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1st PRINTING

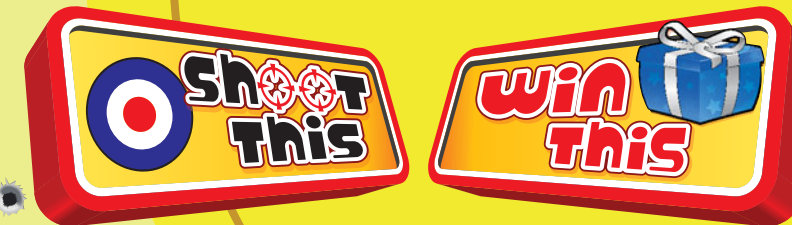


SEGA AMUSEMENTS EUROPE LTD.

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



SERVICE 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.

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

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INTRODUCTION

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

This manual is intended for the owners, personnel and managers in charge of operation of the product. Operate the product after carefully reading and sufficiently understanding the instructions. In the unlikely event that the product does not function correctly, DO NOT allow anyone other than a technician to touch the internal system. Turn off the power to the 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.

STOP IMPORTANT

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

SEGA AMUSEMENTS EUROPE, LTD.

Block C, 42 Barwell Business Park, Chessington, Surrey. KT9 2NY United Kingdom.

Telephone: +44 (0) 208 391 8090 Facsimile: +44 (0) 208 391 8099
e-mail: mailbox@sega.co.uk <http://www.sega-amusements.co.uk>

SPECIFICATIONS

Installation Space :	1,693 mm (H) × 983 mm (W)
Height :	2,205 mm
Weight :	220 kg
Power, Current :	420 W、2 A (AC 230 V 50/60 Hz)
Monitor Type :	50 Type Projector

NOTE: The contents herein described are subject to change without notice.

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- This software uses specially-designed fonts created under license from Fontworks Japan, Inc. Fontworks Japan, Fontworks, and font names are trademarks or registered trademarks of Fontworks Japan, Inc.

Definition of 'Site Maintenance Personnel or Other Qualified Individuals'

WARNING

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

Parts replacement, maintenance inspections and troubleshooting should be carried out by site maintenance personnel or other qualified professionals. This manual includes directions for potentially dangerous procedures which should only be carried out by professionals with the appropriate specialized knowledge.

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

Site maintenance personnel:

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.

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.

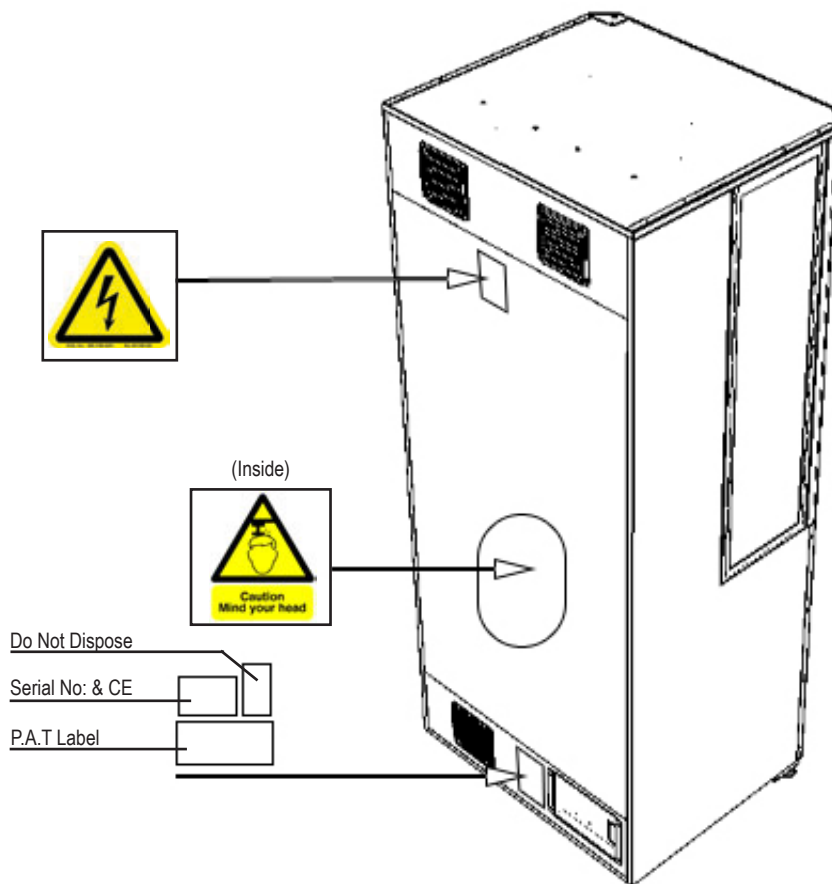
WARNING

- 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 the case work should be performed in the status of power on, this manual always states to that effect.
- To avoid an electric shock or short circuit, do not plug in or unplug quickly.
- To avoid an electric shock, do not plug in or unplug with a wet hand.
- Do not expose power 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.
- If work or parts replacement not indicated in this manual is carried out, an accident may occur. If it is necessary to carry out work not indicated in this manual, be sure to have it done by the office indicated in this manual or by the point of purchase. Also, please inquire regarding details of the work involved.
- Be sure to perform periodic maintenance inspections herein stated.

STOP IMPORTANT

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

CONCERNING THE STICKER DISPLAY	CONCERNING WARNING DISPLAYS
<p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p>



1 fig01

2 PRECAUTIONS REGARDING INSTALLATION LOCATION

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 USE

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 7A or higher (AC 220 V ~ 240 V area). Using a cord rated lower than the specified rating can cause a fire and electric shock.

ELECTRICITY CONSUMPTION

MAX : 2A

2-1 OPERATION AREA

WARNING

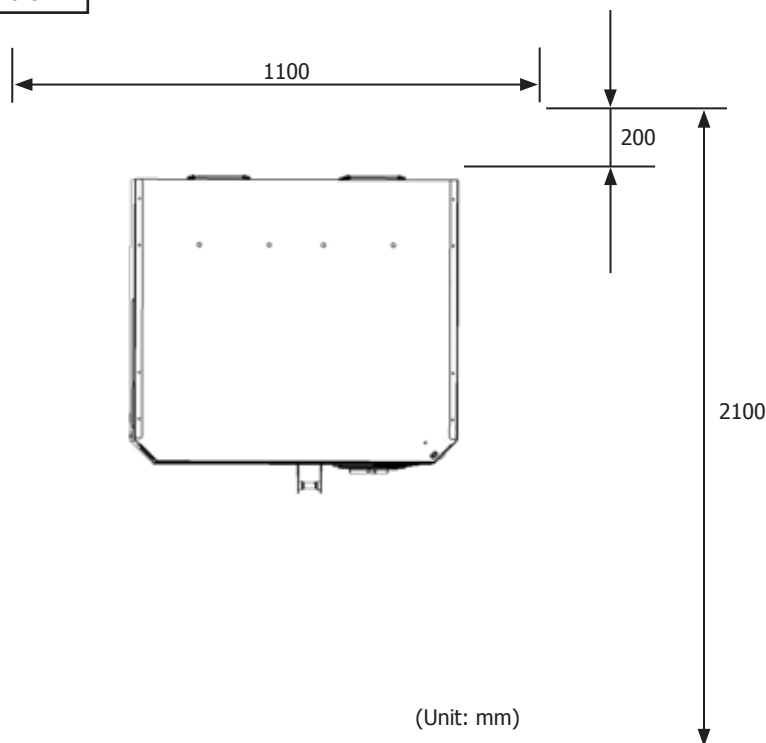
- For safe operation and management of this product, allow at least 70 cm of space between cabinets when allocating floor space and space for people to move through.
- Be sure to provide sufficient space specified in this manual. Do not allow objects to block the ventilation ports. It can cause generation of heat and a fire.
- SEGA shall not be held responsible for damage, compensation for damage to a third party, resulting from the failure to observe this instruction.
- If the machine does not fit through the entryway to the installation location, do not disassemble it without first consulting the instructions. If the machine still does not fit through the entryway after following the procedures in this manual, contact your retailer or the office listed in this manual.

IMPORTANT

For transporting the machine into the location's building, the minimum necessary dimensions of the opening (of doors, etc.) are 0.85 m (W) and 1.98 (H).

Note: The product has been designed to pass through a standard doorway when either pushed from the front or rear of the cabinet. The machine will not pass through a doorway if pushed from the side as the controller / holder will prevent access.

Sample Layout



2-1 FIG. 01

(Unit: mm)

3 PRECAUTIONS REGARDING PRODUCT OPERATION

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

3-1 BEFORE OPERATION

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 visual display unit.

For operation of this machine, do not leave display'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.
- Do not put any heavy item on this product. Placing any heavy item on the product can cause a falling down accident or parts damage.
- Do not climb on the product. Climbing on the product can cause falling down accidents. To check the top portion of the product, use a step ladder.
- To avoid electric shock, check to see if door & cover parts are damaged or omitted.
- To avoid electric shock, short circuit and/or parts damage, do not put the following items on or in the periphery of the product.

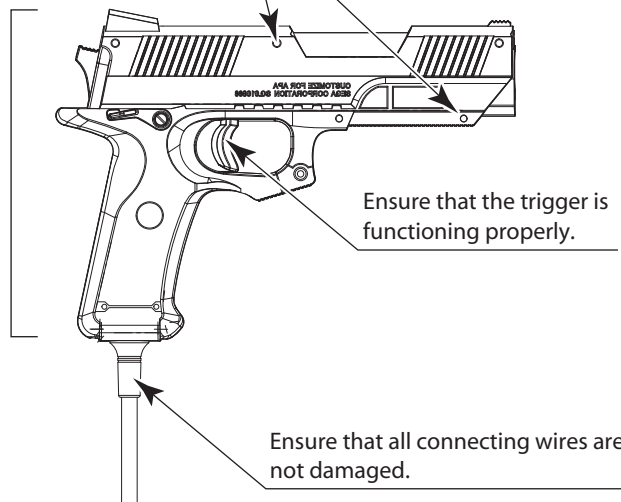
Flower vases, flowerpots, cups, water tanks, cosmetics, and receptacles/containers/ vessels containing chemicals and water.

⚠ 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 contact, collisions, and/or trouble between customers.
- Every day when cleaning the gun, inspect the gun and make sure that there are no scratches or cracks in the surface, and that the fastening screws are not loose. If the game is played with scratches, cracks or loose screws, it can cause injuries to the player or to people nearby.

Ensure that the screws are not loose and are all present.

Ensure that the casing is free of scratches and cracks.



03-1 fig. 01

STOP IMPORTANT

- Players directly hold the controller with their bare hands so it is recommended that wet towels (paper towels) be provided.
- Placing the LCD monitor near halogen lamps or other types of light fixtures which emit strong light may cause a malfunction. Make sure to install the monitor at a reasonable distance from such sources of light.

3-2 DURING OPERATION (PAYING ATTENTION TO CUSTOMERS)

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

WARNING

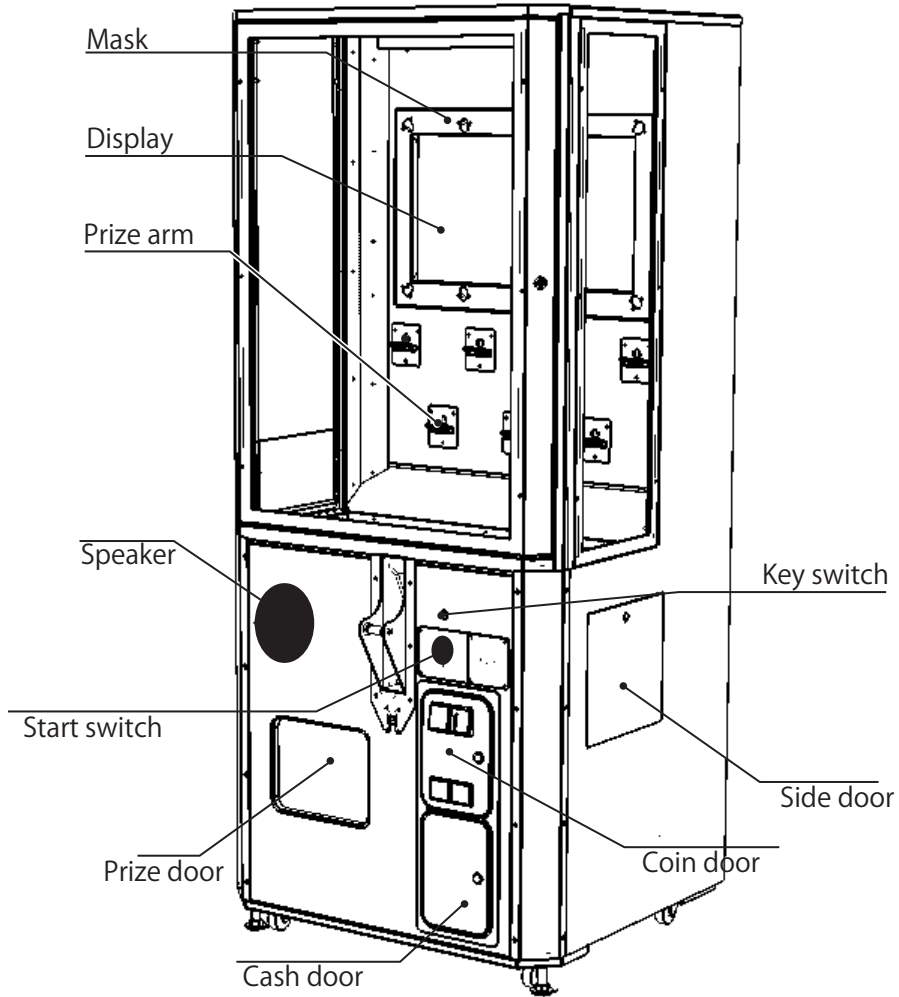
- For safety reasons, do not allow any of the following people to play the game.
 - Those who need assistance such as the use of apparatus when walking.
 - Those who have high blood pressure or a heart problem.
 - Those who have experienced muscle convulsion or loss of consciousness when playing video 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.
- 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.

CAUTION

- Immediately stop such violent acts as hitting and kicking the product. Such violent acts can cause parts damage or cause the cabinet to fall over, resulting in injury.
- Instruct players to hold the gun securely while playing. If the gun is dropped, it could cause injury to the player.
- Items such as large finger rings can cause injury to the fingers while playing. Instruct players to remove all accessories that could cause an accident before playing.
- Instruct players that a single gun is never to be held by two or more people during play. Otherwise there could be dangerous contact or a collision.

4 PART DESCRIPTION

SHOOT THIS WIN THIS



Please note:

The controller is not shown in the figure above.

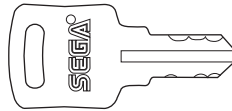
5 ACCESSORIES

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.

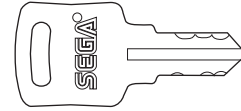
DESCRIPTION: OWNER'S MANUAL
Part No. (Qty.): 420-7019UK (1)
Note: This manual
Figures:

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
220-5775UK (2)
(J9117)
For opening/closing
the doors

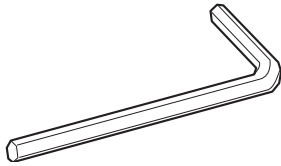


KEY SWITCH
For operating the key
switch



TAMPERPROOF SCREW WRENCH (for M4)
540-0006-01 (1)

TAMPERPROOF SCREW WRENCH (for M8)
540-0009-01 (1)



POWER CABLE
LM1227 <UK>
LM1246 <EURO>



6 ASSEMBLY & INSTALLTION

WARNING

- 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.
- Perform assembly work by following the procedure herein stated. Failure to comply with the instructions can cause electric shock.
- Perform assembling as per this manual. Since this is a complex machine, incorrect assembling can cause an electric shock, machine damage and/or improper functioning as per specified performance.
- When assembling, more than one person is required. Depending on the assembly work, there are some cases in which working by one person alone can cause personal injury or parts damage.
- Ensure that connectors are properly connected. Improper connections can cause electric shock.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a risk of fire.
- Do not carelessly push on the monitor. This could cause it to fall over.
- Provide sufficient space so that assembling can be performed. Performing work in places with narrow space or low ceiling may cause an accident and assembly work to be difficult.
- To perform work safely and avoid serious accident such as the cabinet falling down, do not perform work in places where step-like grade differences, a ditch, or slope exist.
- Do not use connectors other than those connected to and used by the game board at the time of shipment. Do not connect wires to unused connectors. This could cause the generation of heat or smoke, or a burnout.

IMPORTANT

- Wear appropriate work clothing so that work can be performed safely. Use gloves and safety shoes to prevent accidents or injuries.
- When installing a wire protection cover over a floor, use a material shaped so that no one passing by will stumble over it. Using a material that could be stumbled over might lead to an accidental fall.
- Be careful in handling plastic parts. Be sure not to tighten screws or nuts too tightly. If such parts are exposed to excessive loads or impact, they might become damaged, resulting in fragments or cracks that could cause accidental injury.

The Installation and assembly of this product should take place in the following sequence.

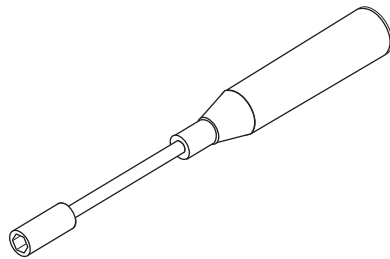
6-1 Securing of Cabinet in to Location

6-2 Connection of Power and Ground

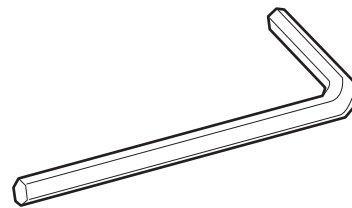
6-3 Checking Area for Game Interference Harness Requirements

6-4 Prize Unit

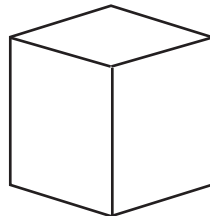
An M4 Nut Driver or Spanner



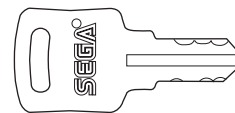
A 3mm Allen Key or Hex Key



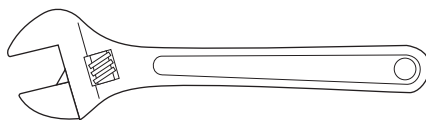
A Box or Ladders to stand on



Sega Service key (J9117)



An Adjustable Wrench



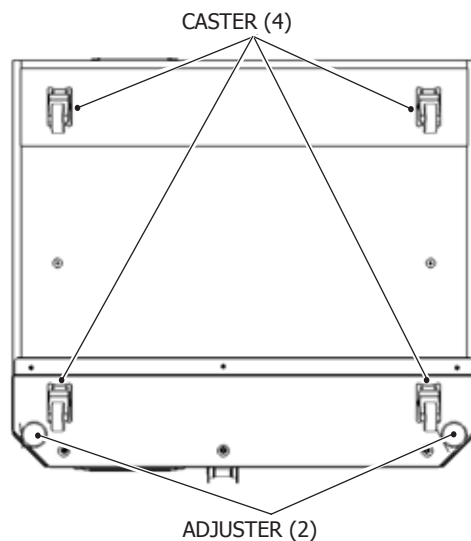
6 fig01

6-1 Securing of Cabinet in to Location

⚠ WARNING

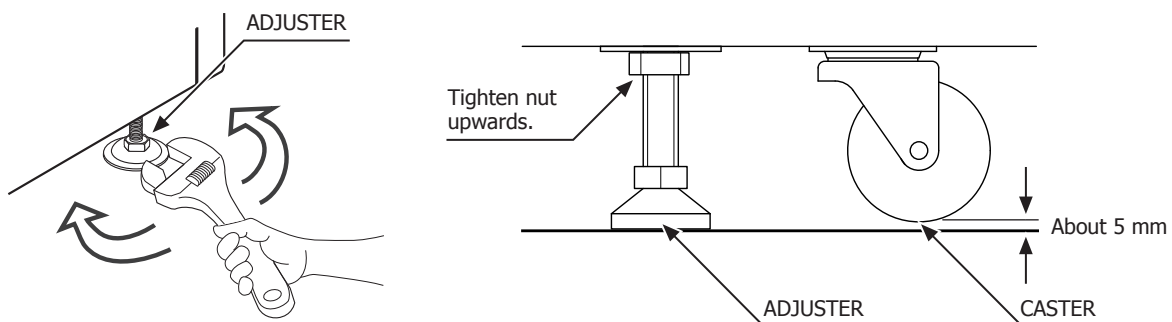
Be sure to ground the adjusters, and secure the product firmly to the installation location. If the cabinet moves either during assembly work or during operation after the completion of assembly, a serious accident may occur.

This product has 4 casters and 2 adjusters.



6-1 fig. 01

- 1** Move the product to the installation site. See Chapter 2 for examples of installation. Ensure that you leave enough aisle space for the player to operate the controller at arms length. Additionally, leave at least 200 mm of space on the side of the cabinet with the exhaust vent (the rear surface of the cabinet) for ventilation.
- 2** Use a wrench to set adjuster heights so that the unit will stay level.
- 3** After setting, turn adjuster nuts upwards to tighten them and secure adjuster heights.



6-1 fig. 02

6.2 Connection of Power and Ground

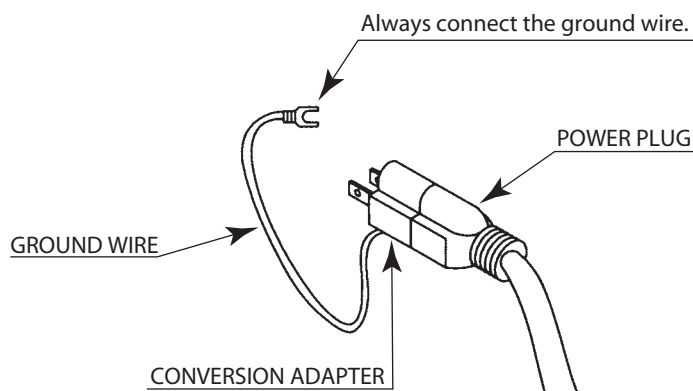
⚠ WARNING

- 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.
- This product **MUST** be EARTHED. Using this product without a suitable earth will cause electric shock and possibly cause a fire hazard.
- Do not expose the power cords. 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.
- This product comes complete with POWER CORDS for the UK and EUROPEAN destinations. Be sure to use the power cords supplied. If a power cord is to be replaced, be sure to replace it with the same specification as the one provided.

STOP IMPORTANT

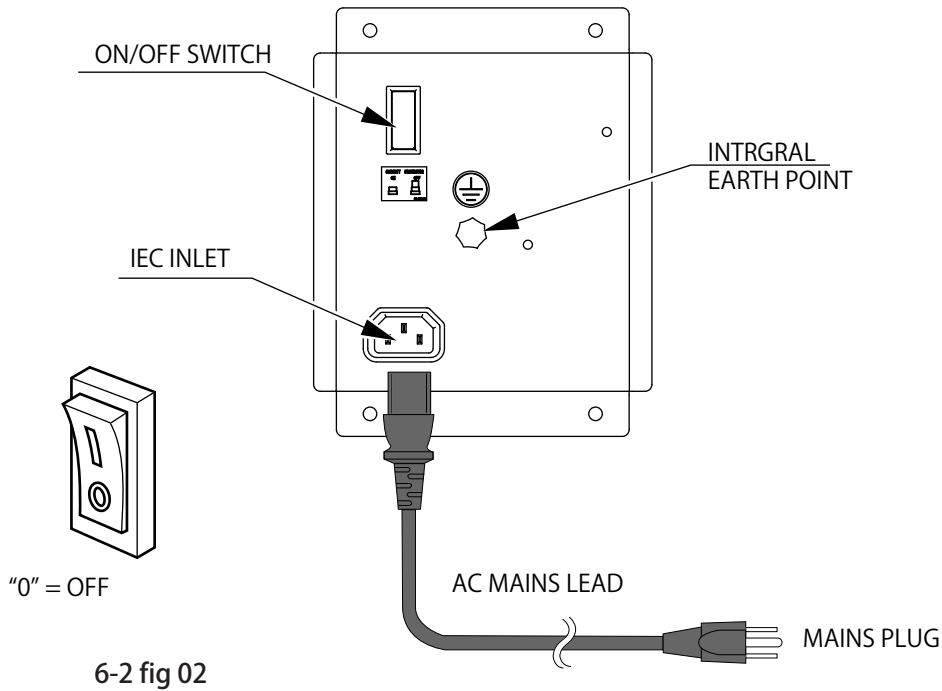
If grounding has been established with the ground wire inside the power cord, do not perform grounding with the AC unit ground terminal. Conversely, if the AC unit ground terminal has been used for grounding, do not establish ground with the ground wire in the power cord. Otherwise there could be faulty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

The accessory power cord has a ground wire inside it. Connect the power cord to the AC unit then insert the power cord plug into a "power outlet with ground terminal." If there is no "power outlet with ground terminal," be sure to establish ground by some other means; for example, by connecting the AC unit ground terminal to a ground wire with a ground mechanism prepared separately. If you use a conversion adapter sold on the market to supply power, connect the ground wire terminal of the adapter to a "securely grounded ground terminal." <For Taiwan>



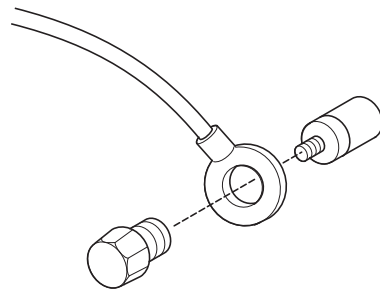
6-2 fig 01

1 Confirm that the MAINS SWITCH is set to OFF.

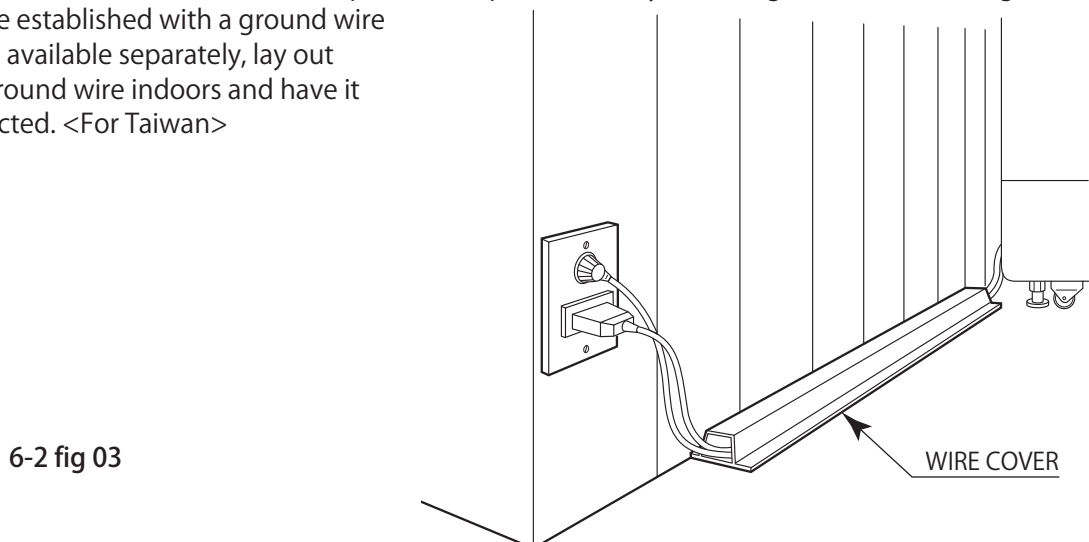


2 Fully insert the AC MAINS LEAD connector on the side opposite the power plug into the AC unit inlet. Then fully insert the AC MAINS LEAD PLUG into the power outlet.

3 When using a ground wire made available separately, connect one end of the wire to the AC unit ground terminal and the opposite end to an indoor ground terminal. The AC unit ground terminal is a bolt-and-nut combination. Remove the nut and pass the bolt through the ground terminal, then secure the nut to the bolt. <For Taiwan>



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



6-3 Checking Area for Game Interference Harness Requirements

WARNING

- 1 Make sure that the machine is isolated from the mains supply before attempting this operation.
- 2 Be careful not to damage wiring.
- 3 The Game Board area should be accessed if necessary.

IMPORTANT

Only QUALIFIED SERVICE PERSONNEL
should carry out this operation

ADJACENT CONTROL INTERFERENCE PREVENTION

When games with the same or similar infrared sensing system are installed side by side, interference may occur causing malfunction or inaccuracy of the sensing in adjacent games.

A removable wire harness controls the operating frequency of the gun sense system, and removal of this harness switches from the default frequency to an alternative one.

Where game machines of the same or similar type are installed side by side, remove the jumper harness (SPY-60010UK) from every other machine in the line.

Removal of the Jumper Harness

- 1 Turn off the Power.
2. Open the Control Panel Cover.
3. Locate the Sensor Board and remove the SPY-60010UK WIRE HARNESS HIGH FREQUENCY JUMPER as required.



Disconnect

6-4 Prize Unit

To prevent improper dispensing of gifts/prizes please follow the instructions below on how to correctly install prizes on to the prize arms.

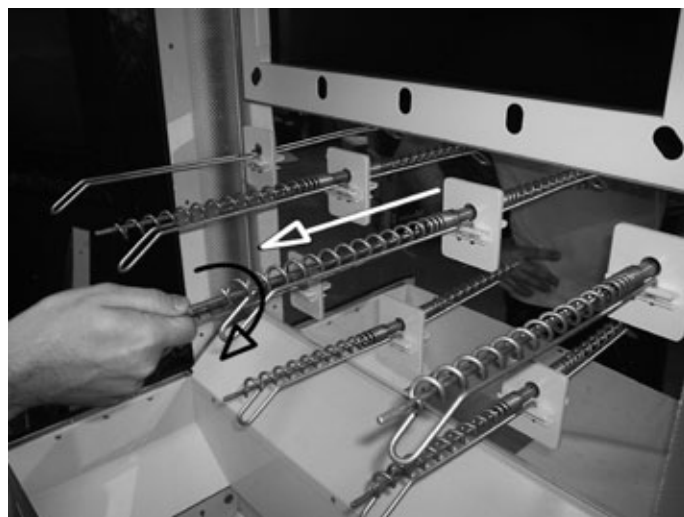
STOP IMPORTANT

- Do not allow more than 3 major prizes for each of the "High Value" Prize Arms.
- Do not allow large prizes to obstruct the adjacent prize arm. This may cause prizes to jam or become tangled.
- Do not attach prizes in the excess of 1kg to any of the Prize Arms. Prizes which exceed 1kg may cause premature damage to the motor or prize arm.
- Always use the hangers provided to hang the prizes on to the prize arms.
- Do not prevent the motor from turning when activated. Trying to stop the motor prematurely may cause the motor to overheat and become inoperative.

Fitting Prizes to the Prize Arms

STEP 1

First remove the central prize bar. Unscrew the prize bar in a clockwise direction to remove.



6-4 fig 01

STEP 2

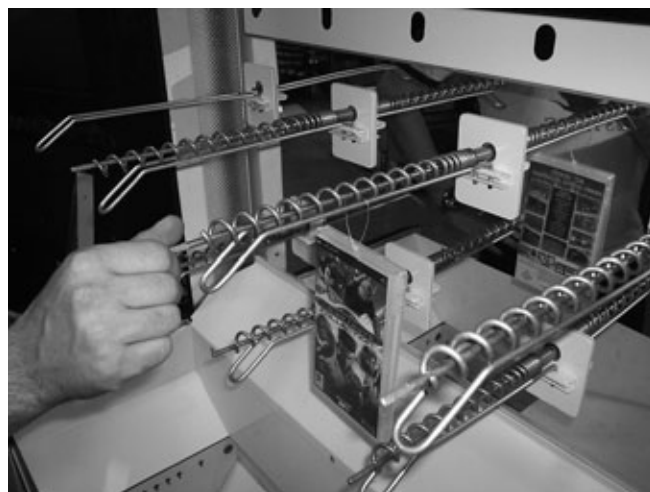
Once the prize bar has been removed, attach the prize (along with the hanger) on to the prize arm as shown.



6-4 fig 02

STEP 3

When the prize has been correctly fitted to the arm, re-fit the prize bar by turning it in an counter-clockwise direction.



6-4 fig 03

IMPORTANT!

Ensure that the hanger encompasses the the spiral arm and the guide arm.
Make sure that the Prize bar is above the hanger and not positioned through it.



6-4 fig 04

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 adjusters 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, remove all prizes from the prize area to minimize on weight and to prevent heavy prizes swinging in to the glass. Failure to remove prizes from the prize area may cause injury to personnel and damage to machine.
- When lifting the cabinet up steps, you must hold it by the designated handles or by the bottom surface. Lifting it by any other area may lead to damage or disfiguration to that part or surrounding parts due to the weight of the cabinet and could also lead to injury of personnel.
- When tilting the cabinet to move it across a sloped or stepped area, always use at least two people. Attempting such an operation alone can lead to accident or injury.

IMPORTANT

- When moving the cabinet, do not hold, push or pull the Control Units. This may disfigure or damage them.
- When moving the cabinet through a doorway, push the cabinet either front or rear first. Do not push the cabinet sideways through a door as damage to the controller or controller holder or both may occur.
- Do not use the Controller Holders to move the cabinet, in doing so may damage or disfigure them.

8 GAME DESCRIPTION

8.1 HOW TO PLAY:

Insert coin/s. (The exact amount of coins is dependant on the Program settings).

Press the Start button to start the game.

Using the gun to position the sight on the screen, select one of the six games available to play by pressing the trigger on the gun.



SIGHT

Games Available to Play

ROCKIN RAPIDS

CREEPY CABIN

WACKY TRACK

WRECKIN REEF

LOONY MOON

CRAZY CANYON



GAME SELECTION SCREEN

Each of the games will have a range of moving targets to shoot at, and is played against the clock.

Each hit/shot on target will light a bulb at the edge of the screen climbing towards 'Prize Win' positions.

There will also be 'Decoy Targets' shown, do not shoot at these, they will not count as a hit and will waste valuable time and bullets.



TARGET



DECOY TARGET

WINNING A PRIZE :

A prize is offered by Lighting all bulbs in the trail and reaching either the Small or Big Prize level.

When players achieve the 'Small Prize' level, the display changes to show the 'Prize Option Screen'. They then choose to either collect a prize from any of the three lower vend arms located below the display, or to continue to play the game at the risk the losing the small prize in an attempt to climb up to the 'Big Prize' level.

Big Prize



Small Prize

Prize Option Screen



To select the 'Small Prize', the player must shoot the Collect Small Prize 'Parcel', ending the game and entering the Prize Selection screen.

To continue the Game the player must shoot the Continue 'Target', rejecting the Small Prize in the attempt to gain the Big Prize. Game ends if the player runs out of time, or they select a Small Prize.

When all bullets are used, they will reload using up valuable time.

BULLETS



TIMER

PRIZE SELECTION :

Once you have won a prize, use the gun to select a prize arm which is represented on screen.



If you won a Big Prize, you can only select from the Big Prize arms.
If you won a Small Prize, you can only select from the Small Prize arms.



You will be asked to shoot again to confirm your prize.



Your prize will vend and can then be collected from behind the Prize Out door on the front of the machine.

8.2 INDIVIDUAL GAMES SCREENS

ROCKIN RAPIDS



WRECKIN REEF

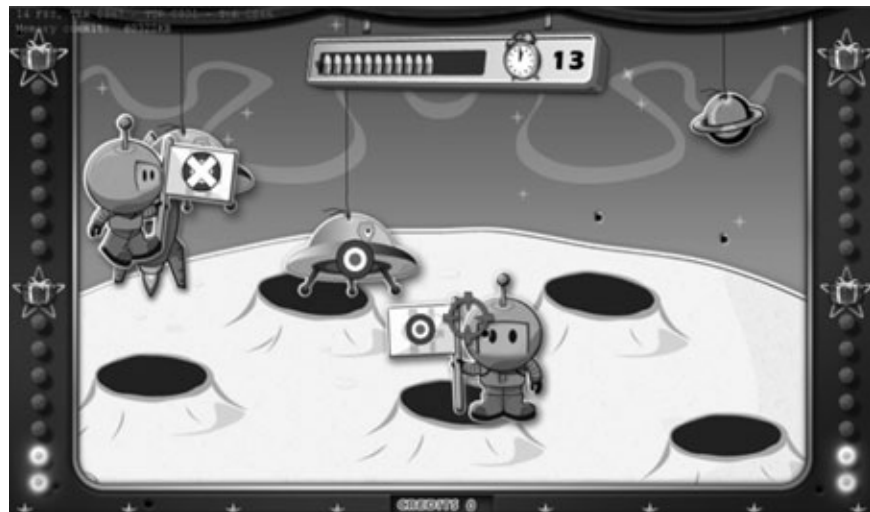


CHEEPY CABIN



8.2 INDIVIDUAL GAMES SCREENS

LOONY MOON



WACKY TRACK



CRAZY CANYON



8.3 RESULT / ACCURACY SCREEN

Final Game Screen



This screen shows how many Shots were fired, how many Targets were hit and calculates the accuracy of the player showing it as a Percentage.

9 EXPLANATION OF TEST AND DATA DISPLAY

WARNING

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

CAUTION

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

STOP IMPORTANT

- When you enter the Test Mode, fractional coin and bonus adder data is erased.
- Adjust the sound to the optimum volume, taking into consideration the environmental requirements of the installation location.
- Removing the coin meter circuitry renders the game inoperable.

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.
- Use with the specified settings. If settings other than those specified are used, inappropriate operations or malfunction may occur.

9-1 GAME TEST MODE

STOP IMPORTANT

To change settings in the Game Test Mode, simply making changes on the setting screen will not be effective. Complete the Test Mode in normal fashion.

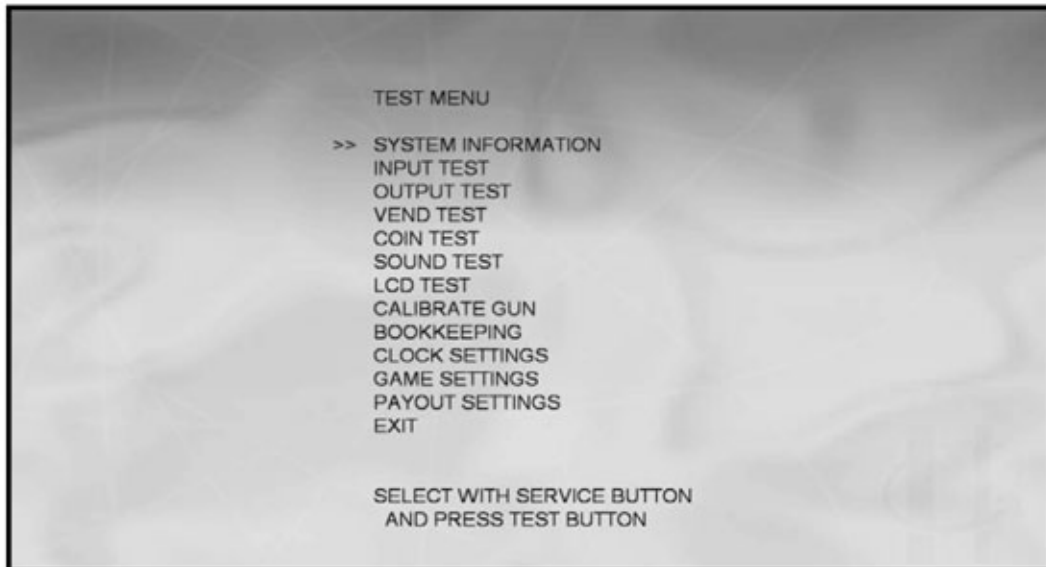
LOADING SCREEN



During power up of the shell software, the Shell name (Target Shell) is shown, and the current revision number. It also performs the following actions:

- 1** Scan for any USB devices inserted that contain game updates or patches, if any are found, they are validated for authenticity and installed.
- 2** Checks I/O board functionality - if a working I/O board is not found, the Shell will display an error message and halt.

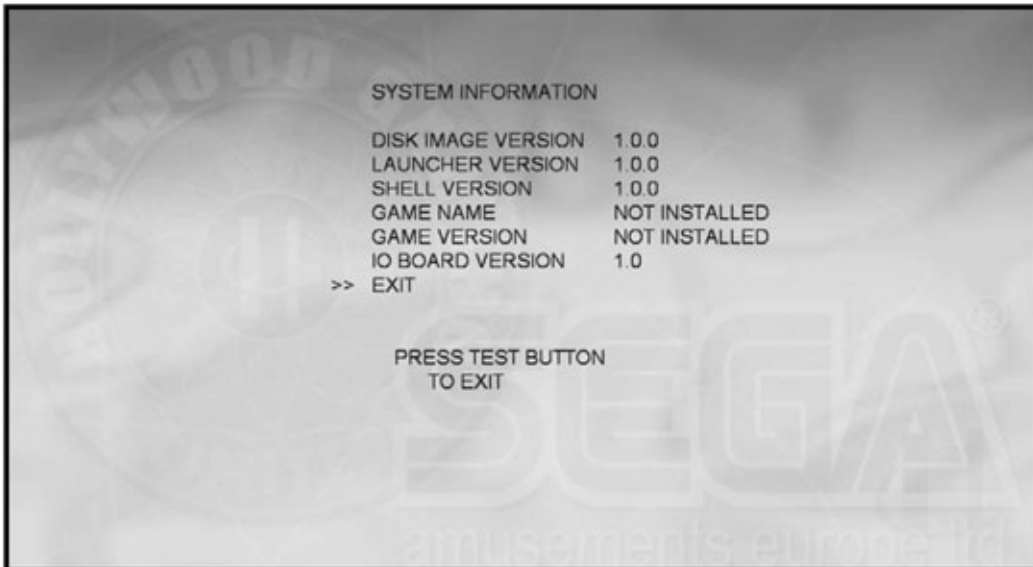
TEST MENU



The Main Test Menu lists all of the available tests, each of which is explained in the following sections.

- 1** Use the Service button to move the Test Cursor to the next Test.
- 2** Use the Test button to activate the test high-lighted by the Test Cursor.
- 3** If the cursor is moved past the EXIT option, it will reappear at the top of the menu list.
- 4** Selecting EXIT will terminate the test routine menu and launch the current game application.

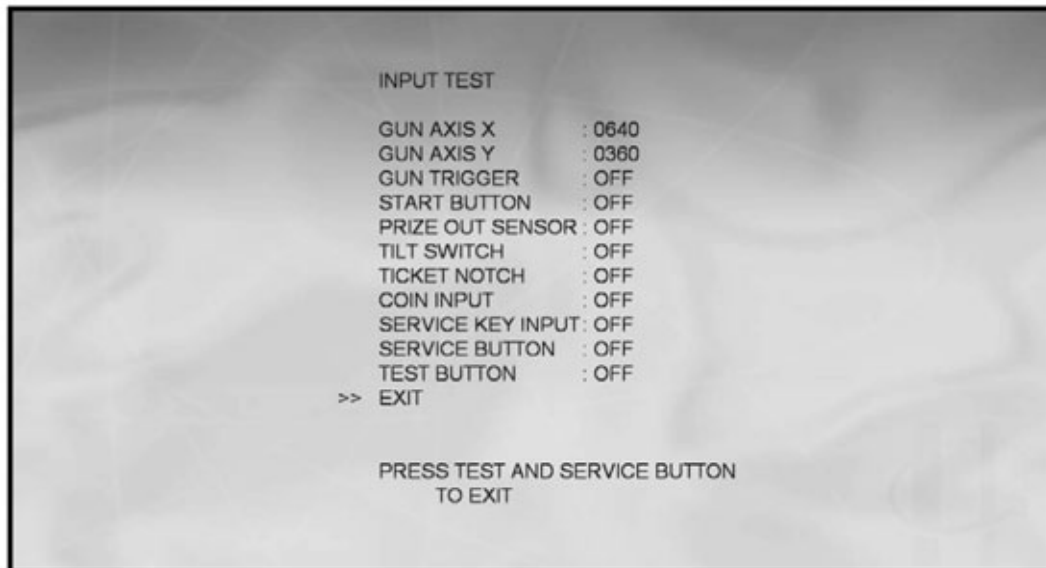
SYSTEM INFORMATION



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

Disk Image Version	Version number for master hard disk image
Launcher Version	Version number of Shell 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 being used

INPUT TEST



This Test monitors all configured input to the system.

There are two types of input : Analogue and Digital.

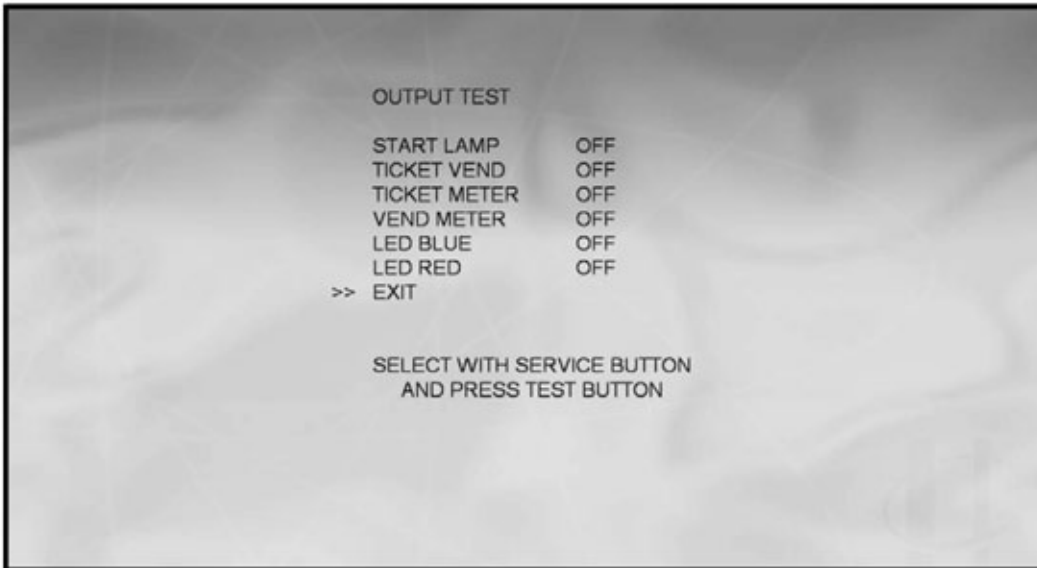
Analogue Inputs are shown as a scaled interger value.

Digital Inputs are shown as being in either ON or OFF stake.

To exit from the Input Test, press the SERVICE and TEST buttons at the same time.

Gun Axis X	Scaled integer value for Analogue X axis gun input
Gun Axis Y	Scaled integer value for Analogue Y axis gun input
Gun Trigger	Gun trigger input
Start Button	Front Panel Start button input
Prize Out Sensor	Prize out opto sensor input
Tilt Switch	Cabinet motion/tilt sensor input
Ticket Notch	Ticket notch sensor input from ticket vend unit
Coin Input	Coin pulse input
Service Key Input	Front panel Service Key Switch input
Service Button	Service button input
Test Button	Test Button input

OUTPUT TEST



This Test can assert all configured outputs from the I/O board.

Start Lamp	Lamp illumination for START button
Ticket Vend	Ticket Vend Drive signal
Ticket Meter	Ticket Meter output
Vend Meter	Vend meter output
Led Blue	Cabinet Blue LED strip output
Led Red	Cabinet Red LED strip output

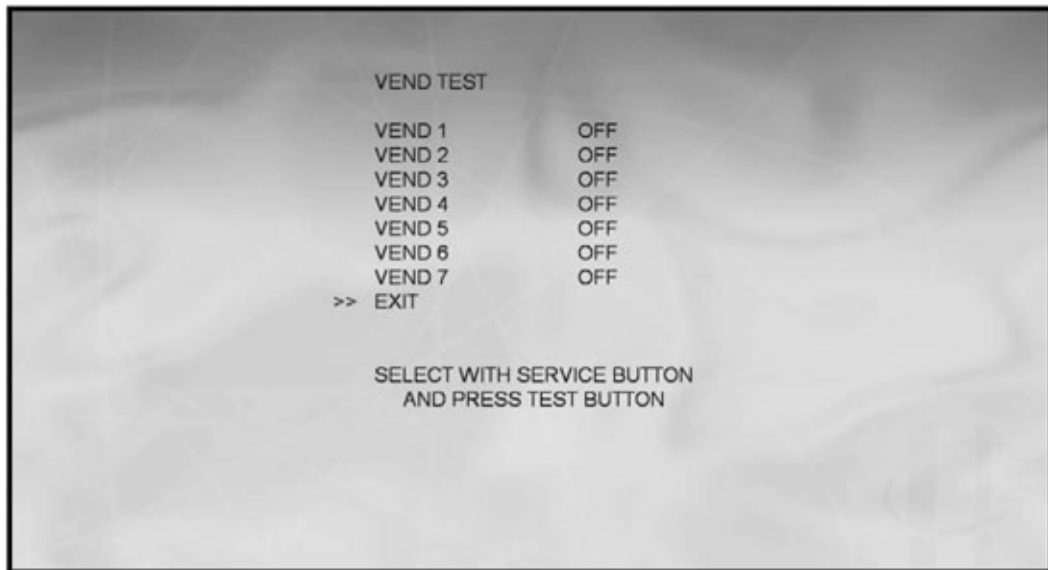
1 Press the **SERVICE** button to select the output to be checked.

2 Pressing the **TEST** button will toggle the output state.

3 All outputs will be set to **OFF** on exit from this test.

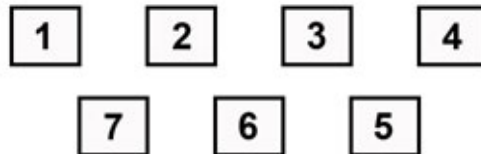
9-1-5 VEND TEST

VEND TEST



This Test can assert all VEND out put drives

VEND drive outputs are assigned as follows :

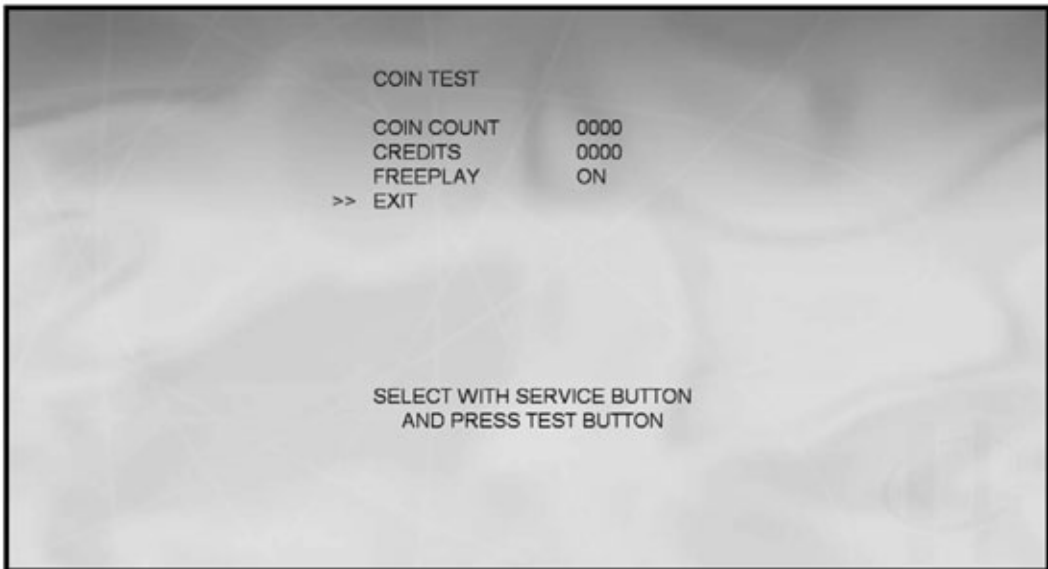


Vend 1	Drive Vend Output 1
Vend 2	Drive Vend Output 2
Vend 3	Drive Vend Output 3
Vend 4	Drive Vend Output 4
Vend 5	Drive Vend Output 5
Vend 6	Drive Vend Output 6
Vend 7	Drive Vend Output 7

1 Use SERVICE button to select VEND number.

2 Pressing TEST will toggle the output state for that VEND.
Note : Only 1 vend output can be driven at any time.

COIN TEST



This Test monitors coin related information

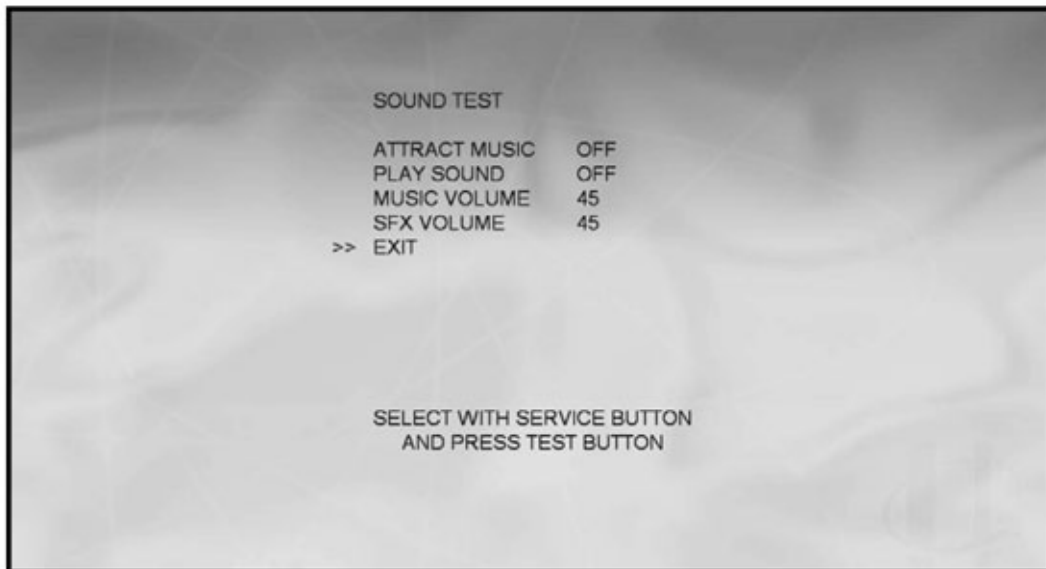
Coin Count - *Coin count value as reported by the I/O board. This value starts from 0 on a machine reset and increments with each coin inserted. Once it reaches 255, it will reset back to 0.*

Credit - *The current number of credits available for game play.*

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

1 **Freeplay** - ON - Game will be in freeplay mode with unlimited credits
OFF - Game will be in normal credit operation.

2 **Exit Coin Test Routine**

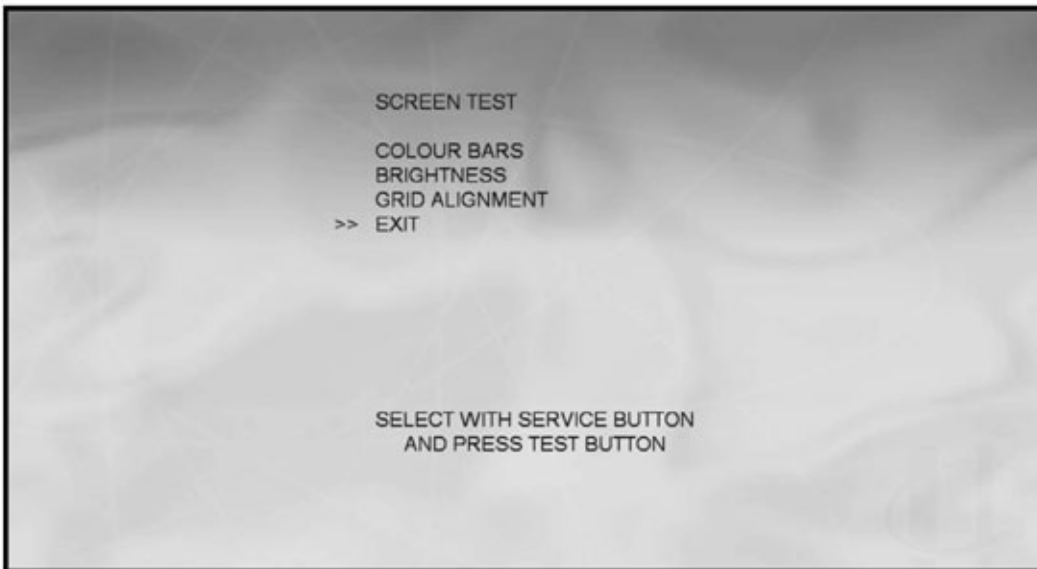
SOUND TEST

This Test is used to set sound parameters for the game.

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

-
- | | | |
|----------|----------------------|---|
| 1 | Attract Music | ON – Music is played in Attract mode.
OFF – No music in Attract mode |
|----------|----------------------|---|
-
- | | | |
|----------|-------------------|--|
| 2 | Play Sound | ON – A test audio sample will be played
OFF - Test audio sample is turned off |
|----------|-------------------|--|
-
- | | | |
|----------|---------------------|---|
| 3 | Music Volume | 00 to 95 – Volume level for in game Music audio |
|----------|---------------------|---|
-
- | | | |
|----------|-------------------|---|
| 4 | SFX Volume | 00 to 95 – Volume level for in game Sound Effects |
|----------|-------------------|---|
-
- | | | |
|----------|--------------------------------|--|
| 5 | Exit Sound Test Routine | |
|----------|--------------------------------|--|

SCREEN TEST



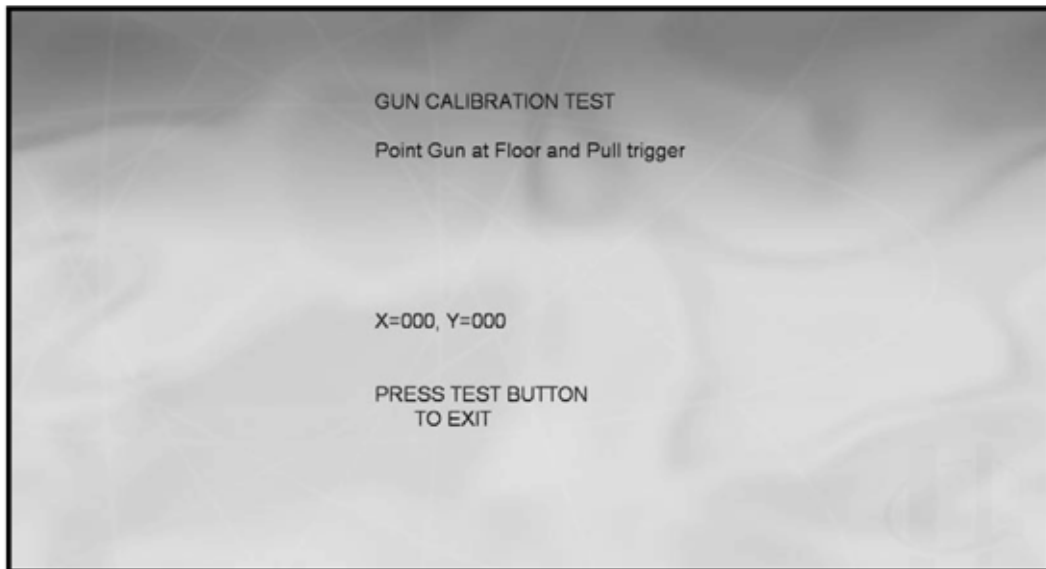
This Test is used to display various test patterns for the display screen.

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

-
- | | | |
|----------|--------------------|---|
| 1 | Colour Bars | Displays vertical colour bars for colour balance correction |
|----------|--------------------|---|
-
- | | | |
|----------|-------------------|--|
| 2 | Brightness | Displays graduated greyscale for brightness adjustment |
|----------|-------------------|--|
-
- | | | |
|----------|-----------------------|---|
| 3 | Grid Alignment | Displays grid for screen size and alignment |
|----------|-----------------------|---|
-
- | | | |
|----------|---------------------------------|--|
| 4 | Exit Screen Test Routine | |
|----------|---------------------------------|--|

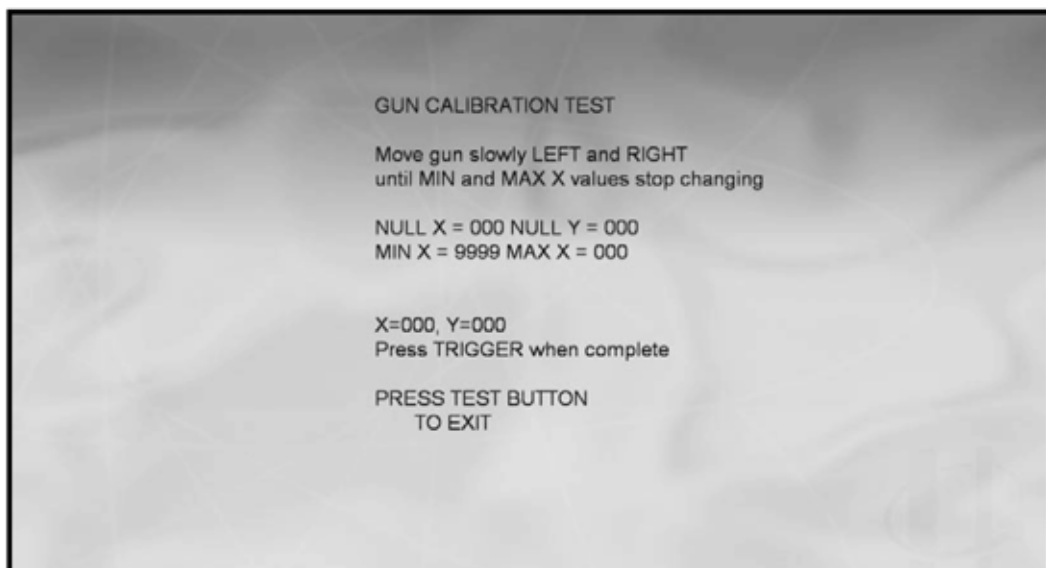
GUN CALIBRATION TEST

Stage 1



This Test is used to calibrate the gun mechanism to ensure reliable and accurate game play. The calibration procedure first requires the trigger to be pressed whilst pointing at the floor – this calibrates the zero, or no signal position.

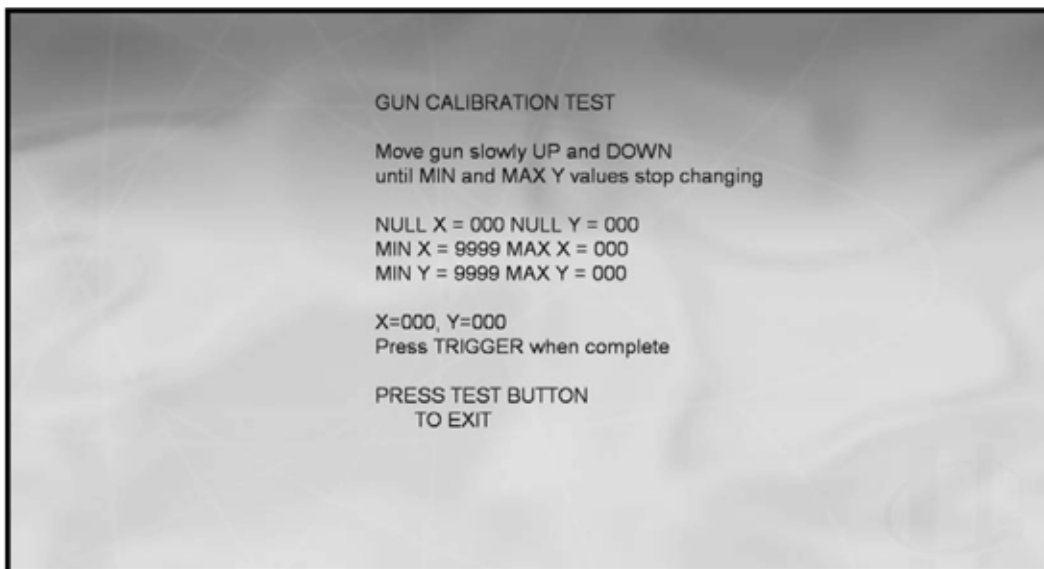
Stage 2



The gun is then moved slowly left and right whilst pointing at the screen. This measures the maximum and minimum detectable X positions.

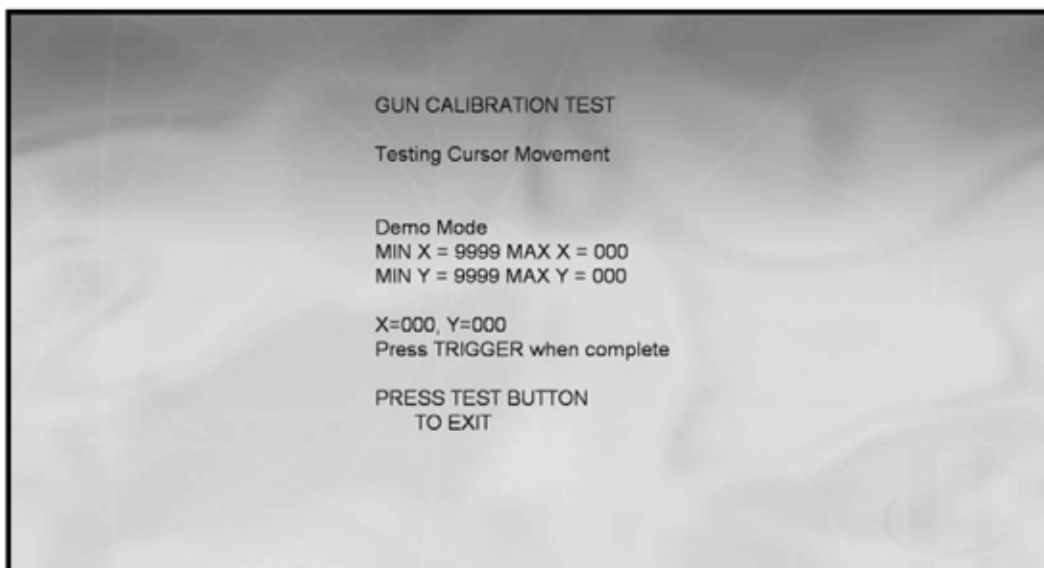
GUN CALIBRATION TEST

Stage 3



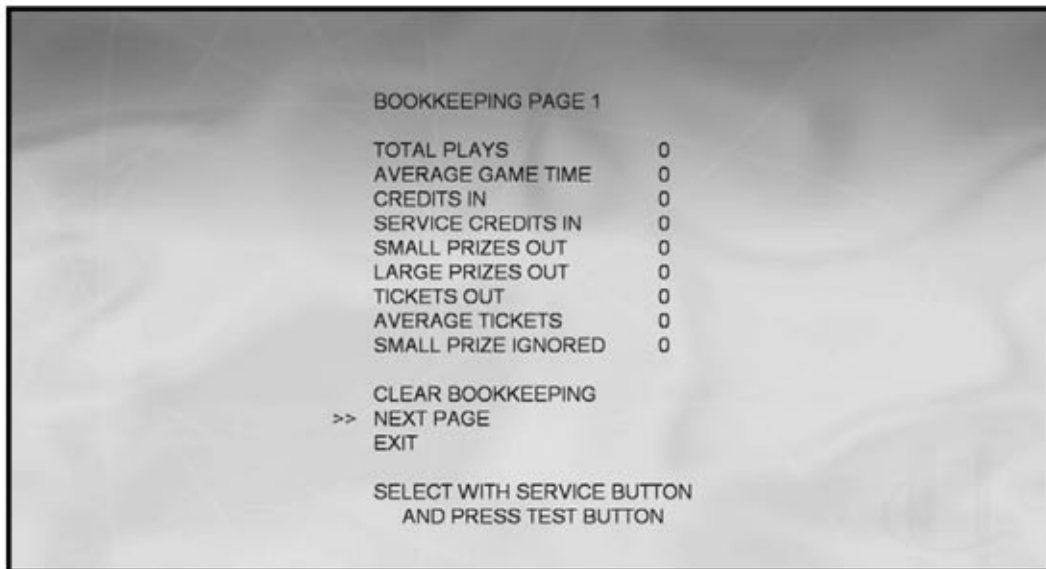
Next, the gun is moved slowly up and down whilst pointing at the screen. This measures the maximum and minimum detectable Y positions.

Stage 4



Finally, the gun can be moved across the screen and a cursor is shown to indicate the detected gun position. The user can then press the gun trigger to terminate the test.

BOOKKEEPING PAGE 1



This Test displays the primary bookkeeping meters.

Total Plays	Total number of games played
Average Game Time	Average time in seconds per game
Credits In	Total number of coin credits inserted
Service Credits In	Total number of Service credits inserted
Small Prizes Out	Total number of Small prizes dispensed
Large Prizes Out	Total number of Large prizes dispensed
Small Prize Ignored	Number of times player ignores small prize
*Tickets Out	Total number of tickets dispensed
*Average Tickets	Average number of tickets dispensed per game

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

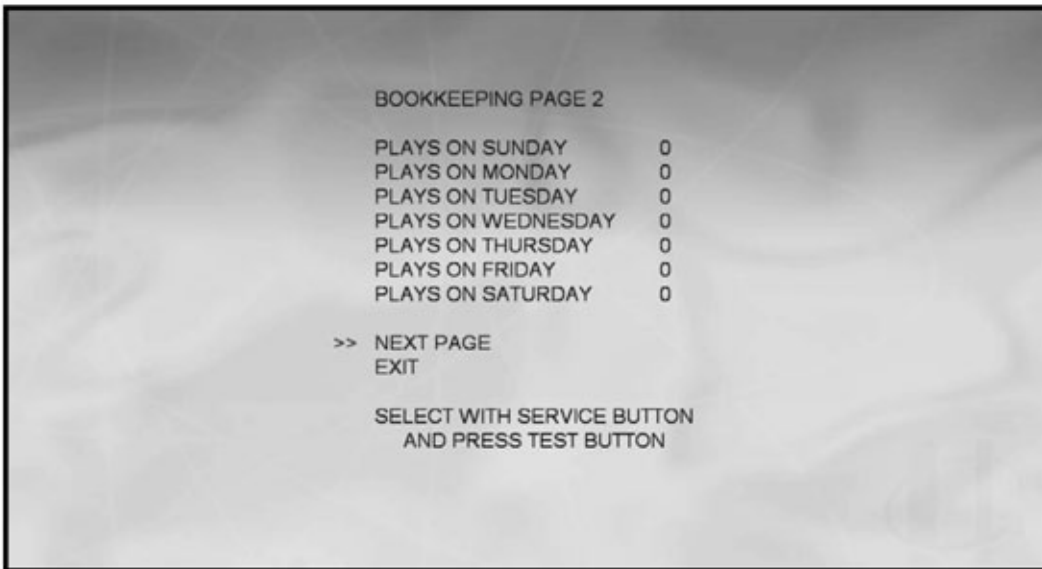
1 Clear Bookkeeping

2 Next Page - Bookkeeping 2
Games played broken down into days of the week.

3 Exit Bookkeeping Book 1

* These options are only displayed if the optional ticket vend update is fitted

BOOKKEEPING PAGE 2



This Test displays a total of games, broken down into days of the week.

Plays On Sunday	Total number of play on a Sunday
Plays On Monday	Total number of play on a Monday
Plays On Tuesday	Total number of play on a Tuesday
Plays On Wednesday	Total number of play on a Wednesday
Plays On Thursday	Total number of play on a Thursday
Plays On Friday	Total number of play on a Friday
Plays On Saturday	Total number of play on a Saturday

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

1 Next Page - Bookkeeping 3
Games played broken down into hours in the day.

2 Exit Bookkeeping Book 2

BOOKKEEPING PAGE 3

BOOKKEEPING PAGE 3		
GAME PLAYS PER HOUR		
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 Test displays a total of games, broken down into hours in a day.

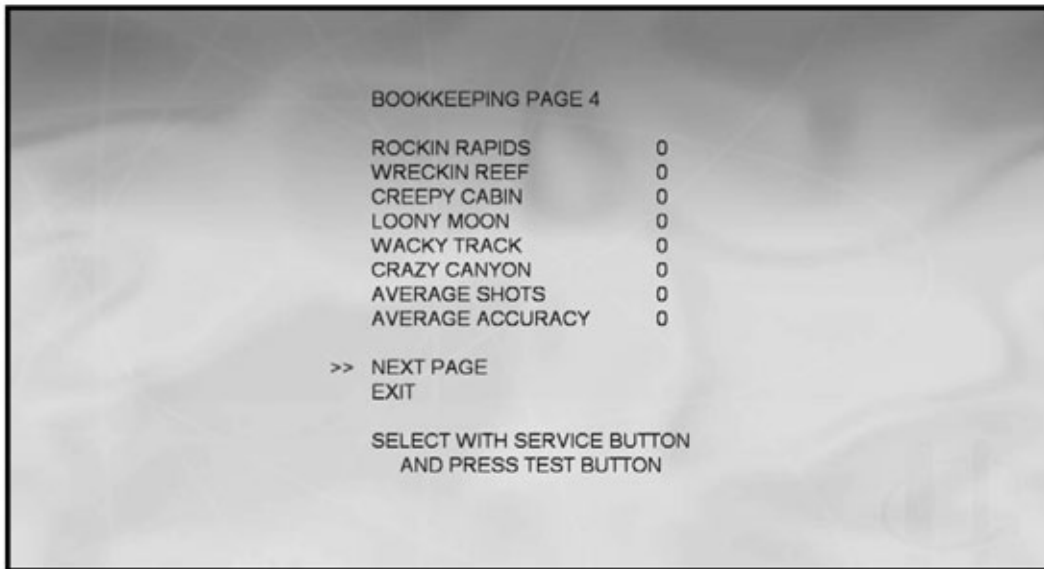
Each hour is logged separately in 24 hour format therefore
 00-01 logs games between 12am and 1am.
 01-02 logs games between 1am and 2am.
 and so on
 23-24 logs games between 11pm and 12 am.

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

1 Next Page - Bookkeeping 4
 Games played on each of the six mini games available

2 Exit Bookkeeping Book 3

BOOKKEEPING PAGE 4



This Test displays a total of games, broken down into the mini games. It also lists average shots fired and overall accuracy.

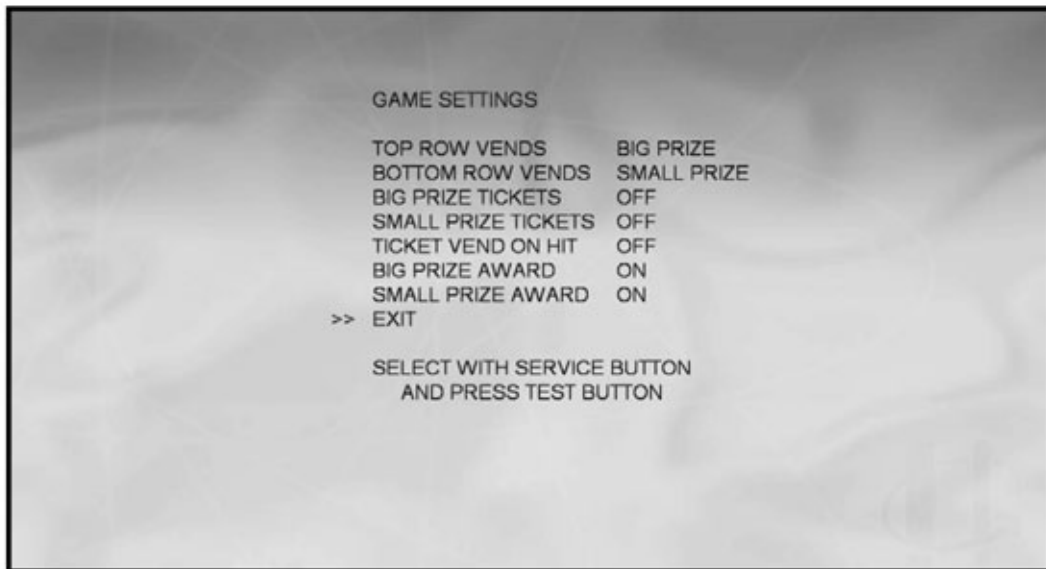
Rockin Rapids	Total number of games played on Rockin Rapids
Wreckin Reef	Total number of games played on Wreckin Reef
Creepy Cabin	Total number of games played on Creepy Cabin
Loony Moon	Total number of games played on Loony Moon
Wacky Track	Total number of games played on Wacky Track
Crazy Canyon	Total number of games played on Carzy Canyon
Average Shots	Average shots fired across all games
Average Accuracy	Average overall accuracy across all games

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

1 Next Page

2 Exit Bookkeeping Book 4

GAME SETTINGS



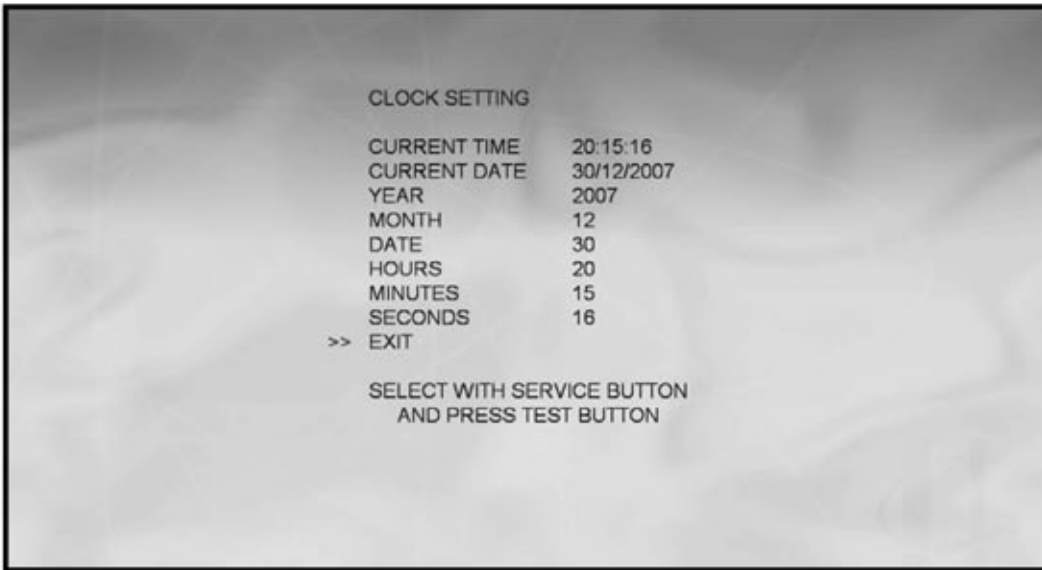
This Test is used to set various game parameters

Use the SERVICE button to navigate, and the TEST button to action changes to the following options. For a value setting press and hold the TEST button to accelerate to the desired level.

1	Big Prize Award	On Off	- Big prizes will be awarded - Big prizes will NOT be awarded
2	Small Prize Award	On Off	- Small prizes will be awarded - Small prizes will NOT be awarded
3	Top Row Vends	Big Prize Small Prize Off	- Vend arms 1 to 4 hold large value prizes - Vend arms 1 to 4 hold small value prizes - Vend arms 1 to 4 are not used
4	Bottom Row Vends	Big Prize Small Prize Off	- Vend arms 5 to 7 hold large value prizes - Vend arms 5 to 7 hold small value prizes - Vend arms 5 to 7 are not used
5	*Big Prize Tickets	Off 1 – 200	- Tickets not dispensed for Big Prize - Value of tickets dispensed for Big Prize
6	*Small Prize Tickets	Off 1 – 200	- Tickets not dispensed for Small Prize - Value of tickets dispensed for Small Prize
7	*Ticket Vend on Hit	Off 1 – 200	- Tickets not dispensed for target hit - Value of tickets dispensed for target hit
8	Exit - Game Setting Routine		

* These options are only displayed if the optional ticket vend update is fitted

CLOCK SETTINGS



This Test is used to set the PC's real time clock facility

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

- | | | |
|----------|-------------------------------------|---|
| 1 | Current Time | Current time in 24 Hour format HH:MM:SS |
| 2 | Current Date | Current date in format DD:MM:YYYY |
| 3 | Year | 2005 to 2050 - Year setting |
| 4 | Month | 1 to 12 - Month setting |
| 5 | Date | 01 to 31 - Date setting (max value month dependant) |
| 6 | Hours | 00 to 23 - Hours setting |
| 7 | Minutes | 00 to 59 - Minutes setting |
| 8 | Seconds | 00 to 59 - Seconds setting |
| 9 | Exit - Clock Setting Routine | |

10 CONTROLLER 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.
- 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 to be sure that there are no gaps or rattling at the junctions and that the trigger can be operated smoothly. If there are gaps or rattling, or if operation is not satisfactory, the players could get fingers or hands caught, resulting in injury.
- Be sure to inspect gun surfaces for cracks and damage. Players could be injured if they play when the unit is cracked or damaged.
- 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.

STOP 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.

If the gun does not operate satisfactorily and adjustments in Test Mode are ineffective, it could be that parts inside the gun have been damaged.

Follow the steps given below to remove the gun, then take it apart and replace parts.

To replace parts in the gun, detach the L and R covers of the outer part.

Because internal parts are inserted on the R cover side, work with the R cover facing downward.

10.1 Microswitch Replacement

- 1 Three kinds of screws are used to fasten the L and R covers. The L and R covers can be detached by removing all ten of these screws.

SCREW (8), black

M3 x 12, w/ small flat & spring washers



SCREW (1), black

M3 x 10, w/ small flat & spring washers

COUNTERSUNK-HEAD SCREW (1), black

M3 x 8

FIG. 10a

- 2 With the R cover on the bottom, remove the L cover by slowly lifting it straight up.

- 3 Remove the trigger microswitch from the R cover.

MICROSWITCH
509-5080

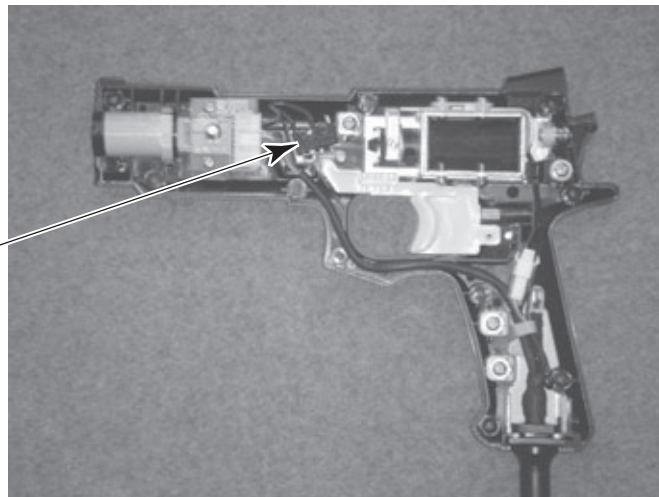


FIG. 10b

- 4 Remove the soldered part and then remove the microswitch.

- 5 Solder the new microswitch. Employ heat shrinkable tubing to protect the soldered part. Reassemble the gun. Operate the trigger to fully verify that the microswitch turns on and off properly. Then, reattach the L cover to the R cover. Do not tighten the screws excessively.

- 6 After replacing the microswitch, refer to the section titled "GAME TEST MODE". Conduct an Input Test.

10.2 Sensor Unit Replacement

1 Remove the L cover following the same procedures used when replacing a microswitch.

2 Remove the connector and then remove the sensor unit.

SENSOR UNIT
APA-2030

Remove the connector.

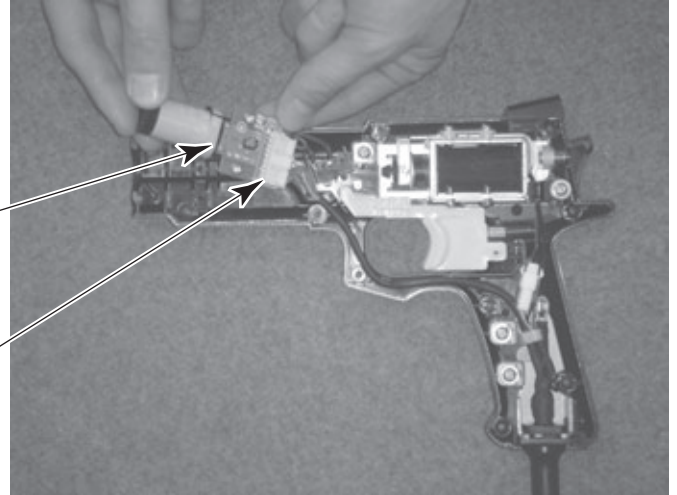


FIG. 10c

3 After replacing the sensor unit, reassemble the gun. Operate the trigger to fully verify that the microswitch turns on and off properly. Then, reattach the L cover to the R cover.

4 After replacing the sensor unit, refer to the section titled "GAME TEST MODE" . Conduct a Gun Adjustment Test.

10.3 Solenoid Replacement (If fitted)

1 Remove the L cover following the same procedures used when replacing a microswitch.

2 Remove the cord clamp fastening the cable and remove the connector.

Remove the connector.

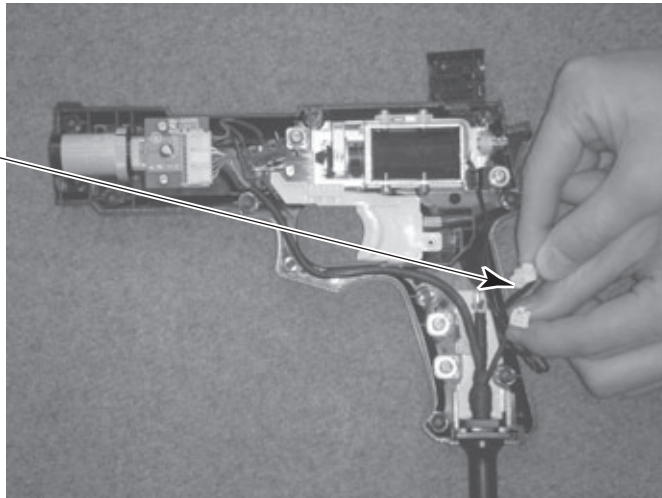


FIG. 10d

3 Remove the two screws and remove the solenoid ASSY.

SOLENOID ASSY

SCREW (2)
M4 x 8, w/flat & spring washers

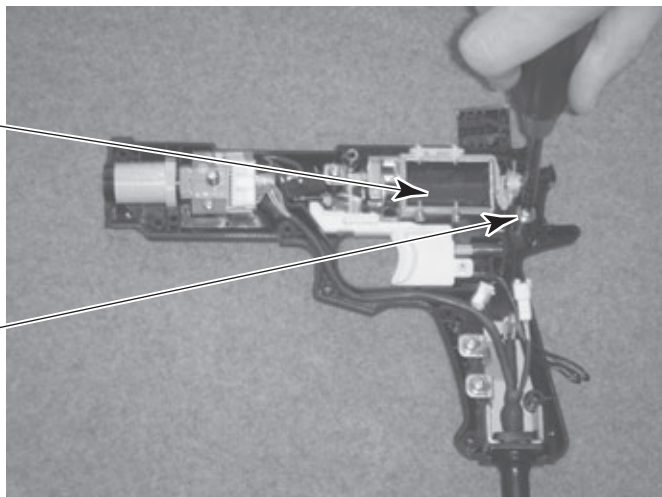


FIG. 10e

4 Pay special attention to spring washers and other small parts when removing the solenoid.

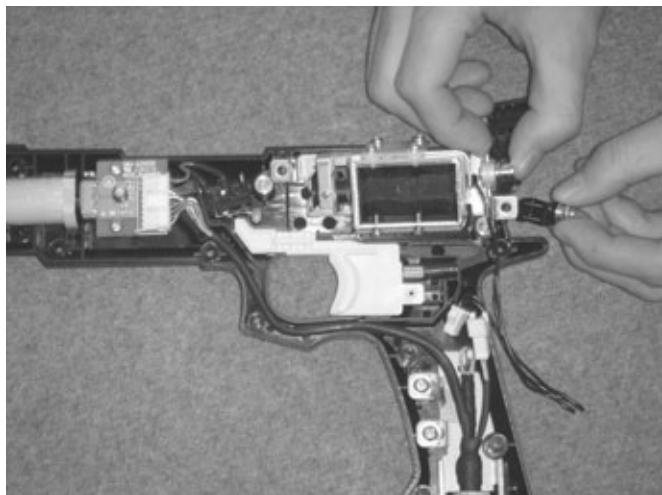


FIG. 10f

5 Remove the eight screws and an E-ring (2 mm), and replace the solenoid. Be careful not to lose small parts during this procedure.

SCREW (8)
M3 x 6, w/spring washer

SOLENOID
124-5101

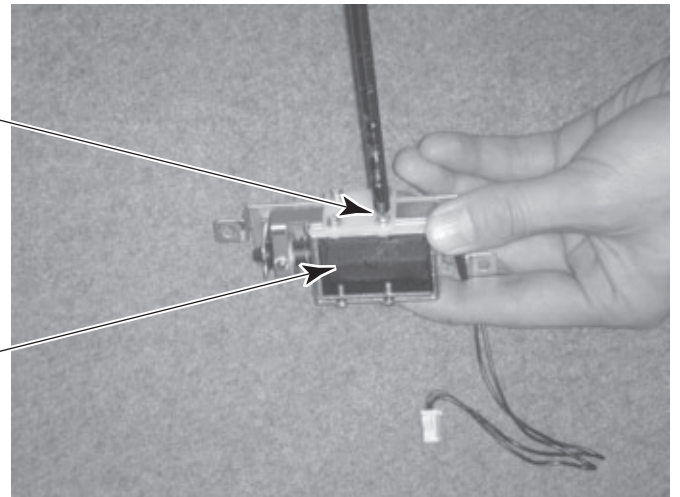


FIG. 10g

E-RING
2 mm

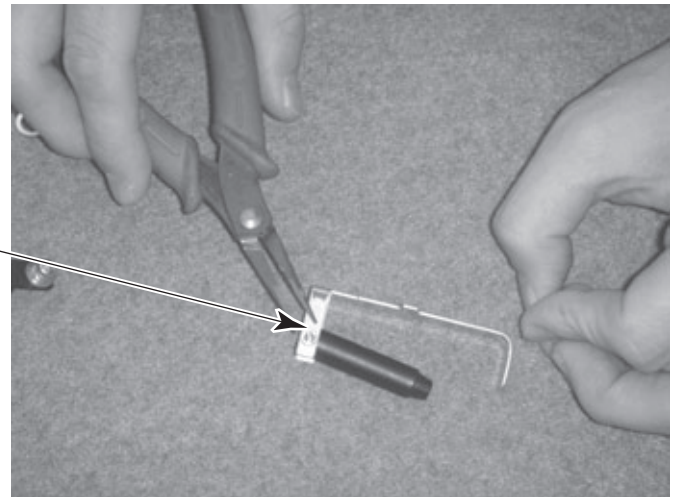


FIG. 10h

6 Attach the solenoid ASSY with two screws and connect the connector. Be careful not to damage the wiring.

7 Refer to the preceding sections regarding part replacement. Reattach the L cover, handling each part with appropriate care.

8 After replacing the solenoid, refer to the section titled GAME TEST MODE. Conduct an Output Test.

11 GRAPHICS DISPLAY

11-1 SAFETY PRECAUTIONS WHEN HANDLING THE DISPLAY

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 display' 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 display 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 display.

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

For inspections, adjustments, and repair of the display' 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 surface once a week.

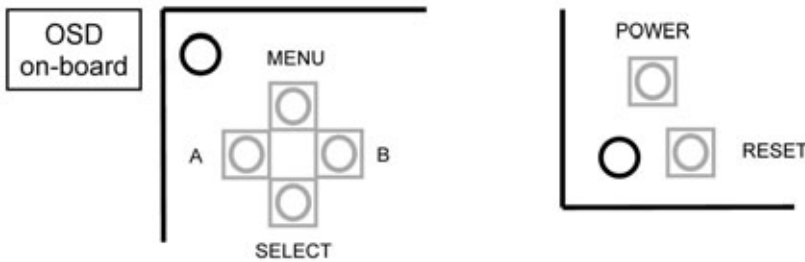
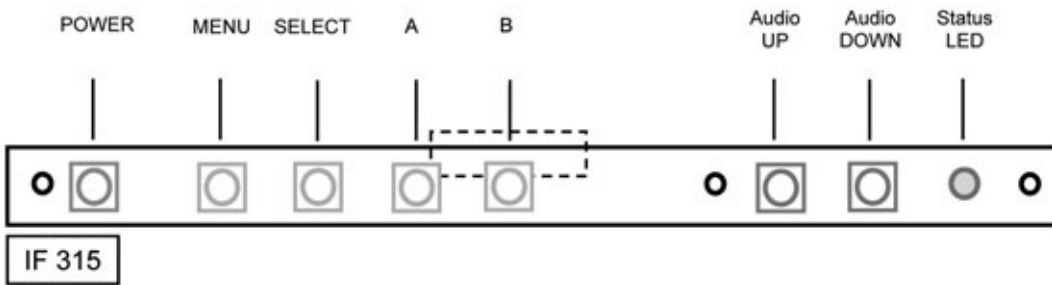
STOP IMPORTANT

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.

11.3 ON SCREEN DISPLAY MENU AND USER CONTROLS

The OSD allows selection of input source and fine tuning of various functional parameters like brightness, contrast etc. These parameters can be adjusted by onboard push buttons. These buttons are located on the reverse side of the display housing toward the right hand edge in a vertical position.

The function of these buttons is as follows:



The status LED on the external interface and the two LEDs on the Prisma show the current status of the board (Table 1).

Table 1 : Status LEDs

Color	Meaning
Green	Normal operation
Red	No signal Input signal not supported

11-3 ADJUSTMENT METHOD

Up to six buttons of the OSD control can either be used to Navigate within the OSD or to access various functions directly.

Tables 2 & 3 give you an overview about the functionality.

Table 2 : Functionality while the OSD is Closed

Key	Function	Remark
POWER	Switch Power On / Off	
MENU	Enters the OSD Main Menu	
SELECT	-	
A	Execute Autoconfiguration	
B	Switch Input Port	Sequence is RGB, DVI, CVBS, S-Video
Audio Up	Increase Audio Volume	Not Operational on this model.
Audio Down	Decrease Audio Volume	Not Operational on this model.
RESET	Reset unit to last saved state	

Table 3 : Functionality while OSD is open.

Key	Function	Remark
POWER	Switch Power On / Off	
MENU	Leave OSD main menu Leave submenu	
SELECT	Enter submenu	
	Select color	In color submenu
A	Select previous menu item	In main menu or in submenu
	Move picture to the left	In H-Position submenu
	Move picture up	In V-Position submenu
	Decrease slider value	
	Toggle On/Off	
B	Select next menu item	In main menu or in submenu
	Move picture to the right	In H-Position submenu
	Move picture down	In V-Position submenu
	Increase slider value	
	Toggle On/Off	
Audio Up	Increase Audio Volume	
Audio Down	Decrease Audio Volume	
RESET	Reset Prisma to last saved state	

12 COIN SELECTOR AND CREDIT SETTINGS

When the REJECT button fails to refund coins, open the coin chute door and open the selector gate. Once the jammed coin is removed, insert a standard coin to ensure that the selector is working properly.

12-1 CLEANING THE COIN SELECTOR

STOP IMPORTANT

- Remove and clean smears using a soft cloth dipped in water or diluted chemical detergent which is then wrung dry.
- Never apply machine oil, etc. to the coin selector.
- After cleaning the coin selector, properly insert a standard coin to ensure that the selector functions correctly.

The coin selector should be cleaned once every 3 months. When cleaning, follow the procedures below:

1 Turn off game unit power supply. Open coin chute door.

2 Remove coin selector from coin chute door.

3 Open gate and wipe away dirt with animal hairbrush or other soft brush.

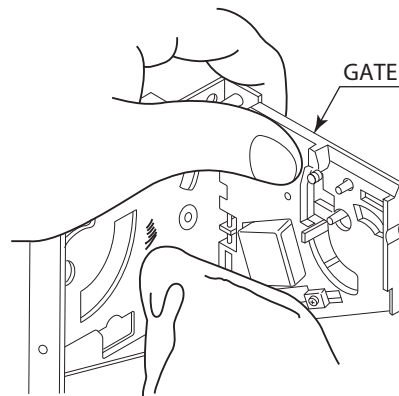


FIG. 12a

4 Soak a soft cloth in water or a neutral cleaning agent diluted with water, wring it tightly and wipe away dirt.

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

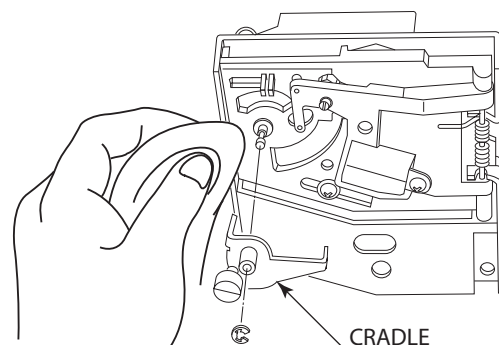


FIG. 12b

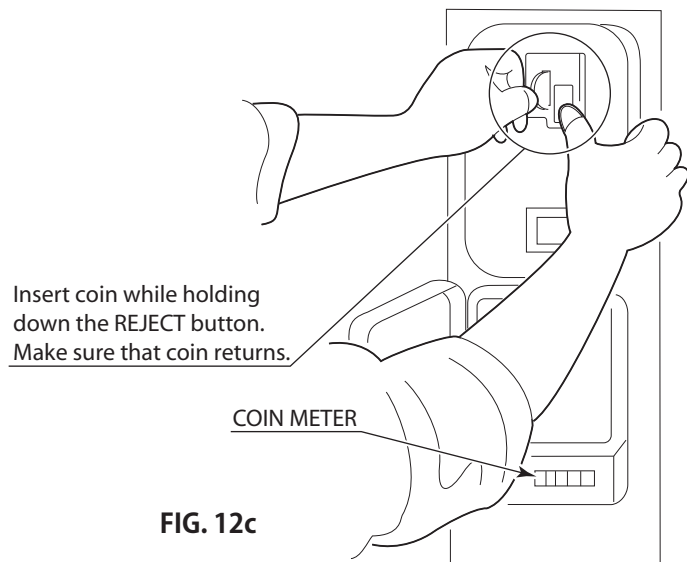
6 Use soft cloth to wipe dirt from rotary shaft and bearing.

7 After wiping off dirt, wipe away moisture with a dry cloth and make sure that the coin selector is completely dry.

Coin Insertion Test

Carry out a coin insertion test once per month. At the same time, check the following points:

- Does the coin meter count properly?
- Do coins drop into the cashbox correctly?
- Are coins rejected when inserted while holding down the REJECT button?



PRICE OF PLAY SETTINGS FOR EURO

Price	Bonus					DIL Switch 1				
	1	2	3	4	5	1	2	3	4	5
10¢	50¢ = 5 plays	€1 = 10 plays	€2 = 20 plays			OFF	OFF	OFF	OFF	OFF
10¢	50¢ = 6 plays @ 8.33p per play	€1 = 12 plays @ 8.33¢ per play	€2 = 24 plays @ 8.33¢ per play			ON	OFF	OFF	OFF	OFF
20¢	50¢ = 2.5 plays	€1 = 5 plays	€2 = 10 plays			OFF	ON	OFF	OFF	OFF
20¢	50¢ = 3 plays @ 16.66¢ per play	€1 = 6 plays @ 16.66¢ per play	€2 = 12 plays @ 16.66¢ per play			ON	ON	OFF	OFF	OFF
30¢	50¢ = 1.66 plays	€1 = 3.33 plays	€2 = 6.66 plays			OFF	ON	OFF	OFF	OFF
30¢	50¢ = 1.66 plays	€1 = 4 plays @ 25¢ per play	€2 = 8 plays @ 25¢ per play			ON	OFF	ON	OFF	OFF
30¢	50¢ = 2 plays @ 25¢ per play	€1 = 4 plays @ 25¢ per play	€2 = 8 plays @ 25¢ per play			OFF	ON	ON	OFF	OFF
30¢	50¢ = 2 plays @ 25¢ per play	€1 = 3 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play			ON	ON	ON	OFF	OFF
40¢	50¢ = 1.25 plays	€1 = 2.5 plays	€2 = 5 plays			OFF	OFF	OFF	ON	OFF
40¢	50¢ = 1.25 plays	€1 = 3 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play			ON	OFF	OFF	ON	OFF
50¢	50¢ = 1 play	€1 = 2 plays	€2 = 4 plays			OFF	ON	OFF	ON	OFF
50¢	50¢ = 1 play	€1 = 3 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play			ON	ON	OFF	ON	OFF
50¢	50¢ = 1 play	€1 = 2 plays	€2 = 5 plays @ 40¢ per play			OFF	OFF	ON	ON	OFF
50¢	50¢ = 1 play	€1 = 1.66 plays	€2 = 3.33 plays			ON	OFF	ON	ON	OFF
60¢	50¢ = 0.83 play	€1 = 1.66 plays	€2 = 3.33 plays			ON	OFF	ON	ON	OFF
60¢	50¢ = 0.83 play	€1 = 2 plays @ 50¢ per play	€2 = 4 plays @ 50¢ per play			OFF	ON	ON	ON	OFF
80¢	50¢ = 0.62 play	€1 = 1.25 plays	€2 = 2.5 plays			ON	ON	ON	ON	OFF
80¢	€1 = 1.25 plays	€1 = 2 plays @ 75¢ per play	€2 = 2.5 plays			OFF	OFF	OFF	OFF	ON
€1	2x50¢ = 1 play	€1 = 1 play	€2 = 2 plays			ON	OFF	OFF	OFF	ON
€1	2x50¢ = 1 play	€1 = 1 play	€2 = 2 plays			OFF	ON	OFF	OFF	ON
€1	2x50¢ = 1 play	€2 = 2 plays	€3 = 3 plays @ 66.6¢ per play			ON	ON	OFF	OFF	ON
€1.50	3x50¢ = 1 play	€1 = 0.66 plays	€3 = 2 plays			OFF	OFF	ON	OFF	ON
€1.50	3x 50¢ = 1 play	€1 = 0.66 plays	€2 = 2 plays @ €1 per play			ON	OFF	ON	OFF	ON
€2	4x 50¢ = 1 play	€1 = 0.5 play	€2 = 1 play			OFF	ON	ON	OFF	ON
€2	4x 50¢ = 1 play	€1 = 0.5 play	€5 = 3 plays @ €1.66 per play			ON	ON	ON	OFF	ON
€3	6x50¢ = 1 play	€1.50 = 0.5 play	€3 = 1 play			OFF	OFF	OFF	ON	ON
€3	6x50¢ = 1 play	€1.50 = 0.5 play	€5 = 2 plays @ €2.50 per play			ON	OFF	OFF	ON	ON
€5	€1 = 0.2 play	€5 = 1 play	€10 = 2 plays			OFF	ON	OFF	ON	ON
€5	€1 = 0.2 play	€5 = 1 play	€10 = 3 plays @ 3.33¢ per play			ON	ON	OFF	ON	ON
€7.50	€5 = 0.66 play	€10 = 1.33 plays	€15 = 2 plays			OFF	OFF	ON	ON	ON
€7.50	€5 = 0.66 play	€10 = 1.33 plays	€10 = 2 plays @ €5 per play			ON	OFF	ON	ON	ON
€10	€10 = 1 play	€20 = 2 play	€30 = 3 play			OFF	ON	ON	ON	ON
		Free Play				ON	ON	ON	ON	ON

PRICE OF PLAY SETTINGS FOR UK

	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	

12-3 STERLING / EURO SELECTION

12

COIN HANDLING

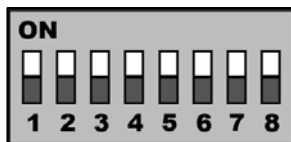
The SR3 coin acceptor (supplied) is programmed to accept UK Sterling and the Euro coin set, the factory setting is for the UK Sterling. If the configuration needs to be changed to Euro, then please follow the instruction below for changing over to the Euro, and vice versa.

BANK SELECT

This function allows you to enable both or individual select banks of coins via switches 7 & 8 on the 8 way DIL switch.

This enables the selection of two different currencies upto 6 coins each, one in each Bank, or all 12 coins if both banks are selected.

To enable banks set the switches as shown below.



Sw.7	Sw. 8
Off	Off

**Both Coin Banks Enabled
UK Sterling and EURO's**



Sw.7	Sw. 8
Off	ON

**Coin Back 1 Enabled
UK Sterling Only**



Sw.7	Sw. 8
ON	Off

**Coin Back 2 Enabled
EURO's Only**

12-4 SR3 TEACH & RUN OPTION INFORMATION

TEACH and RUN

The SR3 can have the option to enable TEACH & RUN on all 12 coins. The specific coin channel to be programmed is selected using switch 1 (MSB) to switch 4 (LSB) on the 6 way DIL switch.

Programming Steps

To programme a coin/token please follow these 6 steps.

- Step 1. Switch off the power to the SR3
- Step 2. Set the 6 way DIL switch to the relevant coin to be programmed.
(see TABLE 1 and TABLE 2).
- Step 3. Switch on the power to the SR3.
- Step 4. Press the reject lever within 20 seconds. (The LED will turn RED.)
- Step 5. Start entering the coins or tokens you wish to teach until the LED flashes
GREEN, typically after 8 to 10 insertions.

If the LED turns GREEN after the first coin is inserted, then Teach and Run is DISABLED.

- Step 6. Press the reject lever and the LED will return to constant GREEN.

The coin channel is now programmed.

To programme further coin channels, repeat process from step 1. Once you have finished programming, return all switches to the OFF position.

The first coin inserted after Teach & Run may reject. Subsequent coin should then be accepted.

Notes:

If a large sample of coins/tokens are used, then the coin channel sensor window will be more accurate and a higher acceptance of true coins/tokens should be seen. If only a single coin/token is used, coin channel sensor windows will be programmed which may not truly reflect the coin/token population.

If significantly more than 10 coins have been inserted and the LED is still not changing to

GREEN, this could be caused by three possible reasons.

- a) The coins/tokens being used are actually two different types although they look the same.
- b) The coins/tokens being used are poorly manufactured/minted.
- c) The SR3 is at fault.

Even though a coin/token has been programmed make sure that the coin channel has

actually been enabled. Teach & Run does not actually enable the taught coin/token.

12-4 SR3 TEACH & RUN PROGRAMMING

If the machine is positioned in location where tokens are used, then the SR3 Coin acceptor can be programmed to accept and credit special coins/tokens

Please follow the instruction below to enable and program the TEACH AND RUN facility.

BANK 1

Table 1 - Teach and Run Programming Bank 1

Coin NO.	SW 1	SW 2	SW 3	SW 4	SW 5	SW 6
1	Off	Off	Off	ON	ON	Off
2	Off	Off	ON	Off	ON	Off
3	Off	Off	ON	ON	ON	Off
4	Off	ON	Off	Off	ON	Off
5	Off	ON	Off	ON	ON	Off
6	Off	ON	ON	Off	ON	Off

BANK 2

Table 2 - Teach and Run Programming Bank 2

Coin NO.	SW 1	SW 2	SW 3	SW 4	SW 5	SW 6
7	Off	ON	ON	ON	ON	Off
8	ON	Off	Off	Off	ON	Off
9	ON	Off	Off	ON	ON	Off
10	ON	Off	ON	Off	ON	Off
11	ON	Off	ON	ON	ON	Off
12	ON	ON	Off	Off	ON	Off

Teach and Run EXAMPLE (To teach coin channel 12 for £1 coins.

Switch off the power to the SR3 and set the Program DIL switches to :



MSB SW 1	SW 2	SW 3	LSB SW 4	TOTAL	SW 5	SW 6
ON	ON	OFF	OFF	12	ON	OFF

Switch on the power to the SR3.

Press the reject lever within 20 seconds, the LED will turn RED.

Start entering £1 coins until the LED flashes GREEN, typically after 8 to 10 insertions.

NOTE: If the LED turns Green after the 1st coin, then the Teach & Run is DISABLED.

Press the reject lever and the LED will turn GREEN.

The coin channel has now been PROGRAMMED.

SET ALL SWITCHES BACK TO THE 'OFF' POSITION

13 FLUORESCENT LAMP REPLACEMENT

WARNING

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

CAUTION

Be careful when handling parts made of plastic or glass. For example, be careful not to tighten screws excessively. If such parts are damaged, injuries could be caused by fragments, cracks, etc.

WARNING

- Do not attempt to remove the fluorescent lamp whilst the machine is powered up. Always disconnect the machine from the main power supply before changing the lamp.

Follow the instructions below to safely replace the fluorescent lamp. Always replace the lamp with one of the same type and specification.

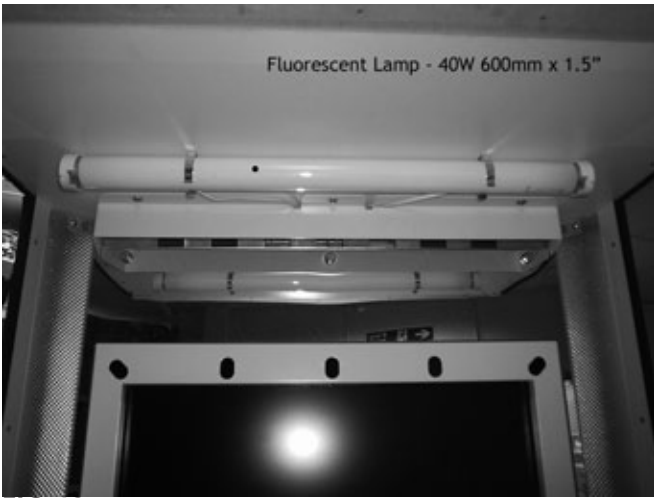


FIG. 13a

1. Locate the Fluorescent lamp positioned on the inside roof of the cabinet.



FIG. 13b

2. Hold the lamp firmly in two hand and pull down at the point where the lamp is clamped.

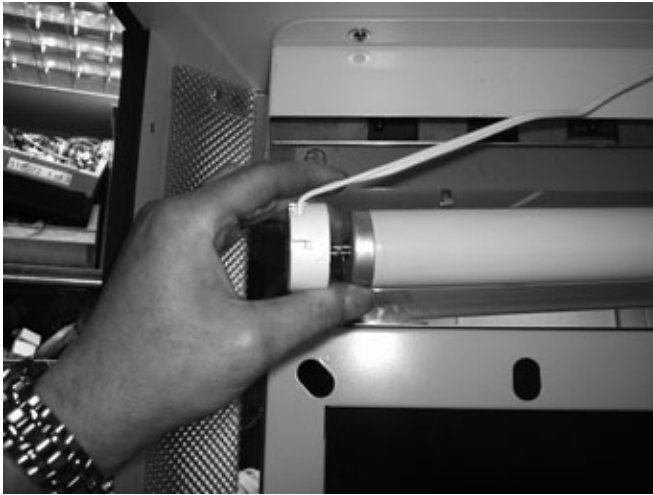


FIG. 13c

3. Unclip the end caps from the lamp by pulling directly outward.



FIG. 13d

4. Fit the new lamp and replace following the directions in reverse order..

IMPORTANT!

PLEASE WEAR PROTECTIVE CLOTHING / EQUIPEMENT WHEN CHANGING FLUORESCENT LAMPS. PROTECTIVE GLOVES AND EYEWEAR ARE RECOMMENDED.

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.

Players operate the gun by touching it and holding it with their hands. Clean the gun on a regular basis and have hand wipes, etc. available to ensure that players will always fully enjoy the game.

⚠ WARNING

- **Be sure to check once a year to see whether power cords are damaged, the plug is securely inserted, dust has accumulated between the socket outlet and the power plug, etc. Using the product with accumulated dust can cause fire and electric shock.**
- **Never use a water jet, etc. to clean inside and outside the cabinet. If the machine gets wet for any reason, do not use it until it has completely dried.**
- **Periodically, around once a year, get in touch with the place of contact herein stated or the distributor, etc. where the product was purchased from, regarding internal cleaning. Using the product with accumulated dust in the interior can cause a fire or accident. Note that professional cleaning will require a fee.**
- **There is the danger of accidents involving electrical shorts circuits or fire caused by factors such as the deterioration of insulation in electrical and electronic equipment over time. Check that there are no abnormalities such as odors from burning.**

TABLE 14 PERIODIC INSPECTION TABLE

ITEMS	DESCRIPTION	PERIOD	REFERENCE
CABINET	Confirm that adjusters contact floor	Daily	3, 6, 7
MONITOR (LCD DISPLAY)	Screen cleaning	Weekly	11
	Check screen adjustment	Monthly	11
GUN CONTROL UNIT	Cleaning, Inspection	Daily	10
	Check gun adjustment	Weekly	9,10
	Microswitch test	Monthly	9,10
	Inspection of solenoid	Monthly	9,10
COIN SELECTOR	Coin insertion test	Monthly	12
	Cleaning	Every 3 months	12
FLUORESCENT LAMPS	Inspection of lighting fixtures	As appropriate	13
ELECTRICAL/ELECTRONIC PARTS	Inspection	As appropriate	As above
CABINET INTERIOR	Cleaning	1 year	As above
POWER CABLE	Inspection, Cleaning	1 year	As above
CABINET SURFACES	Cleaning	As appropriate	See below

Cleaning the Cabinet Surfaces

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

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

15 TROUBLESHOOTING

15-1 TROUBLE NOT RELATED TO THE GAME BOARD

If a problem has occurred, first inspect the connection of the wiring connection.

15-1 TABLE 01 TROUBLESHOOTING TABLE

PROBLEMS	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.
Color on projector screen is strange.	Screen adjustments are inappropriate.	Adjust screen appropriately. (See Chapter 11.)
No sound output.	Volume is not adjusted properly.	Adjust the volume. (See Chapter 9)
	Board or amp malfunction.	Check by performing a speaker test. (See Chapter 9.)
Target position of Gun doesn't match.	Due to external or environmental factors the targeting is off.	Adjust Gun Calibration in the test mode (See Chapter 9.)
	Could be interaction from other machine of the type sited locally.	Remove the Game Interference Harness. (See Chapter 6.)
The Gun doesn't operate as expected.	The Gun sensor is faulty.	Check to see that the sensor turns on and off normally in the Test Mode. If operation is abnormal despite wiring being properly connected, the sensor may be faulty. (See Chapters 9 and 10.)
	The Gun trigger switch is faulty.	Check the operation of the Switch. (See Chapter 10)
	The position of the Sight is not displayed.	Wipe away dirt from the surface. (See Chapters 10 and 11.)
The lights in the cabinet don't come on.	The fluorescent light is dead.	Exchange the fluorescent light. (See Chapter 13.)

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 expose the game board, etc. for any reason. Doing so may cause electric shock or malfunctioning.
- No connectors other than those connected on the game board when first delivered can be used by this product. Do not connect any other wires to any of the unused connectors. This may lead to the generation of heat, smoke or burn outs.
- When replacing or repairing the game board and then returning it to the cabinet, be sure to reconnect all the connectors correctly. Improper connection may cause electric shock, short circuit or fire.
- When connecting the connectors, be sure to attach them correctly. There is only one correct way in which they must be connected. Attempting to connect them incorrectly may cause damage to the pins on the connectors, and cause electric shock, short circuit or fire.

CAUTION

- In this product, setting changes are made using 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.
- The chip parts on IC boards can be damaged by electrostatic discharge from the human body. Before handling an IC board, always neutralize any static charge in the body by touching a grounded metal surface.
- Be careful not to get fingers caught when removing doors or other parts.

IMPORTANT

- When exchanging the game board, place and post the damaged board in appropriate packaging.
- When sending a board for repairs, do not dismantle the board in any way prior to sending it away. It may not be possible to meet your request if any parts are missing.

16-2 COMPOSITION OF THE GAME BOARD

STOP IMPORTANT

- The game board for this product is dedicated and not to be used in any other SEGA product. Trying to connect this game board in to any other product other than the one described in this manual WILL cause electrical damage, fire hazzard or electrical shock.

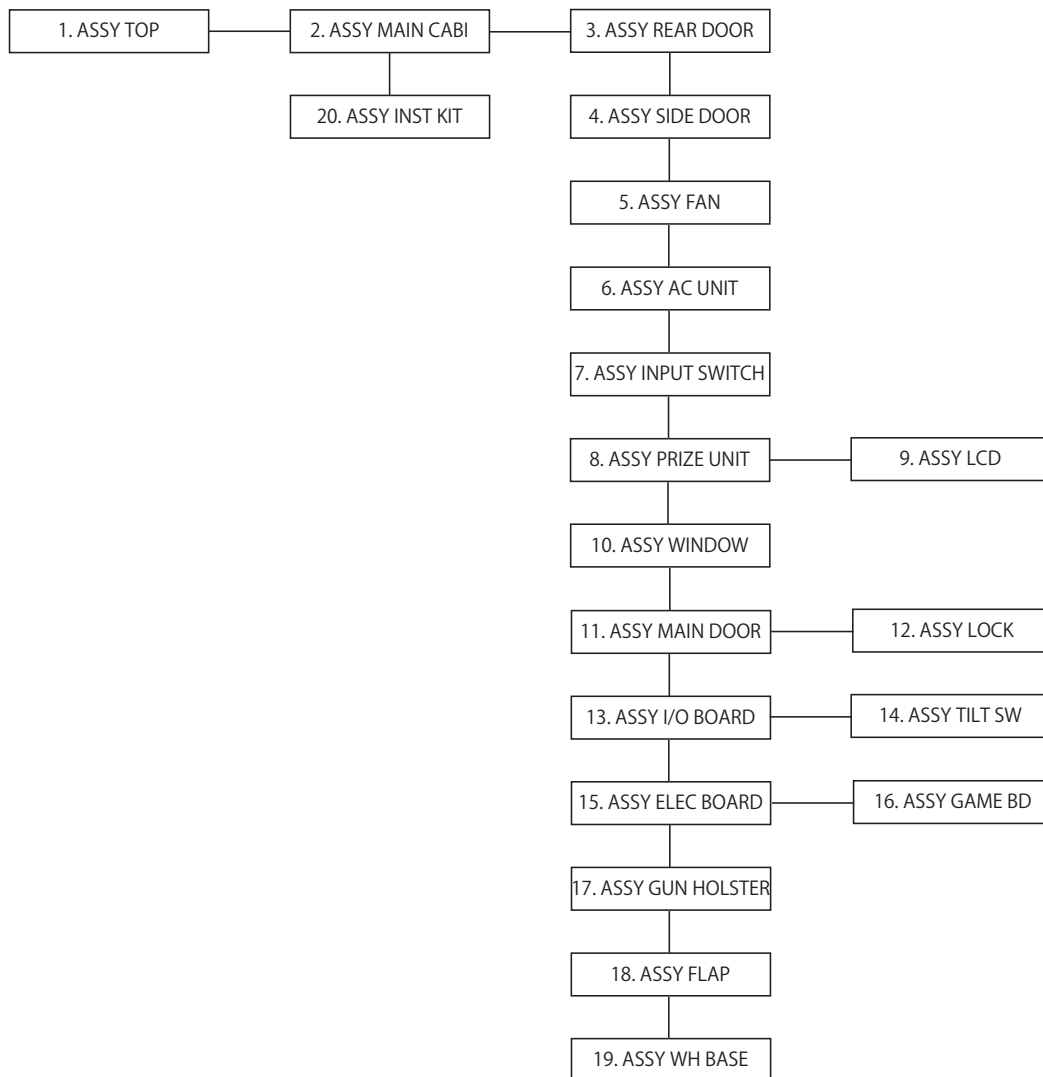
17 DESIGN-RELATED PARTS

For the warning display stickers, refer to Section 1 of this manual



18 PARTS LIST

BRAKEDOWN ON ALL SUB ASSEMBLIES



1 - ASSY TOP (ST-0000UK)

(1-1)

18

PARTS LIST

Seq	Part No	Description	QTY	Component Reference
001	ST-1000UK	ASSY MAIN CABI	1	SHOOT THIS WIN THIS
002	ST-INST-KIT	ASSY INSTALLATION KIT	1	MANUAL & ACCESSORIES
003	ST-1014UK	ASSY CASHBOX	1	

2 - ASSY MAIN CABI (ST-1000UK)

(1-3)

Seq	Part No	Description	QTY	Component Reference
001	ST-1001-AUK	ASSY CABI	1	
002	ST-1020UK	ASSY REAR DOOR	1	
003	ST-1030UK	ASSY SIDE DOOR	1	
004	ST-1340UK	ASSY FAN 240V	2	
005	ST-0400UK	ASSY AC UNIT	1	
007	ST-0002UK	PRIZE CHUTE	1	
008	ST-1360UK	ASSY INPUT SW	1	TEST/SERVICE BUTTON
009	ST-1400UK	ASSY PRIZE UNIT	1	
010	ST-1510UK	ASSY WINDOW	2	
011	ST1560UK	ASSY MAIN DOOR	1	
012	ST-4000UK	ASSY MAIN BD	1	
013	ST-4100UK	ASSY ELEC BD	1	
014	ST-4200UK	ASSY PC BD	1	
016	ST-1650UK	ASSY GUN HOLSTER	1	
017	APA-2100	ASSY CONTROL UNIT APA	1	COLOUR MAY VARY
018	ST-0004UK	PLATE BUTTON	1	
025	421-7988-91UK	STICKER SERIAL NO	1	
026	LB1046	LABEL TESTED ELEC SPEC	1	
029	DUT-032UK	COIN PATH PLATE	1	
031	253-5460-01	AIR VENT BLK	3	KD
032	ST-0005UK	GUARD FRONT	1	
033	ST-0006UK	GUARD REAR	1	
044	ST-1006UK	DECAL SIDE CABI L	1	
045	ST-1007UK	DECAL SIDE CABI R	1	
046	ST-1008UK	STICKER FRONT	1	
047	ST-1004UK	BRKT SUPPORT	2	
048	ST-1012UK	DOOR STOP LWR	1	
049	ST-1013UK	DOOR STOP UPR	1	
050	ST-0009UK	MIRROR SIDE	2	INTERNAL
051	ST-0016UK	BRKT CORNER	4	LED MOUNTS
052	ST-0017UK	BRKT TOP	2	EXTERNAL TOP L&R
053	ST-0018UK	COVER PLATE	1	
055	ST-0020UK	VENT BKT	1	
056	ST-0021UK	CHUTE COVER PLATE	1	
057	RND-0125	BKT SUPPORT	1	
058	LB1102	STKR DANGER VOLTAGE	1	
060	ST-0015UK	PLATE PRISM	2	LED PRISM L&R
061	ST-1415UK	BKT SUPPORT TOP	1	
062	ST-1420	PRIZE ARM LONG	4	
063	ST-1430UK	PRIZE ARM SHORT	3	
064	ST-1404UK	GUIDE LONG	4	
065	ST-1405UK	GUIDE SHORT	3	

2 - ASSY MAIN CABI (ST-1000UK)

(2-3)

Seq	Part No	Description	QTY	Component Reference
066	ST-1350UK	ASSY FLAP	1	
067	ST-0019UK	SENSOR PLATE	2	
068	ST-0023UK	PLATE ADJUST	1	
069	421-7020UK	STICKER CAUTION FORK	2	
070	LB1130	LABEL WEEE WHEELIE BIN	1	
071	LB1103	STICKER CAUTION	1	
101	220-5347-01	DOOR DFMD W/FR&LOCK	1	
102	220-5610-01	SR3 STD	1	
103	LT1053	LED CLUSTER BLU	1	START BUTTON
104	220-5727-01B	STS SECURITY DOOR	1	
107	130-013-0404WP	SPEAKER 4OHM 40W	1	
108	390-5695-40-DUK	FL TUBE 40W 600L 1.5D	1	
109	390-0240-40UK	FL TRAY 240V 40W	1	
110	838-0009UK	LED STRIP RG BD	4	
111	370-5173-01	PHOTO SENSOR	8	TRANS & REC (1 SET)
112	EP1395	SW KEY	1	
113	509-6131UK	BUTTON 12V 1.2W	1	
114	EP1393	FERRITE TDK	3	AC BKT/ELEC BD
115	280-A01264-WX	ROUTER TWIST BHKL-450-4-01	15	
116	280-A02064-WX	ROUTER TWIST D20 S0.64 WOOD	6	
117	280-A01200-A	ROUTER TWIST D12 ADH	5	
201	012-P00325	N4X1" S/TAP PAN PAS	4	
202	050-F00400	M4 NUT FLG SER PAS	8	
203	000-F00412	M4X12 MSCR CSK PAS	5	
204	000-P00412-W	M4X12 MSCR PAN PAS W/FS	28	
205	008-T00416-0C	M4X16 MSCR TH CRM	11	
206	000-P00420-W	M4X20 MSCR PAN W/FS PAS	5	
207	000-T00420-0B	M4X20 MSCR TH BLK	16	
209	000-P00416-WB	M4X16 MSCR PAN W/FS PAS	12	
211	008-T00630-0C	M6X30 MSCR TMP PRF CRM	3	
212	000-P00310-W	M3X10 MSCR PAN W/S PAS	16	
213	000-T00412-0C	M4X12 MSCR TH CRM	13	
214	000-T00412-0B	M4X12 MSCR TH BLK	22	
215	000-T00406-0B	M4X06 MSCR TH BLK	20	
216	068-441616-0B	M4 WSHR 16OD FLT BLK	20	
217	000-F00408	M4X08 MSCR CSK PAS	5	
218	029-B00430-0B	M4X30 BTN HD BLK	4	
219	030-000830-S	M8X30 HEX BLT PAS W/S	3	
220	012-P00410-F	N8X3/8" S/TAP FLG PAS	3	
221	000-P00425-W	M4X25 MSCR PAN W/FS PAS	6	
301	ST-6001UK	ASSY WH CAB CASE	1	
302	ST-60024UK	WH GAME BD PWR	1	

2 - ASSY MAIN CABI (ST-1000UK)

(3-3)

Seq	Part No	Description	QTY	Component Reference
303	ST-60010UK	WH SPKR	1	
304	ST-60025UK	WH PWR OUT EXT	1	
306	ST-60003UK	WH FL TUBE	1	
307	600-7009-1800UK	ASSY RGB CABLE	1	
308	ST-60029UK	WH LED STRIP BD	2	
309	ST-60030UK	WH LED STRIP BD CONN	2	
310	ST-60031UK	WH LED STRIP BD EXT	1	
311	ST-60018UK	WH PLUSH SENSOR	1	

18

PARTS LIST

3 - ASSY REAR DOOR (ST-1020UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
001	ST-1021UK	REAR DOOR	1	
102	220-5575UK	LOCK	1	

4 - ASSY SIDE DOOR (ST-1030UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
001	ST-1031UK	SIDE DOOR	1	
003	ST-1032UK	STICKER SIDE DOOR	1	
102	220-5575UK	LOCK	1	

5 - ASSY FAN (ST-1340UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
001	105-5340-01	FAN BKT LONG	2	
101	260-0024-01UK	FAN AC AXIAL DP200A	1	
102	FN1012	FAN GUARD METAL 120MM	1	
201	000-P00312-W	M3X12 MSCR PAN W/FS PAS	4	
301	ST-60026UK	WH 240V FAN	1	

6 - ASSY AC UNIT (ST-0400UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
001	TFF-0401UK	AC BKT	1	
003	LB1096	STICKER PROTECTIVE EARTH	1	
004	ST-0403UK	PLATE AC CAP	1	
101	EP1382	FILTER SCHAFFNER	1	
102	EP1387	IEC INLET & SW	1	
108	310-5029-D508	HEAT SHRINK SLEEVE 50.8	4	
112	514-5078-5000	FUSE 5X20 CERAMIC 5A	2	
113	LB1126-5-250	FUSE LABEL	1	
201	000-P00308-W	M3X08 MSCR PAN W/FS PAS	4	4-(101)
202	050-F00400	M4 NUT FLG SER PAS	4	4-(4), 2-(EARTH)
301	TFF-60001UK	WH AC UNIT IN	1	
302	600-9060-44K	WH EARTH 600MM M4/M4	1	

7 - ASSY INPUT SW (ST-1360UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
001	ST-1361UK	SW HOLDER BRKT	1	
101	838-14548-01UK	SW BD	1	
102	220-5643UK	COIN METER SMALL 12V	2	
103	EP1380-R	CREDIT BD EXCEL	1	
104	280-L00706-PM	STANDOFF 6.4L 4MM	4	
105	LB1152	STICKER VTS	1	
106	LB1153	STICKER METERS	1	
201	000-P00308-W	M3X08 MSCR PAN PAS W/FS	3	

8 - ASSY PRIZE UNIT (ST-1400UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
001	ST-1401UK	BRKT ARM	7	
008	ST-1409UK	PANEL BACK MIRROR	1	
009	ST-1410UK	PRIZE PANEL	1	
010	ST-1411UK	MONITOR SUPPORT	1	
011	ST-1414UK	MONITOR BKT LOWER	1	
013	200-6026-SMSNG	ASSY LCD DSPLY 26"	1	
017	ST-1480UK	ASSY MASK	1	
102	350-001-024UK	MOTOR W/GEAR BOX	7	
104	280-A01200-A	ROUTER TWST D12 ADH	8	
105	LB1154	STICKER MIND YOUR HEAD	1	
202	000-P00412-W	M4X12 MSCR PAN W/FS PAS	6	
203	000-P00416-W	M4X16 MSCR PAN W/FS PAS	6	
204	050-F00400	M4 NUT FLG SER PAS	21	
208	030-000620-S	M6X20 BLT W/S PAS	5	
209	068-652016	M6 WSHR 20OD FLT PAS	5	
301	ST-60017UK	WH VEND MOTOR	1	

9 - ASSY LCD (200-6026-SMSNG)**(1-1)**

Seq	Part No	Description	QTY	Component Reference
013	200-6026-SMSNG	ASSY 26" LCD DSPLY SMSNG	1	

10 - ASSY WINDOW (ST-1510UK)**(1-1)**

Seq	Part No	Description	QTY	Component Reference
001	ST-1502UK	SIDE GLASS	1	
002	ST-1505UK	WINDOW FRAME	1	
003	ST-1506UK	HOLDER VERT	2	
004	ST-1520UK	DECAL GLASS TOP	1	
201	050-F00400	M4 NUT FLG SER	6	
202	OS1004	DRAFT EXCLUDER 4X7MM BLK	3	METERS

11 - ASSY MAIN DOOR (ST-1560UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
001	ST-1551UK	MAIN DOOR	1	
002	ST-1552UK	FRONT GLASS	1	
003	ST-1506UK	HOLDER VERT	2	
004	ST-1554UK	WINDOW SASH HORIZ	2	
005	ST-1553UK	DECAL GLASS FRONT	1	
006	ST-1570UK	ASSY LOCK	1	
007	ST-1556UK	HINGE	1	
008	OS1004	DRAFT EXCLUDER 4X7	3	METERS
102	220-5575UK	LOCK	1	
201	050-F00400	M4 NUT FLG SER PAS	12	
202	000-F00412	M4X12 MSCR CSK PAS	11	

12 - ASSY LOCK (ST-1570UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
001	ST-1571UK	TNG	1	
002	ST-1572UK	TOP ARM	1	
003	ST-1573UK	LOWER ARM	1	
201	050-U00400	M4 NUT NYLOK PAS	2	
202	068-441616	M4 WSHR 16OD FLT PAS	4	

13 - ASSY MAIN BD (ST-4000UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
003	ST-4003UK	WOODEN BASE I/O	1	
004	ST-1800UK	ASSY TILT	1	
102	838-0008UK	PCB MOTOR/LAMP DRVR	1	
103	838-0005UK	PCB I/O SAE	1	
104	838-14465R03	PCB GUN SENSE	1	
105	839-1315	PCB AMP STEREO	1	
201	012-P00325	N4X1" S/TAP PAN PAS	16	
204	060-F00300	M3 WSHR FRM A FLT PAS	4	
205	012-P00312	N4X1/2" S/TAP PAN PAS	4	
301	ST-60005UK	WH I/O	1	
302	ST-60006UK	WH DC IN	1	
303	ST-6008UK	WH AUDIO	1	
304	ST-60011UK	WH SENSOR LED ELEC	1	
305	ST-60012UK	WH SENSOR CONTROL	1	
308	ST-60015UK	WH MOTOR/LAMP DRV	1	
310	GE-60013UK	WH SENSOR FREQ	1	
311	600-7141-100UK	CABLE JVS A-B 100CM	1	

14 - ASSY TILT (ST-1800UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
101	EP1394-1	SW TILT HANGER	1	
102	EP1394-2	SW TILT WIRE	1	
103	EP1394-3	SW TILT CONTACT	1	
104	EP1394-4	SW TILT BOB		

15 - ASSY ELEC (ST-4100UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
001	ST-4101UK	WOODEN BASE	1	
002	ST-1413UK	BRKT 12V SUPPLY	1	
101	838-14551-02UK	PCB DISTRIBUTION	1	
102	400-150-024-01	PSU 24VDC 150W	1	
103	400-065-0512	PSU 5/12VDC 65W	1	
104	OS1011	STANDOFF	8	
105	CFB-4003-01UK	EARTH TERM PLATE	1	
106	LB1102	STICKER DANGEROUS VOLTAGE	1	
201	012-P00325	N4X1" S/TAP PAN PAS	4	
202	000-P00308-W	M3X8 MSCR PAN PAS W/FS	4	
203	012-P00410-F	N8X3/8" S/TAP FLG PAS	4	
204	012-P00312	N4X1/2" S/TAP PAN PAS	8	
205	050-F00400	M4 NUT FLG PAS	3	
301	ST-60001UK	WH PWR IN	1	
302	ST-60002UK	WH 5/12/24 PWR OUT	1	
303	ST-60004UK	WH AC DISTRIBUTION OUT	1	

16 - ASSY GAME BD (ST-4200UK)**(1-1)**

Seq	Part No	Description	QTY	Component Reference
001	ST-4201UK	PC BASE	1	
002	CFB-1011UK	BELT HOLDER	2	
101	610-0002-02UK	ASSY PC STWT 1GIG	1	
102	OS1243	VELCRO STRIP	1	
103	OS1220	FOAM STRIP 8MM	4	MTRS
104	EP2000-01UK	DESKEY EU DK2 USB	1	
201	000-P00416-W	M4X16 MSCR PAN W/FS PAS	4	

17 - ASSY GUN HOLSTER (ST-1650UK)**(1-1)**

Seq	Part No	Description	QTY	Component Reference
001	ST-1651UK	GUN HOLSTER	1	
002	ST-1652UK	SPACER	1	
201	008-B00820-0C	M8X20 TMP PRF BH CRM	2	
202	060-F00800	M8 WSHR FORM A FLT CRM	2	

18 - ASSY FLAP (ST-1350UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
001	ST-1351UK	BRKT FLAP	1	
002	ST-1352UK	FLAP	1	
201	050-F00400	M4 NUT SER FLG PAS	3	

19 - ASSY WH CABI BASE (ST-6001UK)

(1-1)

Seq	Part No	Description	QTY	Component Reference
301	ST-60007UK	WH COIN HANDLING	1	
302	ST-60009UK	WH AUDIO EXT	1	
303	ST-60013UK	WH AUDIO IN	1	
304	ST-60021UK	WH BUTTON	1	
305	ST-60023UK	WH SENSOR CONTROL ELEC	1	
306	ST-60027UK	WH PLUSH SENSOR OUT	1	
307	ST-60028UK	WH DC PWR OUT EXT	1	
308	ST-60032UK	WH REFIT SW	1	

19 WIRE COLOUR CODE TABLE

⚠ WARNING

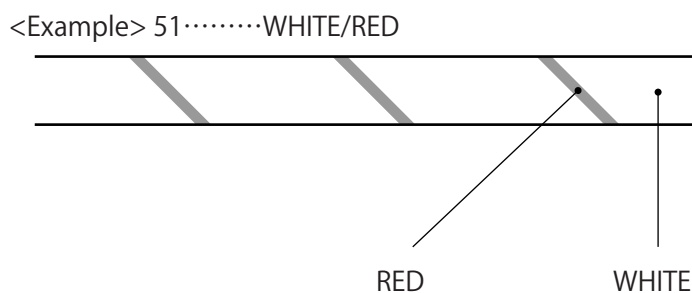
The DC power wire colour for this product is different from previous SEGA titles. Working from the previous wire colors will create a high risk of fire.

The colour codes for the wires used in the diagrams in the following chapter are as follows. Wires other than those of any of the above 5 single colours will be displayed by 2 alphanumeric characters.

CODE	WIRE COLOUR
10	RED
20	BLUE
30	YELLOW
40	GREEN
50	WHITE
70	ORANGE
80	BLACK
90	GRAY
A	PINK
B	SKYBLUE
C	BROWN
D	PURPLE
E	LIGHT GREEN

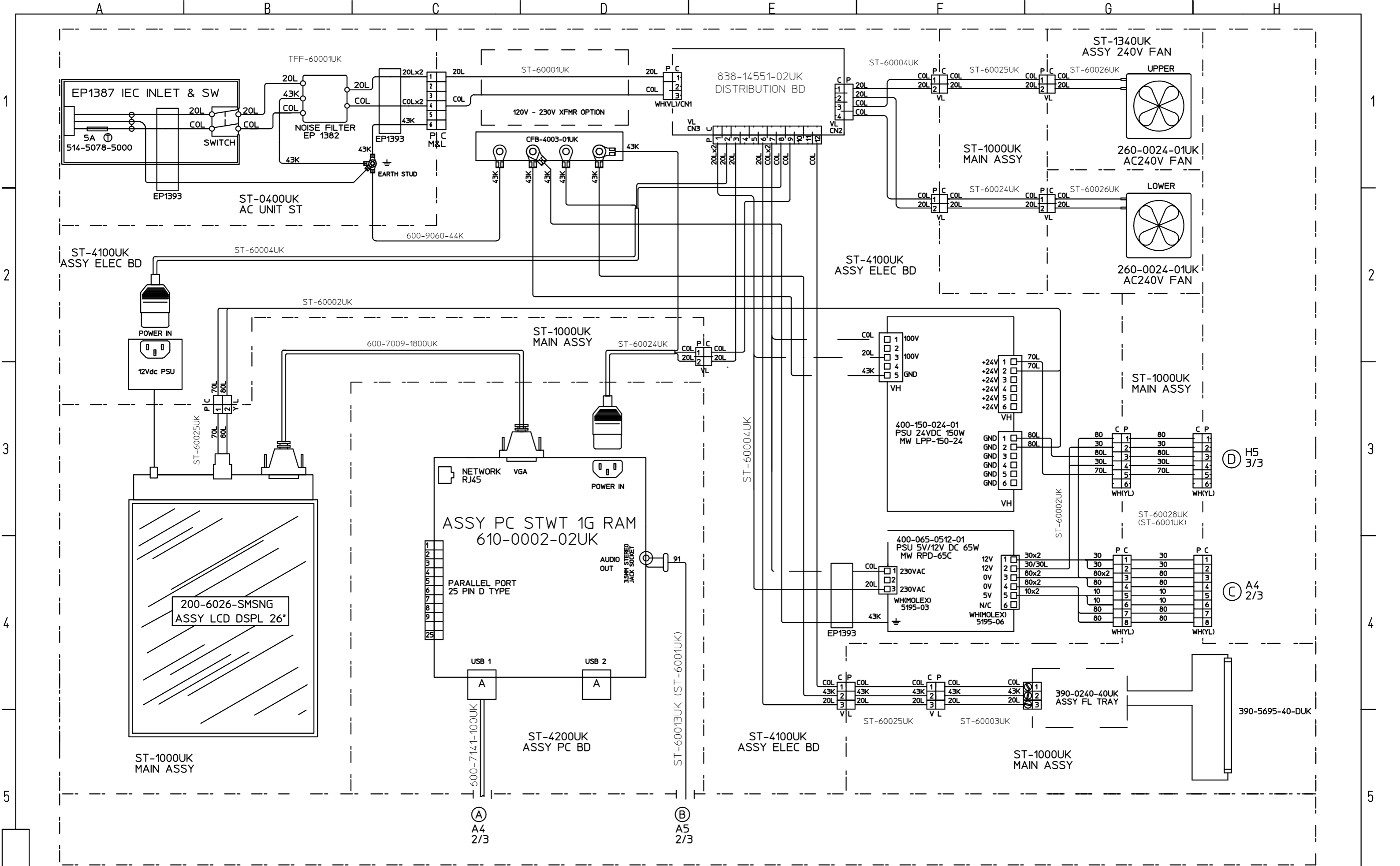
If the right-hand side numeral of the code is 0, then the wire will be of a single color shown by the left-hand side numeral (see the above).

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.



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

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



1 RED	8 BLACK	E LIGHT GREEN	
2 BLUE	9 GREY		
3 YELLOW	A PINK		U AWG 16 UL1015
4 GREEN	B SKY BLUE		K AWG 18 UL1015
5 WHITE	C BROWN		L AWG 20 UL1007
7 ORANGE	D PURPLE		I AWG 22 UL1007

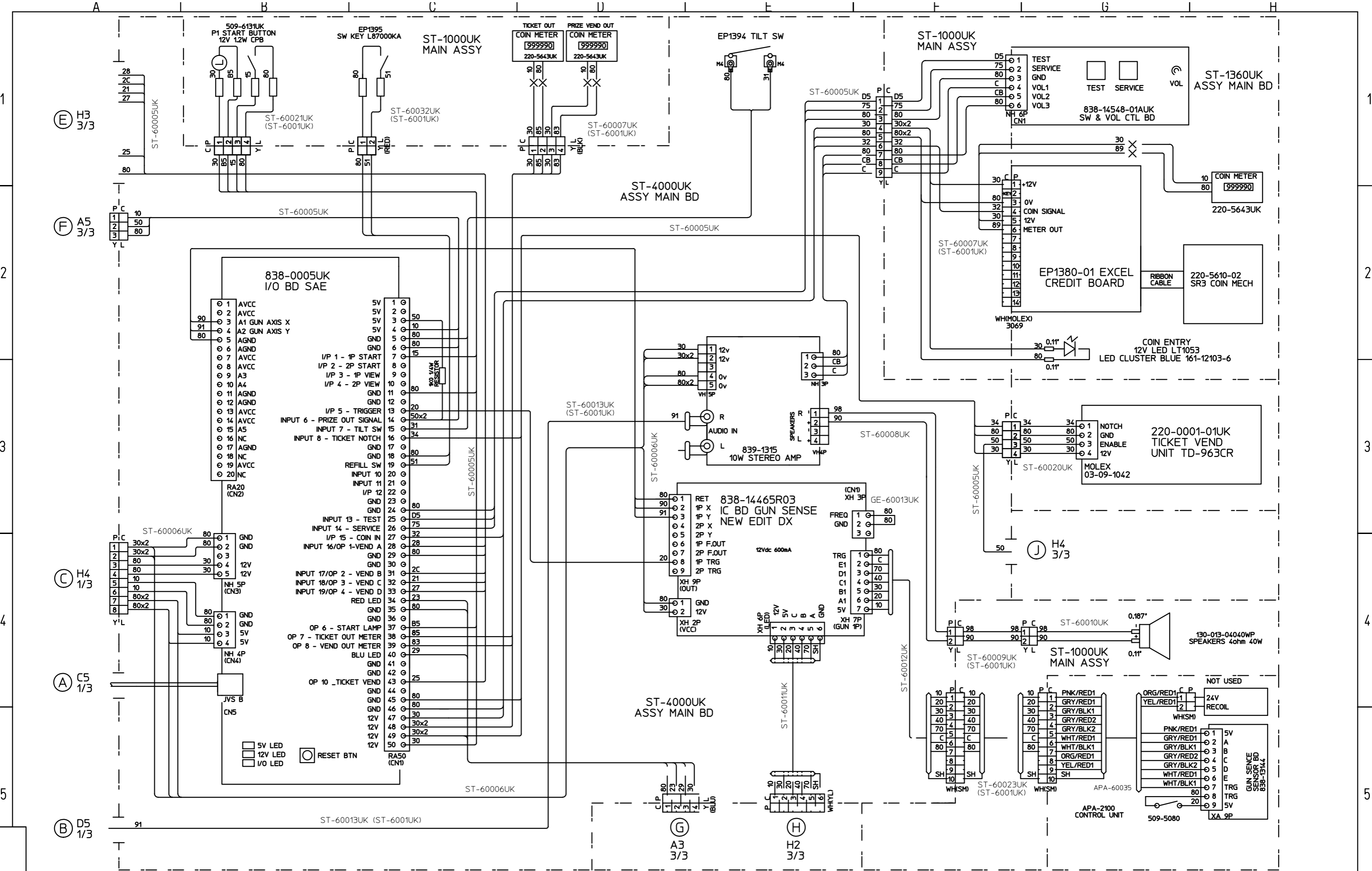
DRAWN	CHKD	TOP LEVEL
MS		ST-0000UK
03/01/08		

SEGA	SEGA AMUSEMENTS EUROPE, LTD.	SHOOT THIS WIN THIS	THIS DRAWING WILL IN NO WAY BE COPIED. TO BE RETURNED ON DEMAND.	ORIGINAL SIZE
				A3
				ST-1/3
				PART NO.

ALTERATIONS

DESCRIPTION

PART NO.



1	RED	8	BLACK	E	LIGHT GREEN
2	BLUE	9	GREY		
3	YELLOW	A	PINK	U	AWG 16 UL1015
4	GREEN	B	SKY BLUE	K	AWG 18 UL1015
5	WHITE	C	BROWN	L	AWG 20 UL1007
7	ORANGE	D	PURPLE		AWG 22 UL1007

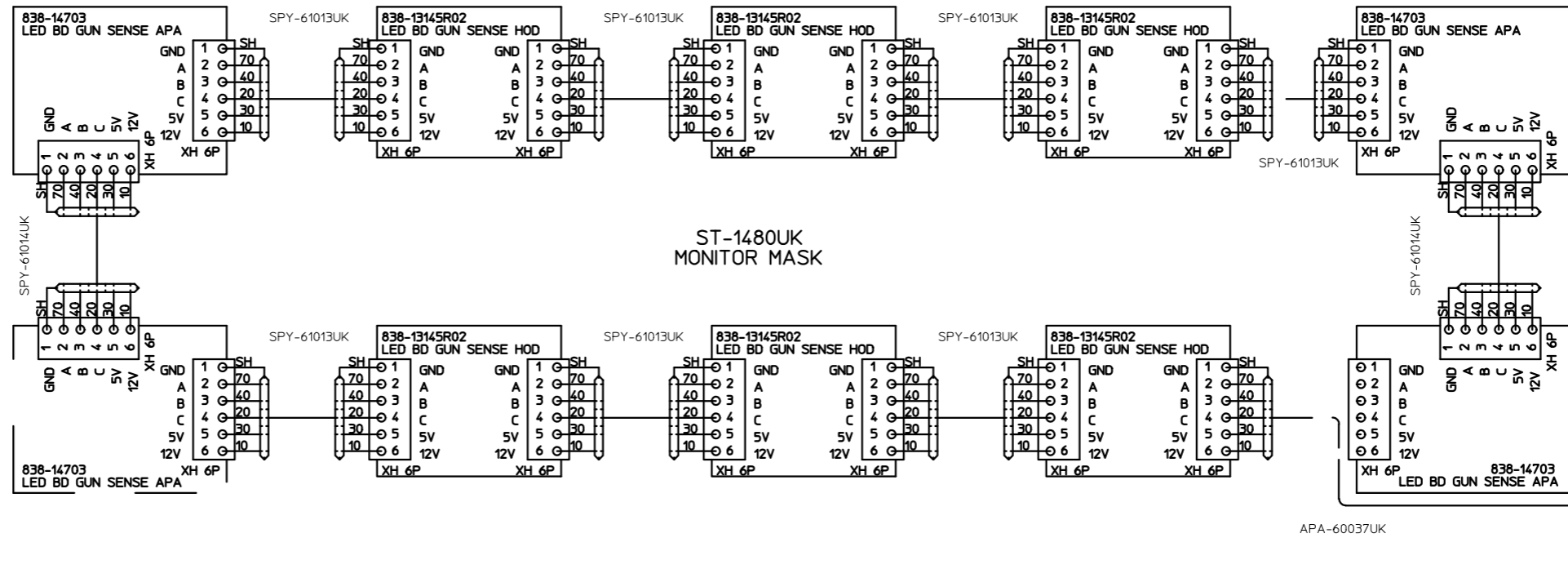
DRAWN	CHKD	TOP LEVEL
MS		ST-0000UK
03/01/08		

SEGA SEGA AMUSEMENTS EUROPE, LTD. THIS DRAWING WILL IN NO WAY BE COPIED. ORIGINAL SIZE A3

SHOOT THIS WIN THIS

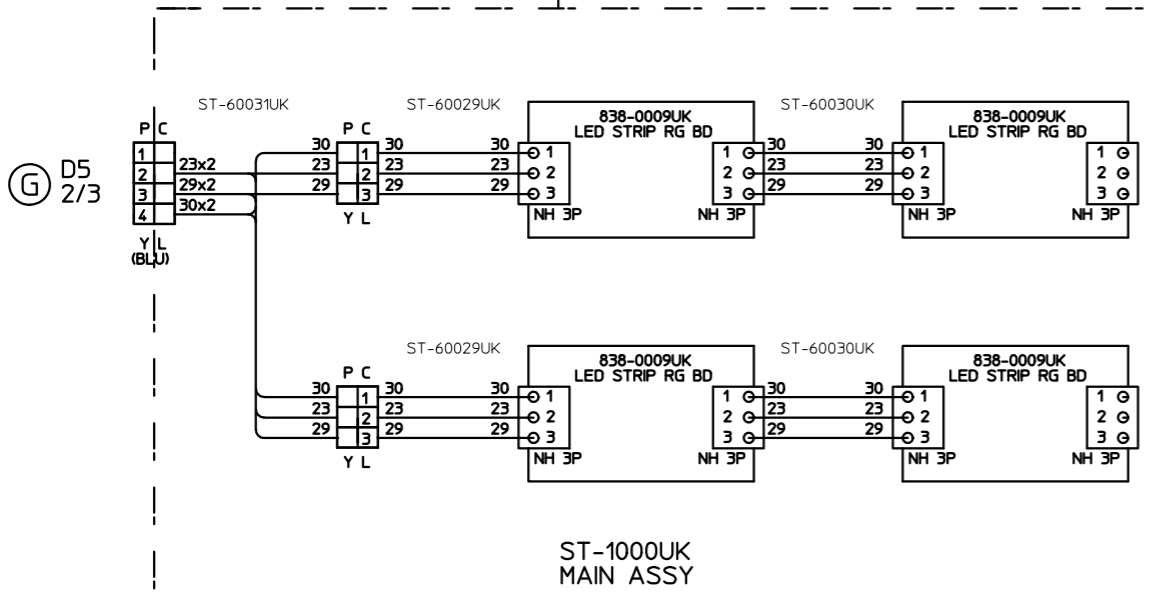
DESCRIPTION

PART NO. ST-2/3



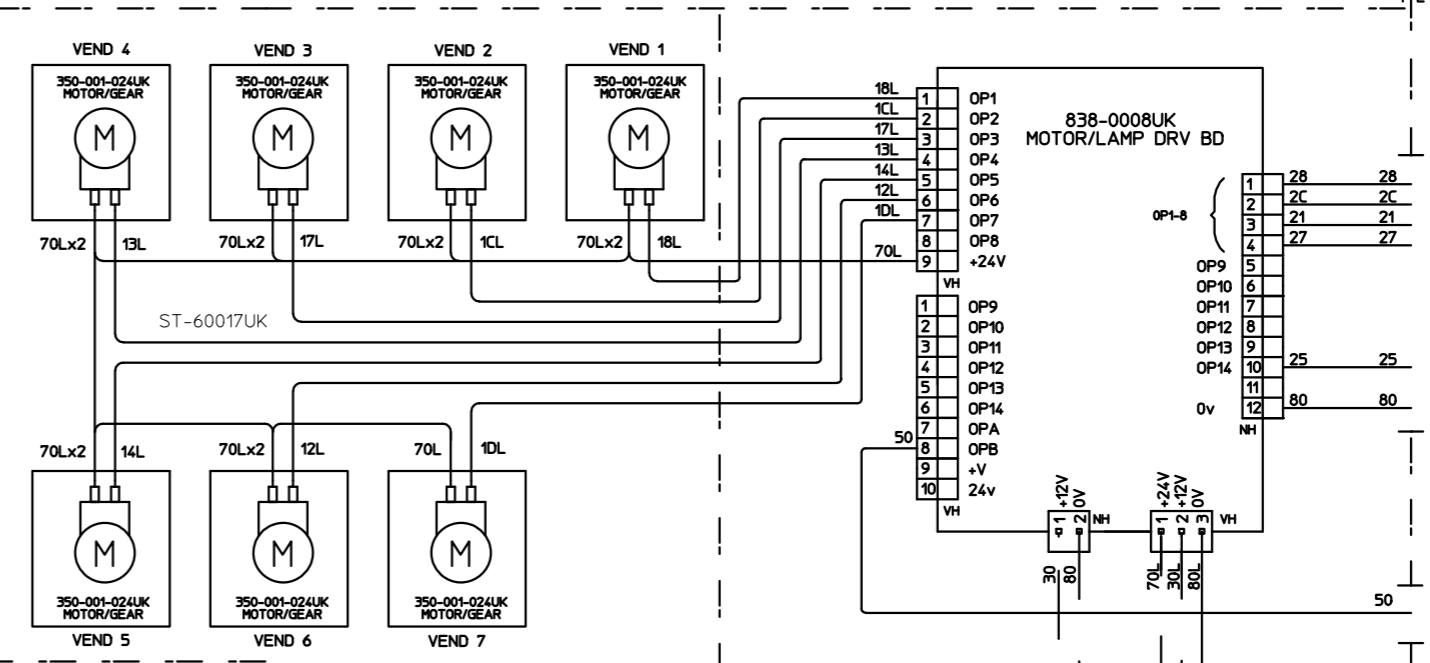
ST-1480UK
MONITOR MASK

(H) E5
2/3



ST-1000UK
MAIN ASSY

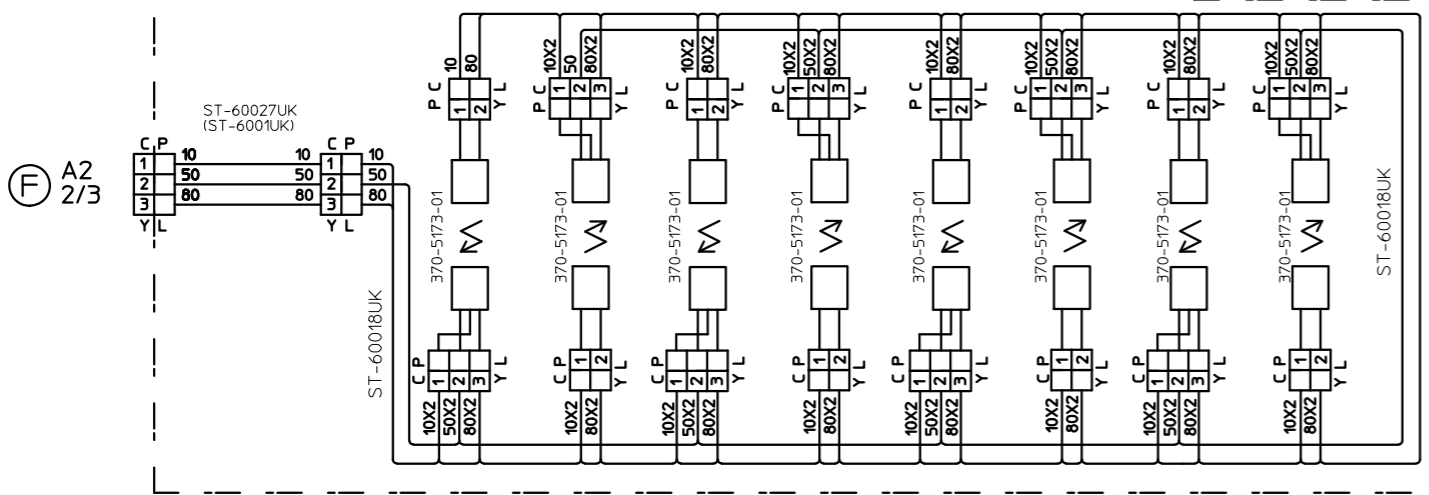
(E) A1
2/3



ST-1480UK
PRIZE UNIT ASSY

ST-4000UK
ASSY MAIN BD

(J) G4
2/3



ST-60018UK

(D) H3
1/3

1 RED	8 BLACK	F LIGHT GREEN
2 BLUE	9 GREY	
3 YELLOW	A PINK	
4 GREEN	B SKY BLUE	
5 WHITE	C BROWN	
7 ORANGE	D PURPLE	

U AWG 16 UL1015	MS	TOP LEVEL
K AWG 18 UL1015		
L AWG 20 UL1007		
WIRE TYPE	03/01/08	

SEGA SEGA AMUSEMENTS EUROPE, LTD. THIS DRAWING WILL IN NO WAY BE COPIED. ORIGINAL SIZE A3

ST-0000UK SHOOT THIS WIN THIS TO BE RETURNED ON DEMAND. ST-3/3

DESCRIPTION PART NO.

ALTERATIONS