Shoot Out (US)

MANUAL



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1. BEFORE USING THIS PRODUCT

To ensure the 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.



WARNING!

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



CAUTION!

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.



IMPORTANT!

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.**

Descriptions contained herein may be subject to change without prior notification.

The contents described herein are fully prepared with due care. However, should any question arise or errors be found please contact SEGA.

1.1. INSPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION



IMPORTANT!

- 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.

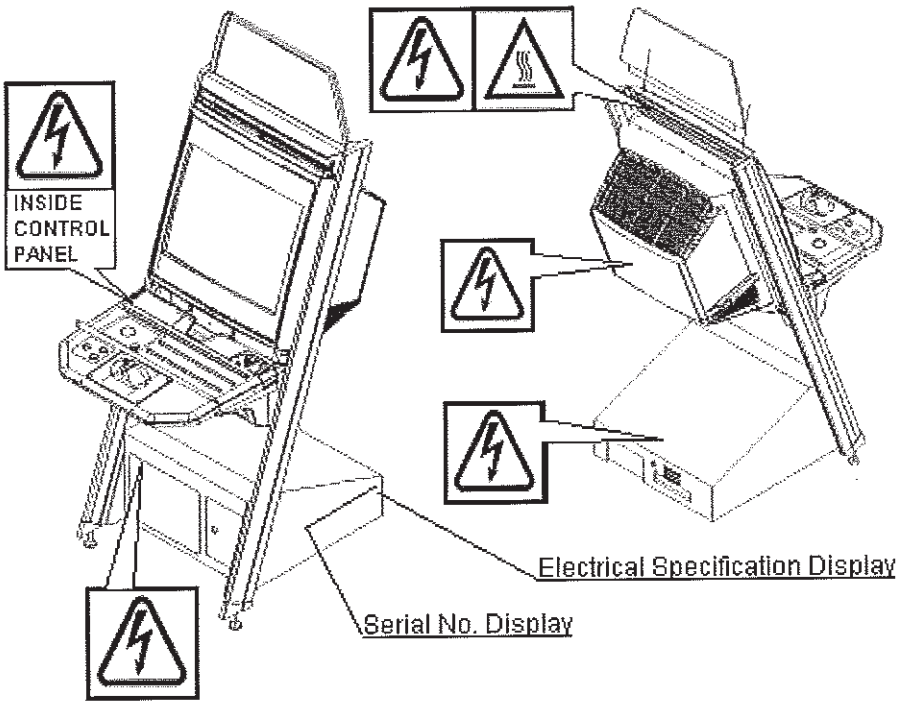
- Are then any dented parts or defects (cuts, etc.) on the external surfaces of the product?
- Are castors and leg adjusters present and undamaged?
- Do the power supply voltage and frequency requirements meet with the local supply?
- Are all wiring connectors correctly and securely connected? Unless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

CONCERNING THE STICKER DISPLAY

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

CONCERNING WARNING STICKERS

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



SPECIFICATIONS	
Installation Space (cm):	79 (W) x 120 (D)
Height (cm):	180
	210 (with Billboard)
Weight (kg):	Approx. 117
Power, Max:	322W
Rated Voltage (VAC):	230
Rated Current (A):	1.4
Operating Temperature Range	5 - 40°C

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

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2. INTRODUCTION TO THIS SERVICE MANUAL

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

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3. INSTALLATION AND MAINTENANCE INSTRUCTIONS



IMPORTANT!

- 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.



IMPORTANT!

- Ensure that the mains lead is not damaged. If the mains lead is damaged in any way there could be a danger of electric shock or a fire hazard.
- Ensure that the power supply is fitted with circuit protection. Using the power supply without circuit protection is a fire hazard.

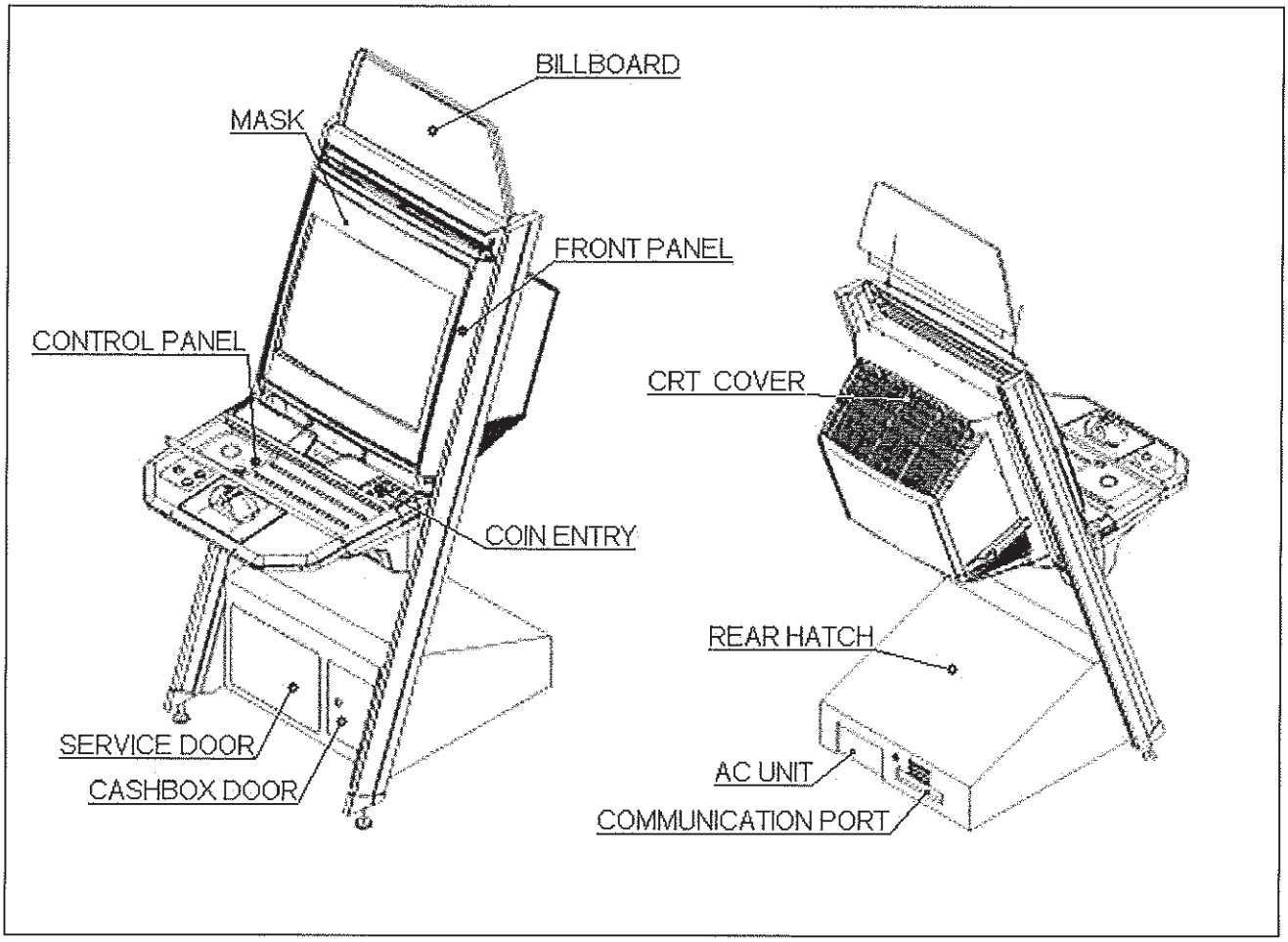
3.2. COIN HANDLING

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

Approved coin handling options:

- Coin controls C120 and SR3 (Indirect Reject) and C220B (Top Entry)
- Generic mechanical
- SECI RM4-G20

3.3. NAME OF PARTS



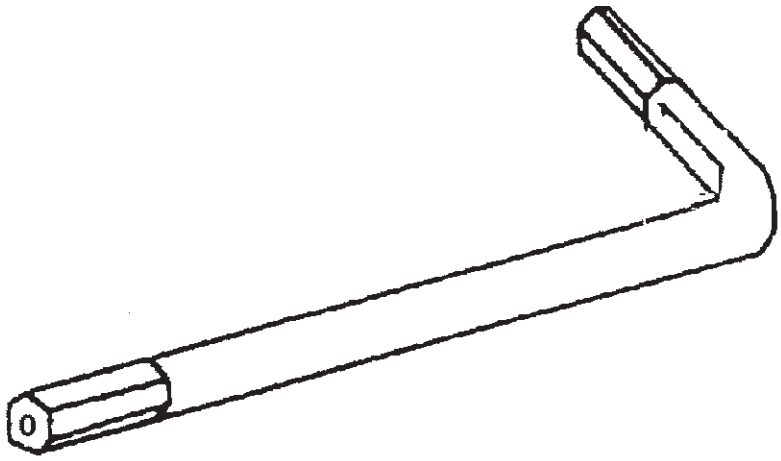
	Width (cm)	Length (cm)	Height (cm)
CABINET	79	120	180
When Assembled	79	120	210

3.4. ACCESSORIES

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

No.	PART NUMBER	QTY	DESCRIPTION
1	BIL-0010UK	1	PLAY INSTR SH BIL NOB
2	BIL-0008UK	1	BILLBOARD PANEL
7	PK0209	1	INST KIT BOX NOB COM
8	OS1019	2	SELF SEAL BAG 9X12.3/4
9	421-BIL	2	PACKAGING LABEL BIL
10	BIL-2500	1	ASSY CUE
101	540-0006-01	1	WRENCH M4 TMP PRF
102	540-0015-01	1	WRENCH M6 TMP PRF
103	514-5078-5000	1	FUSE 5X20 CERAMIC SB 5000MA
106	509-COIN-NOB	1	SW MICRO COIN ROUTE 0.250" TAB
108	440-CS0186UK	1	STICKER C EPILEPSY MULTI
202	008-T00412-0C	1	M4X12 TMP PRF TH CRM
302	600-7141-250	1	CABLE JVS TYPE A-B 250CM
303	600-7175-01	1	WIRE HARN VMS 1P
304	600-7175-02	1	WIRE HARN VMS 2P
401	RND-0014	1	SERVICE MANUAL BIL
403	420-5827	1	SERVICE MANUAL SANWA 31K
404	420-6455-MECH	1	INSTRUCTION SHEET MECH'L NOB

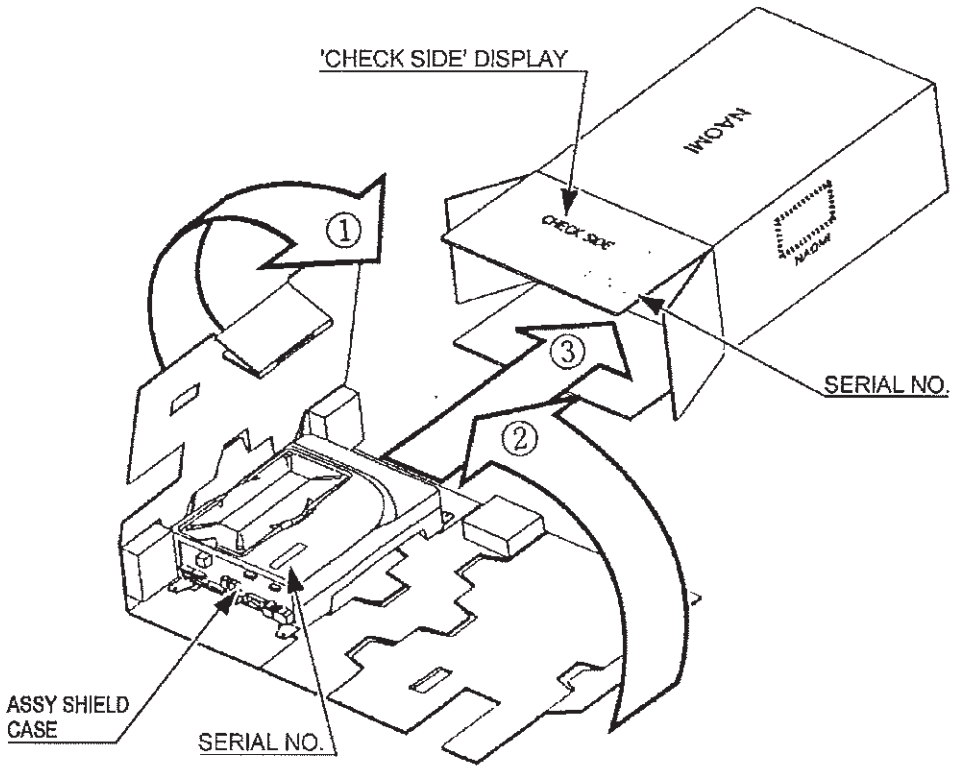
THIS BOX ALSO CONTAINS THE BILLBOARD ASSEMBLY (NOA-1300) AND FIXING SCREWS (T00408-OC, QTY 3).



Items 101 & 102 - Tamperproof TORX wrench.

IMPORTANT!

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



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

3.5. *ASSEMBLY INSTRUCTIONS*

WARNING!

- 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.

IMPORTANT!

- Only QUALIFIED SERVICE PERSONNEL should carry out assembly.

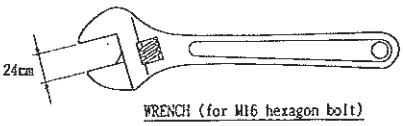
When carrying out the assembly work, follow the procedure in the following three item sequence:

STEP 1 INSTALLING THE BILLBOARD

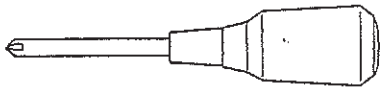
STEP 2 SECURING IN PLACE (LEG ADJUSTER ADJUSTMENT)

STEP 3 CONNECTION TO THE POWER SUPPLY

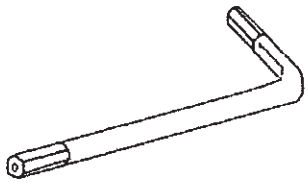
Note that the parts contained within the installation kit are required for the assembly work.
The following tools will be required when installing this machine:



WRENCH (for M16 hexagon bolt)



Phillips type screwdriver



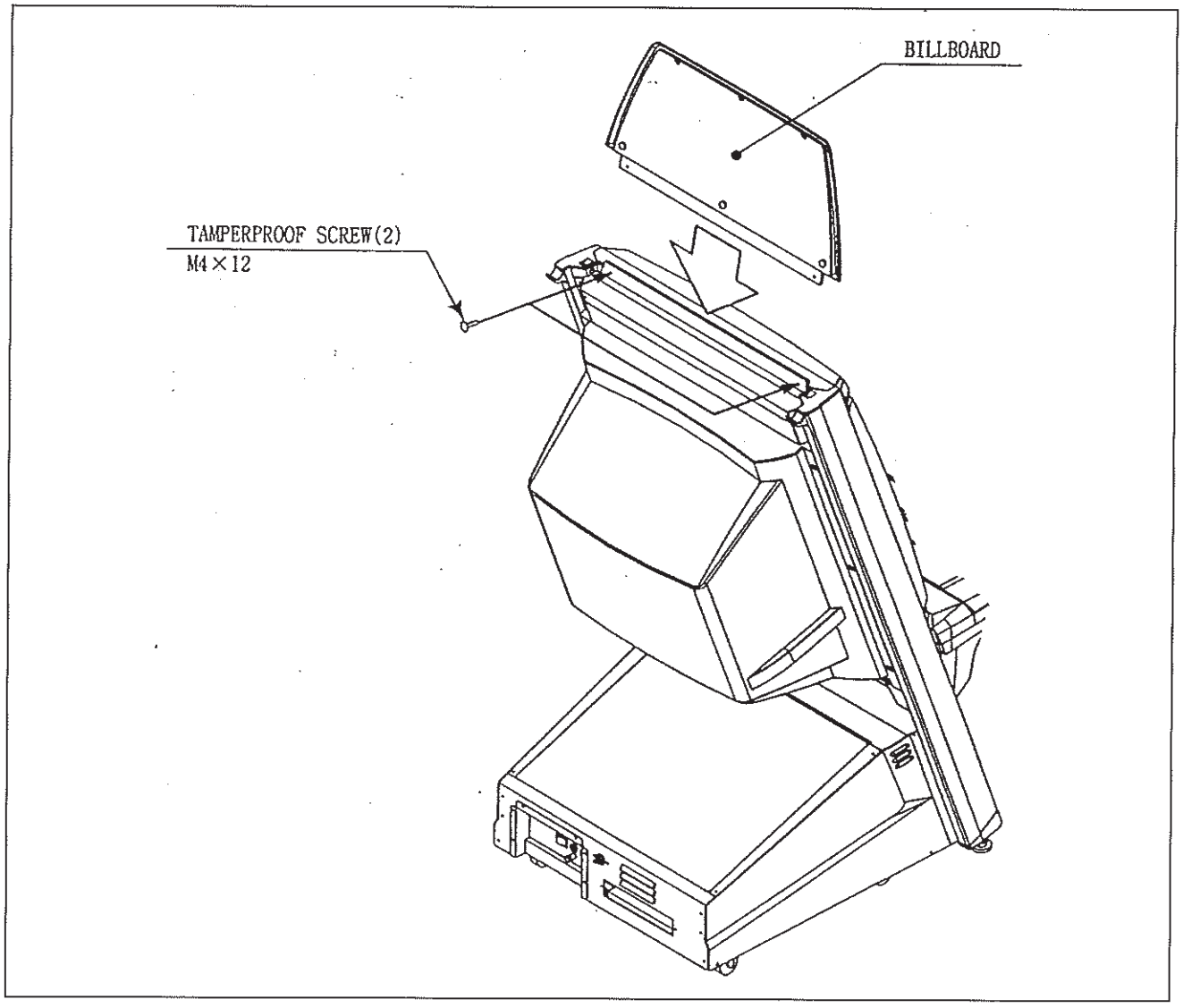
WRENCH (FOR M4 TAMPERPROOF SCREW)

3.5.1. INSTALLING THE BILLBOARD

IMPORTANT!

- QUALIFIED SERVICE PERSONNEL should only carry out this operation.

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



3.5.2. SECURING IN PLACE (LEG ADJUSTER ADJUSTMENT)

CAUTION!

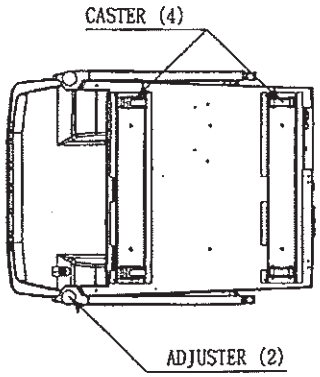
- Make sure all of the leg adjusters are in contact with the floor. To prevent the machine from moving and causing injury. This operation requires 2 people.

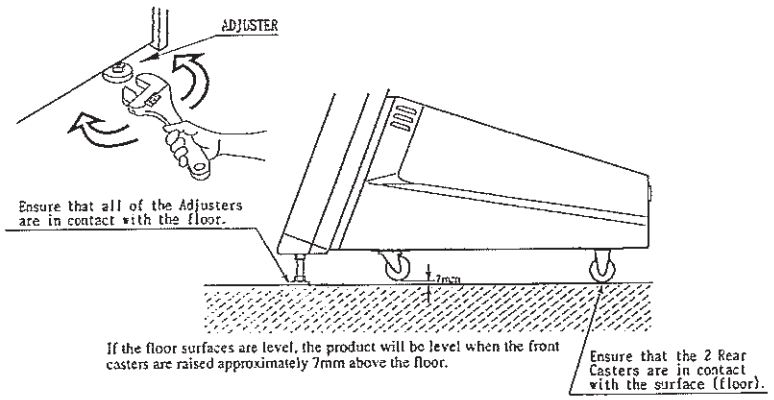
IMPORTANT!

- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

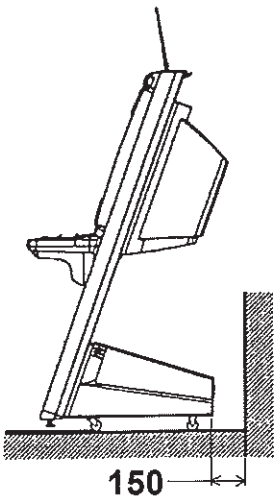
This machine has four castors and two leg adjusters. When the installation position is decided, unscrew the leg adjusters so that they raise both front castors 7mm from the floor. Make sure the machine is level.

1. Move the product into the installed position.
2. 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.
3. Tighten the locknut on the leg adjusters upwards to lock the legs in position.





Ensure adequate ventilation is maintained as detailed below:



3.5.3. CONNECTION TO THE POWER SUPPLY

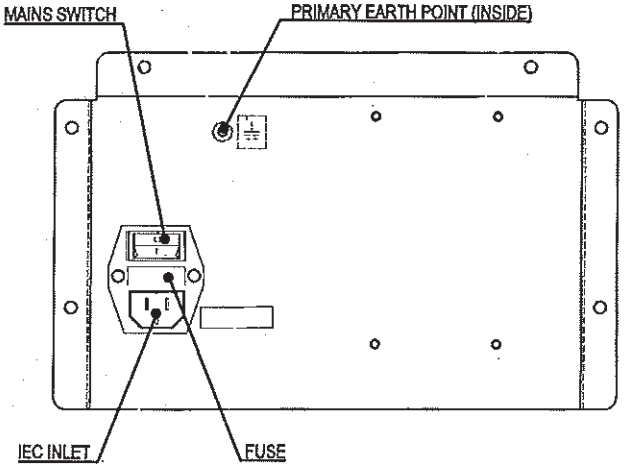
WARNING!

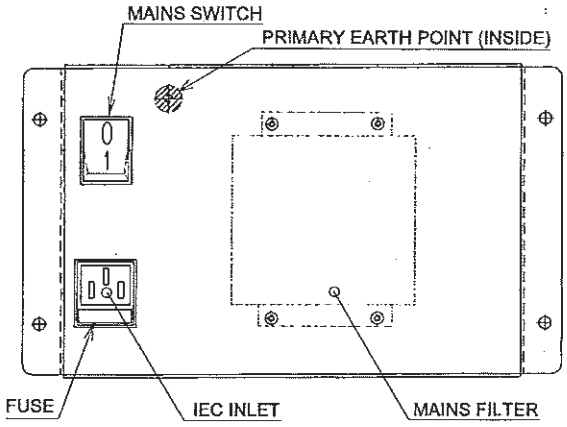
- Be sure that the machine is not connected to the mains supply before attempting this operation

IMPORTANT!

- QUALIFIED SERVICE PERSONNEL should only carry out this operation.

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

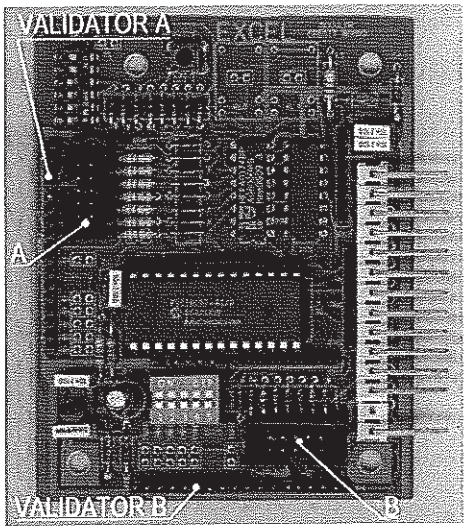




2. Ensure that all of the machine's wires have been connected in accordance with the preceding sections and that the mains switch is OFF.
3. Check that the operating voltage of the mains supply matches the machine (section 1.1).
4. Insert the IEC lead into the IEC inlet and the mains plug into a wall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

3.5.4. CREDIT BOARD WIRING TO COIN MECH

COIN MECH	LOOM	INSTALLATION
C220B (TOP ENTRY)	LM1006 OR LM1006IDC	• Attach one 15way connector to the C220 coin mech. • Attach the other 15-way connector to Validator A on the credit board.
GENERIC MECHANICALS	LM1008	• Attach the blue cable and orange cable to one mach's micro switch. • Attach the blue/green cable and orange/green cable to the other mech's micro switch. • Attach one 15 way connector to Validator A and the other to Validator B on the credit board
SECI, C120, SR3	OWN LOOM	• Attach the loom to position A on the credit board



'EXCEL' TYPE CREDIT BOARD

3.6. *MOVING THE MACHINE*

WARNING!

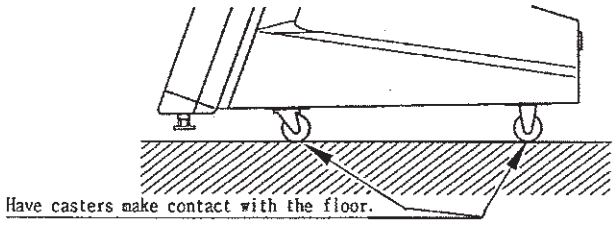
- When moving the machine, be sure to remove the plug from the power supply. Moving the machine with the plug inserted can cause the power cord to be damaged, resulting in a fire or electric shock.
- When moving the machine, retract the leg adjusters fully and ensure the casters make contact with the floor. During movement pay careful attention so that the casters or leg adjusters do not damage any other cabling laid on the floor. Such damage could result in a fire or electric shock.
- Do not push the upper part of the cabinet. Failure to observe this can cause the cabinet to fall forwards and result in accidents.

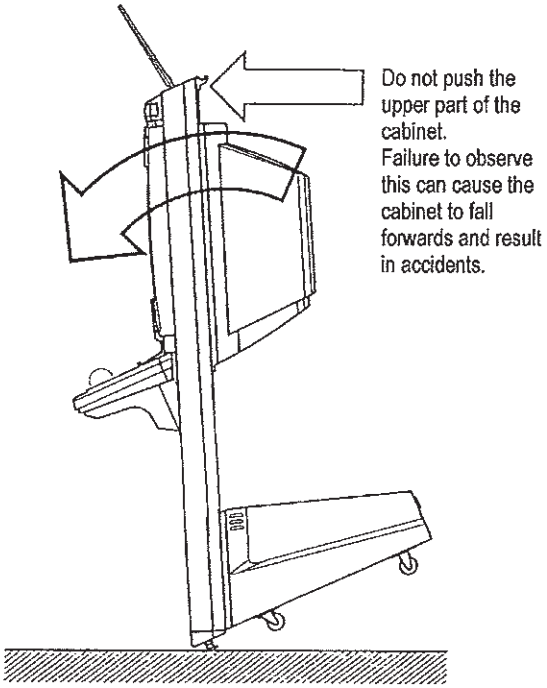
CAUTION!

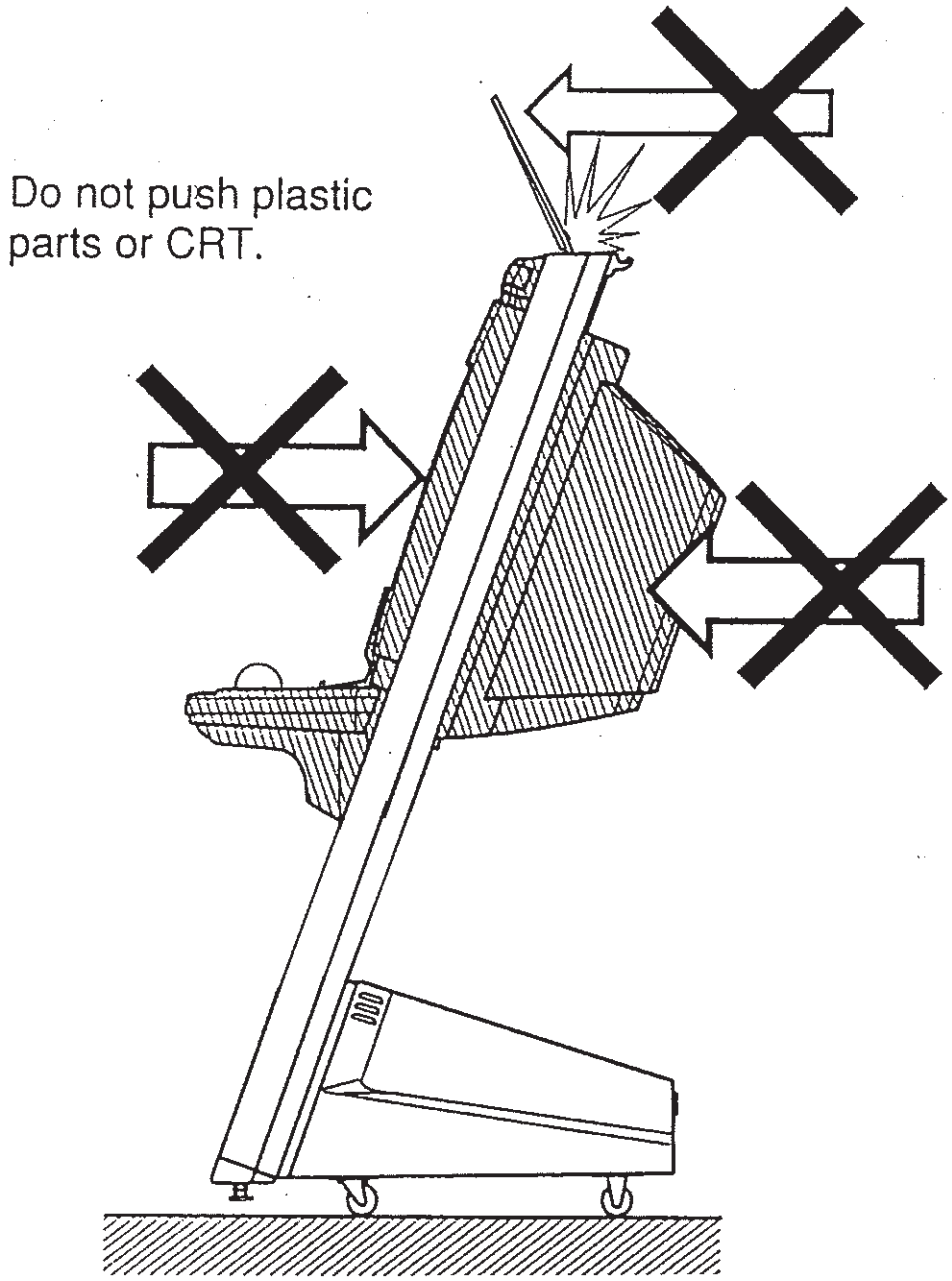
- When transporting the machine, be sure to hold the catch portion on the rear of the cabinet with the castors making contact with the surface as shown below. Inclining the machine by holding portions other than the catch or moving the cabinet without retracting the adjusters can damage the cabinet and/or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

STOP
IMPORTANT!

- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.






Do not push plastic
parts or CRT.

3.7. INTERNAL SWITCHES AND COIN METERS

WARNING!

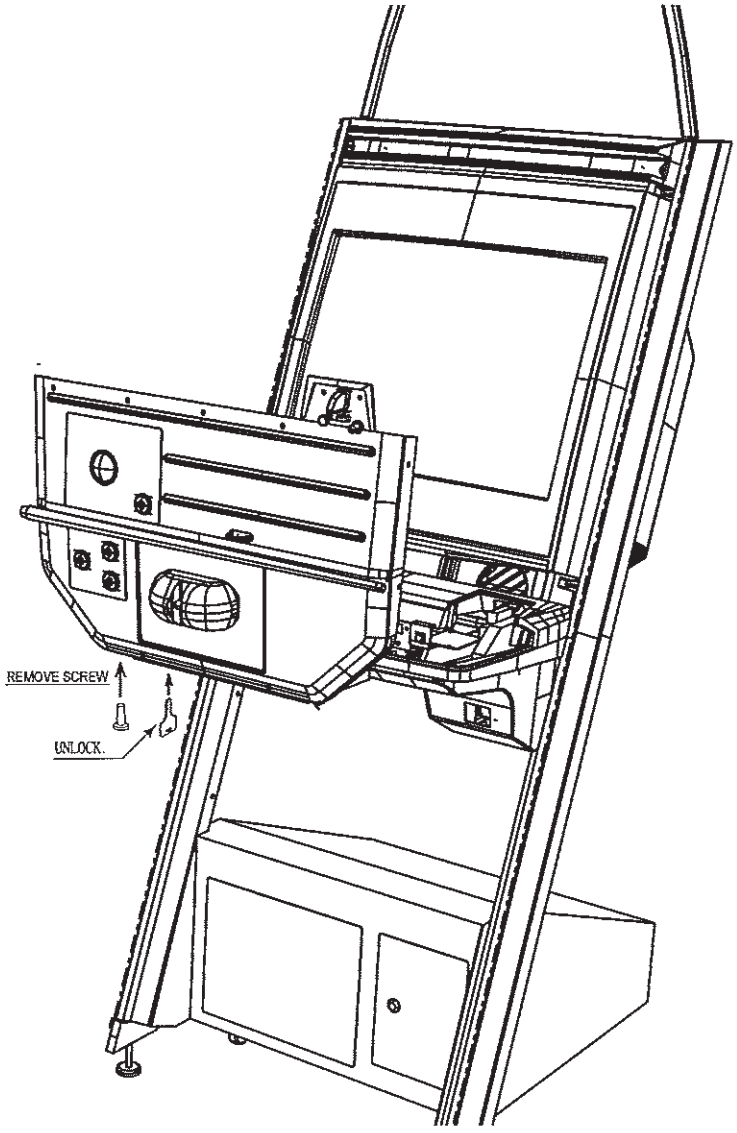
- Never touch places other than those specified. Touching places not specified can cause electric shock and short circuits
- Be careful not to damage wiring. Damaged wiring can cause electric shock and short circuits.

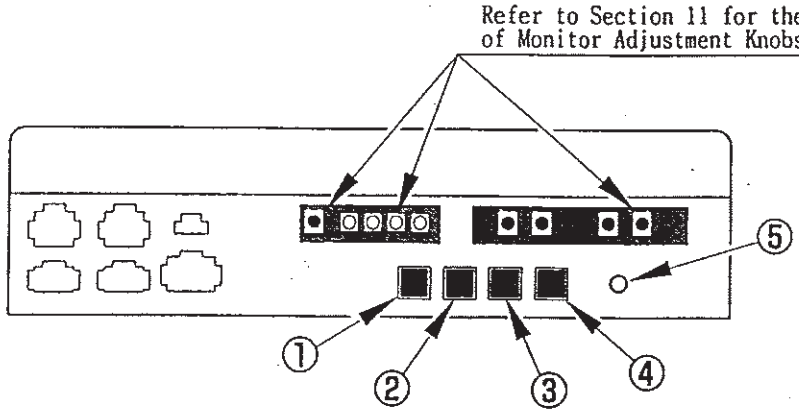
STOP

IMPORTANT!

- Adjust to the optimum sound volume considering the environmental requirements of the installation location.

Unlocking the lock and removing the securing screw on the underside of the Control Panel, as shown below, allows the Control Panel to open. Internal switches can be accessed when the Base is opened.





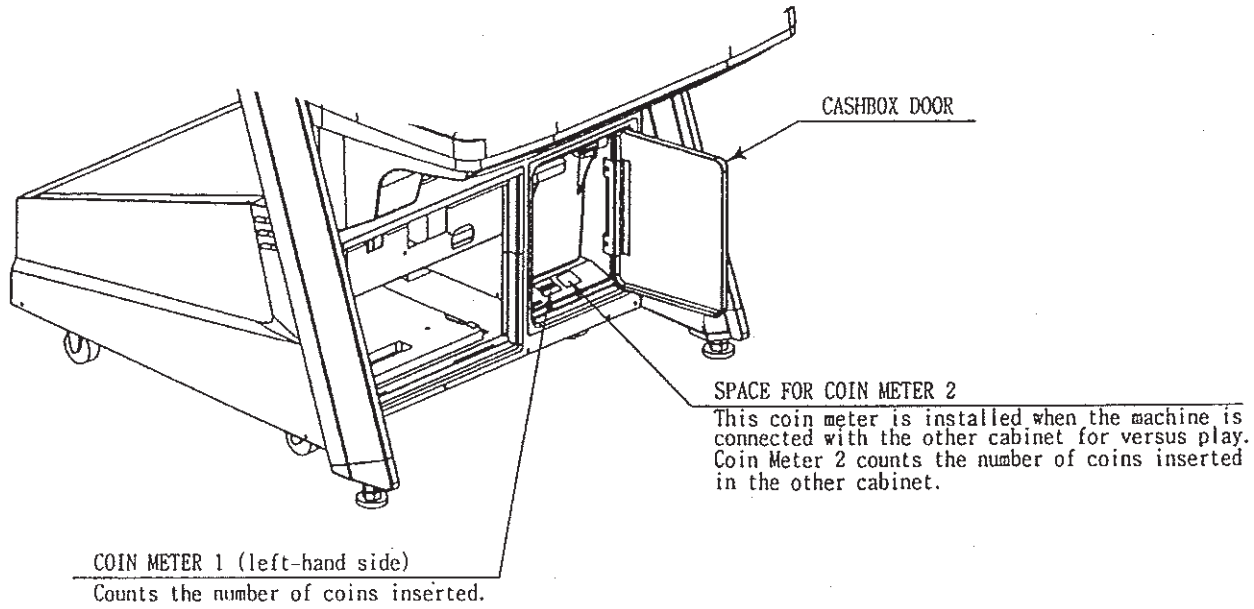
Note: this adjustment panel is located inside the control panel assembly and can be accessed by opening the control panel as described in preceding page.

(1) TEST SWITCH	Push to enter Test Mode of Game BD.
(2) SERVICE SW 1	SERVICE CREDIT SW. Used without registering on the Coin Meter.
(3) SERVICE SW 2	SERVICE CREDIT SW. for 2 players, depending on the specific game.
(4) DEMAG. SWITCH	Removes on-screen colour deviation due to CRT magnetisation. Use this switch before monitor colour adjustment.
(5) SOUND VOLUME	Adjust the Speaker volume.

The Coin Meter is inside the CASHBOX DOOR.

STOP
IMPORTANT!

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



3.8. CONTROL PANEL

WARNING!

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

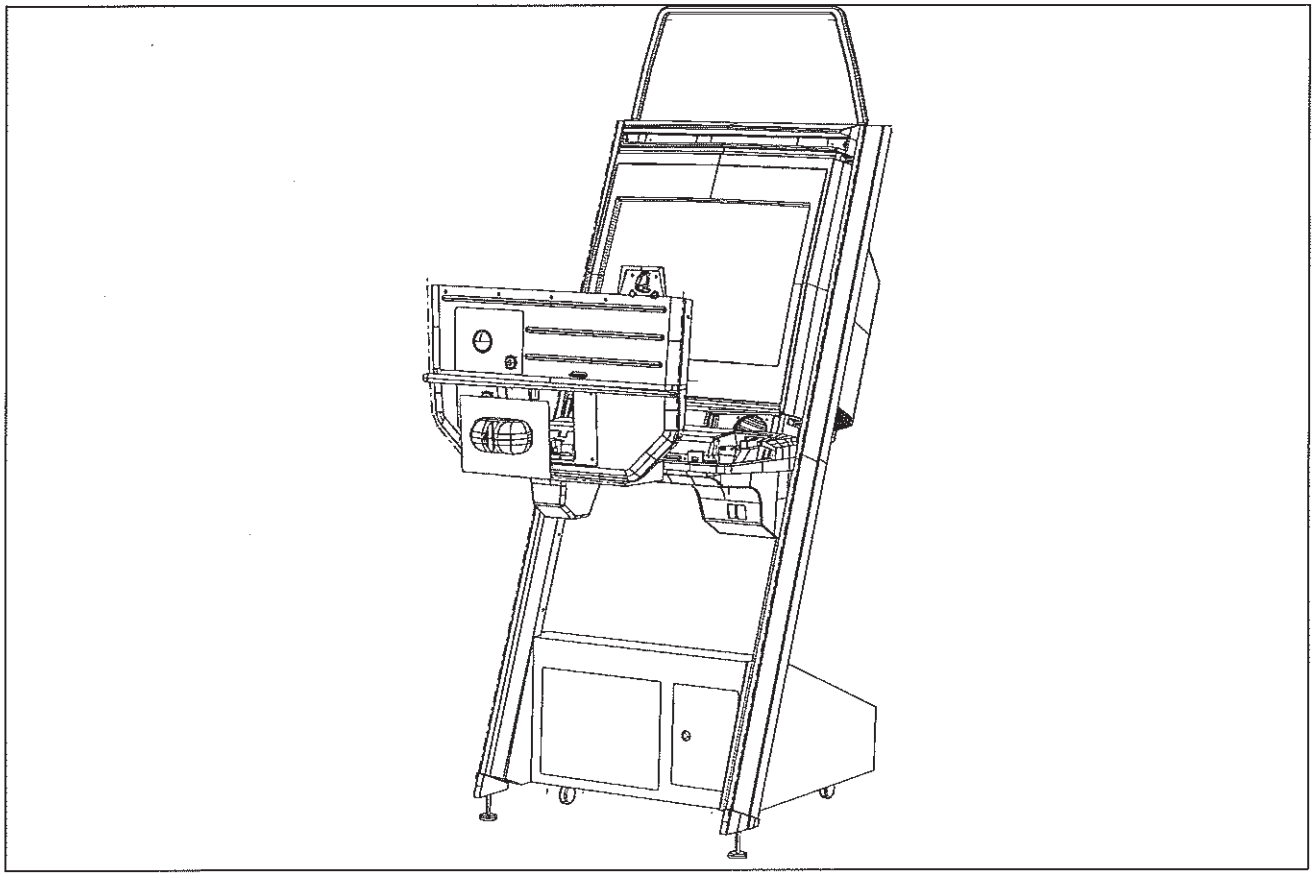
3.8.1. REPLACING THE CONTROL PANEL

1. Power OFF the machine and remove the IEC lead from the wall outlet.
2. Unlock the lock on the underside of the Control Panel Base, and open the Panel.
3. Disconnect the control panel electrically from the machine.
4. Take the stay arm body (if fitted) off its mounting brackets, taking care not to lose its retaining bushes. (The door stay can be simply pushed off).
5. Carefully detach the hinge fro the lower control assembly by undoing the 5 retaining screws.

STOP

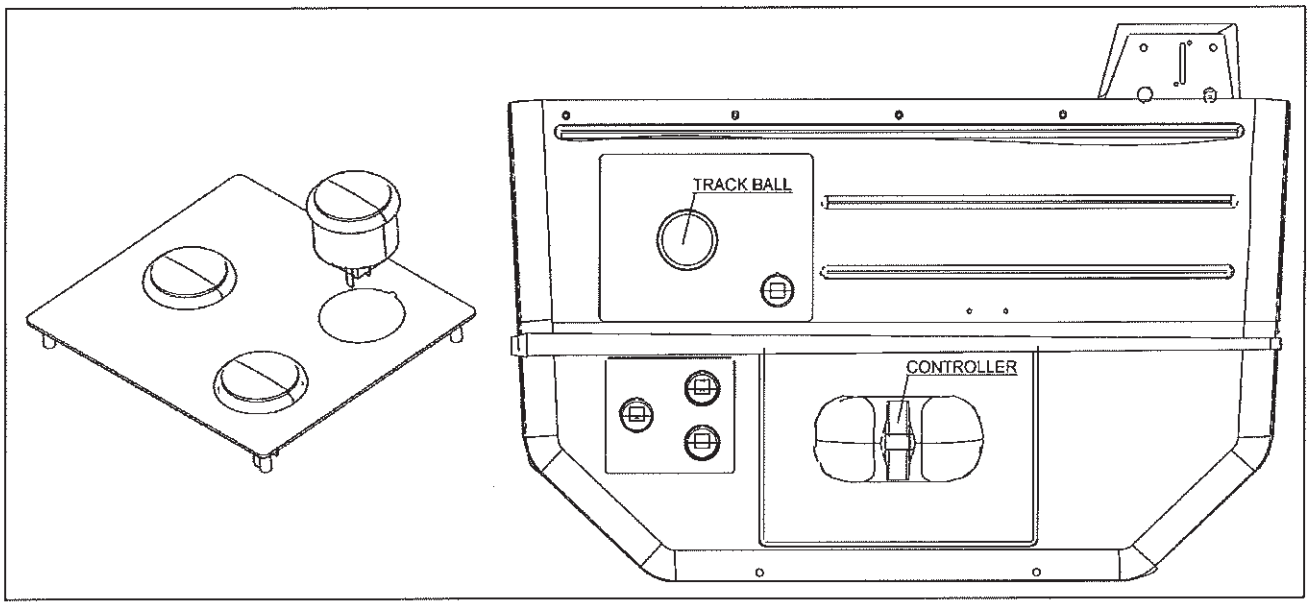
IMPORTANT!

Be sure to support the weight of the control panel when doing this!!



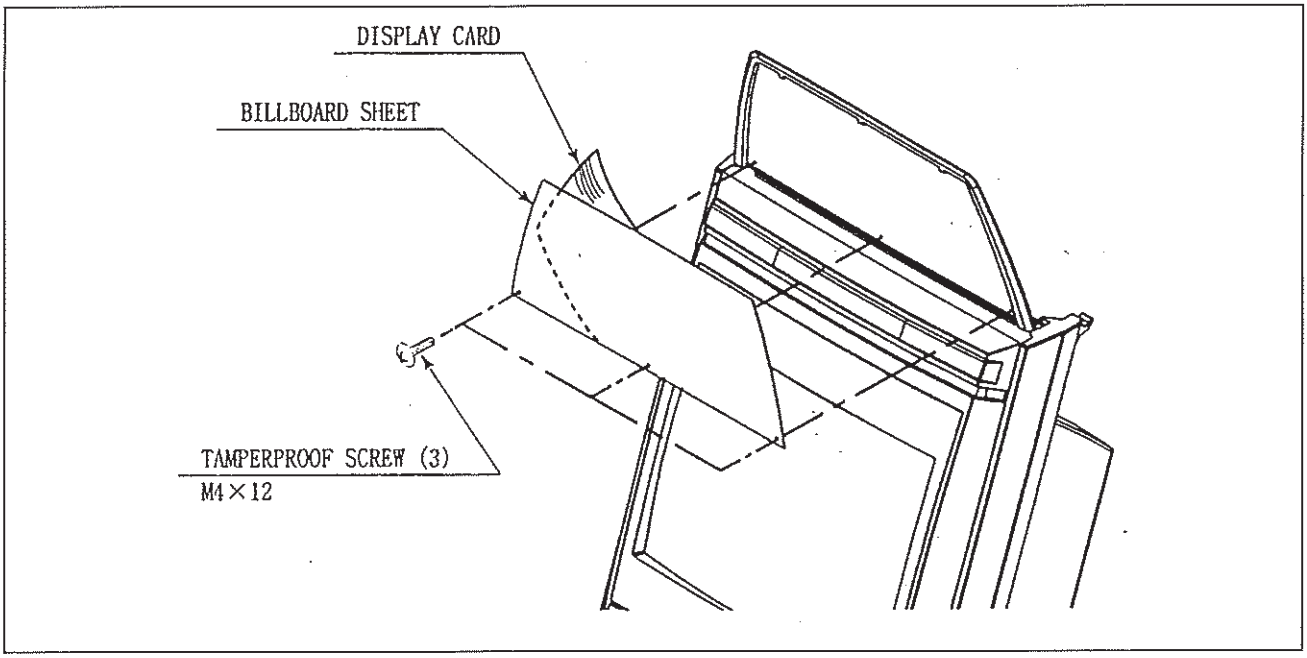
3.8.2. BUTTON REMOVAL

With the Control Panel open disconnect the buttons from the loom. The buttons can be removed by squeezing the retaining clips in and gently pushing the button assembly up and out of their holes. The Controller can be removed by disconnecting the two looms and undoing the 4 retaining screws.



3.9. REPLACING THE DISPLAY CARD

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



3.10. REPLACEMENT OF FLUORESCENT LAMP AND OTHER LAMPS

WARNING!

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

STOP
IMPORTANT!

- Only QUALIFIED SERVICE PERSONNEL should replace lamps.

3.10.1.FLUORESCENT LAMP REPLACEMENT

① Turn power OFF by using the Main SW of AC Unit or the SUB PWR SPLY SW inside the SERVICE DOOR.

② Open the Control Panel (Section 8).

③ By using the flat-blade type screwdriver, etc., remove the 4 screw caps from the Front Panel.

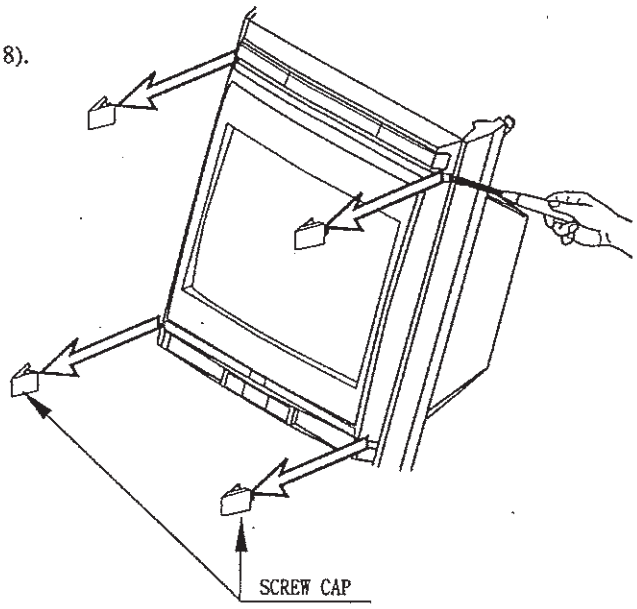
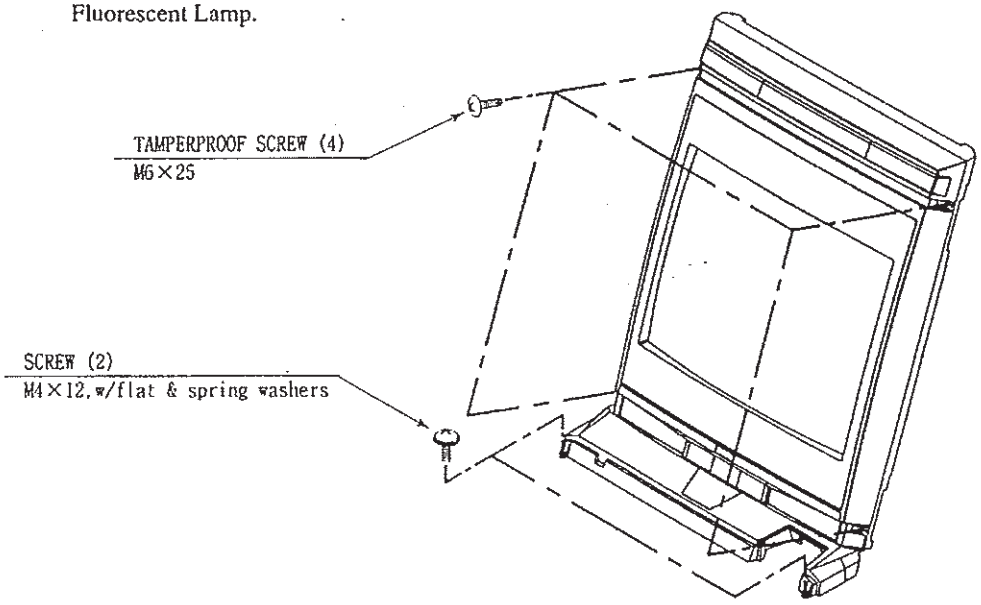
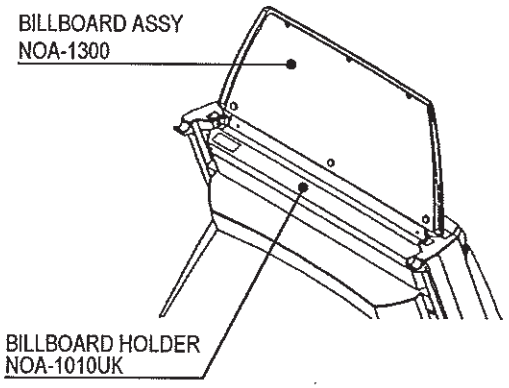


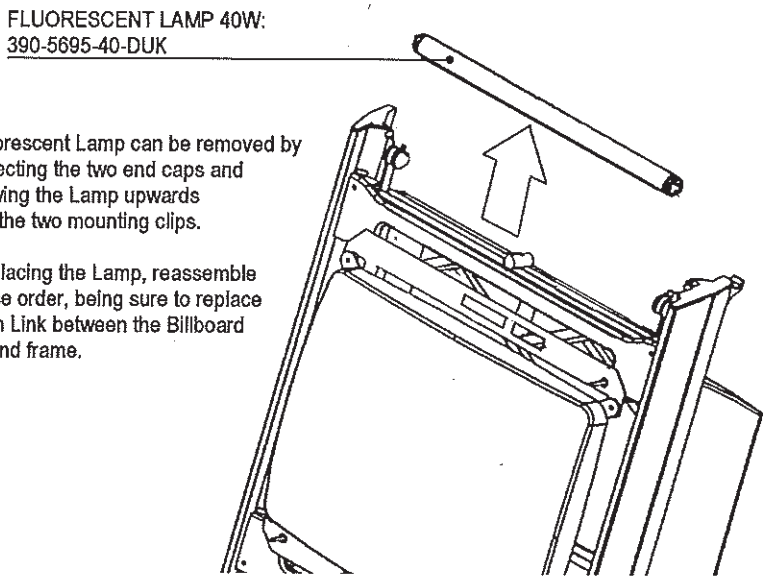
FIG. 12 a

④ Take out the 4 Tamperproof screws & the 2 screws, and remove the Front Panel to replace the Fluorescent Lamp.



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





(6) The Fluorescent Lamp can be removed by disconnecting the two end caps and withdrawing the Lamp upwards through the two mounting clips.

(7) After replacing the Lamp, reassemble in reverse order, being sure to replace the Earth Link between the Billboard Holder and frame.

3.11. GAME BOARD



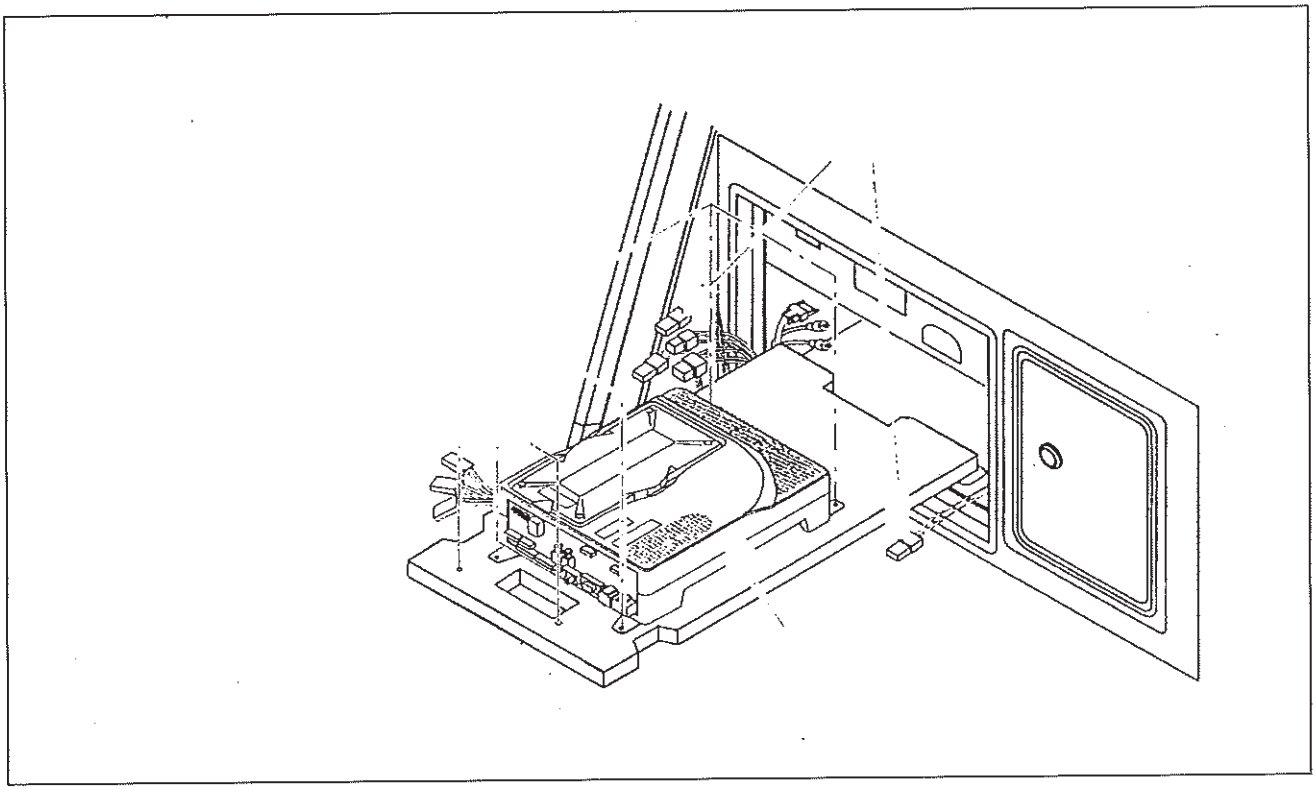
- When performing work, be sure to turn power off. Working with power on can cause an electric shock or short circuit.
- Be careful not to damage wiring. Damaged wiring can cause an electric shock or short circuit.
- The voltage/amperage ratings for the Game Board are 3.3V 12A, 5.0V 10A and 12V 2A. To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

In this manual, only NAOMI SHIELD CASE removal is explained. When using other Game Boards, first check with the supplier for full confirmation of its compatibility before performing work.

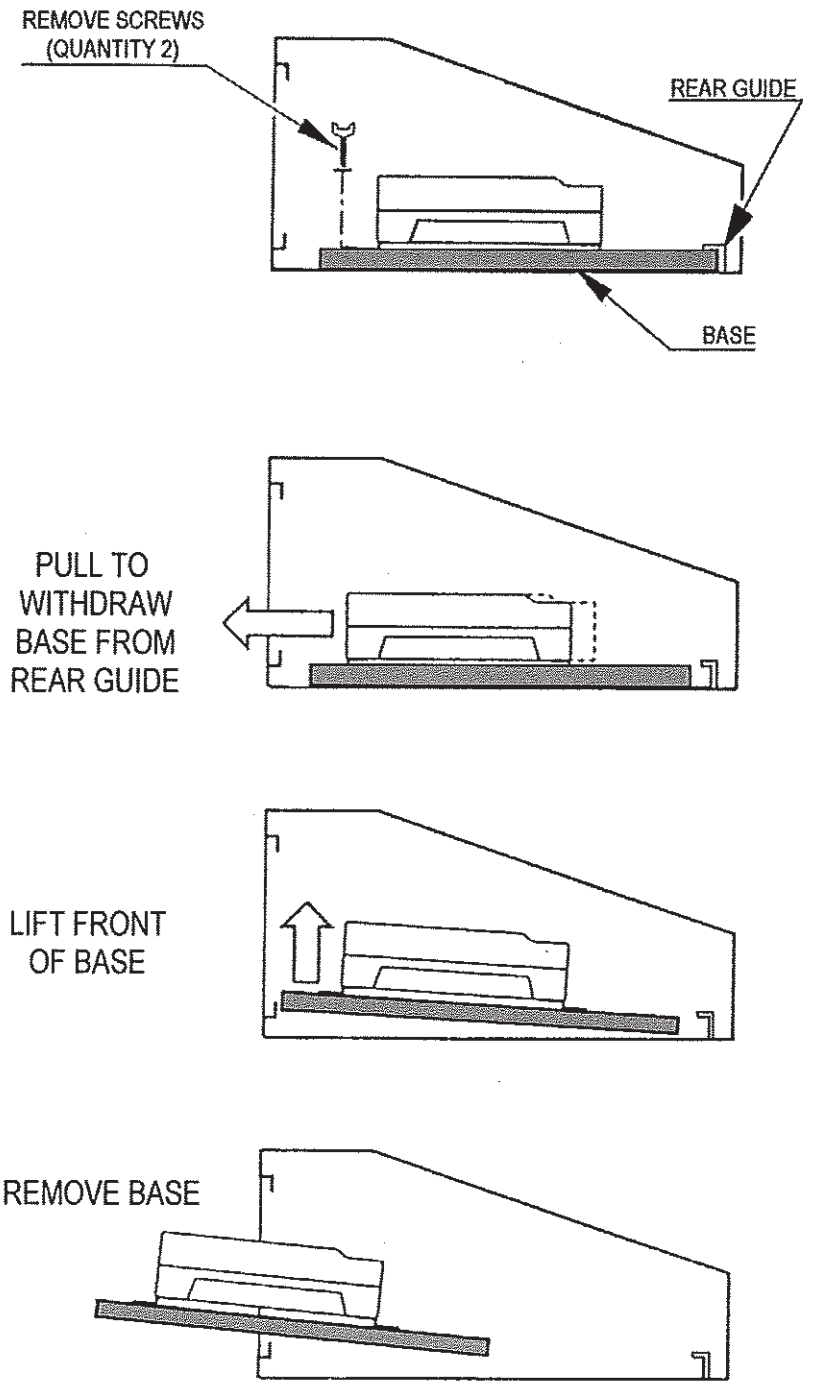
3.11.1.TAKING OUT THE GAME BOARD

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

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

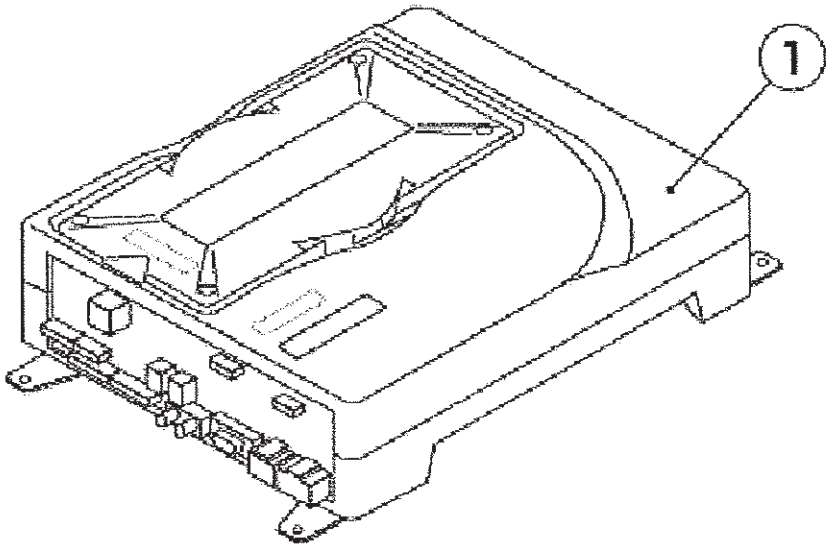


3. Remove the screws securing the wooden Base and remove it from the cabinet together with the Shield Case, as detailed below. Be careful not to damage wiring during removal.



4. Take out the four screws and remove the Shield Case.

3.11.2.COMPOSITION OF GAME BOARD

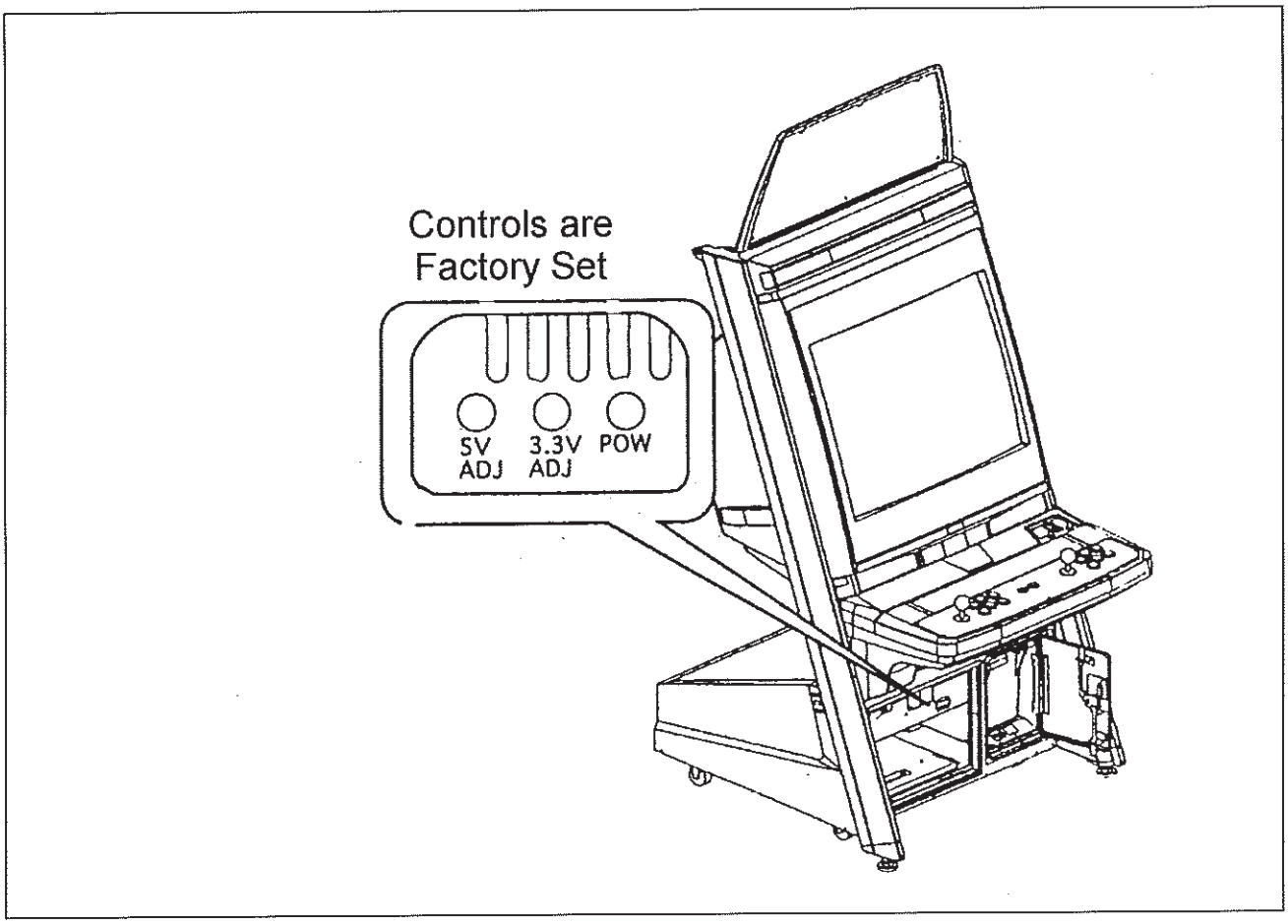


	PART NO.	DESCRIPTION
①	840-002A-12	ASSY CASE NAO CRX MAIN SER EXP

3.12. GAME BOARD POWER SUPPLY VOLTAGE ADJUSTMENT VOLUME

STOP
IMPORTANT!

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



3.13. TROUBLESHOOTING

IMPORTANT!

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

3.14. FUSES



WARNING!

- 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.



IMPORTANT!

- 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
514-5078-4000	SWITCH REG REF. F1	5x20mm CERAMIC SB 4A	1
514-5078-5000	IEC INLET REF. F1	5x20mm CERAMIC SB 5A	1
514-5078-6300	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. CONTENTS OF GAME

4.1. HOW TO PLAY

4.1.1. Select Play Mode



VS Computer: Knockout tournament against computer opponents.

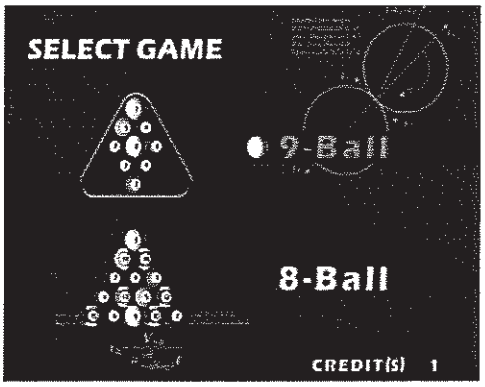
VS Another Player: Play against another player (pay per play).

Practice by Myself: Practice by yourself (pay per play).

Tournament: Compete with the results of all games

Select the desired mode using the track ball and press the Start button to confirm the selection. (The same method is used to select all options listed below)

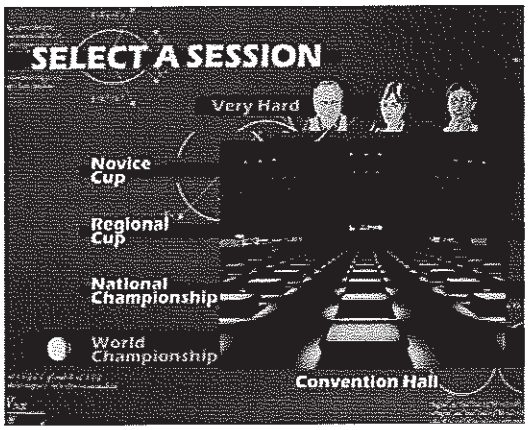
4.1.2. Pool Games



9-Ball
9-Ball is played with nine object balls numbered 1 through 9 and a cue ball.
On the first shot, the cue ball must contact the lowest numbered ball on the table, but the balls need not be pocketed in order.

The player who pockets the 9-ball on a legal shot wins.
8-Ball
8-Ball is played with a cue ball and 15 object balls, numbered 1 through 15. The balls are divided into the Low Number Group (the solid balls numbered 1 through 7), and the High Number Group (the striped balls numbered 9 through 15).
The group to be pocketed by a player depends on the first ball the player legally pockets. On each subsequent shot, the first ball the cue ball contacts must be one of that group.
The player who first pockets all the balls in his group and then legally pockets the 8-ball, wins the game.

4.1.3. VS Computer Mode



DIFFICULTY LEVELS.

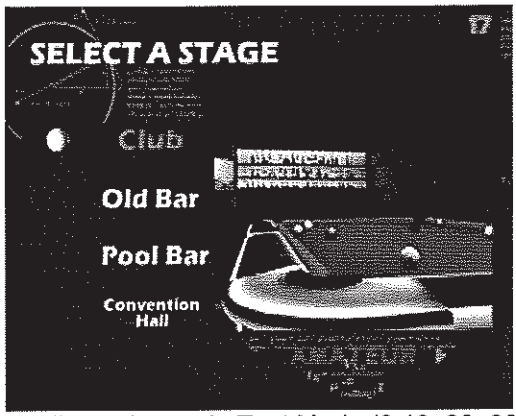
Novice Cup (Easy)
Knockout tournament against the computer with up to two players.

Both of the two matches played feature advice and hints about where to aim when taking a shot. A training mode is included at the beginning.
Regional Cup (Normal)

Knockout tournament against the computer with up to two players.
Only the first match played features advice and hints about where to aim when taking a shot. A training mode is included at the beginning.

National Championship (Hard)
World Championship (Very Hard)
Knockout tournaments against the computer with up to three players.
There is no training mode at the beginning. If all three players win through against the computer a special ending is shown.
Players ranking among the top 20 can enter their name into the game's Hi-Score. Up to 27 letters may be entered.

4.1.4. VS Another Player Mode, Practice by Myself Mode



The length of 'play' time per credit can be set in Test Mode (6,10, 20, 30, 60 minutes). If ample credit is inserted prior to game play, the player can play for an extended length of time and can choose to continue the game when their time is up. However, continuous game play is limited to the length of time (60, 120, 180 minutes) set during Test Mode.

TABLES

The pocket style and playing surface of the tables differ according to the difficulty level.

Club Table

The default table setting is **Amateur**.
Move the track ball to left or right to alter table setting.
(The same applies to the selections below).

Old Bar Table

The default table setting is **Novice**.

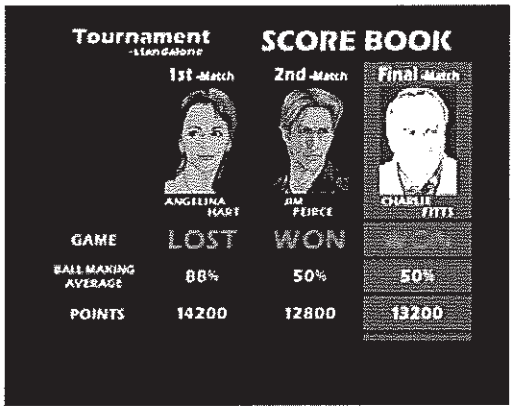
Pool Bar Table

The default table setting is **Standard**.

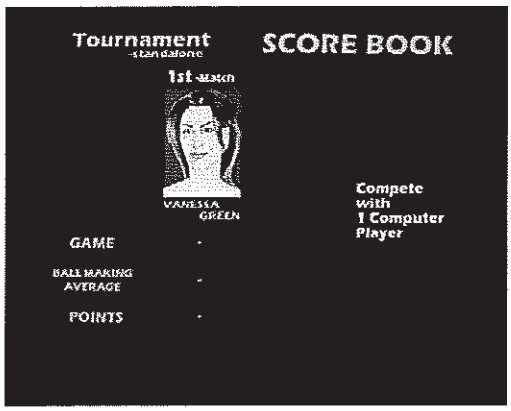
Convention Hall Table

The default table setting is **Expert**.

4.1.5. Tournament Mode



Play against all opponents regardless of wins/losses against the computer. Tournament results are displayed. A special name entry feature makes the game easy to use in in-store tournaments and events. With this feature, each player enters his or her name and birthday when they play. If the same name and birthday are entered more than once, only the higher score will remain in the rankings.
The player's birthday will not be displayed in the rankings, but is stored in Test Mode memory and can therefore be used to verify a player's identity. Up to 27 letters may be entered. The format for birthday data is [month/day/year].



By adjusting the settings in Test Mode, it is possible to alter details such as the number of computer opponents, their characteristics, the table settings, type of game, etc.
(Illustration shows the settings for game play vs. one opponent)

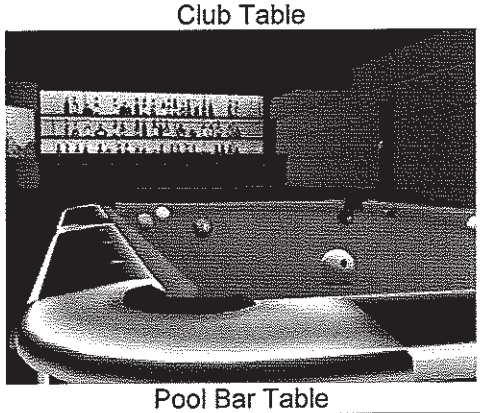
4.1.6. Characters



In VS Computer Mode, the difficulty level (skill level of computer opponents) ranges from Easy to Very Hard.
Illustrations include computer opponents that will not appear during tournament mode unless they are pre-selected in Test Mode.

4.1.7. Tables

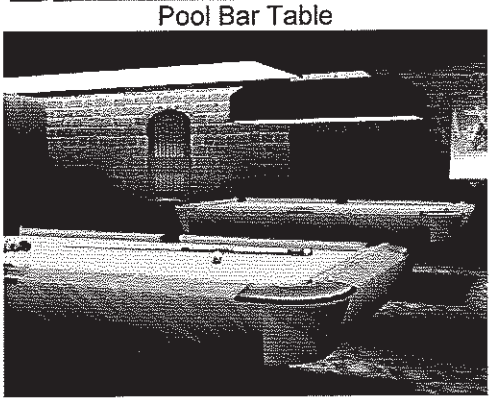
Club Table



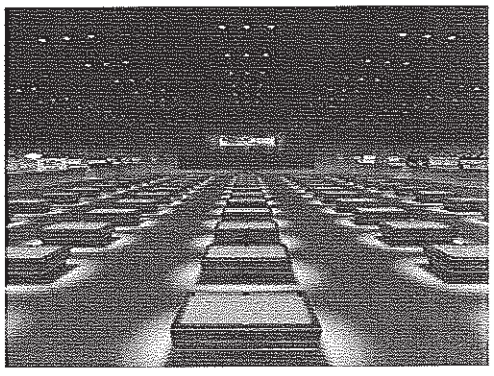
Old Bar Table



Pool Bar Table

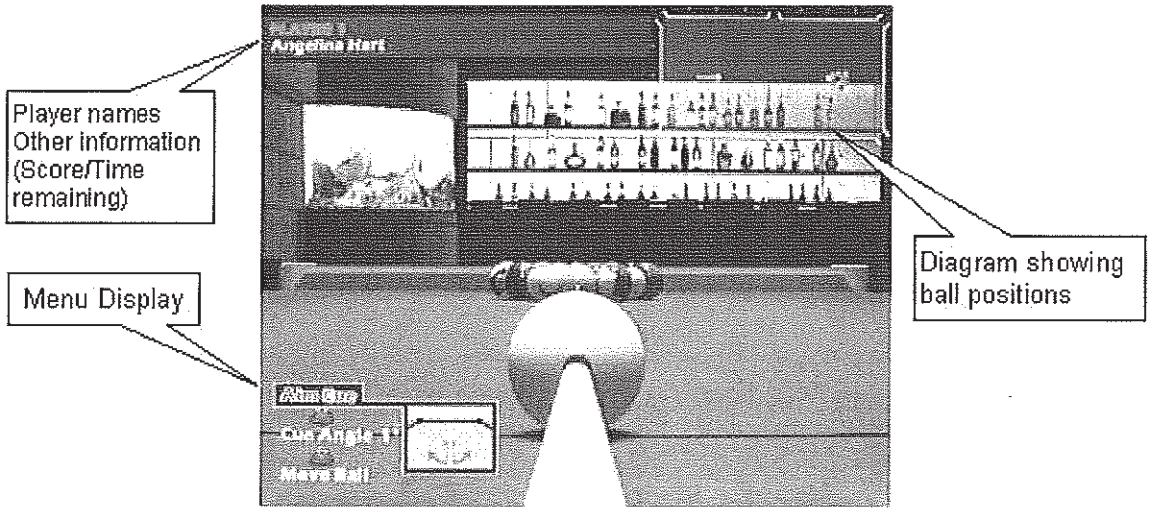


Convention Hall Table

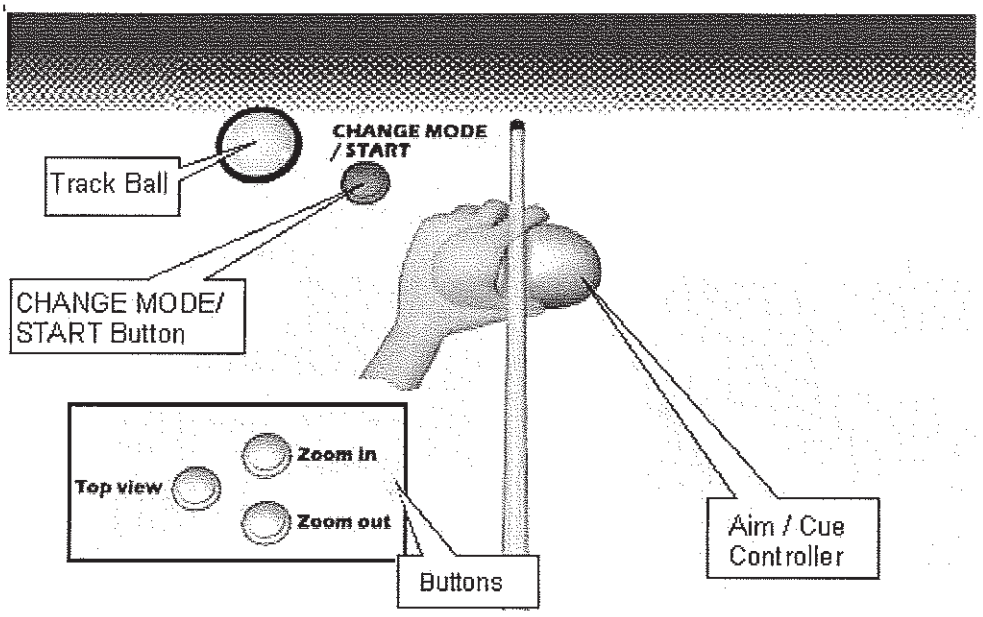


4.1.8. Operation

4.1.8.1.Game Screen



4.1.8.2.Control Panel

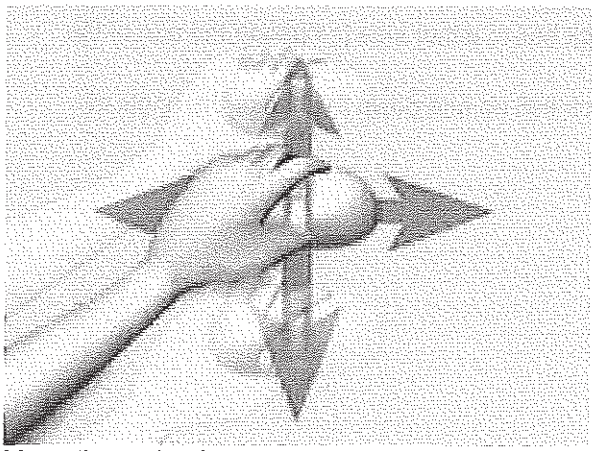


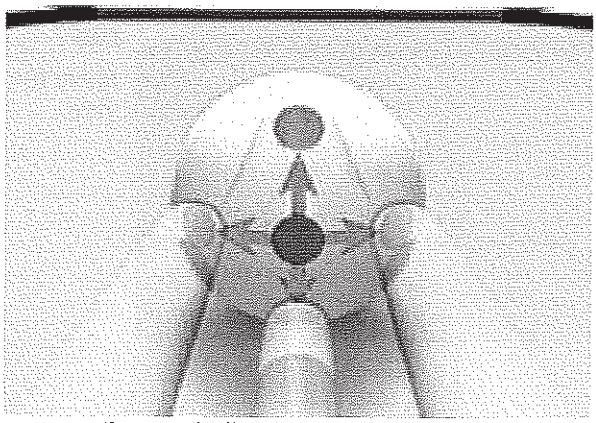
Buttons

Top view: Hold down this button for an overhead view.
Zoom in: Press this button to zoom in one level.
Zoom out: Press this button to zoom out one level.
Zoom in + Zoom out: Press both buttons together on the shot after a break shot in '9' ball to play a PUSH OUT/PUSH OUT PASSED.

In 1 Player Practice Mode it is possible to 'undo' once per shot taken.

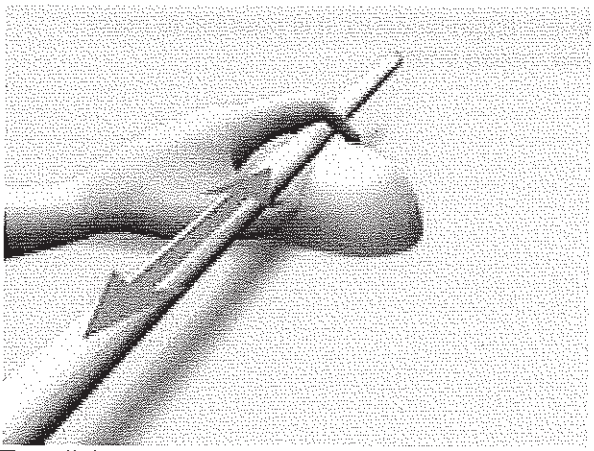
4.1.8.3.Positioning the Cue Tip

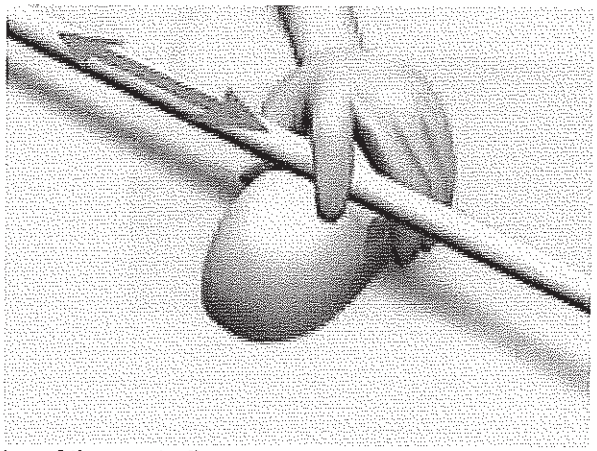




Move the entire Controller to position the cue tip (the area on the cue ball to be struck).

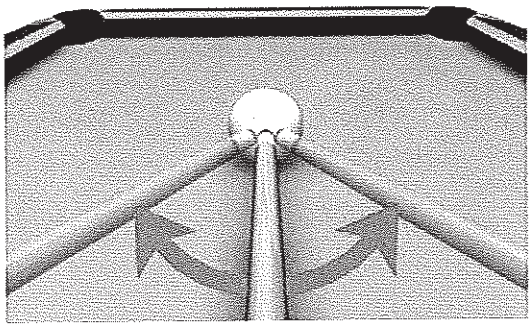
4.1.8.4.Making Your Shot





To pull the cue back, use the roller located at the centre of the controller.
The cue on the screen will change from semi-transparent to opaque. Make your shot by pushing the cue forward.

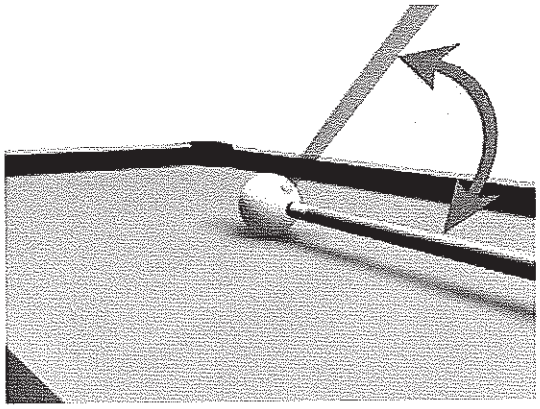
4.1.9. Menu Explanations



Aim Cue Menu

Move the track ball to either side to change the aim of the cue.

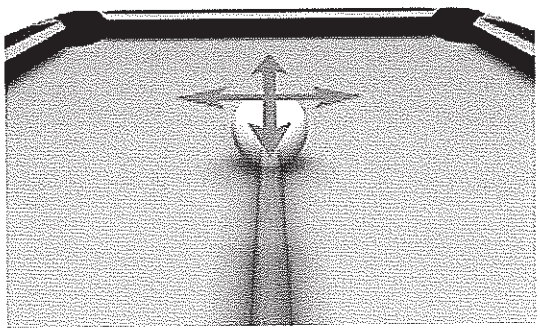
Move the track ball up and down to change the angle of view.



Cue Angle Menu

Move the track ball up and down to change the angle of the cue.

Depending on the angle selected, it is possible to make jump shots and masse shots.



Move Ball Menu

Move the track ball up and down, left and right to move the ball on the screen accordingly.

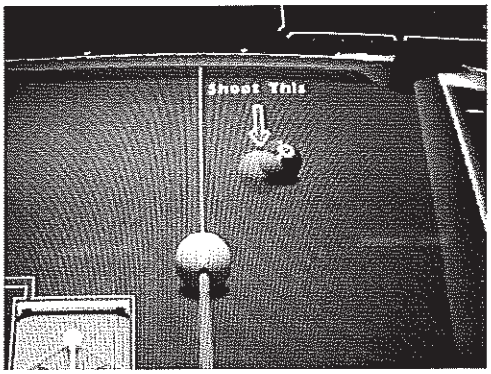
In cases where the ball cannot be moved, this menu will not be displayed.

4.1.10.For Beginners

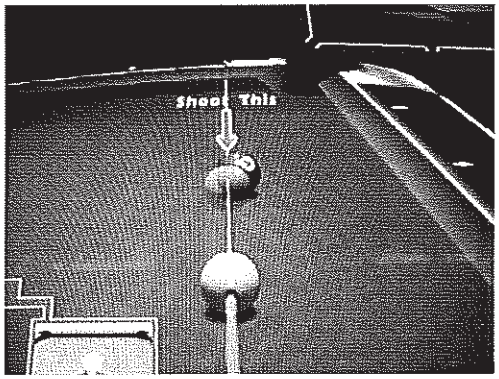
The Novice Cup and Regional Cup in the VS Computer Mode include training modes at the beginning, offering hints on the right direction to aim in order to pocket the balls.

Hints will also appear during the first and second games of the Novice Cup and the first game of the Regional Cup.

However, hints will not appear for situations when the ball is impossible to pocket directly, nor for winning shots.



1) A semi-transparent ball will appear, marking the best place to aim.

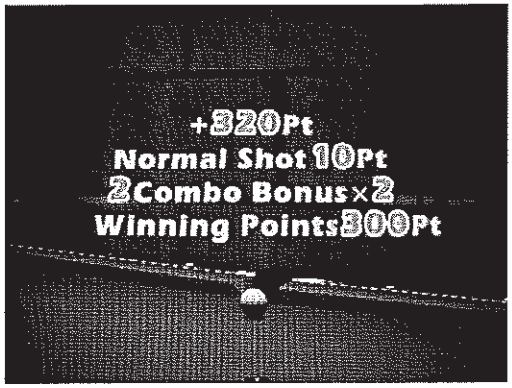


2) Line up the cue direction line with the semi-transparent ball.

4.1.11.Point System

In all game modes other than the Practice by Myself Mode, a point total will be displayed each time a ball is pocketed.

Normal Shot	=	+10 Pt
Jump Shot	=	+20 Pt
Curve Shot	=	+25 Pt
Combination Shot	=	+30 Pt



When balls are pocketed in succession, the words "Combo Bonus" will appear and pre-specified combo bonus points will be multiplied to the players point total. In this way, players can earn a higher score with successive pocketing of balls.

In addition, a winning point bonus of 300 Pt will be awarded to the winner of the match.

The VS Computer Tournament Ranking is calculated based on the following factors (in order of importance).

1. Number of wins
2. Total points
3. Ball Making Average

5. TEST MODE

5.1. GAME TEST MENU

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

(GAME TEST MENU Screen)

```
SHOOTOUT POOL TEST MODE

INPUT TEST
VOLUME SETTING
GAME ASSIGNMENTS
BOOKKEEPING
BACKUP DATA CLEAR

EXIT

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON
```

After the test is complete, move the cursor to EXIT and press the TEST Button to return to the System Menu screen.

5.1.1. 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. Make sure that the indicator for each of the input devices can be changed from OFF to ON as you operate the corresponding device.
Test the track ball, cue roller, and Aim Controller to ensure that they are functioning properly and that the parameters change smoothly as each device is operated.

(INPUT TEST Screen)

```
INPUT TEST

TOP VIEW        [  OFF  ]  →  ( ON )
ZOOM IN         [  OFF  ]  →  ( ON )
ZOOM OUT        [  OFF  ]  →  ( ON )
START/MODE      [  OFF  ]  →  ( ON )
SERVICE         [  OFF  ]  →  ( ON )
TEST            [  OFF  ]  →  ( ON )
TRACK BALL X    [ XXXXH ]  →  ( 0000H-FFFFH )
TRACK BALL Y    [ XXXXH ]  →  ( 0000H-FFFFH )
CUE ROLLER      [ XXXXH ]  →  ( 0000H-FFFFH )
CUE TIP UD      [  XXH  ]  →  ( 00H-FFH )
CUE TIP LR      [  XXH  ]  →  ( 00H-FFH )


PRESS TEST AND SERVICE BUTTON TO EXIT
```

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

5.1.2. VOLUME SETTING

Select VOLUME SETTING to display the following screen and set the volume of the Aim Controller.

(VOLUME SETTING Screen)

```
VOLUME SETTING
MOVE THE CONTROLLER TO THE LEFT,
RIGHT, UP AND DOWN
MOVE THE CONTROLLER TO THE CENTRE
WHEN YOU EXIT

                    TOP [ XXH ]
                          XXH
        LEFT [ XXH ]                    RIGHT [ XXH ]
              XXH                             XXH
                    DOWN [ XXH ]
                          XXH

EXIT WITHOUT SAVE
EXIT WITH SAVE
SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON
```

The display [XXH] shows the current value, and the display XXH below it shows the previous value.

Move the Aim Controller up and down, left and right, as far as is possible and then return the Controller to the center. Set [XXH] to the highest possible value for each direction. Then select EXIT WITH SAVE and press the TEST Button. The screen will display the new settings and then return to the Game Test Menu.

Choose EXIT WITHOUT SAVE to return to the Game Test Menu screen without altering the settings.

5.1.3. GAME ASSIGNMENTS

Select GAME ASSIGNMENTS to display the current game settings and make changes. Changes to settings are not enabled until Test Mode is exited. After changing settings, be sure to exit Test Mode.

(GAME ASSIGNMENTS Screen)

```
GAME ASSIGNMENTS

VS COMPUTER                    .....a
VS ANOTHER PLAYER, PRACTICE    .....b
TOURNAMENT                     .....c
GAME STYLE                     .....d

EXIT

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON
```

a. VS COMPUTER: Alters settings for games VS CPU Mode
b. VS ANOTHER PLAYER, PRACTICE: Alters setting for 2 Player VS/1 Player Practice Modes.
c. TOURNAMENT: Alters settings for Tournament Mode
d. GAME STYLE: Sets game style
After changing the settings, select EXIT and press the TEST Button to return to the Game Test Menu screen.

5.1.3.1. VS COMPUTER

Select VS COMPUTER to display the following screen and alter VS COMPUTER Mode game settings.

(VS COMPUTER Screen)

```
GAME ASSIGNMENTS
VS COMPUTER

SHOT TIME LIMIT          [   60 SEC  ]
COMPUTER SKILL           [  NORMAL  ]

- POOL TABLE SETTING -
EASY SESSION             [ AMATEUR ]
NORMAL SESSION           [  NOVICE  ]
HARD SESSION             [ STANDARD ]
VERY HARD SESSION        [  EXPERT  ]

DEFAULT SETTING

EXIT

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON
```

❋ SHOT TIME LIMIT:
The time allotted to make a shot can be set to any of the following: 30, 45, 60, 75, 90, 120 seconds or NO LIMIT.

❋ COMPUTER SKILL:
The difficulty level (skill level of computer opponents) can be set to one of the following: EASY, NORMAL, HARD, or VERY HARD.

❋ - POOL TABLE SETTING -:

The difficulty of the table in each stage can be set to one of the following: AMATEUR, NOVICE, STANDARD, EXPERT, or PRO. As difficulty level increases, pocket size decreases and ball speed increases.

[ ] shows the default setting. Select an item and press the TEST Button to change the settings.

Select DEFAULT SETTING and press the TEST Button to return all items to their original settings.

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 Assignments screen.

5.1.3.2. VS ANOTHER PLAYER, PRACTICE

Select VS ANOTHER PLAYER, PRACTICE to display the following screen and set the content of the 2 player VS and 1player PRACTICE Modes.

(VS ANOTHER PLAYER, PRACTICE Screen)

```
GAME ASSIGNMENTS
VS ANOTHER PLAYER, PRACTICE

START GAME TIME    [  10 MIN ]
MAX GAME TIME      [  60 MIN ]

DEFAULT SETTING

EXIT

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON
```

❋ START GAME TIME:

The standard game length per fixed number of game start credits/continue credits inserted may be selected from the following: 6, 10, 20, 30, 60 mins.

❋ MAX GAME TIME:

The total continuous 'play' time possible may be selected from the following: 60, 120, 180 mins.

[ ] shows the default setting. Select an item and press the TEST Button to alter settings.

Select DEFAULT SETTING and press the TEST Button to return all items to their original settings.

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 Assignments screen.

5.1.3.3.TOURNAMENT

Select TOURNAMENT to display the following screen and change the settings of games in TOURNAMENT Mode.

(TOURNAMENT Screen)

```
GAME ASSIGNMENTS
TOURNAMENT

NUMBER OF GAMES          [     3      ]

SHOT TIME LIMIT          [   60 SEC   ]
COMPUTER SKILL           [  NORMAL    ]
SELECT GAME              [ 8 & 9-BALL ]

1ST MATCH PLAYER         [ ANGELINA   ]
2ND MATCH PLAYER         [     JIM    ]
3RD MATCH PLAYER         [  CHARLIE   ]

1ST MATCH TABLE          [    CLUB    ]
2ND MATCH TABLE          [ POOL BAR   ]
3RD MATCH TABLE          [    HALL    ]

 -POOL TABLE SETTING-
CLUB                     [ AMATEUR    ]
OLD BAR                  [ NOVICE     ]
POOL BAR                 [ STANDARD   ]
CONVENTION HALL          [ EXPERT     ]

DEFAULT SETTING

EXIT

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON
```

* NUMBER OF GAMES:
  The number of matches in one game.
  Choose from 1, 2, or 3 matches.

* SHOT TIME LIMIT:
  The time allotted for one shot. Choose from "30, 45, 60, 75, 90, 120 seconds, or NO LIMIT".

* COMPUTER SKILL:
  The difficulty level (skill level of computer opponents). Choose from "EASY, NORMAL, HARD, or VERY HARD".

* SELECT GAME:
  Select the games available for players to choose from. Choose from "8 & 9-BALL, 8-BALL only, or 9-BALL only".

- ❋ 1ST MATCH PLAYER: Select the first computer opponent.
- ❋ 2ND MATCH PLAYER: Select the second computer opponent.
- ❋ 3RD MATCH PLAYER: Select the third computer opponent.
  (To ensure the same player is not used twice, it is not possible to choose a name that is already in use.)

The skill level of the computer players increases in the following order: ANGELINA, GEORGE, SHINOBU, BILLY, KATE, MARK, JIM, JAZZY, CHARLIE, VANESSA, ALICIA, and FRED.

It is possible to change the overall skill level of the computer players by changing the COMPUTER SKILL settings. However, it is not possible to change the skill level of individual players. (The balance of special techniques is the same for all players.)

- ❋ 1ST MATCH TABLE: Select the table to be used for the first match.
- ❋ 2ND MATCH TABLE: Select the table to be used for the second match.
- ❋ 3RD MATCH TABLE: Select the table to be used for the third match.

It is possible to choose from the following tables: "CLUB, OLD BAR, POOL BAR, HALL". The same table may be used for more than one match.

• -POOL TABLE SETTING –

It is possible to set the difficulty level of the table in each stage.
Choose from the following levels of difficulty: "AMATEUR, NOVICE, STANDARD, EXPERT, and PRO". As difficulty level increases, pocket size decreases and ball speed increases.

[ ] shows the default setting. Select an item and press the TEST Button to alter settings.

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 Assignments screen.

5.1.3.4. GAME STYLE

Select GAME STYLE to display the following screen and select the game style.

(GAME STYLE Screen)

```
GAME ASSIGNMENTS
GAME STYLE

        NO NETWORK
8-BALL STYLE            [   US   ]
TOURNAMENT MODE         [ STANDALONE ]

DEFAULT SETTING

EXIT

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON
```

❋ 8-BALL STYLE: 8 Ball gameplay/rules settings.
Choose either US or UK setting. In US Mode, the balls used are numbered from 1 through 15, whereas in UK Mode the balls used are red, yellow and a ball of No. 8. Each mode uses the rules recognized in the respective country.
(Default setting varies in the area where it is shipped.)

❋ TOURNAMENT MODE: Tournament Mode Settings
Select OFF to prevent selections being made from the Selection Screen.
([ ] shows the default setting.)

Select an item and press the TEST Button to alter settings.

Select DEFAULT SETTING and press the TEST Button to return all items to their original settings.

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 Assignments screen.

5.1.4. BOOKKEEPING

Select BOOKKEEPING to display the following screens of operating status data.

(BOOKKEEPING MENU Screen)

```
BOOKKEEPING MENU


MAIN GAME DATA                          .....a
VS COMPUTER GAME DATA                   .....b
VS ANOTHER PLAYER, PRACTICE GAME DATA   .....c
TOURNAMENT GAME DATA                    .....d
TIME HISTOGRAM                          .....e

EXIT

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON
```

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

5.1.4.1.MAIN GAME DATA

Select MAIN GAME DATA to display the following screen and view the main statistical information about the games played so far.

(MAIN GAME DATA Screen)

```
MAIN GAME DATA

TOTAL NUMBER OF GAMES          = 0
VS COMPUTER GAMES              = 0
VS ANOTHER PLAYER GAMES        = 0
PRACTICE GAMES                 = 0
TOURNAMENT GAMES               = 0

TOTAL NUMBER OF 9-BALL GAMES   = 0
TOTAL NUMBER OF 8-BALL GAMES   = 0

PRESS TEST BUTTON TO EXIT
```

- TOTAL NUMBER OF GAMES: Shows total number of games played.
- VS COMPUTER GAMES: Shows total number of games played in VS COMPUTER Mode.
- VS ANOTHER PLAYER GAMES: Shows total number of games played in 2 Player VS Mode.
- PRACTICE GAMES: Shows total number of games played in 1 Player Practice Mode.
- TOURNAMENT GAMES: Shows total number of games played in Tournament Mode.

- TOTAL NUMBER OF 9-BALL GAMES:
  Shows total number of times 9-BALL GAME has been selected.
- TOTAL NUMBER OF 8-BALL GAMES:
  Shows total number of times 8-BALL GAME has been selected.

Press the TEST Button to return to the Bookkeeping Menu screen.

5.1.4.2.VS COMPUTER GAME DATA

Select VS COMPUTER GAME DATA to display the following screen and view the main statistics concerning games played in 1 Player VS COMPUTER Mode up till the present.

(VS COMPUTER GAME DATA Screen)

```
VS COMPUTER GAME DATA

TOTAL PLAY TIME          =  0D  0H  0M  0S
AVERAGE TIME             =  0D  0H  0M  0S
LONGEST TIME             =  0D  0H  0M  0S
SHORTEST TIME            =  0D  0H  0M  0S

-NUMBER OF SELECTED SESSIONS-
NOVICE CUP               =  0
REGIONAL CUP             =  0
NATIONAL CHAMPIONSHIP    =  0
WORLD CHAMPIONSHIP       =  0

- GAMES WON -
WON 0                    =  0
WON 1                    =  0
WON 2                    =  0
WON 3                    =  0

- POINTS -
[   0  - 499   ]         =  0
[  500 -   999 ]         =  0
[ 1000- 1499 ]           =  0
[ 1500- 1999 ]           =  0
[ 2000- OVER ]           =  0

PRESS TEST BUTTON TO EXIT
```

- TOTAL PLAY TIME: Shows total play time.
- AVERAGE TIME: Shows average time taken to complete one game.
- LONGEST TIME: Shows time of longest game.
- SHORTEST TIME: Shows time of shortest game.

- - NUMBER OF SELECTED SESSIONS -:
  Shows number of times each session has been selected.
- - GAMES WON -: Shows distribution of games won.
- - POINTS -: Shows distribution of points won.

Press the TEST Button to return to the Bookkeeping Menu screen.

5.1.4.3. VS ANOTHER PLAYER, PRACTICE GAME DATA

Select VS ANOTHER PLAYER, PRACTICE GAME DATA to display the following screen and view all the statistics of games played in 2 Player VS Mode and in 1 Player Practice Mode.

(VS ANOTHER PLAYER, PRACTICE GAME DATA Screen)

VS ANOTHER PLAYER, PRACTICE GAME DATA

TOTAL PLAY TIME	=	0D	0H	0M	0S
AVERAGE TIME	=	0D	0H	0M	0S
LONGEST TIME	=	0D	0H	0M	0S
SHORTEST TIME	=	0D	0H	0M	0S
TOTAL CONTINUE COUNT	=	0			
AVERAGE CONTINUE COUNT	=	0			
MAXIMUM CONTINUE COUNT	=	0			

PRESS TEST BUTTON TO EXIT

- TOTAL PLAY TIME: Total time.
- AVERAGE TIME: Shows average time taken to complete one game.
- LONGEST TIME: Shows time of longest game.
- SHORTEST TIME: Shows time of shortest game.

- TOTAL CONTINUE COUNT: Shows total number of continues.
- AVERAGE CONTINUE COUNT: Shows average number of continues per session.
- MAXIMUM CONTINUE COUNT: Shows maximum number of continues in one session.

Press the TEST Button to return to the Bookkeeping Menu screen.

5.1.4.4.TOURNAMENT GAME DATA

Select TOURNAMENT GAME DATA to display the following screen and view the statistics of games played in tournament mode.

(TOURNAMENT GAME DATA Screen [1/2])

```
TOURNAMENT GAME DATA [1/2]

NUMBER OF ENTER NAME          =  0
NUMBER OF ABORT ENTER         =  0

TOTAL PLAY TIME               =  0D  0H  0M  0S
AVERAGE TIME                  =  0D  0H  0M  0S
LONGEST TIME                  =  0D  0H  0M  0S
SHORTEST TIME                 =  0D  0H  0M  0S

- GAMES WON -
WON 0                         =  0
WON 1                         =  0
WON 2                         =  0
WON 3                         =  0

- POINTS -
[   0- 499 ]                  =  0
[ 500- 999 ]                  =  0
[ 1000- 1499 ]                =  0
[ 1500- 1999 ]                =  0
[ 2000- OVER ]                =  0

- BALL MAKING AVERAGE -
[  0%- 19% ]                  =  0
[ 20%- 39% ]                  =  0
[ 40%- 59% ]                  =  0
[ 60%- 79% ]                  =  0
[ 80%-100% ]                  =  0

PRESS TEST BUTTON TO NEXT PAGE
```

- NUMBER OF ENTER NAME: Shows number of name entries made.
- NUMBER OF ABORT ENTER: Shows number of times name entry has been aborted.

- TOTAL PLAY TIME: Shows total play time.
- AVERAGE TIME: Shows average time taken to complete one game.
- LONGEST TIME: Shows time of longest game.
- SHORTEST TIME: Shows time of shortest game.

- - GAMES WON -: Shows distribution of games won.
- - POINTS -: Shows distribution of points.
- – BALL MAKING AVERAGE -: Shows percentage of successful pockets.

Press the TEST Button to display the second Bookkeeping screen (TOURNAMENT GAME DATA [2/2]).

(TOURNAMENT GAME DATA Screen [2/2])

TOURNAMENT GAME DATA [2/2]

NO	NAME	WON	AVE	SCORE	BIRTHDAY
1	----	0	0%	0	00000000
-	----	0	0%	0	00000000
20	----	0	0%	0	00000000

PRESS TEST BUTTON TO EXIT

Displays the top 20 names entered. Birthdays are only displayed on this screen, and are not included in the advertising ranking. Birthday data is saved and by making a copy of this page birthday data can be used to confirm the identity of players at tournament and other in-store events.

Press the TEST Button to return to the Bookkeeping Menu screen.

5.1.4.5.TIME HISTOGRAM

Select TIME HISTOGRAM to display the following screen and view the distribution of game times for all modes.

Refer to this histogram when setting the Game Difficulty.

(TIME HISTOGRAM Screen)

TIME HISTOGRAM

[00M00S - 01M59S]	*	0
[02M00S - 03M59S]	*	0
[...]	*	0
[38M00S - 39M59S]	*	0
[OVER 40M00S]	*	0

PRESS TEST BUTTON TO EXIT

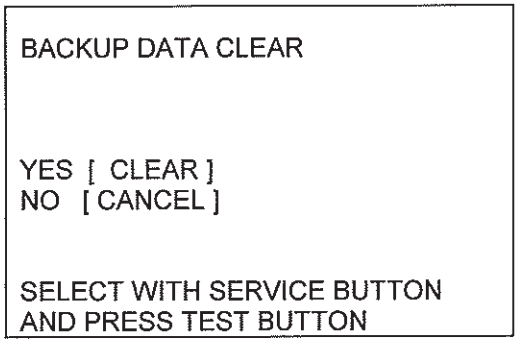
The TIME HISTOGRAM displays the total number of games played in one session. Use this data for reference when selecting the difficulty level of game play. The "*" indicates distribution.

Press the TEST Button to return to the Bookkeeping Menu screen.

5.1.5. BACKUP DATA CLEAR

Select BACKUP DATA CLEAR to display the following screen and erase the BOOKKEEPING data. Clearing BACKUP DATA will not affect GAME ASSIGNMENTS 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.

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.

5.1.6. COIN ASSIGNMENTS – Sequence setting function

Select SEQUENCE SETTING of COIN ASSIGNMENTS from the NAOMI SYSTEM MENU to display the following screen and view the credits for each game mode.

(COIN ASSIGNMENTS > SEQUENCE SETTING Screen)

```
COIN ASSIGNMENTS
SEQUENCE SETTING

SEQUENCE 1    1 CREDIT(S)
SEQUENCE 2    1 CREDIT(S)
SEQUENCE 3    1 CREDIT(S)
SEQUENCE 4    1 CREDIT(S)
SEQUENCE 5    1 CREDIT(S)
SEQUENCE 6    1 CREDIT(S)
SEQUENCE 7    1 CREDIT(S)
SEQUENCE 8    1 CREDIT(S)
EXIT

[SHOOTOUT POOL]
DESCRIPTION OF SEQUENCE
1 CREDIT TO START VS COM
2 CREDIT TO START VS ANT PLC
3 CREDIT TO CONTINUE
4 CREDIT TO TOURNAMENT
5 NO USE
6 NO USE
7 NO USE
8 NO USE

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON
```

- ❋ SEQUENCE 1: Shows number of Start credits needed for VS COMPUTER MODE.
- ❋ SEQUENCE 2: Shows number of Start credits needed for VS ANOTHER PLAYER and PRACTICE MODES.
- ❋ SEQUENCE 3: Shows number of Continue credits needed for VS ANOTHER PLAYER and PRACTICE MODES.
- ❋ SEQUENCE 4: Shows number of start credits needed for TOURNAMENT MODE.

6. COIN SELECTORS

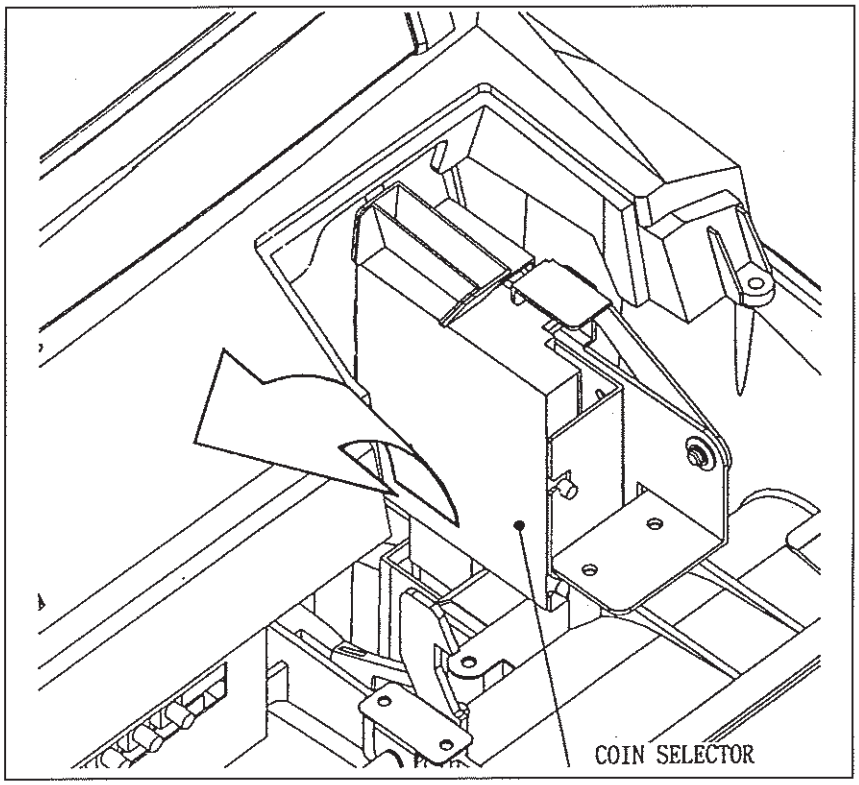


- Before starting work, ensure that the cabinet is isolated from the mains by switching off and removing the IEC mains lead from the wall outlet.
- Be careful not to damage wiring. Damaged wiring can cause electric shock and short circuits.

6.1.1. COIN CONTROLS SR3 (TOP ENTRY)

6.1.1.1. TAKING OUT THE COIN MECH.

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



6.1.1.2. CLEARING A COIN JAM

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

6.2. *MAINTENANCE INSTRUCTIONS*

6.2.1. EXPLANATION OF TEST AND DATA DISPLAY

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

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

6.3. *PERIODIC CHECK AND INSPECTION*

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



WARNING!

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

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

6.4. *CLEANING THE CABINET SURFACES*

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

7. COIN MECH INSTALLATION AND CREDIT BOARD SET UP

INTRODUCTION

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

7.1. EXCEL *CREDIT BOARD OPTION SETTINGS*

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

The *Excel* board pictured below is mounted in the Control Panel..

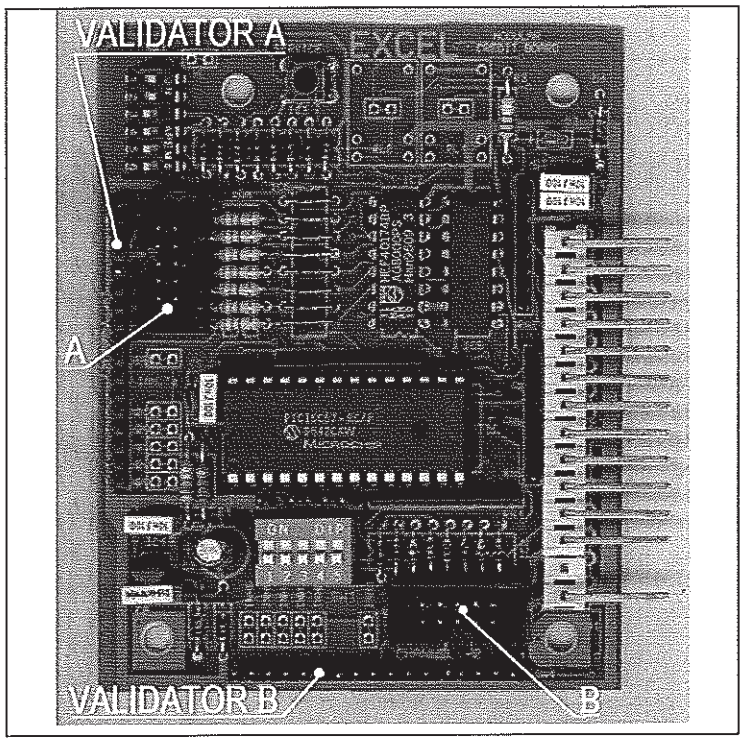
The *Excel* board is connected to the coin validator via a dedicated wiring harness depending upon the coin validator used:

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

Notes

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

The *Excel* 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					**Please Note** The credit board automatically sets the validator for parallel and binary operation through an output on pin 8 of the 17 way pinstrip. For the feature to work it is necessary for the validator interconnecting cable to include at wire at this position							
						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			**ON**	OFF	OFF	OFF	OFF
3	20p	No Bonus			OFF	**ON**	OFF	OFF	OFF
4	20p	3 = 50p	6 = £1	12 =£2	**ON**	**ON**	OFF	OFF	OFF
5	30p	No Bonus			OFF	OFF	**ON**	OFF	OFF
6	30p	1.66 = 50p	4 = £1	8 = £2	**ON**	OFF	**ON**	OFF	OFF
7	30p	2 = 50p	4 = £1		OFF	**ON**	**ON**	OFF	OFF
8	30p	AMLD *	3 = £1	6 = £2	**ON**	**ON**	**ON**	OFF	OFF
9	40p	No Bonus			OFF	OFF	OFF	**ON**	OFF
10	40p	1.25 = 50p	3 = £1	6 = £2	**ON**	OFF	OFF	**ON**	OFF
11	50p	No Bonus			OFF	**ON**	OFF	**ON**	OFF
12	50p		3 = £1	6 = £2	**ON**	**ON**	OFF	**ON**	OFF
13	50p		2 = £1	5 = £2	OFF	OFF	**ON**	**ON**	OFF
14	60p	No Bonus			**ON**	OFF	**ON**	**ON**	OFF
15	60p		2 = £1	4 = £2	OFF	**ON**	**ON**	**ON**	OFF
16	80p	No Bonus			**ON**	**ON**	**ON**	**ON**	OFF
17	80p	1.25 = £1	2 = £1.50	2.5 = £2	OFF	OFF	OFF	OFF	**ON**
18	£1	No Bonus			**ON**	OFF	OFF	OFF	**ON**
19	£1		3 = £2		OFF	**ON**	OFF	OFF	**ON**
20	£1		2 = £2	5 = £4	**ON**	**ON**	OFF	OFF	**ON**
21	£1.50	No Bonus			OFF	OFF	**ON**	OFF	**ON**
22	£1.50		2 = £2		**ON**	**OFF**	**ON**	OFF	**ON**
23	£2	No Bonus			OFF	**ON**	**ON**	OFF	**ON**
24	£2			3 = £5	**ON**	**ON**	**ON**	OFF	**ON**
25	£3	No Bonus			OFF	OFF	OFF	**ON**	**ON**
26	£3			2 = £5	**ON**	OFF	OFF	**ON**	**ON**
27	£5	No Bonus			OFF	**ON**	OFF	**ON**	**ON**
28	£5			3 = £10	**ON**	**ON**	OFF	**ON**	**ON**
29	£7.50	No Bonus			OFF	OFF	**ON**	**ON**	**ON**
30	£7.50			2 = £10	**ON**	OFF	**ON**	**ON**	**ON**
31	£10	No Bonus			OFF	**ON**	**ON**	**ON**	**ON**
32	Free Play				**ON**	**ON**	**ON**	**ON**	**ON**

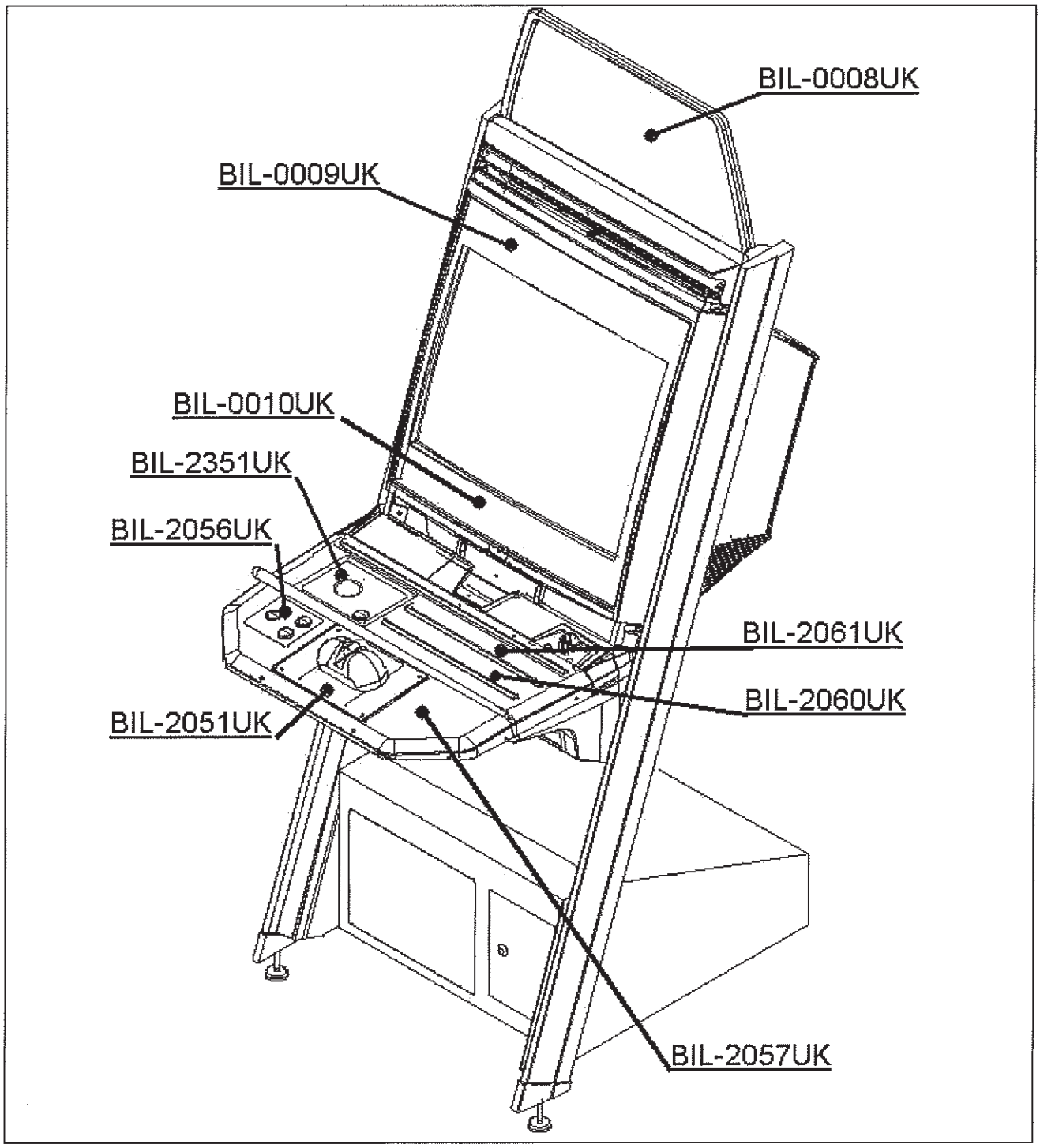
7.1.2. PRICE OF PLAY SETTINGS EURO

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

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

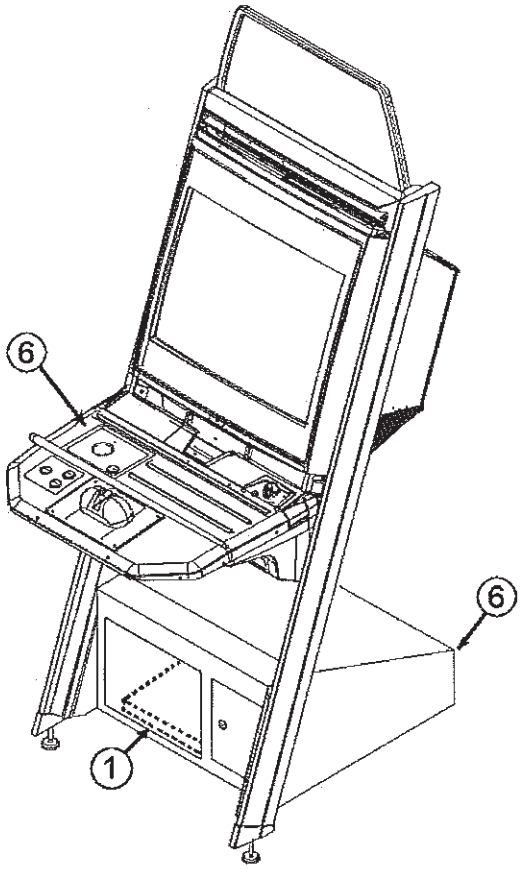
	Price	Bonus			Switch 1				
					Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
1	1	No Bonus			OFF	OFF	OFF	OFF	OFF
2	1			11 = 10	**ON**	OFF	OFF	OFF	OFF
3	1		6 = 5		OFF	**ON**	OFF	OFF	OFF
4	2	No Bonus			**ON**	**ON**	OFF	OFF	OFF
5	2			6 = 10	OFF	OFF	**ON**	OFF	OFF
6	2		3 = 5		**ON**	OFF	**ON**	OFF	OFF
7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

8. DESIGN RELATED PARTS



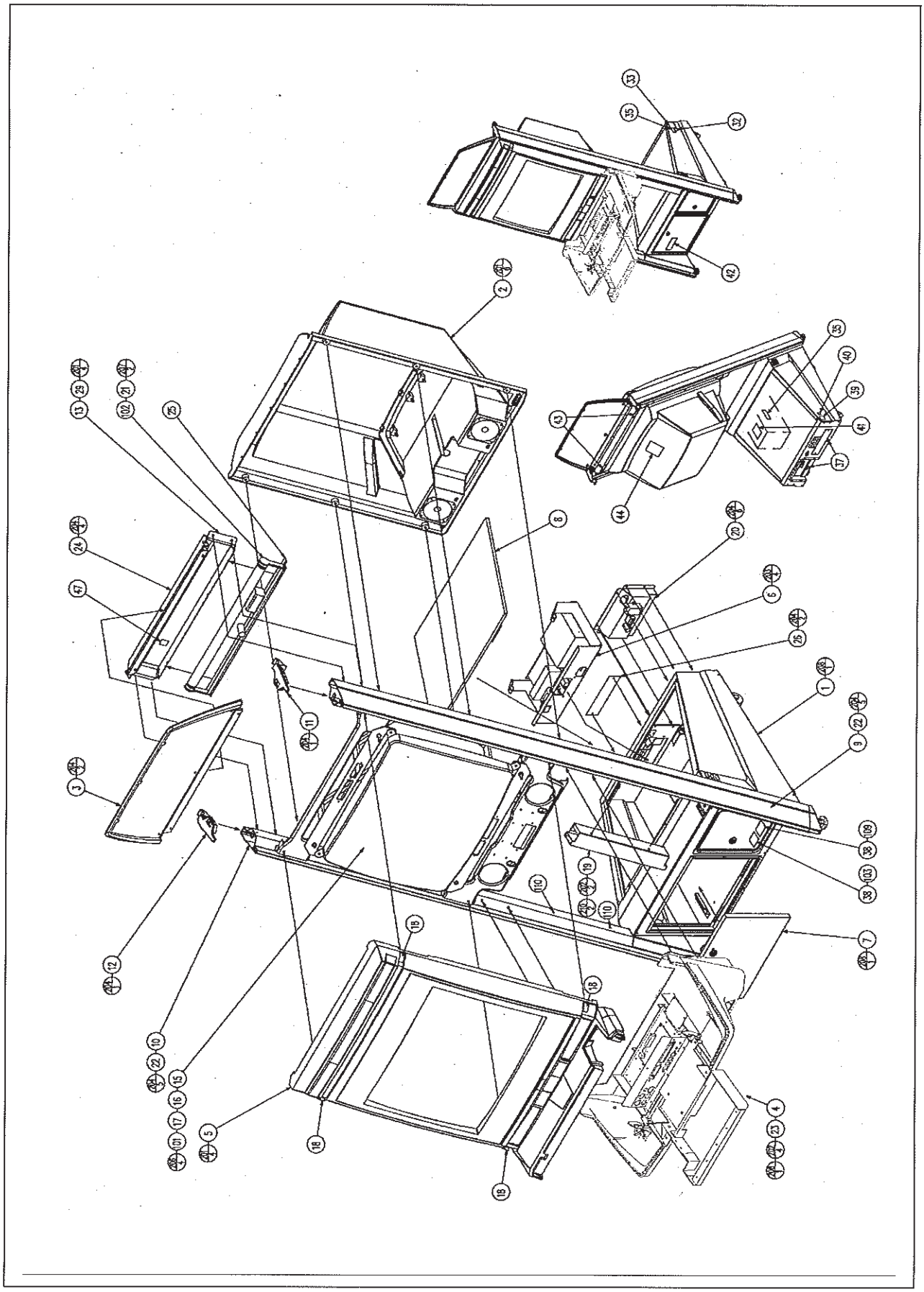
9. PARTS LIST

9.1. BIL-00004UK TOP ASSY BIL SAN FST5949 W/OG



No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	BIL-0104UK	1	ASSY MAIN BD BIL NAO (W/O GD)	
2	NOB-INST-BIL	1	INST KIT BIL (SANWA, W/O GD)	*[NOT SHOWN]*
3	BIL-20002UK	1	ASSY CTRL PANEL UPPER	
4	BIL-1000DUK	1	ASSY BIL U CABI (SANWA FS5949)	
5	421-7987-BIL-U	1	STICKER ELEC SPEC BIL U	
6	421-7988-91UK	2	STICKER SERIAL NUMBER UK	NEXT TO AC UNIT, INSIDE C.PNL
7	PK0121	1	POLY COVER 1000X1900X2000	*[NOT SHOWN]*
8	PK0314	1	PALLET BIL U/R	*[NOT SHOWN]*
9	PK0315	1	SLEEVE BIL U/R COM	*[NOT SHOWN]*
10	421-BIL	2	PACKAGING LABEL BIL	
11	BIL-0009UK	1	UPPER MASK STICKER	
12	BIL-0005UK	1	FOAM BLOCK	
101	LB1046	1	LABEL TESTED FOR ELEC.SAFETY	
201	031-000416-0C	6	M4X16 CRG BLT CRM	(4)-6
202	050-F00400	6	M4 NUT FLG SER PAS	(4)-6
203	032-000425	2	M4X25 W/BLT PAS	(3)-2
204	068-441616	2	M4 WSHR 160D FLT PAS	(3)-2
205	008-T00412-0C	4	M4X12 TMP PRF TH CRM	REAR HATCH - 4

9.2. BIL-1000DUK ASSY BIL U CABI (SANWA FS5949)



Part number listing for this assembly follows overleaf.

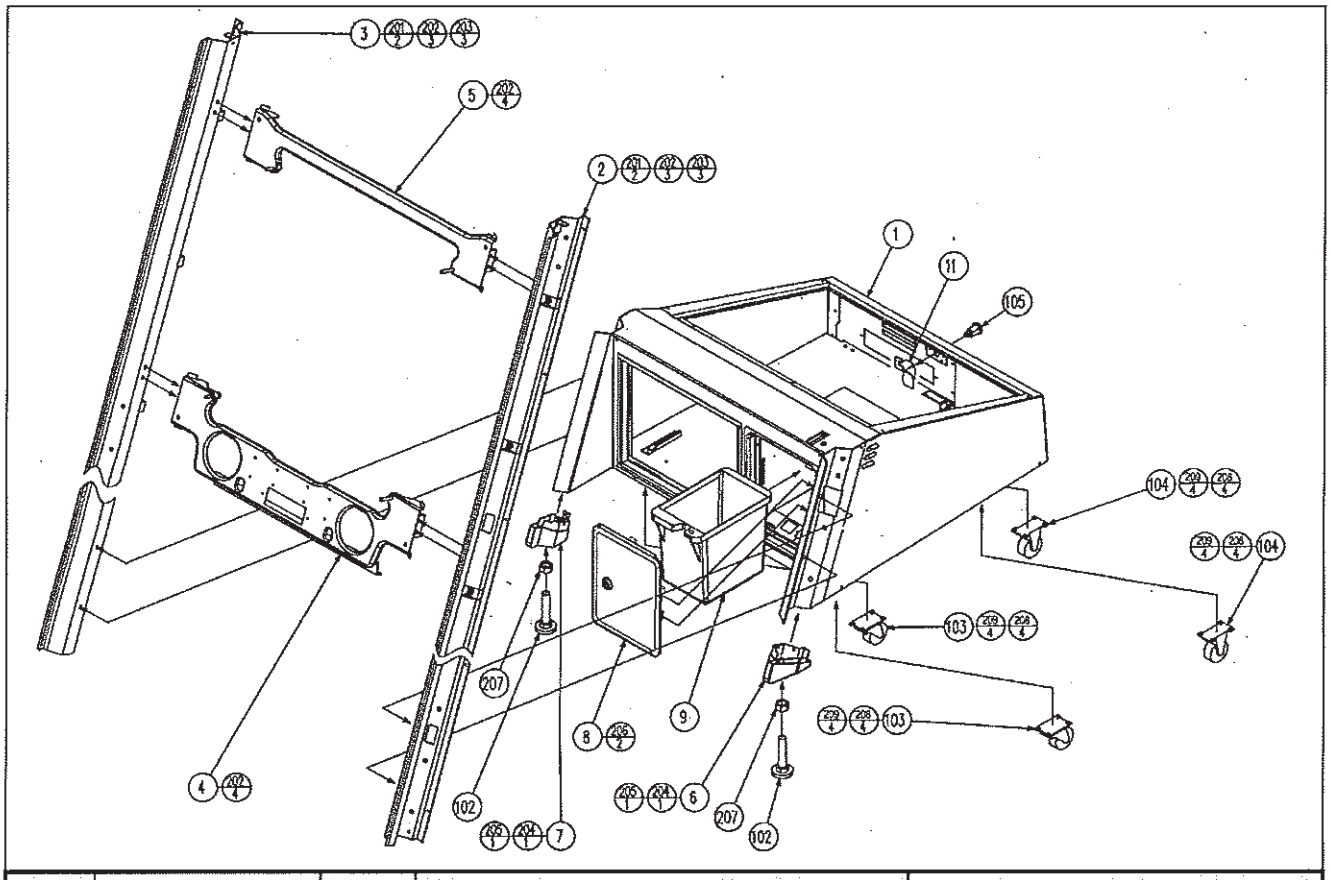
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOB-1100UK	1	ASSY FRAMEWORK UR	
2	NOA-1200	1	ASSY CRT COVER	
3	NOA-1300	1	ASSY BILLBOARD	
4	BIL-1400UK	1	ASSY CONTROL BOX BIL W/CC EURO	
5	NOA-1500UK	1	ASSY FRONT PANEL	
6	NOA-4000UK	1	ASSY ELEC	
7	NOA-1750UK	1	ASSY SERVICE DOOR	
8	NOA-1801UK	1	REAR HATCH	FIX DOWN AT TOP ASSY
9	NOB-1001UK	1	FRAME COVER UR R	
10	NOB-1002UK	1	FRAME COVER UR L	
11	NOA-1003	1	ENDCAP R	
12	NOA-1004	1	ENDCAP L	
13	NOA-1005UK	1	REAR COVER UPPER	
15	280-6617	4	BUSH FOR TV LONG	(101)-4
16	280-5113	4	COLLAR FOR NANAO MONITOR	(101)-4
18	NOA-1006	4	SCR CAP	
19	NOB-1007UK	1	COIN CHUTE UR	
20	NOB-1710UK	1	ASSY AC UNIT NEW	
22	NOA-1008	2	STICKER SIDE	
23	NOA-1009	2	WSHR PLATE	(4)-2
24	NOA-1010UK	1	BILLBD HOLDER	
25	NOA-1011	1	FL BRKT	
26	NOA-1116	1	LID COMMUNI PORT	
27	NOB-4100UK	1	ASSY XFMR	
28	NOB-1013	1	STICKER SIDE LINE NOB	
29	NOB-1117UK	1	WATER GUARD CE	
37	421-7020UK	2	STICKER CAUTION FORK	AT BACK OF BASE BOX
41	LB1102	2	STICKER DANGEROUS VOLTAGE	BASE LID,DOOR,CRT,FL,CP COVERS
42	LB1104	1	STICKER CAUTION, HOT SURFACE	FL COVER
43	NOB-0005UK	1	KICK STRIP	
101	200-5949	1	ASSY CLR DSPL 29 TYPE 31K UK	
102	390-5695-40-CUK	1	FL TRAY 110V 40W (T12)	
103	220-5643UK	1	COIN METER SMALL 12V	CLIP-IN
114	390-5695-40-DUK	1	FL TUBE 40W 600L 1.5"DIA	
115	OS1098	2	CRIMP BELL END SMALL	(103)-2
116	280-A02048-PM	5	ROUTER TWIST D20 SO4.8 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	10-(29)
123	280-K00600-0W	2	DRIVE FASTENER M6 WHITE	BASE BOX ABOVE COIN DOOR
201	008-T00625-0C	14	M6X25 TMP PRF TH CRM	(2)-6,(5)-4,(13)-4
202	030-000620-S	6	M6X20 BLT W/S PAS	(4)-4,(19)-2
203	000-P00408	2	M4X8 MSCR PAN PAS	FL TUBE CLIPS - 2
204	008-T00412-0C	29	M4X12 TMP PRF TH CRM	
206	050-F00600	4	M6 NUT FLG SER PAS	(101)-4
208	008-T00430-0C	2	M4X30 TMP PRF TH CRM	TNG STOPPER CP & REAR LID
209	030-000630-S	4	M6X30 BLT W/S PAS	(27)-4
210	068-651616	4	M6 WSHR 160D FLT PAS	(27)-4

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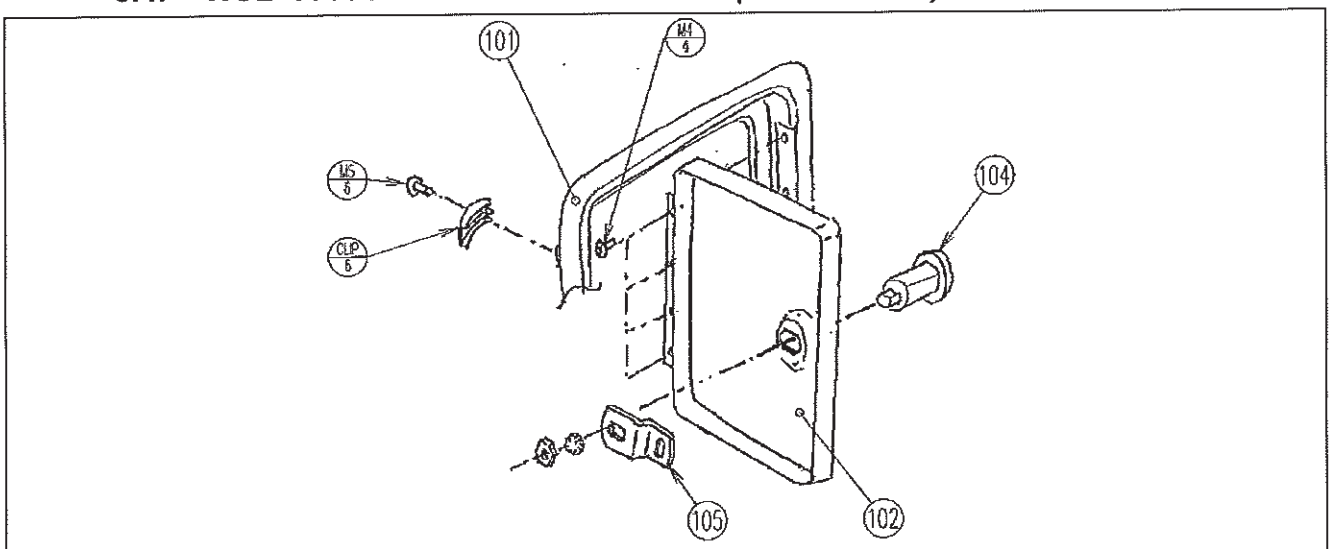
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
211	000-P00408-W	7	M4X8 MSCR PAN W/FS PAS	(25)-2,EARTHS-4
214	000-P00416-W	4	M4X16 MSCR PAN W/FS PAS	(5)-2,(11)-1,(12)-1
215	068-652516	4	M6 WSHR 250D FLT PAS	(101)-4
216	050-F00400	5	M4 NUT FLG SER PAS	(102)-2,EARTHS-3
217	050-F00500	3	M5 NUT FLG SER 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
220	000-P00612-W	1	M6X12 MSCR PAN W/FS PAS	(323)-1
221	050-F00500	1	M5 NUT FLG SER PAS	(323)-1
301	NOB-6001UK	1	ASSY WIRE L	
302	NOB-6002UK	1	ASSY WIRE R	
311	600-7159-070	1	WIRE HARN JVS PWR 070CM	
313	600-7009-2500	1	ASSY RGB CA D-SUB 15P 2500MM	
319	600-9010-44K	1	WIRE HARN EARTH 100MM M4/M4	B/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 XFMR
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	MONITOR CHASSIS TO RH FRAME
324	600-9050-45K	1	WIRE HARN EARTH 500MM M4/M5 K	

9.3. NOB-1100UK ASSY FRAMEWORK UR



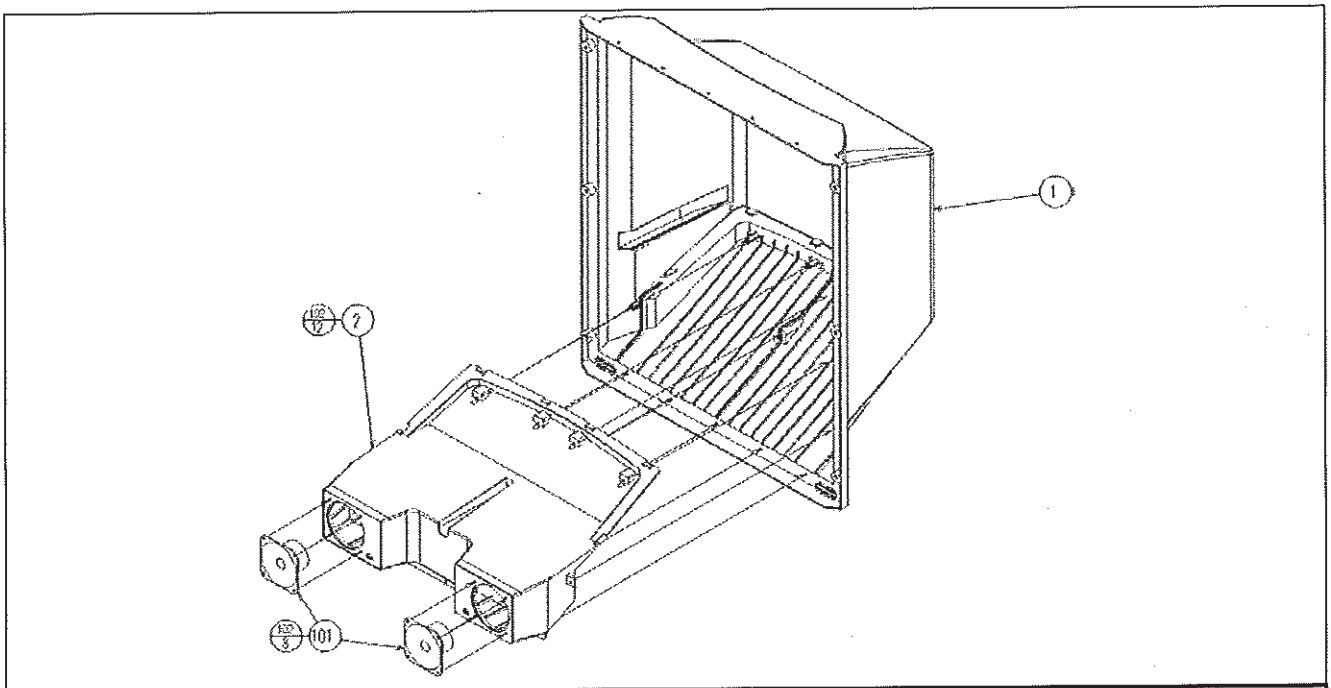
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOB-1601UK	1	BASE BOX UK VERSION	
2	NOB-1101UK	1	MAIN FRAME UR R	
3	NOB-1102UK	1	MAIN FRAME UR L	
4	NOA-1111X	1	LOWER BEAM	
5	NOA-1112X	1	UPPER BEAM	
6	NOA-1113	1	HOOF R	
7	NOA-1114	1	HOOF L	
8	NOB-1950UK	1	ASSY SFMD WHITE (FLAT DOOR)	
9	253-5366	1	CASH BOX	
11	NOA-1115UK	1	TNG REAR HATCH	
102	601-5699X	2	LEG ADJUSTER BOLT M16x75	
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 POSI PAN W/FS	(6)-1,(7)-1
207	050-H01600	2	M16 NUT PAS	(102)-2
208	FAS-200004	16	M6X14 MSCR SKT CAP BNP	(103,4)-8EA
209	060-S00600-0B	16	M6 WSHR SPR BLK	(103,4)-8EA

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



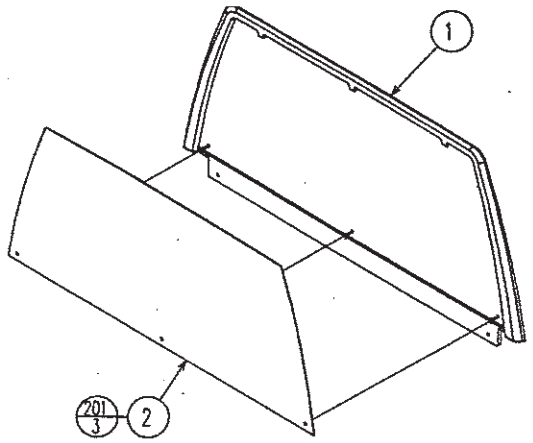
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
101	220-5725-03	1	FRAME SINGLE MINI W/O PA	CLAMPS & SCREWS IN BAGS
102	220-5725-04	1	DOOR SINGLE MINI FLAT,NO	
103	NOB-1950UK-LAB	1	LABOUR VALUE FOR NOB-195	PAINT & ASSEMBLY COST
104	220-5574UK	1	LOCK KEYED DIFFERENT	(102)-1
105	PTR-1951UK	1	CAM CRANKED 6mm, LENGTH	(104)-1

9.5. NOA-1200 ASSY CRT COVER



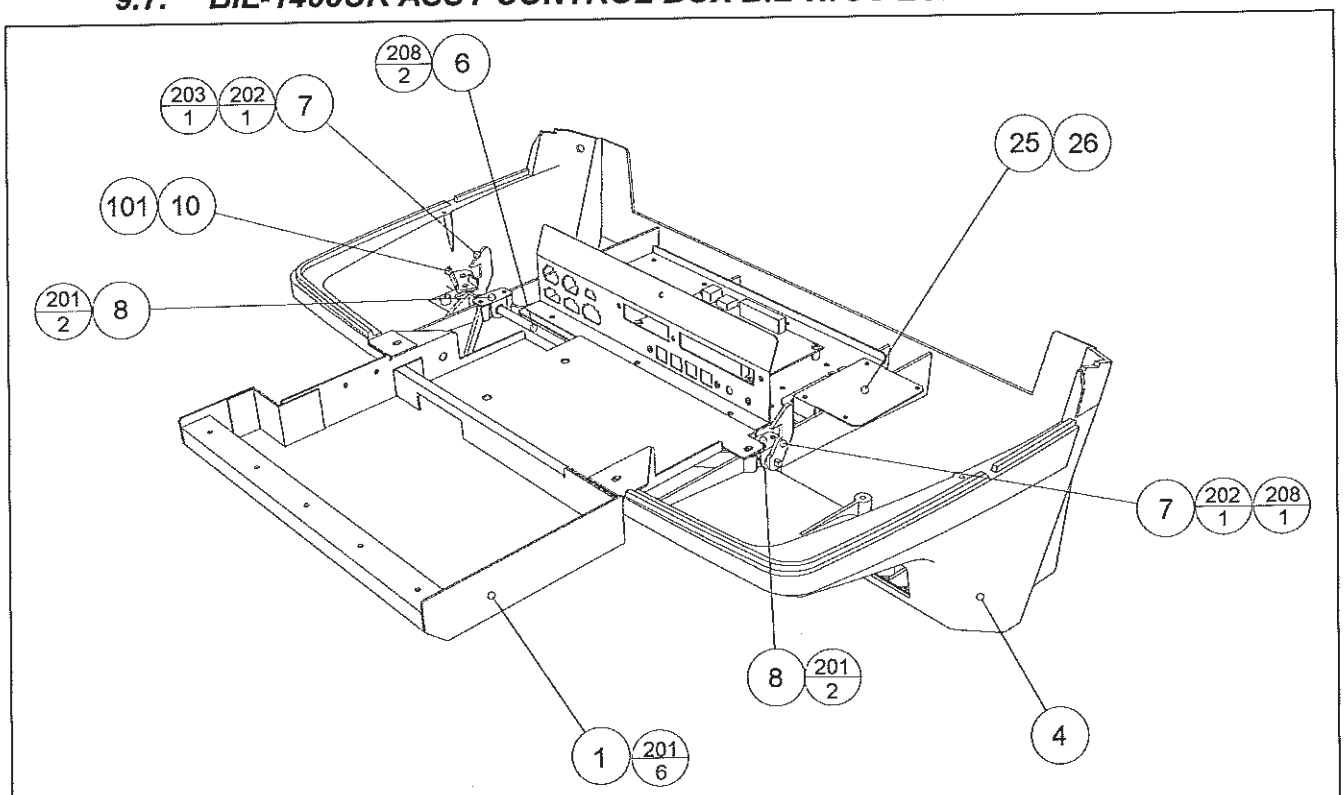
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1201	1	CRT COVER	
2	NOA-1202	1	SPEAKER BOX	
101	130-5205	2	SPEAKER 40HM 10W 100 W/S	
102	000-P00410-W	20	M4X10 MSCR POSI PAN W/FS	(101)-8,(2)-12
301	NOA-60031	1	WIRE HARN SPEAKER L	*[NOT SHOWN]*
302	NOA-60032	1	WIRE HARN SPEAKER R	*[NOT SHOWN]*

9.6. NOA-1300 ASSY BILLBOARD



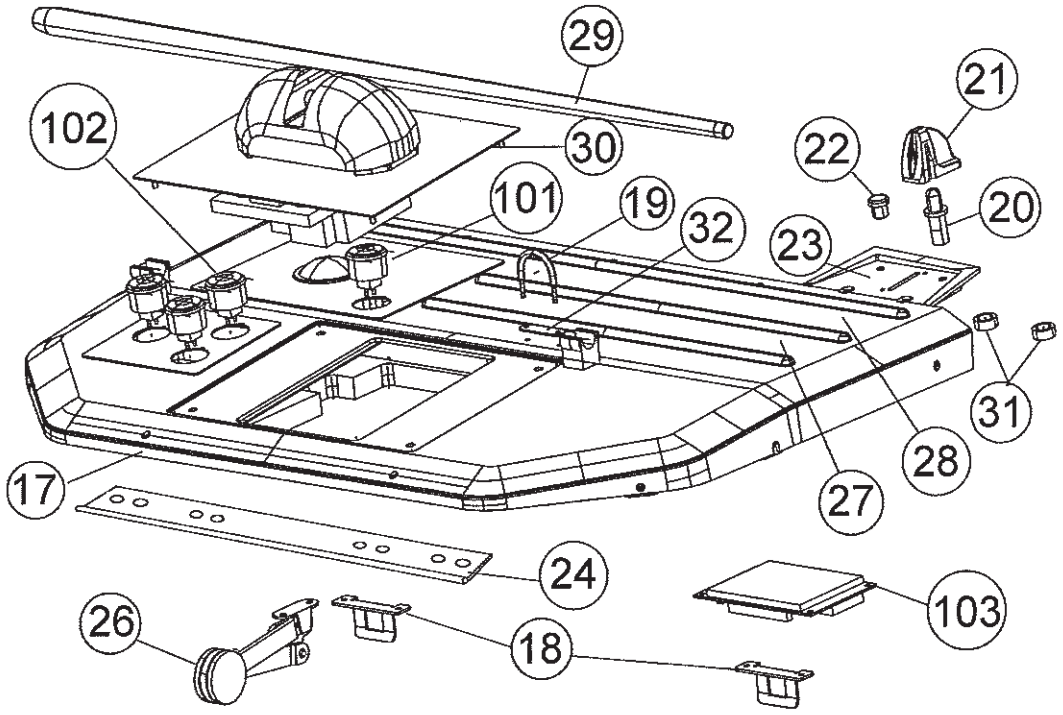
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1301	1	BILLBOARD PLATE	
2	NOA-1302UK	1	BILLBOARD SHEET	
201	008-T00408-OC	3	M4X8 MSCR TMP PRF TH CRM	(2)-3

9.7. BIL-1400UK ASSY CONTROL BOX BIL W/CC EUR0



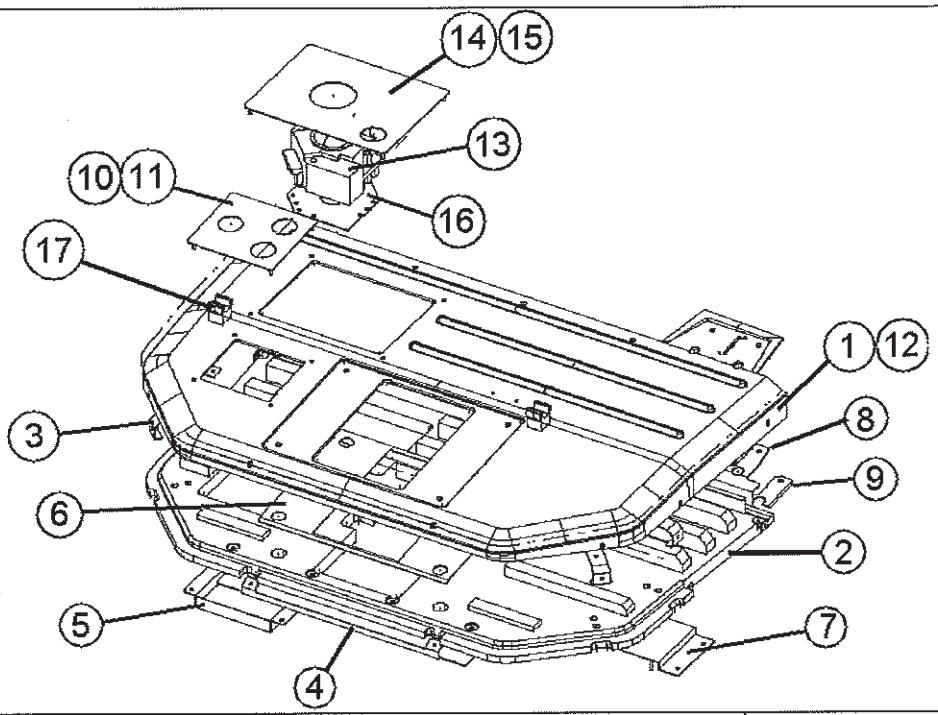
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	BIL-1450UK	1	ASSY I/O UNIT	
2	NOA-1480UK	1	ASSY COIN MECH	C120 / SR3 / 3½" MECH
3	BIL-1401UK	1	CONTROL BOX LOWER BIL	
6	NOA-1403	1	SHAFT	
7	HOT-1520	2	LATCH N	
8	HOT-1504	2	LATCH HOLDER	
9	NOA-1404	1	TOR SPRING	
10	HOT-1505UK	1	LKG TNG	(101)-1
11	NOA-1405	1	FLAP	
12	NOA-1406X	1	REJECT COVER	OR NOB-1406
13	NOA-1407UK	1	TRANSIT CHUTE UK	OR NOB-1407
20	NOA-1414	1	LID TRANSIT CHUTE	
23	421-10064UK	1	STICKER I/O UNIT	
25	NOB-1417UK	1	ACCEPTOR BRKT	
26	EP1380	1	CREDIT BOARD EXCEL	
101	220-5575UK	1	LOCK	
102	280-A00900-A	3	ROUTER TWIST D9 ADH	
103	280-A01200-A	4	ROUTER TWIST D12 ADH	
104	280-A02000-A	3	ROUTER TWIST D20 ADH	
105	280-L01640-PS	4	STANDOFF 16MM 4MM PANEL SMALL	(25)-4
201	000-P00410-W	20	M4X10 MSCR PAN W/FS PAS	(1,8,21,16)-4,(24)-2,(5)-9
202	050-H00600	2	M6 NUT PAS	(7)-2
203	060-S00600	2	M6 WSHR SPR PAS	(7)-2
205	012-P00410-F	2	N8X3/8" S/TAP FLG PAS	(17)-2
206	000-P00410-W	1	M4X10 MSCR PAN W/FS PAS	(201)
207	068-441616	1	M4 WSHR 160D FLT PAS	(22)
208	060-F00500	1	M5 WSHR FORM A FLT PAS	
209	065-E00600	2	DIA6 E RING	
301	NOB-60101UK	1	WIRE HARN COIN NOB	

9.8. BIL-20002UK ASSY CTRL PANEL UPPER



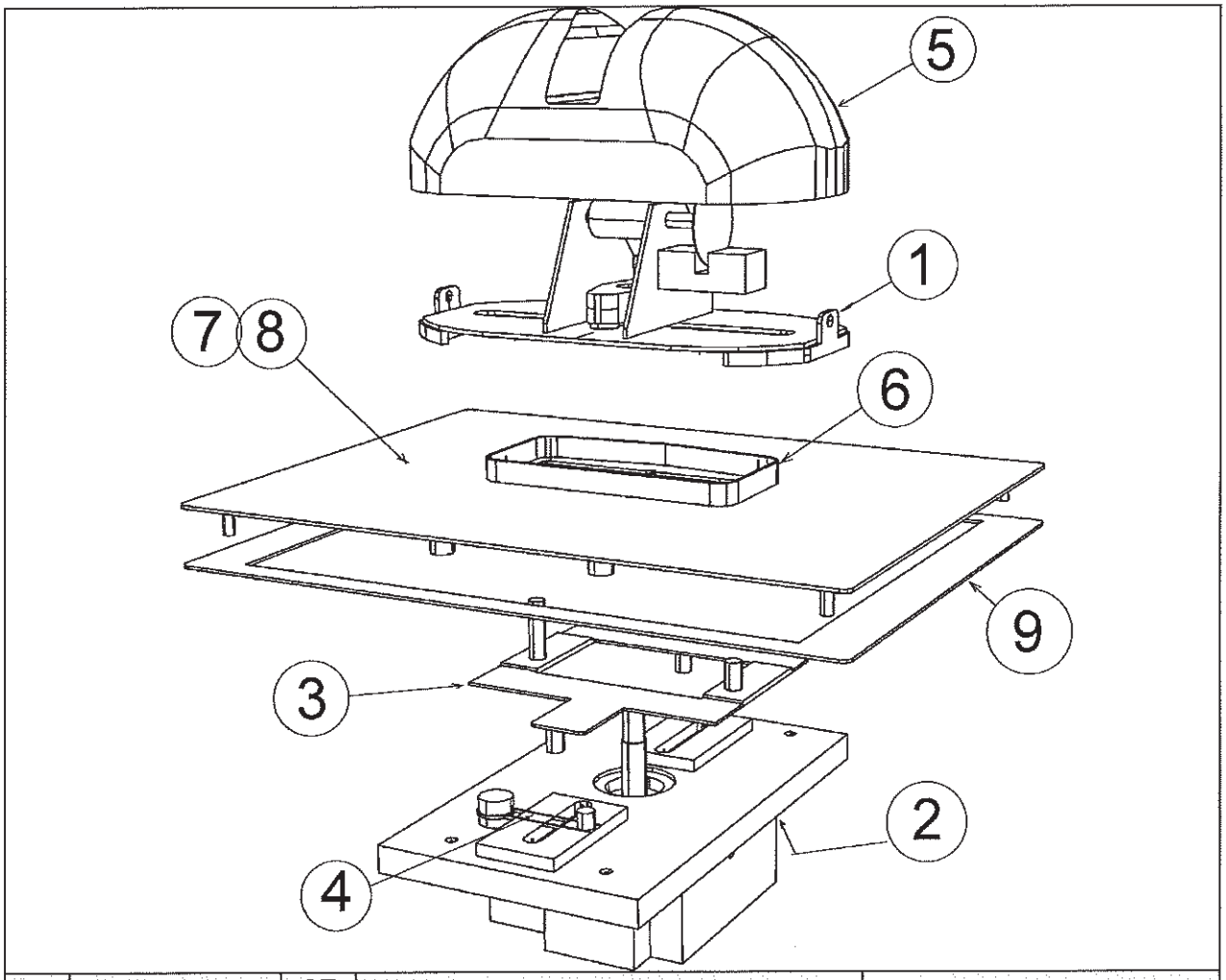
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
17	BIL-2600UK	1	ASSY SUB CTRL PANEL	
18	BIL-2058UK	2	LATCH RECEPTICLE	
19	RTS-0306	1	MIC BOX U-BLT	
20	250-5043	1	REJECT BUTTON ASSEMBLY	
21	220-5428UK	1	COIN ENTRY CE	
22	NOA-1418	1	DUMMY BIN	
23	NOA-1412	1	STICKER DENOMI BLANK FOR NOA	
24	CQN-1055X	1	HINGE	
26	RND-0016	1	LID STAY HAFELE 373.66.601	
27	BIL-2060UK	1	STICKER-MID CONTROL PANEL	
28	BIL-2061UK	1	STICKER-UPPER CONTROL PANEL	
29	BIL-2500	1	ASSY CUE	
30	BIL-2700UK	1	ASSY CONTROLLER	
31	360167	2	SPACER-NYLON-TFC-P803-0122	
32	BIL-2609UK	1	PLATE-TETHER-BOLT	
101	509-5755-05	1	RED SW PB	
102	509-5755-04	3	YELLOW SW PB	
103	837-13938	1	I/O CONTROL BD FOR JVS ENCODER	
201	050-U00300	6	M3 NUT NYLOK PAS	
202	060-F00300	6	M3 WSHR FORM A FLT PAS	
203	030-000420	4	M4X20 BLT PAS	
204	000-F00412	4	M4X12 MSCR CSK PAS	
205	000-P00412-W	9	M4X12 MSCR PAN W/FS PAS	
301	BIL-62002UK	1	WIRE HARN ANALOGUE	
302	BIL-62003UK	1	WIRE HARN DIGITAL	
303	BIL-62004UK	1	WIRE HARN POWER	
304	BIL-62005UK	1	WIRE HARN OPTICAL	
305	600-7141-100	1	CABLE JVS TYPE A-B 100CM	

9.9. BIL-2600UK ASSY SUB CTRL PANEL



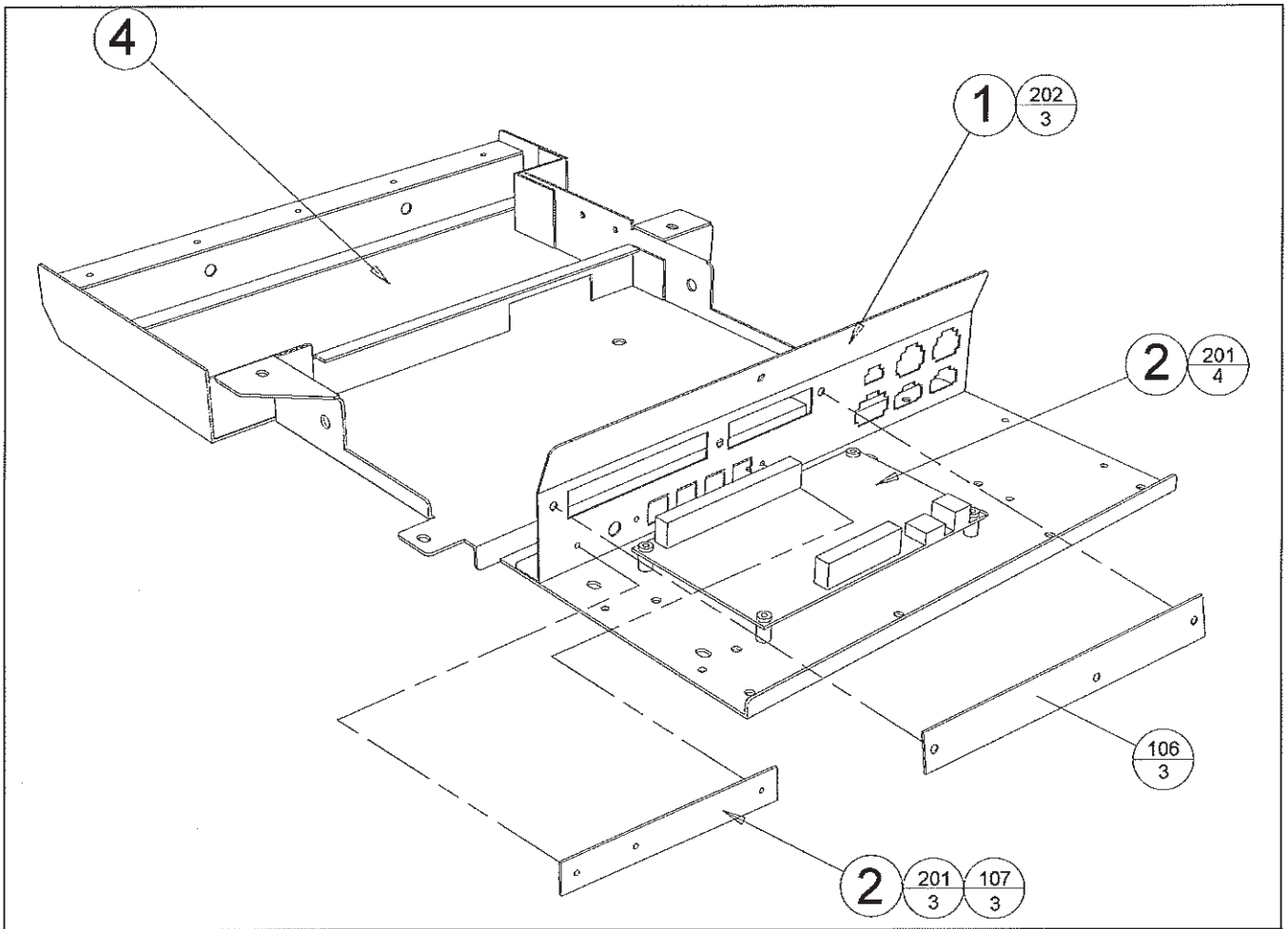
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	BIL-2601UK	1	CNTRL PANEL FORMING	
2	BIL-2602UK	1	BASE CTRL PNL	
3	BIL-2603UK	4	SUPPORT BRKT FORMING SIDES	
4	BIL-2604UK	1	SUPPORT BRKT FORMING FRONT	
5	BIL-2605UK	1	COVER LWR	
6	BIL-2606UK	1	SUPPORT BRKT CONTROLLER	
7	BIL-2607UK	1	BRKT I/O BOARD MTG	
8	BIL-2608UK	1	PLATE SUPPORT BEZEL COIN ENTRY	
9	BIL-2610UK	1	SUPPORT PLATE COIN BEZEL	
10	BIL-2055UK	1	PLATE BUTTON	
11	BIL-2056UK	1	SHEET BUTTON	
12	BIL-2057UK	1	SHEET CTRL PANEL	
13	BIL-2300	1	ASSY TRACK BALL	
14	BIL-2350UK	1	PLATE TRACKBALL/START	
15	BIL-2351UK	1	SHEET TRACKBALL/START	
16	MJ-2016	1	REINFORCED PLATE	
17	BIL-2059UK	2	CUE HOLDER	
201	060-F00400-0C	14	M4 WSHR FORM A FLT CRM	
202	008-T00412-0C	10	M4X12 TMP PRF TH CRM	
203	000-P00412-W	17	M4X12 MSCR PAN W/FS PAS	
204	008-T00408-0C	8	M4X8 TMP PRF TH CRM	
205	050-F00400	12	M4 NUT FLG SER PAS	
206	068-441616	10	M4 WSHR 160D FLT PAS	
207	000-P00450-W	4	M4X50 MSCR PAN W/FS	
208	031-000416-0C	2	M4X16 CRG BLT CRM	
300	BIL-62055UK	1	WIRE HARN TRACK BALL LINK	

9.10. BIL-2700UK ASSY CONTROLLER



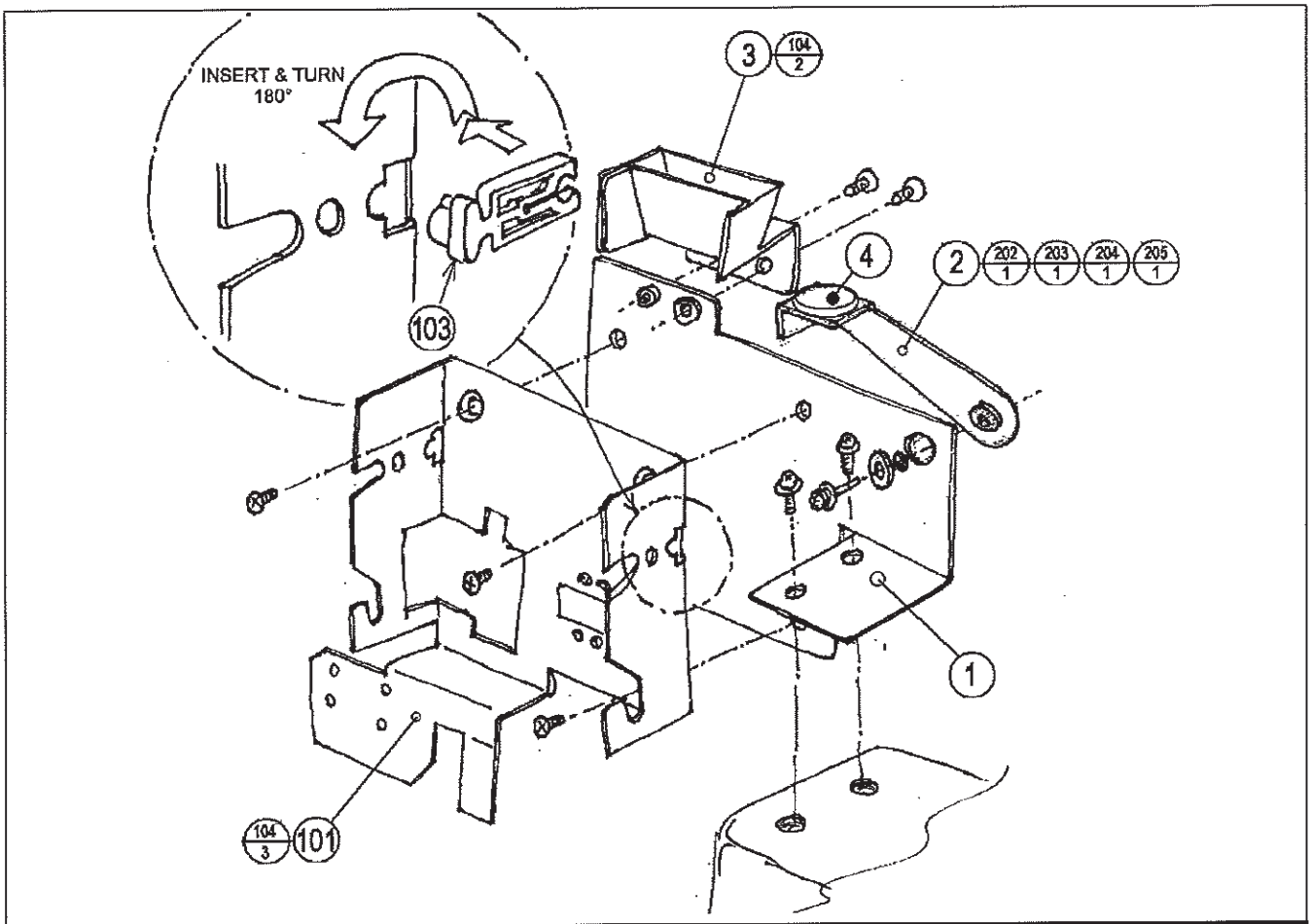
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	BIL-2100	1	ASSY CONTROLLER UPPER	
2	BIL-2200	1	ASSY CONTROLLER LOWER	
3	BIL-2001	1	SLIDE PLATE	
4	BIL-2002	1	CENTRING PIN	
5	BIL-2004	1	CONTROLLER COVER	
6	BIL-2005	1	WATER BARRIER	
7	BIL-2050UK	1	PLATE CONTROLLER	
8	BIL-2051UK	1	SHEET CONTROLLER	
9	BIL-2052UK	1	GASKET CONTROLLER	
10	RND-0015	1	ADHESIVE	
201	000-P00412-W	4	M4X12 MSCR PAN W/FS PAS	
202	000-P00316-W	1	M3X16 MSCR PAN W/FS PAS	
203	000-P00308-W	1	M3X8 MSCR PAN W/FS PAS	
204	250-5421	2	FLT WSHR 3,5-12 T=1,0	
205	008-T00408-0C	4	M4X8 TMP PRF TH CRM	

9.11. BIL-1450UK ASSY I/O UNIT



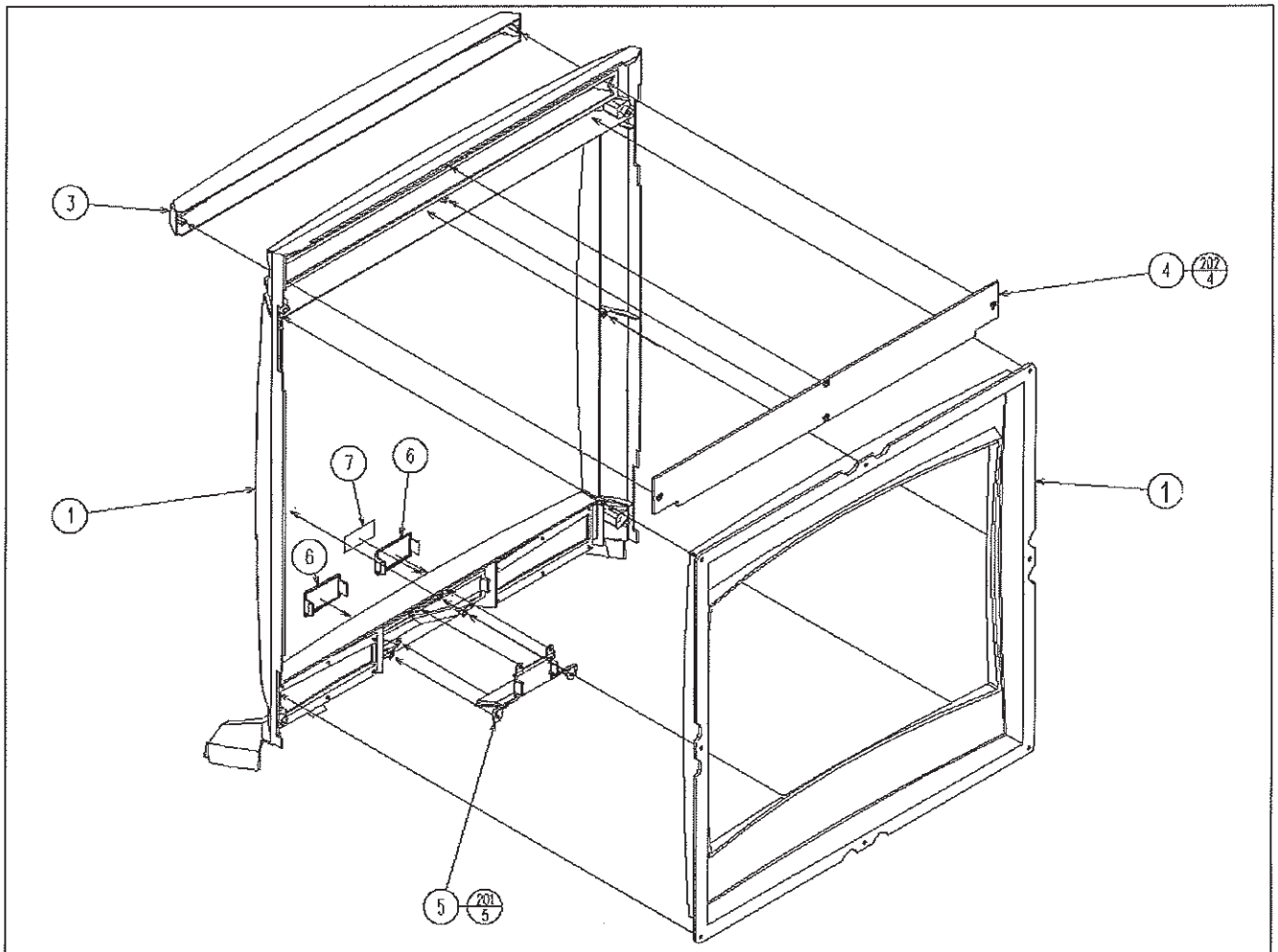
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	BIL-1451UK	1	I/O FRONT	
2	837-13551-92	1	I/O CONTROL BD FOR JVS	
3	NOA-1117UK	1	WATER GUARD	(1)-1
4	BIL-1430UK	1	CONTROL BOX LWR EXTENDED	
101	838-13739	1	SW BD NAOMICABINET	
102	280-A02048-PM	1	ROUTER TWIST D20 SO4.8 PAN LG	(NOT SHOWN)
103	280-A01248-PM	5	ROUTER TWIST D12 SO4.8 PAN MED	(NOT SHOWN)
104	280-A00900-A	2	ROUTER TWIST D9 ADH	(NOT SHOWN)
106	280-L00940-PM	3	STANDOFF 9L 4MM HOLE PANEL M	(MONITOR REMOTE BOARD)-3
107	280-L00709-OS	3	STANDOFF 70D 4ID 9L	(101)—3
201	000-P00320-W	7	M3X20 MSCR PAN W/FS PAS	(2)-4,(101)-3
202	000-P00410-W	3	M4X10 MSCR PAN W/FS PAS	
301	NOA-60021	1	WIRE HARN ANALOG CONTROL	(NOT SHOWN)
302	NOA-60022UK	1	WIRE HARN SW CONTROL	(NOT SHOWN)
304	NOA-60023	1	WIRE HARN I/O BD PWR	(NOT SHOWN)
305	NOA-60024	1	WIRE HARN SPEAKER L	(NOT SHOWN)
306	NOA-60025	1	WIRE HARN SPEAKER R	(NOT SHOWN)

9.12. NOA-1480UK ASSY COIN MECH



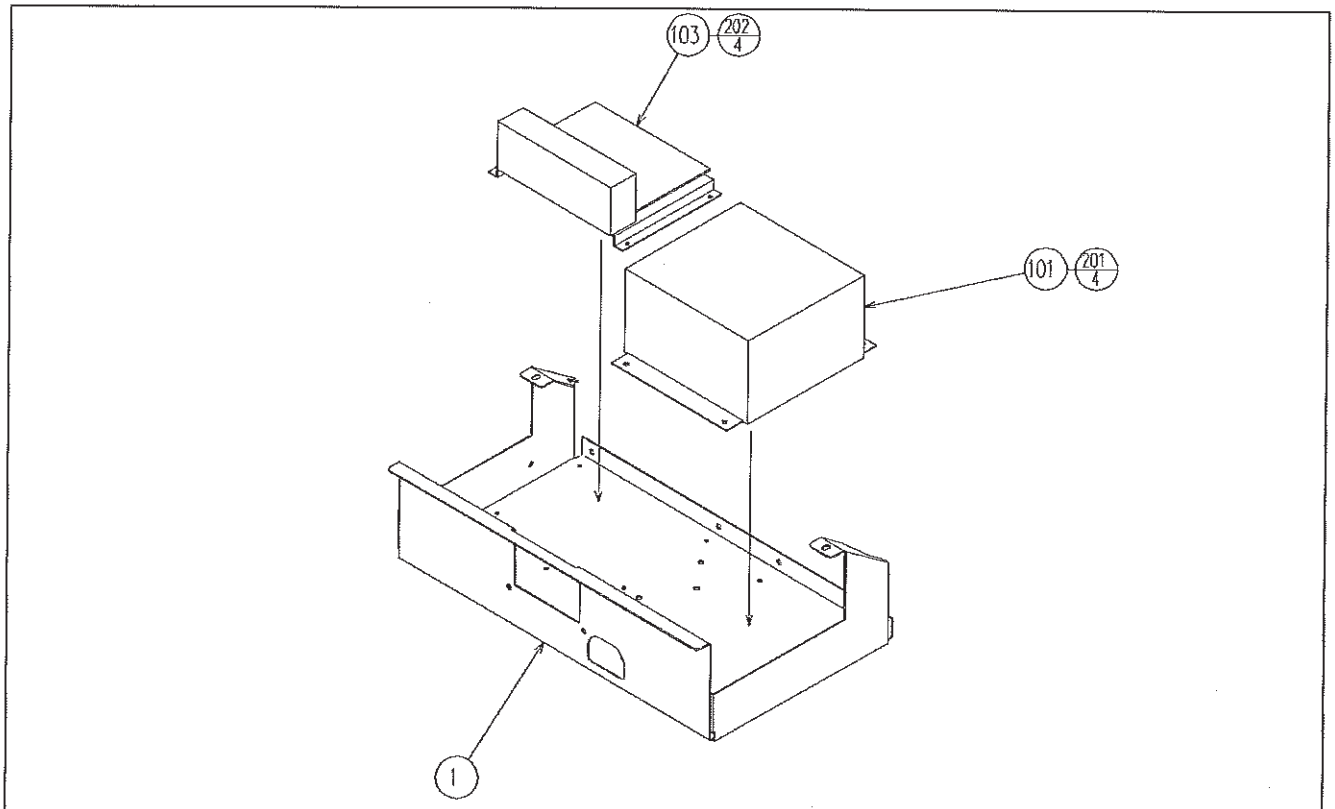
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1481XUK	1	BASE COIN SELECTOR	
2	NOA-1482	1	LINK COIN CHUTE	
3	NOA-1483	1	UPPER COIN CHUTE	
4	NOA-1484UK	2	ADHESIVE INSULATING PAD	
101	220-5086-AUK	1	MECH CADDY BASE	
103	220-5086-CUK	2	MECH CLIP	
104	000-F00408	5	M4X8 MSCR CSK PAS	(3)-2,(101)-3
201	000-P00320	2	M3X20 MSCR PAN PAS	
202	000-P00308	1	M3X8 MSCR PAN PAS	(2)-1
203	060-S00300	1	M3 WSHR SPR PAS	(2)-1
204	060-L00300	1	M3 WSHR LOCK PAS	(2)-1
205	060-F00400	1	M4 WSHR FORM A FLT PAS	(2)-1

9.13. NOA-1500UK ASSY FRONT PANEL



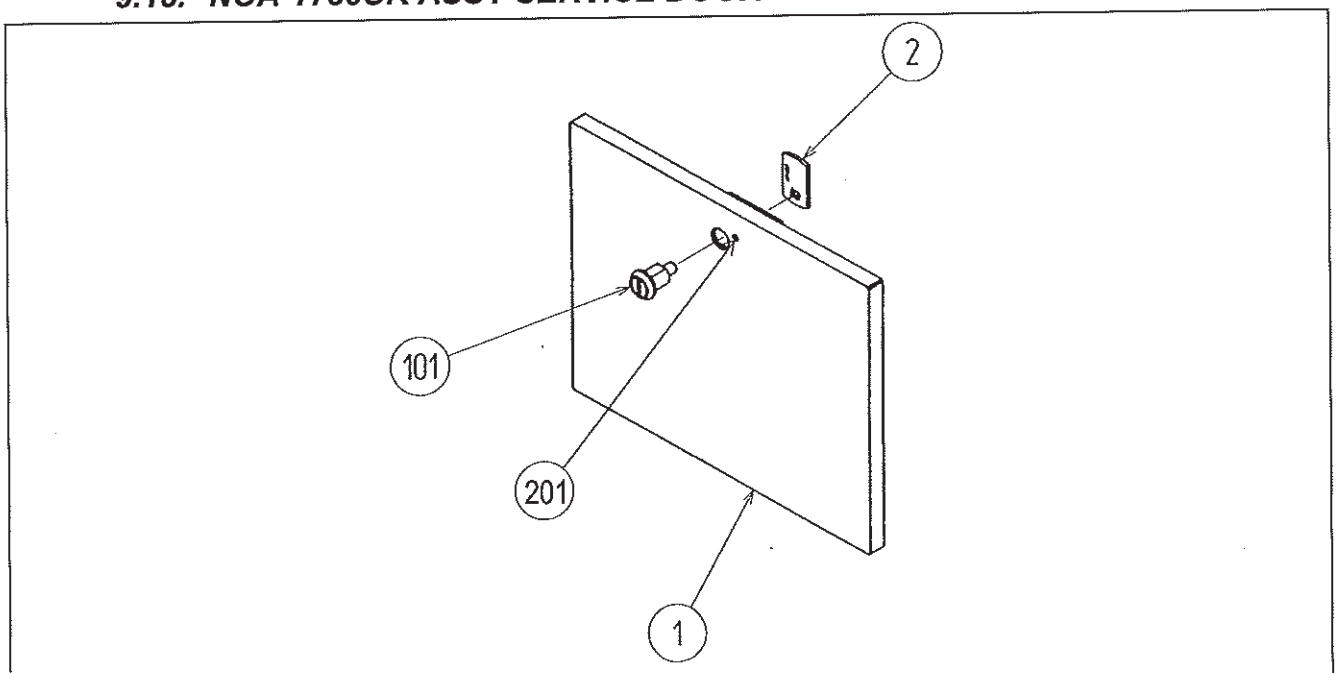
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1500UK-S1	1	ASSY FRONT PANEL NF	NOA-1501 + NOA-1502X AS AN ASSY
3	NOA-1503	1	LIGHT COVER	
4	NOA-1504UK	1	PRISM PLATE	
5	NOA-1505	1	LID GCS	
6	NOA-1506	2	LID VMS	CLIP-IN
7	NOA-1507	1	EMBLEM NAOMI	
201	000-P00412-W	5	M4X12 MSCR POSI PAN W/FS	(5)-5
202	012-P03516	4	N6X5/8" S/TAP PAN PAS	(4)-4

9.14. NOA-4000UK ASSY ELEC



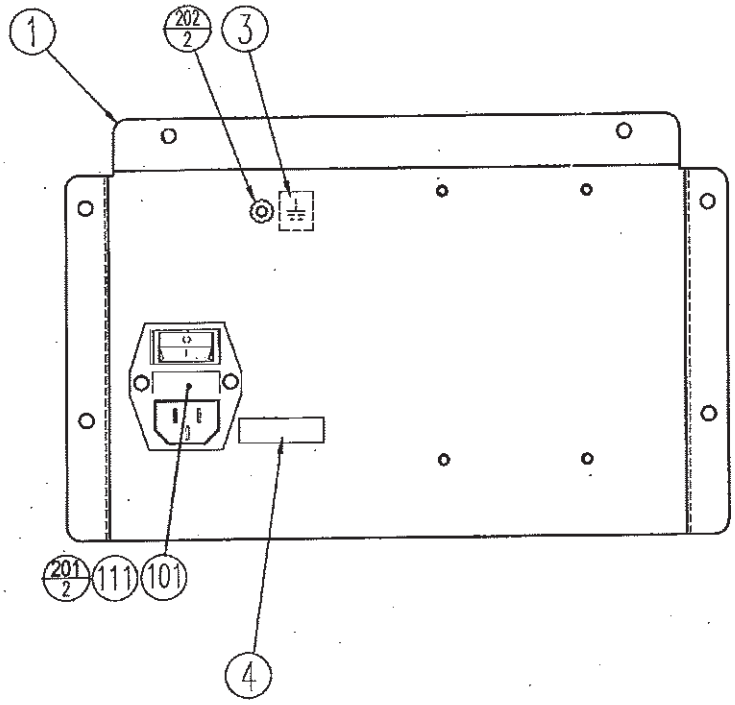
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-4001X	1	ELEC BASE	
101	400-5397-01	1	SW REGU FOR JVS	
103	838-13616	1	AUDIO POWER AMP 2CH	
107	280-A02048-PM	4	ROUTER TWIST D20 SO4.8 P	*[NOT SHOWN]*
108	601-6231-B095	1	EDGE TRIM NEW TYPE 0.91t	BACK EDGE IN MIDDLE *[NOT SHOWN]*
109	EP1317	1	FERRITE CORE ROUND CABLE	SW REGU OUTLET WIRES *[NOT SHOWN]*
110	280-A01248-PM	2	ROUTER TWIST D12 SO4.8 P	*[NOT SHOWN]*
111	280-A02000-A	1	ROUTER TWIST D20 ADH	
112	EP1364	1	FERRITE CORE ROUND CABLE	*SW REGU INLET WIRES [NOT SHOWN]*
201	010-P00408	4	M4X8 TAPTITE POSI PAN	(101)-4
202	010-P00308	4	M3X8 TAPTITE POSI PAN BZ	(103)-4
303	NOB-60013UK	1	WIRE HARN SW REGU INT	*[NOT SHOWN]*
304	NOA-60014	1	WIRE HARN I/O BD PWR	*[NOT SHOWN]*
305	NOB-60202UK	1	WIRE HARN AUDIO POWER-IN	*[NOT SHOWN]*
306	600-7159-039	1	WIRE HARN JVS PWR 039CM	*[NOT SHOWN]*

9.15. NOA-1750UK ASSY SERVICE DOOR



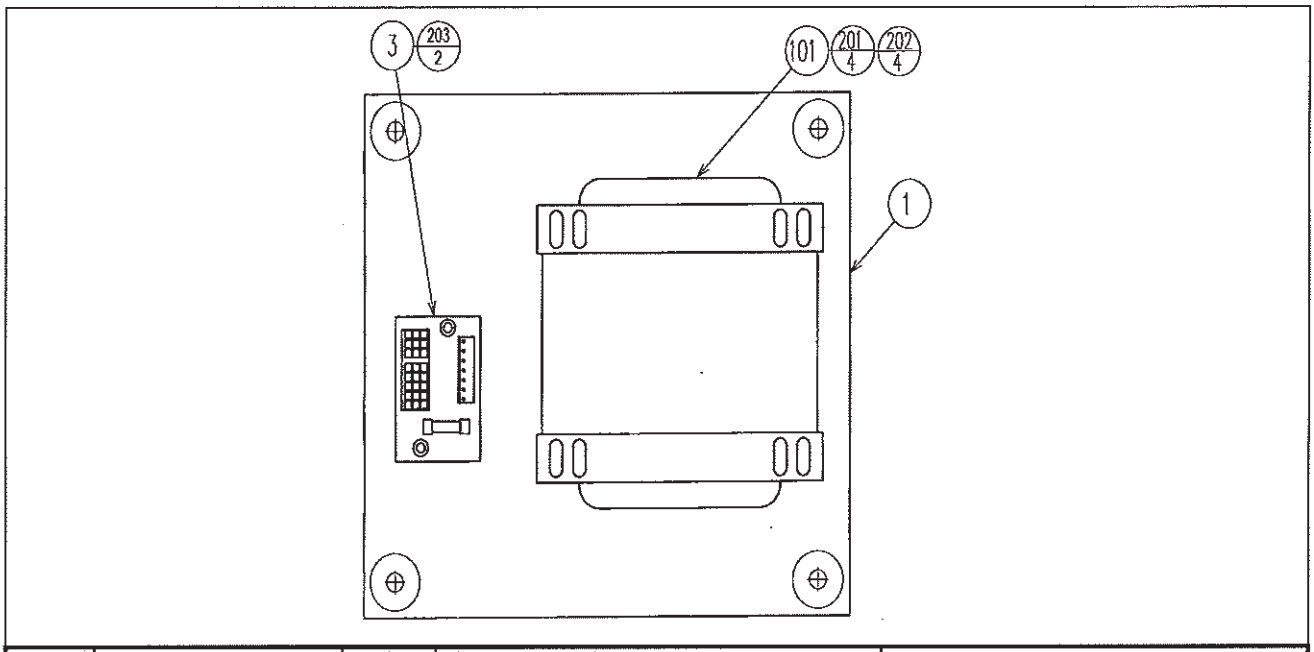
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1751UK	1	SERVICE DOOR	
2	DP-1167UK	1	TNG LKG UK	
101	220-5575UK	1	LOCK	
201	008-T00430-0C	1	M4X30 MSCR TMP PRF TH CR	INSERT HALF WAY SO TNG OPENS

9.16. NOB-1710UK ASSY AC UNIT NEW



No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOB-1711UK	1	AC BRKT NEW	
3	LB1096	1	STICKER PROTECTIVE EARTH	NEXT TO EARTH STUD ON INSIDE
4	421-6595-5000-T	1	STICKER FUSE 5000mA TYPE	NEXT TO IEC INLET ON OUTSIDE
101	EP1381	1	FILTER IEC & SW 6A ROXBU	
111	514-5078-5000	1	FUSE 5X20 CERAMIC SB 500	(102)-1
201	000-F00316	2	M3X16 MSCR CSK PAS	(101)-2
202	050-F00400	2	M4 NUT FLG SER PAS	EARTH - 2
301	NOB-60004UK	1	WIRE HARN AC OUT	
303	600-9030-45K	1	WIRE HARN EARTH 300mm M4	AC BRKT TO XFMR
305	600-9025-44K	1	WIRE HARN EARTH 250mm M4	AC BRKT TO BASE
306	600-9015-4FK	1	WIRE HARN EARTH 150mm	FILTER TO PRIMARY EARTH POINT

9.17. NOB-4100UK ASSY XMFR



No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOB-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	
202	068-441616	4	M4 WSHR 16OD FLT PAS	(101)-4
203	012-P00325	2	N4X1" S/TAP PAN PAS	(3)-2

9.18. NOB-6001UK ASSY WIRE L

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

9.19. NOB-6002UK ASSY WIRE R

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

9.20. NOB-INST-BIL* ASSY INSTALLATION KIT NOB

No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	BIL-0010UK	1	PLAY INSTR SH BIL NOB	
2	BIL-0008UK	1	BILLBOARD PANEL	
7	PK0209	1	INST KIT BOX NOB COM	
8	OS1019	2	SELF SEAL BAG 9X12.3/4	
9	421-BIL	2	PACKAGING LABEL BIL	
10	BIL-2500	1	ASSY CUE	SPARE
101	540-0006-01	1	WRENCH M4 TMP PRF	
102	540-0015-01	1	WRENCH M6 TMP PRF	GAMEBOARD FIXING-4
103	514-5078-5000	1	FUSE 5X20 CERAMIC SB 5000MA	(106)
106	509-COIN-NOB	1	SW MICRO COIN ROUTE 0.250" TAB	SPARE
108	440-CS0186UK	1	STICKER C EPILEPSY MULTI	SPARE
202	008-T00412-0C	1	M4X12 TMP PRF TH CRM	SPARE
302	600-7141-250	1	CABLE JVS TYPE A-B 250CM	GAMEBOARD R.FOOT TO XFMR
303	600-7175-01	1	WIRE HARN VMS 1P	
304	600-7175-02	1	WIRE HARN VMS 2P	
401	RND-0014	1	SERVICE MANUAL BIL	
403	420-5827	1	SERVICE MANUAL SANWA 31K	
404	420-6455-MECH	1	INSTRUCTION SHEET MECH'L NOB	

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

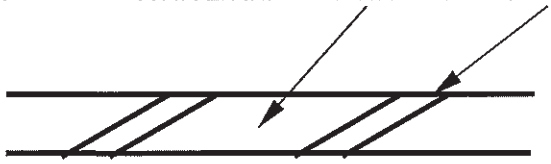
Wires other than those of any of the colours listed above will be displayed by 2 alphanumeric characters:

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

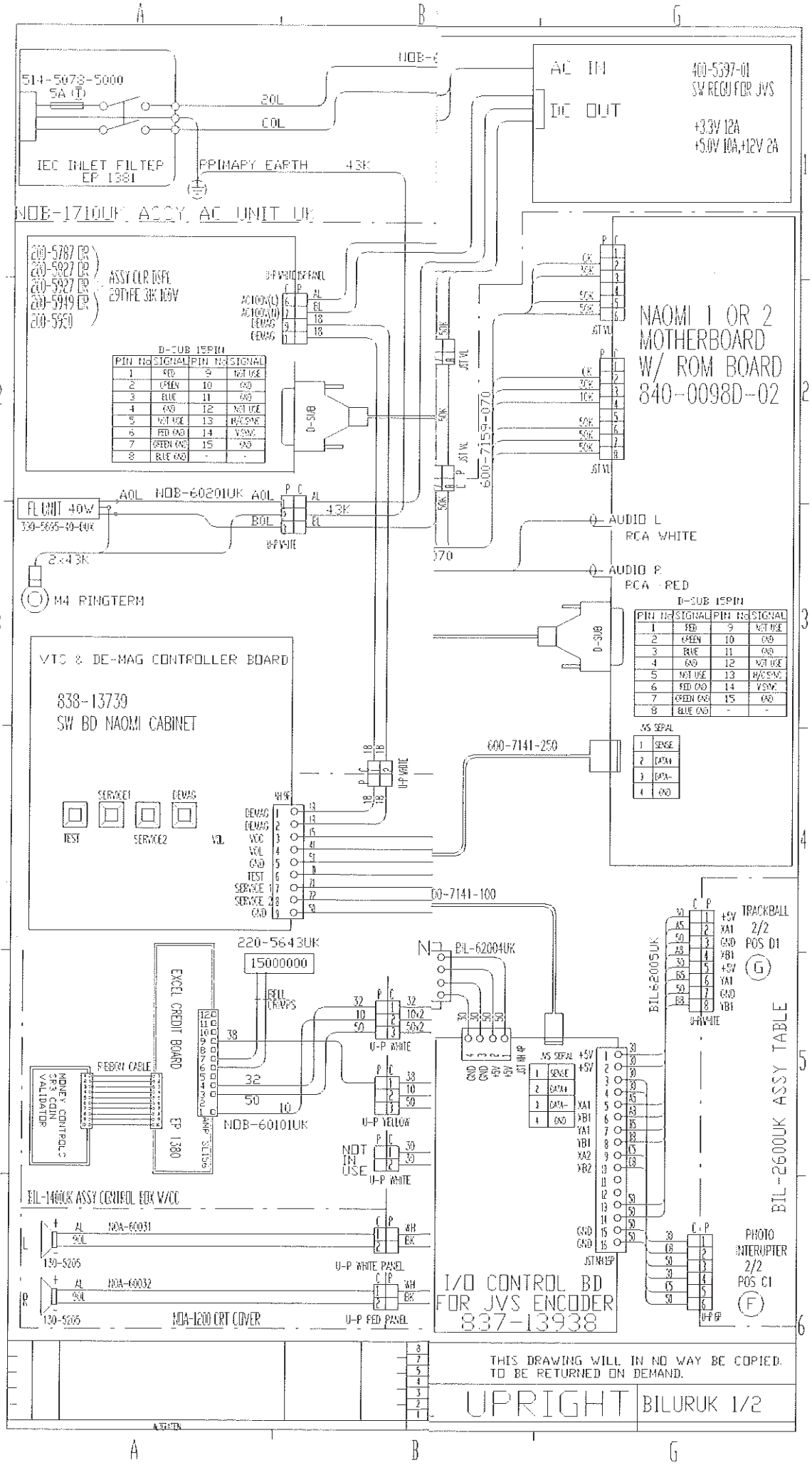
The following pages contain the electrical schematic for this machine.

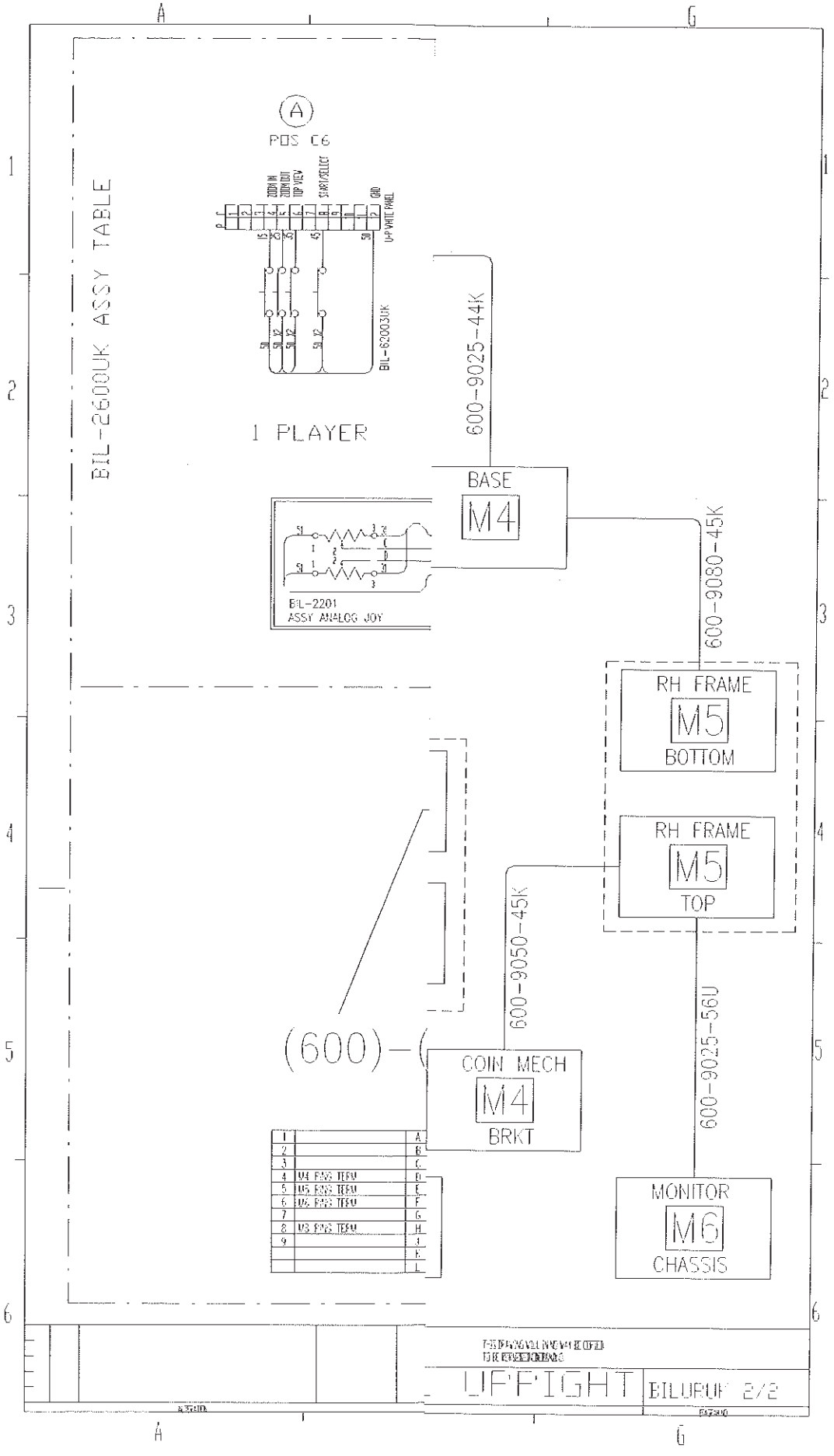
10.3. SCHEMATIC DRAWING 1

SCHEMATIC DRAWING 1 HERE

10.4. SCHEMATIC DRAWING 2

SCHEMATIC DRAWING 2 HERE


AC IN
DC OUT
400-5397-01
SW REQU FOR JVS
+3.3V 12A
+5.0V 10A,+12V 2A
514-5078-5000
5A (T)
IEC INLET FILTER
EP 1381
PRIMARY EARTH
NOB-1710UK ASSY AC UNIT UK
ASSY CLR DSPL
29TYPE 3K 10W
D-SUB 15PIN
PIN No
SIGNAL
NAOMI 1 OR 2
MOTHERBOARD
W/ ROM BOARD
840-0098D-02
600-7159-070
FL UNIT 40W
330-5695-40-FUK
NOB-6020IUK
M4 RINGTERM
AUDIO L
RCA WHITE
AUDIO R
RCA RED
VTG & DE-MAG CONTROLLER BOARD
838-13739
SW BD NAOMI CABINET
SERVICE1
SERVICE2
TEST
DEMAG
VOL
600-7141-250
600-7141-100
220-5643UK
15000000
EXCEL CREDIT BOARD
EP 1380
RIBBON CABLE
MONEY CONTROLS
SR3 COIN
VALIDATOR
NOB-6010IUK
BIL-6200UK
BIL-6200UK ASSY TABLE
TRACKBALL
2/2
POS D1
PHOTO
INTERUPTER
2/2
POS C1
BIL-1460UK ASSY CONTROL BOX W/CC
NOA-60031
NOA-60032
130-5205
NOA-1200 CRT COVER
I/O CONTROL BD
FOR JVS ENCODER
837-13938
THIS DRAWING WILL IN NO WAY BE COPIED.
TO BE RETURNED ON DEMAND.
UPRIGHT
BILURUK 1/2


BIL-2600UK ASSY TABLE
A
POS C6
1 PLAYER
BIL-2201
ASSY ANALOG JOY
600-9025-44K
BASE
M4
600-9080-45K
RH FRAME
M5
BOTTOM
RH FRAME
M5
TOP
600-9050-45K
600-9025-56U
(600)-(
COIN MECH
M4
BRKT
MONITOR
M6
CHASSIS
UPRIGHT
BILUPUP 2/2