## SEEAㅇ

SEGA AMUSEMENTS INTERNATIONAL LTD.
42 Barwell Business Park, Leatherhead Road
Chessington, Surrey
KT9 2NY
Telephone: +44 (0) 2083918090 Facsimile: +44 (0) 2083918099 Email: sales@segaarcade.com Web: http://www.segaarcade.com
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## IMPORTANT

- Before using this product, read this Manual carefully to understand the contents herein stated
- After reading this Manual, be sure to keep it near the product or in a convenient place for easy reference when necessary


## Errors \& Omissions Excepted (E\&OE)

## BEFORE USING THE PRODUCT, besure to read hie 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.

PICTOGRAPHS AND DEFINITIONS
DANGER
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 (this 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 (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 that exceed the specified rating can cause a fire and an electric shock

- Specification changes (removal of equipment, conversions and additions) 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 or 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 the 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, take considerable care (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. 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 customer

- 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:Are there any dented portions or defects (cuts, etc.) on the external surfaces of the Cabinet?Are castors and adjusters damaged?Do the power supply voltage and frequency requirements meet with those of the location?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 or dents?Are all accessories available?Can all doors and lids be opened with the accessory keys? Can doors and lids be firmly closed?

## INTRODUCTION

This Manual is intended to provide detailed descriptions together with all necessary information covering the general operation of electronic assemblies, electromechanical, servicing control, spare parts, etc. for the product:
"ZOMBIES READY, DEADY, GO!"
This Manual is intended for the owners and personnel managers in charge of operation of this 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 machine, making sure to unplug the electrical cord from the outlet, and contact the office listed below 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 words "STOP", "IMPORTANT", "WARNING", or "CAUTION" and the symbols 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

## $\triangle$ WARNING $\triangle$ CAUTION

Indicates a warning or caution that, if ignored, may result in the mishandling of the product and cause faulty operation or damage to the product

Sega Amusements International Limited

amusements international

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

| European Sales: | $+44(0) 2083918090$ | Email: | sales@segaarcade.com |
| :--- | :--- | :--- | :--- |
| USA Sales: | $+00(1) 2242654287$ | Email: | sales@segaarcade.com |
| STS (Spares): | $+44(0) 2083918060($ Option 1) | Email: | stssales@segaarcade.com |
| Tech Support: | $+44(0) 2083918060($ Option 2) | Email: | technical@segaarcade.com |
| Prize \& Merchandise: | $+44(0) 2083918060($ Option 1) | Email: | stssales@segaarcade.com |

Web: https://segaarcade.com/

| Standard Cabinet | SPECIFICATIONS |  |
| :--- | :--- | :--- |
|  |  |  |
| Machine Dimensions: |  | $2.16 \mathrm{~m}(85.03 \mathrm{in})[$ [Width $] \times 2.06 \mathrm{~m}(81.1 \mathrm{in})$ [Depth] |
| Machine Height: |  | $2.37 \mathrm{~m}(93.3 \mathrm{in})$ (Installed) |
| Machine Weight: | 716 kg Approx (1578lbs) |  |
| Power, maximum current: | $-752 \mathrm{w}-$ |  |
| Rating: | $110-230 \mathrm{VAC} @ 50 / 60 \mathrm{~Hz}$ |  |
| Fuse Rating: | 5 A |  |
|  |  |  |

INDIVIDUAL SPECIFICATIONS

Monitor Cabinet


Billboard


Playdeck


## stor IMPORTANT

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 technological experience. 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 for potentially dangerous procedures which should only be carried out by professionals with the appropriate specialised knowledge.

The site maintenance personnel or other qualified professionals mentioned in this Manual are defined as follows:

## Site Maintenance Personnel:

Individuals 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, or involved in design, production, testing or maintenance of amusement equipment. The individual should have either graduated from technical school or hold similar qualifications in electrical/electronics/mechanical engineering.

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

## Waste of Electrical and Electronic Equipment (WEEE) Statement

The WEEE (Waste of Electrical and Electronic Equipment) directive places an obligation on all EU based manufacturers and importers of Electrical and Electronic Equipment (EEE) to ensure waste equipment is disposed of in accordance with the directive at the end of their useful life.

The symbol shown below will be placed on all products manufactured from 13th August 2005, which indicates this product must NOT be disposed of with other normal waste.

Upon purchasing any EEE from SEGA Amusements International Ltd., the user accepts responsibility to dispose of their waste equipment by arranging to return it to a designated UK collection point (AATF) or an Approved Exporter (AE) for the correct recycling of waste electrical and electronic equipment.

For more information on Approved Authorised Treatment Facilities (AATF) within the UK please consult the government website: https://www.gov.uk/guidance/regulations-waste-electrical-and-electronicequipment

For users outside of the UK, EEE should be disposed of in accordance with the local policy on the recycling of Waste Electrical and Electronic Equipment.

## Battery Recycling Statement

The EC Directive on Batteries and Accumulators (2006/66/EC) aims to minimise the impact of batteries on the environment and encourage the recovery of the materials they contain. To achieve increased collection and recycling of waste batteries, the Directive places 'producer responsibility' obligations on manufacturers and importers of portable, industrial and automotive batteries.

The symbol shown below will be on all equipment fitted with batteries from 26th September 2008 and indicates they must NOT be disposed of with other normal waste. Instead, it is the user's responsibility to dispose of used batteries by arranging to return them to a designated collection point for the correct recycling.

For more information about where you can send your waste batteries for recycling contact your local authority office.


## DECLARATION OF CONFORMITY

| Product Identification |  |
| :---: | :---: |
| Product | ZOMBIES! READY, DEADY, GO! |
| Model | ZR-0000-XUK |
| Manufacturer |  |
| Name | SEGA AMUSEMENTS INTERNATIONAL |
| Address | 42 Barwell Business Park |
|  | Leatherhead Road |
|  | Chessington |
|  | Surrey, KT9 2NY |
| Country | UK |
| EMC |  |
| Name | Kiwa Blackwood Compliance |
|  | Laboratory Ltd Unit 8, Woodfieldside Business Park |
| Address | Pontllanfraith, Blackwood, Gwent |
| Country | UK |
| Standards Used | CE |
|  | EN 55032:2015 + A11:2020 |
|  | EN 55035:2017 + A11:2020 |
|  | EN 61000-3-2:2014 |
|  | EN 61000-3-3:2013 |
| Test Report Number | R23-6310 |
| LVD |  |
| Name Address | Kiwa Blackwood Compliance |
|  | Laboratory Ltd Unit 8, Woodfieldside Business Park |
|  | Pontllanfraith, Blackwood, Gwent |
| Country | UK |
|  | CE |
| Standards Used | EN 60335-1:2012+A15:2021* |
|  | IEC 60335-1:2010+A1:2013: + A2:2016 |
|  | EN 60335-2-82:2003+A1:2008+A2:2020* |
|  | IEC 60335-2-82:2017+A1:2020* |
| Test Report Number | R23-6312 |
| Rohs |  |

DIRECTIVE 2015/863/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the restriction of the use of certain hazardous substances in electrical and electronic equipment

## Means of conformity.

The product is in conformity with Directives 2014/30/EU, 2014/35/EU, 2015/863/EU in accordance with Article 10(1) of the Directive.

| Date | $:$ | $30 / 01 / 2024$ |
| :--- | :--- | :--- |
| Certificate Number | $\vdots$ | SAECE-255 |
| Revision | $:$ | REV 0 |

Signature of representative-


Name
Function:

Nigel Allison
Manufacturing Director
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## 1 HANDLING PRECAUTIONS

When installing or inspecting the machine, be mindful of the following points and pay attention to ensure that the player can enjoy the game safely.

Noncompliance with the following points or inappropriate handling running counter to the cautionary matters herein stated can cause personal injury or damage to the machine.

## . 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 cases where 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 cords or earth wires on the surface, (floor, passage, etc). If exposed, the power cords and earth wires are susceptible to damage. Damaged cords 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 cords
- During or after installing the product, do not unnecessarily pull the power cord. If damaged, the power cord can cause a fire or an electric shock
- In the case that the power cord is damaged, ask for a replacement through where the product was purchased from or the office herein stated. Using the cord 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 to use fuses meeting the specified rating. Using fuses exceeding the specified rating can cause a fire or 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. Noncompliance with this instruction can have a bad influence upon the physical conditions of players or onlookers, or result in injury during play
- SEGA shall not be held responsible for damage or compensation for damage to a third party caused by specification changes not designated by SEGA
- Do not perform any work or change parts not listed in this Manual. Doing so may lead to an accident
- If you need to perform any work not listed in this Manual, request work from the office indicated in this Manual or the point of purchase, or inquiries for details. Be sure to perform periodic maintenance inspections herein stated
- Do not touch undesignated places. Touching places not designated can cause electric shock or short circuit
- Whenever any fasteners (e.g. screws, nuts) have been lost, be sure to use replacement fasteners with proper dimensions as specified in this Manual. If fasteners of any other dimensions are used, it could cause damage and/or separation of parts that result in secondary accidents
- 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. Noncompliance with this instruction can have a bad influence upon the physical conditions of players and onlookers, or result in injury during play
- SEGA shall not be held responsible for damage or compensation for damage to a third party caused by specification changes not designated by SEGA
- Performing work or parts replacements not described in this Manual could result in accidents. If you need to perform any work not listed in this Manual, request work from the office indicated in this Manual or the point-of-purchase, or inquires for details
- Be sure to perform periodic maintenance inspections herein stated


## stop IMPORTANT

- For the IC board circuit inspections, only the use of a logic tester is recommended. Using a Multi-Tester or General Purpose Tester may result in damage to IC Circuits
- Static electricity from your body may damage some electronic devices on the IC board. Before handling the IC board, touch a grounded metallic surface so that the static electricity can be discharged
- Some parts are not designed or 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 has technical expertise.

In order to prevent accidents, caution any customer ignoring the warnings to cease and desist immediately.




## 2 PRECAUTIONS REGARDING INSTALLATION

## 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 fire, electric shock, injury and/or malfunction:
- Places subject to rain/water leakage or places subject to high humidity, in the proximity of an indoor swimming pool and/or shower, etc
- 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
- In dusty places or locations prone to heavy dust accumulation
- On sloped or uneven 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


## 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. Noncompliance 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
- 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
- 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
- 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


## stop IMPORTANT

- Securing a safe area for operation as described in this Manual will ensure safe operation for players and observers
- SEGA shall not be held responsible for damage or compensation for damage to a third party, resulting from the failure to observe this instruction


## 2-2 OPERATION AREA

- For safe operation, use and operate this product in an area measuring at least 2.86 m ( 112.6 in ) in width and 2.76 m (108.7in) in depth when the Cabinet is installed. SEGA shall not be held responsible for damage or compensation for damage to a third party, resulting from the failure to observe this instruction
- The ceiling where this product is installed must be at least 2.4 m ( 94.5 in ) high. If the ceiling is too low, the heat emitted from the product may cause it to catch on fire
- Be sure to provide the sufficient space specified in this Manual. Do not allow objects to block the ventilation ports. This can cause generation of heat and a fire
- Put the Cabinets close together so that people cannot get through or provide enough space between them that people can go both ways without difficulty. If the Cabinets are installed carelessly, people may bump into each other or the Cabinets when passing between them or fall down. To prevent people from walking between them, place them 0.15 m ( 5.9 in ) apart
- If the machine does not fit through the entryway to the installation location, do not disassemble it without first consulting the instructions. Specific tools and adjustment procedures are required to assemble and disassemble the mechanical parts
- Attempting to assemble or disassemble the machine without consulting the instructions may result in accidents during assembly/disassembly, electric shock, short circuits, and/or personal injury during operation. If the machine still does not fit through the entryway after following the procedures in this Manual, contact your retailer or the office listed in this Manual
- If the machine is still too large to fit through the entryway after following the procedures listed in this Manual, do not tip the machine on its side. Attempting to transport the machine while it is tipped on its side may cause accidents. It may also damage or warp parts of the machine, resulting in accidents during operation


## A. WARNING

- To install this product, the entrance must be at least 0.55 m (21.7in) in width and $1.9 \mathrm{~m}(74.8 \mathrm{in}$ ) in height without Assy Billboard and 2.4 m ( 94.5 in ) with Assy Billboard
- If the entrance is too narrow, do not tilt the product carelessly. If all the product weight is put on the castors at one side only, there could be damage or deformation, causing serious accidents such as workers getting caught underneath



## 3 PRECAUTIONS REGARDING OPERATION

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

3-1 BEFORE OPERATION

## A. WARNING

- 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
- Be sure to perform appropriate adjustment of the display. For operation of this machine, do not leave monitors flickering or deviation as is. Failure to observe this can have a bad influence upon the players' or customers' physical conditions
- It is suggested to ensure a space allowing the players who feel sick while playing the game to take a rest
- 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 and cover parts are damaged or omitted
- Do not place the following items on top of or near 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

- 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
- During daily cleaning, be sure to check the surface of the Control Cab and other parts that the player touches with his/her hands for damage, cracks, or loose screws. If a player uses the machine while it is damaged, cracked, or has a loose screw, the player may become injured
- Check carefully to make sure there are no gaps in the Cabinet joints and that they are not loose. If there are gaps or looseness, players may get their hands or fingers caught, resulting in an injury
- Make sure all the doors are locked securely and they do not rattle. If the doors are not locked properly or there are gaps or rattling, players could get their fingers or hands caught
- Be sure to perform appropriate adjustment of the display. For operation of this machine, do not leave monitor's flickering or deviation as is. Failure to observe this can have a bad influence upon the players' or customers' physical conditions
- Inspect for the following items during a trial run. If there is any type of error, use the Test Mode, etc. to resolve the problem. If you continue use with an error, it can cause an accident or irreparable parts damage:
- Is there any strangeness in the operability of the Control Cab?
- Are there any obstructions which prevent balls being returned to Players?
- Are there any obstructions on the Playfield?
- Is there any improper adjustment of the LCD screen?
- Prepare a place where players can rest if they feel sick


## 3-2 PAYING ATTENTION TO CUSTOMERS

To avoid injury and trouble, be sure to constantly give careful attention to the behaviour and manner of the visitors and players.

## DURING OPERATION (PAYING ATTENTION TO CUSTOMERS)

## WARNING

- For safety reasons, do not allow any of the following people to play the game:
- Those who have high blood pressure or a heart problem
- 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 are intoxicated or under the influence of drugs
- Pregnant women
- Those who are not in good health
- Those who do not follow the attendant's instructions
- Persons who disregard the product's warning displays
- 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 over them during play
- 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 shocks and short circuits, do not allow customers to put hands, fingers or extraneous matter in the openings of the product or small openings in and 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
- Instruct the guardians of small children to keep watch over their children
- Children cannot sense danger. Allowing small children to get near a Player who is playing the game could result in the children being bumped, struck or knocked down


## stop IMPORTANT

- Diligently clean the parts that players touch directly to ensure a pleasant game playing experience
- Inspect the coin insertion slots to make sure no foreign objects have been inserted and that they have not otherwise been tampered with as this will prevent play


## . CAUTION

- 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
- Persons other than the Player should not be allowed to touch the Cabinet during play. They may brush against or collide with the Cabinet or the player, possibly resulting in accidents
- Instruct those who feel sick during play to have a medical examination
- Immediately stop users from leaning or sitting on the Control Cab/Playdeck. Such acts can lead to injury or damage to parts or the shape of the Cabinet
- Make sure that players understand not to stand too close together when playing a 2/3/4 player game. This could lead to a Player/Players getting hit and may cause injury
- Items such as large finger rings can cause injury to the fingers while playing. Instruct Players to remove all accessories that could cause an accident before playing


## 4 PART DESCRIPTIONS



## 5 ACCESSORIES

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

| Part Name / Number | Quantity |  |
| :---: | :---: | :---: |
| Owner's Manual <br> (Part \#: 420-0041UK) |  | 4 |
| Master Key (J9117) |  | 4 |
| Security Key (A444) <br> Power Lead <br> EU (Pt No LM1227) <br> US (Pt No LM1246) |  | 1 |

## A. WARNING

- Perform assembly work by following the procedure herein stated. Failure to comply with the instructions can cause electric shock
- 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, more than one person is required. 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 properly connected. Improper connections can cause electric shock
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a risk of fire
- 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
- Provide sufficient space so that assembling can be performed. Performing work in places with narrow space or low ceiling may cause an accident and assembly work to be difficult
- To perform work safely and avoid serious accident such as the Cabinet falling down, do not perform work in places where step-like grade differences, a ditch, or slope exist
- Do not leave power cords or Ground Wires exposed in areas of heavy foot traffic. Doing so may cause them to become damaged, possibly resulting in electric shock and/or short circuits. When laying wiring across the floor, always use safety covers to protect the wires. (Wiring diameter: power cable - approx. $\varphi$ 8)
- Have a flashlight or another supplementary lighting unit available while working. With indoor lighting alone, the Cabinet interior may be too dark. Working without proper lighting can lead to accidents. It also hinders proper work performance
- The Cabinet has ventilation ports. Be sure not to block them. If they are blocked, heat can build up, leading to fire. This can also accelerate wearing of parts and malfunctions
- Secure ample ventilation space around the Cabinet. If heat builds up, there could be accidents associated with heat or smoke generation
- This product does not use any connectors other than those connected to and used by the game board when it leaves the factory. Do not needlessly connect wires to unused connectors. This could lead to overheating, generation of smoke and burn related injuries


## $\triangle$ CAUTION

- Handle molded parts with care. Excessive weight or pressure may cause them to break and the broken pieces may cause injury
- To perform the operation safely and accurately you must use a safe, steady footstool or stepladder. Working without this may lead to a fall and possible injury
- When attaching or removing doors or lids, be careful that your hand or finger does not get caught in anything
- The phrase "in situ" means that fixings/brackets/parts will be pre-populated in the locations specified in the step. In most cases these fixings will need to be removed and reapplied to secure the specified parts


## stop IMPORTANT

- Be very careful when handling the LED display screen. The screen can be damaged easily and cannot be repaired once damaged. Such damage can only be repaired by completely replacing the screen
- Be careful not to damage parts surfaces. In some cases, if such surfaces are damaged, the part must be replaced; it cannot be reinforced or repaired
- The Cabinet should not be moved as a singular unit. The Cabinet installation should be completed in the intended location of operation
- If you have to move the Cabinet within the location of operation, consult Chapter 7 - Precautions Moving the Machine before doing so
- Note that in some images in the installation, parts of the Cabinet have been hidden/moved in order to better show the intended process/location of parts or fixings


## stop IMPORTANT

- Before commencing installation, check you have all the required parts for installation using the table below

| Designation | Part Number | Part Description | QTY |
| :---: | :---: | :---: | :---: |
| 1 | ZR-2100XUK | ASSY PLAYDECK DIVIDER INNER | 3 |
| 2 | ZR-2105XUK | ASSY PLAYDECK DIVIDER LH | 1 |
| 3 | ZR-2110XUK | ASSY PLAYDECK DIVIDER RH | 1 |
| 4 | ZR-2150XUK | ASSY SUPER BONUS | 4 |
| 5 | ZR-5000XUK | ASSY BILLBOARD | 1 |
| 6 | ZR-0007XUK | PLATE FRONT CABI LOCATING | 1 |
| 7 | ZR-0011XUK | BRKT CLOSING LH | 1 |
| 8 | ZR-0012XUK | BRKT CLOSING RH | 1 |
| 9 | ZR-0013UK | PLATE CLOSING LH | 1 |
| 10 | ZR-0014UK | PLATE CLOSING RH | 1 |
| 11 | ZR-0016UK | SUPPORT CLOSING PLATE | 3 |
| 12 | ZR-1013UK | COVER FRONT CABI WIRE | 4 |
| 13 | ZR-2126UK | PANEL CHEAT | 4 |
| 14 | ZR-2128XUK | BRKT CHEAT PANEL RETAINING | 4 |
| 15 | ZR-0008UK | PANEL PLAYDECK CLAMP | 8 |
| 16 | ZR-1057XUK | CHARACTER PANEL L | 1 |
| 17 | ZR-1059XUK | CHARACTER PANEL R | 1 |
| 18 | ZR-1063XUK | BRKT CHARACTER PANEL LH | 1 |
| 19 | ZR-1064XUK | BRKT CHARACTER PANEL RH | 1 |



© ASSEMBLY AND INSTALLATION



Install the PLATE FRONT CABI LOCATING between the (2) Control Cabinets and loosely secure using the (4) M6 fixings located in situ (fit loosely so as to be able to apply the Playdecks easier in 6-2)


Place the MONITOR CAB into position behind the Control Cabs


1 Install the (4) ASSY SUPER BONUSES onto the rear end of each of their respective ASSY PLAYDECKS
(Blue to Player 1, Magenta to Player 2, Green to Player 3 and Red to Player 4) by applying the (8) highlighted fixings


Insert the ASSY PLAYDECK for PLAYER 4 (RED - SMUDGE) into position by aligning the Locating Blocks on the underside of the Playdeck with the openings in the Monitor and Control Cab



Open the Coin Door of the Control Cabinets. Insert 1 of the PANEL PLAYDECK CLAMPS into position below the Locating Block. Secure the Clamp using (2) M6X40 fixings, washers, and spring washers


5
Attach harness from the Super Bonus (ZR-60028UK) to Monitor Cab



7 Insert the ASSY PLAYDECK for PLAYER 3 (GREEN - DIZZY) into position (follow procedure in Step 2, 3 and 4 for alignment and securing)


- ASSEMBLY AND INSTALLATION


Insert one of the ASSY PLAYDECK DIVIDER INNERS into position between the Player 3 and 4 Playdecks. Secure using the (10) M4X12 fixings highlighted (5 fixings on each side)


Attach harness from the Super Bonus (ZR-60028UK) to Monitor Cab


10
Insert the ASSY PLAYDECK for PLAYER 2 (MAGENTA - COCO) into position (follow procedure in Step 2, 3 and 4 for alignment and securing)


11
Insert one of the ASSY PLAYDECK DIVIDER INNERS into position between the Player 2 and 3
Playdecks. Secure using the (10) M4X12 fixings highlighted (5 fixings on each side) and establish Harness connection



13
Insert the ASSY PLAYDECK for PLAYER 1 (BLUE - BUBBLES) into position (follow procedure in Step 2, 3 and 4 for alignment and securing)


14
Insert the final ASSY PLAYDECK DIVIDER INNER into position between the Player 1 and 2 Playdecks. Secure using the (10) M4X12 fixings highlighted (5 fixings on each side). Establish Harness connections


## 15 Attach harness from the Super Bonus（ZR－60028UK）to Monitor Cab



## 16 <br> Apply the ASSY PLAYDECK DIVIDER LH into position and apply the（9）M4 fixings and establish Harness connections



17
Attach the harnessing and Earth wire to stud from the Playdeck－Player 1 to the Control Cab．After connection is established，apply the COVER FRONT CABI WIRE into position and secure with（4） M4X25 fixings and washers（2 on each side of Bracket）


Repeat Step 17 for Players 2，3，and 4

1. Install the BRACKET CLOSING LH \& RH and secure using (5) M4X12 fixings and washers on each Bracket


3
Apply the LH \& RH CLOSING PLATES into position. Attach Earth harness to studs on underside of Plates and connect to Earth Bridge. Secure Plates at the (12) M4X12 fixing points (6 on each Bracket)


Install the BRACKET CHARACTER PANEL LH \& RH on the Monitor Cab and secure with the (4) M4X12 fixings and washers on each side


Install the CHARACTER PANEL $\mathbf{L} \boldsymbol{\&} \mathbf{R}$ on the Monitor Cab and secure with the (6) M4X12 fixings and washers on each side


## 6-4 INSTALLING THE BILLBOARD

## 1 Apply BACKGROUND PANEL to the (3) BRACKET REAR PANEL SUPPORTS by applying the (3) M4X12 fixings on each Bracket



BACKGROUND PANEL


Apply the REAR PANEL into position using the (4) M4X30 fixings points (2 on each Bracket)


REAR PANEL


Once the BILLBOARD has been constructed, using at least 2 people, place the BILLBOARD into position and secure using the (4) M6X25 fixings on each of the BRACKET REAR PANEL SUPPORTS. Establish Harnessing connection on the right-hand side of the Billboard


Establish Harness


Apply the FRONT PANEL into position on the top of the Monitor Cab using the (3) M4X12 fixings


FRONT PANEL


## 6-5 INSTALLING THE CHEAT PANEL



1 Insert the CHEAT PANEL glass in between two SUPPORT CHEAT PANELS on Player 1


2
Insert the BRACKET CHEAT RETAINING into position and secure with (2) M4X12 fixings


Repeat Steps 1 and 2 for the remaining Player positions

## WARNING

Make sure that all the adjusters contact the floor. Otherwise the Cabinet could move, causing an accident

## stop IMPORTANT

- When the installation site has been determined, have the adjusters come in direct contact with the floor. Establish a gap of about 5 mm between the floor and the castors and adjust the unit so that it will remain level
- Failing to have the Cabinet level can result in errors in returning balls to the Players and impeding gameplay


Move the product to the installation site. You must also secure a 15 cm space between the back wall and the back of the Cabinet for ventilation

Bring the adjusters into direct contact with the floor. Use a wrench to align the height of the adjusters until the Cabinet is perfectly level

After setting, turn adjuster nuts upwards to tighten them and secure adjuster heights


# CONNECTION OF POWER AND GROUND CABLES 

(Only applies where an integral earth is not present in the mains/power lead.)

## 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 ground terminal. Without proper grounding, customers could be electrocuted and product operations might not always be stable
- Do not expose the power cord or ground 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 cord on the floor, be sure to always protect it. If the power cord is left exposed, it can easily be damaged, resulting in electrical shock
- When using the product's AC unit ground terminal, use ground wire with a circular terminal as shown in the illustration, and establish ground securely. Avoid indiscriminate grounding operations such as use of wire with only its sheath peeled off


## stop IMPORTANT

If grounding has been established with the ground wire inside the power cord, do not perform grounding with the AC unit ground terminal. Conversely, if the AC unit ground terminal has been used for grounding, do not establish ground with the ground wire in the power cord. Otherwise there could be faulty or erroneous operations

Confirm that the main switch is at OFF


Fully insert the power cord connector on the side opposite the power plug into the AC unit inlet

Fully insert the power cord plug into the outlet

The power cord is laid out indoors. Protect the power cord by attaching wire cover to it. If ground will be established with a ground wire made available separately, lay out the ground wire indoors and have it protected


## 6-7 CONFIRMATION OF INSTALLATION

Use Test Mode to confirm that assembly is proper and that connected boards and input/output devices are normal. See Section 9 "Test and Service Data" for more information on each individual test.

Perform the following tests in Test Mode:
1 Unlock and open the Coin Door to access the SW Unit. Use the Test Button to enter the Test and Service
Menu (any Player's SW Unit can be used to enter/exit/select options within the test menu)


2
Enter the section "Input Test". Ensure all components and Buttons are functioning correctly

Enter the section "Output Test". Ensure all LEDs and speakers are functioning correctly


Ticket Indicator light illuminates

## 6-9 REPLACING TICKETS

1 Unlock and open the Ticket Mech Door that needs loading or replacing

## Unlock Ticket Door here



2
Load tickets into the Ticket Holder. Feed ticket strand into the dispensing track and insert fully


Ensure tickets are vended correclty by pressing the Test Button on the Ticket Mech (tear off and remove excess tickets that are vended after testing)


1 Unlock and open the Ticket Mech Door and Coin Door

2
Remove the (4) M4X12 fixings on the left-hand COVER PLAYDECK CORNER and remove


3
Remove the (3) M4X12 fixings on the COVER BALL RETURN and remove



6
Remove the（4）M4 nuts to be able to remove the BLANKING PLATE COVER


7


8
Feed the harnesses from the Card Reader down through the hole in the Playdeck into the inside of the Control Cabinet


Connect harnesses from the Card Reader to the Ticket Mech and UCL connector on the Excel Board


Ticket Mech Harness

## 7 PRECAUTIONS WHEN MOVING

## 7-1 PRECATIONS OF 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 castors contact the floor. While moving the unit, be careful that the castors do not roll over the power cord or the ground wire. If cord or wire is damaged, there could be electrical shocks and/or short circuits
- When crossing a sloped or stepped area, disconnect the individual pieces of the Cabinet. If you tilt them while connected together, the connection points may be damaged and personnel could be injured
- When lifting the Cabinet up steps, you must hold it by the designated handles or by the bottom surface. Lifting it by any other area may lead to damage or disfiguration to that part or surrounding parts due to the weight of the Cabinet and could also lead to injury of personnel
- When tilting the Cabinet to move it across a sloped or stepped area, always use at least two people. Attempting such an operation alone can lead to accident or injury
- When moving the components separately, take care concerning the direction you push the each Cabinet section in. These elements may fall over, causing damage or an accident


## $\triangle$ CAUTION

- When moving the components, do not push any of the plastic elements or shaped parts and do not use them to pull the components along. This may damage the parts or the surrounding parts and this could lead to accidents or injury
- When moving the separated components, be sure to push/pull each Cabinet piece lengthways. Trying to move the Cabinet any other way may cause the Cabinet to topple over


## stop IMPORTANT

- If you need to move components through a narrow or low door and the only way to get the separated components through is to turn them on their side, or if a separation method other than those described in this Manual is required, either make a request to the office listed in this document or the place of purchase to perform the operation or contact them regarding how to perform it. Carelessly turning the components onto their side or separating them in ways other than those depicted in this Manual may lead to irreparable damage
- Do not press any of the display screens. The screens can be easily damaged and cannot be repaired if it is, meaning complete replacement will be necessary


Assy Monitor Cab


Assy Billboard


Assy Control Cab


Assy Playdeck

## 7－2 MOVING THE MACHINE

## stop IMPORTANT

－The Cabinet should not be moved as a single unit．Moving the Cabinet as a singular unit may incur damage to the location／surroundings and／or injury to those in the vicinity
－In order to move Cabinets，the Cheat Panels，Playfields，and Super Bonues should be disconnected from the Monitor Cabinet and their respective Control Cabinets
－Follow Section 6－2 in reverse order to disconnect／remove the Playfields and Super Bonuses
－Follow Section 6－5 in reverse order to remove the Cheat Panels

## 8 GAME DESCRIPTION

## 8－1 GAME OUTLINE

The coin system can accumulate up to 24 Credits．Credits beyond 24 will not be counted and returned to Player．When the 24 Credit limit is reached，it will be recorded in the Test Menu under Coin Settings＞Coin Count．It will also be recorded physically on the Credit Board．
＇Zombies：Ready，Deady，Go！＇is a racing game for up to four players in which each Player repeatedly rolls nylon balls into holes on a playfield in order to make their zombie character go faster in a footrace．

The Player＇s goal is to maintain a fast speed and beat the other zombies in the race to achieve a high ticket pay－out．

The playfield contains eleven holes as well as a＇Super Bonus＇gate．The top three＇high holes＇correspond to a＇RUN＇and are represented by the colour red．The middle five＇medium holes＇correspond to a＇JOG＇ and are represented by the colour yellow．Finally，the bottom three＇low holes＇correspond to a＇WALK＇ and are represented by the colour white．


Playfield Layout


Gameplay Screen（during Game）

The Player＇s aim is to increase their character＇s speed and maintain it．In order to keep them in first position they must get as many balls as possible into the higher ranked holes．

During the race tickets are accrued faster depending on your current position．First place will accrue the most tickets during the race．However，most of the tickets are allotted based on the Player＇s overall position at the end of the race．

Races run for a set amount of time，which is chosen in the Test Menu．During the final ten seconds of each race there is a＇Super Bonus chance＇，during this period of the game the Super Bonus gates will rapidly open and close for a short amount of time that can also be altered in the test menu．

This period is announced in the game，visually indicated by fire effects and audibly indicated by an increase in tempo of the music and the race announcer saying relevant dialogue．

If a Player manages to roll a ball through the Super Bonus gate，they will win the Super Bonus ticket value，which can be adjusted in the test menu．In the race the Super Bonus being achieved is indicated by yellow tickets overflowing over the Player＇s UI at the bottom of the screen，as well as a voice line from the announcer．


Players receiving a speed boost during a race

The game begins when a Player enters a Credit，then a short video will play before entering the lobby－ represented by a locker room containing the four zombie characters．There are a further ten seconds in the lobby where other players can join the upcoming race by entering a Credit as well．During the lobby the Player＇s zombie character is introduced to them visually and via the announcer stating their name．


Lobby（Pre－race）Screen

It is recommended to use 6 balls per Player. Using more than 6 balls dramatically increases the likelihood of a ball jam in the return mechanism which will prohibit play on the affected Player

The race will then begin after a countdown and the Player(s) will roll balls into the playfield holes in order to make their zombies race for the allotted time. During the last ten seconds of the race, the 'Super Bonus' door will open and close a set number of times (determined via the test menu).

If a Player manages to roll a ball through this door during the time period when it is open, they will win the Super Bonus value that is set via the test menu.


Results Screen

Following this, the winner of the race is celebrated with an animation for their character and following this is a podium sequence where 1st, 2nd, 3rd, and 4th place are presented alongside the final ticket values for each Player.

After the podium display finishes, if Credits are already entered for any Players the game will load back into the lobby. If there are no Credits currently in the game, a video will play containing a ten second countdown encouraging Players to enter another Credit to continue.

If they do, the game will proceed to the lobby again. If they don't, the game will play another video, before reverting to the series of videos making up the attract portion of the game.


End Game/Continue Screen

## 8-2 FOUL STATES

- If a Player commits a foul, their lane lights will switch off and FOUL will appear


## stop IMPORTANT

 over their Character name on screen- The Player can still play the game to win tickets, but the Super Bonus will not be winnable (the Bonus Door will still open however)
- In order to reset a Player after a Foul, the game will need to cycle back to Attract mode
- If there are multiple Credits on a Player that has fouled, the Game will automatically enter into another race but the Foul will persist on the Player
- The FOUL will remain on the affected Player until the game cycles back to Attract mode
- The Game will reserve Credits on the fouled Player until the Foul has cleared


## 8-3 ERROR CODES

| ERROR CODE | CAUSE | SOLUTION |
| :---: | :---: | :---: |
| 1 | BALL RELEASE NOT OPEN | Check Ball Release Mechanism |
| 2 | BALL RELEASE NOT CLOSED | Check Ball Release Mechanism |
| 3 | SUPER BONUS ERROR | Check Super Bonus Door |
| 4 | I/O ERROR | Check DIP Switch settings on each I/ <br> O Board |

## 9 EXPLANATION OF TEST AND DATA DISPLAY

## 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

## CAUTION

Be careful that your finger or hand does not get caught when opening/closing the coin chute door

Credit Board
Located Here


- When you enter the Test Mode, Fractional Coin data is erased
- Adjust the sound to the optimum volume, taking into consideration the environmental requirements of the installation location
- Removing the Coin Meter circuitry renders the game inoperable


## 9-1 SWITCH UNIT AND COIN METER

The Swith Unit and Counters are housed within the Control Cabinet. To access these controls you will need to open the Coin Door. The switches and counters can be found directly on the rear face of the Tower.


| DEVICE | FUNCTION |
| :---: | :---: |
| TEST BUTTON | Press to enter TEST MODE - Also used to enter choices selected within |
| TEST MODE |  |
| SERVICE BUTTON | Press for SERVICE CREDIT - Also used to scroll through TEST MENUs |
| COIN IN COUNTER | Counts inserted coins (£0.10 or \$0.10 =1 count) |
| TICKET COUNTER | Counts dispensed tickets |

## 9-2 GAME TEST MODE

This is the main Test Mode menu. Here you can access a number of different sub menus to test different aspects of the Cabinet to ensure they are all working correctly.


Use Service to cycle through items. Use the Test Button to select an item and view that item's submenu. Select EXIT to return to Game.

| System Information | Displays software and hardware version numbers |
| :--- | :--- |
| Input Test | Test all input devices like Buttons and Gates |
| Output Test | Test all output devices like Speakers and LEDs |
| Coin Settings | Tracks all Credit entries and change Coin to Credit ratio |
| Sound Settings | Test audio elements and adjust volume levels |
| Screen Test | Test all screen varaibles (brightness, contrast, alignment) |
| Bookkeeping | See all Cabinet statistics (Credits, average play time, Continue <br> Ratio, etc.) |
| Clock Settings | Adjust Cabinet internal clock |
| Game Settings | Adjust Game settings (Difficulty, Swipe Card, Super Bonus, etc) |
| Error Page | Show listed errors and error log |

## 9-3 SYSTEM INFORMATION

This menu details aspects of the software information. Use the Service button to cycle through the options and the Test button to select an option


| Game Name | Name of installed game software |
| :--- | :--- |
| Game Version | Game software version number |
| Disk Image Version | Disk Image version of Game Board |
| Launcher Version | Software Launcher version number |
| Shell Version | Game Shell version number |
| IO Board Firmware version | Version number for IO Firmware |
| Security Key | Displays whether Security Key is detected/correct, missing, or <br> invalid |
| Machine ID | ID Number for Cabinet |
| Reset to Factory Defaults | Restore all settings to defaults set at factory prior to shipping <br> (requires confirmation) |
| Back | Return to Main Test Menu |
|  |  |

## 9-4 INPUT TEST

This menu details the functionality of things like playfield score zones, coin and ticket devices, and Test \& Service Buttons.
To exit this menu, press the Test and Service Button simultaneously


| Player Hole 1-11 | This setting is a visual indicator of inputs for all general Player <br> holes. Inserting a ball into any of the players holes will turn the <br> matching player hole on screen from OFF to ON |
| :--- | :--- |
| Super Bonus Hole | Indicator for if the Super Bonus hole is functional |
| Coin Input | Pressing the coin input will turn the visual indicator from OFF to <br> ON |
| Test Button | Pressing the test button will turn the visual indicator from OFF to <br> ON |
| Service Button | Pressing the service button will turn the visual indicator from OFF <br> to ON |

## 9-5 INPUT OPTO TEST

This menu details the functionality of things like playfield lighting and ticket meters.


| Ticket Opto 1 | Tests the Ticket Opto on each Player by vending a single ticket |
| :--- | :--- |
| Super Bonus Sensor P1-4 | Displays current state of Super Bonus door for respective Player |
| Ball Release P1/2/3/4 Close | Tests whether mechanical input matches software input for Ball <br> Release Close on respective Player |
| Ball Release P1/2/3/4 Open | Tests whether mechanical input matches software input for Ball <br> Release Open on respective Player |
| Back | Return to Main Test Menu |

## 9-6 OUTPUT TEST

This menu details the functionality of things like playfield score zones, coin and ticket devices, and Test \& Service Buttons. To exit this menu, press the Test and Service Button simultaneously


| High Hole Lighting | Test colour sequence for RUN lighting holes |
| :--- | :--- |
| Medium Hole Lighting | Test colour sequence for JOG lighting holes |
| Low Hole Lighting | Test colour sequence for WALK lighting holes |
| Race Position Lighting | Test colour sequence for Race Position lighting |
| Playfield Lighting | Test colour sequence for Playfield lighting |
| Ball Release | Test functionality of Ball Release mechanism |
| Bonus Reveal | Test functionality of Bonus mechanism |
| Super Bonus Lighting | Test colour sequence for Super Bonus lighting |
| Billboard Lighting | Test colour sequence for Billboard lighting |
| Ticket Meter P1-4 | Test functionality of Ticket Meter for respective Player (adds 1 to <br> Ticket Counter on SW Unit) |
| Ticket Mech P1-4 | Test functionality of Ticket Mech for respective Player (vends 1 <br> ticket for respective Player) |
| Back | Return to Main Test Menu |

## 9-7 COIN TEST

This menu details the number of regular and service credits the Cabinent has received, and allows the amendment of the coin to credit ratio.


| Coin Count | Amount of Coins the Cab has received on each Player |
| :---: | :---: |
| Credits | Amount of standard Credits the Cab has received on each Player |
| Service Credits P1-P4 | Amount of Service Credits the Cab has received on each Player |
| Card Payment | Set whether Card Payment is active for cashless machines |
| Game Cost | Set Cost of Game from Attract |
| Continue Cost | Set Cost of Continue Game |
| Credit Setting | Set Coin to Credit ratio |
| Setting 1 | 1 Coin-1 Credit |
| Setting 2 | 2 Coins-1 Credit |
| Setting 3 | 3 Coins-1 Credit |
| Setting 4 | 4 Coins - 1 Credit |
| Setting 5 | 5 Coins-1 Credit |
| Setting 6 | 1 Coin-2 Credits |
| Setting 7 | 1 Coin-3 Credits |
| Setting 8 | 1 Coin-4 Credits |
| Setting 9 | 1 Coin-5 Credits |
| Setting 10 | Freeplay |
| Back | Return to Main Test Menu |

## 9-8 SOUND TEST

This menu allows the testing of audio devices and changing of the standard and attract volume level.


| In-Game Audio | Set Volume level for music and in-game sound effects (10-100) |
| :--- | :--- |
| Attract Volume | Set Volume level for attract sequence (10-100) |
| P1-P4 Volume | Individually changes the volume for each player (speaker in ball <br> return area) (10-100) |
| Boost Announcer | Sets if there is an audio boost for Announcer's voice lines (ON- <br> OFF) = ON |
| Speaker Test | Tests all speakers individually |
| Back | Return to Main Test Menu |

## 9-9 SCREEN TEST

This menu allows the adjustment of screen variables.

Colour Bars:
Selecting this will display the following screen:


GAME TEST MODE

$$
\begin{array}{ll}
\text { SYSTEM INFORMATION } & \\
\text { INPUT TEST } & \text { COLOUR BARS } \\
\text { INPUT OPTO TEST } & \text { BRIGHTNESS } \\
\text { OUTPUT TEST } & \text { ALIGNMENT } \\
\hline
\end{array}
$$

OUTPUT TEST
COIN SETTINGS
SOUND SETTINGS
SCREEN TEST
BOOKKEEPING
CLOCK SETTINGS
GAME SETTINGS
ERROR PAGE
EXIT
SCREEN

Brightness:
Selecting this will display the following screen:


Grid Alignment:
Selecting this will display the following screen:


## 9-10 BOOKKEEPING

These menus detail Cabinet statistics. The first menu shows total credits and allows for the clearing of the Bookkeeping logs.


| Coin Credits | Amount of Coin Credits the Cab has received |
| :--- | :--- |
| Service Credits | Amount of Service Credits the Cab has received |
| Total Credits | Total amount of Credits the Cab has received |
| Bookkeeping Last Cleared | Date/Time stamp of the last time Bookkeeping was cleared |
| Clear Bookkeeping | Clear all Bookkeeping statistics (requires confirmation) |
| Next Page | Proceed to Bookkeeping Page 2 |
| Back | Return to Main Test Menu |

This menu details the plays and continues for each player.


| Player X Info | Play info for following Player |
| :--- | :--- |
| Number of Player X Play | Number of total games from this Player |
| No of Player X First Play | Number of games started from this Player |
| No of Player X Continue | Number of continues started from this Player |
| Next Page | Proceed to Bookkeeping Page 3 |
| Back | Return to Main Test Menu |

This menu details the combination of types of plays.


| All Games | Sum total of all games played |
| :--- | :--- |
| Single/Two/Three/Four Players | Statistics for games with specified number of players |
| Number of Plays | Total number of games for all Players combined |
| Continue Play | Total number of continues into another game for all Players <br> combined |
| First Play | Total number of first games for all Players combined |
| No of 1/2/3/4 Player Plays | Total number of plays from every Player combination |
| No of 1/2/3/4 First Plays | Total number of first plays from every Player combination |
| No of 1/2/3/4 Continues | Total number of continues from every Player combination |
| Next Page | Proceed to Bookkeeping Page 4 |
| Back | Return to Main Test Menu |



| Total Continue Ratio | Total percentage of continued games |
| :--- | :--- |
| Total Continue SP Ratio | Percentage of a single players continious games |
| Total Continue 2P Ratio | Percentage of two players continious games |
| Total Continue 3P Ratio | Percentage of three players continious games |
| Total Continue 4P Ratio | Percentage of four players continious games |
| Total Time | Total time of game has been on |
| Play Time | Total time of a continious play session |
| Average Play Time | Average percentage for race game time |
| Next Page | Proceed to Bookkeeping Page 5 |
| Back | Return to Main Test Menu |

This menu details the ticket payouts for each player and number of super bonuses won.


| Total Tickets Payout | Total number of tickets paid out across all Players |
| :--- | :--- |
| Total Tickets Payout P1-P4 | Total tickets paid out on each individual Player |
| Average Tickets Payout P1-P4 | Average tickets paid out on each individual Player |
| Average Tickets Payout | Average number of tickets paid out across all Players |
| Total Super Bonus | Total number of super bonuses won |
| Highest Payout | The greatest amount of tickets paid out on one game |
| Lowest Payout | The fewest amount of tickets paid out on one game |
| Next Page | Return to Bookkeeping Page 1 |
| Back | Return to Main Test Menu |

## 9-11 CLOCK TEST

This menu allows you to set the internal Cabinet clock.


| Current Time | Displays current time (24 Hour) |
| :--- | :--- |
| Current Date | Displays current Day/Month/Year |
| Year | Adjust Year |
| Month | Adjust Month |
| Date | Adjust Day |
| Hour | Adjust Hour (24 Hour) |
| Minute | Adjust Minute |
| Second | Adjust Second |
| Back | Return to Main Test Menu |

## 9-12 GAME ASSIGNMENTS

This menu allows you to adjust gameplay variables like language, game timings, and difficulty.


BOLD = Default Value

| Game Difficulty | Adjust Game difficulty (Very Easy-Easy-Normal-Hard-Very Hard) <br> = NORMAL |
| :--- | :--- |
| Max Tickets | Set max ticket payout (5-250) = 30 |
| Mercy Tickets | Set amount of Mercy Tickets paid out (1-10) = 1 (Mercy Tickets <br> are paid out if a Player scores 0 points) |
| Super Bonus | Set Super Bonus ticket payout amount (5-2000) = 500 |
| Super Bonus Length | Determines the amount of times the Super Bonus door opens (3-15 <br> seconds) = 3 Times |
| Game Time | Provides the option to determine the length of the games race <br> time (30-120 seconds) = 90 seconds |
| Language | Set the language for displayed text (English-Portuguese-Spanish- <br> French-Italian) = English |
| Kid Friendly Content | Provides option to change game artwork for a mature audience <br> (ON-OFF) = ON |
| Freeplay Always Open | N/A |
| Introduction Videos | Turns on/off the FMV scenes that play after a Player enters a <br> Credit (ON-OFF) = ON |
| Short Podium | Shortens the post-game podium sequence by only focusing on <br> the highest placed player (ON-OFF) = OFF |
| Back to Menu | Return to Main Test Menu |

## 9-13 ERROR PAGE

This menu shows the error $\log$ and allows deactivation of player lanes.


| Error Code 1 | Displays Error Code 1 and possible solution |
| :--- | :--- |
| Error Code 2 | Displays Error Code 2 and possible solution |
| Error Code 3 | Displays Error Code 3 and possible solution |
| Error Code 4 | Displays Error Code 4 and possible solution |
| Activate P1/2/3/4 | Shows Active Player Lanes - Lanes can be deactivated from this <br> menu and will show "ERROR" to prevent customer plays |
| Clear Error Log | Clear current error and all previous errors |
| Last Error | The last recorded error |
| Last Error Description | Description of last recorded error and potential solution |
| Back | Return to Main Test Menu |

## $\triangle$ CAUTION

The LCD display screen is adjusted prior to leaving the factory.
Avoid any unnecessary adjustment

## stor IMPORTANT

- If the adjustment method in this Manual does not resolve the problem, contact the customer service number in this Manual or your supplier


## 10-1 GENERAL DESCRIPTION

This specification applies to the Colour LED 65" MTV65W-CV1RS.


| Item | Resolution | H Freq.(kHz) | V Freq.(Hz) | Note |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $640 \times 480 @ 60$ | 31.469 | 59.940 | VGA |
| 2 | $800 \times 600 @ 56$ | 35.156 | 56.250 | SVGA |
| 3 | $800 \times 600 @ 60$ | 37.879 | 60.317 | SVGA |
| 4 | $1024 \times 768 @ 60$ | 48.363 | 60.004 | XGA |
| 5 | $1280 \times 720 @ 60$ | 44.770 | 59.860 | $720 \mathrm{p}-60$ |
| 6 | $1280 \times 768 @ 60$ | 47.600 | 60.030 | WXGA |
| 7 | $1360 \times 768 @ 60$ | 47.539 | 59.573 | LCD |
| 8 | $1920 \times 1080 @ 60$ | 67.158 | 59.96 | Full HD |




## 10-2 CLEANING THE SCREEN

## $\triangle$ CAUTION

- Since the LCD display screen is susceptible to damage, pay careful attention to its handling. When cleaning, refrain from using water or volatile chemicals
- Do not climb onto the Control Panel(s). This could lead to injuries or damage to the Cabinet
- When reaching across the Control Panel(s) to clean the screen there is a risk of hurting your shoulder or arm. Use a mop with a non-feathery, soft, dry cloth mop head and wipe the surface of the screen

When the screen surface becomes dirty, clean it by using a soft cloth such as gauze. When water, and volatile chemicals such as benzene, thinner, etc., spill on the screen surface, it may be subject to damage. Therefore, do not use them.

Also, since the surfaces are susceptible to damage, refrain from rubbing them with a hard material or using a duster. If the screen is especially dirty, call in a professional cleaner.


## 10-3 ON SCREEN ADJUSTMENT METHOD (OSD)

## STOP IMPORTANT

- If the adjustment method in this Manual does not resolve the problem contact the customer service number in this Manual or your supplier
- Do not stick tape, stickers or anything else onto the screen. Any kind of adhesive may damage the surface of the screen
- The screen has been finely adjusted prior leaving the factory. Do not unnecessarily adjust the screen


## OSD (On Screen Display)

The OSD offers the user various possibilities of customizing the appearance of the TFT display. By using the OSD Board, brightness, contrast, input selection, OSD appearance and much more can be adjusted easily.


Operation and Buttons

| ITEM | DESCRIPTION |
| :---: | :---: |
| Power | Turns Monitor On and Off |
| Right | Cycle option to the right |
| Left | Cycle option to the left |
| Menu | Open OSD Main Menu - Select option when in OSD Menu |
| Up | Cycle option up when in OSD Menu |
| Down | Cycle option down when in OSD Menu |
| Exit | Close OSD Main Menu - Cycle back to previous option Menu |

## OSD Main Menu－Adjustments



The OSD Adjustment Main Menu is used for adjusting picture elements like Contrast and Brightness．

## OSD Main Menu－Feature Controls



The OSD Feature Control Main Menu is used for changing mechanical elements like the Input Channel and Timer．

|  | $1920 \times 108059.8 \mathrm{~Hz}$ |  |
| :---: | :---: | :---: |
| , | Contrast | $\square$ |
|  | Brightness | $\square$ |
|  | Sharpness |  |
|  | Color Temperature | : User |
|  | User RGB | > |
|  | Image Allymment | \% |
|  | Resel | > |
|  | + Select just | omenu:Enter |


| ITEM | DESCRIPTION |
| :---: | :---: |
| Contrast | Adjusts the contrast level between different colours |
| Brightness | Adjusts overall brightness of picture |
| Sharpness | Adjusts edge to image contrast |
| Color Temperature | Adjust color temperature range |
| User RGB | Manually set levels of Red-Green-Blue display |
| Impact Alignment | N/A |
| Reset | Revert settings to Factory Default |



| Item | Description |
| :---: | :---: |
| Auto Color | N/A |
| Screen Test | N/A |
| Language | Changes language of OSD instructions |
| Input Source | Changes source of Monitor input (DVI/HDMI/VGA) |
| OSD Timer | Changes time OSD Menu displays before closing (in seconds) |

## 11 COIN HANDLING

## HANDLING THE 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.

11-1 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

The Coin Selector should be cleaned once every 3 months.
When cleaning, follow the procedure below:


Turn the power for the machine OFF. Open the Coin Chute Door

Remove the Coin Selector from the Coin Chute Door

Open the gate and dust off by using a soft brush (small soft Paint Brush, etc.)


## CLEANING THE COIN SELECTOR (MECHANICAL)

1
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 per previous step, further apply a dry cloth to completely dry the Coin Selector.

## Coin Insertion Test

Once every month, when performing the Coin SW Test, simultaneously check the following:

Does the Coin Meter count satisfactorily?
Does the coin drop into the cashbox correctly?

Is the coin rejected when inserted while keeping the REJECT Button pressed down?


## CLEANING THE COIN SELECTOR (SR3 / NRI)

1
Remove and clean smears by using a damp soft cloth dipped in water. DO NOT use any diluted chemical detergent or cleansing agent as this will impair the workings of the component.

2
Open the reject gate to gain access to the rundown path.


Remove the dirt and stains from the runway by wiping off with a soft damp cloth.

After wiping off as per previous step, further apply a dry cloth to completely dry the coin Selector.

## 11-2 FAULT FINDING

## Fault Finding

The following information is presented for customers' guidance in rectifying a fault but does not cover all possible causes.

All acceptors with electronic faults should be returned to an approved service centre for repair.

| SYMPTOM | INVESTIGATE | POSSIBLE CAUSE |
| :---: | :---: | :---: |
| Acceptor does not work (all coins reject) | Connector | Poor Contact |
|  |  | Loose Wire |
|  | Power Supply | Not switched on |
|  |  | Incorrect voltage |
|  |  | Inadequate current |
|  |  | Rise time too slow |
|  | Inhibit all inputs | Acceptor Inhibited |
|  | Accept gate | Gate not free or dislocated |
|  | Accept channel | Obstruction |
|  | Reject gate | Not fully closed |
|  | LED on rear cover RED | EEPROM chksm error |
|  |  | SR Sensor fault |
|  |  | Credit opto fault |
|  |  | Credit sensor blocked |
|  |  | Reject lever pressed |
|  | LED on rear cover YELLOW | Reinstall power |
| Poor Acceptance | Power Supply | Voltage less than 10v (Voltage drops when coil engages) |
|  | Accept gate | Gate jam or dislocated |
|  | Connector | Loose |
|  | Coin rundown | Dirty |
|  | Bank Select | Both banks enabled |
| Coin stick or jam in acceptor | Accept channel | Acceptor dirty or may have some damage |
|  | Accept gate |  |
|  | Regect gate |  |
| A true coin type rejects | Label | Coin not programmed |
| No accept signal | Connector | Loose or broken wire |
|  | Accept channel | Path dirty or obstructed |

## stop IMPORTANT

The price of play is determined by the configuration of switches located on either the EXCEL or VTS board. The type of board used is determined by product location. Switch settings for both types of board remain the same

This product comes equipped with a Crane NRI Coin Acceptor. To adjust the price of play ALL CREDIT SETTINGS are adjusted via the EXCEL CREDIT BOARD.

IMPORTANT!
The CREDIT SETTINGS within the SYSTEM TEST MODE must be set to 1 Coin 1 Credit to allow the CREDIT BOARD to function correctly.

The CREDIT BD has a built in accumilator. This is controlled by 2 DIL Switches. These allow the operator to select the price of play, type of coin acceptor and region.

EXCEL Credit Board


DIL SW3 (Regional Settings)
Adjust these switches to specify the type of Coin Acceptor used and currency.
Default $=$ SW1\&SW2 ON - SR3/NRI in parallel mode, Sterling.

SERVICE BUTTON
Status LED
CHANNEL 1
DIL SW1 (credit settings)
VOL CONTROL

Provides a Service Credit when pressed
Flashes when functioning
To Coin Acceptor (SR3 TYPE)
Adjust to required price of pay
Main Volume Adjustment (Front Speakers)

Note: These switch settings are under constant review and may change due to world currency updates.


|  | PRICE OF PLAY | BONUS | DIL SWITCH 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 | 2 | 3 | 4 | 5 |
| $\mathbf{1}$ | $\mathbf{0 . 1 0}$ | - | $\mathbf{O F F}$ | OFF | OFF | OFF | OFF |
| 2 | 0.10 | $0.50=6$ credits | ON | OFF | OFF | OFF | OFF |
| $\mathbf{3}$ | $\mathbf{0 . 2 0}$ | - | OFF | ON | OFF | OFF | OFF |
| 4 | 0.20 | $0.50=3$ credits | ON | ON | OFF | OFF | OFF |
| $\mathbf{5}$ | $\mathbf{0 . 3 0}$ | - | OFF | OFF | ON | OFF | OFF |
| 6 | 0.30 | $1.00=4$ credits | ON | OFF | ON | OFF | OFF |
| 7 | 0.30 | $0.50=2$ credits | OFF | ON | ON | OFF | OFF |
| 8 | 0.30 | $1.00=3$ credits | ON | ON | ON | OFF | OFF |
| $\mathbf{9}$ | $\mathbf{0 . 4 0}$ | - | OFF | OFF | OFF | ON | OFF |
| 10 | 0.40 | $1.00=3$ credits | ON | OFF | OFF | ON | OFF |
| $\mathbf{1 1}$ | $\mathbf{0 . 5 0}$ | - | OFF | ON | OFF | ON | OFF |
| 12 | 0.50 | $1.00=3$ credits | ON | ON | OFF | ON | OFF |
| 13 | 0.50 | $2.00=5$ credits | OFF | OFF | ON | ON | OFF |
| $\mathbf{1 4}$ | $\mathbf{0 . 6 0}$ | - | ON | OFF | ON | ON | OFF |
| 15 | 0.60 | $1.00=2$ credits | OFF | ON | ON | ON | OFF |
| $\mathbf{1 6}$ | $\mathbf{0 . 8 0}$ | - | ON | ON | ON | ON | OFF |
| 17 | 0.80 | $1.50=2$ credits | OFF | OFF | OFF | OFF | ON |
| $\mathbf{1 8}$ | $\mathbf{1 . 0 0}$ | - | ON | OFF | OFF | OFF | ON |
| 19 | 1.00 | $2.00=3$ credits | OFF | ON | OFF | OFF | ON |
| 20 | 1.00 | $4.00=5$ credits | ON | ON | OFF | OFF | ON |
| $\mathbf{2 1}$ | $\mathbf{1 . 5 0}$ | - | OFF | OFF | ON | OFF | ON |
| 22 | 1.50 | $2.00=2$ credits | ON | OFF | ON | OFF | ON |
| $\mathbf{2 3}$ | $\mathbf{2 . 0 0}$ | - | OFF | ON | ON | OFF | ON |
| 24 | 2.00 | $5.00=3$ credits | ON | ON | ON | OFF | ON |
| $\mathbf{2 5}$ | $\mathbf{3 . 0 0}$ | - | OFF | OFF | OFF | ON | ON |
| 26 | 3.00 | $5.00=2$ credits | ON | OFF | OFF | ON | ON |
| $\mathbf{2 7}$ | $\mathbf{5 . 0 0}$ | - | OFF | ON | OFF | ON | ON |
| 28 | 5.00 | $10.00=3$ credits | ON | ON | OFF | ON | ON |
| $\mathbf{2 9}$ | $\mathbf{7 . 5 0}$ | - | OFF | OFF | ON | ON | ON |
| 30 | 7.55 | $10.00=2$ credits | ON | OFF | ON | ON | ON |
| $\mathbf{3 1}$ | $\mathbf{1 0 . 0 0 ~}$ | - | OFF | ON | ON | ON | ON |
| 32 |  | FREE PLAY | ON | ON | ON | ON | ON |

The price of play is controlled by DIL switches 1 to 5 of a bank of 8, located on the EXCEL CREDIT BD.

Default values are in BOLD


| DIL SWITCH BANK ONE (5 way SW1) |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | Price | SW1 | SW2 | SW3 | SW4 | SW5 |  |
| 1 | $25 c e n t$ | OFF | OFF | OFF | OFF | OFF |  |
| 3 | $50 c e n t$ | OFF | ON | OFF | OFF | OFF |  |
| 5 | $75 c e n t$ | OFF | OFF | ON | OFF | OFF |  |
| 9 | $\$ 1.00$ | OFF | OFF | OFF | ON | OFF |  |
| 16 | $\$ 2.00$ | ON | ON | ON | ON | OFF |  |
|  |  |  |  |  |  |  |  |
| DIL SWITCH BANK TWO (6 way SW3) |  |  |  |  |  |  |  |
| Type | SW1 | SW2 | SW3 | SW4 | SW5 | SW6 |  |
| USA | OFF | OFF | OFF | OFF | OFF | OFF |  |

## 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
- You may get burned by a hot fluorescent lamp or other lamps. Pay full attention to the lamps when performing the work
- Be sure to use lamps of the designated rating. Using lamps of undesignated rating can cause a fire or malfunctioning
- There is the danger of short circuits or smoke generation due to deterioration of insulation in lighting fixtures resulting from age deterioration. Check for anomalies such as the following: Does it smell like something is burning? Is there socket discoloration? Are any lamps being replaced frequently? Do lamps not go on properly?


## 12-1 COIN DOOR LAMP

## CAUTION

The Coin Door Lamp utilises a 12v 1.2w Wedge Bulb. It is important that you replace this bulb or any other bulb of that of the same voltage and rating. Failing to observe this caution may result in PCB failure or possible fire hazard

Step 1. Open the Coin Door and locate the Lamp Housing directly behind the Coin Insert Bezel

Step 2. Hold the Lamp Housing firmly between your index finger and thumb and gently pull upwards. Do not try to remove the Lamp Housing whilst holding the bulb a the bulb may break causing injury

Step 3. Once the Lamp Housing has been removed, carefully hold the bulb between your fingers and pull the Lamp Housing away

Do not twist either bulb or Lamp Housing while removing the bulb as this may cause damage to both bulb and/or Housing.

Step 4. Simply push-fit a replacement bulb of the same type and follow these steps in reverse to refit



12-2 CABINET LED LIST

| Related Assembly | Lighting Part \# + Description | QTY |
| :---: | :---: | :---: |
| ZR-1000XUK <br> ASSY CONTROL CAB | EP1421 <br> LED 12V RED RS 541-4072 | 2 |
|  | SAI-6108-0500UK WH ASSY LED 500MM | 2 |
|  | SAI-6108-0360UK <br> WH ASSY LED 360MM | 2 |
| ZR-2040XUK ASSY BALL SENSOR TXRX | 390-2512-086RGB-070 <br> RING LED 86MM RGB M8618 | 1 |
| ZR-2060UK ASSY PLAYDECK LOWER ILLUMINATION | SAI-6503-0120UK <br> WH ASSY LED 120MM | 7 |
| ZR-2100XUK <br> ASSY PLAYDECK DIVIDER INNER | SAI-6108-1400UK WH ASSY LED 1400MM | 1 |
| ZR-2105XUK/ ZR-2110XUK ASSY PLAYDECK DIVIDER LH/RH | SAI-6108-1400UK WH ASSY LED 1400MM | 1 |
| ZR-2150XUK <br> ASSY SUPER BONUS | SAI-6108-0420UK WH ASSY LED 420MM | 2 |
|  | SAI-6509-0150UK WH ASSY LED 150MM | 1 |
| ZR-5000XUK <br> ASSY BILLBOARD | SAI-6108-0250UK WH ASSY LED 250MM | 2 |
|  | SAI-6504-0600UK WH ASSY LED 600MM | 1 |
|  | SAI-6504-1000UK WH ASSY LED 1000MM | 2 |
|  | SAI-6503-0080UK WH ASSY LED 80MM | 1 |
|  | SAI-6108-0350UK <br> WH ASSY LED 350MM | 1 |
|  | SAI-6108-0300UK WH ASSY LED 300MM | 1 |
|  | SAI-6108-0550UK <br> WH ASSY LED 550MM | 1 |

## ZR-1000XUK

1 -SAI-6108-0500UK
2 - SAI-6108-0360UK
3 - EP1421


ZR-2040XUK
1-390-2512-086RGB-070


ZR-2060UK
1 -SAI-6503-0120UK


ZR-2100XUK
1-SAI-6108-1400UK


ZR-2105XUK/2110XUK
1-SAI-6108-1400UK


ZR-2150XUK
1 -SAI-6108-0420UK
2 - SAI-6509-0150UK



ZR-5000XUK
1 -SAI-6108-0250UK
2 - SAI-6504-1000UK
3 - SAI-6504-0600UK
4 - SAI-6503-0080UK
5 - SAI-6108-0350UK
6 - SAI-6108-0550UK
7 - SAI-6108-0300UK


## 13 PERIODIC INSPECTION

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

When handling the controller, the player will be in direct contact with it. In order to always allow the player to enjoy the game, be sure to clean it regularly.

## WARNING

- Every 6 months check to see if power cords are damaged, the plug is securely inserted, no dust has accumulated between the socket outlet and the power plug, etc. Using the product with accumulated dust in the interior may cause fire or electric shock
- Never use a water jet, etc. to clean the inside or outside of the Cabinet. If wetness occurs for any reason, do not use the product until it has completely dried
- Once a year, request the office shown on this Manual or the dealer from whom the product was originally purchased to perform the internal cleaning. Using the product with accumulated dust in the interior may cause fire or other accidents
- Note that you are liable for the cost of cleaning the interior parts
- 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 odours from burning

PERIODIC INSPECTION TABLE

| PERIOD | ITEM | DESCRIPTION | REFERENCE |
| :---: | :---: | :--- | :--- |
| As appropriate | Cabinet Surface | Cleaning | As Below |
|  | Control Unit Surface |  |  |
|  | Cabinet | Confirm Adjusters Contact <br> Floor | Chapter 6 |
|  | Playdeck | No Ball(s) are obstructed |  |
|  | Cabinet | Speaker Volume |  |
| Monthly | LEDs | LED Inspection | Chapter 12 |
|  | Coin Selector | Coin Path Inspection | Chapter 11 |
|  | Coin Insertion Test | Chapter 11 |  |
| Every 3 Months | Coin Selector | Cleaning | Chapter 11 |
|  | Game BD | Cleaning | Chapter 15 |
|  | Power Cables | Inspection / Cleaning | Chapter 6 |
|  | Cabinet Interior | Cleaning | As Below |

## Cleaning the Cabinet Surfaces

When the Cabinet surfaces are badly soiled, remove stains with a soft cloth dipped in water or diluted (with water) chemical detergent and squeezed dry. To avoid damaging surface finish, do not use solvents such as thinner, benzine, etc. other than ethyl alcohol, or abrasives, bleaching agent and chemical dustcloth.

Some general-purpose household, kitchen and furniture cleaning products may contain strong solvents that degrade plastic components, 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.

## DISPLAY (LCD SCREEN Cleaning)

When the Display LCD Screen surfaces are dirty, smudges or greasey, gently wipe the display with a dry, lint-free, soft cloth. If you see a scratch-like mark on your display, it might be a stain which has been transfered from food like matter when the screen was depressed from the outside To avoid damaging surface finish, do not use such solvents as thinner, benzine, etc. the same applies to ethyl alcohol, or abrasives, bleaching agent and chemical dustcloths.

Wipe or dust the stain gently with a dry, soft cloth. If the stain remains, moisten a lint-free, soft cloth with water or a $50-50$ mixture of isopropyl alcohol and water that does not contain impurities. Wring out as much of the liquid as possible and wipe the display again; do not let any liquid drip from the cloth.

Antistatic and purpose made LCD cleaning wipes are also acceptable alternatives.


## 14 TROUBLESHOOTING

## 14-1 TROUBLESHOOTING (WHEN NO ERROR MESSAGE IS SHOWN)

## 1. WARNING

- This work should be performed by site maintenance personnel or other skilled professionals. Work performed by non-technical personnel can cause a severe accident such as an electric shock. If there are no site maintenance personnel or other skilled professionals available, turn off the power immediately and contact the office given in this Manual or from point of purchase
- When working with the product, be sure to turn the power off. Working with the power on may cause and electric shock or short circuit accident
- In order to prevent electric shock and short circuit, be sure to turn power off before performing work
- Be careful so as not to damage wirings. Damaged wiring can cause electric shock or short circuit
- After removing the cause of the functioning of the Circuit Protector, reinstate the Circuit Protector. Depending on the cause of the functioning, using the Circuit Protector as is without removing the cause can cause generation of heat and fire hazard
- In the event that a problem cannot be resolved by employing the procedures listed in this Manual, be sure to request service from the office shown in this Manual or the dealer from whom the product was originally purchased. Attempts to employ procedures other than those specified in this Manual can cause electrical shock, shorting, or fire
- In the event of a problem that is not described here, be sure to contact the office shown on this Manual or the dealer from whom the product was originally purchased. Careless attempts at repair can result in electrical shock, shorting, or fire
- If an error message is displayed, identify the cause and without delay take the appropriate countermeasures. Leaving the error unaddresses could result in a breakdown
- If a problem occurs, first inspect the connection of any wiring connectors
- Static electricity from your body may damage some electronic devices on the IC board. Before handling any IC board, touch a grounded metallic surface so that static electricity is discharged

If a problem occurs, first check to make sure that the wiring connectors are properly connected.

| PROBLEM | POTENTIAL CAUSE | COUNTERMEASURE |
| :---: | :---: | :---: |
| With Main Switch ON there is no activation | Power is not supplied | Fully insert power lead into outlet |
|  | Supply voltage is not correct | Adjust supply voltage to correct value |
|  | Game Board is not receiving power | Check power connectors to Game Board |
|  | Fuse has blown | Replace fuse |
| No Sound | Volume not properly adjusted | Adjust volume |
|  | Poor connection of connectors | Check connections of amp |
|  | Board, amp, or speaker fault | Run speaker test to check |
| Monitor is not displaying picture | Poor connection to Monitor | Check connection to Monitor |
| Switch and/or Volume Pot input does not work | Poor connection of connectors | Check the connection to Game Board |
| Balls are not being returned to Player(s) | Obstruction to ball return mechanism | Remove obstruction |
|  | Balls have been transferred to other Players | Redistribute balls evenly between Players |
| Super Bonus Door is stuck in Open/Close state | Motor Error | Reset Motor |
|  | Obstruction in SB Door area | Clear obstruction |
|  | Grease/Dirt in the SB Door area | Clean SB Door + Area |
| Tickets are not being vended | Tickets have been depleted | Replenish tickets |
|  | Obstruction to Ticket Vend | Remove obstruction |

Note:
The table above shows a list of possible failures and a brief solutions. If problems persist further or there are aditional issues which may not be listed here. Please contact you point of sale or the SEGA Service Department on the contact numbers shown at the end of this Manual.

## . 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, short circuit or present a fire risk
- Do not expose the Game Board, etc. without good reason. Failure to observe this can cause electric shock hazard or malfunctioning
- Do not use this product with connectors other than those that were connected and used with the Game Board at the time of shipping. Do not carelessly connect wires to connectors that were not used at the time of shipping as this may cause overheating, smoke, or fire damage
- When returning the Game Board after making repairs or replacements, make sure that there are no errors in the connection of connectors. Erroneous connections can lead to electrical shock, short circuits or fires
- When connecting a connector, check the direction carefully. Connectors must be connected in only one direction. If indiscriminate loads are applied in making connections, the connector or its terminal fixtures could be damaged, resulting in electrical shock, short circuits, or fires


## $\triangle$ CAUTION

- In this product, setting changes are made during the Test Mode. The Game Board need not be operated. Use the Game Board, etc. 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

- When a Game Board is to be replaced, put the old Game Board with anomaly into a special box for replacing the Game Board. If a special box is not available or if it has been damaged, arrange to have the Game Board packed in suitable packaging
- For replacement or repair, pack the Game Board and send it without disassembling it. Order for servicing may not be accepted if any part of the Game Board has been removed. If any part is removed, a service fee will be charged even if the warranty period has not yet expired
- Do not remove the Key Chip from the Game Board before sending the board for servicing


## 16-1 HOW TO REMOVE GAME BOARD

## 1 Turn off the power

2
On the Door Rear Lower, unlock using Master Key and remove the (2) M4 fixings to remove the door




Disconnect all of the connectors connected to the Game Board

## 16 DESIGN RELATED PARTS

For the warning display stickers, refer to Section 1.


## 17 PARTS LIST

## ZOMBIES RDG STRUCTURE FLOW




| ITEM NO | PART NO |
| :---: | :---: |
| *1 | ZR-1000XUK |
| *2 | ZR-1050XUK |
| *3 | ZR-2000XUK |
| *9 | ZR-0001UK |
| *10 | ZR-0002UK |
| *101 | OS1258 |
| *201 | 029-B00625 |
| *202 | 029-B00640 |
| *203 | 060-S00600 |
| *204 | 068-652016 |

DESCRIPTION QTYASSY CONTROL CABINET2
ASSY MONITOR CABINET ..... 1
ASSY PLAYDECK ..... 4
BATTEN PLAYDECK TRANSIT ..... 4
BLOCK PLAYDECK TRANSIT ..... 4
PROTECTOR U-SHAPED FOAM CORNER ..... 4
M6X25 SKT BH PAS ..... 1
M6X40 SKT BH PAS ..... 20
M6 WSHR SPR PAS ..... 20
M6 WSHR 200D FLT PAS ..... 20

1) TOP ASSY ZOMBIES RDG (ZR-0000XUK) ..... (2/2)
ITEM NO PART NO*301 ZR-60024UK*302 ZR-60025UK*303 ZR-60026UK
*304 ZR-60027UK
*305 ZR-60029UK
*306 ZR-60038UK
*307 ZR-60039UK
*308 ZR-60040UK
*309 ZR-60041UK
*401 ZR-INST-STD
*403 PK0569
*404 PK0570
*405 420-0041UK
*406 PK0575
*407 PK0579
*408 290094
*409 PK0577
*410 PK0571
*411 PK0572

## DESCRIPTION

QTY
WH PLAYER 1 FLOOR LIGHT 3
WH PLAYER 2 FLOOR LIGHT 3
WH PLAYER 3 FLOOR LIGHT 3
WH PLAYER 4 FLOOR LIGHT 3
WH P4 SIDE LED 1
WH PLAYER 1 SUPER BONUS LED 1
WH PLAYER 2 SUPER BONUS LED 1
WH PLAYER 3 SUPER BONUS LED 1
WH PLAYER 4 SUPER BONUS LED 1
ASSY INST KIT ZR STD 1
PALLET ZR MONITOR \& PLAYDECKS 1
PALLET ZR CONTROL CABI 1
MANUALZR 1
BOX ZR INST KIT A 1
BOX ZR INST KIT SUPER BONUSx1 (FEFCO 0201) 4
WRAP BUBBLE (SM) 600X100M (X2) 1
BOX ZR INST KIT C 1
SLEEVE ZR MONITOR CABI 1
SLEEVE ZR FRONT CABI 1


| ITEM NO | PART NO | DESCRIPTION | QTY |
| :---: | :---: | :---: | :---: |
| **1 | ZR-1550UK | ASSY SW UNIT | 2 |
| **2 | ZR-1002XUK | ASSY FRONT CABINET | 1 |
| **3 | ZR-1003XUK | PANEL FRONT CABI DOWNLIGHT | 2 |
| **4 | ZR-1004XUK | BRKT FRONT CABI DOWNLIGHT | 2 |
| **5 | ZR-1006UK | PLATE FRONT PANEL MNT | 2 |
| **8 | ZR-1012XUK | PANEL FRONT LED STRIP | 2 |
| **9 | BI-1106UK | HOLDER TICKET | 2 |
| **101 | 220-0001-01UK | TICKET VEND UNIT TD-963CR | 2 |
| **102 | 220-5736-01 | DFMD W/UNIV CRADLE\&CASHBOX ENC HI SEC | 2 |
| **103 | 220-5575UK | LOCK (J9117) KEY TO LIKE 22MM W CAM | 2 |
| **104 | 280-A01264-WX | ROUTER TWIST D12 SO6.4 WOOD XL | 16 |
| **105 | 601-0460 | CABLE TIE NYLON 100MM | 6 |
| **106 | EP1420 | SW MICRO LEVER RS | 2 |
| **107 | EP1421 | LED 12V RED RS 541-4072 | 2 |
| **108 | SAI-6108-0500UK | WH ASSY LED 500MM | 2 |
| **109 | SAI-6108-0360UK | WH ASSY LED 360MM | 2 |
| **201 | 029-B00316 | M3X16 SKT BH PAS | 4 |
| **202 | 000-F00412 | M4X12 MSCR CSK PAS | 4 |
| **203 | 029-B00412 | M4X12 SKT BH PAS | 20 |
| **204 | 029-B00425 | M4X25 SKT BH PAS | 4 |
| **205 | 029-B00625 | M6X25 SKT BH PAS | 4 |
| **206 | 060-F00400 | M4 WSHR FORM A FLT PAS | 24 |
| **207 | 068-652016 | M6 WSHR 200D FLT PAS | 4 |
| **301 | ZR-60019UK | WH CONTROL CAB LINK | 2 |
| **302 | ZR-60031UK | WH TICKET VEND | 2 |



| ITEM NO | PART NO | DESCRIPTION | QTY |
| :---: | :--- | :--- | :---: |
| ${ }^{* * *} 1$ | ZR-1041UK | BRKT MON65 SUPPORT | 2 |
|  |  |  | 1 |
| ${ }^{* * *} 101$ | $200-6065-04-W E I$ | DISPLAY 65" LED MTV65W-CV1RS | 4.5 |
| ${ }^{* * *} 102$ | OS1230 | FOAM STRIP 2mm X 10mm | 4 |
|  |  |  | 4 |
| ${ }^{* * * 201 ~}$ | $029-B 00816$ | M8x16 SKT BH PAS | 4 |
| ${ }^{* * * 202}$ | $060-S 00800$ | M8 WSHR SPR PAS | 4 |
| ${ }^{* * * 203 ~}$ | $068-852216$ | M8 WSHR 22OD FLT PAS | 1 |

(4) ASSY MONITOR CABINET (ZR-1050XUK)



| ITEM NO | PART NO |
| :---: | :---: |
| ***1 | ZR-1040UK |
| ***2 | ZR-1080UK |
| ***3 | ZR-4000UK |
| ***4 | ZR-4100UK |
| ***5 | ZR-4200UK |
| ***7 | ZR-4400UK |
| ***8 | SND-1340UK |
| ***10 | ZR-1051UK |
| ***11 | ZR-1052UK |
| ***14 | ZR-1071UK |
| ***15 | DSD-9602YUK |
| ***16 | RR-8505XUK |
| ***101 | 130-04030-E |
| ***103 | SAI-6503-0080UK |
| ***201 | 012-P03512-F |
| ***203 | 029-B00425-0B |
| ***204 | 029-B00612 |
| ***205 | 029-B00625 |
| ***206 | 029-B00630 |
| ***208 | 068-441616-0B |
| ***209 | 068-652016 |
| ***301 | ZR-60009UK |
| ***302 | ZR-60012UK |
| ***303 | ZR-60013UK |
| ***304 | ZR-60014UK |
| ***305 | ZR-60015UK |
| ***306 | ZR-60034UK |
| ***307 | MI-60017UK |
| ***308 | ZR-60044UK |
| ***309 | ZR-60045UK |
| ***310 | 600-9200-44K |
| ***311 | 600-9040-44K |

DESCRIPTION QTY
ASSY 65 LCD AUO MONITOR ..... 1
ASSY AC UNIT ..... 1
ASSY AUDIO ELEC ..... 1
ASSY PSU ELEC ..... 1
ASSY MAIN BD ..... 1
ASSY AUX ELEC ..... 1
ASSY FAN ..... 1
ASSY REAR CABINET ..... 1
STRUT SUPPORT REAR UPPER DOOR SPLIT ..... 1
PLATE CLOSING JOGGLE ..... 2
GLASS SCREEN PROTECT ..... 1
BRKT BILLBOARD RETAINING ..... 4
SPKR ELIP 4OHM 30W VIS Dx4x6P ..... 1
WH ASSY LED 80MM ..... 4
N6X1/2" S/TAP FLG PAS ..... 8
M4X25 SKT BH BLK ..... 14
M6X12 SKT BH PAS ..... 2
M6X25 SKT BH PAS ..... 4
M6X30 SKT BH PAS ..... 6
M4 WSHR 16OD FLT BLK ..... 14
M6 WSHR 200D FLT PAS ..... 12
WH POWER TO IO2'S ..... 1
WH POWER TO PLAYERS ..... 1
WH MON CAB TOP CONNECT ..... 1
WH MON CAB LIGHT FAN SPKR L ..... 1
WH MON CAB SPKR R ..... 1
WH AUDIO TO PLAYERS ..... 1
WH SPEAKER A ..... 2
WH IO TO PLAYERS 1\&2 ..... 1
WH IO TO PLAYERS 3\&4 ..... 1
M4 RING TO RING EARTH 2M ..... 1
M4 RING TO RING EARTH 0.4 M ..... 1

## (5) ASSY AC UNIT (ZR-1080UK)




## PART NO <br> DA-1081UK

EP1302
***102
514-5078-3150
***103
SW1109
***104 EP1419
***108
310-5029-D508
***201 029-B00408
***202 050-F00400
***203 060-F00400
***204 060-S00400
***301
DA-60101UKDESCRIPTION QTYPLATE ACQTY1
EUROSOCKET FUSED 10A 250VAC ..... 1
FUSE $3.15 \times 20$ CERAMIC SB 3150mA ..... 2
SWITCH ROCKER 250V AC ..... 1
FILTER SCHAFFNER 2030-16-06 ..... 1
HEAT SHRINK SLEEVING 50.8DIA ..... 10
M4X8 SKT BH PAS ..... 2
M4 NUT FLG SER PAS ..... 6
M4 WSHR FORM A FLT PAS ..... 2
M4 WSHR SPR PAS ..... 2
WH AC IN ..... 1

## (6) ASSY SW UNIT (ZR-1550UK)



| ITEM NO | PART NO |
| :---: | :---: |
| ***1 | ZR-1551UK |
| ***101 | 838-0058UK |
| ***102 | 280-L00706-PM |
| ***103 | EP1380-01 |
| ***104 | 220-5643UK |
| ***105 | OS1247 |
| ***107 | OS1098 |
| ***108 | 601-0460 |
| ***201 | 000-P00308 |
| ***202 | 068-330808-PN |

## DESCRIPTION

QTY
BRKT SW DIGITAL VOL CTRL 1
DIGITAL SW VOL BOARD 1
STANDOFF 6.4MM HOLE PM 4
CREDIT BOARD EXCEL 1
COIN METER SMALL 12V 2
ALUMINIUM STICKY CLIP ASK-3 1
CRIMP BELL END SMALL 4
CABLE TIE NYLON 100MM 2

M3X8 MSCR PAN PAS 2
M3 WSHR 8OD FLT NYLON 2
WH COIN VTS 1



| ITEM NO | PART NO |
| :---: | :---: |
| ***1 | ZR-2010XUK |
| ***2 | ZR-2020XUK |
| ***5 | ZR-2060UK |
| ***6 | ZR-2070XUK |
| ***8 | ZR-2001XUK |
| ***9 | ZR-2002XUK |
| ***11 | ZR-2004XUK |
| ***12 | ZR-2006XUK |
| ***14 | ZR-2008XUK |
| ***17 | ZR-2028XUK |
| ***18 | ZR-2037XUK |
| ***20 | ZR-2015XUK |
| ***101 | 130-04030-E |
| ***102 | 280-0010UK |
| ***201 | 012-P03512-F |
| ***202 | 029-B00412 |
| ***203 | 029-B00412-0B |
| ***204 | 029-B00416 |
| ***205 | 029-B00425 |
| ***206 | 050-F00400 |
| ***207 | 060-S00400 |
| ***208 | 060-S00400-0B |
| ***209 | 068-441616 |
| ***210 | 068-441616-0B |
| ***211 | 000-F00420-0B |
| ***301 | ZR-60016UK |
| ***302 | ZR-60018UK |
| ***303 | ZR-60046UK |

DESCRIPTION ..... QTY
ASSY PLAYDECK UPPER ..... 1
ASSY PLAYDECK LOWER ..... 1
ASSY PLAYDECK LOWER ILLUMINATION ..... 1
ASSY BALL RELEASE COMBINED GATE \& SENSOR ..... 1
SHIELD HARNESS ..... 1
ASSY PLAYFIELD CABINET ..... 1
COVER CARD READER MOUNT ..... 1
PLATE CARD READER BLANKING ..... 1
COVER BALL RETURN ..... 1
TRIM BALL COLLECT ..... 1
COVER PLAYDECK CORNER ..... 2
ASSY PLAYDECK INSERT ..... 1
SPKR ELIP 4OHM 30W VIS Dx4x6P ..... 1
M4X50 SPACER HEX 7AF 50L PAS-304450041152 ..... 4
N6X1/2" S/TAP FLG PAS ..... 6
M4X12 SKT BH PAS ..... 12
M4X12 SKT BH BLK ..... 13
M4X16 SKT BH PAS ..... 4
M4X25 SKT BH PAS ..... 5
M4 NUT FLG SER PAS ..... 4
M4 WSHR SPR PAS ..... 17
M4 WSHR SPR BLK ..... 13
M4 WSHR 160D FLT PAS ..... 25
M4 WSHR 160D FLT BLK ..... 13
M4X20 MSCR CSK BLK ..... 4
WH PLAYDECK LINK ..... 1
WH BALL CONTROL ..... 1WH MOTOR HARNESS
1
(8) ASSY PLAYDECK UPPER (ZR-2010XUK)

(3) 201

2


| ITEM NO | PART NO |
| :---: | :--- |
| $* * * 1$ | ZR-2040XUK |
| $* * * 2$ | ZR-2011XUK |
| $* * * 4$ | ZR-2013XUK |
|  |  |
| ${ }^{* * * 201}$ | $000-\mathrm{F} 00412$ |
| ${ }^{* * * 202}$ | $029-\mathrm{B} 00416$ |
| ${ }^{* * * 203}$ | $060-$-S00400 |
| ${ }^{* * * 204}$ | $060-\mathrm{F} 00400$ |

DESCRIPTION ..... QTY
ASSY BALL SENSOR TxRx ..... 11
BOARD PLAYDECK UPPER ..... 1
BRKT PLAYDECK BOARD ..... 1
M4X12 MSCR CSK PAS ..... 10
M4X16 SKT BH PAS ..... 24
M4 WSHR SPR PAS ..... 24
M4 WSHR FORM A FLT PAS ..... 24

WH SCORE ZONE 1
WH SCORE ZONE 2 ..... 1
WH SCORE ZONE 3 ..... 1
***301 ZR-60035UK
***302 ZR-60036UK
***303 ZR-60037UK

***1 ZR-2018XUK
***2 ZR-2019XUK

DESCRIPTION
INSERT PLAYDECK
QTY
PIN BALL DIVERT

1
4


| ITEM NO | PART NO | DESCRIPTION | QTY |
| :---: | :--- | :--- | :---: |
| $* * * 1$ | ZR-2013XUK | BRKT PLAYDECK BOARD | 2 |
| $* * * 2$ | ZR-2021XUK | BOARD PLAYDECK LOWER | 1 |
| $* * * 4$ | ZR-2031XUK | TRIM PLAYDECK LOWER | 1 |
| $* * * 5$ | ZR-2053XUK | COVER BALL COLLECT LED | 1 |
|  |  |  | 1 |
| $* * * 101$ | SAI-6108-0360UK | WH ASSY LED 0360MM | 7 |
|  |  |  | 7 |
| ${ }^{* * * 201 ~}$ | $000-F 00412$ | M4X12 MSCR CSK PAS | 7 |
| ${ }^{* * * 202 ~}$ | $029-B 00416$ | M4X16 SKT BH PAS | 7 |
| ${ }^{* * * 203 ~}$ | $060-S 00400$ | M4 WSHR SPR PAS | 7 |
| ${ }^{* * * 204}$ | $060-F 00400$ | M4 WSHR FORM A FLT PAS |  |
|  |  |  | 1 |



ITEM NO PART NO
****1 ZR-2041XUK
****2 ZR-2042XUK
****101 370-5173-01
****102 390-2512-086RGB-070
****201 029-B00408
****202 050-U00300
****203 060-S00400
****204 060-F00400

## DESCRIPTION

BLOCK BALL SENSOR
PLATE BALL SENSOR

PHOTO SENSOR OMT-15DJST-YL
RING LED 86MM RGB M8618

M4X8 SKT BH PAS
M3 NUT NYLOK PAS
M4 WSHR SPR PAS
M4 WSHR FORM A FLT PAS

## QTY

1
1

1
1

2
(12) ASSY PLAYDECK LOWER ILLUMINATION (ZR-2060UK)


## (13) ASSY BALL RELEASE COMBINED GATE \& SENSOR (ZR-2070XUK)



## ITEM NO PART NO

***1 ZR-2071XUK
***2 ZR-2072XUK
***3 ZR-2073XUK
***4 ZR-2074XUK
***5 ZR-2075XUK
***6 ZR-2076XUK
***7 ZR-2077XUK
***101 350-012-011UK
***102 EP1434
***103 118-0002UK
***201 029-B00412
***202 060-S00400
***203 050-F00400
***204 028-00410-B
***205 000-F00412
***206 029-B00308
***207 050-F00300
***207 000-F00306
***208 000-F00306
DESCRIPTION QTY
MOUNT BALL RELEASE BASE ..... 1
MOUNT BALL RELEASE SENSOR SUPP ..... 1
BLOCK MTG PLATE CAM ..... 1
PLATE CAM ..... 1
BRKT RETAIN CAM ..... 1
BRKT ACTIVATE OPTOS ..... 1
FOAM BLOCK BALL RETAIN ..... 1
MOTOR NINGBO LS-SG27125000-468K ..... 1
OPTIC SENSOR GAMESMAN ..... 2
PLUNGER SPRING SS (WDS 838-203) ..... 1
M4X12 SKT BH PAS ..... 2
M4 WSHR SPR PAS ..... 2
M4 NUT FLG SER PAS ..... 2
M4X10 GSCR SKT CUP BLK ..... 1
M4X12 MSCR CSK PAS ..... 2
M3X8 SKT BH PAS ..... 6
M3 NUT FLG SER PAS ..... 2
M3X6 MSCR CSK PAS ..... 2
M3X6 MSCR CSK PAS ..... 2
(14) ASSY BALL RELEASE SENSOR (ZR-2090UK)


DESCRIPTION
BRKT BALL RELEASE OPTO
QTY
***1 ZR-2091UK
***101 EP1434
OPTIC SENSOR GAMESMAN A151
2


## ITEM NO PART NO

***1 ZR-2101XUK
***2 ZR-2102XUK
***3 ZR-2103XUK
***4 ZR-2121XUK
***5 ZR-2122XUK
***101 SAI-6108-1400UK
***201 029-B00408-0B
***202 029-B00416-0B
***203 060-F00400-0B
***204 060-S00400-0B

DESCRIPTION
QTY
BASE PLAYDECK DIVIDER INNER 1
COVER PLAYDECK DIVIDER INNER 1
PANEL PLAYDECK DIVIDER 1
SUPPORT CHEAT PANEL LH 1
SUPPORT CHEAT PANEL RH 1

WH ASSY LED 1400MM
1

M4X8 SKT BH BLK 3

M4X16 SKT BH BLK 6
M4 WSHR FORM A FLT BLK 9
M4 WSHR SPR BLK 9


ITEM NO PART NO
***1 ZR-2106XUK
***2 ZR-2102XUK
***3 ZR-2103XUK
***4 ZR-2121XUK
***101 SAI-6108-1400UK
***201 029-B00408-0B
***202 029-B00416-OB
***203 050-U00400
***204 060-F00400-0B
***205 060-S00400-0B

DESCRIPTION
BASE PLAYDECK DIVIDER LH COVER PLAYDECK DIVIDER INNER
PANEL PLAYDECK DIVIDER
SUPPORT CHEAT PANEL LH

WH ASSY LED 1400MM

M4X8 SKT BH BLK 3
M4X16 SKT BH BLK 6
M4 NUT NYLOK PAS 3
M4 WSHR FORM A FLT BLK 12
M4 WSHR SPR BLK12


| ITEM NO | PART NO |
| :---: | :---: |
| ***1 | ZR-2107XUK |
| ***2 | ZR-2108XUK |
| ***3 | ZR-2103XUK |
| ***4 | ZR-2122XUK |
| ***101 | SAI-6108-1400UK |
| ***201 | 029-B00408-0B |
| ***202 | 029-B00416-0В |
| ***203 | 050-U00400 |
| ***204 | 060-F00400-0B |
| ***205 | 060-S00400-0B |


| DESCRIPTION | QTY |
| :--- | :---: |
| BASE PLAYDECK DIVIDER RH | 1 |
| COVER PLAYDECK DIVIDER RH | 1 |
| PANEL PLAYDECK DIVIDER | 1 |
| SUPPORT CHEAT PANEL RH | 1 |
|  |  |
| WH ASSY LED 1400MM | 1 |
| M4X8 SKT BH BLK | 3 |
| M4X16 SKT BH BLK | 6 |
| M4 NUT NYLOK PAS | 3 |
| M4 WSHR FORM A FLT BLK | 12 |
| M4 WSHR SPR BLK | 12 |



A parts list

| ITEM NO | PART NO |
| :---: | :---: |
| ***1 | ZR-2160XUK |
| ***3 | ZR-2152XUK |
| ***4 | ZR-2153X-01UK |
| ***5 | ZR-2154X-01UK |
| ***7 | ZR-2161UK |
| ***8 | ZR-2166XUK |
| ***9 | ZR-2167UK |
| ***10 | ZR-2168XUK |
| ***11 | ZR-2171X-AUK |
| ***12 | ZR-2174XUK |
| ***13 | ZR-2176XUK |
| ***101 | EP1522 |
| ***102 | 370-5173-01 |
| ***103 | SAI-6108-0420UK |
| ***104 | SAI-6509-0150UK |
| ***105 | 280-A01264-WX |
| ***201 | 000-F00412 |
| ***202 | 029-B00316 |
| ***203 | 029-B00412 |
| ***204 | 029-B00425 |
| ***205 | 029-B00612 |
| ***206 | 029-B00616 |
| ***207 | 050-F00400 |
| ***208 | 050-U00300 |
| ***209 | 060-F00400 |
| ***210 | 060-F00600 |
| ***211 | 060-S00400 |
| ***212 | 060-S00600 |
| ***213 | 068-441616 |
| ***301 | ZR-60028UK |
| ***302 | ZR-60046UK |

DESCRIPTION ..... QTY
ASSY BONUS GATE MOTOR ..... 1
PANEL PLAYDECK BACK ..... 1
BRKT BONUS GATE LH ..... 1
BRKT BONUS GATE RH ..... 1
CHUTE BONUS BALL RETURN ..... 1
GUIDE BONUS GATE ..... 2
BRKT BONUS GATE SWITCH ..... 1
PLATE BONUS GATE ..... 1
SUPER BONUS PANEL ..... 1
SUPPORT SUPER BONUS LOWER ..... 1
SUPPORT SUPER BONUS UPPER ..... 1
CROUZET LEVER MICRO SWITCH ..... 1
PHOTO SENSOR OMT-15DJST-YL ..... 1
WH ASSY LED 420MM ..... 2
WH ASSY LED 150MM ..... 1
ROUTER TWIST D12 S06.4 WOOD XL ..... 6
M4X12 MSCR CSK PAS ..... 11
M3X16 SKT BH PAS ..... 2
M4X12 SKT BH PAS ..... 2
M4X25 SKT BH PAS ..... 4
M6X12 SKT BH PAS ..... 2
M6X16 SKT BH PAS ..... 4
M4 NUT FLG SER PAS ..... 8
M3 NUT NYLOK PAS ..... 2
M4 WSHR FORM A FLT PAS ..... 8
M6 WSHR FORM A FLT PAS ..... 6
M4 WSHR SPR PAS ..... 6
M6 WSHR SPR PAS ..... 6
M4 WSHR 16OD FLT PAS ..... 6
WH BONUS ..... 1
WH MOTOR HARNESS ..... 1

## (19) ASSY BONUS GATE MOTOR (ZR-2160XUK)



| ITEM NO | PART NO | DESCRIPTION | QTY |
| :---: | :---: | :---: | :---: |
| ****1 | ZR-2158UK | CAM BONUS GATE | 1 |
| ****2 | ZR-2159-03UK | ADAPTER MOTOR | 1 |
| ****3 | ZR-2162X-01UK | MOUNT BONUS GATE MOTOR | 1 |
| ***101 | 350-012-128UK | MOTOR NINGBO LS-SG27125000-39K | 1 |
| ***102 | 100-0014UK | BEARING MINI 3MM BORE MR93-ZZ | 1 |
| ***201 | 028-00404 | M4X4 GSCR SKT CUP | 1 |
| ***202 | 028-00412 | M4X12 GSCR SKT CUP | 1 |
| ***203 | 029-B00308 | M $3 \times 8$ SKT BH PAS | 2 |
| ***204 | 029-B00320 | M3X20 SKT BH PAS | 1 |
| ***205 | 050-U00300 | M3 NUT NYLOK PAS | 1 |
| ***206 | 060-F00300 | M3 WSHR FORM A FLT PAS | 4 |
| ***207 | 060-S00300 | M3 WSHR SPR PAS | 2 |

## (20) ASSY AUDIO ELEC (ZR-4000UK)



| ITEM NO | PART NO | DESCRIPTION | QTY |
| :---: | :--- | :--- | :---: |
| $* * * 1$ | ZR-4001UK | BOARD AUDIO ELEC | 1 |
| ${ }^{* * *} 102$ | $838-8001 U K$ | AMP 2.2 VISATON | 3 |
| ${ }^{* * * 103 ~}$ | $280-A 01264-W X$ | ROUTER TWIST D12 S06.4 WOOD XL | 8 |
|  |  | N6X1/4" S/TAP FLG PAS | 6 |
| ${ }^{* * * 201 ~}$ | $012-P 03506-F$ | WH AMP ELEC BOARD | 1 |



| ITEM NO | PART NO | DESCRIPTION | QTY |
| :---: | :---: | :---: | :---: |
| ***1 | ZR-4101UK | BOARD PSU | 1 |
| ***2 | ZR-4102UK | COVER EMC PSU BOARD | 1 |
| ***3 | CFB-4003-01UK | EARTH TERMINAL PLATE | 1 |
| ***101 | 400-200-005-02 | PSU 5VDC 200W RSP-200-05 | 1 |
| ***102 | 400-320-012-01 | PSU 12VDC 320W RSP-320-12 | 3 |
| ***103 | 280-A01264-WX | ROUTER TWIST D12 S06.4 WOOD XL | 4 |
| ***104 | 280-A01013-PM | ROUTER TWIST D10 S012.7 PAN M | 4 |
| ***105 | 838-14551-02UK | AC DISTRIBUTION BD | 1 |
| ***201 | 029-B00416 | M4X16 SKT BH PAS | 20 |
| ***202 | 068-441616 | M4 WSHR 16OD FLT PAS | 20 |
| ***203 | 012-P00325 | N4X1" S/TAP PAN PAS | 4 |
| ***204 | 012-P03512-F | N6X1/2" S/TAP FLG PAS | 2 |
| ***205 | 050-F00400 | M4 NUT FLG SER PAS | 4 |
| ***301 | ZR-60001UK | WH AC DISTRIBUTION | 1 |
| ***302 | ZR-60003UK | WH DC PSU BOARD | 1 |
| ***303 | ZR-60032UK | WH AC DIST TO GAMEBOARD | 1 |
| ***304 | MSJ-60003UK | WH AC DISTRIBUTION IN | 1 |
| ***305 | EP1515 | TDK CLIP FERRITE | 3 |



| ITEM NO | PART NO | DESCRIPTION | QTY |
| :---: | :---: | :---: | :---: |
| ***1 | DR-4201UK | BOARD MAIN | 1 |
| ***101 | 610-0016-01UK | ASSY PC HIGH SPEC CI44012 | 1 |
| ***102 | EP3005-00BLU | DK ZR-STD EU/US BLU | 1 |
| ***103 | 280-A02064-WX | ROUTER TWIST D20 S06.4 WOOD XL | 3 |
| ***201 | 029-B00412 | M4X12 SKT BH PAS | 4 |
| ***202 | 068-441616 | M4 WSHR 16OD FLT PAS | 4 |
| ***301 | 600-7010-0200UK | CA HDMI TO HDMI 200CM | 1 |
| ***302 | 600-7020-090UK | ASSY USB CABLE | 4 |
| ***303 | ZR-60006UK | WH GAMEBOARD AUDIO | 1 |
| ***304 | EP1515 | TDK CLIP FERRITE | 3 |

## (23) ASSY AUX ELEC (ZR-4400UK)



| ITEM NO | PART NO | DESCRIPTION | QTY |
| :---: | :---: | :---: | :---: |
| ***1 | ZR-4401UK | BOARD AUX ELEC | 1 |
| ***101 | 838-0042UK | PCBA IO2 | 4 |
| ***102 | 280-L00640-WX | STANDOFF 6MM WOOD XL | 16 |
| ***103 | 280-A01264-WX | ROUTER TWIST D12 S06.4 WOOD XL | 13 |
| ***301 | ZR-60010UK | WH I/O AUX ELEC | 1 |
| ***302 | ZR-60011UK | WH POWER AUX ELEC | 1 |



| ITEM NO | PART NO | DESCRIPTION | QTY |
| :---: | :---: | :---: | :---: |
| ***1 | ZR-5001XUK | PANEL REAR | 1 |
| ***3 | ZR-5003XUK | PANEL FRONT | 1 |
| ***4 | ZR-5006XUK | PANEL BACKGROUND | 1 |
| ***6 | ZR-5011XUK | BRKT REAR PANEL SUPPORT | 3 |
| ***102 | 601-0460 | CABLE TIE NYLON 100MM | 27 |
| ***103 | SAI-6108-0250UK | WH ASSY LED 250MM | 2 |
| ***104 | SAI-6504-1000UK | WH ASSY LED 1000MM | 2 |
| ***105 | SAI-6504-0600UK | WH ASSY LED 600MM | 1 |
| ***106 | SAI-6503-0080UK | WH ASSY LED 80MM | 1 |
| ***107 | SAI-6108-0350UK | WH ASSY LED 350MM | 1 |
| ***108 | SAI-6108-0550UK | WH ASSY LED 550MM | 1 |
| ***109 | SAI-6108-0300UK | WH ASSY LED 300MM | 1 |
| ***201 | 029-B00412-0B | M4X12 SKT BH BLK | 18 |
| ***202 | 050-U00400 | M4 NUT NYLOK PAS | 3 |
| ***203 | 060-F00400-0B | M4 WSHR FORM A FLT BLK | 18 |
| ***301 | ZR-60042UK | WH BILLBOARD LED | 1 |



| ITEM NO | PART NO |
| :---: | :---: |
| **1 | ZR-2100XUK |
| **2 | ZR-2105XUK |
| **3 | ZR-2110XUK |
| **6 | ZR-2150XUK |
| **7 | ZR-5000XUK |
| **8 | ZR-0007XUK |
| **9 | ZR-0011XUK |
| **10 | ZR-0012XUK |
| **11 | ZR-0013UK |
| **12 | ZR-0014UK |
| **13 | ZR-0016UK |
| **14 | ZR-1013UK |
| **15 | ZR-2126UK |
| **16 | ZR-2128XUK |
| **17 | ZR-0008UK |
| **20 | ZR-1057XUK |
| **21 | ZR-1059XUK |
| **22 | ZR-1063XUK |
| **23 | ZR-1064XUK |

**101 LM1227
**102 LM1246
**103 LM1500UK
**104 253-0015UK
**105 SAI-6509-0900UK
**201 029-B00412-0B
**202 029-B00425
**203 029-B00425-0B
**204 029-B00625
**205 029-B00640
**206 060-F00400-0B
**207 060-S00400-0B
**208 068-441616-0B
**209 068-652016
**210 060-S00600
**211 029-B00412
**212 068-441616
**401 OS1019

DESCRIPTION
ASSY PLAYDECK DIVIDER INNER
QTY

ASSY PLAYDECK DIVIDER LH 1
ASSY PLAYDECK DIVIDER RH 1
ASSY SUPER BONUS 4
ASSY BILLBOARD 1
PLATE FRONT CABI LOCATING 1
BRKT CLOSING LH 1
BRKT CLOSING RH 1
PLATE CLOSING LH 1
PLATE CLOSING RH 1
SUPPORT CLOSING PLATE 3
COVER FRONT CABI WIRE 4
PANEL PLAYFIELD GLASS 4
BRKT CHEAT PANEL RETAINING 4
PANEL PLAYDECK CLAMP 8
CHARACTER PANEL L 1
CHARACTER PANEL R 1
BRKT CHARACTER PANEL LH 1
BRKT CHARACTER PANEL RH 1

UK MAINS LEAD 10A WITH PLUG 1
EUROLEAD 10A EUROPEAN SOCKET 1
MAINS LEAD USA/IEC H80-1205-00 1
BALL 60MM NYLON-WHITE 36
WH ASSY LED 900MM 2
M4X12 SKT BH BLK 90
M4X25 SKT BH PAS 16
M4X25 SKT BH BLK 8
M6X25 SKT BH PAS 28
M6X40 SKT BH PAS 48
M4 WSHR FORM A FLT BLK 20
M4 WSHR SPR BLK 86
M4 WSHR 16OD FLT BLK 92
M6 WSHR 200D FLT PAS 82
M6 WSHR SPR PAS 16
M4X12 SKT BH PAS 8
M4 WSHR 16OD FLT PAS 8

SELF SEAL BAG 9X12.3/4

## 18 WIRE COLOR CODE TABLE

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 lefthand side numeral (see the above).

Note 1: 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........WHITE/RED


Note 2: The character following the wire color code indicates the size of the wire.

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






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amusements international

- SEGA TOTAL SOLUTIONS -

42 Barwell Business Park Leatherhead Road, Chessington,

Surrey, KT9 2NY
United Kingdom
Parts: +44 (0) 2083918060
stssales@segaarcade.com

- TECHNICAL SUPPORT -
+44 (0) 2083918060
technical@segaarcade.com
- PLAY IT AMUSEMENTS -

> 870 Lively Blvd
> Wood Dale,
> IL,
> 602191
> United States of America

Parts/Customer Service: +00 (1) 2242654287
Technical Support: +00 (1) 2242654283
PIA: support@playitamusements.com


