

## SERVICE MANUAL

# SEGA®



### UPRIGHT TYPE



IMPORTANT

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

# SEGA®



# CONTENTS

1.	BEFORE USING THIS PRODUCT .....	1
1.1.	INSPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION .....	2
2.	INTRODUCTION TO THIS SERVICE MANUAL .....	4
3.	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.	SHIPPING THE GAME BOARD .....	8
3.6.	SHIPPING THE MEDIA BOARD .....	10
3.7.	SHIPPING THE GD-ROM DRIVE.....	11
3.8.	ASSEMBLY INSTRUCTIONS.....	12
3.8.1.	INSTALLING THE DISPLAY CARD .....	13
3.8.2.	INSTALLING THE FLOOR .....	14
3.8.3.	INSTALLING THE GUN HOLSTERS .....	18
3.8.4.	SECURING IN PLACE (LEG ADJUSTER ADJUSTMENT) .....	19
3.8.5.	COIN HANDLING INSTALLATION.....	21
3.8.5.1.	WIRING CONNECTIONS.....	22
3.8.6.	CONNECTION TO THE POWER SUPPLY .....	23
3.8.7.	ADJACENT CONTROL INTERFERENCE PREVENTION .....	24
3.9.	ASSEMBLY CHECK .....	25
3.9.1.	MEMORY TEST.....	25
3.9.2.	C.R.T. TEST .....	26
3.9.3.	INPUT TEST .....	27
3.9.4.	OUTPUT TEST .....	27
3.9.5.	GUN ADJUSTMENT.....	28
3.10.	MOVING THE MACHINE .....	29
3.11.	CONTROLLER.....	31
3.12.	REPLACEMENT OF LED BOARD.....	34
3.13.	REPLACEMENT OF FLUORESCENT LAMP AND START LAMPS.....	35
3.13.1.	FLUORESCENT.....	35
3.13.2.	START LAMP REPLACEMENT.....	36
3.14.	GAME BOARD .....	37
3.14.1.	REMOVING THE BOARD.....	37
3.14.2.	REMOVING THE GD-ROM DRIVE .....	39
3.15.	COMPOSITION OF THE GAME BOARD .....	40
3.16.	TROUBLESHOOTING .....	41
3.17.	FUSES.....	42
4.	PERIODIC CHECK AND INSPECTION .....	43
4.1.	CLEANING THE CABINET SURFACES .....	43
5.	HOW TO PLAY .....	44
5.1.	GAME CONTENTS.....	45
5.1.1.	GAME OUTLINE.....	45
5.1.2.	ITEMS .....	47
5.1.3.	PLAY HINTS .....	48
6.	MAINTENANCE INSTRUCTIONS .....	49
6.1.	EXPLANATION OF TEST DATA AND DISPLAY .....	49
6.2.	INTERNAL SWITCHES AND COIN METERS .....	50
6.3.	SYSTEM TEST MODE .....	51
6.3.1.	EXPLANATION OF TEST AND DATA DISPLAY .....	51
6.3.2.	SYSTEM TEST MENU MODE .....	52
6.3.3.	MEDIA BOARD TEST.....	53
6.3.4.	SYSTEM INFORMATION.....	54
6.3.5.	JVS TEST .....	55
6.3.6.	INPUT TEST Screen.....	56
6.3.7.	SOUND TEST .....	57
6.3.8.	C.R.T. TEST .....	58
6.3.9.	COIN ASSIGNMENTS.....	60
6.3.10.	CLOCK SETTING .....	63
6.3.11.	NETWORK SETTING (CORE) .....	64

6.3.12.	NETWORK SETTING (MEDIA)	65
6.4.	GAME TEST MODE	69
6.4.1.	INPUT TEST	70
6.4.2.	OUTPUT TEST	71
6.4.3.	GAME ASSIGNMENTS	72
6.4.4.	GUN SETTING	73
6.4.4.1.	GUN MARK CHECK	74
6.4.4.2.	PLAYER1 GUN ADJUSTMENT/PLAYER2 GUN ADJUSTMENT	75
6.4.4.3.	PLAYER1 GUN DEFAULT ADJUSTMENT/PLAYER2 GUN DEFAULT ADJUSTMENT	78
6.4.5.	BOOKKEEPING	79
6.4.6.	BACKUP DATA CLEAR	81
7.	COIN MECH INSTALLATION AND CREDIT BOARD SET UP	82
7.1.	INTRODUCTION	82
7.1.1.	PRICE OF PLAY SETTINGS UK	84
7.1.2.	PRICE OF PLAY SETTINGS EURO	85
7.1.3.	PRICE OF PLAY SETTINGS Austria-Czech-Denmark-Norway-Israel-France2	86
8.	DESIGN RELATED PARTS	87
9.	PARTS LIST	88
9.1.	HDT-10002UK ASSY CABINET HDT U/R	88
9.2.	HDT-11002UK ASSY FRAMEWORK HDT U/R	91
9.3.	SPX-1400UK ASSY CONTROL BOX SPY U/R	93
9.4.	SPX-1500UK ASSY FRONT PANEL SPY U/R	95
9.5.	RTS-1710UK ASSY AC UNIT (BLACK)	96
9.6.	PTR-1750UK ASSY SERVICE DOOR (BLACK)	96
9.7.	HDT-2100UK CONTROL UNIT	97
9.8.	JPT-2030 SENSOR UNIT	98
9.9.	HDT-4800UK ASSY MAIN BD HDT U/R	99
9.10.	HDT-5000UK ASSY FLOOR HDT U/R	100
9.11.	HDT-5100UK ASSY CCT HDT U/R	101
9.12.	HDT-5150UK ASSY GUN HOLSTER L U/R	103
9.13.	HDT-5170UK ASSY GUN HOLSTER R U/R	104
9.14.	HDT-6001UK ASSY WIRE L HDT U/R	105
9.15.	HDT-INST-U ASSY INST KIT U/R	106
9.16.	HDT-INST-SUB1-U ASSY SUB1 INST	106
9.17.	HDT-INST-SUB2-U ASSY SUB2 INST	106
9.18.	NOA-1200UK ASSY CRT COVER UK	107
9.19.	NOA-1300 ASSY BILLBOARD	108
9.20.	HDT-4100UK ASSY XMFR	108
9.21.	HDT-4050UK ASSY ELEC	109
10.	APPENDIX A - ELECTRICAL SCHEMATIC	110
10.1.	WIRE COLOURS	110
10.2.	ELECTRICAL SCHEMATIC	110

# 1. BEFORE USING THIS PRODUCT

To ensure safe usage be sure to read the following before using the product. The following instructions are intended for the use of QUALIFIED SERVICE PERSONNEL ONLY.

If any activity is carried out on the product, this should be done only after carefully reading and sufficiently understanding the instructions.

Only qualified service personnel should carry out maintenance on the product.

Depending on the potential risk, terms such as “**WARNING!**” “**CAUTION**” and “**IMPORTANT!**” are used where an explanation is given that requires special attention. SEGA is not responsible for injury or damage caused by use in a manner contrary to the instructions given 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 that can result in death or serious injury.



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



This is cautionary information that should be complied with when handling the product. Indicates that mishandling the product by disregarding this will cause a potentially hazardous situation that 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 fuses are fitted to the machine. Details of these 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 additions not designated by SEGA are not permitted and will invalidate this product's CE conformity.

Warning labels or safety covers for personal protection etc, are component parts of the product. A potential hazard will be created if the machine is operated while any parts have been removed. Do not operate the product if any doors, lids or protective covers become damaged or lost. 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 customers and operators, stickers and printed instructions describing potentially hazardous situations are applied to potentially hazardous locations. Ensure that the product's operating location 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 an identical item has replaced it.

Exercise great care when handling the monitor (applies only to product with monitor). Some of the monitor (TV) parts are subject to high-tension voltage. Even after turning the power off some components are liable to high-tension voltage. Only qualified service engineers should perform monitor repair and replacement.

In cases where commercially available monitors and printers are used, only the items relating to this product are contained in this manual. Some commercially available equipment will have functions and reactions not referred to in this manual. This manual should be read in conjunction with the specific manufacturer's manual for 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 AMUSEMENTS EUROPE LTD.**

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



- Only QUALIFIED SERVICE PERSONNEL should carry out inspection.

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 there 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?

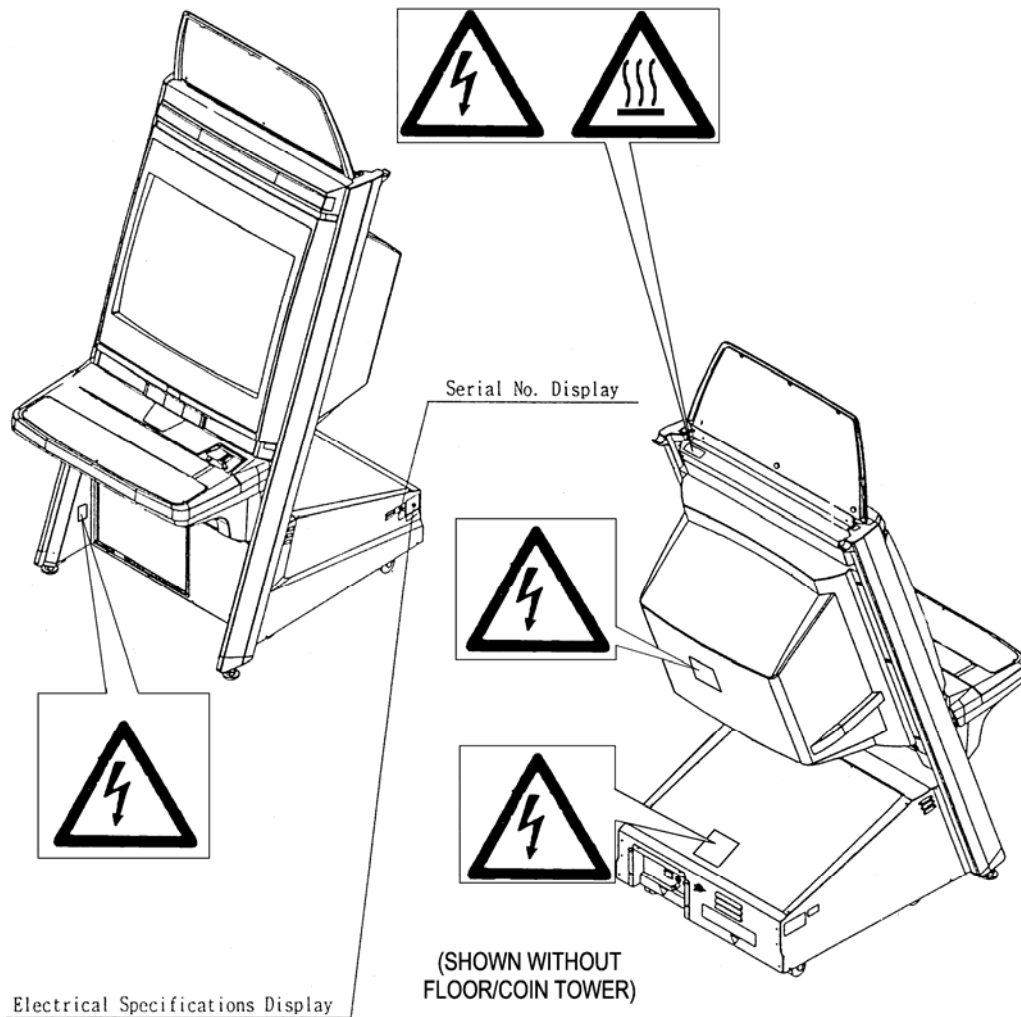
Can all doors and lids be opened with the accessory keys and/or tools?

### 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.



(Actual machines may differ slightly from the illustration)

### SPECIFICATIONS

Installation Space (cm):	76 (W) x 98 (L)	Including Floor and Coin Tower
Height (cm):	210	
Weight (kg):	Approx. 152	
Rated Voltage (VAC):	230	
Rated Current (A):	2	
Operating Temperature Range	5 - 40°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 this 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./ SEGA SERVICE CENTRE**

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

Telephone: +44 (0) 1372 731820

Fax: +44 (0) 1372 731849

### 3. INSTALLATION AND MAINTENANCE INSTRUCTIONS



- Only QUALIFIED SERVICE PERSONNEL should carry out installation and maintenance.

#### 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:**

- Only Qualified Service Personnel should install this machine.
- 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.



- 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 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 SR3
- Generic mechanical
- Mars (MS111B1 and ME115)
- SECI RM4-G20



**3.3. NAME OF PARTS**



	Width (cm)	Length (cm)	Height (cm)
CABINET	76	98	177
FLOOR	63	90	15
WHEN ASSEMBLED	76	177	210

### 3.4. ACCESSORIES

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

#### HDT-INST-U ASSY INST KIT U/R

Item	Component Part	Qty.	Description	Component Reference
1	HDT-5000UK	1	ASSY FLOOR HDT U/R	
2	HDT-INST-SUB1-U	1	ASSY SUB1 INST	
3	HDT-INST-SUB2-U	1	ASSY SUB2 INST	
16	PK0323	1	INST KIT PACKING WEDGE	


#### HDT-INST-SUB1-U ASSY SUB1 INST

Item	Component Part	Description	Component Reference	Qty.
2	HDT-5100UK	ASSY CCT HDT U/R		1
6	PK0322	INST KIT BOX HDT U/R		1
12	HDT-5150UK	ASSY GUN PLATE L U/R		1
13	HDT-5170UK	ASSY GUN PLATE R U/R		1

#### HDT-INST-SUB2-U ASSY SUB2 INST

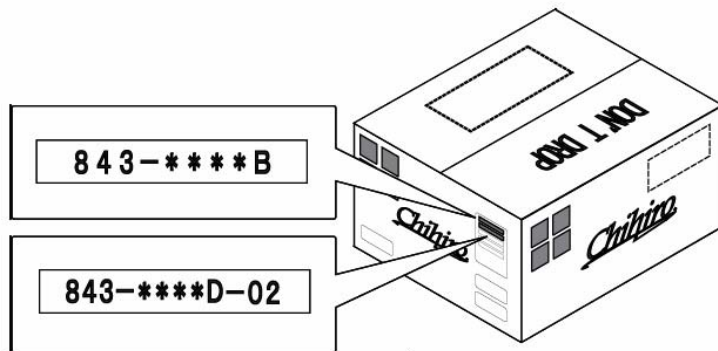
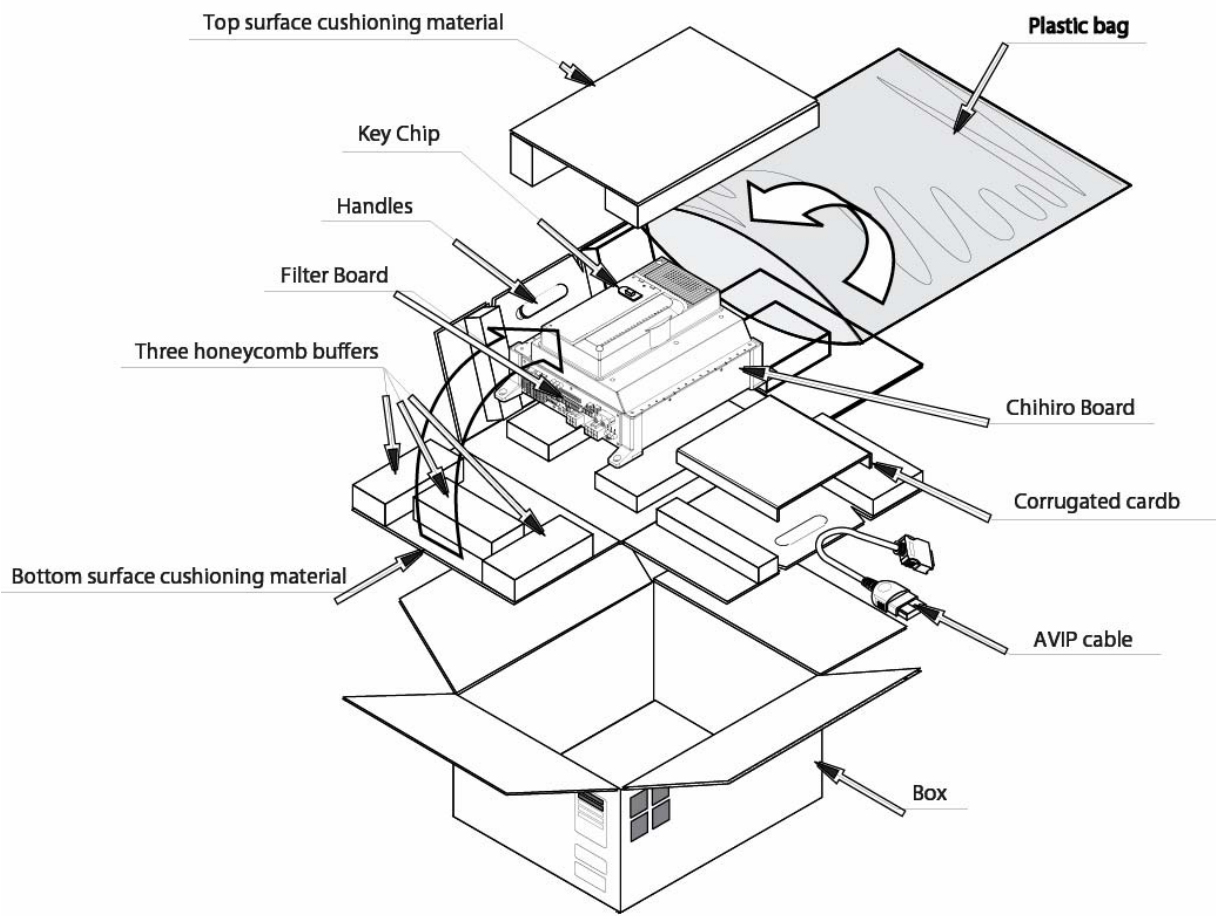
Item	Component Part	Qty	Description	Component Reference
4	SPY-5008UK	1	FLOOR JOINT BRKT	
5	SAECE-XXX	1	DECLARATION OF CONFORMITY	DECLARATION OF CONFORMITY HDTU
7	CTA-0001	1	JOINT BRKT L	
8	CTA-0002	1	JOINT BRKT R	
9	HDT-3013UK	1	STICKER CONTROL PANEL CCT	Multilingual
10	HDT-3001UK	1	BILLBOARD PLATE U/R	
12	HDT-3103UK	1	HOLSTER FABRICATION REAR R	
13	HDT-3104UK	1	HOLSTER FABRICATION REAR L	
15	PK0209	1	INST KIT BOX NOB COM	
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	
104	OS1019	2	SELF SEAL BAG 9X12.3/4	
105	440-CS0186UK	1	STICKER C EPILEPSY MULTI	
201	030-000820-SB	7	M8X20 BLT W/S BLK	(4)-5,(7)-1,(8)-1
202	068-852216-0B	7	M8 WSHR 22OD FLT BLK	(4)-5,(7)-1,(8)-1
203	008-T00412-0B	2	M4X12 TMP PRF TH BLK	(BILLBOARD)-2
204	020-000625	2	M6X25 CAP SCR PAS	(CABI JOINT TO #4)-2
205	060-F00600	2	M6 WSHR FORM A FLT PAS	(CABI JOINT TO #4)-2
208	008-T00416-0B	8	M4X16 TMP PRF TH BLK	(12)-4,(13)-4
301	600-7141-250	1	CABLE JVS TYPE A-B 250CM	
402	420-6742-02UK	1	SERVICE MANUAL HDT U/R	
403	420-5827	1	SERVICE MANUAL SANWA 31K	
404	420-6620UK	1	SERVICE MANUAL GD ROM SYSTEM	
405	509-5080	2	SW MICRO TYPE (SS-5GL2)	

### 3.5. SHIPPING THE GAME BOARD

 <p><b>STOP</b> <b>IMPORTANT</b></p>	<p>Replacement or repair of the Game Board (Chihiro) for this product should be undertaken at the appropriate repair centre. Be sure to follow the specifications below when requesting repairs/sending the board to the repair centre. Not following the specifications may result in the board not being accepted or in extra charges being made.</p> <ul style="list-style-type: none"><li>• Put the game board in the carton box as is. Do not carry out any disassembly or part removal other than that specified.</li><li>• Follow the procedure and instructions regarding direction below when placing the Game Board in the carton box.</li><li>• When packing the game board with the Media Board attached, do not remove the Key Chip.</li><li>• When packing the game board with the Media Board detached, be sure to include the AVIP Cable.</li><li>• When packing, attach the accessory stickers in the specified places on the Game Board and carton box.</li></ul>
---	---

#### INSTRUCTIONS

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.

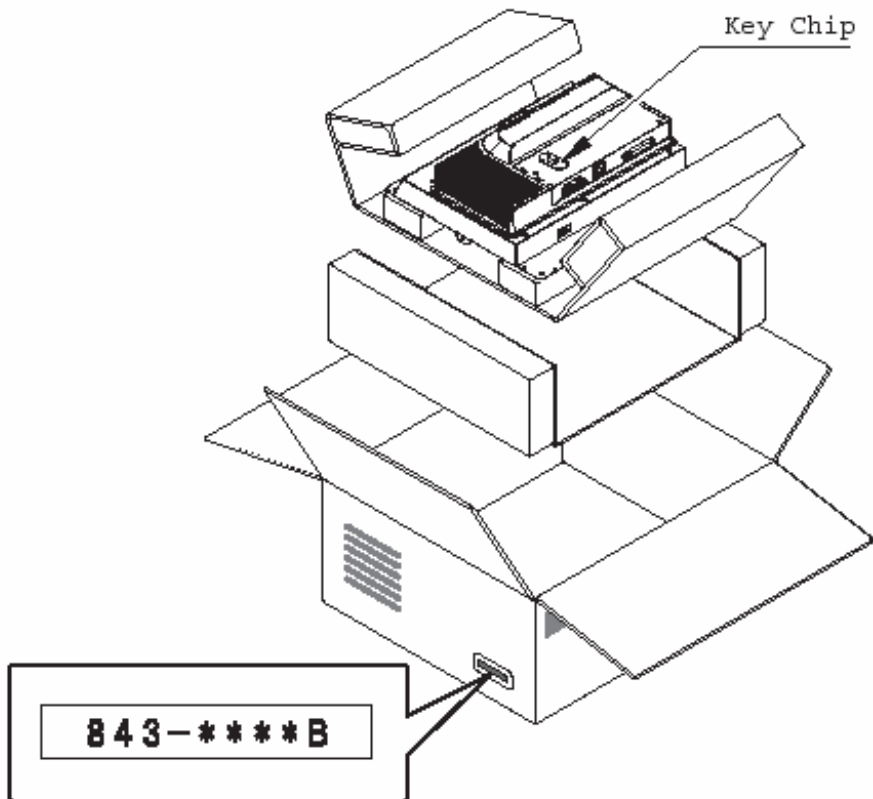


### 3.6. SHIPPING THE MEDIA BOARD

When sending the Media Board for repairs, follow the specifications below and request repairs or send the Board to your retailer/the repair centre.

Not following the specifications may result in the board not being accepted or in extra charges being made. Also, mistaken handling can damage or result in loss of parts.

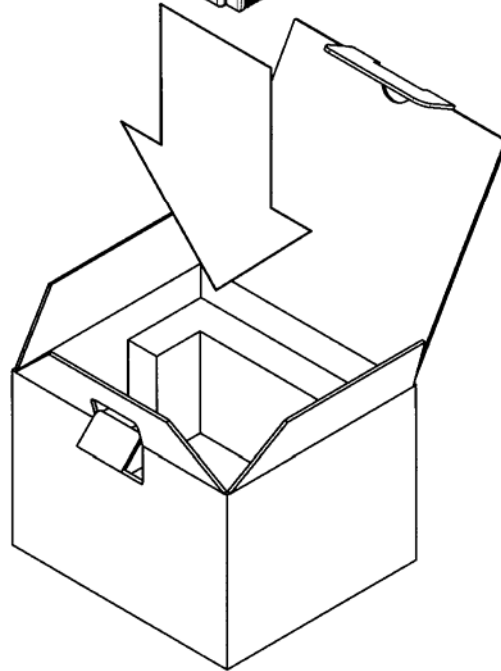
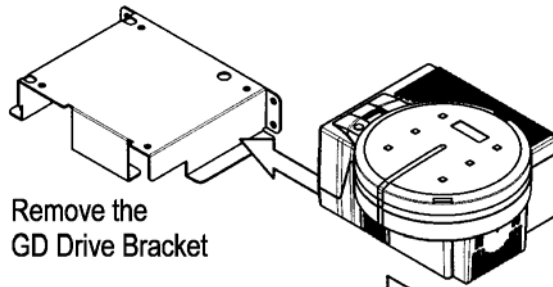
- Be sure to use the special purpose carton box included with this product.
- Do not remove the Key Chip. Send the board with the Key Chip attached.
- Undo the 10 screws holding the Media Board to the Main Board and pack the Media Board. Do not carry out any disassembly or part removal other than that specified in this manual.
- Pack the Media Board in the special purpose carton box as shown in the explanatory diagram.
- The packing material in the carton box has a shock absorbing function. Be sure to use it when packing. Do not bend or fold the material in a direction other than that shown on the diagram.
- Do not pack any wires, cables, or screws together with the Board.
- Be sure to attach the special purpose carton box accessory sticker "843-\*\*\*\*B."



### 3.7. SHIPPING THE GD-ROM DRIVE



- When returning the GD-ROM DRIVE for repair or replacement, be sure to package it in the original card transit box - THERE ARE NO USER-SERVICEABLE PARTS INSIDE.
- Ensure the GD-ROM Disk is removed and the GD-ROM Drive Lid is replaced on the unit, with fixing screw, before packaging. Also, remove the GD-ROM Drive Bracket and store with the four screws for reuse.
- Failure to return the GD-ROM DRIVE in this manner may invalidate the warranty.



### 3.8. 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 sequence:

**STEP 1 INSTALLING THE DISPLAY CARD**

**STEP 2 INSTALLING THE FLOOR**

**STEP 3 INSTALLING THE GUN HOLSTERS**

**STEP 4 SECURING IN PLACE (LEG ADJUSTMENT)**

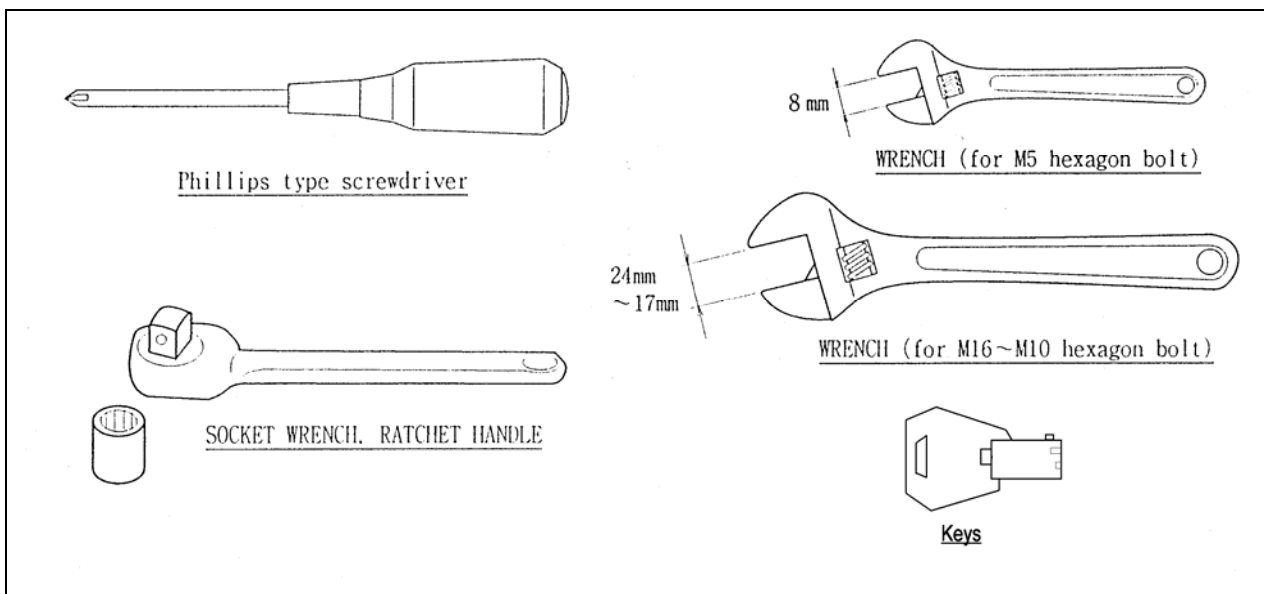
**STEP 5 COIN HANDLING INSTALLATION**

**STEP 6 CONNECTION TO THE POWER SUPPLY**

**STEP 7 ASSEMBLY CHECK**

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, in addition to the tools provided with the Installation Kit:

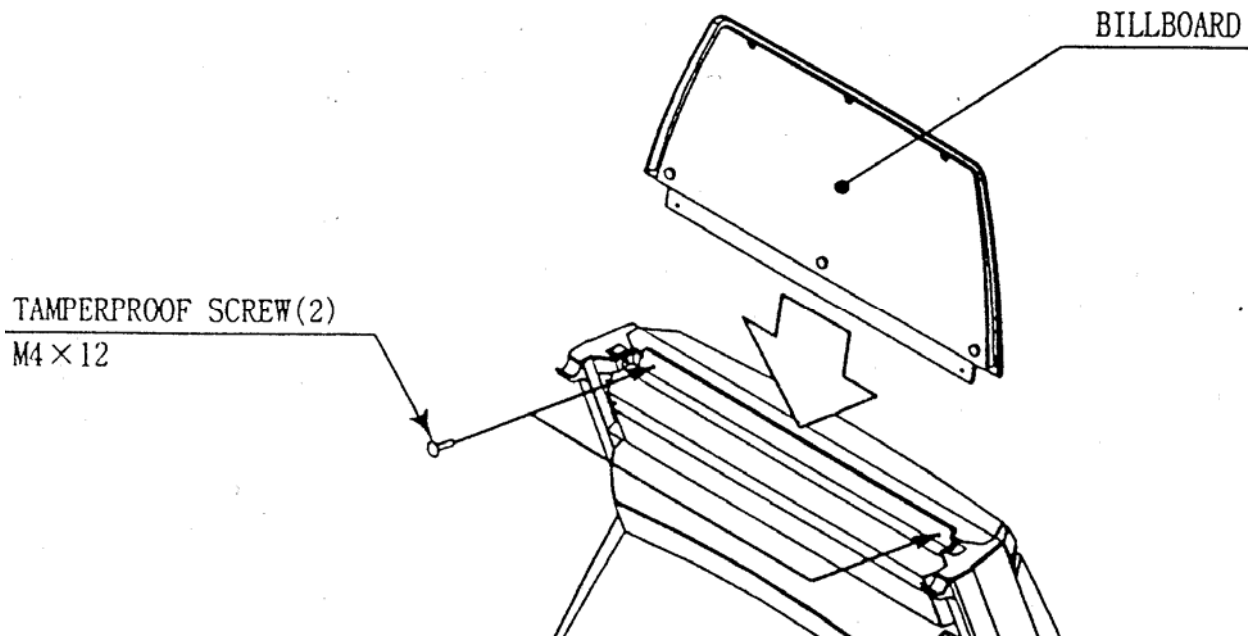


### 3.8.1. INSTALLING THE DISPLAY CARD



- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

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





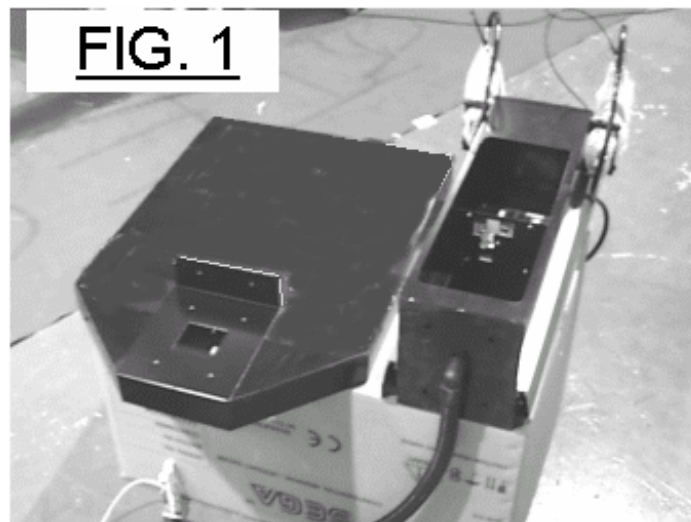
### 3.8.2. INSTALLING THE FLOOR



- Ensure all connections are secure - poor connections can cause electric shock or short circuit.
- Take care not to damage wiring during installation, as this can cause electric shock or short circuit.
- Please read these instructions carefully and follow them in step by step.
- **IMPORTANT: We recommend that two (2) people carry out this operation, as there are heavy components involved.**

Tools Required: No1 Pozidriver, M8 Wrench or Socket.

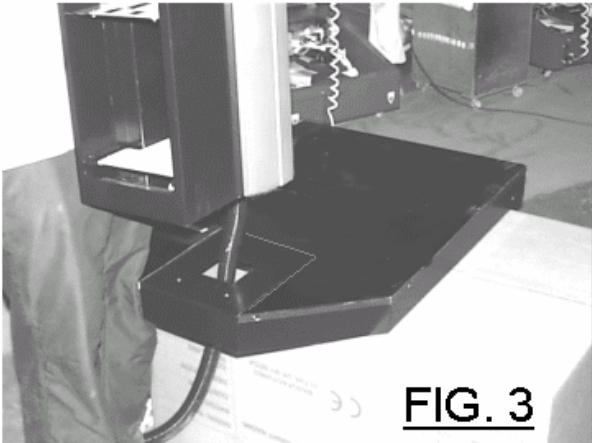
1. Open the Installation box and remove its entire contents. Once the box is completely empty fold the four open leaves back into the box (this will help to create a sturdier box as we intend to use it as a makeshift table).
2. Turn the box upside down. Place the Floor Assembly and the Coin Tower onto the box as shown in figure 1.



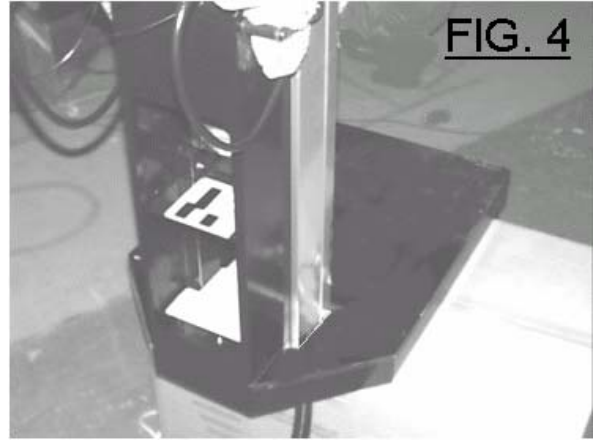
3. Remove the Cashbox Base Plate by unscrewing the 2 x M4 Pozi Pan screws, located directly inside the Cashbox Door.
4. Remove the Elbow Joint, which is attached to the free end of the Flexipipe.
5. Insert the Flexipipe into the hole located at the front end of the Floor. (Fig 2)



6. Offer the Coin Tower up onto the Floor (Fig 3) ensuring that the Flexipipe continues through the access hole (Fig 4).

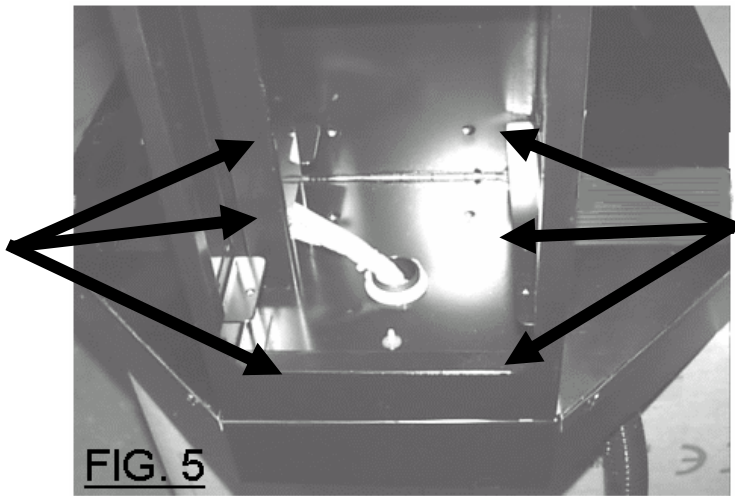


**FIG. 3**



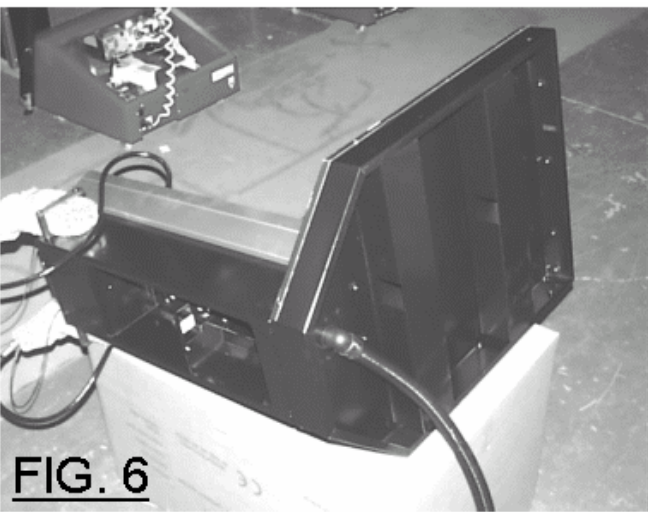
**FIG. 4**

7. Secure the Coin Tower to the Floor using the 6x M8 Hex head bolts and M8 washers (provided) at location shown in fig 5.



**FIG. 5**

8. Move the Coin Tower and Floor Assembly onto its side (Fig 6) and thread the Flexihose through the ribs on the underside of the Floor. (Fig 7)

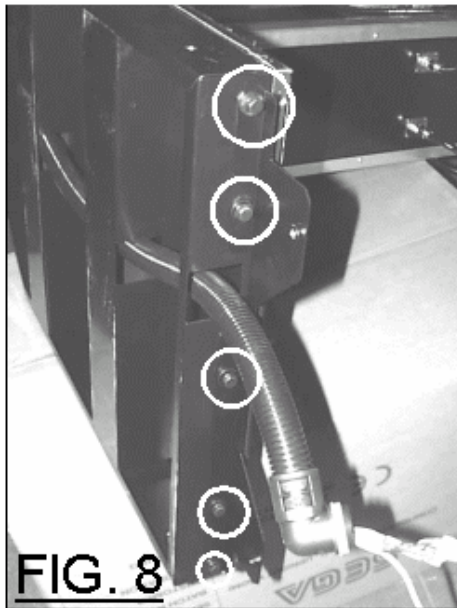


**FIG. 6**



**FIG. 7**

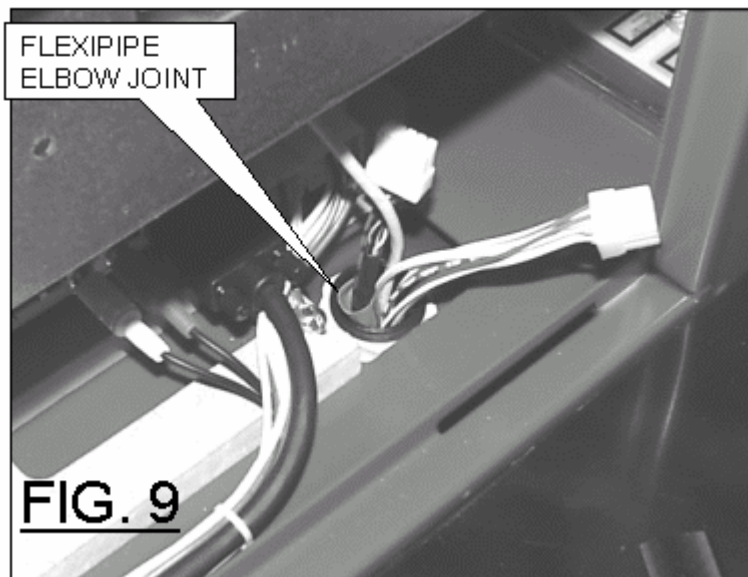
9. Refit the Elbow joint onto the open end of the Flexipipe.
10. Fit the Joint Bracket onto the machine end of the Floor (Fig 8) using the 5x M8 Hex head bolts and M8 washers (provided).



**5 x M8 HEX BOLTS  
AND M8 WASHERS**

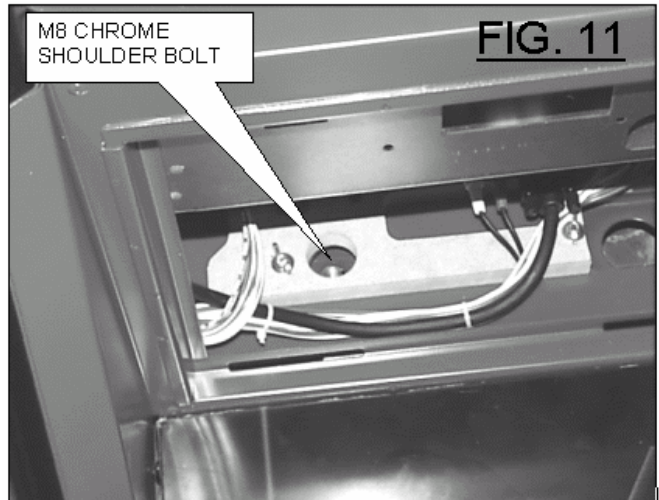
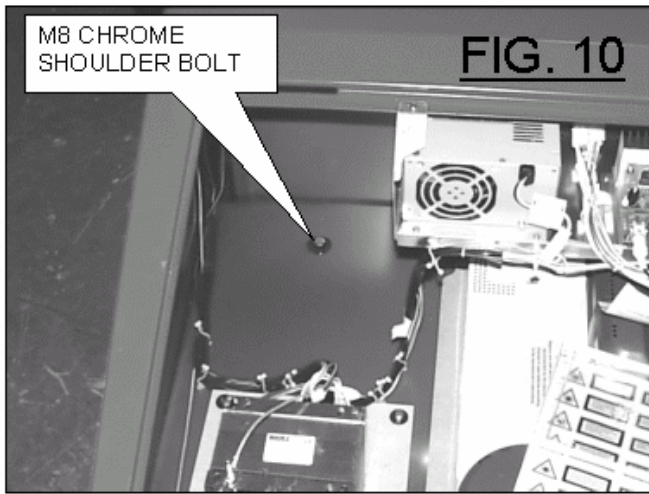
**FIG. 8**

11. Offer the Floor to the machine and fit the Flexipipe Elbow Joint into the recess as shown in Fig 9.

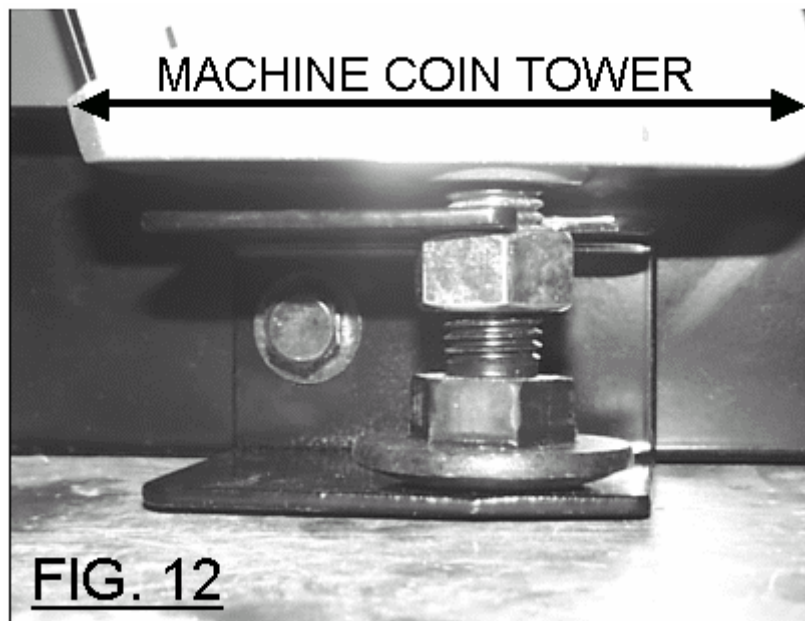


**FIG. 9**

12. Push the Floor upright to the machine and secure it using the 2 x M8 Chrome Shoulder Bolts provided (Fig 10 & 11).



13. Finally, secure Joint Brkt L and Joint Brkt R to the Floor and Adjustable feet using 2 x M8 Hex HD Bolts Blk and 2 x M8 Washers Blk (Fig 12).

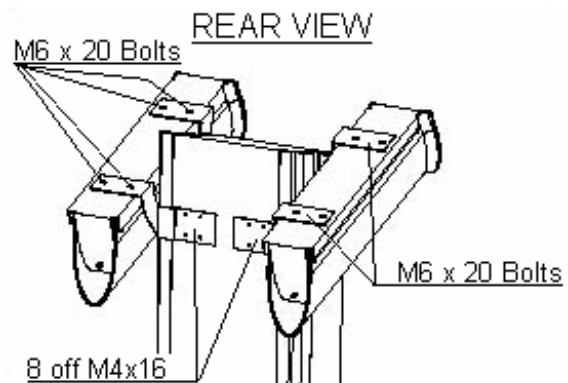




- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

### 3.8.3. INSTALLING THE GUN HOLSTERS

1. Attach the Left and Right Holster Fabrication Rear (HDT-3103UK & HDT-3104UK) to Coin Tower Assembly and secure with 8 off M4 X 16 Security Headed Fasteners.
2. Locate the Left and Right Gun Holster Assembly (HDT-5150UK & HDT-5170UK) within the installation kit.
3. Remove the 4 off M6 x 20 Bolts from the top of the Gun Holster Supports on assembly (HDT-5150UK & HDT-5170UK) then re-secure to the brackets front and rear of the Coin Tower.



**NB. TAKE CARE NOT TO DAMAGE THE ARTWORK THROUGH RE-ASSEMBLY SEQUENCE.**



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



CAUTION



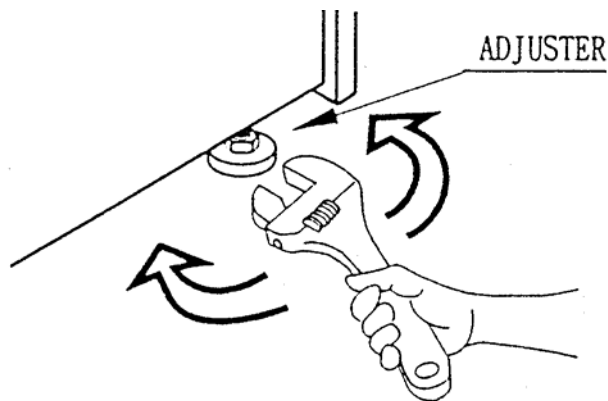
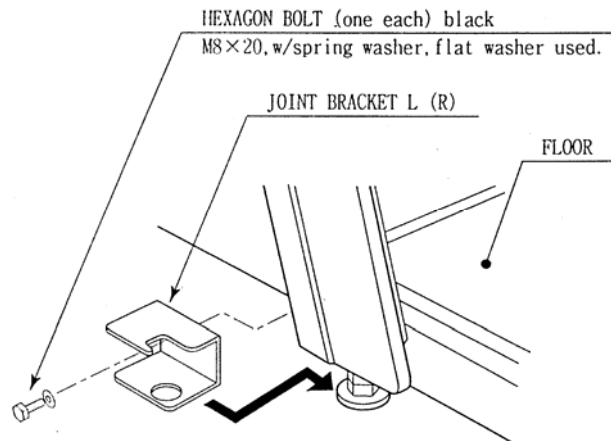
IMPORTANT

- Make sure all of the leg adjusters are in contact with the floor. If not the machine may move and cause injury. This operation requires 2 people.

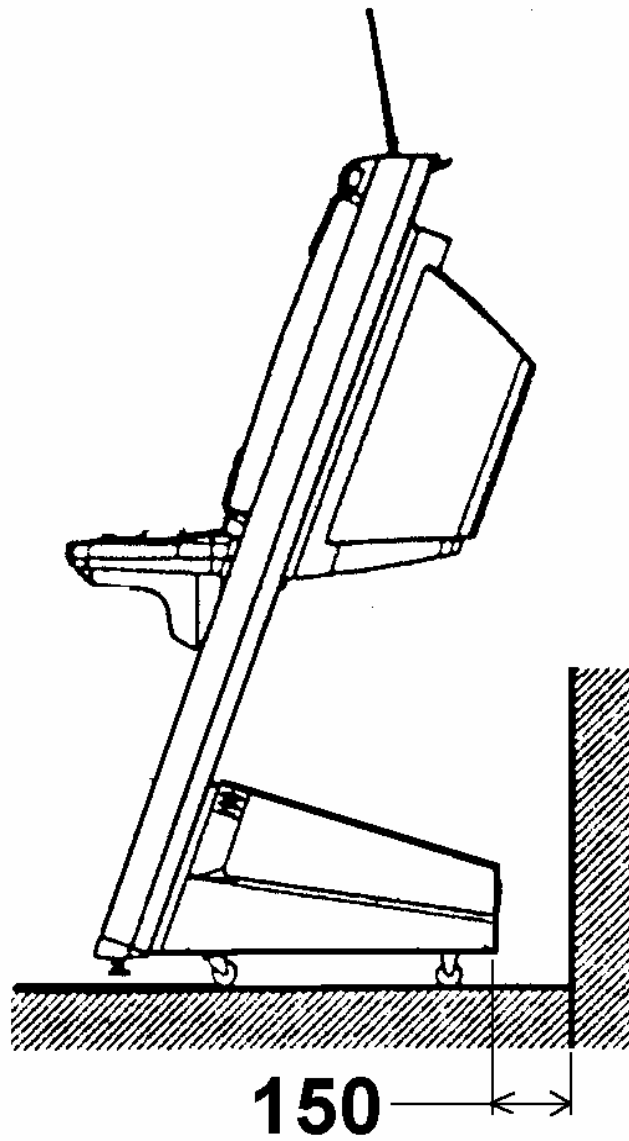
- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

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 7mm from the floor. Make sure the machine is level.

1. Move the product into the installed position.
2. Slightly lower the 2 Adjusters on the cabinet and install Joint Bracket L & R by inserting from the rear, and secure to the floor using M8 hex head bolts as shown. Now tighten the two M8 shoulder bolts.
3. After lowering the Adjusters fully downward, tighten both Adjusters' lock nuts fully upward.
4. The service door can now be refitted.
5. 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 7mm above the floor.
6. Tighten the locknut on the leg adjusters upwards to lock the legs in position.



Ensure adequate ventilation is maintained as detailed below:



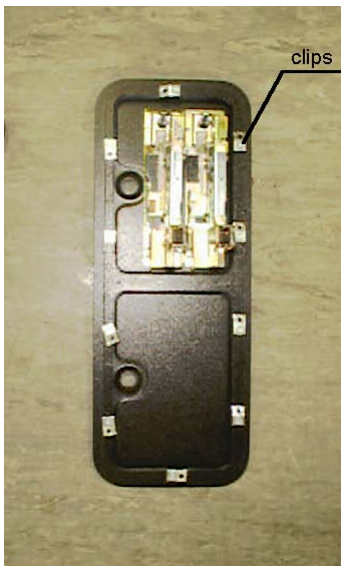
(Actual machines may differ slightly from the illustration)

### 3.8.5. COIN HANDLING INSTALLATION



- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

When fitting the coin mechanism to the door please refer to the specific manufacturers installation instructions for that coin mechanism. To fit the door to the machine, follow the procedure below.



- Loosen all of the bolts on the frame which secure the clips.
- Turn all clips in towards the door.

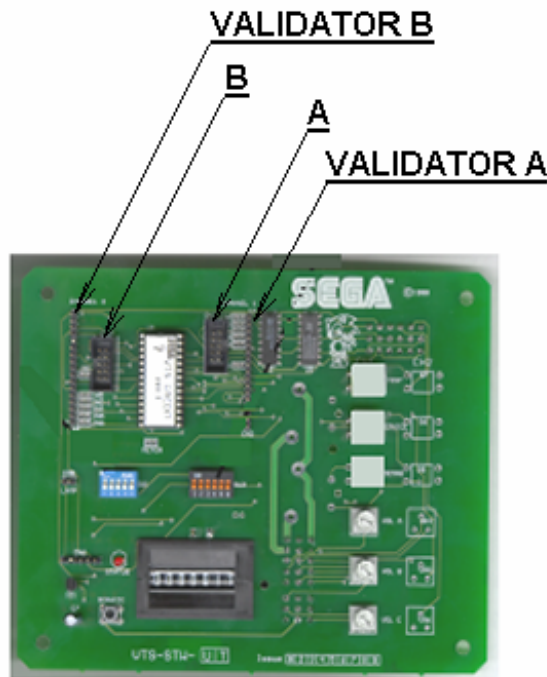


- Position the door into the aperture in the machine.
- Turn the clips around so that they will hold the door in the machine.
- Tighten all of the bolts.



### 3.8.5.1. WIRING CONNECTIONS.

COIN MECH	LOOM	INSTALLATION
C220B	LM1006IDC LM1006LAMP-0.1	<ul style="list-style-type: none"> <li>• Attach the lamp holder to the bracket on the coin return button.</li> <li>• Attach one 15-way connector to the C220 coin mech.</li> <li>• Attach the other 15-way connector to Validator A on the credit board.</li> <li>• Attach the 2-way connector to 'LAMP' on the VTS board.</li> </ul>
GENERIC MECHANICALS	LM1008 LM1008-LAMP	<ul style="list-style-type: none"> <li>• Fit the two lamp holders behind the coin return buttons.</li> <li>• Attach the blue cable and orange cable to one mech's microswitch switch.</li> <li>• Attach the blue/green cable and orange/green cable to the other mech's microswitch.</li> <li>• Attach the 2-way mate and lok plug to the 2-way mate and lok cap provided.</li> <li>• Attach one 15-way connector to Validator A and the other to Validator B on the credit board</li> </ul>
MARS MS111B1 MARS ME115	LM1007 LM1008-LAMP	<ul style="list-style-type: none"> <li>• Fit the lamp holder to the bracket behind the coin return button.</li> <li>• Fit one of the 13-way connectors to the coin mech.</li> <li>• Fit the other 13-way connector to Validator A on the credit board. Note the 13-way connector is keyed and this key must coincide with the key on the credit board.</li> </ul>
SECI, C120, SR3	OWN LOOM AND LM1006LAMP-0.1	<ul style="list-style-type: none"> <li>• Attach the lamp holder to the bracket on the coin return button.</li> <li>• Attach the 2- connector to 'LAMP' on the VTS board.</li> <li>• Attach the validator's own loom to position A on the credit board</li> </ul>



VTS credit board assembly

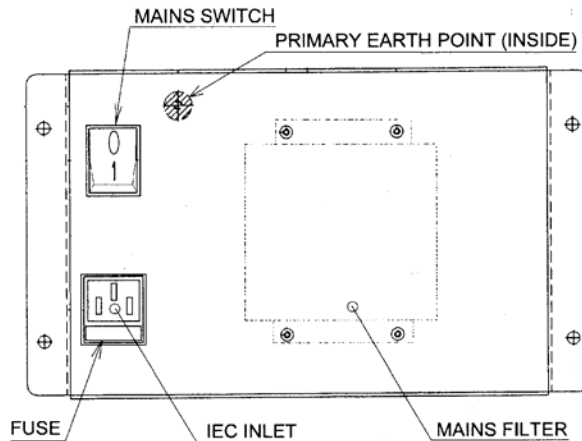
### 3.8.6. CONNECTION TO THE POWER SUPPLY



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

- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

1. The AC Unit is located on the right hand side of the base unit, when viewing the screen. It houses the IEC inlet, mains switch and fuse.



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.

### 3.8.7. ADJACENT CONTROL INTERFERENCE PREVENTION



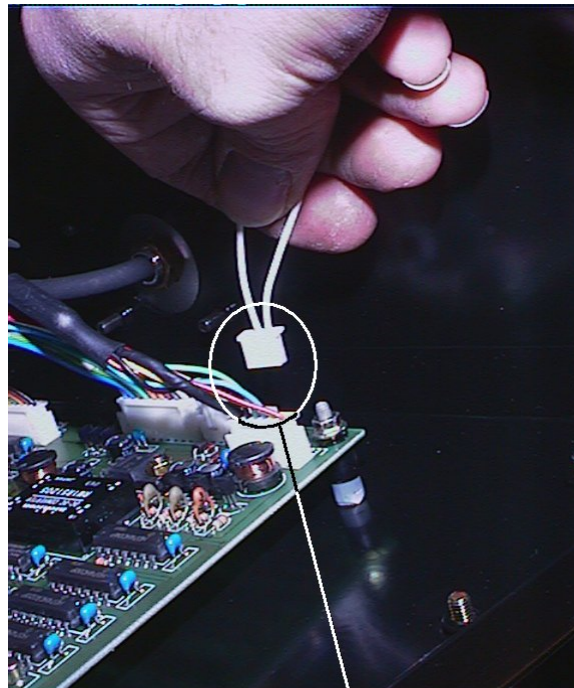
- Be sure that the machine is not connected to the mains supply before attempting this operation.
  - Be careful not to damage wiring.
  - The Game Board area should be accessed only if necessary.
- 
- Only QUALIFIED SERVICE PERSONNEL should carry out this operation

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 system in adjacent games.

A removable wire harness controls the operating frequency of the gun sense system. Removal of this harness switches from the default frequency to an alternate 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.

1. Turn off the power.
2. Open the Control Panel Cover as detailed in section 3.12 of the Service Manual.
3. Locate the Sensor Board and remove SPY-60010UK WIRE HARNESS HIGH FREQUENCY JUMPER as required.



Disconnect

### 3.9. ASSEMBLY CHECK



- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

In the TEST MODE, ensure that the assembly has been made correctly and IC Board is satisfactory (refer to Section ).

In the test mode, perform the following test:

#### 3.9.1. MEMORY TEST

When "MEDIA BOARD TEST" is selected from the System Test Mode Menu Screen the Game Board memory is automatically tested. If the display beside each memory reads "GOOD", the Game Board is functioning correctly.

Also, when "SYSTEM INFORMATION" is selected, Main Board and Media Board data for the Game Board are displayed. If data is displayed correctly, the Game Board is functioning correctly.

```
MEDIA BOARD TEST

VERSION ****
STATUS GOOD
CHECKING 100%

SYSTEM TEST
DIMM0 - GOOD
DIMM1 - GOOD
IC34,35S - GOOD
IC10,11S - GOOD
GD DRIVE - GOOD
-- COMPLETED --

PRESS TEST BUTTON TO EXIT
```

MEDIA BOARD TEST screen

```
SYSTEM INFORMATION

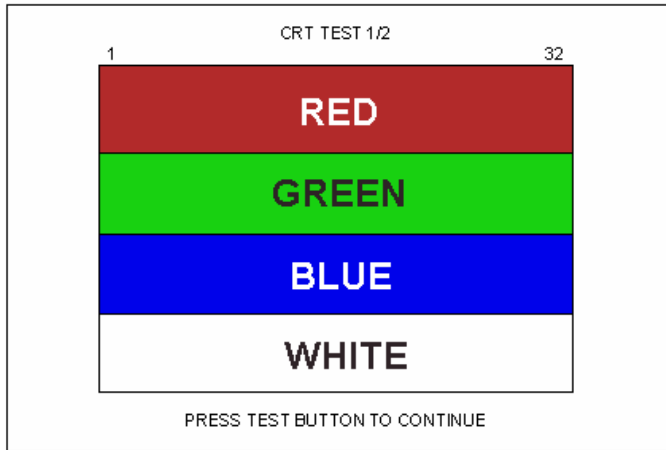
MAIN BOARD
REGION ****
BOOT VERSION ****
QC FIRM VERSION ****
SC FIRM VERSION ****
SERIAL NO. *****

MEDIA BOARD
DIMM BOARD + GDROM
MEMORY SIZE 512MB
FIRM VERSION ****
SERIAL NO. *****

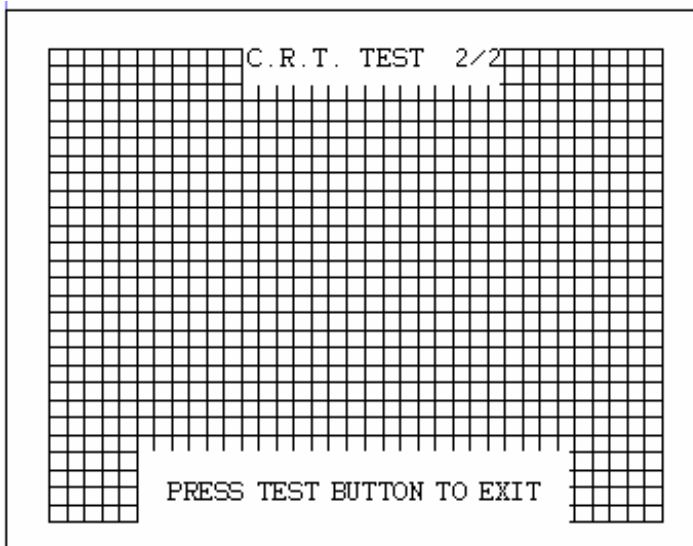
PRESS TEST BUTTON TO EXIT
```

SYSTEM INFORMATION screen

### 3.9.2. C.R.T. TEST



In the TEST mode menu, selecting C.R.T. TEST allows the screen (on which the monitor is tested) to be displayed. Although the monitor adjustments have been made at the time of shipment from the factory, make judgment as to whether an adjustment is needed by watching the test mode screen. If it is necessary, adjust the monitor by referring to Monitor manual.



### 3.9.3. INPUT TEST

INPUT TEST		
	PLAYER1	PLAYER2
START	OFF	OFF
TRIGGER	OFF	OFF
GRIP	OFF	OFF
GUN-X	00	00
GUN-Y	00	00
SCREEN-IN	OUT	OUT
SERVICE	OFF	
TEST	OFF	

PRESS TEST AND SERVICE BUTTON TO EXIT

Selecting the INPUT TEST on the game test mode menu screen causes the screen (on which each switch is tested) to be displayed. Press each switch. If the display beside each switch indicates "ON," the switch and wiring connections are satisfactory.

### 3.9.4. OUTPUT TEST

Select OUTPUT TEST from the menu in the test mode to cause the screen (on which each lamp and wiring connections are tested) to appear. Ensure that lamp light up satisfactorily.

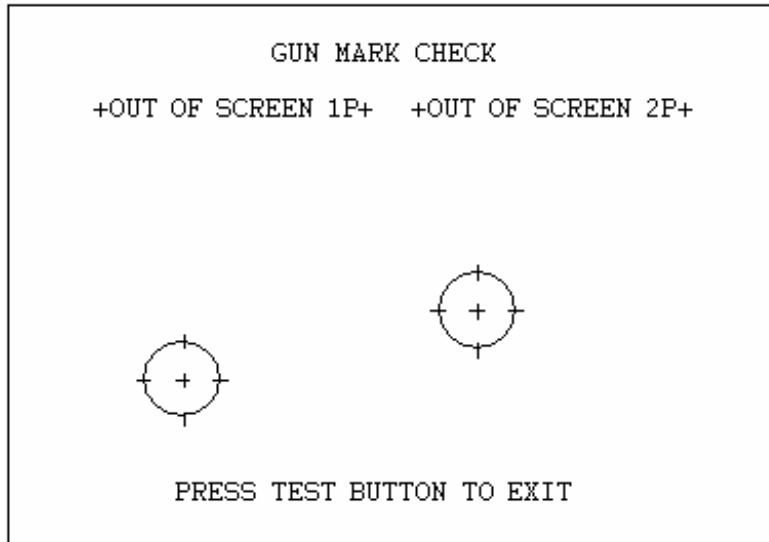
OUTPUT TEST	
START1 LAMP	OFF
START2 LAMP	OFF

-> EXIT

SELECT WITH SERVICE BUTTON  
AND PRESS TEST BUTTON

### 3.9.5. GUN ADJUSTMENT

Before starting the operation, play the game by yourself and make sure that the gun readjustment is not needed and that you can play the game without a problem. Although completed at the factory, the gun adjustment may be necessary because after the adjustment the product has been disassembled for packing and shipping.



Perform the above inspections also at the time of monthly inspection.  
As for the gun adjustment described in above, confirm weekly that the gun is properly adjusted.

### 3.10. 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.
- Separate the floor assembly from the cabinet before moving. Refer to section 3.8.2 for details.
- 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.

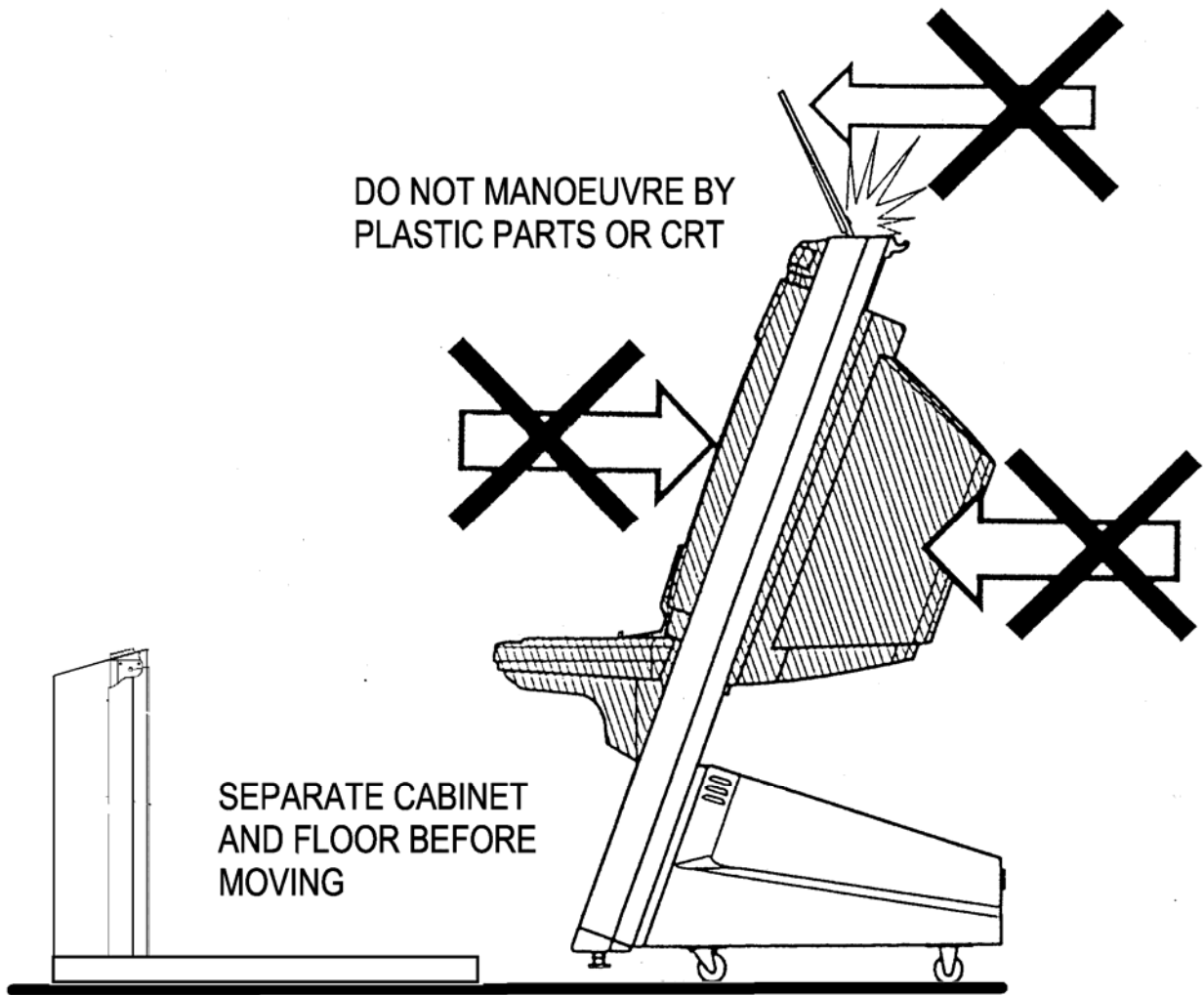


- When transporting the machine, be sure to hold the catch portion on the rear of the cabinet with the castors making contact with the surface as shown below. Inclining the machine by holding portions other than the catch or moving the cabinet without retracting the adjusters can damage the cabinet and/or the floor surface.
- Do not push the Billboard. Failure to observe this may damage the installation portions and may cause unexpected accidents.



- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.







(Actual machine may differ slightly from illustration)

### 3.11. CONTROLLER

#### CONTROL UNIT (SHOTGUN)

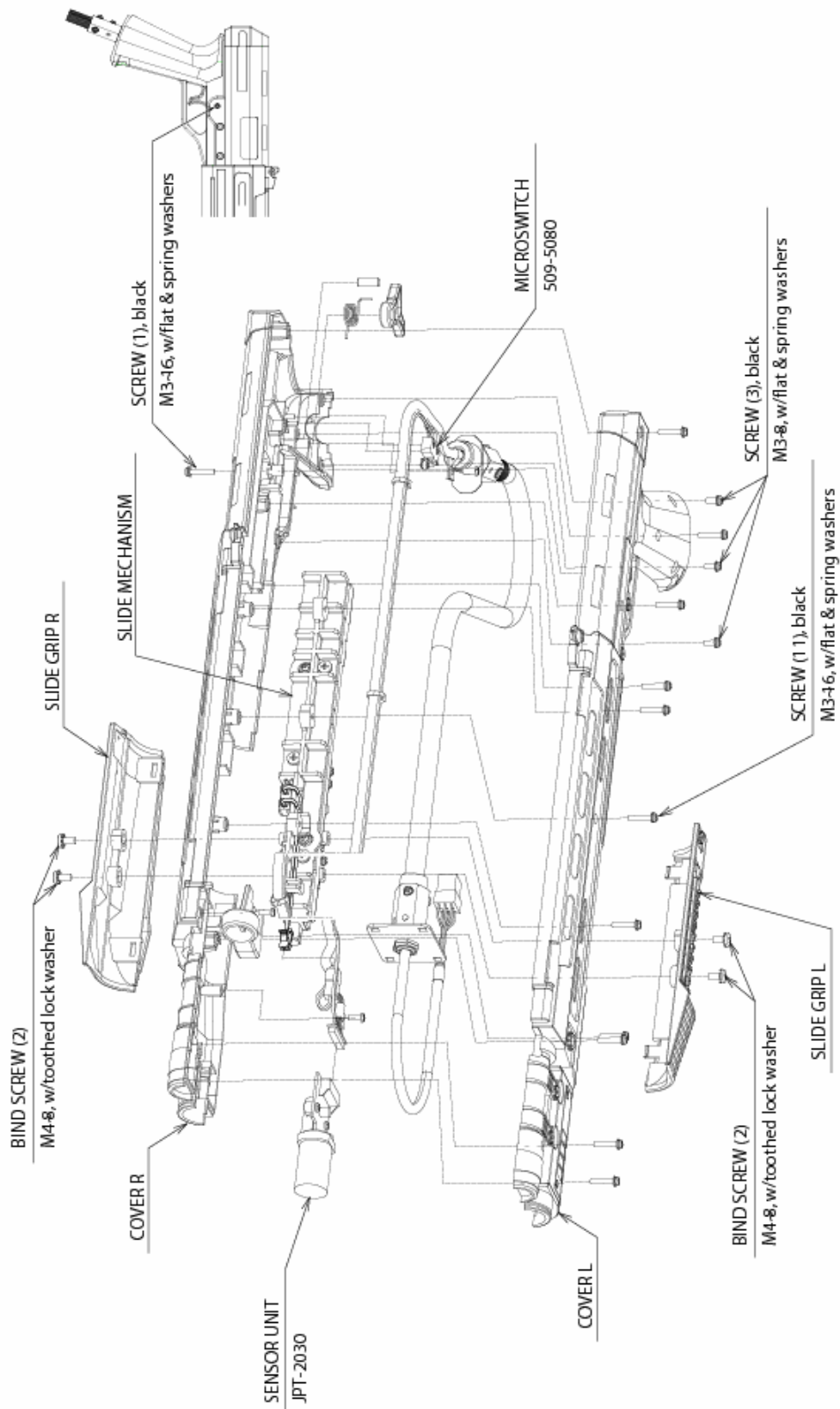
 <p><b>CAUTION</b></p>	<ul style="list-style-type: none"><li>• In order to prevent an electric shock and short circuit, be sure to turn power off before performing work by touching the interior parts of the product.</li><li>• Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a fire risk.</li><li>• Be very careful when soldering. Handling a soldering iron carelessly may result in a fire or a burn.</li><li>• When securing the plastic-made parts, do not excessively fasten screws and nuts. Failure to observe this may damage the parts and cause injury due to fragments resulting from damage.</li></ul>
 <p><b>STOP</b> <b>IMPORTANT</b></p>	<ul style="list-style-type: none"><li>• Do not cut the tie belt securing the wires in the Control Unit (Shotgun). Cutting the tie belt may cause malfunctioning of the wire connection. If you cut the tie belt when replacing the wire etc., be sure to secure the wires using a new tie belt as before</li><li>• After removing 4 bind screws once, retighten them by using the designated threadlocking agent (Part Number: 090-0012). If the threadlocking agent is not used, the reassembled shotgun may rattle or come apart.</li><li>• Use only the threadlocker designated in this manual. Use of other threadlocking agents may cause chemical reactions that could damage the screws or part's surface.</li></ul>

In the cases where the gun's operation is not satisfactory or the gun sight deviates from the direction in which the control unit is pointed, the gun's interior parts may have been damaged. Replace the parts by disassembling the gun in the following procedure: Also, be sure to perform sighting check in the test mode when the gun parts are replaced.

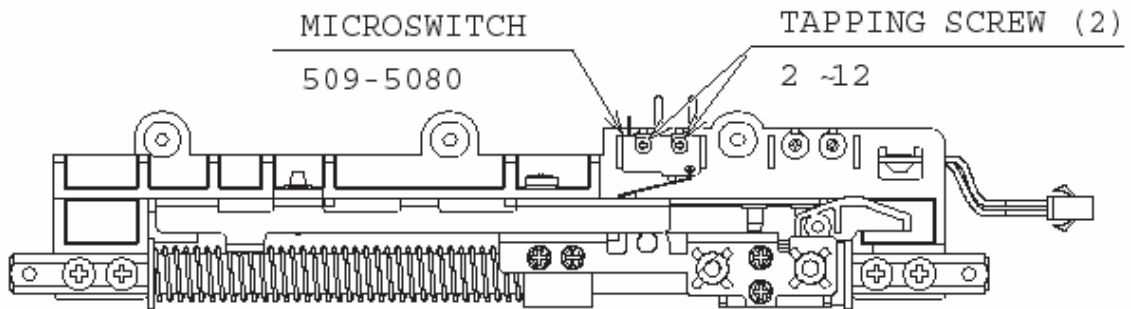
#### REPLACING THE MICROSWITCH

To replace parts in the Shotgun, it is necessary to separate the two halves of the outer case cover. Internal parts are inserted directly into the right side of the cover, so the procedure should be carried out with the right half downmost.

1. Turn the power OFF.
2. Remove the 2 BIND screws from each side and remove the left and right Slide Grips.
3. To separate the left and right halves of the cover, remove the 3 (M3X8) screws and the 12 (M3X16) screws. Be aware that 1 (M3X16) screw is in the right side of the cover. Therefore, remove the 1 screw on the right half of the cover first, before removing the rest of the screws, with the right half downmost.
4. With the right half downmost, remove the left half.
5. Pull the trigger side microswitch out of the right cover.
6. Remove the solder and remove the microswitch.
7. The pump action side microswitch is contained in the slide mechanism. Pull the slide mechanism out from the right cover.



8. Remove the 2 tapping screws, and remove the microswitch from the slide mechanism.
9. Remove the solder and remove the microswitch.



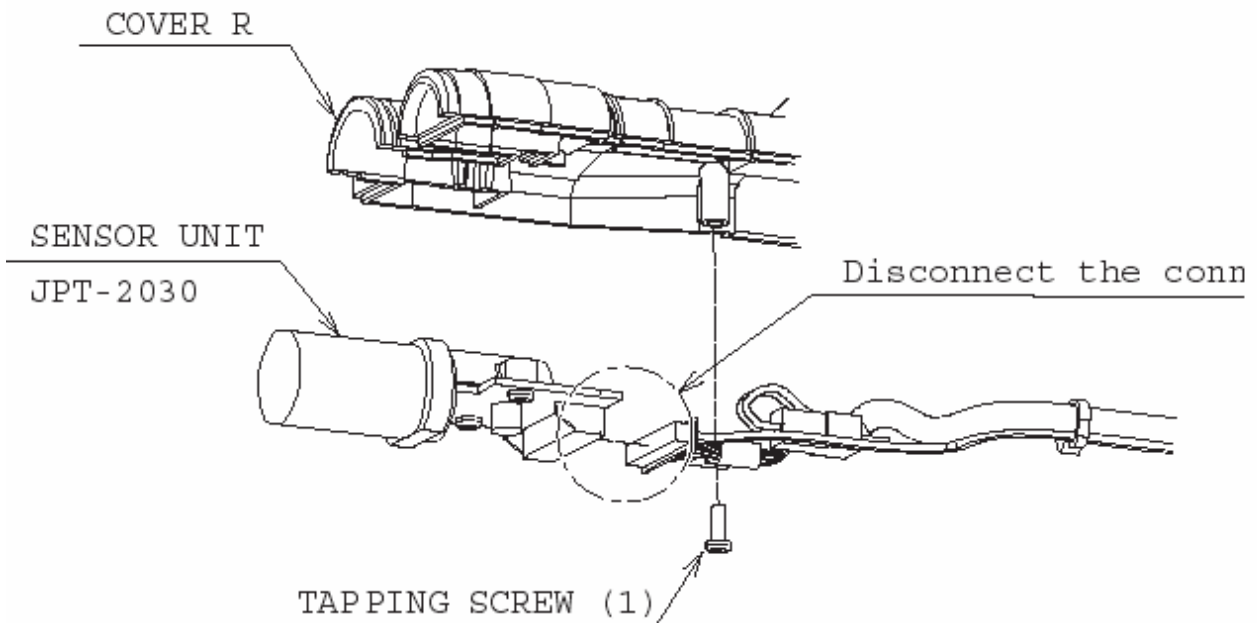
**SLIDE MACHANISM**

1. Solder in the new microswitch, and assemble the Shotgun. When assembling, be careful not to over-tighten the screws. Be especially careful when tightening the tapping screws.
2. Operate the trigger and grip, and make sure that the microswitch turns ON/OFF correctly.

**REPLACING THE SENSOR UNIT**

Follow instructions 1. through 4. of "Replacing the Microswitch" up to removing the left side cover.

1. Disconnect the connector and remove the Sensor Unit.
2. Remove the tapping screw, if required, to gain better access.



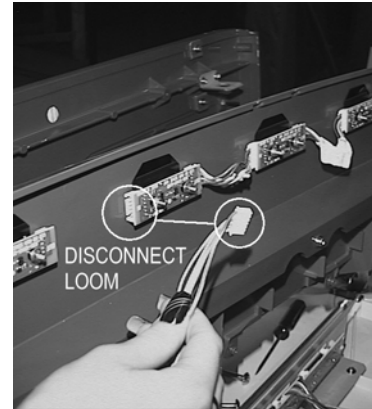
### 3.12. REPLACEMENT OF LED BOARD



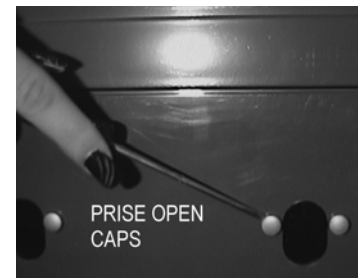
- Only QUALIFIED SERVICE PERSONNEL should carry out these procedures.

The operation of the ten LED boards located around the CRT can easily be checked by viewing from the front with the power switched on. Two red points of light from the LEDs should be visible through each of the ten black lenses: if any of the LEDs are not lit, the corresponding LED board(s) should be replaced as follows.

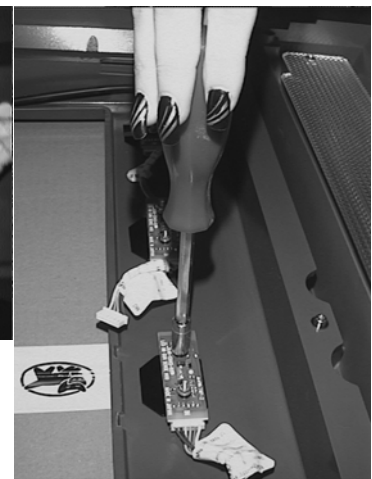
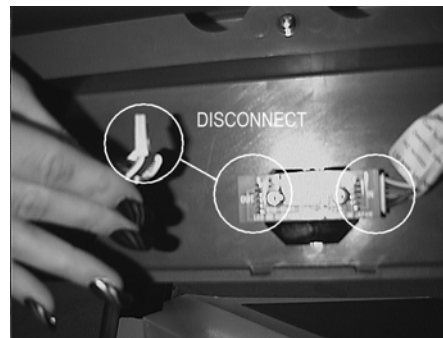
1. Turn the power OFF.
2. Remove the Front Panel as described in section 3.13.1, taking care to disconnect the LED board loom before fully removing the Front Panel (see right).



3. To access the mounting screws for the malfunctioning LED board(s), prise open the screw caps with a small flat head screwdriver as shown.



4. Lay the Front Panel face down on a soft surface (e.g. a blanket) to prevent marking. Disconnect the individual LED board(s) from the loom and remove the two M3 nuts to release the LED board.
5. Fit the replacement LED board and reassemble in reverse order.
6. Adjust the gun calibration in the test mode when the machine has been reassembled (Section 6.4.4)



### 3.13. REPLACEMENT OF FLUORESCENT LAMP AND START LAMPS



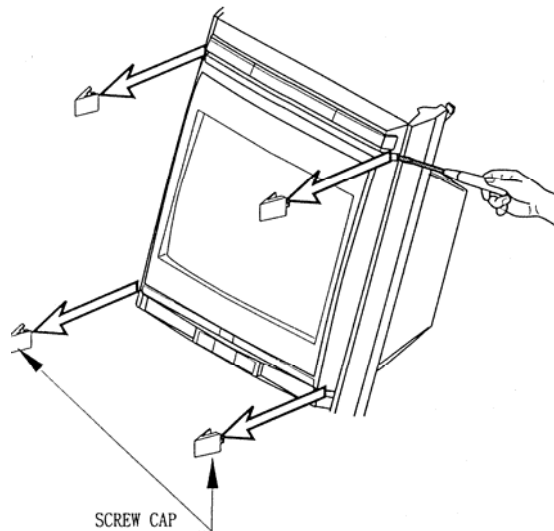
- Never touch places other than those specified. Touching places other than those specified can cause electric shock and short circuit. Disconnect the machine from the supply before attempting the replacement of any lamp.
- When performing work, be sure to turn power off. Working with power on can cause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



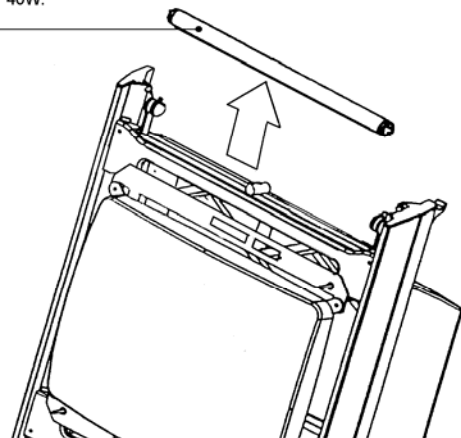
- Only QUALIFIED SERVICE PERSONNEL should replace lamps.

#### 3.13.1. FLUORESCENT

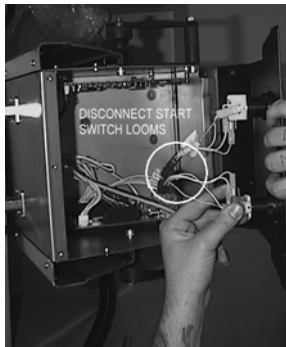
1. Power OFF the machine and remove the IEC lead from the wall outlet.
2. Unlock the lock on the underside of the Control Panel Base, and open the Panel.
3. By using a flat bladed screwdriver, carefully remove the four screw caps from the front panel.
4. Take out the four tamperproof screws and the two lower screws, and carefully take off the Front Panel far enough to disconnect the LED board loom (refer to section 3.12). Once this loom has been disconnected, the Front Panel can be fully removed.
5. Remove the four screws and the Earth Link to allow the Billboard Holder to be removed.
6. Disconnect the two end caps and withdraw the Lamp upwards through the two mounting clips to remove the Fluorescent lamp.
7. After replacing the lamp, reassemble in reverse order, being sure to replace the Earth Link between the Billboard Holder and frame, and the LED board loom.



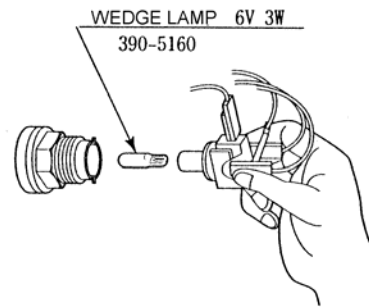
FLUORESCENT LAMP 40W:  
390-5695-40-DUK



### 3.13.2. START LAMP REPLACEMENT



1. Remove the control panel cover as shown by removing the 5 screws holding it in position.
2. Carefully lift the control panel cover up until it is possible to disconnect the wire harness plugs attaching the start switches to the cabinet.
3. Turn the control panel cover over and remove the micro switch from the start switch as shown below.
4. Remove and replace the wedge lamp.
5. Reassemble the control panel cover to the gun cabinet.



### 3.14. GAME BOARD



- Turn off the mains power and remove the power cord before opening the machine.
- To prevent risk of shock or fire, be careful not to damage any wiring.

- The GAME BOARD should not require any work to be carried out upon it. All settings and tests can be achieved without access to the GAME BOARD.
- Take anti-static precautions to avoid damaging the electronic parts.
- All work to be carried out by QUALIFIED SERVICE PERSONNEL

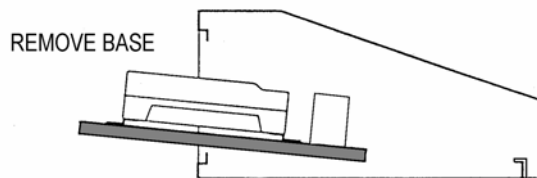
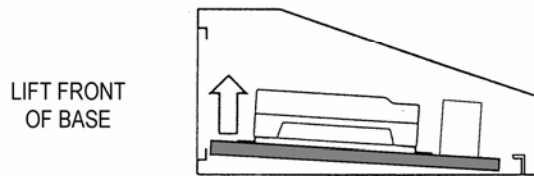
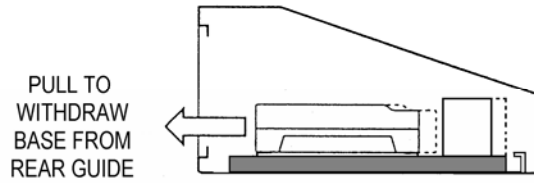
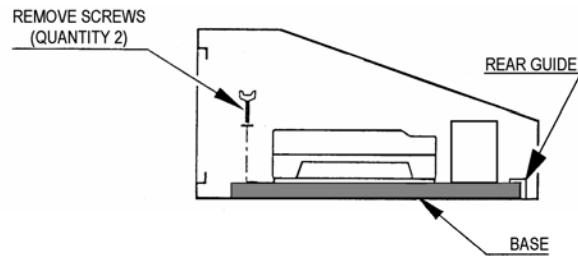
The GD-ROM Service Manual supplied with this product instructs you to remove the Key Chip when shipping the Game Board. However, this product employs a dedicated Game Board, therefore do not disassemble the Game Board, or remove the Key Chip.

#### 3.14.1. REMOVING THE BOARD



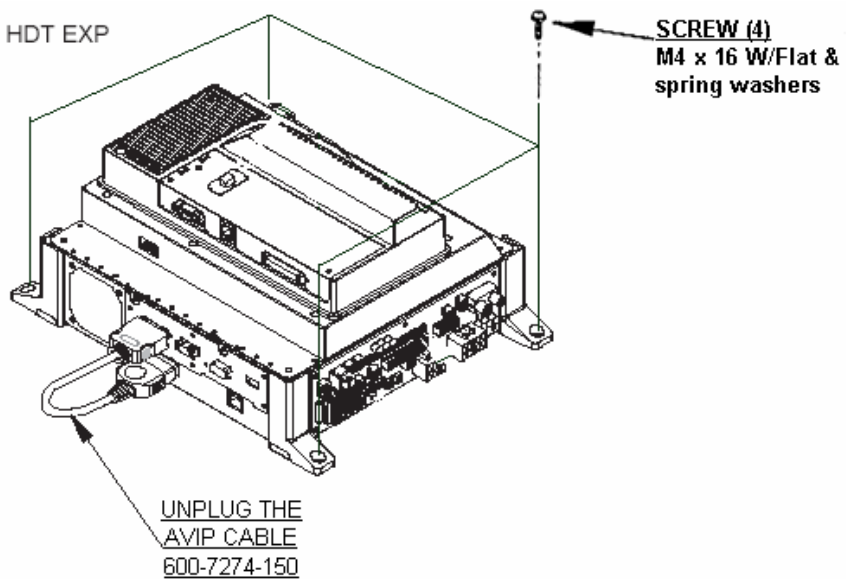
1. Turn off the power.
2. Unlock and remove the Service Door.
3. Disconnect all harnesses linking the Game Board assembly to the cabinet.
4. Remove the two M4 wing bolts and carefully withdraw the assembly upwards and out through the service opening (see following page).





5. Remove all connectors from the filter board of the Game Board. Also remove the GD cable connector from the DIMM Board.
6. Remove four screws securing the Game Board to the base.
7. Reassemble in reverse order.

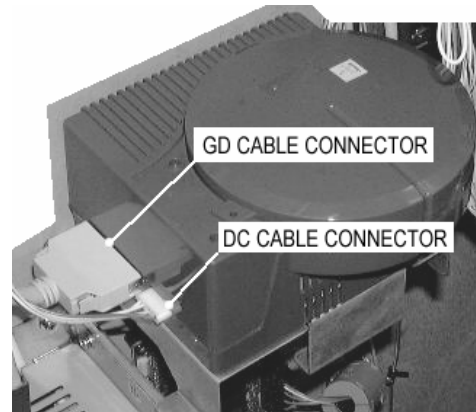
ASSY CASE BOX HDT EXP  
843-0001D-12



### 3.14.2.REMOVING THE GD-ROM DRIVE

Take out the ASSY MAIN BD from the cabinet and remove the GD-ROM Drive from the ASSY MAIN BD as follows:

1. Following the above procedure (steps 1 to 5), take out the ASSY MAIN BD.
2. Remove the GD cable connector and the power cord connector from the GD-ROM Drive.

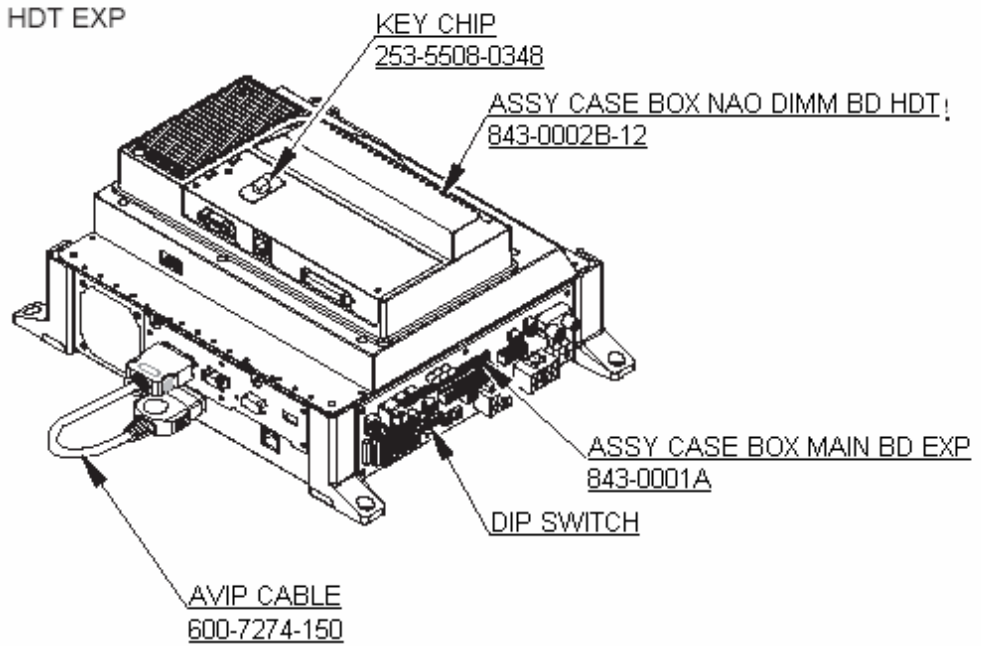


2. To remove the GD-ROM Drive, undo the 3 screws shown.
3. Reassemble in reverse order.



### 3.15. COMPOSITION OF THE GAME BOARD

ASSY CASE BOX HDT EXP  
843-0001D-12



#### DIP SW SETTING

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



### 3.16. TROUBLESHOOTING



- Only QUALIFIED SERVICE PERSONNEL should carry out these procedures.

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 (i.e. fuse) was activated due to an instantaneous overcurrent.	First, remove the cause of overcurrent and reinstate the circuit protection device to its original status.  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. SEE SECTION 6.3.8.
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. SEE SECTION 6.2
	Malfunctioning BD and Amp.	Perform Sound Test to check it. SEE SECTION 6.3.7
	Connector connection is incorrect	Check connector connection from Base to Speaker
Controller operation is not satisfactory	Sighting is inaccurate due to environmental conditions, etc.	Adjust the gun sighting alignment. SEE SECTION 6.4.4
	Micro-switch malfunctioning	Replace the micro-switch. SEE SECTION 3.11
	Sensor BD is malfunctioning	Replace the Sensor BD. SEE SECTION 3.11
The fluorescent lamp does not light up	Fluorescent lamp needs replacement	Replace the fluorescent lamp. SEE SECTION 3.13.1
	The connector is disconnected	Check connector connections in the billboard case.

### 3.17. 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.

- Only QUALIFIED SERVICE PERSONNEL should replace FUSES.
- 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	5x20mm CERAMIC SB 3.15A	2
514-5078-5000	IEC INLET REF. F1	5x20mm CERAMIC SB 5A	1
838-11856CE-02	CONN. BD. REF. F1	5x20mm 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.

## 4. 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	Clean CRT face - ( <b>Do Not</b> use water jet)	Weekly
	Check settings	Monthly
GAME BD	Setting check	Monthly
CONTROL PANEL	Input test	Monthly
Speaker, sound	Sound test, check volume adjustment	Monthly
COIN SELECTOR	Coin insertion test	Monthly
	Cleaning	Tri-Monthly
POWER SUPPLY CORD	Check condition	Annually
INTERIOR	Clean ( <b>Do Not</b> use water jet)	Annually
CABINET SURFACE	Clean ( <b>Do Not</b> use water jet)	As required

### 4.1. CLEANING THE CABINET SURFACES

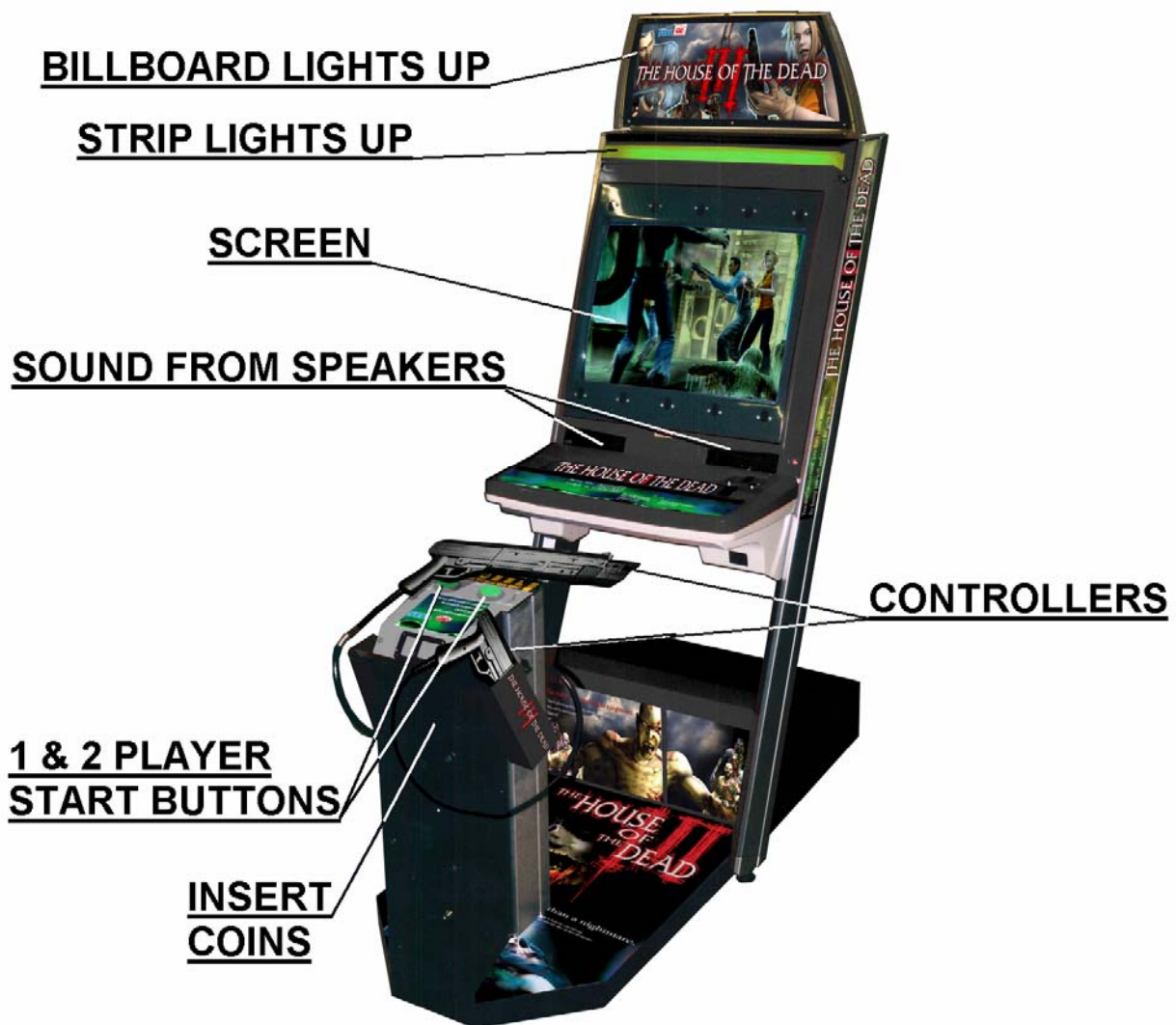
When the cabinet surfaces are badly soiled, remove stains with a soft cloth dipped in water or chemical detergent (diluted with water) and squeezed dry - **DO NOT USE A WATER JET**. To avoid damaging surface finish, do not use such solvents as thinner, benzene, etc. (other than ethyl alcohol), abrasives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

## 5. HOW TO PLAY

Use this section to confirm the machine is operating correctly; if the machine doesn't operate as described there may be a fault.

While power is connected, the billboard is continuously lit and demonstration footage and ranking data are displayed on the screen. This 'advertise' mode will be accompanied by sound from both speakers unless set otherwise in the TEST mode.

The 1P and 2P start buttons have integral lights that flash when a credit is inserted.



## 5.1. GAME CONTENTS

### 5.1.1. GAME OUTLINE

1. Insert a coin and the credit indicator below the screen will count up. When enough coins have been entered for one play, the "INSERT COIN(S)" message below the screen will change to "PRESS START BUTTON", and both START buttons will flash.
  2. A player plays on the left or the right by pressing the start button on that side.
  3. Pressing the start button begins the game.
  4. When the game starts, the stage title is displayed and a demo plays before switching over to game play.
- Life and loaded bullets remaining are shown at the bottom left of the screen for the player on the left (Player 1). Life and loaded bullets remaining are shown at the bottom right of the screen for the player on the right (Player 2).

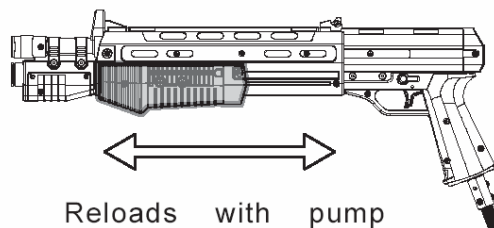
Loaded bullets are displayed as shell cases

Life is displayed as a flame mark.  
The game ends when life runs out.



Credit indicator

- Firing six rounds empties the weapon and displays the "RELOAD" instruction on the screen. Players load the shotgun clip by pump action. If some bullets remain, pumping the shotgun will fully reload the gun. Reloads with pump action!

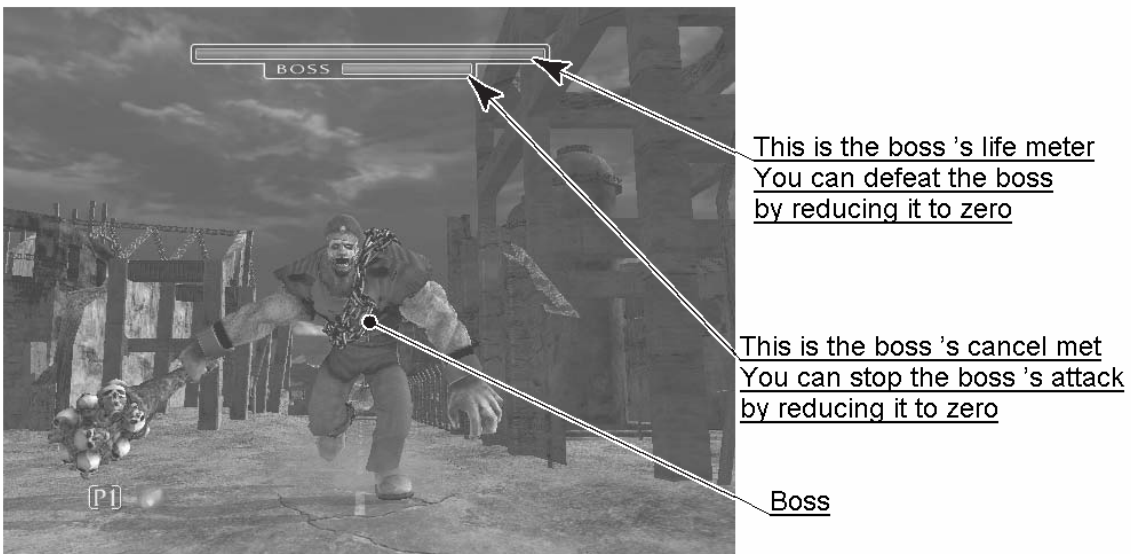


Reloads with pump action!

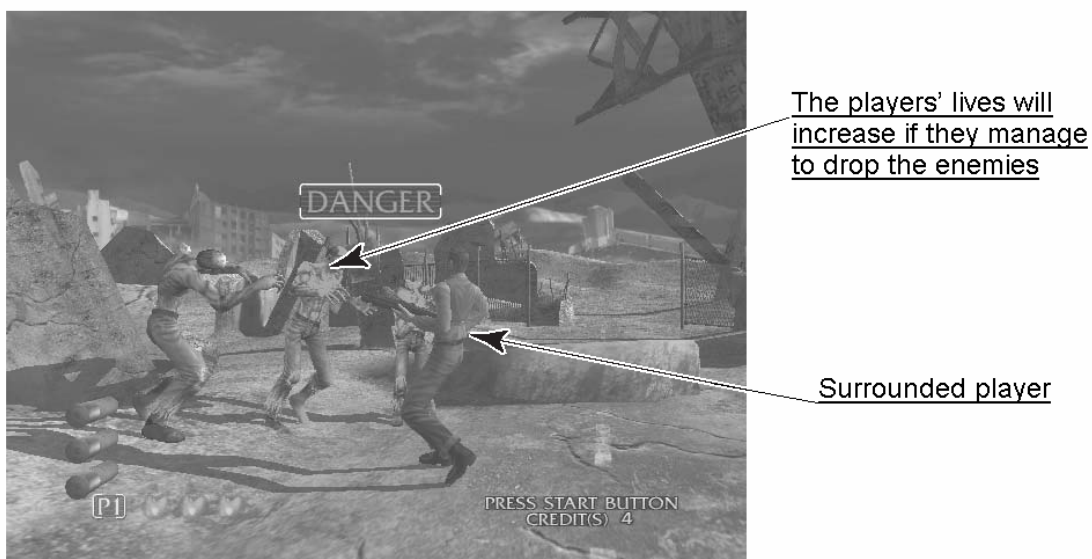


- Players can defend themselves against knives, oil drums and barrels thrown by enemies by shooting them.
- Shooting the background will sometimes cause items to appear. Players grab them by shooting them. Grabbing items will increase a player's score or restore life.
- When life reaches zero the game ends.

A unique boss awaits the players at each stage. The bosses appear different on each stage. Players defeat a boss by reducing its Life Meter to zero. In addition, when a boss begins to attack the Cancel Meter appears. Players can stop the boss's attack by reducing this meter to zero.



As players advance through the game, events will occur where enemies surround one player. The players' lives will increase if the other player succeeds in rescuing the surrounded player.



- A player can join a game in progress at any time by inserting coins and pressing the start button. In addition, the start button on the side where no one is playing will continue to flash if enough credits remain. A second player can join the game by pressing the flashing start button.
- "CONTINUE" is displayed when life drops to zero. A player may continue by inserting sufficient coins and pressing the start button. When there are enough credits for another game, a player can continue by pressing the start button.
- After completing the game, players can enter their names on the ranking display if their scores are among the top ten.

### 5.1.2. ITEMS



**"Medical Kit"**  
Increases life by one.



**"Mini magician"**  
Increases a player's score.



**"Gold Coin"**  
Increases a player's score.



**"Golden Frog"**  
Increases a player's score.



**"Warped Coin"**  
Increases a player's score.



**"MechaZombie"**  
Increases a player's score.



**"Crystal Coin"**  
Continuously increases a player's score as it is shot.

### 5.1.3. PLAY HINTS

- \* Aim for the head!  
On any stage, the weak point of enemy characters other than the boss is the head. Shooting the head will significantly decrease the enemy's life. The shotgun pellets spray out in a wide range, so players can cause more damage and drop an enemy more quickly by aiming at its head.
- \* Choose your favourite route!  
The routes in stages (Stage 1, Stage 2, Stage 3, Stage 4) branch according to the players' choices. Players should find their own best routes as a way to improve their play.
- \* When life is low, restore it through life-increasing events!  
A player's life decreases when attacked by an enemy, but numerous life-increasing events are provided throughout the stages. The life-increasing events happen at set locations within each stage. Repeated play will help players take advantage of these events.

## 6. MAINTENANCE INSTRUCTIONS

### 6.1. EXPLANATION OF TEST DATA AND DISPLAY

Use the switches inside the Control Panel 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:

Refer to the service manual supplied with the Monitor for detailed instructions.

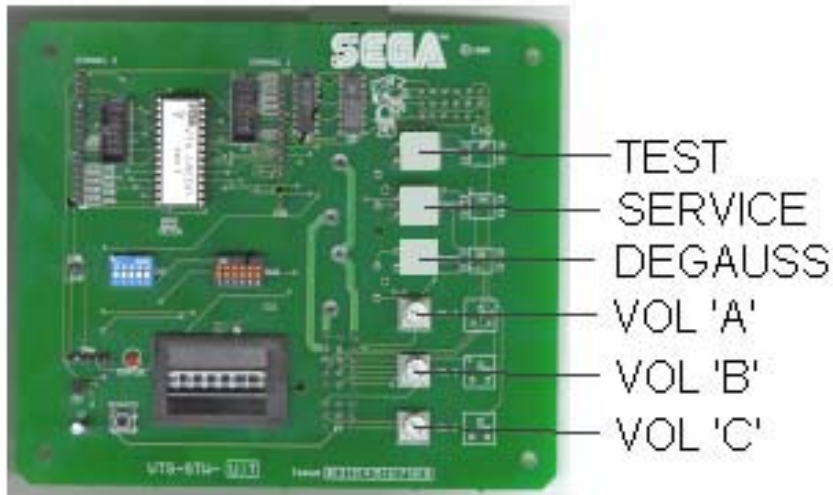
ITEM	DESCRIPTION	INTERVAL
INSTALLATION OF THE MACHINE	<p>When the machine is installed perform the following checks:</p> <ul style="list-style-type: none"> <li>• Check to see that each setting is as per the standard settings input at the time of shipment.</li> <li>• In the INPUT TEST mode, check each switch and V.R.</li> <li>• In the OUTPUT TEST mode, check each of the lamps.</li> <li>• In the MEMORY TEST mode check all of the IC's on the IC BD.</li> </ul>	Monthly
MEMORY	<ul style="list-style-type: none"> <li>• On the TEST MENU screen choosing the MEMORY TEST allows self-test to be performed. In this test RAM &amp; ROM are tested.</li> </ul>	Monthly
PERIODIC CHECKS	<p>Periodically perform the following</p> <ul style="list-style-type: none"> <li>• MEMORY TEST.</li> <li>• Ascertain each setting.</li> <li>• In the INPUT TEST mode, test the control devices.</li> <li>• In the OUTPUT TEST mode, check each of the lamps.</li> </ul>	Monthly
CONTROL SYSTEM	<ul style="list-style-type: none"> <li>• In the INPUT TEST mode, check each switch and V.R.</li> <li>• Adjust or replace each switch and V.R.</li> </ul>	Monthly
MONITOR	<ul style="list-style-type: none"> <li>• In the CRT TEST mode, check to ensure the monitor is adjusted correctly</li> <li>• Clean screen (switch off machine and remove the plug)</li> </ul>	Monthly Weekly
IC BOARD	<p>MEMORY TEST</p> <ul style="list-style-type: none"> <li>• In the SOUND TEST mode, check the sound related ROM's</li> </ul>	Monthly
DATA CHECK	<ul style="list-style-type: none"> <li>• Check such data as held in the bookkeeping screens, relating to number and length of plays</li> </ul>	Monthly
EXTERIOR MAINTENANCE	<ul style="list-style-type: none"> <li>• Clean surfaces</li> </ul>	Monthly
COIN MECHANISM	<ul style="list-style-type: none"> <li>• Check switch operation (if fitted)</li> </ul>	Monthly

## 6.2. INTERNAL SWITCHES AND COIN METERS



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



Open the Coin Chute door to access the VTS PCB. The function of each switch is as follows.

TEST BUTTON  
(TEST SW)

Used to enter TEST mode. Also has function during TEST mode. Refer to the later section detailing TEST mode.

SERVICE BUTTON  
(SERVICE SW)

Gives credits without registering on the coin counter. Also used during TEST mode.

DEMAG

Eliminates colour unevenness from the monitor screen.

VOLUME CONTROL

Adjusts the volume of the speakers.

### 6.3. SYSTEM TEST MODE

#### 6.3.1. EXPLANATION OF TEST AND DATA DISPLAY

Perform the tests and data check periodically when installing the machine initially or collecting cash, or when the machine does not function correctly. Perform checks in accordance with the explanations given in this section.

The following shows tests and modes that should be utilized as applicable.


This product's basic system consists of the Chihiro game board and the GD-ROM drive. The system enables you to play several games one after the other just by changing a GD-ROM disc that is to be set on the GD-ROM drive.

Therefore the product supports, the following 2 test modes:

(1) System test mode for an automatic self-diagnostic test (generally used by every product that contains the basic system) and a coin assignment (specifically used by this product)

and

(2) Game test mode for testing the input/output control devices and setting the difficulty level (specifically used by this product).

 <p><b>STOP</b> <b>IMPORTANT</b></p>	<ul style="list-style-type: none"><li>• Any settings that are changed by users during TEST MODE are saved upon exiting TEST MODE with the EXIT command in the SYSTEM MENU. If the unit is powered off prior to exiting, changes to settings will not take effect.</li><li>• You may not enter GAME TEST MODE while the unit is reading from or checking the GD-ROM. If error messages are displayed when exiting TEST MODE, you should power the unit off and on again.</li><li>• In the manual for this product, "Media Board" and "DIMM" are one and the same.</li><li>• Use with the specified settings. If settings other than those specified are used, inappropriate operations or malfunction may occur.</li></ul>
---	---

### 6.3.2. SYSTEM TEST MENU MODE

System Test Mode can be used to check that the main circuit operations are correct, adjust Monitor colour, and perform coin/credit settings.

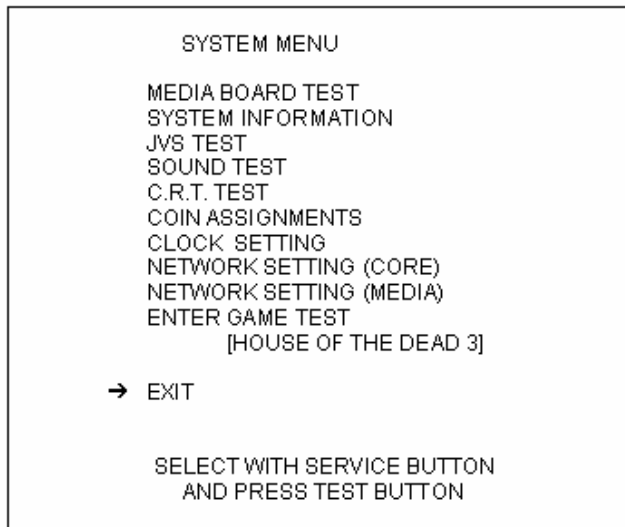
However, this product can only be used with the settings shown below.

SOUND TEST - OUTPUT TYPE: STEREO

COIN ASSIGNMENTS - COIN CHUTE TYPE: COMMON  
- SERVICE TYPE: COMMON


NETWORK SETTING (MEDIA) - NETWORK TYPE: NONE

1. Press the TEST Button after powering on the unit to display the following SYSTEM MENU.



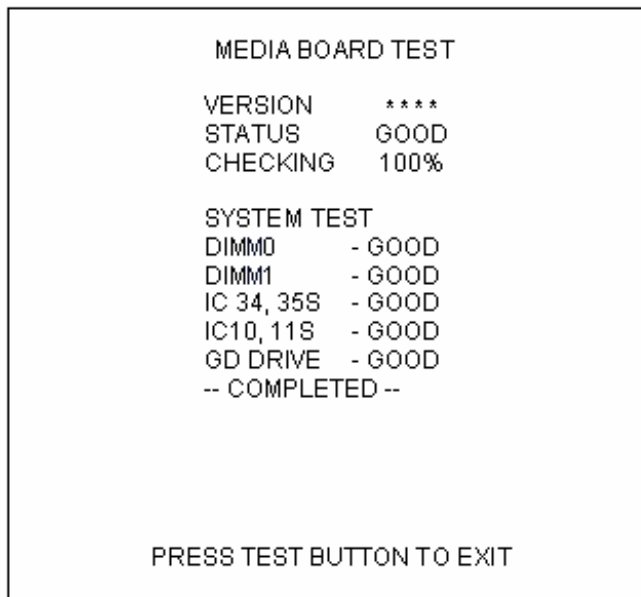
2. Press the SERVICE Button to move the cursor to the desired test item.
3. Move the cursor to the desired item and press the TEST Button to display each test screen.
4. Move the cursor to ENTER GAME TEST and press the TEST Button to enter the individual test menus for each game. Refer to "9-3 GAME TEST MODE".
5. When testing is complete, move the cursor to EXIT and press the TEST Button. The game advertisement screen should be displayed.

### 6.3.3. MEDIA BOARD TEST

 <b>IMPORTANT</b>	Powering off the system during the MEDIA BOARD TEST with a DIMM BOARD will erase the game programme data. It may be necessary to reload the data. Always wait for the test to complete before attempting to exit.
---	---

MEDIA BOARD TEST is used to check the memory and IC on the MEDIA BOARD connected to the Chihiro. Test screens and test times may differ depending on the type of MEDIA BOARD connected to the unit.

\*The following is the MEDIA BOARD TEST screen for a unit with a DIMM BOARD.



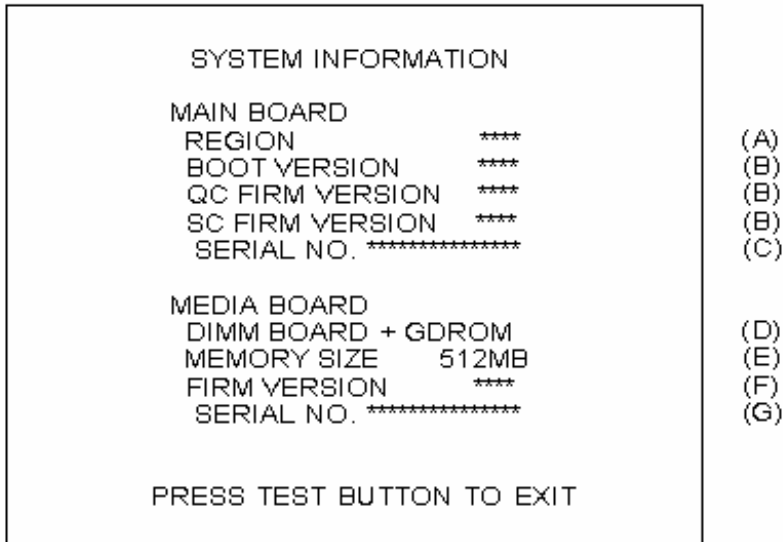
1. MEDIA BOARD TEST begins immediately upon entering this test mode.
2. If "GOOD" is displayed to the right of each item, the MEDIA BOARD components are functioning properly.
3. After the test is complete, move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.



### 6.3.4. SYSTEM INFORMATION

Use SYSTEM INFORMATION to check version and other information for system programmes. Screens may differ depending on the type of MEDIA BOARD connected to the unit.

\*The following is the SYSTEM INFORMATION screen for a unit with a DIMM BOARD.

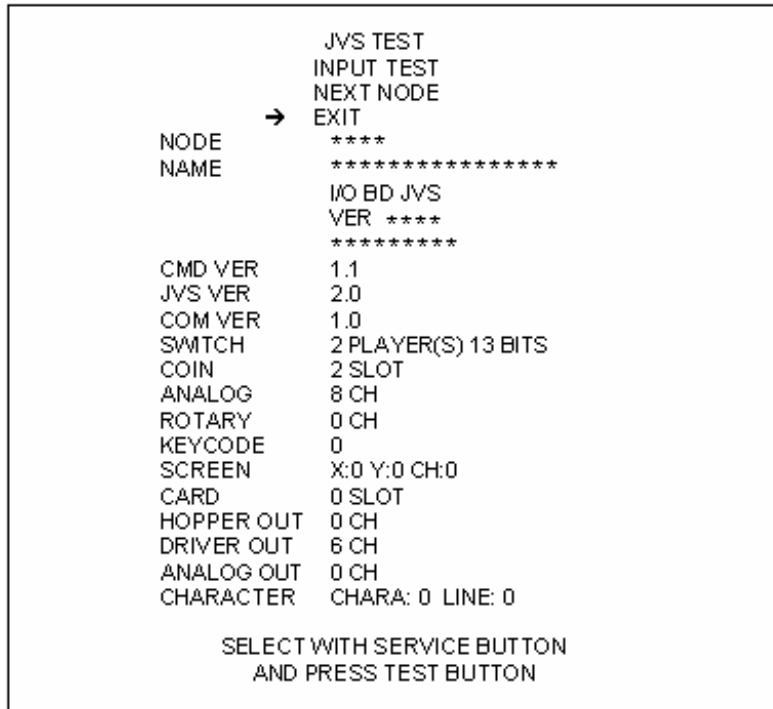


Press the TEST Button to return to the SYSTEM MENU screen.

- (A) REGION  
The COUNTRY CODE of the MAIN BOARD.
- (B) BOOT VERSION, QC FIRM VERSION, SC FIRM VERSION  
Version information for the MAIN BOARD system programmes.
- (C) SERIAL NO.  
Serial number of the MAIN BOARD.
- (D) DIMM BOARD + GDROM  
Type of MEDIA BOARD. This example shows a DIMM BOARD with a GD-ROM DRIVE connected.
- (E) MEMORY SIZE  
Capacity of DIMM memory installed on the DIMM BOARD.
- (F) FIRM VERSION  
Version information for the DIMM BOARD system programme.
- (G) SERIAL NO.  
Serial number of the DIMM BOARD.

### 6.3.5. JVS TEST

JVS TEST is used to verify the specs of the I/O BOARD connected to the Chihiro and to run input tests. I/O BOARD specs are displayed initially. Screens may differ depending on the type of I/O BOARD connected to the unit.



- (1) Use the SERVICE Button to move the cursor to the desired test item.
- (2) Move the cursor to INPUT TEST and press the TEST Button to enter the INPUT TEST screen for the I/O BOARD currently displayed.
- (3) When 2 or more I/O BOARDS are connected, move the cursor to NEXT NODE and press the TEST Button to enter the test screen for the next I/O BOARD. The lower the NODE number, the further away the node is from the Chihiro.
- (4) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

### 6.3.6. INPUT TEST Screen

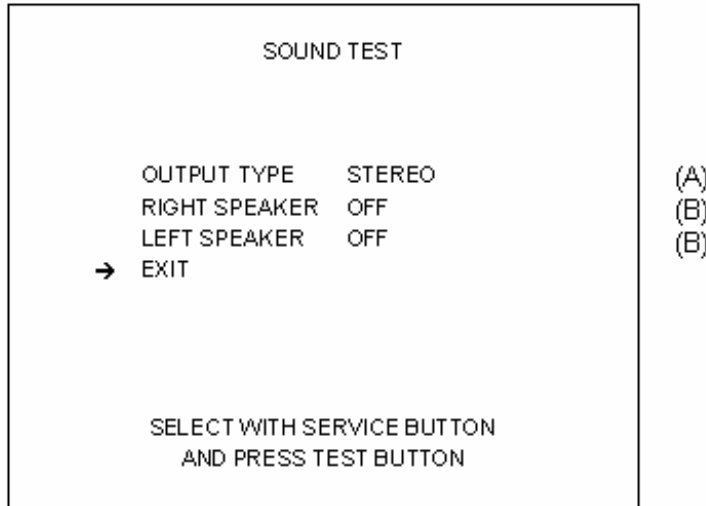
JVS TEST		
INPUT TEST		
NODE	1/1	
SYSTEM	00	(A)
PLAYER 1	0000	(A)
PLAYER 2	0000	(A)
COIN 1	0000	(B)
COIN 2	0000	(B)
ANALOG 1	0000	(C)
ANALOG 2	0000	(C)
ANALOG 3	0000	(C)
ANALOG 4	0000	(C)
ANALOG 5	0000	(C)
ANALOG 6	0000	(C)
ANALOG 7	0000	(C)
ANALOG 8	0000	(C)

PRESS TEST AND SERVICE BUTTON TO EXIT

- (5) On-screen values change according to the input from switches and the volume.
- (A) SYSTEM, PLAYER  
Values change with input from control panel/other switches.
  - (B) COIN  
Increases with input from the COIN SWITCH. The count is cleared when exiting TEST MODE.
  - (C) ANALOG  
Displays analog values from "0000" to "FFFF".
- (6) Press the SERVICE and TEST Buttons simultaneously to return to the JVS TEST main screen.

### 6.3.7. SOUND TEST

Use SOUND TEST to test sound output and to select the stereo/mono/surround setting.



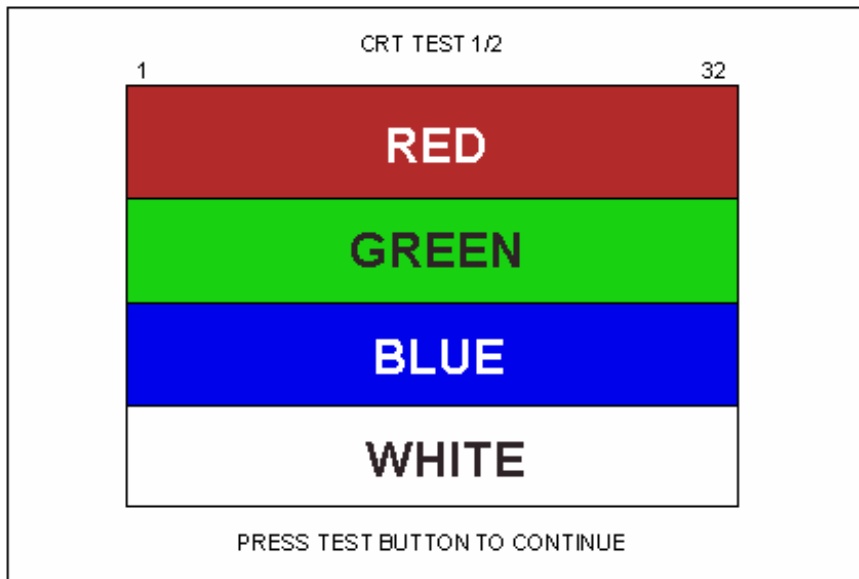
- (1) Use the SERVICE Button to move the cursor to the desired test item.
- (2) Press the TEST Button to enter the selected item.
  - (A) OUTPUT TYPE (STEREO, MONO, SURROUND)  
Select the sound output from the I/O PANEL audio output interface setting among STEREO, MONO and SURROUND.
  - (B) RIGHT/LEFT SPEAKER (ON, OFF)  
When set to "ON", the test sends a beep to each audio output interface. Only the word "SPEAKER" is displayed when the OUTPUT TYPE is set to "MONO", and when set to "ON", the test sends the same beep to both the left/right audio output interfaces.  
To test surround output, it is necessary to use a separate Audio Amp, and receive signal from a terminal not in use at the time of shipping.  
*Note: Not available with this product.*
- (3) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

### 6.3.8. C.R.T. TEST

Use the C.R.T. TEST to adjust monitor colours and verify screen size.

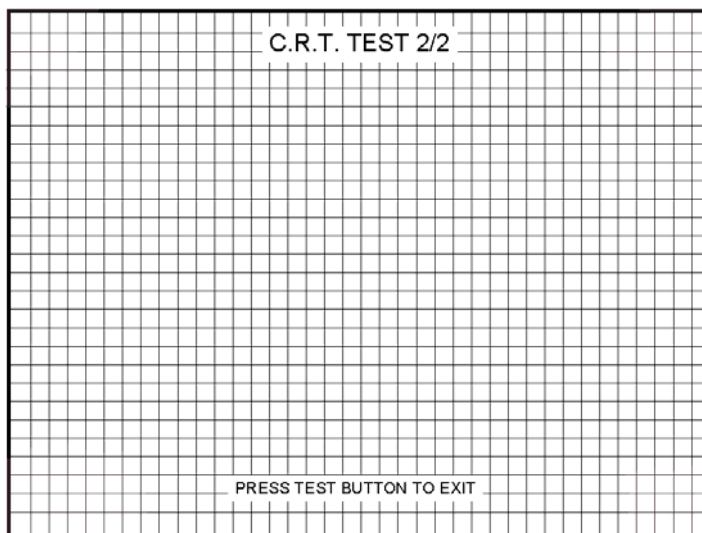
#### COLOUR CHECK Screen

- (1) Monitor COLOUR CHECK screen is displayed initially.  
Each of the colours (red, green and blue) is darkest at the far left and gets progressively lighter (32 steps) towards the right.  
Monitor brightness is set correctly if the white colour bar is black at the left edge and white at the right edge.



- (2) Press the TEST Button to proceed to the next page

#### SIZE CHECK Screen



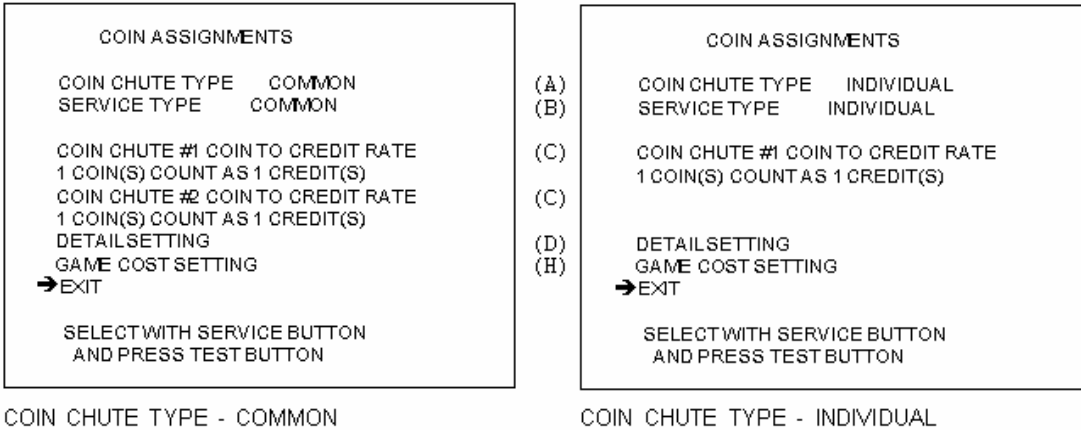
- (3) Adjust the CHECK GRID so that the entire GRID is displayed on the screen.  
)
- (4) Press the TEST Button to return to the SYSTEM MENU screen.

)

### 6.3.9. COIN ASSIGNMENTS

Use COIN ASSIGNMENTS to set the credit rate for each coin inserted.

- (1) Use the SERVICE Button to move the cursor to the desired test item.
- (2) Press the TEST Button to change the setting or to open the detailed settings.
- (3) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.



- (A) COIN CHUTE TYPE (COMMON, INDIVIDUAL)  
Adjust settings according to the specs of the cabinet COIN CHUTE.

#### COMMON

This is for cabinets where a single COIN CHUTE is used by multiple players. Coins inserted by each player are treated as common credits. Up to 2 COIN CHUTES (#1 and #2) may be used. The (C) COIN TO CREDIT RATE setting for COIN CHUTE #1 and #2 may be set differently.

#### INDIVIDUAL

This is for cabinets with individual COIN CHUTES for each player. Coins inserted by each player are treated as individual player credits. The (C) COIN TO CREDIT RATE setting is used by all COIN CHUTES.

- (B) SERVICE TYPE (COMMON, INDIVIDUAL)  
Use this to set the function of each SERVICE Button when there is more than one SERVICE Button.

#### COMMON

Pressing any SERVICE Button enters service credits for all players.

#### INDIVIDUAL

Pressing the SERVICE Button enters service credits only for the corresponding player.

(C) COIN TO CREDIT RATE

Set the CREDIT RATE for each coin inserted.

The " $\Delta$  COIN(S) COUNT AS  $\square$  CREDIT(S)" setting indicates that "Inserting  $\Delta$  coins equals  $\square$  credits".

Set this to "FREE PLAY" to allow game play without credits.

When (A) COIN CHUTE TYPE is set to "COMMON", COIN CHUTE #2 settings are restricted to some extent by the settings for COIN CHUTE #1.

(D) DETAIL SETTING

This mode allows for more detailed credit rate settings than the (C) COIN TO CREDIT RATE setting.

Changes made in DETAIL SETTING override any (C) COIN TO CREDIT RATE settings.

DETAIL SETTING Screen

```

COIN ASSIGNMENTS
DETAIL SETTING
COIN CHUTE #1 MULTIPLIER
1 COIN COUNT AS 1 COIN(S)
COIN CHUTE #2 MULTIPLIER
1 COIN COUNT AS 1 COIN(S)
BONUS ADDER      NO BONUS ADDER
COIN TO CREDIT  1 COIN(S) 1 CREDIT
→EXIT
COIN CHUTE #1 OPERATION
COIN  1 2 3 4 5 6 7 8 9
CREDIT 1 2 3 4 5 6 7 8 9
COIN CHUTE #2 OPERATION
COIN  1 2 3 4 5 6 7 8 9
CREDIT 1 2 3 4 5 6 7 8 9
SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON

```

(E)

(E)

(F)

(G)

```

COIN ASSIGNMENTS
DETAIL SETTING
COIN CHUTE #1 MULTIPLIER
1 COIN COUNT AS 1 COIN(S)

BONUS ADDER      NO BONUS ADDER
COIN TO CREDIT  1 COIN(S) 1 CREDIT
→EXIT
COIN CHUTE #1 OPERATION
COIN  1 2 3 4 5 6 7 8 9
CREDIT 1 2 3 4 5 6 7 8 9

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON

```

COIN CHUTE TYPE --- COMMON

COIN CHUTE TYPE --- INDIVIDUAL

(E) COIN CHUTE MULTIPLIER

Use this to set how many coins will be counted for each coin inserted.

The " $\Delta$  COIN COUNT AS  $\Delta$  COIN(S)" setting indicates that "Each coin will be counted as  $\Delta$  coins".

When the (A) COIN CHUTE TYPE is set to "COMMON", the setting may be set individually for COIN CHUTE #1 and #2.

(F) BONUS ADDER

Use this to set the number of coins calculated with the (E) COIN CHUTE MULTIPLIER setting that need to be inserted to get 1 bonus coin. When the (A) COIN CHUTE TYPE is set to "COMMON", the sum of the coins for COIN CHUTE #1 and #2 is used for the calculation.

The " $\Delta$  COINS GIVE 1 EXTRA COIN" setting indicates that "For every  $\Delta$  coins, 1 bonus coin is given".

Set this to "NO BONUS ADDER" to disable bonus coins entirely.

(G) COIN TO CREDIT

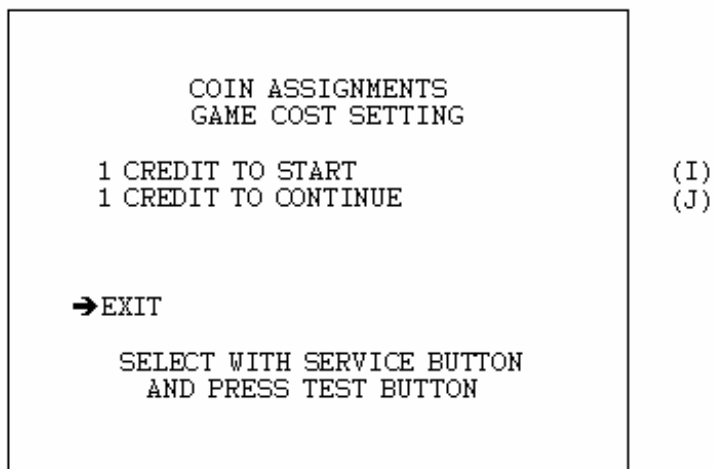
Use this to set how many coins calculated with the (F) BONUS ADDER setting count as 1 credit.

The " $\Delta$  COIN(S) 1 CREDIT" setting indicates that "Every  $\Delta$  coins equals 1 credit."



(H) GAME COST SETTING

Use this mode to set the number of credits required to start a game.  
Screens may differ depending on the game.



(I) Set the number of credits required to start a game.

(J) Set the number of credits required to continue a game.

### 6.3.10.CLOCK SETTING


Use the SERVICE Button to move the cursor to the item to be set.

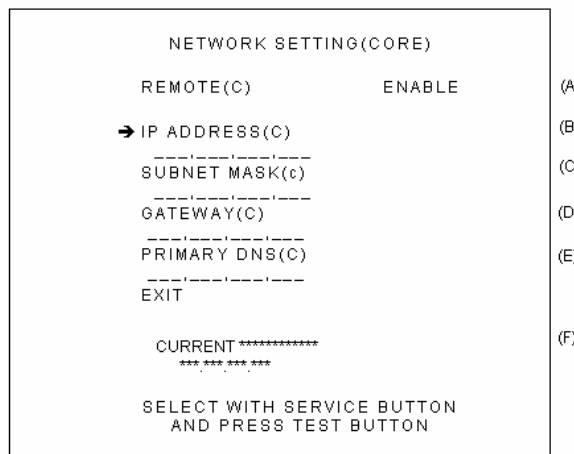


- (1) Move the cursor to the desired item and press the TEST Button to increase values.
- (2) The max value for YEAR is "2099"; further increases return the value to "2000".
- (3) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

### 6.3.11.NETWORK SETTING (CORE)

Use the LAN PORT attached to the Main Board, and carry out the settings necessary for network communication.


	<p><b>*<u>This game</u> does not support network communication connections. *</b></p> <p>THIS OPTION IS FOR POSSIBLE FUTURE GAMES ONLY. SELECT EXIT AND GO DIRECTLY TO THE NEXT TEST MODE.</p>
---	--



- (1) Use the SERVICE Button to move the cursor to the desired test item.  
(When setting IP ADDRESS, SUBNET MASK, GAME WAY or PRIMARY DNS, use the underline as a guide.)
  - (2) Press the TEST Button to change the setting.
  - (3) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.
- (A) REMOTE (C)  
This sets up whether a communication setting is automatic or manual.  
ENABLE: Sets the communication setting automatically.  
DISABLE: Sets the communication setting manually.
- (B) IP ADDRESS (C)  
This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.
- (C) SUBNET MASK (C)  
This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.
- (D) GATE WAY (C)  
This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.
- (E) PRIMARY DNS (C)  
This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.
- (F) CURRENT  
This displays the present setting value during a set-up of each item [(B), (C), (D), (E)]. Pressing TEST Button on SET position, the settings are memorized and the screen is changed.

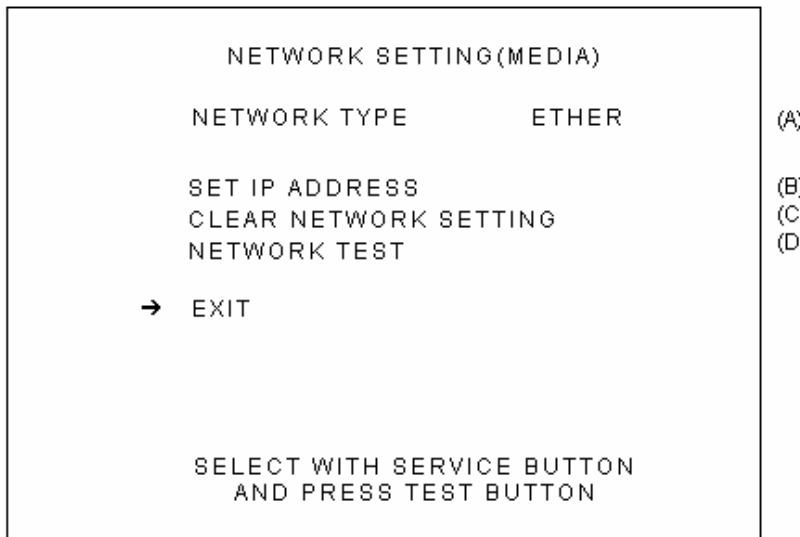
### 6.3.12.NETWORK SETTING (MEDIA)

Use NETWORK SETTING to establish and test network connections.  
This is only displayed when a network enabled MEDIA BOARD is connected to the Chihiro.

	<p><b>*<u>This game</u> does not support network communication connections. *</b></p> <p>THIS OPTION IS FOR POSSIBLE FUTURE GAMES ONLY. SELECT EXIT AND GO DIRECTLY TO THE NEXT TEST MODE.</p>
---	--

Set (A) NETWORK TYPE to "NONE".

- (1) Use the SERVICE Button to move the cursor to the desired test item.
- (2) Press the TEST Button to change the setting or to open the detailed settings.
- (3) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.



(A) NETWORK TYPE

Choose a type of the communication network.

NONE: Sets that the communication system does not perform. Sets to NONE when you don't set the network system.

ETHER: Sets ETHER for the communication network.

MOBILE: Sets a mobile communication terminal for the communication network.

ETHER + MOBILE

DEFAULT ETHER: Set ETHER or MOBILE automatically for the communication network. Priority is given to ETHER.

ETHER + MOBILE

DEFAULT MOBILE: Set ETHER or MOBILE automatically for the communication network. Priority is given to MOBILE.

(B) SET IP ADDRESS

This sets up the details of the communication network. Depending on the NETWORK TYPE setting, the contents of setting vary. If setting to NONE, it does not appear.

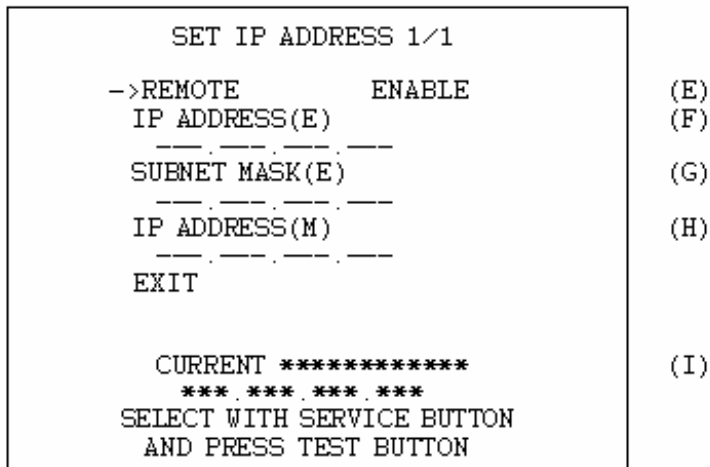
\*ETHER Setting

SET IP ADDRESS 1/1	
->REMOTE           ENABLE	(E)
IP ADDRESS(E)	(F)
____.____.____.____	
SUBNET MASK(E)	(G)
____.____.____.____	
EXIT	
CURRENT *****	(I)
***.***.***.***	
SELECT WITH SERVICE BUTTON	
AND PRESS TEST BUTTON	

\*MOBILE Setting

SET IP ADDRESS 1/1	
->IP ADDRESS(M)	(H)
____.____.____.____	
EXIT	
CURRENT *****	(I)
***.***.***.***	
SELECT WITH SERVICE BUTTON	
AND PRESS TEST BUTTON	

\* ETHER + MOBILE Settings



(1) Use the SERVICE Button to move the cursor to the desired test item.  
(When setting IP ADDRESS or SUBNET MASK, use the underline as a guide.)

(2) Press the TEST Button to change the setting.

(3) Move the cursor to EXIT and press the TEST Button to return to the NETWORK SETTING screen.

(E) REMOTE

This sets up whether a communication setting is automatic or manual.

ENABLE: Sets the communication setting automatically.

DISABLE: Sets the communication setting manually.

(F) IP ADDRESS (E)

This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.

(G) SUBNET MASK (E)

This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.

(H) IP ADDRESS (M)

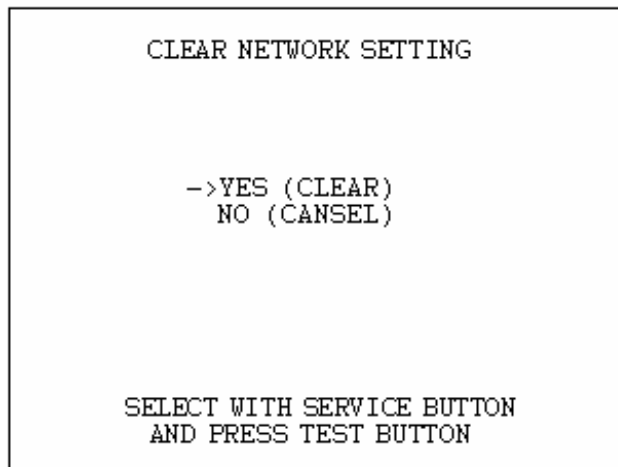
This is one of the settings required for communication network. Set the number according to the Game Soft manual. After setting the number, press TEST Button on SET position to memorize the setting.

(I) CURRENT

This displays the present setting value during a set-up of each item [(F), (G), (H)]. Pressing TEST Button on SET position, the settings are memorized and the screen is changed.

(C) CLEAR NETWORK SETTING

Use this to return all values in the NETWORK SETTING to the default values and turn off network communication.



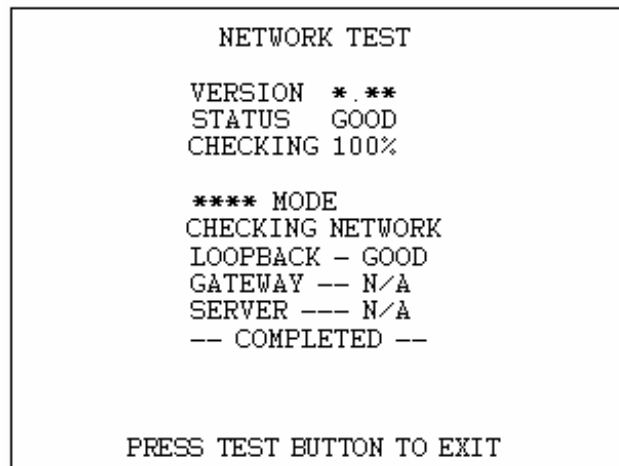
To clear data, use the SERVICE Button to move the cursor to YES (CLEAR) and press the TEST Button. When the data has been cleared, the message "COMPLETED" is displayed.

Press the TEST Button again to return to the NETWORK SETTING main screen.

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

NETWORK TEST


In this test, the checking for the communication network can be performed. Entering this test mode, checking starts immediately.



The display changes to "GOOD" when the checking is finished successfully, and changes to "BAD" when any problem is detected. If the connection is not permitted, the display will change to "N/A".

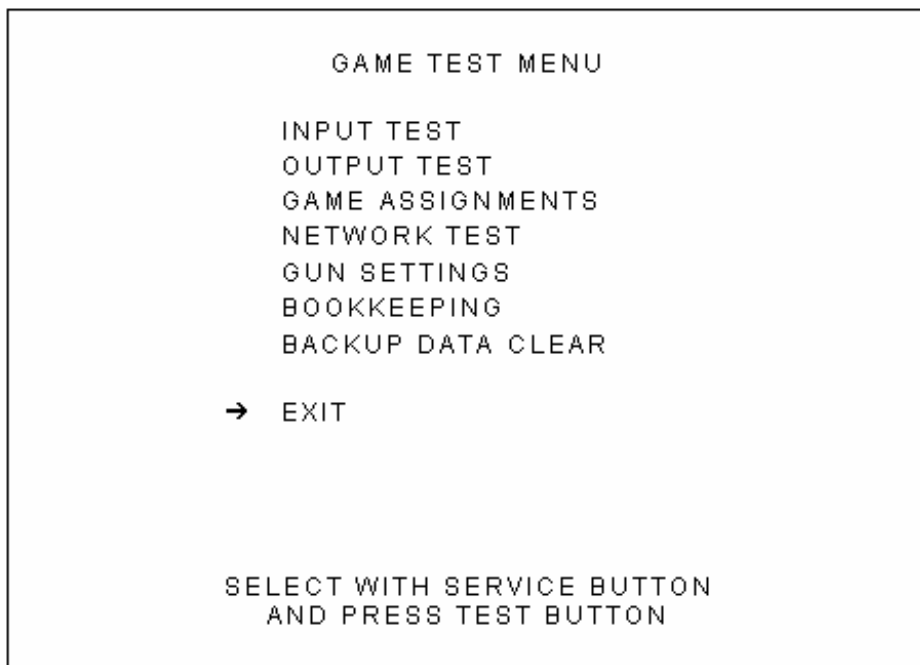
If you perform this test immediately after the setting change, it may not display the correct result. In this case, be sure to turn the power off and on, and enter this test mode again.

## 6.4. GAME TEST MODE

	<ul style="list-style-type: none"><li>• When changing the game configuration, changes will not take effect until the Game Test Mode has been completed. Be sure to exit the Game Test Mode properly after configuration changes.</li><li>• Do not configure the game in ways not described in this text. It is possible that the game will not function properly.</li></ul>
---	---

Select ENTER GAME TEST from the System Menu screen to display the GAME TEST MENU screen as follows.

Use the SERVICE Button to move the cursor to the desired test item.  
Press the TEST Button to enter the selected item's test.



Performs test, adjustments and settings for each of the Game Test Menu screen items below.

- \* INPUT TEST: Tests each input device used in the game.
- \* OUTPUT TEST: Tests each output device used in the game.
- \* GAME ASSIGNMENTS: Adjusts game settings.
- \* GUN SETTING: Performs sight settings for the game's Control Unit (Shotgun).
- \* BOOKKEEPING: View all recorded game data.
- \* BACKUP DATA CLEAR: Erase all game records.

After selecting an item, read the explanations below regarding operation.

After performing tests and adjustments, return to the Game Test Menu screen, select EXIT and press the TEST Button. You will return to the System Menu Screen.

Move the cursor to EXIT on System Menu screen and press the TEST Button to return to the Game Play screen.



### 6.4.1. INPUT TEST

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

INPUT TEST		
	PLAYER1	PLAYER2
START	OFF	OFF
TRIGGER	OFF	OFF
GRIP	OFF	OFF
GUN-X	00	00
GUN-Y	00	00
SCREEN-IN	OUT	OUT
SERVICE	OFF	
TEST	OFF	

PRESS TEST BUTTON TO EXIT

The items refer to the following input devices.

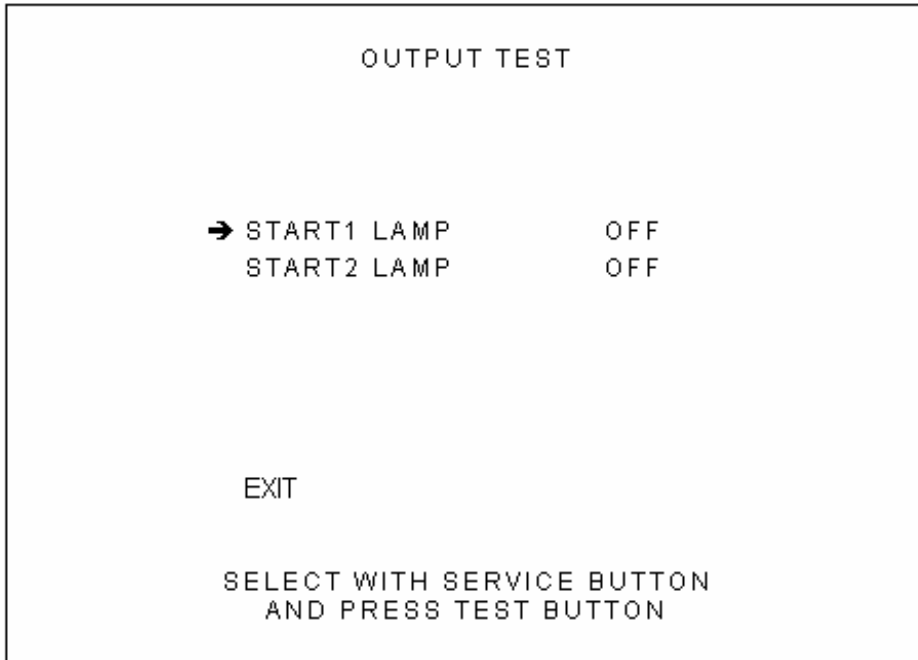
- \* START: The player START Buttons.
- \* TRIGGER: The gun triggers.
- \* GRIP: The gun grips.
- \* GUN-X: The X-direction (horizontal) sight position for the guns.
- \* GUN-Y: The Y-direction (vertical) sight position for the guns.
- \* SCREEN-IN: Detection of the gun sight sensors.
- \* SERVICE: The SERVICE Button.
- \* TEST: The TEST Button.

- \* Input is normal if the display to the right of each item changes from OFF to ON when each input device is operated.
- \* Input is normal if the display to the right of SCREEN-IN changes from OUT to IN when the shotgun is pointed at the screen.
- \* Input is normal if the display values to the right of GUN-X and GUN-Y change according to the movement of the guns when they are pointed at the screen and moved.

Press the SERVICE and TEST Buttons simultaneously to return to the Game Test Menu screen.

## 6.4.2. OUTPUT TEST

Select OUTPUT TEST to display the following screen and check the status of each lamp. This test should be used periodically to check that the lamps are functioning correctly.



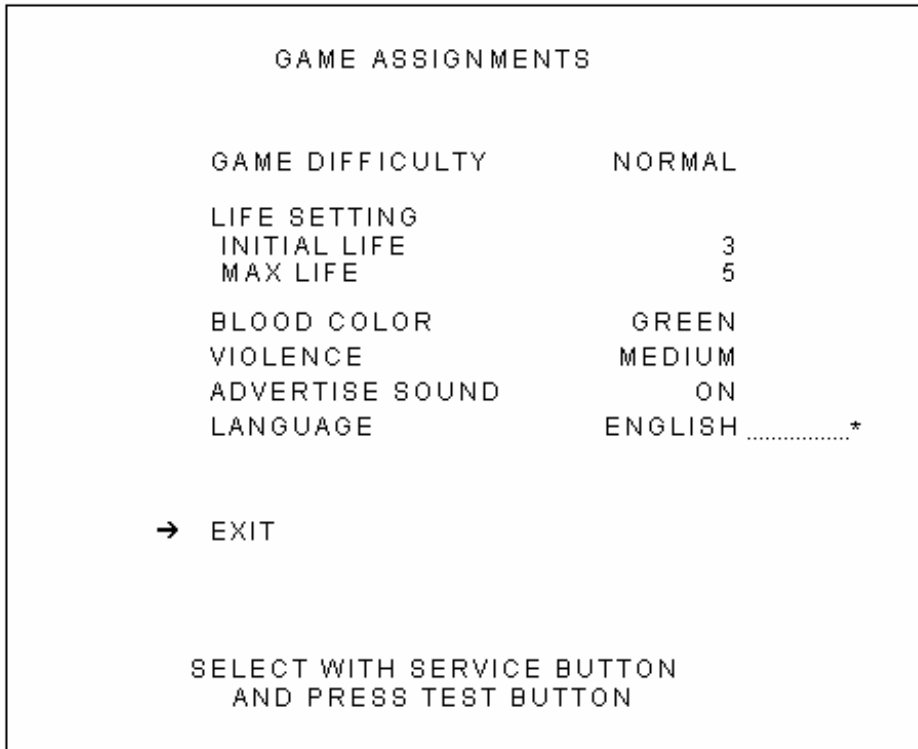
Perform the tests as follows.

- \* **START1 LAMP:** Select START1 LAMP and press the TEST Button or START Button 1. The display to the right of the item will change to ON and START Button 1 will flash.
- \* **START2 LAMP:** Select START2 LAMP and press the TEST Button or START Button 2. The display to the right of the item will change to ON and START Button 2 will flash.

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

### 6.4.3. GAME ASSIGNMENTS

Select GAME ASSIGNMENTS to display the current game settings and make changes.



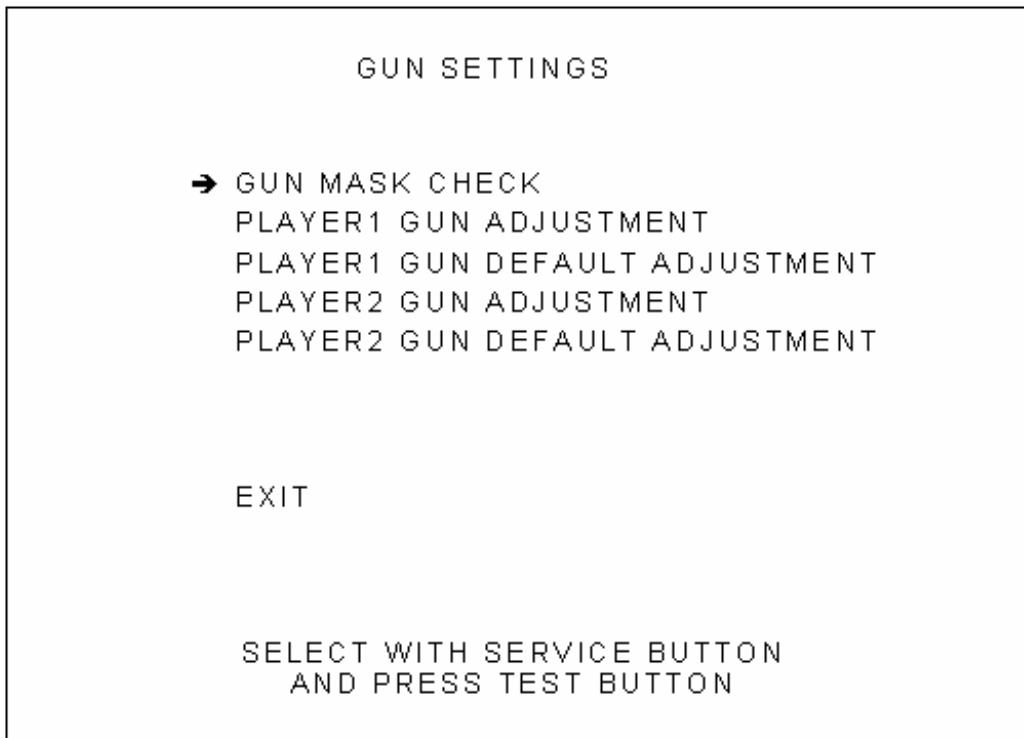
Perform the following settings for each item.

- \* GAME DIFFICULTY: Set the level of difficulty to one of five levels - VERY EASY→MEDIUM EASY→NORMAL→MEDIUM HARD→VERY HARD.
- \* LIFE SETTING INITIAL LIFE: Set from one to nine. It is not possible to set this above MAX LIFE.
- \* LIFE SETTING MAX LIFE: Set from one to nine.
- \* BLOOD COLOUR: You can set the colour of blood to one of two settings - RED or GREEN.
- \* VIOLENCE: You can set the level of damage for the enemies to one of three settings - GRATUITOUS, MEDIUM or MILD.
- \* ADVERTISE SOUND: You can set the 'advertise' sound to ON or OFF.
- \* LANGUAGE \*(Only displayed for overseas versions outside of the United States.): The selections are ENGLISH, FRENCH, ITALIAN, SPANISH and GERMAN. The subtitles and displays that appear during the game will change to the selected language.  
Changes to settings are not enabled until Test Mode is exited. After changing settings, be sure to exit Test Mode.

After changing the settings, select EXIT and press the TEST Button to return to the Game Test Menu screen.

#### 6.4.4. GUN SETTING

Select GUN SETTING to display the following screen.  
Perform the sight settings for the shotguns to be used in the game.



Details for each item are as follows.

- \* GUN MARK CHECK: Checks the gun sights. Will check 1P and 2P guns at the same time.
- \* PLAYER1 GUN ADJUSTMENT: Adjusts the sight for the Player 1 side.
- \* PLAYER1 GUN DEFAULT ADJUSTMENT: Adjust the default sight settings for the Player 1 side.
- \* PLAYER2 GUN ADJUSTMENT: Adjust the sight for the Player 2 side. (Operated in the same way as PLAYER1 GUN ADJUSTMENT.)
- \* PLAYER2 GUN DEFAULT ADJUSTMENT: Adjust the default sight settings for the Player 2 side. (Operated in the same way as PLAYER1 GUN DEFAULT ADJUSTMENT.)

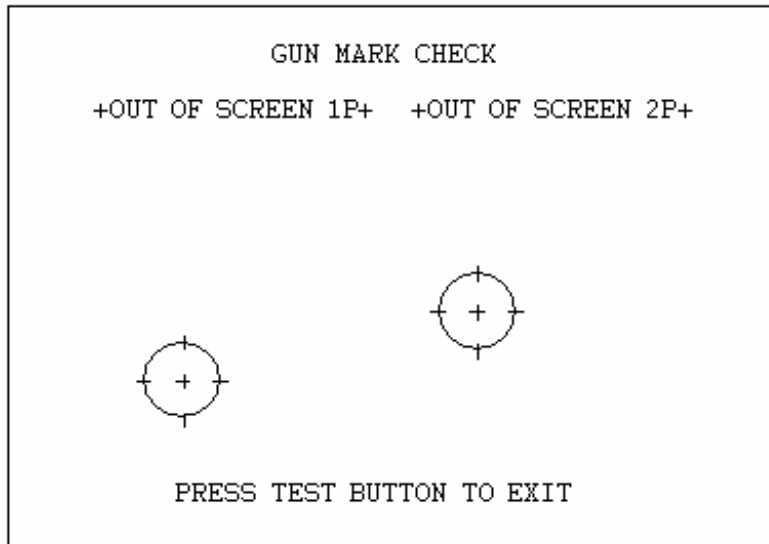
Changes to settings are not enabled until the Test Mode is exited. After changing settings, be sure to exit Test Mode.

After changing the settings, select EXIT and press the TEST Button to return to the Game Test Menu screen.

### 6.4.4.1. GUN MARK CHECK

This item checks gun sights.

Select GUN MARK CHECK on the Gun Setting screen and press the TEST Button.



- \* (1P Gun cross)  
This is displayed when the gun is pointed at the screen. 1P is red.
- \* (2P Gun cross)  
This is displayed when the gun is pointed at the screen. 2P is blue.
- \* "OUT OF SCREEN" is displayed when the gun cross is perceived to be out of screen.

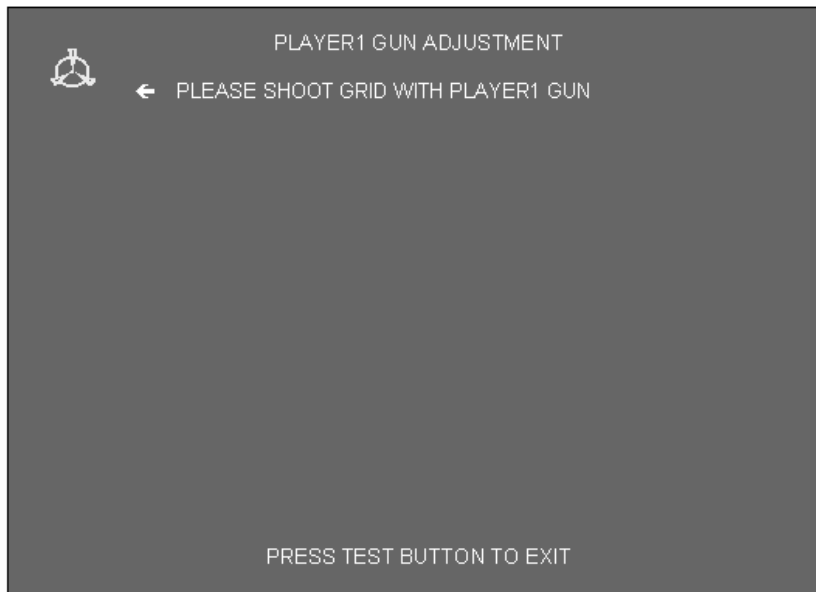
Pointing the gun at the screen displays the gun cross (sight) for that gun. You can check to see if the sight lines up properly at this screen.

Press the TEST Button when everything has been checked. You will return to the Gun Setting screen.

#### 6.4.4.2. PLAYER1 GUN ADJUSTMENT/PLAYER2 GUN ADJUSTMENT

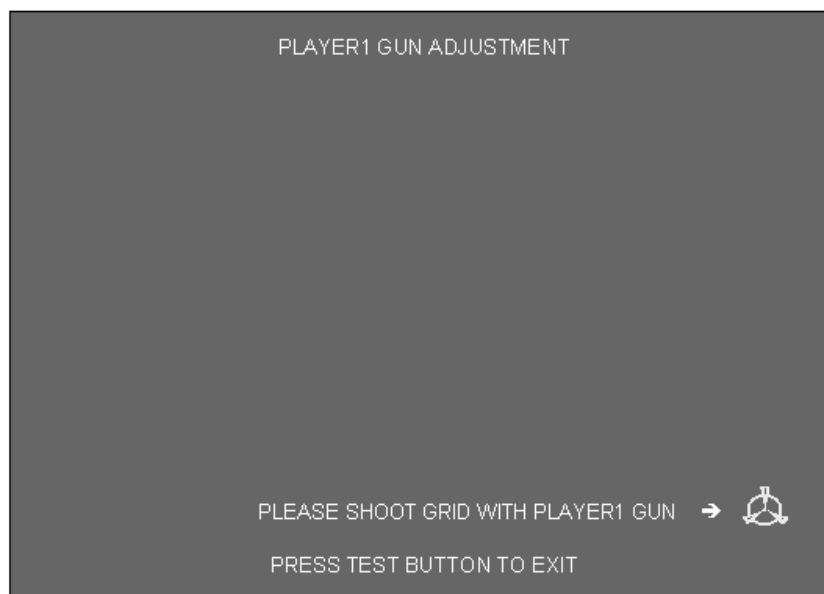
This item adjusts the Player 1 gun sight.  
(This is the same for "PLAYER2 GUN ADJUSTMENT".)

- (1) Select PLAYER1 GUN ADJUSTMENT on the Gun Setting screen and press the TEST Button.



- (2) Follow the on-screen instructions to adjust the gun sight settings. Aim at the mark in the upper left corner and fire. The mark in the upper left will disappear, and the same mark will be displayed in the lower right corner.

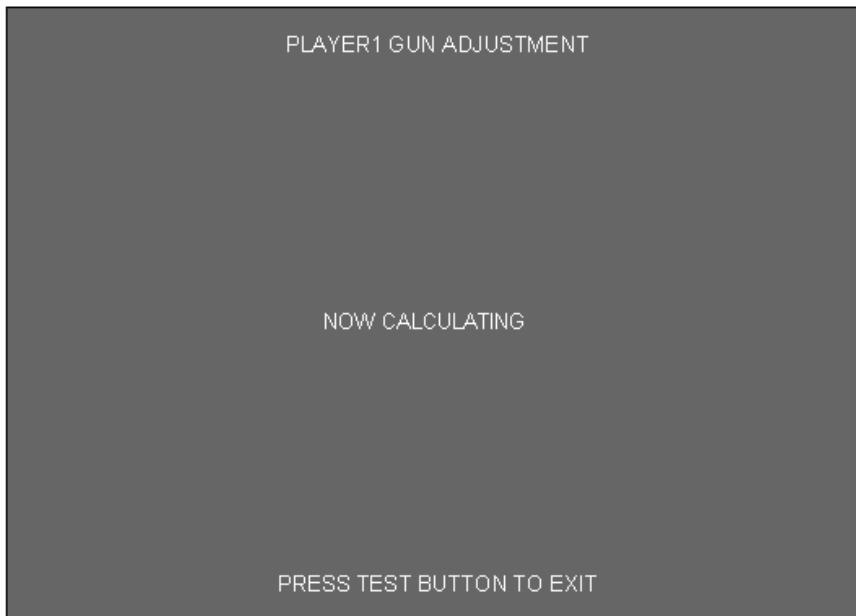
(If the TEST Button is pressed, settings will be cancelled and will return to the Gun Setting screen.)



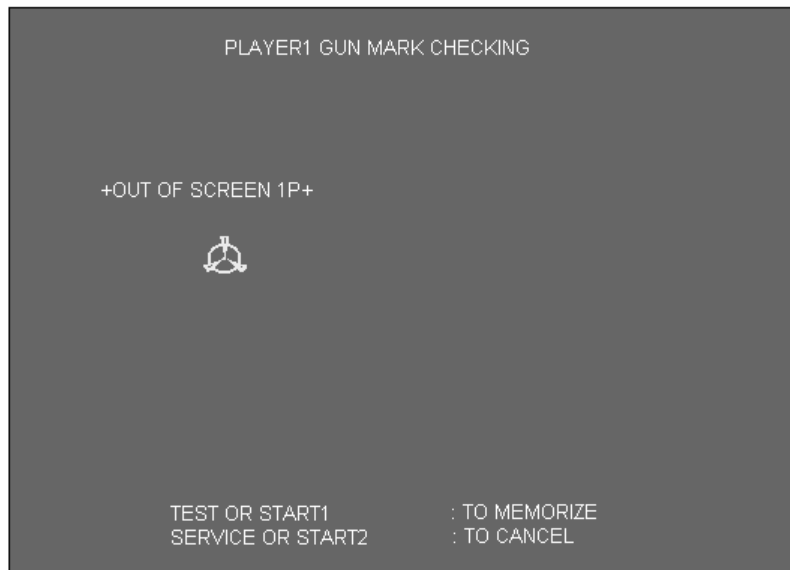
- (3) Aim and fire at the mark to the lower right. The mark to the lower right will disappear, and the same mark will be displayed in the centre.  
) (If the TEST Button is pressed, settings will be cancelled and will return to the Gun Setting screen.)



- (4) Aim and fire at the mark in the centre. "NOW CALCULATING" will be displayed in the centre.  
(If the TEST Button is pressed, settings will be cancelled and will return to the Gun Setting screen.)



(5) The screen will automatically switch to the following.



\* "OUT OF SCREEN" is displayed when the gun cross is perceived to be out of screen.

(6) The gun cross is displayed in the centre. Confirm that you can aim accurately within the frame, from edge to edge.

\* When a sight is out of alignment, press the SERVICE Button or the 2P Start Button and readjust the settings. You will return to the Gun Setting screen.

\* If the sights are aligned, press the TEST Button or the 1P Start Button to record the sight settings.

Refer to the following procedure when adjusting the sights.

\* Line up the concave sight nearest you on the gun so that it is at the height of the horizontal line of the "+" mark.

\* Line up the convex sight at the tip of the gun so that it also lines up with the horizontal line.

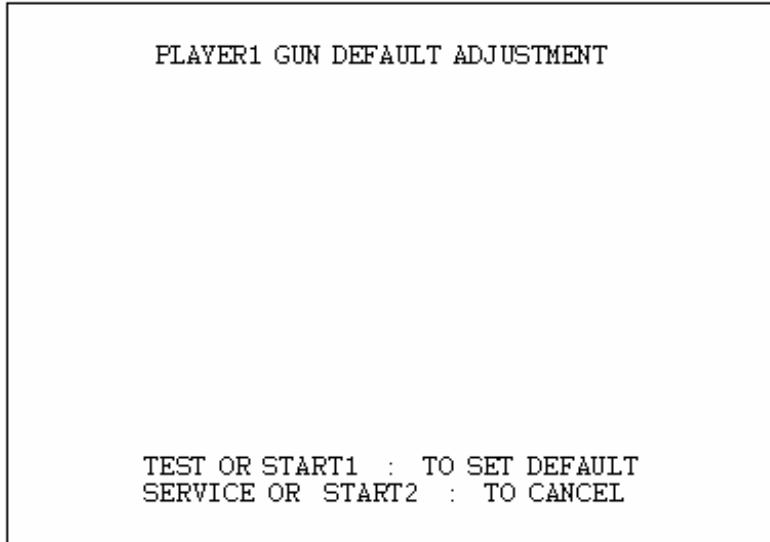
\* Line up the centres of the tops of the concave and convex sights with the centre of the "+" and fire.



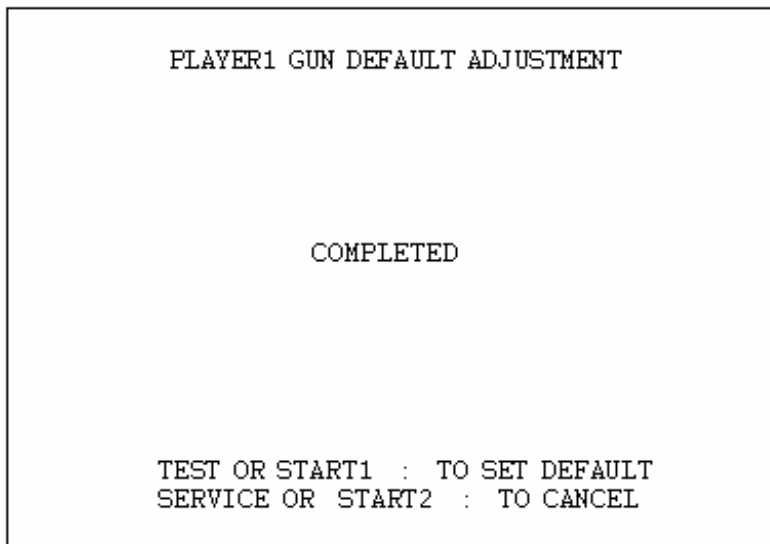
### 6.4.4.3.      **PLAYER1 GUN DEFAULT ADJUSTMENT/PLAYER2 GUN DEFAULT ADJUSTMENT**

This item adjusts the sight settings to those at the time of shipment.  
(This is the same for "PLAYER2 GUN DEFAULT ADJUSTMENT".)

Select PLAYER1 GUN DEFAULT ADJUSTMENT on the Gun Setting screen and press the TEST Button.



Press the TEST Button or the Player 1 Start Button to adjust the sights to the previously established default value. Press the SERVICE Button or the Player 2 Start Button to cancel.



"COMPLETED" will be displayed when the adjustments are completed.

### 6.4.5. BOOKKEEPING

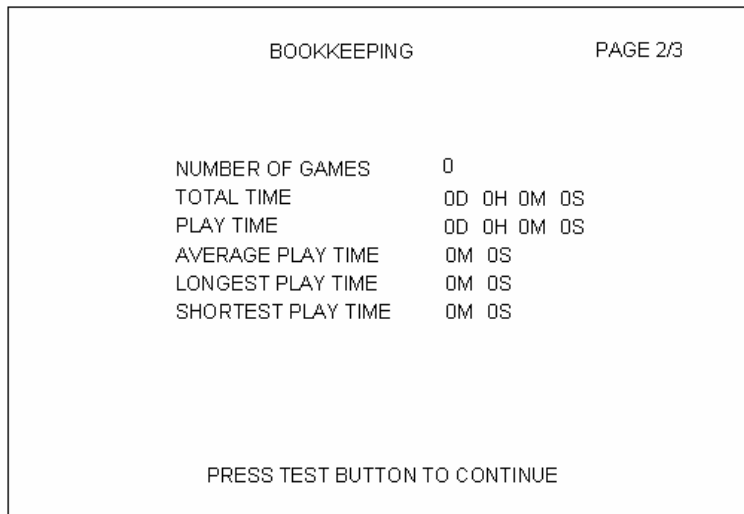
Select BOOKKEEPING on the Game Test Menu screen to display the three screens of operating status data.

BOOKKEEPING		PAGE 1/3
COINS1	0	
COINS2	0	
TOTAL COINS	0	
COIN CREDITS	0	
SERVICE CREDITS	0	
TOTAL CREDITS	0	
PRESS TEST BUTTON TO CONTINUE		

The display items for the screen (Page 1 of 3) are as follows.

- \* COIN 1:               The number of coins inserted into Coin Slot 1.
- \* COIN 2:               The number of coins inserted into Coin Slot 2.
- \* TOTAL COINS:        The total number of coins inserted into the coin slots.
- \* COIN CREDITS:        The number of credits for the coins inserted.
- \* SERVICE CREDITS:    The number of credits input by the Service Button.
- \* TOTAL CREDITS:     The total number of all credits.

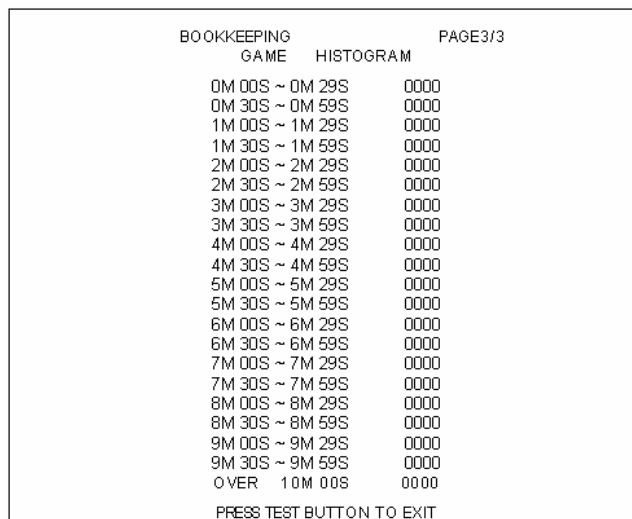
Press the TEST Button to display the next screen.



The display items for the screen (Page 2 of 3) are as follows.

- \* NUMBER OF GAMES: The total number of games played by 1P and 2P.
- \* TOTAL TIME: The amount of time the unit has been in operation.
- \* PLAY TIME: The amount of time the game has been played.
- \* AVERAGE PLAY TIME: The average play time for one game.
- \* LONGEST PLAY TIME: The longest play time for one game.
- \* SHORTEST PLAY TIME: The shortest play time for one game.

Press the TEST Button to display the next screen.

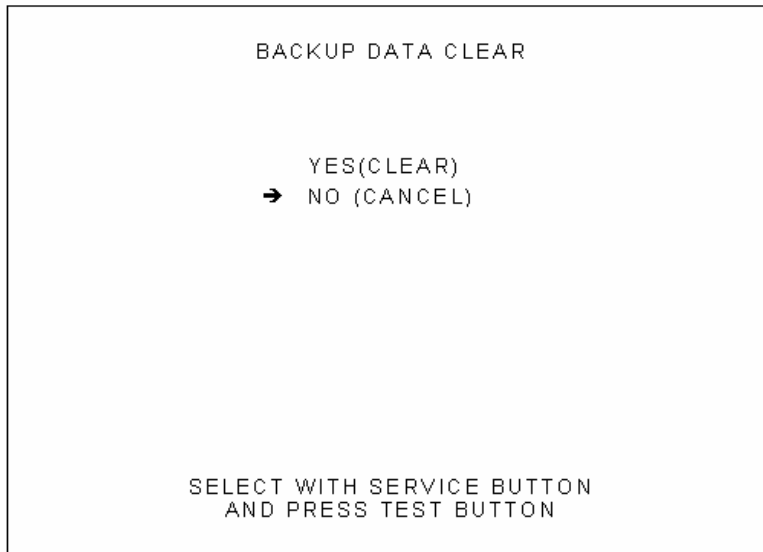


This displays play times on a scale from 0M00S to 9M59S with 30-second intervals. All play times over ten minutes are included in the item OVER 10M00S.

Press the TEST Button after viewing. You will return to the Game Test Menu screen.

#### 6.4.6. BACKUP DATA CLEAR

Select BACKUP DATA CLEAR to clear the contents of BOOKKEEPING and Score Data.



BACKUP DATA CLEAR Screen

To clear data, use the SERVICE Button to move the cursor to YES (CLEAR) and then press the TEST Button.

When the data has been cleared, the message "COMPLETED" will be displayed.

Press the TEST Button again to return to the Game Test Menu screen.

Move the cursor to NO (CANCEL) and press the TEST Button to return to the Game Test Menu screen without clearing the data.

Note that this operation does not affect the settings of the GAME ASSIGNMENTS and the GUN ADJUSTMENT.

Using the BACKUP DATA CLEAR function from this screen will not affect coin/credit data. To clear coin/credit data, use the BACKUP DATA CLEAR function in SYSTEM TEST MODE.

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

### 7.1. INTRODUCTION

Game credits between the Coin Mechanism and the game board for this machine are controlled by a *VTS* 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.

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 *VTS* board pictured below is mounted in the Coin Chute Tower.

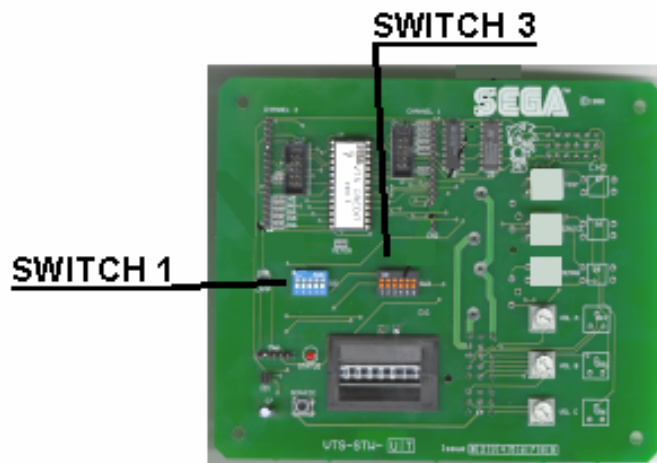
The *VTS* board is connected to the coin validator and lamps via a dedicated wiring harness depending upon the coin validator used:

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 *VTS* board should be then be set up for either the UK or Switzerland settings. A minimum connecting lead length of 600mm is required.
2. Mechanical coin mechanisms may be connected in parallel allowing two identical mechanisms to be fitted.

The *VTS* Board



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

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

- Set SW 1 according to the option settings found in the relevant Price of Play Settings Table on the following pages.
- For Germany (DM), France (Fr) & Switzerland (SFr), use the appropriate existing setting shown above (from another country) that matches the coin ratios programmed into your coin mech.
- Set SW 3 on the VTS/Excel board as shown in the table above corresponding to the country required.

### 7.1.1. 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			<b>ON</b>	OFF	OFF	OFF	OFF
3	20p	No Bonus			OFF	<b>ON</b>	OFF	OFF	OFF
4	20p	3 = 50p	6 = £1	12 =£2	<b>ON</b>	<b>ON</b>	OFF	OFF	OFF
5	30p	No Bonus			OFF	OFF	<b>ON</b>	OFF	OFF
6	30p	1.66 = 50p	4 = £1	8 = £2	<b>ON</b>	OFF	<b>ON</b>	OFF	OFF
7	30p	2 = 50p	4 = £1		OFF	<b>ON</b>	<b>ON</b>	OFF	OFF
8	30p	AMLD *	3 = £1	6 = £2	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF	OFF
9	40p	No Bonus			OFF	OFF	OFF	<b>ON</b>	OFF
10	40p	1.25 = 50p	3 = £1	6 = £2	<b>ON</b>	OFF	OFF	<b>ON</b>	OFF
11	50p	No Bonus			OFF	<b>ON</b>	OFF	<b>ON</b>	OFF
12	50p		3 = £1	6 = £2	<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>	OFF
13	50p		2 = £1	5 = £2	OFF	OFF	<b>ON</b>	<b>ON</b>	OFF
14	60p	No Bonus			<b>ON</b>	OFF	<b>ON</b>	<b>ON</b>	OFF
15	60p		2 = £1	4 = £2	OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF
16	80p	No Bonus			<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF
17	80p	1.25 = £1	2 = £1.50	2.5 = £2	OFF	OFF	OFF	OFF	<b>ON</b>
18	£1	No Bonus			<b>ON</b>	OFF	OFF	OFF	<b>ON</b>
19	£1		3 = £2		OFF	<b>ON</b>	OFF	OFF	<b>ON</b>
20	£1		2 = £2	5 = £4	<b>ON</b>	<b>ON</b>	OFF	OFF	<b>ON</b>
21	£1.50	No Bonus			OFF	OFF	<b>ON</b>	OFF	<b>ON</b>
22	£1.50		2 = £2		<b>ON</b>	<b>OFF</b>	<b>ON</b>	OFF	<b>ON</b>
23	£2	No Bonus			OFF	<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>
24	£2			3 = £5	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>
25	£3	No Bonus			OFF	OFF	OFF	<b>ON</b>	<b>ON</b>
26	£3			2 = £5	<b>ON</b>	OFF	OFF	<b>ON</b>	<b>ON</b>
27	£5	No Bonus			OFF	<b>ON</b>	OFF	<b>ON</b>	<b>ON</b>
28	£5			3 = £10	<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>	<b>ON</b>
29	£7.50	No Bonus			OFF	OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>
30	£7.50			2 = £10	<b>ON</b>	OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>
31	£10	No Bonus			OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>
32	Free Play				<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>

### 7.1.2. 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¢			<b>ON</b>	OFF	OFF	OFF	OFF
3	20¢	No Bonus			OFF	<b>ON</b>	OFF	OFF	OFF
4	20¢	3 = 50¢	6 = €1	12 = €2	<b>ON</b>	<b>ON</b>	OFF	OFF	OFF
5	30¢	No Bonus			OFF	OFF	<b>ON</b>	OFF	OFF
6	30¢	1.66 = 50¢	4 = €1	8 = €2	<b>ON</b>	OFF	<b>ON</b>	OFF	OFF
7	30¢	2 = 50¢	4 = €1		OFF	<b>ON</b>	<b>ON</b>	OFF	OFF
8	30¢	AMLD *	3 = €1	6 = €2	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF	OFF
9	40¢	No Bonus			OFF	OFF	OFF	<b>ON</b>	OFF
10	40¢	1.25 = 50¢	3 = €1	6 = €2	<b>ON</b>	OFF	OFF	<b>ON</b>	OFF
11	50¢	No Bonus			OFF	<b>ON</b>	OFF	<b>ON</b>	OFF
12	50¢		3 = €1	6 = €2	<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>	OFF
13	50¢		2 = €1	5 = €2	OFF	OFF	<b>ON</b>	<b>ON</b>	OFF
14	60¢	No Bonus			<b>ON</b>	OFF	<b>ON</b>	<b>ON</b>	OFF
15	60¢		2 = €1	4 = €2	OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF
16	80¢	No Bonus			<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF
17	80¢	1.25 = £1	2 = €1.50	2.5 = €2	OFF	OFF	OFF	OFF	<b>ON</b>
18	€1	No Bonus			<b>ON</b>	OFF	OFF	OFF	<b>ON</b>
19	€1		3 = €2		OFF	<b>ON</b>	OFF	OFF	<b>ON</b>
20	€1		2 = €2	5 = €4	<b>ON</b>	<b>ON</b>	OFF	OFF	<b>ON</b>
21	€1.50	No Bonus			OFF	OFF	<b>ON</b>	OFF	<b>ON</b>
22	€1.50		2 = €2		<b>ON</b>	OFF	<b>ON</b>	OFF	<b>ON</b>
23	€2	No Bonus			OFF	<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>
24	€2			3 = €5	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>
25	€3	No Bonus			OFF	OFF	OFF	<b>ON</b>	<b>ON</b>
26	€3			2 = €5	<b>ON</b>	OFF	OFF	<b>ON</b>	<b>ON</b>
27	€5	No Bonus			OFF	<b>ON</b>	OFF	<b>ON</b>	<b>ON</b>
28	€5			3 = €10	<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>	<b>ON</b>
29	€7.50	No Bonus			OFF	OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>
30	€7.50			2 = €10	<b>ON</b>	OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>
31	€10	No Bonus			OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>
32	Free Play				<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>



7.1.3. PRICE OF PLAY SETTINGS Austria-Czech-Denmark-Norway-Israel-France2

	Price	Bonus			Switch 1				
					Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
1	1	No Bonus			OFF	OFF	OFF	OFF	OFF
2	1			11 = 10	<b>ON</b>	OFF	OFF	OFF	OFF
3	1		6 = 5		OFF	<b>ON</b>	OFF	OFF	OFF
4	2	No Bonus			<b>ON</b>	<b>ON</b>	OFF	OFF	OFF
5	2			6 = 10	OFF	OFF	<b>ON</b>	OFF	OFF
6	2		3 = 5		<b>ON</b>	OFF	<b>ON</b>	OFF	OFF
7	3	No Bonus			OFF	<b>ON</b>	<b>ON</b>	OFF	OFF
8	3			4 = 10	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF	OFF
9	3		2 = 5		OFF	OFF	OFF	<b>ON</b>	OFF
10	4	No Bonus			<b>ON</b>	OFF	OFF	<b>ON</b>	OFF
11	4		3 = 10		OFF	<b>ON</b>	OFF	<b>ON</b>	OFF
12	5	No Bonus			<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>	OFF
13	5			3 = 10	OFF	OFF	<b>ON</b>	<b>ON</b>	OFF
14	6	No Bonus			<b>ON</b>	OFF	<b>ON</b>	<b>ON</b>	OFF
15	6			4 = 20	OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF
16	8	No Bonus			<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF
17	10	No Bonus			OFF	OFF	OFF	OFF	<b>ON</b>
18	10			3 = 20	<b>ON</b>	OFF	OFF	OFF	<b>ON</b>
19	20	No Bonus			OFF	<b>ON</b>	OFF	OFF	<b>ON</b>
20	20			3 = 50	<b>ON</b>	<b>ON</b>	OFF	OFF	<b>ON</b>
21	30	No Bonus			OFF	OFF	<b>ON</b>	OFF	<b>ON</b>
22	30			2 = 50	<b>ON</b>	OFF	<b>ON</b>	OFF	<b>ON</b>
23	50	No Bonus			OFF	<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>
24	50			3 = 100	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>
32	Free Play				<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>

## 8. DESIGN RELATED PARTS

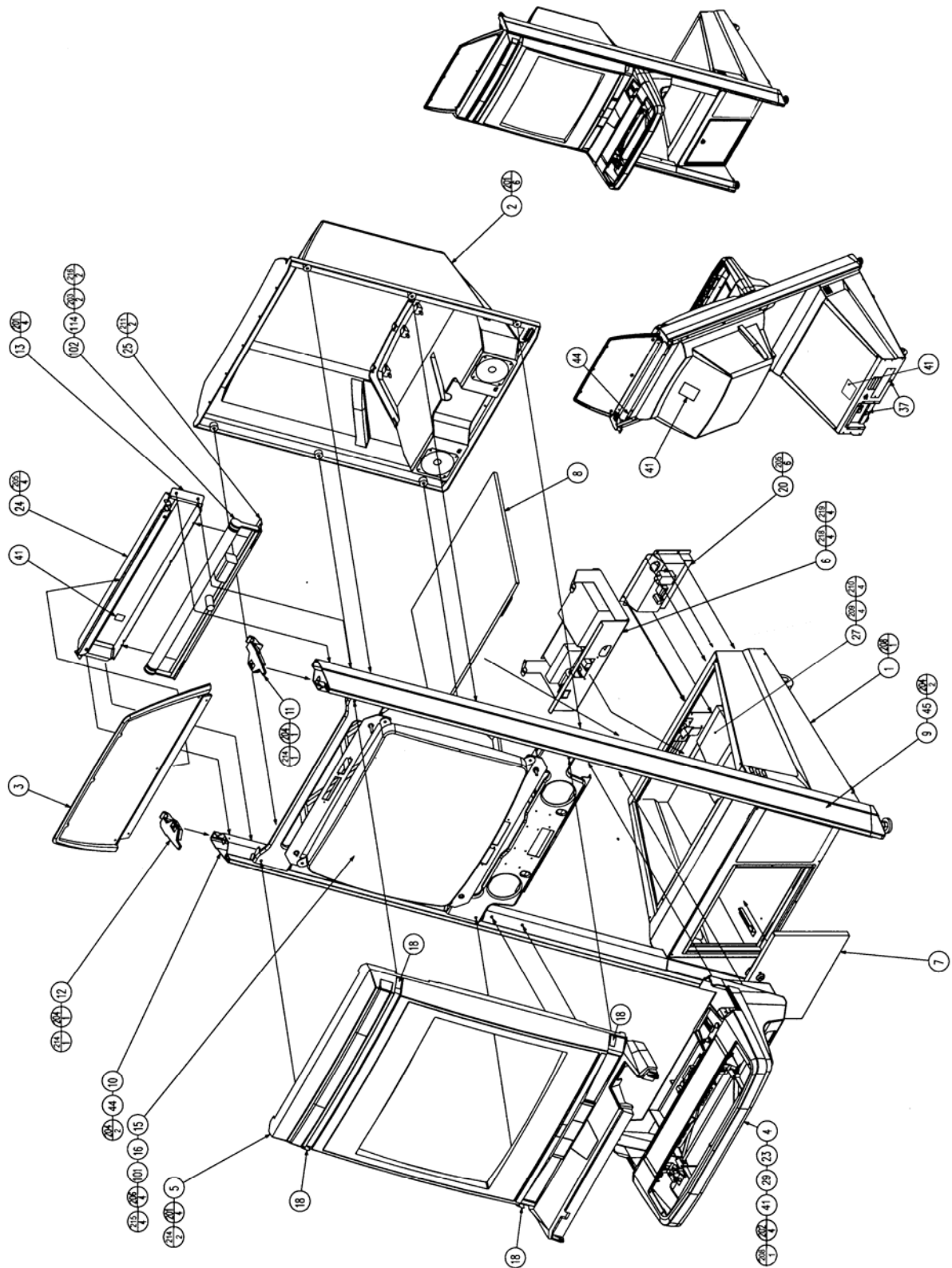
For the Warning stickers refer to Section 1.



No.	PART No.	DESCRIPTION
1	HDT-3001UK	BILLBOARD PLATE U/R
2	HDT-3002UK	STICKER SIDE COVER L
3	HDT-3003UK	STICKER SIDE COVER R
4	HDT-3004UK	PANEL INSTRUCTION SPACE
5	HDT-3005UK	STICKER CONTROL PANEL NOB
6	HDT-3011UK	STICKER SERVICE DOOR
7	HDT-3013UK	STICKER CONTROL PANEL CCT
8	HDT-2187UK	STICKER HOLSTER SIDE
9	HDT-2187UK	STICKER HOLSTER SIDE
10	HDT-3018UK	STICKER CASH DOOR
11	HDT-5002UK	FLOOR PLATE ARTWORK

## 9. PARTS LIST

### 9.1. HDT-10002UK ASSY CABINET HDT U/R

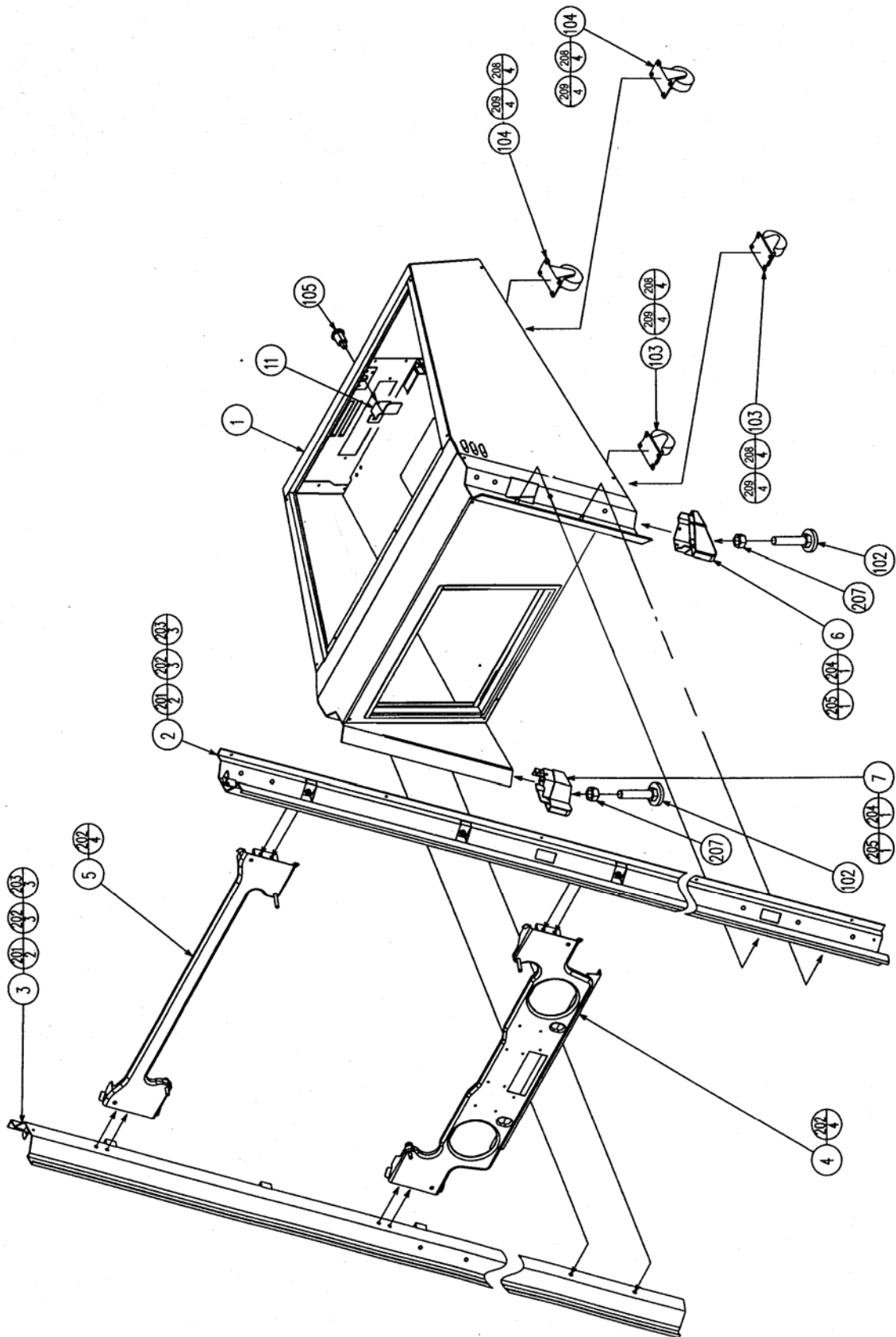


Item	Component Part	Qty.	Description	Component Reference
1	HDT-11002UK	1	ASSY FRAMEWORK HDT U/R	
2	NOA-1200UK	1	ASSY CRT COVER UK	
3	NOA-1300	1	ASSY BILLBOARD	
4	HDT-1400UK	1	ASSY CONTROL BOX HDT U/R	
5	HDT-1500UK	1	ASSY FRONT PANEL HDT U/R FST	
6	HDT-4050UK	1	ASSY ELEC	
7	PTR-1750UK	1	ASSY SERVICE DOOR (BLACK)	
8	PTR-1801UK	1	REAR HATCH (BLACK)	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	PTR-1005UK	1	REAR COVER UPPER BLACK	
15	280-6617	4	BUSH FOR TV LONG	
16	280-5113	4	COLLAR FOR NANA0 MONITOR	(101)-4
18	CSM-1006UK	4	SCR CAP	
20	RTS-1710UK	1	ASSY AC UNIT (BLACK)	
23	NOA-1009	2	WSHR PLATE	(4)-2
24	RTS-1010UK	1	BILLBD HOLDER	
25	NOA-1011	1	FL BRKT	
27	HDT-4100UK	1	ASSY XFMR	
29	NOB-1117UK	1	WATER GUARD CE	
37	421-7020UK	2	STICKER CAUTION FORK	AT BACK OF BASE BOX
41	LB1102	5	STICKER DANGEROUS VOLTAGE	LID, LEFT OF DOOR, CRT, FL, CP
42	LB1104	1	STICKER CAUTION, HOT SURFACE	FL COVER
44	HDT-3002UK	1	STICKER SIDE COVER L	
45	HDT-3003UK	1	STICKER SIDE COVER R	
51	HDT-3011UK	1	STICKER SERVICE DOOR	
52	HDT-3018UK	1	STICKER CASH DOOR	
101	200-5949	1	ASSY CLR DSPL 29 TYPE 31K UK	
102	390-5695-40-CUK	1	FL TRAY 110V 40W (T12)	
114	390-5695-40-DUK	1	FL TUBE 40W 600L 1.5"DIA	
116	280-A02048-PM	5	ROUTER TWIST D20 SO4.8 PAN LG	
117	280-A02000-A	4	ROUTER TWIST D20 ADH	
118	280-A01248-PM	12	ROUTER TWIST D12 SO4.8 PAN MED	
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	(29)-10
201	008-T00625-OC	14	M6X25 TMP PRF TH CRM	(2)-6,(5)-4,(13)-4
202	030-000620-S	4	M6X20 BLT W/S PAS	(4)-4
203	000-P00408	2	M4X8 MSCR PAN PAS	FL TUBE CLIPS - 2

CONTINUED ON NEXT PAGE

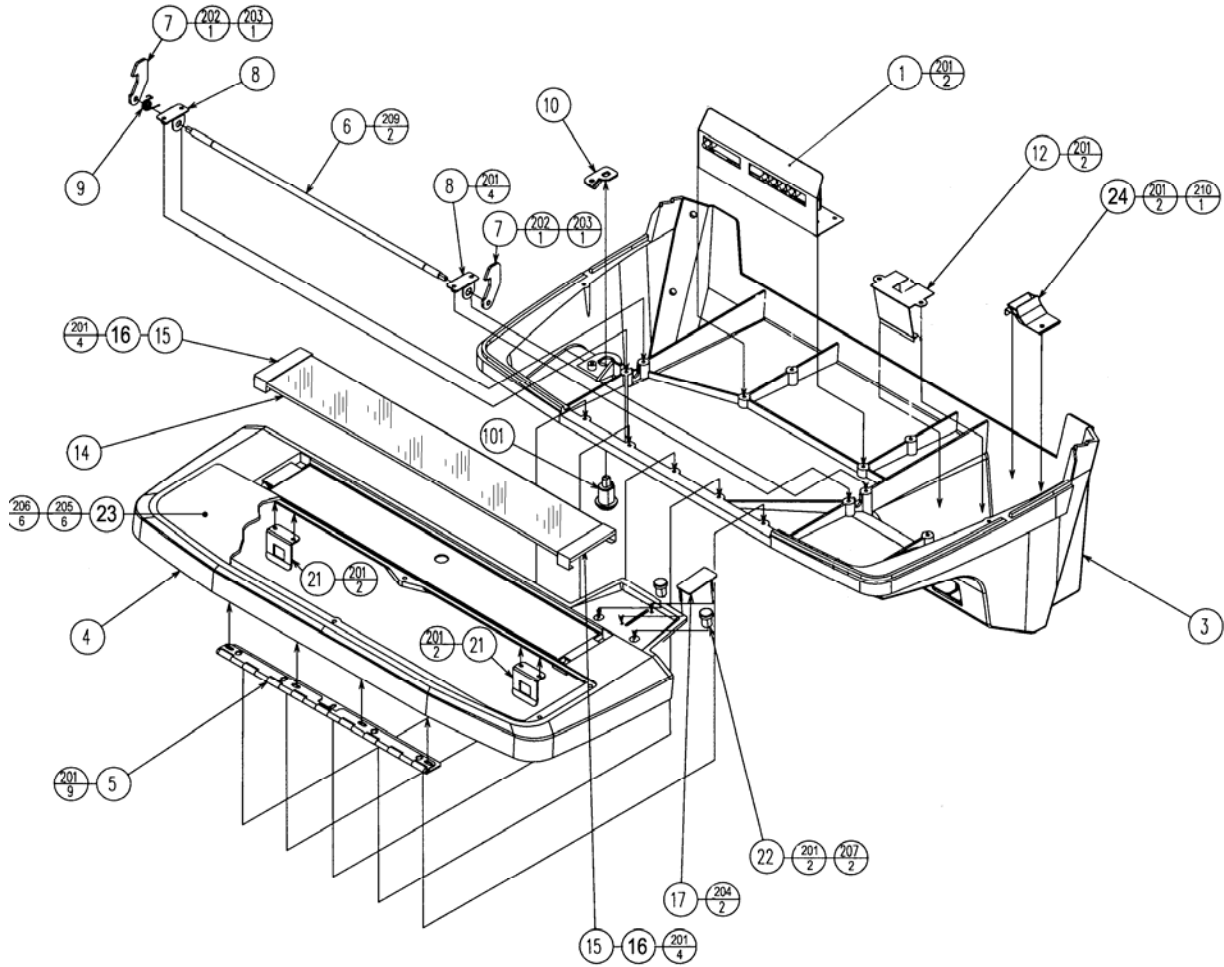
CONTINUED FROM PREVIOUS PAGE				
ITEM	PART No.	QTY	DESCRIPTION	COMPONENT REF.
204	008-T00412-0C	6	M4X12 TMP PRF TH CRM	(9,10)-2, (11,12)-1
205	008-T00412-0B	10	M4X12 TMP PRF TH BLK	(20)-6, (24)-4
206	050-F00600	4	M6 NUT FLG SER PAS	(101)-4
208	008-T00430-0B	2	M4X30 TMP PRF TH BLK	TNG STOPPER CP & REAR LID
209	030-000630-S	4	M6X30 BLT W/S PAS	(27)-4
210	068-651616	4	M6 WSHR 16OD FLT PAS	(27)-4
211	000-P00408-W	6	M4X8 MSCR PAN W/FS PAS	(25)-2,EARTHS-4
214	000-P00416-W	4	M4X16 MSCR PAN W/FS PAS	(5)-2,(11)-1,(12)-1
215	068-652516	4	M6 WSHR 25OD FLT PAS	(101)-4
216	050-F00400	4	M4 NUT FLG SER PAS	(102)-2,EARTHS-2
217	050-F00500	3	M5 NUT FLG SER PAS	FRAME EARTHS - 3
218	010-P00408	4	M4X8 S-TITE PAN PAS	(6)-4
219	060-F00400	4	M4 WSHR FORM A FLT PAS	(6)-4
301	HDT-6001UK	1	ASSY WIRE L HDT U/R	
302	NOB-60041UK	1	WIRE HARN AC EXT UK	
303	NOA-60025	1	WIRE HARN SPEAKER R	
311	600-7159-070	1	WIRE HARN JVS PWR 070CM	
319	600-9010-44K	1	WIRE HARN EARTH 100mm M4/M4	BOARD HOLDER TO FL BASE
320	NOB-60201UK	1	WIRE HARN FL NOB	
321	600-9070-45K	1	WIRE HARN EARTH 700mm M4/M5 K	BASE LID TO BASE
322	600-9080-45K	1	WIRE HARN EARTH 800mm M4/M5 K	BASE TO RH FRAME (BOTTOM)
323	600-9025-56U	1	WIRE HARN EARTH 250mm M5/M6	MON CHASSIS TO RH FRAME TEMP
324	600-9055-45K	1	WIRE HARN EARTH 550mm M4/M5 K	BASE TO LH FRAME BOTTOM

9.2. HDT-11002UK ASSY FRAMEWORK HDT U/R



Item	Component Part	Qty.	Description	Component Reference
1	HDT-1601UK	1	BASE BOX BLACK	
2	PTR-1101UK	1	MAIN FRAME UR R	
3	PTR-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	
11	NOA-1115UK	1	TNG REAR HATCH	
102	601-5699X	2	LEG ADJUSTER BOLT M16x75 SEGA	
103	601-10461UK	2	CASTOR 50 SWIVEL	FRONT
104	601-10462UK	2	CASTOR 50 FIXED	REAR
105	220-5575UK	1	LOCK	
201	050-F00600	4	M6 NUT FLG SER PAS	(2)-2,(3)-2
202	030-000620-S	14	M6X20 BLT W/S PAS	(2,3)-3,(4,5)-4
203	068-652016	6	M6 WSHR 20OD FLT PAS	(2)-3,(3)-3
204	050-F00500	2	M5 NUT FLG SER PAS	(6)-1,(7)-1
205	000-P00408-W	2	M4X8 MSCR PAN W/FS PAS	(6)-1,(7)-1
207	050-H01600	2	M16 NUT PAS	(102)-2
208	FAS-200004	16	M6X14 SKT CAP BLK	(103,4)-8EA
209	060-S00600-0B	16	M6 WSHR SPR BLK	(103,4)-8EA

### 9.3. SPX-1400UK ASSY CONTROL BOX SPY U/R



ITEM	PART No.	QTY	DESCRIPTION	COMPONENT REF.
1	SPY-1404UK	1	ADJUST PANEL BRKT	
3	NOA-1401	1	CONTROL BOX LOWER	
4	CSM-1402UK	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
12	SPY-1406UK	1	REJECT COVER	
14	HDT-3004UK	1	PANEL INSTR SPACE	5MM FOAMEX
15	NOA-1419	2	BRKT INST COVER	(14)-2
16	NOA-1420	4	L WASHER	(15)-4
17	SPX-1407UK	1	COIN ENTRY COVER	
21	NOA-1415	2	LOCK BRKT	
22	NOA-1418	2	DUMMY BIN	
23	SPX-1403UK	1	CTRL PANEL PLATE BLANK	
24	SPY-1408UK	1	COIN EXIT COVER	
25	HDT-3005UK	1	STICKER CONTROL PANEL NOB	(23)-1

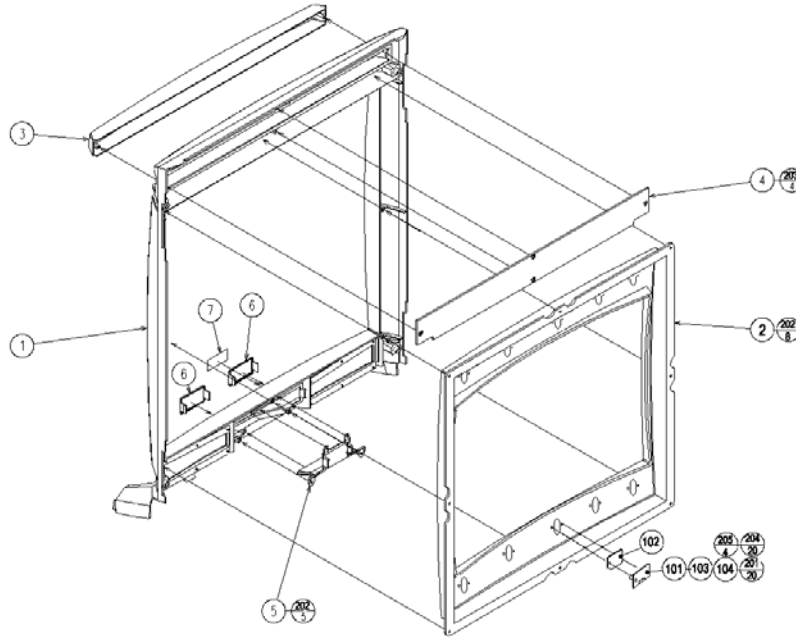
CONTINUED NEXT PAGE



## CONTINUED FROM PREVIOUS PAGE

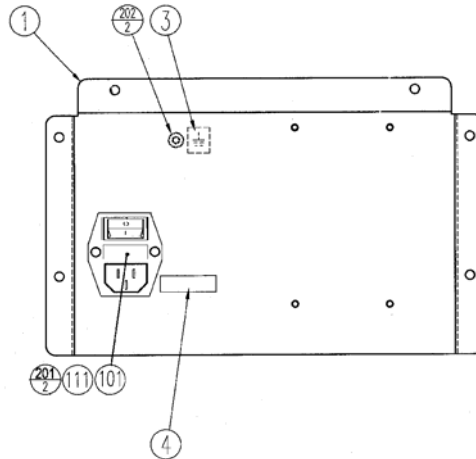
ITEM	PART No.	QTY	DESCRIPTION	COMPONENT REF.
101	220-5575UK	1	LOCK	
102	280-A00900-A	3	ROUTER TWIST D9 ADH	
201	000-P00410-W	27	M4X10 MSCR PAN W/FS PAS	(1,12,22)2,(8,16,21)4,(5)9,(24)
202	050-H00600	2	M6 NUT PAS	(7)-2
203	060-S00600	2	M6 WSHR SPR PAS	(7)-2
204	050-F00300	2	M3 NUT FLG SER PAS	(17)-2
205	031-000416-0B	6	M4X16 CRG BLT BLK	(23)-6
206	050-F00400	6	M4 NUT FLG SER PAS	(23)-6
207	068-441616	2	M4 WSHR 160D FLT PAS	(22)-2
209	065-E00600	2	DIA6 E RING	(6)-2
210	000-P00412-W	1	M4X12 MSCR PAN W/FS PAS	(24)-1
211	008-T00412-0C	1	M4X12 TMP PRF TH CRM	(24)-1

#### 9.4. SPX-1500UK ASSY FRONT PANEL SPY U/R



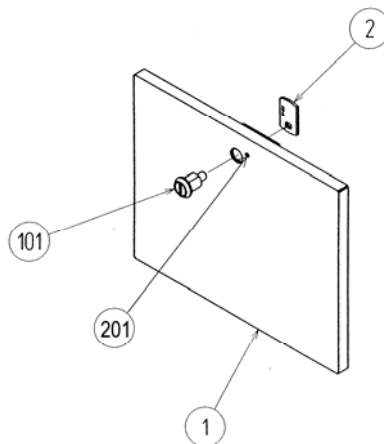
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	HDT-1501UK	1	FRONT PLATE HDT	
2	SPY-1502-02UK	1	MASK NF SPY U/R	
3	NOA-1503	1	LIGHT COVER	
4	HDT-1504UK	1	PRISM PLATE	
5	CSM-1505UK	1	LID GC	
6	CSM-1506UK	2	LID VMS	CLIP-IN
7	NOA-1507	1	EMBLEM NAOMI	
101	838-13145-02	10	LED BD GUN SENSE HOD	
102	JPT-1082	10	IR COVER	
103	SPY-1507-AUK	20	HEAD COVER M3 GREY	(101)-20
104	SPY-1507-BUK	20	HEAD COVER BASE M3	(101)-20
105	280-A00900-A	2	ROUTER TWIST D9 ADH	2-(2)
201	050-U00300	20	M3 NUT NYLOK PAS	(101)-20
202	000-P00410-W	13	M4X10 MSCR PAN W/FS PAS	(2)-8,(5)-5
203	012-P03516	4	N6X5/8" S/TAP PAN PAS	(4)-4
204	000-P00325	20	M3X25 MSCR PAN PAS	(101)-20
205	068-330808-PN	20	M3 WSHR 8OD FLT NYLON	(101)-20
301	SPY-61040UK	7	WIRE HARN MASK SHORT	
302	SPY-61042UK	2	WIRE HARN MASK LONG	
303	SPY-61041UK	1	WIRE HARN IC BD	

### 9.5. RTS-1710UK ASSY AC UNIT (BLACK)



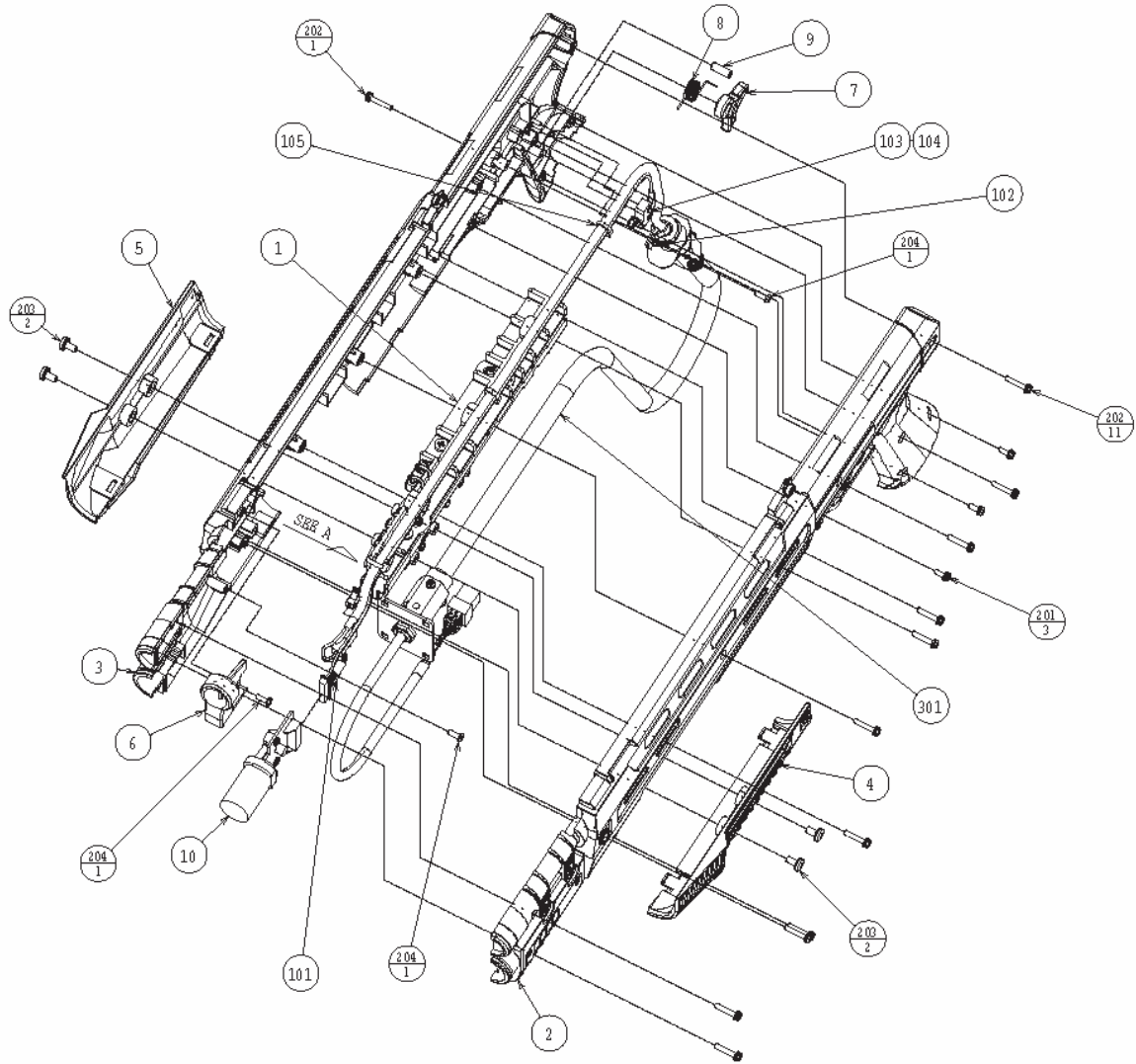
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	RTS-1711UK	1	AC BRKT (BLACK)	
3	LB1096	1	STICKER PROTECTIVE EARTH	NEXT TO EARTH STUD ON INSIDE
4	421-6595-5000-T	1	STICKER FUSE 5000MA TYPE T	NEXT TO IEC INLET ON OUTSIDE
101	EP1381	1	FILTER IEC & SW 6A ROXBURGH	
111	514-5078-5000	1	FUSE 5X20 CERAMIC SB 5000MA	
202	050-F00400	2	M4 NUT FLG SER PAS	EARTH - 2
204	000-F00316	2	M3X16 MSCR CSK PAS	(101)-2
301	NOB-60004UK	1	WIRE HARN AC OUT	
303	600-9030-45K	1	WIRE HARN EARTH 300MM M4/M5 K	AC BRKT TO XFMR
305	600-9025-44K	1	WIRE HARN EARTH 250MM M4/M4	AC BRKT TO BASE
306	600-9015-4FK	1	WIRE HARN EARTH 150MM	

### 9.6. PTR-1750UK ASSY SERVICE DOOR (BLACK)

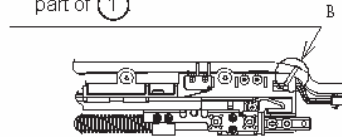


No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	PTR-1751UK	1	SERVICE DOOR BLACK	
2	DP-1167UK	1	TNG LKG UK	
101	220-5575UK	1	LOCK	
201	008-T00430-0C	1	M4X30 MSCR TMP PRF TH CR	DO UP 1/2 WAY SO TNG OPENS

## 9.7. HDT-2100UK CONTROL UNIT



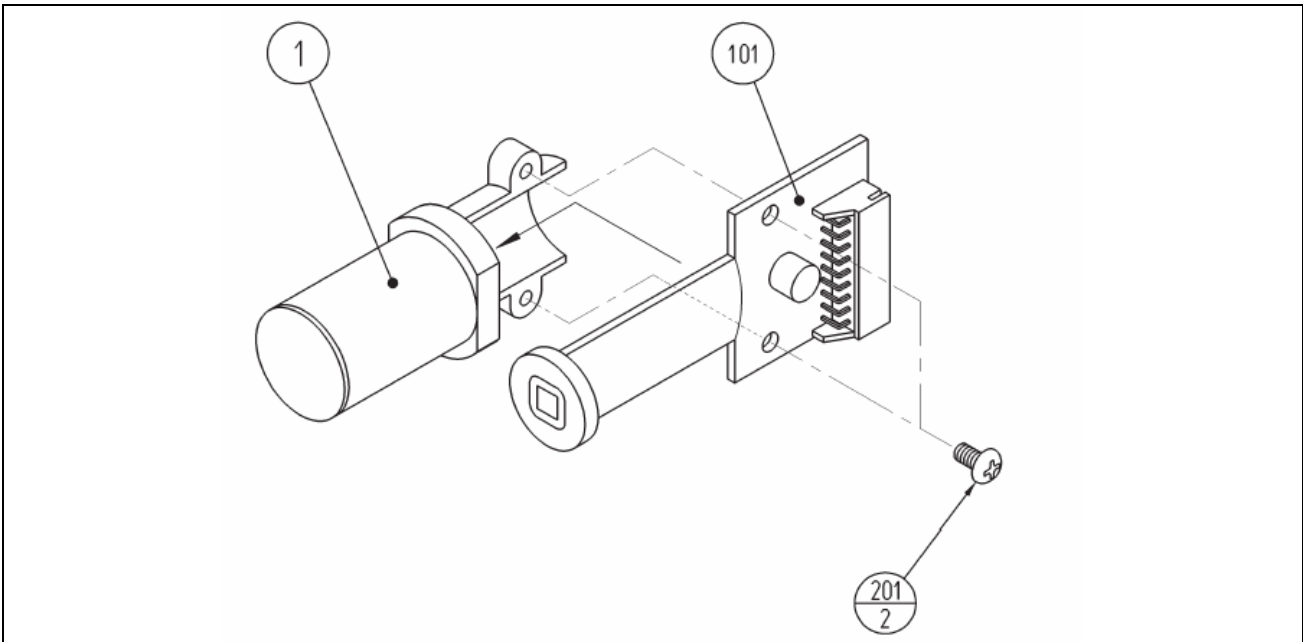
Secure the wires with the tie belt (05) in the specified part of (1)



SEE A

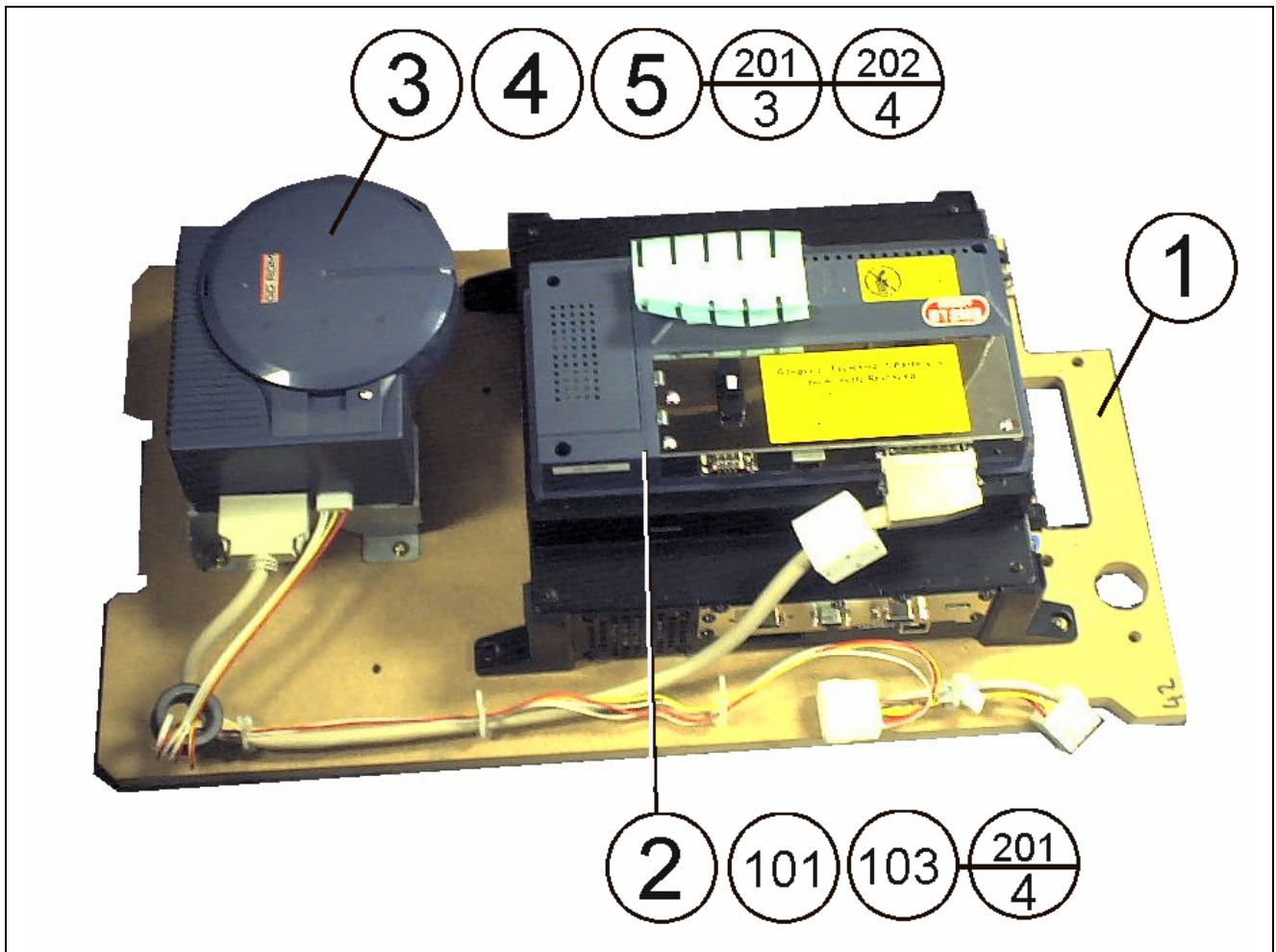
ITEM NO.	PART NO.	DESCRIPTION NOTE
1	HDT-2120	ASSY SLIDE MECHA
2	HDT-2101	COVER L
3	HDT-2102	COVER R
4	HDT-2103	SLIDE GRIP L
5	HDT-2104	SLIDE GRIP R
6	HDT-2105	FRONT SIGHT
7	HDT-2106	TRIGGER
8	HDT-2107	TRIGGER SPRING
9	HDT-2108	STOPPER PIN
10	JPT-2030	SENSOR UNIT
101	280-5124-02	NYLON CLAMP NK02
102	280-5124-03	NYLON CLAMP NK03
103	310-5029-D20	SUMITUBE F D 20MM
104	509-5080	SW MICRO TYPE (SS-5GL2)
105	601-0460	PLASTIC TIE BELT 100 MM
201	FAS-000092	M SCR PH W/SMALL FS BLK M3~8
202	FAS-000093	M SCR PH W/SMALL FS BLK M3~16
203	FAS-000094	M SCR BIND H W/TOOTH BLK M4~8
204	FAS-120023	TAP SCR P-TITE PH 3~8
301	HDT-60007UK	WH CONTROL UNIT

### 9.8. JPT-2030 SENSOR UNIT



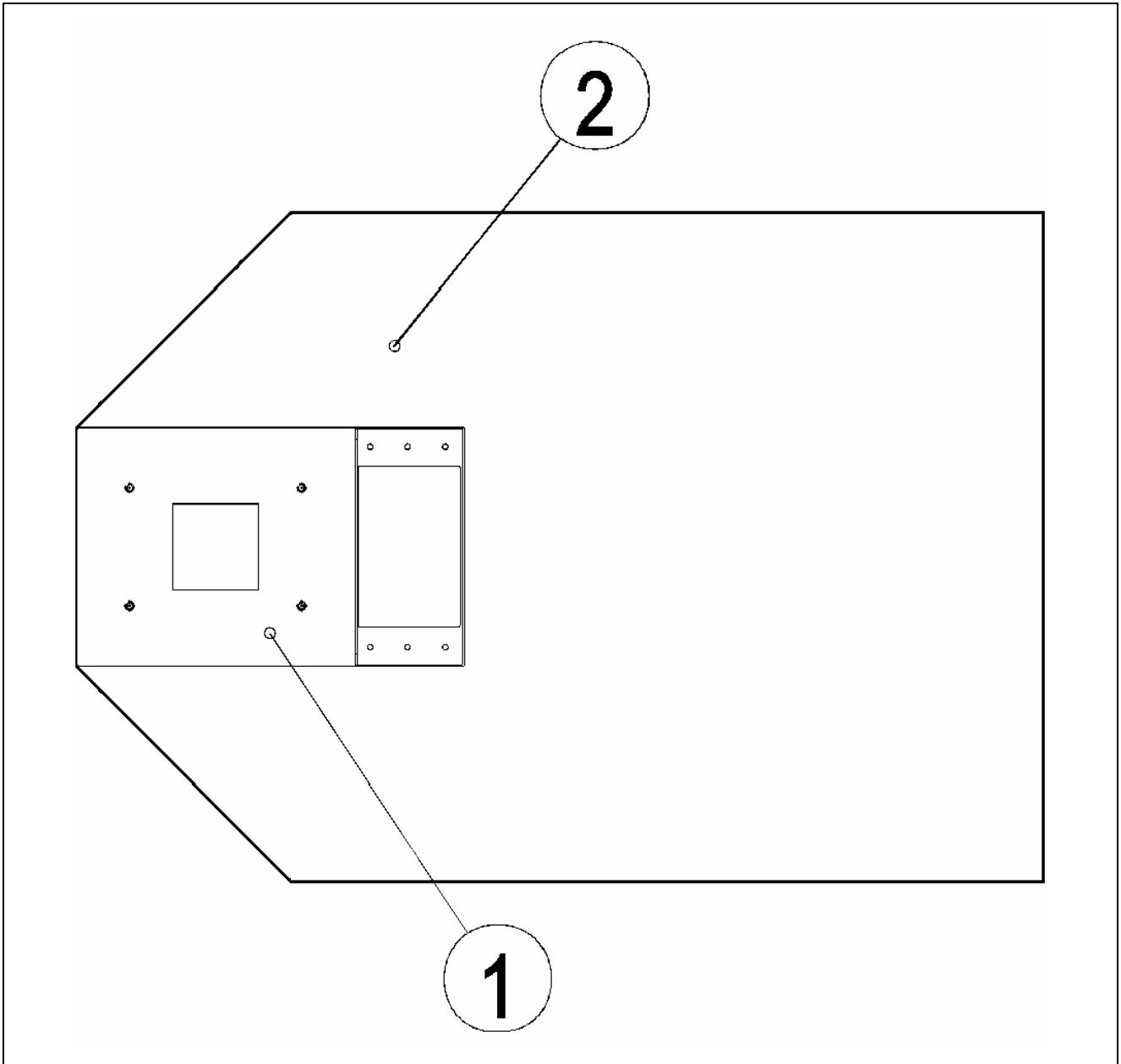
ITEM NO.	PART NO.	DESCRIPTION NOTE
1	JPT-2031	SENSOR HOLDER
101	838-13144	SENSOR BD GUN SENSE
201	012-P00306	TAP SCR #2 PH 3X6

9.9. HDT-4800UKASSY MAIN BD HDT U/R



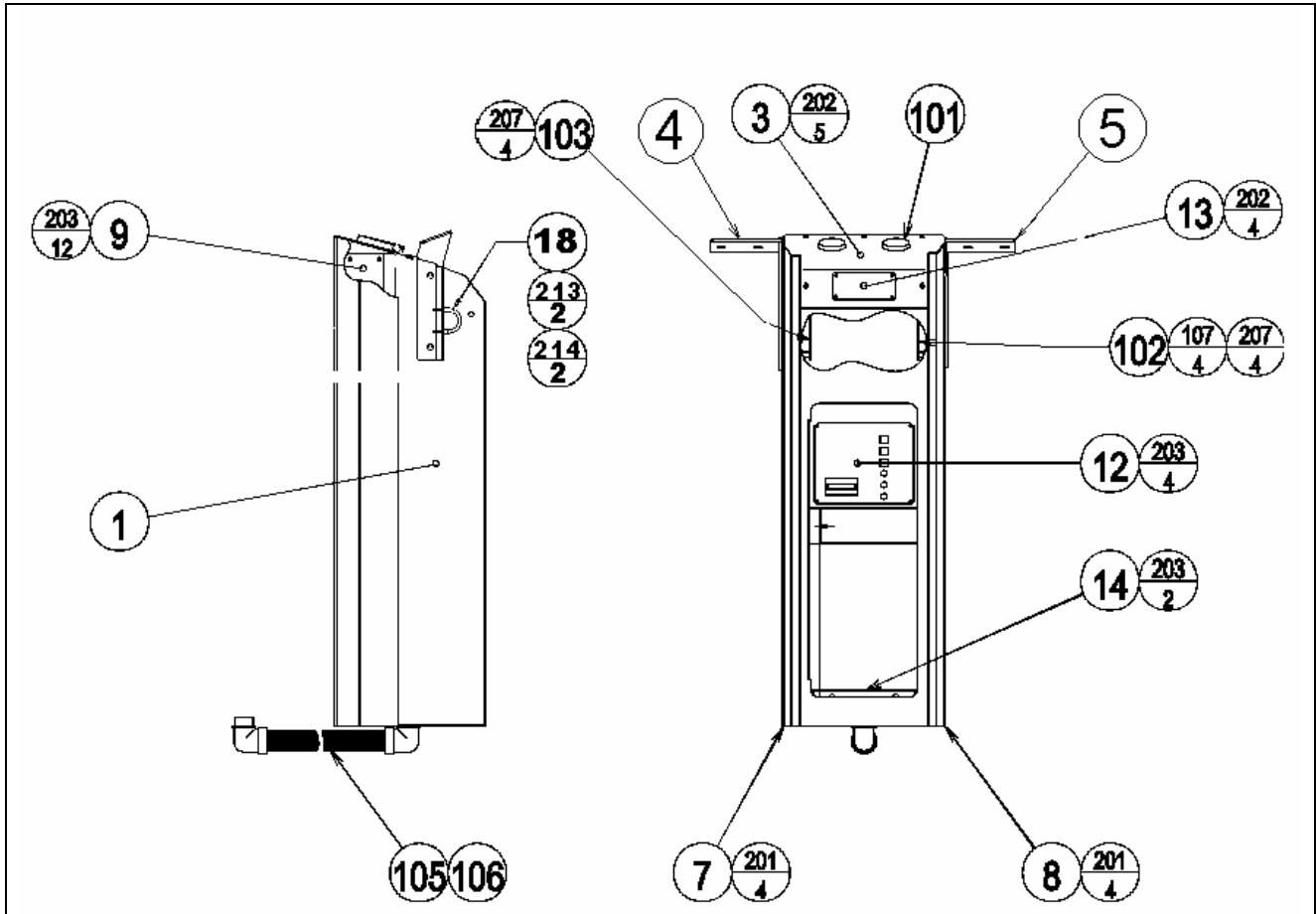
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	SPY-4801UK	1	WOODEN BASE MAIN	
2	843-0001D-12	1	ASSY CASE BOX COM NAO DIMM EXP	
3	610-0617	1	GD-ROM DRIVE UNIT NAOMI	
4	105-5435	1	GD DRIVE BRKT STD	
5	610-0652-0001	1	GD SOFT HDT	
6	253-5508-0348	1	KEY CHIP	
7	HDT-60100UK	1	WH POWER GD ROM	
101	LB1101	1	LABEL WARNING BATTERY	(2)-1
102	280-A01264-WX	5	ROUTER TWIST D12 SO6.4 WOOD X	
103	LB1111	1	STICKER PLEASE RECYCLE	(2)-1
201	000-P00416-W	7	M4X16 MSCR PAN W/FS PAS	(2)-4, (4)-3
202	012-P00410-F	4	N8X3/8" S/TAP FLG PAS	(3)-4
301	600-7249UK	1	WIRE HARN GD DRIVE DC	
307	600-7247-500	1	CABLE SCSI ST-L TYPE2 500MM	

**9.10. HDT-5000UK ASSY FLOOR HDT U/R**



No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	SPY-5001UK	1	FLOOR BASE	
2	HDT-5002UK	1	FLOOR PLATE ARTWORK	SELF ADHESIVE ON REVERSE

9.11. HDT-5100UK ASSY CCT HDT U/R



ITEM.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	SPX-5101UK	1	COINCHUTE TOWER	
2	HDT-2100UK	2	CONTROL UNIT U/R	
3	SPY-5102UK	1	CCT COVER	
4	HDT-3101UK	1	HOLSTER FABRICATION L	
5	HDT-3102UK	1	HOLSTER FABRICATION R	
7	SPY-5106UK	1	COVER L	
8	SPY-5107UK	1	COVER R	
9	SPY-5108UK	2	COVER FRAME	
12	VTS-STW-U	1	VTS BOARD UPRIGHT TYPE	
13	DYN-0010UK	1	DENOMI PLATE	
14	NCR-1103UK	1	CCT FLOOR	
15	DUT-0302UK	1	COIN PATH PLATE	
16	PP1087	1	BOX CASH FOR MINI DOOR	
17	105-5216	2	CHAIN BRKT	(2)-2
18	RTS-0306	2	MISC BOX U BOLT	(4)-1,(5)-1
101	509-HDTU-GR	2	SW PB W/LAMP 6V GREEN OVAL	
102	838-13143-09	1	IC BD GUN SENSE SPY U/R	
103	837-13551-92	1	I/O CONTROL BD FOR JVS	
105	310-5287-29	2	CONN L29 32MM X PG29	
106	310-5285-290100	1	FLEX TUBE 29 100CM	
107	280-L00709-OS	4	STANDOFF 70D 4ID 9L	(102)-4

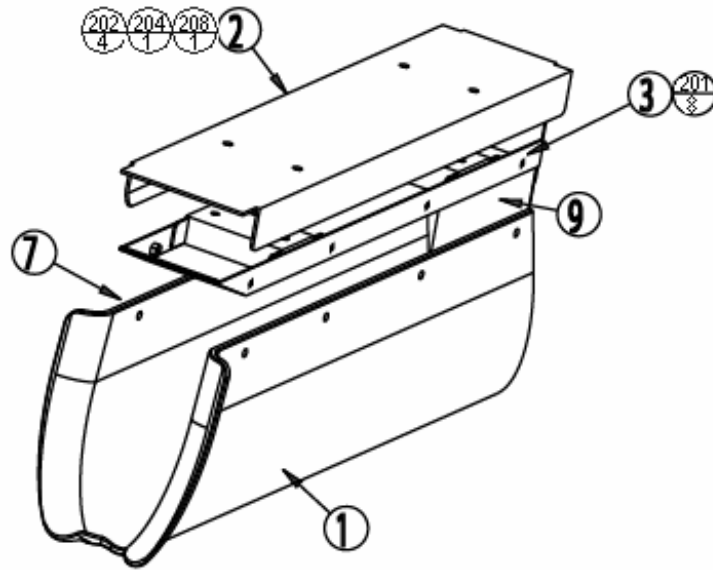
CONTINUED NEXT PAGE



## CONTINUED FROM PREVIOUS PAGE

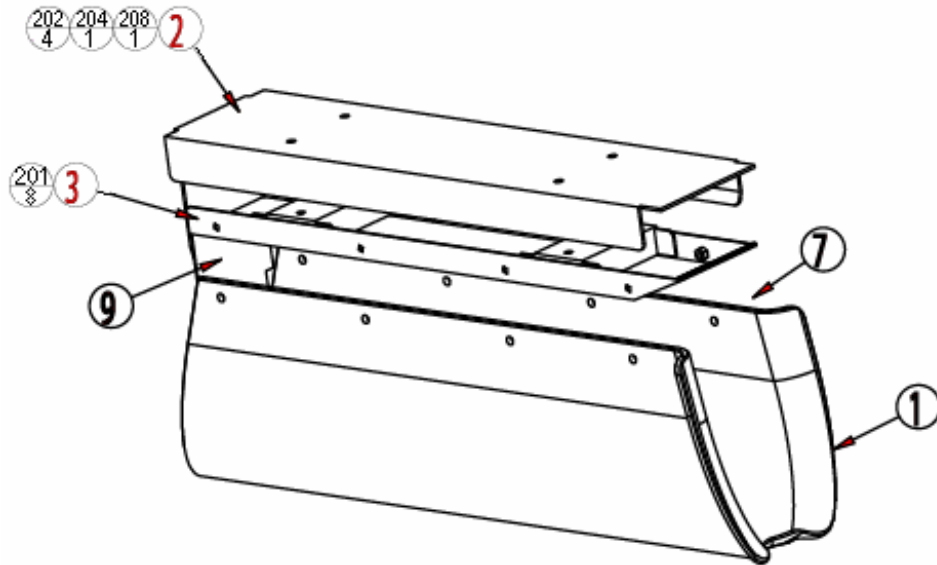
ITEM	PART No.	QTY	DESCRIPTION	COMPONENT REF.
108	280-A02048-PM	3	ROUTER TWIST D20 SO4.8 PAN LG	
110	310-5287-PG29	2	NUT LOCK PG29 BLACK	(105)-1
109	280-L00805-0M	2	STANDOFF 8OD 5ID 4.8L	(10)-2
201	000-T00412-0C	8	M4X12 MSCR TH CRM	(7)-4,(8)-4
202	008-T00412-0B	17	M4X12 TMP PRF TH BLK	(2)-8,(3)-5,(13)-4
203	000-P00416-W	18	M4X16 MSCR PAN W/FS PAS	(9)-12,(12)-4,(14)-2
204	029-B00812-0B	4	M8X12 CAP SCR BLK	(4)-2,(5)-2
205	060-S00800-0B	4	M8 WSHR SPR BLK	(4)-2,(5)-2
207	050-F00300	8	M3 NUT FLG SER PAS	(102)-4,(103)-4
208	008-T00408-0C	4	M4X8 TMP PRF TH CRM	(17)-4
210	000-P00408-W	5	M4X8 MSCR PAN W/FS PAS	(15)-5
211	030-000820-SB	6	M8X20 BLT W/S BLK	(2)-6
212	068-852216-0B	6	M8 WSHR 22OD FLT BLK	(2)-6
213	060-F00300	4	M3 WSHR FORM A FLT PAS	(18)-4
214	050-U00300	4	M3 NUT NYLOK PAS	(18)-4
301	SPY-61052UK	1	WIRE HARN TUBE VOL CTRL	
302	SPY-61053UK	1	WIRE HARN VTS SPY (NAO)	
303	SPY-61055UK	1	WIRE HARN SW/VOL CONTROL	
304	SPY-61044UK	1	WIRE HARN TUBE IC BD & DEMAG	
306	600-6457-10UK	1	WIRE HARN START UK	
307	600-6457-36UK	1	WIRE HARN START EX UK	
308	SPY-60010UK	1	WIRE HARN HIGH FRQNCY JUMPER	
309	600-7141-250	1	CABLE JVS TYPE A-B 250CM	

**9.12. HDT-5150UKASSY GUN HOLSTER L U/R**



Item	Component Part	Qty.	Description	Component Reference
1	HDT-2181UK	1	GUN HOLSTER	
2	HDT-5151UK	1	GUN HOLSTER SUPPORT L	
3	HDT-2182UK	1	GUN HOLSTER SUPPORT	
7	HDT-2187UK	1	STICKER HOLSTER SIDE	
9	HDT-2197UK	1	GUN CUSHION	
11	HDT-5153UK	1	GUN TETHER UR	
201	000-T00512-0B	8	M5X12 MSCR TH BLK	(3)-8
202	008-P00620-0B	4	M6X20 TMP PRF TH BLK	(2)-4
203	050-U00600	1	M6 NUT NYLOK PAS	(2)-1
204	068-651616-0B	1	M6 WSHR 16OD FLT BLK	(2)-1

**9.13. HDT-5170UK ASSY GUN HOLSTER R U/R**



Item	Component Part	Qty.	Description	Component Reference
1	HDT-2181UK	1	GUN HOLSTER	
2	HDT-5152UK	1	GUN HOLSTER SUPPORT R	
3	HDT-2182UK	1	GUN HOLSTER SUPPORT	
7	HDT-2187UK	1	STICKER HOLSTER SIDE	
9	HDT-2197UK	1	GUN CUSHION	
11	HDT-5153UK	1	GUN TETHER UR	
201	000-T00512-0B	8	M5X12 MSCR TH BLK	(3)-8
202	008-P00620-0B	4	M6X20 TMP PRF TH BLK	(2)-4
203	050-U00600	1	M6 NUT NYLOK PAS	(2)-1
204	068-651616-0B	1	M6 WSHR 16OD FLT BLK	(2)-1

**9.14. HDT-6001UK ASSY WIRE L HDT U/R**

<b>Item</b>	<b>Component Part</b>	<b>Qty</b>	<b>Description</b>	<b>Component Reference</b>
101	601-0460	12	CABLE TIE 100mm	
102	280-N01610-0B	0.40	SLIT HARN WRAP 16mm DIA 1M BLK	
301	600-7009-2500	1	ASSY RGB CA D-SUB 15P 2500MM	
302	NOB-60045	1	WIRE HARN SPEAKER L	
303	NOB-60046	1	WIRE HARN SPEAKER R	
304	SPY-61043UK	1	WIRE HARN IC BD & DEMAG EXT	
305	600-7158-0100	1	CA AUDIO RCA TO RCA 2CH 100CM	
306	HDT-61051UK	1	WIRE HARN DC SPLY & VOL CNTRL	

**9.15. HDT-INST-U ASSY INST KIT U/R**

Item	Component Part	Qty.	Description	Component Reference
1	HDT-5000UK	1	ASSY FLOOR HDT U/R	
2	HDT-INST-SUB1-U	1	ASSY SUB1 INST	
3	HDT-INST-SUB2-U	1	ASSY SUB2 INST	
16	PK0323	1	INST KIT PACKING WEDGE	

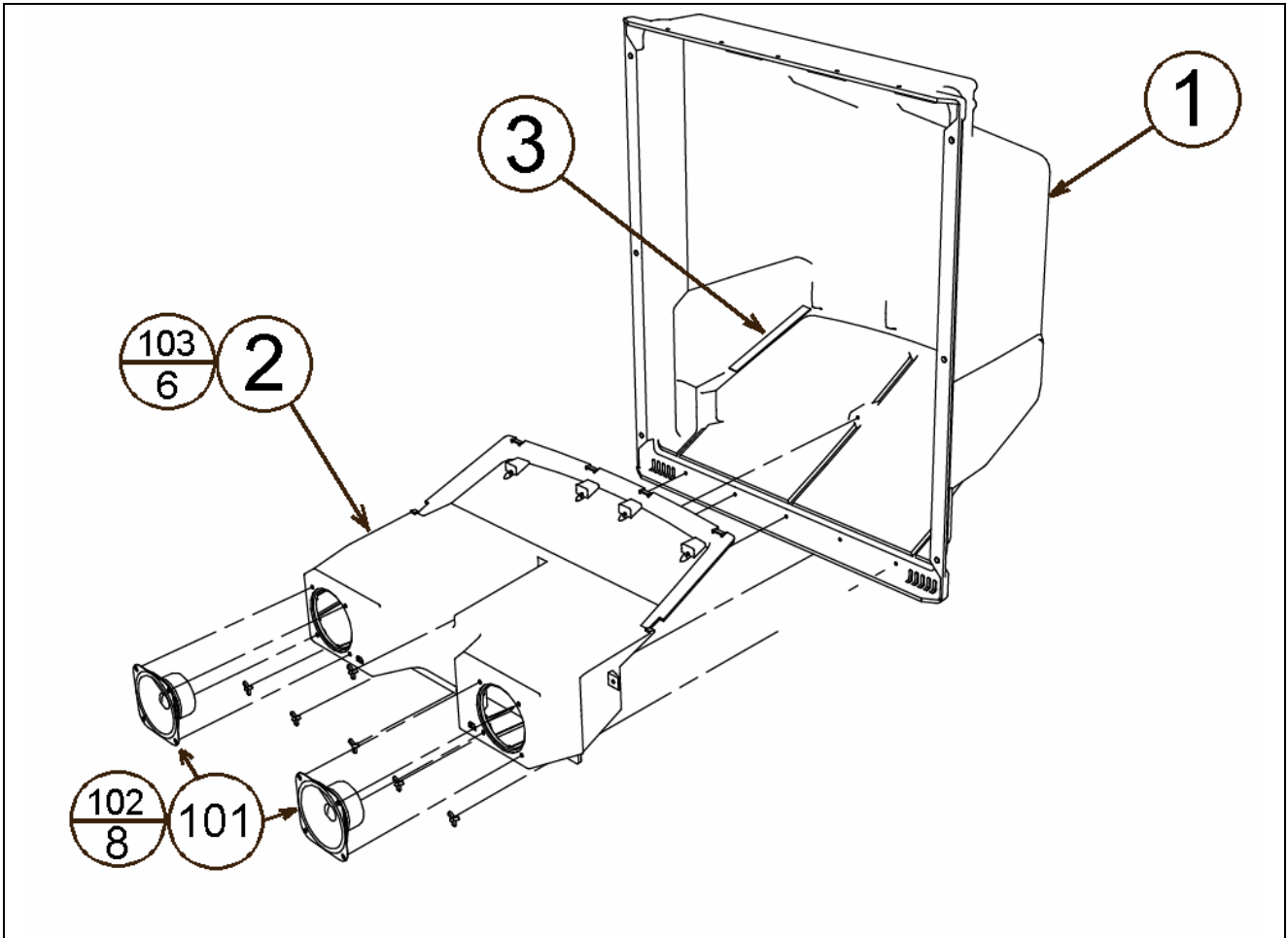
**9.16. HDT-INST-SUB1-U ASSY SUB1 INST**

Item	Component Part	Description	Component Reference	Qty.
2	HDT-5100UK	ASSY CCT HDT U/R		1
6	PK0322	INST KIT BOX HDT U/R		1
12	HDT-5150UK	ASSY GUN PLATE L U/R		1
13	HDT-5170UK	ASSY GUN PLATE R U/R		1

**9.17. HDT-INST-SUB2-U ASSY SUB2 INST**

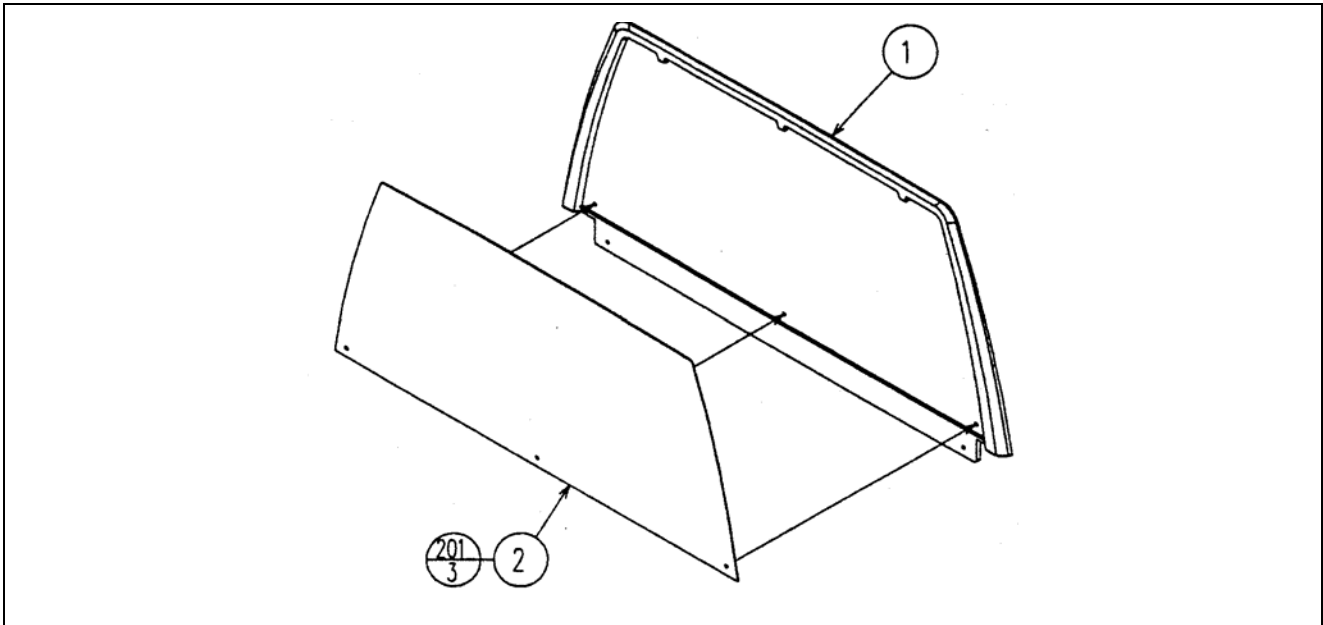
Item	Component Part	Qty	Description	Component Reference
4	SPY-5008UK	1	FLOOR JOINT BRKT	
5	SAECE-XXX	1	DECLARATION OF CONFORMITY	DECLARATION OF CONFORMITY HDTU
7	CTA-0001	1	JOINT BRKT L	
8	CTA-0002	1	JOINT BRKT R	
9	HDT-3013UK	1	STICKER CONTROL PANEL CCT	Multilingual
10	HDT-3001UK	1	BILLBOARD PLATE U/R	
12	HDT-3103UK	1	HOLSTER FABRICATION REAR R	
13	HDT-3104UK	1	HOLSTER FABRICATION REAR L	
15	PK0209	1	INST KIT BOX NOB COM	
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	
104	OS1019	2	SELF SEAL BAG 9X12.3/4	
105	440-CS0186UK	1	STICKER C EPILEPSY MULTI	
201	030-000820-SB	7	M8X20 BLT W/S BLK	(4)-5,(7)-1,(8)-1
202	068-852216-0B	7	M8 WSHR 22OD FLT BLK	(4)-5,(7)-1,(8)-1
203	008-T00412-0B	2	M4X12 TMP PRF TH BLK	(BILLBOARD)-2
204	020-000625	2	M6X25 CAP SCR PAS	(CABI JOINT TO #4)-2
205	060-F00600	2	M6 WSHR FORM A FLT PAS	(CABI JOINT TO #4)-2
208	008-T00416-0B	8	M4X16 TMP PRF TH BLK	(12)-4,(13)-4
301	600-7141-250	1	CABLE JVS TYPE A-B 250CM	
402	420-6742-02UK	1	SERVICE MANUAL HDT U/R	
403	420-5827	1	SERVICE MANUAL SANWA 31K	
404	420-6620UK	1	SERVICE MANUAL GD ROM SYSTEM	
405	509-5080	2	SW MICRO TYPE (SS-5GL2)	

9.18. NOA-1200UK ASSY CRT COVER UK



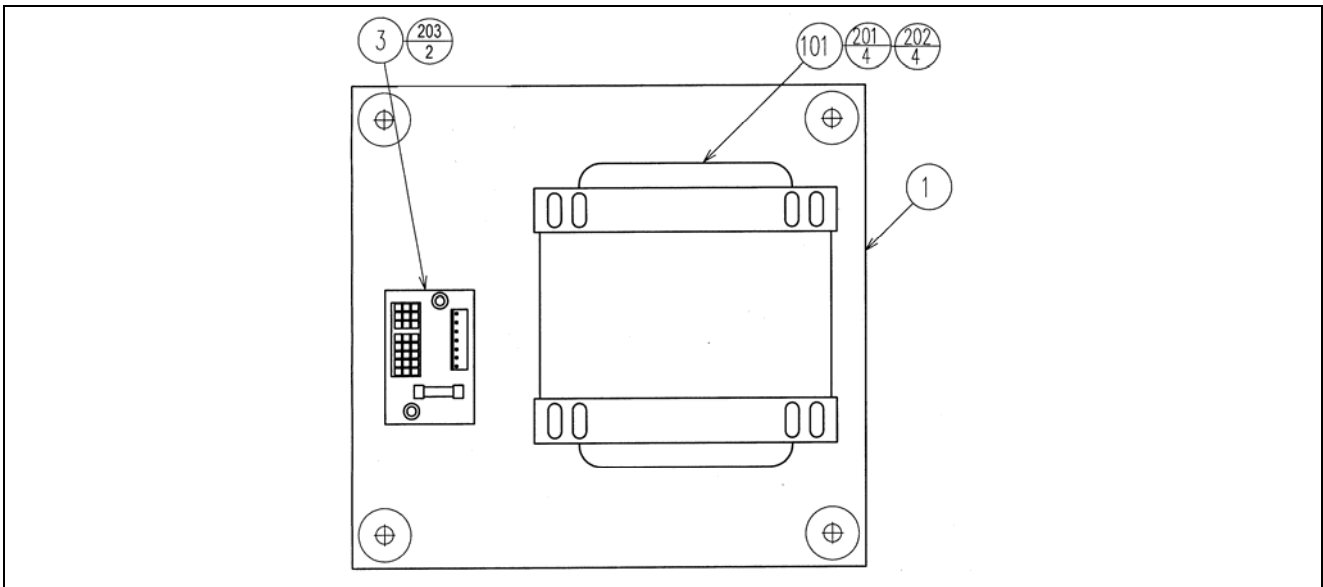
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1201UK	1	CRT COVER	
2	NOA-1202	1	SPEAKER BOX	
3	RND-0037	0.38	TAPE SPEAKER BOX 2 SIDED	(2)-0.19
101	130-5205	2	SPEAKER 40HM 10W 100 W/S	
102	000-P00410-W	8	M4X10 MSCR POSI PAN W/FS	(101)-8
103	340042	6	RIVET BULBEX 3/16 BF01-0630	(2)-6
301	NOA-60031	1	WIRE HARN SPEAKER L	[NOT SHOWN]
302	NOA-60032	1	WIRE HARN SPEAKER R	[NOT SHOWN]

**9.19. NOA-1300 ASSY BILLBOARD**



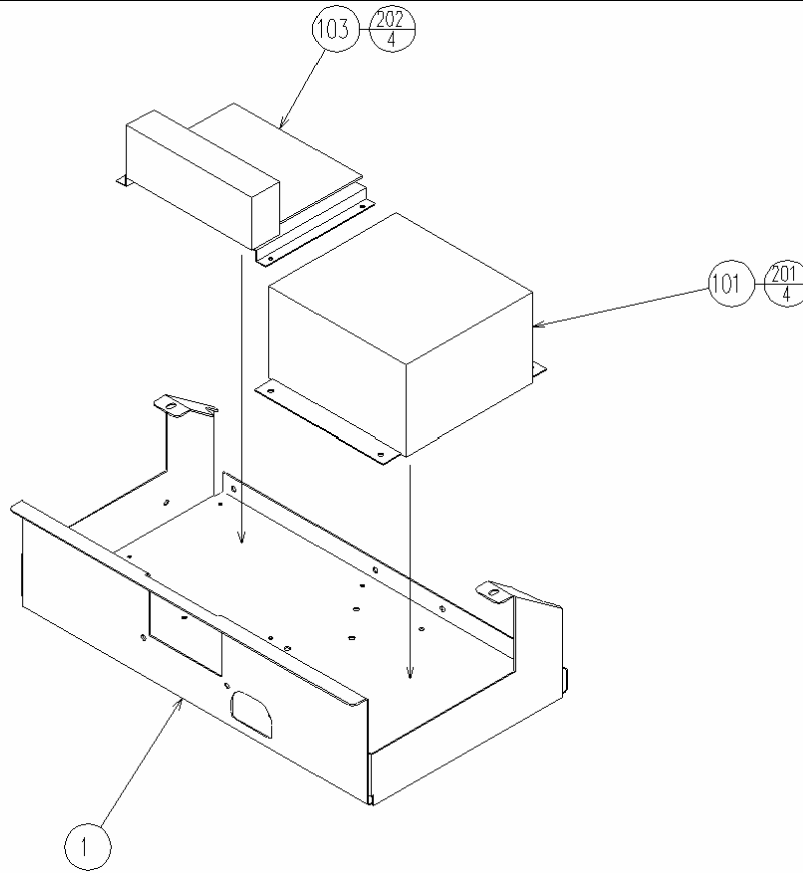
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1301X	1	BILLBOARD PLATE	
2	NOA-1302UK	1	BILLBOARD SHEET	
201	008-T00408-OC	3	M4X8 MSCR TMP PRF TH CRM	(2)-3

**9.20. HDT-4100UK ASSY XMFR**



No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	HDT-4101UK	1	XFMR BASE	
3	838-11856CE-02	1	CONN BD W/FUSE 6.3A CE	
101	560-5422UK	1	XFMR NOB	
201	000-P00416-W	4	M4X16 MSCR POSI PAN W/FS	(101)-4
202	068-441616	4	M4 WSHR 16OD FLT PAS	(101)-4
203	012-P00325	2	N4X1" S/TAP POSI PAN PAS	(3)-2 (102)-2

## 9.21. HDT-4050UK ASSY ELEC



No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-4001X	1	ELEC BASE	
101	400-5443	1	SW REGU FOR CHIHIRO	
103	838-13616	1	AUDIO POWER AMP 2CH	
107	280-A02048-PM	4	ROUTER TWIST D20 SO4.8 P	[NOT SHOWN]
108	601-6231-B095	9,5	EDGE TRIM NEW TYPE 0.91t	BACK EDGE IN MIDDLE [NOT SHOWN]
109	EP1317	1	FERRITE CORE ROUND CABLE	SW REGU INLET-1, OUTLET-1 [NOT SHOWN]
110	280-A01248-PM	2	ROUTER TWIST D12 SO4.8 P	[NOT SHOWN]
111	280-A02000-A	1	ROUTER TWIST D20 ADH	[NOT SHOWN]
112	EP1364	1	FERRITE CORE ROUND CABLE CLAMP	
201	010-P00408	4	M4X8 TAPTITE POSI PAN	(101)-4
202	010-P00308	4	M3X8 TAPTITE POSI PAN BZ	(103)-4
303	HDT-60013UK	1	WIRE HARN SW REGU INT + CONDENSER	[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]



## 10. APPENDIX A - ELECTRICAL SCHEMATIC

### 10.1. WIRE COLOURS

THE WIRE COLOUR CODE IS AS FOLLOWS:

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

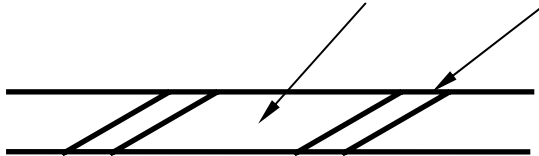
Wires other than those of any of the colours listed above will be displayed by 2 alphanumeric characters:

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----- WHITE/RED = WHITE wire with RED stripes

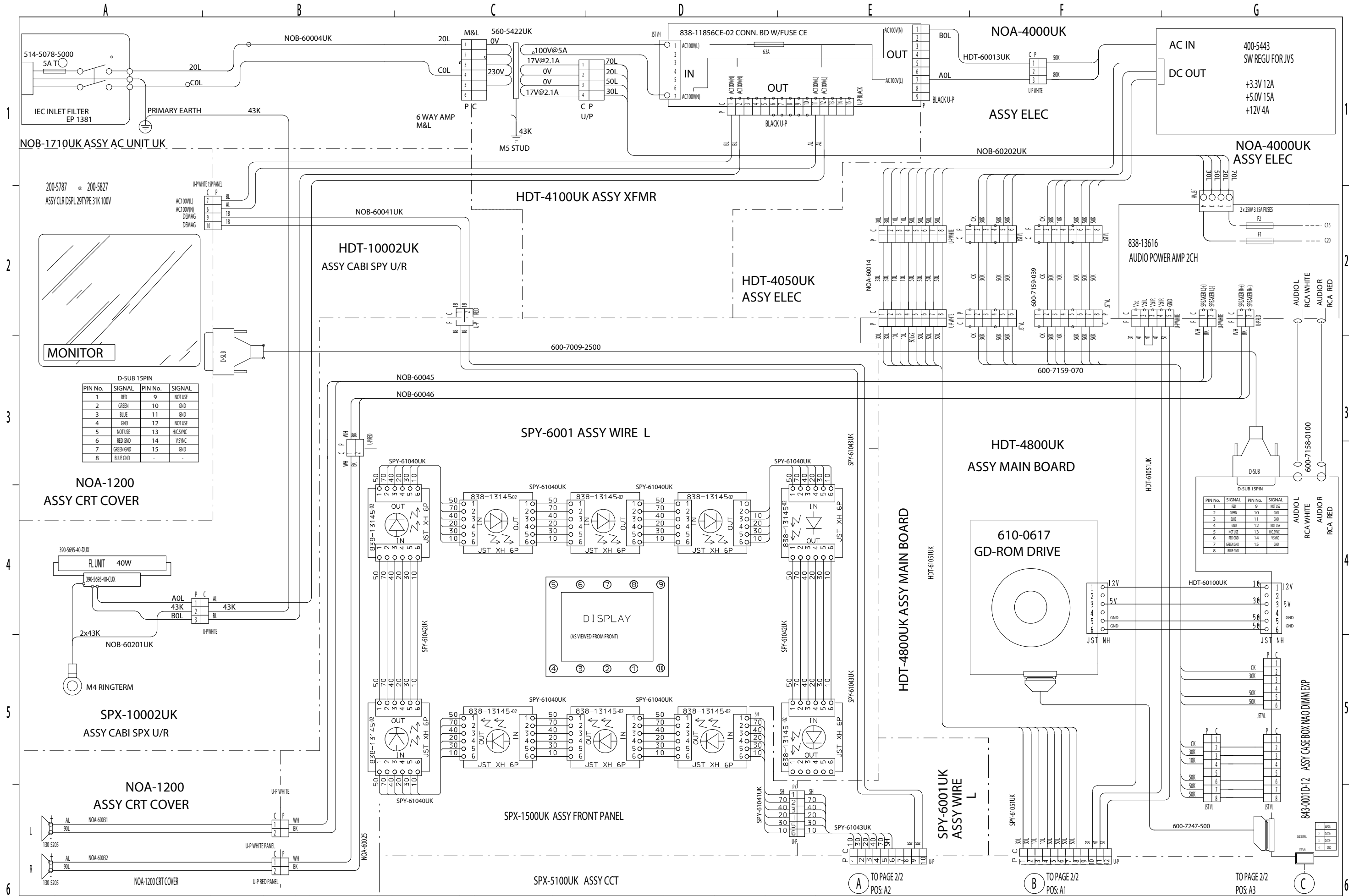


Note 2: The character following the wire colour code indicates the size of the wire.

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

### 10.2. ELECTRICAL SCHEMATIC

The following pages contain the electrical schematic for this machine.



WIRE COLOR	WIRE COLOR	WIRE COLOR
8 BLACK	E LIGHT GREEN	43 EARTH WIRE
7 ORANGE	D PURPLE	
5 WHITE	C BROWN	
4 GREEN	B SKY BLUE	
3 YELLOW	A PINK	
2 BLUE	9 GRAY	
1 RED		

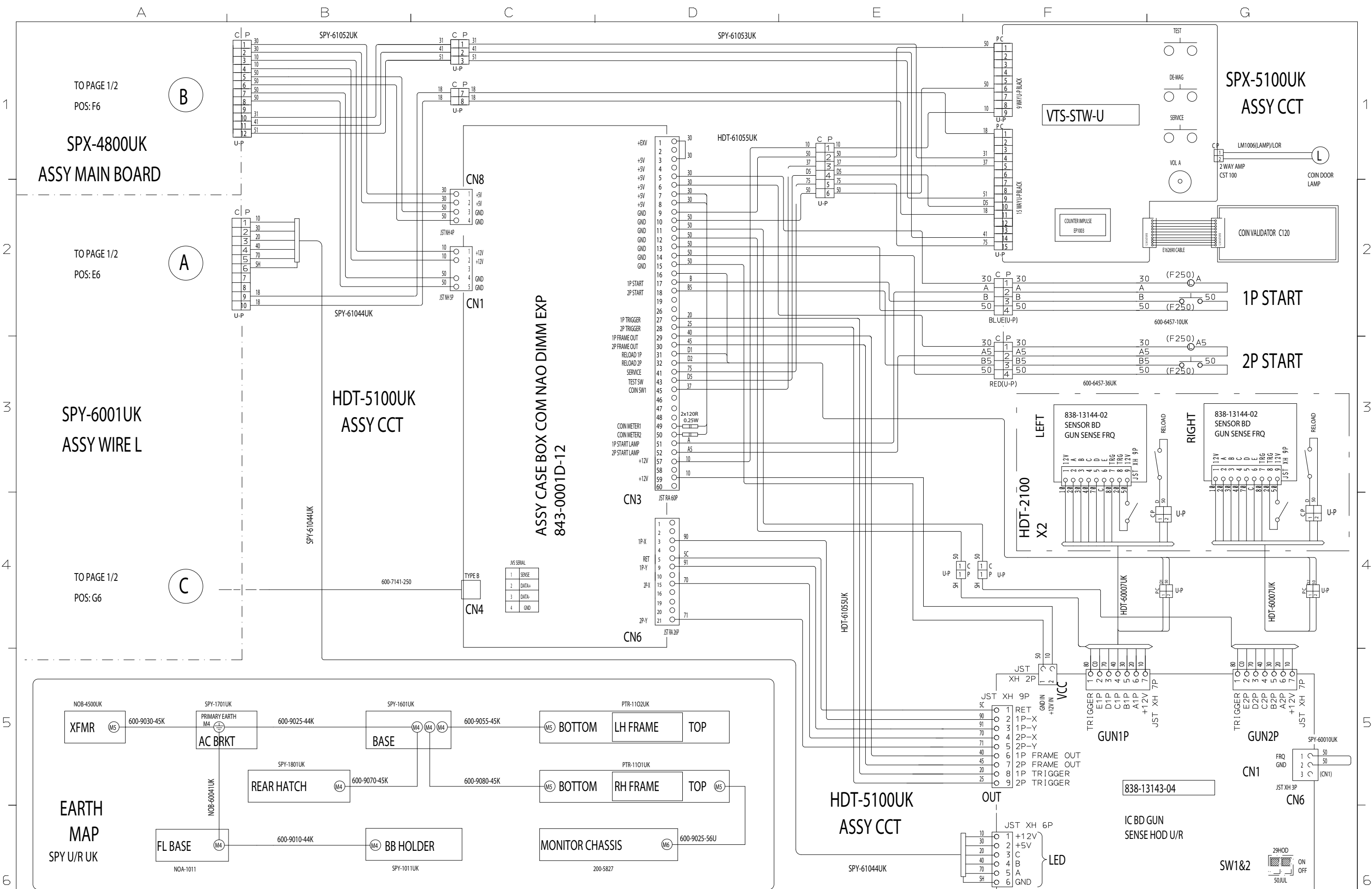
DRAWN	CHECKED	D.CHECKED	APPROVED
CW			
11/11/02			

SEGA SEGA ENTERPRISES, LTD.

HOUSE OF THE DEAD 3 UR

HDTURUK 1/2

THIS DRAWING WILL IN NO WAY BE COPIED. TO BE TURNED ON DEMAND.



ALTERATION	DESCRIPTION	DATE	BY	CHECKED	APPROVED

WIRE COLOR	WIRE COLOR	WIRE COLOR	WIRE COLOR	WIRE COLOR	WIRE COLOR
8 BLACK	E LIGHT GREEN	50L WHITE	AWG20		
7 ORANGE	D PURPLE	51 WHITE	RED		
5 WHITE	C BROWN	50 WHITE			
4 GREEN	B SKY BLUE	EXAMPLE			
3 YELLOW	A PINK	U	AWG18	UL1015	
2 BLUE	9 GRAY	K	AWG18	UL1015	
1 RED		L	AWG20	UL1007	
			AWG22	UL1007	

DRAWN	CHECKED	D CHECKED	APPROVED
CW			
11/11/02			

SEGA ENTERPRISES, LTD. THIS DRAWING WILL IN NO WAY BE COPIED. TO BE RETURNED ON DEMAND.	<b>HOUSE OF THE DEAD 3 UR</b> DESCRIPTION	HDTUK 2/2 DIAGRAM No.
---	--	--------------------------

**SEGA AMUSEMENTS EUROPE LTD./ SEGA SERVICE CENTRE**

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

Telephone: +44 (0) 1372 731820

Fax: +44 (0) 1372 731849

**SEGA<sup>®</sup>**



© SEGA 2002