## SERVICE MANUAL

 NAOMI

## Incorporating

## CINDBEREM"

UPRIGHT TYPE


Before using this product, read this SERVICE MANUAL carefully to understand the contents stated herein. After reading this manual, be sure to keep it available nearby the product or somewhere convenient in order to be able to refer to it whenever necessary.

Manufactured in the UK by


## CONTENTS

1. BEFORE USING THIS PRODUCT ..... 1
1.1. INSPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION . 22. INTRODUCTION TO THIS SERVICE MANUAL 4
2. INSTALLATION AND MAINTENANCE INSTRUCTIONS ..... 5
3.1. HANDLING AND INSTALLATION PRECAUTIONS ..... 5
3.2. COIN HANDLING .....  .5
3.3. NAME OF PARTS ..... 6
3.4. ACCESSORIES .....  7
3.5. ASSEMBLY INSTRUCTIONS ..... 10
3.5.1. INSTALLING THE BILLBOARD ..... 11
3.5.2. SECURING IN PLACE (LEG ADJUSTER ADJUSTMENT) ..... 12
3.5.3. CONNECTION TO THE POWER SUPPLY ..... 13
3.5.4. CREDIT BOARD WIRING TO COIN MECH ..... 14
3.6. MOVING THE MACHINE ..... 15
3.7. INTERNAL SWITCHES AND COIN METERS ..... 17
3.8. CONTROL PANEL ..... 19
3.8.1. REPLACING THE CONTROL PANEL ..... 19
3.8.2. BUTTON REMOVAL ..... 20
3.8.3. REPLACING THE INSTRUCTION SHEET ..... 20
3.9. REPLACEMENT OF FLUORESCENT LAMP AND OTHER LAMPS ..... 22
3.9.1. FLUORESCENT LAMP REPLACEMENT ..... 22
3.10. GAME BOARD ..... 24
3.10.1. TAKING OUT THE GAME BOARD ..... 24
3.11. GAME BOARD POWER SUPPLY VOLTAGE ADJUSTMENT VOLUME ..... 26
3.12. TROUBLESHOOTING ..... 27
3.13. FUSES ..... 28
3.14. COIN SELECTORS ..... 29
3.14.1. COIN CONTROLS SR3 (TOP ENTRY) ..... 29
3.14.1.1. TAKING OUT THE COIN MECH ..... 29
3.14.1.2. CLEARING A COIN JAM ..... 29
3.15. MAINTENANCE INSTRUCTIONS ..... 30
3.15.1. EXPLANATION OF TEST AND DATA DISPLAY ..... 30
3. COIN MECH INSTALLATION AND CREDIT BOARD SET UP ..... 31
4.1. EXCEL CREDIT BOARD OPTION SETTINGS ..... 31
4.1.1. PRICE OF PLAY SETTINGS UK ..... 33
4.1.2. PRICE OF PLAY SETTINGS EURO ..... 34
4. REPLACING THE DISPLAY CARD ..... 35
5. PERIODIC CHECK AND INSPECTION ..... 36
6.1. CLEANING THE CABINET SURFACES ..... 36
6. DESIGN RELATED PARTS ..... 37
7. PARTS LIST ..... 38
8.1. NOB-0000*UK TOP ASSY NAOMI CABI COM ..... 38
8.2. NOB-100**UK UR CABI TOP ENTRY ..... 39
8.3. NOB-1100UK ASSY FRAMEWORK UR ..... 42
8.4. NOB-1950UK ASSY SFMD WHITE (FLAT DOOR) ..... 43
8.5. NOA-1200UK ASSY CRT COVER ..... 43
8.6. NOA-1300 ASSY BILLBOARD ..... 44
8.7. NOB-1400UK ASSY CONTROL BOX W/CC EUR ..... 44
8.8. NOA-1450UK ASSY I/O UNIT ..... 46
8.9. NOA-1480UK ASSY COIN MECH ..... 47
8.10. NOB-1480 ASSY COIN SELECTOR UNIT 220 ..... 48
8.11. NOA-1500UK ASSY FRONT PANEL (COM) ..... 49
8.12. NOA-1500HUK ASSY FRONT PANEL (LBG) ..... 50
8.13. NOA-4030UK ASSY ELEC (LBG) ..... 51
8.14. NOA-4010UK ASSY ELEC (NAOMI 2) ..... 52
8.15. NOA-4010UK ASSY ELEC (NAOMI) ..... 53
8.16. NOA-1750UK ASSY SERVICE DOOR ..... 54
8.17. NOB-1700UK ASSY AC UNIT (Pre 2001) ..... 54
8.18. NOB-1710UK ASSY AC UNIT NEW ..... 55
8.19. RND-4100UK ASSY XMFR (LBG) ..... 56
8.20. NOB-4100UK ASSY XMFR (COM) ..... 56
8.21. RND-6001UK ASSY WIRE L (LBG) ..... 57
8.22. NOB-6002UK ASSY WIRE R ..... 57
8.23. RND-1425 - ASSY CARD R/W (IF FITTED) ..... 58
8.24. NOB-INST-VT3 ASSY INSTALLATION KIT NOB ..... 61
8. APPENDIX A - ELECTRICAL SCHEMATIC ..... 62
9.1. WIRE COLOURS ..... 62
9.2. ELECTRICAL SCHEMATIC ..... 62

## 1. BEFORE USING THIS PRODUCT

To ensure the safe usage of the product, be sure to read the following before using the product. The following instructions are intended for the use of QUALIFIED SERVICE PERSONNEL ONLY. After carefully reading and sufficiently understanding the instructions should any activity be carried out on the product. Only qualified service personnel should carry out maintenance on the product.
Terms such as WARNING!, CAUTION, and IMPORTANT! Are used where an explanation is given which requires special attention, depending on the potential risk. SEGA is not responsible for injury or damage caused by use in a manner contrary to the instructions stated in this document. In order to prevent accidents warning stickers and printed instructions are applied in the places where a potentially hazardous situation relating to the product could arise. Be sure to comply with these warnings.


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


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

This is cautionary information which should be complied with when handling the product. Indicates that mishandling the product by disregarding this will cause a potentially hazardous situation which may not result in personal injury but could damage the product.
Be sure to turn off the power and disconnect from the mains supply before working on the machine.
Ensure that the correct fuse(s) is fitted to the machine.
Details of the correct fusing of the machine are enclosed in the Service Manual.
Ensure that only qualified Service Engineers perform any maintenance work on the machine.
Specification changes, removal of equipment, conversion and/or addition, not designated by SEGA are not permitted and will invalidate this product's CE conformity.
The parts of the product also include any warning labels or safety covers for personal protection etc. A potential hazard will be created if the machine is operated while any parts have been removed. Should any doors, lids or protective covers be damaged or lost, do not operate the product. SEGA is not liable in any whatsoever for any injury and/or damage caused by specification changes not designated by SEGA.
Before installing the product, check for the Electrical Specification Sticker, SEGA products have a sticker on which the electrical specifications are detailed. Ensure that the product is compatible with the power supply voltage and frequency requirements of the location in which the machine is to be installed.
Install and operate the machine only in places where appropriate lighting is available, allowing warning stickers to be clearly read.
To ensure maximum safety for both customers and operators, stickers and printed instructions describing potentially hazardous situations are applied to places where accidents could occur. Ensure that where the product is operated has sufficient lighting to allow any warnings to be read. If any sticker or printed warning is removed or defaced, do not operate the machine, until it has been replaced by an identical item.
When handling the monitor, be very careful. (Applies only to product with monitor)
Some of the monitor (TV) parts are subject to high tension voltage. Even after turning off the power some components are still occasionally subject to high tension voltage. Monitor repair and replacement should be performed by qualified service engineers only.
In cases where commercially available monitors and printers are used only the contents relating to this product are stated in this manual. Some commercially available equipment has functions and reactions not stated in this manual. Read this manual in conjunction with the specific manual of such equipment.
Descriptions contained herein may be subject to change without prior notification.
The contents described herein are fully prepared with due care. However, should any question arise or errors be found please contact SEGA.

### 1.1. INSPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION

- Inspection should only be carried out by QUALIFIED SERVICE PERSONNEL.

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

- Are then any dented parts or defects (cuts, etc.) on the external surfaces of the product?
- Are castors and leg adjusters present and undamaged?
- Do the power supply voltage and frequency requirements meet with the local supply?
- Are all wiring connectors correctly and securely connected? Unless connected in the correct direction, connector connections cannot be made successfully. Do not insert connectors forcibly.
- Are all IC's of each IC BD firmly inserted?
- Does the power cord have any cuts or dents?
- Do fuses meet the specified rating?
- Are such units such as monitors, control equipment, IC BD, etc. firmly secured?
- Are all earth wires connected?
- Are all accessories available?
- Can all doors and lids be opened with the accessory keys and/or tools?


## CONCERNING THE STICKER DISPLAY

SEGA product has stickers describing the product manufacture number (Serial Number) and electrical specification. If you require service assistance you will require the Serial Number. Identical machines may have different parts fitted internally. Only by quoting the Serial Number will the correct parts be identified.

## CONCERNING WARNING STICKERS

SEGA product has warning displays on stickers, labels or printed instructions adhered/attached to or incorporated in the places where hazardous situations can arise. The warning displays are intended for the accident prevention of customers and service personnel.


|  | SPECIFICATIONS |  |
| :--- | :--- | :--- |
| Installation Space (cm): | $76(\mathrm{~W}) \times 98(\mathrm{D})$ |  |
| Height (cm): | 175 |  |
| Weight (kg): | Approx. 117 |  |
|  |  |  |
| Power, Max: 322W | Rated Voltage (VAC): | 230 |
|  | Rated Current (A): | $1.4 \mathrm{~A}-\mathrm{NAOMI}$ |
|  |  | $2.0 \mathrm{~A}-$ LINDBERBH |
| Operating Temperature Range | $5-40^{\circ} \mathrm{C}$ |  |

Note: Descriptions in this manual are subject to change without prior notice.

## 2. INTRODUCTION TO THIS SERVICE MANUAL

SEGA ENTERPRISES LTD., supported by its experience in electronic high technology of VLSI's, microprocessors etc. and with a wealth of experience, have for more than 30 years been supplying various innovative and popular games to the world market. This Service Manual is intended to provide detailed descriptions together with all the necessary information covering the general operation of electronic assemblies, electro-mechanicals, servicing controls, spare parts, etc. as regards ROUTE 66 Standard, a new SEGA product. This manual is intended for those who have knowledge of electricity and technical expertise especially in IC's, CRT's, microprocessors etc. Carefully read this manual to acquire sufficient knowledge before working on the machine. Should there be any malfunction, non-technical personnel should under no circumstances touch the internal systems. Should such a situation arise contact the nearest branch listed below, or our head office.

## SEGA AMUSEMENTS EUROPE LTD.I SEGA SERVICE CENTRE

Suite 3 a
Oaks House
12-22 West Street
Epsom
Surrey
United Kingdom
KT18 7RG

Telephone: +44 (0) 1372731820
Fax: +44(0) 1372731849

## 3. INSTALLATION AND MAINTENANCE INSTRUCTIONS

- Installation and maintenance should only be carried out by QUALIFIED SERVICE PERSONNEL.
IMPORTANT


### 3.1. HANDLING AND INSTALLATION 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.

## The game must NOT be installed under the following conditions:

- Outside, the game is designed for indoor use only.
- In areas directly exposed to sunlight, high humidity, dust, excessive heat or extreme cold.
- In locations that would present an obstacle in the case of an emergency i.e. near fire equipment or emergency exits.
- On unstable surfaces or surfaces subject to vibration.
- Where liquids, other than routine cleaning, may come into contact with the game.


## Important:

- This machine should only be installed by Qualified Service Personnel.
- Be sure to switch the supply power OFF and remove the mains supply plug from the machine before any work is carried out on the machine.
- Do not attempt to repair the PCB's (Printed Circuit Boards) yourself. This will void the warranty. The PCB's contain static sensitive devices that could be damaged.
- Always return a faulty part to your distributor with adequate packaging and protection.
- When removing the plug from the mains always grasp the plug not the cable.
- Do not use a fuse that does not meet the specified rating.
- Make sure all connections are secure before applying power.


IMPORTANT

- Ensure that the mains lead is not damaged. If the mains lead is damaged in any way there could be a danger of electric shock or a fire hazard.

Ensure that the power supply is fitted with circuit protection. Using the power supply without circuit protection is a fire hazard.

### 3.2. COIN HANDLING

Standard Sega machines are fitted with a C120/SR3 coin mechanism, however, as a service to our customers Sega machines can be supplied with no coin mechanism or door allowing the customer to fit a coin handling option from the approved list. Fit only the coin handling arrangements detailed below and follow the instructions provided in section 4 . Failure to fit the coin handling options detailed or failure to follow the installation instructions will render the machine, under the CE marking directive, void.

Approved coin handling options:

- Coin controls C120 and SR3 (Indirect Reject)
- Generic mechanical
- SECI RM4-G20


### 3.3. NAME OF PARTS



|  | Width (cm) | Length (cm) | Height (cm) |
| :--- | :--- | :--- | :--- |
| CABINET | 76 | 98 | 180 |
| When Assembled | 76 | 98 | 210 |

### 3.4. ACCESSORIES

The machine is supplied with an installation kit. Please ensure the following parts are supplied:

| No. | PART NUMBER | QTY | DESCRIPTION |
| :--- | :--- | :--- | :--- |
| 1 | RND-0069 | 1 | PLAY INST SH VT3 MULTI |
| 2 | RND-0070 | 1 | SUN INSTR SH VT3 |
| 3 | RND-0071 | 1 | DISPLAY CARD VT3 (ATTACHED TO NOA-1300) |
| 7 | PK0209 | 1 | INST KIT BOX NOB COM |
| 8 | OS1019 | 2 | SELF SEAL BAG 9X12.3/4 |
| 9 | $421-V T 3$ | 2 | PACKING LABEL |
| 101 | $540-0006-01$ | 1 | WRENCH M4 TMP PRF |
| 102 | $540-0015-01$ | 1 | WRENCH M6 TMP PRF |
| 103 | $514-5078-5000$ | 1 | FUSE 5X20 CERAMIC SB 5000MA |
| 106 | $509-C O I N-N O B$ | 1 | SW MICRO COIN ROUTE .250 TAB |
| 108 | $440-C S 0186 U K$ | 1 | STICKER C EPOLEPSY MULTI |
| 401 | $420-6455-02 U K$ | 1 | SERVICE MANUAL NAOMI LBG |
| 402 | SAECE-XXX | 1 | DECLATATION OF CONFORMITY |
| 403 | $420-5827-P F X$ | 1 | SERVICE MANUAL SANWA PFX |
| 404 | $420-6455-M E C H$ | 1 | INSTRUCTION SHEET MECH'L NOB |
| 405 | RND-0073 | 1 | SERVICE MANUAL VT3 |
| 408 | LM1227 | 1 | UK MAINS LEAD 10A W/ PLUG |
| 409 | LM1246 | 1 | EURO MAINS LEAD 10A |
| 410 | $601-11691$ | 1 | CARTON BOX LBG |

THIS BOX ALSO CONTAINS THE BILLBOARD ASSEMBLY (NOA-1300) AND FIXING SCREWS (T00408-OC, QTY 3). **MONITOR VARIANTS ~ SERVICE MANUAL AS APPROPRIATE.


Items 101 \& 102 - Tamperproof TORX wrench.

- When returning the GAME BOARD for repair or replacement, be sure to package the entire ASSY SHIELD CASE in the original card transit box - THERE ARE NO USER-SERVICEABLE PARTS INSIDE.
- Failure to return the GAME BOARD in this manner may invalidate the warranty.

Note: Game Board packaging may vary


## NAOMI

Wrap the ASSY SHIELD CASE with the packaging material and put it in the original transit box as shown. Putting it upside down or packing other than as shown can damage the GAME BOARD and parts.

## TRIFORCE

Fold the packing supplies in the order indicated by the numbers shown in the figure. Package the SHIELD CASE and place it inside the CARTON BOX. Packaging the unit in the wrong direction or in a fashion other than that shown in the figure may cause damage to the GAME BOARD and/or other parts.

## CHIHIRO



1. Wrap the Chihiro Board in a plastic bag.
2. Place it on top of the bottom surface cushioning material. Turn the Filter Board to face the side with the three honeycomb buffers. Packing it in the opposite direction may cause damage to the Filter Board.
3. Insert corrugated cardboard into the space between the lateral honeycomb buffers of the bottom surface cushioning material and stow the AVIP cable inside.
4. Place the Chihiro Board wrapped in the bottom surface cushioning material into the carton box. Use the handles on the bottom surface cushioning material.
5. Place the upper surface cushioning material on top of the Chihiro Board. Be sure to align it in the right direction, as it will not fit otherwise.
6. Close the top of the carton box and seal it tightly with adhesive tape.

## LINDBERGH

1. Wrap the LINDBERGH Board in a plastic bag.
2. Place the LINDBERGH into the outer packaging and fold around Game Board as shown.
3. Slide the unit into the carton and seal.

### 3.5. ASSEMBLY INSTRUCTIONS

- Perform the assembly by following the procedure herein stated. Failure to comply with the instructions, for example, inserting the plug into an outlet at a stage not mentioned in this manual can cause an electric shock
- Assembling should be performed as per this manual. Since this is a complex machine, erroneous assembling can cause damage to the machine, or malfunction to occur.
- Do not attempt to complete this work alone, a minimum of 2 people are required.
- Only QUALIFIED SERVICE PERSONNEL should carry out assembly.

When carrying out the assembly work, follow the procedure in the following three item sequence:

## STEP 1 INSTALLING THE BILLBOARD <br> STEP 2 SECURING IN PLACE (LEG ADJUSTER ADJUSTMENT) <br> STEP 3 CONNECTION TO THE POWER SUPPLY

Note that the parts contained within the installation kit are required for the assembly work.
The following tools will be required when installing this machine:


Phillips type screendriver


### 3.5.1. INSTALLING THE BILLBOARD

- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

IMPORTANT

1. Insert ASSY BILLBOARD to the top part of the cabinet
2. Secure with the two Tamperproof screws


### 3.5.2. SECURING IN PLACE (LEG ADJUSTER ADJUSTMENT)



- Make sure all of the leg adjusters are in contact with the floor. If they are not the machine may move and cause injury. This operation requires 2 people.
- This operation should only be carried out by QUALIFIED SERVICE PERSONNEL.

This machine has four castors and two leg adjusters. When the installation position is decided, unscrew the leg adjusters so that they raise both front castors 7 mm from the floor. Make sure the machine is level.

1. Move the product into the installed position.
2. Unscrew the adjusters until they are in contact the floor, and use a wrench to turn them further until the front castors are raised approximately 7 mm above the floor.
3. Tighten the locknut on the leg adjusters upwards to lock the legs in position.


Ensure adequate ventilation is maintained as detailed below:


### 3.5.3. CONNECTION TO THE POWER SUPPLY

- Be sure that the machine is not connected to the mains supply before attempting this operation

STOP - This operation should only be carried out by QUALIFIED SERVICE PERSONNEL.

IMPORTANT

1. The AC Unit is located on the right hand side of the base unit, when viewing the screen (as shown in section 3.3). It houses the IEC inlet, mains switch and fuse, laid out in one of the following assemblies:

2. Ensure that all of the machine's wires have been connected in accordance with the preceding sections and that the mains switch is OFF.
3. Check that the operating voltage of the mains supply matches the machine (section 1.1).
4. Insert the IEC lead into the IEC inlet and the mains plug into a wall socket. If applicable, switch the wall socket ON.
5. Stand clear of the machine and switch the mains switch ON.

### 3.5.4. CREDIT BOARD WIRING TO COIN MECH

COIN MECH
C220B
(TOP ENTRY)

GENERIC
MECHANICALS

SECI, C120, SR3 OWN LOOM

INSTALLATION

- Attach one 15way connector to the C220 coin mech.
- Attach the other 15 way connector to Validator A on the credit board.
- Attach the blue cable and orange cable to one mech's microswitch.
- Attach the blue/green cable and orange/green cable to the other mech's microswitch.
- Attach one 15 way connector to Validator A and the other to Validator B on the credit board
- Attach the loom to position A on the credit board

‘EXCEL’ TYPE CREDIT BOARD


### 3.6. MOVING THE MACHINE

- When moving the machine, be sure to remove the plug from the power supply. Moving the machine with the plug inserted can cause the power cord to be damaged, resulting in a fire or electric shock.
- When moving the machine, retract the leg adjusters fully and ensure the casters make contact with the floor. During movement pay careful attention so that the casters or leg adjusters do not damage any other cabling laid on the floor. Such damage could result in a fire or electric shock.
- Do not push the upper part of the cabinet. Failure to observe this can cause the cabinet to fall forwards and result in accidents.
- When transporting the machine, be sure to hold the catch portion on the rear of the cabinet with the castors making contact with the surface as shown below. Inclining the machine by holding portions other than the catch or moving the cabinet without retracting the adjusters can damage the cabinet and/or the floor surface.
- Do not push the Billboard. Failure to observe this may damage the installation portions and may cause unexpected accidents.

- This operation should only be carried out by QUALIFIED SERVICE PERSONNEL.


Do not push the upper part of the cabinet. Failure to observe this can cause the cabinet to fall forwards and result in accidents.


### 3.7. INTERNAL SWITCHES AND COIN METERS

WARNING

- Never touch places other than those specified. Touching places not specified can cause electric shock and short circuits
- Be careful not to damage wiring. Damaged wiring can cause electric shock and short circuits.
- Adjust to the optimum sound volume considering the environmental requirements of the installation location.

IMPORTANT

The Control Panel Base can be opened by unlocking as shown below. Internal switches can be accessed when the Base is opened.


(1) TEST SWITCH
(2) SERVICE SW 1
(3) SERVICE SW 2
(4) DEMAG. SWITCH
(5) SOUND VOLUME

Push to enter Test Mode of Game BD.
SERVICE CREDIT SW. Used without registering on the Coin Meter.
SERVICE CREDIT SW. for 2 players, depending on the specific game.
Removes on-screen colour deviation due to CRT magnetisation. Use this switch before monitor colour adjustment.

Adjust the Speaker volume.

The Coin Meter is inside the CASHBOX DOOR.

- If the COIN METER and the Game Board are electrically disconnected, game play is not possible.

IMPORTANT


### 3.8. CONTROL PANEL

- Before starting work, ensure that the cabinet is isolated from the mains by switching off and removing the IEC mains lead from the wall outlet.
- Be careful not to damage wiring. Damaged wiring can cause electric shock and short circuits.


### 3.8.1. REPLACING THE CONTROL PANEL

1. Power OFF the machine and remove the IEC lead from the wall outlet.
2. Unlock the lock on the underside of the Control Panel Base, and open the Panel.
3. There are six connectors on the monitor side in the Base interior. Disconnect all of the six connectors. Depending on the game used, however, not all of the six connectors mat have been connected.
4. By removing the six sets of Carriage Bolts and Flange Nuts, the Control Panel can be removed from the Base. At this time, be very careful so as not to damage the wiring.


### 3.8.2. BUTTON REMOVAL

When changing to a game with less Operation Buttons, remove the unnecessary buttons from the Control Panel and install the Cap Switches to the button cut-outs


### 3.8.3. REPLACING THE INSTRUCTION SHEET

1. Power OFF the machine and remove the IEC lead from the wall outlet.
2. Unlock the lock on the underside of the Control Panel Base, and open the Panel.

3. While supporting the glass Instruction Cover to prevent it falling out, remove the four screws and clips on the rear of the Instruction Cover.
4. Remove the Instruction Cover to allow replacement of the Instruction Sheet.
5. Place Instruction Sheet in the recess on the Control Panel Base. Re-fit the Instruction Cover.
6. Fit the four clips and screws as detailed below.


### 3.9. REPLACEMENT OF FLUORESCENT LAMP AND OTHER LAMPS

- Never touch places other than those specified. Touching places other than those specified can cause electric shock and short circuit. Disconnect the machine from the supply before attempting the replacement of any lamp.
- When performing work, be sure to turn power off. Working with power on can cause an electric shock or short circuit.
- Hot fluorescent lamps can cause burns. Be very careful when replacing them.

STOP

- Lamps should only be replaced by QUALIFIED SERVICE PERSONNEL.

IMPORTANT

### 3.9.1. FLUORESCENT LAMP REPLACEMENT

(1) Turn power OFF by using the Main SW of AC Unit or the SUB PWR SPLY SW inside the SERVICE DOOR.
(2) Open the Control Panel (Section 8).
(3) By using the flat-blade type screwdriver, etc., remove the 4 screw caps from the Front Panel.

(4) Take out the 4 Tamperproof screws \& the 2 screws, and remove the Front Panel to replace the

FIG. 12 a

(5) Remove the Billboard Assy from the Billboard Holder by removing the two fixing screws.
Remove the Billboard Holder from the machine by first disconnecting the Earth Link between the Billboard Holder and frame, and removing the four fixing screws.


## FLUORESCENT LAMP 40W:

 390-5695-40-DUK

### 3.10. GAME BOARD

- When performing work, be sure to turn power off. Working with power on can cause an electric shock or short circuit.
- Be careful not to damage wiring. Damaged wiring can cause an electric shock or short circuit.
- The voltage/amperage ratings for the Game Board are 3.3V 12A, 5.0V 10A and 12 V 2 A . To avoid risk of fire, never use any board with supply requirements exceeding the above.
- When replacing the Game Board with one not of JAMMA standard, be sure to use only the harness supplied by the manufacturer of the Game Board. Using other harnesses constitutes a fire risk.

In this manual, only NAOMI SHIELD CASE removal is explained. When using other Game Boards such and LINDBERGH, the removal process is similar whereby all the connections on the face of the Game Board must be removed before extracting the $2 x$ thumbscrews and pulling out the wooden base.

### 3.10.1.TAKING OUT THE GAME BOARD

To take out the game board (NAOMI SHIELD CASE), remove together with the wooden base on which the Game Board is mounted.

1. Turn power OFF by removing the IEC lead from the wall socket.
2. Disconnect all of the connectors connected to the Shield Case Filter Board. Also disconnect all of the connectors connected to the devices other than the Shield Case on the base. The number of connectors varies on the specific game.

This figure is shown as an example only.
The shape of the Base and parts mounted on the Base, the number of Connectors, etc. will vary depending on the specific Game Board used.

3. Remove the screws securing the wooden Base and remove it from the cabinet together with the Shield Case, as detailed below. Be careful not to damage wiring during removal.

4. Take out the four screws and remove the Shield Case.
3.11. GAME BOARD POWER SUPPLY VOLTAGE ADJUSTMENT VOLUME

- The Voltage Adjustments shown below are factory set and must NOT BE CHANGED. Changing the setting without a justifiable reason can damage the IC Board and cause malfunctioning.



### 3.12. TROUBLESHOOTING

- These procedures should only be carried out by QUALIFIED SERVICE PERSONNEL.
IMPORTANT
If a problem occurs, first check the wiring connections.

| PROBLEMS | CAUSE | COUNTERMEASURES |
| :---: | :---: | :---: |
| When the main switch 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. |
|  | AC Unit CIRCUIT PROTECTION DEVICE (ie; fuse) was activated due to an instantaneous overcurrent. | First, remove the cause of overcurrent and reinstate the circuit protection device to its original status. <br> Then identify the cause of the fault on the item which caused the overcurrent \& fix. |
| The colour image on the screen is incorrect | Incorrect monitor adjustment. | Make appropriate adjustments. Refer to the Monitor Service Manual supplied with this product. |
| The on-screen image of the monitor sways and/or shrinks | The power source and voltage are not correct. | Make sure that the power supply and voltage are correct. |
| Sound is not emitted | Sound volume adjustment is not correct. | Adjust the volume setting on the VTS bracket. Refer to the Monitor Service Manual supplied with this product. |
|  | Malfunctioning BD and Amp. | Perform Sound Test to check it. Refer to the Monitor Service Manual supplied with this product. |
|  | Connector connection is incorrect | Check connector connection from Base to Speaker |
| The fluorescent lamp does not light up | Fluorescent lamp needs replacement | Replace the fluorescent lamp. Refer to the Monitor Service Manual supplied with this product. |
|  | The connector is disconnected | Check connector connections in the billboard case. Refer to the Monitor Service Manual supplied with this product. |

### 3.13. FUSES

- Never touch places other than those specified. Touching places other than those specified can cause electric shock and short circuit. Disconnect the machine from the supply before attempting the replacement of any fuse.

STOP

- FUSES should only be replaced by QUALIFIED SERVICE PERSONNEL.
- Only replace fuses with ones of the same value and type.

There are a number of fuses used on this machine to protect the user and the machine from damage. Only replace the fuse once you have removed the cause of its failure. Detailed below is a list of the fuses used, their location and if relevant PCB reference:

| PART NUMBER | LOCATION | TYPE \& DETAILS | QTY |
| :--- | :--- | :--- | :--- |
| $514-5078-3150$ | STEREO AMP REF. F1, F2 | $5 \times 20 \mathrm{~mm}$ CERAMIC SB 3.15A | 2 |
| $514-5078-6300$ | SWITCH REG REF. F1 | $5 \times 20 \mathrm{~mm}$ CERAMIC SB 6.3A | 1 |
| $514-5078-10000$ | IEC INLET REF. F1 | $5 \times 20 \mathrm{~mm}$ CERAMIC SB 10A | 1 |
| $514-5078-6300$ | CONN. BD. REF. F1 | $5 \times 20 \mathrm{~mm}$ CERAMIC SB 6.3A | 1 |

There are also fuses located on the Monitor PCB. Refer to the relevant Monitor manual supplied to reference these fuses.

### 3.14. COIN SELECTORS

- Before starting work, ensure that the cabinet is isolated from the mains by switching off and removing the IEC mains lead from the wall outlet.
- Be careful not to damage wiring. Damaged wiring can cause electric shock and short circuits.


### 3.14.1.COIN CONTROLS SR3 (TOP ENTRY)

### 3.14.1.1. TAKING OUT THE COIN MECH.

Open the Control Panel Base to gain access to the Coin Selector, located on the right-hand side inside the Control Panel. Lift the clamp on the top of the Selector, and remove the Selector by pulling out diagonally upward.


### 3.14.1.2. CLEARING A COIN JAM

If a coin is not rejected when the REJECT button is pressed, open the Control Panel Base as described previously and open the Selector Gate. After removing the jammed coin, put a normal coin in and check to see that the Selector functions correctly.

### 3.15. MAINTENANCE INSTRUCTIONS

### 3.15.1.EXPLANATION OF TEST AND DATA DISPLAY

Use the switches on the VTS to enter the TEST MODE. This will allow you to carry out post installation and periodic checks and adjustments. The following section details the function of each of the tests:

- Be very careful about entering TEST MODE. If the machine you wish to test is linked to other machines, exiting test on your machine will cause a network check to be carried out. This will disable all other machines linked to it.

| ITEM | DESCRIPTION | INTERVAL |
| :---: | :---: | :---: |
| INSTALLATION OF THE MACHINE | When the machine is installed perform the following checks: <br> - Check to see that each setting is as per the standard settings input at the time of shipment. <br> - In the INPUT TEST mode, check each switch and V.R. <br> - In the OUTPUT TEST mode, check each of the lamps. <br> - In the MEMORY TEST mode check all of the IC's on the IC BD. | Monthly |
| MEMORY | - On the TEST MENU screen choosing the MEMORY TEST allows self test to be performed. In this test RAM \& ROM are tested. | Monthly |
| PERIODIC CHECKS | Periodically perform the following <br> - MEMORY TEST. <br> - Ascertain each setting. <br> - In the INPUT TEST mode, test the control devices. <br> - In the OUTPUT TEST mode, check each of the lamps. | Monthly |
| CONTROL SYSTEM | - In the INPUT TEST mode, check each switch and V.R. <br> - Adjust or replace each switch and V.R. | Monthly |
| MONITOR | - In the C.R.T. TEST mode, check to ensure the monitor is adjusted correctly <br> - Clean screen (switch off machine and remove the plug) | Monthly <br> Weekly |
| IC BOARD | MEMORY TEST <br> - In the SOUND TEST mode, check the sound related ROMs | Monthly |
| DATA CHECK | - Check such data as held in the bookkeeping screens, relating to number and length of plays | Monthly |
| EXTERIOR MAINTENANCE | - Clean surfaces <br> - Lubricate seat sliders | Monthly |
| COIN MECHANISM | - Check switch operation (if fitted) | Monthly |

## 4. COIN MECH INSTALLATION AND CREDIT BOARD SET UP

## INTRODUCTION

Game credits between the Coin Mechanism and the game board for this machine are controlled by a credit board*. This electronic circuit allows the price of play to be set for a range of different countries. These functions are set on Dual In Line (DIL) PCB mounted switches.

### 4.1. EXCEL CREDIT BOARD OPTION SETTINGS

SW1 is used to set the currency (or coin ratio) and SW3 the price of play. Refer to the Tables on the following pages for the correct settings for your environment.

The Excel board pictured below is mounted in the Control Panel..
The Excel board is connected to the coin validator via a dedicated wiring harness depending upon the coin validator used:

| Wiring Harness | Validator |  |
| :--- | :--- | :--- |
| LM1006 | Coin Controls | (15 way connector) |
| LM1007 | Mars | (13 way connector) |
| LM1008 | Mechanical | See note 2 |
| N/A | NRI | See note 1 |

Notes

1. If NRI mechanisms are to be used, these should be ordered with the highest denomination coin on coin path \#1 and the lowest denomination on coin path \#4. The Excel board should be then be set up for either the UK or Switzerland settings. A minimum connecting lead length of 600 mm is required.
2. Mechanical coin mechanisms may be connected in parallel allowing two identical mechanisms to be fitted.

The Excel Board



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

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

- Set SW 3 on the VTS /Excel board as shown in the table above corresponding to the country required.
4.1.1. PRICE OF PLAY SETTINGS UK

|  | Price | Bonus |  |  | DIL Switch 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Switch 1 | Switch 2 | Switch 3 | Switch 4 | Switch 5 |
| 1 | 10p | No Bonus |  |  | OFF | OFF | OFF | OFF | OFF |
| 2 | 10p | 6 = 50p |  |  | ON | OFF | OFF | OFF | OFF |
| 3 | 20p | No Bonus |  |  | OFF | ON | OFF | OFF | OFF |
| 4 | 20p | 3 = 50p | 6 = £1 | 12 =£2 | ON | ON | OFF | OFF | OFF |
| 5 | 30p | No Bonus |  |  | OFF | OFF | ON | OFF | OFF |
| 6 | 30p | 1.66 = 50p | 4 = £1 | 8 = £2 | ON | OFF | ON | OFF | OFF |
| 7 | 30p | 2 = 50p | 4 = £1 |  | OFF | ON | ON | OFF | OFF |
| 8 | 30p | AMLD * | 3 = £1 | 6 = £2 | ON | ON | ON | OFF | OFF |
| 9 | 40p | No Bonus |  |  | OFF | OFF | OFF | ON | OFF |
| 10 | 40p | 1.25 = 50p | 3 = £1 | 6 = £2 | ON | OFF | OFF | ON | OFF |
| 11 | 50p | No Bonus |  |  | OFF | ON | OFF | ON | OFF |
| 12 | 50p |  | 3 = £1 | 6 = £2 | ON | ON | OFF | ON | OFF |
| 13 | 50p |  | 2 = $£ 1$ | 5 = £2 | OFF | OFF | ON | ON | OFF |
| 14 | 60p | No Bonus |  |  | ON | OFF | ON | ON | OFF |
| 15 | 60p |  | 2 = £1 | 4 = $£ 2$ | OFF | ON | ON | ON | OFF |
| 16 | 80p | No Bonus |  |  | ON | ON | ON | ON | OFF |
| 17 | 80p | 1.25 = £1 | $\begin{gathered} 2= \\ £ 1.50 \end{gathered}$ | $2.5=£ 2$ | OFF | OFF | OFF | OFF | ON |
| 18 | £1 | No Bonus |  |  | ON | OFF | OFF | OFF | ON |
| 19 | £1 |  | 3 = $£ 2$ |  | OFF | ON | OFF | OFF | ON |
| 20 | £1 |  | 2 = $£ 2$ | 5 = £4 | ON | ON | OFF | OFF | ON |
| 21 | £1.50 | No Bonus |  |  | OFF | OFF | ON | OFF | ON |
| 22 | £1.50 |  | $2=£ 2$ |  | ON | OFF | ON | OFF | ON |
| 23 | £2 | No Bonus |  |  | OFF | ON | ON | OFF | ON |
| 24 | £2 |  |  | 3 = £5 | ON | ON | ON | OFF | ON |
| 25 | £3 | No Bonus |  |  | OFF | OFF | OFF | ON | ON |
| 26 | £3 |  |  | $2=£ 5$ | ON | OFF | OFF | ON | ON |
| 27 | £5 | No Bonus |  |  | OFF | ON | OFF | ON | ON |
| 28 | £5 |  |  | 3 = £10 | ON | ON | OFF | ON | ON |
| 29 | $£ 7.50$ | No Bonus |  |  | OFF | OFF | ON | ON | ON |
| 30 | $£ 7.50$ |  |  | $2=£ 10$ | ON | OFF | ON | ON | ON |
| 31 | £10 | No Bonus |  |  | OFF | ON | ON | ON | ON |
| 32 |  | Play |  |  | ON | ON | ON | ON | ON |

4.1.2. PRICE OF PLAY SETTINGS EURO

|  | Price | Bonus |  |  | DIL Switch 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Switch 1 | Switch 2 | Switch 3 | Switch 4 | Switch 5 |
| 1 | 10¢ | No Bonus |  |  | OFF | OFF | OFF | OFF | OFF |
| 2 | 10¢ | $6=50 ¢$ |  |  | ON | OFF | OFF | OFF | OFF |
| 3 | 20¢ | No Bonus |  |  | OFF | ON | OFF | OFF | OFF |
| 4 | 20¢ | 3 = 50¢ | 6 = €1 | 12 =€2 | ON | ON | OFF | OFF | OFF |
| 5 | 30¢ | No Bonus |  |  | OFF | OFF | ON | OFF | OFF |
| 6 | 30¢ | 1.66 = 50¢ | 4 = €1 | 8 = €2 | ON | OFF | ON | OFF | OFF |
| 7 | 30¢ | $2=50 ¢$ | 4 = €1 |  | OFF | ON | ON | OFF | OFF |
| 8 | 30¢ | AMLD * | 3 = €1 | 6 = €2 | ON | ON | ON | OFF | OFF |
| 9 | 40¢ | No Bonus |  |  | OFF | OFF | OFF | ON | OFF |
| 10 | 40¢ | 1.25 = 50¢ | 3 = €1 | 6 = €2 | ON | OFF | OFF | ON | OFF |
| 11 | 50¢ | No Bonus |  |  | OFF | ON | OFF | ON | OFF |
| 12 | 50¢ |  | 3 = €1 | 6 = €2 | ON | ON | OFF | ON | OFF |
| 13 | 50¢ |  | 2 = €1 | 5 = €2 | OFF | OFF | ON | ON | OFF |
| 14 | 60¢ | No Bonus |  |  | ON | OFF | ON | ON | OFF |
| 15 | 60¢ |  | 2 = €1 | 4 = €2 | OFF | ON | ON | ON | OFF |
| 16 | 80¢ | No Bonus |  |  | ON | ON | ON | ON | OFF |
| 17 | 80¢ | 1.25 = £1 | 2 = €1.50 | 2.5 = €2 | OFF | OFF | OFF | OFF | ON |
| 18 | €1 | No Bonus |  |  | ON | OFF | OFF | OFF | ON |
| 19 | €1 |  | 3 = €2 |  | OFF | ON | OFF | OFF | ON |
| 20 | €1 |  | 2 = €2 | 5 = €4 | ON | ON | OFF | OFF | ON |
| 21 | €1.50 | No Bonus |  |  | OFF | OFF | ON | OFF | ON |
| 22 | €1.50 |  | 2 = €2 |  | ON | OFF | ON | OFF | ON |
| 23 | €2 | No Bonus |  |  | OFF | ON | ON | OFF | ON |
| 24 | €2 |  |  | 3 = €5 | ON | ON | ON | OFF | ON |
| 25 | €3 | No Bonus |  |  | OFF | OFF | OFF | ON | ON |
| 26 | €3 |  |  | 2 = € 5 | ON | OFF | OFF | ON | ON |
| 27 | €5 | No Bonus |  |  | OFF | ON | OFF | ON | ON |
| 28 | €5 |  |  | 3 = €10 | ON | ON | OFF | ON | ON |
| 29 | €7.50 | No Bonus |  |  | OFF | OFF | ON | ON | ON |
| 30 | €7.50 |  |  | 2 = €10 | ON | OFF | ON | ON | ON |
| 31 | €10 | No Bonus |  |  | OFF | ON | ON | ON | ON |
| 32 |  | e Play |  |  | ON | ON | ON | ON | ON |

## 5. REPLACING THE DISPLAY CARD

Depending on the specific game, the Display Card to be installed into the Billboard may not exist. In this case, use the POP SHEET instead.


## 6. PERIODIC CHECK AND INSPECTION

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

- Be sure to check annually to see if the power cords are damaged, the plug is securely inserted and that there is no dust in the interior of the machine or between the socket and the power cord. Using the product in an unclean condition may cause a fire or electric shock.

| DESCRIPTION | WHAT TO CHECK | INTERVAL |
| :--- | :--- | :--- |
| CABINET | Check Adjusters' contact with surface | Daily |
| MONITOR | Cleaning CRT face <br> Check settings | Weekly <br> Monthly |
| GAME BD | Setting check | Monthly |
| CONTROL PANEL | Input test | Monthly |
| Speaker, sound | Sound test, check volume adjustment | Monthly |
| COIN SELECTOR | Coin insertion test <br> Cleaning | Monthly <br> Tri-Monthly |
| POWER SUPPLY CORD | Check condition | Annually |
| INTERIOR | Clean (Do Not use water jet) | Annually |
| CABINET SURFACE | Clean (Do Not use water jet) | As required |

### 6.1. CLEANING THE CABINET SURFACES

When the cabinet surfaces are badly soiled, remove stains with a soft cloth dipped in water or chemical detergent (diluted with water) and squeezed dry. To avoid damaging surface finish, do not use such solvents as thinner, benzene, etc. (other than ethyl alcohol), abrasives or bleaching agents. DO NOT USE A WATER JET.

## 7. DESIGN RELATED PARTS



## 8. PARTS LIST

### 8.1. NOB-0000*UK TOP ASSY NAOMI CABI COM



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | NOB-000**UK | 1 | ASSY UR CABI TOP ENTRY COM |  |
| 2 | NOB-INST-*** | 1 | ASSY INSTALLATION KIT NOB | $[$ [NOT SHOWN] |
| 3 | RND-0068 | 1 | WOODEN BASE MAIN |  |
| 4 | NOA-***UK | 1 | ASSY CNTRL PANEL 2L6B ST |  |
| 6 | $421-7988-91 U K$ | 2 | STICKER SERIAL NUMBER UK | NEXT TO AC UNIT, INSIDE <br> C.PNL |
| 7 | PK0121 | 1 | POLY COVER 750X1100X1800 | $[$ [NOT SHOWN] |
| 8 | PK0201 | 1 | PALLET NOB U/R | $[$ NOT SHOWN] |
| 9 | PK0208 | 1 | SLEEVE NOB U/R COM | $[$ NOT SHOWN] |
| 10 | LB1046 | 1 | LABEL TESTED FOR ELEC. SAFETY |  |
| 201 | $031-000416-0 C$ | 6 | M4X16 CRG BLT CRM | (4)-6 |
| 202 | $050-F 00400$ | 6 | M4 NUT FLG SER PAS | (4)-6 |
| 203 | $032-000425$ | 2 | M4X25 BLT WING PAS | (3)-2 |
| 204 | FX0301 | 2 | M4 WSHR 16OD FLT BZP | (3)-2 |
| 205 | $008-T 00412-O C ~$ | 4 | M4X12 MSCR TMP PRF CRM | REAR HATCH - 4 |

NB: Where an asterisk "*" appears in a part number or description, it indicates that the part or assembly is subject to change, depending on the game variant purchased.

### 8.2. NOB-100**UK UR CABI TOP ENTRY



Part number listing for this assembly follows overleaf.

| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :---: | :---: | :---: | :---: |
| 1 | NOB-1100UK | 1 | ASSY FRAMEWORK UR |  |
| 2 | NOA-1200UK | 1 | ASSY CRT COVER |  |
| 3 | NOA-1300 | 1 | ASSY BILLBOARD |  |
| 4 | NOA-VT3UK | 1 | ASSY CONTROL BOX W/CC EU |  |
| 5 | NOA-1500HUK | 1 | ASSY FRONT PANEL |  |
| 6 | NOA-4000UK OR NOB-4010UK OR NOA-4030UK | 1 | ASSY ELEC NAOMI ASSY ELEC NAOMI 2 ASSY ELEC LBGH |  |
| 7 | NOA-1750UK | 1 | ASSY SERVICE DOOR |  |
| 8 | NOA-1801UK | 1 | REAR HATCH | FIX DOWN AT TOP ASSY |
| 9 | NOB-1001UK | 1 | FRAME COVER UR R |  |
| 10 | NOB-1002UK | 1 | FRAME COVER UR L |  |
| 11 | NOA-1003 | 1 | ENDCAP R |  |
| 12 | NOA-1004 | 1 | ENDCAP L |  |
| 13 | NOA-1005UK | 1 | REAR COVER UPPER |  |
| 15 | $\begin{array}{\|l\|} \hline 280-5112 \text { OR } \\ 280-6617 \text { OR } \\ 280-6643 \\ \hline \end{array}$ | 4 | BUSH FOR NANAO MONITOR BUSH FOR SANWA PFX | (101)-4 |
| 16 | 280-5113 | 4 | COLLAR FOR NANAO MONITOR | (101)-4 |
| 18 | NOA-1006 | 4 | SCR CAP |  |
| 19 | NOB-1007UK | 1 | COIN CHUTE UR |  |
| 20 | NOB-1700UK OR NOB-1710UK | 1 | ASSY AC UNIT |  |
| 22 | NOA-1008 | 2 | STICKER SIDE |  |
| 23 | NOA-1009 | 2 | WSHR PLATE | (4)-2 |
| 24 | NOA-1010UK | 1 | BILLBD HOLDER |  |
| 25 | NOA-1011 | 1 | FL BRKT |  |
| 26 | NOA-1116 | 1 | LID COMMUNI PORT |  |
| 27 | NOB-4100UK OR RND-4100UK | 1 | $\begin{aligned} & \text { ASSY XFMR } \\ & \text { ASSY XFMR LBGH } \end{aligned}$ |  |
| 28 | NOB-1013 | 2 | STICKER SIDE LINE NOB |  |
| 29 | NOB-1117UK | 1 | WATER GUARD CE |  |
| 37 | 421-7020UK | 2 | STICKER CAUTION FORK | AT BACK OF BASE BOX |
| 41 | LB1102 | 5 | STICKER DANGEROUS VOLTAG | BASE LID,DOOR,CRT,FL,CP COVERS |
| 42 | LB1104 | 1 | STICKER CAUTION, HOT SUR | FL COVER |
| 43 | NOB-0005UK | 1 | KICK STRIP |  |
| 101 | 200-5827 | 1 | ASSY CLR DSPL 29TYPE 31K 100V | OR |
| 101 | 200-5827-N | 1 | ASSY CLR DSPL 29TYPE 31K 100V | OR |
| 101 | 200-5927 | 1 | ASSY CLR DSPL 29TYPE 31K 2934 | OR |
| 101 | 200-5949 | 1 | ASSY CLR DSPL 29TYPE 31K UK | OR |
| 101 | 200-5950 | 1 | ASSY CLR DSPL 29TYPE 31K 100V |  |
| 102 | 390-5695-40-CUK | 1 | FL TRAY 110V 40W (T12) |  |
| 103 | 220-5643UK | 1 | COIN METER SMALL 12V | CLIP-IN |
| 114 | 390-5695-40-DUK | 1 | FL TUBE 40W 600L 1.5"DIA |  |
| 115 | OS1098 | 2 | CRIMP BELL END SMALL | (103)-2 |
| 116 | 280-A02048-PM | 5 | ROUTER TWIST D20 SO4.8 P |  |
| 117 | 280-A02000-A | 4 | ROUTER TWIST D20 ADH |  |
| 118 | 280-A01248-PM | 12 | ROUTER TWIST D12 SO4.8 P |  |
| 119 | 280-A01200-A | 3 | ROUTER TWIST D12 ADH |  |
| 120 | 280-A00900-A | 2 | ROUTER TWIST D9 ADH |  |
| 121 | OS1230 | 1.18 | FOAM STRIP 2mm X 10mm | 2X0.59M TO 8 |
| 122 | 601-0460 | 10 | CABLE TIE 100mm | 10-(29) |
| 123 | 280-K00600-0W | 2 | DRIVE FASTENER M6 WHITE | BASE BOX ABOVE COIN DOOR |
| 201 | 008-T00625-OC | 14 | M6X25 MSCR TMP PRF TH CR | (2)-6,(5)-4,(13)-4 |
| 202 | 030-000620-S | 6 | M6X20 BLT W/S PAS | (4)-4,(19)-2 |
| 203 | 000-P00408 | 2 | M4X8 MSCR PAN PAS | FL TUBE CLIPS - 2 |


| 204 | $008-T 00412-\mathrm{OC}$ | 35 | M4X12 MSCR TMP PRF CRM |  |
| :--- | :--- | :---: | :--- | :--- |
| 206 | $050-F 00600$ | 4 | M6 NUT FLG SER PAS | $(101)-4$ |
| 208 | $008-$ T00430-0C | 2 | M4X30 MSCR TMP PRF TH CR | TNG STOPPER CP \& REAR LID |
| 209 | $030-000630-\mathrm{S}$ | 4 | M6X30 SET W/S PAS | $(27)-4$ |
| 210 | $068-651616$ | 4 | M6 WSHR 16OD FLT PAS | $(27)-4$ |
| 211 | $000-P 00408-W$ | 6 | M4X8 MSCR POSI PAN W/FS | $(25)-2$, EARTHS-4 |
| 214 | $000-P 00416-W$ | 4 | M4X16 MSCR POSI PAN W/FS | $(5)-2,(11)-1,(12)-1$ |
| 215 | $068-652516$ | 4 | M6 WSHR 25OD FLT PAS | $(101)-4$ |
| 216 | $050-F 00400$ | 5 | M4 NUT FLG | $(102)-2$, EARTHS-3 |
| 217 | $050-F 00500$ | 3 | M5 NUT FLG SER PAS | FRAME EARTHS - 3 |
| 218 | $010-P 00408$ | 4 | M4X8 TAPTITE POSI PAN | $(6)-4$ |
| 219 | $060-F 00400$ | 4 | M4 WSHR FORM A FLT PAS | $(6)-4$ |
| 220 | $000-P 00612-W$ | 1 | M6X12 MSCR PAN W/FS PAS | $(323)-1$ |
| 221 | $050-F 00500$ | 1 | M5 NUT FLG SER PAS | $(323)-1$ |
| 301 | NOB-6001UK | 1 | ASSY WIRE L |  |
| 302 | NOB-6002UK | 1 | ASSY WIRE R |  |
| 311 | $600-7159-070$ | 1 | WIRE HARN JVS PWR 070CM |  |
| 313 | $600-7009-250$ | 1 | ASSY RGB CA D-SUB 15P 25 |  |
| 319 | $600-9010-44 K$ | 1 | WIRE HARN EARTH 100mm M4 | BBOARD HOLDER TO FL BASE |
| 320 | NOB-60201UK | 1 | WIRE HARN FL NOB |  |
| 321 | $600-9070-45 K$ | 1 | WIRE HARN EARTH 700mm M4 | BASE LID TO XFMR |
| 322 | $600-9080-45 K$ | 1 | WIRE HARN EARTH 800mm M4 | BASE TO RH FRAME (BOTTOM) |
| 323 | $600-9025-56 U$ | 1 | WIRE HARN EARTH 250mm M5 | MONITOR CHASSIS TO RH FRAME |

### 8.3. NOB-1100UK ASSY FRAMEWORK UR



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | NOB-1601UK | 1 | BASE BOX UK VERSION |  |
| 2 | NOB-1101UK | 1 | MAIN FRAME UR R |  |
| 3 | NOB-1102UK | 1 | MAIN FRAME UR L |  |
| 4 | NOA-1111X | 1 | LOWER BEAM |  |
| 5 | NOA-1112X | 1 | UPPER BEAM |  |
| 6 | NOA-1113 | 1 | HOOF R |  |
| 7 | NOA-1114 | 1 | HOOF L |  |
| 8 | NOB-1950UK | 1 | ASSY SFMD WHITE (FLAT <br> DOOR) |  |
| 9 | $253-5366$ | 1 | CASH BOX |  |
| 11 | NOA-1115UK | 1 | TNG REAR HATCH |  |
| 102 | $601-5699 X$ | 2 | LEG ADJUSTER BOLT <br> M16x75 | RRONT |
| 103 | $601-10461 U K$ | 2 | CASTOR 50 SWIVEL |  |
| 104 | $601-10462 U K$ | 2 | CASTOR 50 FIXED | $(2)-2,(3)-2$ |
| 105 | $220-5575 U K$ | 1 | LOCK | $(2,3)-3,(4,5)-4$ |
| 201 | $050-F 00600$ | 4 | M6 NUT FLG SER PAS | $(2)-3,(3)-3$ |
| 202 | $030-000620-S$ | 14 | M6X20 BLT W/S PAS | $(6)-1,(7)-1$ |
| 203 | $068-652016$ | 6 | M6 WSHR 20OD FLT PAS |  |
| 204 | FX0302 | 2 | M5 NUT FLG SER BZP | $(6)-1,(7)-1$ |
| 205 | $000-P 00408-W$ | 2 | M4X8 MSCR POSI PAN W/FS | $(102)-2$ |
| 207 | $050-H 01600$ | 2 | M16 NUT PAS | $(103,4)-8 E A$ |
| 208 | FAS-200004 | 16 | M6X14 MSCR SKT CAP BNP | $(103,4)-8 E A$ |
| 209 | FX0398 | 16 | M6 WSHR SPR BNP |  |

### 8.4. NOB-1950UK ASSY SFMD WHITE (FLAT DOOR)



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :--- | :--- | :--- | :--- | :--- |
| 101 | $220-5725-03$ | 1 | FRAME SINGLE MINI W/O PA | CLAMPS \& SCREWS IN BAGS |
| 102 | $220-5725-04$ | 1 | DOOR SINGLE MINI FLAT,NO |  |
| 104 | $220-5574$ UK | 1 | LOCK KEYED DIFFERENT | $(102)-1$ |
| 105 | PTR-1951UK | 1 | CAM CRANKED 6mm, LENGTH | $(104)-1$ |

### 8.5. NOA-1200UK ASSY CRT COVER



| No. | ITEM NUMBER | QTY | DESCRIPTION | COMPONENT REF |
| :---: | :--- | :---: | :--- | :--- |
| 1 | NOA-1201UK | 1 | CRT COVER |  |
| 2 | NOA-1202 | 1 | SPEAKER BOX |  |
| 3 | RND-0037 | 0.38 | TAPE SPEAKER BOX 2 S |  |
| 101 | $130-5205$ | 2 | SPEAKER 4OHM 10W 100 |  |
| 102 | $000-P 00410-W$ | 8 | M4X10 MSCR PAN W/FS | $(101)-8$, |
| 103 | 340042 | 6 | RIVET BULBEX 3/16 BF | $(2)-6$ |
| 301 | NOA-60031 | 1 | WIRE HARN SPEAKER L | [NOT SHOWN] |
| 302 | NOA-60032 | 1 | WIRE HARN SPEAKER R | [NOT SHOWN] |

### 8.6. NOA-1300 ASSY BILLBOARD



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | NOA-1301 | 1 | BILLBOARD PLATE |  |
| 2 | NOA-1302UK | 1 | BILLBOARD SHEET |  |
| 201 | $008-T 00408-O C$ | 3 | M4X8 MSCR TMP PRF TH CRM | $(2)-3$ |

### 8.7. NOB-1400UK ASSY CONTROL BOX WICC EUR



Part number listing for this assembly follows overleaf.

| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :---: | :---: | :---: | :---: |
| 1 | NOA-1450UK | 1 | ASSY I/O UNIT |  |
| 2 | NOA-1480UK | 1 | ASSY COIN MECH | C120 / SR3 / 31/2" MECH, OR: |
| 2 | NOB-1480UK | 1 | ASSY COIN ELEC | C220B |
| 3 | NOA-1401 | 1 | CONTROL BOX LOWER |  |
| 4 | NOA-1402 | 1 | CONTROL BOX UPPER |  |
| 5 | CQN-1055X | 1 | HINGE |  |
| 6 | NOA-1403 | 1 | SHAFT |  |
| 7 | HOT-1520 | 2 | LATCH N |  |
| 8 | HOT-1504 | 2 | LATCH HOLDER |  |
| 9 | NOA-1404 | 1 | TOR SPRING |  |
| 10 | HOT-1505UK | 1 | LKG TNG | (101)-1 |
| 11 | NOA-1405 | 1 | FLAP |  |
| 12 | NOA-1406X | 1 | REJECT COVER | OR NOB-1406 |
| 13 | NOA-1407UK | 1 | TRANSIT CHUTE UK | OR NOB-1407 |
| 14 | HOT-1508 | 1 | INSTRUCTION COVER |  |
| 15 | NOA-1419 | 2 | BRKT INST COVER | (14)-2 |
| 16 | NOA-1420 | 4 | L WASHER | (15)-4 |
| 17 | 220-5428UK | 1 | COIN ENTRY CE |  |
| 18 | 250-5043 | 1 | REJECT BUTTON ASSEMBLY |  |
| 19 | NOA-1412 | 1 | STICKER DENOMI BLANK FOR |  |
| 20 | NOA-1414 | 1 | LID TRANSIT CHUTE |  |
| 21 | NOA-1415 | 2 | LOCK BRKT |  |
| 22 | NOA-1418 | 1 | DUMMY BTN |  |
| 23 | 421-10064UK | 1 | STICKER I/O UNIT |  |
| 25 | NOB-1417UK | 1 | ACCEPTOR BRKT |  |
| 26 | EP1380 | 1 | CREDIT BOARD EXCEL |  |
| 101 | 220-5575UK | 1 | LOCK |  |
| 102 | 280-A00900-A | 3 | ROUTER TWIST D9 ADH |  |
| 103 | 280-A01200-A | 3 | ROUTER TWIST D12 ADH |  |
| 104 | 280-A02000-A | 3 | ROUTER TWIST D20 ADH |  |
| 105 | 280-L01640-PS | 4 | STANDOFF 16mm 4mm PANEL | (25)-4 |
| 201 | 000-P00410-W | 27 | M4X10 MSCR POSI PAN W/FS | (1,8,21,16)-4,(24)-2,(5)-9 |
| 202 | FX0212 | 2 | M6 NUT BZP | (7)-2 |
| 203 | FX0255 | 2 | M6 WSHR SPR BZP | (7)-2 |
| 205 | 012-P03506-F | 2 | N6X1/4" S/TAP POSI FLG B | (17)-2 |
| 206 | 000-P00410-W | 1 | M4X10 MSCR POSI PAN W/FS | (201) |
| 207 | FX0301 | 1 | M4 WSHR 16OD FLT BZP | (22) |
| 301 | NOB-60101UK | 1 | WIRE HARN COIN NOB |  |

### 8.8. NOA-1450UK ASSY I/O UNIT


(901) (79) (17)

| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :---: | :---: | :---: | :---: |
| 1 | NOA-1451UK | 1 | I/O BASE |  |
| 2 | 837-13551-92 | 1 | I/O CONTROL BD FOR JVS |  |
| 3 | NOA-1117UK | 1 | WATER GUARD | (1)-1 |
| 101 | 838-13739 | 1 | SW BD NAOMICABINET |  |
| 102 | 280-A02048-PM | 1 | ROUTER TWIST D20 SO4.8 P | [NOT SHOWN] |
| 103 | 280-A01248-PM | 5 | ROUTER TWIST D12 SO4.8 P | [NOT SHOWN] |
| 104 | 280-A00900-A | 2 | ROUTER TWIST D9 ADH | [NOT SHOWN] |
| 106 | 280-L00940-PM | 3 | STANDOFF 9L 4mm HOLE PAN | (MONITOR REMOTE BOARD)-3 |
| 107 | 280-L00709-OS | 3 | STANDOFF 7OD 4ID 9L | (101)-3 |
| 201 | 000-P00320-W | 7 | M3X20 MSCR POSI PAN W/FS | (2)-4,(101)-3 |
| 301 | NOA-60021 | 1 | WIRE HARN ANALOG CONTROL | [NOT SHOWN] |
| 302 | NOA-60022UK | 1 | WIRE HARN SW CONTROL | [NOT SHOWN] |
| 303 | NOA-60023 | 1 | WIRE HARN I/O BD PWR | [NOT SHOWN] |
| 304 | NOA-60024 | 1 | WIRE HARN SPEAKER L | [NOT SHOWN] |
| 305 | NOA-60025 | 1 | WIRE HARN SPEAKER R | [NOT SHOWN] |

### 8.9. NOA-1480UK ASSY COIN MECH



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | NOA-1481XUK | 1 | BASE COIN SELECTOR |  |
| 2 | NOA-1482 | 1 | LINK COIN CHUTE |  |
| 3 | NOA-1483 | 1 | UPPER COIN CHUTE |  |
| 4 | NOA-1484UK | 2 | ADHESIVE INSULATING PAD |  |
| 101 | $220-5086-A U K$ | 1 | MECH CADDY BASE |  |
| 103 | $220-5086-C U K$ | 2 | MECH CLIP |  |
| 104 | $000-F 00408$ | 5 | M4X8 MSCR CSK PAS | $(3)-2,(101)-3$ |
| 202 | $000-$ P00308 | 1 | M3X8 MSCR PAN PAS | $(2)-1$ |
| 203 | $060-$ S00300 | 1 | M3 WSHR SPR PAS | $(2)-1$ |
| 204 | $060-$ L00300 | 1 | M3 WSHR LOCK PAS | $(2)-1$ |
| 205 | $060-$ F00400 | 1 | M4 WSHR FORM A FLT PAS | $(2)-1$ |

8.10. NOB-1480 ASSY COIN SELECTOR UNIT 220


| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | NOB-1481UK | 1 | BASE COIN SELECTOR |  |
| 2 | NOB-1482 | 1 | LINK COIN SELECTOR 220 |  |
| 3 | NOB-1484 | 1 | L HOOK |  |
| 201 | $045-0037$ | 1 | DIA6 SNAP PIN |  |
| 202 | $000-$ P00408-W | 2 | M4X8 MSCR PAN W/FS PAS | $(3)-2$ |

### 8.11. NOA-1500UK ASSY FRONT PANEL (COM)



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | NOA-1500UK-S1 | 1 | ASSY FRONT PANEL NF | NOA-1501 + NOA-1502X AS AN <br> ASSY |
| 3 | NOA-1503 | 1 | LIGHT COVER |  |
| 4 | NOA-1504UK | 1 | PRISM PLATE |  |
| 5 | NOA-1505 | 1 | LID GCS |  |
| 6 | NOA-1506 | 2 | LID VMS | CLIP-IN |
| 7 | NOA-1507 | 1 | EMBLEM NAOMI |  |
| 201 | $000-P 00412-W$ | 5 | M4X12 MSCR POSI PAN W/FS | $(5)-5$ |
| 202 | $012-P 03516$ | 4 | N6X5/8" S/TAP PAN PAS | $(4)-4$ |

8.12. NOA-1500HUK ASSY FRONT PANEL (LBG)


| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :--- | :--- | :--- | :--- | :--- |
| 1 | NOA-1500UK-01 | 1 | ASSY FRONT PANEL PF | NOA-1501 + NOA-1502-03 AS AN <br> ASSY |
| 3 | NOA-1503 | 1 | LIGHT COVER |  |
| 4 | NOA-1504UK | 1 | PRISM PLATE |  |
| 5 | NOA-1505 | 1 | LID GCS | CLIP-IN |
| 6 | NOA-1506 | 2 | LID VMS |  |
| 7 | NOA-1507 | 1 | EMBLEM NAOMI | $(5)-5$ |
| 201 | $000-P 00412-W$ | 5 | M4X12 MSCR POSI PAN <br> W/FS | $(4)-4$ |
| 202 | $012-P 03516$ | 4 | N6X5/8" S/TAP PAN PAS |  |

### 8.13. NOA-4030UK ASSY ELEC (LBG)



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | AMK-0162UK | 1 | ELEC BASE |  |
| 2 | AMK-0163UK | 1 | ELEC BKT | $[$ NOT SHOWN |
| 101 | $400-5457-01$ | 1 | SW REGU ATX |  |
| 103 | $838-13616-91$ | 1 | AUDIO POWER AMP 2CH | $[$ [NOT SHOWN] |
| 107 | $280-A 02048-P M$ | 4 | ROUTER TWIST D20 SO4.8 P | BACK EDGE IN MIDDLE [NOT <br> SHOWN] |
| 108 | $601-6231-B 095$ | 1 | EDGE TRIM NEW TYPE 0.91t | $[$ NOT SHOWN] |
| 110 | $280-A 01248-P M$ | 2 | ROUTER TWIST D12 SO4.8 P |  |
| 111 | $280-A 02000-A$ | 1 | ROUTER TWIST D20 ADH | $(101)-4$ |
| 201 | $010-P 00408$ | 4 | M4X8 TAPTITE POSI PAN | $(103)-4$ |
| 202 | $010-P 00308$ | 4 | M3X8 TAPTITE POSI PAN BZ | $[$ NOT SHOWN] |
| 303 | NON-60010UK | 1 | WIRE HARN SW REGU INT | $[$ [NOT SHOWN] |
| 304 | NOA-60011UK | 1 | WIRE HARN LBG I/O NAOMI | $[$ NOT SHOWN] |
| 305 | NOB-60202UK | 1 | WIRE HARN AUDIO POWER-IN | $[N O T$ SHOWN] |
| 306 | NON-60012UK | 1 | WH PSU LBG NAOMI UR |  |

### 8.14. NOA-4010UK ASSY ELEC (NAOMI 2)



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | NOA-4001X | 1 | ELEC BASE |  |
| 101 | $400-5397-01$ | 1 | SW REGU FOR JVS |  |
| 103 | $838-13616$ | 1 | AUDIO POWER AMP 2CH |  |
| 107 | $280-A 02048-P M$ | 4 | ROUTER TWIST D20 SO4.8 P | [NOT SHOWN] |
| 108 | $601-6231-B 095$ | 1 | EDGE TRIM NEW TYPE 0.91t | BACK EDGE IN MIDDLE [NOT <br> SHOWN] |
| 110 | $280-A 01248-P M$ | 2 | ROUTER TWIST D12 SO4.8 P | [NOT SHOWN] |
| 111 | $280-A 02000-A$ | 1 | ROUTER TWIST D20 ADH |  |
| 201 | $010-P 00408$ | 4 | M4X8 TAPTITE POSI PAN | $(101)-4$ |
| 202 | $010-P 00308$ | 4 | M3X8 TAPTITE POSI PAN BZ | $(103)-4$ |
| 303 | NOB-60013UK | 1 | WIRE HARN SW REGU INT | $[$ NOT SHOWN] |
| 304 | NOA-60014 | 1 | WIRE HARN I/O BD PWR | $[$ [NOT SHOWN] |
| 305 | NOB-60202UK | 1 | WIRE HARN AUDIO POWER-IN | $[$ [NOT SHOWN] |
| 306 | $600-7159-039$ | 1 | WIRE HARN JVS PWR 039CM | [NOT SHOWN] |

### 8.15. NOA-4010UK ASSY ELEC (NAOMI)



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | NOA-4001X | 1 | ELEC BASE |  |
| 101 | $400-5397$ | 1 | SW REGU FOR JVS |  |
| 103 | $838-13616$ | 1 | AUDIO POWER AMP 2CH |  |
| 107 | $280-A 02048-P M$ | 4 | ROUTER TWIST D20 SO4.8 P | [NOT SHOWN] |
| 108 | $601-6231-B 095$ | 1 | EDGE TRIM NEW TYPE 0.91t | BACK EDGE IN MIDDLE [NOT <br> SHOWN] |
| 110 | $280-A 01248-P M$ | 2 | ROUTER TWIST D12 SO4.8 P | [NOT SHOWN] |
| 111 | $280-A 02000-A$ | 1 | ROUTER TWIST D20 ADH |  |
| 201 | $010-P 00408$ | 4 | M4X8 TAPTITE POSI PAN | $(101)-4$ |
| 202 | $010-P 00308$ | 4 | M3X8 TAPTITE POSI PAN BZ | $(103)-4$ |
| 303 | NOB-60013UK | 1 | WIRE HARN SW REGU INT | $[$ [NOT SHOWN] |
| 304 | NOA-60014 | 1 | WIRE HARN I/O BD PWR | $[$ [NOT SHOWN] |
| 305 | NOB-60202UK | 1 | WIRE HARN AUDIO POWER-IN | $[$ [NOT SHOWN] |
| 306 | $600-7159-039$ | 1 | WIRE HARN JVS PWR 039CM | $[N O T ~ S H O W N]$ |

### 8.16. NOA-1750UK ASSY SERVICE DOOR



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | NOA-1751UK | 1 | SERVICE DOOR |  |
| 2 | DP-1167UK | 1 | TNG LKG UK |  |
| 101 | $220-5575 \mathrm{UK}$ | 1 | LOCK |  |
| 201 | $008-$ T00430-0C | 1 | M4X30 MSCR TMP PRF TH CR | INSERT HALF WAY SO TNG OPENS |

### 8.17. NOB-1700UK ASSY AC UNIT (Pre 2001)



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | NOB-1701UK | 1 | AC BRKT |  |
| 3 | LB1096 | 1 | STICKER PROTECTIVE EARTH | NEXT TO EARTH STUD ON INSIDE |
| 4 | $421-6595-5000-T$ | 1 | STICKER FUSE 5000mA TYPE | NEXT TO IEC INLET ON OUTSIDE |
| 101 | SW1021 | 1 | SWITCH ROCKER 250V AC |  |
| 102 | EP1302 | 1 | EUROSOCKET FUSED 1OA 250 |  |
| 105 | EP1379 | 1 | FILTER EMI 10A ARCOTRONI |  |
| 110 | $310-5029-D 508$ | 0.05 | HEAT SHRINK SLEEVING 50. | $(102)-0.05 m$ |
| 111 | $514-5078-5000$ | 1 | FUSE 5X20 CERAMIC SB 500 | $(102)-1$ |
| 201 | $000-$ P00308-W | 4 | M3X8 MSCR POSI PAN W/FS | $(105)-4$ |
| 202 | $050-F 00400$ | 2 | M4 NUT FLG | EARTH - 2 |
| 301 | NOB-60001UK | 1 | WIRE HARN AC BRKT (NOB) |  |
| 302 | NOB-60004UK | 1 | WIRE HARN AC OUT |  |
| 303 | $600-9030-45 K$ | 1 | WIRE HARN EARTH 300mm M4 | AC BRKT TO XFMR |
| 304 | $600-9080-45 K$ | 1 | WIRE HARN EARTH 800mm M4 | BASE TO RH FRAME (BOTTOM) |
| 305 | $600-9025-44 K$ | 1 | WIRE HARN EARTH 250mm M4 | AC BRKT TO BASE |

### 8.18. NOB-1710UK ASSY AC UNIT NEW



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | NOB-1711UK | 1 | AC BRKT NEW |  |
| 3 | LB1096 | 1 | STICKER PROTECTIVE EARTH | NEXT TO EARTH STUD ON INSIDE |
| 4 | $421-6595-5000-T$ | 1 | STICKER FUSE 5000mA TYPE | NEXT TO IEC INLET ON OUTSIDE |
| 101 | EP1381 | 1 | FILTER IEC \& SW 6A ROXBU |  |
| 111 | $514-5078-5000$ | 1 | FUSE 5X20 CERAMIC SB 500 | $(102)-1$ |
| 201 | $000-F 00316$ | 2 | M3X16 MSCR CSK PAS | $(101)-2$ |
| 202 | $050-$ F00400 | 2 | M4 NUT FLG SER PAS | EARTH - 2 |
| 301 | NOB-60004UK | 1 | WIRE HARN AC OUT |  |
| 303 | $600-9030-45 K$ | 1 | WIRE HARN EARTH 300mm M4 | AC BRKT TO XFMR |
| 305 | $600-9025-44 K$ | 1 | WIRE HARN EARTH 250mm M4 | AC BRKT TO BASE |
| 306 | $600-9015-4 F K$ | 1 | WIRE HARN EARTH 150mm | FILTER TO PRIMARY EARTH POINT |

### 8.19. RND-4100UK ASSY XMFR (LBG)



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | RND-4101UK | 1 | XFMR BASE LBG |  |
| 3 | $838-11856$ CE-02 | 1 | CONN BD W/FUSE 6.3A CE |  |
| 101 | $560-L B G H-02 U K$ | 1 | XFMR LBG 230-100V/17V |  |
| 201 | $000-$ P00416-W | 4 | M4X16 MSCR POSI PAN W/FS |  |
| 202 | $068-441616$ | 4 | M4 WSHR 16OD FLT PAS | $(101)-4$ |
| 203 | $012-P 00325$ | 2 | N4X1" S/TAP PAN PAS | $(3)-2$ |

### 8.20. NOB-4100UK ASSY XMFR (COM)



| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :---: | :--- | :--- | :--- | :--- |
| 1 | RND-4101UK | 1 | XFMR BASE LBG |  |
| 3 | $838-11856$ CE-02 | 1 | CONN BD W/FUSE 6.3A CE |  |
| 101 | $560-$ LBGH-02UK | 1 | XFMR LBG 230-100V/17V |  |
| 201 | $000-$ P00416-W | 4 | M4X16 MSCR POSI PAN W/FS |  |
| 202 | $068-441616$ | 4 | M4 WSHR 16OD FLT PAS | $(101)-4$ |
| 203 | $012-P 00325$ | 2 | N4X1" S/TAP PAN PAS | $(3)-2$ |

### 8.21. RND-6001UK ASSY WIRE L (LBG)

| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :--- | :--- | :--- | :--- | :--- |
| 101 | $601-0460$ | 10 | CABLE TIE 100mm |  |
| 201 | $280-$ N01610-0B | 0.4 | SLIT HARN WRAP 16mm DIA |  |
| 301 | NOB-60043 | 1 | WIRE HARN PWR I/O BD |  |
| 302 | NOB-60044 | 1 | WIRE HARN SOUND VOL |  |
| 303 | NOB-60045 | 1 | WIRE HARN SPEAKER L |  |
| 304 | NOB-60046 | 1 | WIRE HARN SPEAKER R |  |
| 305 | $600-7158-0100$ | 1 | CA AUDIO RCA TO RCA 2CH |  |
| 306 | $600-9075-45 \mathrm{~K}$ | 1 | WIRE HARN EARTH 750mm M4 | I/O BASE TO LH FRAME (TOP) |
| 307 | $600-9055-45 \mathrm{~K}$ | 1 | WIRE HARN EARTH 550mm M4 | BASE TO LH FRAME (BOTTOM) |
| 308 | $600-7141-250$ | 1 | CABLE JVS TYPE A-B 250CM |  |
| 309 | $600-7187-$ <br> $3000 U K$ | 1 | WH SERIAL A | (VT3) |

### 8.22. NOB-6002UK ASSY WIRE R

| No. | PART NUMBER | QTY | DESCRIPTION | COMPONENT REFERENCE |
| :--- | :--- | :--- | :--- | :--- |
| 301 | NOB-60041UK | 1 | WIRE HARN AC EXT UK |  |

### 8.23. RND-1425 - ASSY CARD R/W (IF FITTED)

| No | PART NUMBER | DESCRIPTION | QTY |
| :--- | :--- | :--- | :---: |
| 1 | RND-1403 | RW BASE | 1 |
| 2 | TBA-1662 | RW GUIDE LOWER | 2 |
| 3 | TBA-1663 | RW GUIDE UPPER | 2 |
| 4 | CFB-1664 | ROLLER | 2 |
| 5 | CFB-1665 | SOL BASE | 2 |
| 6 | CFB-1666 | SENSOR BRKT | 2 |
| 7 | TBA-1667 | LOCK ARM | 2 |
| 8 | TBA-1668 | SHAFT | 2 |
| 9 | TBA-1669 | SHAFT GUIDE | 4 |
| 10 | $125-5225$ | TOR SPRING LOCK ARM | 2 |
| 11 | $440-W S 0179-J P$ | STICKER WITH HI TEMP M | 1 |
| 12 | RND-1404 | BRKT BOARD | 2 |
| 101 | $610-0685$ | SOLENOID UNIT | 2 |
| 102 | $370-5161$ | PHOTO INTERUPTER | 2 |
| 103 | $601-11132-91$ | IC CARD READER HW210 | 2 |
| 104 | $839-1233$ | ON UNDERSIDE) | 2 |
| 105 | OS1230 | SERIAL CONVERTER BOARD | .25 |
| 201 | FAS-120001 | FOAM STRIP 2MM X 10MM | 8 |
| 202 | $000-P 00410-W$ | TAP SCR \#2 TH BLK 4X10 | 8 |
| 203 | $050-H 00400$ | M4X10 MSCR PAN WIS PAS | 8 |
| 204 | $060-S 00400$ | M4 NUT PAS | 10 |
| 205 | $060-F 00400$ | M4 WASHER SPRING PAS | 8 |
| 206 | $000-P 00308-W$ | M4 WASHER FORM A FLT PAS | 8 |
| 207 | FAS-120017 | M3X8 MSCR PAN W/S PAS | 2 |
| 208 | $065-E 00300$ | TAP SCR \#2 TH 3X6 | 8 |
| 209 | $000-P 00320-W$ | DIA3 E RING | 2 |
| 301 | $600-7324-23 U K$ | M3X20 MSCR PAN WIS PAS | 2 |
|  |  | WH SERIAL CONV BD \& RW | 2 |



| No | PART NUMBER | DESCRIPTION | QTY |
| :---: | :--- | :--- | :---: |
| 1 | RND-1405 | RW BOX | 1 |
| 2 | RND-1402 | PLATE REAR | 1 |
| 3 | RND-1425 | ASSY TWIN BASE CARD RW | 1 |
| 6 | CTF-1153UK | STICKER IC CARD | 2 |
| 7 | $421-11873 U K$ | STICKER CE | 1 |
| 201 | $008-T 00408-0 C$ | M4X8 TMP PRF TH CRM | 8 |
| 202 | $068-441616-0 C$ | M4 WSHR 16OD FLT CRM | 4 |
| 203 | $060-S 00400$ | M4 WSHR SPR PAS | 4 |



### 8.24. NOB-INST-VT3 ASSY INSTALLATION KIT NOB

| No. | PART NUMBER | QTY | DESCRIPTION |
| :--- | :--- | :--- | :--- |
| 1 | RND-0069 | 1 | PLAY INST SH VT3 MULTI |
| 2 | RND-0070 | 1 | SUN INSTR SH VT3 |
| 3 | RND-0071 | 1 | DISPLAY CARD VT3 (ATTACHED TO NOA-1300) |
| 7 | PK0209 | 1 | INST KIT BOX NOB COM |
| 8 | OS1019 | 2 | SELF SEAL BAG 9X12.3/4 |
| 9 | $421-$ VT3 | 2 | PACKING LABEL |
| 101 | $540-0006-01$ | 1 | WRENCH M4 TMP PRF |
| 102 | $540-0015-01$ | 1 | WRENCH M6 TMP PRF |
| 103 | $514-5078-5000$ | 1 | FUSE 5X20 CERAMIC SB 5000MA |
| 106 | $509-C O I N-N O B$ | 1 | SW MICRO COIN ROUTE .250 TAB |
| 108 | $440-C S 0186 U K$ | 1 | STICKER C EPOLEPSY MULTI |
| 401 | $420-6455-02 U K$ | 1 | SERVICE MANUAL NAOMI LBG |
| 402 | SAECE-XXX | 1 | DECLATATION OF CONFORMITY |
| 403 | $420-5827-P F X$ | 1 | SERVICE MANUAL SANWA PFX |
| 404 | $420-6455-M E C H$ | 1 | INSTRUCTION SHEET MECH'L NOB |
| 405 | RND-0073 | 1 | SERVICE MANUAL VT3 |
| 408 | LM1227 | 1 | UK MAINS LEAD 10A W/ PLUG |
| 409 | LM1246 | 1 | EURO MAINS LEAD 1OA |
| 410 | $601-11691$ | 1 | CARTON BOX LBG |

NB: This assembly is non-game specific and is superseded when a dedicated game is shipped. See game specific manual for full details of installation kit items.

## 9. APPENDIX A - ELECTRICAL SCHEMATIC

### 9.1. WIRE COLOURS

THE WIRE COLOUR CODE IS AS FOLLOWS:
A PINK
B SKY BLUE
C BROWN
D PURPLE
E LIGHT GREEN
Wires other than those of any of the colours listed above will be displayed by 2 alphanumeric characters:

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

If the right hand side numeral of the code is 0 , then the wire will be of a single colour shown by the left hand side numeral (see the list above).
Note 1: If the right hand side alphanumeric is not 0 , that particular wire has a spiral colour code. The left hand side character shows the base colour and the right hand side one, the spiral colour.
[Example] 51 $\qquad$ WHITE/RED = WHITE wire with RED stripes


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

K: AWG18, UL1015
L: AWG20, UL1007
None AWG22, UL1007

### 9.2. ELECTRICAL SCHEMATIC

The following pages contain the electrical schematic for this machine.

# SEGA AMUSEMENTS EUROPE LTD.I SEGA SERVICE CENTRE 

Suite 3a
Oaks House
12-22 West Street
Epsom
Surrey
United Kingdom KT18 7RG

Telephone: +44 (0) 1372731820
Fax: $\quad+44$ (0) 1372731849

© SEGA 2002

