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SHOWDOWN

OWNER'S MANUAL

420-0023-02UK

SEGA[®]



OWNER'S MANUAL



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.

BEFORE USING THE PRODUCT, BE SURE TO READ THE FOLLOWING:

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.



DANGER

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



WARNING

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



CAUTION

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

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



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



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

- **Perform work in accordance with the instructions herein stated.**
Instructions for work are explained by paying attention to the aspect of accident prevention. Failing to perform work as per the instructions can cause accidents. In the case where only those who have technical expertise should perform the work to avoid hazardous situation, the instructions herein state that the site maintenance personnel should perform such work.
- **Be sure to turn off the power before working on the machine.**
To prevent an electric shock, be sure to turn off the power and unplug the power cable before carrying out any work that requires direct contact with the interior of the product. If the work is to be performed in the power-on status, the instruction manual herein always states to that effect.
- **Be sure to ground the earth terminal.**
(This is not required in the case where a power cable with earth is used.)
This product is equipped with the earth terminal. When installing the product, connect the earth terminal to the "accurately grounded indoor earth terminal" by using an earth wire. Unless the product is grounded appropriately, the user can be subject to an electric shock. After performing repair, etc. for the control equipment, ensure that the earth wire is firmly connected to the control equipment.
- **Ensure that the power supply used is equipped with an earth leakage breaker.**
Using a power supply which is not equipped with the earth leakage breaker can cause a fire when earth leakage occurs.
- **Be sure to use fuses which meet the specified rating.**
(Only for the machines which use fuses.)
Using fuses exceeding the specified rating can cause a fire and an electric shock.

- **Specification changes (removal of equipment, conversion and addition) not designated by SEGA are not allowed.**

The parts of the product include warning labels for safety, covers for personal protection, etc. It is very hazardous to operate the product by removing parts and/or modifying the circuits. Should doors, lids and protective parts be damaged or lost, refrain from operating the product, and contact where the product was purchased from or the office herein stated.

SEGA shall not be held responsible for any accidents, compensation for damage to a third party, resulting from the specifications not designated by SEGA.

- **Ensure that the product meets the requirements of appropriate electrical specifications.**

Before installing the product, check for electrical specifications. SEGA products have a nameplate on which electrical specifications are described. Ensure that the product is compatible with the power supply voltage and frequency requirements of the location. Using any electrical specifications different from the designated specifications can cause a fire and an electric shock.

- **Install and operate the product in places where appropriate lighting is available, allowing warning labels to be clearly read.**

To ensure safety for the customers, labels and printed instructions describing potentially hazardous situations are applied to places where accidents can be caused. Ensure that where the product is operated has sufficient lighting allowing the warnings to be read. If any label is peeled off, apply it again immediately. Please place an order with where the product was purchased from or the office herein stated.

- **When handling the monitor, be very careful.
(Applies only to products with monitors.)**

Some of the monitor parts are subject to high tension voltage. Even after turning off the power, some portions are still subject to high tension voltage sometimes. Monitor repair and replacement should be performed only by those technical personnel who have knowledge of electricity and technical expertise.

- **Be sure to adjust the monitor properly.
(Applies only to products with monitors.)**

Do not operate the product leaving on-screen flickering or blurring as it is. Using the product with the monitor not properly adjusted may cause dizziness or a headache to an operator, a player, or the customers.

- **When transporting or reselling this product, be sure to attach this manual to the product.**

- * *In the case where commercially available monitors and printers are used in this product, only the contents relating to this product are explained herein. Some commercially available equipment has functions and reactions not stated in this manual. Read this manual together with the specific instruction manual of such equipment.*
- * *Descriptions herein contained may be subject to improvement changes without notice.*
- * *The contents described herein are fully prepared with due care. However, should any question arise or errors be found, please contact SEGA.*

INSPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION

Normally, at the time of shipment, SEGA products are in a status allowing for usage immediately after transporting to the location. Nevertheless, an irregular situation may occur during transportation. Before turning on the power, check the following points to ensure that the product has been transported in a satisfactory status.

- ☐ Are there any dented portions or defects (cuts, etc.) on the external surfaces of the cabinet?
- ☐ Are casters and adjusters damaged?
- ☐ Do the power supply voltage and frequency requirements meet with those of the location?
- ☐ Are all wiring connectors correctly and securely connected? Unless connected in the correct way, connector connections can not be made accurately. Do not insert connectors forcibly.
- ☐ Do power cables have cuts and dents?
- ☐ Are all accessories available?
- ☐ Can all doors and lids be opened with the accessory keys? Can doors and lids be firmly closed?

INTRODUCTION

This manual is intended to provide detailed descriptions together with all necessary information covering the general operation of electronic assemblies, electro-mechanicals, servicing control, spare parts, etc. for the product, **"SHOWDOWN STANDARD"**

This manual is intended for the owners, 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 word "IMPORTANT" and the symbol below.



IMPORTANT

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

Offices:

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SPECIFICATIONS

Standard Cabinet	Showdown Standard
Machine Dimensions:	1,23m (48.4in.) [Width] x 1.70m (66.9in.) [Max Depth]
Machine Height:	2.17m (83.5in.) Installed
Machine Weight:	220kg (Installed)
Power, maximum current:	1.5A@AC240V - 2A@AC115V

Definition of 'Site Maintenance Personnel or Other Qualified Individuals'



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 technology. Work carried out by unqualified persons may cause serious accidents, including electrocution.

INTRODUCTION

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 to take back products at the end of their useful life. Sega Amusements Europe Ltd accepts its responsibility to finance the cost of treatment and recovery of redundant WEEE in the United Kingdom in accordance with the specified WEEE recycling requirements.

The symbol shown below will be on all products manufactured from 13th August 2005, which indicates this product must NOT be disposed of with other normal waste. Instead, it is the user's responsibility to dispose of their waste equipment by arranging to return it to a designated UK collection point for the correct recycling of waste electrical and electronic equipment.

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

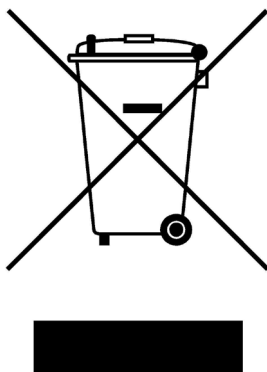
For non-UK users contact your local authority office for information on the recycling of Waste Electrical and Electronic Equipment.

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.



REGISTERED IN ENGLAND REGISTERED NO. 1711515

REGISTERED OFFICE: BLOCK C 42 BARWELL BUSINESS PARK, CHESSINGTON, SURREY KT9 2NY

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1 HANDLING PRECAUTIONS

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

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

When 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 case 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 BD are made properly. Insufficient insertion can cause an electric shock.

Specification changes, removal of equipment, conversion and/or addition, not designated by SEGA are not permitted.

Failure to observe this may cause a fire or an electric shock. Non-compliance with this instruction can have a bad influence upon physical conditions of the players or the onlookers, or result in injury during play.

SEGA shall not be held responsible for damage, compensation for damage to a third party, caused by specification changes not designated by SEGA.

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 inquires for details.

Be sure to perform periodic maintenance inspections herein stated.



IMPORTANT

1 HANDLING PRECAUTIONS

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 electronics devices on the IC board. Before handling the IC board, touch a grounded metallic surface so that the static electricity can be discharged.

This video gaming cabinet utilises a motorised steering feedback system. Do not attempt to service this part or any other part in close proximity to the steering mechanism whilst power is applied.

Some parts are not designed and manufactured specifically for this game machine. The manufacturers may discontinue, or change the specifications of such general-purpose parts. If this is the case, SEGA cannot repair or replace a failed game machine whether or not a warranty period has expired.

CONCERNING THE STICKER DISPLAY

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

CONCERNING WARNING DISPLAYS

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

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



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 a fire, electric shock, injury and/or malfunction.

Places subject to rain or water leakage, or places subject to high humidity in the proximity of an indoor swimming pool and/or shower, etc.

Places subject to direct sunlight, or places subject to high temperatures in the proximity of heating units, etc.

Places filled with inflammable gas or vicinity of highly inflammable/volatile chemicals or hazardous matter.

Dusty places.

Sloped 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.

LIMITATIONS OF USAGE

WARNING

Be sure to check the Electrical Specifications. Ensure that this product is compatible with the location's power supply, voltage, and frequency requirements. A plate describing Electrical Specifications is attached to the product. Non-compliance with the Electrical Specifications can cause a fire and electric shock.

This product requires a breaker and earth mechanism as part of the location facilities. Using the product without these can cause a fire and electric shock.

Ensure that the indoor wiring for the power supply is rated at 15 A or higher (AC single phase 100 V ~ 120 V area), and 7 A or higher (AC 220 V ~ 240 V area). Non-compliance 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 V ~ 120 V area) and 7 A or higher (AC 220 V ~ 240 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.

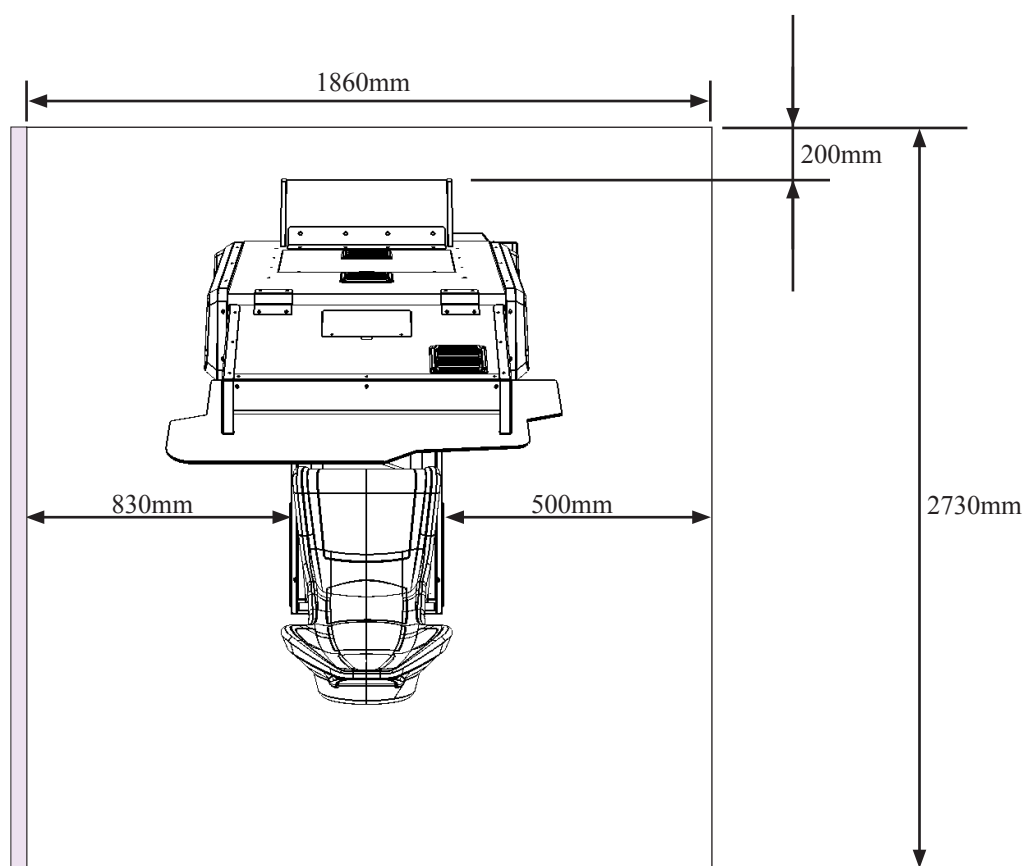
OPERATION AREA (US CABINET)

WARNING

For the operation of this machine, secure a minimum area of 1.86m (W) x 2.73m (D).

Be sure to provide sufficient space specified in this manual. Do not allow objects to block the ventilation ports. It can cause generation of heat and a fire.

Sufficient space either side of the playing area must be allowed for the player to enter or exit the game safely.



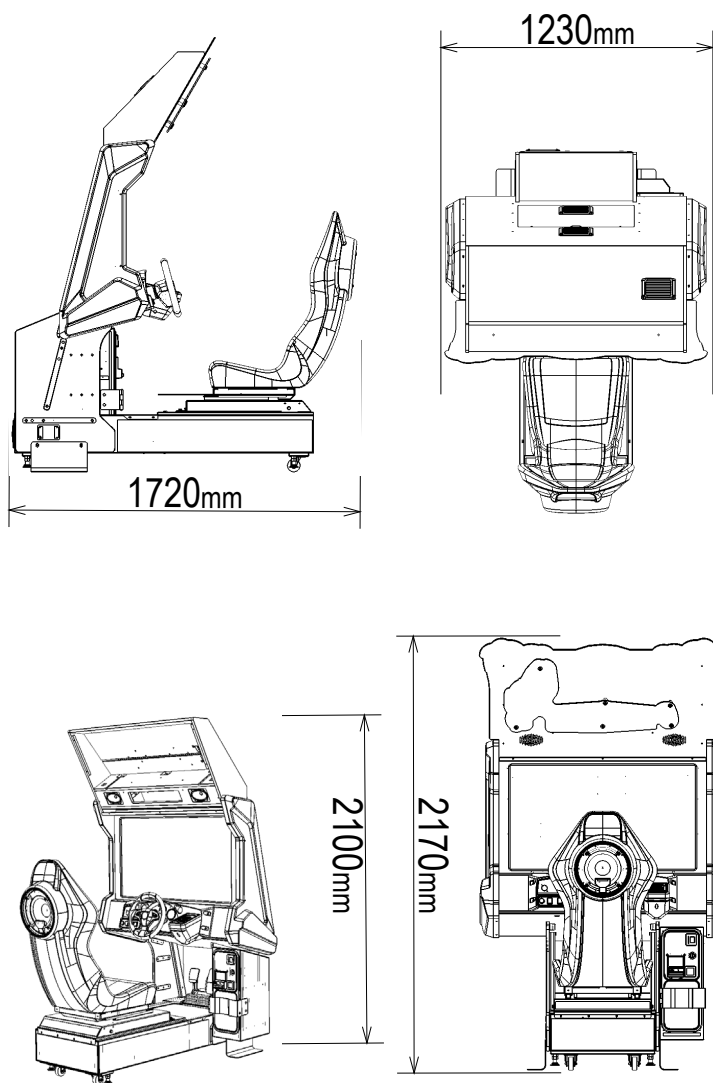
STOP

IMPORTANT

To install this product, the entrance must be at least 1.25m in width and 2.1m in height (without Assy Billboard) and 2.17m (with Assy Billboard).

Do not attempt to push/pull whilst holding onto the Assy Billboard. This may result in part damage and or personal injury.

2 PRECAUTIONS REGARDING INSTALLATION LOCATION



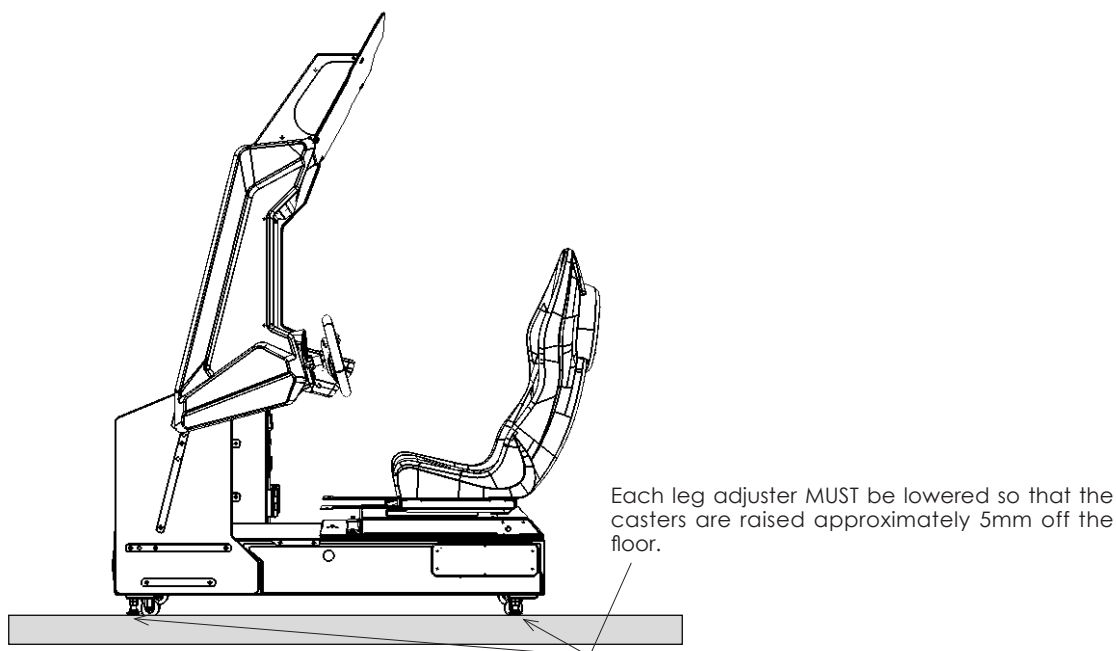
3 PRECAUTIONS REGARDING OPERATION

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

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 (LCD, Plasma, CRT or Projector). 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 the customers' physical conditions.
- It is suggested to ensure a space allowing the players who feel sick while playing the game to take a rest.
- 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. Items, if placed on this product may fall and cause injury to the player / observer.
- 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 ladder.

WARNING

- To avoid electric shock, ensure that all covers and panels are undamaged and fitted. Do not operate with covers removed.
- To avoid electric shock, short circuit and/or parts damage, do not put the following items on or in the periphery of the product.
- 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 making bodily contact with each other, hitting accidents, and/or trouble between customers.
- Everyday when cleaning the Controller, inspect the controller and make sure that there are no cracks in the surface, and that the fastening screws are not loose. If the game is played with cracks or loose screws, it can cause injuries to the player.
- Do not allow more than one person in any seat at any time. Do not allow adults to play the game with a child sitting in their lap.



WARNING

It is recommended that wet towels (paper towels) be provided.

DURING OPERATION (PAYING ATTENTION TO CUSTOMERS)

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

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.
 - Those who cannot grasp the Control Unit securely because of immobility in fingers, hands or arms.
 - Persons who disregard the product's warning displays.

This product is intended for a single player only. Having two or more persons simultaneously playing this product can result to injury to the player and possible damage to the product.

Even players who have never been adversely affected by light stimulus might experience dizziness or headache depending on their physical condition when playing the game.

Small children are especially likely to experience these symptoms. Caution guardians of small children to keep watch on their children during play.

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 and fingers or extraneous matter in the openings of the product or small openings in or around the doors.

To avoid falls and resulting injury, immediately stop the customer from leaning against or climbing on the product, etc.

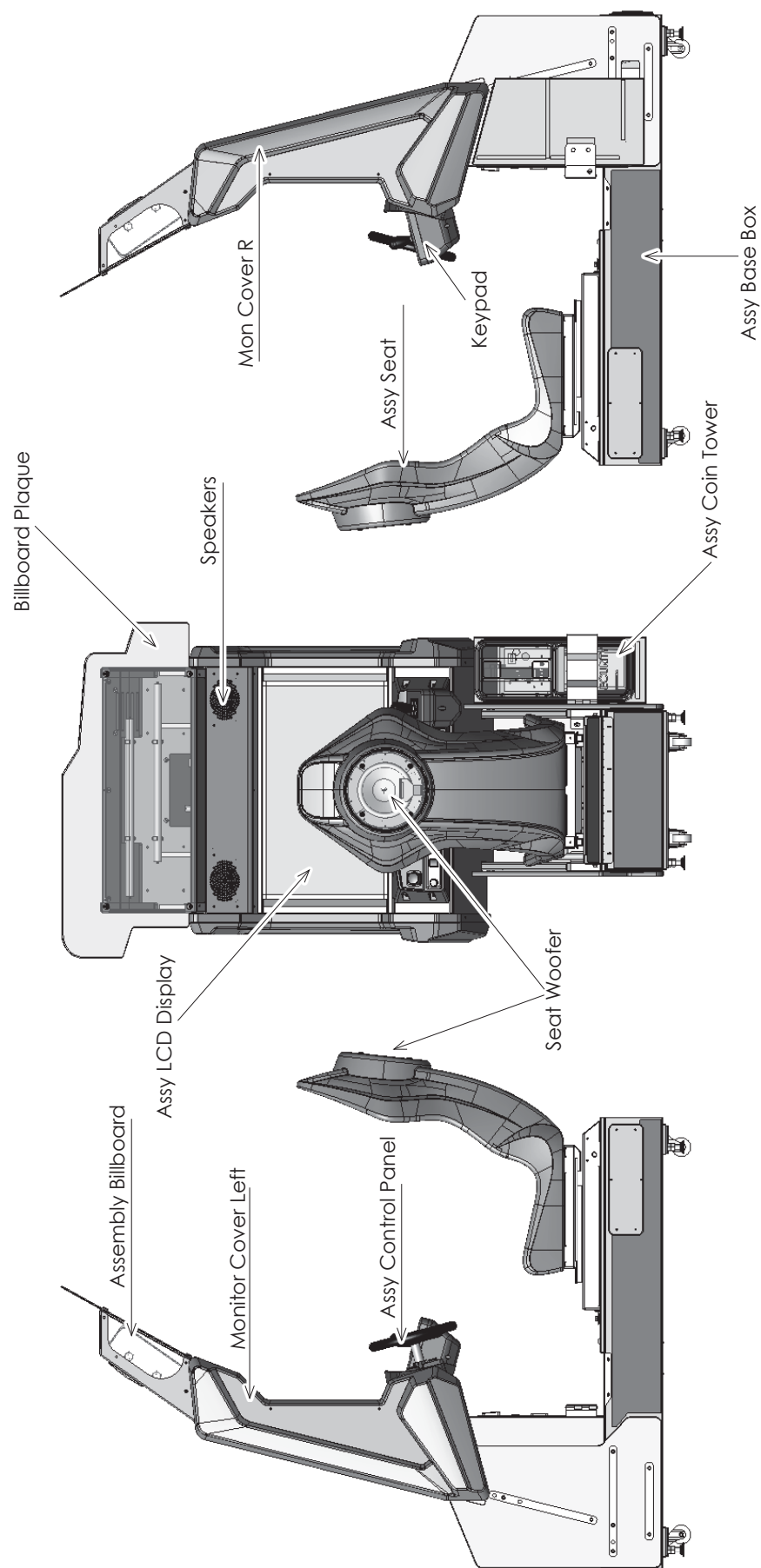
To avoid electric shock and short circuit, do not allow customers to unplug the power plug without a justifiable reason.

Instruct the guardians of small children to keep an eye on 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.

4 PART DESCRIPTIONS

4 PART DESCRIPTIONS



Illustrations purposes only..

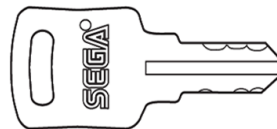
5 ACCESSORIES

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

DESCRIPTION: OWNER'S MANUAL
Part No. (Qty.): 420-0023-02UK (1)

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

KEY MASTER
220-5575-01UK (2)
For operating/closing the doors

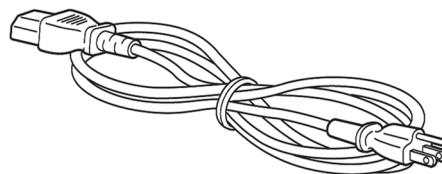


KEY
(2)

For the cashbox door
(Tethered to the steering wheel at time of shipment)

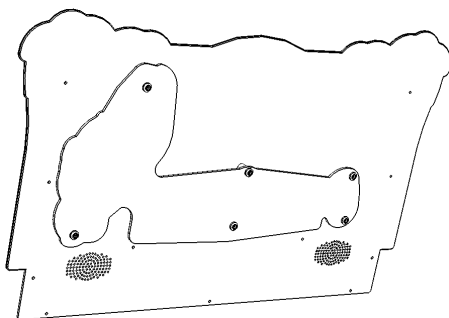


Epilepsy Labels (Multilingual)
440-CS0186-01UK



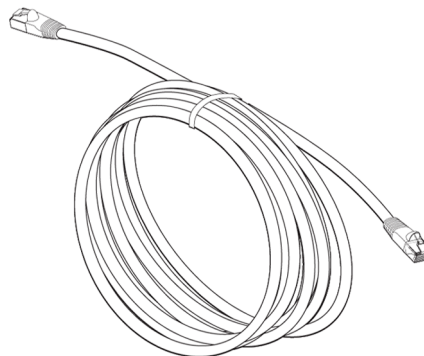
POWER CORD
LM1227 (1) <UK>
LM1226 (1) <EU>
LM1500 (1) <US>

For installation. See chapter 6.



BILLBOARD PLATE
DSD-1507UK & DSD-1508UK (STD x1)

For installation. See chapter 6.



LAN Cable 200cm
600-7279-0200UK (1)

6 ASSEMBLY AND INSTALLATION

6 ASSEMBLY AND INSTALLATION

WARNING

- Perform assembly work by following the procedure herein stated. Failure to comply with the instructions can cause electric shock.
- Perform assembly 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.
- Do not unnecessarily push the display screen.
- 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.
- 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.

CAUTION

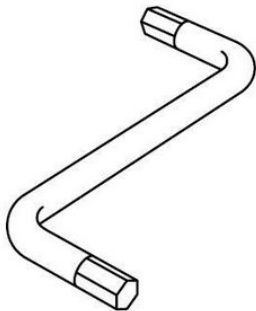
- Handle molded parts with care. Excessive weight or pressure may cause them to break and the broken pieces may cause injury.
- To perform the operation safely and accurately you must use a safe, steady footstool or stepladder. Working without this may lead to a fall and possible injury.

6-1 INSTALLING THE CABINET

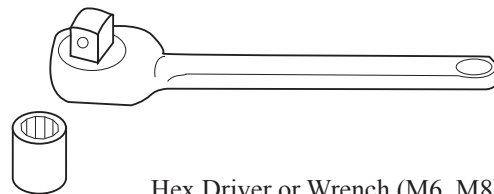
CAUTION

- Billboard weighs approximately 10 kg. Have at least 2 people during this operation. Working alone could result in personal injuries, etc.
- To perform work safely and securely, be sure to prepare a step which is in a safe and stable condition. Performing work without using a step may lead to injury of damage to components.

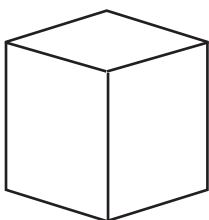
Tools required for installation



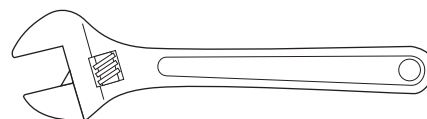
Allen Key (M5)
- Attaching Billboard Panel to Assy Billboard.
(Not Supplied)



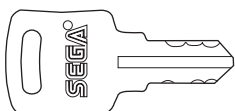
Hex Driver or Wrench (M6, M8)
- Attaching Assy Billboard / Coin Tower to cabinet.



Step or Ladders
- Aid in fixing Billboard and Billboard Panel.



Adjustable Wrench
- Secure cabinet into position.

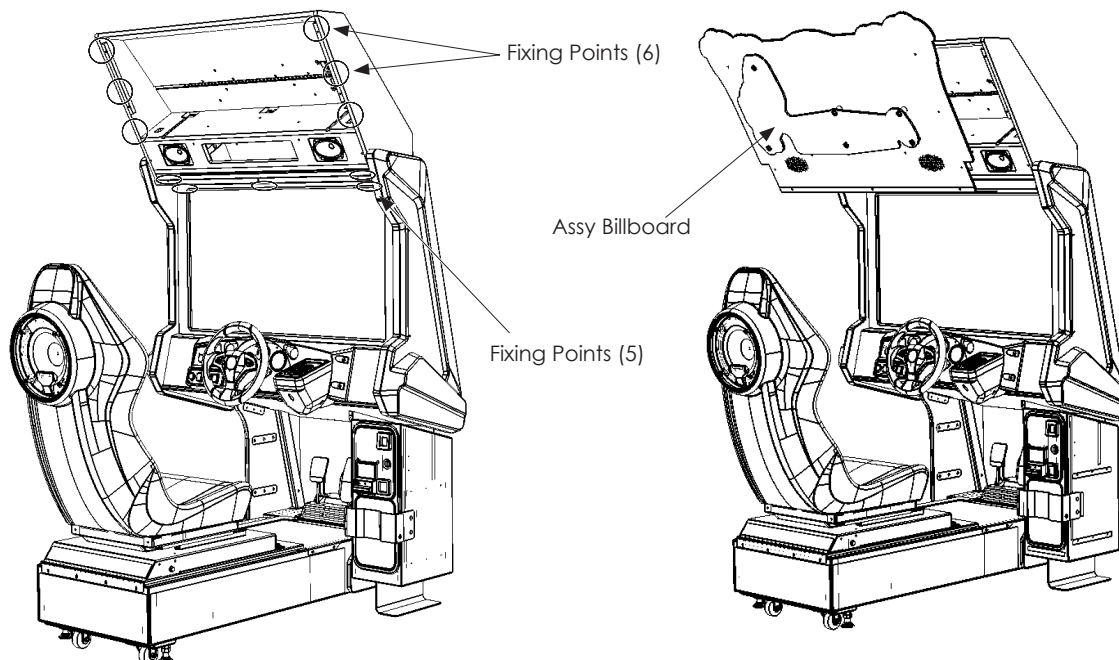


KEY
- Gain access to Coin Tower

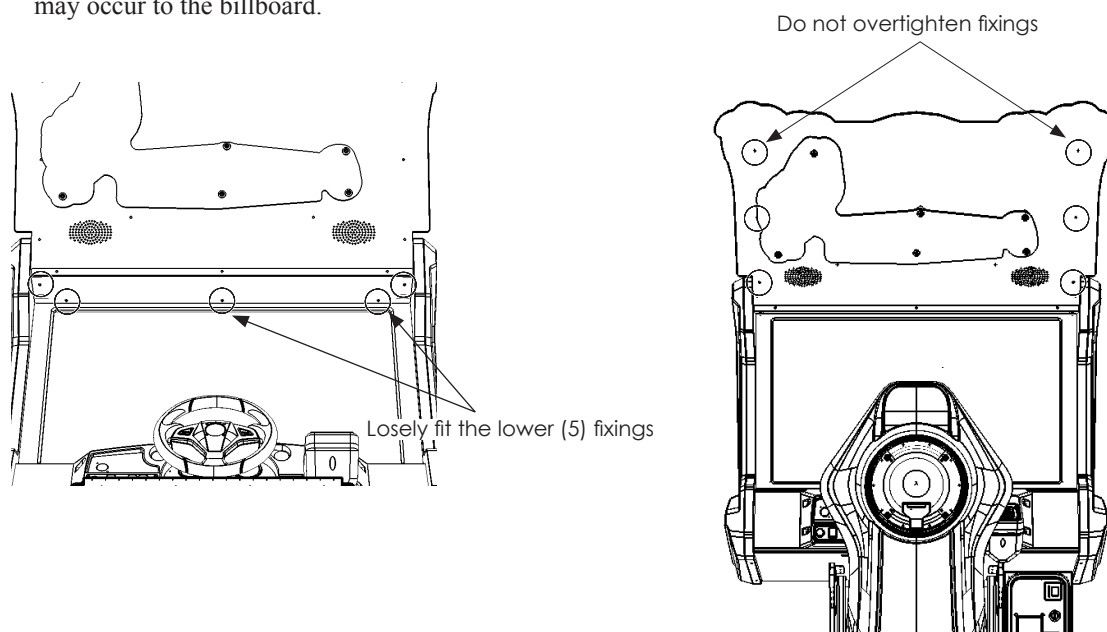
6-1-1 INSTALLING THE ASSY BILLBOARD

6 ASSEMBLY AND INSTALLATION

- 1 Remove the (6) sets of fixings from the front face of the Billboard aperture and the (5) sets of fixings from the underside. Once all (11) fixings have been removed, using 2 people, carefully offer the Billboard into position.



- 2 Once in position, carefully secure the Billboard into place using the fixings removed from step 1. Loosely fit the lower (5) fixing initially, followed by the upper (6) fixings.. Only once all fixings are in place should you then tighten them. Do not overtighten the upper (6) fixings. If these fixings are over tightened damage may occur to the billboard.



6-1-2 INSTALLING THE STABILIZERS

⚠ WARNING

It is IMPORTANT that both STABILIZERS are fitted. Failure to fit the STABILIZERS may result in the machine toppling over which may causing exreem injury and damage to the cabinet.

- 1** Place one of the two STABILIZER plates near the fixing location. Remove the M8x30 Bolts (2) from the lower section of the cabinet as shown in Fig 6.2.1a.

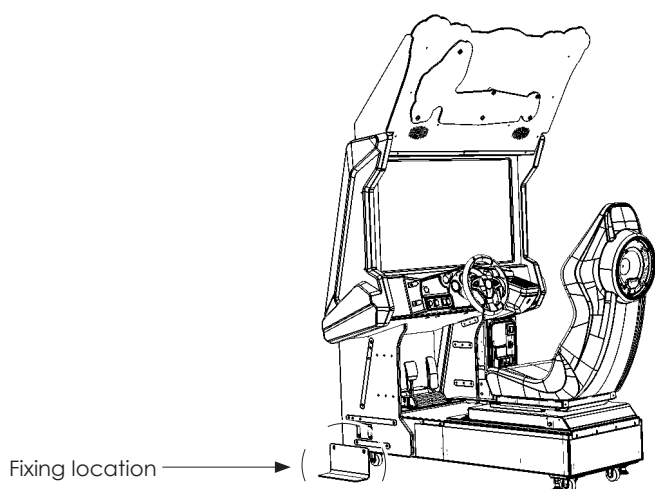


Fig. 6.2.1a

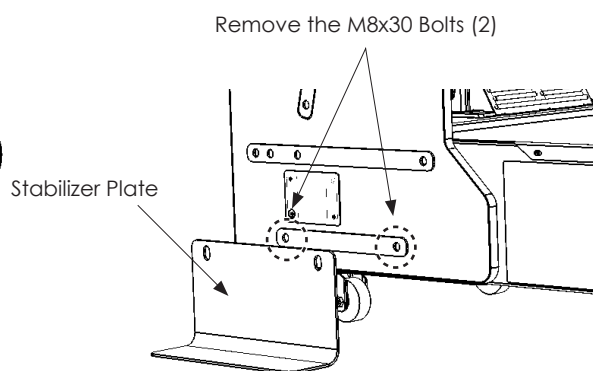


Fig. 6.2.1b

- 2** Remove the Strengthening strap and discard. Offer the Stabilizer brkt up to the cabinet and secure using the fixings removed from step 1.

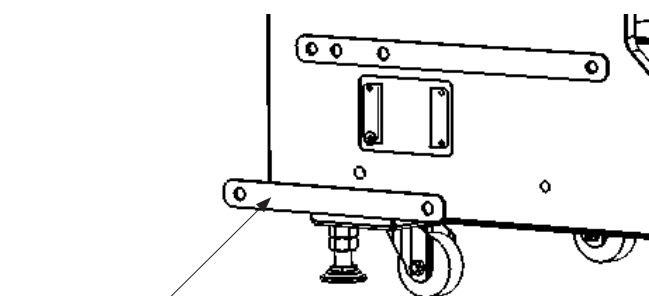


Fig. 6.2.1c

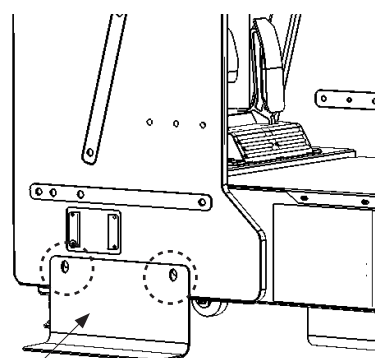


Fig. 6.2.1d

- 3** Repeat the step 1 and 2 to fit the STABILIZER BKT to the right hand side of the cabinet..

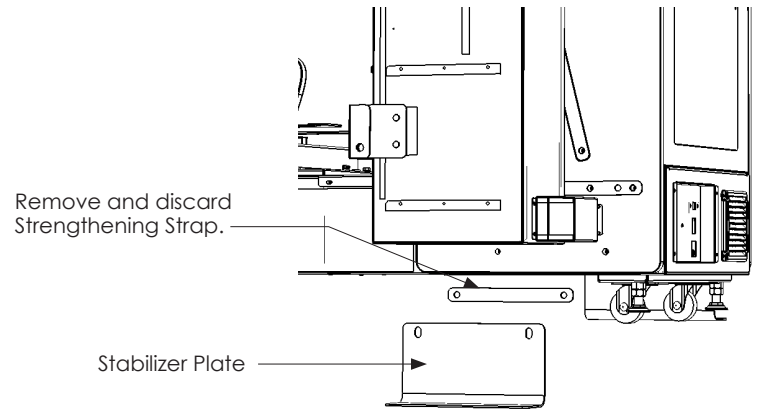


Fig. 6.2.1e

6-2 FIXATION TO INSTALLATION SITE

⚠ WARNING

- Make sure that all the adjusters contact the floor. Otherwise the cabinet could move, causing an accident.
- Provide a ventilation space at least 20cm wide behind the cabinet. There are ventilation holes on the back of the cabinet. Do not block the ventilation holes. Doing so could trap heat inside resulting in fire. It could also result in equipment damage or cause parts to become exhausted prematurely.

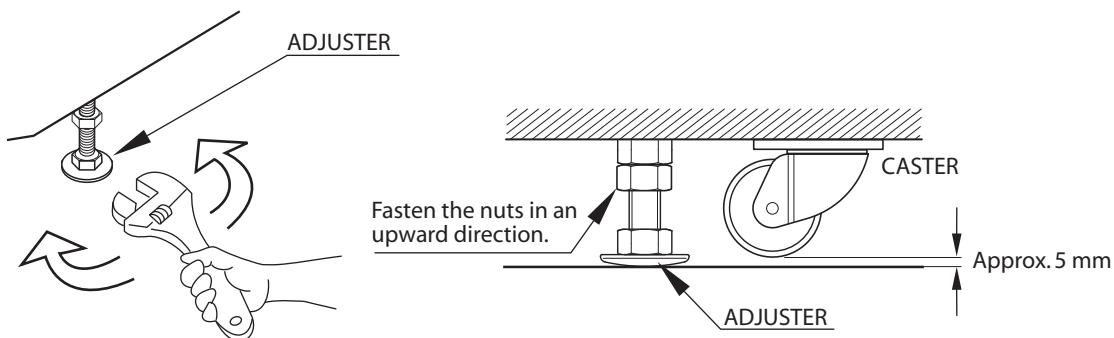
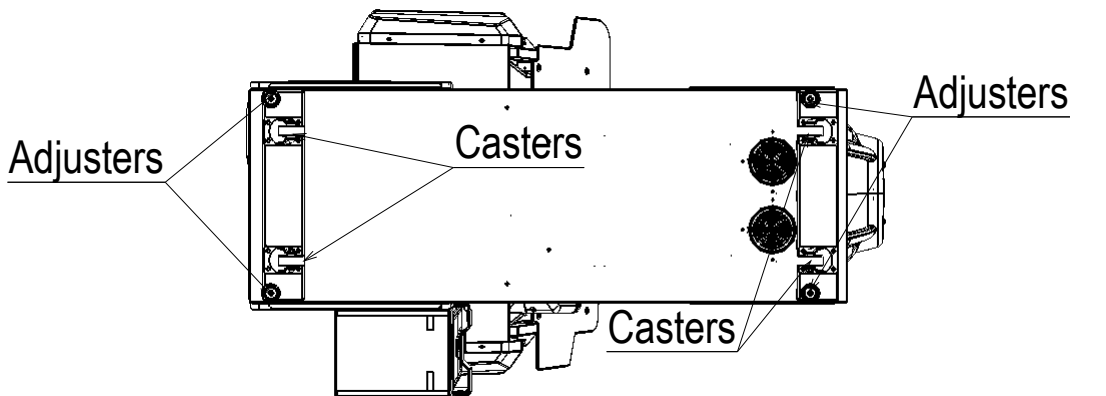
The product is equipped with 4 casters and 4 adjusters.

When installation position / 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 casters and adjust the unit so that it will remain level.

1 Move the product to the installation site.

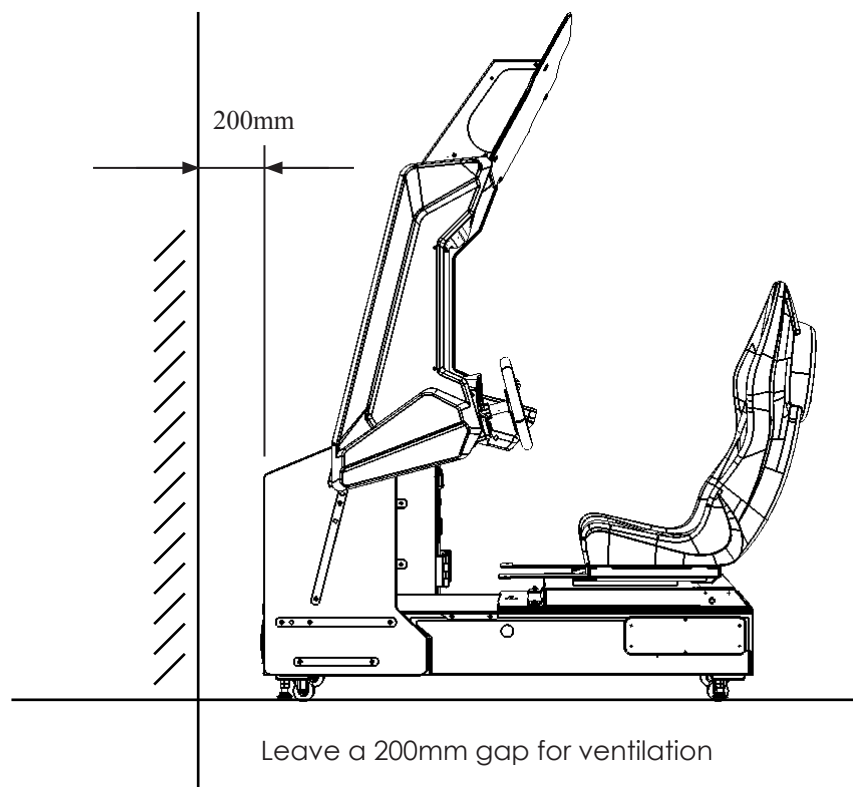
2 Bring the adjusters into direct contact with the floor. Use a wrench to align the height of the adjusters until the cabinet is perfectly level.

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



⚠ WARNING

- Provide a ventilation space at least 20cm wide behind the cabinet. There are ventilation holes on the back of the cabinet. Do not block the ventilation holes. Doing so could trap heat inside resulting in fire. It could also result in equipment damage or cause parts to become exhausted prematurely.

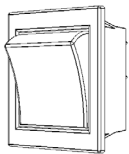
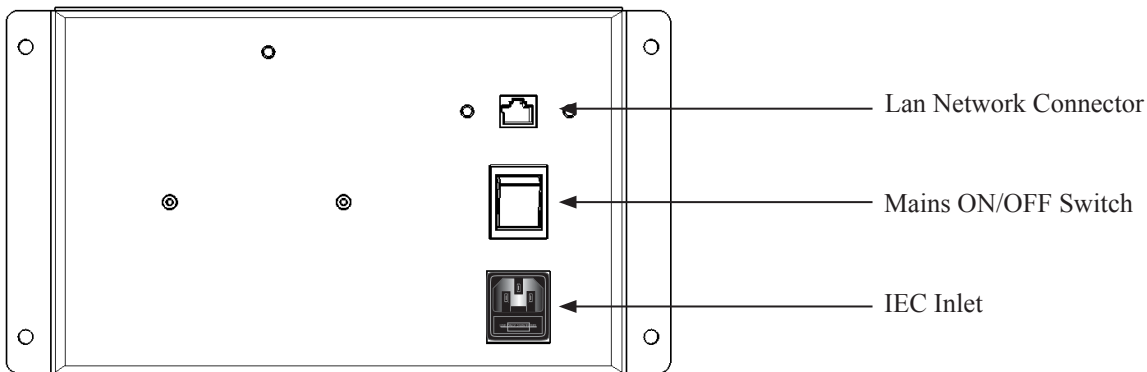


6-3 POWER SUPPLY, AND GROUND CONNECTION

⚠ 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.

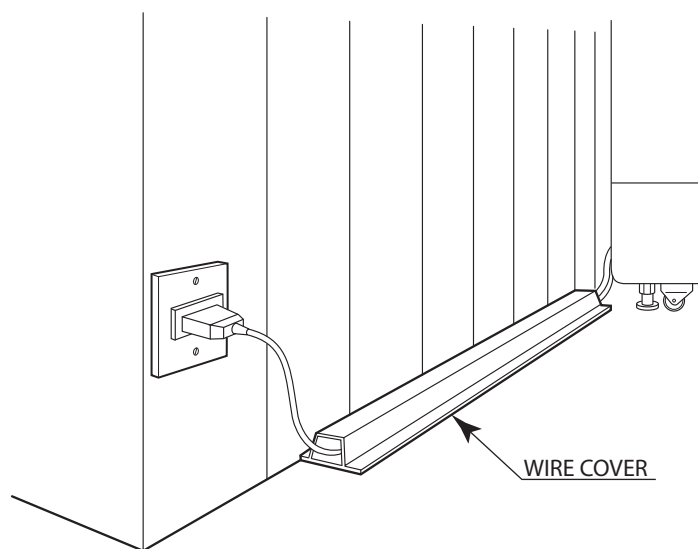
- 1 Confirm that the main switch is at OFF.



Mains Switch shown in OFF position

- 2 Fully insert the power cord connector on the side opposite the power plug into the AC unit IEC inlet. Insert the power cord plug into the outlet.

- 3 When the power cord is laid out indoors. Protect the power cord by attaching a wire cover to it. If the power cord is left uncovered it may cause a trip hazard and could result in injury. Please cover the power cord as illustrated below.



6-4 TURN ON POWER

Set the main switch of the AC unit to ON and engage the power.

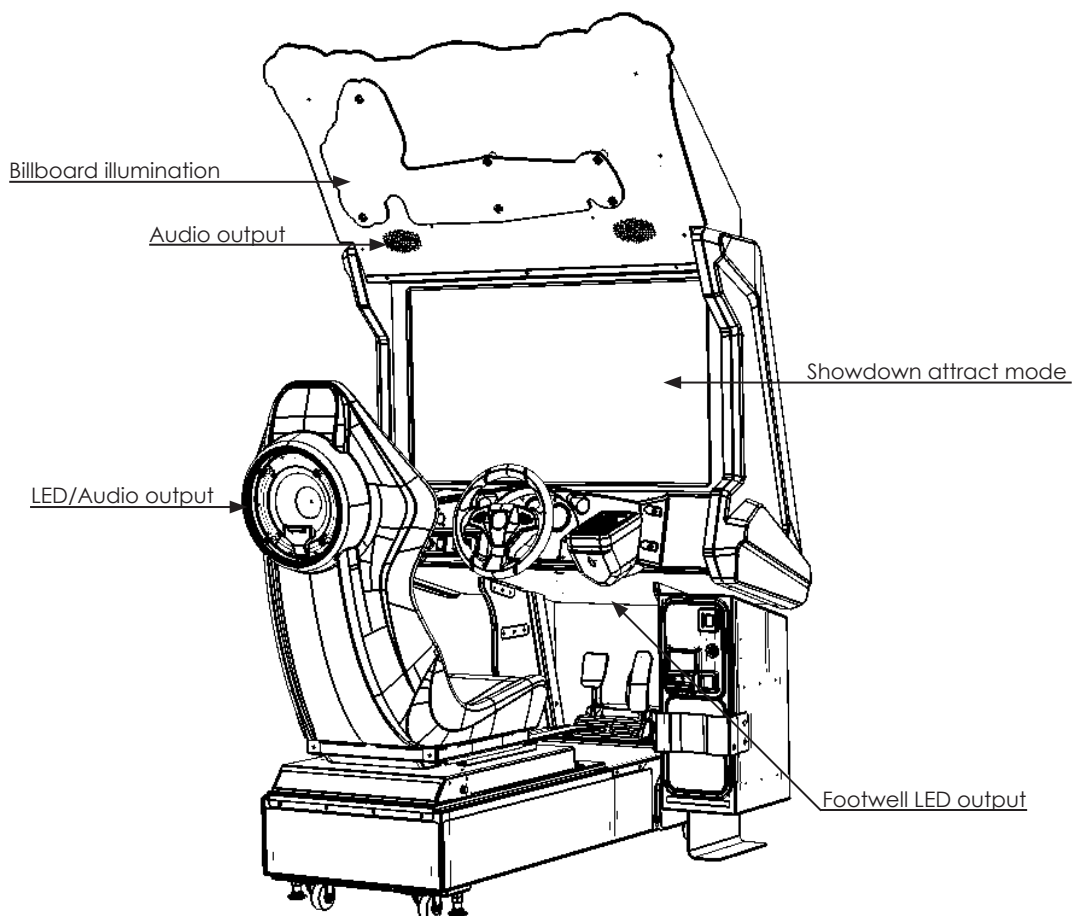
When you turn on the power, the billboard fluorescent lights will come on.

After the SEGA LOGO start up screen is displayed on the LCD screen, the Advertise (Attract) Mode will start.

The decorative LEDs on the Base Box, Seat and Control Panel flash on/off.

Start up sounds are output from the speakers on the left and right of the cabinet together with display of the SEGA startup screen.

Even when the power source has been cut off, credit count, ranking data, game settings and bookkeeping data are kept stored in the product. However, fractional coin counts (inserted coins that do not amount to one credit) and bonus adder counts are not kept.



6-5 CONFIRMATION OF ASSEMBLY

In the test mode, ascertain that the assembly has been made correctly and IC Board is satisfactory.
In the test mode, perform the following test: (refer to chapter 9).

9-2-3 INPUT TEST

This menu is used to test the system inputs such as steering, pedals and buttons. To implement the test, press each device that is listed and check the results on screen.

9-2-4 OUTPUT TEST

This menu is used to test the system outputs such as Lamps and LED.

9-2-5 COIN SETTINGS

As this system utilises a Credit Board PCB, it is important that the setting remain 1 COIN 1 PLAY. Deviation from this setting when using the Credit Board PCB can result in unusual credit outputs.

9-2-8 NETWORK TEST

Apply and configure the network of each cabinet (only applies if 2 or more cabinets are linked).

9-2-9 CALIBRATION TEST

This test is required to calibrate both steering mechanism and control pedals. This procedure is always carried out at the factory before dispatch. However, certain conditions can have an effect on calibration and it is recommended that re-calibration be carried out at point of installation.

6-6 APPLYING WARNING LABELS (EPILEPTIFORM SEIZURES)

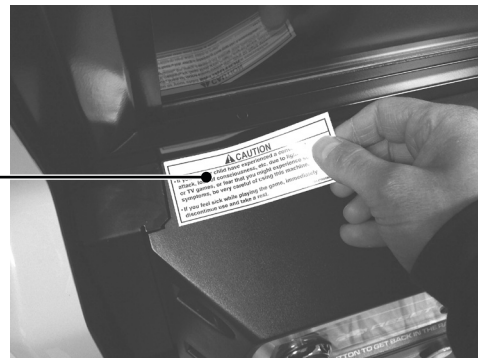
CAUTION

- The operator **MUST** apply the Epileptiform Seizure Label to this product. Failing to apply this label may result in the player/observer suffering from a photosensitive seizure. Warning the potential player/ observer of this before the start of a game may prevent such accidents.
- It is also important to apply the correct language label for each location. There are nine (9) different language labels - please apply the label which matches your location.

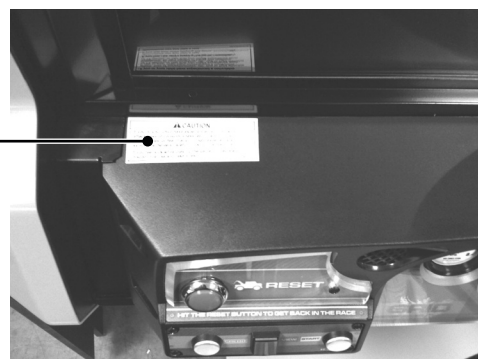
IMPORTANT

Application of any warning labels must be placed in a location which is easy for the player/observer to read. Please follow the instructions below and apply the label in the location stated.

The Epileptiform Seizure label is supplied in 9 different languages. Please choose the label which matches your language location.



Apply the label to the top left hand corner of the Control Panel. This location is unobstructed and can be easily read by players and observers alike.



7 PRECAUTIONS WHEN MOVING THE MACHINE

WARNING

- Always disconnect the power cable before moving the product. If it is moved with the power cable connected, the cable could be damaged, causing fire or electric shock.
- To move the unit over the floor, pull in the adjustors and have the casters contact the floor. While moving the unit, be careful that the casters do not roll over the power 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, always have the machine travel lengthways. Travelling with the machine in a sideways position could result in the machine falling over onto its side. Always use a minimum of two people working together plus lifting apparatus to accommodate slopped areas or stairs.
- To lift up the cabinet, hold it at the bottom at the designated lifting points. If you hold it anywhere else, the weight of the cabinet could cause damage to parts or attachments, resulting in injury.
- Do not push the cabinet from the side when moving. Pushing from the side as it may result in the cabinet falling over.

IMPORTANT

- When moving the cabinet, do not grip or push the Billboard Plate. Doing so could deform or damage the part.
- If moving through a door or place with a low ceiling such as an elevator, you should take apart the billboard and billboard plate.

7-1 PRECAUTIONS WHEN MOVING

STOP

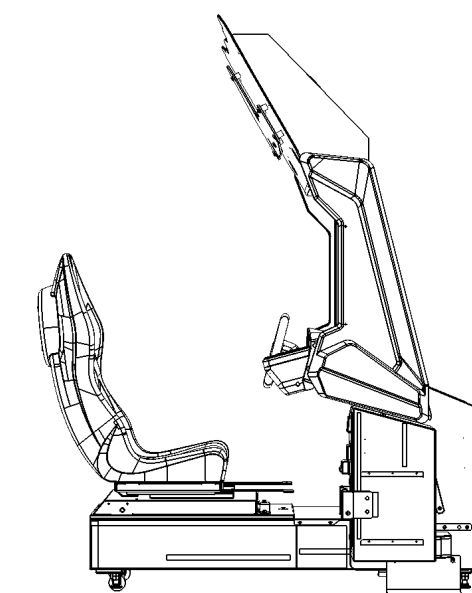
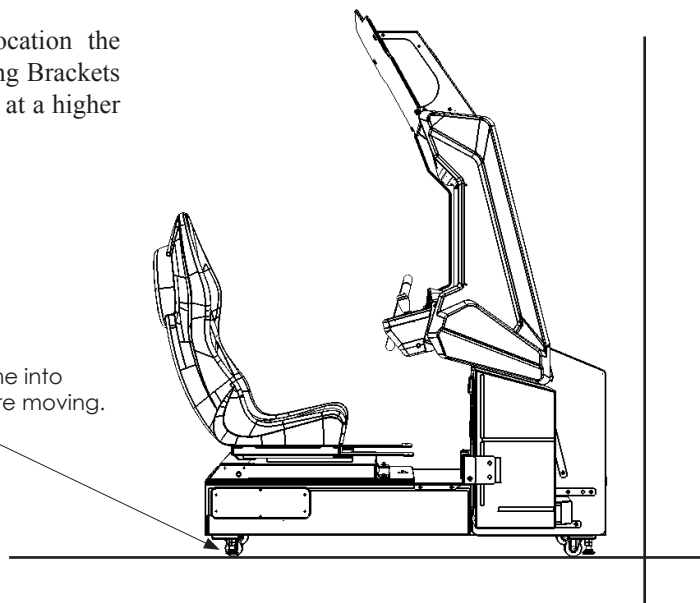
IMPORTANT

- When moving the cabinet, do not grip or push the Billboard Plate. Doing so could deform or damage the part.
- If moving through a door or place with a low ceiling such as an elevator, you should take apart the billboard and billboard plate.

To manouver the machine in and out of buildings it may be nessecary to remove the Billboard Plate. Please refer to Section 6 in this manual for instructions on removal.

If moving the cabinet within the same location the Billboard can remain intact and the Stabilizing Brackets can be left in place but loosened and secured at a higher level to allow the cabinet to move.

Ensure that the casters come into contact with the floor before moving.



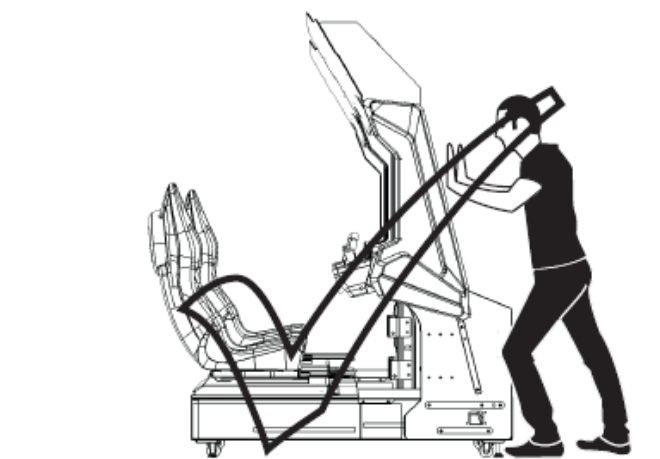
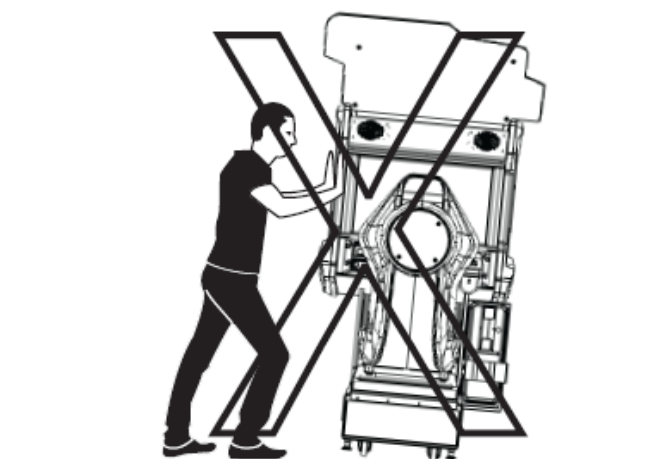
Loosen or remove the Stabilizing brackets.

7

PRECAUTIONS WHEN MOVING THE MACHINE

STOP IMPORTANT

- When moving the cabinet, do not push from the side. Pushing from the side may result in the machine falling over.
- When moving the cabinet always push or pull from the rear.



8 GAME DESCRIPTION

Showdown is the latest ground-breaking racing game from legendary arcade machine manufacturer Sega in collaboration with racing software specialists Codemasters, the team behind 2010's hugely successful GRID arcade racing game.

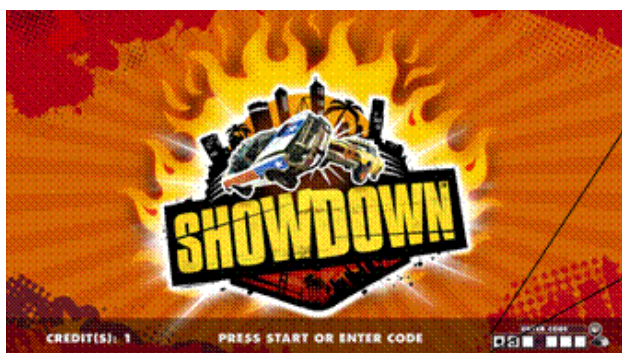
Showdown delivers thrills and full contact racing in every event, each an electrifying festival of energy, speed and destruction that demands repeat play.

Players will fully commit on every corner and overtake as they take on spectacular circuits set across the world. Showdown's tracks are littered with obstacles, pinch points, multiple-routes and ramps to deliver action-packed, white-knuckle action in each and every race. Players become fully immersed in the action with the game's stunning graphics. An all-new handling system makes the game both accessible and rewarding for the player as they dive into a new world of motorised mayhem bursting with speed, style and destruction.



8-1 BONUS CODE

Showdown features an exciting 'unlock' mechanic that is awarded to the player after every game. The reward is dependent on the event raced and the result, which means that even if the player doesn't finish in 1st place they still receive a bonus code for finishing.



When the game is in credit the player has the option to enter a code using the keypad, located to the right of the steering wheel, or to press the start button.

Entering a valid code will unlock content that the player can select in various pre-race menus.

The code entry section in the bottom right corner of the screen will change to show the code has been accepted.



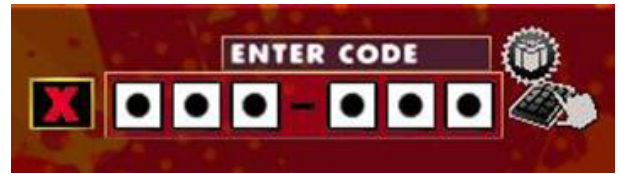
Any content that has been unlocked will appear first in the menu selection screens, so that it can be easily found. It will also display the 'Bonus Item' text and logo in the top right hand corner.



Any content previously unlocked or ordinarily available will precede the bonus items.

An incorrect code can be entered a maximum of 3 times, at this point the player will need to press the start button to start their game. A code can be entered again after the game is over.

After finishing an event, the player's bonus code will be displayed on screen and remain there for 10 seconds. If the player inserts another credit within this time, or already has a credit available, the game will automatically apply this bonus code to the game. After 10 seconds the code will disappear from the screen, any credits inserted after this will require a bonus code to be entered or to play the game without a code.



Showdown's unique composite 'unlock' system allows players to keep the bonus items they have collected and then use them at any location encouraging repeat play. When a player uses a code and then unlocks a new feature they are given a new code with the new item added to their previous collection.

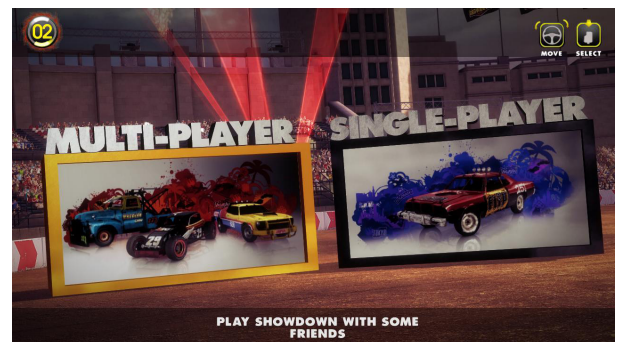
Bonus codes are awarded by the game, via Segascores.com and also distributed via Sega Amusements' social media.

8-2 GAME SELECTION

WHEN THE MACHINE IS IN CREDIT AND THE START BUTTON IS PRESSED, THE FOLLOWING SCREEN IS DISPLAYED, INDICATING THE GAME PLAY AVAILABLE.

When a cabinet is not linked up to any other cabinets, once the player presses the Start button, they will be taken straight to a Single Player game where they are given the option between CHALLENGE and TOUR.

The first action for the player is to select whether to enter into a Multiplayer or Single Player game. Turning the Steering Wheel left and right will highlight the option and pressing the Accelerator pedal, or the start button, will confirm the player's selection.



During this selection process, a countdown is displayed in the top left hand corner of the screen. If the player does not make a selection within this time, the highlighted option will be selected.

If the player has entered into a Single Player game, they will have the choice of two game modes – Challenge or Tour.

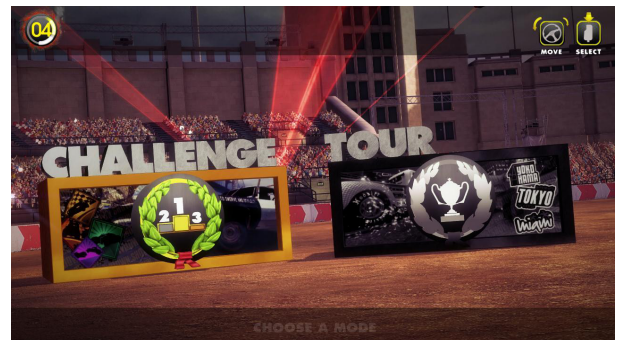
Again, turning the steering Wheel left and right will highlight the option and pressing the Accelerator pedal, or the start button, will confirm the player's choice.

During this selection process, a countdown is displayed in the top left hand corner of the screen. If the player does not make a selection within this time, the highlighted option will be selected.

Name Entry

Before the player can pick an event to play, they must first enter a 3 letter name to represent them in their chosen event.

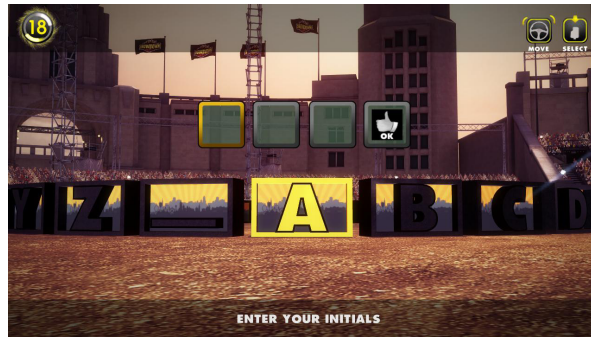
If the player fails to enter their initials in the allotted time, or enters a forbidden combination they will be assigned 'PLA'.



PLEASE NOTE The 3 letters are used to authentic a players high score on the Sega Scores leader boards when used with the QR Code provided on the race results screen. Please visit www.segascores.com for more details.

Turning the Steering Wheel left and right will highlight the option and pressing the Accelerator pedal, or the start button, will confirm the player's choice.

During this selection process, a countdown is displayed in the top left hand corner of the screen.

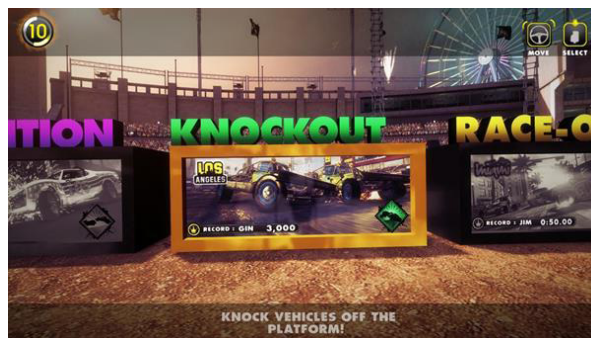


8-3 CHALLENGE

Challenge mode can be played in either Single Player or Multiplayer format. This mode features four types of events each with different rules and requirements in order for the player to achieve 1st place. All events have eight racers. Any cars not controlled by human players will be AI controlled.

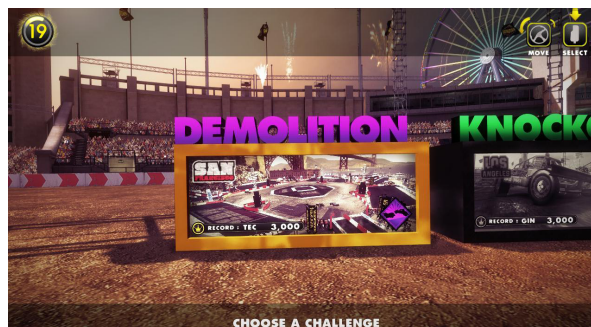
Turning the Steering Wheel left and right will highlight the option and pressing the Accelerator pedal, or the start button will, confirm the player's choice.

During this selection process, a countdown is displayed in the top left hand corner of the screen. If the player does not make a selection within this time, the highlighted option will be selected.



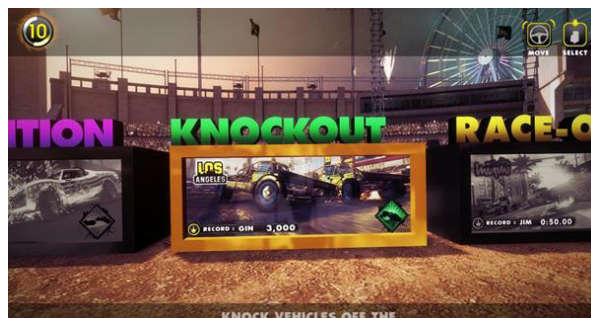
DEMLITION

A closed arena map where the aim is to take out opponents by smashing, bashing and shunting them to oblivion. Points are awarded for hitting opponents. The harder you hit them, the more points you earn. Maximum points are awarded for depleting the health of an opponent. The player with the most points at the end of timer wins.



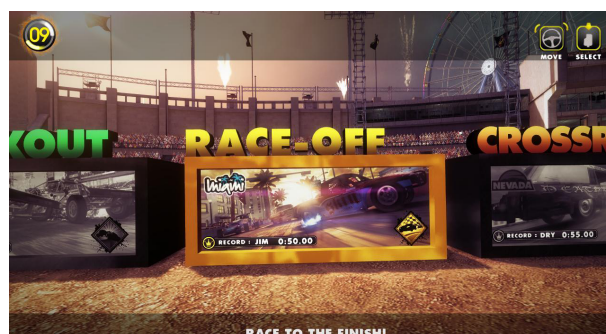
KNOCKOUT

Push pedal to metal and drive it like you stole it as you knock out opponents from the top of the platform, and try to stay on top yourself. Use boost to deliver crunching T-Bone crashes or dash out the way of incoming hits. Points are awarded for knocking opponents off the podium as well as causing damage. Maximum points are awarded for knocking opponents off the podium. The player with the most points at the end of timer wins.



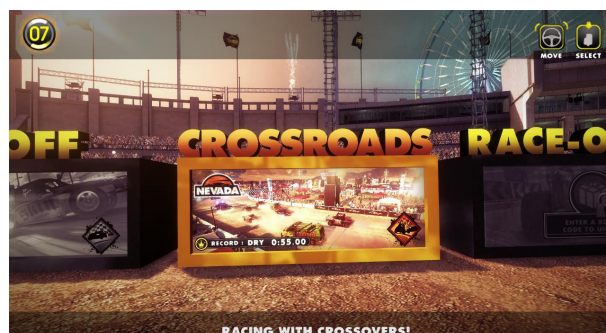
RACE-OFF

A no holds barred, wild racing event where it's a fight to the finish line by any means necessary. Show your opponents who is the true king of the road by smashing them off it as you sprint for the chequered flag. The first player to complete all laps wins.



CROSSROADS

Race on a classic figure of eight circuit where it's full-on carnage at the track's intersection points. The first player to complete all laps wins.



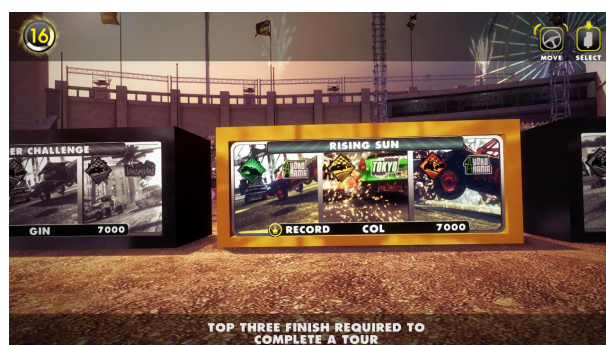
TOUR

Tour is a single player only mode against 7 AI opponents over 3 of the Challenge events.

Turning the Steering Wheel left and right will highlight the option and pressing the Accelerator pedal, or the start button, will confirm the player's choice.

During this selection process, a countdown is displayed in the top left hand corner of the screen. If the player does not make a selection within this time, the highlighted option will be selected.

To unlock the next event the player must place in the top 3 positions. After each event the player is awarded points, the points across all 3 events are combined. The player with the highest score will be crowned the victor!



If a player fails to complete an event they will have the option of inserting a credit and continuing from the start of the same event.



8-4 MULTIPLAYER

If the player selects Multiplayer they will be taken to a waiting lobby. This gives the chance for other players to join in. A maximum 4 human players in total can race in any event, the rest are AI controlled.



Any cabinets connected in the same network will be shown a challenge available screen.

After inserting a credit, the challenging players are able to enter their bonus code, or just press the start button to join.



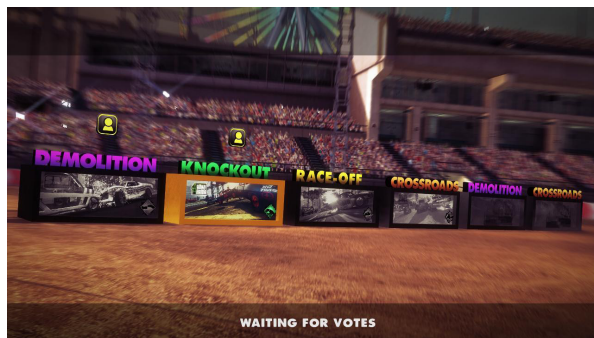
If other players join the multiplayer game, when the timer runs out, all players will then have the chance to enter their name.

Please see NAME ENTRY above for more information.

If other players do not join the multiplayer game then the player that initiated the multiplayer game will instead play a single player game.

Challenge mode is the only option available for multiplayer games. Although some event locations may be different to the single player challenge events, the event types are the same.

These are Crossroads, Demolition, Knockout and Race-Off.



In a multiplayer game, event selection is decided upon by a voting system. Each player within the game will be given their choice of event to select.

Once all players have selected an event, whichever event has the most votes will be played.

In the case of a tie, the event will be selected at random.

The players are then taken through the default Car and Livery select screens.

If a player has selected both their car and livery whilst others are still making their selections, the player will be held on a Waiting For Other Players screen.

When all players have made their selection, the event will begin.



8-5 CARS

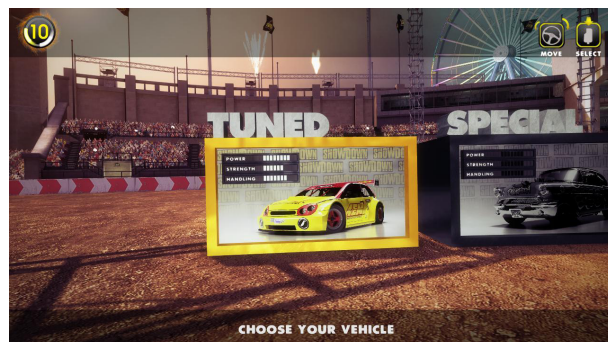
The next choice for the player is to select which car to drive. There are ten car classes featuring twenty cars - from muscle cars and pick-up trucks to sports cars and even a hearse! This means there is a ride to suit every driver's desire! Each has its own strengths, weaknesses and character, so players can choose their favourite, or conquer them all as they take on Showdown's different race events.

Turning the Steering Wheel left and right will highlight the option and pressing the Accelerator pedal, or the start button, will confirm the player's choice.

During this selection process, a countdown is displayed in the top left hand corner of the screen. If the player does not make a selection within this time, the highlighted option will be selected.

The four main classes available are:

PICKUP
SALOON
SPECIAL
TUNED



8-6 LIVERIES

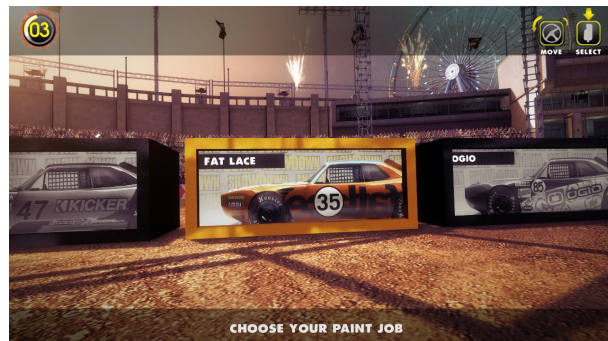
After selecting the class of car the player can select a livery (paint job).

Turning the Steering Wheel left and right will highlight the option and pressing the Accelerator pedal, or the start button, will confirm the player's choice.

During this selection process, a countdown is displayed in the top left hand corner of the screen. If the player does not make a selection within this time, the highlighted option will be selected.

The four main liveries available are:

FLIP
HANS
NO FEAR
SIMPSON

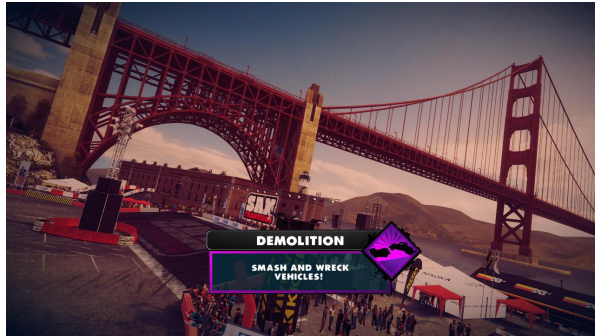


8-7 ON-SCREEN DISPLAY

Before the event begins, a brief video is played that shows the player an overview of the course and a hint box informing the player what they have to do.

After this introduction the countdown timer begins and at this point the game begins.

The On Screen Display will differ according to event type, however there are some details that appear in all game modes.



Demolition and Knockout

Score	Total points awarded to the player
Location Icon	Displays the icon for the location of the event.
Time Left	Time remaining to complete the lap and extend the time.
Music Track	Shows the title and artist of the music track currently playing.
Position	Displays the player's position in the race.
Event Icon	Displays the icon for the event type.



Position Detail	Shows the player's position along with the positions of all other opponents and the current scores
Health and Boost	Shows the health of the car in green and boost available in blue.

Race-Off and Crossroads

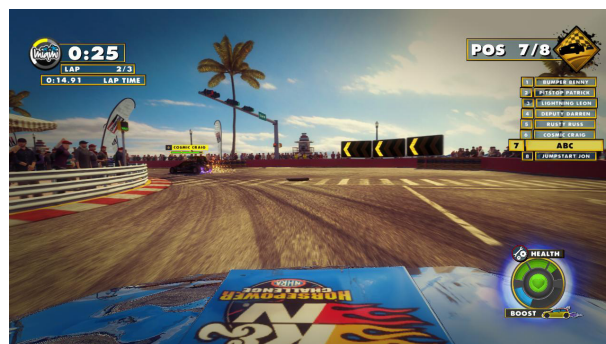
Location Icon	Displays the icon for the location of the event.
Time Left	Time remaining to complete the lap and extend the time.
Lap Indicator	Displays which lap the player is currently on.
Lap Time	Current lap time.
Best Lap	Fastest lap time.
Music Track	Shows the title and artist of the music track currently playing.
Leader Indicator	An crown icon above the car currently in 1st position
Player Indicator	An icon above any other human racer.
Position and Name	An icon that shows the AI or human's position and name/initials.
Health Bar	Displays the health remaining of the opponent car.
Proximity Indicator	Represents position of opponents approaching from the rear.
Position	Displays the player's position in the race.
Event Icon	Displays the icon for the event type.
Position Detail	Shows the player's position along with the positions of all other opponents.
Health and Boost	Shows the health of the car in green and boost available in blue.



Drivers View – Camera Position

Showdown features two different in-game camera views that are cycled between when the VIEW CHANGE button is pressed.

BUMPER CAMERA



CHASE CAMERA



8-8 HIGH SCORE TABLES

High Score Tables

Every event has a high score table that records a player's performance, whether playing single player or multiplayer. The name entered pre event selection is used for the high score table.

Depending on the mode or event played, different information is recorded.

Demolition, Knockout and Tour

Rank

Name (3 characters)

Car

Score

Race-Off and Crossroads

Rank

Name (3 characters)

Car

Time

8-9 LISTS - CARS, LIVERIES, EVENTS, LOCATIONS & TOURS

Cars	
Standard	Bonus
Pickup	Coupe
Saloon	Cruiser
Special	Muscle
Tuned	Old-Timer
	Sport
	Truck

Liveries	
Standard	Bonus
Flip	Fat Lace
Hans	Hooker Header
No Fear	K&N Airfilters
Simpson	Kicker
	Ogio
	Skin Industries

Event Single Player		Event Multiplayer	
Crossroads		Crossroads	
Standard	Bonus	Standard	Bonus
Nevada	Los Angeles	Los Angeles	Nevada
Demolition		Demolition	
Standard		Standard	Bonus
San Francisco		San Francisco	Los Angeles
Knockout		Knockout	
Standard		Standard	
Los Angeles		Yokohama	
Race-Off		Race-Off	
Standard	Bonus	Standard	
Miami	Colorado	Miami	

Tours	
Tour Name	Events in tour
Bayside Tour	Race-Off – Tokyo, Demolition - San Francisco, Race-Off – Miami
Big Rumble	Demolition – San Francisco, Yokohama – Knockout, Demolition – Los Angeles
LA Baby	Crossroads - Los Angeles, Demolition - Los Angeles, Knockout – Los Angeles
Racers League	Race-Off – Miami, Race-Off – Tokyo, Race-Off – Colorado
Rising Sun	Knockout – Yokohama, Race Off - Tokyo, Crossroads – Yokohama
Speeder Challenge	Race-Off - Colorado, Crossroads - Yokohama, Race-Off – Miami
Bonus Tour Name	Events in tour
Bright Lights	Knockout – Los Angeles, Race-Off – Tokyo, Demolition – Los Angeles
Mega Mix Tour	Crossroads – Yokohama, Demolition - San Francisco, Race-Off – Colorado

9 EXPLANATION OF TEST AND DATA DISPLAY

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

Shown overleaf are the tests and screens to be used for different problems.

WARNING

- When installing 2 or more cabinets which are networked together. The GAME SETTINGS which are adjusted within the first cabinet are reflected throughout all cabinets within that network.

IMPORTANT

- When changing the game configuration within the TEST MODE, be sure to exit all screens in the correct manner by choosing exit. DO NOT turn the machine ON/OFF to resume game. Changes WILL NOT take effect unless the correct method is used.

9-1 SWITCH UNIT AND COIN METER

WARNING

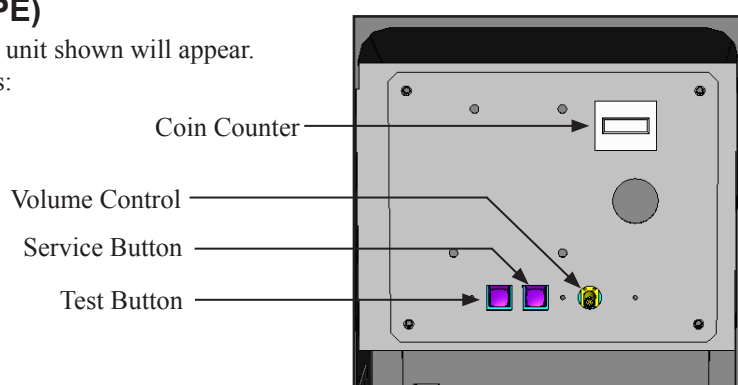
Never touch places other than those specified. Touching places not specified can cause electric shock and short circuit accidents.

IMPORTANT

- 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.

9-1-1 SWITCH UNIT (U.S. TYPE)

Open the coin chute door, and the switch unit shown will appear.
The functioning of each SW is as follows:



9-1-1 FIG. 01

TEST Button (TEST):	For the handling of the Test Button, refer to the following pages.
SERVICE Button (SERVICE):	Gives credits without registering on the coin meter.
Sound Volume Switch (SOUND VOLUME):	Adjust sound volume for all of the machines' speakers.
Coin Counter	Counts and displays coins in \$0.10 units.

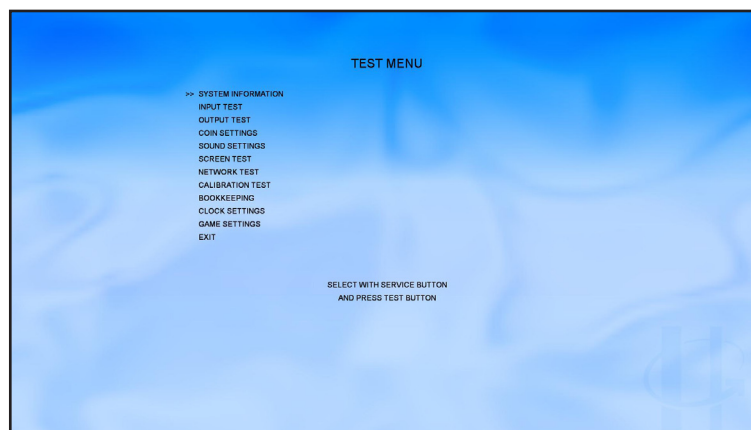
9-2 TEST MODE

STOP IMPORTANT

- The details of changes to Test Mode settings are saved when you exit from Test Mode by selecting EXIT from the system test mode menu. Be careful because if the power is turned off before that point, changes to the settings will be lost.
- Entering the Test Mode clears fractional number of coins less than one credit and bonus adder data.
- Use with the specified settings. If settings other than those specified are used, inappropriate operations or malfunction may occur.

9-2-1 TEST MENU

The following options are available from the System Test Menu.

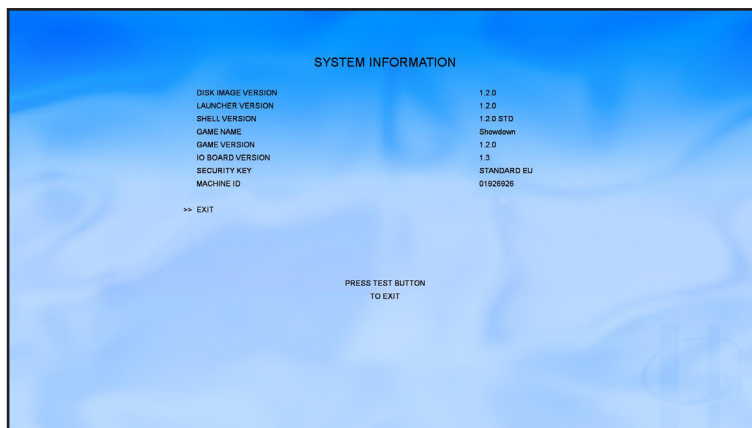


Use the SERVICE button to move the cursor to the desired test item. Press the TEST button to enter the selected item.

SYSTEM INFORMATION:	General information on Software & Hardware.
INPUT TEST:	Test routine for input peripherals.
OUTPUT TEST:	Test routine for output peripherals.
COIN SETTINGS:	Test routine for coin handling.
SOUND SETTINGS:	Test routine for audio outputs.
SCREEN TEST:	Test routine for the display screen.
NETWORK TEST:	Test routine for the Ethernet link.
CALIBRATION TEST:	Calibration routine for input peripherals.
BOOKKEEPING:	System meters and bookkeeping.
CLOCK SETTINGS:	System clock setting.
GAME SETTINGS:	Change the settings within the game (number of laps etc).
EXIT:	Exit the System Test Menu back to the game.

9-2-2 SYSTEM INFORMATION

Select 'System Information' from the Test Menu to display the System Information menu.



Select 'SYSTEM INFORMATION' from the Test Menu to display the System Information menu.

The System Information Test lists revision numbers and names of currently installed system components.

DISK IMAGE VERSION	Version number for the master hard disk image
LAUNCHER VERSION	Version number of System Launcher program
SHELL VERSION	Version number of Shell program
GAME NAME	Name of currently installed game
GAME VERSION	Version number of currently installed game
IO BOARD VERSION	Version number of IO board in use
SECURITY KEY	Type of security key in use
MACHINE ID	Unique number of the cabinet used to register on Sega Scores website (please visit www.segascores.com for instructions)

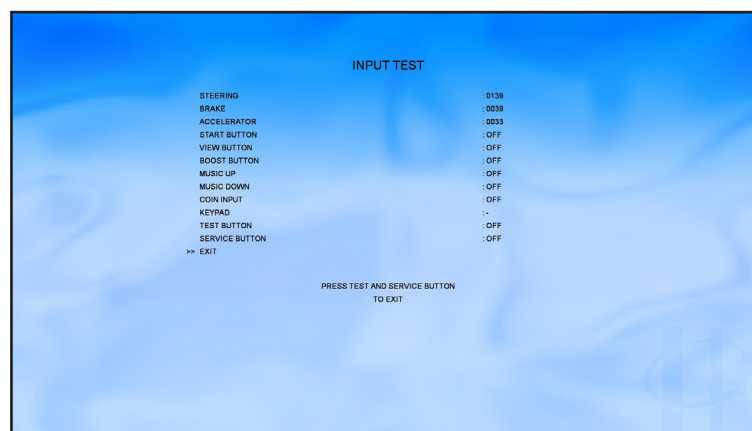
Move the cursor to EXIT and press the TEST button to return to the Test Menu screen.

9-2-3 INPUT TEST MODE

STOP IMPORTANT

If an error is displayed during the input test, look up the error code within this manual and try to determine the cause of the error, and take the appropriate corrective measures. If problems continue, contact your local SEGA office for further advise.

Select 'Input Test' from the Test Menu to display the Input Test menu.

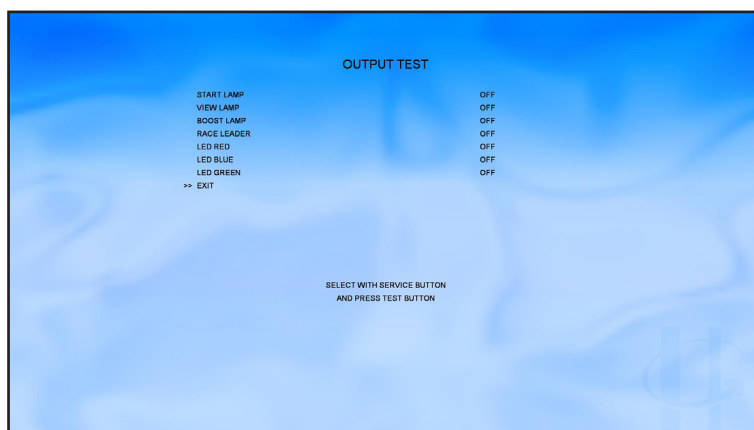


This menu is used to test the System Inputs such as Steering, Pedals and Buttons. To implement the test, press each device that is listed and check the results on screen.

STEERING	0000 to 0255
BRAKE	0000 to 0255
ACCELERATOR	0000 to 0255
START BUTTON	ON/OFF
VIEW BUTTON	ON/OFF
BOOST BUTTON	ON/OFF
MUSIC UP	ON/OFF
MUSIC DOWN	ON/OFF
COIN INPUT	ON/OFF
KEYPAD	0-9, *, #
TEST BUTTON	ON/OFF
SERVICE BUTTON	ON/OFF

Press the TEST and SERVICE button together to return to the Test Menu screen.

9-2-4 OUTPUT TEST



Select 'OUTPUT TEST' from the Game Test Menu to display the Output Test Menu.

This test is used to check all configured outputs from the IO board.

Use the SERVICE button to move the cursor to the desired test item.
Press the TEST button to test the selected item.

START LAMP	ON= Lamp ON / OFF=Lamp OFF
VIEW LAMP	ON= Lamp ON / OFF=Lamp OFF
BOOST LAMP	ON= Lamp ON / OFF=Lamp OFF
RACE LEADER	ON= Lamp ON / OFF=Lamp OFF
LED RED	Change optional lighting to RED
LED BLUE	Change optional lighting to BLUE
LED GREEN	Change optional lighting to GREEN

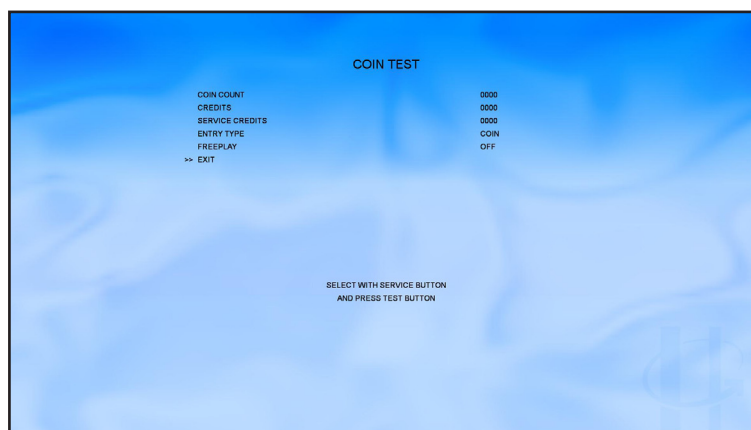
Please note that turning on more than LED will change the colour accordingly:

RED and GREEN	Panel will be YELLOW
RED and BLUE	Panel will be MAGENTA
GREEN and BLUE	Panel will be CYAN
RED, GREEN and BLUE	Panel will be WHITE

EXIT This will turn all lamps and LED's off

Move the cursor to EXIT and press the TEST button to return to the Test Menu screen.

9-2-5 COIN TEST



Select 'Coin Settings' from the Test Menu to display the Coin Settings Menu.

Use the SERVICE button to move the cursor to the desired test item.
Press the TEST button to change the selected item.

This test displays the accumulative coins and credits values. Freeplay can be turned on/off.

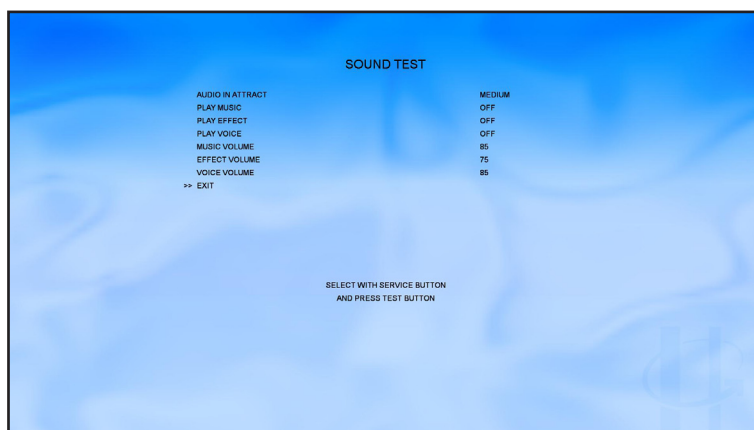
COIN COUNT	Coin Count value from IO board (cannot reset)
CREDITS	Total number of Coin credits added to the system
SERVICE CREDITS	Total number of Service Credits added to the system

Use the SERVICE button to move the cursor to the desired test item.
Press the TEST button to test the selected item.

ENTRY TYPE	COIN or CARD SWIPE
FREEPLAY	ON – Freeplay is on, pressing the Start button during attract sequence will issue a credit. OFF – Credits can only be added using coins or service button.

EXIT This will save any changes to Freeplay to this cabinet only

9-2-6 SOUND TEST



Select 'Sound Settings' from the Test Menu to display the Sound Settings Menu.

This test is used to set the audio levels for the game and test the function of the speakers.

This test is used to test the function of the speakers and set audio levels for the Game.

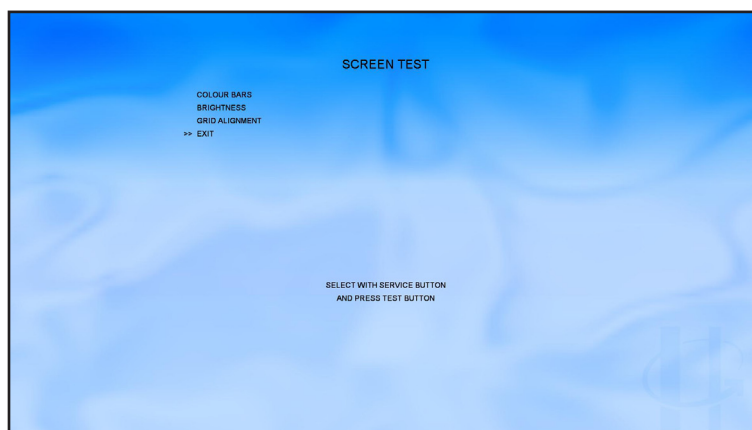
Use the SERVICE button to move the cursor to the desired test item.

Press the TEST button to test the selected item.

AUDIO IN ATTRACT	OFF – No music played during attract Other options are: LOW, MEDIUM and HIGH
PLAY MUSIC	ON - Test the sound level of the music in game OFF – Turn the test music off
PLAY EFFECT	ON – Test the sound level of effects in game OFF – Turn the test music off
PLAY VOICE	ON – Test the sound level of voice in game OFF – Turn the test music off
MUSIC VOLUME	Change the volume of music in game 0-100 (increments of 10) Default value is 30
EFFECTS VOLUME	Change the volume of effects in game 0-100 (increments of 10) Default value is 30
VOICE VOLUME	Change the volume of voice in game 0-100 (increments of 10) Default value is 30
EXIT	This will save any changes to game volumes

Move the cursor to EXIT and press the TEST button to return to the Test Menu screen.

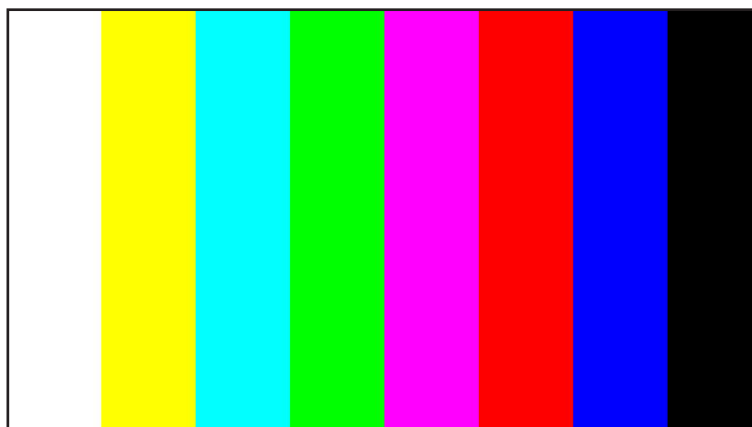
9-2-7 SCREEN TEST



Select 'Screen Test' from the Test Menu screen to display the Screen Test menu.

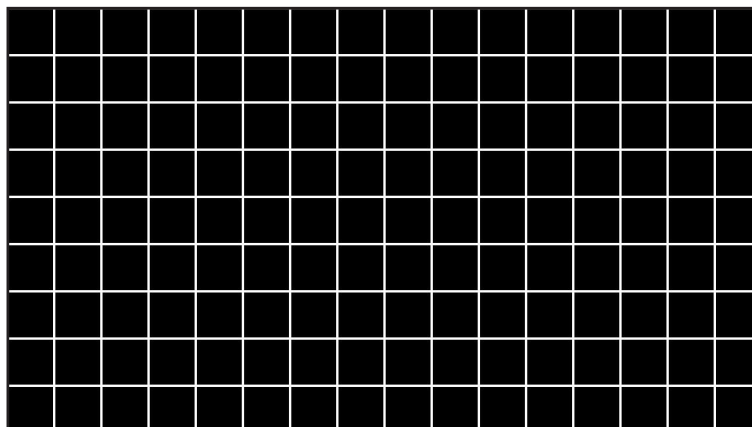
Use the SERVICE button to move the cursor to the desired test item.
Press the TEST button to enter the selected item.

COLOUR BARS – Selecting this test will display the following:

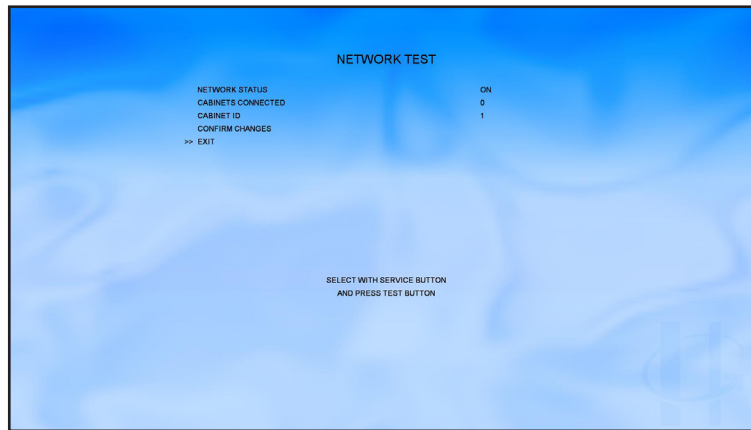


GRID ALIGNMENT – Selecting this test will display the following:

Move the cursor to EXIT and press the TEST button to return to the Test Menu screen.



9-2-8 NETWORK TEST



Select 'Network Test' from the Test Menu to display the Network Test menu.

This test is used to check the Network link between cabinets (if connected).

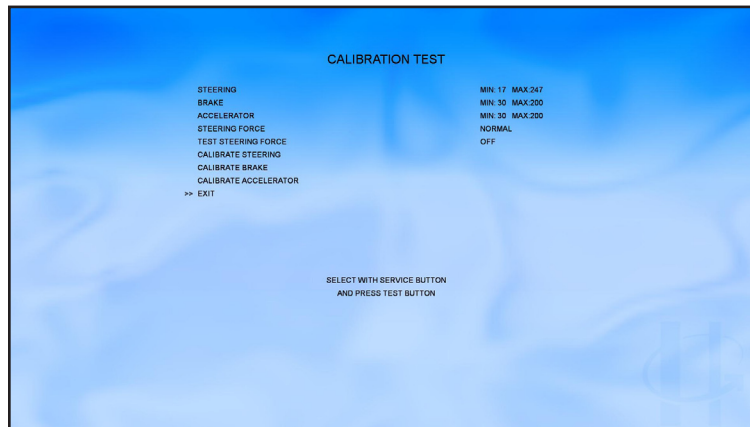
Use the SERVICE button to move the cursor to the desired test item.

Press the TEST button to enter the selected item.

NETWORK STATUS:	ON if network hardware is OK. FAILED if network hardware is faulty.
CABINETS CONNECTED:	The number of cabinets connected EXCLUDING the current one. (So if two cabinets are linked, this will show 1 cabinet connected).
CABINET ID:	ID Cabinet from 1 to 6. If this value is changed, the user must use CONFIRM CHANGES below in order to confirm the new ID of the cabinet.
CONFIRM CHANGES:	The user will be prompted to press the TEST button again to confirm. If the user presses the TEST button again, the action is confirmed and the PC will reset. If the user presses the SERVICE button, the action is aborted and settings are discarded.
EXIT:	Exit to the Test Menu.

Move the cursor to EXIT and press the TEST button to return to the Test Menu screen.

9-2-9 CALIBRATION TEST



Select 'Calibration Test' from the Test Menu screen to display the Calibration Test menu.

This test is used to calibrate devices such as the Steering Wheel and Pedals.

Use the SERVICE button to move the cursor to the desired test item.

Press the TEST button to enter the selected item.

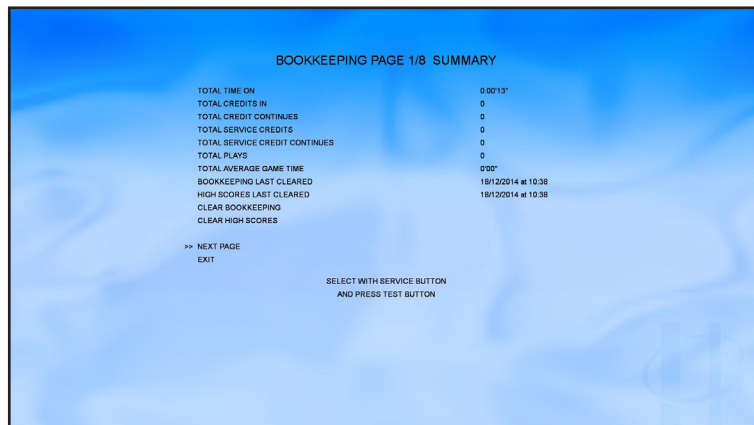
STEERING:	Displays the current Calibration settings for the Steering Wheel.
BRAKE:	Displays the current Calibration settings for the Brake Pedal.
ACCELERATOR:	Displays the current Calibration settings for the Accelerator Pedal.
STEERING FORCE:	Sets the amount of force feedback used in the Steering Wheel when playing the game. There are four options available: OFF – No steering force will be used. WEAK: Minimal steering force will be used. NORMAL: Normal steering force will be used (recommended). STRONG: Maximum steering force will be used.
TEST STEERING FORCE:	FULL LEFT: Current steering feedback strength applied LEFT. FULL RIGHT: Current steering feedback strength applied RIGHT. OFF: No force applied to steering.
CALIBRATE STEERING:	Starts the steering calibration routine. The wheel will automatically be calibrated by turning full left and then full right. No input is needed from the user once the test has been started.
CALIBRATE BRAKE:	Starts the brake calibration routine. The user must follow the on screen prompts to fully depress and then release the brake pedal for 5 seconds.
CALIBRATE ACCELERATOR:	Starts the accelerator calibration routine. The user must follow the on screen prompts to fully depress and then release the accelerator pedal for 5 seconds.
EXIT – Exit to the Test Menu.	

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

9-2-10 BOOKKEEPING

Select 'BOOKKEEPING' from the Test Menu to display the BOOKKEEPING menu.

Bookkeeping – Screen 1



This test is used to review statistical data from the system. It consists of 7 screens of data. Screen 1 contains an overview of the game play data.

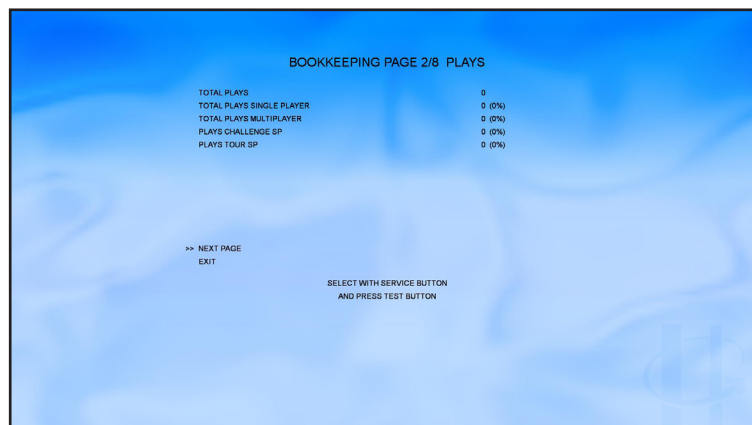
TOTAL TIME ON:	The total time the cabinet has been switched on. Displayed in HH:MM:SS
TOTAL CREDITS IN:	The total number of coin credits entered.
TOTAL CREDIT CONTINUES:	The total number of coin credits used for continue games.
TOTAL SERVICE CREDITS:	The total number of service credits entered.
TOTAL SERVICE CREDIT CONTINUES:	The total number of service credits used for continue games.
TOTAL PLAYS:	The total number of games played.
TOTAL AVERAGE GAME TIME:	The average game time for all games.
BOOKKEEPING LAST CLEARED:	The time the bookkeeping meters were last cleared.
HIGH SCORES LAST CLEARED:	The time the high score tables were last cleared. (For the high score tables to be cleared, this must be done across all linked cabinets simultaneously).
CLEAR HIGH SCORES:	When selected, the user will be prompted to confirm. If the user confirms, the high score table is reset. Note, if there are cabinets linked together, the high score tables will only be reset if all linked cabinets perform this process simultaneously. If the user presses the SERVICE button, then no action is taken.
CLEAR BOOKKEEPING:	When selected, the user will be prompted to confirm. If the user confirms, the bookkeeping meters are reset to zero. If the user presses the SERVICE button, then no action is taken.
NEXT PAGE:	Proceed to bookkeeping screen #2.
EXIT:	Exits to the Test Menu.

Use the SERVICE button to move the cursor to the desired test item.
Press the TEST button to enter the selected item.

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

BOOKKEEPING <continued>

Bookkeeping – Screen 2 – Data on TOTAL PLAYS



This page displays accumulative individual modes and total plays. This is a cumulative total from the last point in time that the Bookkeeping was cleared.

TOTAL PLAYS	Total games played, all modes combined
TOTAL PLAYS SINGLE PLAYER	Total single player games played, Challenge and Tour modes combined
TOTAL PLAYS MULTIPLAYER	Total multiplayer mode games played
PLAYS CHALLENGE SP	Total single player challenge mode games played
PLAYS TOUR SP	Total single player tour mode games played

Use the SERVICE button to navigate, and the TEST button to action changes to the following options.

NEXT PAGE	This will take you to Page 3 of Bookkeeping
EXIT	Return to the main Test Menu screen.

Move the cursor to NEXT PAGE and press the TEST button to proceed to bookkeeping screen #3.

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

BOOKKEEPING <continued>

Bookkeeping – Screen 3 – Data on AVERAGE GAME TIMES



This page displays total game time and average game times for single and multiplayer modes. This is a cumulative total from the last point in time that the Bookkeeping was cleared.

TOTAL AVERAGE GAME TIME	Total average game time, all modes combined
AVERAGE GAME TIME SINGLE PLAYER	Average game time for both single player modes
AVERAGE GAME TIME MULTIPLAYER	Average game time for all multiplayer games
AVERAGE GAME TIME SP CHALLENGE	Average game time for single player challenge mode
AVERAGE GAME TIME SP TOUR	Average game time for single player tour mode

Use the SERVICE button to navigate, and the TEST button to action changes to the following options.

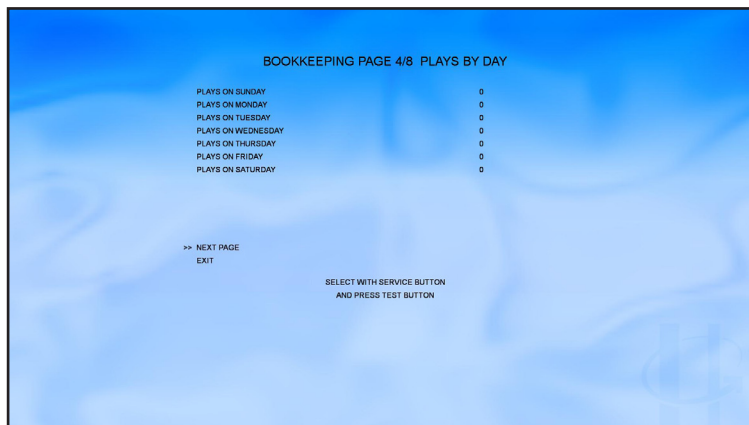
NEXT PAGE	This will take you to Page 4 of Bookkeeping
EXIT	Return to the main Test Menu screen.

Move the cursor to NEXT PAGE and press the TEST button to proceed to bookkeeping screen #4.

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

BOOKKEEPING <continued>

Bookkeeping – Screen 4 – Data on PLAYS BY DAY



This page displays breakdown of the games on individual days. This is a cumulative total of from the last point in time that the Bookkeeping was cleared.

PLAY ON SUNDAY	Total games played on a Sunday
PLAY ON MONDAY	Total games played on a Monday
PLAY ON TUESDAY	Total games played on a Tuesday
PLAY ON WEDNESDAY	Total games played on a Thursday
PLAY ON THURSDAY	Total games played on a Sunday
PLAY ON FRIDAY	Total games played on a Friday
PLAY ON SATURDAY	Total games played on a Saturday

Use the SERVICE button to navigate, and the TEST button to action changes to the following options.

NEXT PAGE	This will take you to Page 5 of Bookkeeping
EXIT	Return to the main Test Menu screen.

Move the cursor to NEXT PAGE and press the TEST button to proceed to bookkeeping screen #5.

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

Bookkeeping – Screen 5 – Data on PLAYS BY TIME

Move the cursor to NEXT PAGE and press the TEST button to proceed to bookkeeping screen #6.

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

BOOKKEEPING <continued>

Bookkeeping – Screen 5 – Data on PLAYS BY TIME

00-01 0	12-13 0
01-02 0	13-14 0
02-03 0	14-15 0
03-04 0	15-16 0
04-05 0	16-17 0
05-06 0	17-18 0
06-07 0	18-19 0
07-08 0	19-20 0
08-09 0	20-21 0
09-10 0	21-22 0
10-11 0	22-23 0
11-12 0	23-24 0

>> NEXT PAGE
 EXIT

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON

This page displays a breakdown of the games into hourly periods. This is a cumulative total from the last point in time that the Bookkeeping was cleared.

Each hour is logged separately in 24 hour format therefore

00-01 logs games between 12am and 1am

00-02 logs games between 1am and 2am..... and so on

23-24 logs games between 11pm and 12am.

Use the SERVICE button to navigate, and the TEST button to action changes to the following options.

NEXT PAGE This will take you to Page 6 of Bookkeeping

EXIT Return to the main Test Menu screen.

Move the cursor to NEXT PAGE and press the TEST button to proceed to bookkeeping screen #6.

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

BOOKKEEPING <continued>

Bookkeeping – Screen 6 – Breakdown of EVENTS

BOOKKEEPING PAGE 6/8 EVENTS	
SP_MIAMI_RACE_OFF	0
SP_LA_KNOCKOUT	0
SP_SAN_FRAN_RAMPAGE	0
SP_NEVADA_8BALL	0
SP_ASPEN_RACEOFF	0
SP_LA_8BALL	0
MP_MIAMI_RACE_OFF	0
MP_YOKOHAMA_KNOCKOUT	0
MP_SAN_FRAN_RAMPAGE	0
MP_LA_8BALL	0
MP_LA_RAMPAGE	0
MP_NEVADA_8BALL	0
>> NEXT PAGE	
EXIT	
SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON	

This page displays a breakdown of the games played on single player and multiplayer events. This is a cumulative total from the last point in time that the Bookkeeping was cleared.

SP_MIAMI_RACE_OFF	Single player Miami Race Off
SP_LA_KNOCKOUT	Single player Los Angeles Knockout
SP_SAN_FRAN_RAMPAGE	Single player San Francisco Demolition
SP_NEVADA_8BALL	Single player Nevada Crossroads
SP_ASPEN_RACEOFF	Single player Aspen Race Off
SP_LA_8BALL	Single player Los Angeles Crossroads
MP_MIAMI_RACE_OFF	Multiplayer Miami Race Off
MP_YOKOHAMA_KNOCKOUT	Multiplayer Yokohama Knockout
MP_SAN_FRAN_RAMPAGE	Multiplayer San Francisco Demolition
MP_LA_8BALL	Multiplayer Los Angeles Crossroads
MP_LA_RAMPAGE	Multiplayer Los Angeles Demolition
MP_NEVADA_8BALL	Multiplayer Nevada Crossroads

Use the SERVICE button to navigate, and the TEST button to action changes to the following options.

NEXT PAGE	This will take you to Page 7 of Bookkeeping
EXIT	Return to the main Test Menu screen.

Move the cursor to NEXT PAGE and press the TEST button to proceed to bookkeeping screen #7.

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

BOOKKEEPING <continued>

Bookkeeping – Screen 7 – Data on EVENTS

BOOKKEEPING PAGE 5/8 PLAYS BY TIME	
00-01 0	12-13 0
01-02 0	13-14 0
02-03 0	14-15 0
03-04 0	15-16 0
04-05 0	16-17 0
05-06 0	17-18 0
06-07 0	18-19 0
07-08 0	19-20 0
08-09 0	20-21 0
09-10 0	21-22 0
10-11 0	22-23 0
11-12 0	23-24 0
>> NEXT PAGE EXIT	
SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON	

This page displays a breakdown of the games played on single player tour mode events. This is a cumulative total from the last point in time that the Bookkeeping was cleared.

SP_TOUR_BAY_SIDE	Single player tour Bayside
SP_TOUR_RACERS_LEAGUE	Single player tour Racers League
SP_TOUR_THE_BIG_RUMBLE	Single player tour The Big Rumble
SP_TOUR_SPEEDER_CHALLENGE	Single player tour Speeder Challenge
SP_TOUR_RISING_SUN	Single player tour Rising Sun
SP_TOUR_LA_BABY	Single player tour LA Baby
SP_TOUR_MEGA_MIX_TOUR	Single player tour Mega Mix Tour
SP_TOUR_BRIGHT_LIGHTS	Single player tour Bright Lights

Use the SERVICE button to navigate, and the TEST button to action changes to the following options.

NEXT PAGE	This will take you to Page 8 of Bookkeeping
EXIT	Return to the main Test Menu screen.

Move the cursor to NEXT PAGE and press the TEST button to proceed to bookkeeping screen #8.

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

BOOKKEEPING <continued>

Bookkeeping – Screen 8 – Data on EVENTS

BOOKKEEPING PAGE 5/8 PLAYS BY TIME	
00-01 0	12-13 0
01-02 0	13-14 0
02-03 0	14-15 0
03-04 0	15-16 0
04-05 0	16-17 0
05-06 0	17-18 0
06-07 0	18-19 0
07-08 0	19-20 0
08-09 0	20-21 0
09-10 0	21-22 0
10-11 0	22-23 0
11-12 0	23-24 0
>> NEXT PAGE	
EXIT	
SELECT WITH SERVICE BUTTON	
AND PRESS TEST BUTTON	

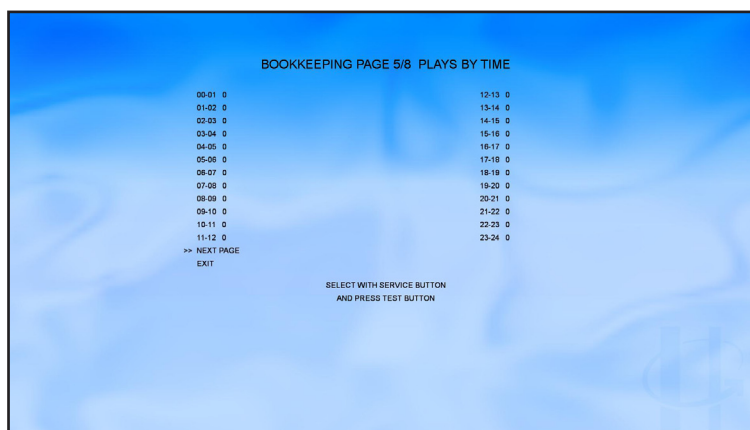
This page displays a breakdown of the cars used in all game modes. This is a cumulative total from the last point in time that the Bookkeeping was cleared.

Use the SERVICE button to navigate, and the TEST button to action changes to the following options.

EXIT Return to the main Test Menu screen.

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

9-2-11 CLOCK SETTINGS



Select 'CLOCK SETTING' from the Test Menu screen to enter the Clock Setting screen.

This screen is used to set the time and date of the system.

CURRENT TIME Shows the current time. Displayed in 24 hour clock format HH:MM:SS
CURRENT DATE Shows the current date. Displayed in the following format DD/MM/YYYY

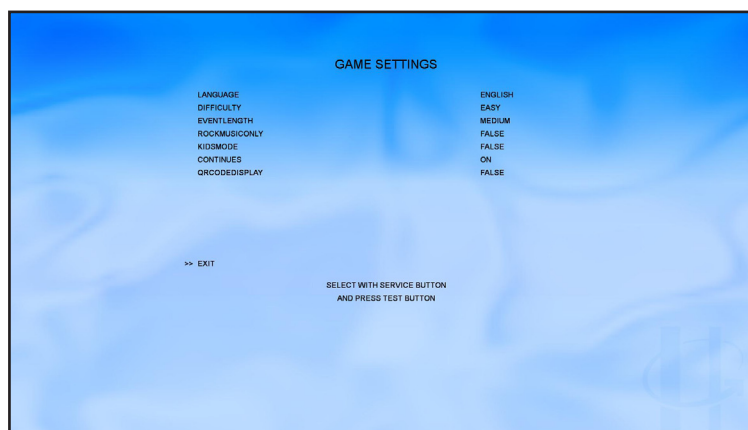
Use the SERVICE button to move the cursor to the desired item.
Press the TEST button to test the selected item.

Use the service button to move the cursor to the item that needs to be changed and use the Test Button when that item is highlighted to change it to the desired setting. Changes made will automatically update CURRENT TIME and/or CURRENT DATE.

EXIT Press the Test button to return to the System Test Mode screen.

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

9-2-12 GAME SETTINGS



Select 'GAME SETTINGS' from the Test Menu screen to enter the Game Settings screen.

This test is used to change the language of the in game text and voice, turn continues on or off and event length and difficulty.

NOTE TEST MENU text only displays in ENGLISH.

The following option is available from the Game Settings screen

LANGUAGE	ENGLISH/FRENCH/ITALIAN/GERMAN/SPANISH
DIFFICULTY	EASY/MEDIUM/HARD
EVENTLENGTH	SHORT/MEDIUM/LONG/VERY_LONG
ROCKMUSICONLY	ON - Rock music only / OFF - All music tracks available
KIDSMODE	ON – Car will accelerate without pedal being pressed / OFF – Normal game play
CONTINUES	ON – Player will be able to continue a tour if they fail to complete an event OFF – Player will have to place 1st, 2nd or 3rd to progress and complete a tour
QRCODEDISPLAY	ON – QR Code displayed at race results to register progress at www.segascorers.com / OFF – QR Code is not displayed

Use the SERVICE button to navigate, and the TEST button to action changes to the following options.

EXIT Return to the main Test Menu screen.

Move the cursor to EXIT and press the TEST button to return to the Test Menu.

9-3 TROUBLESHOOTING

Problem

Linked cabinets will not sync together in the attract mode.

Causes

1. Network cables are not connected.
2. The cabinets are using security keys from different regions
3. Network cables are faulty.

Solutions

1. Reconnect the network cables to each cabinet.
2. Ensure each cabinet has the same region which is viewable on the System Information page. Cabinets will only link together from the same region.
3. Replace the faulty network cables. Contact the company from whom the unit was purchased.

Problem

Cabinets are unable to start a Multiplayer session together.

Causes

1. Network cables are not connected.
2. Cabinets have different Track Packs enabled.
3. Cabinet ID's are not set up correctly.

Solutions

1. Ensure network cables are properly connected to the cabinets.
2. Go into Game Settings in the Test Menu and ensure each cabinet is set to the same Track Pack.
3. Go into the Network Settings and ensure each cabinet has a different Cabinet ID. Confirm the settings and then the cabinets will reset with the new changes saved.

Problem

The Steering Wheel does not work correctly in the game.

Causes

1. The Steering Wheel has not been calibrated correctly.

Solutions

1. Go into the Calibration Settings in the Test Menu and select Calibrate Steering.

Problem

The Pedals do not work correctly in the game. Vehicles move forward or backwards with no player input.

Causes

1. The Pedals have not been calibrated correctly.

Solutions

1. Go into the Calibration Settings in the Test Menu and select Calibrate Brake and follow the on screen instructions. Once this has been done, select Calibrate Accelerator and follow the on screen instructions.

Problem

No audio can be heard in either the attract mode, or throughout the game.

Causes

1. The audio level has not been correctly set with the Hardware Volume Control inside the cash drawer.
2. The volume levels within the Sound Settings in the Test Menu have not been set correctly.

Solutions

1. Go into the cash drawer and adjust the Hardware Volume Control until audio in the game can be heard.
2. Enter the Sound Settings menu from the Test Menu and check that all volume levels are set to the appropriate levels. Options are available within this menu to test the volume levels of each setting to make sure each are correct.

Problem

High Score Tables have not been cleared after attempting to clear them in the Bookkeeping menu.

Causes

- 1.The high scores have only been cleared on one cabinet when multiple cabinets are linked together.

Solutions

- 1.When multiple cabinets are linked together, the high score tables will only be cleared if the process is done on all connected machines at the same time. Each cabinet must be in the Bookkeeping menu, and then Clear High Scores should be selected on each one and then confirmed. If any cabinets are left in the attract mode during this, the high score tables will not be cleared.

Problem

An error message appears in the game that says: "IO BOARD NOT DETECTED".

Causes

- 1.The IO USB cable has become disconnected.

Solutions

- 1.Reconnect the IO USB cable to the game board and perform a power cycle.

Problem

An error message appears in the game that says: "SECURITY KEY NOT DETECTED".

Causes

- 1.The security key has become disconnected.

Solutions

- 1.Reconnect the security key to the game board and perform a power cycle.

10 CONTROLLER UNIT(S)

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 an electric shock, short circuit or present a risk of fire.
- Exercise due caution in performing soldering work. If soldering iron is handled carelessly, there could be fires or burns.

CAUTION

- When fastening plastic parts, be careful not to tighten screws or nuts excessively. If these are tightened to excess, parts could be damaged, resulting in injuries from fragments, etc.
- After the unit has been disassembled and reassembled again, check carefully that the unit has been reassembled correctly.
- Be sure to inspect the outer covers on both gear and hand brake units.
- Assemble so that there is no gap between the L and R covers. If there is a gap or rattling, the players could get fingers or hands caught, resulting in injury.

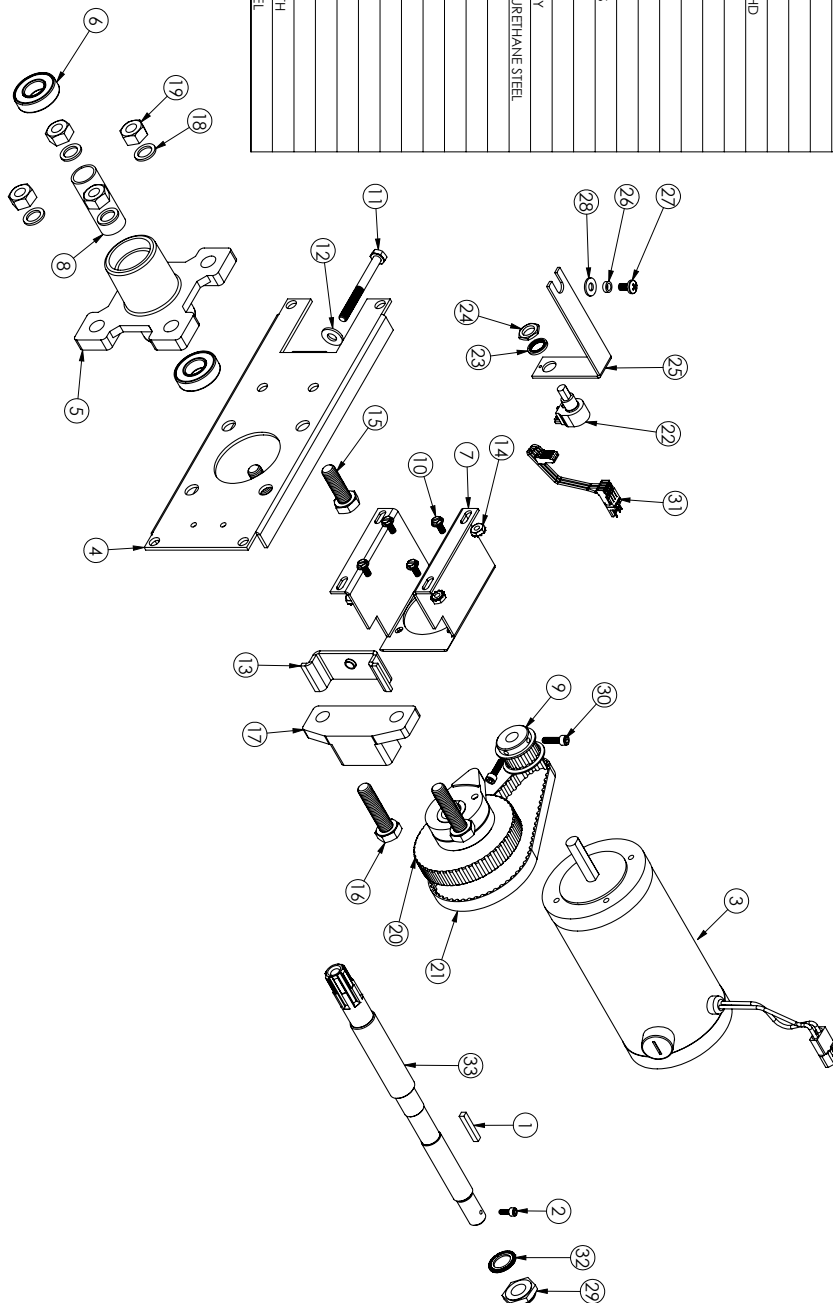
IMPORTANT

- Once the product has been disassembled, use slack preventive agent (product No. : 090-0012-N). Coat screws with suitable amounts of this agent and then tighten them. If this agent is not used, the product might start rattling or come apart.
- Use the slack preventive agent prescribed in these instructions. If any other agent is used, there could be chemical changes that inhibit the use of screws and part surfaces could be damaged.
- Be careful not to damage or lose small parts or screws.
- When a part has been replaced, be sure to always make adjustments and check conditions in Test Mode.

10-1 CONTROLLER - EXPLODED DIAGRAM

The exploded diagram below shows the Active Steering Wheel Assy. Each part is tagged with a part number. Please quote this number when ordering spare parts.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	50-2092-00	KEY, SHAFT 4MM X 4MM X 25MM
2	1	43-1170-00	SCREW, #6-32 X 3/8" SHCS
3	1	50-4043-00	MOTOR & CONNECTOR ASSY.
4	1	50-4016-00	WHEEL MTG. BRACKET
5	1	50-8129-00	BEARING HOUSING
6	2	50-8130-00	BEARING, .9843 ID X 1.259 OD X .1575 W
7	1	50-8455-00	MOTOR MTG. BRACKET
8	1	50-2659-00	BEARING SPACER
9	1	50-4040-00	PULLEY, 1.61" ALUMINUM
10	4	43-0188-00	SCREW, #8-32 X 3/8" HEX WASHER HD
11	1	43-0576-00	SCREW, M6 X 60MM HHCS
12	1	90-1208-00	5/16" FLAT WASHER, .061 ZINC PLT
13	1	50-2545-00	BRACKET, BELT TENSIONER
14	4	42-0093-00	NUT, 10-32 HEX SEAS, ZINC PLTD
15	2	43-0117-00	SCREW, M10 X 40MM HHCS
16	2	43-0978-00	SCREW, M10 X 40MM HHCS
17	1	50-8145-00	DIE CAST WHEEL STOP, W/BUMPERS
18	4	43-0034-00	LOCKWASHER M10 RIBBED
19	4	43-0035-00	NUT HEX M10
20	1	50-4045-PL	STOPPER PIE CAM & PLASTIC PULLEY
21	1	50-4041-90	TIMING BELT FOR STEERING WHEEL URETHANE STEEL
22	1	50-2670-00	IK POT, NEI "SENSORCUBE"
23	1	43-0018-00	LOCKWASHER, INT. .3/8" X 9/16"
24	1	43-0014-00	HEX NUT 3/8"-24 X 3/32 THK
25	1	50-4018-00	POT. MTG. BRACKET
26	1	50-4032-00	SPACER, POT MTG. BRACKET
27	1	43-0184-00	SCREW, #10-32 X 3/8" PHPHD
28	1	43-0995-00	#10 FLAT WASHER
29	1	43-0232-00	NUT, HEX NYLOCK 1/2-20
30	2	43-1059-00	SCREW, #8-32 X 5/8" SHCS
31	1	50-4042-10	HARNES, FOR NEI POT
32	1	43-1554-00	STAR WASHER M14 EXTERNAL TOOTH
33	1	50-4014-10	SEGA SHAFT 270 DEG ACTIVE WHEEL



10-2 KEYPAD

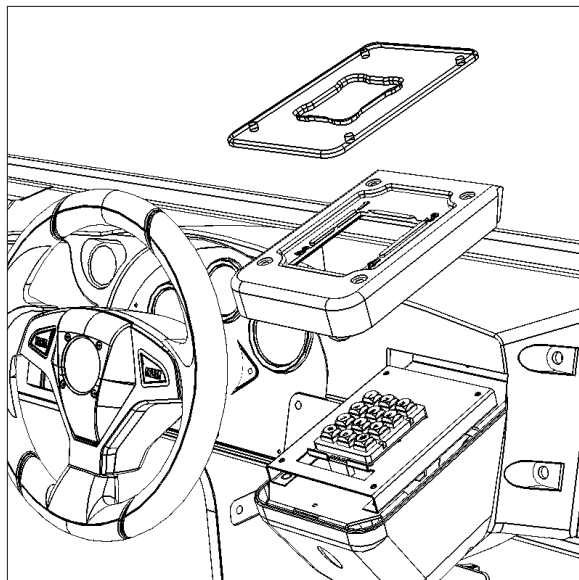
WARNING

- 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 an electric shock, short circuit or present a risk of fire.

If the Keypad switch input does not function correctly on the INPUT TEST screen, the switch may need to be replaced. To carry out this maintenance, you must first remove the Keypad unit. For this task, you will need a tamper proof wrench (for M5 screws), /and a Phillips-head screwdriver (for M4 screws).

10-2-1 KEYPAD REMOVAL

- 1 Turn the POWER OFF
- 2 Using the M5 tamper proof wrench remove the four tamper proof screws, 1 located in each of the corner of the KEYPAD
- 3 Gently lift out the Upper Acrylic and



10-3 BRAKE AND ACCELERATOR UNIT

10 CONTROL UNIT

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. However, the unit must be switched on when using test mode. Do not touch any part of the unit except those areas indicated.

Be careful not to damage the wires. Damaged wires may cause an electric shock, short circuit or present a risk of fire.

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.

To prevent accidents while working or while operating the product after it has been installed, be sure not to conduct any procedures other than those given in this manual. There are cases in which procedures not covered in this manual require special tools and skills.

If a procedure not given in this manual is required, request service from the office given in this manual or from the point of purchase.

IMPORTANT

Be sure to perform volume's move value setting in the Input Test in the Game Test Mode after replacing or adjusting the Volume.

If the accelerator or brake pedals are not functioning correctly, you may need to adjust the positioning of the volume or replace it with a new one. In addition, you should apply grease to the gear contacts and spring parts once every three months.

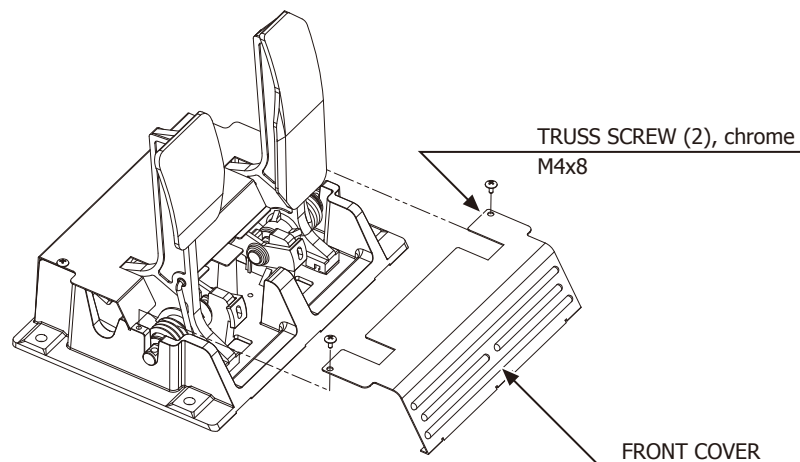
When the accelerator pedal is not being pressed, the accelerator volume should have a value of 30H or less. When the pedal is being pressed, the value should be C0H or greater.

When the brake pedal is not being pressed, the value should be 35H or less. When the pedal is being pressed, it should be D0H or more. You can view these values in test mode. Note that the unit must be switched on to use test mode. Do not touch any part of the unit except those areas indicated when the unit is switch on, as there is a danger of electrical shock or short-circuit.

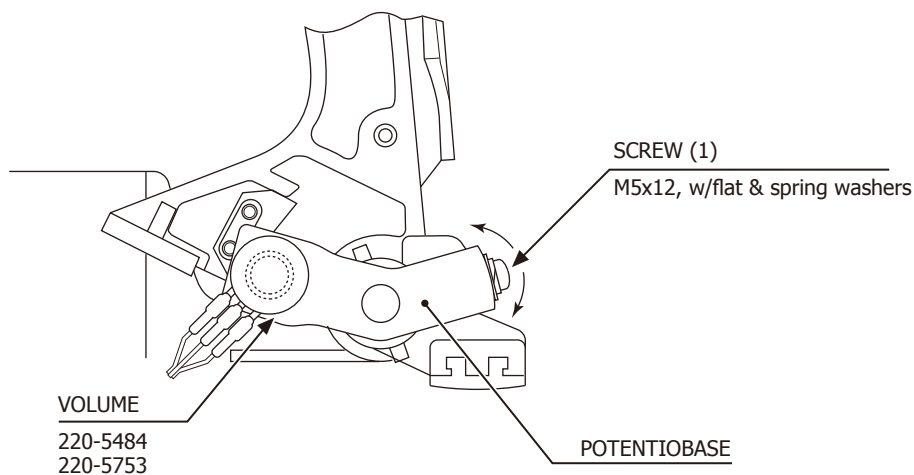
For this task, you will need a Phillips-head screwdriver (for M4, M5 screws).

Adjusting Procedure

- 1 On the accelerator and brake pedal unit, remove the two truss screws and lift off the front cover.



- 2 Loosen the single screw that secures the potentiobase, and move the base to adjust the volume values.



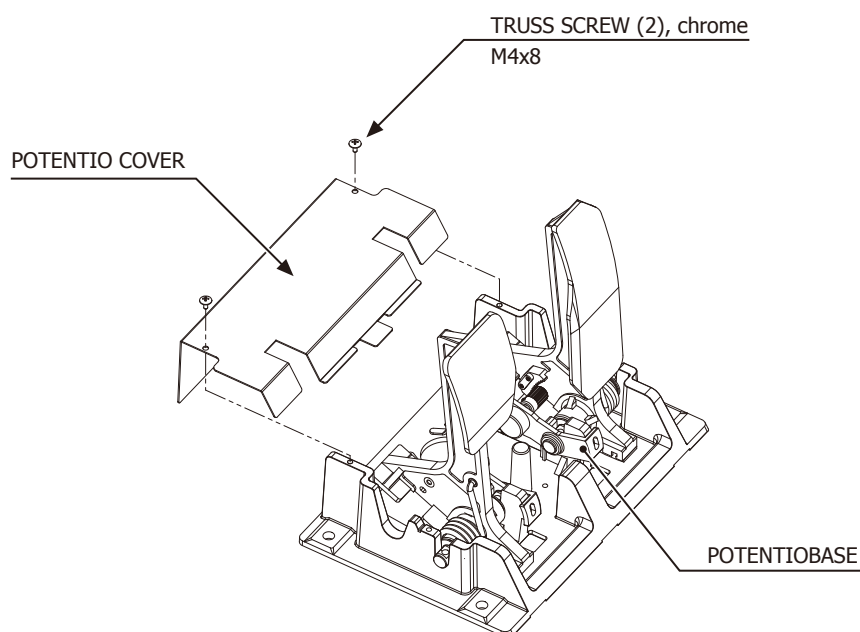
- 3 Secure the potentiobase.
- 4 Configure the volume values on the INPUT ASSIGNMENTS screen in Game Test Mode.
- 5 Check that the values change smoothly in response to pedal input.

10-3-1 ADJUSTING/REPLACING THE VOLUME POT

Replacing the Volume

1 Switch off the unit.

2 Remove the two screws and lift off the potentiometer cover.



3 Detach the connector from the volume to be replaced.

4 Remove the single screw that secures the potentiometer base. (see 10-31 FIG. 02).

5 Without detaching the volume, remove the potentiometer base. (see 10-31 FIG. 03).

6 Remove the base and gear from the volume, and replace it.

7 After replacement, configure the volume as described above in "Adjusting Procedure"

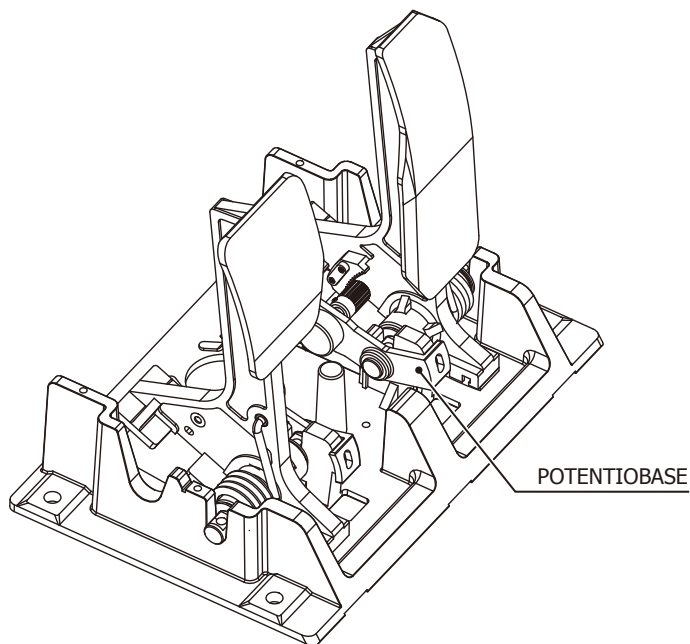
8 When you have finished, check that the values change smoothly in response to pedal input.

10-3-2 ADJUSTING/REPLACING THE VOLUME POT

STOP IMPORTANT

Use only the specified grease. Using any other kind of grease can result in damage to parts.

Once every three months, you should apply grease to the gear contacts and spring parts.
Use Grease Mate-brand spray grease (Part No.: 090-0066).



11 GRAPHICS DISPLAY (42" LCD)

11-1 SAFETY PRECAUTIONS WHEN HANDLING THE MONITOR

WARNING

Responding to breakdown or abnormality

- If smoke or a strange odor appears, immediately unplug the power cable from the power source.

Continuing to use the product may cause a fire or an electric shock. Ensure that smoke is no longer emitted, and contact the point of purchase.

- If nothing displays on the screen, immediately unplug the power cable from the power source.

Continuing to use the product may cause a fire or an electric shock. Contact the point of purchase and request an inspection.

- If water or a foreign object enters the monitor's interior, immediately unplug the power cable from the power source.

Continuing to use the product may cause a fire or an electric shock. Contact the point of purchase and request an inspection.

- If the monitor is dropped or the cabinet is damaged, immediately unplug the power cable from the power source.

Continuing to use the product may cause a fire or an electric shock. Contact the point of purchase and request an inspection.

During operation

- Do not repair, reconstruct, or disassemble the monitor.

The monitor's interior contains high voltage parts. A fire or an electric shock could result.

For inspections, adjustments, and repair of the monitor's interior, request work from the point of purchase.

- Do not insert foreign objects.

If metal objects or flammable materials such as paper are inserted into the interior through ventilation openings or other apertures, an electric shock could result.

- In the event of a thunder storm, do not touch the product or the power cable. An electric shock could result.

- Make sure to perform appropriate adjustments. Do not operate the product when the screen is flickering, distorted, or experiencing other abnormalities. Images from an improperly adjusted screen could cause players and other customers to experience dizziness, headaches, and other ailments.

11-2 CLEANING THE SCREEN SURFACE

CAUTION

- Use a soft, dry cloth (flannel-type) to wipe away dirt. Do not use materials such as coarse mesh gauze.
- Alcohol (ethanol) is the recommended solvent for removing dirt. When using a cleaning agent, follow the precautions below.
 - Dilute neutral cleaning agents for home use with water. Soak a soft cloth in the solution, and wring it thoroughly before wiping the screen.
 - Do not use abrasive cleaning agents or powders, or cleaning agents containing bleach.
 - Do not use alkaline cleaning agents such as glass cleaners, or solvents such as thinners.
- Do not scrub or scratch the screen surface with abrasive materials such as brushes or scrub brushes.

CLEAN THE SCREEN DAILY.

11-3 ADJUSTMENT METHOD

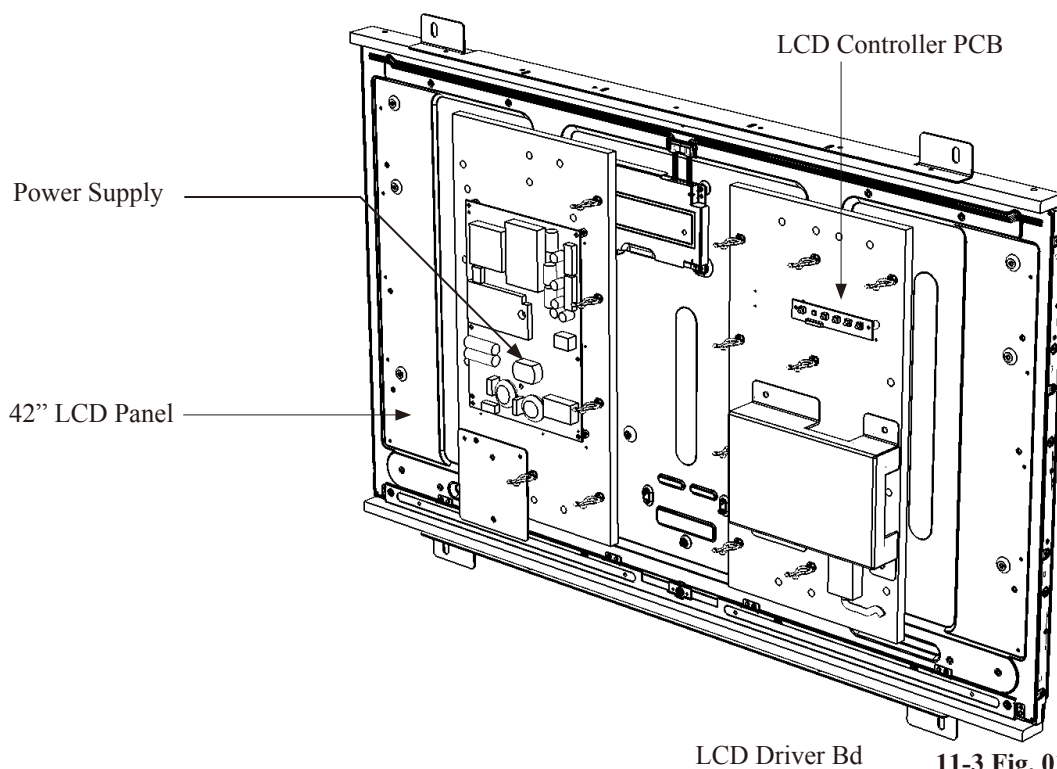
STOP IMPORTANT

All adjustment values are set accurately at the time of shipping from the factory. Do not readjust these values needlessly or apply adjustments not specified in this manual. The display may not appear properly if the values are incorrect.

CONTROL - ADJUSTMENT PROCEDURE

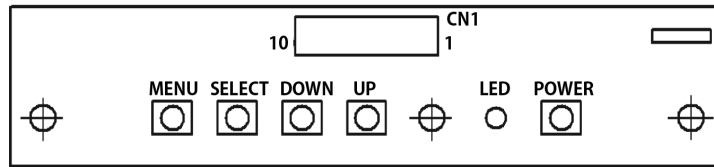
This sections explains basic control procedures for making adjustments using the buttons on the 'Monitor Adjustment Board'

This Adjustment Board, and the Monitor Power Supply are located behind the Rear Door.



11-3 Fig. 01

Button Names and Functions



11-3 Fig. 03

MENU: Turn the Picture Menu display ON and OFF.

SELECT: Gains entry to the Item selected in the menu. (Highlights in Yellow when selected)
Exits the Item adjustment. Any changes made during this operation are actioned.

DOWN: Moves the cursor (Black Bar) down to select a menu item.
Decrease the value of, or change, a selected menu item.

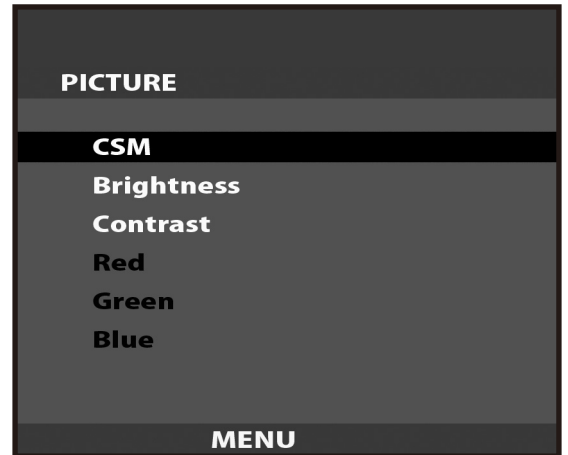
UP: Move the cursor (Black Bar) up to select a menu item.
Increase the value of, or change, a selected menu item.

LED: LED illuminates green: Monitor is operating.
LED flashes red: Power is off.

POWER: Turns the LCD Display ON and OFF. (Usually, it's not necessary to operate.)

On-Screen Display (OSD)

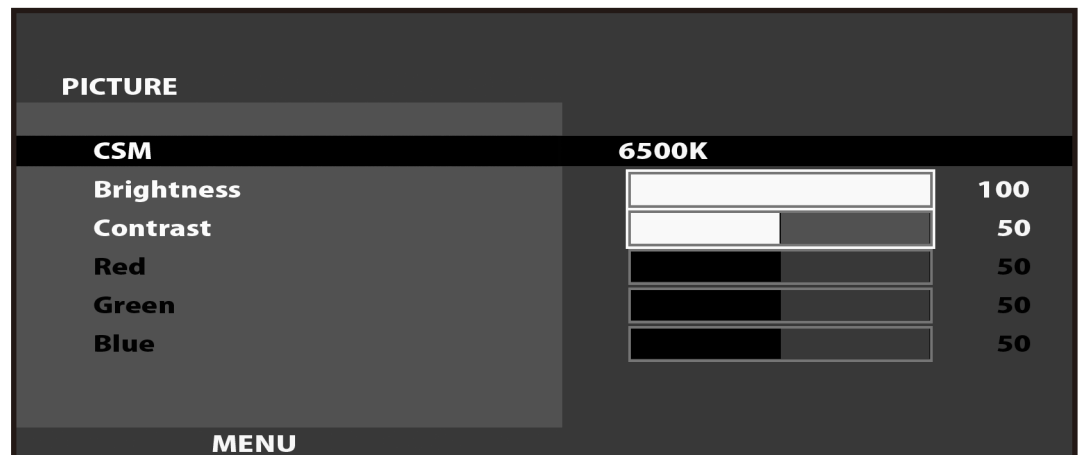
Press the MENU Button while the OSD is not displayed to bring up the Picture Menu.
On the Picture Menu, it is possible to perform various screen adjustments.



11-3 Fig. 04

Use the UP and DOWN Buttons to move the 'Black Bar' to the item you want to adjust.
After selecting the desired item, pressing the SELECT Button will extend the MENU Screen and allow adjustments to be changed.

Within each item, press the SELECT Button to exit the adjustment screen. The adjustment values at this time will be saved simultaneously.



11-3 Fig. 05

The current options are set at :

CSM	-	6500K
Brightness	-	100
Contrast	-	50

On-Screen Display (OSD) <continued>



11-3 Fig. 06

Available Settings

CSM (Selects Operation Mode))
 Selection available - 6500K - 9300K - USER

BRIGHTNESS (Adjust Brightness)
 Adjust screen Brightness. - Values: 0 - 100
 (0" being the darkest setting, and "100" being the brightest)

CONTRAST (Adjust Contrast)
 Adjust Contrast level. - Values: 0 - 100
 (0" having the least amount of difference between light and dark, and "100" having the most)

NOTE : The Red, Green, and Blue adjustments are unavailable in the Mode of Operation selected on the Screen shown in 11-3 Fig. 06. These adjustments can only be made is the CSM option is set to 'User'.

12 COIN HANDLING

PLEASE NOTE: That this product does not come with a Coin Validator unless stated at time of order. Information below pertains to the type of Validator that is supplied upon request...

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.

12-1 CLEANING THE COIN SELECTOR

STOP

IMPORTANT

- 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:

- 1 Turn the power for the machine OFF. Open the Coin Chute Door
- 2 Remove the Coin Selector from the Coin Chute Door
- 3 Open the gate and dust off by using a soft brush (Small soft Paint Brush, etc.)

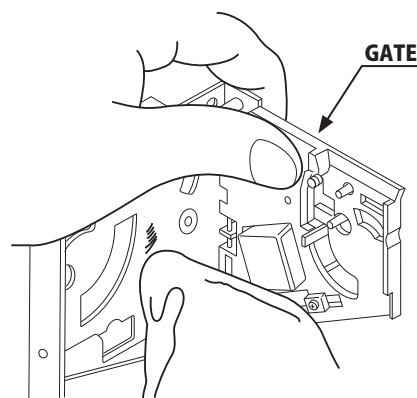


FIG. 12-1a

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.

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

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

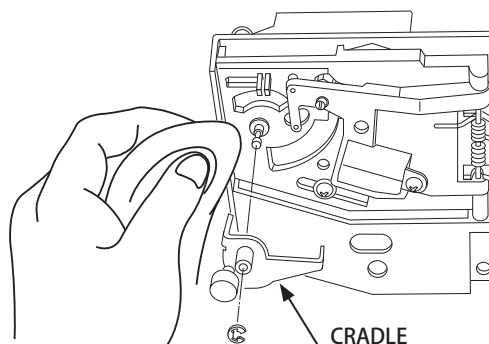


FIG. 12-1b

4 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?

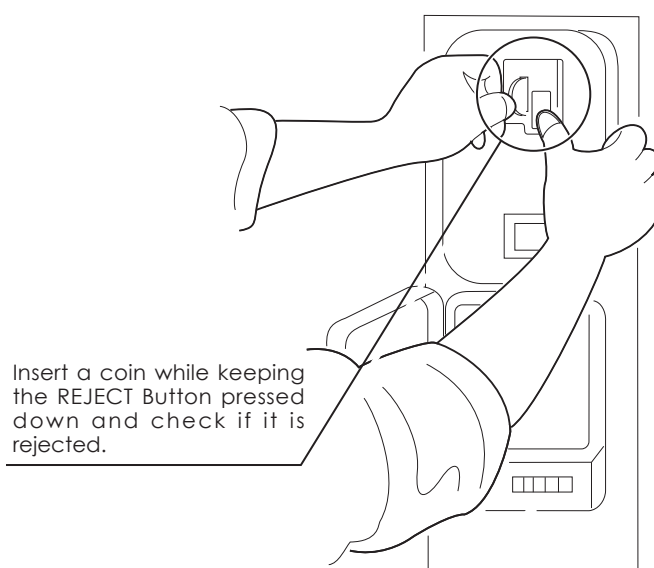


FIG. 12-1c

CLEANING THE COIN SELECTOR (SR3/NRI)

12

COIN HANDLING

- 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.

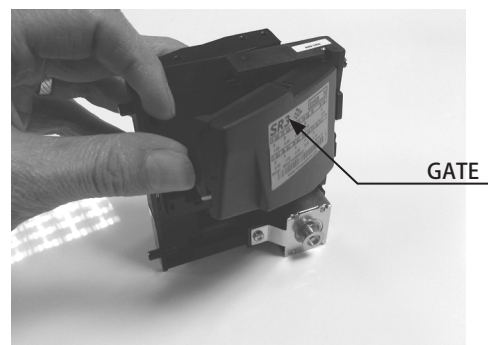


FIG. 12-1d

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

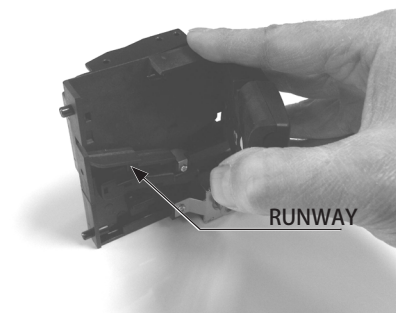


FIG. 12-1e

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

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



FIG. 12-1f

Pictures for illustration purposes only..
Model shown is SR3 Coin validator. Visual differences
between models but process remain the same.

12-2 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 chksum 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	
	Reject gate	
A true coin type rejects	Label	Coin not programmed
No accept signal	Connector	Loose or broken wire
	Accept channel	Path dirty or obstructed

12-3 ADJUSTING THE PRICE OF PLAY (EXCEL)

STOP IMPORTANT

- SEGA amusement products are fitted with either an EXCEL CREDIT PCB or a VTS (Volume, Test, Service) PCB. Both these components operate coin handling in the same way. Only one of these components are fitted.

- The price of play is determined by the configuration of switches located on either an EXCEL board 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 Money Controls SR3 Coin Acceptor. To adjust the price of play ALL credit setting 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 VTS BD has a built in Credit Board. 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

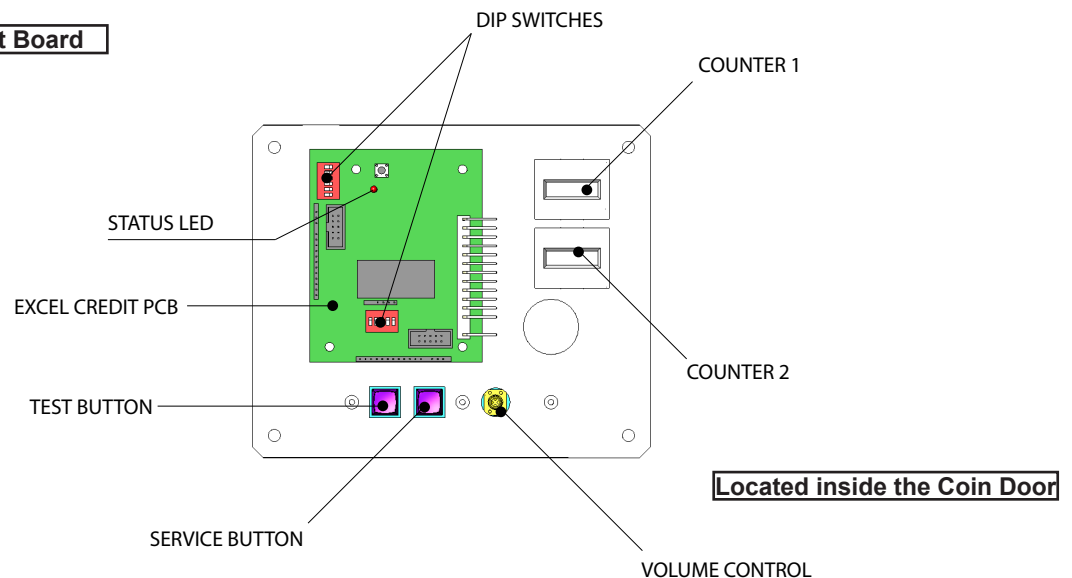


FIG. 12-3

DIL SW3 (Regional Settings)

Adjust these switches to specify the type of Coin Acceptor used and currency.

Default = SW1&SW2 ON - NRI in parallel mode, Sterling.

TEST BUTTON

Provides access to the TEST MENU when pressed.

SERVICE BUTTON

Provides a SERVICE CREDIT when pressed

Status LED

Flashes when functioning.

CHANNEL 1

To Coin Acceptor (SR3 TYPE.)

DIL SW1 (credit settings)

Adjust to required price of pay.

VOL CONTROL

MAIN VOLUME ADJUSTMENT (FRONT SPEAKERS)

12-4 ADJUSTING THE PRICE COMMON (USA)

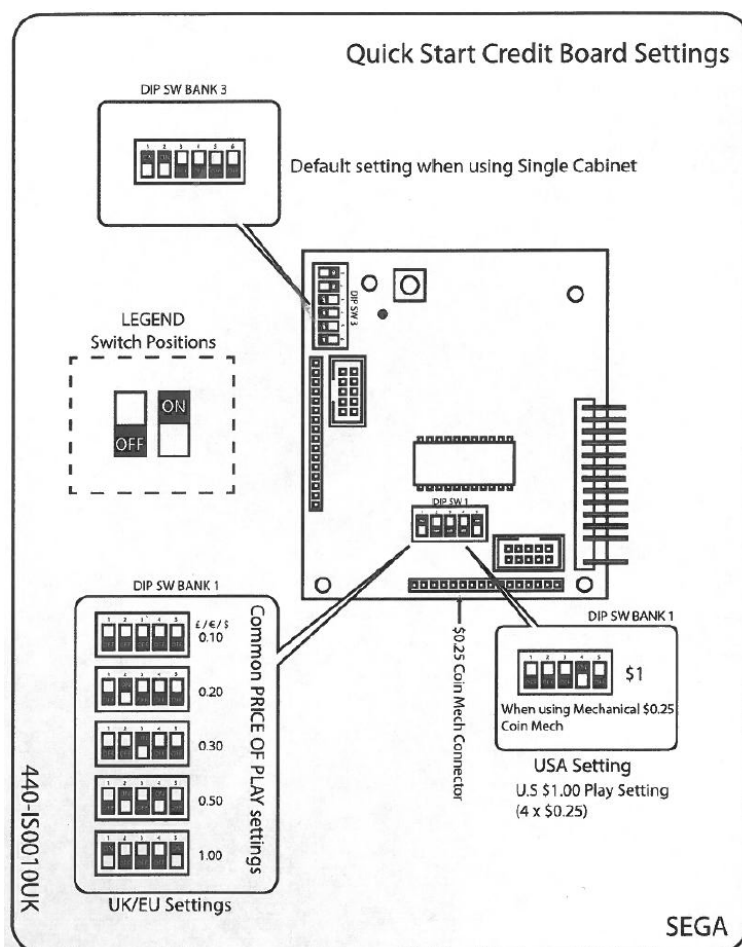


FIG. 12-4

DIL SWITCH BANK ONE (5 way SW1)						
Item	Price	SW1	SW2	SW3	SW4	SW5
1	25cent	OFF	OFF	OFF	OFF	OFF
3	50cent	OFF	ON	OFF	OFF	OFF
5	75cent	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

Table 1 12-4

QUICK VIEW SETTINGS

SEGA EXCEL CREDIT BOARD PRICE OF PLAY SETTINGS

	Play Price £ / € / \$	Bonus adder	BANK 1				
			1	2	3	4	5
1	0.10	No Bonus	OFF	OFF	OFF	OFF	OFF
2	0.10	0.50 = 6 plays	ON	OFF	OFF	OFF	OFF
3	0.20	No Bonus	OFF	ON	OFF	OFF	OFF
4	0.20	0.50 = 3 plays	ON	ON	OFF	OFF	OFF
5	0.30	No Bonus	OFF	OFF	ON	OFF	OFF
6	0.30	-	ON	OFF	ON	OFF	OFF
7	0.30	0.50 = 2 plays	OFF	ON	ON	OFF	OFF
8	0.40	No Bonus	OFF	OFF	OFF	ON	OFF
8	0.40	-	ON	OFF	OFF	ON	OFF
9	0.50	No Bonus	OFF	ON	OFF	ON	OFF
10	0.50	-	ON	ON	OFF	ON	OFF
11	0.50	-	OFF	OFF	ON	ON	OFF
12	0.60	No Bonus	ON	OFF	ON	ON	OFF
13	0.60	-	OFF	ON	ON	ON	OFF
14	0.80	No Bonus	ON	ON	ON	ON	OFF
15	0.80	-	OFF	OFF	OFF	OFF	ON
16	1.00	No Bonus	ON	OFF	OFF	OFF	ON
17	1.00	-	OFF	ON	OFF	OFF	ON
18	1.00	-	ON	ON	OFF	OFF	ON
19	1.50	No Bonus	OFF	OFF	ON	OFF	ON
20	1.50	-	ON	ON	ON	OFF	ON
21	2.00	No Bonus	OFF	ON	ON	OFF	ON
22	2.00	-	ON	ON	ON	OFF	ON
23	3.00	No Bonus	OFF	OFF	OFF	ON	ON
24	3.00	-	ON	OFF	OFF	ON	ON
25	5.00	No Bonus	OFF	ON	OFF	ON	ON
26	5.00	-	ON	ON	OFF	ON	ON
27	7.50	No Bonus	OFF	OFF	ON	ON	ON
28	7.50	-	ON	OFF	ON	ON	ON
29	10.00	No Bonus	OFF	ON	ON	ON	ON
30	FREE	Free Play	ON	ON	ON	ON	ON

*All shaded areas are default price of play values with no additional bonuses

Table 2 12-4

Credit Board Mode Settings Switch 3																			
Country	Setting	Switch 3 Setting						Coin Validator Programming										C120/SR3 Only	
		SW1	SW2	SW3	SW4	SW5	SW6	COIN1	COIN2	COIN3	COIN4	COIN5	COIN6	COIN7	COIN8	COIN9	COIN10	COIN11	COIN12
UK	Coin Controls C220 Parallel	OFF	OFF	OFF	OFF			£1	50p new	20p	10p	-	50p old	-	-				
UK	Coin Controls C220 Binary	ON	OFF	OFF	OFF			£1	50p new	20p	10p	-	50p old	-	£2				
UK	Coin Controls C220 Binary	OFF	ON	OFF	OFF			£1	50p new	20p	10p	-	£2	-	50p old				
UK	Coin Controls SR3 Parallel	ON	ON	OFF	OFF			£1	50p new	20p	10p	-	£2	-	50p old	-	-	-	-
UK	Coin Controls SR3 Parallel	OFF	OFF	ON	OFF			£2	£1	50p new	20p	10p	-	-	-	50p old	-	-	-
UK	Mars ME/MS 111 Parallel	ON	OFF	ON	OFF			£1	£2	20p	10p	50p new	50p old						
UK	NRI Parallel	OFF	ON	ON	OFF			10p	20p	50p	£1	£2	-						
Belgium	Parallel	ON	ON	ON	OFF			-	50Bfr	20Bfr	5Bfr								
Holland	Parallel	OFF	OFF	OFF	ON			-	5NLG	2.5NLG	1NLG								
Austria	SR3 Parallel	ON	OFF	OFF	ON			20Sch	10Sch	5Sch	1Sch								
Spain	Coin Controls C220 Binary	OFF	ON	OFF	ON			500Pta	200Pta	100Pta	50Pta	25Pta	200Pt old	50Pta old	25Pta old				
Spain	SR3/NRI Parallel	ON	ON	OFF	ON			500Pta	200Pta	100Pta	50Pta	25Pta	-	-	200Pta	-	50Pta old	25Pta old	-
Spain	Coin Controls C220 Parallel	OFF	OFF	ON	ON			100Pta	50Pta new	-	25Pta new	-	50Pta old	-	25Pta old				
Portugal Euro	Parallel	ON	OFF	ON	ON			200Es €1	100Es 50¢	50Es	-	-	-	-	-				
	TBA					OFF		TBA								Please Note The credit board automatically sets the validator for parallel and binary operation through an output on pin 8 of the 17 way pinstrip. For the feature to work it is necessary for the validator interconnecting cable to include at wire at this position			
	Channels					ON		TBA											
								Direct Mode											
								2 channel Mode											

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

Set SW 1 according to the option settings found in the relevant Price of Play Settings Table on the following pages.

Set SW 3 on the VTS /Excel board as shown in the table above corresponding to the country required.

Table 3 12-4

STERLING PRICE OF PLAY SETTINGS (SW1)

	Price	Bonus				DIL Switch 1				
						1	2	3	4	5
1	10p	50p = 5 plays	£1 = 10 plays	£2 = 20 plays		OFF	OFF	OFF	OFF	OFF
2	10p	50p = 6 plays @ 8.33p per play	£1 = 12 plays @ 8.33p per play	£2 = 24 plays @ 8.33p per play		ON	OFF	OFF	OFF	OFF
3	20p	50p = 2.5 plays	£1 = 5 plays	£2 = 10 plays		OFF	ON	OFF	OFF	OFF
4	20p	50p = 3 plays @ 16.66p per play	£1 = 6 plays @ 16.66p per play	£2 = 12 plays @ 16.66p per play		ON	ON	OFF	OFF	OFF
5	30p	50p = 1.66 plays	£1 = 3.33 plays	£2 = 6.66 plays		OFF	OFF	ON	OFF	OFF
6	30p	50p = 1.66 plays	£1 = 4 plays @ 25p per play	£2 = 8 plays @ 25p per play		ON	OFF	ON	OFF	OFF
7	30p	50p = 2 plays @ 25p per play	£1 = 4 plays @ 25p per play	£2 = 8 plays @ 25p per play		OFF	ON	ON	OFF	OFF
8	30p	50p = 2 plays @ 25p per play	£1 = 3 plays @ 33.33p per play	£2 = 6 plays @ 33.33p per play		ON	ON	ON	OFF	OFF
9	40p	50p = 1.25 plays	£1 = 2.5 plays	£2 = 5 plays		OFF	OFF	OFF	ON	OFF
10	40p	50p = 1.25 plays	£1 = 3 plays @ 33.3p per play	£2 = 6 plays @ 33.3p per play		ON	OFF	OFF	ON	OFF
11	50p	50p = 1 play	£1 = 2 plays	£2 = 4 plays		OFF	ON	OFF	ON	OFF
12	50p	50p = 1 play	£1 = 3 plays @ 33.3p per play	£2 = 6 plays @ 33.3p per play		ON	ON	OFF	ON	OFF
13	50p	50p = 1 play	£1 = 2 plays	£2 = 5 plays @ 40p per play		OFF	OFF	ON	ON	OFF
14	60p	50p = 0.83 play	£1 = 1.66 plays	£2 = 3.33 plays		ON	OFF	ON	ON	OFF
15	60p	50p = 0.83 play	£1 = 2 plays @ 50p per play	£2 = 4 plays @ 50p per play		OFF	ON	ON	ON	OFF
16	80p	50p = 0.62 play	£1 = 1.25 plays	£2 = 2.5 plays		ON	ON	ON	ON	OFF
17	80p	£1 = 1.25 plays	£1.50 = 2 plays @ 75p per play	£2 = 2.5 plays		OFF	OFF	OFF	OFF	ON
18	£1	2x50p = 1 play	£1 = 1 play	£2 = 2 plays		ON	OFF	OFF	OFF	ON
19	£1	2x50p = 1 play	£1 = 1 play	£2 = 3 plays @ 66.6p per play		OFF	ON	OFF	OFF	ON
20	£1	2x50p = 1 play	£2 = 2 plays	£4 = 5 plays @ 80p per play		ON	ON	OFF	OFF	ON
21	£1.50	3x50p = 1 play	£1 = 0.66 plays	£3 = 2 plays		OFF	OFF	ON	OFF	ON
22	£1.50	3x 50p = 1 play	£1 = 0.66 plays	£2 = 2 plays @ £1 per play		ON	OFF	ON	OFF	ON
23	£2	4x 50p = 1 play	£1 = 0.5 play	£2 = 1 play		OFF	ON	ON	OFF	ON
24	£2	4x 50p = 1 play	£1 = 0.5 play	£5 = 3 plays @ £1.66 per play		ON	ON	ON	OFF	ON
25	£3	6x50p = 1 play	£1.50 = 0.5 play	£3 = 1 play		OFF	OFF	OFF	ON	ON
26	£3	6x50p = 1 play	£1.50 = 0.5 play	£5 = 2 plays @ £2.50 per play		ON	OFF	OFF	ON	ON
27	£5	£1 = 0.2 play	£5 = 1 play	£10 = 2 plays		OFF	ON	OFF	ON	ON
28	£5	£1 = 0.2 play	£5 = 1 play	£10 = 3 plays @ £3.33p per play		ON	ON	OFF	ON	ON
29	£7.50	£5 = 0.66 play	£10 = 1.33 plays	£15 = 2 plays		OFF	OFF	ON	ON	ON
30	£7.50	£5 = 0.66 play	£10 = 1.33 plays	£10 = 2 plays @ £5 per play		ON	OFF	ON	ON	ON
31	£10	£10 = 1 play	£20 = 2 play	£30 = 3 play		OFF	ON	ON	ON	ON
32		Free Play				ON	ON	ON	ON	ON

Table 4 12-4

EURO PRICE OF PLAY SETTINGS (SW1)

	Price	Bonus					DIL Switch 1				
							1	2	3	4	5
1	10¢	50¢ = 5 plays	€1 = 10 plays	€2 = 20 plays	€2 = 24 plays @ 8.33¢ per play	€2 = 10 plays	OFF	OFF	OFF	OFF	OFF
2	10¢	50¢ = 6 plays @ 8.33p per play	€1 = 12 plays @ 8.33¢ per play	€2 = 24 plays @ 8.33¢ per play	€2 = 24 plays @ 8.33¢ per play	€2 = 10 plays	ON	OFF	OFF	OFF	OFF
3	20¢	50¢ = 2.5 plays	€1 = 5 plays	€2 = 10 plays	€2 = 10 plays	€2 = 10 plays	OFF	ON	OFF	OFF	OFF
4	20¢	50¢ = 3 plays @ 16.66¢ per play	€1 = 6 plays @ 16.66¢ per play	€2 = 12 plays @ 16.66¢ per play	€2 = 12 plays @ 16.66¢ per play	€2 = 6.66 plays	ON	ON	OFF	OFF	OFF
5	30¢	50¢ = 1.66 plays	€1 = 3.33 plays	€2 = 6.66 plays	€2 = 6.66 plays	€2 = 6.66 plays	OFF	OFF	ON	OFF	OFF
6	30¢	50¢ = 1.66 plays	€1 = 4 plays @ 25¢ per play	€2 = 8 plays @ 25¢ per play	€2 = 8 plays @ 25¢ per play	€2 = 8 plays @ 25¢ per play	ON	OFF	ON	OFF	OFF
7	30¢	50¢ = 2 plays @ 25¢ per play	€1 = 4 plays @ 25¢ per play	€2 = 8 plays @ 25¢ per play	€2 = 8 plays @ 25¢ per play	€2 = 8 plays @ 25¢ per play	OFF	ON	ON	OFF	OFF
8	30¢	50¢ = 2 plays @ 25¢ per play	€1 = 3 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	ON	ON	ON	OFF	OFF
9	40¢	50¢ = 1.25 plays	€1 = 2.5 plays	€2 = 5 plays	€2 = 5 plays	€2 = 5 plays	OFF	OFF	OFF	ON	OFF
10	40¢	50¢ = 1.25 plays	€1 = 3 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	ON	OFF	OFF	ON	OFF
11	50¢	50¢ = 1 play	€1 = 2 plays	€2 = 4 plays	€2 = 4 plays	€2 = 4 plays	OFF	ON	OFF	ON	OFF
12	50¢	50¢ = 1 play	€1 = 3 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	ON	ON	OFF	ON	OFF
13	50¢	50¢ = 1 play	€1 = 2 plays	€2 = 5 plays @ 40¢ per play	€2 = 5 plays @ 40¢ per play	€2 = 5 plays @ 40¢ per play	OFF	OFF	ON	ON	OFF
14	60¢	50¢ = 0.83 play	€1 = 1.66 plays	€2 = 3.33 plays	€2 = 3.33 plays	€2 = 3.33 plays	ON	OFF	ON	ON	OFF
15	60¢	50¢ = 0.83 play	€1 = 2 plays @ 50¢ per play	€2 = 4 plays @ 50¢ per play	€2 = 4 plays @ 50¢ per play	€2 = 4 plays @ 50¢ per play	OFF	ON	ON	ON	OFF
16	80¢	50¢ = 0.62 play	€1 = 1.25 plays	€2 = 2.5 plays	€2 = 2.5 plays	€2 = 2.5 plays	ON	ON	ON	ON	OFF
17	80¢	£1 = 1.25 plays	€1.50 = 2 plays @ 75¢ per play	€2 = 2.5 plays	€2 = 2.5 plays	€2 = 2.5 plays	OFF	OFF	OFF	OFF	ON
18	€1	2x50¢ = 1 play	€1 = 1 play	€2 = 2 plays	€2 = 2 plays	€2 = 2 plays	ON	OFF	OFF	OFF	ON
19	€1	2x50¢ = 1 play	€1 = 1 play	€2 = 2 plays	€2 = 2 plays	€2 = 2 plays	OFF	ON	OFF	OFF	ON
20	€1	2x50¢ = 1 play	€2 = 2 plays	€3 = 2 plays	€4 = 5 plays @ 80¢ per play	€4 = 5 plays @ 80¢ per play	ON	ON	OFF	OFF	ON
21	€1.50	3x50¢ = 1 play	€1 = 0.66 plays	€2 = 2 plays	€3 = 2 plays	€3 = 2 plays	OFF	OFF	ON	OFF	ON
22	€1.50	3x50¢ = 1 play	€1 = 0.66 plays	€2 = 2 plays @ €1 per play	€2 = 2 plays @ €1 per play	€2 = 2 plays @ €1 per play	ON	OFF	ON	OFF	ON
23	€2	4x50¢ = 1 play	€1 = 0.5 play	€2 = 1 play	€2 = 1 play	€2 = 1 play	OFF	ON	ON	OFF	ON
24	€2	4x50¢ = 1 play	€1 = 0.5 play	€5 = 3 plays @ €1.66 per play	€5 = 3 plays @ €1.66 per play	€5 = 3 plays @ €1.66 per play	ON	ON	ON	OFF	ON
25	€3	6x50¢ = 1 play	€1.50 = 0.5 play	€3 = 1 play	€3 = 1 play	€3 = 1 play	OFF	OFF	OFF	ON	ON
26	€3	6x50¢ = 1 play	€1.50 = 0.5 play	€5 = 2 plays @ €2.50 per play	€5 = 2 plays @ €2.50 per play	€5 = 2 plays @ €2.50 per play	ON	OFF	OFF	ON	ON
27	€5	€1 = 0.2 play	€5 = 1 play	€10 = 2 plays	€10 = 2 plays	€10 = 2 plays	OFF	ON	OFF	ON	ON
28	€5	€1 = 0.2 play	€5 = 1 play	€10 = 3 plays @ 3.33¢ per play	€10 = 3 plays @ 3.33¢ per play	€10 = 3 plays @ 3.33¢ per play	ON	ON	OFF	ON	ON
29	€7.50	€5 = 0.66 play	€10 = 1.33 plays	€15 = 2 plays	€15 = 2 plays	€15 = 2 plays	OFF	OFF	ON	ON	ON
30	€7.50	€5 = 0.66 play	€10 = 1.33 plays	€10 = 2 plays @ €5 per play	€10 = 2 plays @ €5 per play	€10 = 2 plays @ €5 per play	ON	OFF	ON	ON	ON
31	€10	€10 = 1 play	€20 = 2 play	€30 = 3 play	€30 = 3 play	€30 = 3 play	OFF	ON	ON	ON	ON
32		Free Play					ON	ON	ON	ON	ON

Table 5 12-4

13 LAMPS AND LIGHTING

! 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?

! 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.

13-1 COIN DOOR LAMP

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

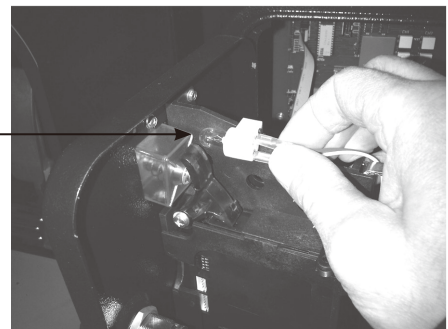
Step 2. Hold the Lamp Housing firmly between your index finger and thumb and gently pull upwards. Do Not try to remove the Lamp Housing whilst holding the bulb as the bulb may break causing injury.

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 whilst removing the bulb as this may cause damage to both bulb and or Housing.

Type: Wedge Bulb - 12v, 1.2w

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



13-2 LED LIGHTING - BILLBOARD/RACE LEADER

⚠ WARNING

THIS WORK ON TOP OF THE CABINET, SHOULD NOT BE UNDERTAKEN WITHOUT THE USE OF A SUITABLE STEP OR FOOTSTOOL.

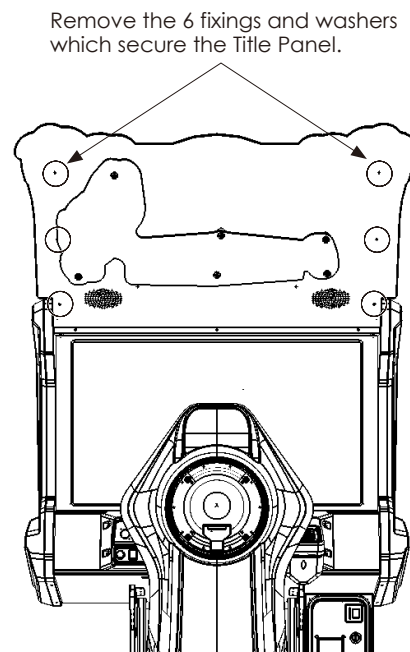
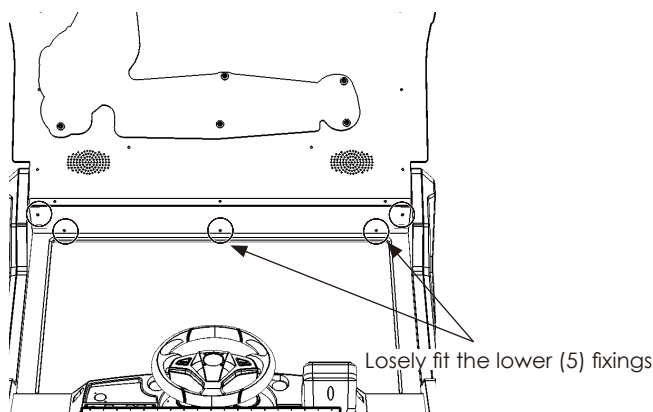
⚠ WARNING

MAKE SURE THAT THE MAIN SUPPLY VOLTAGE TO THE MACHINE IS SWITCHED OFF BEFORE ATTEMPTING TO CARRY OUT THIS WORK

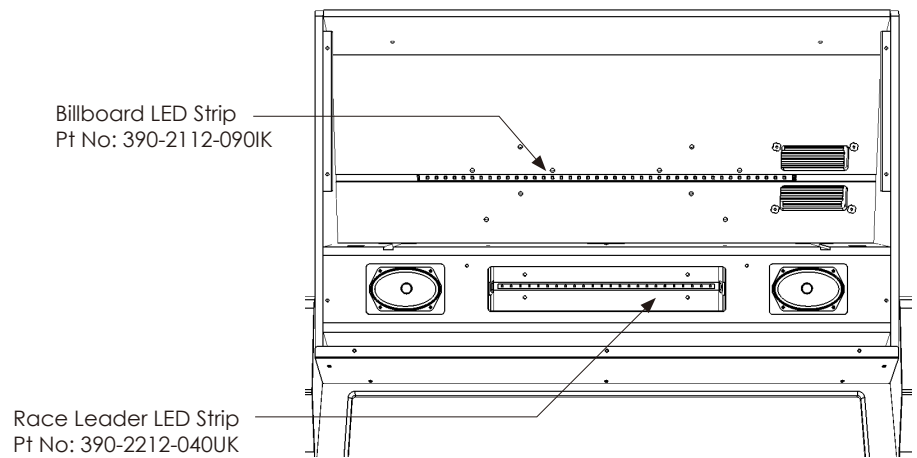
⚠ CAUTION

THE BILLBOARD IS LOCATED AT HEIGHT AND WEIGHTS APPROX 7KG. MAKE SURE THAT A FOOTSTOOL OR STEP LADDERS ARE USED. ALSO HAVE ANOTHER PERSON HELP IN THE REMOVAL PROCESS.

- 1** The Billboard LED strip is located inside the back section of the Billboard housing, before attempting to change, TURN THE POWER OFF.
- 2** To gain access to the LED strip, extract the six (6) fixing screws which hold the Billboard Title Panel in place and remove.
- 3** Remove the 5x Philips screws which secure the Lower Speaker Panel Bkt. Whilst another person takes the strain of the Title Panel, carefully remove the (6) fixings which secure the Title Panel.



- 4** Both Billboard & Race Leader LED strips are available. Both LED strips are self adhesive.



- 5** Disconnect the harness from the relevant LED strip and carefully peel away from the cabinet..

13-3 START AND VIEW CHANGE LAMPS

WARNING

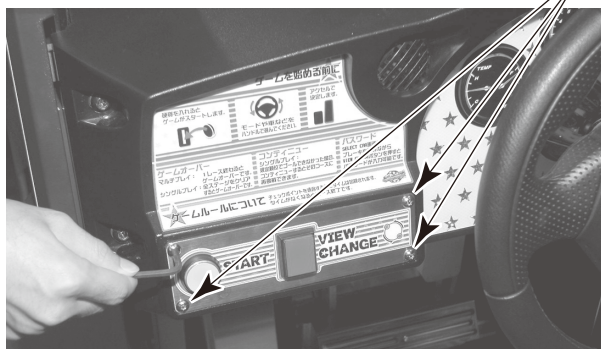
MAKE SURE THAT THE MAIN SUPPLY VOLTAGE TO THE MACHINE IS SWITCHED OFF BEFORE ATTEMPTING TO CARRY OUT THIS WORK

Start Button Lamp, View Change Button Lamp

1 Turn off the power

2 Remove the 4 tamper proof screws.

TAMPERPROOF SCREW (4), chrome
M4x16



Please note that the images shown may differ from actual product but the process is the same.

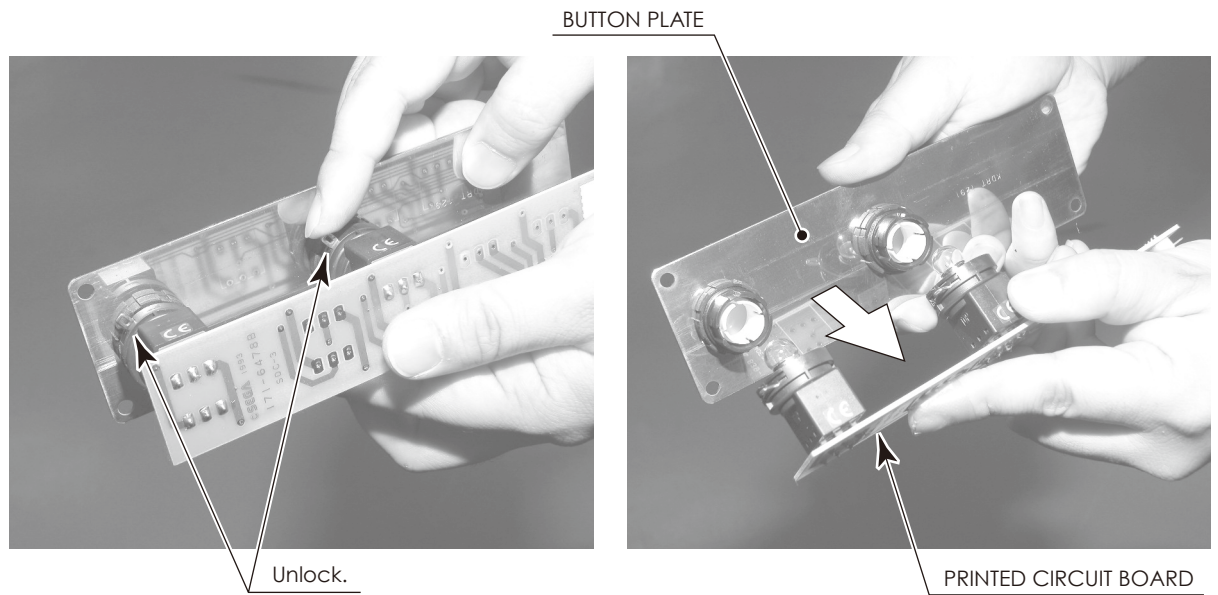
3 Remove the Switch Plate. The Switch Plate contains wiring connections. Disconnect the connector, taking care not to damage the wiring.

Disconnect the connector.

SWITCH PLATE

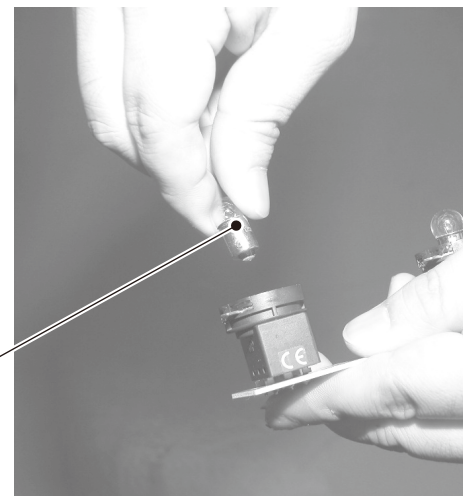


- 4 There is a metal fitting at the base of the buttons on the Button Plate. Rotate this metal fitting to unlock it, then remove the printed circuit board from the Button Plate.



- 5 Press and turn the lamp counter-clockwise to remove it.

START LAMP 12V 2W (Pt No LT1060)
VIEW LAMP 12V 2W (Pt No LT1060)



- 6 Replace the bulb with one matching the specification stated, then reassemble the Unit in the reverse order and refit the Button Unit to the control Panel.

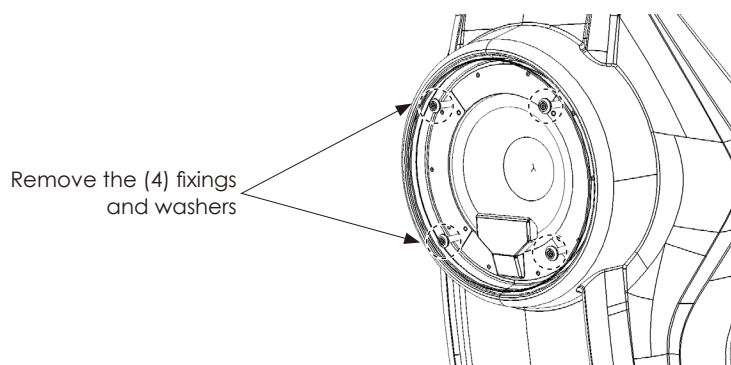
13-4 WOOFER PLATE LED LIGHTING

The WOOFER PLATE at the rear of the ASSY SEAT is actively illuminated. To check the functionality or to replace the LED PCB, follow the steps below.

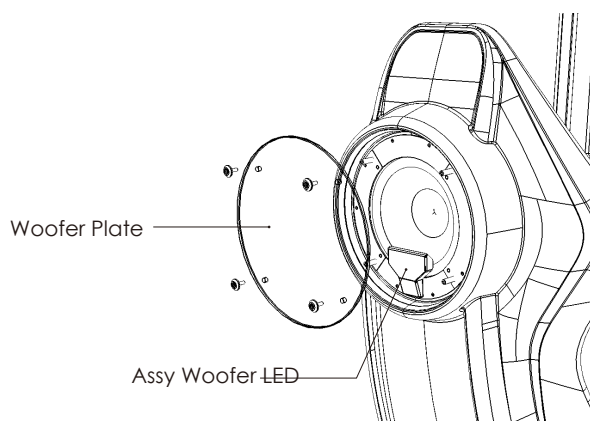
WARNING

MAKE SURE THAT THE MAIN SUPPLY VOLTAGE TO THE MACHINE IS SWITCHED OFF BEFORE ATTEMPTING TO CARRY OUT THIS WORK

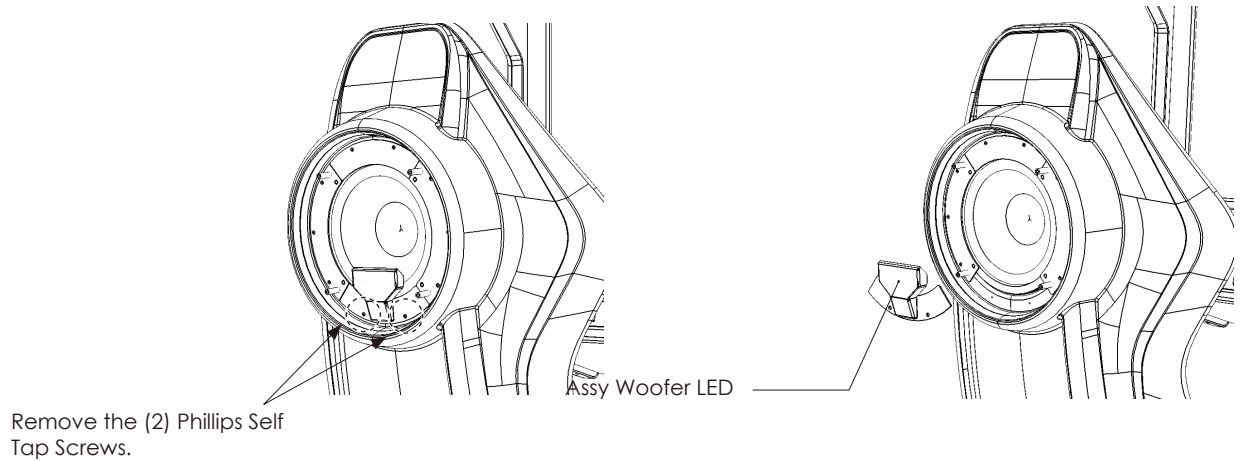
- 1 Remove the (4) fixings and washers from around the circumference of the WOOFER PLATE.



- 2 Remove the WOOFER PLATE and locate the ASSY WOOFER LED



- 3** Remove the (2) Phillips self tapping screws from the Assy Woofer Bracket and remove. The LED PCB is located on the inner side.

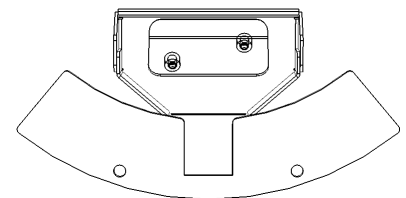


- 4** Remove the (2) Phillips self tapping screws from the Assy Woofer Bracket and remove. The LED PCB is located on the inner side.

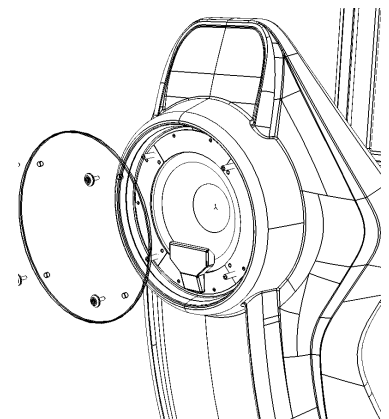
Remove the (2) Phillips machine Screws.



LED PCB
Pt No 838-14973-01



- 5** Re-assemble by following these instructions in reverse order. **PLEASE NOTE :** When refitting the Woofer Plate be very careful not to overtighten the (4) fixings. Overtightening these fixings WILL cause the Woofer Plate to crack.



14 PERIODIC INSPECTION

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

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. Also, it is advisable to provide wet tissue, etc. available for player use.

WARNING

- Every 6 months check to see if power cords are damaged, the plug is securely inserted, dust is 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 and 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 odors from burning.

14 TABLE 01 PERIODIC INSPECTION TABLE

ITEMS	DESCRIPTION	PERIOD
CABINET	Confirm that adjusters contact floor	Daily
CONTROL PANEL STEERING WHEEL	Volume inspection	Monthly
	Gear alignment inspection	Every 3 months
	Greasing	Every 3 months
KEYPAD	Switch inspection	Monthly
SWITCH ASSY (START)	Switch inspection	Every 3 months
ACCELERATOR & BRAKE	Volume inspection	Monthly
	Gear and spring portion greasing	Every 3 months
MONITOR	Screen cleaning	Weekly
	Confirm settings	Monthly or when moving
COIN CHUTE DOOR	Coin switch inspection	Monthly
	Coin insertion test	Monthly
	Selector cleaning	Every 3 months
SEAT	Greasing to the seat rail	Every 3 months
GAME BOARD	Confirm settings	Monthly
POWER CABLES	Inspection, Cleaning	6 months
INTERIOR	Cleaning	Yearly
CABINET SURFACES	Cleaning	As appropriate

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 such solvents as thinner, benzine, etc. other than ethyl alcohol, or abrasives, bleaching agent and chemical dustcloth.

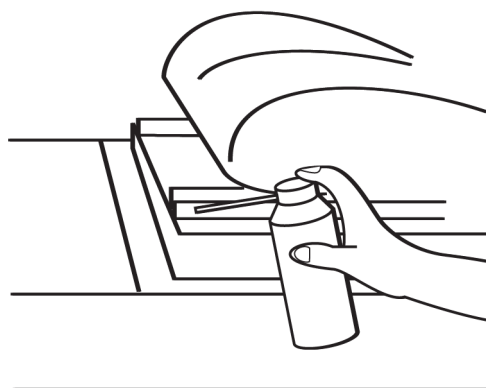
Some general-purpose household, kitchen and furniture cleaning products may contain strong solvents that degrade plastic components, coatings, and print. Before using any cleaning product, read the product's cautionary notes carefully and test the product first on a small area that is not highly visible.

Seat (Greasing to Seat Rail Portion)

Move the Seat to the rear most position and apply spray greasing to the portion shown at the right once every 3 months using NOK KLUBER L60 or GREASE MATE SEGA PART No. 090-0066.

After greasing, move the Seat a few times forward and backward so as to allow the grease to be applied all over uniformly.

Be sure to wipe grease which attaches to the surfaces of the PROTECT RUBBER on the Seat Rail, or any excess grease.



15 TROUBLESHOOTING

15-1 TROUBLESHOOTING (WHEN NO ERROR MESSAGE IS SHOWN)

WARNING

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

15 TABLE 01

PROBLEM	CAUSE	COUNTERMEASURES
When the main SW is turned ON, the machine is not activated.	The power is not ON.	Firmly insert the plug into the outlet.
	Incorrect power source/voltage.	Make sure that the power supply/voltage are correct.
	The Fuse on the AC Unit has blown due to momentary over current.	After eliminating the cause of overload, replace the specified rating fuse.
	The fuse of the connect board has blown due to momentary over current.	After eliminating the cause of overload, replace the specified rating fuse.
LED lamp inside Billboard Unit not lighting	Connector connection fault.	Check connections to the Billboard Unit.
	Replace LED strip	Replace LED strip

Sound is not emitted.	Sound volume adjustment is not correct	Adjust the Switch Unit's sound adjustment volume.
	Faulty connections for various connectors	Check the connections for the game board, amp, speakers and Volume connectors
	Malfunctioning BD, amp and speaker	Perform Sound Test.
Sounds are emitted and the lamps are lit, but the screen is black.	Faulty connections for the visual signal connector or the monitor power connector	Check the connections for the monitor and game board connectors.
	Faulty LCD Display	See Chapter 11
Colors on the monitor screen are strange.	Faulty connection for the visual signal connector.	Check the visual signal connector connection and make sure it is secured properly.
	Screen adjustment is not appropriate.	Make adjustment appropriately.
The on-screen image sways and/or shrinks.	The power source and voltage are no correct.	Make sure that the power supply and voltage are correct.
Does not accept input from any switch or volume.	Faulty connector connections.	Check the connection for the I/O Board and Cabinet connector.
		Check the power for the I/O Board.
Does not accept input from the Keypad.	Faulty connector connections.	Check the connections for the connectors in the Control Panel and between the Control Panel and the Cabinet.
	Broken Microswitch.	Replace the KEYPAD
Steering (Servomotor) response is incorrect.	Incomplete power on check.	Power on and verify that the power on check completes properly.
	Deviation of the volume value.	Adjust the volume value in the Test Mode.
	Volume gear engagement fault.	Adjust the engagement of the gear.
	Volume malfunctioning.	Replace the volume.
	Detached wires.	Check for faulty wire connections around moving parts. When replacing wires, secure them so that they do not touch any moving parts.
No response from Steering (Servomotor).	Failure of power-on checking procedure.	Reconnect the power and complete a power-on checking procedure.
	Faulty connector connections.	Check the connections for the connectors between the Game Board and Servodriver and between the Servodriver and the Servomotor.
	Thermal element in the Servodriver is operating.	Occurs when the internal temperature reaches 70°C (158°F) and corrects automatically when the unit cools.
	Momentary overload caused a fuse on the Servodriver to blow.	Contact the company from whom the unit was purchased.

Steering (Servomotor) is weak in its force feedback	Ageing of the force feedback mechanism	Reset in the Test Mode.
Does not accept input in from the Reset Button unit.	Faulty connector or connections.	Check the connections between the I/O Board, the Cabinet and the Reset Button Unit
	Faulty Microswitch	Replace Microswitch
The accelerator or brake does not perform appropriately.	Incorrect volume setting.	Adjust the volume value in the Test Mode.
	Faulty Volume attachment or adjust gear alignment.	Adjust the volume attachment and verify in Test Mode.
	Faulty connector or connections.	Check the connections for the accelerator and brake connectors and the connectors between the accelerator, brake and cabinet.
	Failure of the volume.	Replace the volume.
Start button and View Change button input does not work and they do not flash.	Faulty connector or connections.	Check the connections for the connectors between the I/O Board, the cabinet and the control panel and those inside the control panel.
Start button and View Change button input works, but they do not flash.	Unverified settings or operation.	The Start button only flashes when Free Play is set. Check the operation in Test Mode.
	The lamp is blown.	Replace the lamp.
Failure of the network play.	Network play is wrongly set.	Reset correctly.
	Communication cables are disconnected. Communication cables are wrongly connected.	Reconnect the cables.
	Damage of communication cables.	Replace the cables. Contact the company from whom the unit was purchased.

Replacing Fuses

WARNING

- In case fuse replacements other than those stated in this manual are necessary, contact where you purchased the product from for inquiries regarding this matter.
- In order to prevent an electric shock, be sure to turn power off and unplug from the socket outlet before performing work by touching the internal parts of the product.
- Be careful so as not to damage wirings. Damaged wiring can cause electric shock and short circuit accidents.
- Be sure to use fuses meeting specified rating. Using fuses exceeding the specified rating can cause fire and electric shock accidents.
- After eliminating the cause of the blowing of fuse, replace the fuse. Depending on the cause of fuse blowing, continued use with the fuse as is blown can cause generation of heat and fire hazard.

16 GAME BOARD

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 an electric shock, short circuit or present a risk of fire.
- 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.

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.

 STOP

IMPORTANT

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.

16

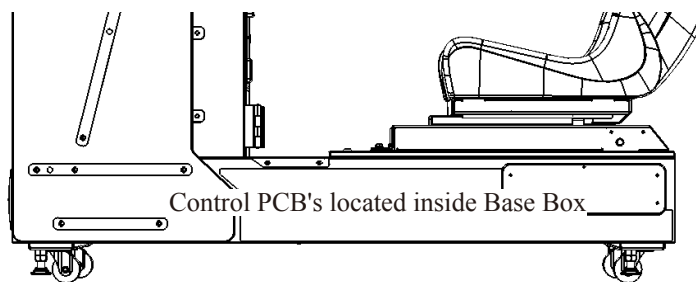
GAME BOARD

16-1 CONTROL BOARDS - LOCATION

⚠ WARNING

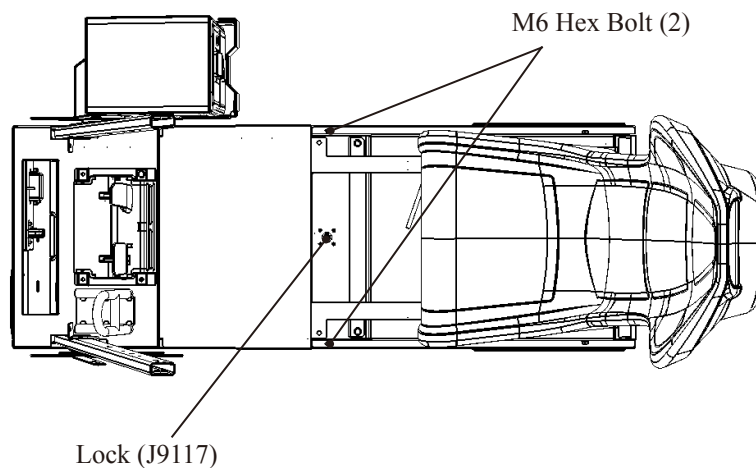
- When returning the game board after making repairs or replacements, make sure that there are no errors in the connection of connectors. Erroneous connections can lead to electrical shock, short circuits or fires.
- When connecting a connector, check the direction carefully. Connectors must be connected 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.

1 The machine is fitted with Game Board Unit(s) and several other Ancillary Boards which are mainly fitted inside the Base Box. Each machine contains the its own Europa Game Unit and set of Boards allowing them to run independantly of each other. Only qualified Personnel should attempt to Service these Units and before gaining access to the machine, it should be isolated from the mains supply.



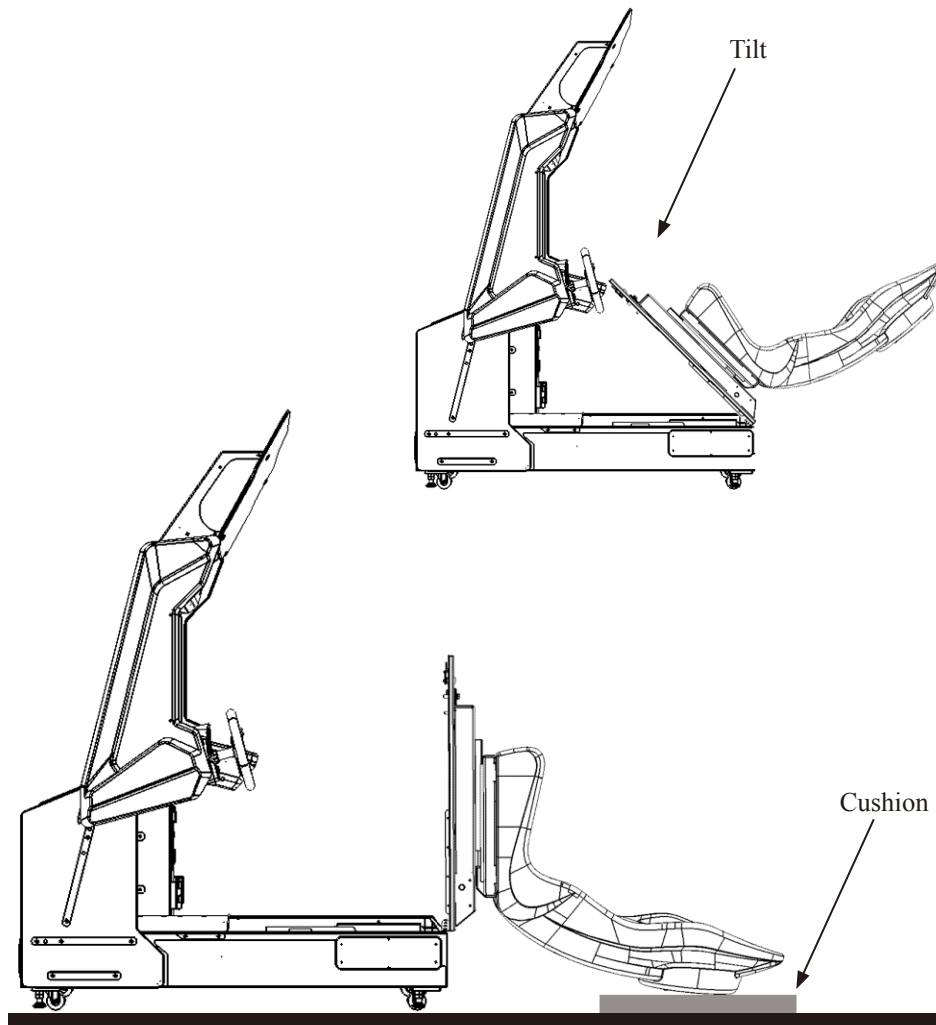
The Game Board Unit is located under the Player Seat, and to gain access the following procedure should be carried out.

Unlock the Seat Lid and then remove the Security Bolt located on each edge of the Lid.



- 2** Once released, the Seat Lid may be opened by tilting it backwards. Due to the weight of the unit, great care should be taken when opening the Seat Lid, if dropped Impact Damage is likely to occur.

Before opening the unit, a protective cushion or padding should be placed on the ground in the approximate position where the seat back will touch the floor. This is to help prevent the back of the seat from getting scratched and marked and when opening, the back of the seat should be carefully lowered to the floor, placing it on the protective cushion.

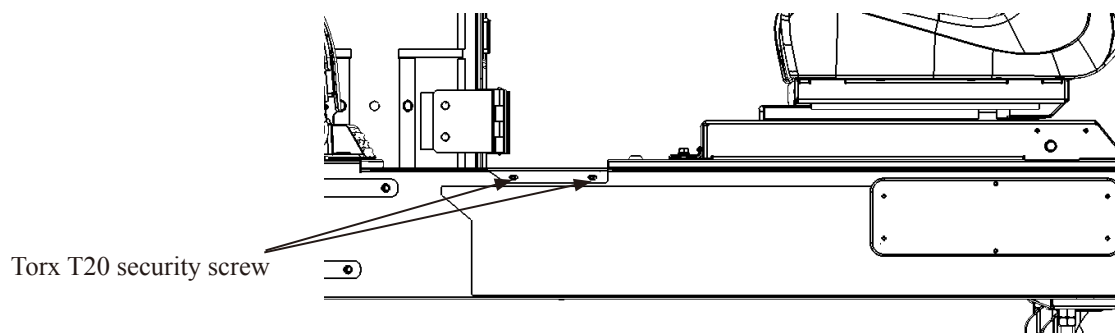


⚠ CAUTION

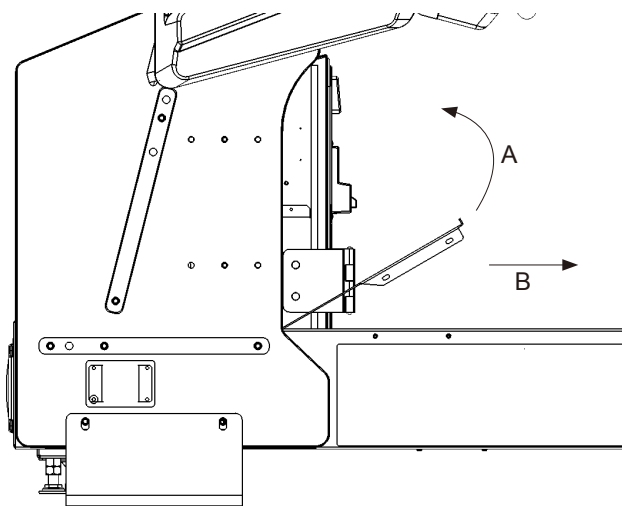
GREAT CARE SHOULD BE TAKEN WHEN OPENING AND CLOSING THIS UNIT.

LIKELY CHANCE OF MACHINE DAMAGE OR PERSONNEL INJURY IF UNIT IS DROPPED DURING OPENING, WITH A CHANCE OF FOREIGN BODIES GETTING TRAPPED WHEN CLOSING THE UNIT, CAUSING PERSONNEL INJURY.

- 3** The Control Boards are located under the front floor section of the base. To gain access, remove the four screws (2 each side of the footplate)



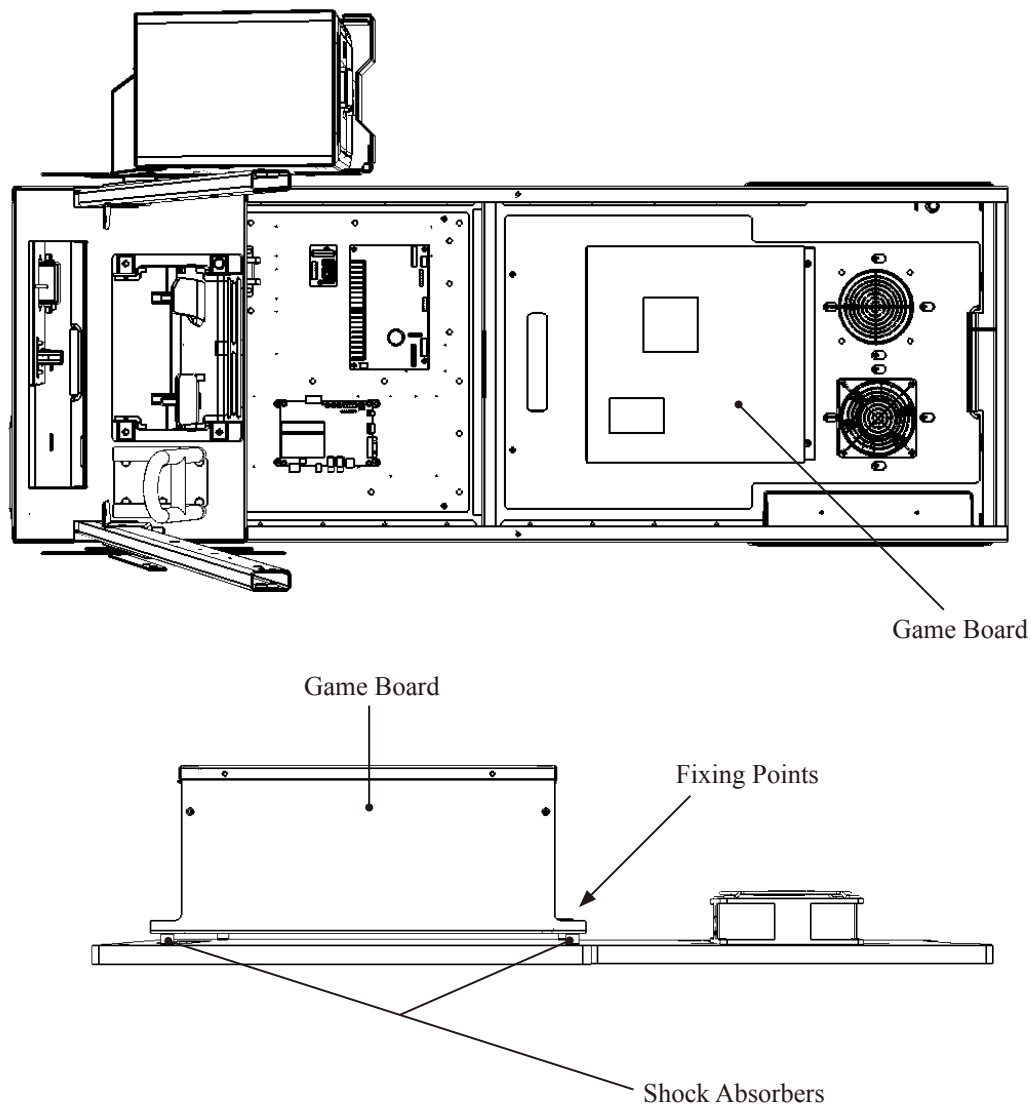
- 4** When screws have been removed, **TILT** the footplate in an upwards direction until the LIP on the backside of the footplate is clear of the front section of floor and **REMOVE** the plate.



- 5** The Game Unit and Control Boards located inside the Cockpit Base are laid out in the following manner. When replacing a board, make sure that any connectors being removed should be handled correctly with any location fastener if any being released before disconnecting the connector.

Always disconnect a plug by holding the housing and never tug on the wiring as this may damage the terminations inside the connector and lead to electrical failure.

- 6** The Assy Game Board is located to the rear of the cabinet. The Game Board can be removed from this assembly by removing the (4) fixings which retain it to the shock absorbers.



⚠ CAUTION

Do not open the Game Board without the express permission of SEGA. If for any reason entry has been gained into the Game Board without the permission of SEGA, then all warranty rights become void.

When returning the Game Board to SEGA for service, then please make sure that adequate packaging is used as damage in transit may occur.

17 COMMUNICATION PLAY

For this game, up to 6 machines can be networked together allowing up to 6 players to play simultaneously. In this instance, connecting the communication cable and adjustment to the settings for communication play will be required.

17-1 INSTALLATION PRECAUTIONS

WARNING

- Before starting to work, ensure that the Power SW is OFF. Failure to observe this can cause electric shock or short circuit.
- Use care so as not to damage wirings. Damaged wiring can cause electric shock or short circuit.
- Do not touch undesignated places. Touching places not designated can cause electric shock or short circuit.
- The work described below should be carried out by the site maintenance personnel or other qualified professional. Work carried out by personnel without the necessary skill or technology can cause accident.
- 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.
- To prevent accidents while working or while operating the product after it has been installed, be sure not to conduct any procedures other than those given in this manual. There are cases in which procedures not covered in this manual require special tools and skills. If a procedure not given in this manual is required, request service from the office given in this manual or from the point of purchase.

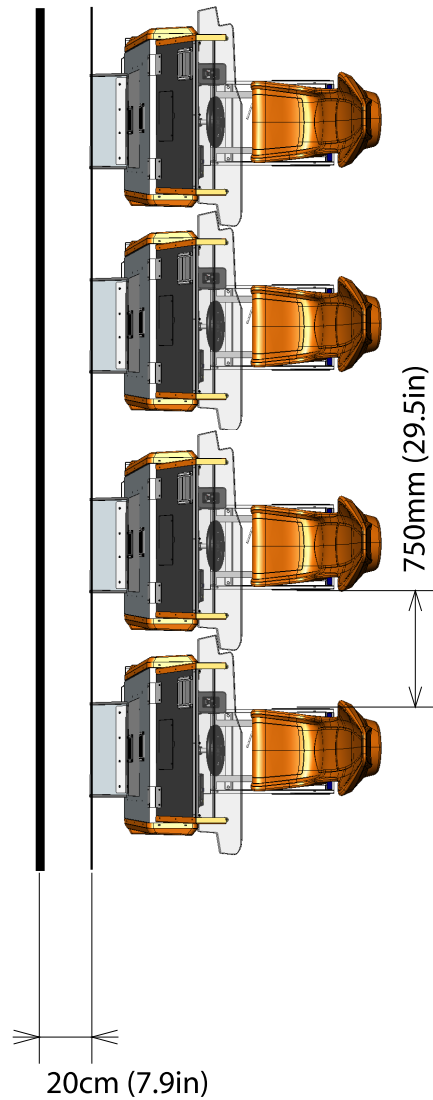
CAUTION

- To perform work safely, be sure to secure the space corresponding to number of machines to be linked. Failure to observe this can cause accident.
- To avoid accidents, use a cable cover that will not cause patrons to trip when laying network cables in areas of heavy foot traffic.
- To prevent accidents and acts of vandalism, cover the network cables with the strongest cover possible.

Since 2 or more machines are to be linked, sufficient power corresponding to the number of machines used need to be supplied. Note that as a standard, the per machine capacity should be 14A for the 100-120V area, and 8A for the 220-240V area.

Distance between Machines

The maximum distance between the game machines depends on the length of the cables connecting them, but make sure the units are separated from each other by at least 75 cm (29.5in) so that players can pass between them.



17-1 Fig 01

17-2 CONNECTING THE COMMUNICATION CABLE

To enable network play, the Hubs inside each of the game machines involved must be connected with network (LAN) cables. Up to a maximum of 4 machines (4 Players) can be Networked together, all that's required is to link between the Hubs of each of the machines that are to complete the 'Network'.

Please refer to Chapter 6-3 for location of Network connections on A/C unit.

17 COMMUNICATION PLAY

1 Turn off the power and unplug the power cord from the outlet.

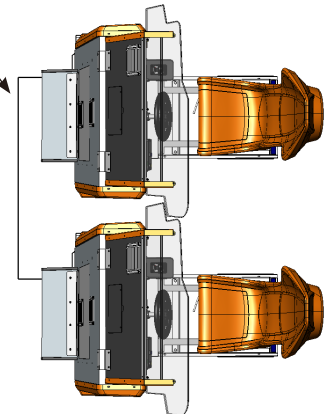
2 Using Chapter 6 of this manual as reference, move the machines so that they are lined up. Leave enough space behind each Unit to allow access for a Network HUB (only required for 3 or more seats) which when located will be positioned near the Slave Cockpit of each Machine.

3 When linking 2 seats or "Twin" cabinet, use a single Lan Cable, Pt. No. 600-7279-0200UK (Supplied). Connect the Lan cable directly to the A/C unit between both cabinets

4 When linking 3 or more seats a Hub Kit must be used. Please contact SEGA or your local distributors office for further technical or sales information

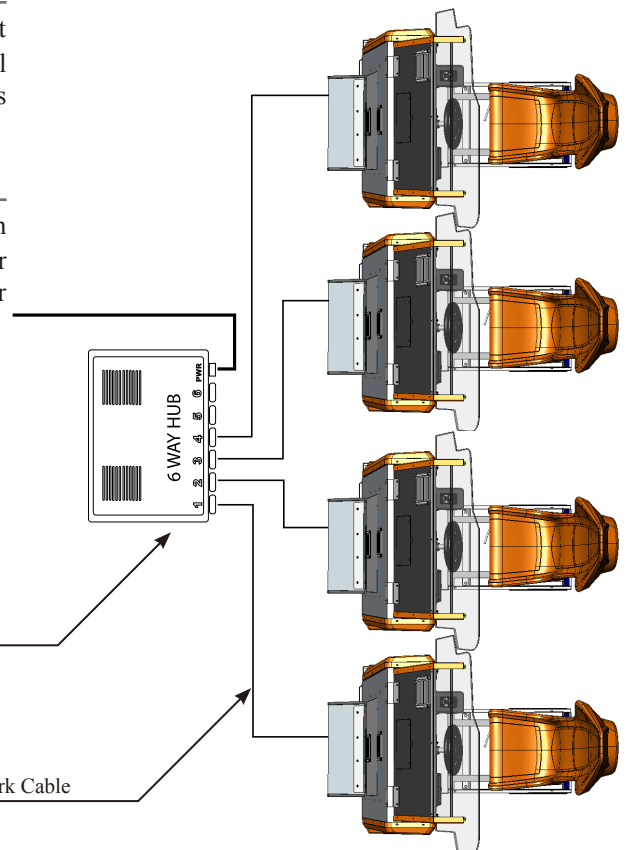
5 Once the desired Network connections have been established, power on the machines and enter TEST MODE to allocate each seat a number within the NETWORK TEST.

Lan Cable (600-7279-0200UK).
(use ONLY when connecting 2 seats).



Network Kit - Not Supplied

Standard Lan Network Cable



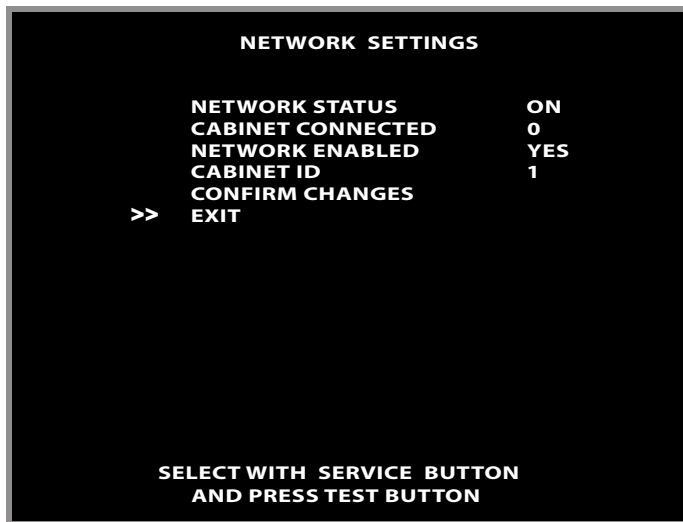
A typical illustration of 4 seats in a network

17-3 NETWORK PLAY SETTINGS

Each of the linked machines must be set up for network play. If the machines are not set up correctly, network play will not be possible.

For this game, up to 4 machines can be connected to allow up to 4 players to play simultaneously.

- 1 Turn on the power on each machine to be used in network play.
- 2 Initiate TEST MODE on ALL machines.
- 3 Select the GAME TEST MODE and press the Test button to display the GAME TEST MENU screen.
- 4 Select the NETWORK SETTINGS in the GAME TEST MENU screen and press the Test button.



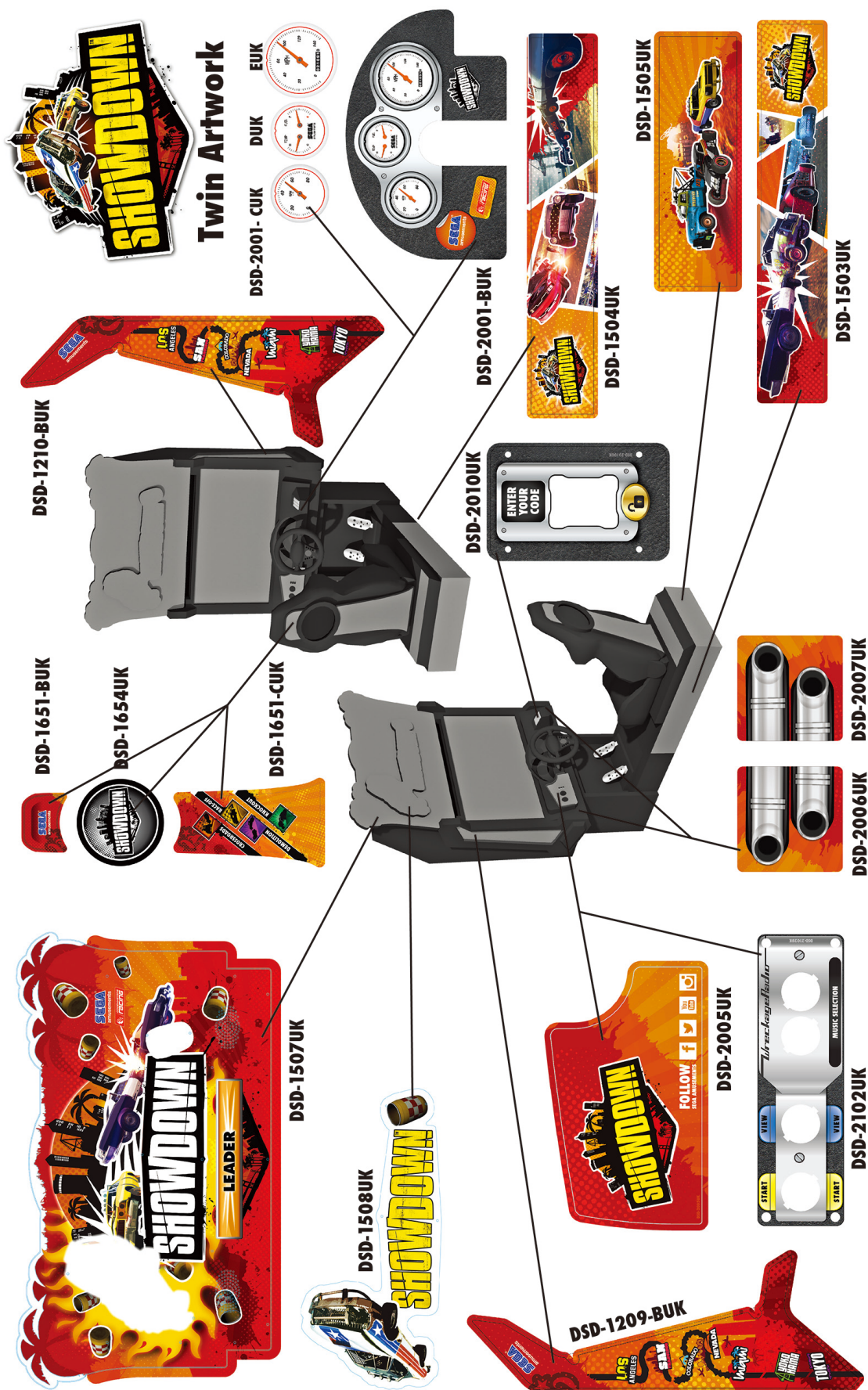
- 5 Perform the CABINET ID setting. Set the different ID number to each machine. Be sure to assign one of them with the ID number of "1"
- 6 Cause all of the machines to exit from the TEST MODE. Always select EXIT in the SYSTEM TEST MENU screen.

STOP IMPORTANT

- In network play, difficulty level and other settings are made from CABINET ID Number 1. Changing the settings at CABINET ID Number 1 also changes the settings for other units.
- When networking machines it is important that all trailing network cables are placed safely away from players and observers alike. Untidy cables may cause a trip or electrical hazard.

18 DESIGN-RELATED PARTS

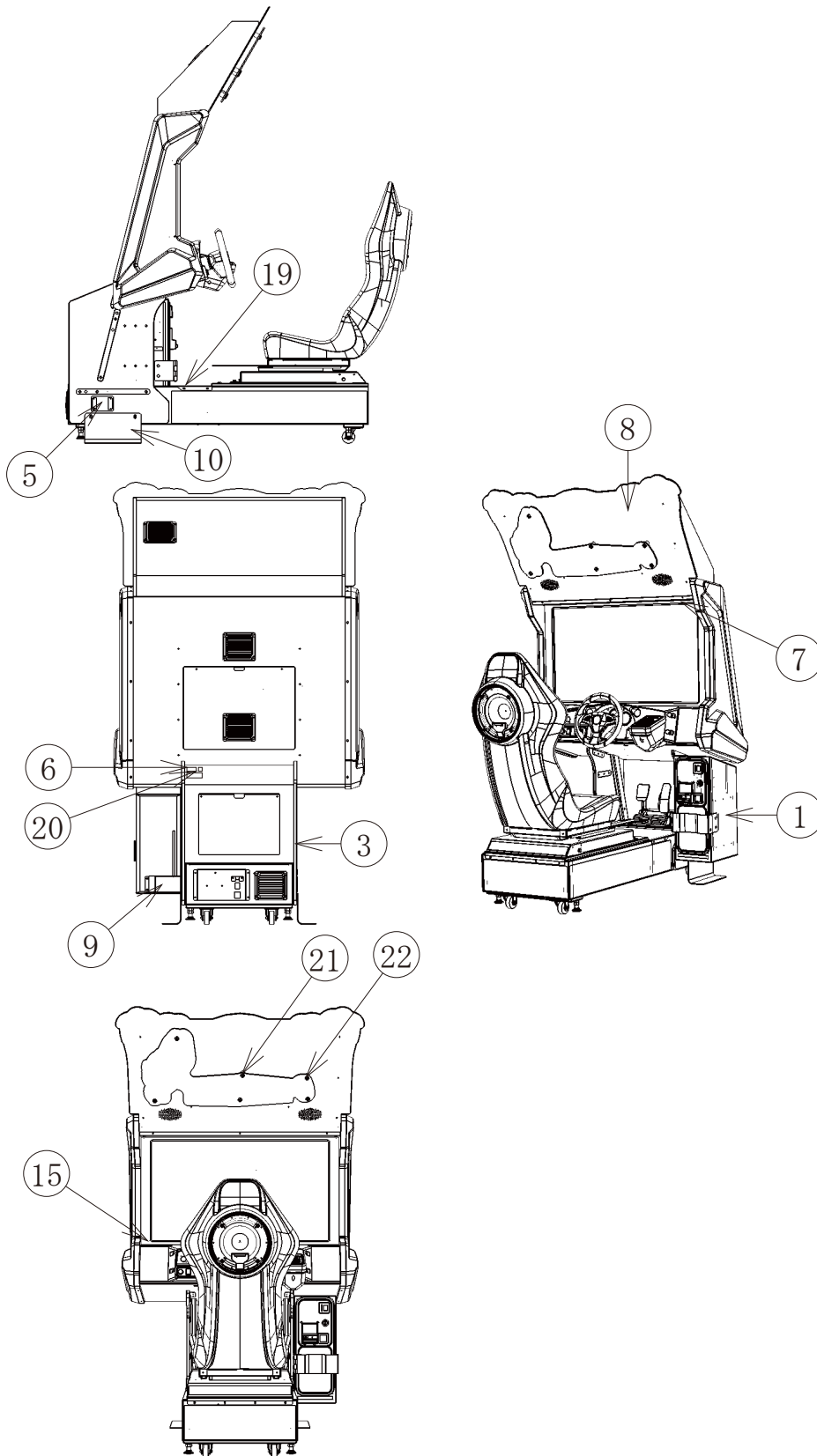
For the warning display stickers, refer to Section 1.



19 PARTS LIST

① ASSY TOP SHOWDOWN (DSD-0003UK)

(D-1/2)



① ASSY TOP SHOWDOWN (DSD-0003UK)

(D-2/2)

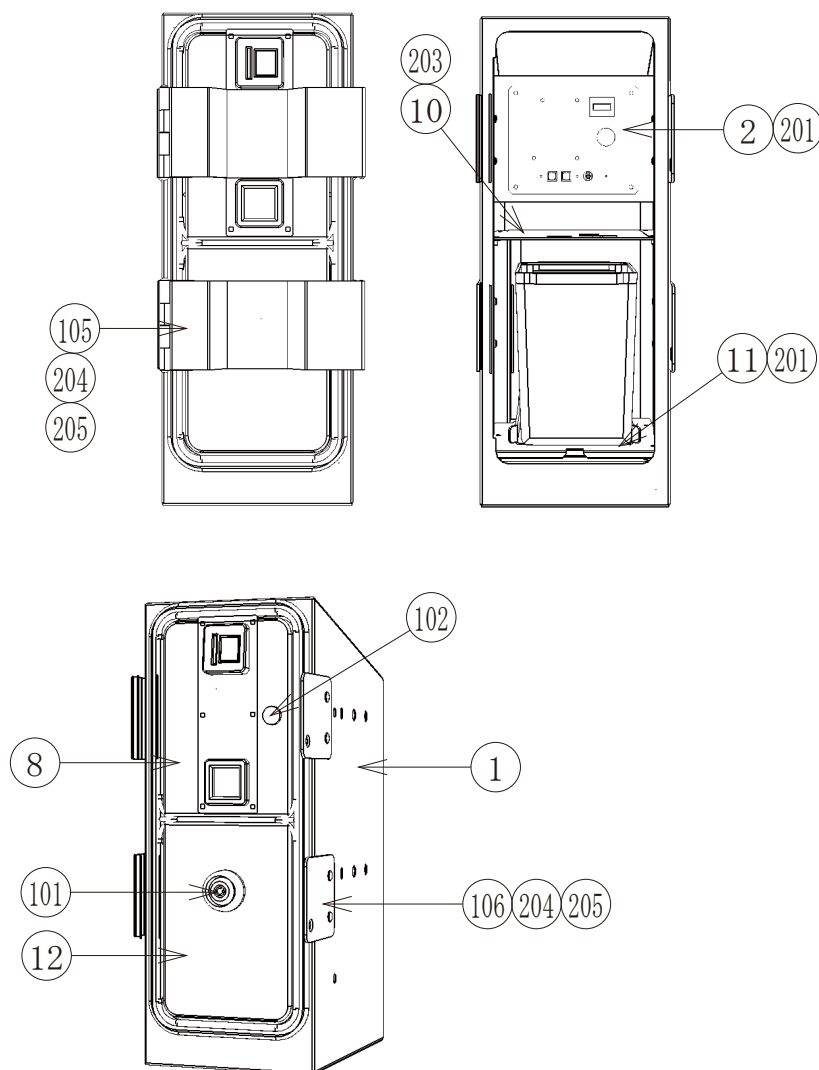
ITEM NO	PART NUMBER	DESCRIPTION	QTY
*1	DSD-0300UK	ASSY COIN CHUTE TOWER STD	1
*3	DSD-1000UK	ASSY COCKPIT STD	1
*5	RD-0004UK	WIRE COVER	1
*6	421-7988-91UK	STICKER SERIAL NUMBER UK	1
*7	PD1355UK	BRKT SPKR PANEL LOWER	1
*8	DSD-1507UK	BILLBOARD MAIN STD	1
*9	RD0001UK	WIRE COVER	1
*10	PD-1002UK	BKT CABI LOWER	2
*12	421-7020UK	STICKER CAUTION FORK	2
*15	440-CS0186UK	STICKER C EPILEPSY MULTI	1
*17	LB1102	STICKER DANGEROUS VOLTAGE	3
*18	LB1046	LABEL TESTED FOR ELEC. SAFETY	1
*19	RAL-XXXX-13UK	LOCK COVER UK	1
*20	LB1130	LABEL WEEE WHEELIE BIN	1
*21	DB-1004UK	SPACER STANDOFF SHORT	6
*22	280-6696UK	5.5-20X6.3 WSHR SPCL AL	6
*201	050-F00800	M8 NUT FLG SER PAS	4
*202	068-852216	M8 WSHR 22OD FLT PAS	8
*203	000-P00408-WB	M4X8 MSCR PAN W/FS BLK	2
*204	000-P00416-WB	M4X16 MSCR PAN W/FS PAS BLK	5
*205	068-441616-0B	M4 WSHR 16OD FLT BLK	5
*206	000-P00412-W	M4X12 MSCR PAN W/FS PAS	1
*207	060-F00400	M4 WSHR FORM A FLT PAS	7
*208	008-T00408-0C	M4X8 TMP PRF TH CRM	2
*211	050-U00800	M8 NUT NYLOK PAS	4
*212	OS1019	SELF SEAL BAG 9X12.3/4	1
*213	000-T00416-0B	M4X16 MSCR TH BLK	8
*214	030-000620-SB	M6X20 BLT W/S BLK	2
*215	060-F00600-0B	M6 WSHR FORM A FLT BLK	2
*216	030-000516	M5 X 16 BLT PAS	6
*217	068-552016	M5 WSHR 20OD FLT PAS	6
*218	060-S00500	M5 WSHR SPR PAS	6
*219	020-000510-0C	M5X10 SKT CAP BZP	6
*301	600-7279-0200UK	LAN CABLE 200CM	1
*403	LM1500UK	MAINS LEAD USA/IEC H80-1205-00	1
*410	LM1227	UK MAINS LEAD 10A WITH PLUG	1
*411	LM1246	EUROLEAD 10A EUROPEAN SOCKET	1
*412	420-0023-02UK	MANUAL DSD STD	1
*414	SAECE-xxx	DECLARATION OF CONFORMITY	1
*415	PK0485	PALLET PD TWN	1
*416	PK0468	SHRINK WRAP RD STD	1

19

PARTS LIST

② ASSY COIN CHUTE TOWER (DSD-0300UK)

(D-1/1)



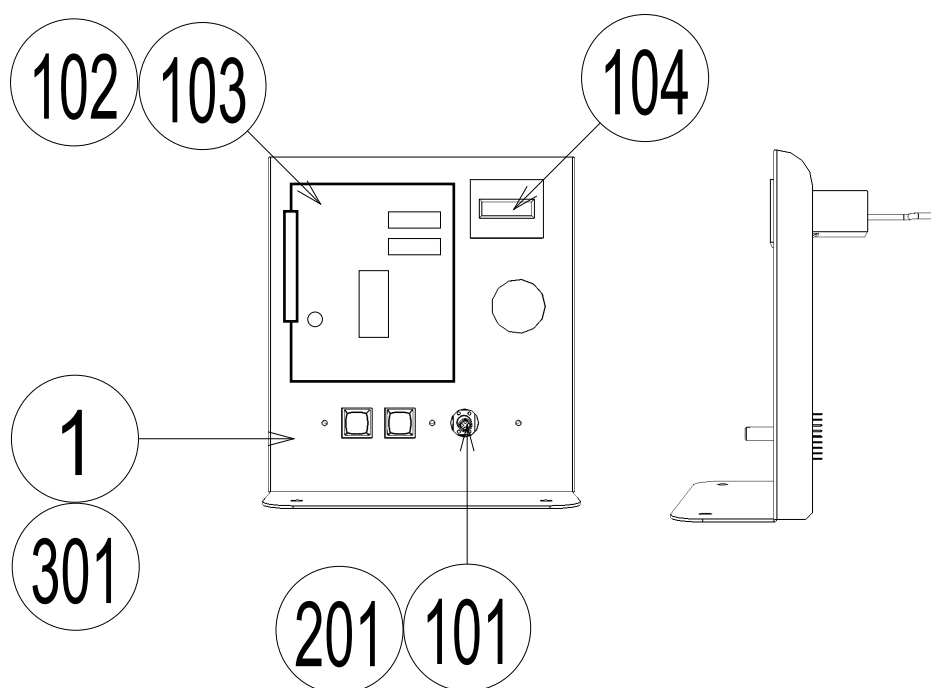
ITEM NO	PART NUMBER	DESCRIPTION	QTY
**1	DSD-0301UK	COIN CHUTE TOWER	1
**2	RD-0320UK	ASSY SW UNIT	1
**8	220-5374-01	DOOR DFMD W/FR&LOCK C120 UNIV	1
**9	RD-0305UK	SPACER CCT STD	1
**10	RD-0352UK	COIN PATH PLATE	1
**11	RD-0353UK	CCT FLOOR	1
**12	20-5727-01B	STS SECURITY DOOR	1
**101	220-5574UK	LOCK KEYED DIFFERENT 7087-10	1
**102	220-5575UK	LOCK(J9117) 22MM KEY ALIKE W C	1
**104	OS1247	ALUMINIUM STICKY CLIP ASK-3 47	3
**105	TFF-0304UK	LOCKING HASP	1
**106	TFF-0305UK	BRKT PADLOCK	1
**201	000-P00410-W	M4X10 MSCR PAN W/FS PAS	2
**203	050-F00400	M4 NUT FLG SER PAS	5
**204	050-U00800	M8 NUT NYLOK PAS	4
**205	068-852216-0B	M8 WSHR 22OD FLT BLK	4
**301	RD-60043UK	WH DBA POWER	1
**302	600-9020-44K	WIRE HARN EARTH 200MM M4/M4 K	1
**303	RND-60055UK	WH COIN MECHANICAL	1

③ ASSY SW UNIT (RD-0320UK)

(D-1/1)

19

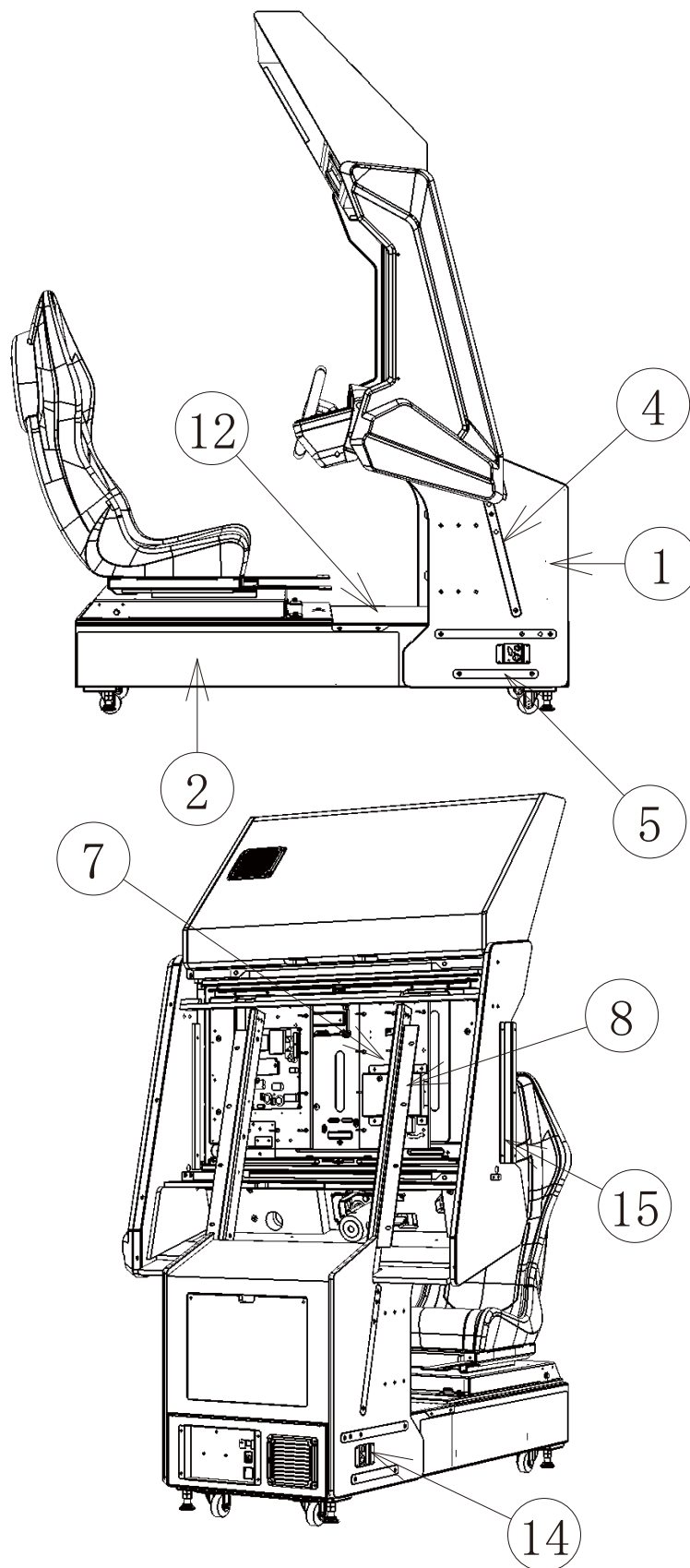
PARTS LIST



ITEM NO	PART NUMBER	DESCRIPTION	QTY
***1	RD-0321UK	SW BRKT UK	1
***101	838-14548-01UK	SW & VOL CTL BD	1
***102	280-L00706-PM	STANDOFF 6.4MM HOLE PM	4
***103	EP1380-01	CREDIT BOARD EXCEL	1
***104	220-5643UK	COIN METER SMALL 12V	1
***107	OS1098	CRIMP BELL END SMALL	2
***201	000-P00308-W	M3X8 MSCR PAN W/FS PAS	3
***301	RD-60003UK	WH COIN HANDLING	1

⑤ ASSY COCKPIT (DSD-1000UK)

(D-1/2)



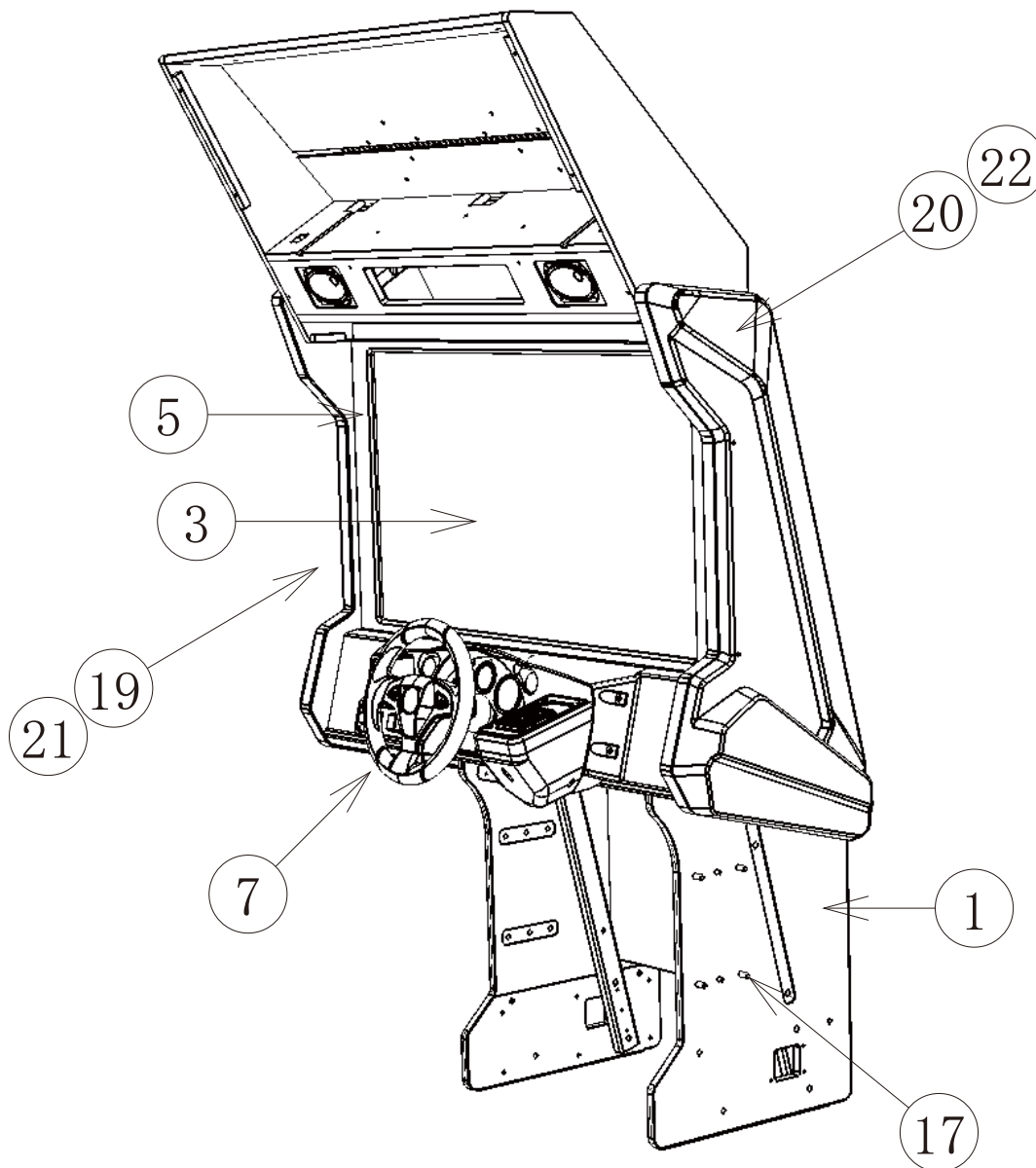
⑤ ASSY COCKPIT (DSD-1000UK)

(D-2/2)

ITEM NO	PART NUMBER	DESCRIPTION	QTY
**1	DSD-1200UK	ASSY MONITOR CABI	1
**2	DSD-1500UK	ASSY MAIN BASE	1
**4	RD-1001UK	MON CABI PLATE UPPER	4
**5	RD-1002UK	MON CABI PLATE LOWER	2
**7	RD-1004UK	STRUT CABINET SUPPORT	2
**8	RD-1005UK	BRKT OUTER CABI SUPP	2
**12	RD-1502UK	BASE LID F	1
*14	RD-1011UK	PLATE CONN BASE R	2
*15	RD-1203UK	SIDE PANEL HOLDER	2
**201	030-000840-SB	M8X40 BLT W/S BLK	14
**202	068-852216-0B	M8 WSHR 22OD FLT BLK	18
**205	050-F00400	M4 NUT FLG SER PAS	3
**207	060-F00400	M4 WSHR FORM A FLT PAS	3
**209	000-T00512-0C	M5X12 MSCR TH CRM	4
**210	030-000635-S	M6X35 BLT W/S PAS	6
**211	031-000640-0B	M6X40 CRG BLT BLK	8
**212	068-652016	M6 WSHR 20OD FLT PAS	14
**213	050-F00600	M6 NUT FLG SER PAS	8
**301	600-9010-44K	WH EARTH 10CM M4M4	1
**302	600-9020-44K	WH EARTH 20CM M4M4	2
**303	600-9030-44K	WH EARTH 40CM M4M4	1
**304	600-9050-44K	WH EARTH 50CM M4M4	1
**305	600-9060-44K	WH EARTH 60CM M4M4	2
**306	600-9120-44K	WH EARTH 120CM M4M4	2
**307	600-7011-0300UK	CA DVI TO DVI 300CM	1
**308	RD-60042UK	WH COIN HANDLING B	1
**309	DSD-60111UK	WH SPEAKER B	1
**310	RD-60046UK	WH RACE LEADER	1
**311	RD-60051UK	WH BB FAN	1

⑥ ASSY MONITOR CABI (DSD-1200UK)

(D-1/2)



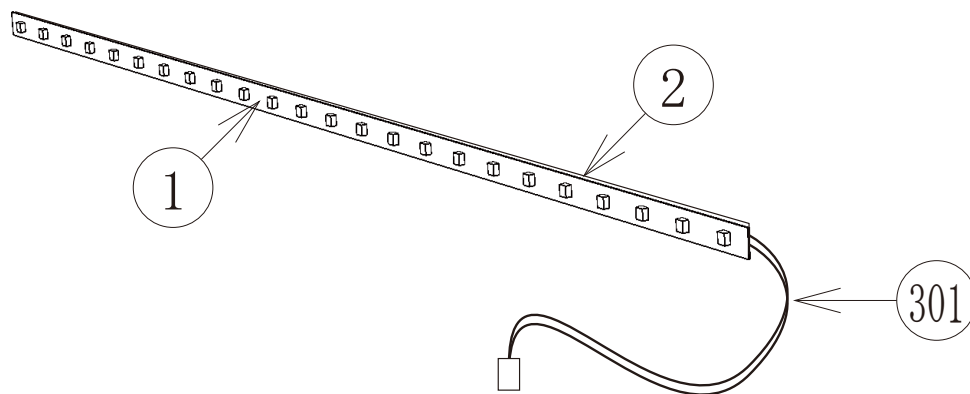
⑥ ASSY MONITOR CABI (DSD-1200UK)

(D-2/2)

ITEM NO	PART NUMBER	DESCRIPTION	QTY
***1	RD-1250TUK	ASSY MON CABI 42 STD	1
***3	PD-1290XUK	ASSY 42" LED MON	1
***5	PD-1300XUK	ASSY MONITOR MASK	1
***7	DSD-2000UK	ASSY CONTROL PANEL	1
***17	RD-1214UK	CHUTE TOWER HOLDER	4
***19	DSD-1209-AUK	SIDE PANEL L BLANK	1
***20	DSD-1210-AUK	SIDE PANEL R BLANK	1
***21	DSD-1209-BUK	STICKER SIDE PANEL L	1
***22	DSD-1210-BUK	STICKER SIDE PANEL R	1
***108	OS1011	PCB FEET RICHCO LCBS-L-5-01	12
***201	000-P00416-WB	M4X16 MSCR PAN W/FS PAS BLK	6
***202	050-F00600	M6 NUT FLG SER PAS	8
***203	012-P03506-F	N6X1/4" S/TAP FLG PAS	12
***204	068-652016	M6 WSHR 20OD FLT PAS	8
***205	012-P03512-F	N6X1/2" S/TAP FLG PAS	8
***206	068-441616-OB	M4 WSHR 16OD FLT BLK	24
***208	060-F00800-OB	M8 WSHR FORM A FLT BLK	6
***209	068-852216-OB	M8 WSHR 22OD FLT BLK	2
***210	000-T00412-OB	M4X12 MSCR TH BLK	20
***211	012-F03512	N6X1/2" S/TAP CSK PAS	12
***212	000-T00416-OB	M4X16 MSCR TH BLK	12
***213	050-F00400	M4 NUT FLG SER PAS	3
***214	060-F00400	M4 WSHR FORM A FLT PAS	6
***216	000-P00420-WB	M4X20 MSCR PAN W/FS PAS	4
***217	000-P00410-W	M4X10 MSCR PAN W/FS PAS	4
***218	012-P00325	N4X1" S/TAP PAN PAS	8
***310	600-9050-44K	WIRE HARN EARTH 500MM M4/M4 K	1
***321	600-7141-100UK	CABLE JVS A-B 100CM CS03079	1
***328	DSD-60111UK	WH SPEAKER B	1
***329	RD-60051UK	WH BB FAN	1

⑦ ASSY LED WHT RIGID 900MM (RD-6001UK)

(D-1/1)



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PARTS LIST

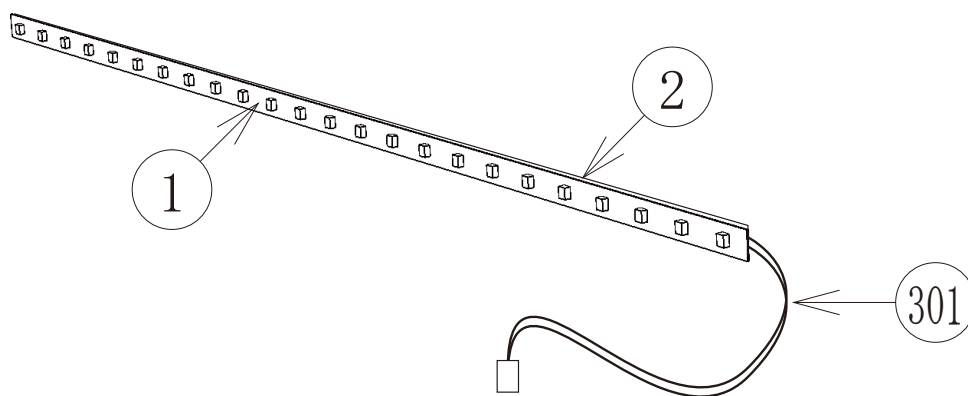
ITEM NO	PART NUMBER	DESCRIPTION	QTY
*****1	390-2122-040WUK	LED STRIP RIGID 12V WHT 900MM	1
*****2	OS1248	TAP D-S 12MMx10MM	0.9
*****301	BE-60028UK	WH RIGID LED	1

⑧ ASSY LED WHT RIGID 400MM (RD-6002UK)

(D-1/1)

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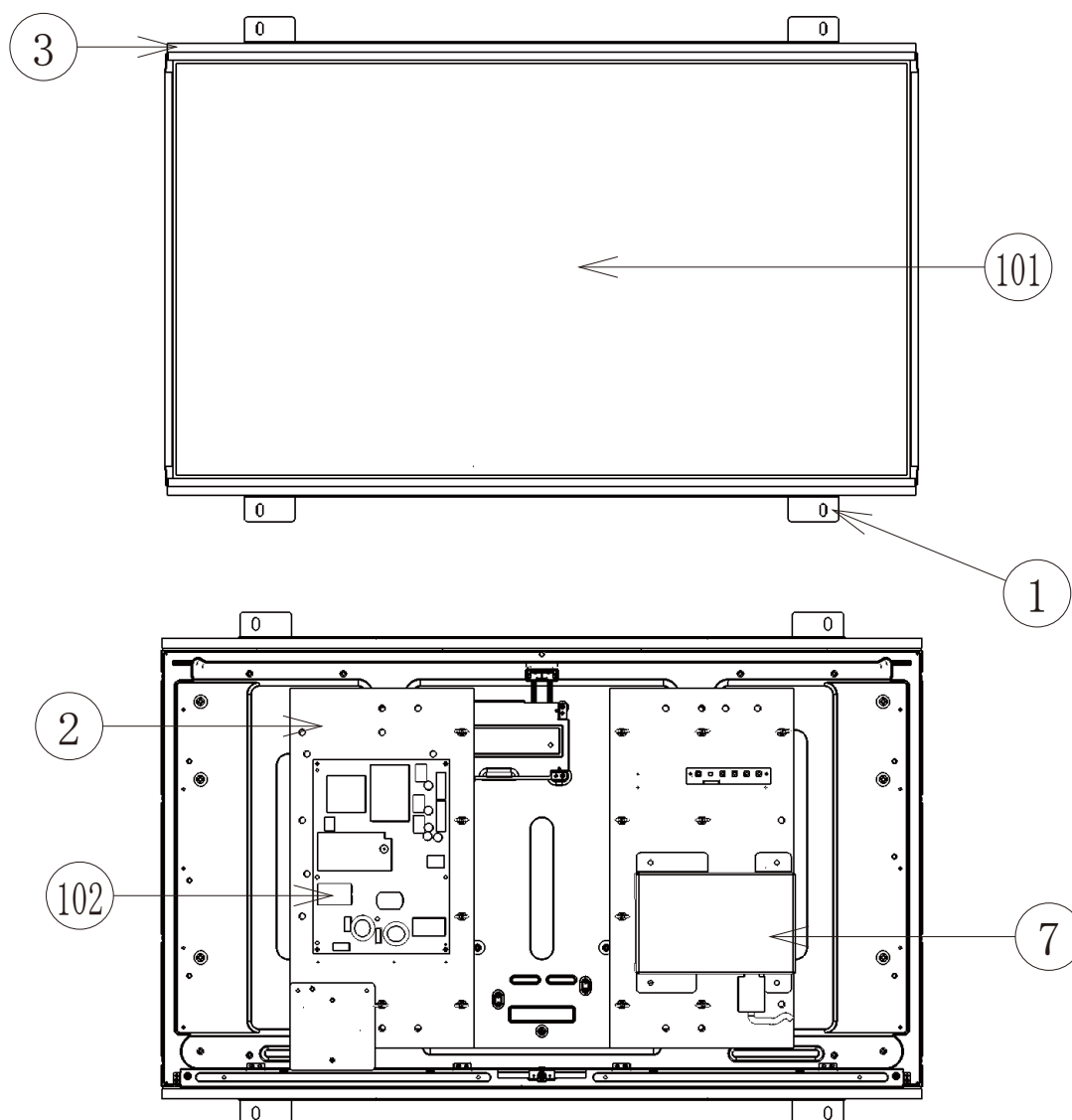
PARTS LIST



ITEM NO	PART NUMBER	DESCRIPTION	QTY
*****1	390-2112-040WUK	LED STRIP RIGID 12V WHT 400MM	1
*****2	OS1248	TAP D-S 12MMx10MM	0.4
*****301	BE-60028UK	WH RIGID LED	1

⑨ ASSY LCD MONITOR (PD-1290XUK)

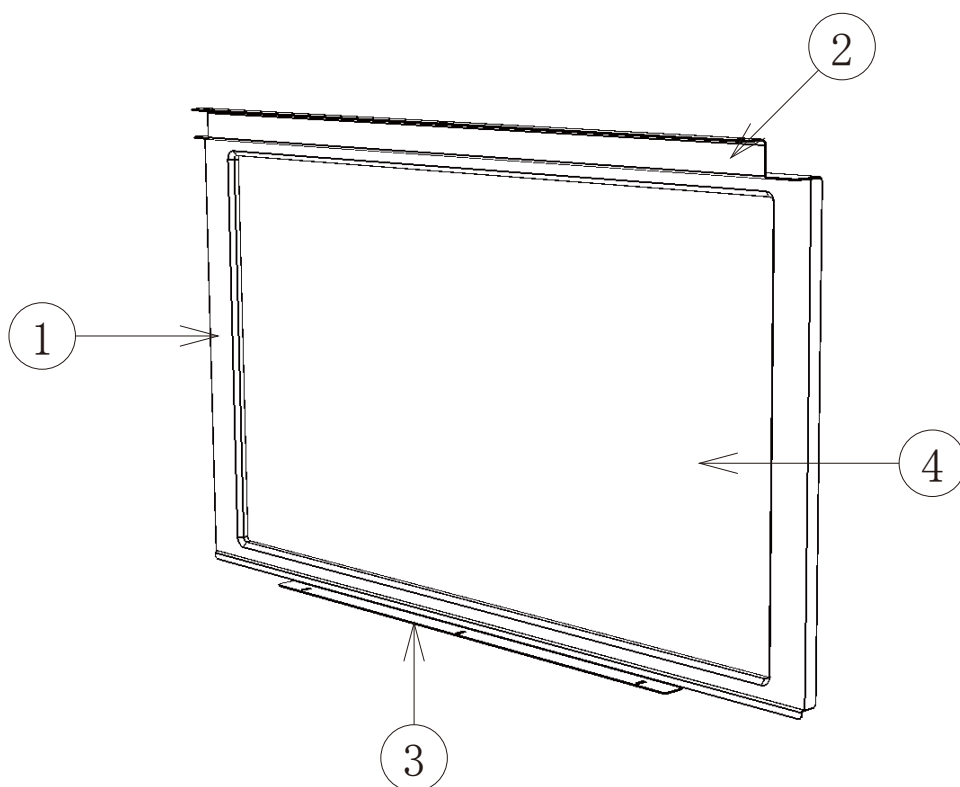
(D-1/1)



ITEM NO	PART NUMBER	DESCRIPTION	QTY
****1	PD-1281UK	LCD BRKT	2
****2	TRF-1210UK	PNL PRISMA BD DMODUL MNT 55	2
****3	GST-1132UK	STRIP 42 LED TOP PACKER	2
****7	TRF-1207UK	COVER PRISMA BD DMOD	1
****8	TRF-1212UK	BRKT LED FILTER	1
****101	200-6042-02-AUO	42" LED AUO P420HVN02.0	1
****102	400-160-51224	PSU 42" LED DPS-160AP-2A-PD02	1
****105	440-DS0010UK	LABEL DANGER HI VOLT GEN	1
****107	280-A01264-WX	ROUTER TWIST D12 BHKL-450-4-01	14
****108	OS1230	FOAM STRIP 2MM X 10MM	3
****109	EP1419	FILTER SCHAFFNER 2030-16-06	1
****201	030-000620-S	M6X20 BLT W/S PAS	4
****202	068-652016	M6 WHSR 20OD FLT PAS	4
****203	000-P00410-W	M4X10 MSCR PAN W/FS PAS	14
****204	012-P00320	N4X3/4" S/TAP PAN PAS	10
****205	280-L00709-OS	STANDOFF 7OD 4ID 9L	10
****206	000-F00316	M3X16 MSCR CSK PAS	6
****301	RD-60061UK	WH PWR LED PANEL	1
****303	600-9020-44K	WIRE HARN EARTH 200MM M4/M4 K	1

⑩ ASSY MONITOR MASK (PD-1300XUK)

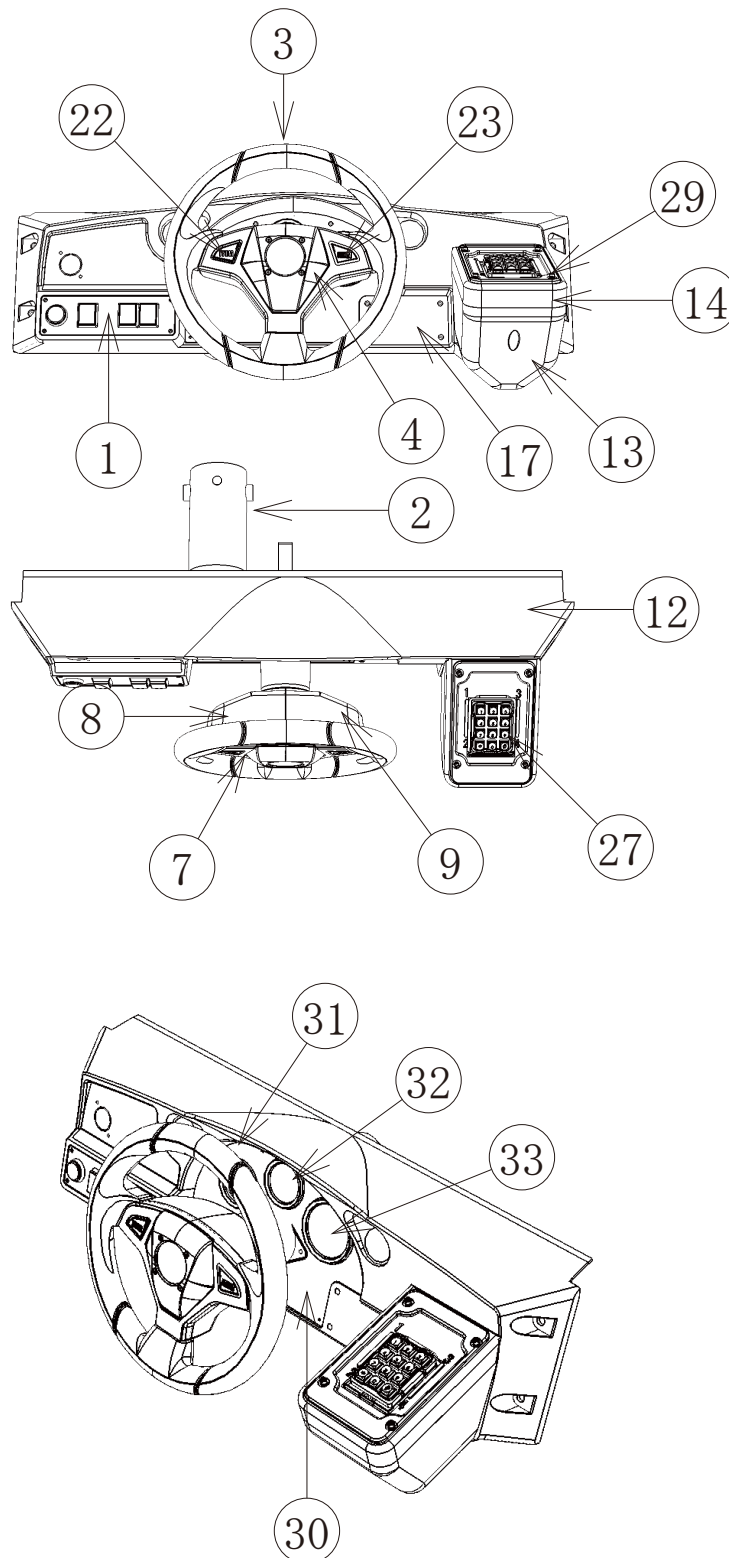
(D-1/1)



ITEM NO	PART NUMBER	DESCRIPTION	QTY
****1	PD-1301UK	MASK MONITOR	1
****2	PD-1304UK	BRKT MASK UPPER	1
****3	PD-1305UK	BRKT MASK LOWER	1
****4	PD-1308XUK	GLASS 42 LCD PROTECTIVE	1
****5	OS1230	FOAM STRIP 2MM X 10MM	3
****201	000-P00410-W	M4X10 MSCR PAN W/FS PAS	5

⑪ ASSY CONTROL PANEL (DSD-2000UK)

(D-1/2)

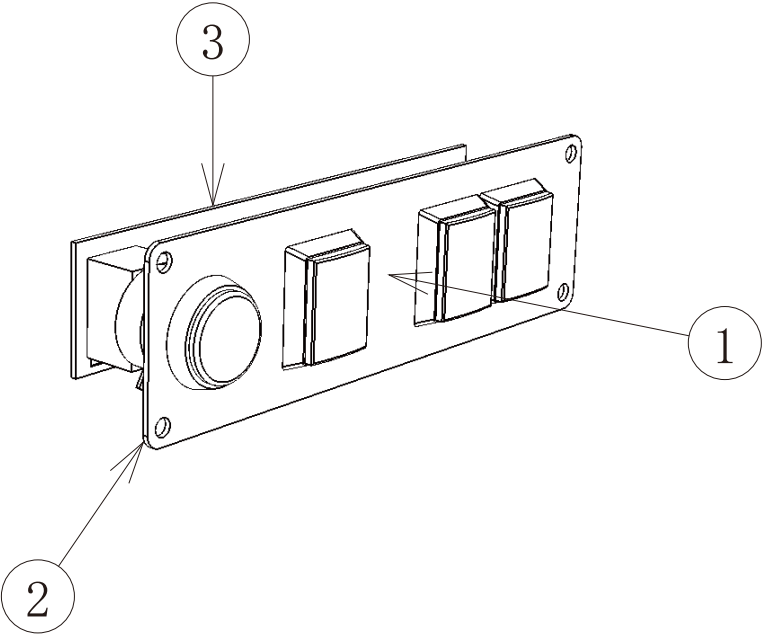


(11) ASSY CONTROL PANEL (DSD-2000UK)**(D-2/2)**

ITEM NO	PART NUMBER	DESCRIPTION	QTY
****1	DSD-2100UK	ASSY SW PLATE	1
****2	RD-2500UK	MECHA 50-0102-07PT W/SEGA SHAF	1
****3	RNE-2001	STEERING WHEEL	1
****4	RNE-2002	FRONT CENTER COVER	1
****7	RNE-2003	FRONT COVER	1
****8	RNE-2004	REAR COVER L	1
****9	RNE-2005	REAR COVER R	1
****10	RNE-2006	HANDLE COLLAR CAP	1
****12	RNE-2008-A	CTRL PANEL COVER BL	1
****13	DYN-1222	SHIFT COVER A	1
****14	DYN-1223X	SHIFT COVER B	1
****17	DYN-0010UK	DENOMI PLATE	1
****18	RD-2007UK	PANEL HANDLE MECHA	1
****22	509-6218-01	SW PB 1M W/LED RGB BOOST L RNE	1
****23	509-6219-01	SW PB 1M W/LED RGB BOOST R RNE	1
****25	PD-2006UK	BRKT CONTROL BUTTON	1
****26	PD-2003UK	BRKT SHIFTER	1
****27	EP1438	KEYPAD METAL 12 KEY ALPHA/NUM	1
****28	DSD-2013UK	BASE SHIFT COVER A	1
****29	DSD-2010UK	PLATE KEYPAD SURROUND	1
****30	DSD-2001-BUK	METER PANEL	1
****31	DSD-2001-CUK	DESIGN PLATE L	1
****32	DSD-2001-DUK	DESIGN PLATE M	1
****33	DSD-2001-EUK	DESIGN PLATE R	1
****34	DSD-2005UK	STICKER SUB INSTR DSD STD	4
****102	280-A01200-A	ROUTER TWIST D12 ADH	1
****103	280-A02000-A	ROUTER TWIST D20 ADH	1
****201	020-000820	M8X20 BLT PAS	4
****202	060-F00800	M8 WSHR FORM A FLT PAS	5
****203	060-S00800	M8 WSHR SPR PAS	4
****204	050-U00800	M8 NUT NYLOK PAS	8
****205	000-P00412-W	M4X12 MSCR PAN W/FS PAS	7
****208	008-T00416-0B	M4X16 TMP PRF TH BLK	3
****209	000-P00308-W	M3X8 MSCR PAN W/FS PAS	6
****210	000-P00310-W	M3X10 MSCR PAN W/S PAS	4
****211	FAS-290082	M3X16 SKT CAP BLK	2
****213	060-F01600	M16 WSHR FORM A FLT PAS	6
****214	000-T00416-0B	M4X16 MSCR TH BLK	4
****215	050-F00600	M6 NUT FLG SER PAS	4
****216	060-F00600	M6 WSHR FORM A FLT PAS	4
****217	008-T00420-0B	M4X20 TMP PRF TH BLK	3
****218	050-F00800	M8 NUT FLG SER PAS	3
****219	068-852216	M8 WSHR 220D FLT PAS	3
****220	030-000640	M6X40 BLT PAS	3
****221	060-S00600	M6 WSHR SPR PAS	3
****222	068-652016	M6 WSHR 200D FLT PAS	4
****223	050-U00600	M6 NUT NYLOK PAS	2
****224	050-F00400	M4 NUT FLG SER PAS	4
****225	029-B00870-0B	M8X70 BLT BH BLK	1
****301	RNE-60105	WH STEERING BUTTON	1
****302	RNE-60104	WH STEERING WHEEL EXT	1
****303	600-9120-44K	WIRE HARN EARTH 1200MM M4/M4 K	1
****304	DSD-60100UK	WH CTRL PANEL	1
****305	DSD-60121UK	WH BUTTON PLATE	1

⑫ ASSY SWITCH PLATE CREDIT (DSD-2100UK)

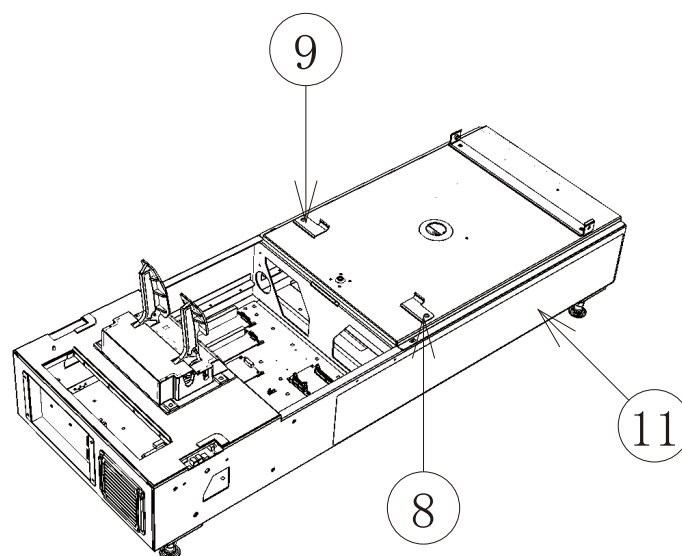
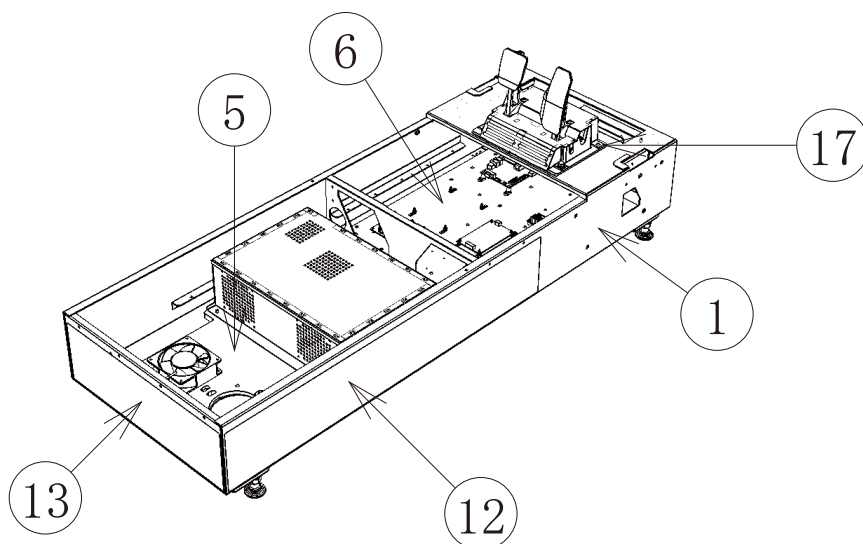
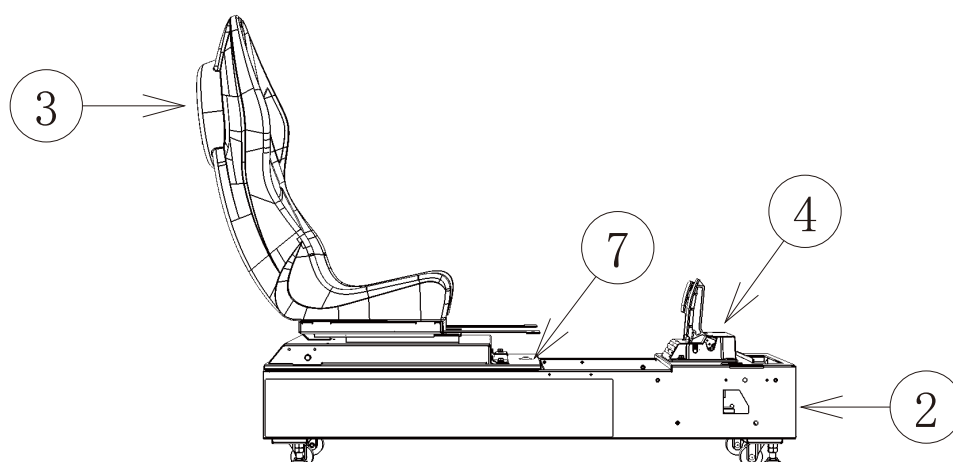
(D-1/1)



ITEM NO	PAT NUMBER	DESCRIPTION	QTY
****1	DSD_2102UK	STICKER BUT PANEL DSD STD	1
****2	DSD-2102UK	BUTTON PLATE	1
****3	610-2100-DSD	ASSY BUTTON PCB	1

⑬ ASSY MAIN BASE (DSD-1500UK)

(D-1/2)



⑬ ASSY MAIN BASE (DSD-1500UK)

(D-2/2)

ITEM NO	PAT NUMBER	DESCRIPTION	QTY
**001	DSD-1520UK	ASSY BASE BOX	1
**002	RD-1540UK	AC UNIT	1
**003	DSD-1600UK	ASSY ADJUST SEAT	1
**005	DSD-4500UK	ASSY MAIN BOARD	1
**006	DSD-4600UK	ASSY ELEC BD	1
**007	RD-1535UK	ASSY BASE LID R	1
***004	SPG-2200-01-DSD	ASSY BRAKE & ACCEL DSD	1
***008	RAL-2007X	RUBBER HOLDER R TWIN	1
***009	RAL-2008X	RUBBER HOLDER L TWIN	1
***011	DSD-1503UK	STICKER MAIN BASE L	1
***012	DSD-1504UK	STICKER MAIN BASE R	1
***013	DSD-1505UK	STICKER MAIN BASE REAR	1
***017	SPG-2224UK	PEDAL GASKET	1
***201	000-P00408-WB	M4X8 MSCR PAN W/FS BLK	4
***202	032-000425	M4X25 W/BLT PAS	4
***203	068-441616	M4 WSHR 160D FLT PAS	4
***204	050-U00800	M8 NUT NYLOK PAS	6
***205	068-852216	M8 WSHR 220D FLT PAS	6
***206	030-000825-SB	M8X25 BLT W/S BLK	8
***207	060-F00800-0B	M8 WSHR FORM A FLT BLK	8
***214	008-T00412-0B	M4X12 TMP PRF TH BLK	4
***215	000-T00412-0B	M4X12 MSCR TH BLK	8
***216	008-T00512-0B	M5X12 TMP PRF TH BLK	4
***219	060-P00400	M4 WSHR PAINT PIERCING	2
***301	600-7269-0150UK	LAN CABLE 150CM PALB 1/5BL	1
***302	DSD-60115UK	WH AUDIO LED EXT	1
***303	RD-60023UK	WH PEDALS EXTN	1
***304	DSD-60119UK	WH BASE BOX TO COCKPIT	1
***305	600-7919-200UK	CA ST JACK TO PHONO AV06757	1
***308	DSD-60137UK	WH AC BASE EXTN	1
***310	600-9010-44K	WIRE HARN EARTH 100MM M4/M4	1
***311	600-9020-44K	WIRE HARN EARTH 200MM M4/M4 K	1
***312	600-9040-44K	WIRE HARN EARTH 400MM M4/M4 K	1

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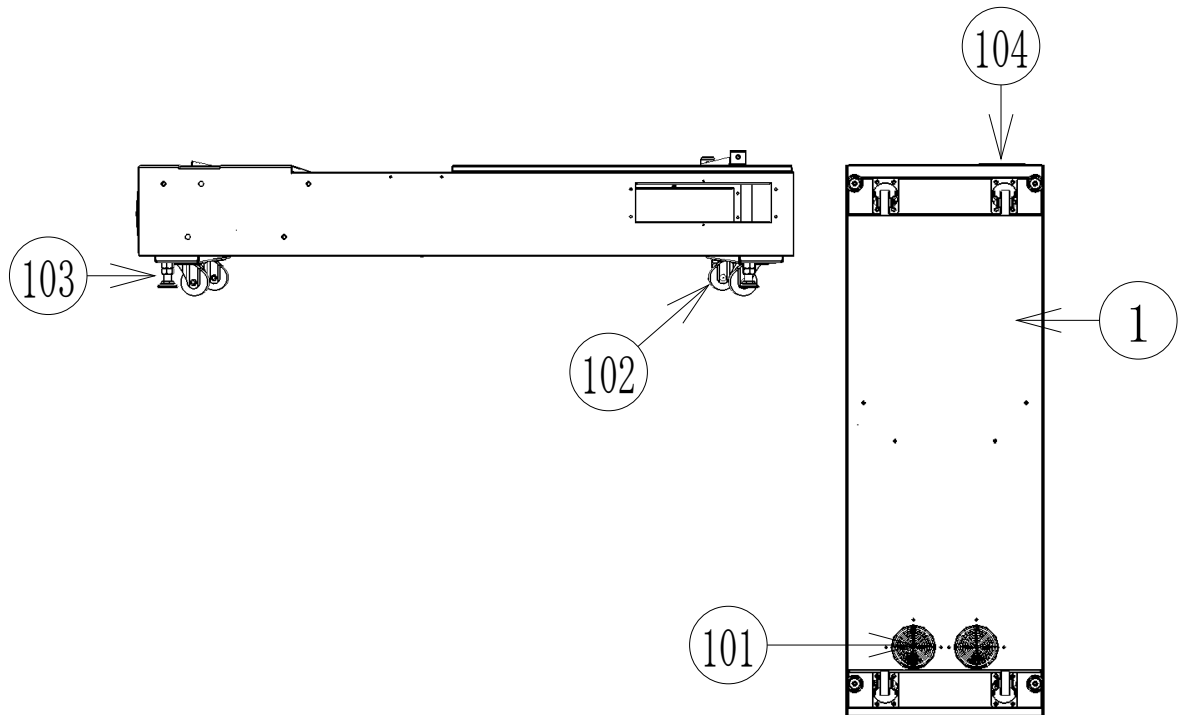
PARTS LIST

⑭ ASSY BASE BOX (DSD-1520UK)

(D-1/1)

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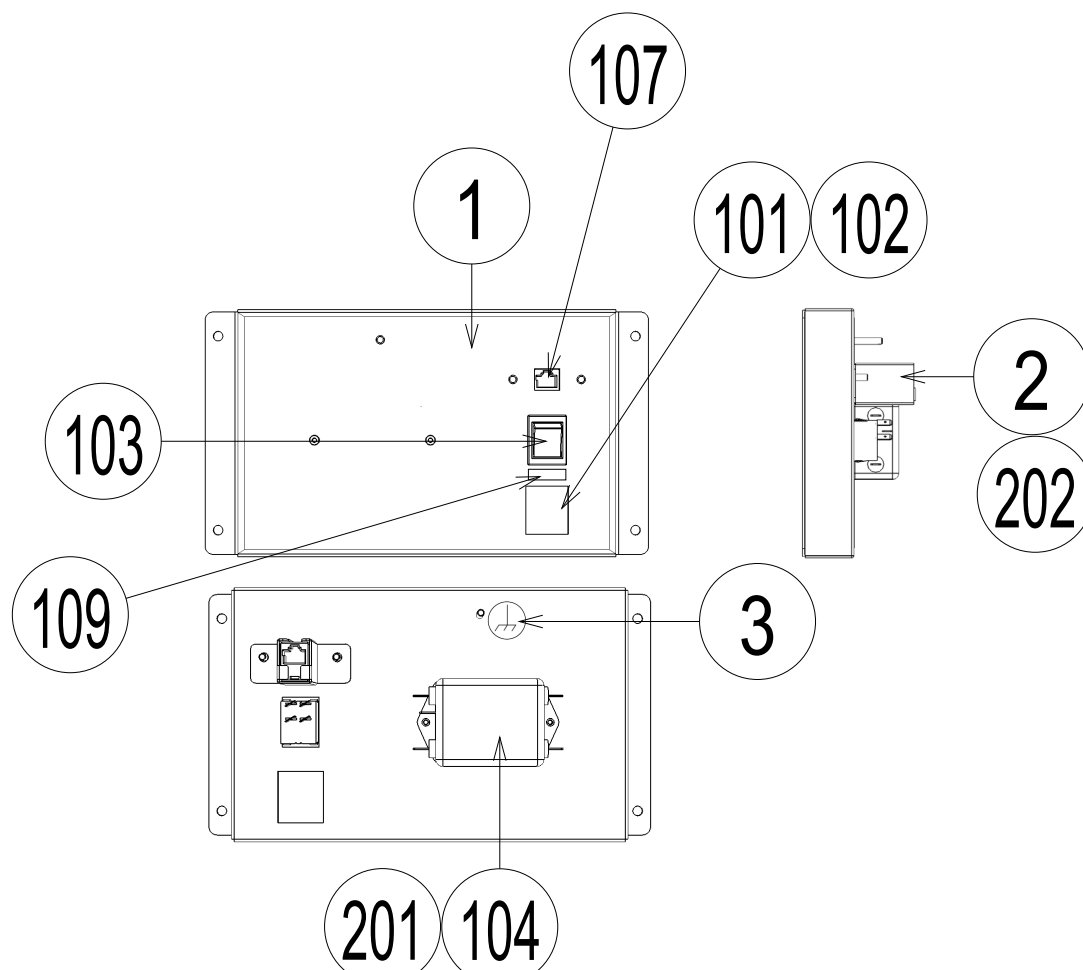
PARTS LIST



ITEM NO	PAT NUMBER	DESCRIPTION	QTY
****001	DSD-1531UK	MAIN BASE BLANK	1
****101	FN1012	FAN GUARD METAL 120MM (FG-12)	2
****102	MA1007	CASTOR SWIVEL 63MM NYLON	4
****103	601-5699UK-01	LEG ADJ M16X100 1L/NUT	4
****104	253-5460-01	AIR VENT BLACK	2
****202	050-U00400	M4 NUT NYLOK PAS	4
****204	030-000816	M8X16 BLT PAS	16
****205	060-S00800	M8 WSHR SPR PAS	16
****206	000-T000416-0B	M4X16 MSCR TH BLK	4
****207	060-F00800	M8 WSHR FORM A FLT PAS	16

⑮ ASSY AC UNIT (RD-1540UK)

(D-1/1)

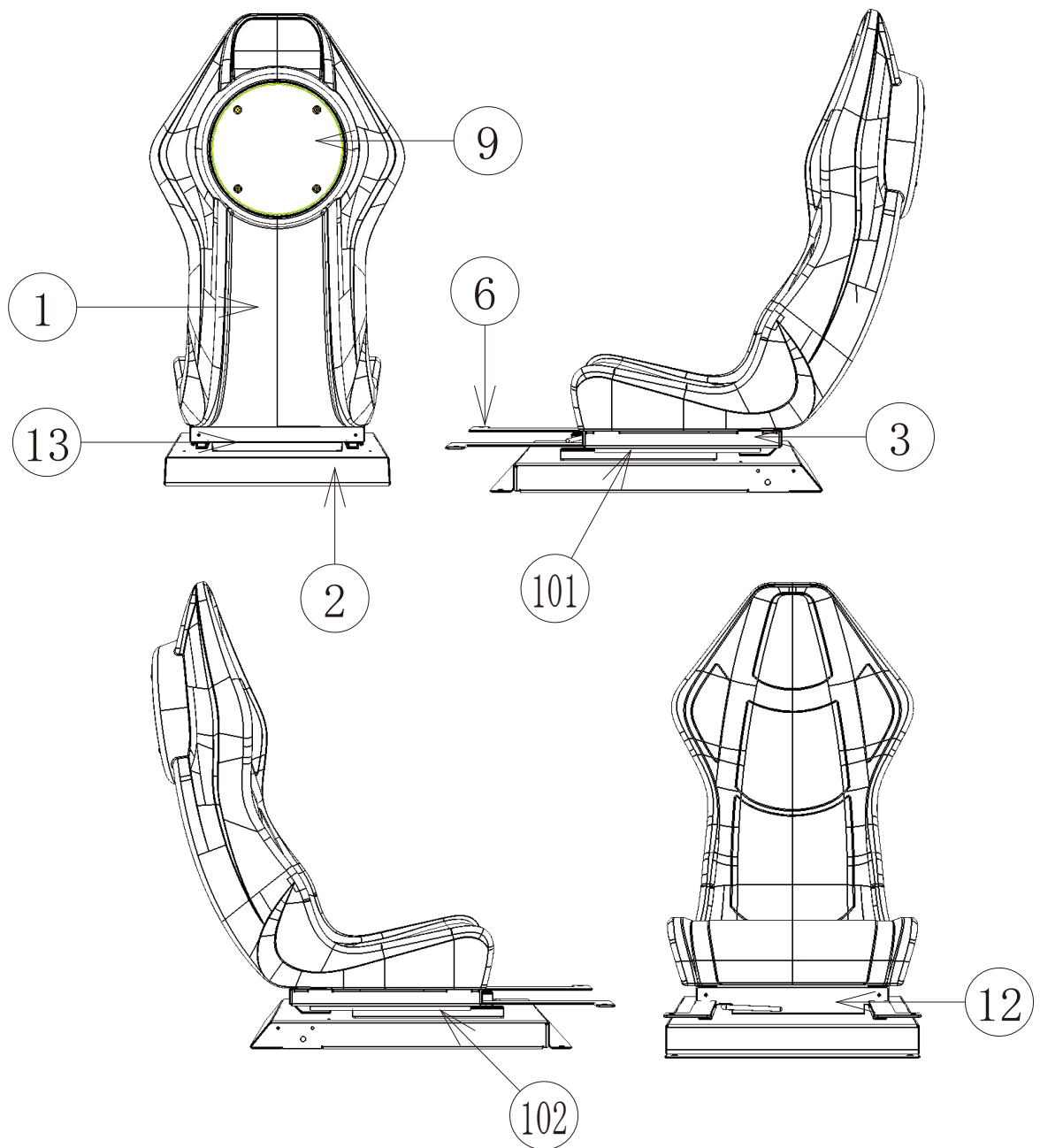


ITEM NO	PART NUMBER	DESCRIPTION	QTY
****1	RD-1541UK	AC BRKT	1
****2	TFF-0402UK	CONN COVER	1
****3	LB1096	STICKER PROTECTIVE EARTH	1
****101	EP1302	EUROSOCKET FUSED 10A 250VAC	1
****102	514-5078-5000	FUSE 5X20 CERAMIC SB 5000mA	2
****103	SW1109	SWITCH ROCKER 250V AC	1
****104	EP1418	FILTER EPCOS 16A RS496-4778	1
****107	EP1391	COUPLER INLINE LAN RJ45	1
****108	310-5029-D508	HEAT SHRINK SLEEVING 50.8DIA	4
****109	LB1126-5-250	FUSE LABEL 5A 250V	1
****201	000-P00308-W	M3X8 MSCR PAN W/FS PAS	2
****202	050-F00400	M4 NUT FLG SER PAS	4
****301	TFF-60001UK	WH AC IN	1

①⑥ ASSY ADJUSTABLE SEAT (DSD-1600UK)

(D-1/2)

19
PARTS LIST



⑱ ASSY ADJUSTABLE SEAT (DSD-1600UK)

(D-2/2)

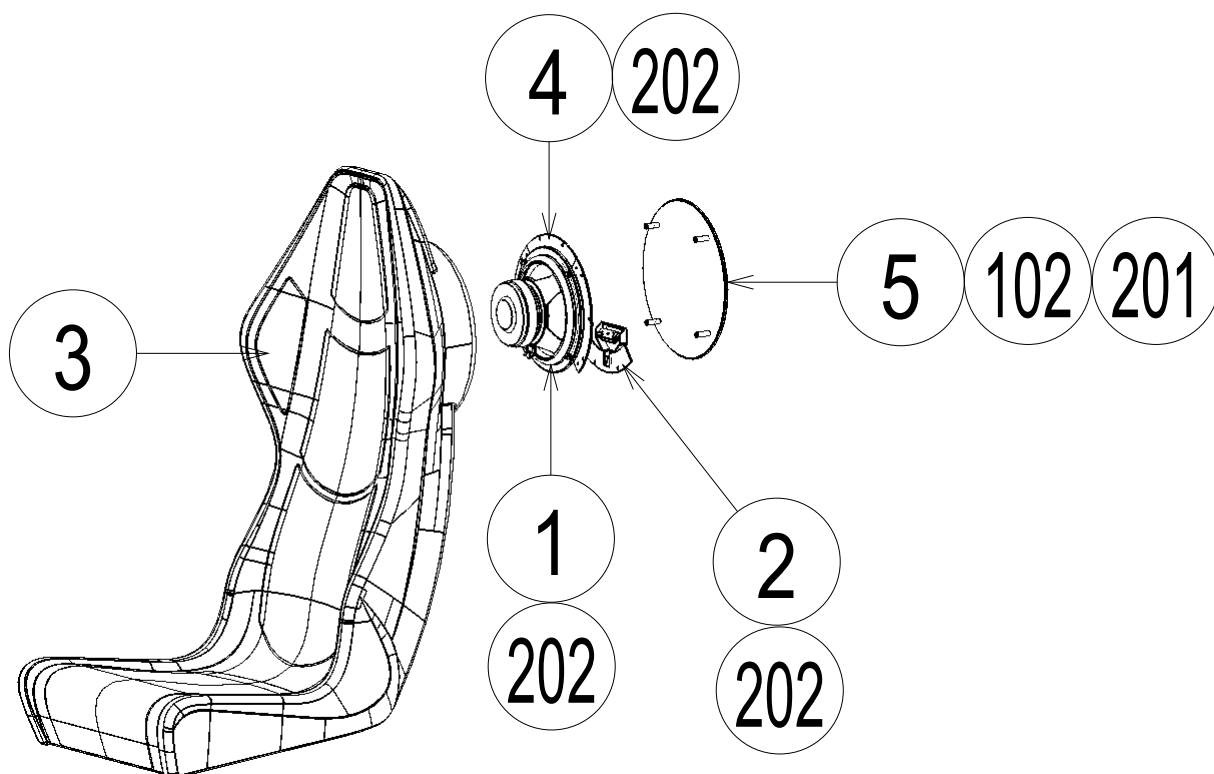
ITEM NO	PART NUMBER	DESCRIPTION	QTY
****1	DSD-1650UK	ASSY SEAT	1
****2	DSD-1601UK	SEAT BASE	1
****3	RD-1602UK	SEAT TRAY	1
****4	RD-1603UK	CABLE BEAR BRKT UPPER	1
****5	RD-1604UK	CABLE BEAR BRKT LOWER	1
****6	RD-1605UK	PROTECT RUBBER	2
****7	RD-1606UK	PLATE HOLDER A	1
****8	RD-1607UK	PLATE HOLDER B	2
****9	RD-1608UK	DESIGN PLATE BACK LED	1
****11	RD-1610UK	BACK LED CASE	1
****12	RD-1611UK	TRAY COVER FRONT	1
****13	RD-1612UK	TRAY COVER REAR	1
****14	RD-1613UK	STICKER SEAT BASE REAR	1
*****1	RD-1613-AUK	STICKER SEAT BASE REAR BLANK	1
****101	601-9059-91	SEAT RAIL L	1
****102	601-9060-91	SEAT RAIL R	1
****103	601-6981-009	CABLE BEAR L=009	1
****105	838-14973-07	LED BD RGB 3X7BLOCK	1
****106	280-L00605-OS	STANDOFF 6.35OD 3.56ID 4.76L	6
****201	000-P00312-PN	M3X12 MSCR PAN NYLON NAT	6
****202	000-P00408-W	M4X8 MSCR PAN W/FS PAS	4
****203	000-P00512-W	M5X12 MSCR PAN W/FS PAS	4
****204	050-U00800	M8 NUT NYLOK PAS	8
****206	068-852216	M8 WSHR 22OD FLT PAS	14
****207	030-000820-S	M8X20 BLT W/S PAS	6
****208	050-F00400	M4 NUT FLG SER PAS	4
****212	000-T00408-OB	M4X8 MSCR TH BLK	10
****213	050-F00500	M5 NUT FLG SER PAS	3
****301	RD-60025UK	WH CABLE BEAR	1

①9 ASSY SEAT (DSD-1650UK)

(D-1/1)

19

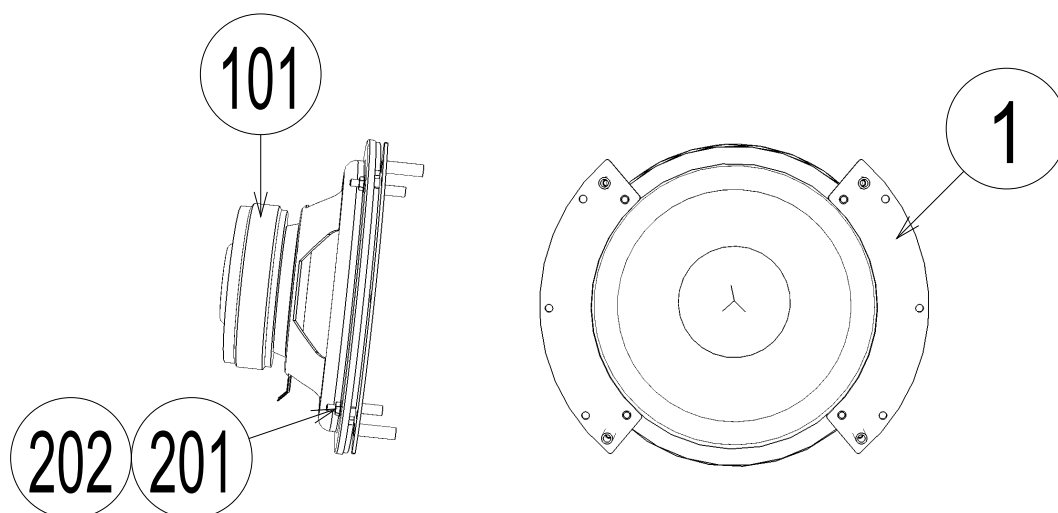
PARTS LIST



ITEM NO	PART NUMBER	DESCRIPTION	QTY
*****1	RD-1670UK	ASSY WOOFER	1
*****2	RD-1680UK	ASSY WOOFER LED	1
*****3	PD-1601-A	SEAT	1
*****4	RD-1652UK	WOOFER BRKT B	1
*****5	DSD-1654UK	WOOFER DESIGN PLATE	1
*****6	DSD-1651-BUK	STICKER SEAT UPPER	1
*****7	DSD-1651-CUK	STICKER SEAT LOWER	1
*****102	280-6686-01UK	4.5X16X4 SP WSHR	4
*****201	FAS-290042	M4X12 HEX SKT LH CAP SCR STN	4
*****202	012-P00416-FZ	N8X5/8" S/TAP FLG OZ	10

②① ASSY WOOFER (RD-1670UK)

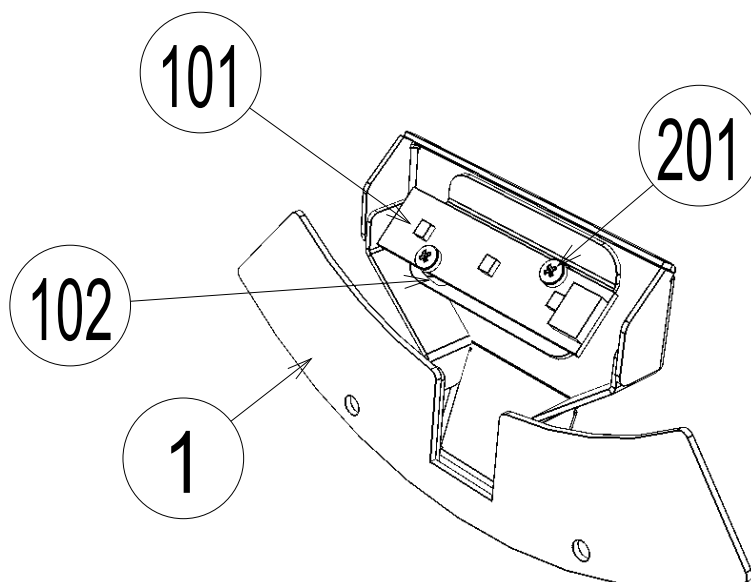
(D-1/1)



ITEM NO	PART NUMBER	DESCRIPTION	QTY
*****1	RD-1671UK	WOOFER BRKT A	2
*****3	280-L00808-OS	STANDOFF 7.94OD 4.93ID 7.94L	4
*****101	130-5280	WOOFER 4OHM 80W SILVER RNE	1
*****201	060-F00400	M4 WSHR FORM A FLT PAS	4
*****202	050-U00400	M4 NUT NYLOK PAS	4

②① ASSY WOOFER LED (RD-1680UK)

(D-1/1)



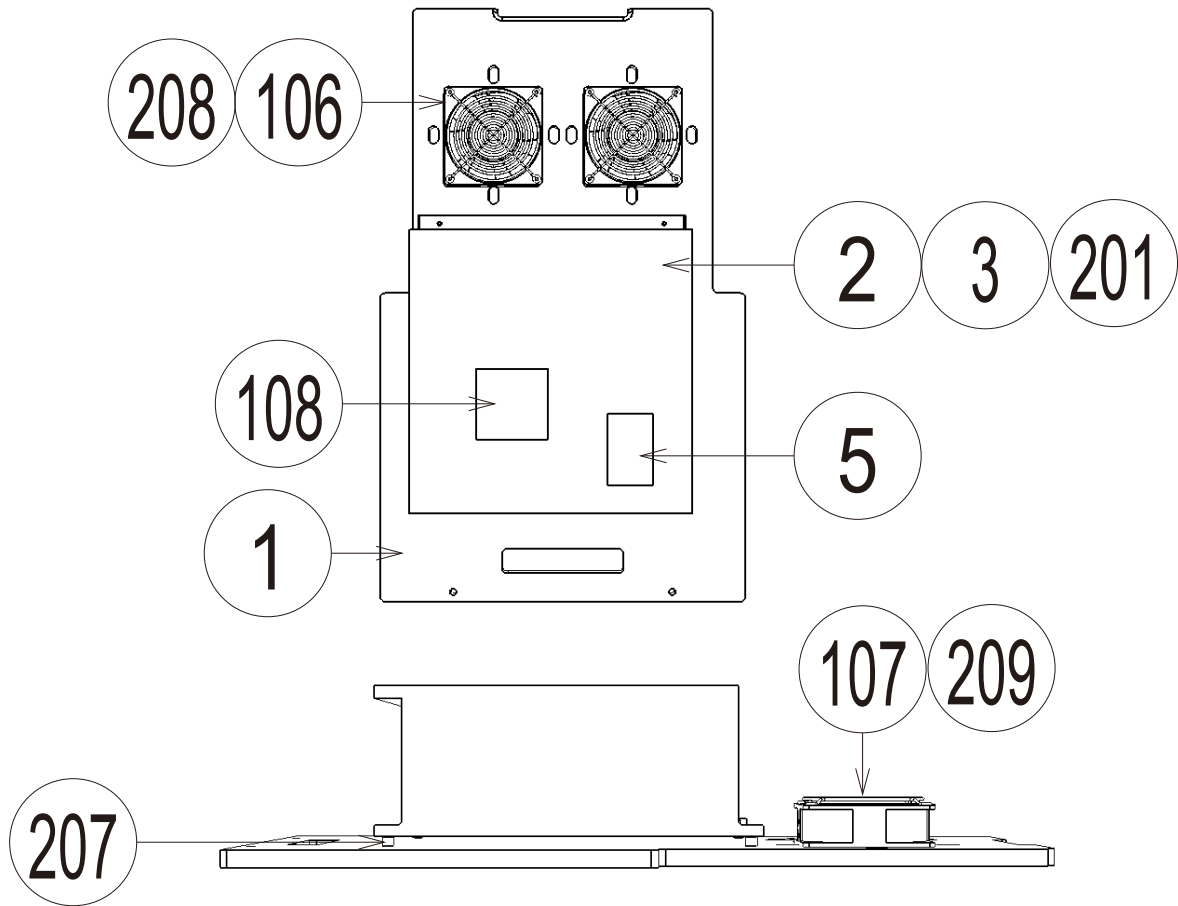
ITEM NO	PART NUMBER	DESCRIPTION	QTY
*****1	RD-1681UK	WOOFER BRKT C	1
*****101	838-14973-01	LED BD RGB 3X1BLOCK	1
*****102	280-L00605-OS	STANDOFF 6.35OD 3.56ID 4.76L	2
*****201	000-P00312-PN	M3X12 MSCR PAN NYLON NAT	2

22 ASSY MAIN BOARD (DSD-4500UK)

(D-1/1)

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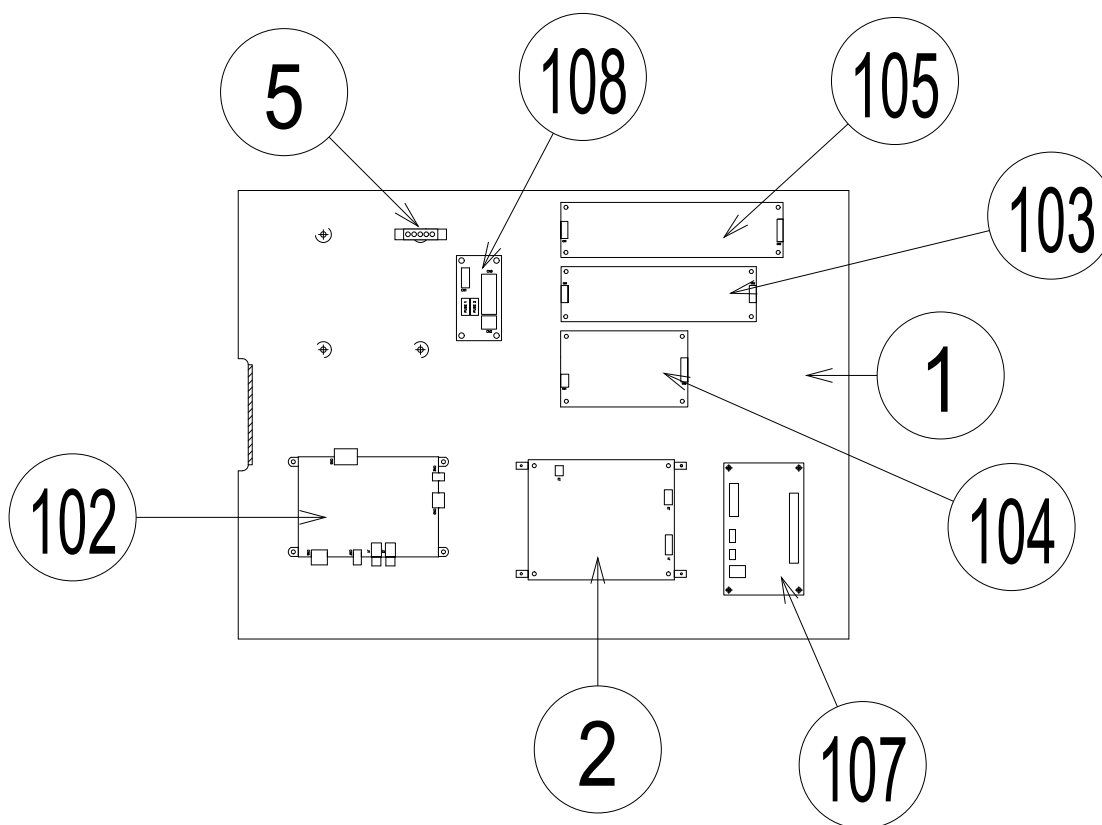
PARTS LIST



ITEM NO	PART NUMBER	DESCRIPTION	QTY
****001	RD-4501UK	WOODEN BASE MAIN BD	1
****002	610-0010-01UK	ASSY PC SD	1
****003	EP2007-03OR	DK_SD_STD ORANGE	1
****005	LB1111	STICKER PLEASE RECYCLE	1
****102	280-A01264-WX	ROUTER TWIST D12 BHKL-450-4-01	5
****103	280-A02064-WX	ROUTER TWIST BHKL-750-4-01	5
****108	LB1011	LABEL WARNING BATTERY	1
****201	050-F00400	M4 NUT FLG SER PAS	4
****301	RD-60014UK	WH P PORT B	1
****302	DSD-60116UK	WH AC GAMEBOARD	1
****303	DSD-60132UK	WH REAR FAN	1

23 ASSY ELEC BOARD (DSD-4600UK)

(D-1/1)



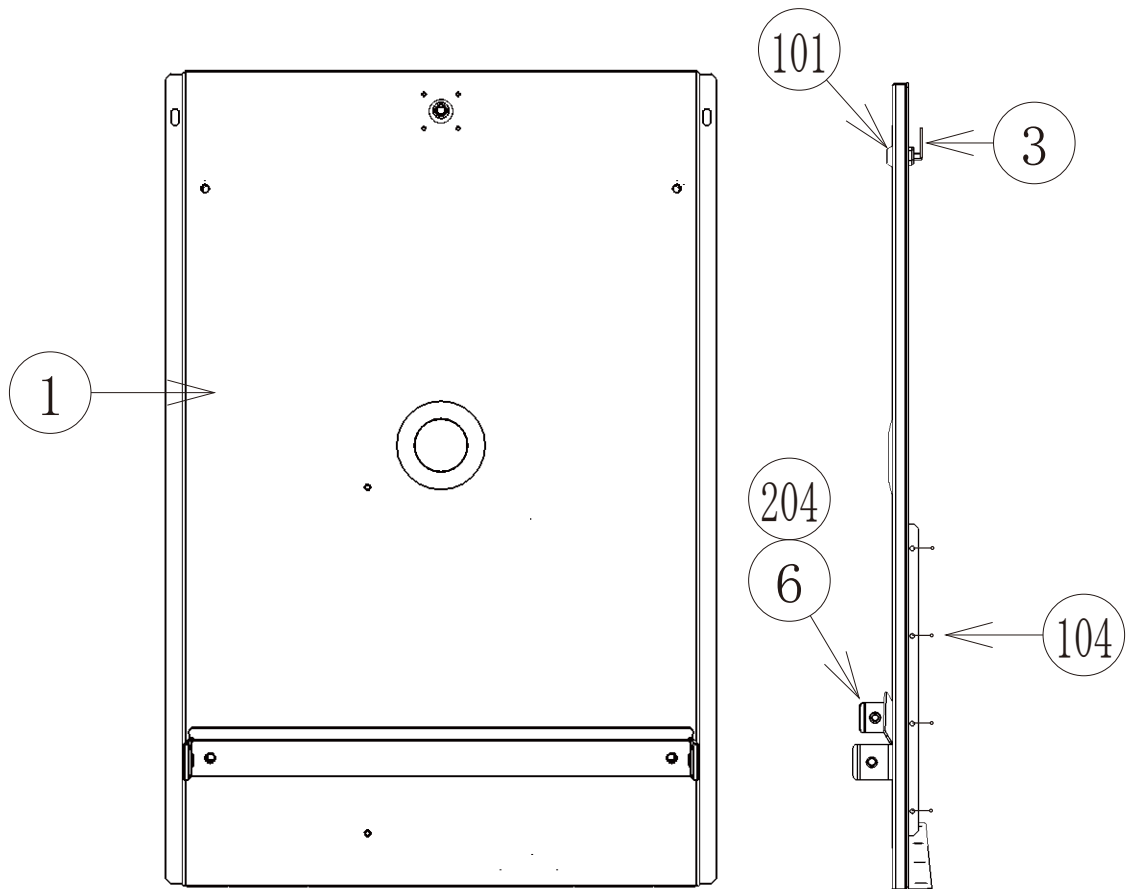
ITEM NO	PART NUMBER	DESCRIPTION	QTY
****001	RD-4601UK	WOODEN BASE ELEC BD	1
****002	FR-838-001UK	MOTOR CONT ISO HAPP 50-2000-03	1
****005	CFB-4003-01UK	EARTH TERMINAL PLATE	1
****102	838-0026UK	AMP 2.1 40W KEENE	1
****103	400-050-024-01	PSU 24VDC 50W MW LPS 50-24	1
****104	400-065-0512-01	PSU 5V-12V DC 65W MW RPD-65C	1
****105	400-075-024-01	PSU 24VDC 75W MW LPS-75-24	1
****107	838-0005UK	I/O BOARD SAE	1
****108	838-14551-02UK	DISTRIBUTION BOARD	1
****111	OS1011	PCB FEET RICHCO LCBS-L-5-01	20
****112	280-A01264-WX	ROUTER TWIST D12 BHKL-450-4-01	14
****113	280-A02064-WX	ROUTER TWIST BHKL-750-4-01	10
****201	012-P00325	N4X1" S/TAP PAN PAS	12
****202	012-P03506-F	N6X1/4" S/TAP FLG PAS	16
****203	012-P03512-F	N6X1/2" S/TAP FLG PAS	2
****301	RD-60001UK	WH AC TO DIST	1
****302	DSD-60104UK	WH AC DISTRIBUTION	1
****303	RD-60006UK	WH DC I/O	1
****304	RD-60007UK	WH DC AMP	1
****305	RD-60008UK	WH DC MOTOR CONTROL	1
****306	RD-60009UK	WH DC MOTOR OUT	1
****307	RD-60010UK	WH SPEAKER A	1
****308	RD-60012UK	WH P PORT A	1
****309	DSD-60101UK	WH I/O	1
****310	600-7141-100UK	CABLE JVS A-B 100CM CS03079	1
****311	600-9050-44K	WIRE HARN EARTH 500MM M4/M4 K	1
****311	600-9050-44K	WH EARTH 500MM M4/M4 K	1

②④ ASSY BASE LID REAR (RD-1535UK)

(D-1/1)

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PARTS LIST



ITEM NO	PART NUMBER	DESCRIPTION	QTY
****001	RD-1538UK	BASE LID R	1
****002	DUT-1511CUK	GASKET STRIP	1
****003	DUT-1511_DUK	LOCK TONGUE DUT	1
****006	RD-1536XUK	SEAT HOLDER	1
****101	220-5575UK	LOCK(J9117) 22MM KEY ALIKE W C	1
****104	280-A00748-PM	ROUTER TWIST D7 S04.8 PANEL M	4
****201	050-F00400	M4 NUT FLG SER PAS	1
****204	030-000816-S	M8X16 BLT W/S PAS	2
****301	RD-60014UK	WH P PORT B	1
****302	DSD-60116UK	WH AC GAMEBOARD	1
****303	DSD-60132UK	WH REAR FAN	1

20**WIRE COLOR CODE TABLE****⚠ WARNING**

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

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

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

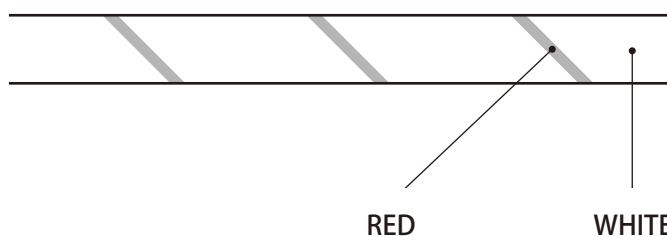
Wires other than those of any of the above 5 single colors will be displayed by 2 alphanumeric characters.

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

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

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



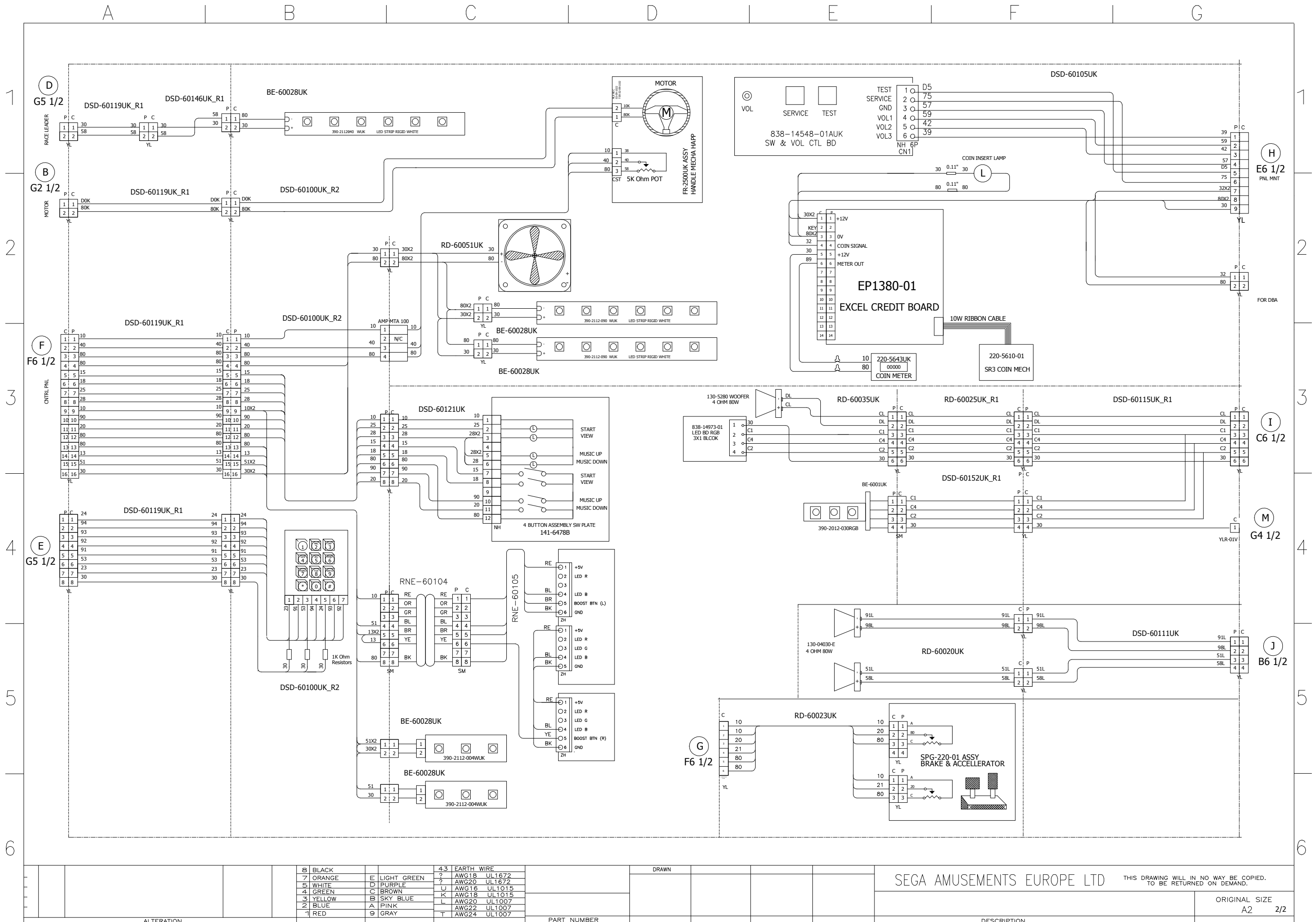
Note 2: The character following the wire color code indicates the size of the wire.

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

20**WIRE COLOUR CODE TABLE**



(D-2/2)



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WIRING DIAGRAMS