet surfaces/interior become dirty, remove stains with a soft cloth soaked in water or diluted (with water) chemical detergent and then wrung dry. To avoid damaging the finish, do not use such solvents as thinner, benzene, etc. (other than ethyl alcohol) or abrasives (bleaching agent and chemical dust-cloth).

Some general-purpose household, kitchen, and furniture cleaning products may contain strong solvents that degrade plastic parts, coatings, and print. Before using any cleaning product, read the product's cautionary notes carefully and test the product first on a small area that is not highly visible.

## Cleaning the Screen

When the screen becomes dirty, remove stains with a soft cloth soaked in water or diluted (with water) chemical detergent and then wrung dry. To avoid damaging the finish, do not use such solvents as thinner, benzene, etc. (other than ethyl alcohol) or abrasives (bleaching agent and chemical dust-cloth).

Some general-purpose household, kitchen, and furniture cleaning products may contain strong solvents that degrade plastic parts, coatings, and print. Before using any cleaning product, read the product's cautionary notes carefully and test the product first on a small area that is not highly visible.

## Cleaning the Projector Door

There could be hard particles in the dust or grime on the mirrors, so gently wipe them off and then wet a soft cloth with water 40 degrees centigrade or cooler, wring it out, and lightly wipe the mirrors. If cool or warm water do not remove the dirt, use a 2 or $3 \%$ dilution of a mild detergent.
Do not use other chemicals, solvents, bleach, or detergent as they could damage the surface of the mirrors.
Also, do not use treated wipes.

## 15 TROUBLESHOOTING

## $\triangle$ WARNING

- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a risk of fire.
- Once the reason that the breaker or circuit protector activated has been removed, restore the breaker or circuit protector to its original condition. If the product is used while the reason for activation has not yet been removed, heat and/or fire could be generated.
- This work should be carried out by the site maintenance personnel or other qualified professionals. Work performed by non-technical personnel can cause a severe accident such as electric shock.
- If no improvements can be noted even after the following measures have been taken, disengage the power and contact the point-of-purchase or the office listed in this manual. If the power is left on while there is an abnormality, a fire, electric shock or other serious accident can occur.
- In the event of problems not mentioned in this manual occurring or when performing work that is not described herein, turn the power off and contact the office listed in this manual. Carelessly performing work could lead to fires, electrocution, or other serious accidents.


## stop IMPORTANT

If a problem occurs, first inspect the connection of any wiring connectors.

## 15-1 TROUBLESHOOTING TABLE

| PROBLEMS | CAUSE | COUNTERMEASURES |
| :--- | :--- | :--- |
| With main switch ON, no <br> activation. | Power is not supplied. | Securely insert the power plug into the plug <br> socket. |
|  | Power supply/voltage is not <br> correct. | Make sure that power supply/voltage is <br> correct. |
|  | The circuit protector functioned <br> due to the momentary overload. | After eliminating the cause of overload, <br> reinstate the AC unit's circuit protector. <br> (Wait at least 1 minute and then press the <br> button.) (See "Circuit Protector" on the next <br> page.) |
|  | Faulty adjustment of sound <br> volume. | Adjust the sound volume of SW unit in the <br> service door.(See 9-1.) |
|  | Problem with sound circuit. | Run the sound output test.(See 9-2-5.) |


| PROBLEMS | CAUSE | COUNTERMEASURES |
| :---: | :---: | :---: |
| It will not enter TEST MODE. | Problem with switch. | Replace the switch. |
|  | Problem with game board. | Replace the game board. (See Chapter 16.) |
|  | Incorrect procedure used to switch to TEST MODE. | Check the operating instructions. (See Chapter 9.) |
| The on-screen display is not normal. | Improper adjustment of projector position. | Adjust the position of the projector. (See 6-5.) |
|  | The screen is damaged or the sheet is peeling. | Replace the screen. (See 15-2.) |
| The projector does not project images. | Defective wiring between game board and projector. | Check to make sure the connectors are connected. |
|  | Projector overheat protection. | If the power is turned on when the projector is hot, it may take a while for the lamp to turn on. It will take 5 minutes for the lamp to be ready. |
|  | Projector lens cover is closed. | Remove the lens cover. |
|  | Projector lamp life. | Replace the lamp. (See Chapter 11.) |
|  | Problem with projector. | Replace the projector. |
|  | Problem with game board. | Replace the game board. (See Chapter 16.) |
| No response when the START buttons on the control panel and the left/ right buttons of the joystick are pressed. | Problem with buttons. | Replace the buttons. (See Chapter 13.) |
|  | The connector came off. | Check to make sure the connectors are connected. |
| The halogen lamp does not turn on. | Halogen lamp life. | Replace the halogen lamp. (See Chapter 12.) |
| The joystick generates input without being touched. | Problem with centering mechanism. | Replace the joystick unit. Contact the office listed in this manual. |
|  | Problem with sensors. |  |
| The joystick does not vibrate. | STICK SWING setting is OFF. | Change the STICK SWING setting to ON. (See 9-3-4.) |
|  | Problem with motor and clutch. | Replace the joystick unit. Contact the office listed in this manual. |
| There is no input when the joystick is tilted. | The connectors came off. | Make sure the connectors are connected. |
|  | Problem with sensors. | Replace the joystick unit. Contact the office listed in this manual. |

## CIRCUIT PROTECTOR

Functions due to the activation of bimetal. To restore the function, wait for approximately 1 minute or longer until the bimetal cools off. (Press the button.)


## 15-2 REPLACING THE SCREEN

If the screen (white surface) is damaged or the sheet peels, replace the screen.

## 1 Turn the power off.

Remove the truss screw, and take the chain off from the screen stand.


3
Refer to Step 2 and take off the chain from the screen stand on the opposite side as well.

Undo the Velcro and take off side banners L and R from the screen.


5 Remove the 4 hexagon bolts and unfasten the screen.


Take off the screen from the screen stand with at least 1 other person. There are hooks on the screen stand on which the screen hangs. Lift the screen a little and move it towards the controller cabinet to take it off.


## 16 GAME BOARD (SystemSP)

## WARNING

- This work should be carried out by the site maintenance personnel or other qualified professionals. Work performed by non-technical personnel can cause a severe accident such as electric shock.
- When working with the product, be sure to turn the power off. Working with the power on may cause an electric shock or short circuit.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a risk of fire.
- Do not touch any parts that are not specified in these directions. Touching unspecified locations may lead to electric shock or cause short circuits.
- Do not expose the game board unnecessarily as it may cause electric shock or damage to the board.


## CAUTION

- In this product, setting changes are made during the TEST MODE. The switches on the game board need not be operated. Use the game board as is with the same setting made at the time of shipment so as not to cause electric shock and malfunctioning.
- Static electricity from your body may damage some electronics devices on the IC board. Before handling the IC board, touch a grounded metallic surface so that the static electricity can be discharged.


## stop IMPORTANT

After replacing the game board, bring up TEST MODE and make sure the SystemSP board is working correctly.

## 16-1 EXTERNAL VIEW



Parts of CN3 to CN22 are used differently depending upon the game title.
See the "Wiring Diagram" at the back of this manual.

| CN3 | CompactFlash (CF) card slot |
| :---: | :---: |
| CN5 | LAN connector (Ethernet) |
| CN7 | RGB video output (MINI D-SUB 15P) |
| CN9 | Input/output 1 (JST RA 60P) |
| CN10 | Input/output 2 (JST RA 30P) |
| CN14 | Speaker output (JST NH 4P) 1: L+ 2: L- 3: R+ 4: R- |
| CN15 | Sound effects line output (JST NH 5P) 1: GND 2: L 3: GND 4: R 5: GND |
| CN16 | $\begin{aligned} & \text { Serial } 1 \text { (JST NH 10P) } \\ & \text { 1: TXD1 2: RXD1 3: RTS1 4: CTS1 5: GND } \\ & \text { 6: 5338TX+ 7: 5338TX- 8: 5338RX+ 9: 5338RX- 10: GND } \end{aligned}$ |
| CN17 | ```Serial 2 (JST NH 11P) 1:+5V 2: TXD2 3: RXD2 4: RTS2 5: CTS2 6: GND 7: TDX3 8: RXD3 9: RTS3 10: CTS3 11: GND``` |
| CN19 | Input/output 3 (JST NH 7P) <br> 1: +5V 2: MP_PB1 3: MP_PB2 4: GND 5: HV_IN0 <br> 6: HV IN1 7:+12V |
| CN20 | DC power input (JST VH 10P) <br> $1:+3.3 \mathrm{~V} 2:+3.3 \mathrm{~V} 3:+5 \mathrm{~V} 4:+5 \mathrm{~V} 5:+12 \mathrm{~V}$ <br> 6: +12V 7: GND 8: GND 9: GND 10: GND |
| CN21 | Fan power supply (JST NH 3P) |
| CN22 | $\begin{aligned} & \text { MIDI (JST NH 6P) } \\ & \text { 1: MIDI_IN 2: MIDI_INX 3: GND 4: MIDI_OUT 5: MIDI_OUTX } \\ & \text { 6: GND } \end{aligned}$ |
| SW1 | Functions as the TEST Button. |
| SW2 | Functions as the SERVICE Button. |
| DIP SW | Used to switch the image frequency. |
| VR1 | Sound volume |
| BAT1 | Backup battery |
| IC15 | Key Chip |
| IC50 | SystemSP boot ROM |
| JP5-9 | Do not change the points of insertion. Doing so may cause malfunctions and lead to serious accidents. |

## 16-2 COMPOSITION OF THE GAME BOARD

## stop IMPORTANT

Use the specified settings for the DIP SW (dip switch) and JP (jumper) on the game board. Using different settings may cause problems such as the screen not displaying properly.

GAME BD SP TETRIS GIANT EXP (834-14970-02)


## DIP SW Setting

Use this product with the DIP SW settings as shown in the figure.


Dip SW Setting

## JP Setting

Use this product with the JP settings as shown in the figure.


## 16-3 REMOVING THE GAME BOARD

This product uses a SystemSP board. To replace or repair it, refer to the following steps to take the base (wooden plate) out of the cabinet in order to remove the SystemSP board.


Undo the 2 cord clamps and disconnect the connector.


Excluding the connector cable disconnected in Step 3, group the wires together and fasten them in place again with the 2 cord clamps.


5
Disconnect the 8 connectors.


Remove the 2 screws.


With the SystemSP board still attached, take off the base (wooden plate). Be careful not to damage the wires when doing so.


Disconnect the 4 connectors connected to the SystemSP board.


Remove the 4 tapping screws and take the SystemSP board off.


## 16-4 REPLACING THE LITHIUM BATTERY

## WARNING

- When working with the product, be sure to turn the power off. Working with the power on may cause an electric shock or short circuit.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a risk of fire.
- To prevent overheating, explosion, or fire:
- Do not recharge, disassemble, heat, incinerate, or short the battery.
- Do not allow the battery to come into direct contact with metallic objects or other batteries.
- To preserve the battery, wrap it in tape or other insulating material.
- Follow local regulations when disposing of the battery. Improper disposal can damage the environment.


## CAUTION

To avoid risk of malfunction and damage:

- Make sure the positive and negative ends are aligned correctly.
- Use only batteries approved for use with this unit.


## stop IMPORTANT

If an error message is displayed in less than a year, there is likely a problem with the board. Replace it as necessary.

This operation must only be performed when the battery is dead or under other special circumstances and never at any other time.

1 Carefully take out the battery from the battery holder (BAT1) on the SystemSP board.
Insert a flat, insulated object underneath the battery and lift it upwards.

Bring it up and outwards whilst getting it over the sides of the holder.


Place the new battery (CR2032) horizontally into the holder at a 45 degree angle with the " + " terminal facing upwards.
The holder is fitting with a device to prevent incorrect insertion, making sure that the battery terminals are inserted correctly.


## BATTERY for SystemSP

| SEGA PART No. | SEGA DESCRIPTION |
| :--- | :--- |
| $\mathbf{4 0 1 - 0 0 5 4}$ | BATTERY CR2032/1F MATSUSHITA |
| $\mathbf{4 0 1 - 0 0 6 5}$ | BATTERY CR2032 HITACHI |

## 16-5 INSTALLING THE SOFTWARE

## stop IMPORTANT

The CompactFlash (CF) is a precision device. It can be damaged by heat, impact, and static electricity. Exercise caution in handling this equipment.

The software is already installed on the SystemSP board at the time of shipping. If it is ever necessary to reinstall the software for this title, the supplied CF card can be used to do so.

## How to Install the Software

Turn the power off.

Remove the 2 truss screws, unlock the back door with the master key and take it off.


Have the supplied CF card ready. With the side showing the game title facing you, insert it straight into the card slot on the SystemSP board. Also, be sure to insert it as far as it will go.


Attach the back door, lock it with the master key, and fasten it in place with 2 truss screws.

5
The software installation will begin when the power is turned on. It will take approximately 10 minutes to complete. If it finishes successfully, the advertisement screen will display.
NOTE: If the installation does not finish successfully, turn the power off, reinsert the CF card, and turn the power back on. If that does not work, contact the office listed in this manual.

Turn the power off.

Remove the 2 truss screws, unlock the back door with the master key and take it off.


Remove the CF card from the card slot on the SystemSP board. Store the CF card in a safe place.

Attach the back door, lock it with the master key, and fasten it in place with 2 truss screws.

## 16-6 KEY CHIP

## stop IMPORTANT

- The key chip is a precision component that may be damaged by such things as heat, physical shock, or static electricity. Make sure to handle it carefully.
- A key chip must be used as a set with a board or CompactFlash of the same title.

The key chip is already attached to the SystemSP board at the time of shipping. Refer to the following instructions if it becomes necessary to replace the key chip for another title.

## Insertion

Insert the key chip straight into the hole on the top of the mounting plate on the SystemSP board. Be sure to insert it in the right direction. Also, be sure to insert it as far as it will go.

## Removal

Replace the key chip on the System SP board. Press the tab on the key chip while slowly pulling it out.

Place the removed key chip in the accessory box for storage. Always store it together with the game board or CompactFlash that it is paired with.


## 17 ERROR MESSAGE

The following messages may appear upon turning on the power or leaving TEST MODE. Under these circumstances the game cannot be played. The error codes are roughly divided as follows.

| Error Code | Category |
| :--- | :--- |
| Error 01-09 | An error relating to the actual hardware or setup of the title program. |
| Error 10-19 | An error relating to something dependant upon the title program, such as JVS or <br> the Firmware version. |
| Error 20-29 | (Not used) |
| Error 30-39 | An error relating to the Ether-network. |
| Error 40-49 | (Not used) |
| Caution 50-59 | A warning related to set-up settings. |


| MESSAGE | ERROR 01 <br> THIS GAME IS NOT ACCEPTABLE BY MAIN BOARD. |
| :--- | :--- |
| CAUSE | 1) The title program in the flash memory on the SystemSP board is corrupted. <br> 2) The Key Chip may not match the title program on the SystemSP board. |
| COUNTERMEASURES | 1) If you have a CF memory including renewal data for the title program, insert <br> that CF memory and then restart the machine. |
| 2) Insert the correct Key Chip and then restart the machine. |  |
| If the problem remains it is most likely a problem with the board itself. Refer |  |
| to "16-3 Removing the Game Board" to remove the SystemSP board and repair |  |
| it along with the Key Chip. |  |


| MESSAGE | ERROR 03 <br> BAD SERIAL NUMBER ON MAIN BOARD. |
| :--- | :--- |
| CAUSE | The SystemSP board's serial number is incorrect. |
| COUNTERMEASURES | This is a problem with the SystemSP board. Refer to "16-3 Removing the Game <br> Board" to remove the SystemSP board and repair it along with the Key Chip. |


| MESSAGE | ERROR 05 <br> THIS GAME IS NOT ACCEPTABLE BY MAIN BOARD. |
| :--- | :--- |
| CAUSE | The SystemSP board set-up does not match with the set-up required by the title <br> program. |
| COUNTERMEASURES | The game cannot be used with the SystemSP board. Use the SystemSP board with <br> the correct set-up. |


| MESSAGE | ERROR 14 <br> NETWORK FIRMWARE DOES NOT FULFILL THE GAME SPEC. |
| :--- | :--- |
| CAUSE | The SystemSP board's firmware does not fulfill the specifications required by the <br> title program. |
| COUNTERMEASURES | After confirming the specifications required by the title program, obtain firmware <br> that meets these specifications and renew the firmware. |


| MESSAGE | ERROR 15 <br> GAME PROGRAM NOT FOUND. |
| :--- | :--- |
| CAUSE | 1) The key chip required by the application is not connected. <br> 2) The key chip has come out. |
| COUNTERMEASURES | 1) Connect the correct key chip. <br> 2) Make sure the key chip is properly connected to the SystemSP board. |


| MESSAGE | ERROR 33 <br> GATEWAY IS NOT FOUND. |
| :--- | :--- |
| CAUSE | Communication with the gateway server was not possible (for a couple of <br> minutes). |
| COUNTERMEASURES | - Perform a SYSTEM TEST to make sure the network settings are all correct. <br> - |


| MESSAGE | ERROR 34 <br> GATEWAY CANNOT BE FOUND. |
| :--- | :--- |
| CAUSE | Communication with the gateway server is not possible. |
| COUNTERMEASURES | The UTP cable is not connected. |


| MESSAGE | CAUTION 51 <br> WRONG VIDEO OUTPUT SETTING OF HORIZONTAL SCANNING <br> FREQUENCY. |
| :--- | :--- |
| CAUSE | The title program does not support the current monitor resolution. |
| COUNTERMEASURES | If necessary exchange the connected monitor, and then check the monitor <br> resolution is set correctly (the DIP Switches on the SystemSP board). |


| MESSAGE | CAUTION 52 <br> WRONG VIDEO OUTPUT SETTING OF HORIZONTAL/VERTICAL <br> SCREEN. |
| :--- | :--- |
| CAUSE | The title program does not support the current monitor horizontal/vertical setting. |
| COUNTERMEASURES | If necessary change the horizontal/vertical placement of the monitor, and then <br> enter the SYSTEM ASSIGNMENTS in the SYSTEM TEST MODE and change <br> the monitor horizontal/vertical settings. |

## 18 SWITCHING TO A NAOMI BOARD

## $\triangle$ WARNING

- This work should be carried out by the site maintenance personnel or other qualified professionals. Work performed by non-technical personnel can cause a severe accident such as electric shock.
- When working with the product, be sure to turn the power off. Working with the power on may cause an electric shock or short circuit.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a risk of fire.
- Do not touch any parts that are not specified in these directions. Touching unspecified locations may lead to electric shock or cause short circuits.
- Do not expose the game board unnecessarily as it may cause electric shock or damage to the board.


## CAUTION

Static electricity from your body may damage some electronics devices on the IC board. Before handling the IC board, touch a grounded metallic surface so that the static electricity can be discharged.

This product can be used with an existing NAOMI board to operate games that meet the following conditions:

- Screen output: Horizontal synchronizing frequency of 31 kHz
- Monitor direction: Horizontal
- Titles that require 2 START buttons and for which there is 1 joystick (analog will not work) for Player 1 and Player 2 and 2 buttons
(Left button on joystick corresponds to JVS BUTTON1, and right button corresponds to BUTTON2)
If the game does not meet the conditions above, it will not work correctly so do not attempt to use it.
Instructions for replacing the board with a NAOMI board are provided below.
Refer to the service manual for the NAOMI board and the particular game for instructions on how to configure the board and game settings.

Refer to "16-3 Removing Game Board", remove the SystemSP board.

The wire labeled "I/O A" among the wires removed in Step 1 will continue to be used.
Connect the connectors for the wire labeled "I/O A" and the supplied JVS cable to the JVS I/O board inside the back door, and fasten them in place with 2 cord clamps.


Connect the 4 connectors. Check the 1 P and 2 P tags and be sure to connect them correctly.


Place the NAOMI board on the base (wooden plate) as shown in the figure. Affix the NAOMI board using removed 4 tapping screws.


Stand-alone NAOMI board
NOTE: If you have a NAOMI board $+G D-R O M$, refer to the figure below and fasten only the NAOMI board in place as the base.


Position of prepared holes (reference)

5
Connect the attached wires (DKC-60036, DKC-60037, DKC-60038) to the NAOMI board and affix it in place using the 3 cord clamps.


Put the base loaded with the NAOMI board inside the back door and fasten it in place with 2 screws. Be careful not to damage the wires when doing so.


Connect the 2 connectors to the NAOMI board.
Fasten D-SUB 15P in place with 2 fastening screws. After connecting the connector, fasten it in place with a cord clamp.

Fasten in place with cord clamp.


Connect the 3 connectors.
NOTE: The SM6P and SM7P connectors are not used.

When attaching a GD-ROM DRIVE, use 4 tapping screws to fasten it to the base (wooden plate).


10
Use a GD cable and GD-ROM power cable to connect the NAOMI board and GD-ROM drive.


Attach the back door, lock it with the master key, and fasten it in place with 2 truss screws.

## 19 REPLACING THE SHAFT STOPPER (WITH 8-DIRECTION STOPPER)

## $\triangle$ WARNING

When working with the product, be sure to turn the power off. Working with the power on may cause an electric shock or short circuit.

## CAUTION

When fastening plastic parts, be careful not to tighten screws and nuts excessively. Otherwise parts may be damaged, resulting in injuries from fragments, etc.

The supplied shaft stopper is used for game software that requires an 8-direction stopper.
After the original stopper is replaced, the joystick will move in 8 directions. Check the specifications of the game software before replacing the stopper.
NOTE: This product (TETRIS GIANT) requires a 4-direction stopper, so do not replace it with the supplied shaft stopper (8-direction).


Shaft Stopper (4-direction)


Shaft Stopper (8-direction)

This work should be performed with at least one other person to keep from dropping parts.


Remove the 6 tamperproof screws and lift up the joystick ball to take it off. The wires are still connected at this point, so be careful not to damage them.



Undo the cord clamp. Be careful not to let the wires drop into the pipe when doing so.


Using a hexagon wrench with a WAF of 4 mm , remove the 4 hexagon socket bolts and take off the ball dish. Be careful not to let the wires, hexagon socket bolts, flat washer, or spring washer drop into the pipe when doing so.


$\square$
Using a hexagon wrench with a WAF of 4 mm , remove the 4 hexagon socket bolts and unfasten the shaft stopper (4-direction).


Using a hexagon wrench with a WAF of 6 mm , remove the hexagon socket bolts ( 8 in all) and take off the stopper disk.
NOTE: The length of the bolts varies, so be careful when putting them back.



Take off the shaft stopper (4-direction).


10
Put on the supplied shaft stopper (8-direction).

SHAFT STOPPER (8-DIRECTION)


Refer to Steps 1 to 8 and work in reverse order to assemble the ball dish and joystick ball.
However, when fastening the 4 hexagon socket bolts removed in Step 5, use a thread-locking agent. Put a few drops on the threads but do not apply too much. Use the 1401C (090-0012) thread-locking agent from ThreeBond.

## 20 DESIGN RELATED PARTS

For the warning display stickers, refer to chapter 1.


## 21 PARTS LIST


(1) TOP ASSY TETRIS DEKARIS


| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :---: | :---: | :---: |
| 1 | DKC-0500 | ASSY SCREEN STAND |  |
| 2 | DKC-0800 | ASSY CHAIN L |  |
| 3 | DKC-0810 | ASSY CHAIN R |  |
| 4 | DKC-1000 | ASSY CONTROLLER CABINET |  |
| 5 | DKC-2100 | ASSY JOYSTICK BALL GREEN |  |
| 6 | DKC-2600 | ASSY JOYSTICK BALL PINK |  |
| 7 | DKC-0001 | JOINT BRKT L |  |
| 8 | DKC-0002 | JOINT BRKT R |  |
| 9 | DKC-0003 | SUPPORT BRKT |  |
| 10 | DKC-0004-01 | CENTER BANNER ENG |  |
| 11 | DKC-0005X-01 | INSTR SHEET ENG |  |
| 12 | DKC-0006-01 | INSTR SHEET UPR ENG |  |
| 14 | SGM-4247 | POLY COVER 960x1600x1100 |  |
| 15 | 834-14970-02 | GAME BD SP TETRIS GIANT EXP |  |
| 201 | 008-T00508-0C | TMP PRF SCR TH CRM M $5 \times 8$ |  |
| 202 | FAS-290055 | HEX SKT SCR BH STN M $8 \times 35$ |  |
| 203 | 060-S00800-0C | SPR WSHR CRM M8 |  |
| 204 | 068-852216-0C | FLAT WSHR CRM $8.5-22 \times 1.6$ |  |
| 205 | 030-000820-WB | HEX BLT W/FS BLK M $8 \times 20$ |  |
| 206 | 068-852216-0B | FLT WSHR BLK 8.5-22x1.6 |  |
| 207 | 011-T03516 | TAP SCR TH $3.5 \times 16$ |  |
| 301 | 600-6619-02 | AC CABLE CONNECT TYPE FOR UK |  |
| 401 | 220-5793-2-A001 | KEY MASTER A001 |  |
| 402 | SGM-4111Y | KEY BAG |  |
| 403 | 540-0062 | L-WRENCH FOR HEX SOC 5MM |  |
| 405 | MDA-C0076 | CF SP DKC |  |
| 406 | 420-7246-01 | OWNERS MNL TETRIS GIANT ENG |  |
| 407 | 390-6732-40N | HALOGEN LAMP JDR110V40WLN/K |  |
| 408 | 540-0006-01 | WRENCH M4 TMP SCR |  |
| 409 | 600-7141-91-100 | CABLE JVS TYPE A-B 100CM |  |
| 410 | DKC-60036 | WH SOUND OUT NAOMI |  |
| 411 | DKC-60037 | WH DC GAME BD NAOMI 1 |  |
| 412 | DKC-60038 | WH DC GAME BD NAOMI 2 |  |
| 413 | 421-12643-03 | DENOMI SH DKC FOR HK |  |
| 414 | DKC-2214 | STOPPER BLOCK 8 WAY |  |
| 415 | DKC-0007-01 | SWING POP KIDS MODE ENG |  |
| 416 | DKC-0008-01 | INSTR STICKER KIDS MODE ENG |  |
| 417 | 540-0007-01 | WRENCH M5 TMP SCR |  |
| 418 | 540-0023 | L-WRENCH FOR HEX SOC 4MM |  |
| 419 | 540-0028 | L-WRENCH FOR HEX SKT 6 MM |  |
| 1 | 200-6156 | ASSY LAMP PJTR KG-PH1004S1 |  |
| 1 | 421-6690-03 | STICKER 220V (80556) |  |

(2) DKC-0500

## ASSY SCREEN STAND


(2) DKC-0500

ASSY SCREEN STAND

| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- |
|  | NOTE |  |
| 1 | DKC-0600 | ASSY SCREEN |
| 2 | DKC-0620 | ASSY ROOF PANEL |
| 3 | DKC-0650 | ASSY FOOT FRAME L |
| 4 | DKC-0660 | ASSY FOOT FRAME R |
| 5 | DKC-0670 | ASSY POST FRAME |
| 6 | DKC-0501 | ROOF FRAME |
| 7 | DKC-0502X | CROSS FRAME |
| 8 | DKC-0503 | BACK PANEL |
| 9 | DKC-0504 | BACK PANEL BRKT |
| 10 | DKC-0505 | CENTER BANNER SASH FRONT |
| 11 | DKC-0506 | CENTER BANNER SASH REAR |
| 12 | DKC-0507 | SIDE BANNER SASH |
| 13 | DKC-0508 | SIDE BANNER L |
| 14 | DKC-0509 | SIDE BANNER R |
| 15 | DKC-0510 | CHAIN COLLAR |
|  |  |  |
| 201 | $030-000880-S B ~$ | HEX BLT W/S BLK M8x80 |
| 202 | $030-000820-W B$ | HEX BLT W/FS BLK M8x20 |
| 203 | $030-000830-S B ~$ | HEX BLT W/S BLK M8x30 |
| 204 | $068-852216-0 B$ | FLT WSHR BLK 8.5-22x1.6 |
| 205 | $000-T 00512-0 B$ | M SCR TH BLK M5x12 |
| 206 | $068-552016-0 B$ | FLT WSHR BLK 5.5-20x1.6 |
| 207 | $000-T 00530-0 B$ | M SCR TH BLK M5x30 |

## (3) DKC-0600

## ASSY SCREEN



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-0601 | SCREEN |  |
| 2 | DKC-0602 | SCREEN BRKT |  |
| 3 | DKC-0603 | SCREEN VELCRO TAPE |  |
| 201 | FAS-110029 | TAP SCR FH \#1 BLK 4x12 |  |

## (4) DKC-0620

 ASSY ROOF PANEL

NOTE: Affix 1. (2) so as to hide the T-NUT.
Also, make sure that it does not stick out over the counter-sunk hole.

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-0621 | ROOF PANEL |  |
| 2 | DKC-0622 | STICKER HIDING NUT |  |

2 DKC-0622
STICKER HIDING NUT

## (5) DKC-0650

ASSY FOOT FRAME L


| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-0651 | FOOT FRAME L |  |
| 2 | DKC-0652 | STAND FOOT |  |
|  |  |  |  |
| 201 | $020-000516-0 Z$ | HEX SKT H CAP SCR BLK OZ M5×16 |  |
| 202 | $060-$ F00500-0B | FLT WSHR BLK M5 |  |
| 203 | $060-$ S00500-0B | SPR WSHR BLK M5 |  |

## (6) DKC-0660

## ASSY FOOT FRAME R



| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- | NOTE

## (7) DKC-0670 <br> ASSY POST FRAME



| 3 | 201 | 202 |
| :---: | :---: | :---: |
| 1 | 2 | 2 |



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-0671 | POST FRAME |  |
| 2 | DKC-0672 | FOOT FRAME BRKT |  |
| 3 | DKC-0673 | ROOF FRAME BRKT L |  |
| 4 | DKC-0674 | ROOF FRAME BRKT R |  |
| 201 | $030-000820-W B$ | HEX BLT W/FS BLK M8×20 |  |
| 202 | $068-852216-0 B$ | FLT WSHR BLK 8.5-22x1.6 |  |

## (8) DKC-0800 <br> ASSY CHAIN L



Make sure that the print side with the drawing faces you.
NOTE: Put 1. (3) through the 9th and 18th links from the right when facing the drawing.

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-0801 | CHAIN |  |
| 2 | DKC-0802-01 | CHAIN CARD L ENG |  |
| 3 | DKC-0803 | CHAIN CARD RING |  |

## (9) DKC-0810

ASSY CHAIN R


Make sure that the print side with the drawing faces you.

NOTE: Put (3) through the 9th and 18th links from the left when facing the drawing.

| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- | NOTE



ASSY CONTROLLER CABINET

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :---: | :---: | :---: |
| 1 | DKC-1100 | ASSY SUB CTRL CABINET |  |
| 2 | DKC-1300 | ASSY PROJECTOR |  |
| 3 | DKC-1400 | ASSY LAMP |  |
| 4 | DKC-2000 | ASSY JOYSTICK MECHA 1P |  |
| 5 | DKC-2500 | ASSY JOYSTICK MECHA 2P |  |
| 6 | DKC-4000 | ASSY MAIN BD |  |
| 7 | DKC-4100 | ASSY ELEC BD |  |
| 8 | DKC-4200 | ASSY SUB ELEC BD |  |
| 9 | DKC-4300 | ASSY PWR SPLY DC |  |
| 10 | DKC-4400 | ASSY PWR SPLY AC |  |
| 11 | DKC-1001 | STICKER SIDE L UPR |  |
| 12 | DKC-1002 | STICKER SIDE L FRONT |  |
| 13 | DKC-1003 | STICKER SIDE L DOOR |  |
| 14 | DKC-1004 | STICKER SIDE R UPR |  |
| 15 | DKC-1005 | STICKER SIDE R FRONT |  |
| 16 | DKC-1006 | STICKER SIDE R DOOR |  |
| 18 | 440-WS0226-EG | STICKER W POWER OFF S ENG |  |
| 19 | 440-WS0143-EG | STICKER W POWER OFF WIDE ENG |  |
| 20 | 421-6594-92 | STICKER CERTIFICATE |  |
| 22 | 421-11416 | STICKER CAUTION FORK |  |
| 24 | 421-7988-01 | STICKER SERIAL NUMBER FOR UL |  |
| 25 | 421-7501-02 | STICKER 6.3V 0.15A |  |
| 26 | 253-5366 | CASH BOX |  |
| 27 | DKC-2001X | BALL DISH |  |
| 28 | DP-1167 | TNG LKG |  |
| 29 | DKC-1007-01 | STICKER C DO NOT CLIMB ENG |  |
| 101 | 509-6240-01 | SW PB WH OBSA-100UMQ DKC 1P |  |
| 102 | 509-6240-02 | SW PB WH OBSA-100UMQ DKC 2P |  |
| 103 | 220-5237-93-05 | ASSY C.C.2DR HONG KONG \$1 |  |
| 104 | 220-5793-1-A001 | CLY LOCK MASTER W/O KEY A001 |  |
| 105 | 220-5794 | CLY LOCK W/KEYS |  |
| 106 | 310-5029-F20 | SUMITUBE F F 20MM |  |
| 107 | 280-5275-SR10 | CORD CLAMP SR10 |  |
| 108 | 601-0460 | PLASTIC TIE BELT $100 \mathrm{M} / \mathrm{M}$ |  |
| 109 | 280-6676 | CORD CLAMP TL-25A TKK |  |
| 201 | 068-441616 | FLT WSHR 4.4-16x1.6 |  |
| 202 | 032-000420 | WING BLT M4x20 |  |
| 203 | 060-S00400 | SPR WSHR M4 |  |
| 204 | 060-F00400 | FLT WSHR M4 |  |
| 205 | 050-H00400 | HEX NUT M4 |  |
| 206 | 000-T00416-0C | M SCR TH CRM M $4 \times 16$ |  |
| 207 | 030-000830-S | HEX BLT W/S M8x30 |  |
| 208 | 030-000840-S | HEX BLT W/S M8x40 |  |

ASSY CONTROLLER CABINET

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 209 | FAS-680040 | FLT WSHR 8.5-20x1.6 |  |
| 210 | FAS-200085 | HEX SKT H CAP SCR BLK M8x40 |  |
| 211 | $060-$ S00800-0B | SPR WSHR BLK M8 |  |
| 212 | FAS-680032 | FLT WSHR BLK 8.5-16x1.2 |  |
| 213 | $000-$ P00430-W | M SCR PH W/FS M4x30 |  |
| 214 | $000-$ T00430-0B | M SCR TH BLK M4x30 |  |
| 215 | $020-000516-0 Z$ | HEX SKT H CAP SCR BLK 0Z M5 516 |  |
| 216 | $060-$ S00500-0B | SPR WSHR BLK M5 |  |
| 217 | $060-$ F00500-0B | FLT WSHR BLK M5 |  |
| 301 | $600-7344-02$ | WH C.C. SINGLE YL |  |
| 302 | $600-6972-0150$ | WIRE HARN EARTH ID5 0150MM |  |

(11) DKC-1100

## ASSY SUB CTRL CABINET



ASSY SUB CTRL CABINET

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :---: | :---: | :---: |
| 1 | DKC-1130 | ASSY SIDE DOOR |  |
| 2 | DKC-1140 | ASSY PROJECTOR DOOR |  |
| 3 | DKC-1150 | ASSY BACK DOOR |  |
| 4 | DKC-1160 | AC UNIT |  |
| 5 | DKC-1170 | SW UNIT |  |
| 6 | DKC-1200 | ASSY SPEAKER |  |
| 7 | DKC-1180 | FAN UNIT |  |
| 8 | 610-0804 | METER UNIT SINGLE YL ROHS |  |
| 9 | DKC-1101X | CONTROLLER CABINET |  |
| 10 | DKC-1102 | NUT PLATE FOR LEG |  |
| 11 | DKC-1103 | NUT PLATE FOR CASTER |  |
| 12 | DKC-1104 | NUT PLATE FOR SCREEN CABI |  |
| 13 | DKC-1105 | NUT PLATE FOR SUPPORT BRKT |  |
| 14 | DKC-1106 | LEG BRKT |  |
| 15 | DKC-1107 | SIDE JOINT BRKT |  |
| 16 | DKC-1108 | PWR SPLY BRKT |  |
| 17 | DKC-1109 | GUARD PLATE |  |
| 18 | DKC-1110 | CABLE PLATE |  |
| 19 | DKC-1111 | HOLE LID |  |
| 20 | DKC-1112 | SW HOLE LID |  |
| 21 | 105-5637 | LOCK BRKT W |  |
| 22 | DKC-1114 | PWR COVER SHEET |  |
| 23 | DKC-1115 | INSTR PLATE |  |
| 24 | DKC-1116 | INSTR PLATE UPPER |  |
| 25 | 105-5592 | CHUTE PLATE SINGLE |  |
| 26 | 253-5460-02 | AIR VENT WHITE |  |
| 27 | 105-5239-91-03 | AIR VENT |  |
| 29 | ARC-1006 | LEG BRACKET |  |
| 30 | 117-5233-91-01 | PLATE LEG BRACKET WHITE |  |
| 32 | HLT-0532 | CHAIN HOLDER A |  |
| 33 | HLT-0533 | CHAIN HOLDER B |  |
| 34 | HLT-0534 | BUSH |  |
| 101 | 601-9377 | CASTER FAI=75 |  |
| 102 | 601-5882 | LEG ADJUSTER (TAKIGEN C-280-2) |  |
| 103 | 117-5402-06-91 | EARTH TERMINAL PLATE 6P |  |
| 104 | 280-6676 | CORD CLAMP TL-25A TKK |  |
| 201 | 000-T00430-0C | M SCR TH CRM M $4 \times 30$ |  |
| 202 | 068-441616-0C | FLT WSHR CRM 4.4-16x1.6 |  |
| 203 | 000-T00416-0C | M SCR TH CRM M $4 \times 16$ |  |
| 204 | 000-P00412-W | M SCR PH W/FS M4x12 |  |
| 205 | 050-F00400 | FLG NUT M4 |  |
| 206 | 000-P00416-WB | M SCR PH W/FS BLK M4x16 |  |
| 207 | 011-T03512 | TAP SCR TH $3.5 \times 12$ |  |
| 208 | 030-000630-SC | HEX BLT W/S CRM M6x30 |  |
| 209 | 060-F00600 | FLT WSHR M6 |  |
| 210 | 008-T00416-0C | TMP PRF SCR TH CRM M $4 \times 16$ |  |
| 212 | 050-H01600-3 | HEX NUT TYPE3 M16 |  |
| 213 | 011-F00312 | TAP SCR \#1 FH 3x12 |  |

(11) DKC-1100
ASSY SUB CTRL CABINET
(D-3/3)

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 214 | $030-000820-S$ | HEX BLT W/S M8×20 |  |
| 215 | $068-852216$ | FLT WSHR 8.5-22 x1.6 |  |
| 216 | $000-$ T00408-0B | M SCR TH BLK M4×8 |  |
| 218 | $008-$ T00630-0C | TMP PRF SCR TH CRM M6x30 |  |
| 219 | $068-652016-0 C$ | FLT WSHR CRM 6.5-20x1.6 |  |
| 301 |  |  |  |
| 302 | DKC-6001 | ASSY WIRE AC |  |
| 303 | $600-6002$ | ASSY WIRE DC |  |

(12) DKC-1130

## ASSY SIDE DOOR



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :---: | :---: | :---: |
| 1 | DKC-1131 | SIDE DOOR |  |
| 2 | DP-1148X | LKG TNG |  |
| 3 | 117-0062 | PLATE LOCK RETAINER |  |
| 101 | 220-5793-1-A001 | CLY LOCK MASTER W/O KEY A001 |  |

## (13) DKC-1140

## ASSY PROJECTOR DOOR



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-1141 | PROJECTOR DOOR |  |
| 2 | DKC-1142 | PROJECTOR PLATE |  |
| 3 | DP-1148X | LKG TNG |  |
| 4 | $117-0062$ | PLATE LOCK RETAINER |  |
| 101 | $220-5793-1-A 001$ | CLY LOCK MASTER W/O KEY A001 |  |
| 201 | $031-000425-0 C$ | CRG BLT CRM M4×25 |  |
| 202 | $050-$ F00400 | FLG NUT M4 |  |

(14) DKC-1150

## ASSY BACK DOOR



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-1151X | BACK DOOR |  |
| 3 | DP-1148X | LKG TNG |  |
| 4 | $117-0062$ | PLATE LOCK RETAINER |  |
| 101 | $220-5793-1-A 001$ | CLY LOCK MASTER W/O KEY A001 |  |

(15) DKC-1160

AC UNIT


## AC UNIT

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :---: | :---: | :---: |
| 1 | DKC-1161 | AC BRKT |  |
| 2 | 421-7468-02 | STICKER C.P W/PIC |  |
| 3 | 421-8202 | STICKER EARTH MARK |  |
| 101 | 214-0202 | AC INLET PANEL TYPE |  |
| 102 | 512-5046-91-05 | C.P 5A CE UL NRW10-5A-TK2421 |  |
| 103 | 509-6102-V-B | SW ROCKER J8 V-B AJ8202BF |  |
| 104 | 270-5167 | NOISE FILTER 16A FN2060-16-06 |  |
| 105 | 280-5275-SR10 | CORD CLAMP SR10 |  |
| 106 | 280-5277 | CORD CLAMP 18 |  |
| 107 | 310-5029-H20 | SUMITUBE F H 20MM |  |
| 201 | 000-P00408-W | M SCR PH W/FS M4x8 |  |
| 202 | 050-H00400 | HEX NUT M4 |  |
| 203 | 060-F00400 | FLT WSHR M4 |  |
| 204 | 060-S00400 | SPR WSHR M4 |  |
| 205 | 000-P00408 | M SCR PH M $4 \times 8$ |  |
| 301 | DKC-60001 | WH AC UNIT IN |  |
| 302 | DKC-60002 | WH AC UNIT OUT |  |
| 303 | 600-6972-0200 | WIRE HARN EARTH ID5 0200MM |  |

(16) DKC-1170 SW UNIT


| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-1171 | SW BRKT |  |
| 2 | $421-12043$ | STICKER SW PANEL |  |
| 101 | $838-14548$ | SW \& VOL BD |  |
| 201 | $000-$ P00308-W | M SCR PH W/FS M3x8 |  |

(17) DKC-1180

## FAN UNIT



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | SHT-1482X | FAN BRKT |  |
| 101 | $260-0092-02$ | FAN DC12V NIDEC |  |
| 102 | $280-5275-$ SR10 | CORD CLAMP SR10 |  |
| 201 | $000-$ P00420-WB | M SCR PH W/FS BLK M4x20 |  |

(18) DKC-1200

ASSY SPEAKER


| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-1201 | SPEAKER BRKT |  |
| 101 | $130-5282$ | SPKR BOX 77MM 4OHM 10W |  |
| 103 | $280-6676$ | CORD CLAMP TL-25A TKK |  |
| 201 | $000-P 00512-W$ | M SCR PH W/FS M5×12 |  |

(19) 610-0804

## METER UNIT SINGLE YL ROHS



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | OCN-1521X | METER BRKT |  |
| 2 | $421-9168-01$ | STICKER COIN METER |  |
| 101 | $220-5798-01$ | MAG CNTR 4P MZ674-DC5V-D41 JC |  |

## (20) DKC-6001

ASSY WIRE AC

This is comprised of the following wire harnesses. ASSY drawing is not available.

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 101 | $601-0460$ | PLASTIC TIE BELT 100 M/M |  |
| 301 | DKC-60005 | WH AC OUT |  |
| 302 | DKC-60006 | WH AC SSR OUT 1P |  |
| 303 | DKC-60007 | WH AC SSR OUT 2P |  |
| 304 | $600-6972-0400$ | WIRE HARN EARTH ID5 0400MM |  |
| 305 | $600-6972-0550$ | WIRE HARN EARTH ID5 0550MM |  |
| 306 | $600-6972-1250$ | WIRE HARN EARTH ID5 1250MM |  |
| 307 | $600-6972-1500$ | WIRE HARN EARTH ID5 1500MM |  |
| 308 | $600-6972-1550$ | WIRE HARN EARTH ID5 1550MM |  |

## (21) DKC-6002

## ASSY WIRE DC

This is comprised of the following wire harnesses. ASSY drawing is not available.

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 101 | $601-0460$ | PLASTIC TIE BELT 100 M/M |  |
| 301 | DKC-60008 | WH DC SSR BD EXT |  |
| 302 | DKC-60009 | WH SPEAKER |  |
| 303 | DKC-60010 | WH SOUND LINE |  |
| 304 | DKC-60011 | WH DC GAME BD EXT 1 |  |
| 305 | DKC-60012 | WH DC GAME BD EXT 2 |  |
| 306 | DKC-60013 | WH DC IO BD EXT |  |
| 307 | DKC-60014 | WH SERVICE DOOR |  |
| 308 | DKC-60015 | WH START BUTTON |  |
| 309 | DKC-60016 | WH CONTROLLER 1P EXT |  |
| 310 | DKC-60017 | WH CONTROLLER 2P EXT |  |
| 311 | DKC-60018 | WH SIG SSR BD 1P |  |
| 312 | DKC-60019 | WH SIG SSR BD 2P |  |

(22) DKC-1300

## ASSY PROJECTOR



| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- | NOTE

## (23) DKC-1400

ASSY LAMP


| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-1401 | LAMP COVER |  |
| 2 | DKC-1402 | LAMP SOCKET BASE |  |
| 3 | DKC-1403 | LAMP PLATE |  |
| 4 | $440-W S 0293-E G$ | STICKER W MARK ENG |  |
| 101 |  |  |  |
| 102 | 201-11633 | RUBBER DUMPER KA-10 |  |
| 103 | $390-673-04$ | SOCKET E11 W/CONN VL WH | HALOGEN LAMP JDR110V40WLN/K |
| 105 | $280-5275-$ SR10 | CORD CLAMP SR10 |  |
| 201 | $000-$ P00308-W | M SCR PH W/FS M3x8 |  |
| 202 | $000-$ T00408-0C | M SCR TH CRM M4x8 |  |

(24) DKC-2000

## ASSY JOYSTICK MECHA 1P


(24) DKC-2000

ASSY JOYSTICK MECHA 1P

| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- |
| 1 | DKC-2200 | NOTE |
| 2 | DKC-2300 | ASSY JOYSTICK BASE 1P |
| 3 | DKC-2320 | ASSY CLUTCU SHAFT |
| 4 | DKC-2340 | ASSY MOTOR |
| 5 | DKC-2006X | CLUTCH COVER BRKT |
| 6 | DKC-2002 | OUTPUT ARM |
| 7 | DKC-2003 | SWING ARM |
| 8 | DKC-2004 | SWING ARM RAIL |
| 9 | DKC-2005 | SWING ARM SPACER |
| 10 | $123-030311$ | KEY 3x3x11 |
| 11 | $280-6622-50060$ | SPACER TUBE |
| 12 | $280-6622-80080$ | SPACER TUBE |
| 13 | DKC-2325 | MIDDLE SHAFT SPACER |
|  |  |  |
| 101 | $100-5569$ | CAM FOLLOWER CF 5-A |
| 102 | $100-5018$ | BEARING BALL 8 |
| 103 | $350-5967$ | TIMING BELT 300 S3M 06 |
| 201 | $030-000616-W$ | HEX BLT W/FS M6x16 |
| 202 | $050-F 00600$ | FLG NUT M6 |
| 203 | $029-0330$ | HEX SKT H CAP SCR BLT M6x10 |
| 204 | $060-S 00600$ | SPR WSHR M6 |
| 205 | FAS-680039 | FLT WSHR 6.2-10x1 |
| 206 | $050-F 00400$ | FLG NUT M4 |
| 207 | FAS-650028 | WAVE WSHR BWW-608 |
| 208 | $060-$ F00400 | FLT WSHR M4 |
| 209 | $060-$ F00500 | FLT WSHR M5 |
| 210 | $050-H 00500$ | HEX NUT M5 |
| 211 | $028-A 00406-P$ | SET SCR HEX SKT CUP P M4x6 |
| 212 | $050-H 00800$ | HEX NUT M8 |
| 213 | $060-F 00800$ | FLT WSHR M8 |
| 214 | $000-P 00416-W$ | M SCR PH W/FS M4x16 |
| 215 | $060-500800$ | SPR WSHR M8 |
|  |  |  |


(25) DKC-2200

ASSY JOYSTICK BASE 1P

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :---: | :---: | :---: |
| 1 | DKC-2201 | STICK SHAFT LONG |  |
| 2 | DKC-2202 | SHAFT END PLATE |  |
| 3 | DKC-2203Z | UNIVERSAL JOINT BRKT |  |
| 4 | DKC-2204 | UNIVERSAL JOINT SHAFT BRKT |  |
| 5 | DKC-2205Y | MECHA BRKT FRONT |  |
| 6 | DKC-2206Z | MECHA BRKT REAR |  |
| 7 | DKC-2207 | UPPER BRKT |  |
| 8 | DKC-2208 | DUMPER BASE BRKT |  |
| 9 | DKC-2209X | BOTTOM PLATE |  |
| 10 | DKC-2210 | SENSOR BASE PLATE A |  |
| 11 | DKC-2211 | SENSOR BASE PLATE B |  |
| 12 | DKC-2213 | STOPPER DISK |  |
| 13 | DKC-2214-01 | STOPPER BLOCK 4 WAY |  |
| 14 | DKC-2215 | SLIDE PLATE |  |
| 15 | DKC-2216 | SLIDE PLATE COVER |  |
| 16 | DKC-2217 | DUMPER SPACER |  |
| 17 | DKC-2218 | BEARING STOPPER PLATE |  |
| 18 | DKC-2219 | STICKER LIGHT BLOCK |  |
| 101 | 100-5070 | BEARING 15 (NSK 6002ZZ) |  |
| 102 | 100-5365-1510 | OILES BEARING 80 F 1510 |  |
| 103 | 370-5336 | PHOTO SENSOR KB891-AA22LF |  |
| 104 | 370-5337 | PHOTO SENSOR KB890-AA12LF |  |
| 105 | 280-7882 | RUBBER DUMPER RB-35-35H 40 |  |
| 106 | 280-6676 | CORD CLAMP TL-25A TKK |  |
| 107 | 280-5275-SR10 | CORD CLAMP SR10 |  |
| 108 | 601-6563-20 | BUSH 2.4T |  |
| 109 | 280-5277 | CORD CLAMP 18 |  |
| 201 | 000-F00516 | M SCR FH M $5 \times 16$ |  |
| 202 | FAS-290092 | HEX SKT SCR FH BLK OZ M $3 \times 8$ |  |
| 203 | 020-000816-0Z | HEX SKT H CAP SCR BLK 0Z M8x16 |  |
| 204 | 060-S00800 | SPR WSHR M8 |  |
| 205 | 060-F00800 | FLT WSHR M8 |  |
| 206 | 050-F00600 | FLG NUT M6 |  |
| 207 | 000-P00410-W | M SCR PH W/FS M4x10 |  |
| 208 | 000-P00320-W | M SCR PH W/FS M3x20 |  |
| 209 | FAS-200086 | HEX SKT CAP SCR BLK M $8 \times 20$ |  |
| 210 | FAS-680032 | FLT WSHR BLK 8.5-16x1.2 |  |
| 211 | 020-000512-0Z | HEX SKT H CAP SCR BLK $0 Z \mathrm{M} \times \times 12$ |  |
| 212 | 060-S00500 | SPR WSHR M5 |  |
| 213 | 060-F00500 | FLT WSHR M5 |  |
| 214 | 008-T00410-0B | TMP PRF SCR TH BLK M $4 \times 10$ |  |
| 215 | 030-000812-S | HEX BLT W/S M8x12 |  |
| 216 | 050-H00300 | HEX NUT M3 |  |
| 217 | 060-S00800-0B | SPR WSHR BLK M8 |  |

ASSY JOYSTICK BASE 1P

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 301 | DKC-60027 | WH CONTROLLER 1P |  |
| 302 | DKC-60028 | WH BUTTON 1P EXT |  |

## (26) DKC-2300

ASSY OUTPUT SHAFT


NOTE: Apply thread-locking agent.

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-2301 | SHAFT BRKT A |  |
| 2 | DKC-2302 | SHAFT BRKT B |  |
| 3 | DKC-2303 | OUTPUT SHAFT |  |
| 4 | DKC-2304 | PULLEY 60 S3M 15 |  |
| 5 | DKC-2305 | OUTPUT SHAFT SPACER |  |
| 6 | $123-030325$ | KEY 3x3x25 |  |
|  |  |  |  |
| 101 | $100-5018$ | BEARING BALL 8 |  |
| 102 | $350-5966$ | TIMING BELT 300 S3M 15 |  |
| 201 | $050-$ F00600 | FLG NUT M6 |  |
| 202 | $028-A 00412-P$ | SET SCR HEX SKT CUP P M4x12 |  |

(27) DKC-2320

## ASSY CLUTCH



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-2321 | CLUTCH BRKT |  |
| 3 | DKC-2323 | PULLEY 14 S3M 15 |  |
| 4 | DKC-2326 | MIDDLE SHAFT SPACER LONG |  |
|  |  |  |  |
| 101 | 100-5018 | BEARING BALL 8 |  |
| 103 | 280-5275-SR10 | CORD CLAMP SR10 |  |
| 201 | 020-5970 | CLUTCH TMC-10E-26 |  |
|  | 028-A00406-P | SET SCR HEX SKT CUP P M4x6 |  |

## (28) DKC-2340

## ASSY MOTOR



NOTE: Apply thread-locking agent.

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-2341 | MOTOR BRKT |  |
| 2 | DKC-2342 | PULLEY 14 S3M 06 |  |
| 3 | $280-6622-80055$ | SPACER TUBE |  |
| 101 | $350-5969$ | MOTOR AC115V RM 25W |  |
| 102 | $310-5029-G 20$ | SUMITUBE F G 20MM |  |
| 103 | $209-0023-91$ | CONN CLOSED END |  |
| 104 | $601-0460$ | PLASTIC TIE BELT 100 M/M |  |
| 201 | $028-A 00406-P$ | SET SCR HEX SKT CUP P M4x6 |  |
| 202 | $050-F 00500$ | FLG NUT M5 |  |
| 301 | DKC-60035 | WH MOTOR AC |  |

## ASSY JOYSTICK MECHA 2P


(29) DKC-2500

ASSY JOYSTICK MECHA 2P

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :---: | :---: | :---: |
| 1 | DKC-2700 | ASSY JOYSTICK BASE 2P |  |
| 2 | DKC-2300 | ASSY OUTPUT SHAFT |  |
| 3 | DKC-2320 | ASSY CLUTCH |  |
| 4 | DKC-2340 | ASSY MOTOR |  |
| 5 | DKC-2006X | CLUTCH COVER BRKT |  |
| 6 | DKC-2002 | OUTPUT ARM |  |
| 7 | DKC-2003 | SWING ARM |  |
| 8 | DKC-2004 | SWING ARM RAIL |  |
| 9 | DKC-2005 | SWING ARM SPACER |  |
| 10 | 123-030311 | KEY $3 \times 3 \times 11$ |  |
| 11 | 280-6622-50060 | SPACER TUBE |  |
| 12 | 280-6622-80080 | SPACER TUBE |  |
| 13 | DKC-2325 | MIDDLE SHAFT SPACER |  |
| 101 | 100-5569 | CAM FOLLOWER CF 5-A |  |
| 102 | 100-5018 | BEARING BALL 8 |  |
| 103 | 350-5967 | TIMING BELT 300 S3M 06 |  |
| 201 | 030-000616-W | HEX BLT W/FS M6x16 |  |
| 202 | 050-F00600 | FLG NUT M6 |  |
| 203 | 029-0330 | HEX SKT H CAP SCR BLT M6x10 |  |
| 204 | 060-S00600 | SPR WSHR M6 |  |
| 205 | FAS-680039 | FLT WSHR 6.2-10x1 |  |
| 206 | 050-F00400 | FLG NUT M4 |  |
| 207 | FAS-650028 | WAVE WSHR BWW-608 |  |
| 208 | 060-F00400 | FLT WSHR M4 |  |
| 209 | 060-F00500 | FLT WSHR M5 |  |
| 210 | 050-H00500 | HEX NUT M5 |  |
| 211 | 028-A00406-P | SET SCR HEX SKT CUP P M4x6 |  |
| 212 | 050-H00800 | HEX NUT M8 |  |
| 213 | 060-F00800 | FLT WSHR M8 |  |
| 214 | 000-P00416-W | M SCR PH W/FS M $4 \times 16$ |  |
| 215 | 060-S00800 | SPR WSHR M8 |  |


(30) DKC-2700

ASSY JOYSTICK BASE 2P

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :---: | :---: | :---: |
| 1 | DKC-2701 | STICK SHAFT SHORT |  |
| 2 | DKC-2202 | SHAFT END PLATE |  |
| 3 | DKC-2203Z | UNIVERSAL JOINT BRKT |  |
| 4 | DKC-2204 | UNIVERSAL JOINT SHAFT BRKT |  |
| 5 | DKC-2205Y | MECHA BRKT FRONT |  |
| 6 | DKC-2206Z | MECHA BRKT REAR |  |
| 7 | DKC-2207 | UPPER BRKT |  |
| 8 | DKC-2208 | DUMPER BASE BRKT |  |
| 9 | DKC-2209X | BOTTOM PLATE |  |
| 10 | DKC-2210 | SENSOR BASE PLATE A |  |
| 11 | DKC-2211 | SENSOR BASE PLATE B |  |
| 12 | DKC-2213 | STOPPER DISK |  |
| 13 | DKC-2214-01 | STOPPER BLOCK 4 WAY |  |
| 14 | DKC-2215 | SLIDE PLATE |  |
| 15 | DKC-2216 | SLIDE PLATE COVER |  |
| 16 | DKC-2217 | DUMPER SPACER |  |
| 17 | DKC-2218 | BEARING STOPPER PLATE |  |
| 18 | DKC-2219 | STICKER LIGHT BLOCK |  |
| 101 | 100-5070 | BEARING 15 (NSK 6002ZZ) |  |
| 102 | 100-5365-1510 | OILES BEARING 80F 1510 |  |
| 103 | 370-5336 | PHOTO SENSOR KB891-AA22LF |  |
| 104 | 370-5337 | PHOTO SENSOR KB890-AA12LF |  |
| 105 | 280-7882 | RUBBER DUMPER RB-35-35H 40 |  |
| 106 | 280-6676 | CORD CLAMP TL-25A TKK |  |
| 107 | 280-5275-SR10 | CORD CLAMP SR10 |  |
| 108 | 601-6563-20 | BUSH 2.4T |  |
| 109 | 280-5277 | CORD CLAMP 18 |  |
| 201 | 000-F00516 | M SCR FH M $5 \times 16$ |  |
| 202 | FAS-290092 | HEX SKT SCR FH BLK OZ M3x8 |  |
| 203 | 020-000816-0Z | HEX SKT H CAP SCR BLK $0 Z \mathrm{M} 8 \times 16$ |  |
| 204 | 060-S00800 | SPR WSHR M8 |  |
| 205 | 060-F00800 | FLT WSHR M8 |  |
| 206 | 050-F00600 | FLG NUT M6 |  |
| 207 | 000-P00410-W | M SCR PH W/FS M4x10 |  |
| 208 | 000-P00320-W | M SCR PH W/FS M $3 \times 20$ |  |
| 209 | FAS-200086 | HEX SKT CAP SCR BLK M8x20 |  |
| 210 | FAS-680032 | FLT WSHR BLK 8.5-16x1.2 |  |
| 211 | 020-000512-0Z | HEX SKT H CAP SCR BLK $0 Z \mathrm{M} 5 \times 12$ |  |
| 212 | 060-S00500 | SPR WSHR M5 |  |
| 213 | 060-F00500 | FLT WSHR M5 |  |
| 214 | 008-T00410-0B | TMP PRF SCR TH BLK M4x10 |  |
| 215 | 030-000812-S | HEX BLT W/S M8x12 |  |
| 216 | 050-H00300 | HEX NUT M3 |  |
| 217 | 060-S00800-0B | SPR WSHR BLK M8 |  |

ASSY JOYSTICK BASE 2P

| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 301 | DKC-60031 | WH CONTROLLER 2P |  |
| 302 | DKC-60032 | WH BUTTON 2P EXT |  |

## (31) DKC-4000

## ASSY MAIN BD



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-4001 | WOODEN BASE MAIN |  |
| 101 | $280-6676$ | CORD CLAMP TL-25A TKK |  |
| 201 | $011-$ F00312 | TAP SCR \#1 FH 3x12 |  |
| 301 | DKC-60023 | WH SOUND OUT |  |
| 302 | DKC-60024 | WH DC GAME BD |  |
| 303 | DKC-60025 | WH IO SP 1 |  |
| 304 | DKC-60026 | WH IO SP 2 |  |

(32) DKC-4100

## ASSY ELEC BD



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-4101 | WOODEN BASE ELEC |  |
| 2 | $837-14572$ | I/O CONTROL BD 3 FOR JVS COM |  |
| 3 | $839-1383$ | CLASS D 10W STEREO AMP MAXIM |  |
| 101 | $400-5464-03012$ | SW REGU VS30C-12 |  |
| 102 | $280-6681$ | L-LOCK LT-320PCG |  |
| 103 | $280-0419$ | HARNESS LUG |  |
| 201 | $011-$ P00325 | TAP SCR PH 3x25 |  |
| 202 | $011-$ T03516 | TAP SCR TH 3.5x16 |  |
| 203 | $011-T 03512$ | TAP SCR TH 3.5x12 |  |
| 204 | $000-P 00308-W$ | M SCR PH W/FS M3x8 |  |
| 301 | DKC-60020 | WH DC AMP |  |

## (33) DKC-4200

## ASSY SUB ELEC BD



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-4201 | WOODEN BASE SUB ELEC |  |
| 2 | $839-1148 R$ | 4A DC SSR BD NH4P |  |
|  |  |  |  |
| 101 | $838-14630$ | SSR BD G3MB-202P X2 |  |
| 102 | $280-6681$ | L-LOCK LT-320PCG |  |
| 201 | $011-$ T03516 | TAP SCR TH 3.5×16 |  |
| 202 | $011-$ P00325 | TAP SCR PH 3x25 |  |
| 203 | $000-$ P00308-W | M SCR PH W/FS M3x8 |  |

(34) DKC-4300

## ASSY PWR SPLY DC



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-4301 | WOODEN BASE PWR SPLY DC |  |
| 101 | $400-5443-02$ | SW REGU FOR CHIHIRO NEW |  |
| 102 | $400-5464-03024$ | SW REGU VS30C-24 |  |
| 103 | $280-6681$ | L-LOCK LT-320PCG |  |
| 104 | $280-0419$ | HARNESS LUG |  |
|  |  |  |  |
| 201 | $011-$ T03512 | TAP SCR TH 3.5x12 |  |
| 202 | $011-T 03516$ | TAP SCR TH 3.5x16 |  |
| 203 | $000-$ P00308-W | M SCR PH W/FS M3x8 |  |
| 204 | $000-P 00416-W$ | M SCR PH W/FS M4x16 |  |
| 301 | DKC-60021 | WH AC SW REGU |  |
| 302 | DKC-60022 | WH DC SSR BD |  |

(35) DKC-4400

ASSY PWR SPLY AC


| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :---: | :---: | :---: |
| 1 | DKC-4401 | WOODEN BASE PWR SPLY AC |  |
| 101 | 838-14551 | DISTRIBUTION BD |  |
| 102 | 601-8956-01 | EARTH OUTLET WK3001W |  |
| 103 | 280-0419 | HARNESS LUG |  |
| 201 | 011-P00320 | TAP SCR PH $3 \times 20$ |  |
| 202 | 011-F03512 | TAP SCR FH $3.5 \times 12$ |  |
| 203 | 011-T03512 | TAP SCR TH $3.5 \times 12$ |  |
| 302 | DKC-60004 | WH AC OUTLET |  |
| 1 | 560-5464-V | XFMR 220-240V 100V 7.5A WB |  |
| 1 | 000-P00516-W | M SCR PH W/FS M5x16 |  |
| 1 | DKC-60039 | WH AC XFMR OUT |  |

(36) DKC-2100

## ASSY JOYSTICK BALL GREEN



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-2101 | JOYSTICK BALL GREEN |  |
| 101 | $509-6241$ | SW PB WH OBSA-45UM DKC |  |
| 102 | $280-5275-$ SR10 | CORD CLAMP SR10 |  |
| 301 | DKC-60029 | WH BUTTON 1P L |  |
| 302 | DKC-60030 | WH BUTTON 1P R |  |

## (37) DKC-2600 <br> ASSY JOYSTICK BALL PINK



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :--- |
| 1 | DKC-2601 | JOYSTICK BALL PINK |  |
| 101 | $509-6241$ | SW PB WH OBSA-45UM DKC |  |
| 102 | $280-5275-$ SR10 | CORD CLAMP SR10 |  |
| 301 | DKC-60033 | WH BUTTON 2P L |  |
| 302 | DKC-60034 | WH BUTTON 2P R |  |

## MEMO

## 22 WIRE COLOR CODE TABLE

## $\triangle$ WARNING

The DC power wire color for this product is different from previous SEGA titles. Working from the previous wire colors will create a high risk of fire.

The color codes for the wires used in the diagrams in the following chapter are as follows.

| A | PINK |
| :---: | :---: |
| B | SKY BLUE |
| C | BROWN |
| D | PURPLE |
| E | LIGHT GREEN |

Wires other than those of any of the above 5 single colors will be displayed by 2 alphanumeric characters.

| 1 | RED |
| :---: | :---: |
| 2 | BLUE |
| 3 | YELLOW |
| 4 | GREEN |
| 5 | WHITE |
| 7 | ORANGE |
| 8 | BLACK |
| 9 | GRAY |

If the right-hand side numeral of the code is 0 , then the wire will be of a single color shown by the left-hand side numeral (see the above).

If the right-hand side numeral is not 0 , that particular wire has a spiral color code. The left-hand side character shows the base color and the right-hand side one, the spiral color.
$<$ Example> 51 $\qquad$ WHITE/RED


The character following the wire color code indicates the size of the wire.

| U | AWG16 |
| :---: | :---: |
| K | AWG18 |
| L | AWG20 |
| None | AWG22 |
| T | AWG24 |





## SEGA AMUSEMENTS OFFICES

## SEGA AMUSEMENTS U.S.A., INC.

800 Arthur Avenue, Elk Grove Village, IL 60007-5215, U.S.A.

$$
\begin{array}{ll}
\text { Telephone: } & +1-847-364-9787 \\
\text { Toll free: } & +1-888-877-2669 \\
\text { Facsimile: } & +1-847-427-1065
\end{array}
$$

## SEGA AMUSEMENTS EUROPE, LTD.

42, Barwell Business Park, Leatherhead Road, Chessington, Surrey, KT9 2NY United Kingdom

Telephone: $\quad+44$ (0) 2083918090
Facsimile: $\quad+44$ (0) 2083918099
e-mail: mailbox@sega.co.uk
http://www.sega-amusements.co.uk

## SEGA CORPORATION

TRC Haneda Building, 2-13-1, Higashikojiya, Ohta-ku, Tokyo 144-0033, Japan

Telephone: +81-3-6863-8401
Facsimile: +81-3-6863-8407


[^0]:    Select EXIT and press the TEST Button. The SYSTEM MENU screen reappears.

[^1]:    2
    When all tests are completed, press the TEST Button. The SYSTEM MENU screen reappears.

[^2]:    1
    Use the SERVICE Button to move the cursor to the desired test item. Press the TEST Button to confirm selection of the item.

[^3]:    When all setting adjustments are completed, move the cursor to EXIT and press the TEST Button. The GAME TEST MODE screen reappears.

[^4]:    3
    Press the TEST Button to return to the GAME TEST MODE screen.

