

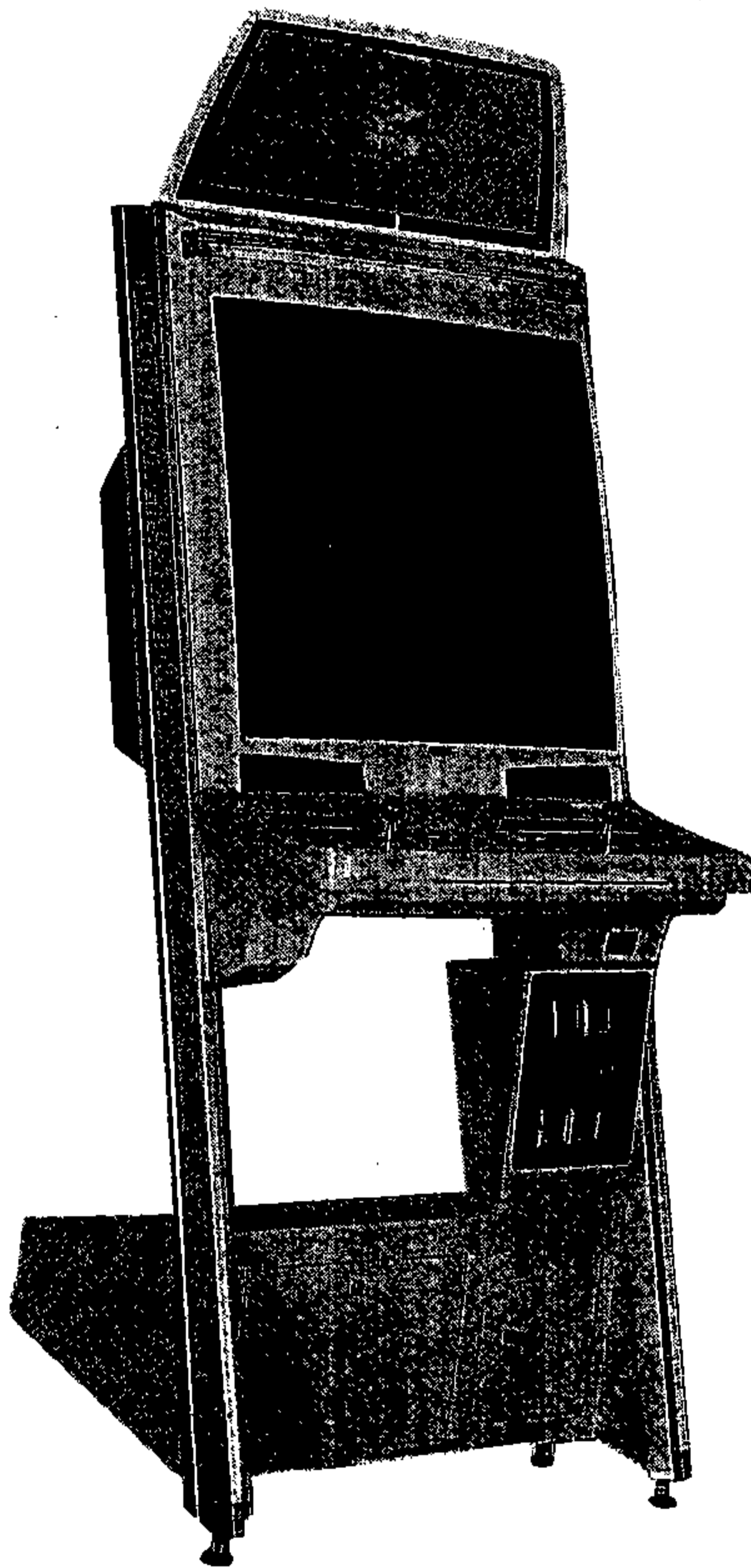
SEGA™

NAOMI

UNIVERSAL CABINET

U/R TYPE

OWNER'S MANUAL

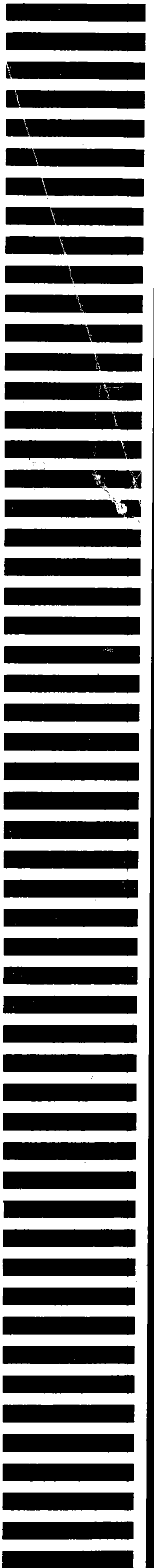


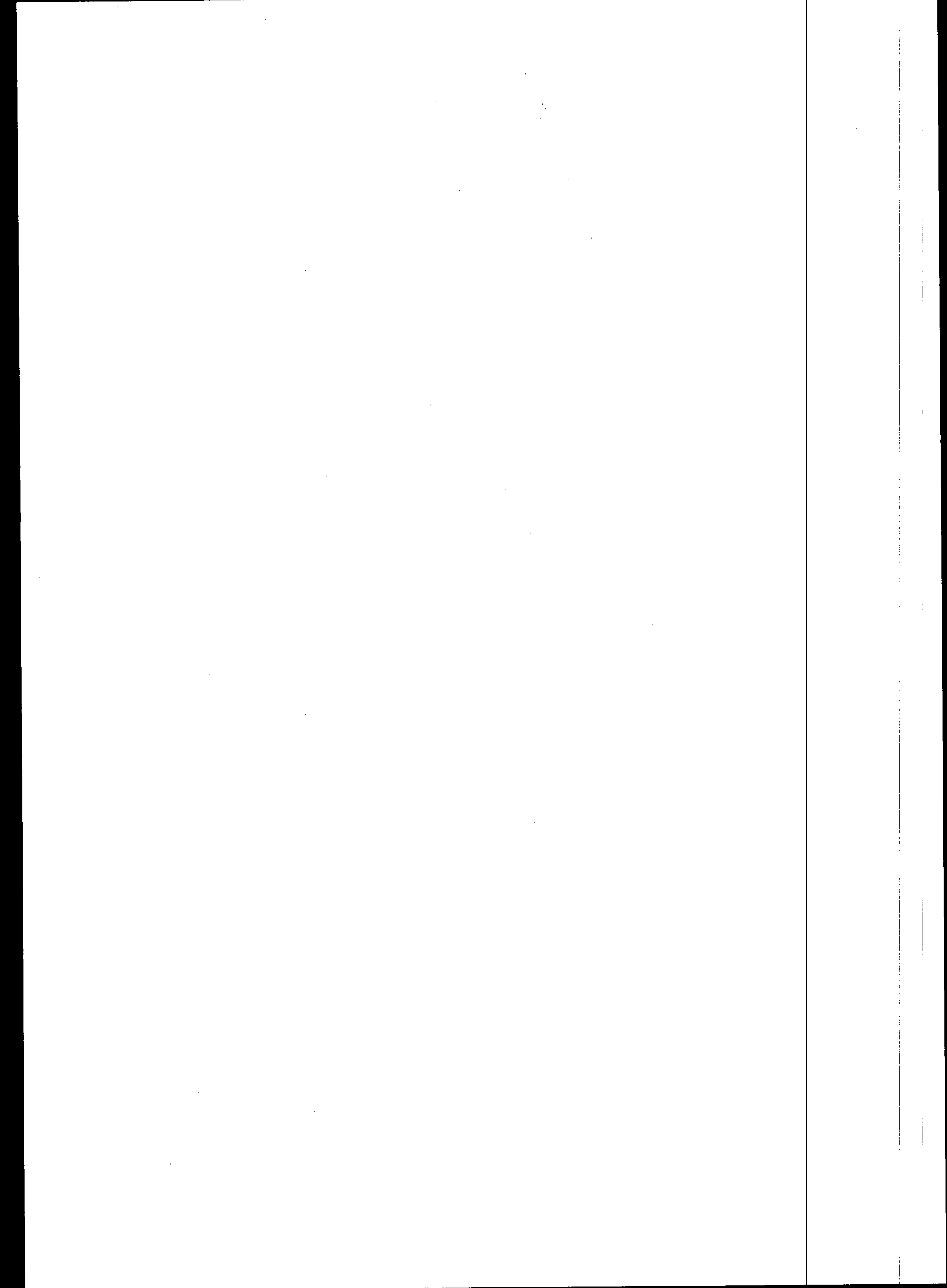
IMPORTANT!

- Before using this product, read this OWNER'S MANUAL carefully to understand the contents herein stated.
- After reading this manual, be sure to keep it available nearby the product or elsewhere convenient for referring to it anytime when necessary.

SEGA ENTERPRISES, LTD.

MANUAL NO. 420 - 6460 - 01





NOB-COIN-ELEC Coin Controls C220B Bracket Pack Assembly Instructions


1 Introduction

The following items form the kit of parts designed for the Naomi cabinet specifically to hold the Coin Controls C220B (top entry) coin validator.

No.	PART No.	DESCRIPTION	Q/U
1	NOB-1406	REJECT COVER 220	1
2	NOB-1407	TRANSIT CHUTE 220	1
1	NOB-1481UK	BASE COIN SELECTOR	1
2	NOB-1482	LINK COIN SELECTOR 220	1
3	NOB-1484	L HOOK	1
101	OS1019	SELF SEAL BAG 9X12.3/4	2
201	045-0037	SNAP PIN 6	1
202	000-P00408-W	M4X8 MSCR POSI PAN W/FS	2
203	000-P00410-W	M4X10 MSCR POSI PAN W/FS	6
301	LM1006IDC	WIRE HARN C220 IDC	1
401	420-6455-C220	INSTRUCTION SHEET C220 NOB	1

Also needed, but supplied in the machine's installation kit, is NOA-1405 FLAP.

2 Instructions

 WARNING!	<ul style="list-style-type: none"> The procedure described herein is only to be performed by qualified service personnel.
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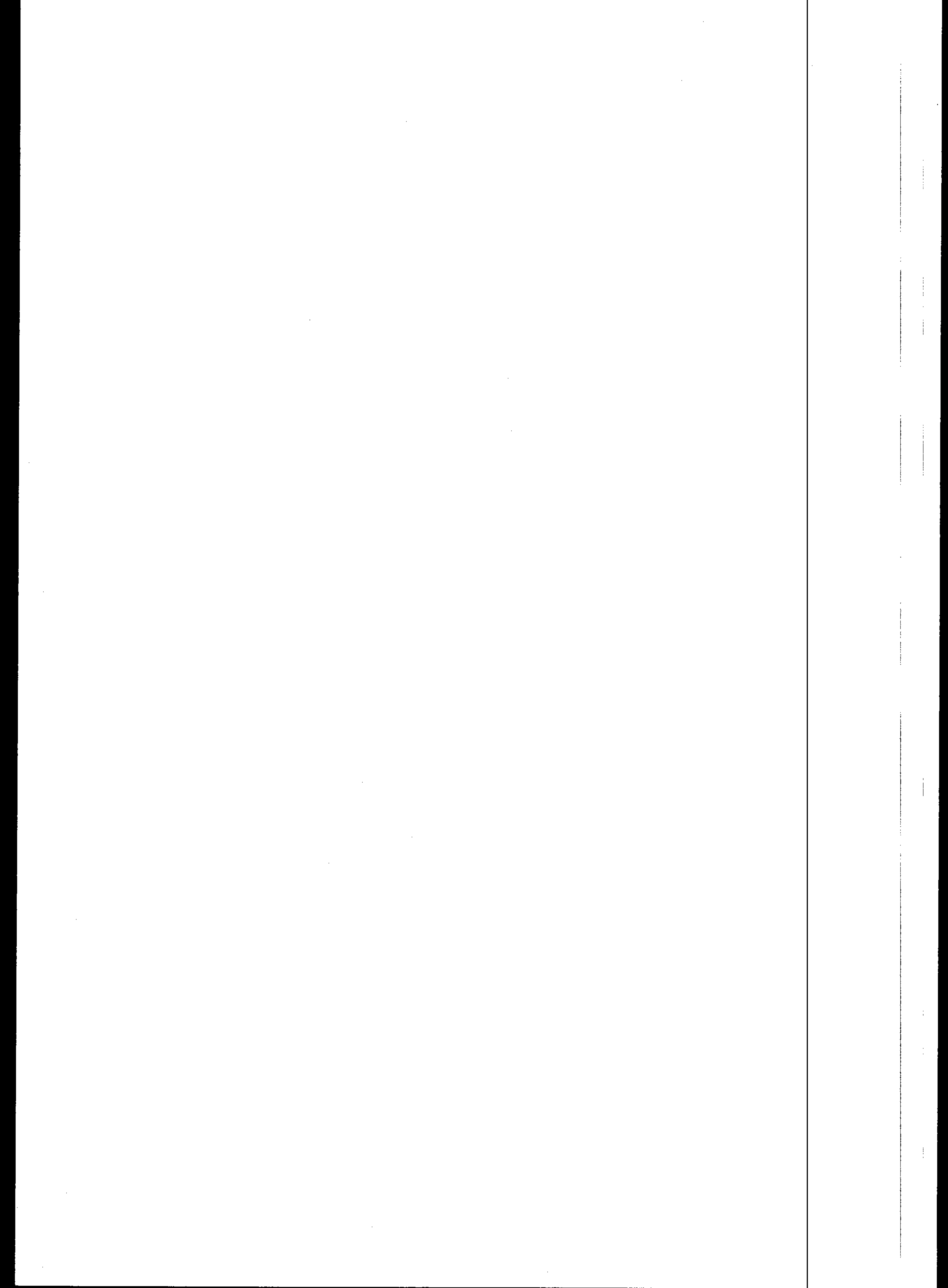
2.1 Making the machine ready:

1. Switch off power to the machine and remove the IEC lead from the machine.
2. Undo the machine screw beside the lock under the left-hand side of the control panel. Using the common key, unlock the control panel and release the control panel lid (hinge upwards).
3. Undo the 4-off M6 tamperproof & 2-off M4 machine screws holding the FRONT COVER onto the cabinet and remove.
4. If there are any coin mech brackets already fitted to the machine, they will need to be removed if they are not of the correct type to hold your validator.

Hint: If the coin reject button (on top of the control panel) is fitted to the right of the COIN ENTRY SLOT, and this reject lever activates a small lever fitted to the right-hand side of the brackets, you will need to remove all of the brackets fitted to the machine as follows.

 - 4.1. Undo the 2-off M4 machine screws holding the bracket assembly with the plastic clips to the control panel moulding.
 - 4.2. Undo the 2-off M4 machine screws holding the REJECT COVER to the reject hole and lift out the FLAP (retain the FLAP as it is needed for your bracket pack).
 - 4.3. Undo the 1-off M4 machine screw holding the plastic coin chute for the accept route into the cashbox. Note: If this chute has been fitted using 2 machine screws, it will be necessary to follow remove the control panel assembly and undo the other screw from underneath.

The cabinet is now ready to have the C220B (top entry) bracket pack fitted.



NOB-COIN-MECH Generic Mechanical Bracket Pack Assembly Instructions


1 Introduction

The following items form the kit of parts designed for the Naomi cabinet specifically to hold generic mechanical and similarly-sized electronic coin validators. Certain parts may not be required, depending on the type of validator used with the machine.

No.	PART No.	DESCRIPTION	Q/U
1	NOA-1406X	REJECT COVER	1
2	NOA-1407	TRANSIT CHUTE	1
3	NOA-1414	LID TRANSIT CHUTE	1
4	NOA-1481UK	BASE COIN SELECTOR	1
5	NOA-1482	LINK COIN CHUTE	1
6	NOA-1483	UPPER COIN CHUTE	1
101	220-5086-AUK	MECH CADDY BASE	1
102	220-5086-BUK	COIN SW BRKT	1
103	220-5086-CUK	MECH CLIP	2
104	509-COIN-NOB	SW MICRO COIN ROUTE 0.25" TAB	1
105	OS1019	SELF SEAL BAG 9X12.3/4	2
201	000-P00410-W	M4X10 MSCR POSI PAN W/FS	6
202	000-F00408	M4X8 MSCR POSI CSK BZP	6
203	FX0016	M3 WSHR FORM C FLT BZP	1
204	000-P00308-W	M3X8 MSCR POSI PAN W/FS	1
206	FX0032	M3X20 MSCR POSI PAN BZP	2
207	FX0015	M3 WSHR S/PRF BZP	1
301	LMI008	LOOM COIN MECH MECHANICAL	1
401	420-6455-MECH	INSTRUCTION SHEET MECH'L	1

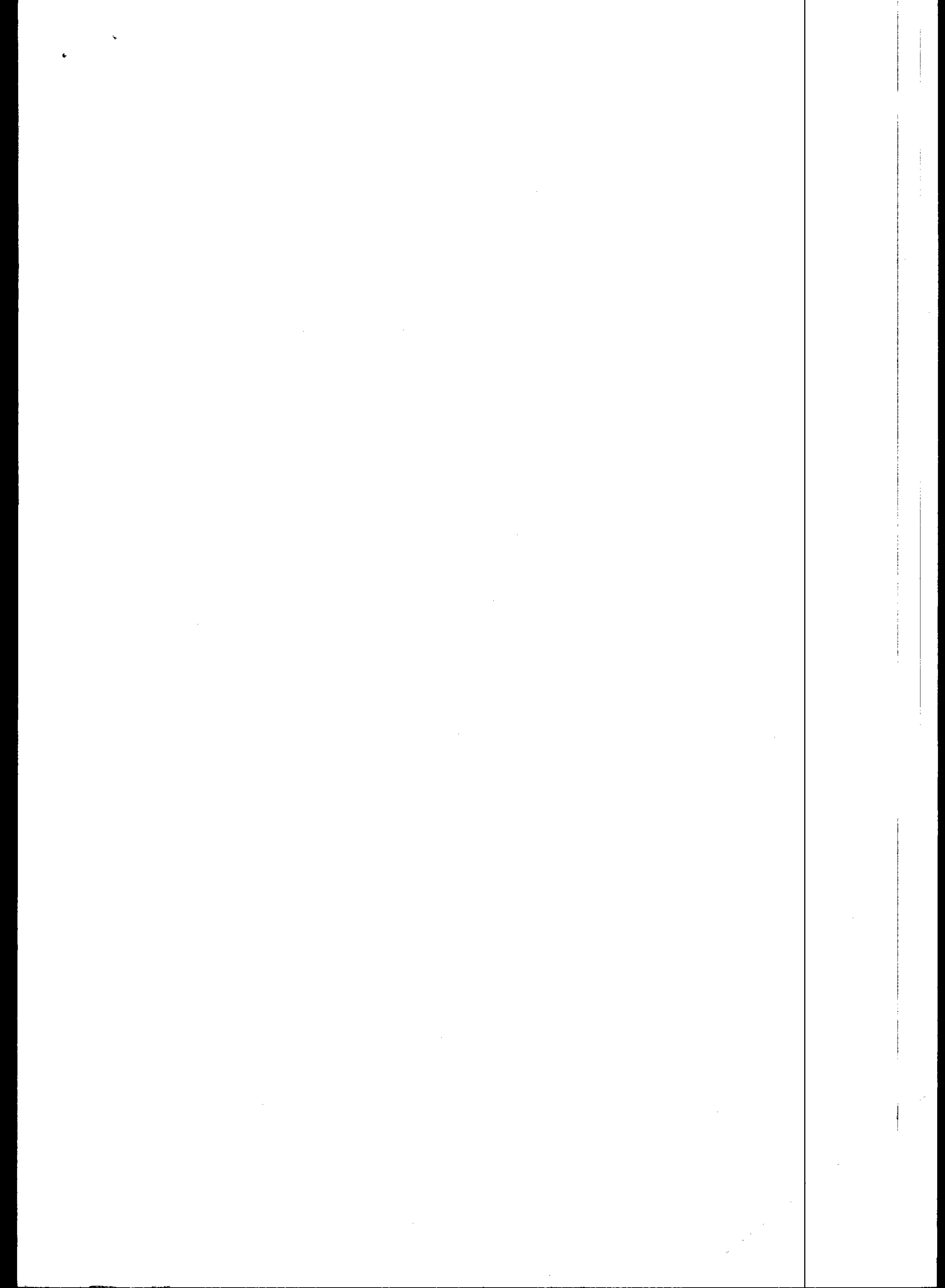
Also needed, but supplied in the machine's installation kit, is NOA-1405 FLAP.

2 Instructions

 WARNING!	<ul style="list-style-type: none"> The procedure described herein is only to be performed by QUALIFIED SERVICE PERSONNEL.
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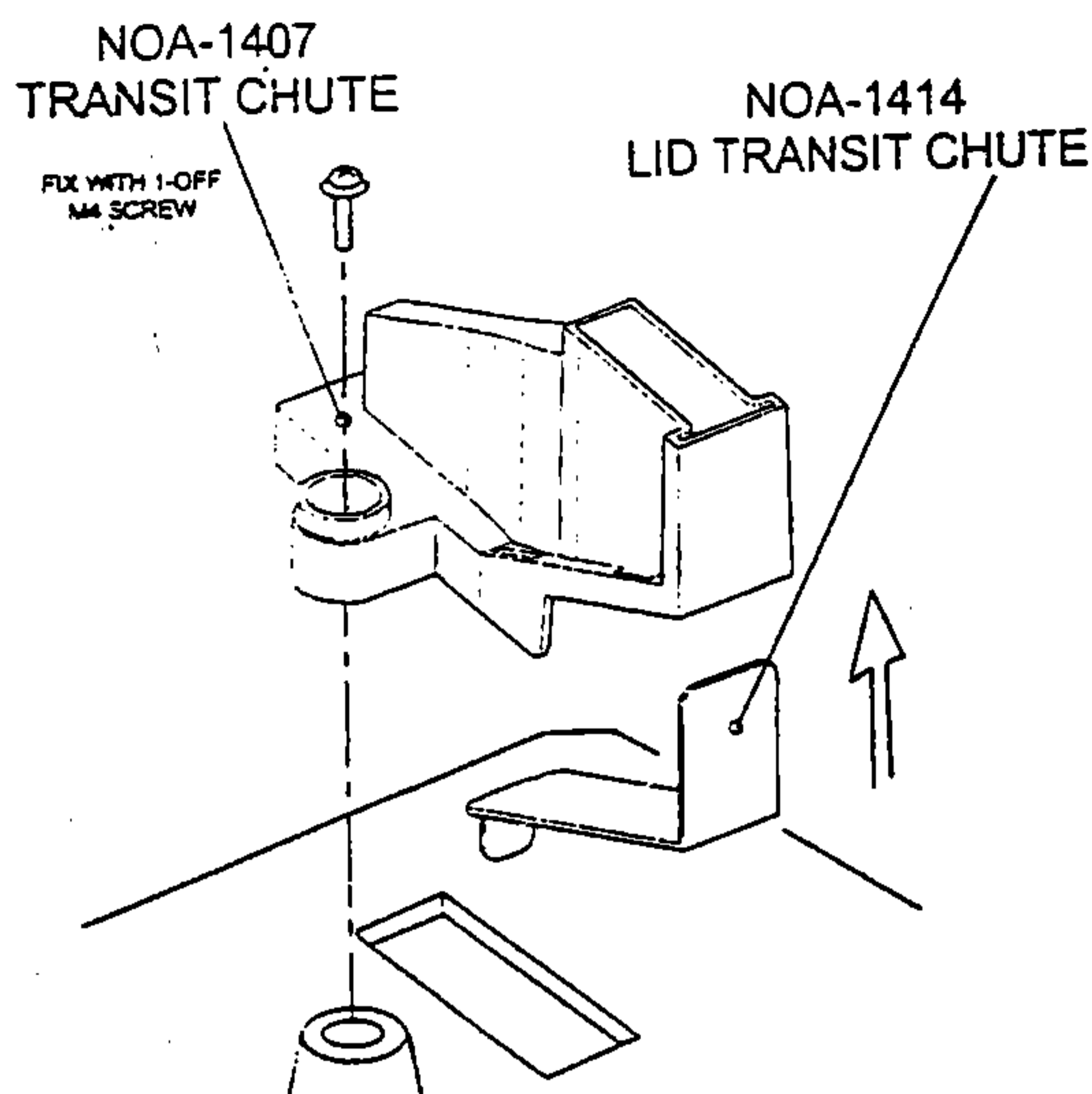
2.1 Making the machine ready:

- Switch off power to the machine and remove the IEC lead from the machine.
- Undo the machine screw beside the lock under the left-hand side of the control panel. Using the common key, unlock the control panel and release the control panel lid (hinge upwards).
- Undo the 4-off M6 tamperproof & 2-off M4 machine screws holding the FRONT COVER onto the cabinet and remove.
- If there are any coin mech brackets already fitted to the machine, they will need to be removed if they are not of the correct type to hold your validator.
Hint: If the coin reject button (on top of the control panel) is fitted to the left of the COIN ENTRY SLOT, and this reject lever activates a large lever fitted to the left-hand side of the brackets, you will need to remove all of the brackets fitted to the machine as follows.
 - Undo the 2-off M4 machine screws holding the L-shaped bracket with the spring clip to the control panel moulding.
 - Undo the 2-off M4 machine screws holding the REJECT COVER to the reject hole and lift out the FLAP (retain the FLAP as it is needed for your bracket pack).
 - Undo the 1-off M4 machine screw holding the coin chute for the accept route into the cashbox. Note: If this chute has been fitted using 2 machine screws, it will be necessary to follow remove the control panel assembly and undo the other screw from underneath.
 The cabinet is now ready to have the mechanical bracket pack fitted.

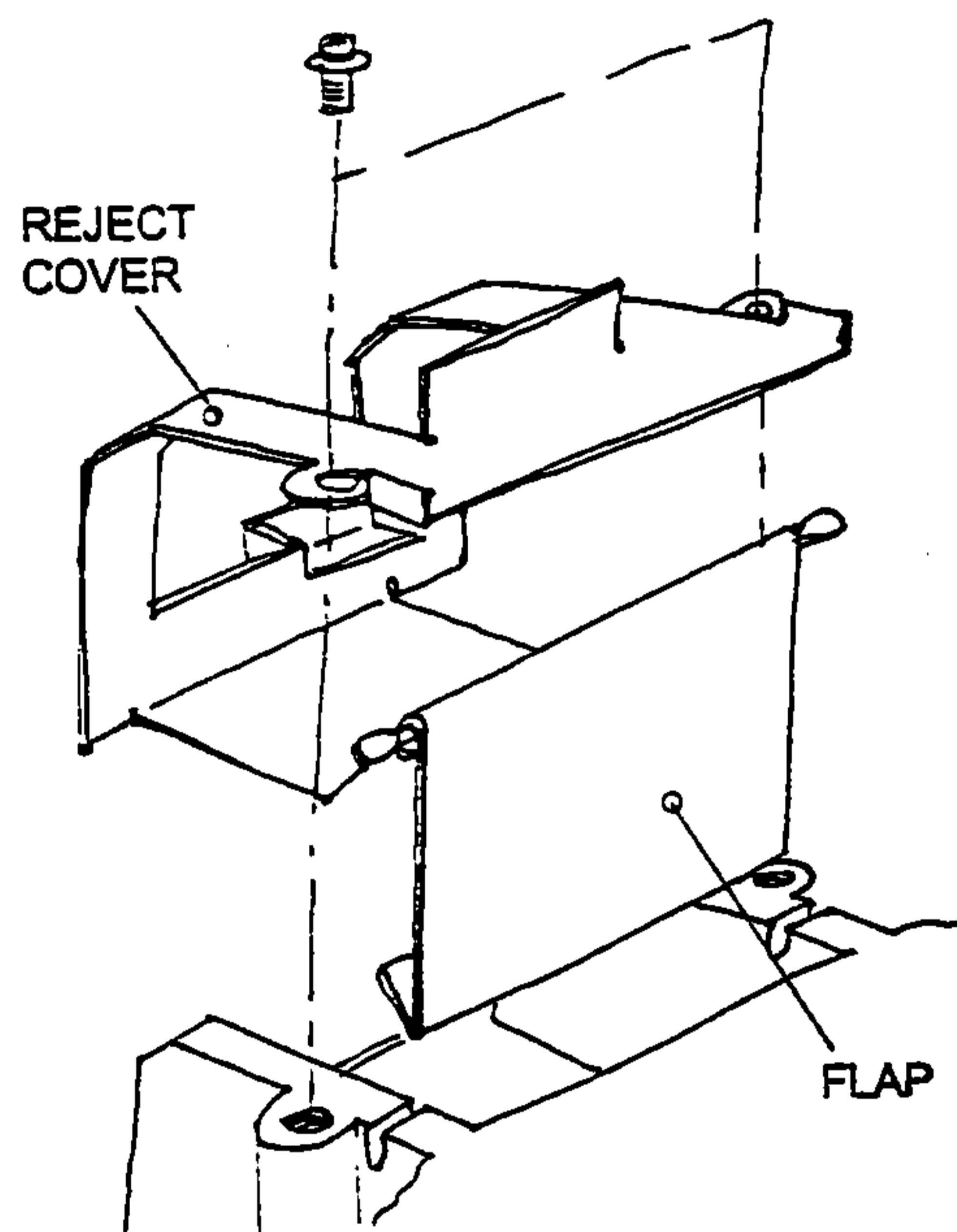


2.2 Fitting the bracket pack:

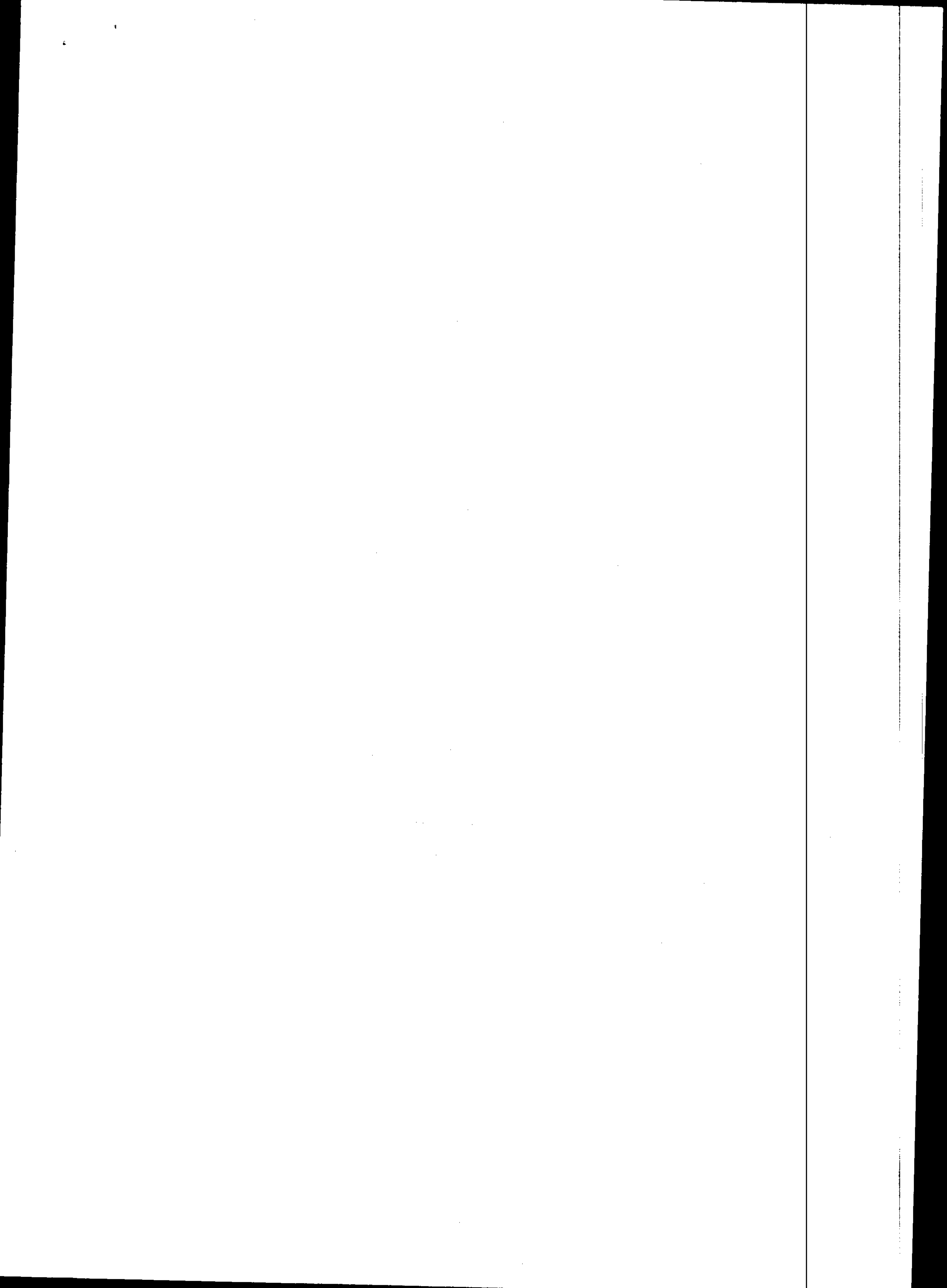
5. Fit the NOA-1407 TRANSIT CHUTE and the NOA-1414 LID TRANSIT CHUTE together and fit with 1-off M4 machine screw to the hole in the bottom of the control panel to take the ACCEPT COIN ROUTE from the validator into the cashbox.

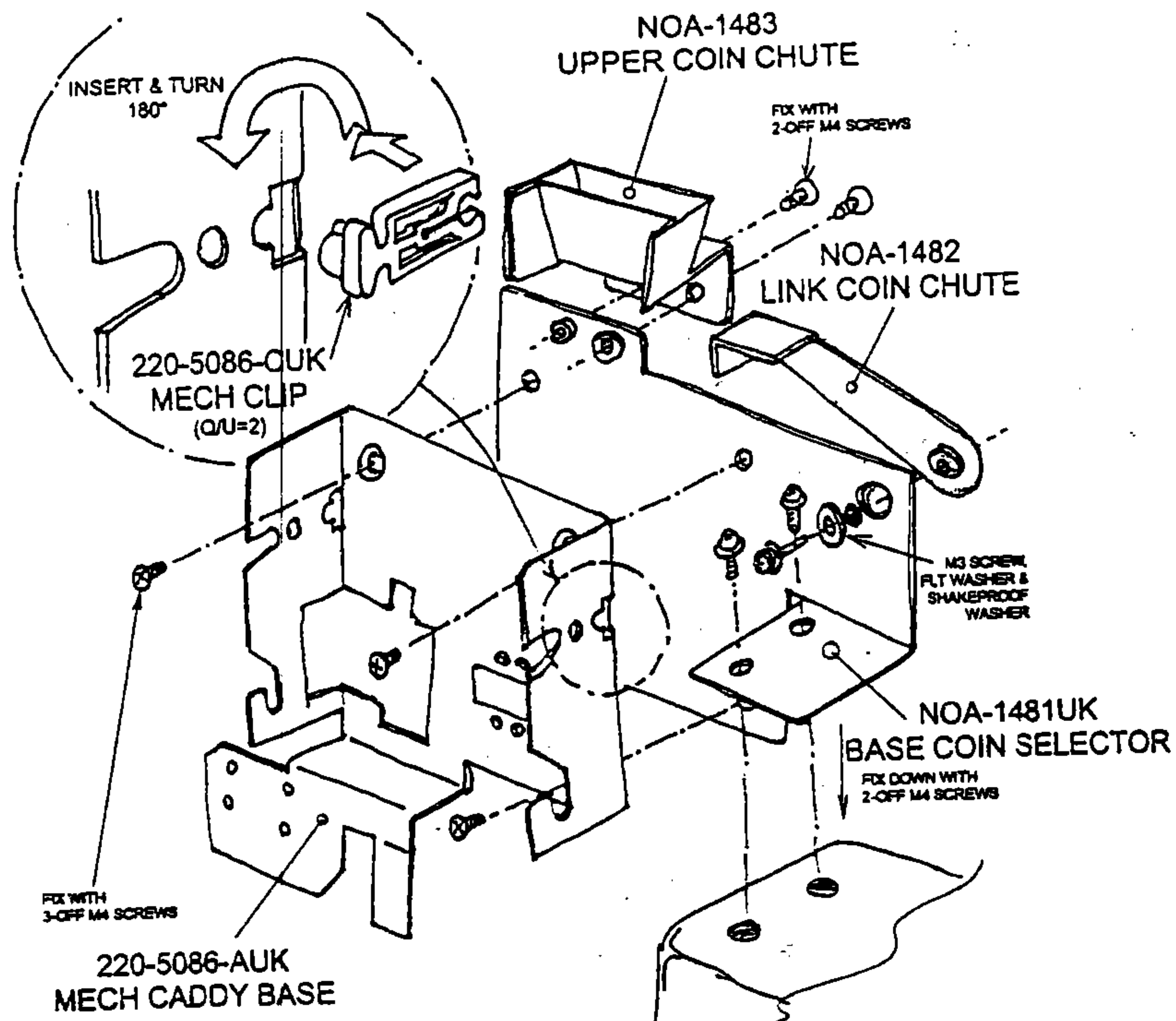


6. Fit the NOA-1405 FLAP and the NOA-1406X REJECT COVER together so that the FLAP slots into the 2 grooves in the control panel moulding and hinges backwards easily. This enables rejected coins to be retrieved easily, so care should be taken when tightening the 2-off M4 machine screws that secure the REJECT COVER to the moulding.



7. Fit the NOA-1482 LINK COIN CHUTE to the NOA-1481UK BASE COIN SELECTOR using 1-off M3 machine screw, 1-off M3 flat washer and 1-off M3 shakeproof washer (in this order) as shown. (The shakeproof washer enables the machine screw to be tightened while allowing the lever to be operated smoothly).
8. Fit the NOA-1483 COIN ENTRY CHUTE to the NOA-1481UK BASE COIN SELECTOR using the 2-off M4 CSK machine screws as shown.
9. Fit the 2-off 220-5086-CUK MECH CLIPS to the 220-5086-AUK MECH CADDY BASE as shown by inserting into the cutout and rotating through 180° until the nipple clips into the hole on the 220-5086-AUK MECH CADDY BASE (each side).
10. Fit the 220-5086-AUK MECH CADDY BASE (with clips) to the NOA-1481UK BASE COIN SELECTOR using 3-off M4 CSK machine screws as shown.





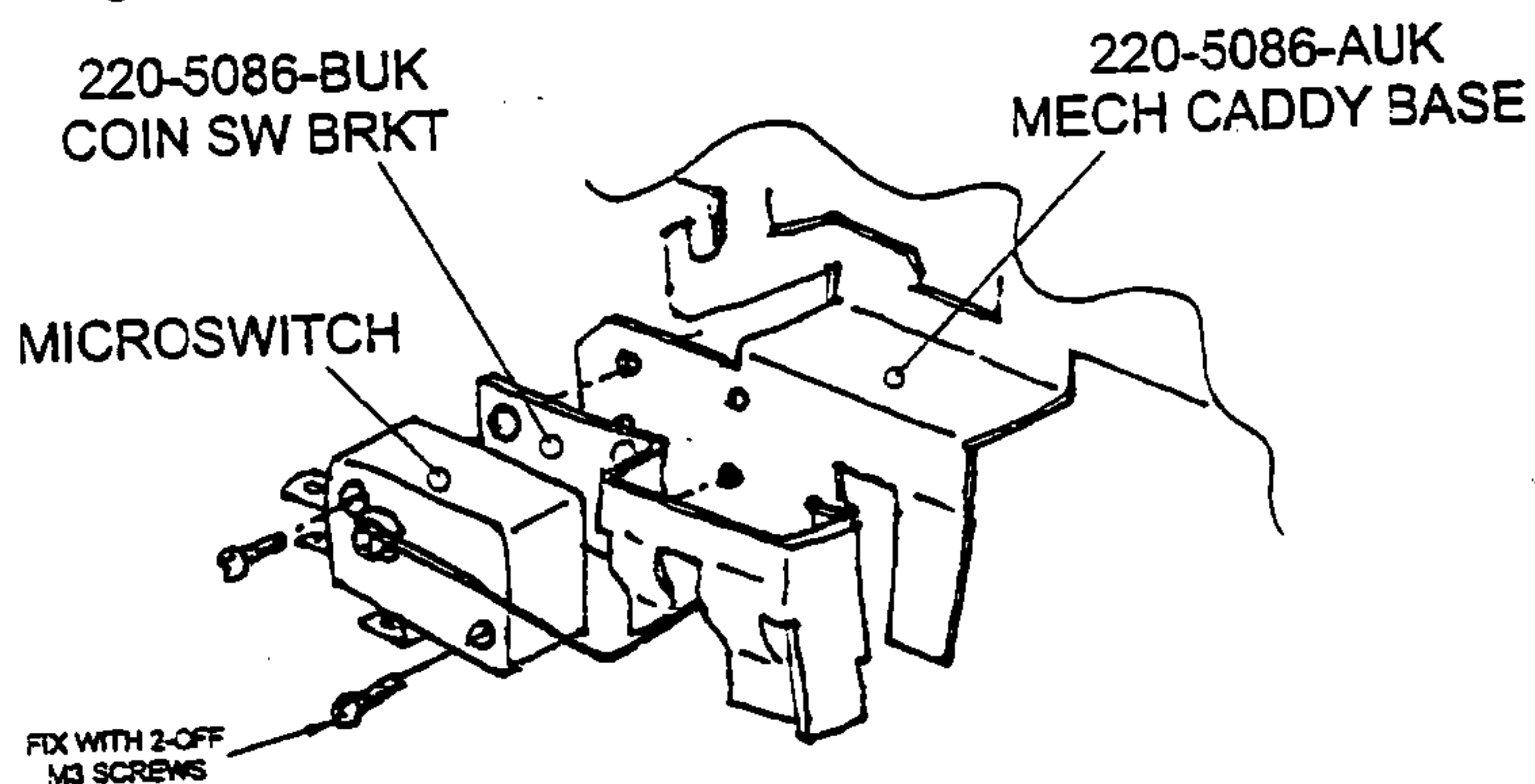
11. Undo the hex nut holding the COIN REJECT BUTTON onto the upper control panel. Undo the M4 machine screw holding the DUMMY BUTTON. Withdraw both buttons. Mechanical size validators require the COIN REJECT BUTTON to be fitted on the right-hand side of the COIN ENTRY SLOT so that it activates the LINK COIN CHUTE.

If you are using an electronic coin validator, go to section 2.5 now. If you are using a mechanical coin validator, go to section 2.3.

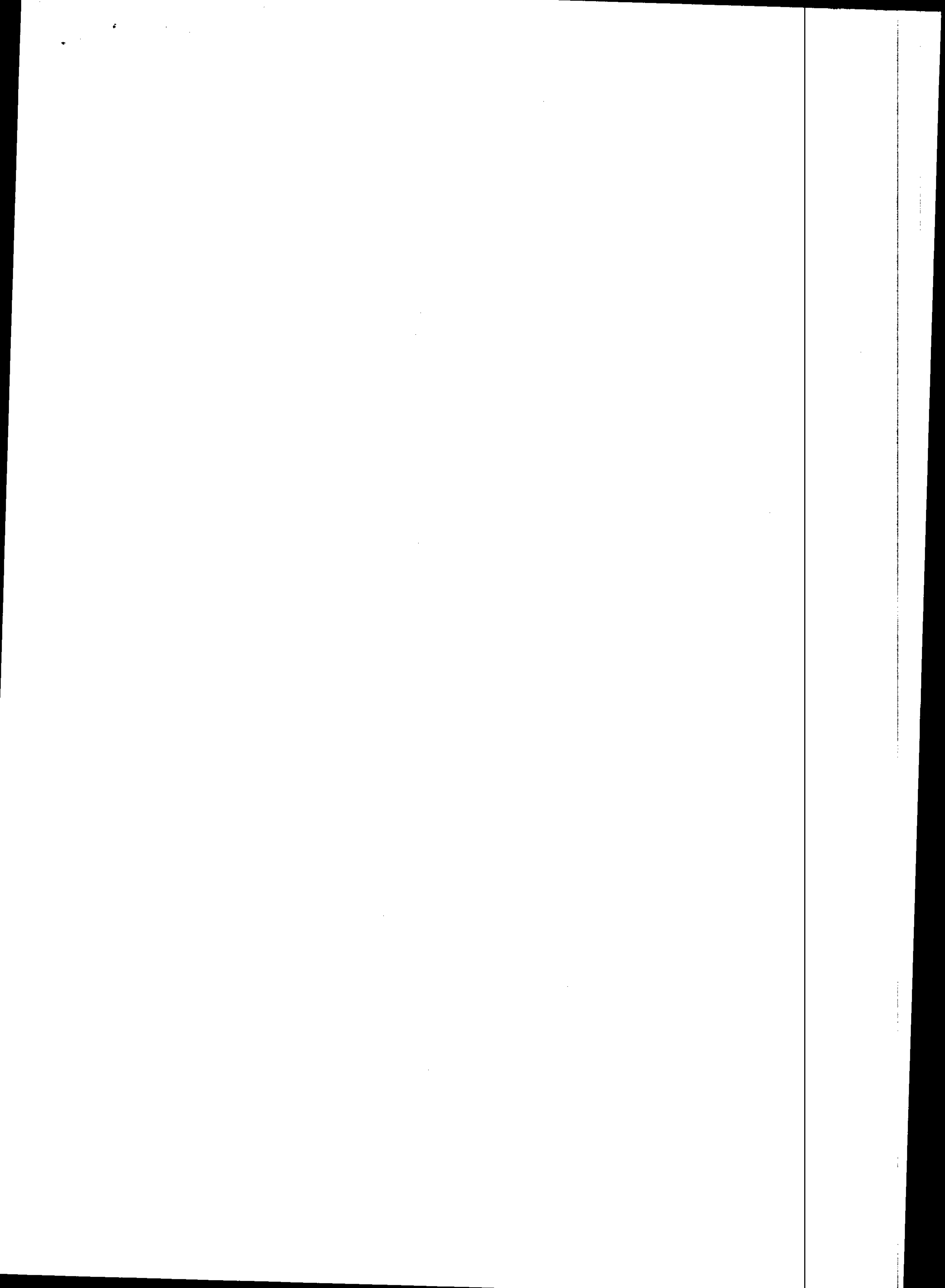
2.3 Fitting the microswitch (mechanical validators only):

This kit is supplied with a "black dot" wire microswitch (medium strength) with a straight wire. Check that this strength is suitable for your coinage (weight and diameter) before fitting. You may like to fit another strength microswitch if you know that the coins you are using require it.

12. Fit both the 220-5086-BUK COIN SW BRKT and the microswitch to the 220-5086-AUK MECH CADDY BASE using the 2-off M3 machine screws provided. After fitting, there should be a minimum of 3.5mm between the COIN SW BRKT and the MECH CADDY BASE to allow the coins to pass through smoothly.

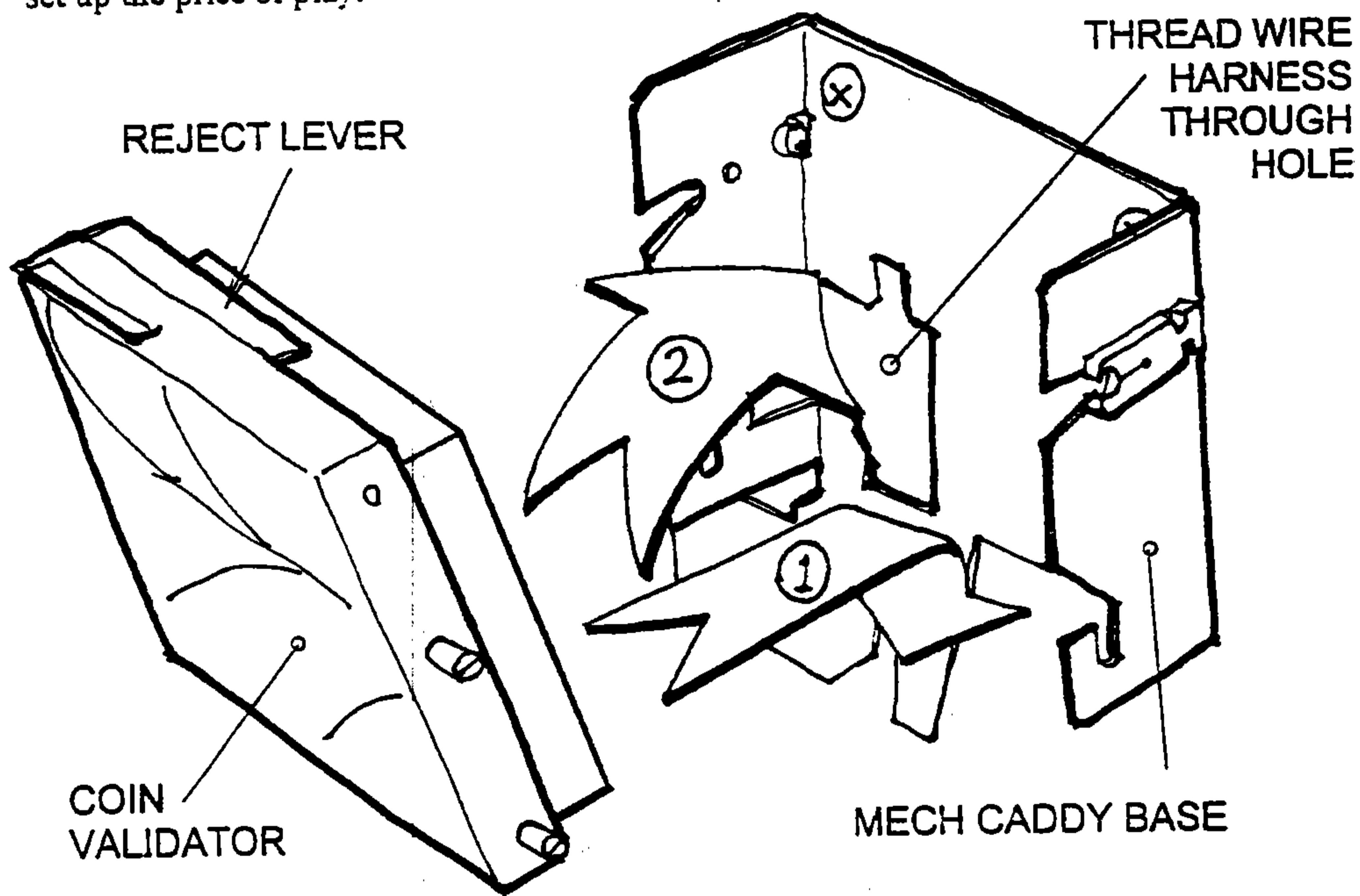


13. Bend the wire on the microswitch such that it crosses through the channel in the MECH CADDY BASE / COIN SW BRKT. Position the wire such that when a coin falls from the ACCEPT ROUTE on the coin mech (must be at the rear of the validator), the wire is depressed and the microswitch activates.
14. Connect LM1008 to the "COM" and "N.O." connections on the microswitch and to the credit board fitted to the Naomi cabinet (refer to the Naomi Service Manual for details of connections to the credit board).



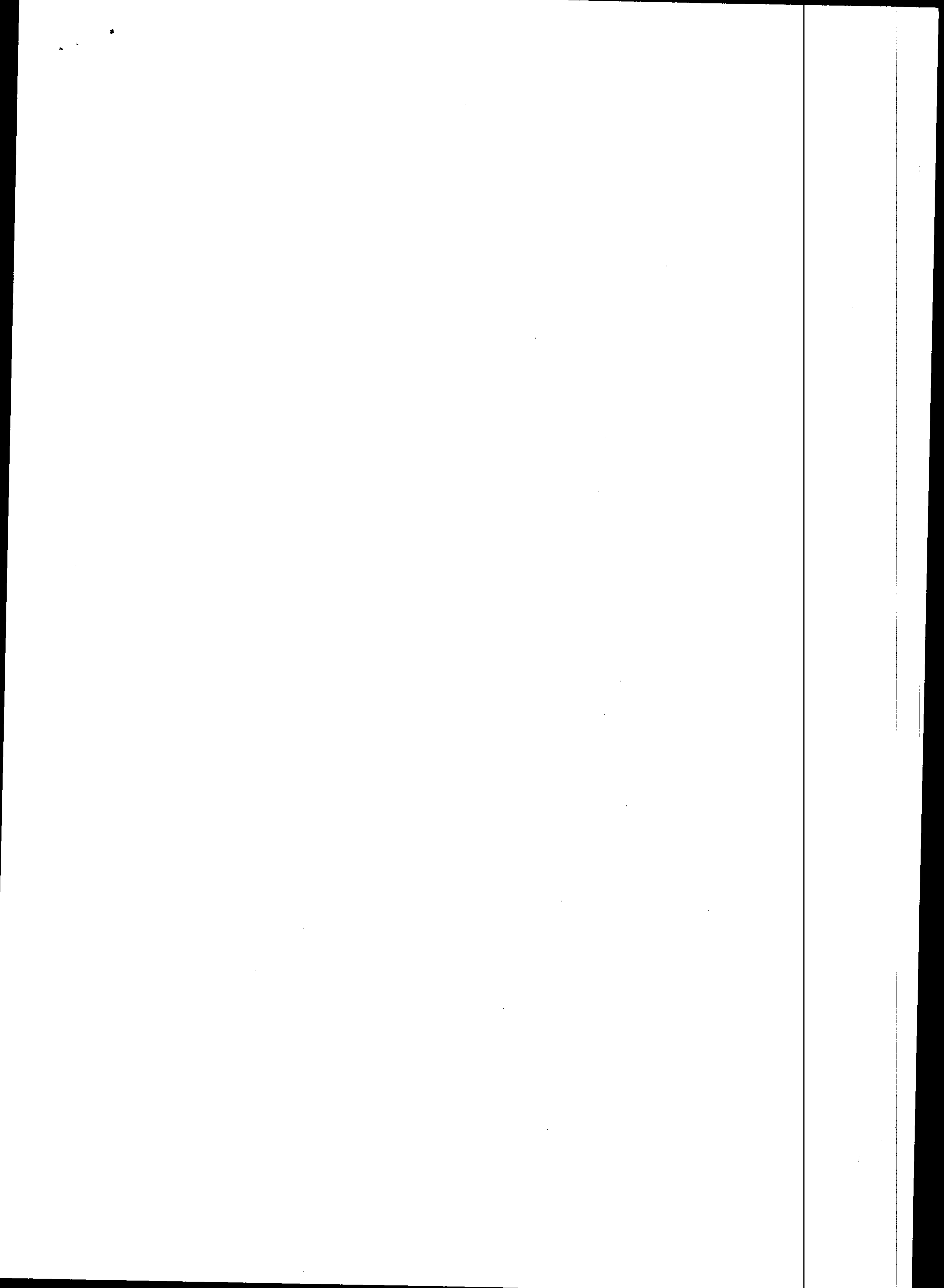
2.5 Installing the coin validator (electronic):

20. This size of validator has pins that clip into the 220-5086-AUK MECH CADDY BASE. The pins may not be removeable. Obtain extra pins so that the bottom 2 sets of holes have pins. For extra or replacement pins, contact the vendor of the coin validator.
21. Attach the 10-way wire harness supplied with the validator to the validator. Pull back the LINK COIN CHUTE. Insert the validator into the bottom set of slots of the 220-5086-AUK MECH CADDY BASE with the LINK COIN CHUTE on the right-hand side.
22. Carefully feed the wire harness through the hole in the back of the 220-5086-AUK MECH CADDY BASE and position clear of the ACCEPT ROUTE.
Hint: Some validators may require that the wire harness is routed out underneath the validator. Be sure that the harness cannot obstruct the coins being passed through the validator's ACCEPT ROUTE.
23. Bring upright so that the top set of pins clip into the 220-5086-CUK COIN MECH CLIPS.
24. Reset the LINK COIN CHUTE.
25. Attach the wire harness to the credit board fitted to the Naomi cabinet (refer to the Naomi Service Manual for details of connections to the credit board).
26. Test that the coin validator accepts the coins and passes them through the ACCEPT ROUTE and that the coins then drop into the cashbox. Refer to the Naomi Service Manual for details of how to set up the price of play.



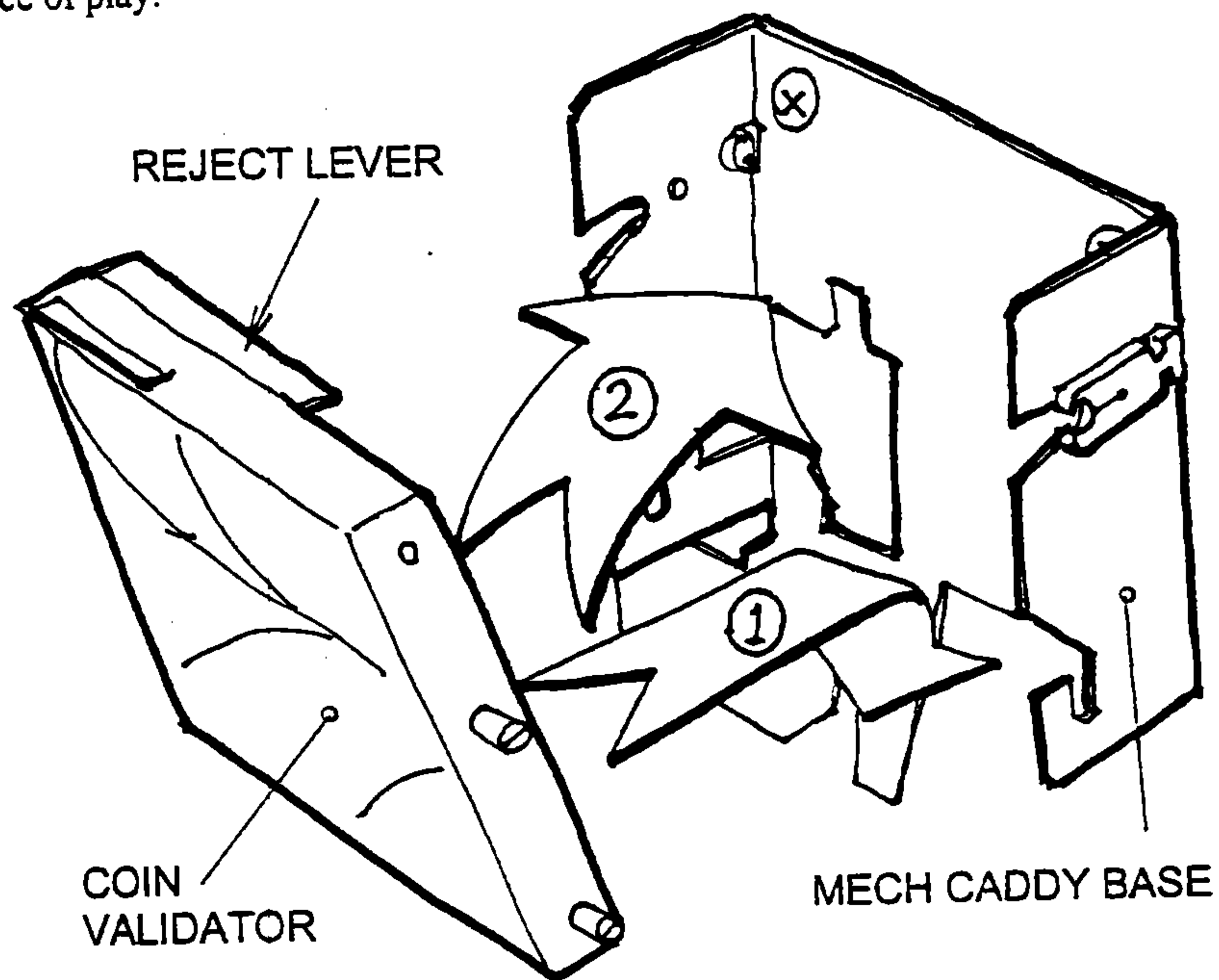
2.6 Commissioning:

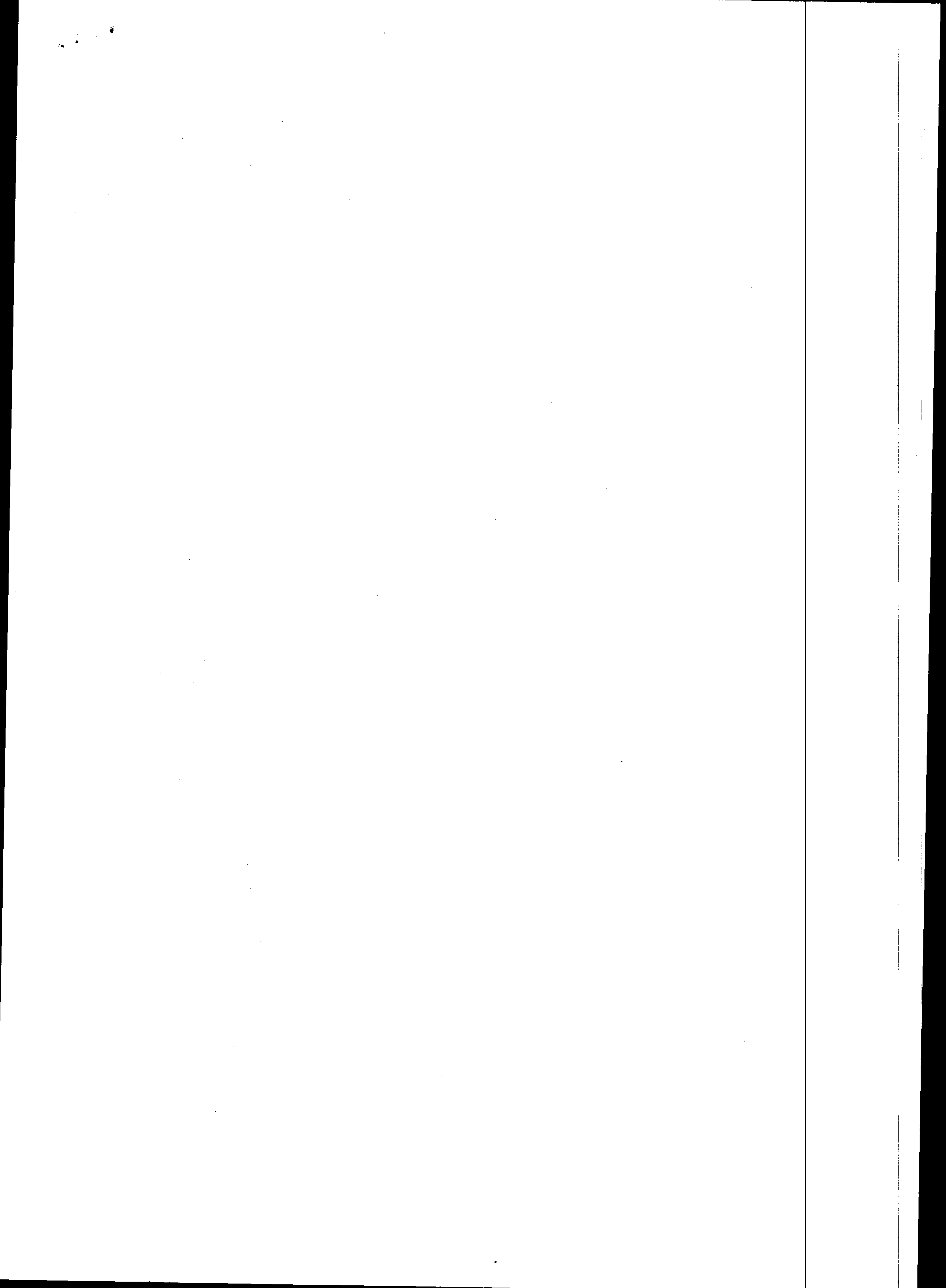
Refit the FRONT COVER and shut the CONTROL PANEL UPPER before operating. Refit is the reverse of removal.



2.4 Installing the coin validator (mechanical):

15. This size of validator has repositional pins that clip into the 220-5086-AUK MECH CADDY BASE. The pins need to be fitted to the bottom 2 sets of holes. For extra or replacement pins, contact the vendor of the coin validator.
16. Pull back the LINK COIN CHUTE. Insert the validator into the bottom set of slots of the 220-5086-AUK MECH CADDY BASE with the LINK COIN CHUTE on the right-hand side.
17. Bring upright so that the top set of pins clip into the 220-5086-CUK MECH CLIPS.
18. Reset the LINK COIN CHUTE.
19. Test that the coin validator accepts the coins and passes them through the ACCEPT ROUTE to trigger the microswitch satisfactorily. Refer to the Naomi Service Manual for details of how to set up the price of play.





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1. BEFORE USING THIS PRODUCT

To ensure the safe usage of the product, be sure to read the following before using the product. The following instructions are intended for the use of QUALIFIED SERVICE PERSONNEL ONLY. After carefully reading and sufficiently understanding the instructions should any activity be carried out on the product. Only qualified service personnel should carry out maintenance on the product.

Terms such as **WARNING!**, **CAUTION!**, and **IMPORTANT!** Are used where an explanation is given which requires special attention, depending on the potential risk. SEGA is not responsible for injury or damage caused by use in a manner contrary to the instructions stated in this document. In order to prevent accidents warning stickers and printed instructions are applied in the places where a potentially hazardous situation relating to the product could arise. Be sure to comply with these warnings.



WARNING!

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



CAUTION!

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



IMPORTANT!

This is cautionary information which should be complied with when handling the product. Indicates that mishandling the product by disregarding this will cause a potentially hazardous situation which may not result in personal injury but could damage the product.

Be sure to turn off the power and disconnect from the mains supply before working on the machine.

Ensure that the correct fuse(s) is fitted to the machine.

Details of the correct fusing of the machine are enclosed in the Service Manual.

Ensure that only qualified Service Engineers perform any maintenance work on the machine.

Specification changes, removal of equipment, conversion and/or addition, not designated by SEGA are not permitted and will invalidate this product's CE conformity.

The parts of the product also include any warning labels or safety covers for personal protection etc. A potential hazard will be created if the machine is operated while any parts have been removed. Should any doors, lids or protective covers be damaged or lost, do not operate the product. SEGA is not liable in any whatsoever for any injury and/or damage caused by specification changes not designated by SEGA.

Before installing the product, check for the Electrical Specification Sticker, SEGA products have a sticker on which the electrical specifications are detailed. Ensure that the product is compatible with the power supply voltage and frequency requirements of the location in which the machine is to be installed.

Install and operate the machine only in places where appropriate lighting is available, allowing warning stickers to be clearly read.

To ensure maximum safety for both customers and operators, stickers and printed instructions describing potentially hazardous situations are applied to places where accidents could occur. Ensure that where the product is operated has sufficient lighting to allow any warnings to be read. If any sticker or printed warning is removed or defaced, do not operate the machine, until it has been replaced by an identical item.

When handling the monitor, be very careful. (Applies only to product with monitor)

Some of the monitor (TV) parts are subject to high tension voltage. Even after turning off the power some components are still occasionally subject to high tension voltage. Monitor repair and replacement should be performed by qualified service engineers only.

In cases where commercially available monitors and printers are used only the contents relating to this product are stated in this manual. Some commercially available equipment has functions and reactions not stated in this manual. Read this manual in conjunction with the specific manual of such equipment.

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

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

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



IMPORTANT!

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

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

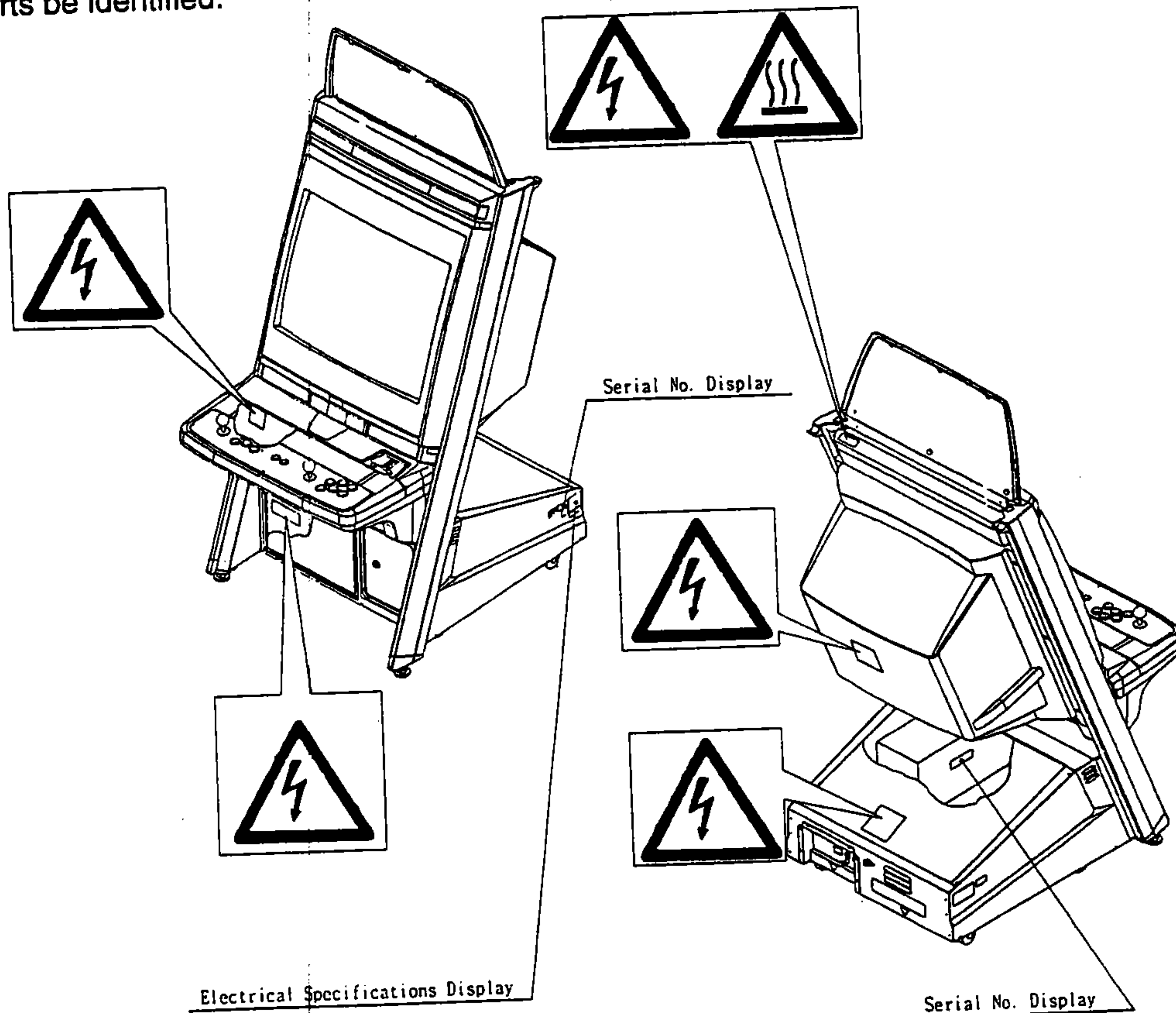
- Are there any dented parts or defects (cuts, etc.) on the external surfaces of the product?
- Are castors and leg adjusters present and undamaged?
- Do the power supply voltage and frequency requirements meet with the local supply?
- Are all wiring connectors correctly and securely connected? Unless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

CONCERNING THE STICKER DISPLAY

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

CONCERNING WARNING STICKERS

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



SPECIFICATIONS	
Installation Space (cm):	76 (W) x 98 (D)
Height (cm):	175
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.

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, electromechanicals, servicing controls, spare parts, etc. as regards Naomi Universal Cabinet, 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 interior 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!

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

3.1. HANDLING AND INSTALLATION PRECAUTIONS

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

The game must NOT be installed under the following conditions:

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

Important:

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



IMPORTANT!

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

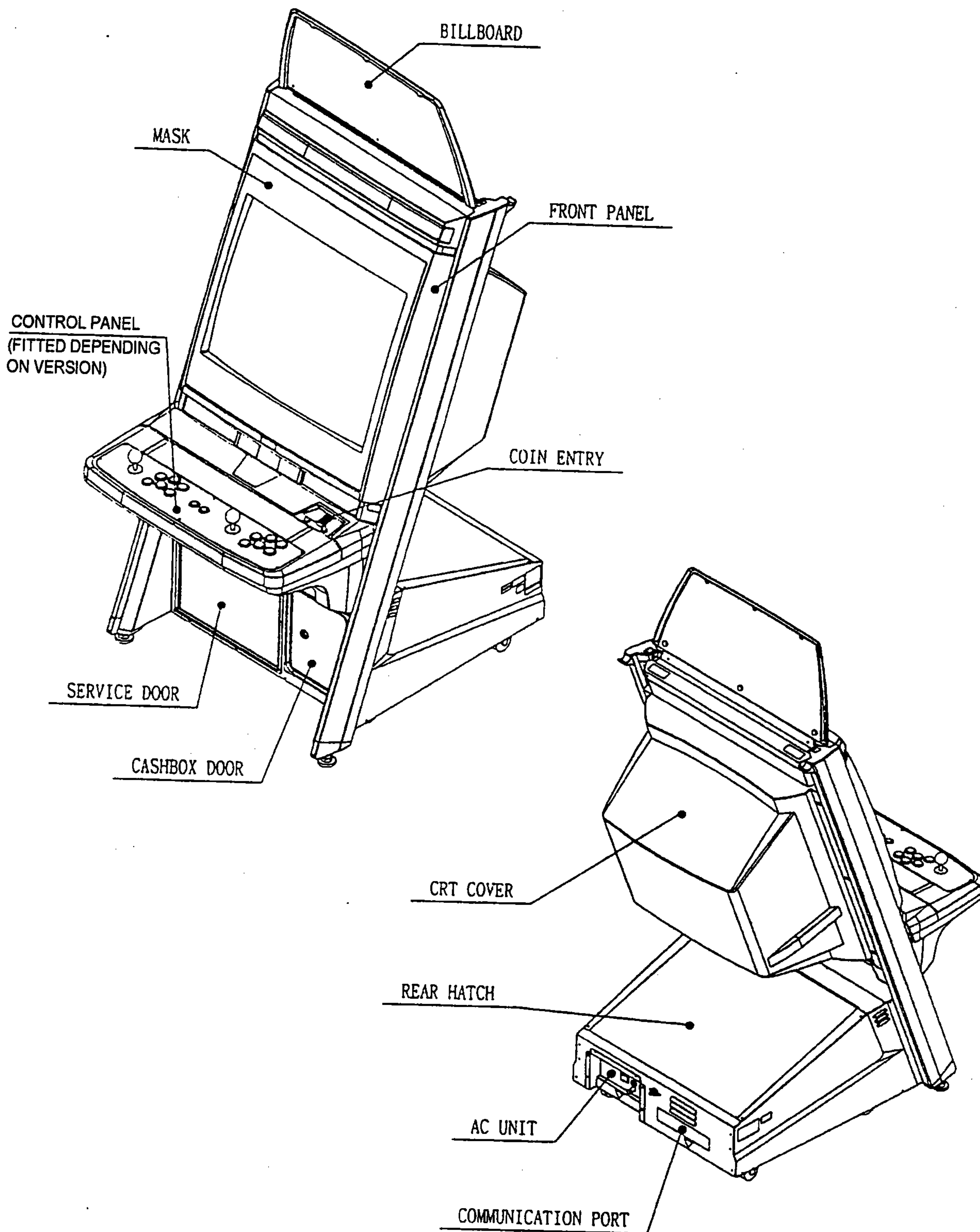
3.2. COIN HANDLING

Standard Sega machines are fitted with a C220 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 C220 (Top Entry)
- Generic mechanical
- S.E.C.I RM4-G20

3.3. NAME OF PARTS



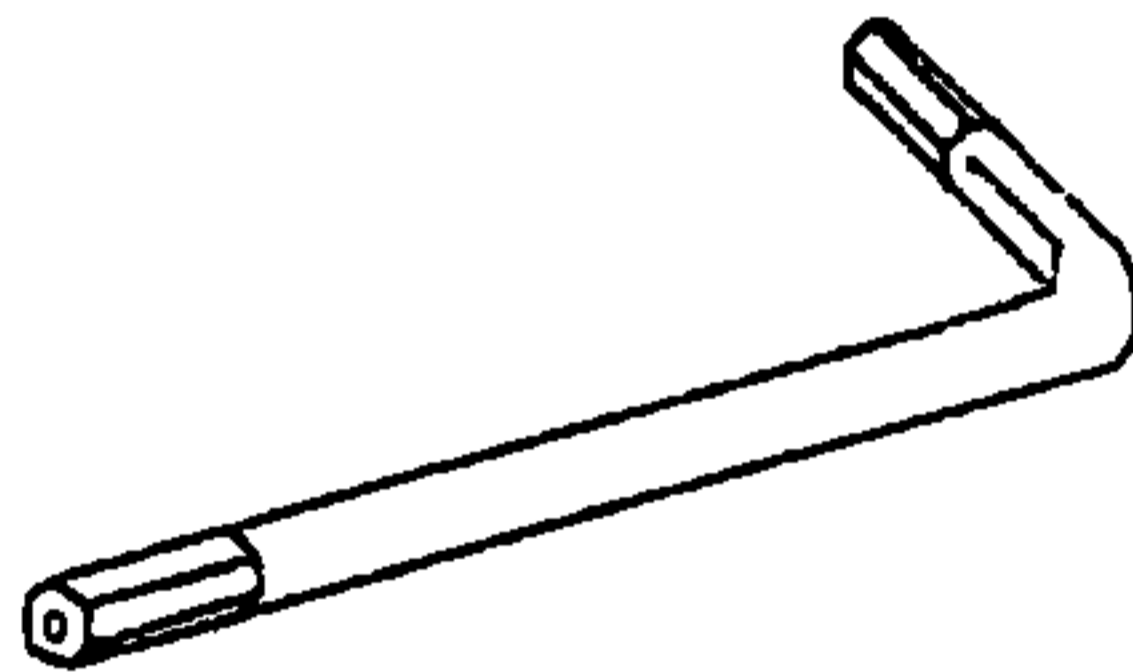
	Width (cm)	Length (cm)	Height (cm)
CABINET	76	98	180
When Assembled	76	98	210

3.4. ACCESSORIES

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

No.	PART NUMBER	QTY	DESCRIPTION
1	422-0734UK	1	PLAY INSTR SH ZOMBIE ZONE
2	422-0735UK	1	SUB INSTR SH ZOMBIE ZONE
3	429-0639UK	1	DISPLAY CARD ZOMBIE ZONE
4	SAECE-039	1	DECLARATION OF CONFORMITY ZZN
5	PK0200	1	INST KIT BOX ZZN NOB
6	OS1019	1	SELF SEAL BAG 9X12.3/4
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
301	NOA-60061	1	WIRE HARN EXT 2L6B (SPARE)
302	600-7141-250	1	CABLE JVS TYPE A-B 250CM (SPARE)
303	600-7175-01	1	WIRE HARN VMS 1P
304	600-7175-02	1	WIRE HARN VMS 2P
401	420-6455-01UK	1	SERVICE MANUAL NAOMI UPRIGHT
402	420-6470-01UK	1	SERVICE MANUAL ZZN
403	420-5787	1	SERVICE MANUAL MS 2932 (DEPENDING ON VERSION)

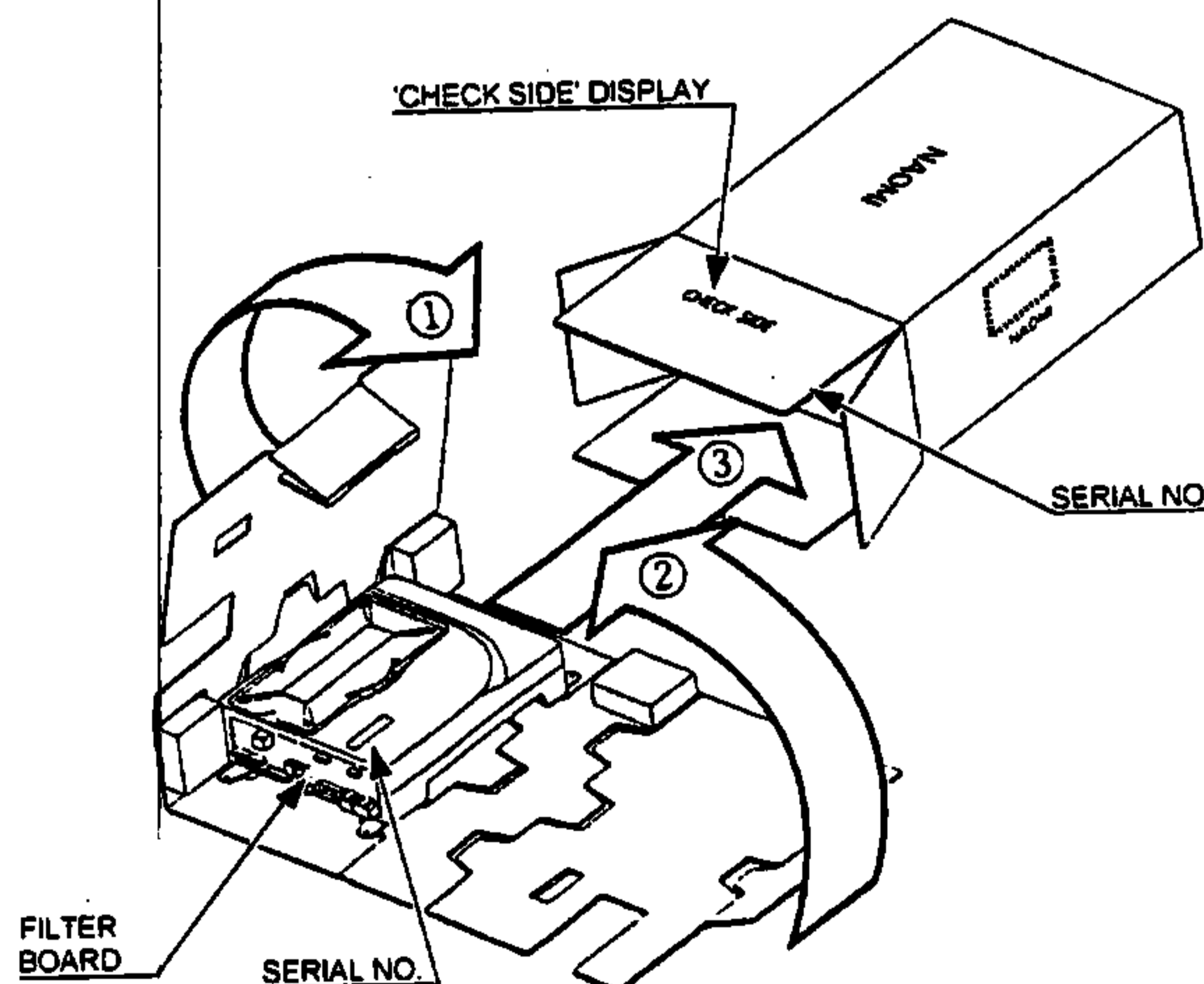
THIS BOX ALSO CONTAINS THE BILLBOARD ASSEMBLY (NOA-1300) AND FIXING SCREWS (T00408-OC, QTY 3).



Items 101 & 102 - Tamperproof TORX wrench.



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



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 otherwise in the manner not shown can damage the GAME BOARD and parts.

3.5. ASSEMBLY INSTRUCTIONS



WARNING!



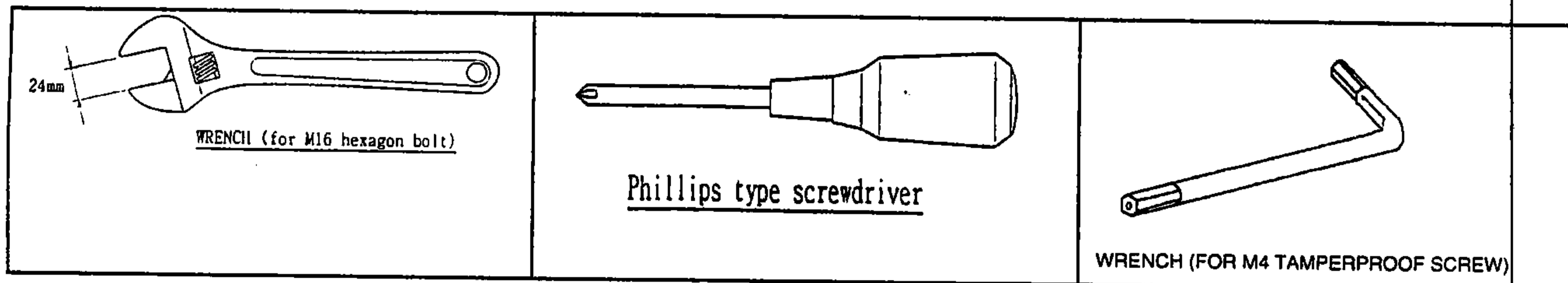
IMPORTANT!

- 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.
- Assembly should only be carried out by **QUALIFIED SERVICE PERSONNEL.**

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:



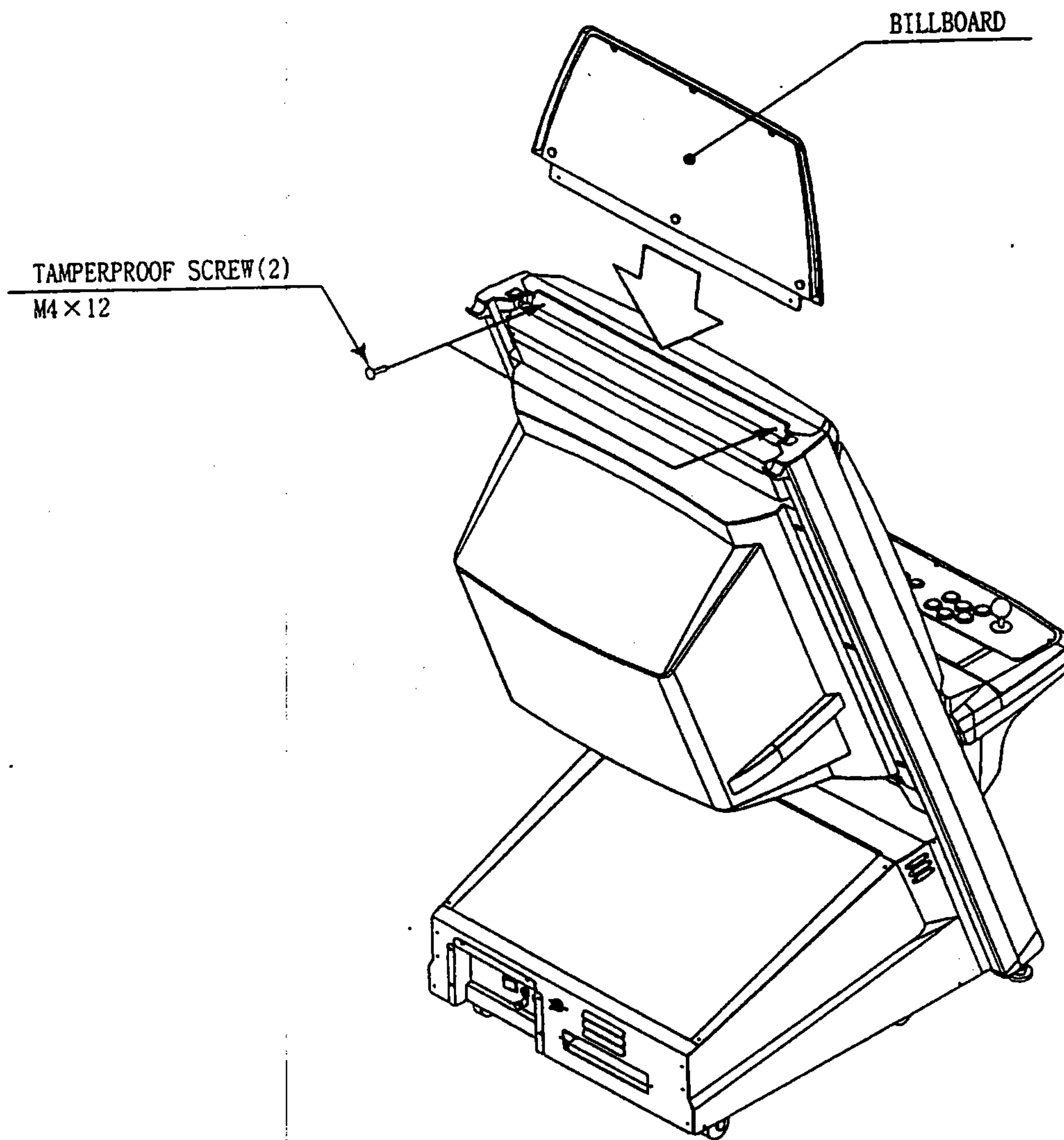
3.5.1. INSTALLING THE BILLBOARD



IMPORTANT!

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

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!

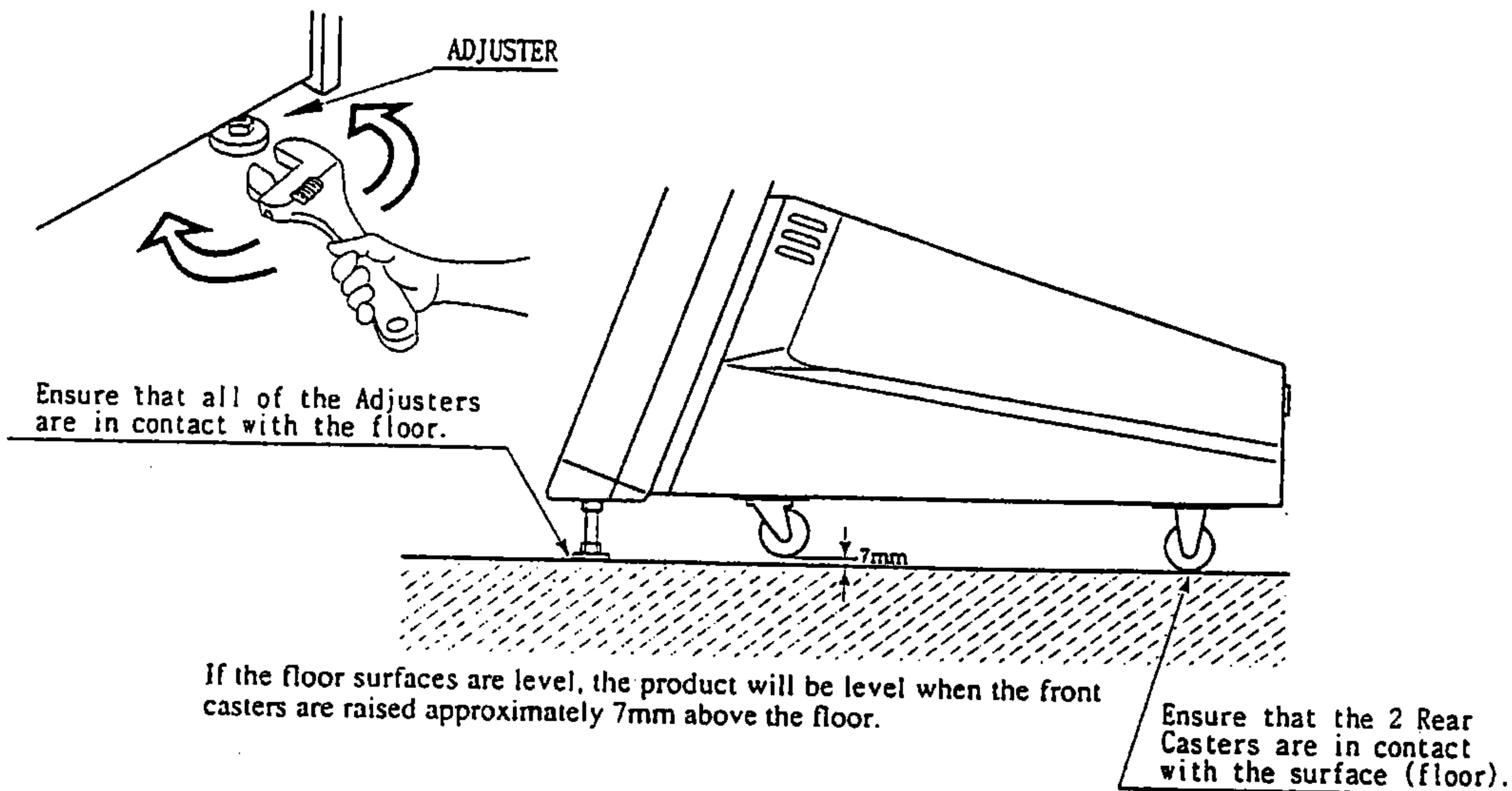
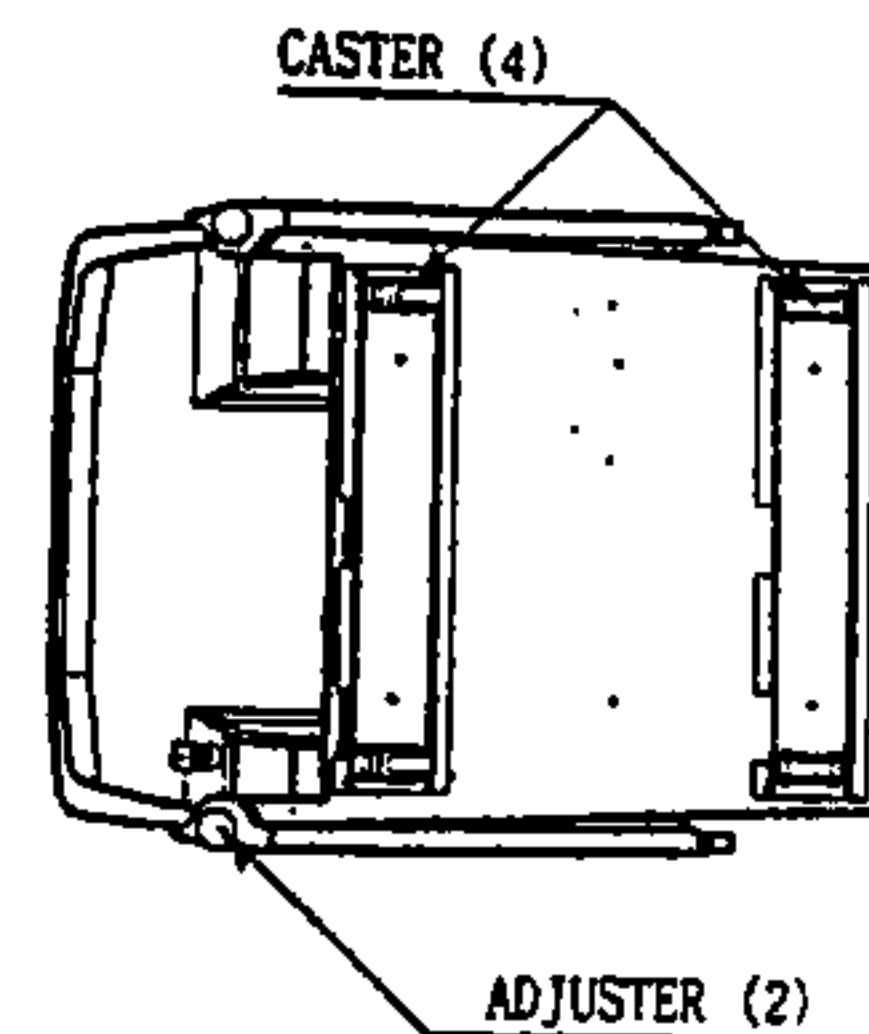


IMPORTANT!

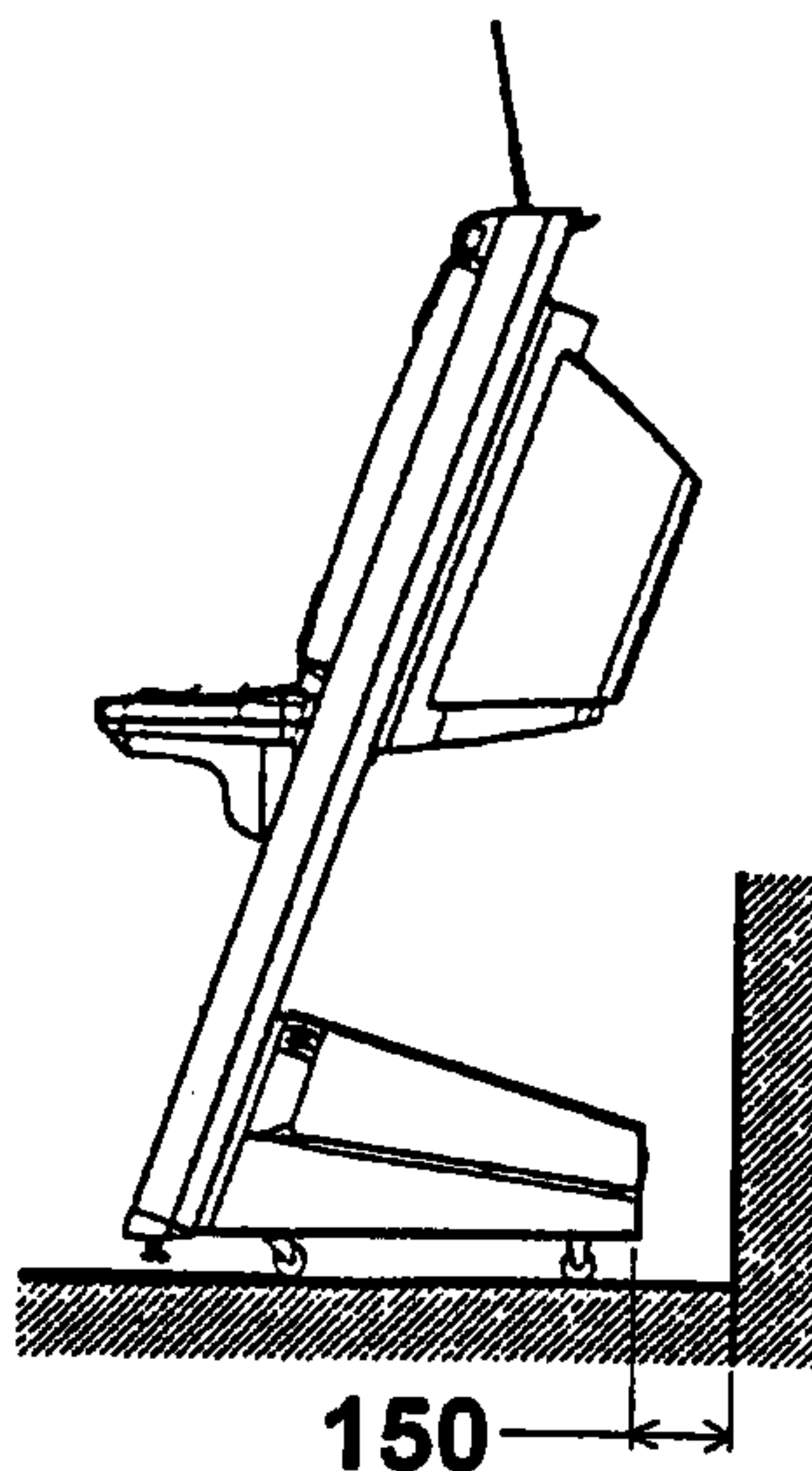
- Make sure all of the leg adjusters are in contact with the floor. If they are not the machine may move and cause injury. This operation requires 2 people.
- This operation should only be carried out by **QUALIFIED SERVICE PERSONNEL**.

This machine has four castors and two leg adjusters. When the installation position is decided, unscrew the leg adjusters so that they raise both front castors 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!

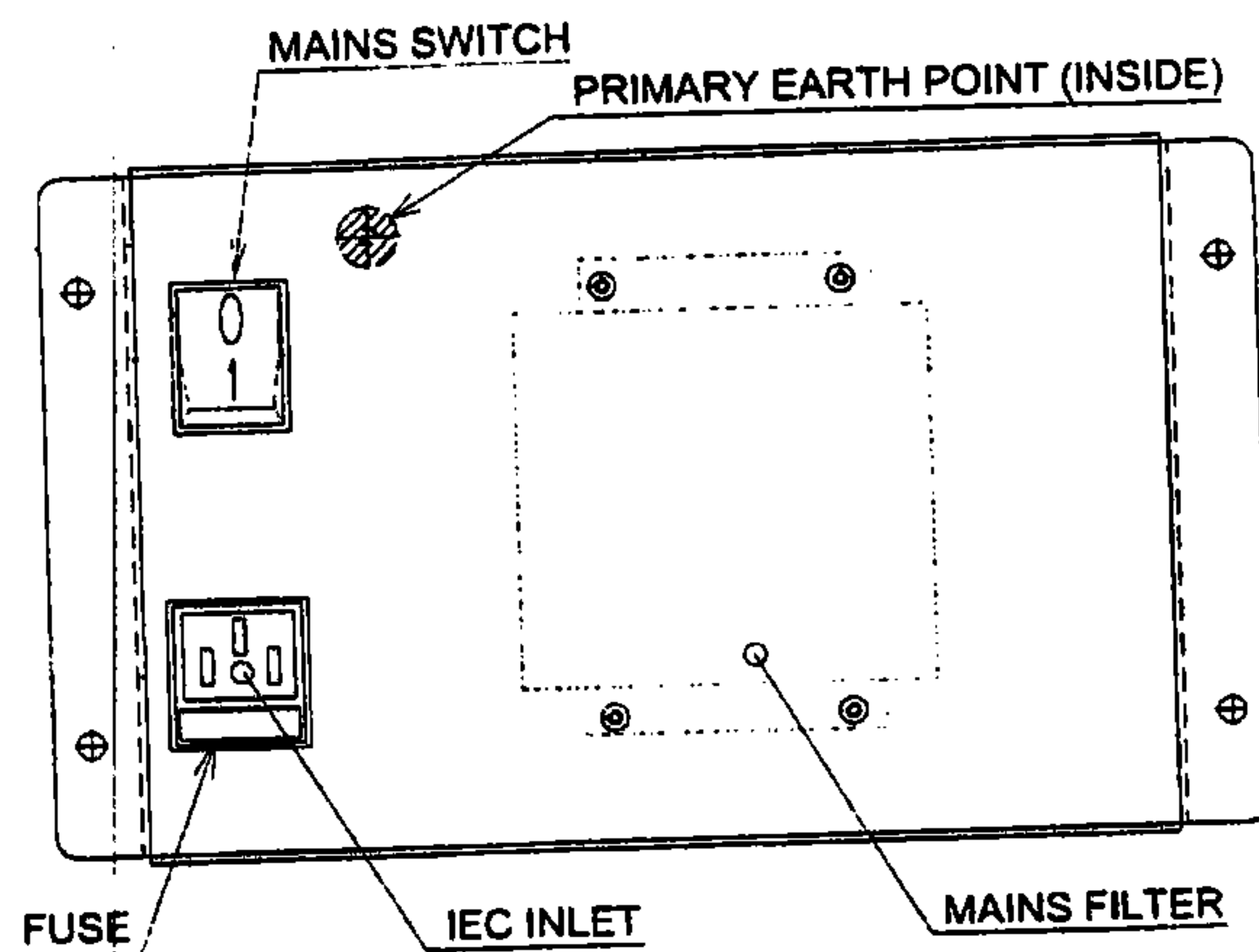


IMPORTANT!

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

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

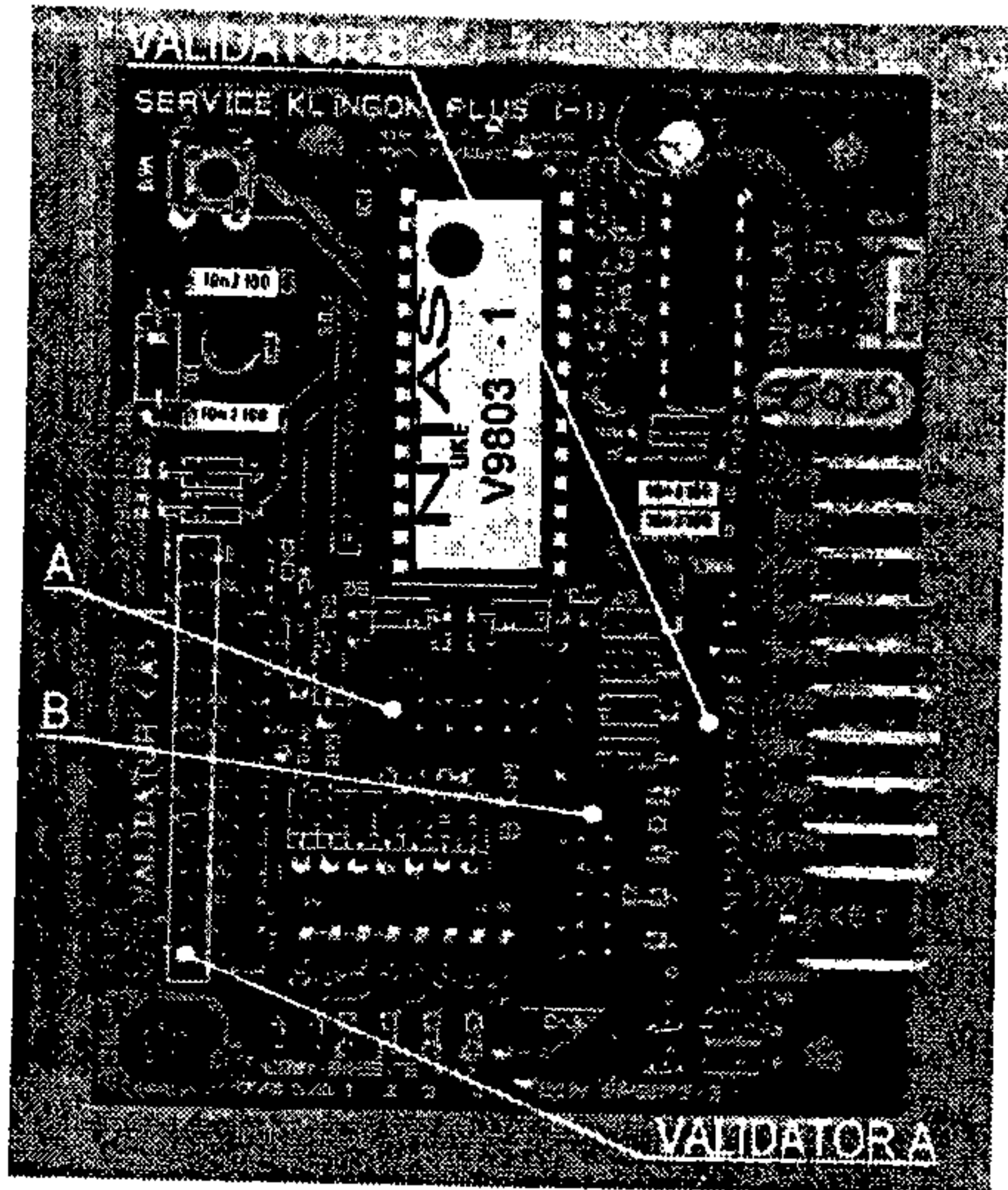
1. The AC Unit is located on the right hand side of the base unit, when viewing the screen (as shown in section 3.3). It houses the IEC inlet, mains switch and fuse.



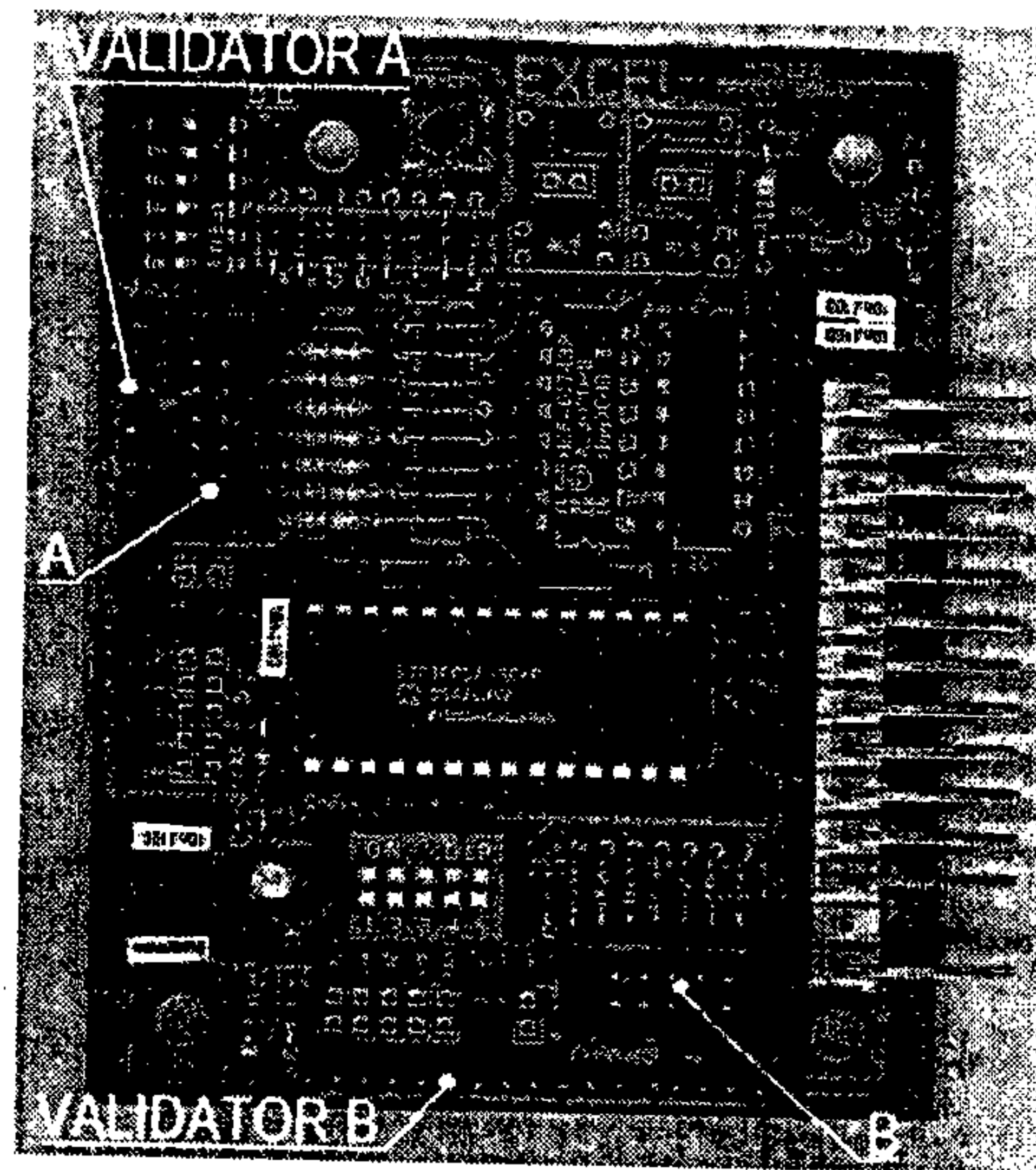
2. Ensure that all of the machine's wires have been connected in accordance with the preceding sections and that the mains switch is OFF.
3. Check that the operating voltage of the mains supply matches the machine (section 1.1).
4. Insert the IEC lead into the IEC inlet and the mains plug into a wall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

3.5.4. CREDIT BOARD WIRING TO COIN MECH

COIN MECH	LOOM	INSTALLATION
C220B (TOP ENTRY)	LM1006 OR LM1006IDC	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Attach the blue cable and orange cable to one mech's microswitch. • Attach the blue/green cable and orange/green cable to the other mech's microswitch. • Attach one 15 way connector to Validator A and the other to Validator B on the credit board
S.E.C.I	OWN LOOM	<ul style="list-style-type: none"> • Attach the S.E.C.I own loom to position A on the credit board



'KLINGON' TYPE CREDIT BOARD



'EXCEL' TYPE CREDIT BOARD

3.6. MOVING THE MACHINE



WARNING!

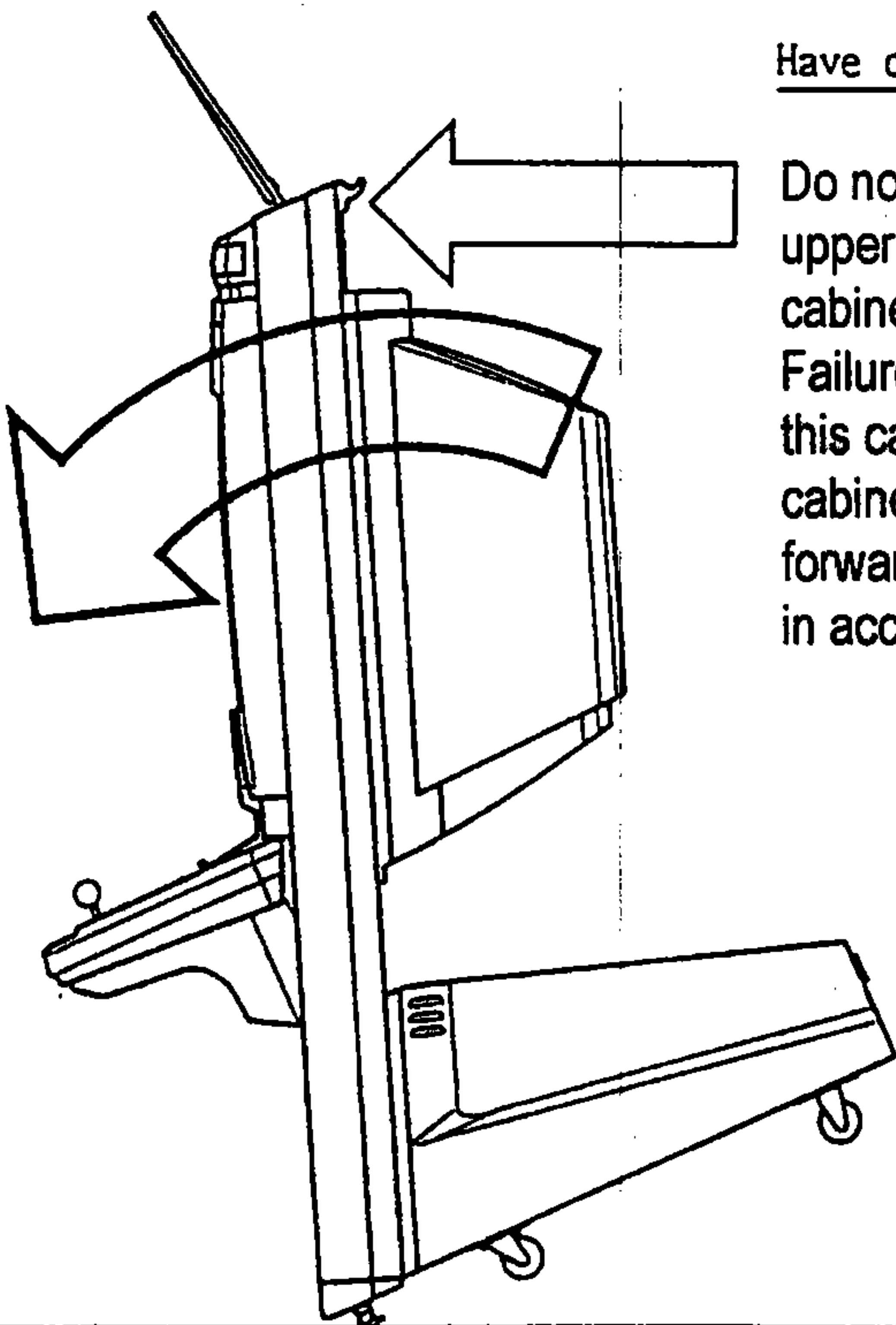
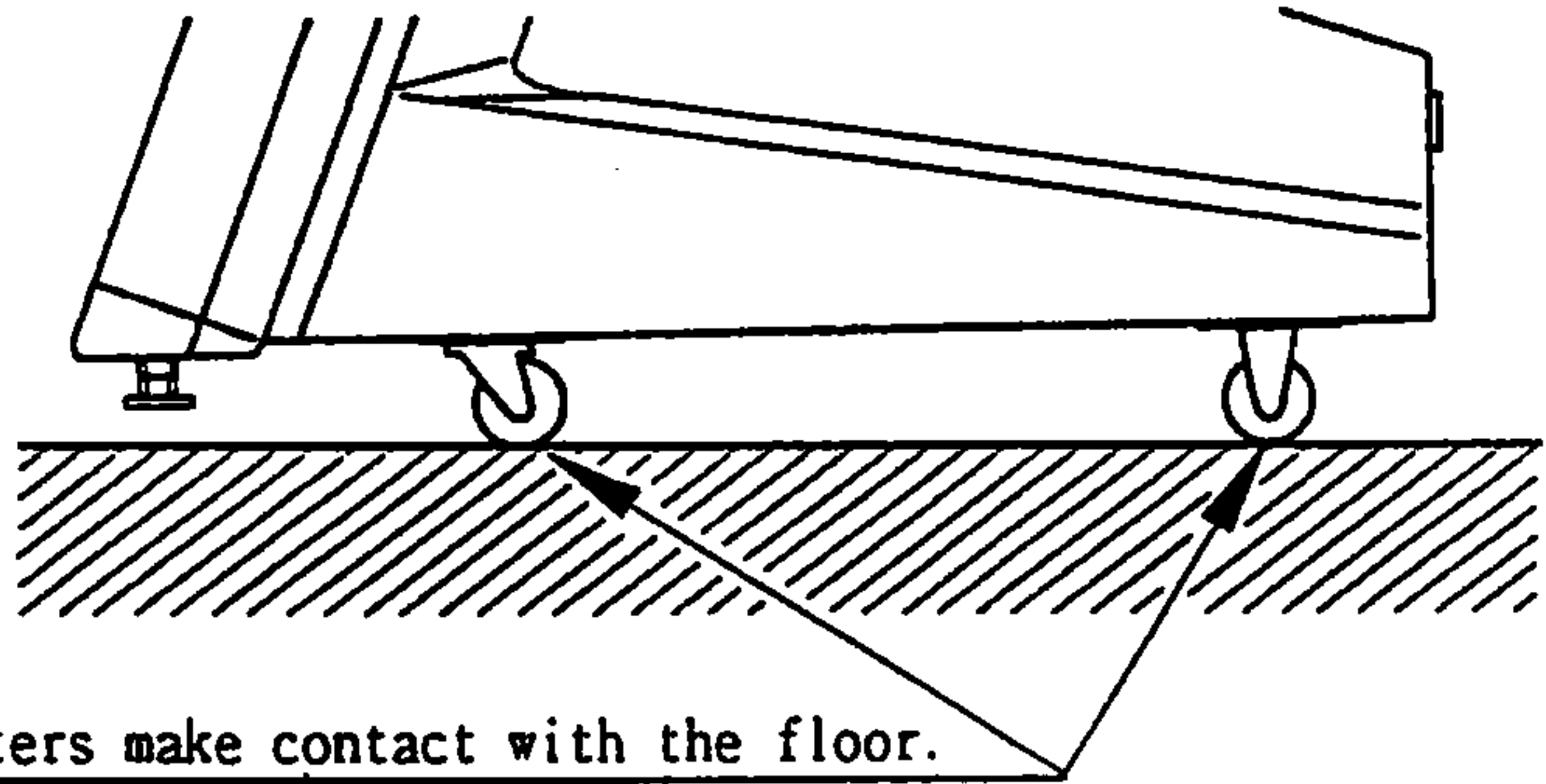


CAUTION!



IMPORTANT!

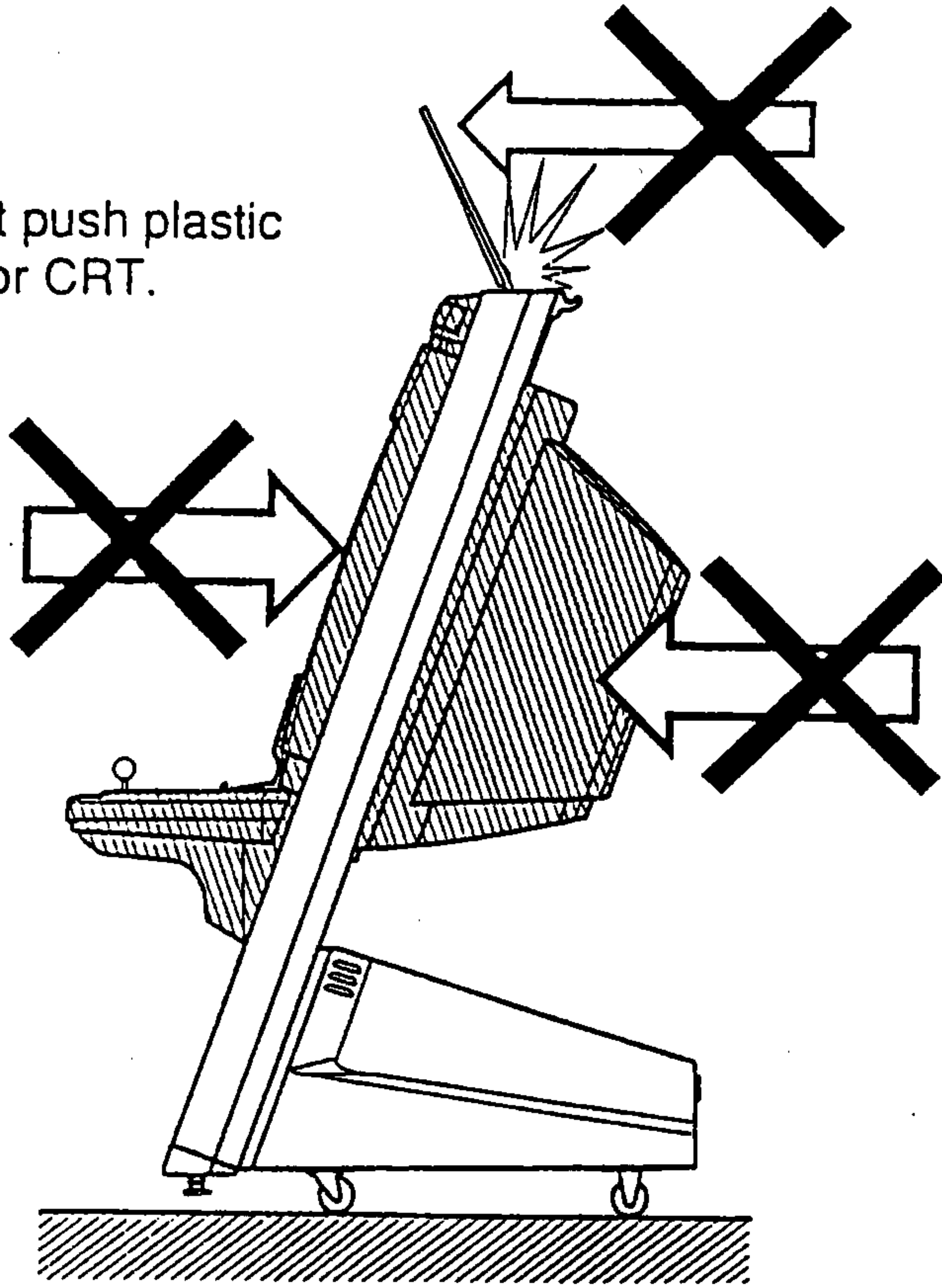
- When moving the machine, be sure to remove the plug from the power supply. Moving the machine with the plug inserted can cause the power cord to be damaged, resulting in a fire or electric shock.
 - When moving the machine, retract the leg adjusters fully and ensure the casters make contact with the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



Have casters make contact with the floor.

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

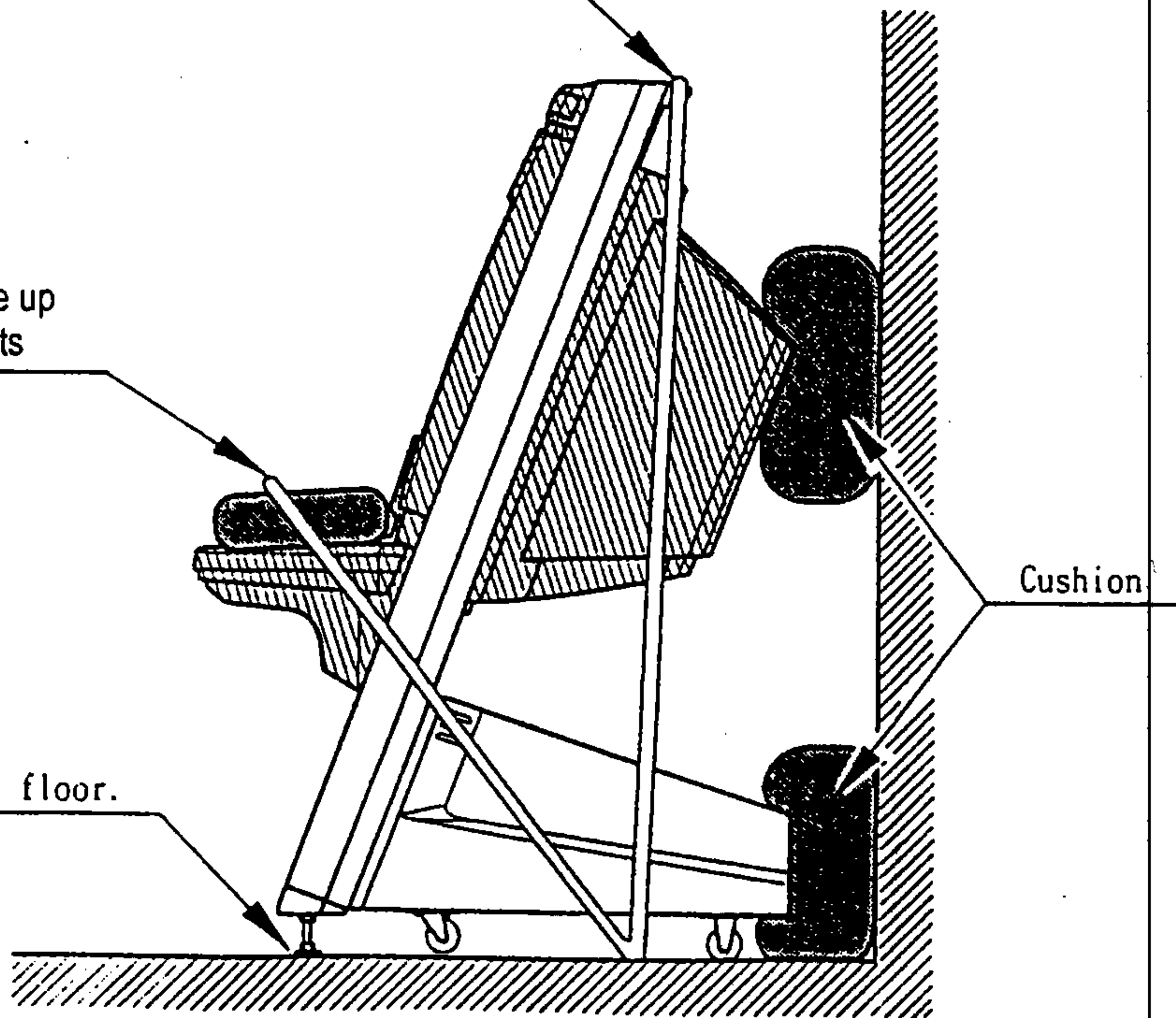
Do not push plastic parts or CRT.



Hook for roping up.

Do not directly rope up plastic or glass parts

Adjuster making contact with the floor.



3.7. INTERNAL SWITCHES AND COIN METERS



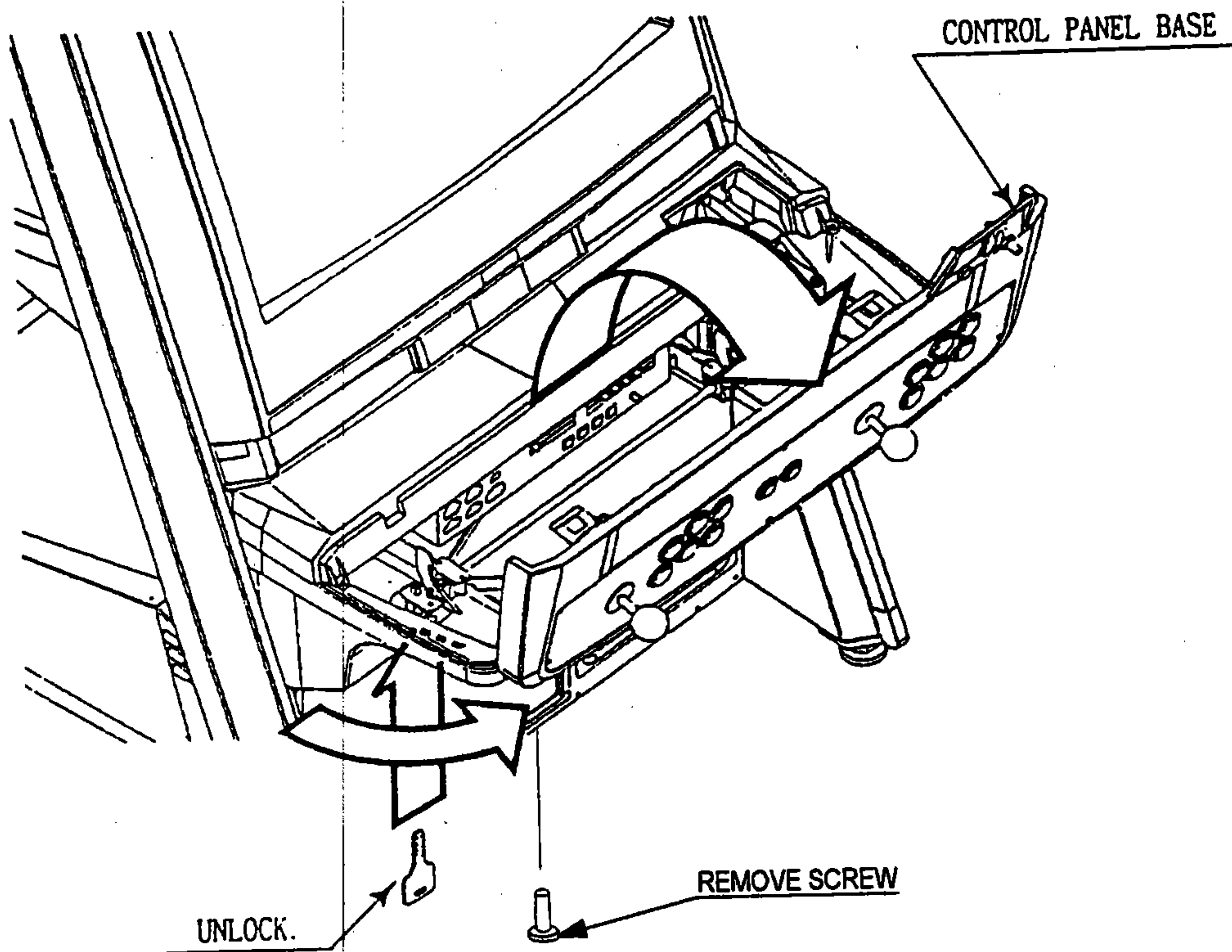
WARNING!



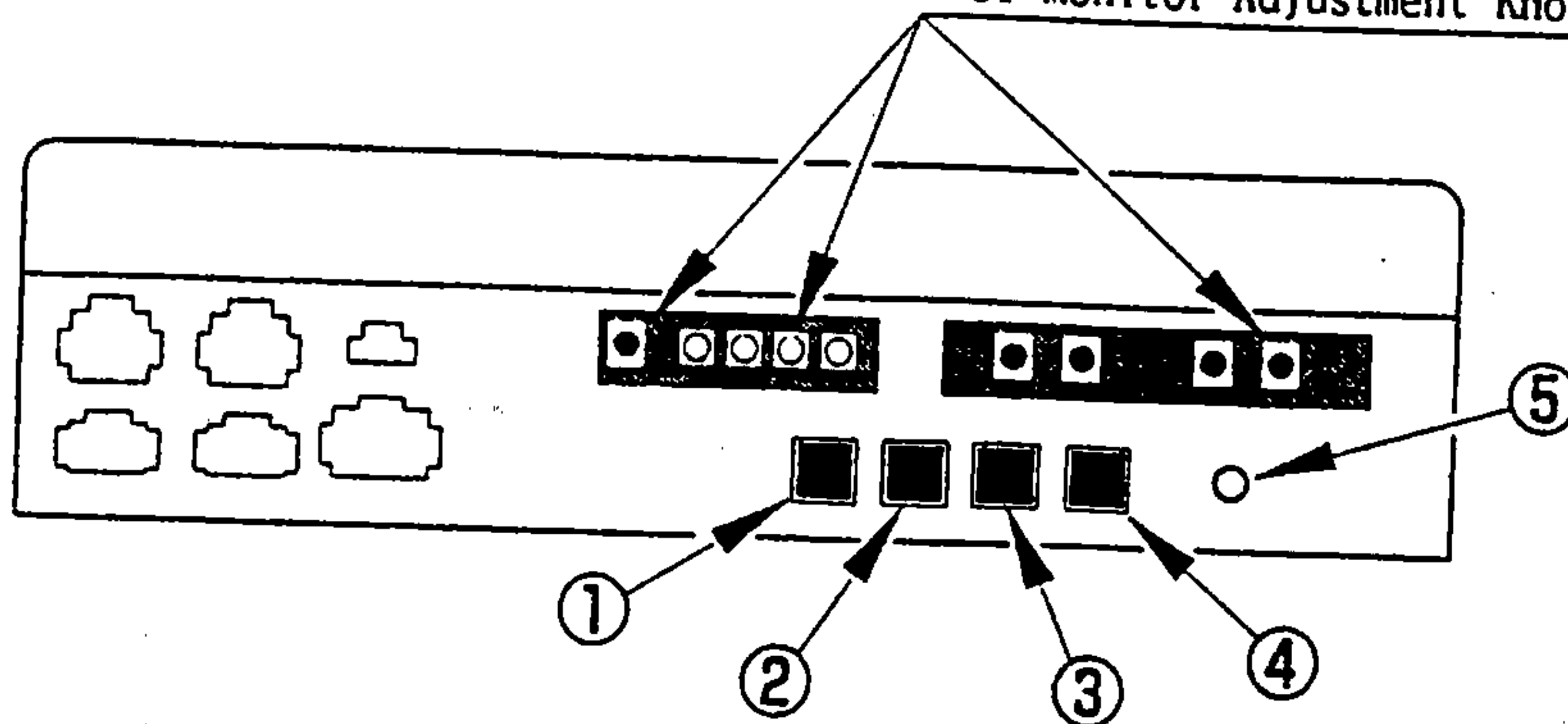
IMPORTANT!

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

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



Refer to Section 11 for the explanations of Monitor Adjustment Knobs.

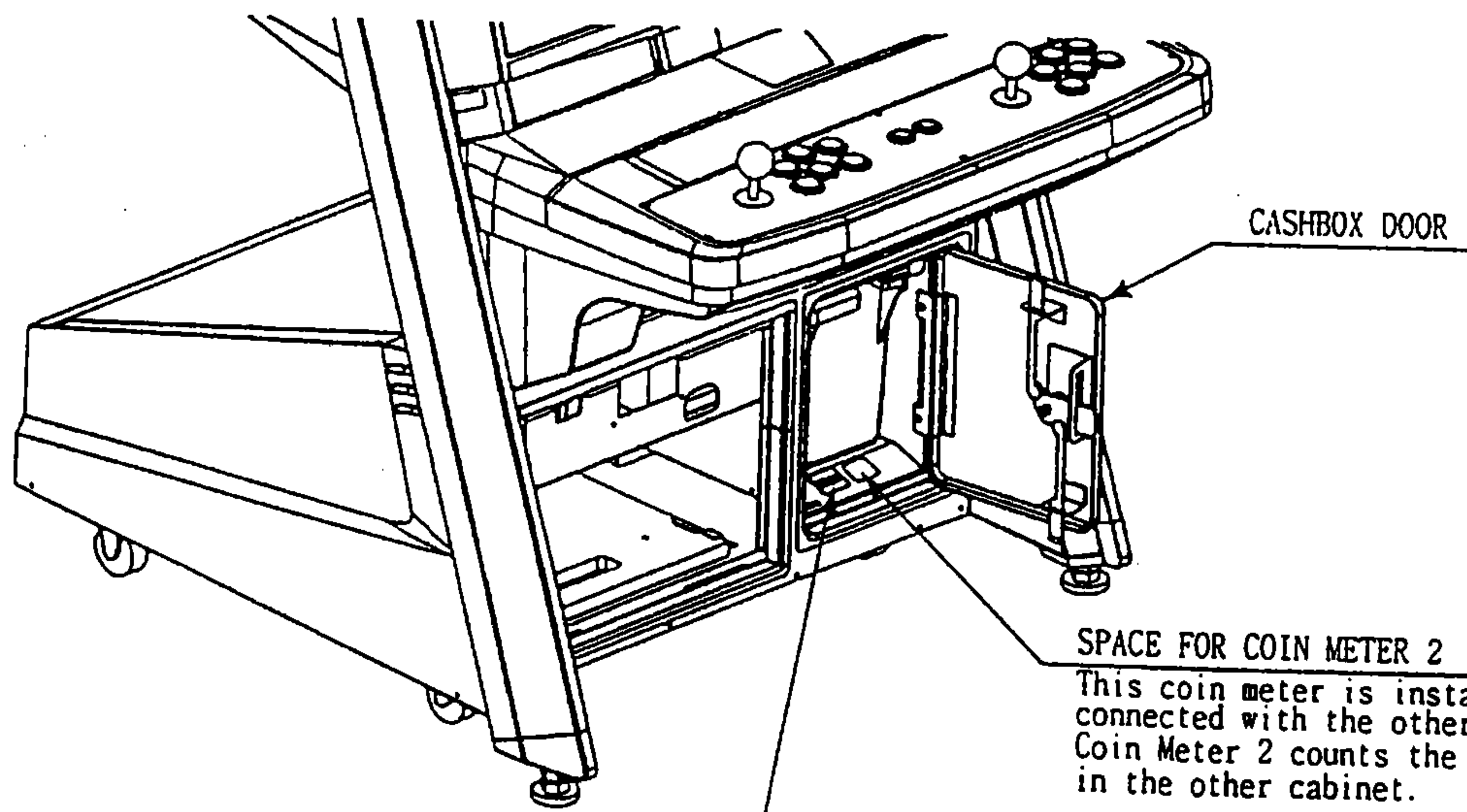


- ① TEST SWITCH Push to enter Test Mode of Game BD.
- ② SERVICE SW 1 SERVICE CREDIT SW. Used without registering on the Coin Meter.
- ③ SERVICE SW 2 SERVICE CREDIT SW. for 2 players, depending on the specific game.
- ④ DEMAG. SWITCH Removes on-screen colour deviation due to CRT magnetisation. Use this 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.



COIN METER 1 (left-hand side)
Counts the number of coins inserted.

SPACE FOR COIN METER 2
This coin meter is installed when the machine is connected with the other cabinet for versus play. Coin Meter 2 counts the number of coins inserted in the other cabinet.

3.8. CONTROL PANEL



WARNING!



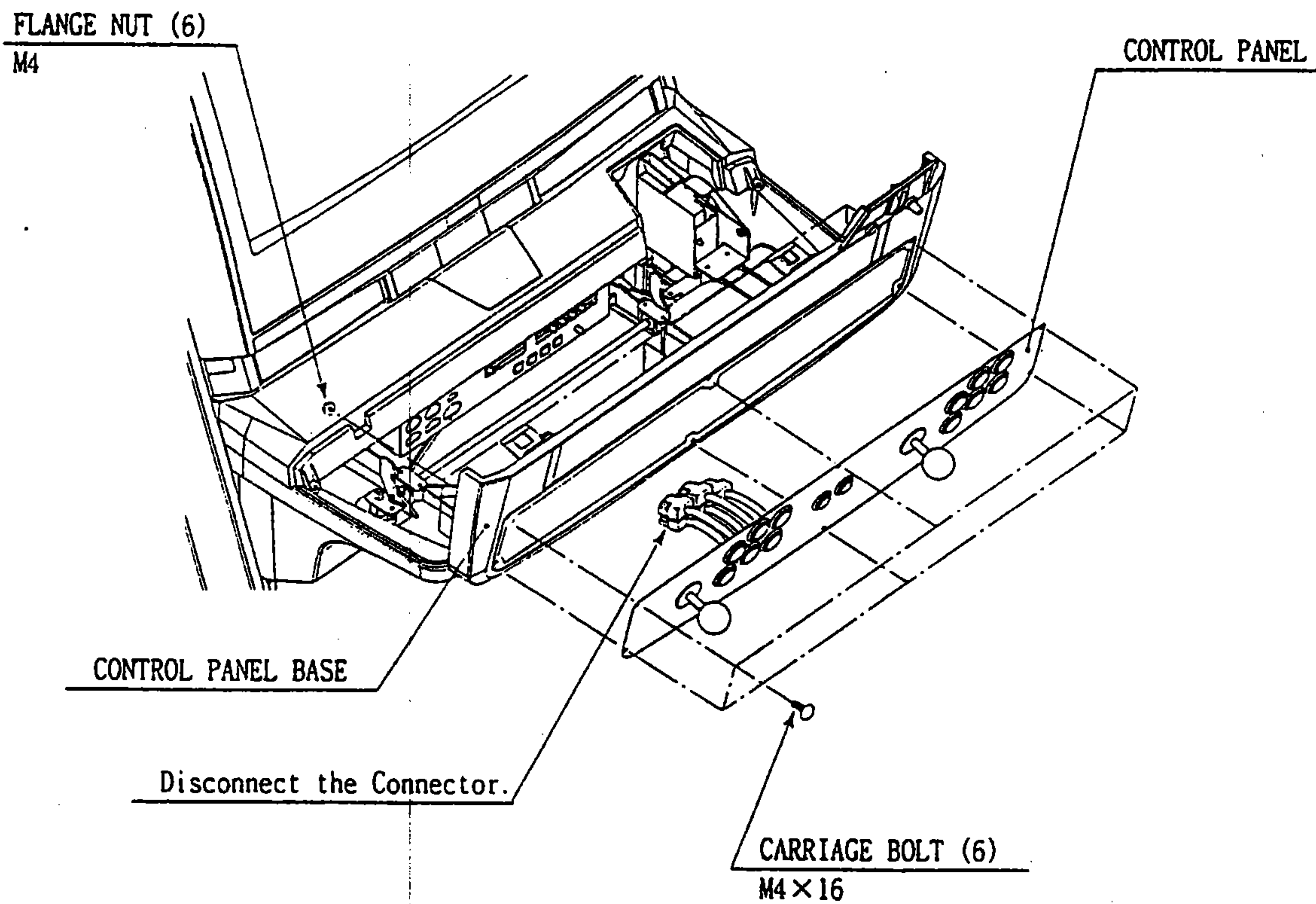
IMPORTANT!

- 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.

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

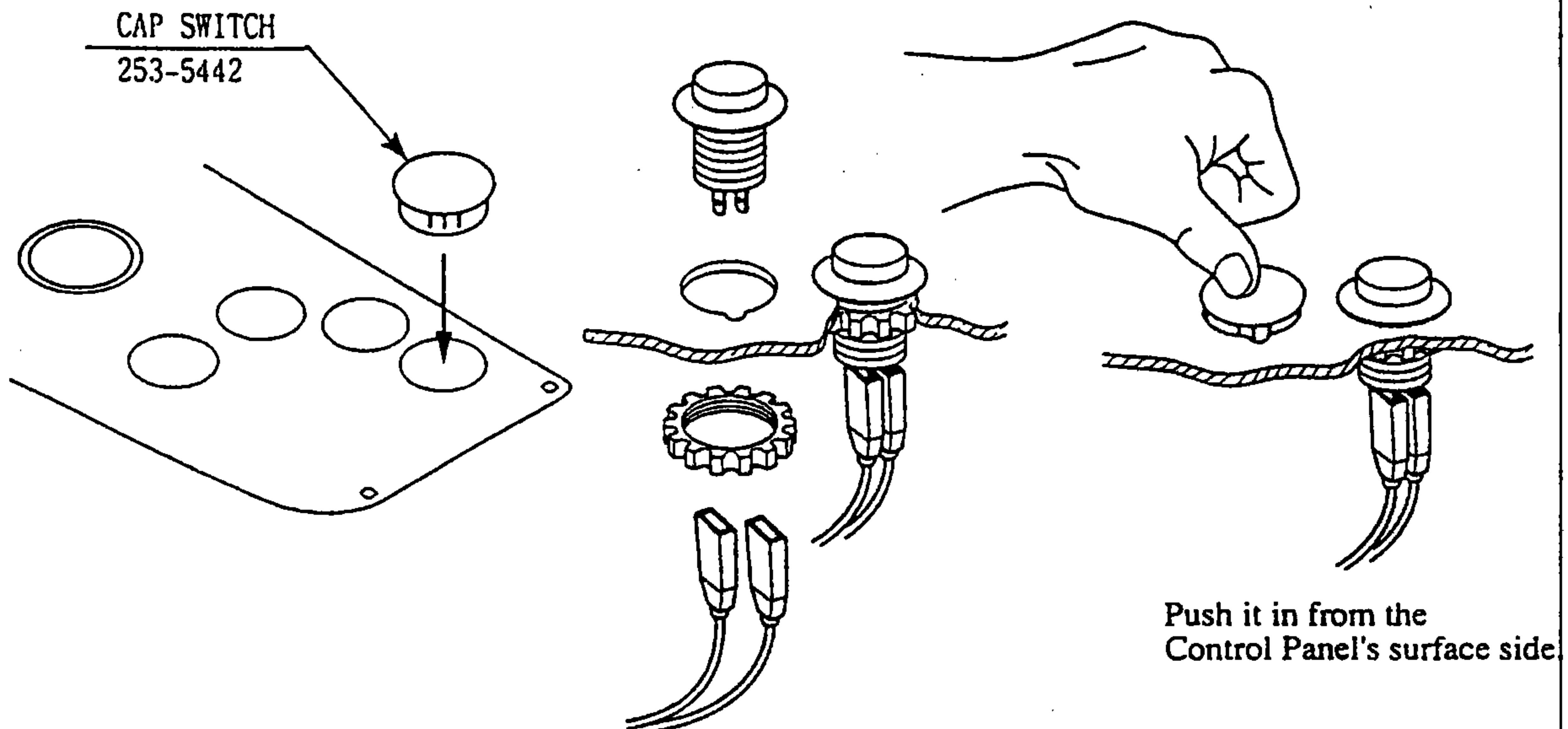
3.8.1. REPLACING THE CONTROL PANEL

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



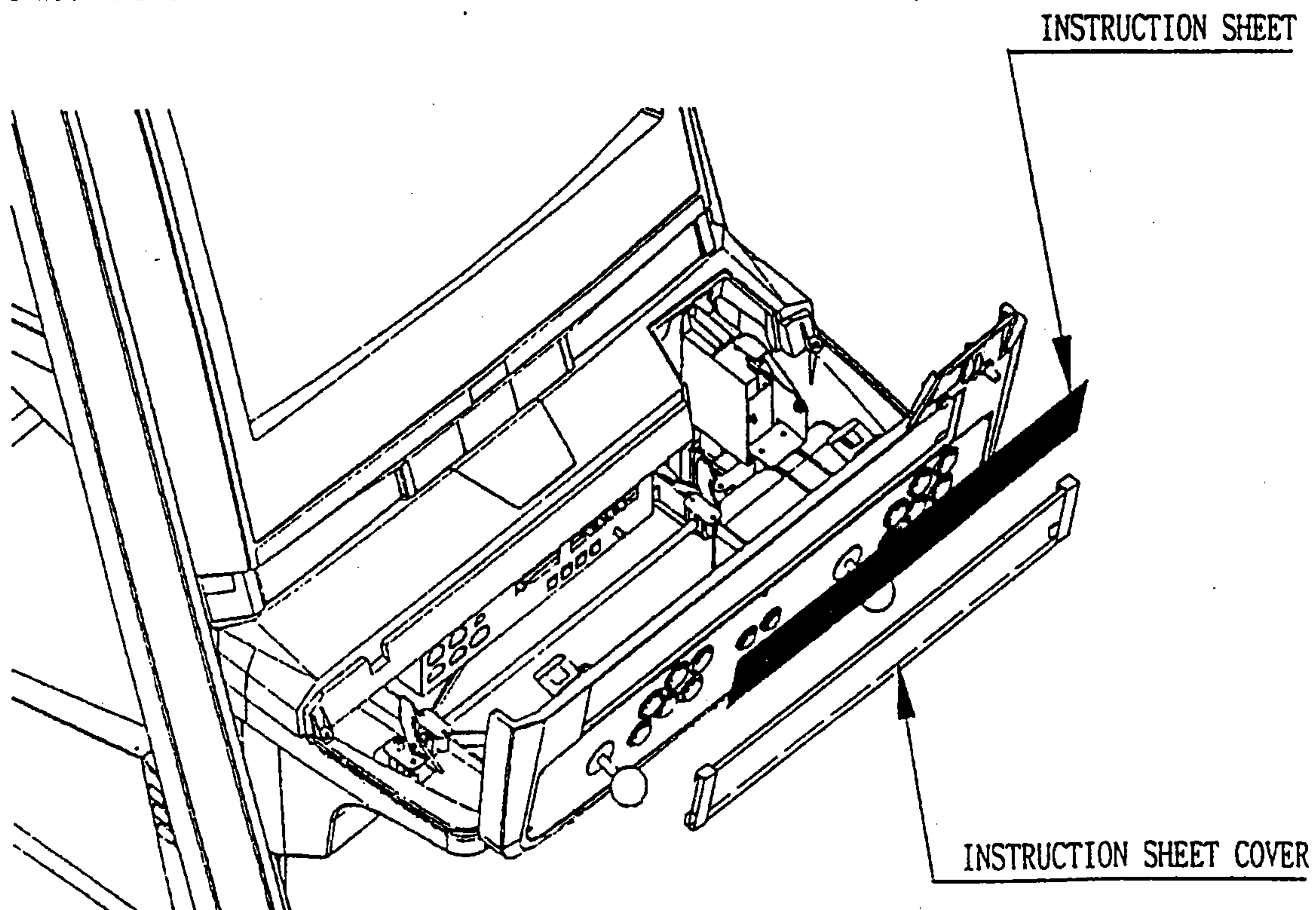
3.8.2. BUTTON REMOVAL

When changing to a game with less Operation Buttons, remove the unnecessary buttons from the Control Panel and install the Cap Switches to the button cut-outs (not supplied)

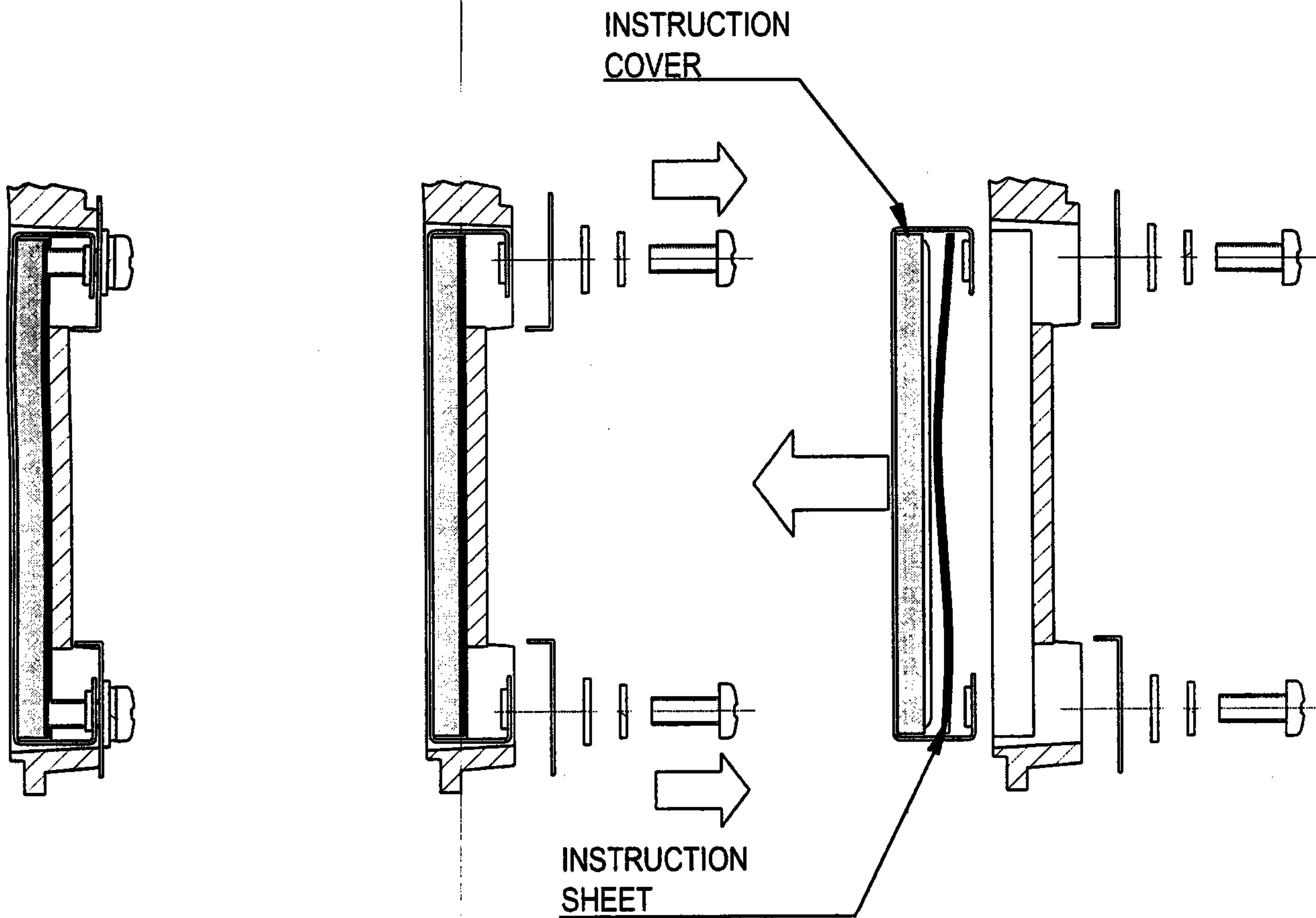


3.8.3. REPLACING THE INSTRUCTION SHEET

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



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



3.9. REPLACEMENT OF FLUORESCENT LAMP AND OTHER LAMPS



WARNING!



IMPORTANT!

- 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.
- Lamps should only be replaced by QUALIFIED SERVICE PERSONNEL.

3.9.1. FLUORESCENT LAMP REPLACEMENT

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

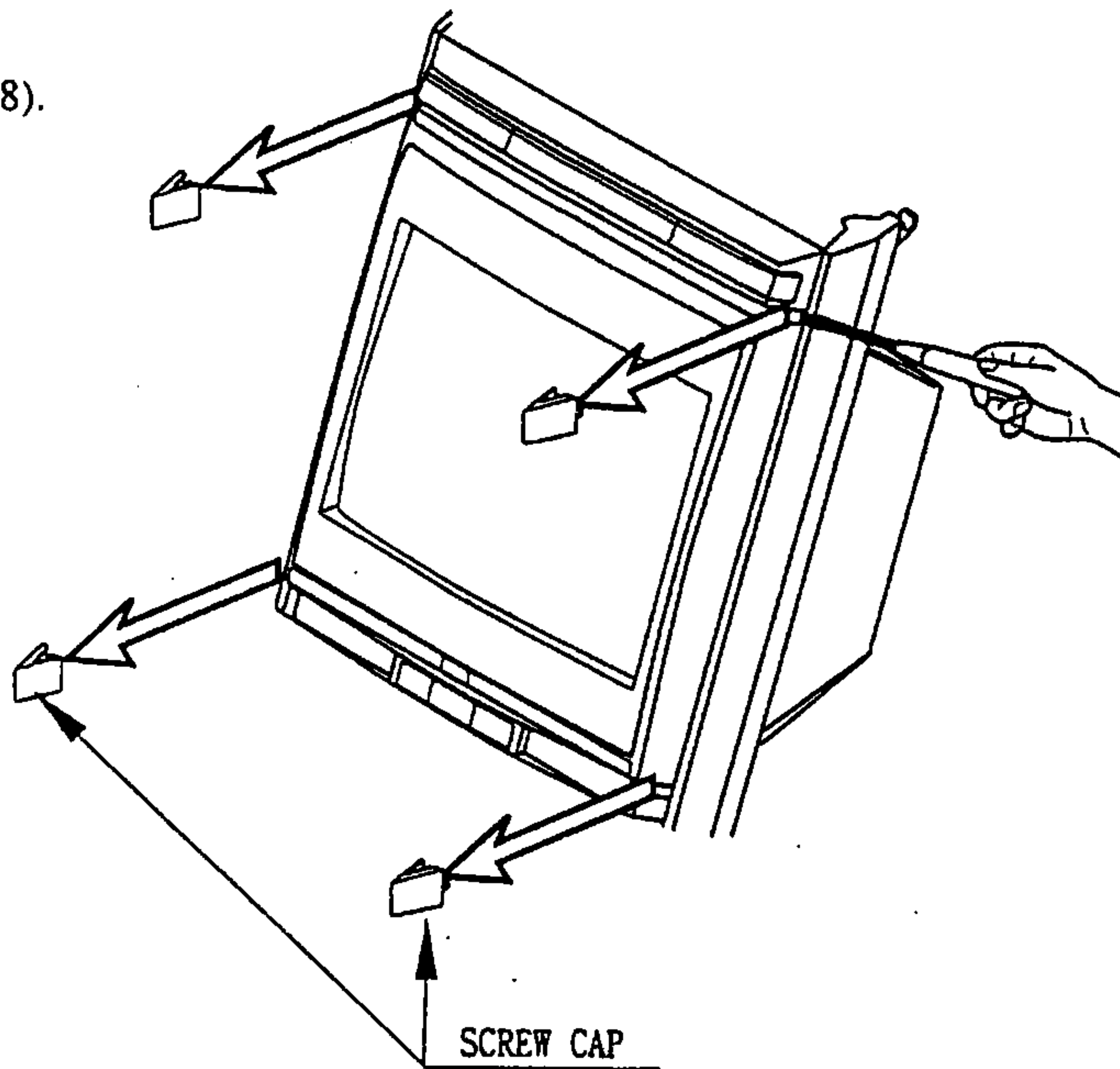
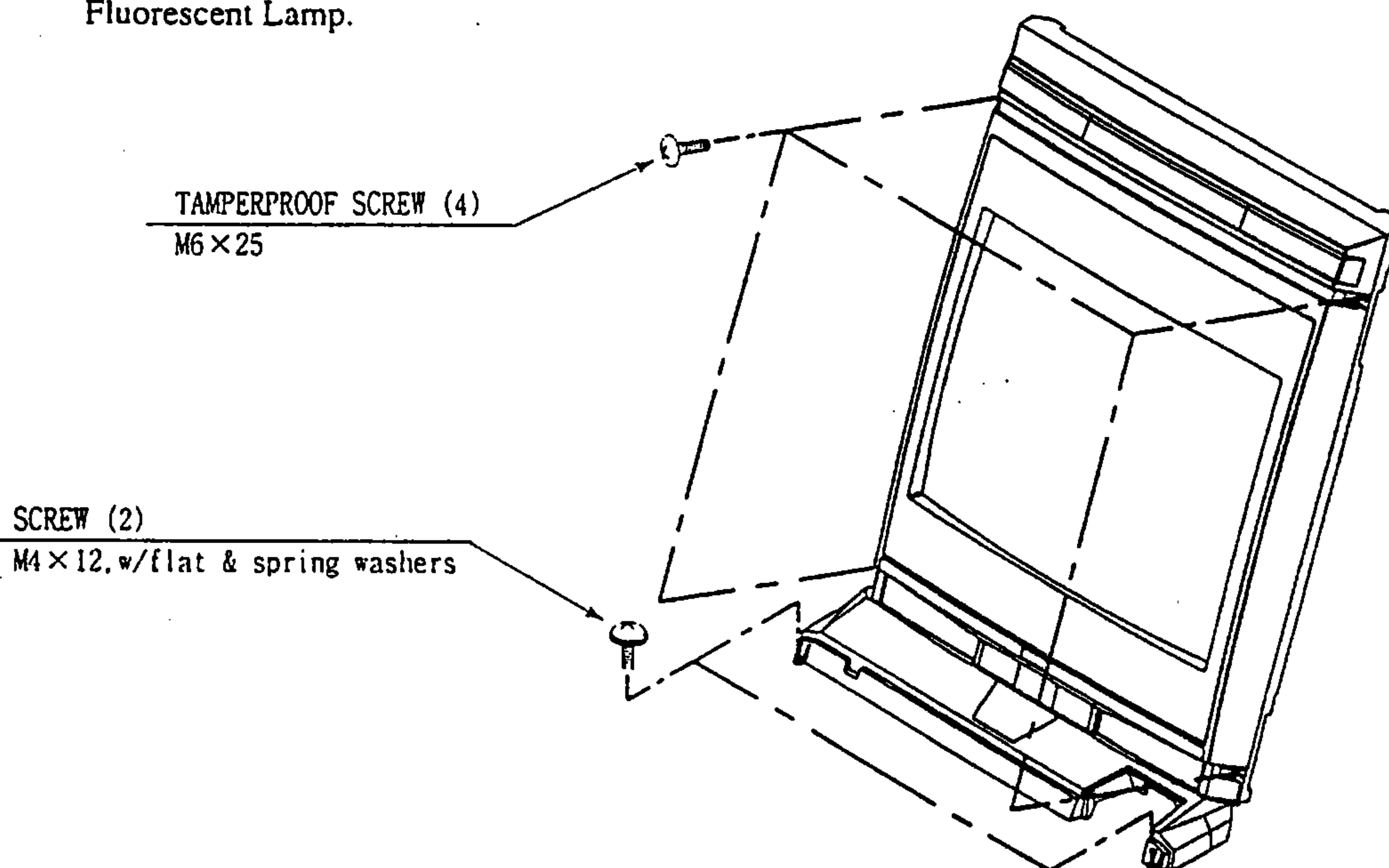
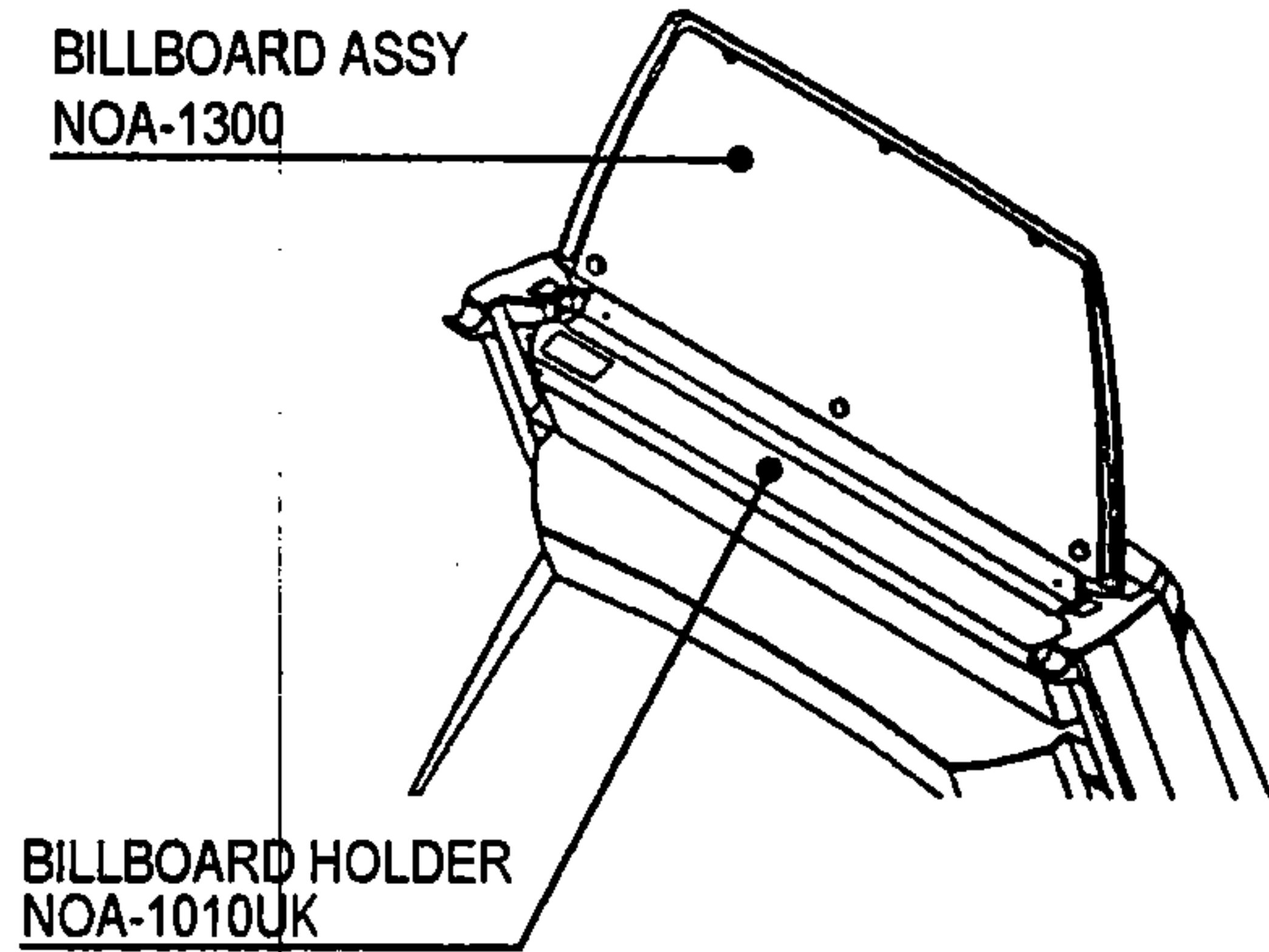


FIG. 12 a

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

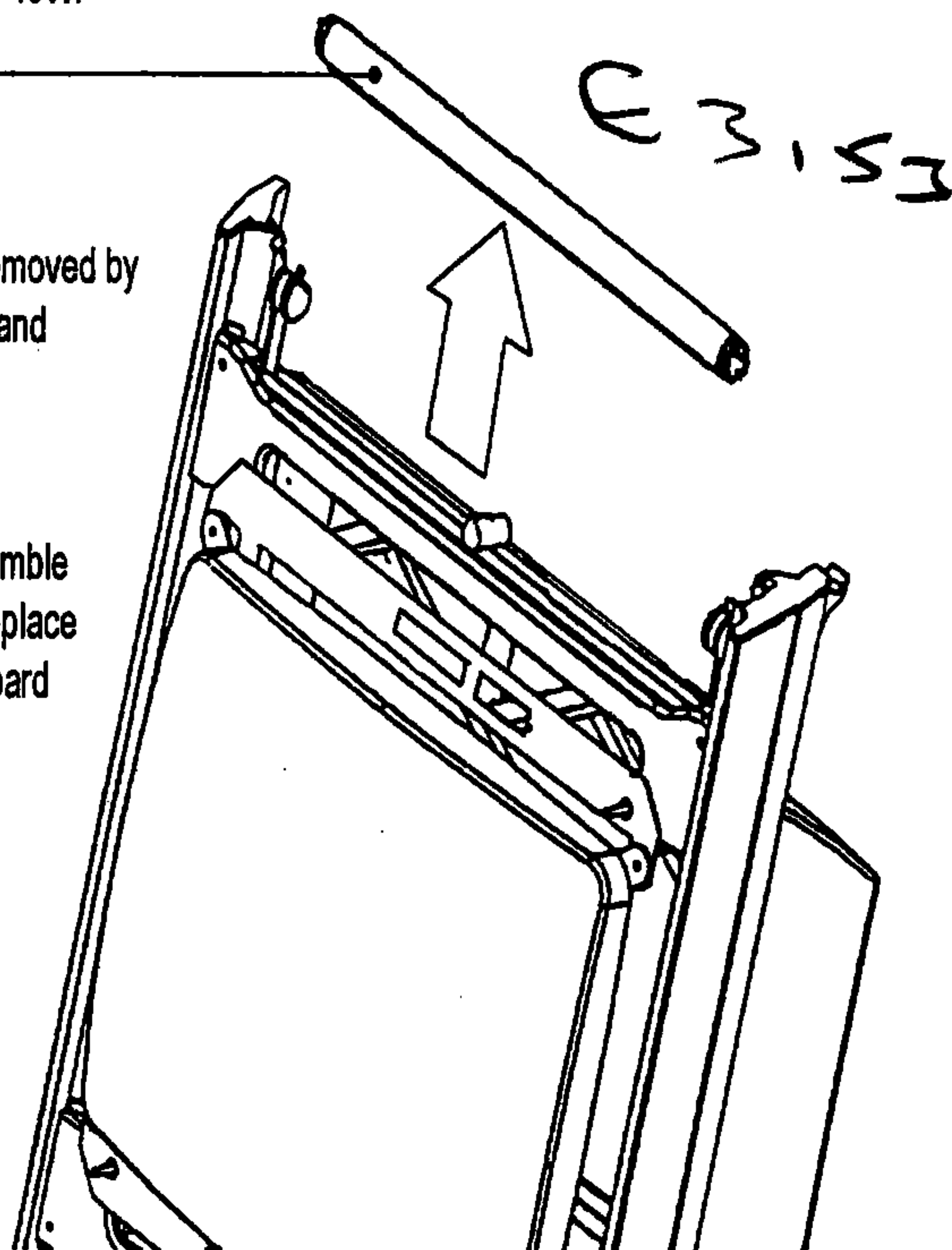


- ⑤ Remove the Billboard Assy from the Billboard Holder by removing the two fixing screws.
Remove the Billboard Holder from the machine by first disconnecting the Earth Link between the Billboard Holder and frame, and removing the four fixing screws.



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

- 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.



3.10. GAME BOARD



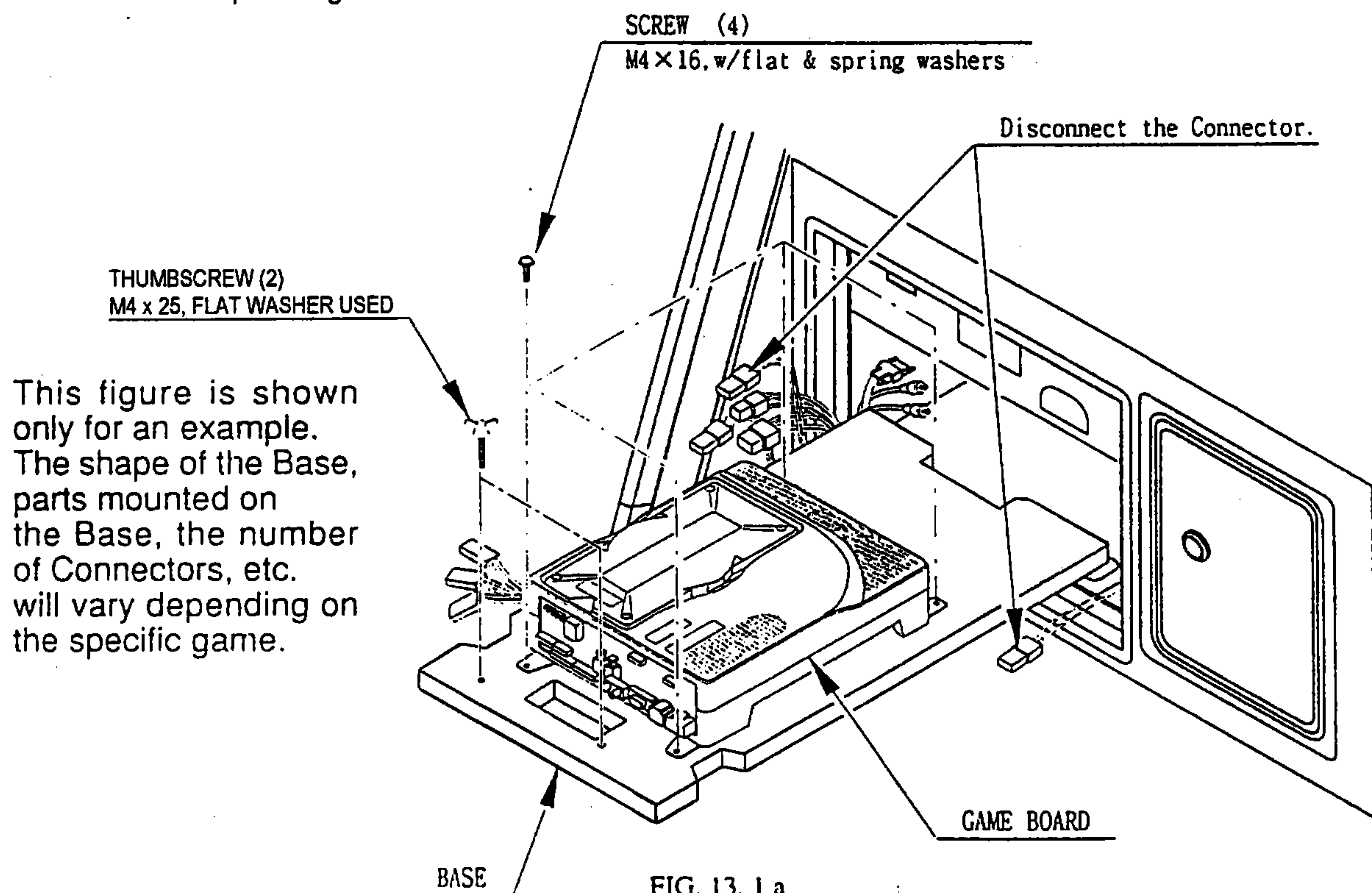
- When performing work, be sure to turn power off. Working with power on can cause an electric shock or short circuit.
- Be careful not to damage wiring. Damaged wiring can cause an electric shock or short circuit.
- The voltage/amperage ratings for the Game Board are 3.3V 12A, 5.0V 10A and 12V 2A. To 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.

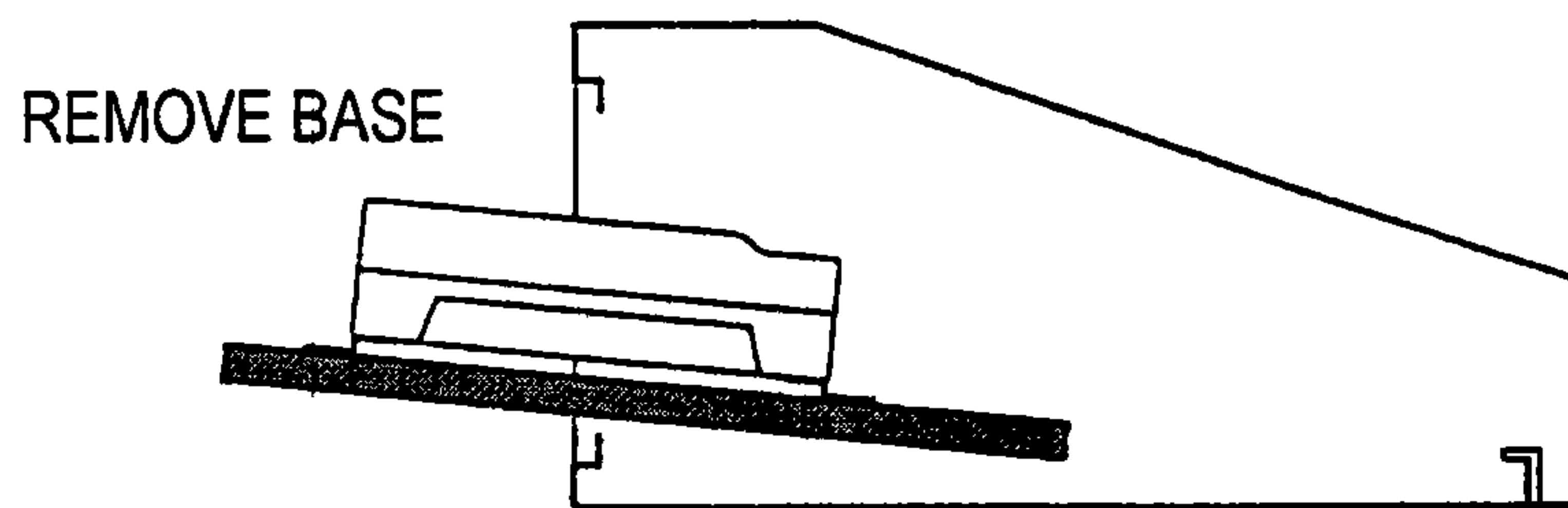
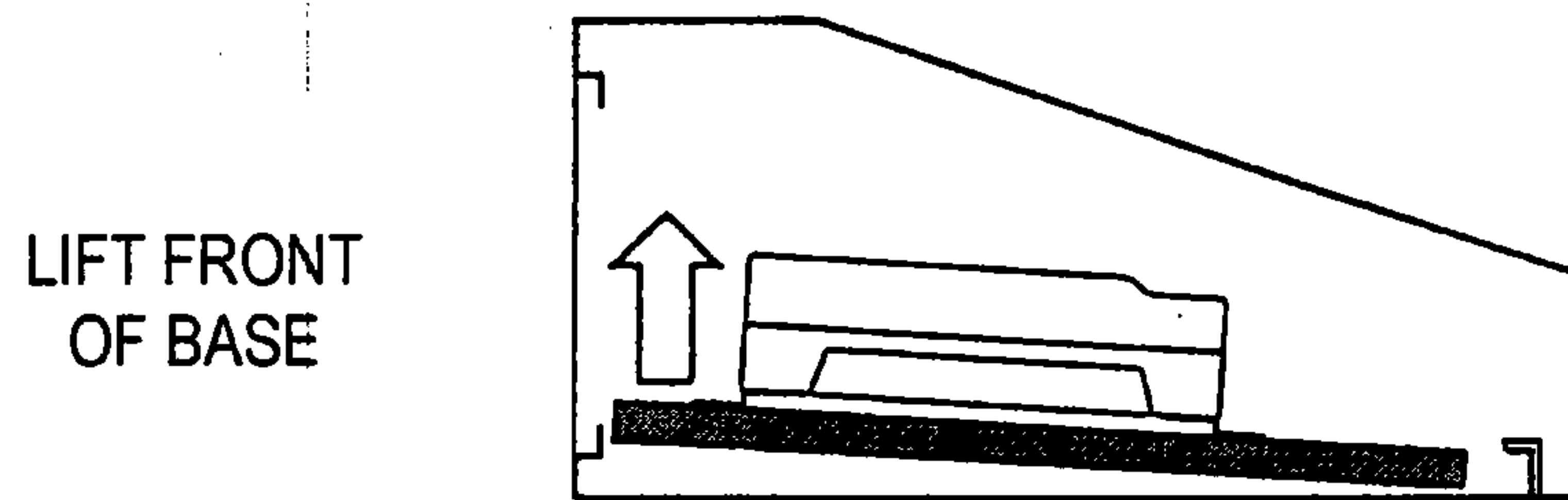
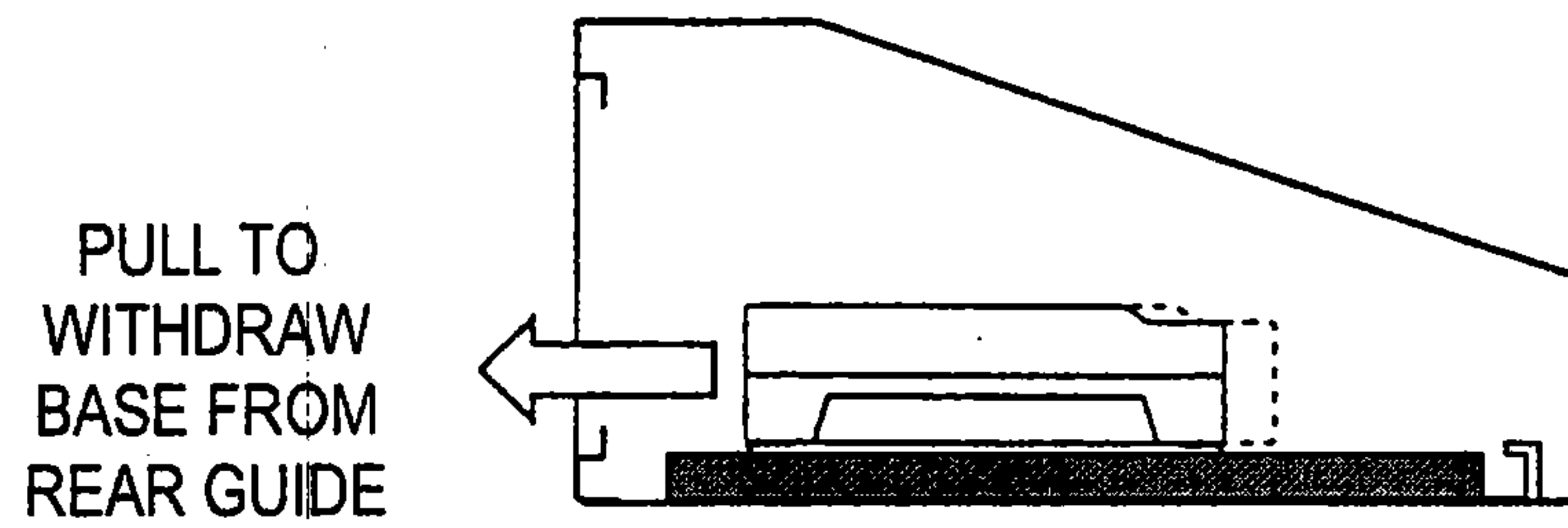
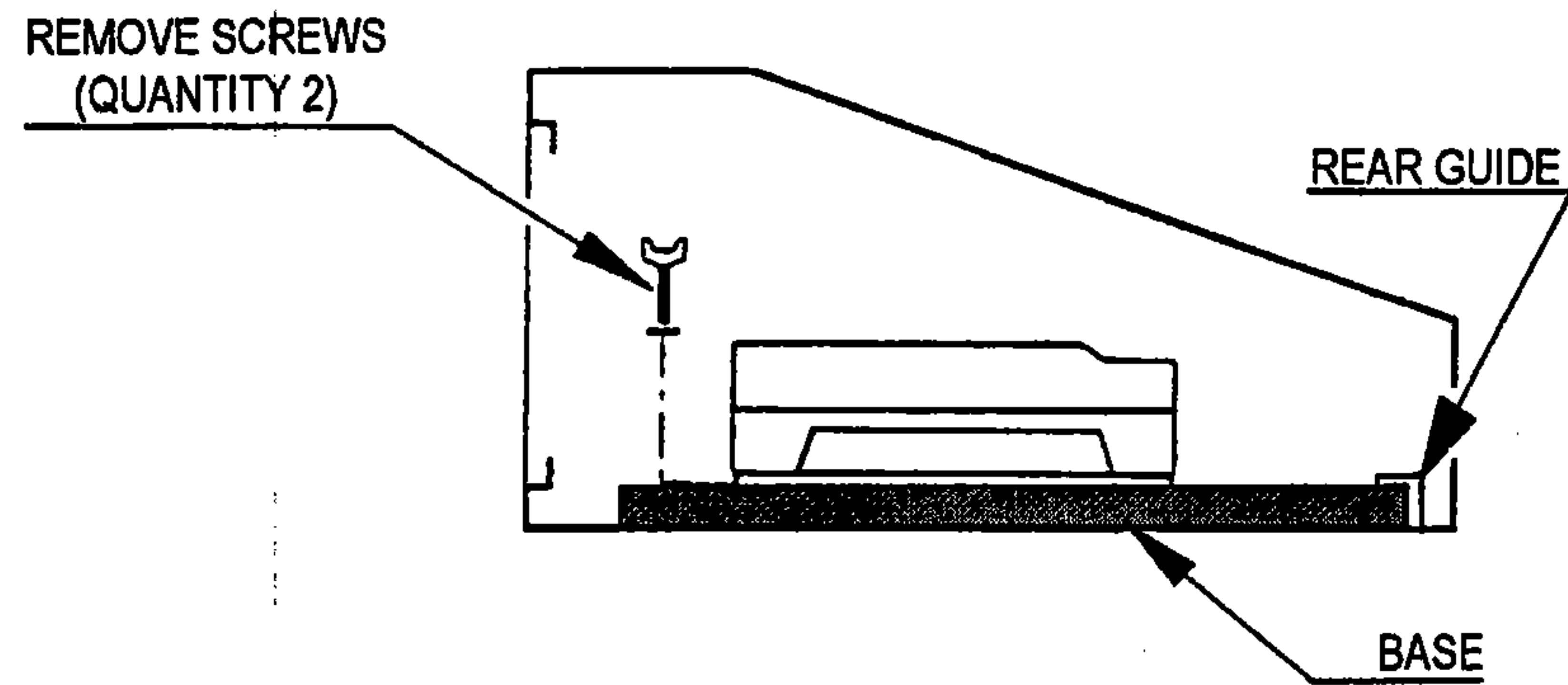
3.10.1. TAKING OUT THE GAME BOARD

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

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



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



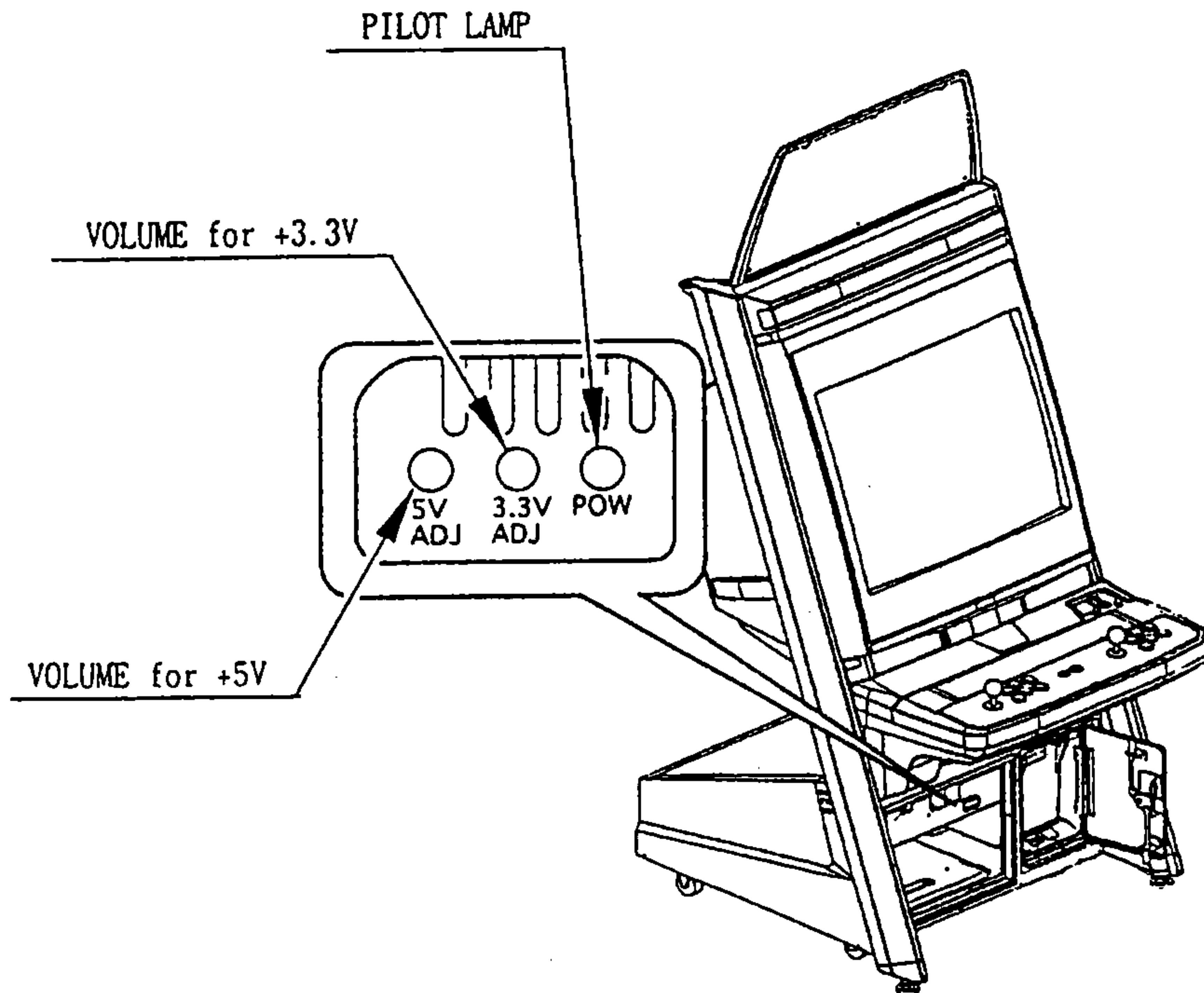
4. Take out the four screws and remove the Shield Case.

3.11. GAME BOARD POWER SUPPLY VOLTAGE ADJUSTMENT VOLUME



- The V. ADJs have been set at the factory. Be sure to use the V.ADJ's as set at time of shipment. Changing the setting without a justifiable reason can damage the IC Board and cause malfunctioning.
- This procedure should only be carried out by QUALIFIED SERVICE PERSONNEL.

The Power Supply Unit inside the cabinet contains the voltage adjustment volumes of the Game Board DC Power Supply.



3.12. TROUBLESHOOTING



IMPORTANT!

- These procedures should only be carried out by QUALIFIED SERVICE PERSONNEL.

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 - refer to Section 3.7
	Malfunctioning BD and Amp.	Perform Sound Test to check it. Refer to the Service Manual supplied with the Game Board.
	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 Section 3.9.
	The connector is disconnected	Check connections - refer to section 3.9.

3.13. FUSES



WARNING!



IMPORTANT!

- 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.

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

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

PART NUMBER	LOCATION	TYPE & DETAILS	QTY
514-5078-3150	STEREO AMP REF. F1, F2	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
514-5078-5000	CONN. BD. REF. F1	5x20mm CERAMIC SB 5A	1

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

3.14. COIN SELECTORS



WARNING!



IMPORTANT!

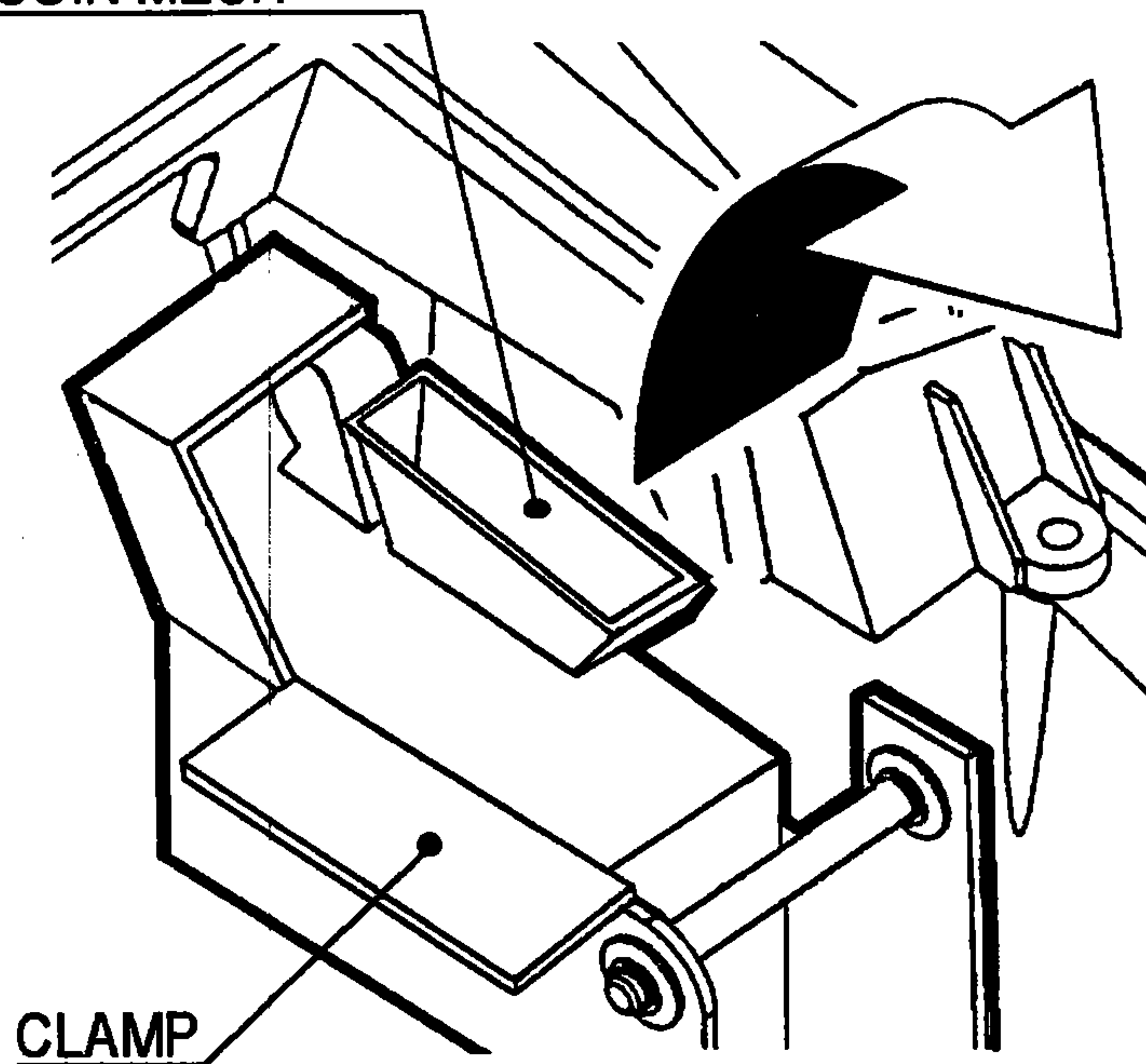
- Before starting work, ensure that the cabinet is isolated from the mains by switching off and removing the IEC mains lead from the wall outlet.
- Be careful not to damage wiring. Damaged wiring can cause electric shock and short circuits.
- This procedure should only be carried out by QUALIFIED SERVICE PERSONNEL.

3.14.1. COIN CONTROLS C220B (TOP ENTRY)

3.14.1.1. TAKING OUT THE COIN MECH.

Open the Control Panel Base to gain access to the Coin Mech, located on the right-hand side inside the Control Panel. Lift the clamp on the top of the Mech, unclip the spring clip at the front of the Mech, and remove the Mech by pulling out vertically upwards.

COIN MECH



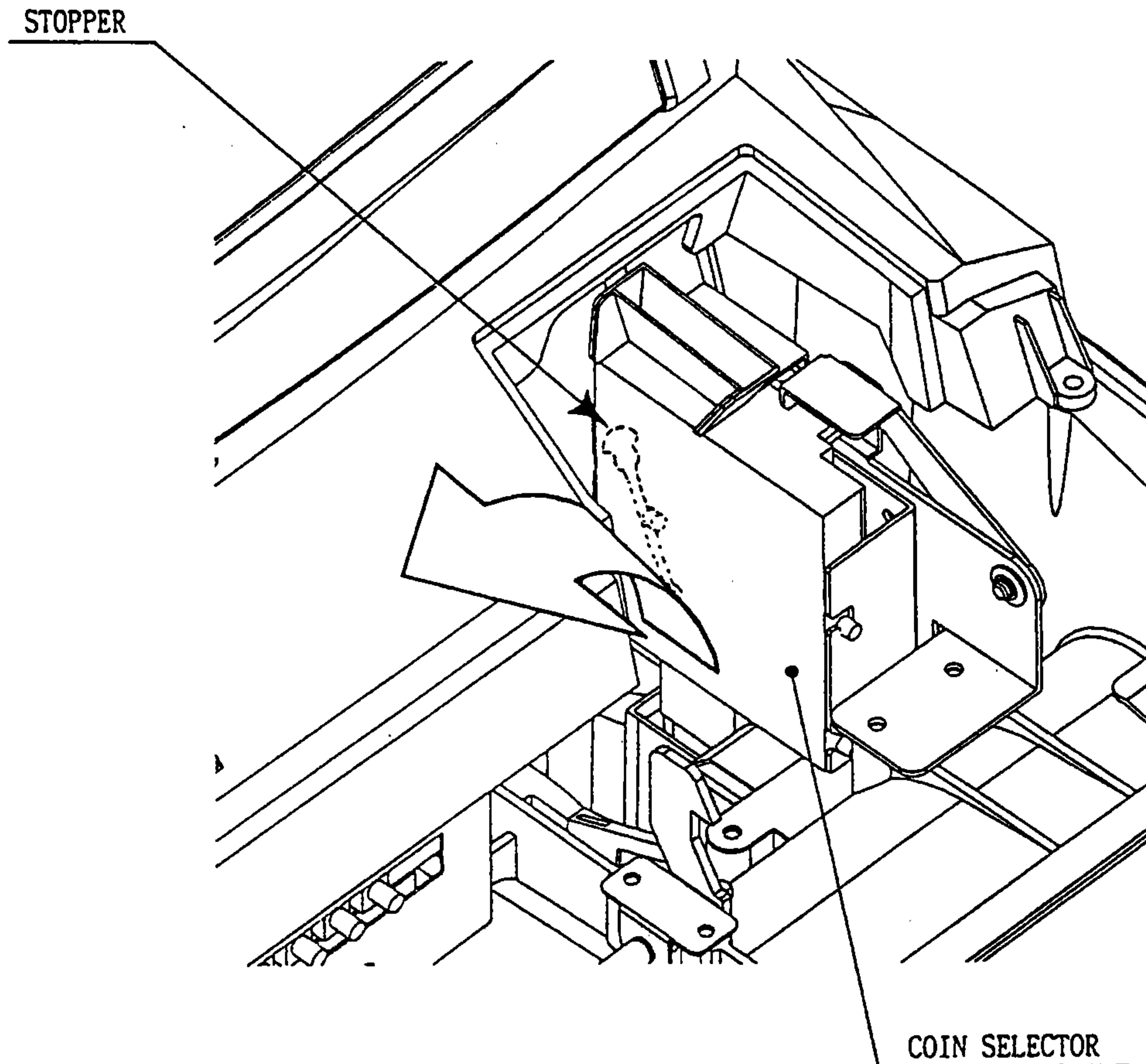
3.14.1.2. CLEARING A COIN JAM

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

3.14.2.GENERIC MECHANICAL (AND SIZE EQUIVALENTS)

3.14.2.1. TAKING OUT THE COIN MECH.

Open the Control Panel Base to gain access to the Coin Mech, located on the right-hand side inside the Control Panel. Disengage the Stopper on the rear of the Mech Caddy, and remove the Mech by pulling out diagonally upwards.



3.14.2.2. 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 Coin Mech Gate. After removing the jammed coin, put a normal coin in and check to see that the Mech functions correctly

3.15. MAINTENANCE INSTRUCTIONS

3.15.1. EXPLANATION OF TEST AND DATA DISPLAY

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



IMPORTANT!

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

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

ITEM	DESCRIPTION	INTERVAL
INSTALLATION OF THE MACHINE	<p>When the machine is installed perform the following checks:</p> <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<p>Periodically perform the following</p> <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • In the INPUT TEST mode, check each switch and V.R. • Adjust or replace each switch and V.R. 	Monthly
MONITOR	<ul style="list-style-type: none"> • In the C.R.T. TEST mode, check to ensure the monitor is adjusted correctly • Clean screen (switch off machine and remove the plug) 	<p>Monthly</p> <p>Weekly</p>
IC BOARD	<p>MEMORY TEST</p> <ul style="list-style-type: none"> • In the SOUND TEST mode, check the sound related ROMs 	Monthly
DATA CHECK	<ul style="list-style-type: none"> • Check such data as held in the bookkeeping screens, relating to number and length of plays 	Monthly
EXTERIOR MAINTENANCE	<ul style="list-style-type: none"> • Clean surfaces • Lubricate seat sliders 	Monthly
COIN MECHANISM	<ul style="list-style-type: none"> • Check switch operation (if fitted) 	Monthly

4. COIN MECH INSTALLATION AND CREDIT BOARD SET UP

INTRODUCTION

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

* Either a 'Klingon 2' or 'Excel' credit board may be fitted.

4.1. KLINGON 2 CREDIT BOARD OPTION SETTINGS

DIL-2 is used to set the currency (or coin ratio) and DIL-1 the price of play. Refer to the Tables on the following pages for the correct settings for your environment.

The *Klingon2* board pictured below is mounted on a bracket inside the Control Panel.

The *Klingon2* board is connected to the coin validator and lamps via a dedicated wiring harness depending upon the coin validator used:

Wiring Harness	Validator	
LM1006	Coin Controls	(15 way connector)
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 *Klingon 2* board should be then be set up for either the UK or Switzerland settings. A minimum connecting lead length of 600mm is required (subject to CE approval by SEGA).
2. Mechanical coin mechanisms may be connected in parallel allowing two identical mechanisms to be fitted.

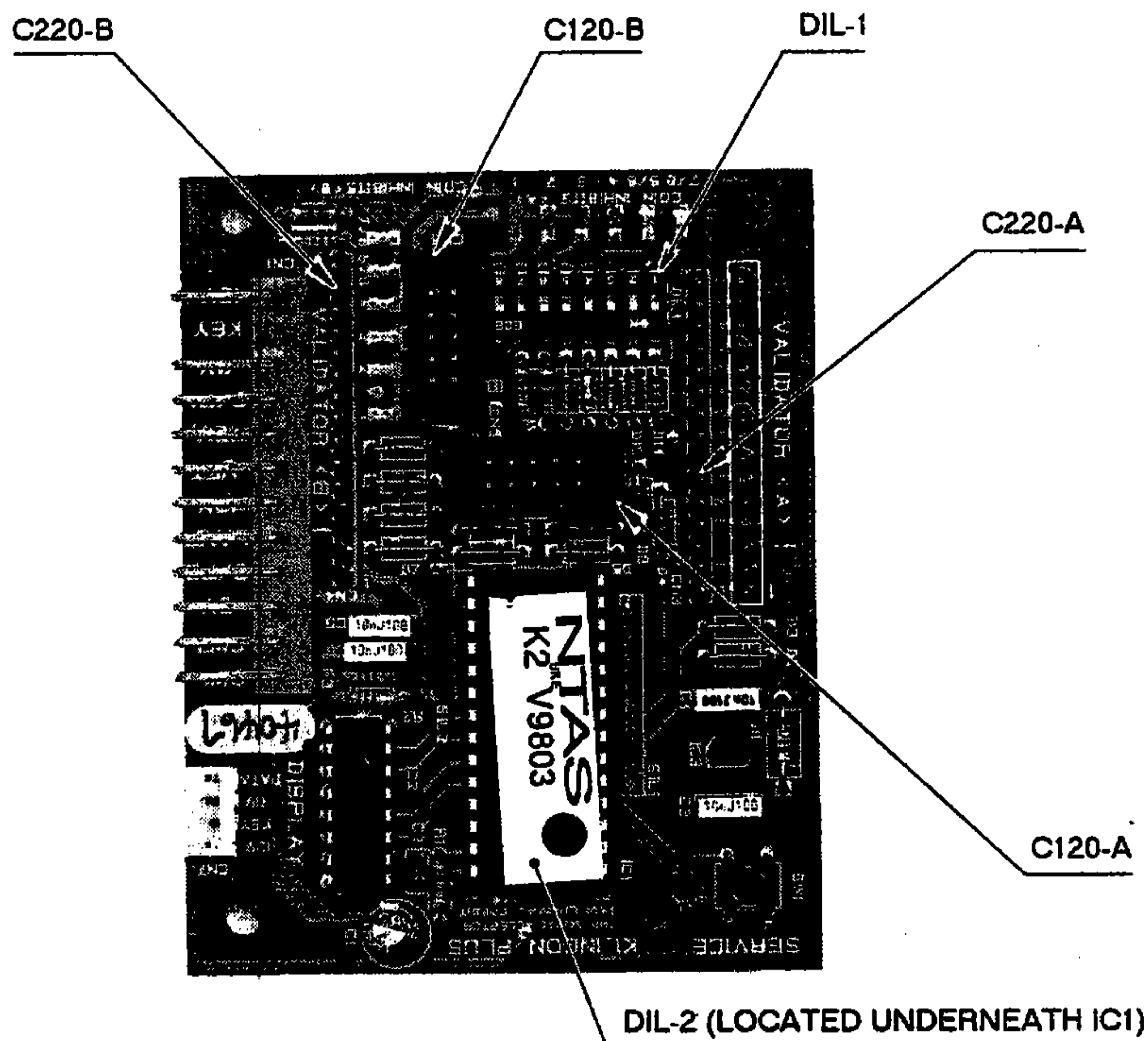
Universal Currency Settings - DIL Switch 2

4	3	2	1	Currency	C1	C2	C3	C4	C5	C6	C7	C8
↓	off	off	off	UK (p)	100	50	20	10	-	200	-	50(old)
↓	off	off	ON	Belgium (Bfr)	-	50	20	5	-	-	-	-
↓	off	ON	off	Spain (Pta)	500	200	100	50	-	25	-	200(old)
↓	off	ON	ON	Germany (DM)	10	5	2	1	-	-	-	-
↓	ON	off	off	Netherlands (NLG)	-	5	2.5	1	-	-	-	-
↓	ON	off	ON	Portugal (Es)	100	50	-	-	-	-	-	-
↓	ON	ON	off	Austria (Sch)	20	10	5	1	-	-	-	-
↓	ON	ON	ON	Switzerland (SFr)	5	2	1	-	-	-	-	-
OFF	↑	↑	↑	Direct Mode	↑	↑	↑	↑	↑	↑	↑	↑
ON	↑	↑	↑	2 Channel Mode	↑	↑	↑	↑	↑	↑	↑	↑

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

Set DIL switches (DIL-1) SW-1 to SW-5 according to the option settings found in the relevant Price Of Play Settings Table on the following pages.

Set DIL switches (DIL-2) on the *Klingon 2* board located under the IC socket as shown in the table above. SW-4 must always be set 'OFF'. Care must be exercised when removing IC-1 so as not to damage its lead-outs pins. After setting the switches return the IC to its socket with the package indent mark adjacent to the board edge.



The *Klingon 2* board.

4.1.1. PRICE OF PLAY SETTINGS FOR THE UK (£ = Pound Sterling)

Parallel 4 Coin Validator

1	2	3	4
£1	50p new (50p) old	20p	10p

C220 Binary Mode Validator

1	2	3	4	5	6	7	8
£1	50p (new)	20p	10p		£2		50p (old)

C120 Validator

1	2	3	4	5	6
£1	50p new 50p old	20p	10p	n/u	£2

DIL Switch 2 (situated beneath NTAS chip) Settings

Mode	1	2	3	4
Direct Mode	OFF	OFF	OFF	OFF
2 Channel Mode	OFF	OFF	OFF	ON

DIL Switch 1 Settings

Per Game	Bonus	5	4	3	2	1
10p						
10p	6 for 50p					ON
20p					ON	
20p	3 for 50p				ON	ON
30p				ON		
30p	2 for 50p			ON		ON
40p				ON	ON	
40p	3 for £1			ON	ON	ON
50p			ON			
50p	5 for £2		ON			ON
60p			ON		ON	
60p	2 for £1		ON		ON	ON
80p			ON	ON		
80p	3 for £2		ON	ON		ON
£1			ON	ON	ON	
£1	3 for £2		ON	ON	ON	ON
£1.20		ON				
£1.50		ON				ON
£2.00		ON			ON	
£2.50		ON			ON	ON
£3.00		ON		ON		
£3.50		ON		ON		ON
£4.00		ON		ON	ON	
£4.50		ON		ON	ON	ON
£5.00		ON	ON			
Free Play		ON	ON	ON	ON	ON

Coin Mech Mode DIL Switch 1

6	7	8	
n/u	ON	ON	Binary
n/u	OFF	OFF	Parallel

4.1.2. PRICE OF PLAY SETTINGS FOR BELGUIM (BFr = Belgian Franc)

Parallel 4 Coin Validator

1	2	3	4
	50	20	5

C220 Binary Mode Validator

1	2	3	4	5	6	7	8
	50	20	5				

C120 Validator

1	2	3	4	5	6
	50	20	5		

DIL Switch 2 Settings

Mode	4	3	2	1
Direct Mode	OFF	OFF	OFF	ON
2 Channel Mode	ON	OFF	OFF	ON

DIL Switch 1 Settings

Per Game	Bonus	5	4	3	2	1
5 BFr						
5 BFr	6 for 25 BFr					ON
10 BFr					ON	
10 BFr	3 for 25 BFr				ON	ON
15 BFr				ON		
15 BFr	2 for 25 BFr			ON		ON
20 BFr				ON	ON	
20 BFr	3 for 50 BFr			ON	ON	ON
25 BFr			ON			
25 BFr	5 for 100 BFr		ON			ON
30 BFr			ON		ON	
30 BFr	2 for 50 BFr		ON		ON	ON
40 BFr			ON	ON		
40 BFr	3 for 100 BFr		ON	ON		ON
50 BFr			ON	ON	ON	
50 BFr	3 for 100 BFr		ON	ON	ON	ON
60 BFr		ON				
75 BFr		ON				ON
100 BFr		ON			ON	
125 BFr		ON			ON	ON
150 BFr		ON		ON		
175 BFr		ON		ON		ON
200 BFr		ON		ON	ON	
225 BFr		ON		ON	ON	ON
250 BFr		ON	ON			
Free Play		ON	ON	ON	ON	ON

Coin Mech Mode DIL Switch 1

6	7	8	
n/u	ON	ON	Binary
n/u	OFF	OFF	Parallel

4.1.3. PRICE OF PLAY SETTINGS FOR SPAIN (Pta = Peseta)

Parallel 4 Coin Validator

1	2	3	4
500	200 (200)	100	50 (50)

C220 Binary Mode Validator

1	2	3	4	5	6	7	8
500	200	100	50		25		(200)

C120 Validator

1	2	3	4	5	6
500	200 (200)	100	50 (50)		25 (25)

DIL Switch 2 Settings

Mode	4	3	2	1
Direct Mode	OFF	OFF	ON	OFF
2 Channel Mode	ON	OFF	ON	OFF

DIL Switch 1 Settings

Per Game	Bonus	5	4	3	2	1
25 Pta						
25 Pta	6 for 125 Pta					ON
50 Pta					ON	
50 Pta	3 for 125 Pta				ON	ON
75 Pta				ON		
75 Pta	2 for 125 Pta			ON		ON
100 Pta				ON	ON	
100 Pta	3 for 250 Pta			ON	ON	ON
125 Pta			ON			
125 Pta	5 for 500 Pta		ON			ON
150 Pta			ON		ON	
150 Pta	2 for 250 Pta		ON		ON	ON
200 Pta			ON	ON		
200 Pta	3 for 500 Pta		ON	ON		ON
250 Pta			ON	ON	ON	
250 Pta	3 for 500 Pta		ON	ON	ON	ON
300 Pta		ON				
375 Pta		ON				ON
500 Pta		ON			ON	
625 Pta		ON			ON	ON
750 Pta		ON		ON		
875 Pta		ON		ON		ON
1000 Pta		ON		ON	ON	
1125 Pta		ON		ON	ON	ON
1250 Pta		ON	ON			
Free Play		ON	ON	ON	ON	ON

Coin Mech Mode DIL Switch 1

6	7	8	
n/u	ON	ON	Binary
n/u	OFF	OFF	Parallel

4.1.4. PRICE OF PLAY SETTINGS FOR THE NETHERLANDS (NLG = Netherlands Guilder)

Parallel 4 Coin Validator

1	2	3	4
	5	2.5	1

C220 Binary Mode Validator

1	2	3	4	5	6	7	8
	5	2.5	1				

C120 Validator

1	2	3	4	5	6
	5	2.5	1		

DIL Switch 2 Settings

Mode	4	3	2	1
Direct Mode	OFF	ON	OFF	OFF
2 Channel Mode	ON	ON	OFF	OFF

DIL Switch 1 Settings

Per Game	Bonus	5	4	3	2	1
0.5 NLG						
0.5 NLG	6 for 2.5 NLG					ON
1 NLG					ON	
1 NLG	3 for 2.5 NLG				ON	ON
1.5 NLG				ON		
1.5 NLG	2 for 2.5 NLG			ON		ON
2 NLG				ON	ON	
2 NLG	3 for 5 NLG			ON	ON	ON
2.5 NLG			ON			
2.5 NLG	5 for 10 NLG		ON			ON
3 NLG			ON		ON	
3 NLG	2 for 5 NLG		ON		ON	ON
4 NLG			ON	ON		
4 NLG	3 for 10 NLG		ON	ON		ON
5 NLG			ON	ON	ON	
5 NLG	3 for 10 NLG		ON	ON	ON	ON
6 NLG		ON				
7.5 NLG		ON				ON
10 NLG		ON			ON	
12.5 NLG		ON			ON	ON
15 NLG		ON		ON		
17.5 NLG		ON		ON		ON
20 NLG		ON		ON	ON	
22.5 NLG		ON		ON	ON	ON
25 NLG		ON	ON			
Free Play		ON	ON	ON	ON	ON

*Coin Mech Mode
DIL Switch 1*

6	7	8	
n/u	ON	ON	Binary
n/u	OFF	OFF	Parallel

4.1.5. PRICE OF PLAY SETTINGS FOR PORTUGAL (Es = Escudo)

Parallel 4 Coin Validator

1	2	3	4
100	50		

C220 Binary Mode Validator

1	2	3	4	5	6	7	8
100	50						

C120 Validator

1	2	3	4	5	6
100	50				

DIL Switch 2 Settings

Mode	4	3	2	1
Direct Mode	OFF	ON	OFF	ON
2 Channel Mode	ON	ON	OFF	ON

DIL Switch 1 Settings

Per Game	Bonus	5	4	3	2	1
25 Es						
25 Es	6 for 125 Es					ON
50 Es					ON	
50 Es	3 for 125 Es				ON	ON
75 Es				ON		
75 Es	2 for 125 Es			ON		ON
100 Es				ON	ON	
100 Es	3 for 250 Es			ON	ON	ON
125 Es			ON			
125 Es	5 for 500 Es		ON			ON
150 Es			ON		ON	
150 Es	2 for 250 Es		ON		ON	ON
200 Es			ON	ON		
200 Es	3 for 500 Es		ON	ON		ON
250 Es			ON	ON	ON	
250 Es	3 for 500 Es		ON	ON	ON	ON
300 Es		ON				
375 Es		ON				ON
500 Es		ON			ON	
625 Es		ON			ON	ON
750 Es		ON		ON		
875 Es		ON		ON		ON
1000 Es		ON		ON	ON	
1125 Es		ON		ON	ON	ON
1250 Es		ON	ON			
Free Play		ON	ON	ON	ON	ON

Coin Mech Mode

DIL Switch 1

6	7	8	
n/u	ON	ON	Binary
n/u	OFF	OFF	Parallel

4.1.6. PRICE OF PLAY SETTINGS FOR AUSTRIA (Sch = Schilling)

Parallel 4 Coin Validator

1	2	3	4
20	10	5	1

C220 Binary Mode Validator

1	2	3	4	5	6	7	8
20	10	5	1				

C120 Validator

1	2	3	4	5	6
20	10	5	1		

DIL Switch 2 Settings

Mode	4	3	2	1
Direct Mode	OFF	ON	ON	OFF
2 Channel Mode	ON	ON	ON	OFF

DIL Switch 1 Settings

Per Game	Bonus	5	4	3	2	1
1 Sch						
1 Sch	6 for 5 Sch					ON
2 Sch					ON	
2 Sch	3 for 5 Sch				ON	ON
3 Sch				ON		
3 Sch	2 for 5 Sch			ON		ON
4 Sch				ON	ON	
4 Sch	3 for 10 Sch			ON	ON	ON
5 Sch			ON			
5 Sch	5 for 20 Sch		ON			ON
6 Sch			ON		ON	
6 Sch	2 for 10 Sch		ON		ON	ON
8 Sch			ON	ON		
8 Sch	3 for 20 Sch		ON	ON		ON
10 Sch			ON	ON	ON	
10 Sch	3 for 20 Sch		ON	ON	ON	ON
12 Sch		ON				
15 Sch		ON				ON
20 Sch		ON			ON	
25 Sch		ON			ON	ON
30 Sch		ON		ON		
35 Sch		ON		ON		ON
40 Sch		ON		ON	ON	
45 Sch		ON		ON	ON	ON
50 Sch		ON	ON			
Free Play		ON	ON	ON	ON	ON

Coin Mech Mode

DIL Switch 1

6	7	8	
n/u	ON	ON	Binary
n/u	OFF	OFF	Parallel

4.1.7. PRICE OF PLAY SETTINGS FOR SWITZERLAND (SFr = Swiss Franc)

Parallel 4 Coin Validator

1	2	3	4
5	2	1	

C220 Binary Mode Validator

1	2	3	4	5	6	7	8
5	2	1					

C120 Validator

1	2	3	4	5	6
5	2	1			

DIL Switch 2 Settings

Mode	4	3	2	1
Direct Mode	OFF	ON	ON	ON
2 Channel Mode	ON	ON	ON	ON

DIL Switch 1 Settings

Per Game	Bonus	5	4	3	2	1
1 SFr						
1 SFr	6 for 5 SFr					ON
2 SFr					ON	
2 SFr	3 for 5 SFr				ON	ON
3 SFr				ON		
3 SFr	2 for 5 SFr			ON		ON
4 SFr				ON	ON	
4 SFr	3 for 10 SFr			ON	ON	ON
5 SFr			ON			
5 SFr	5 for 20 SFr		ON			ON
6 SFr			ON		ON	
6 SFr	2 for 10 SFr		ON		ON	ON
8 SFr			ON	ON		
8 SFr	3 for 20 SFr		ON	ON		ON
10 SFr			ON	ON	ON	
10 SFr	3 for 20 SFr		ON	ON	ON	ON
12 SFr		ON				
15 SFr		ON				ON
20 SFr		ON			ON	
25 SFr		ON			ON	ON
30 SFr		ON		ON		
35 SFr		ON		ON		ON
40 SFr		ON		ON	ON	
45 SFr		ON		ON	ON	ON
50 SFr		ON	ON			
Free Play		ON	ON	ON	ON	ON

Coin Mech Mode DIL Switch 1

6	7	8	
n/u	ON	ON	Binary
n/u	OFF	OFF	Parallel

PRICE OF PLAY SETTINGS UNIVERSAL

Universal Credit Settings - DIL Switch 1

Currency	Value of each U	Value of each Meter Pulse
UK	10 p	10 p

Belgium	5 BFr	5 BFr
Spain	25 Pta	25 Ptas
Germany	1 DM	1 DM
Holland	½ NLG	½ NLG
Portugal	25 Es	25 Es
Austria	1 Sch	1 Sch
Switzerland	1 SFr	1 SFr

DIL Switch 1 Settings

Per Game	Bonus	5	4	3	2	1
1U						ON
1U	6 for 5U				ON	ON
2U	3 for 5U				ON	ON
3U				ON		ON
3U	2 for 5U			ON		ON
4U				ON	ON	ON
4U	3 for 10U			ON	ON	ON
5U			ON			ON
5U	5 for 20U		ON			ON
6U			ON		ON	ON
6U	2 for 10U		ON		ON	ON
8U			ON	ON		
8U	3 for 20U		ON	ON		
10U			ON	ON	ON	
10U	3 for 20U		ON	ON	ON	ON
12U		ON				ON
15U		ON				ON
20U		ON			ON	ON
25U		ON			ON	ON
30U		ON		ON		ON
35U		ON		ON		ON
40U		ON		ON	ON	ON
45U		ON		ON	ON	ON
50U		ON	ON			ON
Free		ON	ON	ON	ON	ON

*Coin Mech Mode
DIL Switch 1*

6	7	8	
n/u	ON	ON	Binary
n/u	OFF	OFF	Parallel

The price of play settings for each country can be worked out by combining the two tables above.

4.2. 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 on a bracket in the Control Panel..

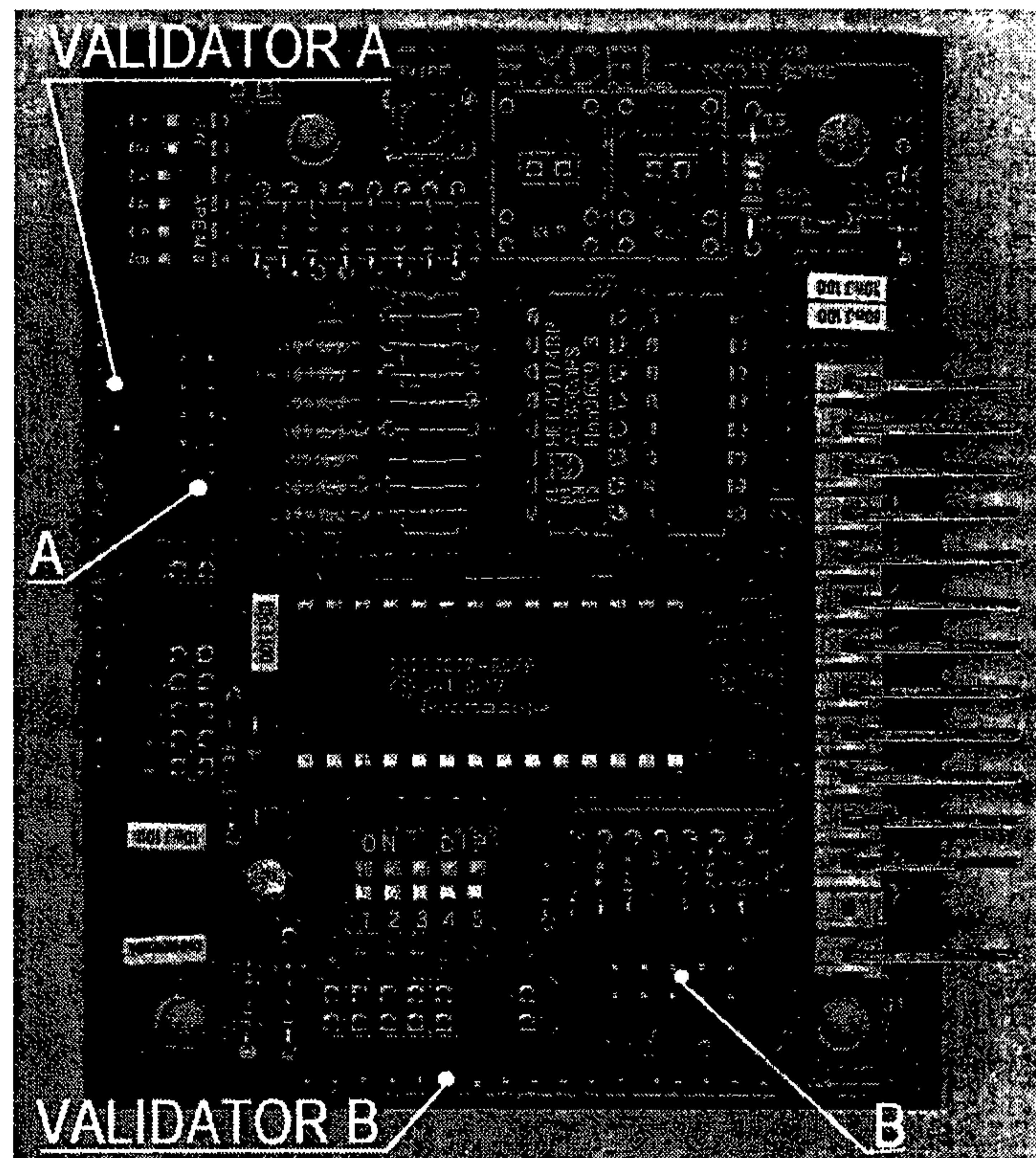
The *Excel* board is connected to the coin validator via a dedicated wiring harness depending upon the coin validator used:

Wiring Harness	Validator	
LM1006	Coin Controls	(15 way connector)
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 (subject to CE approval by SEGA).
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											
		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 C120 Parallel	ON	ON	OFF	OFF			£2	50p new	20p	10p	-	-	50p old	50p old	-			
UK	Coin Controls C120 Parallel	OFF	OFF	ON	OFF			£1	£2	20p	10p	50p new	50p old	-	-				
UK	Mars ME/MS 111 Parallel	ON	OFF	ON	OFF			10p	20p	50p	£1	-	-	-	-				
UK	NRI Parallel	OFF	ON	ON	OFF			-	50Bfr	20Bfr	5Bfr	-	-	-	-				
Belgium	Parallel	ON	ON	ON	OFF			-	5NLG	2.5NLG	1NLG	-	-	-	-				
Holland	Parallel	OFF	OFF	OFF	ON			20Sch	10Sch	5Sch	1Sch	-	-	-	-				
Austria	Parallel	ON	OFF	OFF	ON			500Pta	200Pta	100Pta	50Pta	25Pta	200Pt	50Pta	25Pta	25Pta	50Pta	25Pta	25Pta
Spain	Coin Controls C220 Binary	OFF	ON	OFF	ON			500Pta	200Pta	100Pta	50Pta	25Pta	200Pt	50Pta	200Pta	50Pta	25Pta	25Pta	25Pta
Spain	C120/NRI Parallel	ON	ON	OFF	ON			200Es	100Es	50Es	-	-	-	-	-	-	-	-	-
Spain	Coin Controls C220 Parallel	OFF	OFF	ON	ON			100Pta	50Pta	-	25Pta	50Pta	50Pta	25Pta	25Pta	25Pta	25Pta	25Pta	25Pta
Portugal	Parallel	ON	OFF	ON	ON			200Es	100Es	50Es	-	-	-	-	-	-	-	-	-
	TBA				OFF			TBA											
	Channels				ON			TBA											
					OFF			Direct Mode											
					ON			2 channel Mode											

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

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

4.2.1.1.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

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

	Price	Bonus			Switch 1				
					Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
					OFF	OFF	OFF	OFF	OFF
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
25	Free Play				ON	ON	ON	ON	ON

4.2.1.3.PRICE OF PLAY SETTINGS - BELGIUM

	Price	Bonus			DIL Switch 1				
					Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
1	5BFr	No Bonus			OFF	OFF	OFF	OFF	OFF
2	5BFr			11 = 50BFr	ON	OFF	OFF	OFF	OFF
3	5BFr		5 = 20BFr		OFF	ON	OFF	OFF	OFF
4	10BFr	No Bonus			ON	ON	OFF	OFF	OFF
5	10BFr			6 = 50BFr	OFF	OFF	ON	OFF	OFF
6	10BFr		3 = 20BFr		ON	OFF	ON	OFF	OFF
7	15BFr	No Bonus			OFF	ON	ON	OFF	OFF
8	15BFr			4 = 50BFr	ON	ON	ON	OFF	OFF
9	15BFr		7 = 100BFr		OFF	OFF	OFF	ON	OFF
10	20BFr	No Bonus			ON	OFF	OFF	ON	OFF
11	20BFr			3 = 50BFr	OFF	ON	OFF	ON	OFF
12	20BFr		3 = 50BFr		ON	ON	OFF	ON	OFF
13	25BFr	No Bonus			OFF	OFF	ON	ON	OFF
14	25BFr			5=100BFr	ON	OFF	ON	ON	OFF
15	25BFr		3 = 50BFr		OFF	ON	ON	ON	OFF
16	30BFr	No Bonus			ON	ON	ON	ON	OFF
17	30BFr			4=100BFr	OFF	OFF	OFF	OFF	ON
18	30BFr		2=50BFr		ON	OFF	OFF	OFF	ON
19	40BFr	No Bonus			OFF	ON	OFF	OFF	ON
20	40BFr			3=100BFr	ON	ON	OFF	OFF	ON
21	50BFr	No Bonus			OFF	OFF	ON	OFF	ON
22	50BFr			3=100BFr	ON	OFF	ON	OFF	ON
23					OFF	ON	ON	OFF	ON
24					ON	ON	ON	OFF	ON
25					OFF	OFF	OFF	ON	ON
26					ON	OFF	OFF	ON	ON
27					OFF	ON	OFF	ON	ON
28					ON	ON	OFF	ON	ON
29					OFF	OFF	ON	ON	ON
30					ON	OFF	ON	ON	ON
31					OFF	ON	ON	ON	ON
32	Free Play				ON	ON	ON	ON	ON

4.2.1.4. PRICE OF PLAY SETTINGS - FRANCE

	Price	Bonus			DIL Switch 1				
					Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
1	1Fr	No Bonus			OFF	OFF	OFF	OFF	OFF
2	1Fr	6 = 5Fr			ON	OFF	OFF	OFF	OFF
3	2Fr	No Bonus			OFF	ON	OFF	OFF	OFF
4	2Fr	3 = 5Fr	6 = 10Fr	12 = 20Fr	ON	ON	OFF	OFF	OFF
5	3Fr	No Bonus			OFF	OFF	ON	OFF	OFF
6	3Fr	1.66 = 5Fr	4 = 10Fr	8 = 20Fr	ON	OFF	ON	OFF	OFF
7	3Fr	2 = 5Fr	4 = 10Fr		OFF	ON	ON	OFF	OFF
8	3Fr	**	3 = 10Fr	6 = 20Fr	ON	ON	ON	OFF	OFF
9	4Fr	No Bonus			OFF	OFF	OFF	ON	OFF
10	4Fr	1.25 = 5Fr	3 = 10Fr	6 = 20Fr	ON	OFF	OFF	ON	OFF
11	5Fr	No Bonus			OFF	ON	OFF	ON	OFF
12	5Fr		3 = 10Fr	6 = 20Fr	ON	ON	OFF	ON	OFF
13	5Fr		2 = 10Fr	5 = 20Fr	OFF	OFF	ON	ON	OFF
14	6Fr	No Bonus			ON	OFF	ON	ON	OFF
15	6Fr		2 = 10Fr	4 = 20Fr	OFF	ON	ON	ON	OFF
16	8Fr	No Bonus			ON	ON	ON	ON	OFF
17	8Fr	1.25 = 10Fr	2 = 15Fr	2.5 = 20Fr	OFF	OFF	OFF	OFF	ON
18	10Fr	No Bonus			ON	OFF	OFF	OFF	ON
19	10Fr		3 = 20Fr		OFF	ON	OFF	OFF	ON
20	10Fr		2 = 20Fr	5 = 40Fr	ON	ON	OFF	OFF	ON
21	15Fr	No Bonus			OFF	OFF	ON	OFF	ON
22	15Fr		2 = 20Fr		ON	OFF	ON	OFF	ON
23	20Fr	No Bonus			OFF	ON	ON	OFF	ON
24	20Fr			3 = 50Fr	ON	ON	ON	OFF	ON
25	30Fr	No Bonus			OFF	OFF	OFF	ON	ON
26	30Fr			2 = 50Fr	ON	OFF	OFF	ON	ON
27	50Fr	No Bonus			OFF	ON	OFF	ON	ON
28	50Fr			3 = 100Fr	ON	ON	OFF	ON	ON
29	75Fr	No Bonus			OFF	OFF	ON	ON	ON
30	75Fr			2 = 100Fr	ON	OFF	ON	ON	ON
31	100Fr	No Bonus			OFF	ON	ON	ON	ON
32	Free Play				ON	ON	ON	ON	ON

** This is a special setting which gives no credit until a total of 10Fr is input and then gives three games.

4.2.1.5.PRICE OF PLAY SETTINGS - ITALY

	Price	Bonus			DIL Switch 1				
					Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
1					OFF	OFF	OFF	OFF	OFF
2					ON	OFF	OFF	OFF	OFF
3					OFF	ON	OFF	OFF	OFF
4					ON	ON	OFF	OFF	OFF
5					OFF	OFF	ON	OFF	OFF
6					ON	OFF	ON	OFF	OFF
7					OFF	ON	ON	OFF	OFF
8					ON	ON	ON	OFF	OFF
9					OFF	OFF	OFF	ON	OFF
10	100L	No Bonus			ON	OFF	OFF	ON	OFF
11	100L			6 = 500L	OFF	ON	OFF	ON	OFF
12	100L		3 = 200L		ON	ON	OFF	ON	OFF
13	200L	No Bonus			OFF	OFF	ON	ON	OFF
14	200L			3 = 500L	ON	OFF	ON	ON	OFF
15	200L		3 = 400L		OFF	ON	ON	ON	OFF
16	300L	No Bonus			ON	ON	ON	ON	OFF
17	300L			2 = 500L	OFF	OFF	OFF	OFF	ON
18	300L		3 = 600L		ON	OFF	OFF	OFF	ON
19	400L	No Bonus			OFF	ON	OFF	OFF	ON
20	400L			3 = 1000L	ON	ON	OFF	OFF	ON
21	400L		3 = 800L		OFF	OFF	ON	OFF	ON
22	500L	No Bonus			ON	OFF	ON	OFF	ON
23	500L		3 = 1000L		OFF	ON	ON	OFF	ON
24	500L			5 = 2000L	ON	ON	ON	OFF	ON
25	600L	No Bonus			OFF	OFF	OFF	ON	ON
26	600L		3 = 1200L		ON	OFF	OFF	ON	ON
27	600L			4 = 2000L	OFF	ON	OFF	ON	ON
28	800L	No Bonus			ON	ON	OFF	ON	ON
29	800L		2 = 1000L		OFF	OFF	ON	ON	ON
30	1000L	No Bonus			ON	OFF	ON	ON	ON
31	1000L		2 = 1500L		OFF	ON	ON	ON	ON
32	Free Play				ON	ON	ON	ON	ON

4.2.1.6.PRICE OF PLAY SETTINGS - PORTUGAL

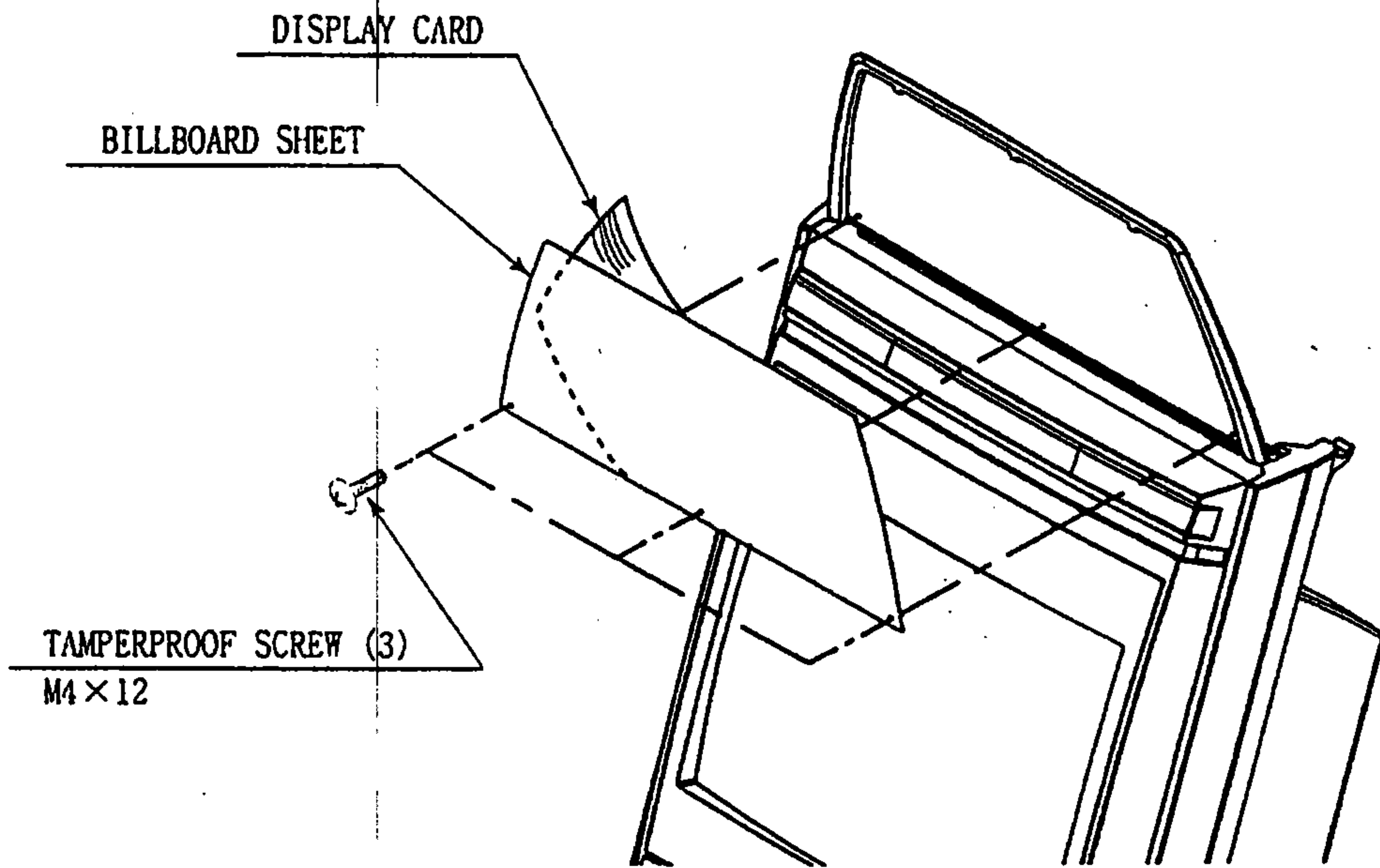
	Price	Bonus			DIL Switch 1				
					Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
1	50Esc	No Bonus			OFF	OFF	OFF	OFF	OFF
2	50Esc			5 = 200Esc	ON	OFF	OFF	OFF	OFF
3	50Esc		3=100Esc		OFF	ON	OFF	OFF	OFF
4	100Esc	No Bonus			ON	ON	OFF	OFF	OFF
5	100Esc			5 = 400Esc	OFF	OFF	ON	OFF	OFF
6	100Esc		3 = 200Esc		ON	OFF	ON	OFF	OFF
7	150Esc	No Bonus			OFF	ON	ON	OFF	OFF
8	150Esc			3 = 400Esc	ON	ON	ON	OFF	OFF
9	200Esc	No Bonus			OFF	OFF	OFF	ON	OFF
10	200Esc			6 = 1000Esc	ON	OFF	OFF	ON	OFF
11	200Esc		4 = 600Esc		OFF	ON	OFF	ON	OFF
12	250 Esc	No Bonus			ON	ON	OFF	ON	OFF
13	250 Esc		3 = 500Esc		OFF	OFF	ON	ON	OFF
14	300 Esc	No Bonus			ON	OFF	ON	ON	OFF
15	300 Esc			4 = 1000Esc	OFF	ON	ON	ON	OFF
16	400 Esc	No Bonus			ON	ON	ON	ON	OFF
17	400 Esc			3 = 1000Esc	OFF	OFF	OFF	OFF	ON
18	Free Play				ON	ON	ON	ON	ON

4.2.1.7.PRICE OF PLAY SETTINGS - NETHERLANDS

	Price	Bonus			DIL Switch 1				
					Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
1	1G	No Bonus			OFF	OFF	OFF	OFF	OFF
2	1G		2.5NLG = 2		ON	OFF	OFF	OFF	OFF
3	2G	No Bonus			OFF	ON	OFF	OFF	OFF
4	2G		5NLG = 3		ON	ON	OFF	OFF	OFF
5	3G	No Bonus			OFF	OFF	ON	OFF	OFF
6	3G		5NLG = 2		ON	OFF	ON	OFF	OFF
7	4G	No Bonus			OFF	ON	ON	OFF	OFF
8	4G		10NLG = 3		ON	ON	ON	OFF	OFF
9	5G	No Bonus			OFF	OFF	OFF	ON	OFF
10	5G		10NLG = 3		ON	OFF	OFF	ON	OFF
11	6G	No Bonus			OFF	ON	OFF	ON	OFF
12	6G		15NLG = 3		ON	ON	OFF	ON	OFF
13	8G	No Bonus			OFF	OFF	ON	ON	OFF
14	8G		20NLG = 3		ON	OFF	ON	ON	OFF
15	10G	No Bonus			OFF	ON	ON	ON	OFF
16	10G		20NLG = 3		ON	ON	ON	ON	OFF
17	15G		30NLG = 3		OFF	OFF	OFF	OFF	ON
18	15G	No Bonus			ON	OFF	OFF	OFF	ON
19	20G	No Bonus			OFF	ON	OFF	OFF	ON
32	Free Play				ON	ON	ON	ON	ON

5. REPLACING THE DISPLAY CARD

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



Dis Card V. Sturken 2 2000 269524 429-0650-01

6. PERIODIC CHECK AND INSPECTION

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



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

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

6.1. CLEANING THE CABINET SURFACES

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

7. DESIGN RELATED PARTS

Tennis SE10233

SUB-INSTRUCTION
Varies depending on the specific Game Board.
Some Game Boards may not have this.

EMBLEM NAOMI
NOA-1507

~~PRE WORK~~
CONTROL PANEL PLATE
NOA-2003
(Not fitted as standard to
generic cabinet)

NOA-2003
Control Plate

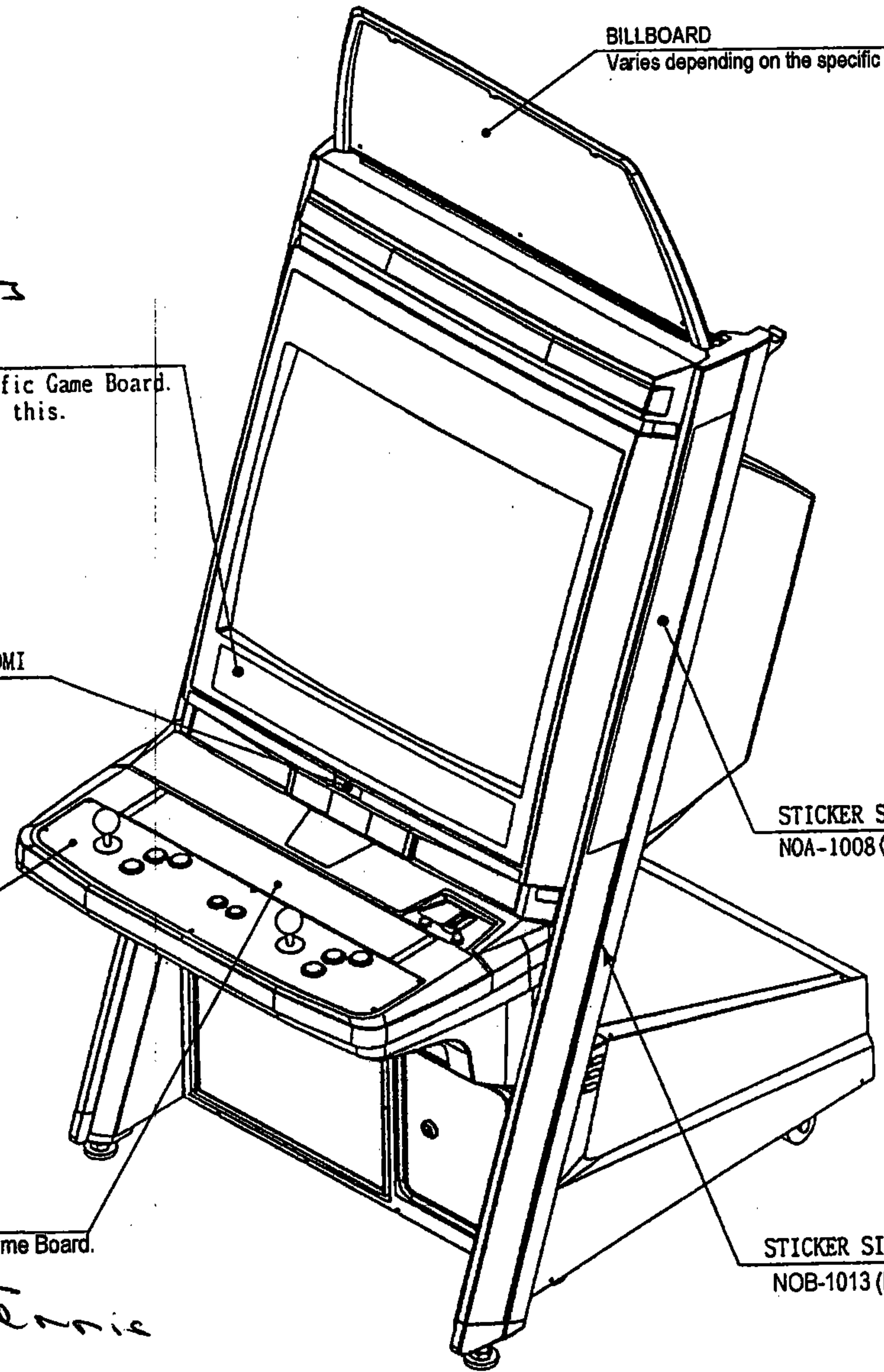
PLAY INSTRUCTION
Varies depending on specific Game Board.

SE9904 Tennis

BILLBOARD
Varies depending on the specific Game Board.

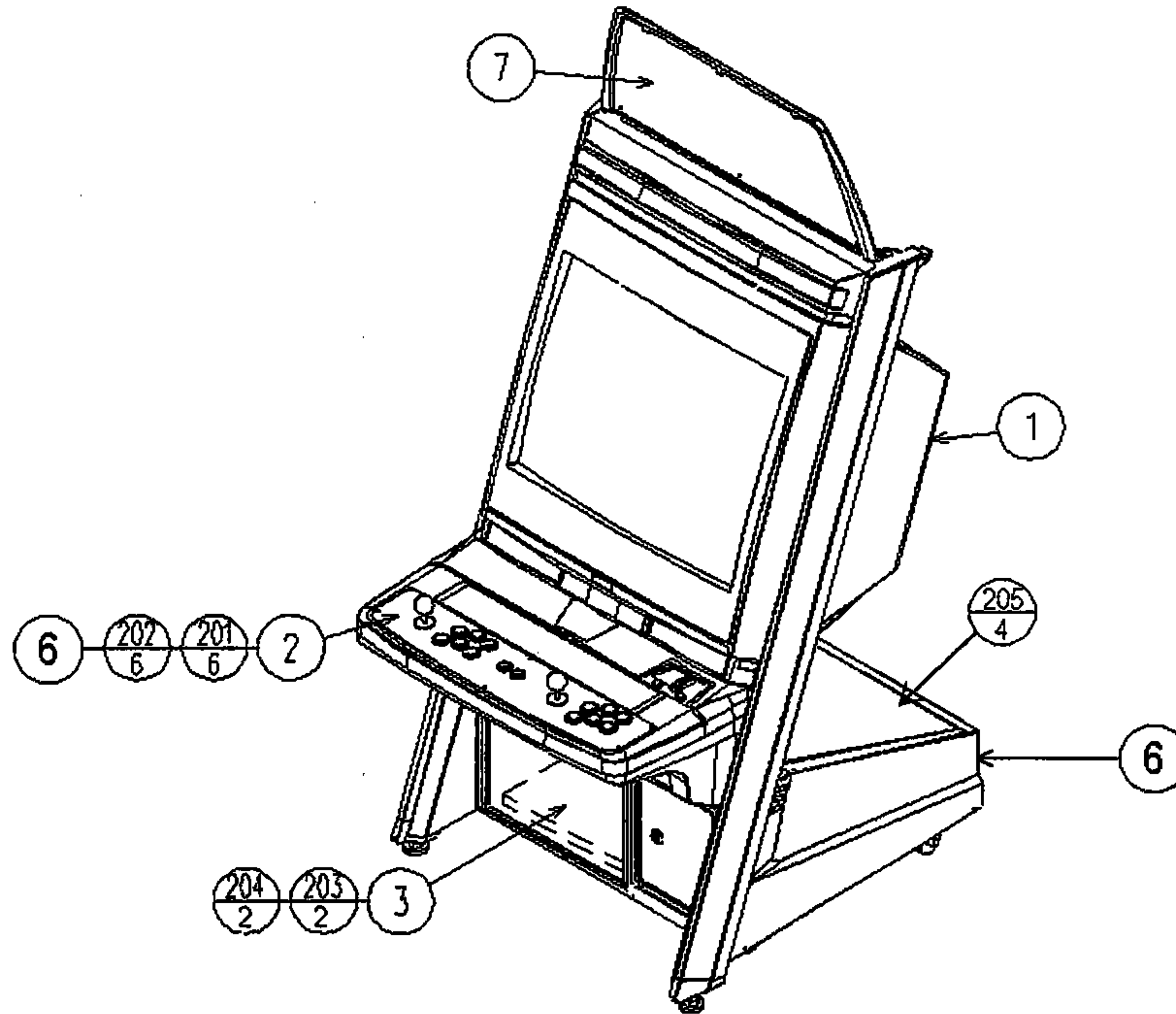
STICKER SIDE
NOA-1008 (both sides)

STICKER SIDE LINE
NOB-1013 (both sides)



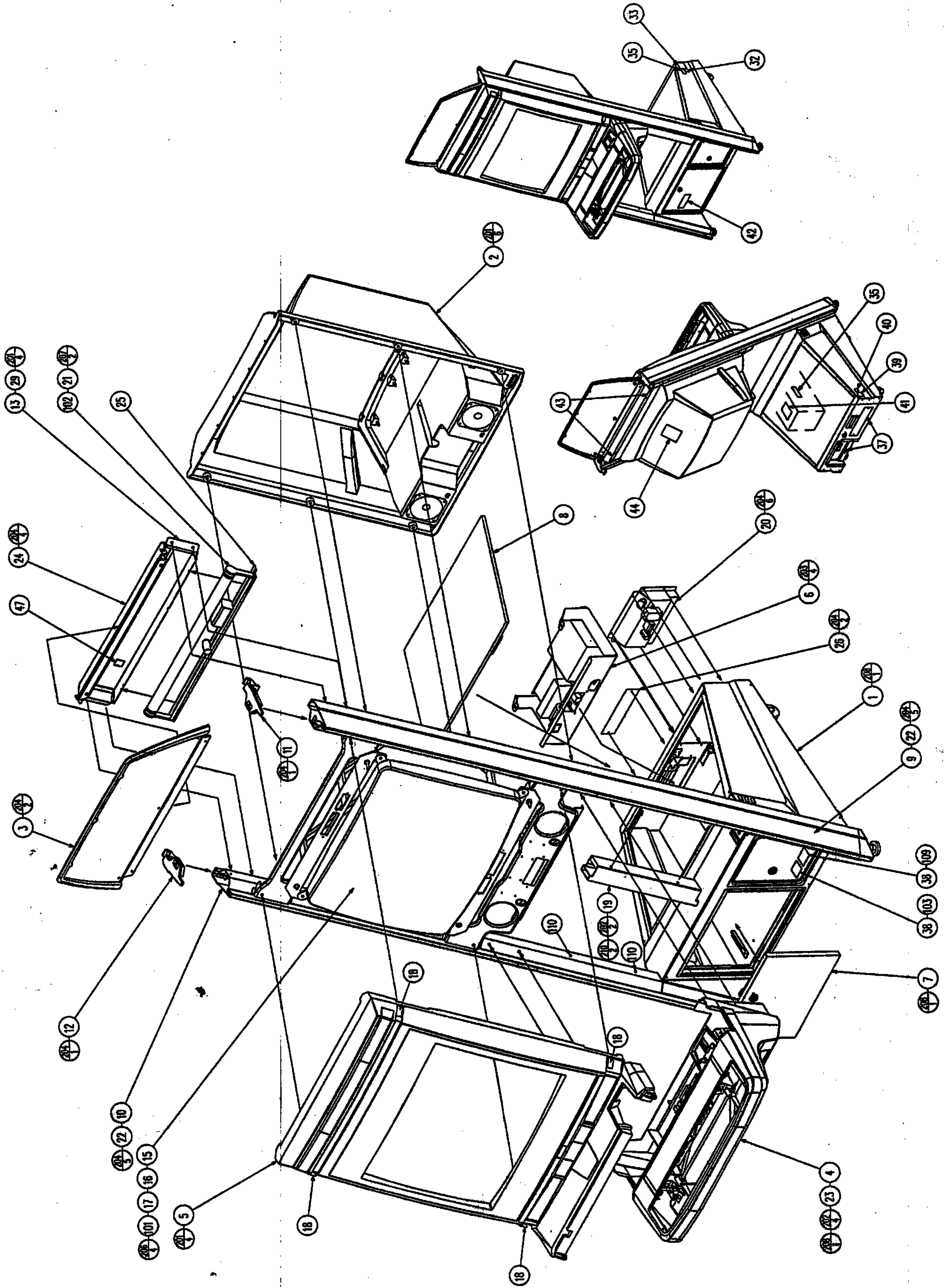
8. PARTS LIST

8.1. NOB-0000UK TOP ASSY NAOMI CABI COM



No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOB-1000UK	1	ASSY UR CABI TOP ENTRY	
2	NOB-INST-COM	1	ASSY INSTALLATION KIT NOB	[NOT SHOWN]
3	NOA-0001UK	1	WOODEN BASE MAIN	
6	421-7988-91UK	2	STICKER SERIAL NUMBER UK	NEXT TO AC UNIT, INSIDE C.PNL
7	PK0121	1	POLY COVER 750X1100X1800	[NOT SHOWN]
8	PK0201	1	PALLET NOB U/R	[NOT SHOWN]
9	PK0208	1	SLEEVE NOB U/R COM	[NOT SHOWN] [NOT SHOWN]
203	032-000425	2	M4X25 BLT WING PAS	(3)-2
204	FX0301	2	M4 WSHR 16OD FLT BZP	(3)-2
205	008-T00412-OC	4	M4X12 MSCR TMP PRF CRM	REAR HATCH - 4

8.2. NOB-1000UK UR CABI TOP ENTRY

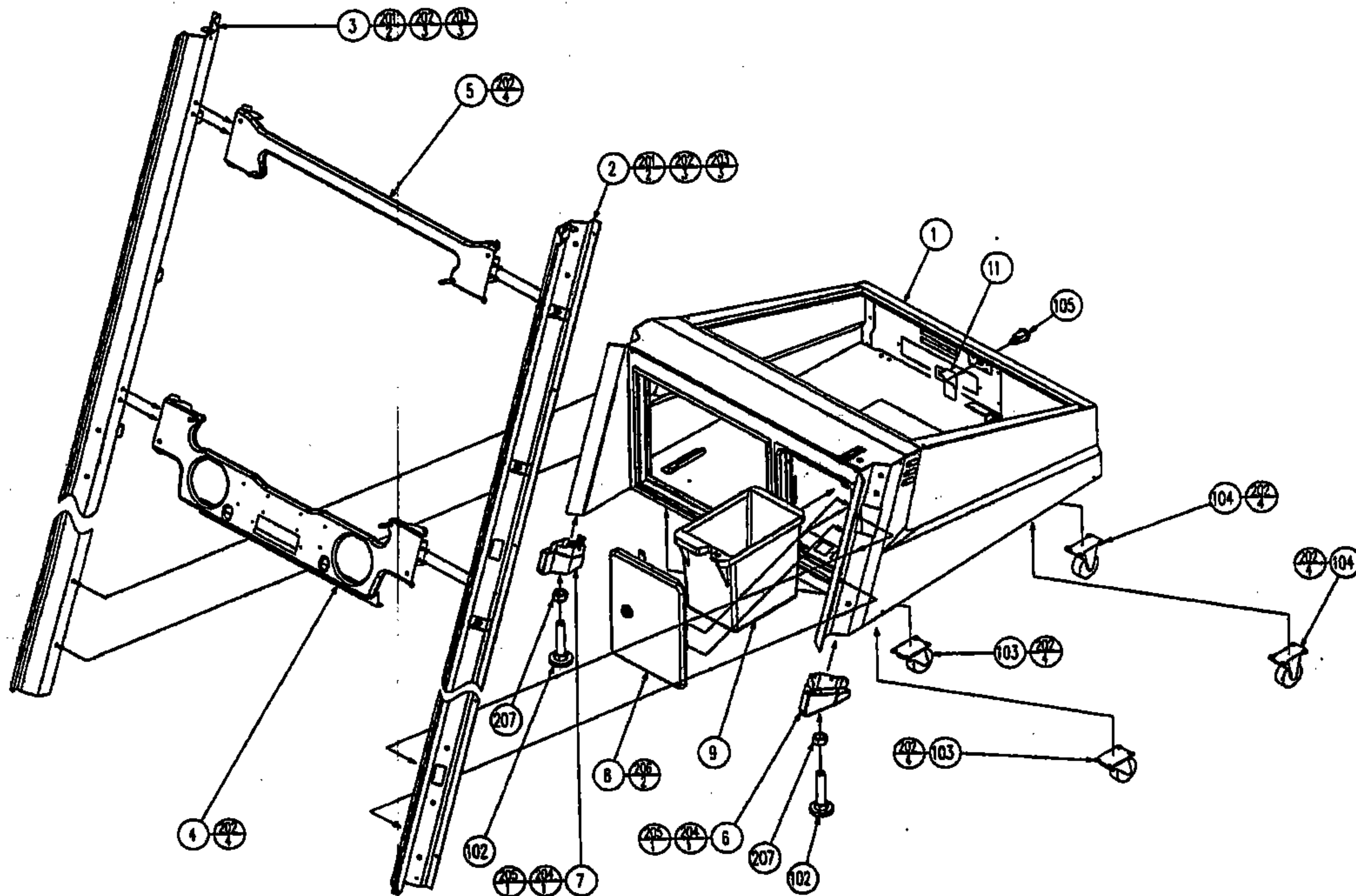


Part number listing for this assembly follows overleaf.

No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOB-1100UK	1	ASSY FRAMEWORK UR	
2	NOA-1200	1	ASSY CRT COVER	
3	NOA-1300	1	ASSY BILLBOARD	
4	NOB-1400UK	1	ASSY CONTROL BOX W/CC EU	
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	280-5112	4	BUSH FOR NANA0 MONITOR	(101)-4
16	280-5113	4	COLLAR FOR NANA0 MONITOR	(101)-4
18	NOA-1006	4	SCR CAP	
19	NOB-1007	1	COIN CHUTE UR	
20	NOB-1700UK	1	ASSY AC UNIT	
22	NOA-1008	2	STICKER SIDE	
23	NOA-1009	2	WSHR PLATE	(4)-2
24	NOA-1010UK	1	BILLBD HOLDER	
25	NOA-1011	1	FL BRKT	
26	NOA-1116	1	LID COMMUNI PORT	
27	NOB-4100UK	1	ASSY XFMR	
28	NOB-1013	2	STICKER SIDE LINE NOB	
29	NOB-1117UK	1	WATER GUARD CE	
37	421-7020UK	2	STICKER CAUTION FORK	AT BACK OF BASE BOX
41	LB1102	5	STICKER DANGEROUS VOLTAG	BASE LID,DOOR,CRT,FL,CP COVERS
42	LB1104	1	STICKER CAUTION, HOT SUR	FL COVER
101	200-5787	1	ASSY CLR DISP 29TYPE 31K	
102	390-5695-40-CUK	1	FL TRAY 110V 40W (T12) <i>SE 1031</i>	SE 1031 <i>RE</i>
103	220-5643UK	1	COIN METER SMALL 12V <i>SE 9999</i>	CLIP-IN
114	390-5695-40-DUK	1	FL TUBE 40W 600L 1.5"DIA	<i>SE 9311</i>
115	OS1098	2	CRIMP BELL END SMALL	(103)-2
116	280-A02048-PM	5	ROUTER TWIST D20 SO4.8 P	
117	280-A02000-A	4	ROUTER TWIST D20 ADH	
118	280-A01248-PM	12	ROUTER TWIST D12 SO4.8 P	
119	280-A01200-A	3	ROUTER TWIST D12 ADH	
120	280-A00900-A	2	ROUTER TWIST D9 ADH	
121	OS1004	1	DRAFT EXCLDR 4 X7MM BLK	2X0.59M TO 8
122	OS1174	6	CABLE TIE, NYLON 100mm	6-(29)
201	008-T00625-OC	14	M6X25 MSCR TMP PRF TH CR	(2)-6,(5)-4,(13)-4
202	030-000620-S	6	M6X20 BLT W/S PAS	(4)-4,(19)-2
203	FX0021	2	M4X8 MSCR POSI PAN BZP	FL TUBE CLIPS - 2
204	008-T00412-OC	30	M4X12 MSCR TMP PRF CRM	
206	FX0013	4	M6 NUT FLG SER BZP	(101)-4
208	008-T00430-OC	2	M4X30 MSCR TMP PRF TH CR	TNG STOPPER CP & REAR LID
209	030-000630-S	4	M6X30 SET W/S PAS	(27)-4
210	FX0251	4	M6 WSHR 16OD FLT BZP	(27)-4
211	000-P00408-W	6	M4X8 MSCR POSI PAN W/FS	(25)-2,EARTHS-4
214	000-P00416-W	4	M4X16 MSCR POSI PAN W/FS	(5)-2,(11)-1,(12)-1
215	FX0012	4	M6 WSHR 25OD FLT BZP	(101)-4
216	050-F00400	5	M4 NUT FLG	(102)-2,EARTHS-3
217	FX0302	3	M5 NUT FLG SER BZP	FRAME EARTHS - 3
218	010-P00408	4	M4X8 TAPTITE POSI PAN	(6)-4
219	FX0009	4	M4 WSHR FORM A FLT BZP	(6)-4
301	NOB-6001UK	1	ASSY WIRE L	

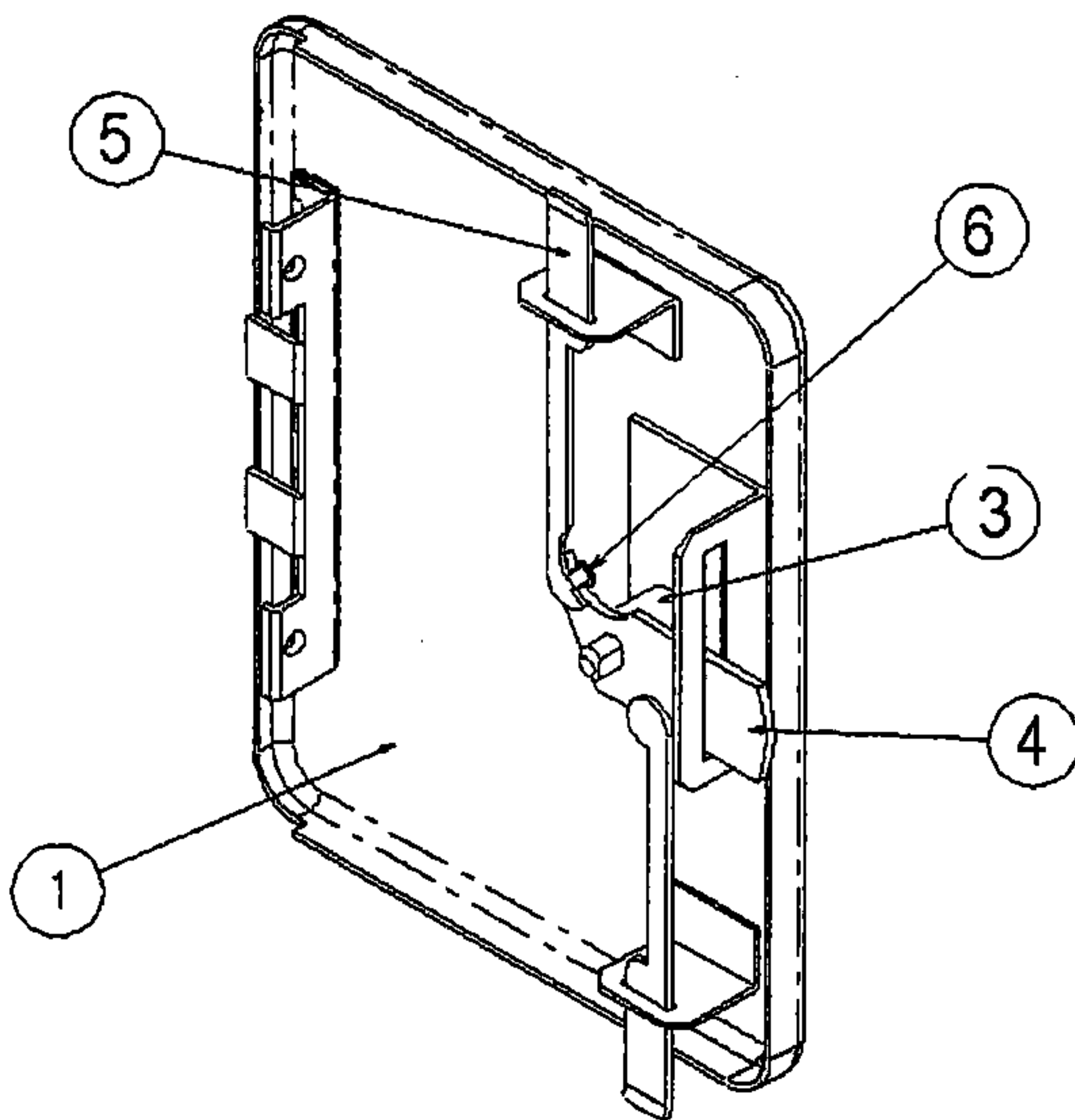
302	NOB-6002UK	1	ASSY WIRE R	
311	600-7159-070	1	WIRE HARN JVS PWR 070CM	
312	600-7141-250	1	CABLE JVS TYPE A-B 250CM	
313	600-7009-2500	1	ASSY RGB CA D-SUB 15P 25	
320	NOB-60201UK	1	WIRE HARN FL NOB	
321	600-9070-45K	1	LOOM EARTH 700mm M4/M5	BASE LID TO XFMR

8.3. NOB-1100UK ASSY FRAMEWORK UR



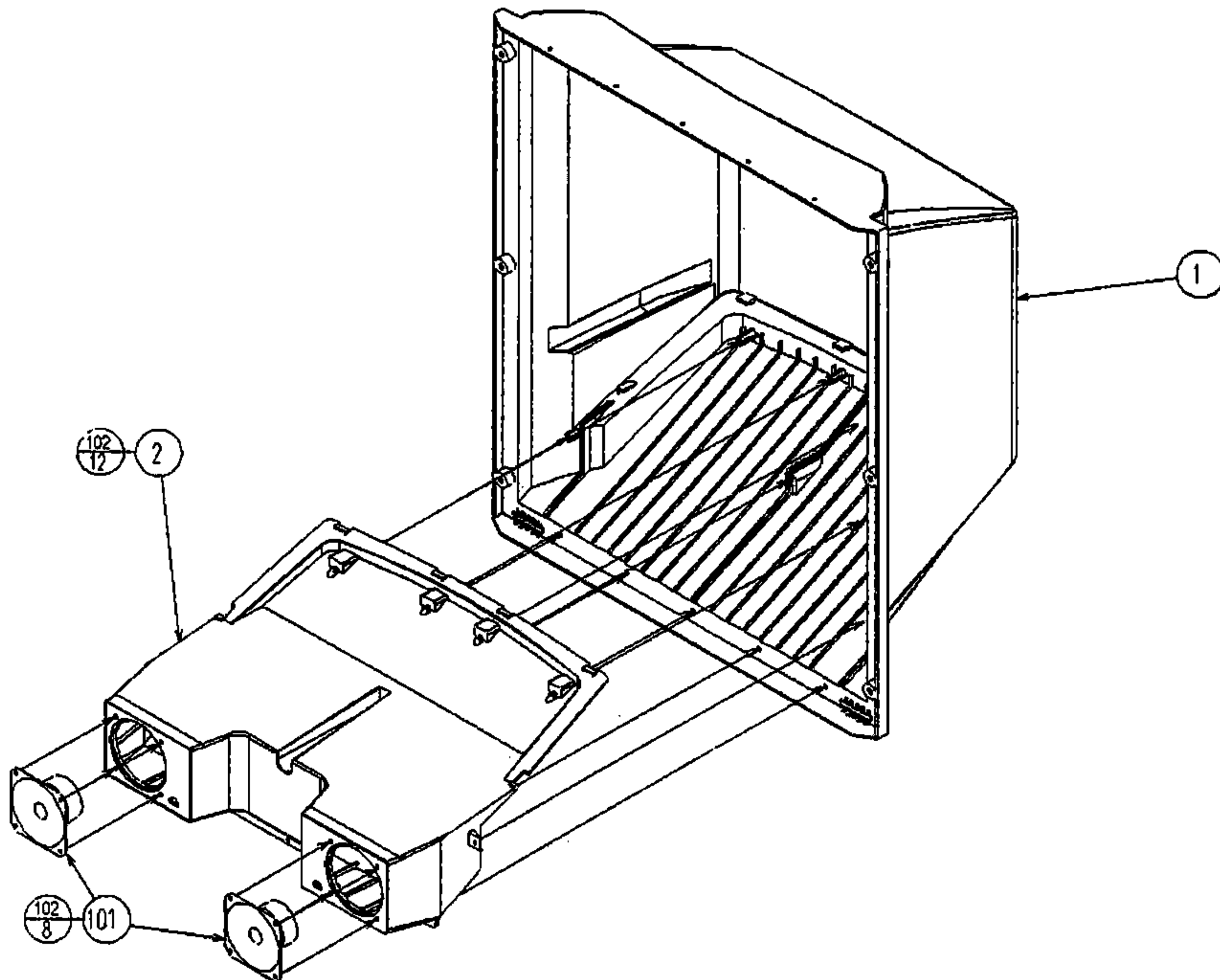
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1601UK	1	BASE BOX	
2	NOB-1101UK	1	MAIN FRAME UR R	
3	NOB-1102UK	1	MAIN FRAME UR L	
4	NOA-1111	1	LOWER BEAM	
5	NOA-1112	1	UPPER BEAM	
6	NOA-1113	1	HOOF R	
7	NOA-1114	1	HOOF L	
8	HOT-1200	1	ASSY CASH BOX DOOR	
9	253-5366	1	CASH BOX	
11	NOA-1115UK	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	FX0013	4	M6 NUT FLG SER BZP	(2)-2,(3)-2
202	030-000620-S	30	M6X20 BLT W/S PAS	(2,3)-3,(4,5)-4,(103,104)-8
203	FX0252	6	M6 WSHR 19OD FLT BZP	(2)-3,(3)-3
204	050-F00400	2	M4 NUT FLG	(6)-1,(7)-1
205	000-P00408-W	2	M4X8 MSCR POSI PAN W/FS	(6)-1,(7)-1
206	FX0072	2	M3X12 MSCR POSI CSK BZP	(8)-2
207	FX0272	2	M16 NUT BZP	(102)-2

8.4. HOT-1200 ASSY CASH BOX DOOR



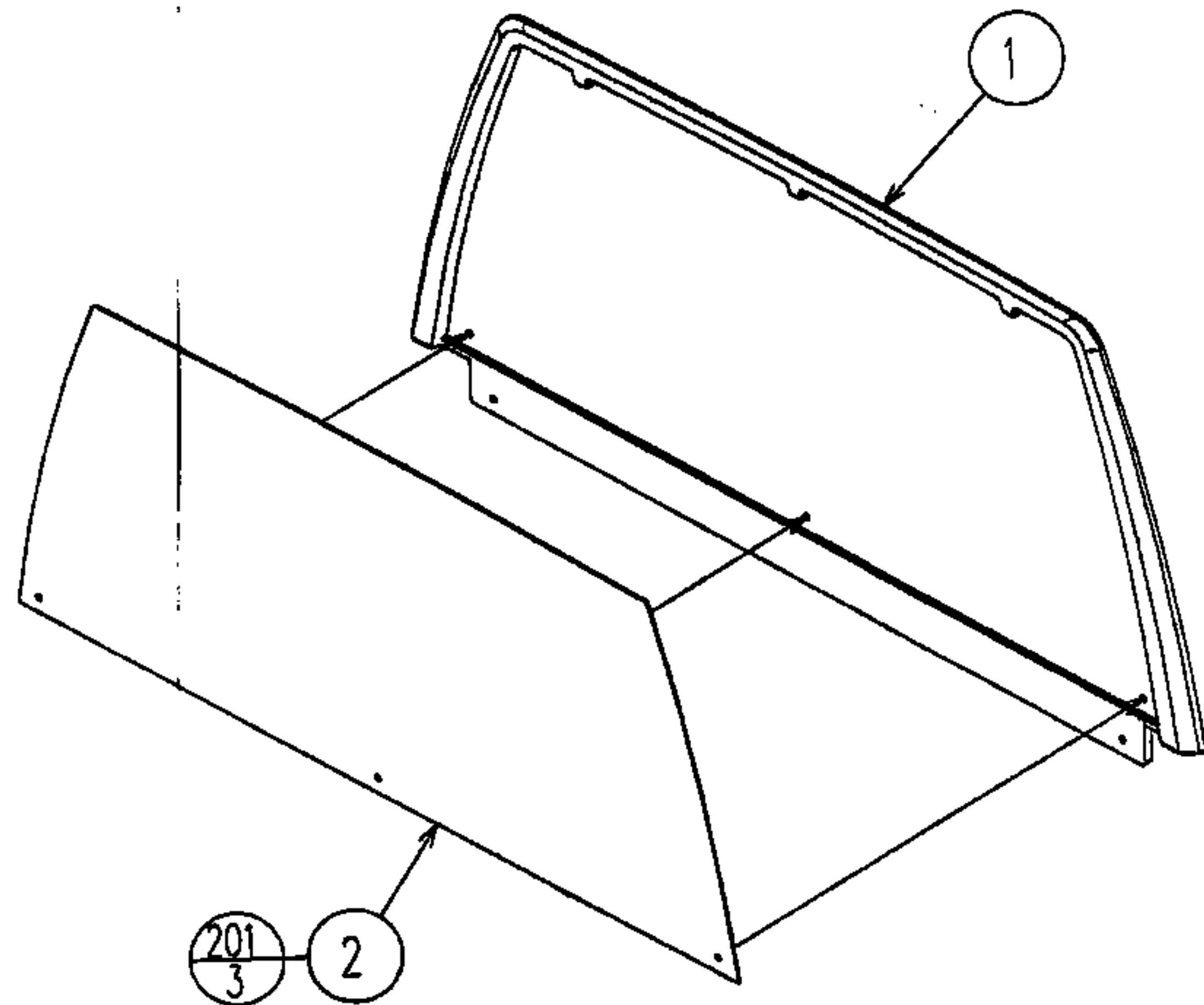
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	HOT-1201UK	1	CASH BOX DOOR	
3	220-5574UK	1	LOCK KEYED DIFFERENT	
4	HOT-1203XUK	1	CENTER TNG	
5	HOT-1204X	2	SIDE TNG	
6	065-E00300	2	E RING 3MM	

8.5. NOA-1200 ASSY CRT COVER



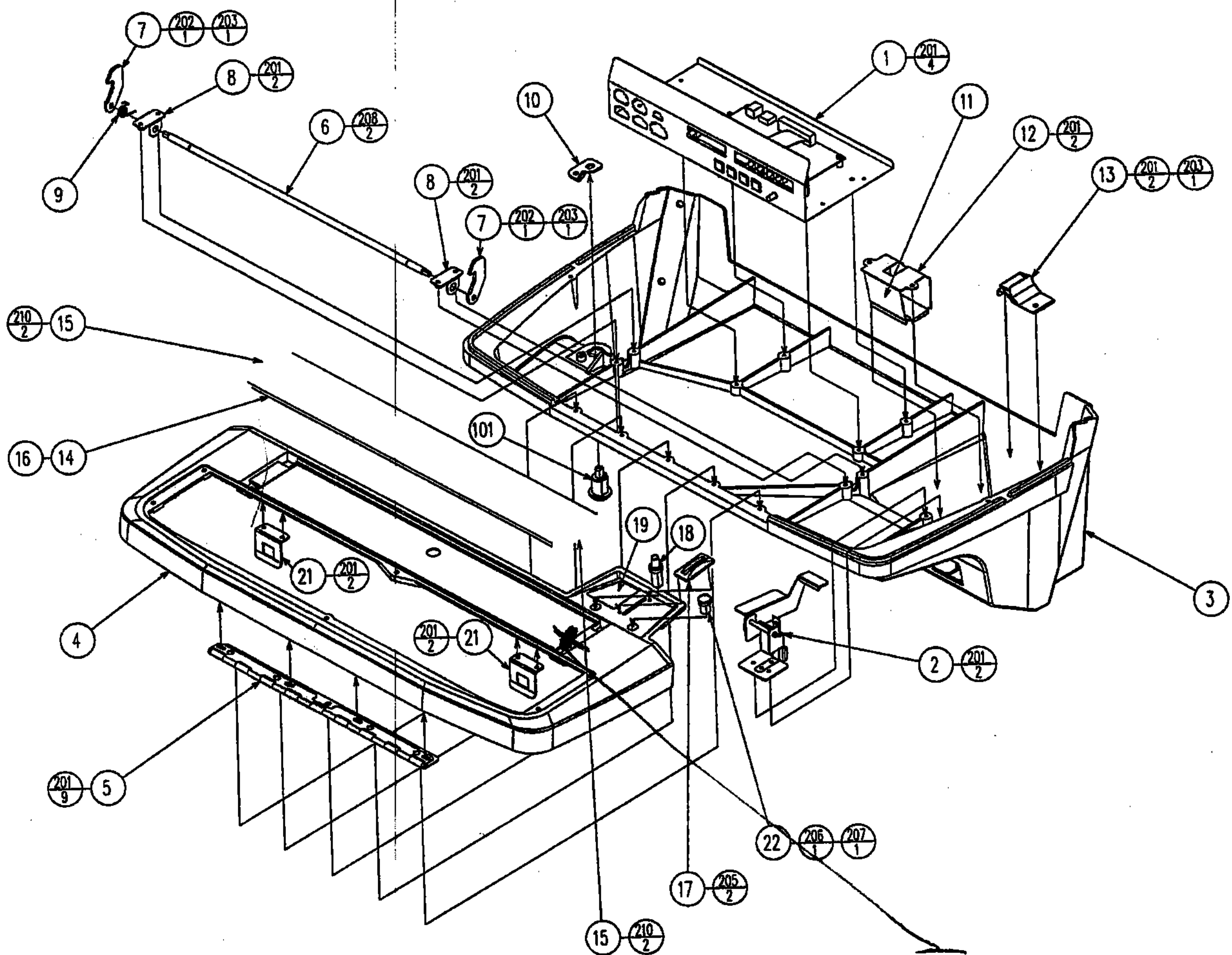
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1201	1	CRT COVER	
2	NOA-1202	1	SPEAKER BOX	
101	130-5205	2	SPEAKER 40HM 10W 100 W/S	
102	000-P00410-W	20	M4X10 MSCR POSI PAN W/FS	(101)-8,(2)-12
301	NOA-60031	1	WIRE HARN SPEAKER L	[NOT SHOWN]
302	NOA-60032	1	WIRE HARN SPEAKER R	[NOT SHOWN]

8.6. NOA-1300 ASSY BILLBOARD



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

8.7. NOB-1400UK ASSY CONTROL BOX W/CC EUR



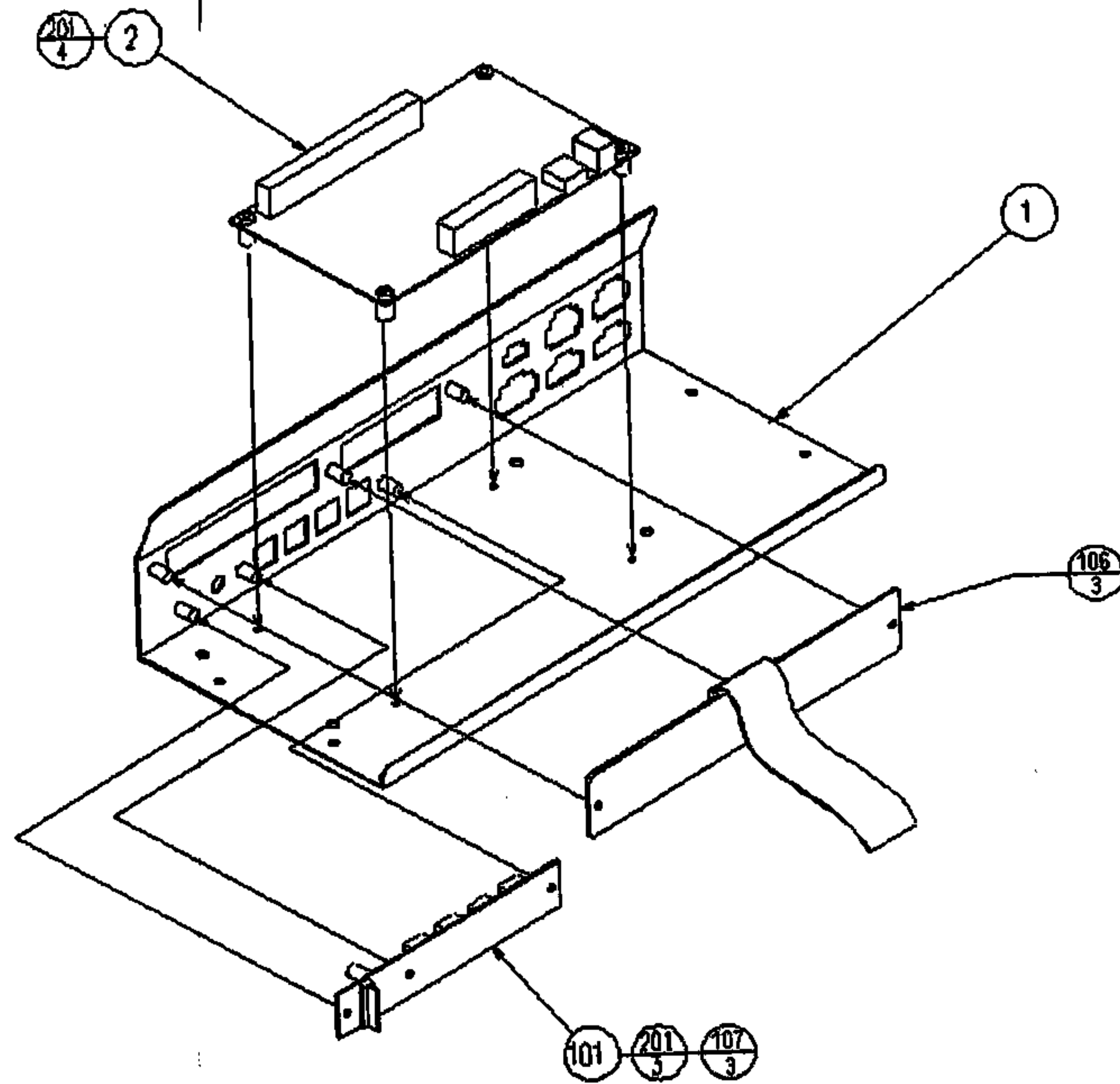
Part number listing for this assembly follows overleaf.

This Piece is No 15

*Buttons
102 Plate 57
509-5756 Start*

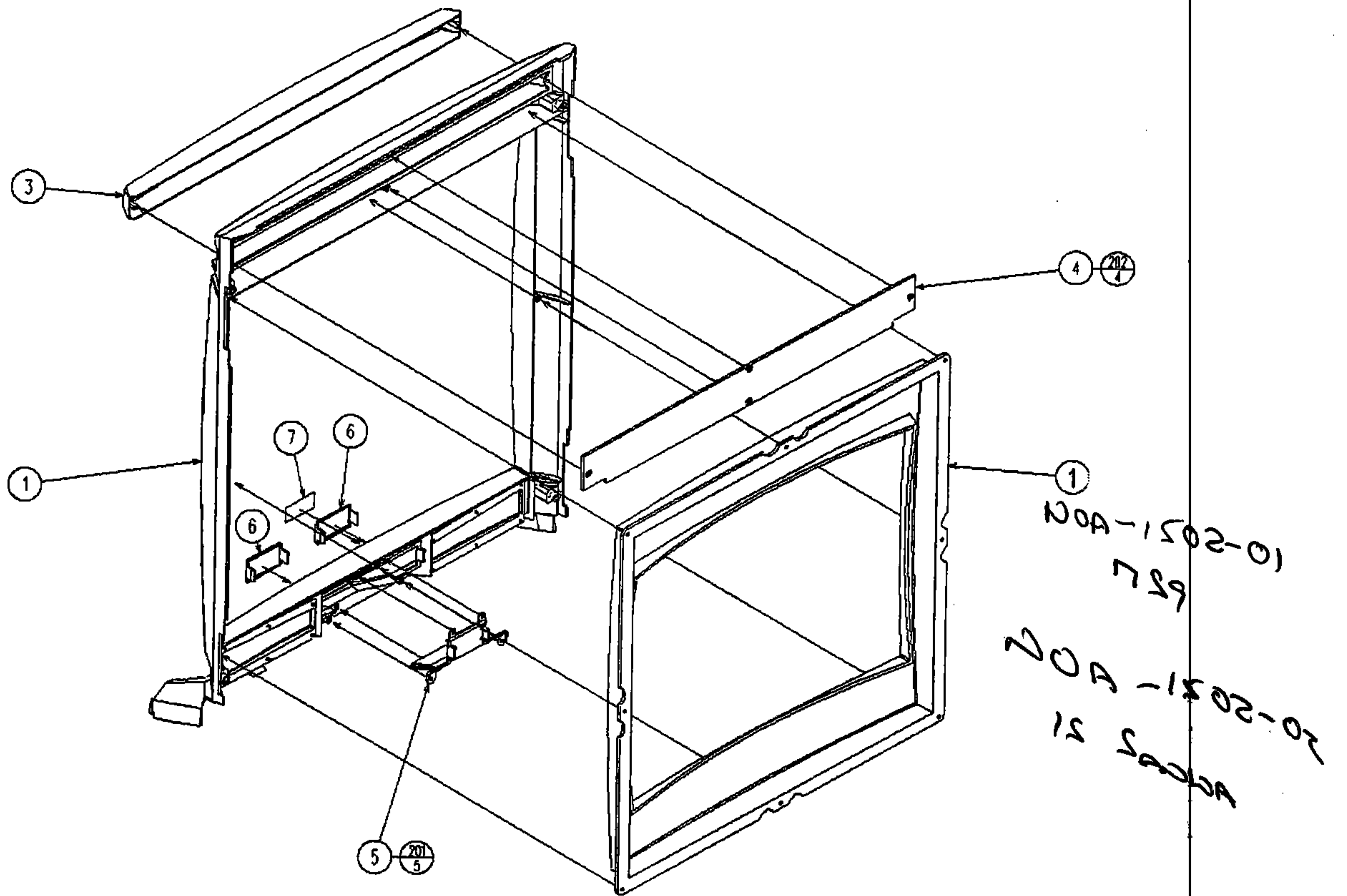
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1450UK	1	ASSY I/O UNIT	
3	NOA-1401	1	CONTROL BOX LOWER	
4	NOA-1402	1	CONTROL BOX UPPER	
5	CQN-1055X	1	HINGE	
6	NOA-1403	1	SHAFT	
7	HOT-1520	2	LATCH N	
8	HOT-1504	2	LATCH HOLDER	
9	NOA-1404	1	TOR SPRING	
10	HOT-1505UK	1	LKG TNG	(101)-1
14	HOT-1508	1	INSTRUCTION COVER	
15	NOA-1419	2	BRKT INST COVER	(14)-2
16	NOA-1420	4	L WASHER	(15)-4
17	220-5428UK	1	COIN ENTRY CE	
18	250-5043	1	REJECT BUTTON ASSEMBLY	
19	NOA-1412	1	STICKER DENOMI BLANK FOR	
21	NOA-1415	2	LOCK BRKT	
22	NOA-1418	1	DUMMY BTN	
23	421-10064UK	1	STICKER I/O UNIT	
25	NOB-1417UK	1	ACCEPTOR BRKT	
26	EP1380	1	CREDIT BOARD EXCEL	
101	220-5575UK	1	LOCK THIS IS A ROTOR LOCK J9117	
102	280-A00900-A	3	ROUTER TWIST D9 ADH	
103	280-A01200-A	3	ROUTER TWIST D12 ADH	
104	280-A02000-A	3	ROUTER TWIST D20 ADH	
105	280-L01640-PS	4	STANDOFF 16mm 4mm PANEL	(25)-4
201	000-P00410-W	27	M4X10 MSCR POSI PAN W/FS	(1,8,21,16)-4,(24)-2,(5)-9
202	FX0212	2	M6 NUT BZP	(7)-2
203	FX0255	2	M6 WSHR SPR BZP	(7)-2
205	012-P03506-F	2	N6X1/4" S/TAP POSI FLG B	(17)-2
206	000-P00410-W	1	M4X10 MSCR POSI PAN W/FS	(201)
207	FX0301	1	M4 WSHR 16OD FLT BZP	(22)
301	NOB-60101UK	1	WIRE HARN COIN NOB	

8.8. NOA-1450UK ASSY I/O UNIT



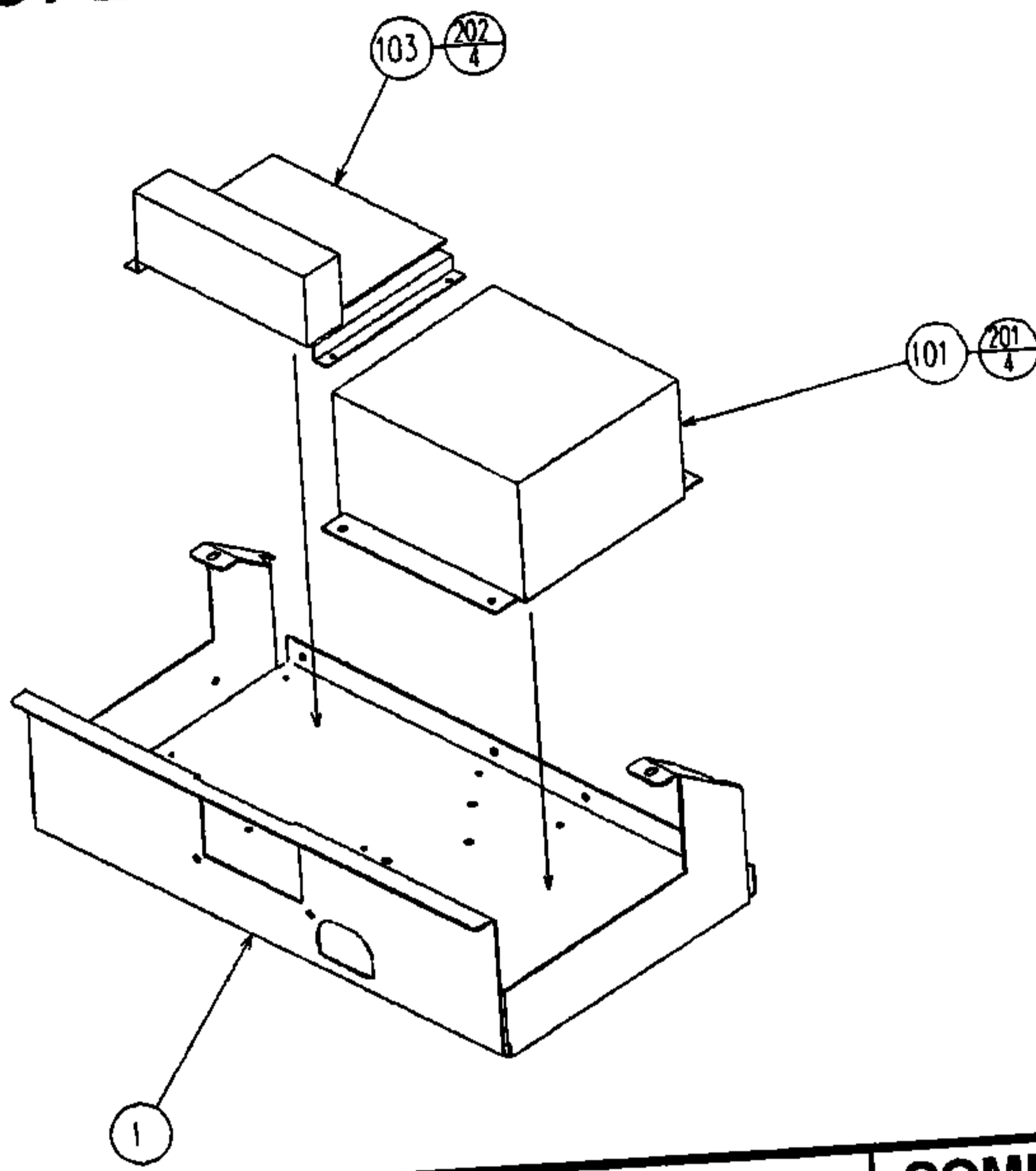
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1451UK	1	I/O BASE	
2	837-13551-92	1	I/O CONTROL BD FOR JVS	
101	838-13739	1	SW BD NAOMICABINET	
102	280-A02048-PM	1	ROUTER TWIST D20 SO4.8 P	[NOT SHOWN]
103	280-A01248-PM	5	ROUTER TWIST D12 SO4.8 P	[NOT SHOWN]
104	280-A00900-A	2	ROUTER TWIST D9 ADH	[NOT SHOWN]
106	280-L00940-PM	3	STANDOFF 9L 4mm HOLE PAN	(MONITOR REMOTE BOARD)-3
107	280-L00709-OS	3	STANDOFF 7OD 4ID 9L	(101)-3
201	000-P00320-W	7	M3X20 MSCR POSI PAN W/FS	(2)-4,(101)-3
301	NOA-60021	1	WIRE HARN ANALOG CONTROL	[NOT SHOWN]
302	NOA-60022UK	1	WIRE HARN SW CONTROL	[NOT SHOWN]
303	NOA-60023	1	WIRE HARN I/O BD PWR	[NOT SHOWN]
304	NOA-60024	1	WIRE HARN SPEAKER L	[NOT SHOWN]
305	NOA-60025	1	WIRE HARN SPEAKER R	[NOT SHOWN]
306	HOD-60201UK	1	WIRE HARN COIN 1/2 5V	ATTACH TO COIN INPUTS OF (302) [NOT SHOWN]

8.9. NOA-1500UK ASSY FRONT PANEL



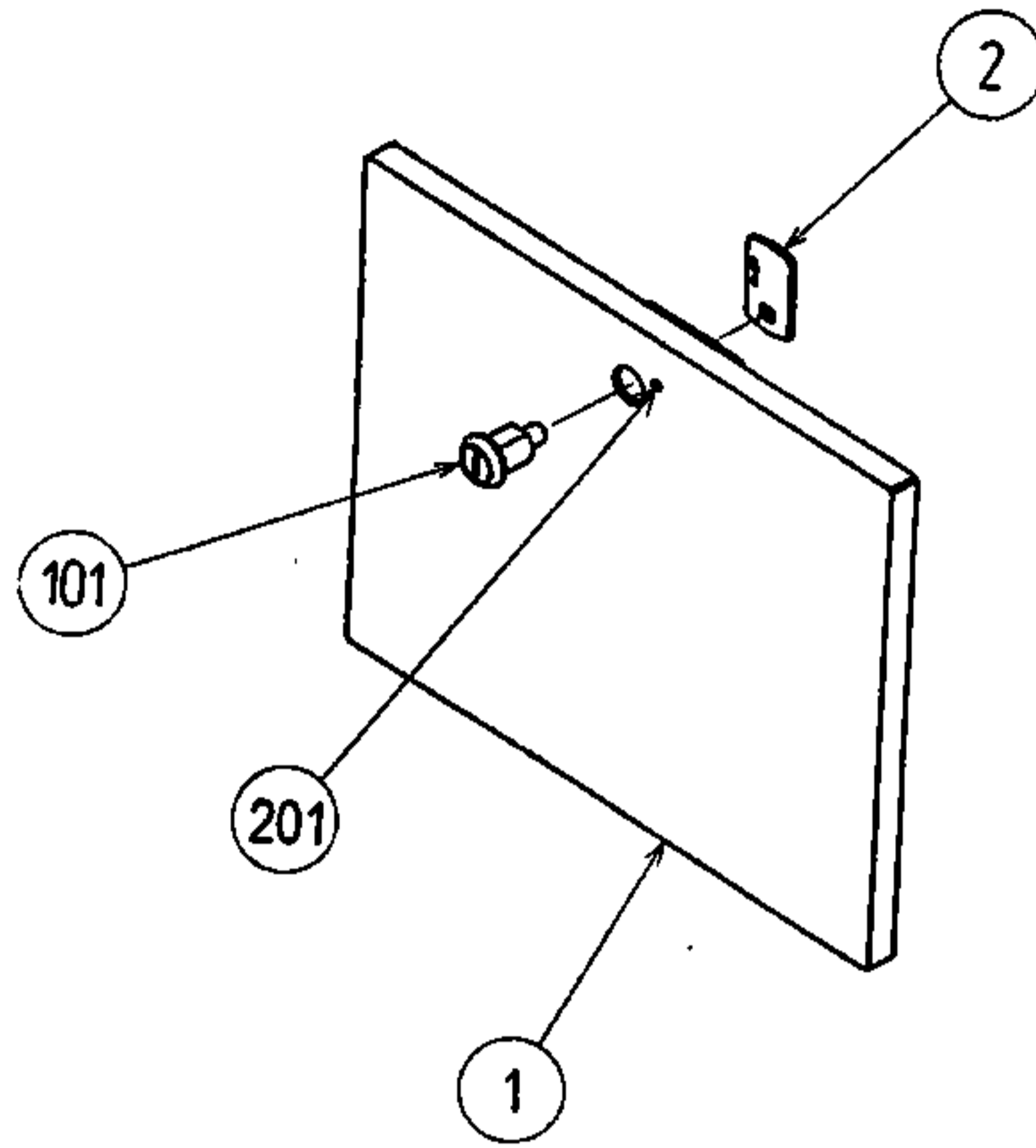
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1500UK-S	1	ASSY FRONT PANEL UK	NOA-1501 + NOA-1502 AS AN ASSY
3	NOA-1503	1	LIGHT COVER	
4	NOA-1504UK	1	PRISM PLATE	<i>Orange</i>
5	NOA-1505	1	LID GCS <i>White Plastic</i>	
6	NOA-1506	2	LID VMS	CLIP-IN
7	NOA-1507	1	EMBLEM NAOMI	
201	000-P00412-W	5	M4X12 MSCR POSI PAN W/FS	(5)-5
202	FX0159	4	N6X5/8" S/TAP POSI PAN B	(4)-4

8.10. NOA-4000UK ASSY ELEC



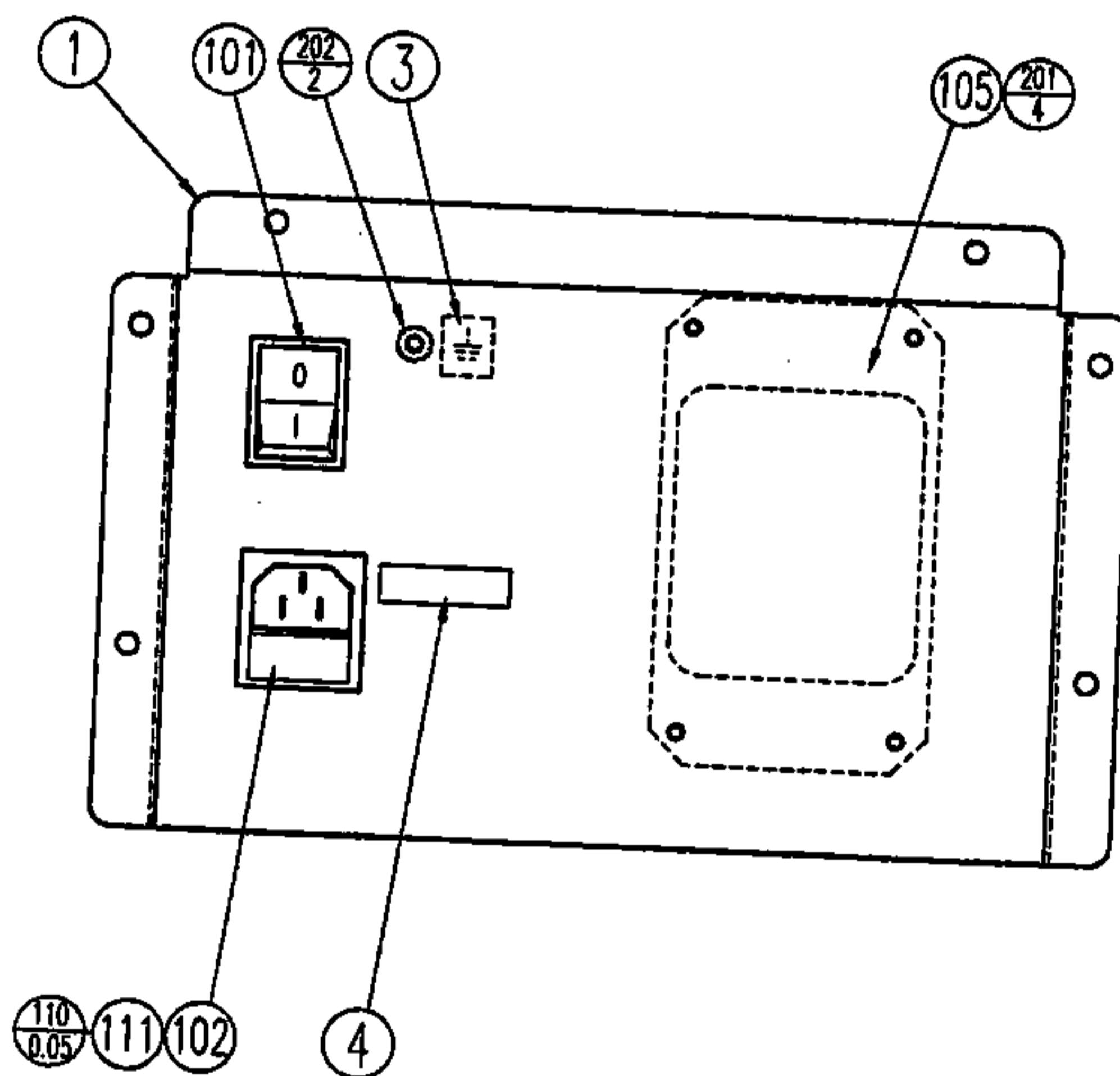
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-4001X	1	ELEC BASE	
101	400-5397	1	SW REGU FOR JVS	
103	838-13616	1	AUDIO POWER AMP 2CH	[NOT SHOWN]
107	280-A02048-PM	4	ROUTER TWIST D20 SO4.8 P	BACK EDGE IN MIDDLE [NOT SHOWN]
108	601-6231-B095	1	EDGE TRIM NEW TYPE 0.91t	[NOT SHOWN]
109	EP1317	2	FERRITE CORE ROUND CABLE	SW REGU INLET-1, OUTLET-1 [NOT SHOWN]
110	280-A01248-PM	2	ROUTER TWIST D12 SO4.8 P	[NOT SHOWN]
111	280-A02000-A	1	ROUTER TWIST D20 ADH	[NOT SHOWN]
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]

8.11. NOA-1750UK ASSY SERVICE DOOR



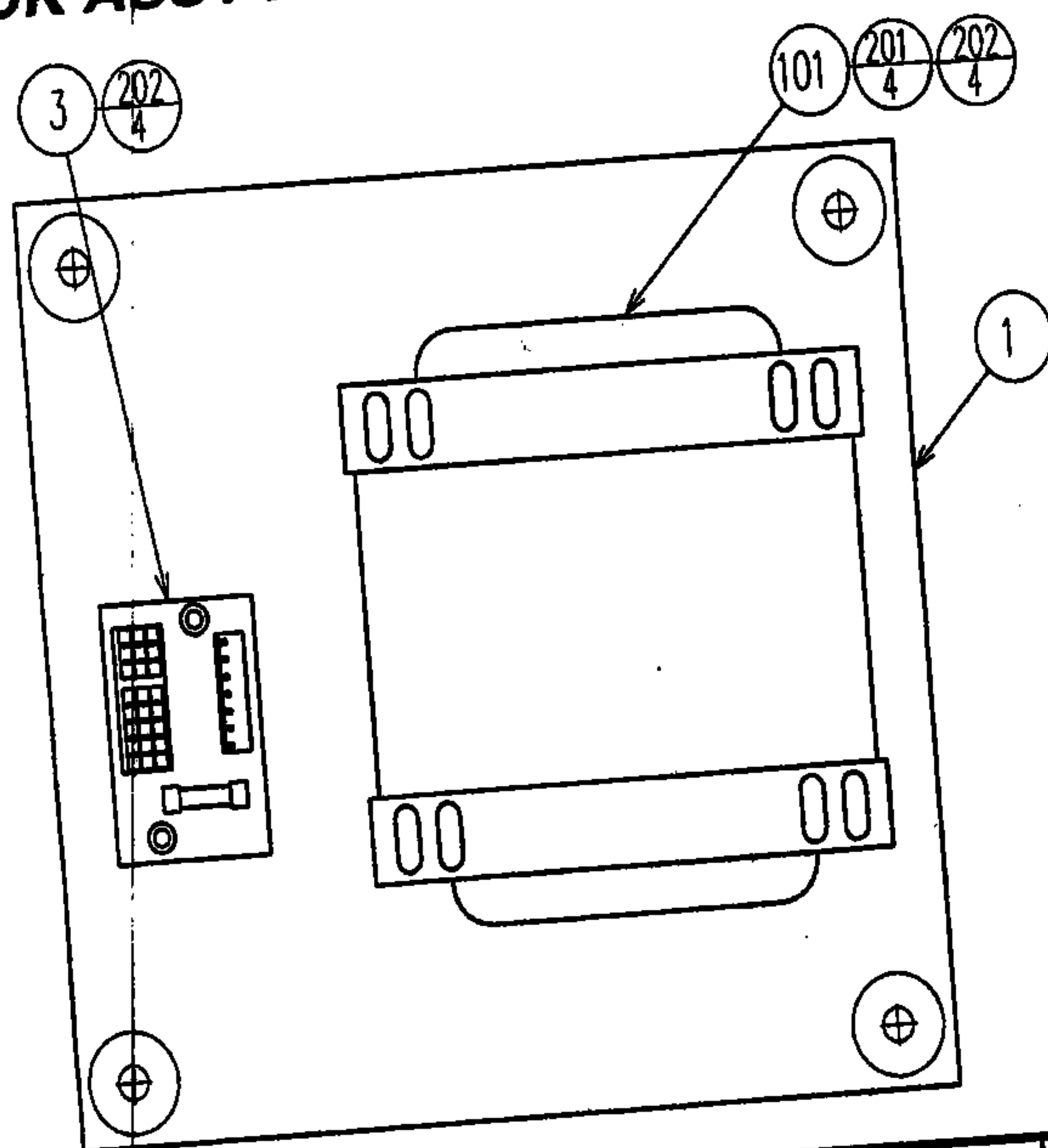
No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1751UK	1	SERVICE DOOR	
2	DP-1167UK	1	TNG LKG UK	
101	220-5575UK	1	LOCK	
201	008-T00430-0C	1	M4X30 MSCR TMP PRF TH CR	INSERT HALF WAY SO TNG OPENS

8.12. NOB-1700UK ASSY AC UNIT



No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOB-1701UK	1	AC BRKT	
3	LB1096	1	STICKER PROTECTIVE EARTH	
4	421-6595-5000-T	1	STICKER FUSE 5000mA TYPE	NEXT TO EARTH STUD ON INSIDE
101	SW1021	1	SWITCH ROCKER 250V AC	NEXT TO IEC INLET ON OUTSIDE
102	EP1302	1	EUROSOCKET FUSED 10A 250	
105	EP1379	1	FILTER EMI 10A ARCOTRONI	
110	310-5029-D508	0.05	HEAT SHRINK SLEEVING 50.	
111	514-5078-5000	1	FUSE 5X20 CERAMIC SB 500	(102)-0.05m
201	000-P00308-W	4	M3X8 MSCR POSI PAN W/FS	(102)-1
202	050-F00400	2	M4 NUT FLG	(105)-4
301	NOB-60001UK	1	WIRE HARN AC BRKT (NOB)	EARTH - 2
302	NOB-60004UK	1	WIRE HARN AC OUT	
303	600-9030-45K	1	WIRE HARN EARTH 300mm M4	AC BRKT TO XFMR
304	600-9080-45K	1	WIRE HARN EARTH 800mm M4	BASE TO RH FRAME (BOTTOM)
305	600-9025-44K	1	WIRE HARN EARTH 250mm M4	AC BRKT TO BASE

8.13. 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	(101)-4
202	FX0301	4	M4 WSHR 16OD FLT BZP	(3)-2
203	FX0151	2	N4X1" S/TAP POSI PAN BZP	

8.14. NOB-6001UK ASSY WIRE L

No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
101	601-0460-RUK	10	CABLE TIE 100mm X 2mm ON	
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	I/O BASE TO LH FRAME (TOP)
306	600-9075-45K	1	WIRE HARN EARTH 750mm M4	BASE TO LH FRAME (BOTTOM)
307	600-9055-45K	1	WIRE HARN EARTH 550mm M4	

8.15. NOB-6002UK ASSY WIRE R

No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
101	601-0460-RUK	10	CABLE TIE 100mm X 2mm ON	
301	NOB-60041UK	1	WIRE HARN AC EXT UK	

8.16. NOB-INST-COM ASSY INSTALLATION KIT NOB

No.	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
1	NOA-1409UK	1	SHEET INST SPACE	
3	NOA-1303UK	1	POP SHEET NOA	
5	PK0209	1	INST KIT BOX NOB COM	
6	OS1019	1	SELF SEAL BAG 9X12.3/4	
11	NOA-1405	1	FLAP	
101	540-0006-01	1	WRENCH M4 TMP PRF	ATTACH TO REJECT COVER
102	540-0015-01	1	WRENCH M6 TMP PRF	
103	514-5078-5000	1	FUSE 5X20 CERAMIC SB 500	
201	000-P00416-W	4	M4X16 MSCR POSI PAN W/FS	SPARE
202	031-000416-OC	6	M4X16 CRG BLT CRM	GAMEBOARD FIXING-4
203	050-F00400	6	M4 NUT FLG	CONTROL PANEL - 6
301	NOA-60061	1	WIRE HARN EXT 2L6B	CONTROL PANEL - 6
302	600-7141-250	1	CABLE JVS TYPE A-B 250CM	
303	600-7175-01	1	WIRE HARN VMS 1P	SPARE
304	600-7175-02	1	WIRE HARN VMS 2P	SPARE
305	NOB-60203UK	1	WIRE HARN EMC EMISSIONS	SPARE
401	420-6455-01UK	1	SERVICE MANUAL NAOMI COM	GAMEBOARD R.FOOT TO XFMR
403	420-5787	1	SERVICE MANUAL NANA0 MS-	

9. APPENDIX A - ELECTRICAL SCHEMATIC

9.1. WIRE COLOURS

THE WIRE COLOUR CODE IS AS FOLLOWS:

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

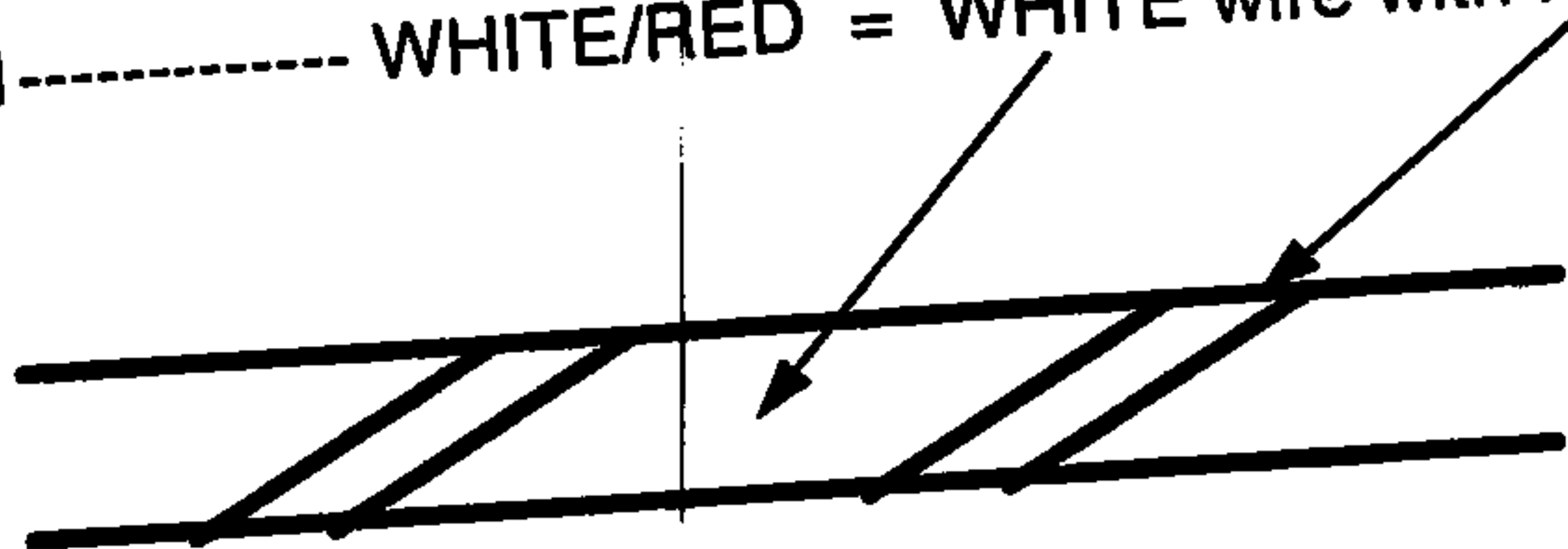
Wires other than those of any of the colours listed above will be displayed by 2 alphanumeric characters:

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

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

Note 1: If the right hand side alphanumeric is not 0, that particular wire has a spiral colour code. The left hand side character shows the base colour and the right hand side one, the spiral colour.

[Example] 51----- WHITE/RED = WHITE wire with RED stripes

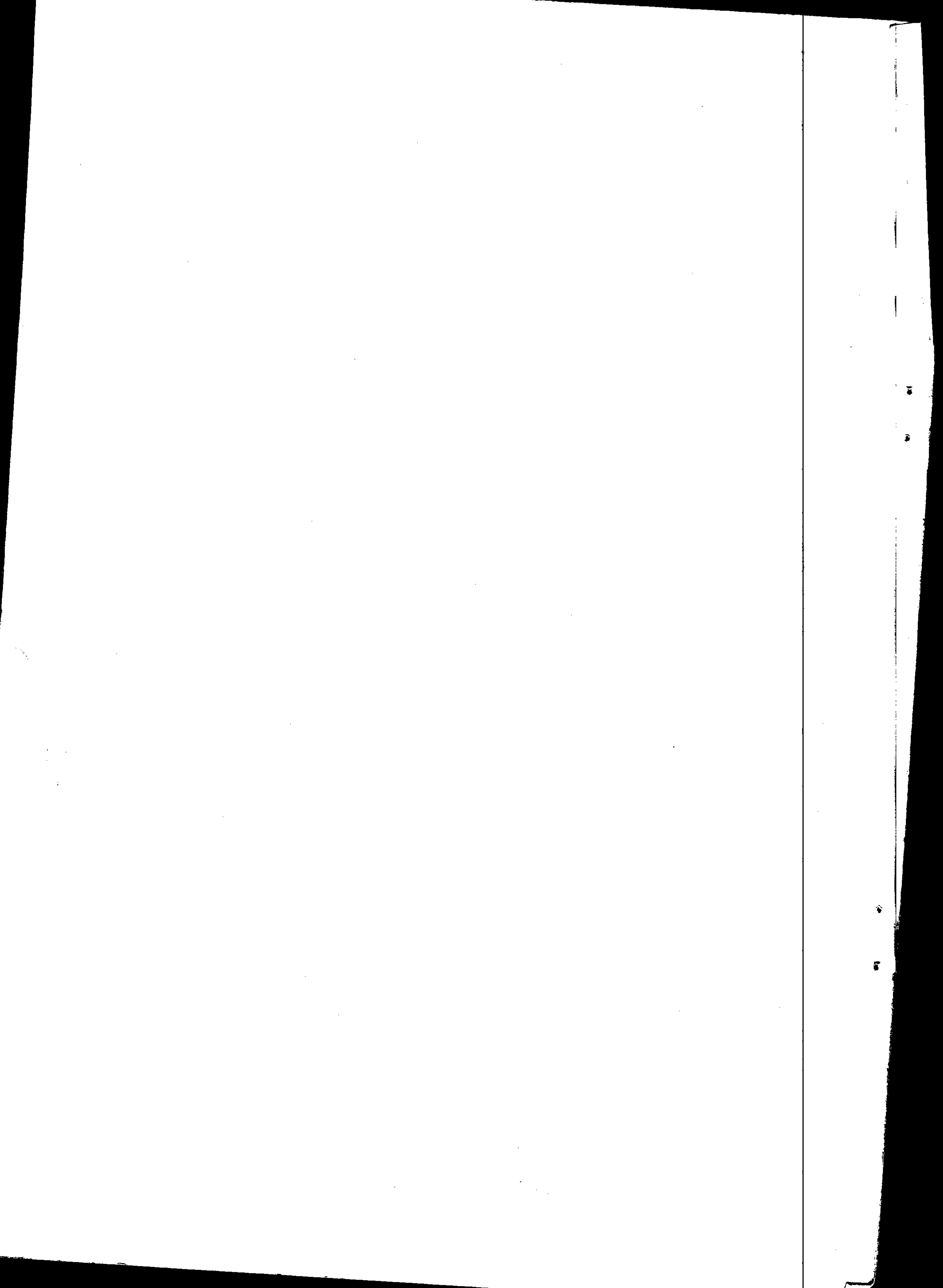


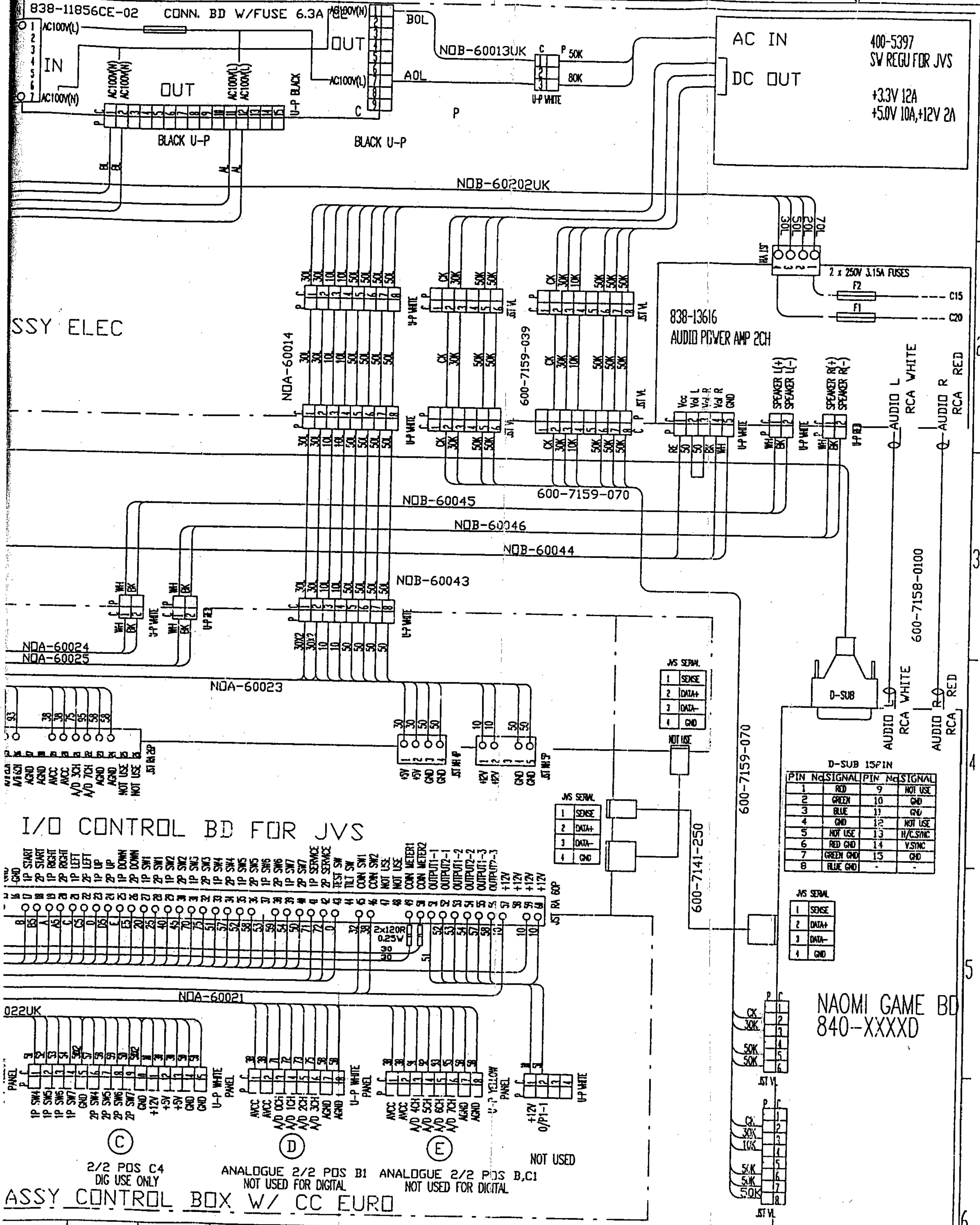
Note 2: The character following the wire colour code indicates the size of the wire.

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

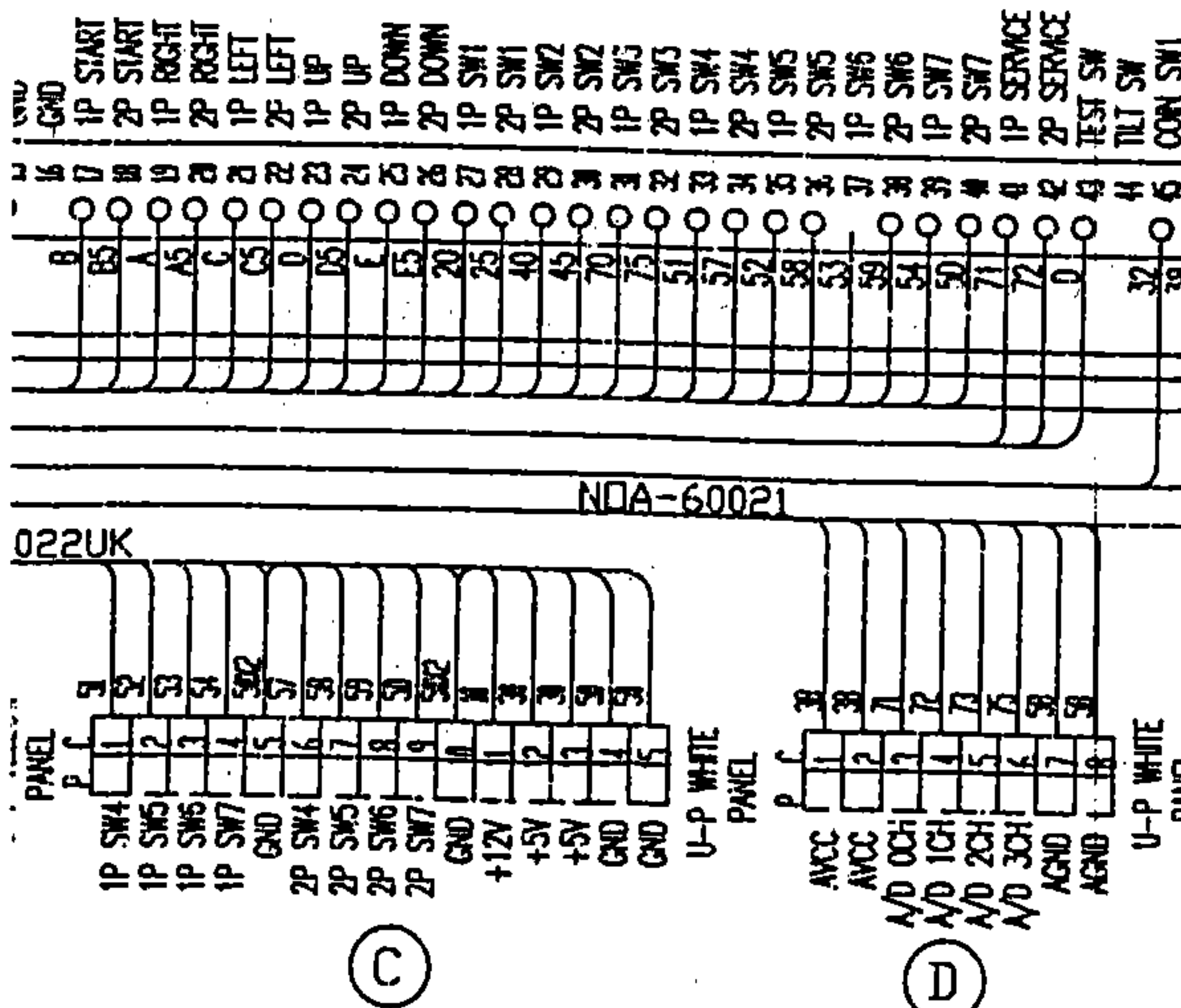
9.2. ELECTRICAL SCHEMATIC

The following pages contains the electrical schematic for this machine.





I/O CONTROL BD FOR JVS



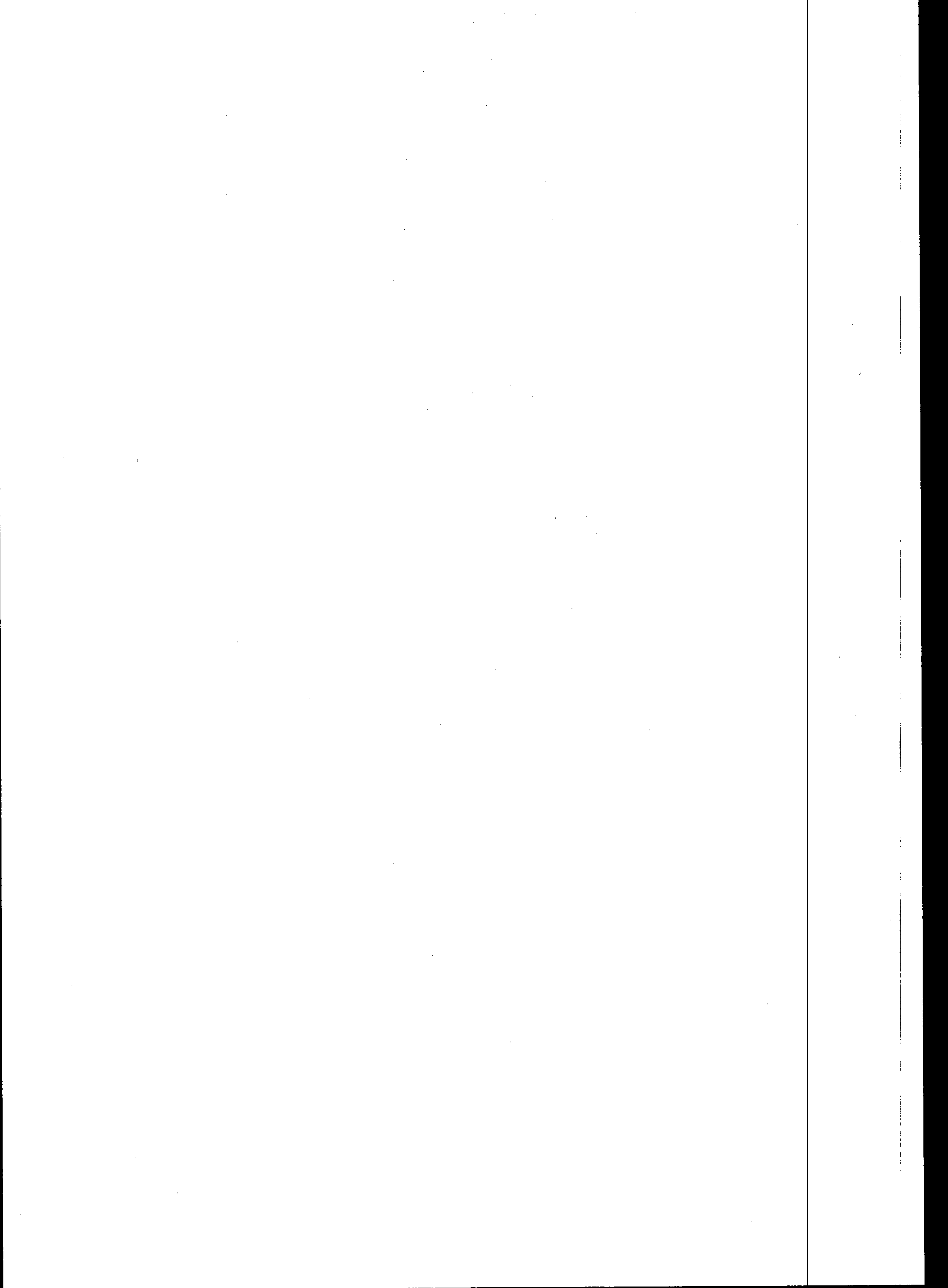
ASSY CONTROL BOX W/ CC EURO

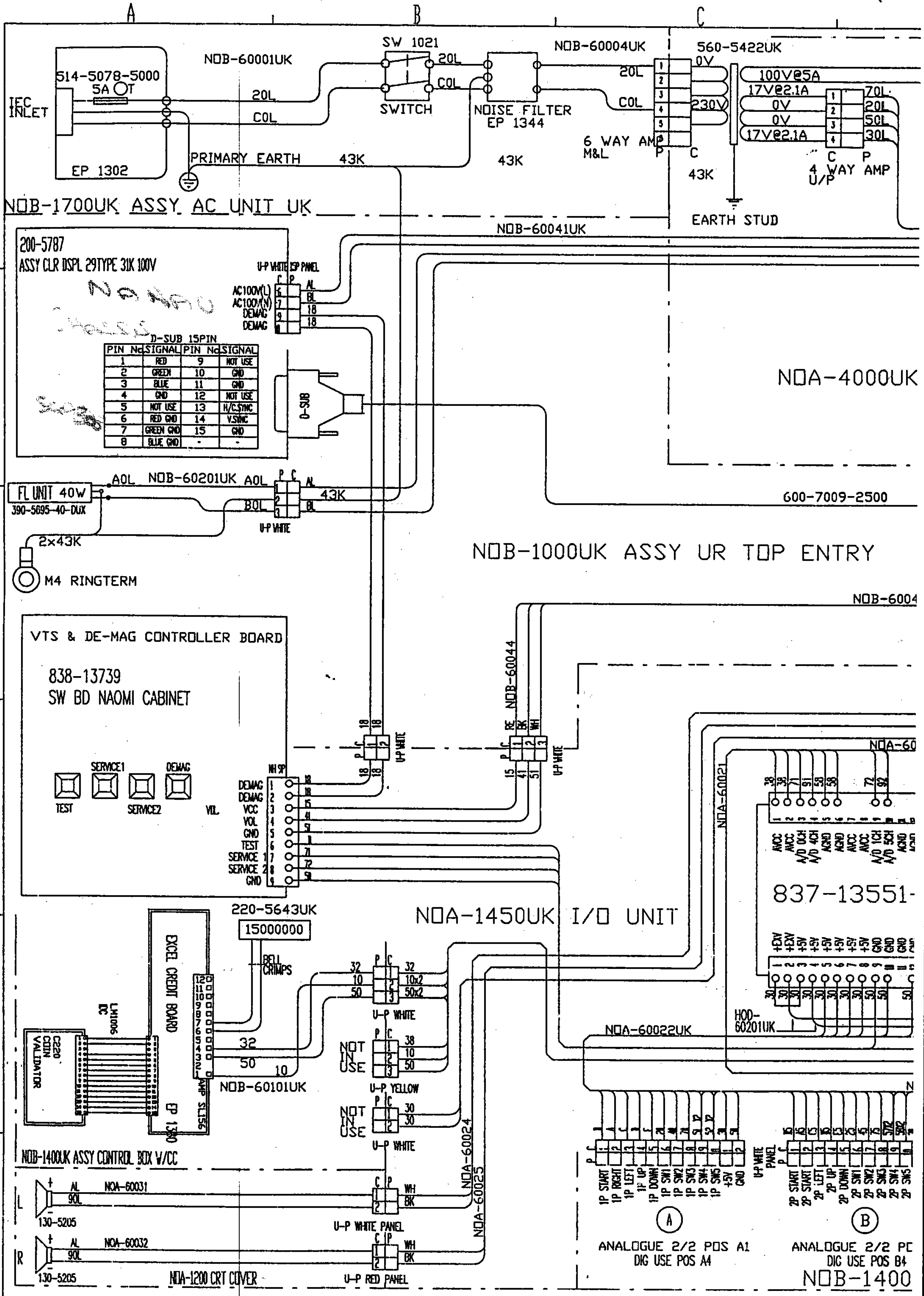
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16/04/99			



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D-SUB 15PIN

PIN No	SIGNAL	PIN No	SIGNAL
1	RED	9	NOT USE
2	GREEN	10	GND
3	BLUE	11	GND
4	GND	12	NOT USE
5	NOT USE	13	H/C SYNC
6	RED GND	14	V SYNC
7	GREEN GND	15	GND
8	BLUE GND		

VTS & DE-MAG CONTROLLER BOARD

1	DE-MAG
2	DE-MAG
3	VCC
4	VOL
5	GND
6	TEST
7	SERVICE 1
8	SERVICE 2
9	GND

WIRE COLOR

8	BLACK	E	LIGHT GREEN	N	EARTH WIRE
7	ORANGE	D	PURPLE	U	AVG16 UL1005
5	WHITE	C	BROWN	X	AVG18 UL1015
4	GREEN	B	SKY BLUE	L	AVG20 UL1027
3	YELLOW	A	PINK		AVG22 UL1007
2	BLUE		GRAY		
1	RED				

NOB-0000UK

