SEGA

PRIMEVAL HUNT

OWNERS MANUAL

SEGA

420-0004-01UK

OWNER'S MANUAL

IMPORTANT

- Before using this product, read this manual carefully to understand the contents herein stated.

- After reading this manual, be sure to keep it near the product or in a convenient place for easy reference when necessary.

BEFORE USING THIS PRODUCT

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

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

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

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

In order to prevent accidents warning stickers and printed instructions are applied in the places where a potentially hazardous situation relating to the product could arise. Be sure to comply with these warnings.

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

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

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

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

Ensure that the correct fuses are fitted to the machine. Details of these are enclosed in the Service Manual.

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

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

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

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

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

To ensure maximum safety for customers and operators, stickers and printed instructions describing potentially hazardous situations are applied to potentially hazardous locations. Ensure that the product's operating location has sufficient lighting to allow any warnings to be read. If any sticker or printed warning is removed or defaced, do not operate the machine until an identical item has replaced it.

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

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

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

The contents described herein are fully prepared with due care. However, should any question arise or errors be found please contact **SEGA AMUSEMENTS EUROPE LTD**.
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TABLE OF CONTENTS

INTRODUCTION

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

This manual is intended for the owners, personnel and managers in charge of operation of the product. Operate the product after carefully reading and sufficiently understanding the instructions
.
In the unlikely event that the product does not function correctly, DO NOT allow anyone other than a technician to touch the internal system. Turn off the power to the machine, making sure to unplug the electrical cord from the outlet, and contact the office listed below or the point of purchase for this product.

Use of this product is unlikely to cause physical injuries or damage to property. However, points that require special attention are indicated by bold text, the word "IMPORTANT" and the symbol below.

(STOP) **IMPORTANT**

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

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SPECIFICATIONS

MACHINE DETAILS

Width :	1540mm	(60.5 inches)
Depth :	1750 mm	(69 inches)
Height :	2200 mm	(86.6 inches
Weight :	**303 kg**	**(668 lbs)**
Max. Power, Current :	460 W.	2 Amps
Ave. Power, Current :	448 W.	
Voltage :	220 - 230 Vac	50Hz
Monitor Type :	62" DLP Type Colour Display.	

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

Definition of 'Site Maintenence Personnel or Other Qualified Individuals

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(STOP) IMPORTANT

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

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

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

Site maintenance personnel:
Individuals with experience in maintaining amusement equipment, vending machines, etc., working under the supervision of the owner/operator of this product to maintain machines within amusement facilities or similar premises by carrying out everyday procedures such as assembly, maintenance inspections, and replacement of units/expendable parts.

Activities to be carried out by site maintenance personnel:
Amusement equipment/vending machine assembly, maintenance inspection and replacement of units/expendable parts.

Other qualified professionals:
Persons employed by amusement equipment manufacturers, or involved in design, production, testing or maintenance of amusement equipment. The individual should have either graduated from technical school or hold similar qualifications in electrical/electronics/mechanical engineering.

Activities to be carried out by other qualified professionals:
Amusement equipment/vending machine assembly, repair/adjustment of electrical/electronic/mechanical parts.

1 HANDLING PRECAUTIONS

When installing or inspecting the machine, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.
Non-compliance with the following points or inappropriate handling running counter to the cautionary matters herein stated can cause personal injury or damage to the machine.

⚠ WARNING

- Before performing work, be sure to turn the power off. Performing the work without turning the power off can cause an electric shock or short circuit. In the case work should be performed in the status of power on, this manual always states to that effect.

- To avoid an electric shock or short circuit, do not plug in or unplug quickly.

- To avoid an electric shock, do not plug in or unplug with a wet hand.

- Do not expose power cords or earth wires on the surface, (floor, passage, etc.). If exposed, the power cords and earth wires are susceptible to damage. Damaged cords and wires can cause an electric shock or short circuit.

- To avoid causing a fire or an electric shock, do not put things on or damage the power cords.

- When or after installing the product, do not unnecessarily pull the power cord. If damaged, the power cord can cause a fire or an electric shock.

- In case the power cord is damaged, ask for a replacement through where the product was purchased from or the office herein stated. Using the cord as is damaged can cause fire, an electric shock or leakage.

- Be sure to perform grounding appropriately. Inappropriate grounding can cause an electric shock.

- Be sure to use fuses meeting the specified rating. Using fuses exceeding the specified rating can cause a fire or an electric shock.

- Be sure that connections such as IC BD are made properly. Insufficient insertion can cause an electric shock.

- Specification changes, removal of equipment, conversion and/or addition, not designated by SEGA are not permitted.

- Failure to observe this may cause a fire or an electric shock. Non-compliance with this instruction can have a bad influence upon physical conditions of the players or the onlookers, or result in injury during play.

- SEGA shall not be held responsible for damage, compensation for damage to a third party, caused by specification changes not designated by SEGA.

- If work or parts replacement not indicated in this manual is carried out, an accident may occur. If it is necessary to carry out work not indicated in this manual, be sure to have it done by the office indicated in this manual or by the point of purchase. Also, please inquire regarding details of the work involved.

- Be sure to perform periodic maintenance inspections herein stated.

• For the IC board circuit inspections, only the logic tester is allowed. The use of a multiple-purpose tester is not permitted, so be careful in this regard.

• When cleaning the CRT surfaces, use a soft and dry cloth. Do not apply chemicals such as thinners, benzene, etc.

• Static electricity from your body may damage some electronics devices on the IC board. Before handling the IC board, touch a grounded metallic surface so that the static electricity can be discharged.

• Do not turn the power on and off continuously. Repeatedly turning the power on and off may cause product malfunction or parts damage.

• Some parts are not designed and manufactured specifically for this game machine. The manufacturers may discontinue, or change the specifications of such general-purpose parts. If this is the case, SEGA cannot repair or replace a failed game machine whether or not a warranty period has expired.

CONCERNING THE STICKER DISPLAY

This SEGA product has stickers attached describing the product manufacture No. (Serial No.) and Electrical Specifications. It also has a Sticker describing where to contact for repair and for purchasing parts.
When inquiring about or asking for repairs, mention the Serial No. and Name of Machine indicated on the Sticker. The Serial Number indicates the product register. Identical machines could have different parts depending on the date of production. Also, improvements and modifications might have been made after the publication of this manual. In order to ensure you order the correct parts, mention the Serial No. when contacting the applicable places.

CONCERNING THE WARNING LABELS

This SEGA product has warning displays on stickers, labels and/or printed instructions adhered/attached to or incorporated in the places where a potentially hazardous situation could arise. The warning displays are intended for accident prevention for customers and for avoiding hazardous situations relating to maintenance and servicing work. Some portions of the cabinet contain high voltage and may cause accidents if touched.
When performing maintenance, be very careful of the warning displays. It is especially important that any complex repair and replacement work not mentioned herein should be performed by those technical personnel who have knowledge of electricity and technical expertise. In order to prevent accidents, caution any customer ignoring the warnings to cease and desist immediately
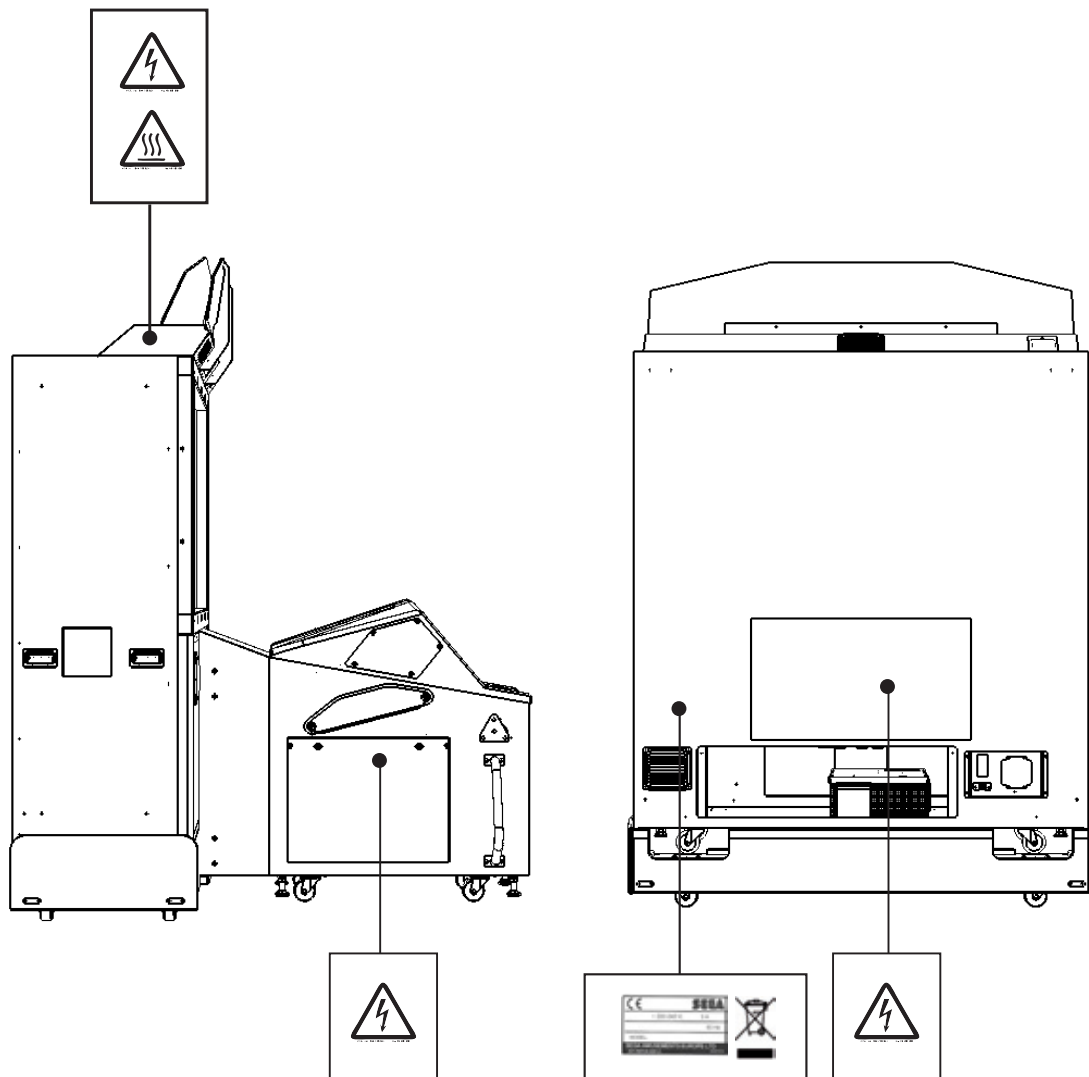
2 PRECAUTIONS REGARDING INSTALLATION LOCATION

⚠ **WARNING**

This product is an indoor game machine. Do not install it outside. Even indoors, avoid installing in places mentioned below so as not to cause a fire, electric shock, injury and/or malfunction.

- Places subject to rain or water leakage, or places subject to high humidity in the proximity of an indoor swimming pool and/or shower, etc.
- Places subject to direct sunlight, or places subject to high temperatures in the proximity of heating units, etc.
- Places filled with inflammable gas or vicinity of highly inflammable/volatile chemicals or hazardous matter.
- Dusty places.
- Sloped surfaces.
- Places subject to any type of violent impact.
- Vicinity of anti-disaster facilities such as fire exits and fire extinguishers.
- Areas where the temperature exceeds the applicable temperature (ambient temperature) range of 5 to 30 degrees centigrade.

2-1 LIMITATAION OF USE

⚠ **WARNING**

Be sure to check the Electrical Specifications. Ensure that this product is compatible with the location's power supply, voltage, and frequency requirements. A plate describing Electrical Specifications is attached to the product. Non-compliance with the Electrical Specifications can cause a fire and electric shock.

This product requires a breaker and earth mechanism as part of the location facilities. Using the product without these can cause a fire and electric shock.

Ensure that the indoor wiring for the power supply is rated at 15 A or higher (AC single phase 100 V ~ 120 V area), and 7 A or higher (AC 220 V ~ 240 V area). Non-compliance with the Electrical Specifications can cause a fire and electric shock.

Be sure to use an independent power supply equipped with an earth leakage breaker. Using a power supply without an earth leakage breaker can cause an outbreak of fire if a power surge occurs.

Putting many loads on one electrical outlet can cause generation of heat and a fire resulting from overload.

When using an extension cord, ensure that the cord is rated at 15 A or higher (AC 100 V ~ 120 V area) and 7 A or higher (AC 220 V ~ 240 V area). Using a cord rated lower than the specified rating can cause a fire and electric shock.

2-2   OPERATIONAL AREA

⚠ WARNING

- For the operation of this machine, secure a minimum area of 2.6 m [W] x 3 m [D].
  The dimensions of the base periphery are established in consideration of ventilation, maintenance and customer passage. And if they fall and hit their head, there could be a very serious injury. Be sure to always secure enough space as prescribed in this manual.

- Be sure to provide sufficient space specified in this manual. Do not allow objects to block the ventilation ports. It can cause generation of heat and a fire.

- SEGA shall not be held responsible for damage or compensation for damage to a third party, resulting from the failure to observe this instruction.

(STOP) IMPORTANT

In order to transport the machine into a building, the minimum necessary dimensions of the opening (of doors, etc,) are 0.8m, (W) and 2m, (H).

20cm   20cm

3m - (9.8ft)

2.6m - (8.5ft)

2-2 Fig 01

20cm

2-2 Fig 02
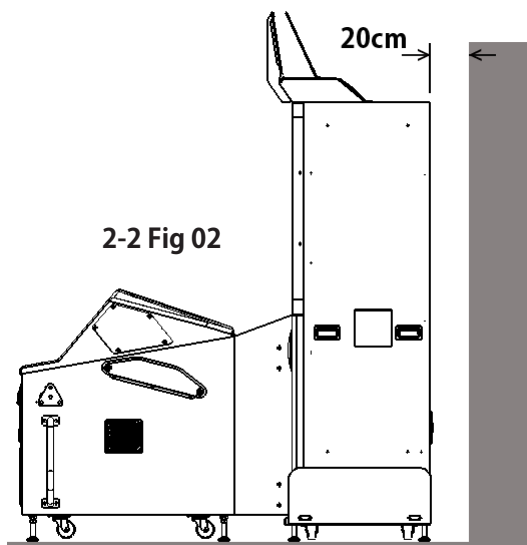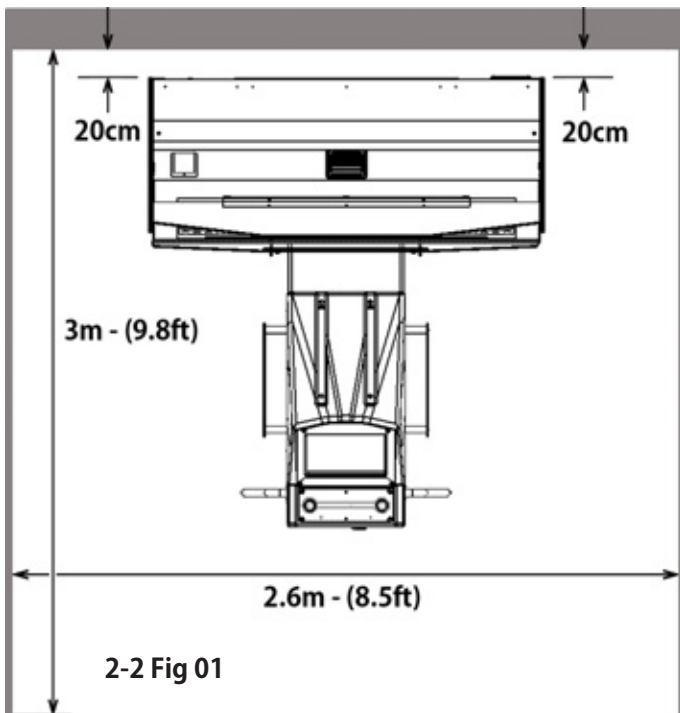
Before leaving the machine after Installation, make sure that the Castor Lift Adjusters are firmly positioned on the ground and that the machine is totaly stable.

3 PRECAUTIONS REGARDING PRODUCT OPERATION

3-1 BEFORE OPERATION

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

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⚠ WARNING

In order to avoid accidents, check the following before starting the operation:

To ensure maximum safety for the players and the customers, ensure that where the product is operated has sufficient lighting to allow any warnings to be read.

Operation under insufficient lighting can cause bodily contact with each other, hitting accident, and/or trouble between customers.

Be sure to perform appropriate adjustment of the monitor (projector). For operation of this machine, do not leave monitor's flickering or deviation as is. Failure to observe this can have a bad influence upon the players' or the customers' physical conditions.

It is suggested to ensure a space allowing the players who feel sick while playing the game to take a rest

Do not put any heavy items on this product. Placing any heavy item on the product can cause an accident or parts damage if it falls.

Do not climb on the product. Climbing on the product can cause an accident by falling. To check the top portion of the product, use a step ladder.

To avoid electric shock, short circuit and / or parts damage, do not put the following items on or in the periphery of the product.

Flower vases, flower pots, cups, water tanks, cosmetics, receptacles or vessels containing chemicals or water.

Check that all of the adjusters are in contact with the floor surface. If they are not, the cabinet can move and cause an accident.
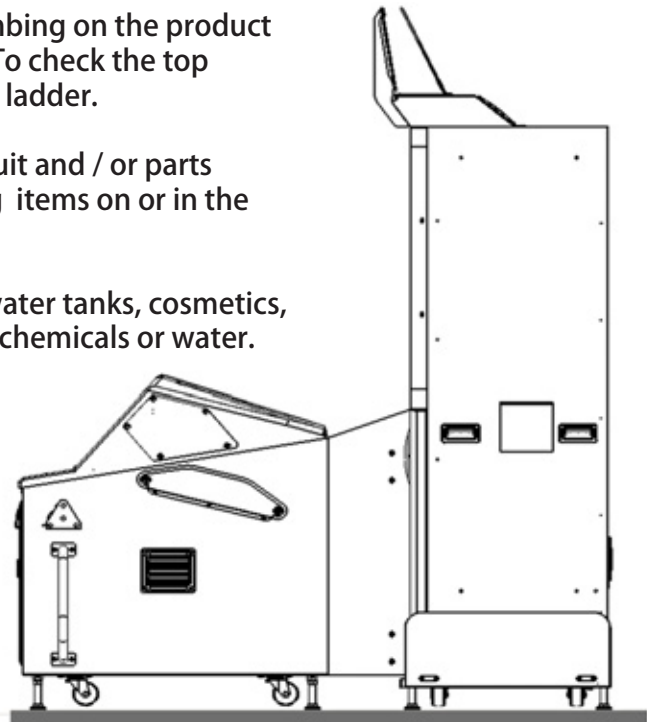
⚠CAUTION

● During daily cleaning be sure to check the surface of the Guns and other parts that the player touches with his hands for damage, cracks or loose screws. If a player uses the machine while it is damaged, cracked or has a loose screw, the player may become injured.

● During daily cleaning, be sure to check the 'Touch Panel' for any abnormality, wetness, stickiness, etc. Failure to do this may result in deliberate tampering or negligence being left undetected.

● To avoid injury, be sure to provide sufficient space by considering the potentially crowded situation at the installation location. Insufficient installation space can cause contact, collisions and or trouble between customers.

● Do not attempt to clean this product using pressurised equipment such as a jet wash or hose. If for any reason this product becomes wet, do not use until it has completely dried.

(STOP) IMPORTANT

Players hold the controller with their bare hands so it is recommended that wet towels (paper towels) be provided.

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

⚠ WARNING

● For safety reasons, do not allow any of the following people to play the game.
   · Those who need assistance when walking.
   · Those who have high blood pressure or heart problems.
   · Those who have a neck or spinal cord problem.
   · Those who have experienced muscle convulsion or loss of consciousness while playing video games, etc.
   · Those who are intoxicated or under the influence of drugs.
   · Pregnant women.
   · Those who are not in good health.
   · Those who do not follow the attendants instructions.
   · Those who cannot grasp the controller unit securely because of immobility in fingers, hands or arms.
   · Persons who disregard the products warning labels.

● Even players who have never been adversely affected by light stimulus might experience dizziness or headaches depending on their physical condition when playing the game. Small children are especially likely to experience these symptoms. Caution guardians of small children to keep watch on their children during play.

● Instruct those who feel sick during pay to seek medical advice or examination.

● To avoid injury from falling objects or electric shock hazard from split drinks, instruct the player not to place drinks or heavy items on the product.

● To avoid electric shock hazard and short circuit hazard, do not allow customers to put hand or fingers or any other extraneous matter in to the openings of the product or small openings on or around the doors.

● To avoid falls resulting in injury, immediately stop the customer from leaning against or climbing on the product.

● To avoid electric shock and/or short circuit hazard, do not allow customers to unplug the power plug without a justifiable reason.

⚠CAUTION

Immediately stop such violent acts as hitting and kicking the product. Such violent acts can cause parts damage or cause the cabinet to fall over, resulting in injury.

4 PART DESCRIPTIONS

BILLBOARD

62" DPL MONITOR

SPEAKERS

15" TOUCH PANEL

CONTROL PANEL

COIN DOOR

CASH BOX DOOR

VIDEO CABINET AND BASE

CABINET SPACER

GUN HOLDER

GUN ASSEMBLY CONSOLE

EXTRACTOR FAN

AC UNIT
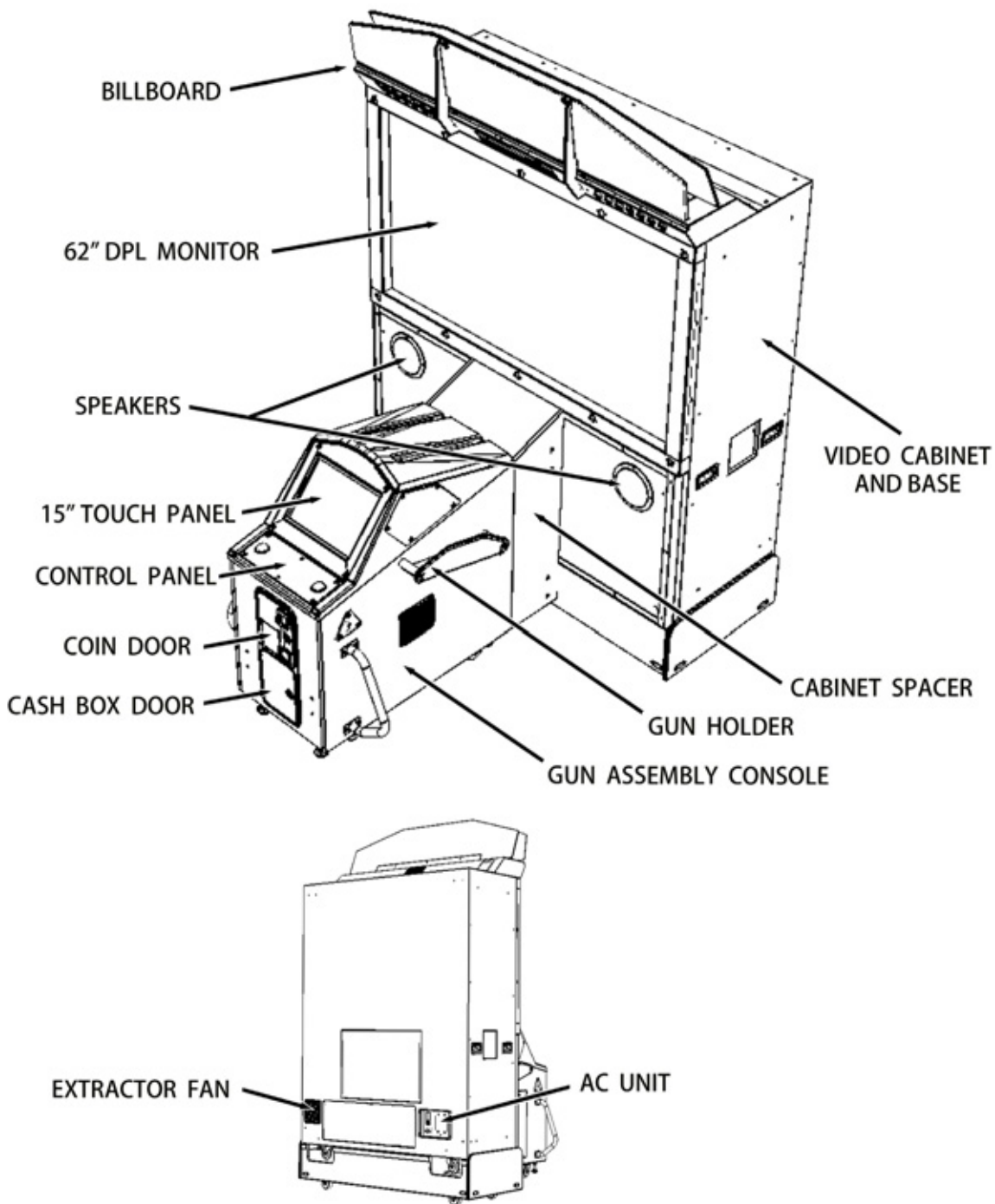
ITEM	WIDTH (cm)	DEPTH (cm)	HEIGHT (cm)	WEIGHT (kg)
VIDEO CABINET	1540	600	2250	202
GUN CONSOLE	810	1150	935	80
BILLBOARD	1540	510	385	21
WHEN ASEMBLED	1540	1750	2250	303

5 ACCESSORIES

Confirm that the accessories list in the table below are present when setting up the product. Accessories marked "Spare" in the note column are consumable items but included as spares.

TABLE 5A - ACCESSORIES

DESCRIPTION   OWNERS MANUAL
PT NUMBER (QTY)   420-0004-01UK (1)
NOTE   This Manual
Parts not labeled with part numbers are as yet unregistered or cannot be registered.
Be sure to handle all parts with care, as some parts are not available for purchase as separate items.

KEY MASTER
220-5575UK (4)
For opening/closing the doors

KEY (2)
CASHBOX DOOR

LINDBERGH RED SERVICE MANUAL
420-7032-A001 (1)
Explanation of built in Game Board

MAINS LEADS
LM1227   (1xUK)
LM1246   (1xEURO)

TAMPER PROOF SCREW WRENCH
M4   540-0006-01 (1)
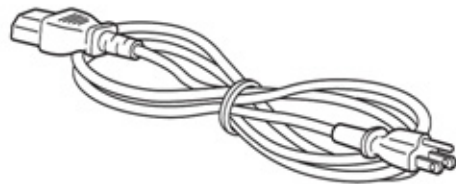
SEQ	NUMBER	DESCRIPTION	QUANTITY
404	540-0006-01	WRENCH M4 TMP PRF	1
405	420-7032-01UK	LINDBURGH RED MANUAL	1
408	OS1019	SELF SEAL BAG 9 x12. 3/4	2
409	440-CS0186UK	STICKER C - EPILEPSY MULTI	1
411	LM1227	UK MAINS LEAD 10A WITH PLUG	1
412	LM1246	EUROLEAD 10A EUROPEAN SOCKET	1
417	ADH-PO18-2UK	INST DECAL MULTI	1
002	ADH-0550UK	ASSEMBLY BILLBOARD BOX	1
		REMOTE CONTROL for 62" DPL	1

Confirm that the accessories list in the table below are present when setting up the product.
Accessories marked "Spare" in the note column are consumable items but included as spares.

TABLE 5B - ACCESSORIES

To order a duplicate "GAME DISC" DVD only, Please quote the following :
Part Number : 610-0726-0048 : DVD SOFT ADH

KEY CHIP (1)

CUSHION SPONGE
601-11137 (1)
Protective Material

GAME DISC (1)

DISC CASE
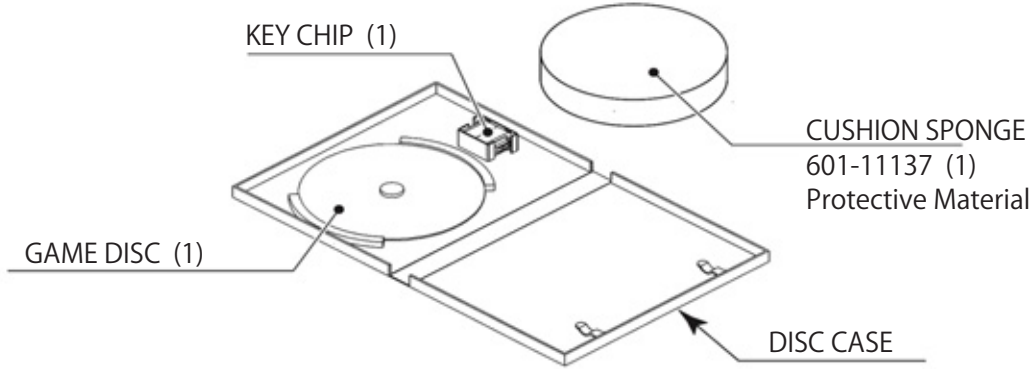
NOTE : The KEY CHIP has been already fitted into the LINDBERGH Game Board and the GAME SOFTWARE has been pre-installed. Only use the "GAME DISC" DVD when necessary, for some reason such as replacing the LINDBERGH. However to Install the Software you will require a DVD DRIVE and USB Cable (mini type). If you do not have these available, a "DVD DRIVE KIT" has been made available for purchase from your supplier.
See below for kit details.

TABLE 5C   XKT-1515-01 : DVD DRIVE KIT FOR LINDBERGH.
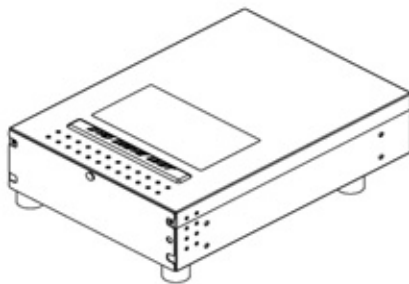
SERVICE MANUAL
420-6923-01 (1)

DVD DRIVE
610-0719-01-91 (1)
For software installation.
See "Chapter 17"

DVD WIRE
605-0094 (1)
For software installation.

6 ASSEMBLY & INSTALLATION

⚠ WARNING

- This work should be carried out by site maintenance personnel or other qualified professionals. Work performed by non-technical personnel can cause a severe accident such as electric shock. Failing to comply with this instruction can cause a severe accident such as electric shock to the player during operation. If no one with proper technological expertise is available, request service from the office indicated in this document or the point of purchase so as to ensure safety.

- Perform assembly work by following the procedure herein stated. Failure to comply with the instructions can cause electric shock.

- Perform assembling as per this manual. Since this is a complex machine, incorrect assembling can cause an electric shock, machine damage and/or improper functioning as per specified performance.

- When assembling, more than one person is required. Depending on the assembly work, there are some cases in which working by one person alone can cause personal injury or parts damage.

- Ensure that connectors are properly connected. Improper connections can cause electric shock.

- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a risk of fire.

- Provide sufficient space so that assembling can be performed. Performing work in places with narrow space or low ceiling may cause an accident and assembly work to be difficult.

- To perform work safely and avoid serious accident such as the cabinet falling down, do not perform work in places where step-like grade differences, a ditch, or slope exist.

- Do not leave power cords, ground wires or network cables in areas of heavy foot traffic. Doing so may cause them to become damaged, possibly resulting in electric shock and/or short circuits. When leaving wiring across a floor, always use a safety covers to protect the wires. (Wiring diameter : Power Cables - approx 0.8, Network Cable approx 0.5)

- The power cord for this product has a ground terminal. Make sure to use this ground termination when plugging it into an indoor outlet. Failure to ground the product could lead to electrocution. It can also cause malfunction.

- Do not use connectors other than those connected to and used by the game board at the time of shipment. Do not connect wires to unused connectors. This could cause the generation of heat or smoke, or a burnout.

⚠ CAUTION

- Wear appropriate work clothing so that work can be performed safely. Use gloves and safety shoes to prevent accidents or injuries.

- When installing a wire protection cover over a floor, use a material shaped so that no one passing by will stumble over it. Using a material that could be stumbled over might lead to an accidental fall.

- Handle plastic parts with care. Excessive weight or pressure may cause them to break and the broken pieces may cause injury.

- When opening/closing, attaching/removing doors or lids, be careful that your hands or fingers etc, does not get caught in the apparatus.

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

6-1   GENERAL ASSEMBLY INFORMATION

6-2   FITTING THE BILLBOARD AND POP

6-3   FIXING THE GUN CONSOLE TO THE   VIDEO CABINET

6-4   INSTALLATION AND SECURING IN PLACE

6-5   CONNECTING POWER CABLE AND GROUND

6-6   CHECKING ASSEMBLY (SET UP)

TOOLS NECESSARY FOR WORK

6-0 Flg 01

MASTER KEY
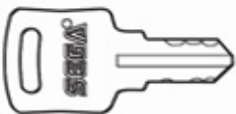
PHILLIPS SCREWDRIVER for M4

**TAMPERPROOF WRENCH
for M4 & M5**

SOCKET HANDLE

M8 SOCKET

WRENCH with 24mm OPENING JAW

24mm
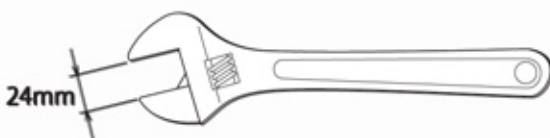
STEP to STAND ON

6-1 GENERAL ASSEMBLY INFORMATION

There are three MAIN Assemblies supplied, that have to be fitted together in order to complete the built of this machine :

    A - Video Cabinet   (Video Cabinet Assembly)
    B - Billboard   (Billboard Assembly)
    C- Console   (Gun Console and Touch Panel Assembly)

(Note that the Video Cabinet 'A' is sub divided into three further component parts : A1 - Video Top,   A2 - Video Base and A3 - Spacer, this will be explained latter.)

B - BILLBOARD

A - VIDEO CABINET

A1 - VIDEO TOP

C - CONSOLE

A2 - VIDEO BASE

A3 - SPACER
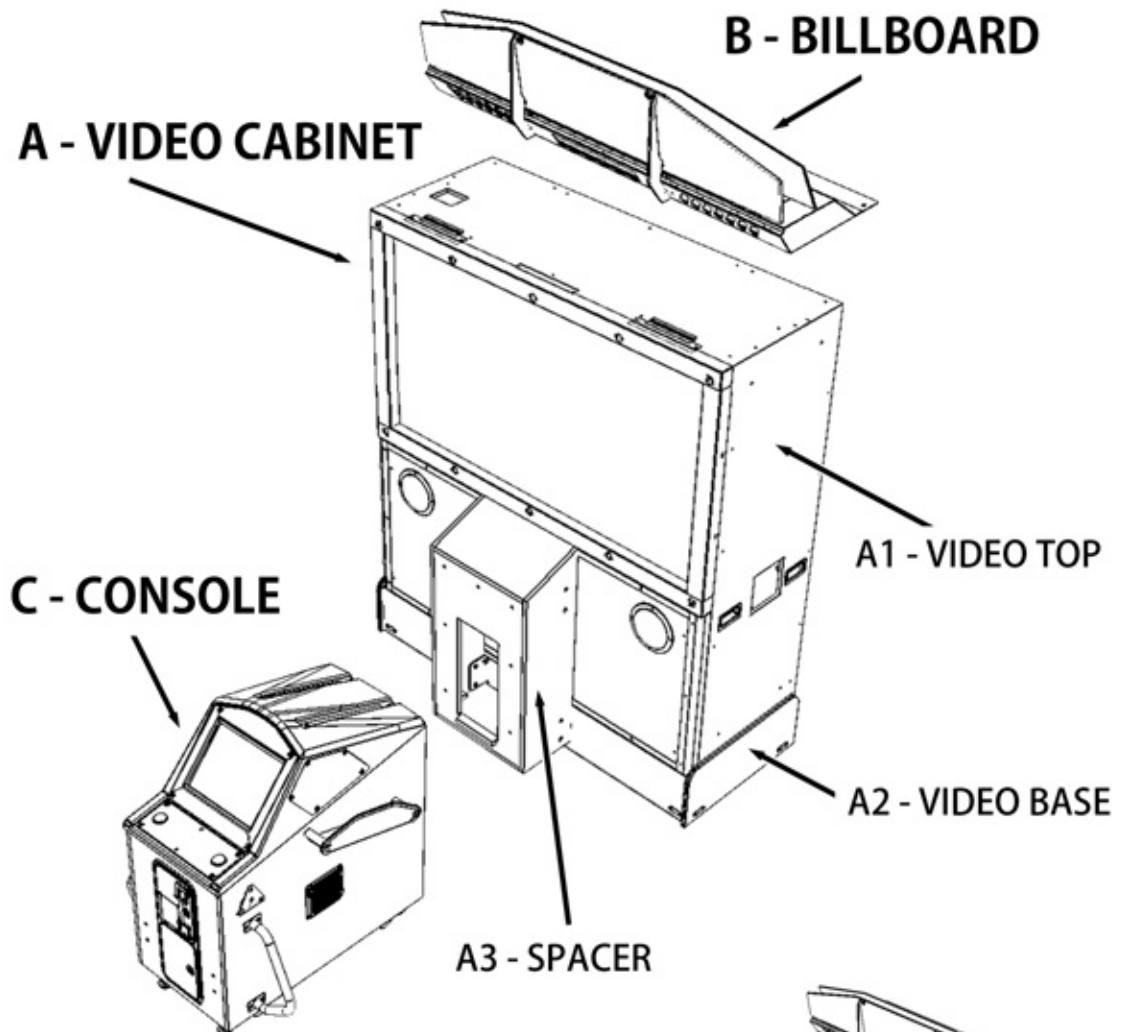
Note : In these Diagrams, the CONSOLE Unit is shown without the GUNS, although the Units will be supplied with Guns already fitted.

COMPLETE UNIT WHEN ASSEMBLED

6-1 Fig 01

> **⚠ WARNING**
>
> **The BILLBOARD weighs 21Kgs (46.3lbs) therefore this installation should not be attempted single handed. It is recommended that three persons undertake this particular section of the installation.**
>
> **WORK SHOULD NOT BE UNDERTAKEN ON TOP OF THE CABINET WITHOUT THE USE OF A SUITABLE STEP OR FOOTSTOOL.**

3-2 Fig 01   Shows the key fixing points to be considered when attaching the BILLBOARD to the VIDEO Cabinet.

3-2 Fig 02   Shows the components to be used during this section of the assembly.

3-2 Fig 03   Shows the assembly completed at the end of this section of the assembly.

6-2 Fig 02

6-2 Fig 01

BILLBOARD

LUG LOCATION POINTS

WIRE HARNESS ACCESS POINTS

FIXING LUGS

VIDEO CABINET
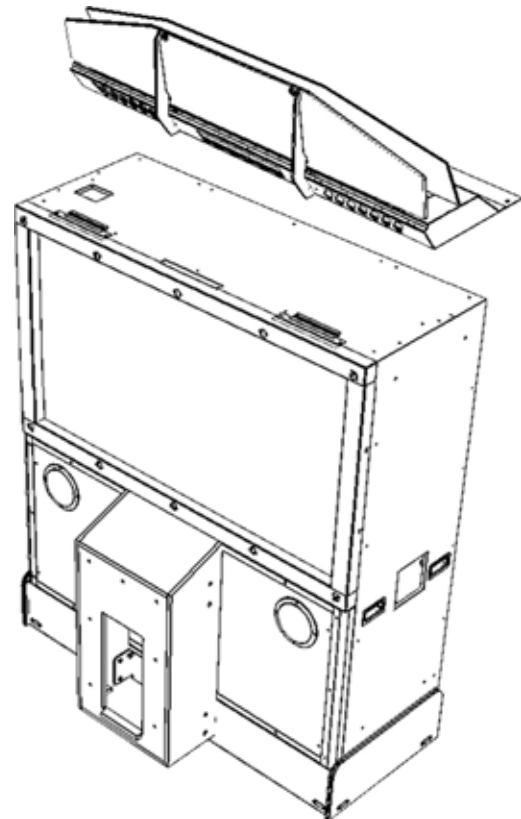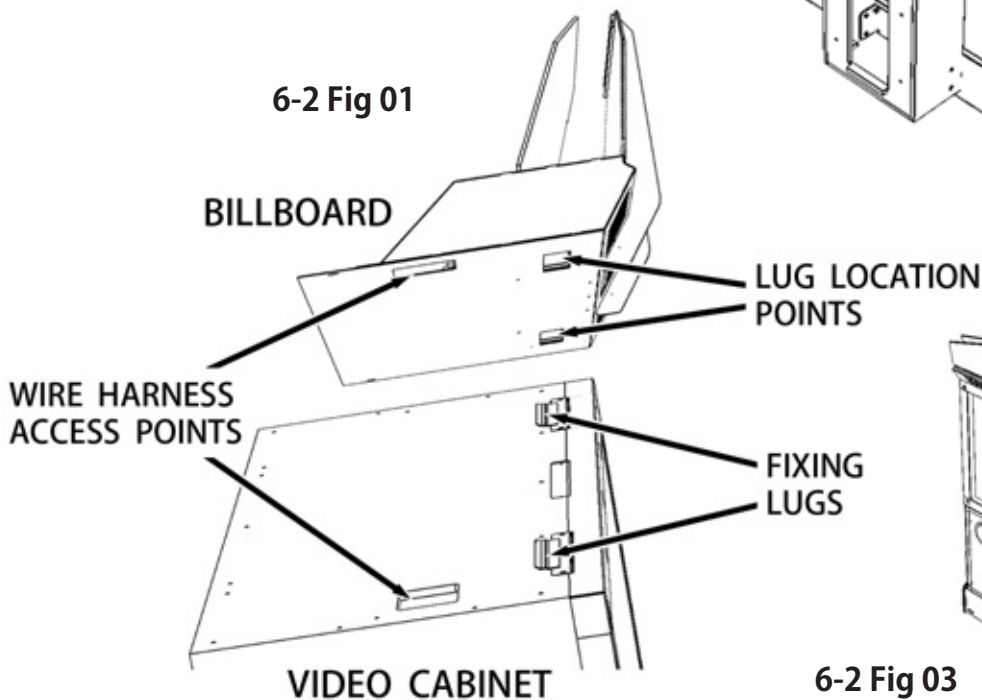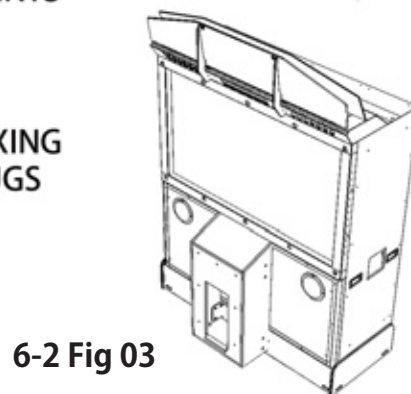
6-2 Fig 03

COMPLETE AT THIS LEVEL

1 Before starting the installation, locate the WIRE HARNESS in Billboard.
See (6-2 Fig 01) for the locations where the Harness will be are found.

Once you have located the harness, get at least two people to lift the Billboard up onto the top of the Video Cabinet. Then with one person supporting the right hand side and the other lifting the left hand side up, locate the harnesses in the billboard and connect it to the connector in the top of the Video Cabinet.

6-2 Fig 04

WIRING
HARNESS
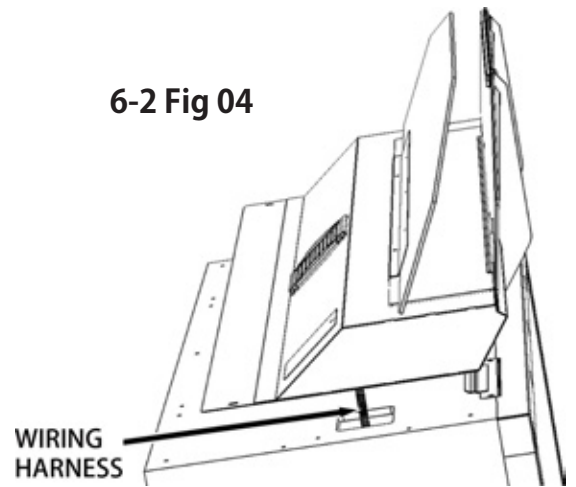
2 Once the Harness are connected, lower the Billboard down onto the top of the cabinet approx 25mm from the front edge of the cabinet making sure that the two Fixing Lugs located towards the front edge, go through the Lug Location Points cutouts the underside of the Billboard.

6-2 Fig 05

LOWER BILLBOARD
ONTO CABINET TOP
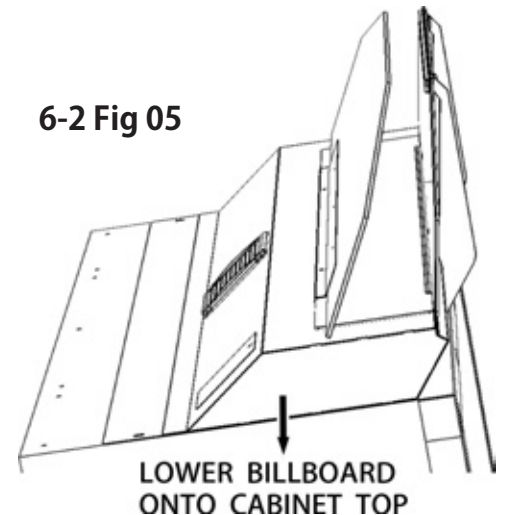
3 When the Billboard sitting flat on top the Cabinet, flush with both sides and the Fixing Lugs through the location cutouts either end of the Billboard base.

Slide the Billboard forward until the bottom edge is flush with the front of the Cabinet. Check that both of the Fixing Lugs have located inside the Billboard and the front is firmly held.

To complete the assembly fit the two fixing screws through the Billboard into the cabinet along the back edge.

INSERT FIXING
SCREWS

6-2 Fig 06

SLIDE BILLBOARD FORWARD
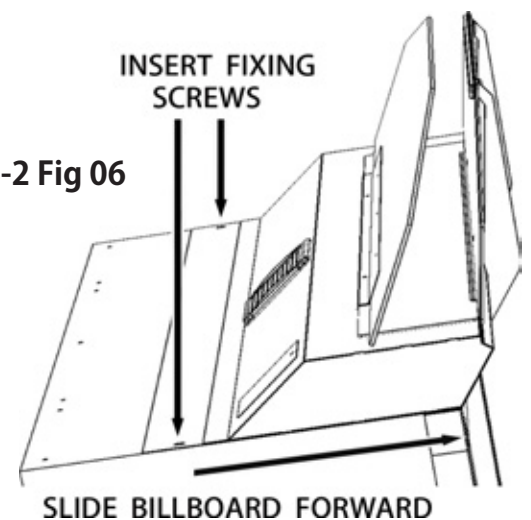
⚠ WARNING

The MAIN VIDEO Cabinet with BILLBOARD Fitted Weights approx 223Kgs (492lbs) therefore a minimum of two people are required when moving this unit. Great care should be taken when handling or moving the unit otherwise personal injury may occur.

Whenever moving the unit, manipulate the movement from either end of the cabinet. Never push or pull the unit from the front or backside, as this can cause the unit to topple over causing damage to the unit and possible injury to any persons in the locality.

The VIDEO CABINET UNIT has three basic cabinet component parts :

A1 - Video Top,   A2 - Video Base   A3 - Spacer   (See 6-1 Fig 01).

A1 the Video Top is only placed on top of A2 the Video Base, there are NO direct fixing between the two units. However there is an indirect fixing between the units via A3 the Spacer, where the bottom fixings are located in the front of the A2 the Base Unit, and the top fixings being located in the front of A1 the Video Unit. This connection helps steady the Unit during transport.

---

1   Position the Video Cabinet in the approx area of operation, allowing room to gain access from all sides.

Remove the eight Fixing Bolts from the SPACER,   (four bolts from each side) and remove the SPACER from the VIDEO CABINET,   keeping the bolts safe.

REMOVE
SPACER

6-3 Fig 01

4 (LHS) + 4 (RHS)
FIXING BOLTS
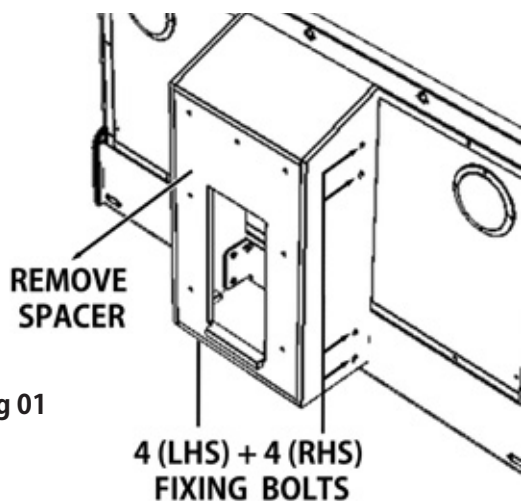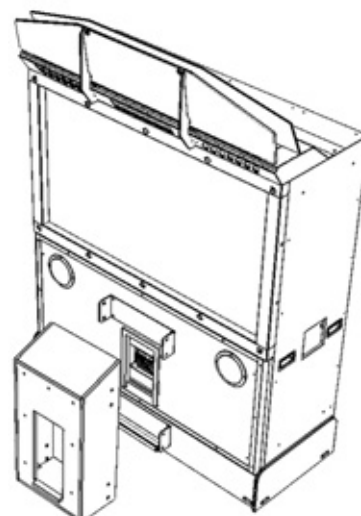
6-3 Fig 02

2 Fitting the GUN CONSOLE and SPACER together.

1. Get the GUN CONSOLE 'C' ready to have the SPACER fitted.

2. Get the SPACER 'A3' and you will see a wooden cleat sticking out from the outside face.

3. Place the outside face of the Spacer against the back face of the Console, with the wooden cleat sitting on the bottom edge of the cut out.

4. Hold in place and fit the seven fixing bolts with flat and spring washers into the locations shown.

1

2

C

A3

4

6-3 Fig 04

3
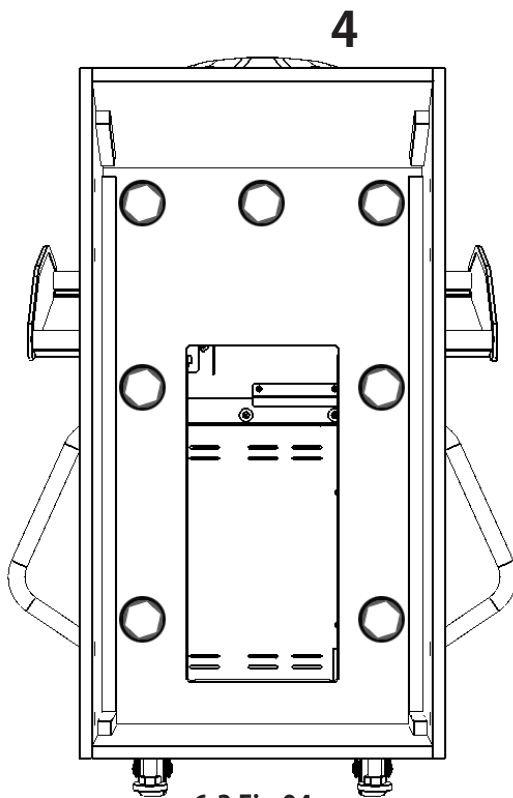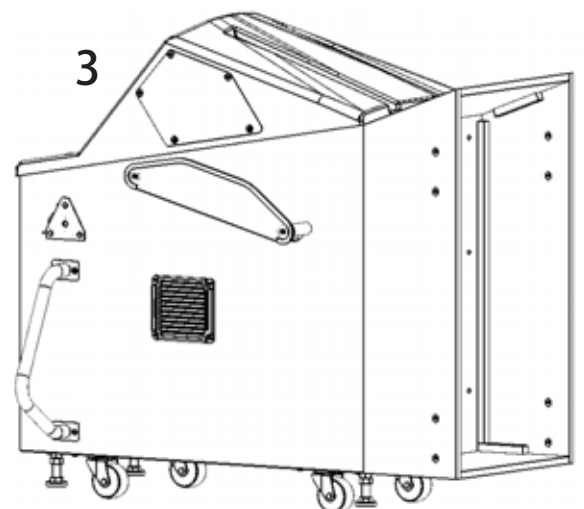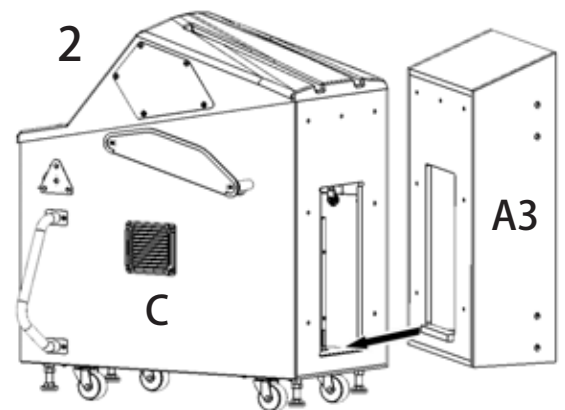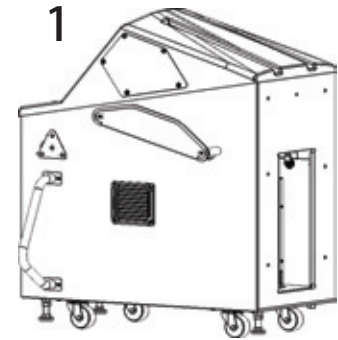
6-3 Fig 03

3 Identifying the VIDEO Cabinet Interconnection cables.

Inside the front of the VIDEO CABINET
you will find a Wiring Harness with several
connectors and also a long Video Cable.

The Wire Harness will connect into a
matching harness that will be found in the
back of the Gun Console.

The Video Cable will pass through into
the Gun Console and connect directly
to the LINBURGH Game board.

You will also find the Common EARTH
Point just inside the opening.

**HARNESS
CONNECTIONS
FOR CONSOLE**
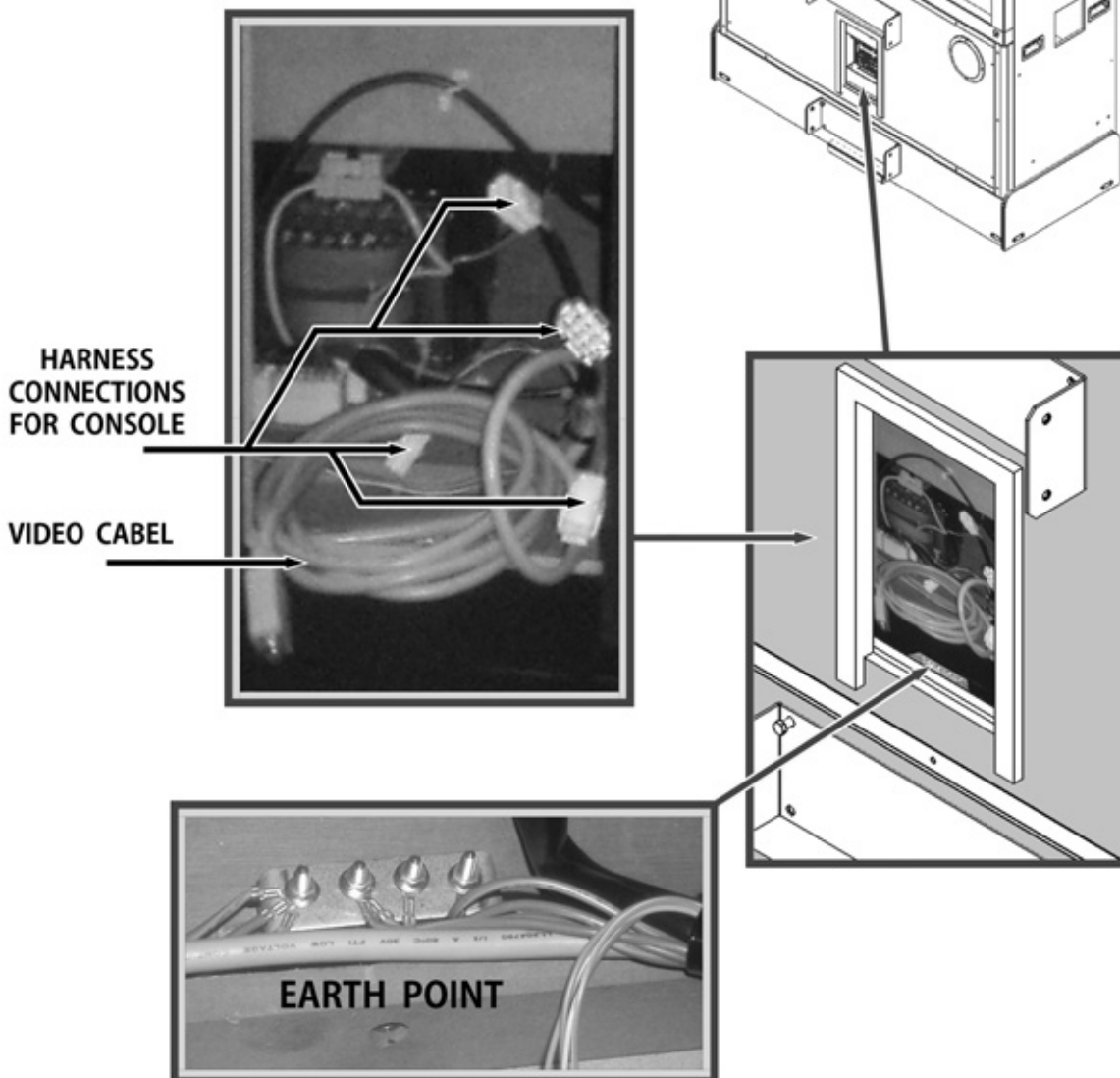
VIDEO CABEL

EARTH POINT

4 Identifying the CONSOLE Cabinet components

In the back of the Console you will find two Grn-Yel Ground wires, these wire must be unwound, passed through to the Video Cabinet and firmly connected to the Common Earth Point.

The Video Cable from the Video Cabinet is feed through the Console and connects to the LINBURGH as indicated below.
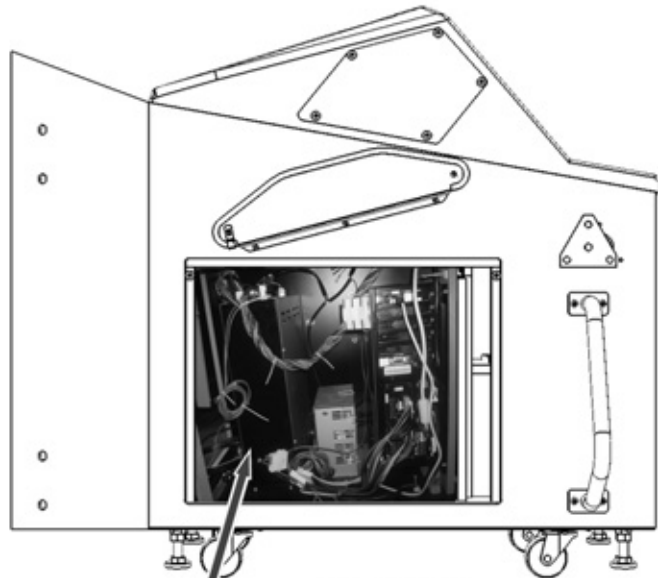
GROUND WIRES

**LINBURGH
GAME BOARD**

**INPUT & OUTPUT
CONTROL BOX**

POWER SUPPLY

VIDEO CABEL FROM VIDEO CABINET CONNECTS HERE

5 Connecting the GUN CONSOLE to the VIDEO CABINET.

A1 Free up the VIDEO Cable located in the Video Cabinet, pass it through into the CONSOLE connecting it to the LINBURGH Game Board. See 6-3 Fig 06.

A2 Free up the Grn-Yel Ground wires located in the back of the CONSOLE. See 6-3 Fig 06, and run them through to the VIDEO Cabinet connecting them securely to the EARTH POINT located just inside the Cabinet.

A3 Locate the Connection Harness fitted in both the VIDEO Cabinet and the GUN CONSOLE, and connect them together (Like to Like).

B When all the connection have been made secure. Tuck the spare cable into the SPACER move it towards the VIDEO Cabinet

C Line up the CONSOLE with the VIDEO Cabinet so that the fixing brackets are located inside the SPACER.

D Close the Gap between both VIDEO Cabinet and CONSOLE and refit the 8 Bolts with both Flat And Spring Washers earlier removed.

'A'

VIDEO CABLE

'B'

8x FIXING BOLTS fitted with
FLAT and SPRING WASHERS
(4 Each Side)

'C'

'D'
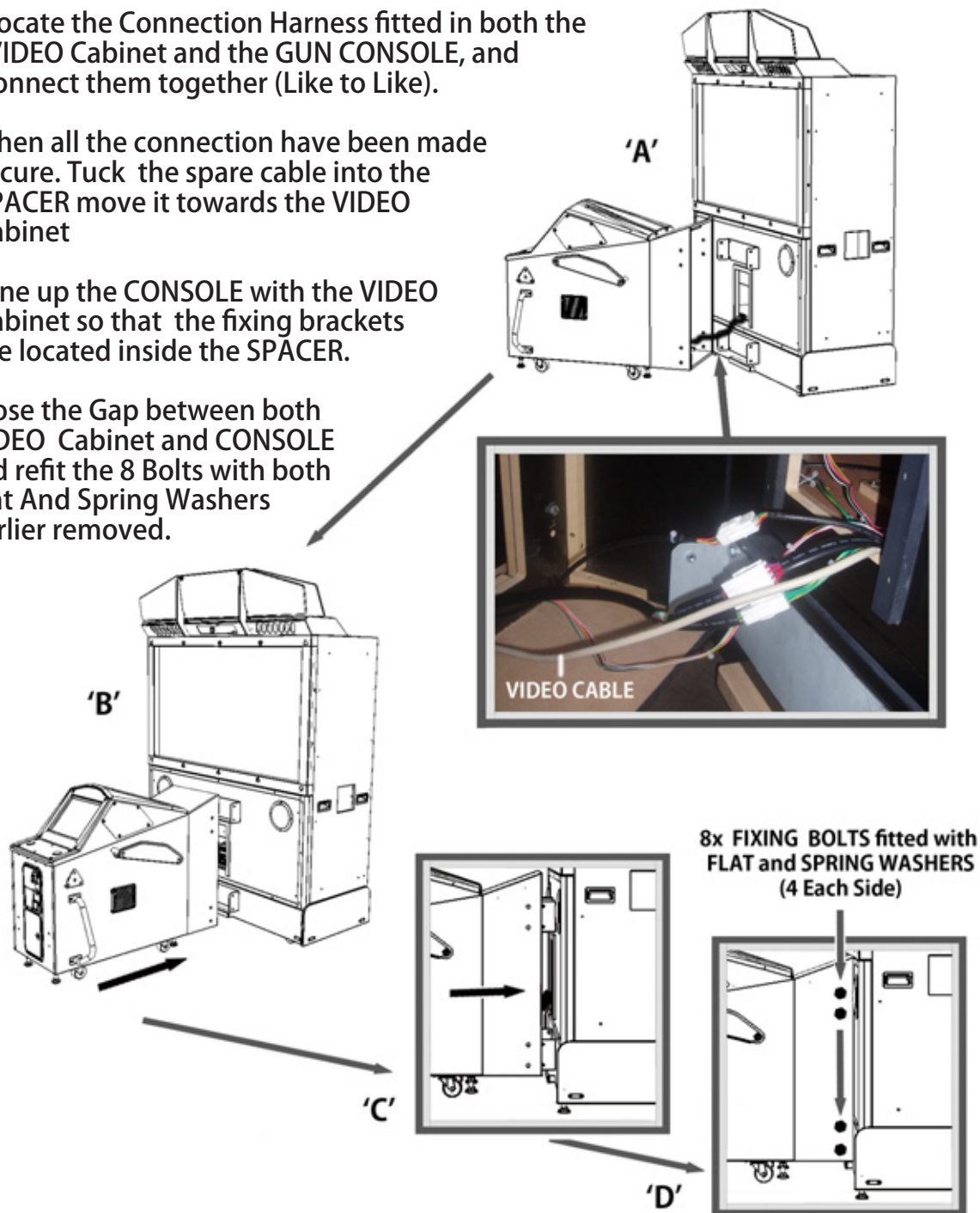
6-4 INSTALLATION AND SECURING IN PLACE

```
⚠ WARNING
```

During Installation, make sure that all the adjusters are in contact the floor.
Otherwise the cabinet could move, causing an accident.

.
  PRIMEVAL HUNTER consists of two Main Base Units :   Main Video Cabinet and Gun Console.

6-4 Fig 01 - Shows the location of the Castors (C) and Fixing Adjusters (A).
During the installation of each unit, the Fixing Adjustment should be performed to ensure that the units are stable.

VIDEO UNIT

A = Adjuster Locations

C = Castor Positions

6-2 Fig 01

GUN CONSOLE
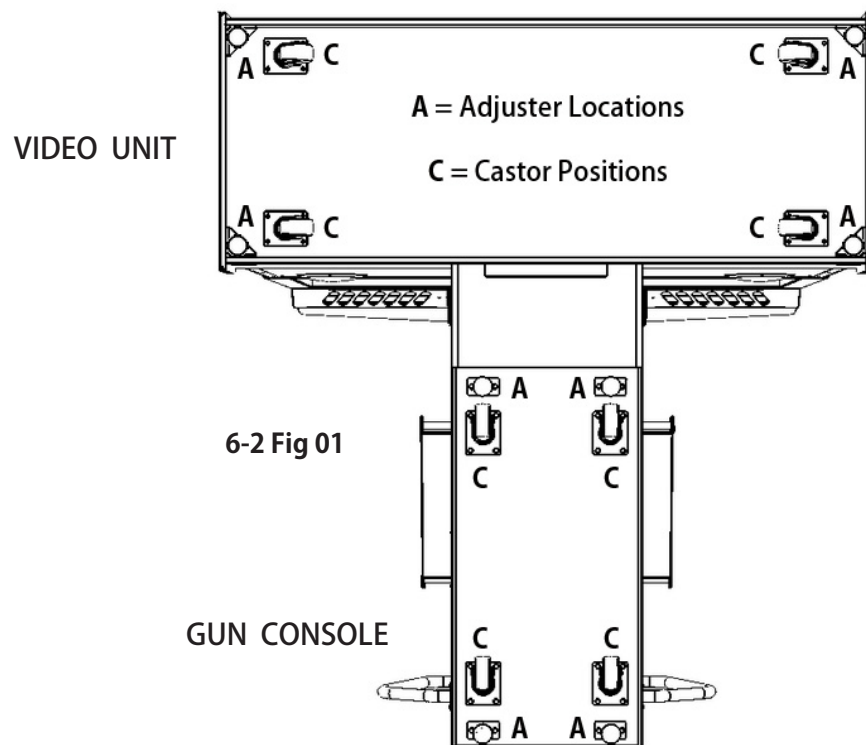
6-4- Fig 02 - Showing the correct details for Adjustment.

ADJUSTER

TIGHTEN NUT UPWARDS

Approx 5mm

6-2 Fig 02

ADJUSTER
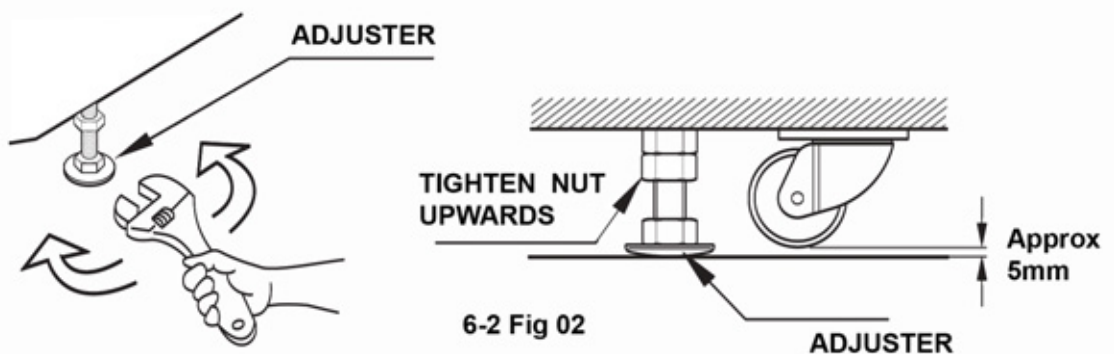
⚠ **WARNING**

- Use the power supply equipped with an earth leakage breaker. Use of power supply without such a breaker could result in fire if there is a current leakage.

- This product MUST be EARTHED. Ensure that the unit is properly connected to the INDOOR GROUND. Without proper grounding, customers could be electrocuted, product operation may not always be stable, and also introducing a risk of fire.

- Do not expose the power cords. If these are exposed, customers could stumble over them, for instance, and easily damage them. Additionally, if these lines are damaged, there could be a risk of electrical shock or short circuit. Set these lines at locations where they will not interfere with customer traffic, or attach covers to them.

- After laying out the power cord on the floor, be sure to always protect it. If the power cord is left exposed, it can easily be damaged, resulting in electrical shock.

- This product comes complete with POWER CORDS for the UK and EUROPEAN destinations, be sure to use the power cords supplied. If a power cord is to be replaced, be sure to replace it with the same specification as the one provided.

STOP **IMPORTANT**

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

When using the product's AC Ground Terminal, use a ground wire with a circular terminal as shown in the illustration, and establish the ground securely. Avoid indiscriminate grounding operations such as the use of a wire with only the sleeve peeled off.
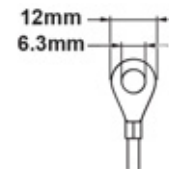
1 Confirm that the MAINS SWITCH is set to OFF
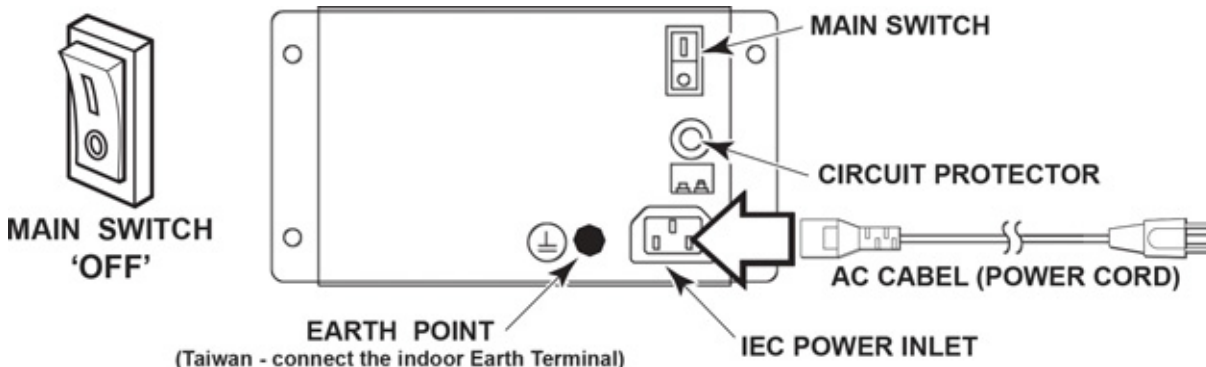
6-5 Fig02

6-5 CONNECTION OF POWER AND GROUND

2 . The accessory power cord has a ground wire inside it. Connect the power cord to the AC unit then insert the power cord plug into a "power outlet with ground terminal." If there is no "power outlet with ground terminal," be sure to establish ground by some other means; for example, by connecting the AC unit ground terminal to a ground wire with a ground mechanism prepared separately.

If you use a conversion adapter sold on the market to supply power, connect the ground wire terminal of the adapter to a "securely grounded ground terminal."   <For Taiwan>

(For TAIWAN)

EARTH TAG
(Always connect Earth wire to Earth Point on Machine]

POWER ADAPTER

EARTH WIRE

6-5 Fig 03

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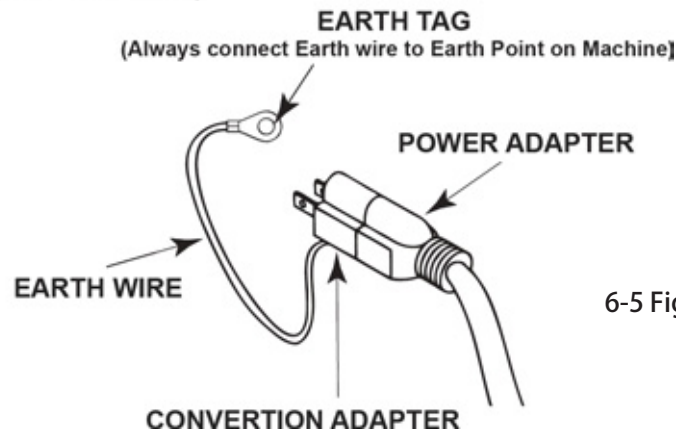
3 When using a ground wire made available separately, connect one end of the wire to the AC unit ground terminal and the opposite end to an indoor ground terminal. The AC unit ground terminal is a bolt-and-nut combination. Remove the nut and pass the bolt through the ground terminal, then secure the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

6-5 Fig 04
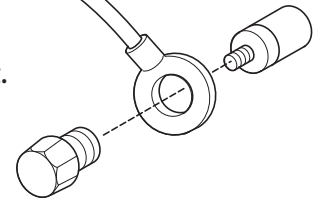
4 The power cord is laid out indoors. Protect the power cord by attaching wire cover to it.

If ground will be established with a ground wire made available separately, lay out the ground wire indoors and have it protected. <Taiwan>

6-5 Fig 05
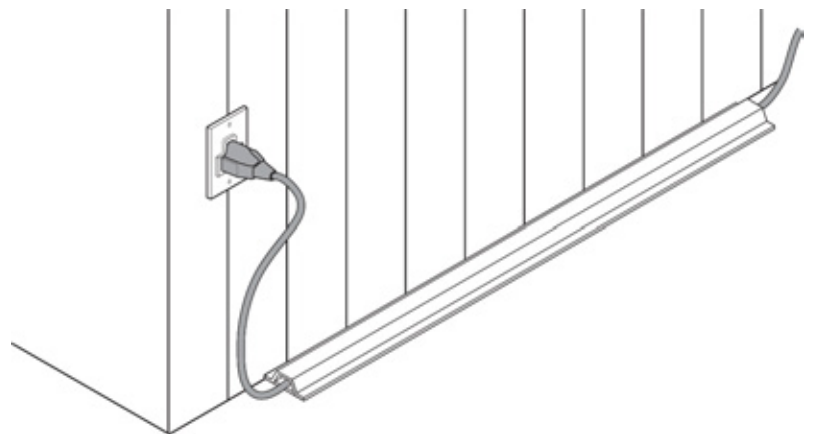
6-6   CHECKING ASSEMBLY - SET UP

THE MACHINE COMES WITH PRE-INSTALLED SOFTWARE, WHICH ALLOWS YOU TO GO STRAIGHT INTO CHECKING ASSEMBLY - SET UP. HOWEVER IF THERE IS A REQUIREMENT TO RE-INSTALL SOFT WARE FOR ANY REASON - SEE "CHAPTER 17" FOR DETAILS.

The Installation 'TEST MODE' ensures that the assembly has been made correctly and the IC BD is satisfactory (refer to Chapter 9).
Refer to the LINDBERGH Service manual for details on "SYSTEM TEST MODE" and "Chapter 9-3. GAME TEST MODE" for details on the |Game Test.

1   • DISPLAY TEST

When the 'MONITOR TEST' is selected from the 'System Test Menu Screen' a screen to test the CRT Monitor will be displayed. Though the DISPLAY is pre-adjusted at the time of shipment from the factory, view the test screen to determine whether or not adjustment is necessary. If so refer to Chapter 9 and adjust the display. Remember to check both MAIN GAME DISPLAY and TOUCH SCREEN DISPLAY.
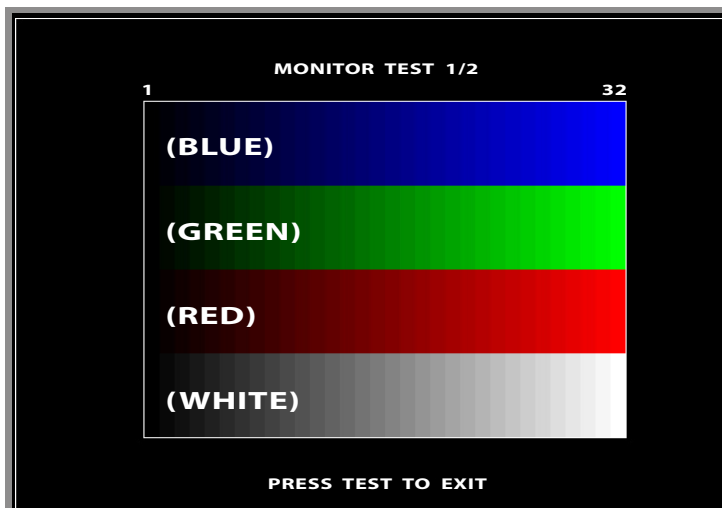
6-6 Fig 01
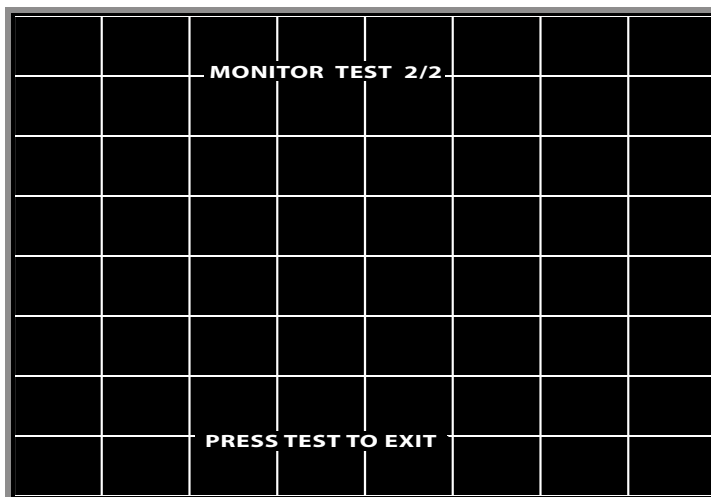
6-6 Fig 02

2 • INPUT TEST

When the 'INPUT TEST' is selected from the System Test Menu Screen' a screen to test the Games Switches will be displayed.

Flip each of the switches shown, if the display to the right of the switch changes to 'ON' or indicates a change in value, the switch and the wiring are operational.

Check the TOUCH SCREEN, by touching the panel, a Yellow spot will appears at the point of contact.

GUN Assembly sight '+' mark shows on the screen, fire the Gun and a BLUE spot is shown to show the position of the sight.

```
                    INPUT  TEST

PLAYER          1P              2P
TRIGGER         OFF             OFF
PUMP            OFF             OFF
START           OFF             OFF
SERVICE              OFF
TEST            *    OFF
TOUCH PANEL          X1  236
                     Y1  251
GUN                  X1  159       OUT OF SCREEN
                     Y1   60



   PRESS TEST AND SERVICE  BUTTONS TO EXIT
```
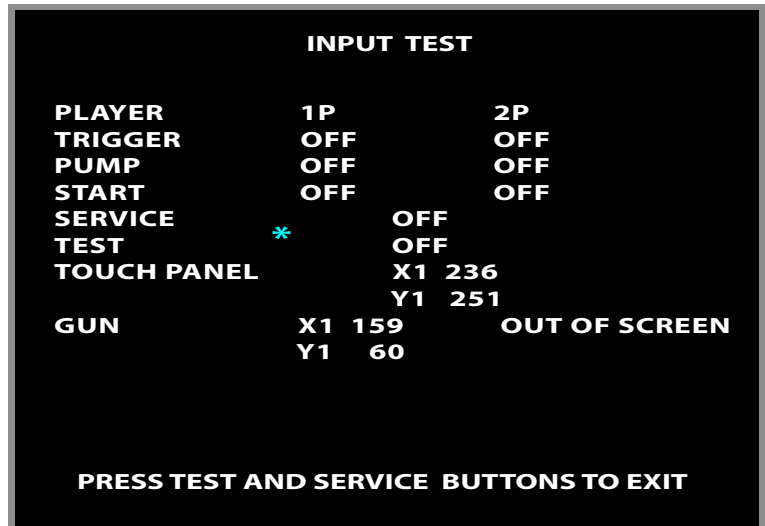
6-6 Fig 03

For information on Calibrating the 'TOUCH PANEL' go to Chapter 9-3-5, Touch Panel.
For information on Calibrating the 'GUN SIGHT' go to Chapter 9-3-6, Gun Adjustment.

3 • OUTPUT TEST

When the 'OUTPUT TEST' is selected from the System Test Menu Screen' a screen to test the Games Lamps will be displayed.

Use the SERVICE button to step to the output required to be checked and then press the Test Button.

If the output selected lamp illuminates, the wiring and lamp are both operational.

```
                OUTPUT  TEST

  1P    START  LAMP           OFF

  2P    START  LAMP           OFF


-> EXIT




      SELECT   WITH   SERVICE   BUTTON
         AND   PRESS   TEST   BUTTON
```
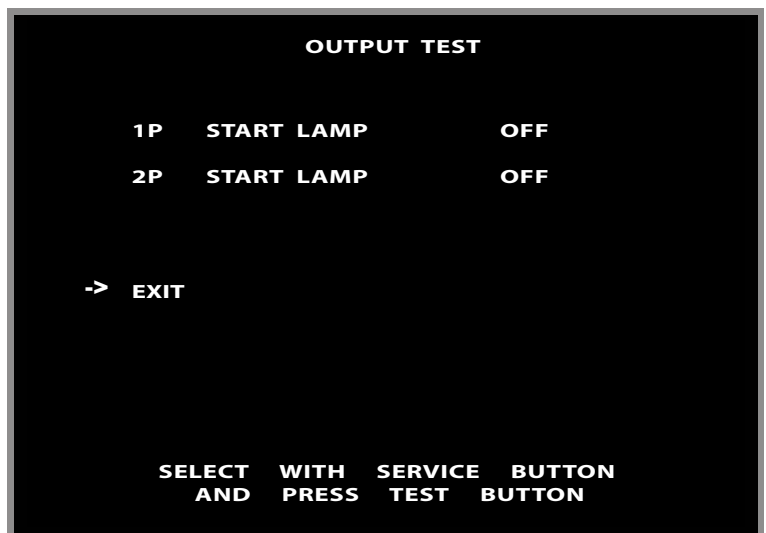
6-6 Fig 04

4 • **SPEAKER TEST**

When the 'SPEAKER TEST' is selected from the System Test Menu a Screen to test each of the Speakers is displayed.

6-6 Fig 05

Use the SERVICE button to step to the speaker required to be checked and then press the Test Button.

The Right and Left Speakers are located in the Main Cabinet, while the Rear Right and Left Speakers are located in the Gun Butts.

They can be checked by just changing their respective settings to ON and OFF. Output will generate a TEST SOUND when the ON is selected.

```
        SPEAKER  TEST  (ON  BOARD)

   RIGHT  SPEAKER              OFF
   LEFT  SPEAKER               OFF
   REAR  RIGHT  SPEAKER        OFF
   REAR  LEFT  SPEAKER         OFF
   CENTER  SPEAKER             OFF
   WOOFER  SPEAKER             OFF

-> EXIT



   SELECT  WITH  SERVICE  AND  PRESS  TEST
```
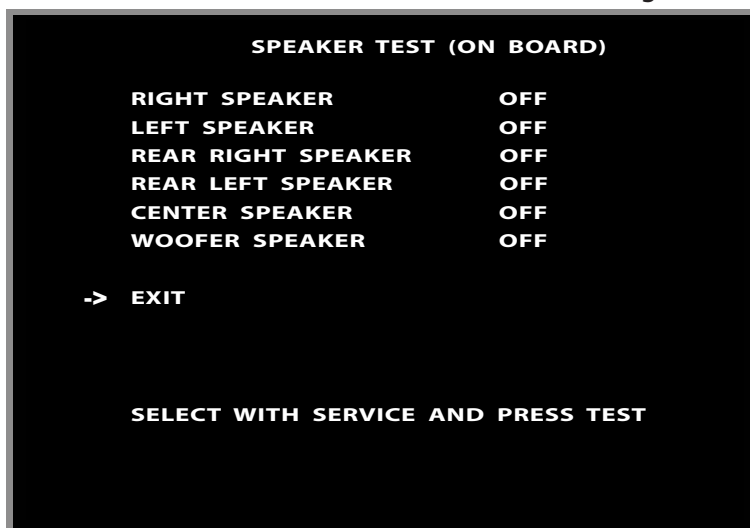
Note : This model is not fitted with a WOOFER Speaker.

5 • **GUN ADJUSTMENT**

Using the Left Hand Gun, Aim the sight at the TOP Cross and fire a shot.

A BLUE spot will indicate the position of the Sight and a value will be written into the NEW column next to the TOP section of Player 1.

If the shot was outside the range of the Screen 'OUT OF SCREEN' will be displayed.

The Right Hand Gun can be tested in the same way, with a RED spot showing the sight position.

```
                      GUN  ADJUSTMENT
                           +

    PLAYER 1                       PLAYER 2
                 OLD   NEW                      OLD   NEW
 -> TOP           0     0        -> TOP           0     0
    LEFT          0     0           LEFT          0     0
    CENTER X      0     0           CENTER X      0     0
          Y       0     0                 Y       0     0
    RIGHT         0     0           RIGHT         0     0
    BOTTOM        0     0           BOTTOM        0     0

    RETURN TO FACTORY SETTINGS      RETURN TO FACTORY SETTINGS
    CANCEL                          CANCEL
    CHECK                           CHECK
+                               +                              +
    [OUT OF SCREEN]                 [OUT OF SCREEN]




                SELECT  WITH  START  BUTTON
                    AND  PULL  TRIGGER

                PRESS  TEST  BUTTON  TO  EXIT
                           +
```

6-6 Fig 06

For information on ADJUSTING THE GUN SIGHTS go to Chapter 9-3-6 Gun Adjustment

PERFORM THE ABOVE INSTALLATION TEST INSPECTIONS EVERY MONTH

SETTINGS AT TIME OF INSTALLATION

Refer to the "LINDBERGH Service Manual" for details on the "SYSTEM TEST MODE" and "Chapter 9-3 GAME TEST" for the "GAME TEST MODE."

Using "TEST MODE" Set, Adjust and Confirm the following settings shown below.

1 **• COIN ASSIGNMENTS**

Set up the Coin Settings under - COIN ASSIGNMENTS

COIN CHUTE TYPE	-	COMMON
SERVICE TYPE	-	COMMON

2 **• NETWORK SETTING**

Select the MAIN NETWORK and set it up in the following manner:

DHCP   -   DISABLE

There is no need to set a specific value for the IP address.
Leave the display IP address as is and exit the settings.

7 PRECAUTIONS WHEN MOVING THE MACHINE

⚠ WARNING

- Always disconnect the power cable before moving the product. If it is moved with the power cable connected, the cable could be damaged, causing fire or electric shock.

- To move the unit over the floor, pull in the adjustors and have the casters contact the floor. While moving the unit, be careful that the casters do not roll over the power cord or the ground wire. If cord or wire is damaged, there could be electrical shocks and/or short circuits.

- When crossing a sloped or stepped area, disconnect the PTV from the Main Cabinet. If you tilt them while connected together, the connection points may be damaged and personnel could be injured.

- When lifting the cabinet up steps, you must hold it by the designated handles or by the bottom surface. Lifting it by any other area may lead to damage or dis-figuration to that part or surrounding parts due to the weight of the cabinet and could also lead to injury of personnel.

- When tilting the cabinet to move it across a sloped or stepped area, always use at least two people. Attempting such an operation alone can lead to accident or injury.

- When moving the components separately, take care concerning the direction you push the DLP and Controller Cabinet in. These elements may fall over, causing damage or an accident.

- When detached always keep the cabinet on a level surface and make sure that it does not to lean in either direction whilst working on it. Danger of the Cabinet falling over and causing Unit Damage and possible injury of personnel.

(STOP) IMPORTANT

- When moving the cabinet, do not hold, push or pull the Control Units. This may disfigure or damage them.

- If you need to move components through a narrow or low door and the only way to get the separated components through is to turn them on their side, or if a separation method other than those described in this manual is required, either make a request to the office listed in this document or the place of purchase to perform the operation or contact them regarding how to perform it. Carelessly turning the components onto their side or separating them in ways other than those depicted in this manual may lead to unrepairable damage.

- Do not use the Controller Holders to move the cabinet, in doing so may damage or disfigure them.

⚠️CAUTION

● **Due to the poor stability of the VIDEO Cabinet when 'NOT' Connected to the GUN CONSOLE , moving this unit should NOT be undertaken single handed, a minimum of two persons are required. '**

● **When moving it, manipulate the movement from either end of the Unit' DO NOT' under any circumstances Push of Pull the unit from either the Front or Rear sides, as this may result in the unit falling over and causing Damage to the unit and possible serious injury to persons in the locality.**

● Before attempting to move the machine, make sure that the MAIN VOLTAGE Supply is removed.

● Always raise the Adjusters up as high as they will go.

● Never attempt to move a machine unaided.

● Be aware of the Space you are working in, it may be necessary to remove some of the Assemblies in order to complete the move.

RAISE THE ADJUSTERS AS HIGH AS POSSIBLE
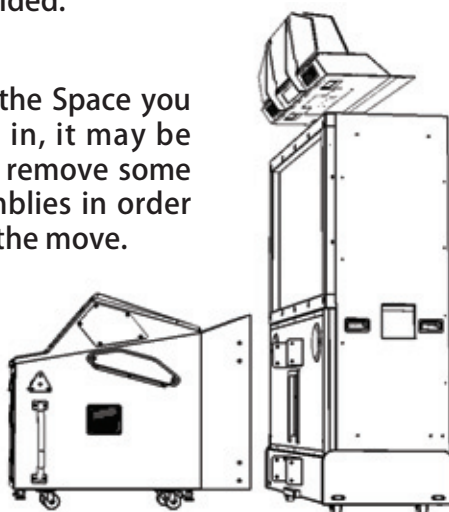
● HEIGHT PROBLEM

To remove the Billboard go to Chapter 6-2 and work Sections - 3 > 2 > 1.

● WIDTH PROBLEM

To remove the Gun Console go to Chapter 6-3 and work Sections - 5 > 4 > 3.

WARNING - If the Gun Console is removed from the Video Cabinet, there will be NO SECURE FIXING between the Video Top and the Video Base Cabinets.

8 GAME DESCRIPTION

The following explanations apply when the product is functioning satisfactory.
Should the be any actions different from the following contents, some sort of fault may have
occurred. Immediately look into the cause of the fault and eliminate the cause thereof to ensure
satisfactory operation.

8-1   GAME OVERVIEW

.

GAME PROFILE

The object of the game is to catch as many of the 'Specified DINOSAUR' indicated
at the start of each Stage. The player is given a specified number of Bullets and
has to complete the task within a TIME SCALE given. If all Dinosaurs are Captured
the player will advance to the next stage. At the END of each Stage the player is
shown a RESULTS Screen indicating their current Score position.

If the Stage is not completed then its GAME OVER, and the Player is then offered
the change of CONTINUE Play and is given the option to START the next game
from their current game position.

GAME DETAILS

NUMBER OF STAGES

NORMAL STAGE	-	9 STAGES
BONUS GAMES	-	3 TYPES > 1 will appear after 3 Stages are cleared.
EXTRA STAGE	-	3 STAGES > will appear after 9 Stages are cleared,
HIDDEN STAGE	-	1 STAGE > Complete all 12 stages within 1 Credit.

FEATURE OF ARMS

SHOT GUN	-	Power - Normal : The range of attack is wide.
RIFFLE	-	Power - Strong : Normal type Weapon.
BOW	-	Power - Weak : Enemy not noticed easily, and no Reload time.

1   TIME DISPLAY

The Game is played against the Clock, which is displayed at the TOP Center point of the Screen. (See Circled Area).

8-1 FIG 01

2   AREA SELECT Screen

This Screen allows you to select the Area where you wish to go Hunting

8-1 FIG 02

3   TARGET INTRODUCTION

This screen introduces you to your TARGET during the next stage, and indicates where their most 'VITAL POINTS' are.

In the case of the STEGOSAURUS, the Head and Chest.
(See RED markings on Screen)

8-1 FIG 03

4   TOUCH SCREEN DISPLAY

The SUB SCREEN (Touch Panel) will display the 'Aerial View' of the area that you are hunting, and show you the location of the your targets in the area.

(See Screen for Circled Position)

8-1 Fig 04

5   BULLET DISPLAY

This screen indicates your number of BULLETS available at the start of the game.

8-1 Fig 05

6   BULLET ADJUSTMENT

The bottom corners of this Screen indicates the number of Shot Gun and Rifle Bullets available to use. (See the Circled areas)

You can adjust the quantity of bullets available, by adjusting the GAME DIFFICULTY section found in the GAME TEST MENU.

8-1 Fig 06

1 TOUCH MOVING

Touch the 'MAP' where you want to go, and you will start moving there.

Touch any 'DINOSAUR' on the Map, and you will move closer to that Dinosaur.

The route taken will navigate around any Water, Cliffs and other impassable obstacle.

8-2 Fig 01

2 DRUG MOVEMENT

Drug, the Player Icon (See Circle on the Map) can move in an arbitrary route that you can draw on the Touch Panel.

It stops while moving when coming to a place such as Cliffs where it can not go.

8-2 Fig 02

3 DRAG MOVEMENT OF VIEW

Drag, the View Object. (Blue Triangle) to change the View of the Player.

(See the Circled area on the screen).
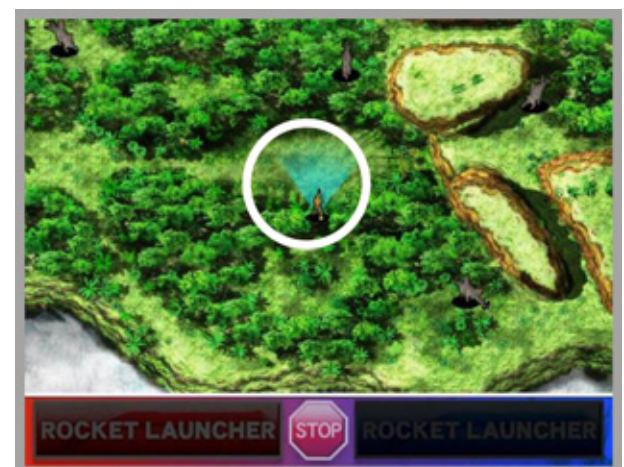
8-2 Fig 03

4   ARMS SWITCH TO ROCKET LAUNCHER

Touch the ARMS SWITCH Burner to change weapon to a ROCKET LAUNCHER from your Regular Weapon.

Touch it again to change back to your Regular Weapon.

(See the OVAL area on the Screen)

8-2 Fig 04

5   ZOOM OPERATION FOR BONUS GAME.

You can Zoom 'IN' and 'OUT' of the TOUCH Screen Map during the Bonus Game called "SNIPER ON THE SPIRE" by dragging a Touch along the Zoom Bar displayed at the bottom of the Screen.

(See the OVAL area on the Screen)
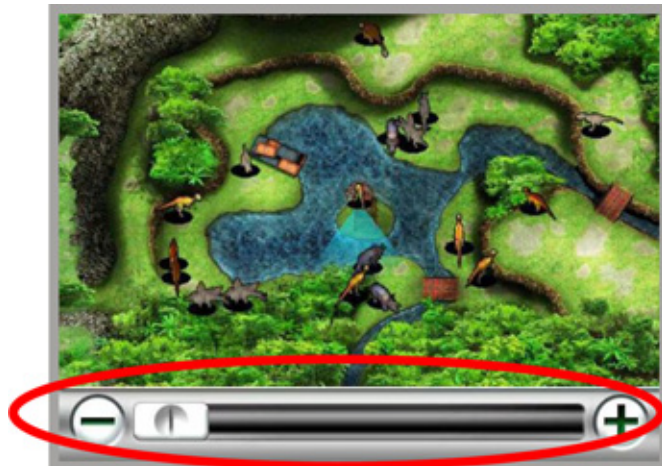
8-2 Fig 05

8-3   BONUS GAME RULES

There are three Different BONUS GAMES to be played. One BONUS GAME will appear after three stages of the Normal Games have been Cleared. The type of Bonus Game is awarded at Random from the list below..

1   EGG ROBBERS

Keep defending the Dinosaur Eggs by catching OVIRAPTOR,

Capture more than 10, in the time available to gain an ITEM. .

1 Player - Player gets the ITEM
2 Player - Winner gets the ITEM.

8-3 FIG 01

2   SNIPER ON THE SPIRE

Capture DINOSAURS by using the 'ZOOM' from the 'IRON TOWER'
Capture more than 5, in the time available to gain an ITEM.

1 Player - Player gets the ITEM -   2 Player - Winner gets the ITEM

ZOOM IMAGE   **8-3 FIG 02**

NORMAL IMAGE   **8-3 FIG 03**

3   BATTALION ON THE BRIDGE

Shoot through the ropes, and drop the Bridge into the Lake before the crowd of approaching VARIRAPTOR cross, and gain an ITEM.

1 Player - Player gets the ITEM
2 Player - Winner gets the ITEM.
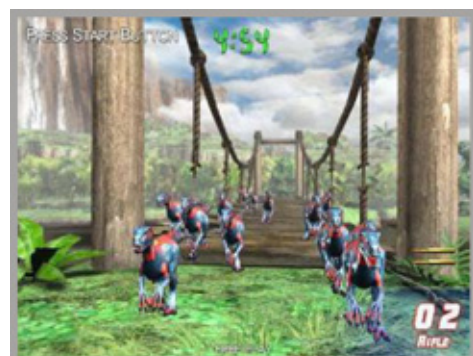
8-3 FIG 04

8-4   ITEMS - DEFINITION AND RULES

**When the BONUS GAME is obtained and successfully completed, an ITEM is awarded.
The type of award is detailed as follows :**

EFFECT OF AN ITEM ACQUIRED DURING THE FIRST BONUS GAME
Riffle Bullets :   Add 4 Shots for Next Stage
Shotgun Bullets (Slugs) :   Add 4 Shots for Next Stage.
Arrows :   Add 6 Shots for Next Stage.

EFFECT OF AN ITEM ACQUIRED DURING THE SECOND BONUS GAME
The HIT RATE goes UP, only during the next stage.
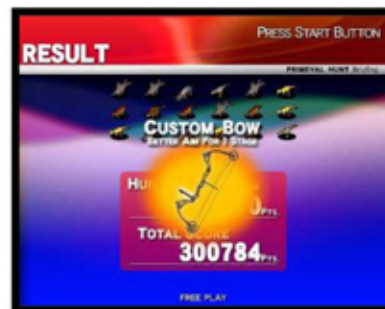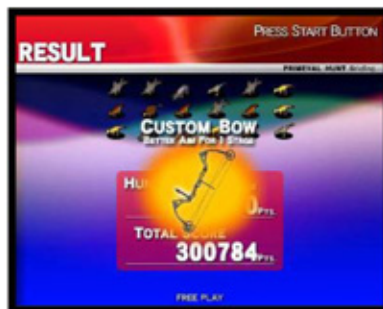
EFFECT OF AN ITEM ACQUIRED DURING THE THIRD BONUS GAME
One addition ROCKET LAUNCHER only as for the next Rockets : Add 1 Shot for 1 Stage.

8-4 FIG 01

ADVERTISE

WEAPON SELECT

Choose from three types

AREA SELECT

BONUS GAME
Awarded after clearing
THREE STAGES. 1 of 3
Games selected at
Random.

START GAME

TARGET

Introduction to the Target
to be Captured in the
following Stage.

ENDING

(After 12 Stages Cleared)

ENDING

(After 13 Stages Cleared)
Only displayed when One
Credit Play and the last
Stage being cleared.

NAME ENTRY

GAME OVER

RETURN TO ADVERTISE SCREEN

8-5 FIG 01

Mechanism of 'SCORE' Evaluation

The 'SCORE Evaluation' is based on the following :

AREA SCORE - The score for each STAGE, acquired by the following four Items .
WEIGHT   -   Weight Score of DINOSAURS that are captured.
VITAL SHOT BONUS   - 'Bonus Score' from the VITAL SHOT Hits.
DISTANCE BONUS   -   'Bonus Score' Corresponding to CAPTURE DISTANCE.
HIDDEN DINO BONUS   - 'Bonus Score' when Rhea Dinosaur is Captured.

TOTAL SCORE - Total of the AREA SCORE of each Stage.

Mechanism of 'HUNTER' Evaluation

The 'HUNTER Evaluation' is based on the following :

ACCURACY - Hit Rate,   0 to 100%. is evaluated over 10 Stages.
CAPTURE NUMBER - Total Number of Dinosaurs, is validated over 10 Stages
REMAINING TIME - Time Left, Total Time is validated over 10 Stages.
DISTANCE - Distance from where a Hit was made. (Refer to Table below)
VITAL SHOT - Number of Shot that hits Vital Spot. The total of the Dinosaur is
            evaluated over 10 stages.

DISTANCE	0~5	6~10	11~15	16~20	21~25	26~30	31~35	36~40	41~45	46~

12 M
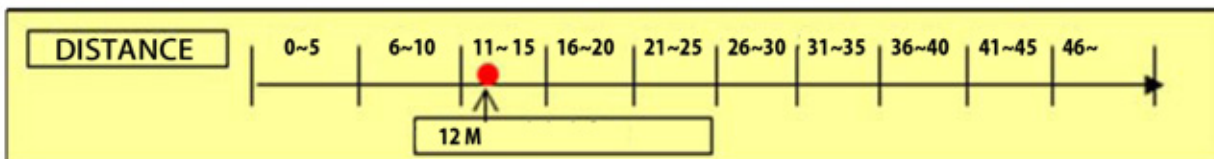
Hunter Evaluation Display

The values from the topics above for 'Hunters Evaluation' will be added together
and converted into one of the following Grades, This GRADE will then be displayed
it on the RESULTS Screen .

Grades :   A+ : A : A- : B+ : B : B- : C+ : C : C- : D+ : D : D-

Condition of TITLE ACQUISITION at GAME OVER

TOP SPEEDER   - When all Stages are cleared under the constant average
                     time for each stage.

ASSASSIN   - When more that a certain constant amount of Dinosaurs are
                     Captured.

SHARP SHOOTER   - When a number of HITS to a VITAL SPOT exceeds the
                    Constant Hit Frequency

MARKSMAN   - When the HIT RATE exceeds a certain Constant Value.

HAWK EYE   - When the DISCOVERY RATE (How many Dinosaurs were seen)
                     exceeds a certain Constant Value.

REVENANT   - Case below a certain Constant Value Secret Rate. (How many
                      Dinosaurs were noticed).

BULLET SAVER   - Case, below a certain Fixed Amount of used Bullets.

ADVENTURER   - The Hunter Travels more than a certain Constant Distance
                     during the Game.

PRIMEVAL CONQUEROR   - When you acquire FOUR or MORE of any of the Eight
                         above mentioned Titles.

9   EXPLANATION OF TEST AND DATA DISPLAY

⚠ WARNING

Never touch places other than those specified. Touching places not specified can cause electric shock and short circuit accidents.

⚠CAUTION

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

STOP IMPORTANT

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

9 TEST MODE

Perform periodic tests and data checks using the TEST and SERVICE buttons inside the cabinet. Follow the instructions in this chapter to conduct checks when the game machine is first installed, when money is being collected, or when the game machine does not operate properly.

Shown below are the tests and screens to be used for different problems.
This product uses a LINDBERGH game board and a DVD DRIVE. In the system, a different game can be played by putting a different DVD ROM in the DVD DRIVE.

For this reason, the product's Test Mode consists of two modes: a System Test Mode for systems in which coin settings, for instance, are made for products that use the same system, and the Game Test Mode for setting of difficulty level, etc., and for input/output test of operational units used exclusively with this product.

9 TABLE 01 EXPLANATION OF TEST MODE

ITEMS	DESCRIPTION	REFERENCE SECTIONS
INSTALLATION OF MACHINE	1. Check to ensure each is the standard setting at shipment.	S/M Chapter 4
	2. Check each Input equipment in the INPUT TEST mode.	S/M Chapter 4, 6-6, 9-3-2, 9-3-5
	3. Check each Output equipment in the OUTPUT TEST mode.	S/M Chapter 4, 6-6, 9-3-3
PERIODIC SERVICING	Periodically perform the following:	
	1. Ascertain each setting.	S/M Chapter 4, 6-6, 9-3-4, 9-3-5, 9-3-6
	2. To test each Input equipment in the INPUT TEST mode.	S/M Chapter 4, 6-6, 9-3-2, 9-3-5
	3. To test each Output equipment in the OUTPUT TEST mode.	S/M Chapter 4, 6-6, 9-3-3
CONTROL SYSTEM	1. To check each Input equipment in the INPUT TEST mode.	S/M Chapter 4, 6-6, 9-3-2, 9-3-5
	2. Adjust or replace each Input equipment.	Chapter 10, 11, 12
MONITOR	In the Monitor Adjustment mode, check to see if Monitor (Projector) adjustments are appropriate.	S/M Chapter 4, 6-6, 14
IC BOARD	1. Information Display Screen	S/M Chapter 4
	2. SPEAKER TEST	S/M Chapter 4
DATA CHECK	Check such data as game play time and histogram to adjust the difficulty level, etc.	9-3-7

NOTE: "S/M" in the table denotes LINDBERGH service manual, which is provided separately.

9-1 SWITCH UNIT AND COIN METER

The VTS Switch Board (See 9-1 Fig 01) is located behind the Coin Mech Door.
The Switch Identification Mask (See 9-1 Fig 02) indicates the function of those
components that are operational on this model.

A TEST BUTTON : Allows access to the machines 'TEST MODE' routine.
Refer to the following pages for addition uses within the TEST MODE

B SERVICE BUTTON : Gives credits without registering on the coin meter.
Refer to the following pages for addition uses within the TEST MODE

C MAIN VOLUME : Adjusts sound volume of the Left and Right Speakers located inside
the Monitor Cabinet. Turn Clockwise to increase the Volume

D GUN VOLUME : Adjusts sound volume of the Speaker located in the each of the Left
and Right Gun Handles. Turn Clockwise to increase the Volume

VTS Switch and Coin Board
9-1 Fig 01
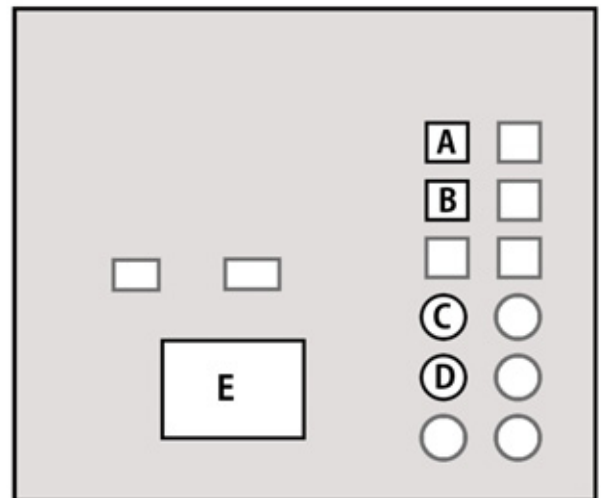
Switch Identification Mask
9-1 Fig 02

E COIN METER : Records the Total Number of Games Played resulting from Coins
being Inserted for Play.

(STOP) IMPORTANT

- **Refer to BOOKKEEPING in GAME TEST MODE for this products data.**
- **Adjust for an appropriate sound volume in consideration of the installation site.**
- **If the coin meter circuit is removed, play cannot be executed.**
- **Read the LINDBERGH service manual included with the product for details about System Test Mode. However, the settings for this product should follow the specifications in this manual.**

In the SYSTEM TEST MODE, the LINDBERGH board functioning can be checked, the Monitor adjusted, the screen adjustment for the Touch Panel and the Coin Setting performed. Refer to LINDBERGH service manual for the details.

Note :

The settings of the following items need to be performed in accordance with the instruction given.

COIN ASSIGNMENTS :	COIN CHUTE TYPE	(Type of Coin Chute used)	-	COMMON
	SERVICE TYPE	(Type of Service Button used)	-	COMMON

(STOP) IMPORTANT

- **When changing the game configuration, changes will not take effect until the Game Test Mode properly after configuration changes. Be sure to exit the Game Test Mode properly after configuration changes.**
- **Do not configure the game in ways not described in this text. It is possible that the game will not function properly.**

9-2   'SYSTEM TEST MODE' Menu

```
                    SYSTEM  TEST  MENU

              SYSTEM  INFORMATION
              STORAGE INFORMATION
              JVS  TEST
              MONITOR  TEST
              SPEAKER  TEST  (ON  BOARD)
              COIN ASSIGNMENTS
              CLOCK  SETTING
              NETWORK  SETTING
              GAME  TEST  MODE
          ->  EXIT

              SELECT  WITH  SERVICE  AND  PRESS  TEST
```
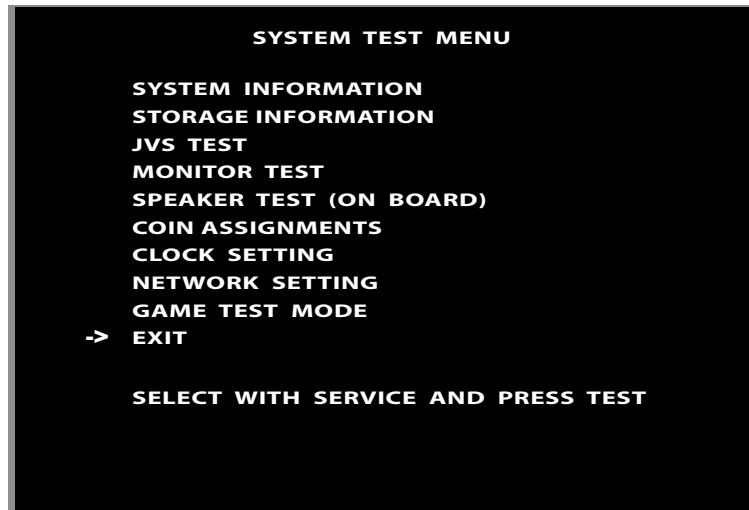
9-2-0 Fig 01

1 When the TEST Button is pressed, the System Test Menu Screen (SYSTEM TEST MENU) appears.

2 Use the SERVICE Button to move the cursor to the desired test item.

3 Press the TEST Button to confirm selection of the item.

4 When testing and checking are completed, select EXIT and press the TEST Button. The System Test Menu Screen reappears.

5 When all tests are completed, select EXIT and press the TEST Button. The Game Screen reappears.

9-3   'GAME TEST MODE' Menu

(STOP) IMPORTANT

When changes to the Game Configuration are made, they will not take effect unless the Game Test Mode is exited properly. If this exit routine is not completed correctly, the Game Configuration will remain unchanged.

Do not configure the game in ways not described in this text. It is possible that the game will not function properly.

1 Select GAME TEST MODE from the System Test Menu Screen to display the Game Test Mode Menu   .

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

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

```
                GAME   TEST   MENU

        INPUT  TEST
        OUTPUT  TEST
        SOUND  ADJUSTMENT
        GAME  ASSIGNMENTS
        TOUCH  PANEL  ADJUSTMENT
        GUN  ADJUSTMENT
        BOOKKEEPING
        BACKUP  DATA  CLEAR
  ->    EXIT



        SELECT    WITH    SERVICE   BUTTON
          AND    PRESS   TEST    BUTTON
```
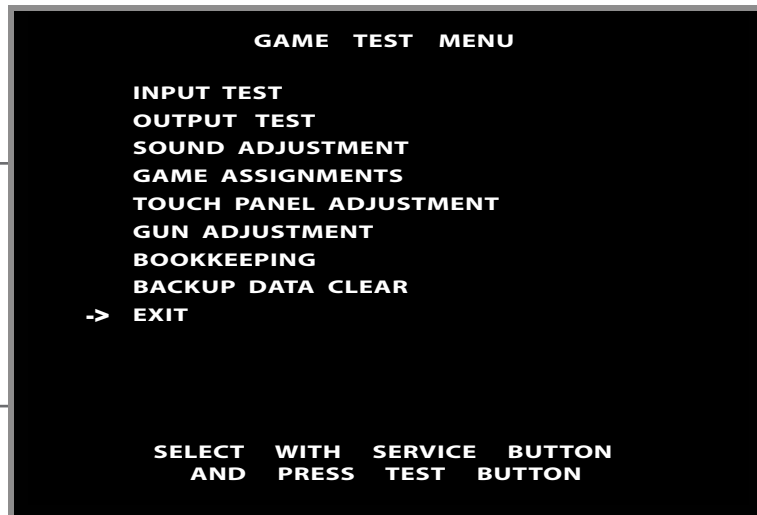
9-3-0 Fig 01

4 The following is available to be checked during the GAME TEST MODE :

9-3-1	INPUT TEST	Test each Input.
9-3-2	OUTPUT TEST	Test each Output.
9-3-3	SOUND ADJUSTMENT	Set the Audio Volume.
9-3-4	GAME ASSIGNMENTS	Adjust Game Settings.
9-3-5	TOUCH PANEL ADJUSTMENT	Adjust Touch Panel Settings.
9-3-6	GUN ADJUSTMENT	Adjust Gun Sights.
9-3-7	BOOK KEEPING	View Game Backup Data.
9-3-8	BACKUP DATA CLEAR	Clear Game Backup Data.
9-3-9	EXIT	Go back to the System Test Menu.

9
TEST MODE

9-3-1 'INPUT TEST MODE' Menu

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

```
                    INPUT  TEST

PLAYER              1P              2P
TRIGGER             OFF             OFF
PUMP                OFF             OFF
START               OFF             OFF
SERVICE                     OFF
TEST                        OFF
TOUCH PANEL                 X1  236
                            Y1  251
GUN               X1  159           OUT OF SCREEN
                  Y1   60



     PRESS TEST AND SERVICE  BUTTONS TO EXIT
```
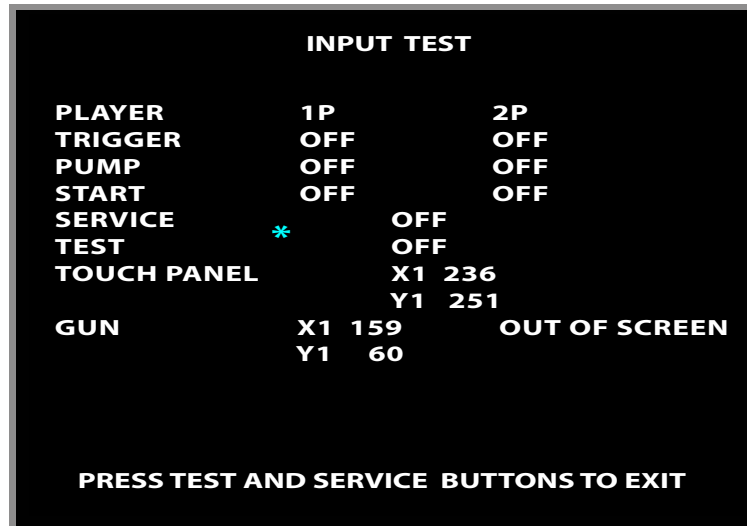
9-3-1 Fig 01

Use the SERVICE Button to Select the Input to be tested and the TEST Button to action
the test. - 1P refers to the Gun on the LEFT, - 2P refers to the Gun on the RIGHT

---

1 Test TRIGGER - Pull the 'Trigger' on each of the GUNS and the corresponding 'OFF' displayed
alongside 'Trigger' will change to 'ON' and 'OFF' again when the Trigger is released.

---

2 Test PUMP - Use the 'Pump' action on each of the GUNS and the corresponding 'OFF'
displayed alongside 'Pump' will change to 'ON' and 'OFF' again when the Pump is released.

---

3 Test START - Pressing each of the 'Start Buttons' will cause the corresponding 'OFF' displayed
alongside 'Start' will change to 'ON' and 'OFF' when the button is released.

---

4 Test SERVICE - Pressing the 'Service Button' will cause the 'OFF' displayed alongside 'Service'
will change to 'ON' and 'OFF, again when released.

---

5 Test TEST - Pressing the 'Test Button' will cause the 'OFF' displayed alongside 'Test' will change
to 'ON' and 'OFF, again when released.

---

6 TOUCH PANEL - 'X' axis indicates a value of 0 ~ 640 : Y' axis indicates a value of 0 ~ 480
Touching the panel will show a Yellow circle at the position touched on the Screen and also
update the figures shown for 'X' and 'Y' to the values for the revised position touched. If the
Yellow Circle and Point Touched does not match,   see Chapter 9-3-5 Touch Panel Adjustment.

---

7 GUN - 'X' axis indicates a value of 0 ~ 640 : 'Y' axis indicates a value of 0 ~ 480
Aim the Gun Sight at the screen and fire a shot, if the aim was outside the screen, 'OUT OF
SCREEN' is shown, otherwise a Cross ('+') and Blue Circle will show on the Screen to indicate
the calibrated positions. If these 2 positions are not in line see Chapter 9-3-6 Gun Adjustment

---

8 Press the SERVICE and TEST Buttons simultaneously to return to the 'Game Test Menu Screen' .

9-3-2   'OUTPUT TEST MODE' Menu

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

9-3-2 Fig 01

```
                  OUTPUT  TEST


       1P    START LAMP           OFF

       2P    START LAMP           OFF



  ->   EXIT




            SELECT   WITH   SERVICE   BUTTON
             AND    PRESS   TEST   BUTTON
```

1 Press the 'Select' Button to step the arrow around to the component you want to test.

2 Pressing the 'Test Button' after placing the arrow beside an Output Indicator, will cause that output to switch 'ON' and the corresponding Lamp on the machine to light. Pressing the 'Test Button' again will switch the status of the Output back to OFF, and the selected lamp will Turn Off.

3 Move the arrow to EXIT and press the TEST Button to return to the Game Test Menu Screen.

9-3   GAME TEST MODE

9-3-3   'SOUND ADJUSTMENT' Menu

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

```
          SPEAKER  TEST  (ON  BOARD)

     RIGHT  SPEAKER            OFF
     LEFT  SPEAKER             OFF
     REAR  RIGHT  SPEAKER      OFF
     REAR  LEFT  SPEAKER       OFF
     CENTER  SPEAKER           OFF
     WOOFER  SPEAKER           OFF

  ->  EXIT



     SELECT  WITH  SERVICE  AND  PRESS  TEST
```
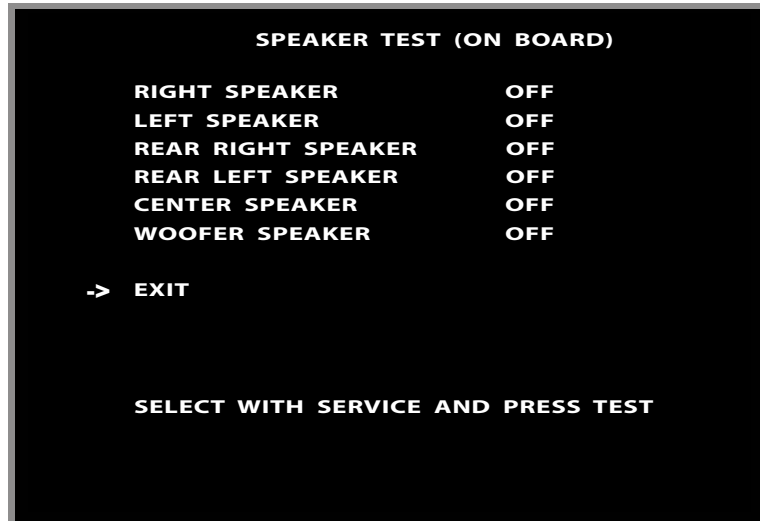
1 Press the 'Select' Button to step the arrow around to the component you want to test.

2 Pressing the 'Test Button' after placing the arrow beside a Speaker location, will cause AUDIO output to switch ON. Pressing the 'Test Button' again will switch the status of the Output back to OFF, turning AUDIO sound Off.

The Right and Left Hand Speakers are located either side of the Main Video Cabinet Front.
The Rear Right Hand Speaker is located inside the Right Hand Gun Handle and the
Rear Left Hand Speaker is located inside the Left Hand Gun Handle.

The WOOFER Speaker is not used on this model.

3 Move the arrow to EXIT and press the TEST Button to return to the Game Test Menu Screen.

9-3 GAME TEST MODE

9-3-4 'GAME ASSIGNMENTS'

Select GAME ASSIGNMENTS' to display the following screen and check the GAME SETTINGS.
This test should be used periodically to check that each output device is functioning correctly.

```
              GAME   ASSIGNMENTS

      GAME   DIFFICULTY        NORMAL
      VIOLENCE                 YELLOW
      RELOAD   TYPE            PUMP
      NUMBER  OF  LIVES        3
      MAIN  VOLUME             12
      GUN  SPEAKER VOLUME      12
      ADVERTISE  SOUND         ON
      CONTINUE                 ON
      TOUCH  PANEL             ON
      RETURN  TO  FACTORY  SETTING
  ->  EXIT


      SELECT   WITH   SERVICE   BUTTON
        AND   PRESS   TEST   BUTTON
```
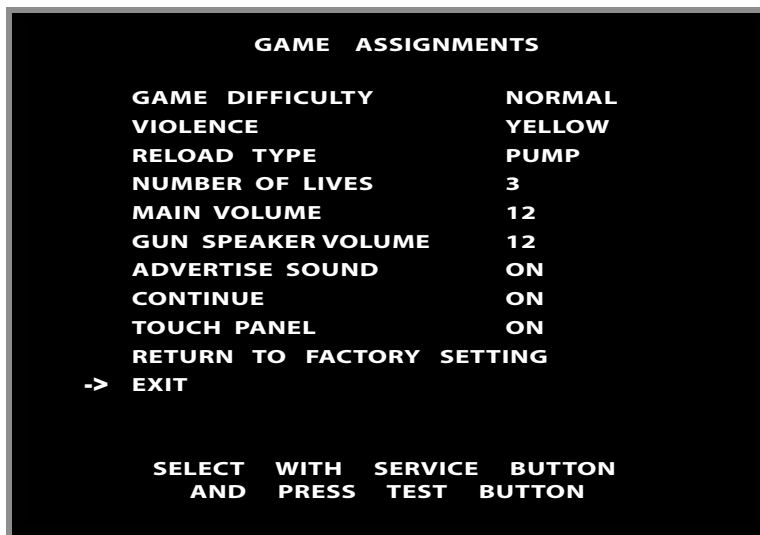
Press the SERVICE Button to step the Arrow around to select the function required,
then press the TEST Button to gain entry.

---

1 Set GAME DIFFICULTY - There are FOUR levels of difficulty to choose from, EASY, NORMAL, HARD and EXPERT. The number of Bullets and Weapon Power will be changed with this setting. (Default - NORMAL)

---

2 Set VIOLENCE - the Colour of the Blood can be changed with this setting, YELLOW, RED of NO BLOOD.
(Default - YELLOW)

---

3 Set way of GUN RELOAD - PUMP or OUT OF SCREEN.
(Default PUMP)

---

4 Set NUMBER OF LIVES - Adjust the Number of Lives available : 1 - 2 - 3 - 4 - 5 Lives.
(Default - 3 Lives)

---

5 Set MAIN VOLUME - Adjust the Volume of the Main Cabinet Speakers : 0 > 15.
You can also adjust the Volume by use of the MAIN Volume, located behind the Coin Door.
(Default - 12)

---

6 Set GUN SPEAKERS VOLUME - Adjust the Volume of the Gun Console Speakers : 0 > 15.
You can also adjust the Volume by use of the GUN Volume, located behind the Coin Door.
(Default - 12)

9-3   GAME TEST MODE

9-3-4   'GAME ASSIGNMENTS'

7   Set CONTINUE - Option of allowing a Player to continue with a Game. : YES - N0
(Default - YES)

8   Set ADVERTISE SOUND - Set the Advertise Attract Audio : YES - NO
(Default - YES)

9   Set TOUCH PANEL - Use in an Emergency if Touch Panel breaks down. (Default - ON)
If set to OFF, the Touch Panel will operate in the following way :
       A : The Data Receipt from the Touch Panel is disregarded.
       B : The Main Screen will not show any instruction regarding the Touch Panel.
       C : The Time for a Automatic movement when not pushed at all becomes earlier.
       D : Does not show tips, (Instruction on how to use the Touch Panel)

10   Set RETURN TO FACTORY SETTINGS - If Selected, all DATA will be RESET back to NORMAL

THE SCREEN SHOTS FOR THE VIOLENCE SETTINGS : YELLOW - RED - OFF

YELLOW Screen   RED Screen   OFF Screen
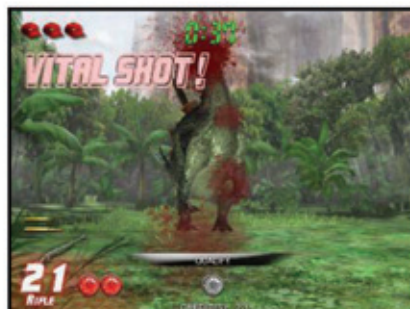
9-3-5   'TOUCH PANEL ADJUSTMENT'

**Selecting 'TOUCH PANEL ADJUSTMENT' allows you to alter the Touch Panel settings.
This test should be carried out during the Installation of the machine
and periodic checks should be made to maintain accuracy.**

```
                 TOUCH  PANEL  ADJUSTMENT


        TOUCH   PANEL   ADJUSTMENT
        RETURN   TO  FACTORY   SETTING



   ->   EXIT




           SELECT   WITH   SERVICE   BUTTON
             AND   PRESS   TEST   BUTTON
```
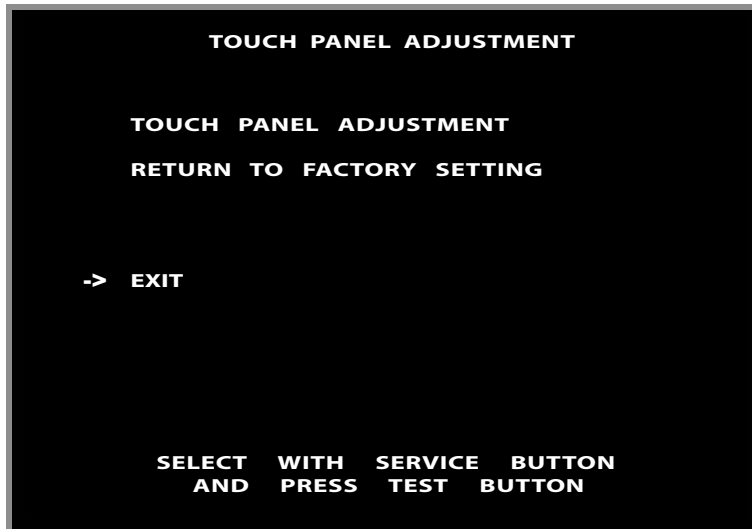
If you have an issue will the 'Touch Panel' positioning being slightly off , the following
preceded should be carried out.

1   Press the 'SERVICE' Button to select 'TOUCH PANEL ADJUSTMENT' and then the TEST Button to
gain entry to the Set Up procedure.

The 'TOUCH PANEL' will then display the following SIX SCREENS to guide you through the set
up procedure. Touch the screen on the position that the '+' appears. Once all positions have
been touched and recognized, the final screen will display COMPLETE.
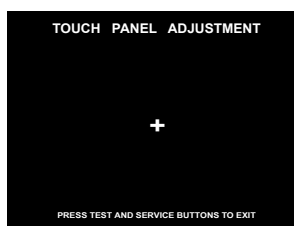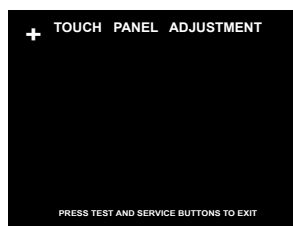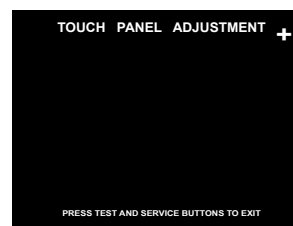
CENTER	TOP LEFT	TOP RIGHT
BOTTOM RIGHT	BOTTOM LEFT	COMPLETE
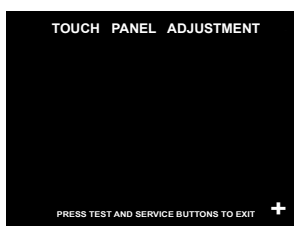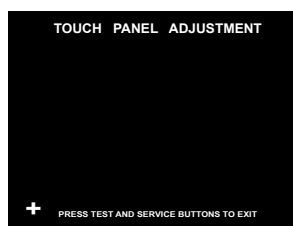
9-3-5　'TOUCH PANEL ADJUSTMENT' - (Factory Setting)

Press the 'SERVICE' Button to select 'RETURN TO FACTORY SETTINGS' on the TOUCH PANEL ADJUSTMENT Menu followed by the TEST Button and the 'TOUCH PANEL ADJUSTMENT' Screen will change to the 'FACTORY SETTING' Screen.

2 Pressing the 'SERVICE' Button to select 'YES' followed by the TEST Button, will automatically reset the TOUCH PANEL settings back to the FACTORY SETTINGS, resulting the Screen Display changing to COMPLETED to confirm the action has taken place.

Press the TEST Button to return to the GAME MODE Menu.

3 Press the 'SERVICE' Button to select 'NO' followed by the TEST Button, will automatically CANCEL the previous selection and return the screen to the 'TOUCH SCREEN ADJUSTMENT' Menu

FACTORY SETTING MENU - Screen

```
                    FACTORY   SETTING


            YES        (RESET)
        ->  NO         (CANCEL)







        SELECT   WITH   SERVICE   BUTTON
         AND    PRESS   TEST   BUTTON
```

FACTORY SETTING COMPLETED - Screen

```
                  FACTORY   SETTING






                    COMPLETED




            PRESS  TEST  BUTTON  TO  EXIT
```

9-3-6   'GUN ADJUSTMENT'

**Selecting 'GUN ADJUSTMENT' allows you to Set Up the Guns Sight.
This test should be carried out during the Installation of the machine
and periodic checks should be made to maintain accuracy.**

BEFORE ATTEMPTING TO ADJUST THE 'GUN SIGHTS' MAKE SURE A GAME HAS BEEN PLAYED

SIGHT ADJUSTMENT

This Adjustment procedure is required to set the SIGHTS for each of the Guns, against five known position on the screen :

		OLD	NEW
-> TOP	-	0	0
LEFT	-	0	0
CENTRE X	-	0	0
Y	-	0	0
RIGHT	-	0	0
BOTTOM	-	0	0

The START Buttons are used to select the positions to be tested. The 'Left Hand' START being used during the Adjustments for the Left Hand GUN - Player 1, and the 'Right Hand' START being used when adjusting the Right Hand GUN - Player 2.

Each Gun has to be tested separately with 'OUT OF SCREEN' being displayed If the Gun is not pointed at the Screen during the test.

The 'OLD' Column shows the 'Value Setting' currently held and the 'NEW' Column will show the revised 'Correction Value' as each of the five position are tested.

During the Test, the Left Hand Gun Sight is 'Aimed and Fired' at the CROSS (+) location on the screen corresponding with the position selected in the Menu (Top), resulting in a value being entered into the NEW column corresponding with the position being adjusted.

The START Button is used to select the next position, and the sequence is repeated.

Once all Five positions have been adjusted, use the START button to step down to CHECK, aim the Gun Sight at the Screen and Fire a Shot. If during this sequence a Cross (+) and Blue Circle will appear on the Screen in the same position, the Gun is Correctly Calibrated.

Once the calibration of the Left Hand Gun is complete, repeat the cycle using the Right Hand Start button to calibrate the Right Hand Gun, (RED Circle indicator). This completing the NEW Column values for Player 2 .

Pressing the TEST button will EXIT the routine and cause all NEW values collected to be stored and also replace the values in the OLD Column.

OTHER OPTIONS

RETURN TO FACTORY SETTING   -   Selecting this will reset the Gun Calibration to its original Factory Setting.

CANCEL -   The changed setting are cancelled and the original once   shown in the OLD column will remain unchanged.

9-3-6   'GUN ADJUSTMENT'

```
                          GUN  ADJUSTMENT
                                +

        PLAYER 1                          PLAYER 2
                    OLD    NEW                      OLD    NEW
     -> TOP          0      0           -> TOP       0      0
        LEFT         0      0              LEFT       0      0
        CENTER X     0      0              CENTER X   0      0
               Y     0      0                     Y   0      0
        RIGHT        0      0              RIGHT      0      0
        BOTTOM       0      0              BOTTOM     0      0

        RETURN TO FACTORY SETTINGS        RETURN TO FACTORY SETTINGS
        CANCEL                            CANCEL
        CHECK                             CHECK

     +  [OUT OF SCREEN]              +    [OUT OF SCREEN]              +




                     SELECT  WITH  START  BUTTON
                         AND  PULL  TRIGGER

                     PRESS  TEST  BUTTON  TO  EXIT
                                +
```

TO ADJUST THE GUN SIGHT CALIBRATION :
Starting with the Left Hand GUN - BLUE Circle, complete the first SIX stages, once complete, repeat the operation using the Right Hand GUN - RED Circle.

1 Using the associated START Button for the player side being adjusted, step the Menu Arrow to select 'TOP' - Aim the GUN Sight at the Top Cross (+) on the Screen and pull the Trigger. The New Data for the 'HIT' position will be recorded in the NEW column for the TOP Position.

2 Press the START Button once and step the Menu Arrow to select 'LEFT' - Aim the GUN Sight at the Left Cross (+) on the Screen and pull the Trigger. The New Data for the 'HIT' position will be recorded in the NEW column for the LEFT Position.

3 Press the START Button once and step the Menu Arrow to select 'CENTER' - Aim the GUN Sight at the Center Cross (+) on the Screen and pull the Trigger. The New Data for the 'HIT' position will be recorded in the NEW column for the CENTER Position.

4 Press the START Button once and step the Menu Arrow to select 'RIGHT' - Aim the GUN Sight at the Right Cross (+) on the Screen and pull the Trigger. The New Data for the 'HIT' position will be recorded in the NEW column for the RIGHT Position.

5 Press the START Button once and step the Menu Arrow to select 'BOTTOM' - Aim the GUN Sight at the Bottom Cross (+) on the Screen and pull the Trigger. The New Data for the 'HIT' position will be recorded in the NEW column for the BOTTOM Position.

6 Press the START Button three times and step the Menu Arrow to select 'CHECK' - Aim the Gun Sight at the Screen and Fire a Shot. During this process, the display will show a Cross (+) and Blue Circle. If both of these appear on the Screen in the same position, the Gun Calibration is complete.

7 Once the GUN SIGHTS have been Re-calibrated, pressing the TEST button will EXIT the routine and cause all NEW values to be stored, replacing the values held in the OLD Column.

9-3-7   'BOOK-KEEPING' (ONE)

**Selecting 'BOOKKEEPING' from the GAME TEST MENU will display GAME OPERATION DATA.
This Data is displayed over a series of three screens, and pressing the Test Button will advance
to the next Screen. Pressing the Test Button on the third screen will EXIT the BOOKKEEPING
Mode and return the Display to the GAME TEST MENU.**

```
                    BOOK KEEPING   1 / 3


         COIN 1  IN                        0
         COIN 2  IN                        0
         TOTAL  COINS                      0

         COIN  CREDITS                     0
         SERVICE  CREDITS                  0
         TOTAL  CREDITS                    0




         PRESS  TEST  BUTTON  TO  CONTINUE
```
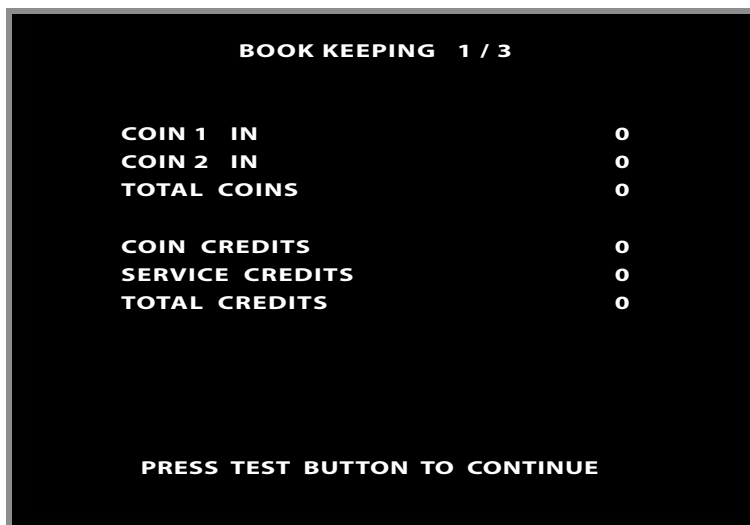
1 BOOK KEEPING   (Screen 1/3)   -   COINS and CREDIT

Displays information on the following :

COIN 1 IN   -   Records the number of GAMES PLAYED against the inserted Coin Value.

COIN 2 IN   -   Not fitted as standard.   (If fitted, it operates the same as COIN 1 IN)

TOTAL COINS   -   Records the TOTAL GAMES PLAYED from all Coins Inserted.

COIN CREDIT   -   Records the number of Credits entered by the COINS IN.

SERVICE CREDIT -   Records the number of Credits entered by the SERVICE Button.

TOTAL CREDITS -   Records the TOTAL NUMBER OF CREDITS that were entered..

9-3   GAME TEST MODE

9-3-7   'BOOK-KEEPING' (TWO)

Press 'TEST' Button to advance to the next Screen - BOOK-KEEPING 1/2.

```
                    BOOK KEEPING  2 / 3


        NUMBER  OF  GAMES                            0
        TOTAL  TIME                     OD  OH  OM  OS
        PLAY  TIME                      OD  OH  OM  OS
        AVERAGE  PLAY  TIME                 OH  OM  OS
        LONGEST  PLAY  TIME                 OH  OM  OS
        SHORTEST  PLAY  TIME                OH  OM  OS




              PRESS  TEST  BUTTON  TO  CONTINUE
```
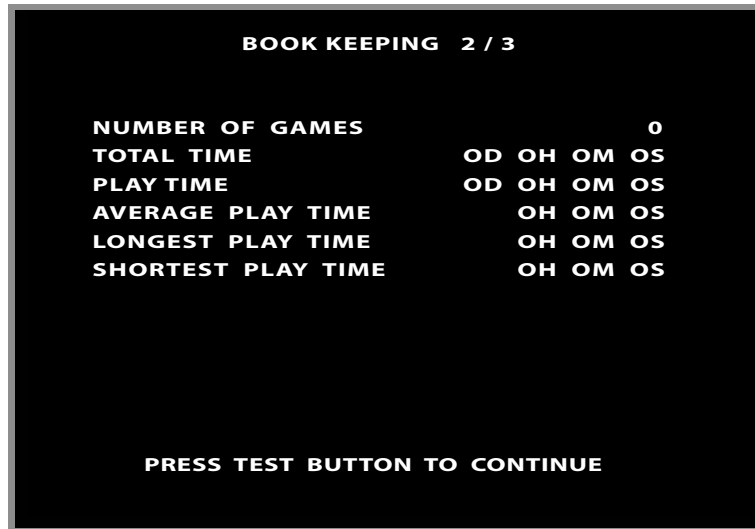
2 BOOK KEEPING   (Screen 2/3)   -   GAME TIMINGS

Displays information on the following :

NUMBER OF GAMES	-				0
TOTAL TIME	-	0D	0H	0M	0S
PLAY TIME	-	0D	0H	0M	0S
AVERAGE PLAY TIME	-		0H	0M	0S
LONGEST PLAY TIME	-		0H	0M	0S
SHORTEST PLAY TIME	-		0H	OM	0S

In the above Table the following will apply :   0 = THE NUMBER

D = DAYS

H = HOURS

M = MINUTES

S = SECONDS

9-3-7   'BOOK-KEEPING' (THREE)

Press 'TEST' Button to advance to the next Screen - BOOK-KEEPING 3/3.

```
            BOOK KEEPING   3 / 3

            TIME  HISTGRAM


     0M00S ~ 0M29S                 0
     0M30S ~ 1M00S                 0
     1M00S ~ 1M29S                 0
     1M30S ~ 2M00S                 0
     2M00S ~ 2M29S                 0
     2M30S ~ 3M00S                 0
     3M00S ~ 3M29S                 0
     3M30S ~ 4M00S                 0
     4M00S ~ 4M29S                 0
     4M30S ~ 5M00S                 0
      OVER ~ 5M00S                 0



     PRESS  TEST  BUTTON  TO  EXIT
```
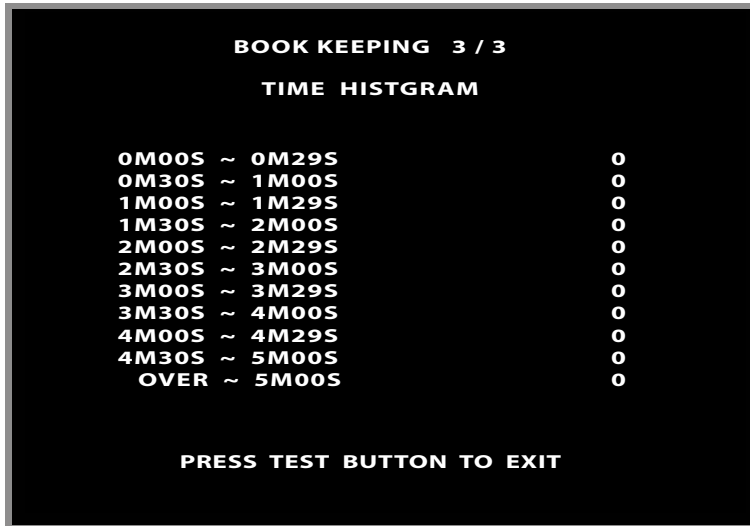
3   BOOK KEEPING   (Screen 3/3)   -   TIME HISTOGRAM

Displays information on the following 'LENGTH OF GAME' :

0M00S	~	0M29S	0
0M29S	~	1M00S	0
1M00S	~	1M29S	0
1M29S	~	2M00S	0
2M00S	~	2M29S	0
2M29S	~	3M00S	0
3M00S	~	3M29S	0
3M29S	~	4M00S	0
4M00S	~	4M29S	0
4M29S	~	5M00S	0
OVER	~	5MINUTES	0

In the above Table the following will apply :   M = MINUTES

S = SECONDS

Press 'TEST' Button to Exit BOOK-KEEPING 3/3 and Return to the GAME TEST MENU.

9-3-8   **'BACK UP DATA CLEAR'**

**Press the 'SERVICE' Button to select 'BACKUP DATA CLEAR' from the GAME TEST MENU
and then press the TEST Button, to gain entry to the 'BACKUP DATA CLEAR' Menu**

1 Press the 'SERVICE' Button to select 'YES' followed by the TEST Button, will automatically CLEAR
the BACK UP DATA and reset all readings to '0' The BACK UP DATA Screen will change to the
'COMPLETED' Screen to confirm that the Data is Cleared. Pressing the TEST Button will EXIT
the BACK UP DATA CLEAR routine and Return the Screen to the GAME TEST Menu.

2 Press the 'SERVICE' Button to select 'NO' followed by the TEST Button, will automatically EXIT
the BACKUP DATA CLEAR and return the Machine to the GAME TEST Menu without changing
any of the DATA Records.

BACKUP DATA CLEAR MENU - Screen

```
            BACKUP  DATA  CLEAR


        YES        (RESET)
->  NO         (CANCEL)








    SELECT   WITH   SERVICE   BUTTON
      AND    PRESS   TEST   BUTTON
```

BACKUP DATA COMPLETED - Screen

```
          BACKUP  DATA  CLEAR






        COMPLETED




    PRESS  TEST  BUTTON  TO  EXIT
```

9-3-9   'INTERFERENCE PREVENTION WIRING'

⚠ WARNING

- "Store maintenance man" or "Engineer" must be doing of this work. When it works by there are neither knowledge nor a technology, it causes the break-down.

- Please work after cutting the power on/off switch without fail. It causes the electric shock and the short-circuit accident.

- Please do not damage wiring. When wiring is damaged, it causes the electric shock and the short-circuit accident.

When the game machines of a same or similar type are installed side by side, their sensors may interfere with each other. To reject the interference, follow the procedure below. The following game machines employ a same or similar type of sensor. If interference happens to the sensors, operation of the games may be mutually disturbed.

- THE HOUSE OF THE DEAD 2, U/R type, DX type and Super DX type
- DEATH CRIMSON, U/R type and DX type
- THE LOST WORLD, U/R type, DX type and Super DX type
- BRAVE FIRE FIGHTERS
- CONFIDENTIAL MISSION, U/R type and DX type
- SHAKATTO TAMBOURINE
- LUPIN THE 3RD THE SHOOTING, U/R type and DX type
- THE MAZE OF THE KINGS, U/R type and DX type
- THE HOUSE OF THE DEAD 3, U/R type and DX type
- VIRTUA COP 3, U/R type and DX type
- GHOST SQUAD, U/R type and DX type
- THE HOUSE OF THE DEAD 4, SPECIAL, U/R type and DX type
- 2 SPICY, U/R type

1. Please turn off power.

2. The coin door is opened. The wire with the tag of "FREQ" is a prevention of getting entangled wire

3. Please display the game machine that connects the prevention of getting entangled wire and the game machine that pulled out the wire alternately when the same kind of game machine is arranged and set up. Please keep the removed wire safe.

10 CONTROLLER UNIT

<div style="border:1px solid">

⚠WARNING

- When working with the product, be sure to turn the power off. Working with the power on may cause an electric shock or short circuit.

- Be careful not to damage the wires. Damaged wires may cause an electric shock, short circuit or present a risk of fire.

- Exercise due caution in performing soldering work. If soldering iron is handled carelessly, there could be fires or burns.

</div>

<div style="border:1px solid">

⚠CAUTION

- When fastening plastic parts, be careful not to tighten screws or nuts excessively. If these are tightened to excess, parts could be damaged, resulting in injuries from fragments, etc.

- After the unit has been disassembled and reassembled again, check carefully to be sure that there are no gaps or rattling at the junctions and that the trigger can be operated smoothly. If there are gaps or rattling, or if operation is not satisfactory, the players could get fingers or hands caught, resulting in injury.

- Be sure to inspect gun surfaces for cracks and damage. Players could be injured if they play when the unit is cracked or damaged.

- Assemble so that there is no gap between the L and R covers. If there is a gap or rattling, the players could get fingers or hands caught, resulting in injury.

</div>

(STOP) IMPORTANT

<div style="border:1px solid">

- Once the product has been disassembled, use slack preventive agent (product No. : 090-0012-N). Coat screws with suitable amounts of this agent and then tighten them. If this agent is not used, the product might start rattling or come apart.

- Use the slack preventive agent prescribed in these instructions. If any other agent is used, there could be chemical changes that inhibit the use of screws and part surfaces could be damaged.

- Be careful not to damage or lose small parts or screws.

- When a part has been replaced, be sure to always make adjustments and check conditions in Test Mode.

</div>

10-1   DIS-ASSEMBLING THE PUMP GUN

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

Follow the steps listed below to dissemble the gun, for service and part replacement.
Internal parts are inserted on the R cover side, therefore always work with the R cover facing downward as shown in 10-01 Fig 01.

1 Seven different types or sizes of screw are used to fasten the L and R Gun covers. Using a total of 22 screws, all of which have to be removed before the L and R covers can be detached.

GUN ASSEMBLY FIXING POINTS

	Qty	Code	Tool
A	x4	32	T10
B	x1	39	T10
C	x1	16	T10
D	x2	10	T10
E	x2	13	T25
F	x2	20	T10
G	x10	9	T10

Note that the 'D' fixings are located under the PUMP Handle Cover

Note: The 'Code' inicates the Item Number listed in the Parts List at the end of this Chapter
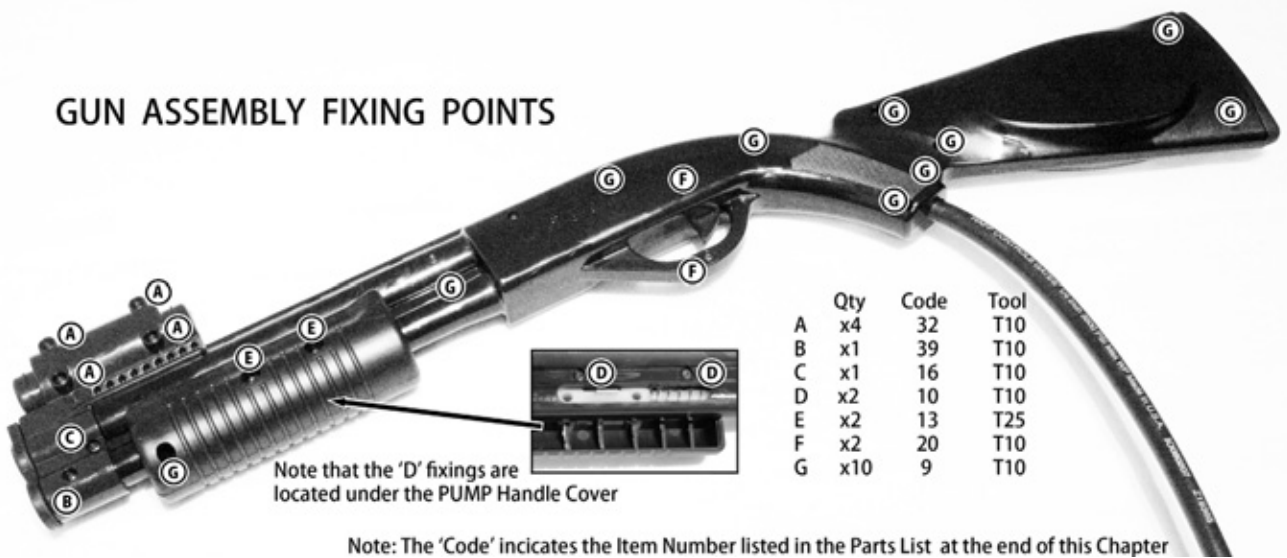
10-01 Fig. 01

2 First remove the Pump Handle when dissembling the Gun to reveal the fixing screws 'D'.

To remove the Pump Handle Housing, take a T10 Star Key and remove fixing 'G', then using a T25 Star Key remove the remaining two 'E' fixings. (Note that the 'E' fixings have Nyloc Nuts located in the reverse side of the molding that will fall out when the Bolts are removed).
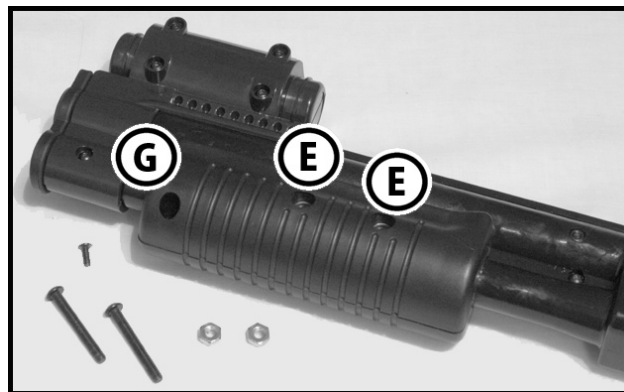
10-01 Fig. 02

Showing the positions of the 'D' Fixings.

10-01 Fig. 03

3 Removing the Sight Housing.

Using a T10 Star Key, remove the four fixing Bolts 'A', followed by Bolts 'C' & 'D'

All six bolts have loose nuts that are fitted into the molding on the reverse side and will easily fall out once the bolts are removed. Make sure that all nut are retained for use when the Gun is being rebuilt.
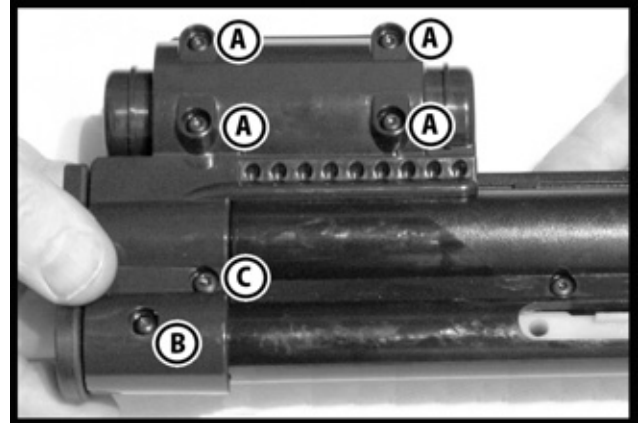
10-01 Fig. 04
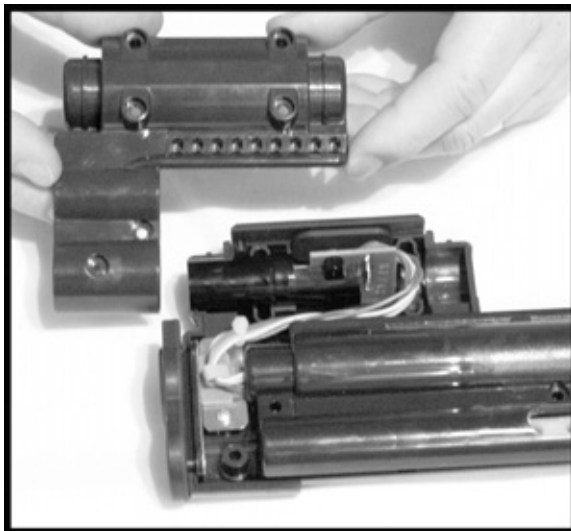
10-01 Fig. 05

Once the six bolts have been removed, the L/H side of the Sight Housing can be lifted from the assembly.

Unlike the Pump Housing where both L & R halves of the housing could be removed, the R/H half of the Sight Housing remains attached to the Gun Molding.

4 Once the Sight Molding has been removed, the remaining 13 screws holding the two halves of the gun together can be removed**.**

Note that the two screws in position 'D' are slightly shorter than those used in 'G' and that the two screws used in position 'F' are of a smaller diameter than the others.

When all Screws have been removed, the gun may be parted. Leaving the R Side of the Gun on work surface, gently part the two moldings lifting the L/H side, turning it over and placing it down next to the R/H side. Be careful not to disturb the wires linking the two halves together.

5 Gun Assembly - Component Identification

SENSOR CASE L/H

SENSOR UNIT

SENSOR BOARD

PUMP ACTIVATION BAR

R/H GUN HOUSING

SENSOR UNIT CONNECTOR

MICRO-SWITCH CONNECTOR

TRIGGER

TETHER HOSE AND HARNESS

L/H SPEAKER CONNECTOR

R/H SPEAKER CONNECTOR

R/H   L/H
PUMP HOUSINGS

L/H GUN HOUSING

PUMP MICRO-SWITCH

TRIGGER MICRO-SWITCH

L/H SPEAKER

R/H SPEAKER
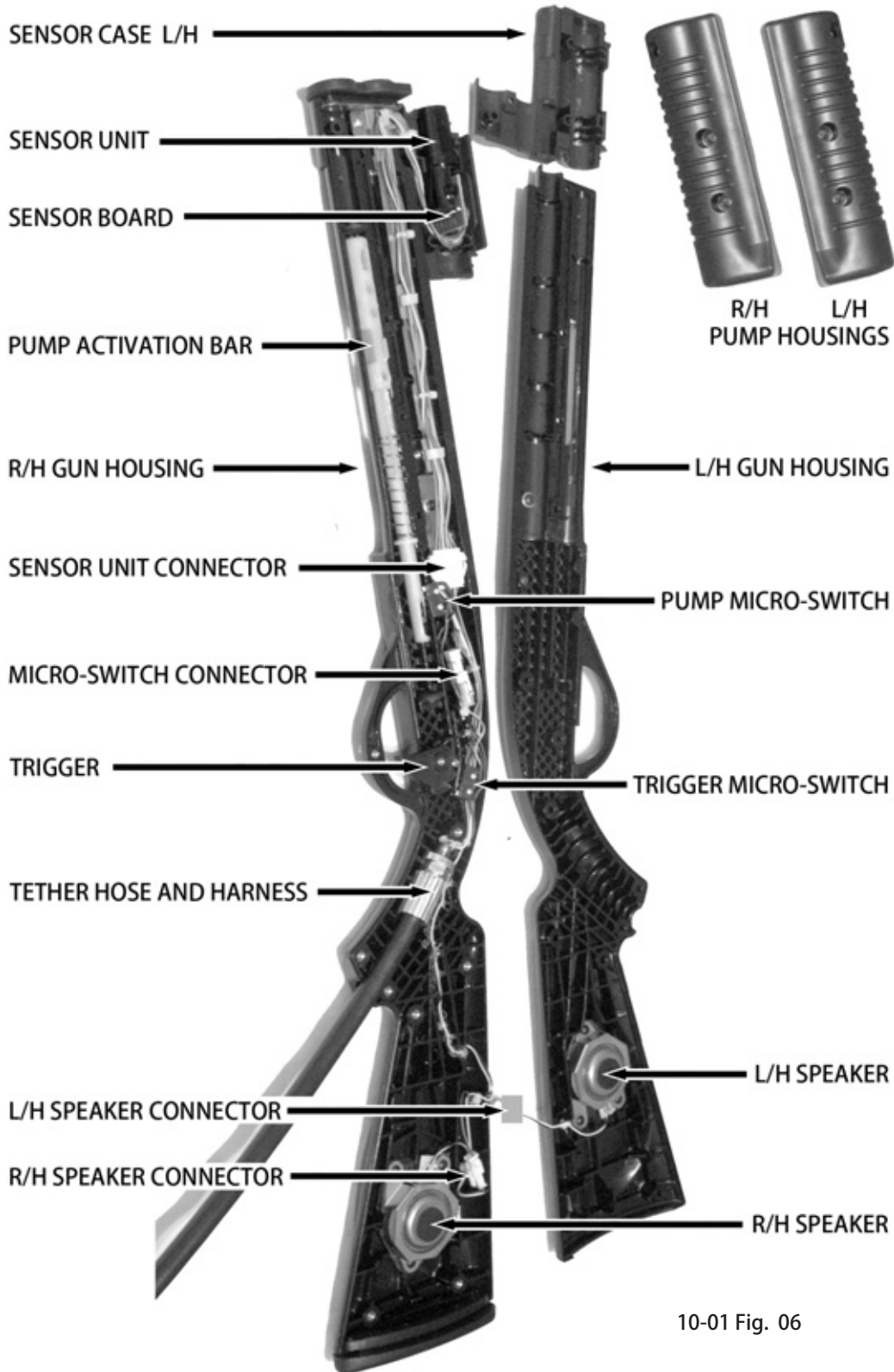
10-01 Fig. 06

The procedure to Re-assemble the Pump Gun should adopt the Disassemble Instructions in the reverse order. However Important checks should be made during the Re-assembly to prevent further problems or faults from occurring.

1
Check that the Trigger is seated properly, check that it operates the switch correctly and the spring return, is located in the correct position.

'A' shows the position of one end of the spring being located behind a section of the Gun Case molding.

'B' shows the other end of the spring being located around the edge of the Trigger.
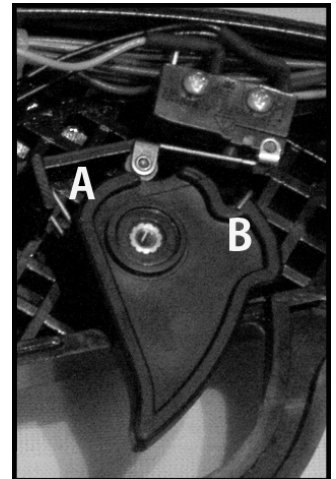
10-02 Fig. 01

2
Check that the spring fitted on the Pump Activation Bar is located in the correct position and that the Pump Microswitch operates correctly when the activation bar is moved.

Trigger Micro Switch - Normal Position

10-02 Fig. 02

Nylon Washer and Spring fits behind this section of molding
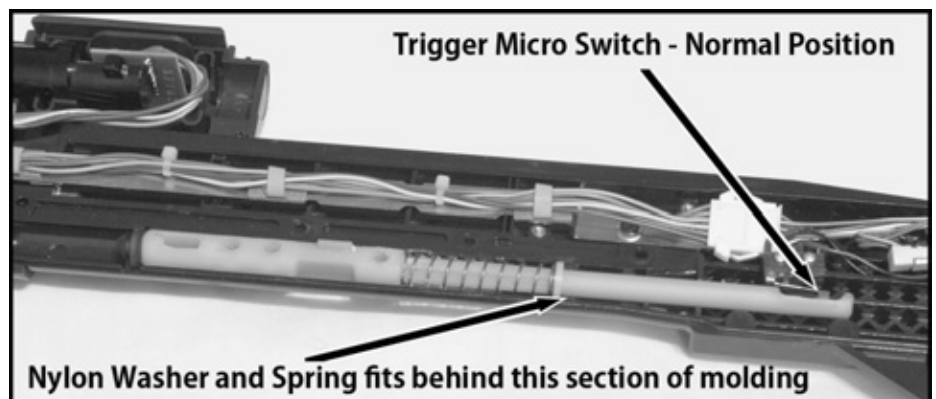
10-2   RE-ASSEMBLING THE PUMP GUN

3 Check that the Case Rubber Front Cap is located correctly.
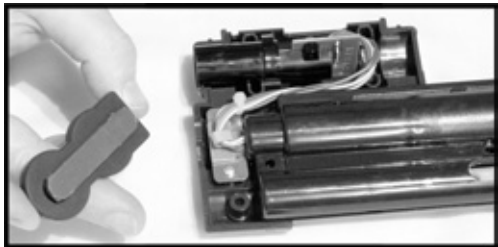
10-02 Fig. 03
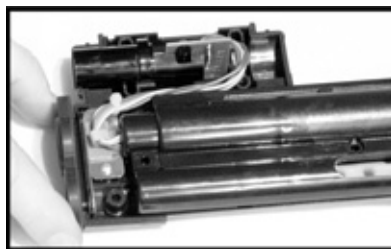
10-02 Fig. 04

4 Check that the Case Rubber Top - (Sight) is located correctly.
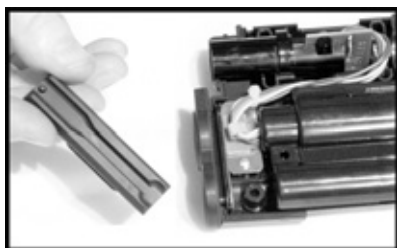
10-02 Fig. 05

10-02 Fig. 06
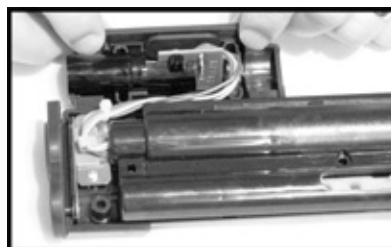
10-02 Fig. 07

5 Check that all connectors are properly connected and that the wiring harness is tucked away from positions that could trap wires when the two halves of the Gun are fitted together.

WARNING - AVOID THIS

10-02 Fig. 08

10-3 REPLACING THE SPEAKER

To replace either of the 'Speakers' inside the Gun Assembly. Disassemble the Gun following the instructions as shown in 10-1, then follow the Instructions below.

1 Unplug the Speaker Connector.
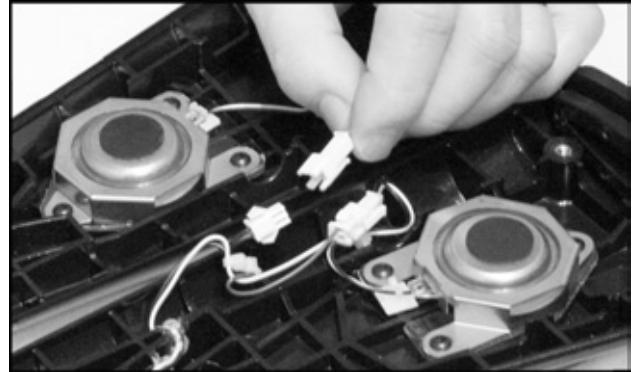
10-03 Fig. 01

2   Using a T10 Starkey, remove the three fixing screws holding the speaker to the Gun Housing.
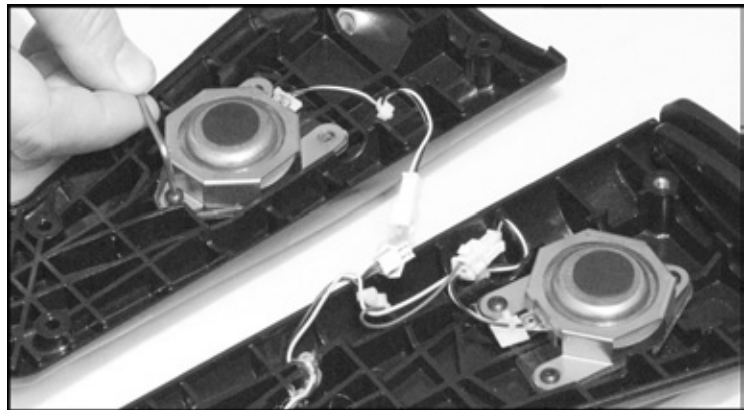
10-03 Fig. 02

3 Remove the Speaker from the Gun Housing.

10-03 Fig. 03

4 The Speaker will now lift out of the fixing bracket. Replace and refit a new Speaker to the side of the Gun Housing, by using the reverse procedure as shown above.

Once the 'Speaker' has been re-fitted, reassemble the Gun Assembly following the instructions as shown in 10-2.

10-4 REPLACING THE SENSOR UNIT

To replace the 'Sensor Unit' inside the Gun Assembly. Disassemble the Gun following the instructions as shown in 10-1, then follow the Instructions below.

1 Unplug the Sensor Connector, and unfasten the harness at positions 'A'.

10-04 Fig. 01
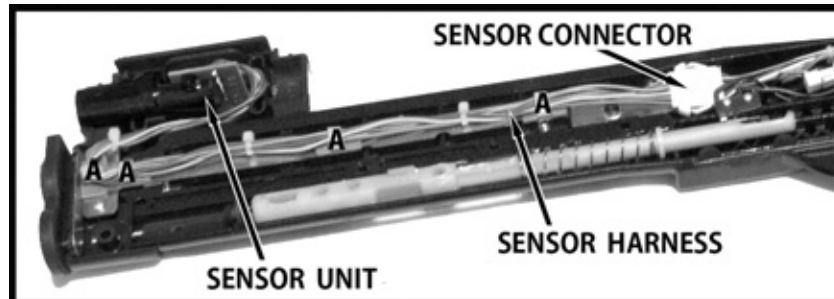
2 Lift the Sensor Unit Case out of the Gun Molding
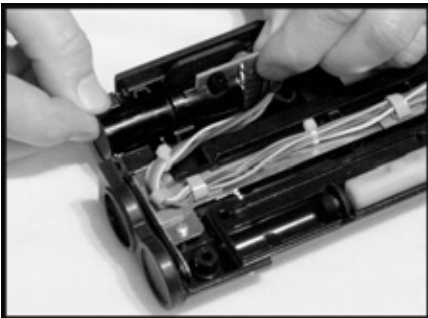
10-04 Fig. 02
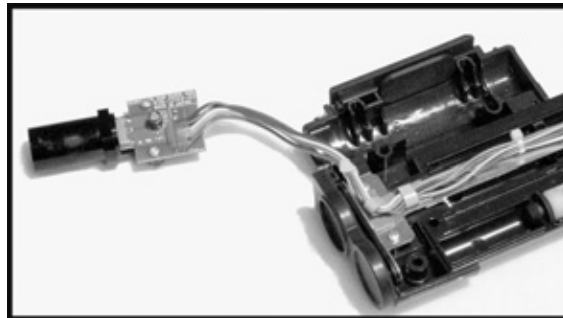
10-04 Fig. 03

3 If required to do so, remove the Sensor Unit from the Sensor Case by removing the two fixing screws.
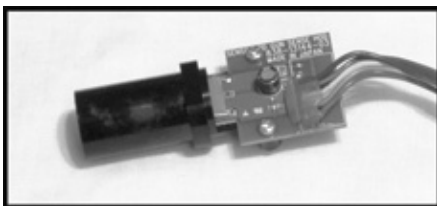
10-04 Fig. 04
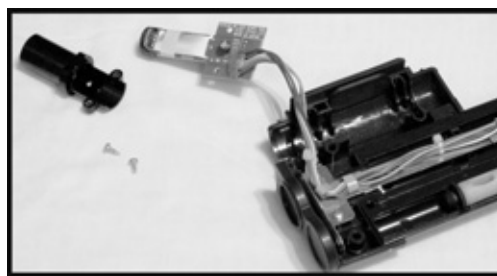
10-04 Fig. 05

4 The Sensor Unit will now slide out from the case. Replace and refit the new Sensor Unit and reassemble onto the Gun Housing, by using the reverse procedure as shown above.

Once the 'Sensor Unit' has been re-fitted, reassemble the Gun Assembly following the instructions as shown in 10-2.

To replace the 'Micro switches' inside the Gun Assembly. Disassemble the Gun following the instructions as shown in 10-1, then follow the Instructions below.

1 There are two 'Micro Switches' located inside the Pump Gun assembly, the first operated by the Trigger and the second operated by Pump Lever .

PUMP LEVER
MICRO SWITCH

TRIGGER
MICRO SWITCH

SWITCH HARNESS CONNECTOR

10-05 Fig. 01
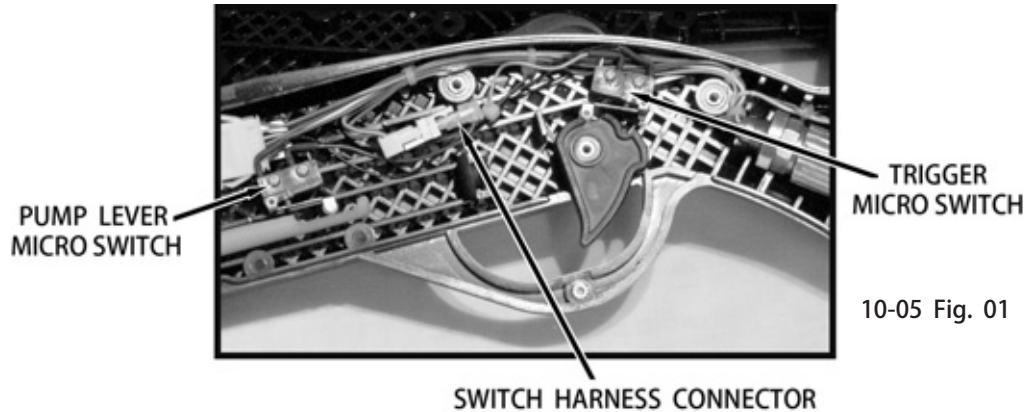
2 To replace one of the Micro Switches you will need the following :
Small (+) Screwdriver - Wire Cutters - Soldering Iron - Solder - Heat Shrink Insulation.

3 To replace the 'Trigger' Microswitch, remove the two fixing screws.

REMOVE
SCREWS

10-05 Fig. 02
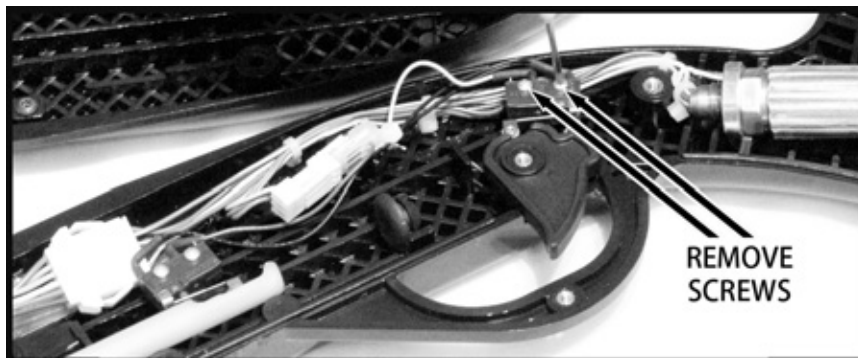
4 With the Microswitch removed disconnect the Switch Loom from the Gun wiring Harness to allows greater movability when changing the Microswitch. Both switches may be removed for ease of service, however when reassembling care should be taken not to mount them in the wrong positions.
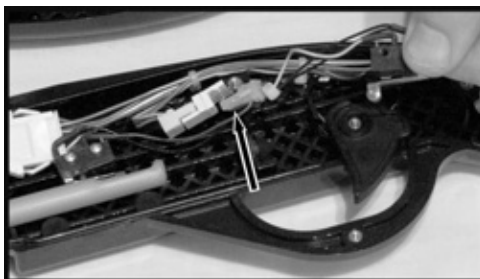
Trigger Switch Wires - Black and Yellow .
Pump Switch Wires - Black and Purple.

10-05 Fig. 03

5 To replace the Microswitch, remove the 'Heat Shrink' insulation covering the connection on the Microswitch to be replaced. De-solder the wires from the switch and remove any remaining Heat Shrink on the cables.

Slide the new Heat Shrink covering over the wires and re-solder them onto the replacement Microswitch, slide the Heat Shrink over the connections and apply heat to shrink the insulator.

6 Reattach the Microswitch to the Gun Housing, and move the Trigger and test the operation of the replacement switch.

Reconnect the Switch loom to the 'Gun Housing' Wiring Harness, checking the position of the loom is clear.

FIXING POSITIONS
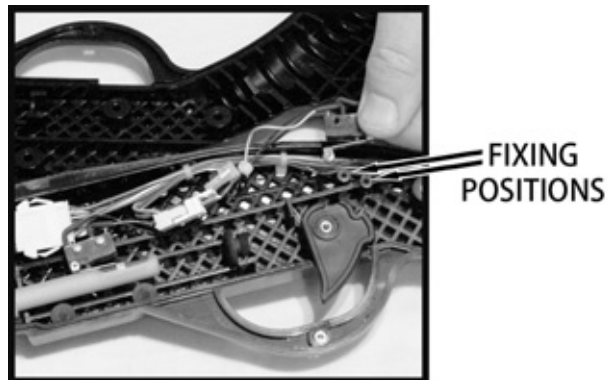
10-05 Fig. 04

7 The same procedure it taken when changing the Pump Switch Micro Switch, when the Pump Switch is replaced, always check its operation by moving the 'Pump Activating Bar'.

        10-05 Fig 05   Shows the Pump Switch in the Normal Rest Position.
        10-05 Fig o6   Shows the Pump Switch in the Activated Position.
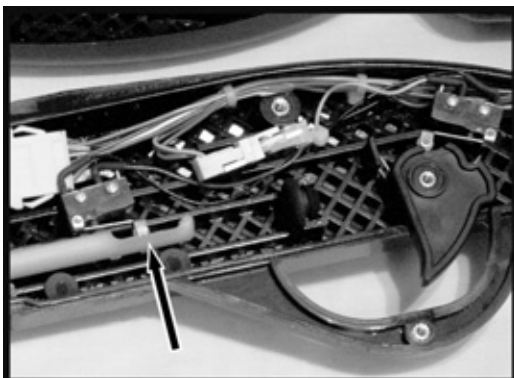
10-05 Fig. 05
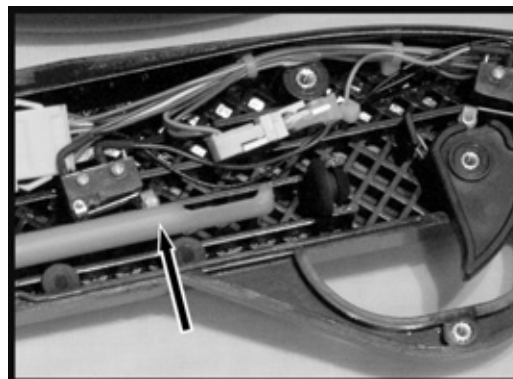
10-05 Fig. 06

Once the 'Microswitch' has been re-fitted, reassemble the Gun Assembly following the instructions as shown in 10-2.

SHOTGUN W/SPKR, SENSOR ORANGE 99-50-343
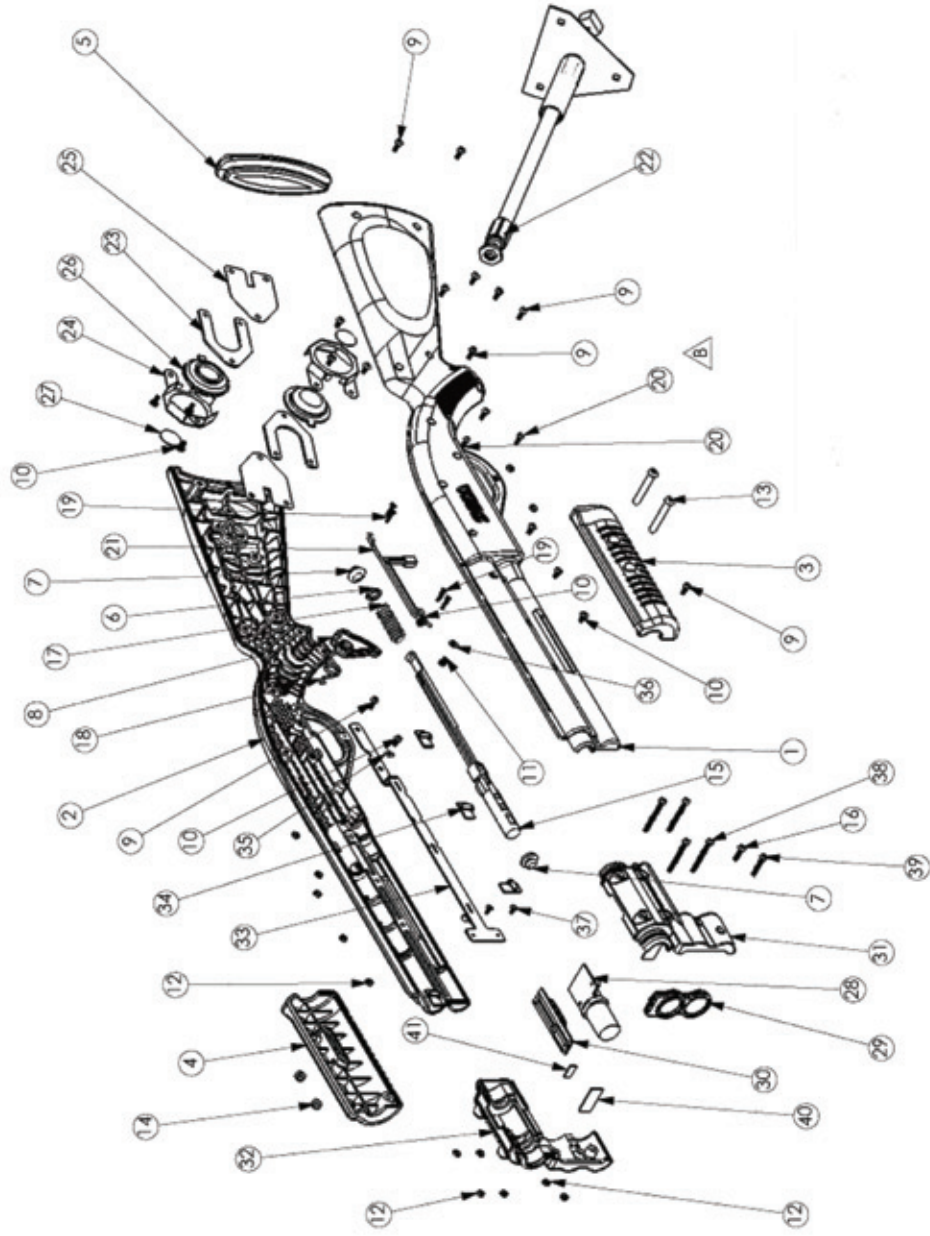
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	96-0728-00	HOUSING LEFT F/SEGA PUMP ACTION SHOTGUN
2	1	96-0728-00	HOUSING RIGHT F/SEGA PUMP ACTION SHOTGUN
3	1	96-0732-00L	PUMP HOUSING SEGA L.H.
4	1	96-0732-00R	PUMP HOUSING SEGA R.H.
5	1	96-0775-00	REAR CAP F/PUMP ACT. SHOTGUN
6	1	43-1245-00	PLASTIC WASHER
7	2	96-0309-00	BUMPER, STOP FOR ACTIVATION BAR
8	1	96-0774-00	TRIGGER FOR PUMP ACT. SHOTGUN/RIFLE
9	10	43-0095-00	SCREW 6-32 x3/8 BHMS T-10 TORX
10	11	43-1294-00P	SCREW 6-32 x.5/16 BHMS T-10 TORX W/PATCH
11	1	43-2314-00	SCREW 6-32 X 7/32 BHMS T-10
12	13	43-0094-00	NUT HEX 6-32 .25 A.F. BLACK OXIDE
13	2	43-2311-00	SCR 10-32 X 1-1/2 BH TORX BLACK
14	2	43-2350-00	NUT HEX 10-32 JAM NYLOCK BLK OX
15	1	43-2312-00	SCREW 6-32 X 9/16 BH TORX
16	1	96-0308-00	SPRING PUMP CARNEVIL PUMP SHOTGUN
17	1	96-0311-00	TORSION SPRING TRIGGER PUMP SHOTGUN
18	1	96-0793-00	ACTIVATION BAR FOR PUMP ACTION RIFLE
19	4	43-0172-00	SCREW, #2 X 1/2 TYPE B, PPH
20	2	43-2313-00	SCREW, 4-40 X 3/8 BHMS T-10 TORX
21	1	96-0318-00	TRIGGER & PUMP SWITCH AND HARNESS ASSY
22	1	96-0752-INF	TETHER HOSE AND HARNESS ASSY F/INFARED SEGA RIFLE
23	2	96-0753-00	SPEAKER HOLDER BRACKET
24	1	96-0758-00	SPEAKER COVER BRKT F/SEGA SHOTGUN
25	2	96-0734-00	SPEAKER BASE BRACKET
26	2	130-5282-93	AW SHOTGUN SPEAKER
27	2	96-0919-00	SPEAKER SPONGE ROUND
28	1	ADH-2130	SENSOR UNIT (OMC-QZH200-H)
29	1	ADH-2004	CASE RUBBER FRONT CAP
30	1	ADH-2003	CASE RUBBER TOP
31	1	ADH-2001	SENSOR CASE L
32	1	ADH-2002	SENSOR CASE R
33	1	96-0918-00	SENSOR CASE SUPPORT BRKT
34	4	43-2347-00	CORD CLAMP SR10
35	4	43-2351-00	WASHER #6 FLAT .03T BLK OX
36	4	43-0004-00	WASHER #6 FLAT .03T ZNC
37	2	43-0492-00	SCREW .4-40 X .25 PH. PN. HD
38	1	43-2349-00	SCREW 6-32 X 1-1/2 BHMS T10
39	1	43-2348-00	SCREW 6-32 X 7/8 BHMS T10
40	2	96-0922-00	SENSOR CASE SPONGE LARGE
41	2	96-0921-00	SENSOR CASE SPONGE LARGE

🔢 MONITOR　(62" DLP)

11-1 SAFETY PRECAUTIONS WHEN HANDLING THE MONITOR

⚠️ WARNING

Responding to breakdown or abnormality

● **If smoke or a strange odor appears, immediately unplug the power cable from the power source.**

　Continuing to use the product may cause a fire or an electric shock. Ensure that smoke is no longer emitted, and contact the point of purchase.

● **If nothing displays on the screen, immediately unplug the power cable from the power source.**

　Continuing to use the product may cause a fire or an electric shock. Contact the point of purchase and request an inspection.

● **If water or a foreign object enters the monitor's interior, immediately unplug the power cable from the power source.**

　Continuing to use the product may cause a fire or an electric shock. Contact the point of purchase and request an inspection.

● **If the monitor is dropped or the cabinet is damaged, immediately unplug the power cable from the power source.**

　Continuing to use the product may cause a fire or an electric shock. Contact the point of purchase and request an inspection.

During operation

● **Do not repair, reconstruct, or disassemble the monitor.**

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

　For inspections, adjustments, and repair of the monitor's interior, request work from the point of purchase.

● **Do not insert foreign objects.**

　If metal objects or flammable materials such as paper are inserted into the interior through ventilation openings or other apertures, an electric shock could result.

● **In the event of a thunder storm, do not touch the product or the power cable. An electric shock could result.**

● **Make sure to perform appropriate adjustments. Do not operate the product when the screen is flickering, distorted, or experiencing other abnormalities. Images from an improperly adjusted screen could cause players and other customers to experience dizziness, headaches, and other ailments.**

11-2 CLEANING THE SCREEN SURFACE

⚠ CAUTION

- **Use a soft, dry cloth (flannel-type) to wipe away dirt. Do not use materials such as coarse mesh gauze.**
- **Alcohol (ethanol) is the recommended solvent for removing dirt. When using a cleaning agent, follow the precautions below.**
  - **Dilute neutral cleaning agents for home use with water. Soak a soft cloth in the solution, and wring it thoroughly before wiping the screen.**
  - **Do not use abrasive cleaning agents or powders, or cleaning agents containing bleach.**
  - **Do not use alkaline cleaning agents such as glass cleaners, or solvents such as thinners.**
- **Do not scrub or scratch the screen surface with abrasive materials such as brushes or scrub brushes.**

Clean the screen surface once a week.

STOP **IMPORTANT**

All adjustment values are set accurately at the time of shipping from the factory. Do not readjust these values needlessly or apply adjustments not specified in this manual. The display may not appear properly if the values are incorrect.

1-1 PICTURE MENU

BRIGHTNESS	050			
CONTRAST	050			
SHARPNESS	007			
COLOUR	050			
ADVANCE SET		\<RIGHT\>	TO ADVANCE SET	
	FREQUENCY	000		
	PHASE	000		
	COLOUR TEMP.	RED	052	
		GREEN	037	
		BLUE	031	

ITEM	OPERATION AND FUNCTION	
BRIGHTNESS	Adjust Picture Brightness.	Press "\>" key to increase Brightness value. Press "\<" key to decrease Brightness Value
CONTRAST	Adjust Picture Contrast.	Press "\>" key to increase Contrast value. Press "\<" key to decrease Contrast Value
SHARPNESS	Adjust Picture Sharpness.	Press "\>" key to increase Sharpness value. Press "\<" key to decrease Sharpness Value
COLOUR	Adjust Picture Chroma.	Press "\>" key to increase Chroma value. Press "\<" key to decrease Chroma Value
ADVANCE SET	Press the "\>" key to enter the Advance Set Submenu.	
FREQUENCY	Adjust the Picture Frequency Timing.	
PHASE	Adjust the Picture Distortion.	
COLOUR TEMP	Press the "\>" key to enter the Colour Temperature Submenu.	
RED	Adjust Red Temperature.	Press "\>" key to increase the Red value. Press "\<" key to decrease the Red Value.
GREEN	Adjust Green Temperature.	Press "\>" key to increase the Green value. Press "\<" key to decrease the Green Value.
BLUE	Adjust Blue Temperature.	Press "\>" key to increase the Blue Value. Press "\<" key to decrease the Blue Value.

1-2 IMAGE ADJUSTMENT MENU

IMAGE SIZE	**FILL ALL / FILL ASPECT / 1 TO 1**
H POSITION	**053**
V POSITION	**003**
AUTO	**<RIGHT> TO AUTO SET**

ITEM	OPERATION AND FUNCTION
IMAGE SIZE	Select Picture Scale Fill All / Fill Aspect / 1 to 1 Press "<" or ">" to enter Picture Size Sub Menu.
H POSITION	Adjust the Picture for HORIZONTAL Center.
V POSITION	Adjust the Picture for VERTICAL Center.
AUTO	Automatic Adjustment

1-3 OPTION MENU

LANGUAGE	**ENGLISH**	
DPMS	**ON / OFF**	
OSD SETTINGS	**TRANSPARENCY**	**00**
	OSD TIME OUT	**20**
SOURCE RENAME		
FACTORY RESET	**<RIGHT>**	**TO FACTORY RESET**

ITEM	OPERATION AND FUNCTION
LANGUAGE	Select Menu Language Press "<" or ">" to select CHINESE / ENGLISH
DPMS	Set DPMS to 'OFF'
OSD SETTINGS	Press the ">" key to enter the OSD Submenu.
TRANSPARENCY	Adjust the OSD Transparency.
OSD TIMEOUT	OSD Display Time Set is shown on the screen.
SOURCE RENAME	Press the ">" key to select the Input Signal Source.
FACTORY RESET	Default Setting - Factory Reset.

1-4   TIME MENU

CALENDAR	<RIGHT>	TO CALENDAR
SLEEP TIME	000 MINS	

ITEM	OPERATION AND FUNCTION
CALENDAR	Press the ">" key to Display Calendar
SLEEP TIME	Press the ">" key for Monitor Standby Time Setting.

1-5   AMUSEMENT MENU

GAME	ENGLISH	
LOGO CAPTURE	<RIGHT>	TO CAPTURE LOGO
DISPLAY LOGO	ON / OFF	

ITEM	OPERATION AND FUNCTION
GAME	Press the ">" key to enter the Game Submenu.
LOGO CAPTURE	Press the ">" key to enter Logo Capture.
DISPLAY LOGO	Dispay Logo on the Screen.

2 - REMOTE EXPLAINED

2-1 POWER STANDBY KEY.

The Monitor will STANDBY after forty-five Seconds, if not received any instruction pressing the Remote Power Key will re start

2-2 PIP KEY

Select VGA port input.

2-3 TEXT KEY

Select HDMI port input (Option)

1 REMOTE NOT FUNCTIONING

1   REMOTE   NOT   FUNCTIONING

```
                    ┌─────────────────────────┐
                    │   REMOTE  NO  FUNCTION   │
                    └─────────────────────────┘
                                 │
                    ┌─────────────────────────┐  YES  ┌─────────────────────────┐
                    │   BATTERY  POLARITY      │───────│      RE-SETTLE          │
                    │      REVERSED            │       │   BATTERY POLARITY      │
                    └─────────────────────────┘       └─────────────────────────┘
                                 │ NO
                    ┌─────────────────────────┐  YES  ┌─────────────────────────┐
                    │      BATTERY             │───────│    REPLACE NEW          │
                    │     CONSUMED             │       │      BATTERY            │
                    └─────────────────────────┘       └─────────────────────────┘
                                 │ NO
                    ┌─────────────────────────┐  YES  ┌─────────────────────────┐
                    │ CHECK IR RECEIVE BOARD   │───────│    TIGHTEN UP           │
                    │  X 1001  CONNECTOR       │       │     SOCKET              │
                    └─────────────────────────┘       └─────────────────────────┘
                                 │ NO
         ┌──────────────────────────────────┐  NO  ┌─────────────────────────┐
         │ CHECK IR RECEIVE BOARD N1001 POINT│──────│      REPLACE            │
         │  VCC VOLTAGE = 5v ?               │      │       BOARD             │
         └──────────────────────────────────┘      └─────────────────────────┘
                                 │ YES
                    ┌─────────────────────────┐
                    │     REPLACE  BOARD       │
                    └─────────────────────────┘
```
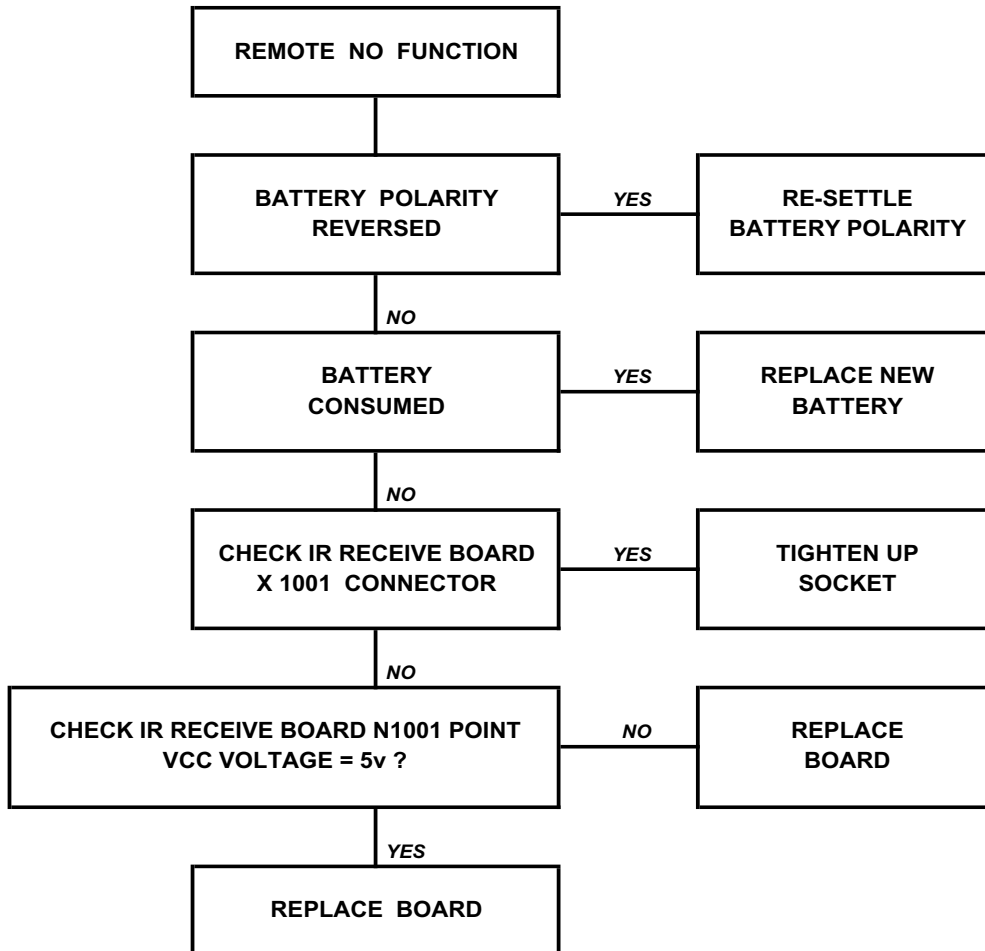
2 POWER ON FAULT

2   POWER ON FAULT

```
┌──────────────────────────┐
│      POWER ON FAULT       │
└──────────────────────────┘
              │
              │
┌──────────────────────────┐   YES   ┌──────────────────────────┐
│  CHECK POWER BOARD  F100  │ ──────→ │        REPLACE           │
│     IS FUSE BROKEN        │         │         FUSE             │
└──────────────────────────┘         └──────────────────────────┘
              │ NO
              │
┌──────────────────────────┐   NO    ┌──────────────────────────┐
│  CHECK POWER BOARD CN201  │ ──────→ │        REPLACE           │
│     POINT PIN (1) = 5v ?  │         │      POWER BOARD         │
└──────────────────────────┘         └──────────────────────────┘
              │ YES
              │
┌──────────────────────────┐   NO    ┌──────────────────────────┐
│  CHECK POWER BOARD CN201  │ ──────→ │        REPLACE           │
│  POINT PIN (5)  = HIGH LEVEL │      │      POWER BOARD         │
└──────────────────────────┘         └──────────────────────────┘
              │ YES
              │
┌──────────────────────────┐
│    REPLACE MAIN BOARD     │
└──────────────────────────┘
```

3 NO PICTURE

3   NO PICTURE

```
┌─────────────────────┐
│     NO PICTURE      │
└─────────────────────┘
           │
┌─────────────────────┐   NO    ┌─────────────────────┐
│  CHECK PROJECTOR    ├────────→│  CONFIRM POWER      │
│  POWER CONNECTOR    │         │  CONNECTION         │
└─────────────────────┘         └─────────────────────┘
           │ YES
┌─────────────────────┐   YES   ┌─────────────────────┐
│ CHECK POWER BOARD F100├───────→│  REPLACE            │
│  IS FUSE BROKEN     │         │  FUSE               │
└─────────────────────┘         └─────────────────────┘
           │ NO
┌─────────────────────┐   NO    ┌─────────────────────┐
│ CHECK POWER BOARD CN201├──────→│  REPLACE            │
│  POINT PIN (1) = 5v ?│        │  POWER BOARD        │
└─────────────────────┘         └─────────────────────┘
           │ YES
┌─────────────────────┐   NO    ┌─────────────────────┐
│ CHECK POWER BOARD CN201├──────→│  REPLACE            │
│ POINT PIN (5) = HIGH LEVEL│    │  POWER BOARD        │
└─────────────────────┘         └─────────────────────┘
           │ YES
┌─────────────────────┐   YES   ┌─────────────────────┐
│ CHECK CONNECTOR TO MAIN├──────→│  CHECK VGA CABLE    │
│  BOARD - VGA CABLE  │         │  IN GOOD CONDITION  │
└─────────────────────┘         └─────────────────────┘
           │ NO
┌─────────────────────┐   OK    ┌─────────────────────┐
│  REPLACE            ├────────→│  WORKING            │
│  MAIN BOARD         │         │  NORMALLY           │
└─────────────────────┘         └─────────────────────┘
           │ NO
┌─────────────────────┐   NO    ┌─────────────────────┐
│  INPUT EQUIPMENT    ├────────→│  INPUT SOURCE       │
│  POWER ON           │         │  WORKING NORMAL     │
└─────────────────────┘         └─────────────────────┘
           │ YES
┌─────────────────────┐   NO    ┌─────────────────────┐
│ INPUT MODE MATCHING ├────────→│  SET CORRECT        │
│ PROJECTOR DISPLAY MODE│       │  INPUT MODE         │
└─────────────────────┘         └─────────────────────┘
```

4 PICTURE APPEARS TO BE DARK

4   PICTURE   APPEARS   TO   BE   DARK

```
┌─────────────────────────────┐
│        PICTURE TO DARK       │
└─────────────────────────────┘
              │
┌─────────────────────────────┐          ┌─────────────────────────────┐
│           COLOUR            │   YES    │     ADJUST COLOUR TONE      │
│    COLOUR TONE NOT GOOD     │──────────│    TO OPTIMAL CONDITION     │
└─────────────────────────────┘          └─────────────────────────────┘
              │ NO
┌─────────────────────────────┐          ┌─────────────────────────────┐
│      VGA INPUT CABLE        │   YES    │     CONFIRM VGA CABLE       │
│      CONTACT PROBLEM        │──────────│    IS IN GOOD CONDITION     │
└─────────────────────────────┘          └─────────────────────────────┘
              │ NO
┌─────────────────────────────┐          ┌─────────────────────────────┐
│   CHECK LAMP IS CONSUMED    │   YES    │          REPLACE            │
│      LONG AND COME          │──────────│           LAMP              │
└─────────────────────────────┘          └─────────────────────────────┘
```
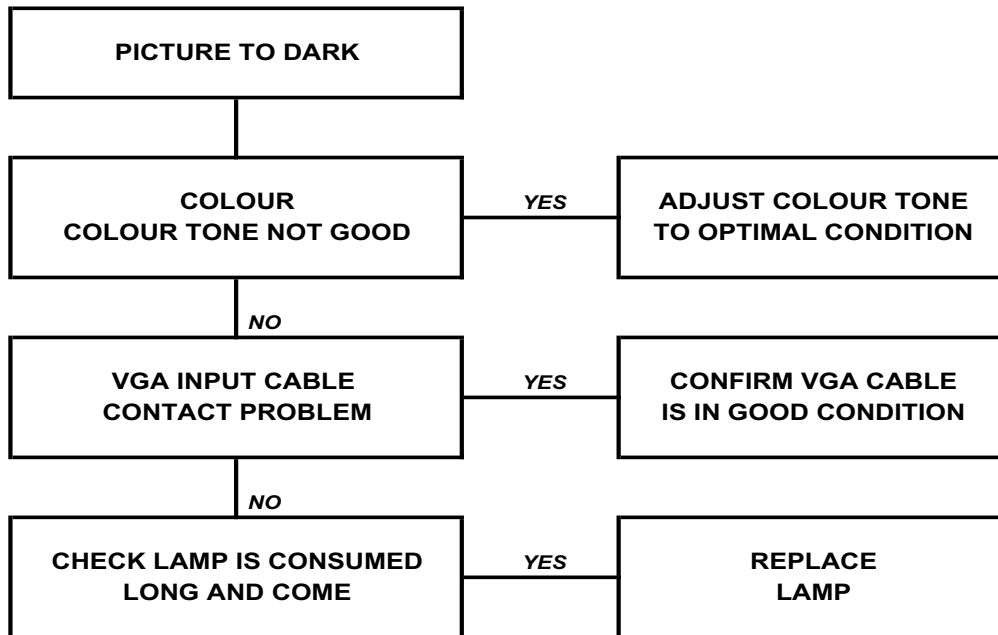
5 LAMP NOT LIGHTING UP

5   LAMP NOT LGHTING UP

```
┌─────────────────────┐
│  LAMP NOT LIGHTING  │
└─────────────────────┘
          │
          │
┌─────────────────────┐   NO   ┌─────────────────────┐
│ CHECK BALLAST VOLTAGE│───────│      REPLACE        │
│    X1 = DC 370v      │        │    POWER BOARD      │
└─────────────────────┘        └─────────────────────┘
          │ YES
┌─────────────────────┐   YES  ┌─────────────────────┐
│   CHECK BALLAST SA8  │───────│      REPLACE        │
│  IF BURNT OR BROKEN  │        │      BALLAST        │
└─────────────────────┘        └─────────────────────┘
          │ NO
┌─────────────────────┐   YES  ┌─────────────────────┐
│ CHECK CONNECTION CABLE│──────│      TIGHTEN        │
│BETWEEN ENGINE AND BALLAST│    │ CONNECTION SOCKET   │
│ 5P (J31) OR HIGH PRESSURE │   └─────────────────────┘
│ CABLE TO LAMP 2P (RED)│
└─────────────────────┘
          │ NO
┌─────────────────────┐   YES  ┌─────────────────────┐
│    CHECK IF LAMP     │───────│      REPLACE        │
│    IS BROKEN         │        │  LAMP AND BALLAST   │
└─────────────────────┘        └─────────────────────┘
          │ NO
┌─────────────────────┐
│      REPLACE        │
│  LAMP OR BALLAST    │
└─────────────────────┘
```

11

MONITOR (DLP DISPLAY)

6 PICTURE BLURRED

6   PICTURE BLURRED

```
┌─────────────────────────┐
│     PICTURE BLURRED      │
└────────────┬────────────┘
             │
             │
┌────────────┴────────────┐   YES   ┌──────────────────────────────────┐
│  CHECK IF ENGINE LENS   │─────────│  USE "+" SCREWDRIVER TO          │
│       IS LOOSE          │         │  LOOSEN THE SCREW ON LENS.       │
└────────────┬────────────┘         │  HOLD LENS AND GENTLY            │
             │                      │  TWIST IT LEFT AND RIGHT         │
             │ NO                   │  UNTIL YOU FIND THE BEST         │
┌────────────┴────────────┐         │  POSITION FOR THE FOCUS.         │
│      REPLACE            │         │  WHEN THE PICTURE IS AT          │
│      ENGINE            │         │  THE OPTIMAN FOCUS LEVEL         │
└─────────────────────────┘         │  TIGHTEN THE LENS FIXING         │
                                    │  SCREW TO LOCK THE POSITION      │
                                    └──────────────────────────────────┘
```
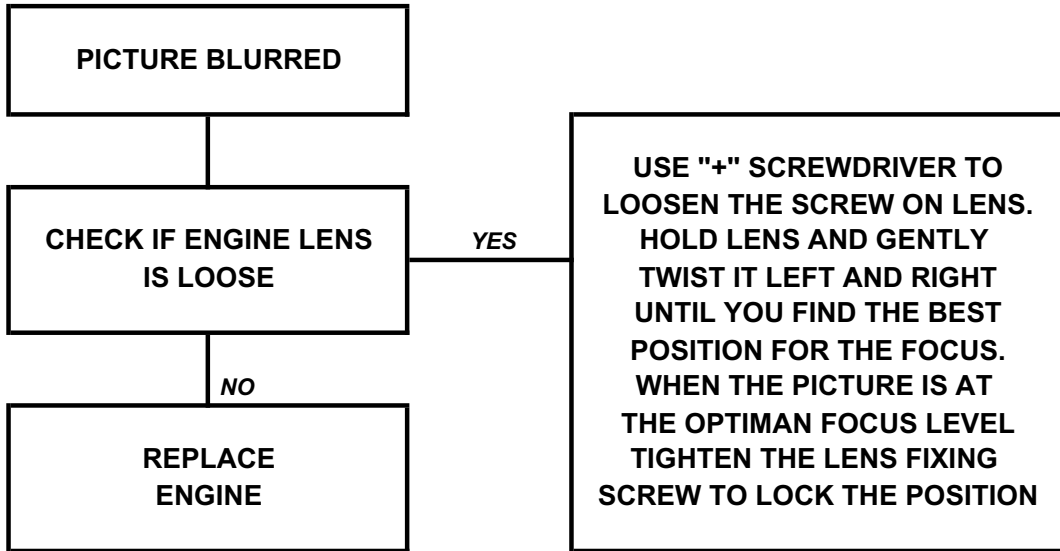
11-5 LAMP REPLACEMENT PROCEDURE

1 Remove the three Clips
shown at posirions 'G' and extract
the Lamp Unit.
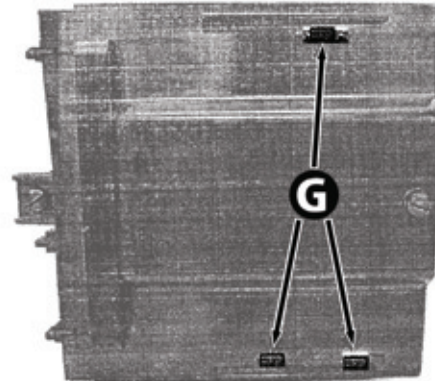
11-05 Fig 01.

2 Remove the Screw Nut at position 'A'
Remove the two fixing Screws at position 'B' - 'C'
Lift the Lamp from the location positions 'D' - 'E' and remove it from the unit.
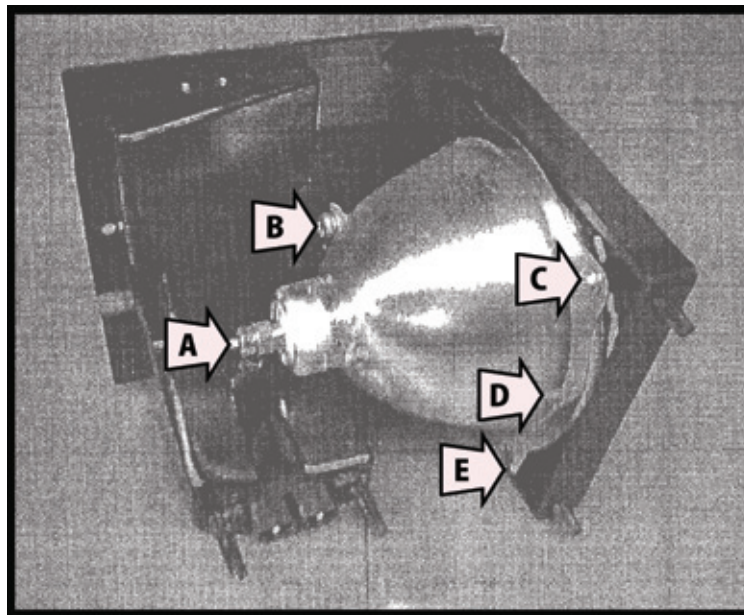
11-05 Fig 02.

3 Place the New Lamp into the 'D' - 'E' location points, fitting it into position by
replacing the two Screws at points 'B' - 'C' and the Screw Nut at position 'A'

4 Return the Lamp Unit to the Housing and replace the three clips.

12 COIN HANDLING

Handling the Coin Jam

If the coin is not rejected when the REJECT button is pressed, open the coin chute door and open the selector gate. After removing the jammed coin, put a normal coin in and check to see that the selector correctly functions.

12-1 CLEANING THE COIN SELECTOR

(STOP) IMPORTANT

● **Remove and clean smears by using a soft cloth dipped in water or diluted chemical detergent and then squeezed dry.**

● **Never apply machine oil, etc. to the Coin Selector.**

● **After cleaning the Coin Selector, insert a regular coin in the normal working status and ensure that the selector correctly functions.**

The Coin Selector should be cleaned once every 3 months.
When cleaning, follow the procedure below:

1 Turn the power for the machine OFF. Open the coin chute door.

2 Remove the Coin Selector from the coin chute door.

3 Open the gate and dust off by using a soft brush (made of wool, etc.).

GATE
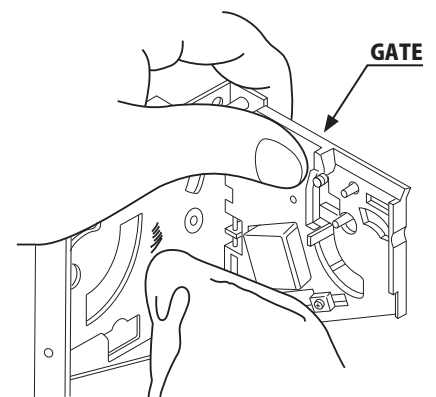
FIG. 12 a

4 Remove and clean smears by using a soft cloth dipped in water or diluted chemical detergent and then squeezed dry.

5 Remove the CRADLE.
When removing the retaining ring (E ring), be very careful so as not to bend the rotary shaft.

CRADLE
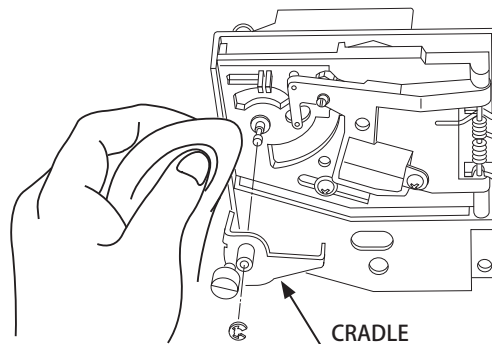
FIG. 12b

6 Remove stain from the rotary shaft and shaft receiving portions by wiping off with a soft cloth, etc.

7 After wiping off as per previous step, further apply a dry cloth, etc. to cause the Coin Selector to dry completely.

Coin Insertion Test

Once every month, when performing the Coin SW Test, simultaneously check the following:

Does the Coin Meter count satisfactorily?

Does the coin drop into the cashbox correctly?

Is the coin rejected when inserted while keeping the REJECT Button pressed down?

Insert a coin while keeping the REJECT Button pressed down and check if it is rejected.
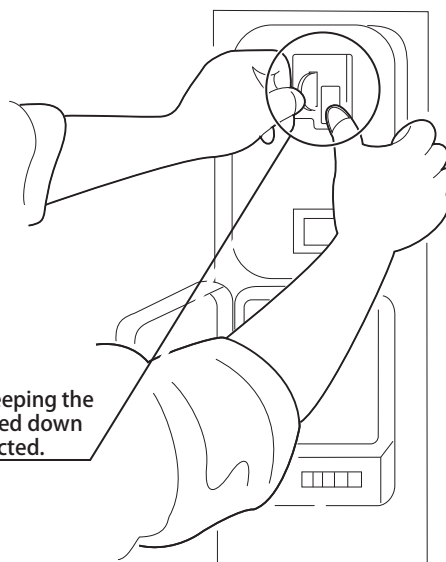
FIG. 12 c

12-2   ADJUSTING THE PRICE OF PLAY

This product comes equipped with a Money Controls SR3 Coin Acceptor. To adjust the price of play ALL credit setting are adjusted via the EXCEL CREDIT BOARD.

IMPORTANT!

The CREDIT SETTINGS within the SYSTEM TEST MODE must be set to 1 coin 1 credit to allow the CREDIT BOARD to function correctly.

The VTS BD has a built in Credit Board. This is controlled by 2 DIL Switches. These allow the operator to select the price of play, type of coin acceptor and region.

VTS Board
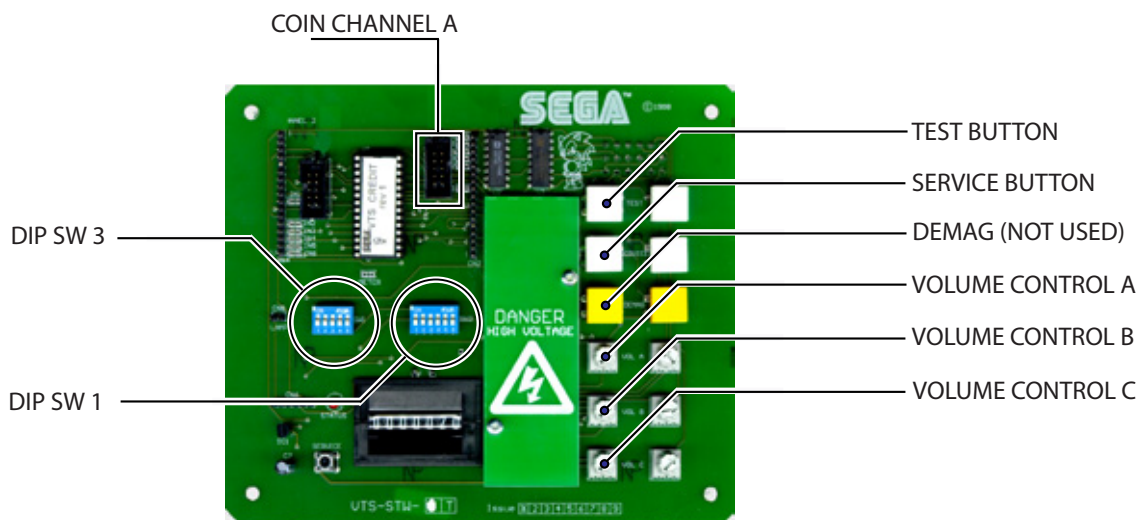
DIL SW3 (Regional Settings)	Adjust these switches to specify the type of Coin Acceptor used and currency. Default = SW1&SW2 ON - SR3 in parallel made, Sterling.
TEST BUTTON	Provides access to the TEST MENU when pressed.
SERVICE BUTTON	Provides a SERVICE CREDIT when pressed
Status LED	Flashes when functioning.
CHANNEL 1	To Coin Acceptor (SR3 TYPE.)
DIL SW1 (credit settings)	Adjust to required price of pay.
DEMAG	NOT USED
VOL CONTROL A	MAIN VOLUME ADJUSTMENT (FRONT SPEAKERS)
VOL CONTROL B	SECONDARY VOL ADJUSTMENT (GUN SPEAKERS)
VOL CONTROL C	NOT USED

REGIONAL AND ACCEPTOR SETTINGS (SW3)

Country	Setting	Switch 3 Setting						Coin Validator Programming									C120/SR3 Only		
		SW1	SW2	SW3	SW4	SW5	SW6	COIN1	COIN2	COIN3	COIN4	COIN5	COIN6	COIN7	COIN8	COIN9	COIN10	COIN11	COIN12
UK	Coin Controls C220 Parallel	OFF	OFF	OFF	OFF			£1	50p new	20p	10p	-	50p old	-	-				
UK	Coin Controls C220 Binary	ON	OFF	OFF	OFF			£1	50p new	20p	10p	-	50p old	-	£2				
UK	Coin Controls C220 Binary	OFF	ON	OFF	OFF			£1	50p new	20p	10p	-	£2	-	50p old	-	-	-	-
UK	Coin Controls SR3 Parallel	ON	ON	OFF	OFF			£1	50p new	20p	10p	-	£2	-	50p old	-	-	-	-
UK Euro	Coin Controls SR3 Parallel	OFF	OFF	ON	OFF			£2 / €2	£1 / €1	50p new / 50¢	20p / 20¢	10p / 10¢	-	-	-	50p old			-
UK	Mars ME/MS 111 Parallel	ON	OFF	ON	OFF			£1	£2	20p	10p	50p new	50p old						
UK	NRI Parallel	OFF	ON	ON	OFF			10p	20p	50p	£1	£2	-						
Belgium	Parallel	ON	ON	ON	OFF			-	50BFr	20BFr	5BFr								
Holland	Parallel	OFF	OFF	OFF	ON			-	5NLG	2.5NLG	1NLG								
Austria	SR3 Parallel	ON	OFF	OFF	ON			20Sch	10Sch	5Sch	1Sch								
Spain	Coin Controls C220 Binary	OFF	ON	OFF	ON			500Pta	200Pta	100Pta	50Pta	25Pta	200Pt old	50Pta old	25Pta old				
Spain	SR3/NRI Parallel	ON	ON	OFF	ON			500Pta	200Pta	100Pta	50Pta	25Pta	-	-	200Pta	-	50Pta old	25Pta old	-
Spain	Coin Controls C220 Parallel	OFF	OFF	ON	ON			100Pta	50Pta new	-	25Pta new	-	50Pta old	-	25Pta old				
Portugal Euro	Parallel	ON	OFF	ON	ON			200Es / €1	100Es / 50¢	50Es	-	-	-	-	-				
	TBA					OFF		TBA											
	TBA					ON		TBA											
	Channels						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 mech.**

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

STERLING PRICE OF PLAY SETTINGS (SW1)

	Price			Bonus		DIL Switch 1				
						1	2	3	4	5
1	10p	50p = 5 plays	£1 = 10 plays	£2 = 20 plays		OFF	OFF	OFF	OFF	OFF
2	10p	50p = 6 plays @ 8.33p per play	£1 = 12 plays @ 8.33p per play	£2 = 24 plays @ 8.33p per play		ON	OFF	OFF	OFF	OFF
3	20p	50p = 2.5 plays	£1= 5 plays	£2 = 10 plays		OFF	ON	OFF	OFF	OFF
4	20p	50p = 3 plays @ 16.66p per play	£1 = 6 plays @ 16.66p per play	£2 = 12 plays @ 16.66p per play		ON	ON	OFF	OFF	OFF
5	30p	50p = 1.66 plays	£1 = 3.33 plays	£2 = 6.66 plays		OFF	OFF	ON	OFF	OFF
6	30p	50p = 1.66 plays	£1 = 4 plays @ 25p per play	£2 = 8 plays @ 25p per play		ON	OFF	ON	OFF	OFF
7	30p	50p = 2 plays @ 25p per play	£1 = 4 plays @ 25p per play	£2 = 8 plays @ 25p per play		OFF	ON	ON	OFF	OFF
8	30p	50p = 2 plays @ 25p per play	£1 = 3 plays @ 33.33p per play	£2 = 6 plays @ 33.33p per play		ON	ON	ON	OFF	OFF
9	40p	50p = 1.25 plays	£1 = 2.5 plays	£2 = 5 plays		OFF	OFF	OFF	ON	OFF
10	40p	50p = 1.25 plays	£1 = 3 plays @ 33.3p per play	£2 = 6 plays & 33.3p per play		ON	OFF	OFF	ON	OFF
11	50p	50p = 1 play	£1 = 2 plays	£2 = 4 plays		OFF	ON	OFF	ON	OFF
12	50p	50p = 1 play	£1 = 3 plays @ 33.3p per play	£2 = 6 plays @ 33.3p per play		ON	ON	OFF	ON	OFF
13	50p	50p = 1 play	£1 = 2 plays	£2 = 5 plays @ 40p per play		OFF	OFF	ON	ON	OFF
14	60p	50p = 0.83 play	£1 = 1.66 plays	£2 = 3.33 plays		ON	OFF	ON	ON	OFF
15	60p	50p = 0.83 play	£1 = 2 plays @ 50p per play	£2 = 4 plays @ 50p per play		OFF	ON	ON	ON	OFF
16	80p	50p = 0.62 play	£1 = 1.25 plays	£2 = 2.5 plays		ON	ON	ON	ON	OFF
17	80p	£1 = 1.25 plays	£1.50 = 2 plays @ 75p per play	£2 = 2.5 plays		OFF	OFF	OFF	OFF	ON
18	£1	2x50p = 1 play	£1 = 1 play	£2 = 2 plays		ON	OFF	OFF	OFF	ON
19	£1	2x50p = 1 play	£1 = 1 play	£2 = 3 plays @ 66.6p per play		OFF	ON	OFF	OFF	ON
20	£1	2x50p = 1 play	£2 = 2 plays	£4 = 5 plays @ 80p per play		ON	ON	OFF	OFF	ON
21	£1.50	3x50p = 1 play	£1 = 0.66 plays	£3 = 2 plays		OFF	OFF	ON	OFF	ON
22	£1.50	3x 50p = 1 play	£1 = 0.66 plays	£2 = 2 plays @ £1 per play		ON	OFF	ON	OFF	ON
23	£2	4x 50p = 1 play	£1 = 0.5 play	£2 = 1 play		OFF	ON	ON	OFF	ON
24	£2	4x 50p = 1 play	£1 = 0.5 play	£5 = 3 plays @ £1.66 per play		ON	ON	ON	OFF	ON
25	£3	6x50p = 1 play	£1.50 = 0.5 play	£3 = 1 play		OFF	OFF	OFF	ON	ON
26	£3	6x50p = 1 play	£1.50 = 0.5 play	£5 = 2 plays @ £2.50 per play		ON	OFF	OFF	ON	ON
27	£5	£1 = 0.2 play	£5 = 1 play	£10 = 2 plays		OFF	ON	OFF	ON	ON
28	£5	£1 = 0.2 play	£5 = 1 play	£10 = 3 plays @ £3.33p per play		ON	ON	OFF	ON	ON
29	£7.50	£5 = 0.66 play	£10 = 1.33 plays	£15 = 2 plays		OFF	OFF	ON	ON	ON
30	£7.50	£5 = 0.66 play	£10 = 1.33 plays	£10 = 2 plays @ £5 per play		ON	OFF	ON	ON	ON
31	£10	£10 = 1 play	£20 = 2 play	£30 = 3 play		OFF	ON	ON	ON	ON
32		Free Play				ON	ON	ON	ON	ON

EURO PRICE OF PLAY SETTINGS (SW1)

	Price		Bonus		|		DIL Switch 1		
					1	2	3	4	5
1	10¢	50¢ = 5 plays	€1 = 10 plays	€2 = 20 plays	OFF	OFF	OFF	OFF	OFF
2	10¢	50¢ = 6 plays @ 8.33p per play	€1 = 12 plays @ 8.33¢ per play	€2 = 24 plays @ 8.33¢ per play	ON	OFF	OFF	OFF	OFF
3	20¢	50¢ = 2.5 plays	€1= 5 plays	€2 = 10 plays	OFF	ON	OFF	OFF	OFF
4	20¢	50¢ = 3 plays @ 16.66¢ per play	€1 = 6 plays @ 16.66¢ per play	€2 = 12 plays @ 16.66¢ per play	ON	ON	OFF	OFF	OFF
5	30¢	50¢ = 1.66 plays	€1 = 3.33 plays	€2 = 6.66 plays	OFF	OFF	ON	OFF	OFF
6	30¢	50¢ = 1.66 plays	€1 = 4 plays @ 25¢ per play	€2 = 8 plays @ 25¢ per play	ON	OFF	ON	OFF	OFF
7	30¢	50¢ = 2 plays @ 25¢ per play	€1 = 4 plays @ 25¢ per play	€2 = 8 plays @ 25¢ per play	OFF	ON	ON	OFF	OFF
8	30¢	50¢ = 2 plays @ 25¢ per play	€1 = 3 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	ON	ON	ON	OFF	OFF
9	40¢	50¢ = 1.25 plays	€1 = 2.5 plays	€2 = 5 plays	OFF	OFF	OFF	ON	OFF
10	40¢	50¢ = 1.25 plays	€1 = 3 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	ON	OFF	OFF	ON	OFF
11	50¢	50¢ = 1 play	€1 = 2 plays	€2 = 4 plays	OFF	ON	OFF	ON	OFF
12	50¢	50¢ = 1 play	€1 = 3 plays @ 33.33¢ per play	€2 = 6 plays @ 33.33¢ per play	ON	ON	OFF	ON	OFF
13	50¢	50¢ = 1 play	€1 = 2 plays	€2 = 5 plays @ 40¢ per play	OFF	OFF	ON	ON	OFF
14	60¢	50¢ = 0.83 play	€1 = 1.66 plays	€2 = 3.33 plays	ON	OFF	ON	ON	OFF
15	60¢	50¢ = 0.83 play	€1 = 2 plays @ 50¢ per play	€2 = 4 plays @ 50¢ per play	OFF	ON	ON	ON	OFF
16	80¢	50¢ = 0.62 play	€1 = 1.25 plays	€2 = 2.5 plays	ON	ON	ON	ON	OFF
17	80¢	£1 = 1.25 plays	€1.50 = 2 plays @ 75¢ per play	€2 = 2.5 plays	OFF	OFF	OFF	OFF	ON
18	€1	2x50¢ = 1 play	€1 = 1 play	€2 = 2 plays	ON	OFF	OFF	OFF	ON
19	€1	2x50¢ = 1 play	€1 = 1 play	€2 = 3 plays @ 66.6¢ per play	OFF	ON	OFF	OFF	ON
20	€1	2x50¢ = 1 play	€2 = 2 plays	€4 = 5 plays @ 80¢ per play	ON	ON	OFF	OFF	ON
21	€1.50	3x50¢ = 1 play	€1 = 0.66 play	€3 = 2 plays	OFF	OFF	ON	OFF	ON
22	€1.50	3x 50¢ = 1 play	€1 = 0.66 play	€2 = 2 plays @ €1 per play	ON	OFF	ON	OFF	ON
23	€2	4x 50¢ = 1 play	€1 = 0.5 play	€2 = 1 play	OFF	ON	ON	OFF	ON
24	€2	4x 50¢ = 1 play	€1 = 0.5 play	€5 = 3 plays @ €1.66 per play	ON	ON	ON	OFF	ON
25	€3	6x50¢ = 1 play	€1.50 = 0.5 play	€3 = 1 play	OFF	OFF	OFF	ON	ON
26	€3	6x50¢ = 1 play	€1.50 = 0.5 play	€5 = 2 plays @ €2.50 per play	ON	OFF	OFF	ON	ON
27	€5	€1 = 0.2 play	€5 = 1 play	€10 = 2 plays	OFF	ON	OFF	ON	ON
28	€5	€1 = 0.2 play	€5 = 1 play	€10 = 3 plays @ 3.33¢ per play	ON	ON	OFF	ON	ON
29	€7.50	€5 = 0.66 play	€10 = 1.33 plays	€15 = 2 plays	OFF	OFF	ON	ON	ON
30	€7.50	€5 = 0.66 play	€10 = 1.33 plays	€10 = 2 plays @ €5 per play	ON	OFF	ON	ON	ON
31	€10	€10 = 1 play	€20 = 2 play	€30 = 3 play	OFF	ON	ON	ON	ON
32		Free Play			ON	ON	ON	ON	ON

12-3 SR3 OPTIONS - TEACH AND RUN PROGRAMMING

SELECTING STERLING / EURO OPTION

The SR3 coin acceptor (supplied) is programmed to accept UK Sterling and the Euro. Factory setting is for the UK Sterling. If the configuration needs to change to the Euro, then please follow the instructions below for changing over to the Euro and visa versa.

BANK SELECT

This function allows you to enable both or individual select banks of coins via switches 7 and 8 on the 8 way DIL switch.
This enables the selection of 2 different currencies, one in each bank, or 12 coins/tokens in both banks from the same country.

To enable/disable the banks set the switches as show below.

Both Banks ON (enabled) - Sterling and Euro's

Bank 1 ON (enabled) and Bank 2 OFF (disabled) - Sterling ONLY

Bank 1 OFF (disabled) and Bank 2 ON (enabled) - Euro's ONLY

Please remove power from the SR3 before changing the status on the DIP SW.

12-3 SR3 OPTIONS - TEACH AND RUN PROGRAMMING

TEACH AND RUN PROGRAMMING (SR3)

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

Please follow the instructions below to enable and program the TEACH & RUN facility.

Table 1: Teach & Run Programming Bank 1.

Coin Number	SW1	SW2	SW3	SW4	SW5	SW6
1	off	off	off	ON	ON	off
2	off	off	ON	off	ON	off
3	off	off	ON	ON	ON	off
4	off	ON	off	off	ON	off
5	off	ON	off	ON	ON	off
6	off	ON	ON	off	ON	off

Bank 2

Table 2: Teach & Run Programming Bank 2

Coin Number	SW1	SW2	SW3	SW4	SW5	SW6
7	off	ON	ON	ON	ON	off
8	ON	off	off	off	ON	off
9	ON	off	off	ON	ON	off
10	ON	off	ON	off	ON	off
11	ON	off	ON	ON	ON	off
12	ON	ON	off	off	ON	off

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

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

MSB SW1	SW2	SW3	LSB SW4	TOTAL	SW5	SW6
ON	ON	OFF	OFF	12	ON	OFF

Switch on the power to the SR3.
Press the reject lever within 20 seconds. The LED will turn RED.
Start entering £1 coins until the LED flashes GREEN, typically after 8 to 10 insertions.

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

Press the reject lever and the LED will turn GREEN. The coin channel has now been programmed.

SET ALL SWITCHES TO THE OFF POSITION.

13 FLUORESCENT LAMP REPLACEMENT

⚠️WARNING

- **When working with the product, be sure to turn the power off. Working with the power on may cause an electric shock or short circuit.**

- **There is danger that hot lamps can cause burns. Exercise due caution when replacing lamps.**

- **Use lamps of the specified ratings. Using lamps with different ratings may cause fires or damage.**

- **Such things as deteriorated insulation in lighting fixtures can cause a short circuit and/or smoke. Make sure there are no abnormalities. For example, check if you can smell anything burning, if any sockets have been discolored and if the lamp has to be replaced frequently.**

⚠️CAUTION

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

- **To perform the operation safely and accurately you must use a safe, steady step or footstool. Working without this may lead to a fall and possible injury.**

- **When performing the fluorescent lamp replacement, do not hold onto the Billboard carrier (the round pipe section). Holding or hanging off this may bend it out of shape or damage it, and could lead to a fall or an accident.**

(STOP) IMPORTANT

PLEASE WEAR PROTECTIVE CLOTHING / EQUIPMENT WHEN CHANGING FLUORESCENT LAMPS. PROTECTIVE GLOVES AND EYE WEAR ARE RECOMMENDED

⚠ WARNING

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

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

1 • Turn the POWER OFF

2 • **Use a Stool or Step when working on Top of the Cabinet. Remove the two screws from the top of the Billboard Box.**

M4x12, SCREW (2) + Flat & Spring Washers

13-0 Fig 01
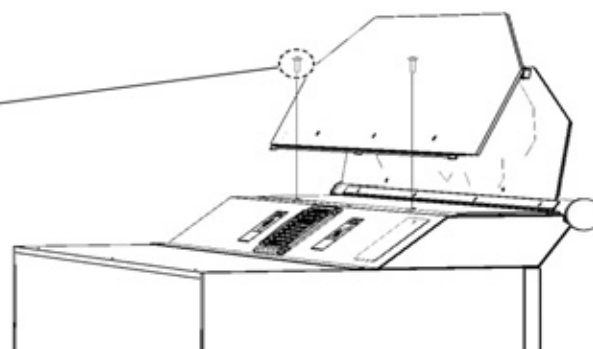
3 • Remove the Fluorescent Tube cover plate to reveal the Fluorescent Lamp.

FLUORESCENT COVER PLATE

13-0 Fig 02
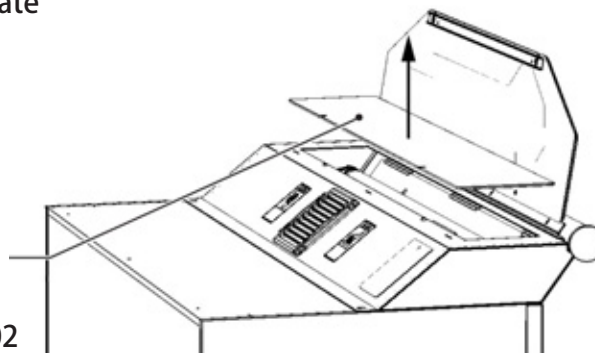
4 • Change the Fluorescent Tube.

FLUORESCENT LAMP 30W LT1014

13-0 Fig 03
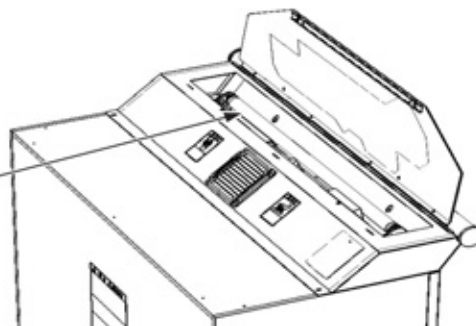
5 • Rebuild the Billboard by following steps 1 > 4 in reverse order

⏨ PERIODIC INSPECTION

In order to maintain the performance of this product and operate it safely, inspect the following items routinely and perform maintenance.
The players come in direct contact with the GUN (controller). You should therefore make an effort to clean the Gun often and provide hand wipes, etc. for the amenity of the players.

> ## ⚠ WARNING
>
> - Once a year, check to see if power cords are damaged, the plug is securely inserted, dust is accumulated between the socket outlet and the power plug, etc. Using the product with accumulated dust in the interior may cause fire or electric shock.
>
> - Never use a water jet, etc. to clean the inside and outside of the cabinet. If wetness occurs for any reason, do not use the product until it has completely dried.
>
> - Once a year, request the office shown on this manual or the dealer from whom the product was originally purchased to perform the internal cleaning. Using the product with accumulated dust in the interior may cause fire or other accidents.
>
>   Note that you are liable for the cost of cleaning the interior parts.
>
> - There is the danger of accidents involving electrical shorts circuits or fire caused by factors such as the deterioration of insulation in electrical and electronic equipment over time. Check that there are no abnormalities such as odors from burning.

14-1 PERIODIC INSPECTION   TABLE

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

When handling the controller, the player will be in direct contact with it. In order to always allow the player to enjoy the game, be sure to clean it regularly. Also, it is advisable to provide wet tissue, etc. available for player use.

ITEMS	DESCRIPTION	PERIOD	REFERENCE
CABINET	Confirm that adjusters contact floor	Daily	Chapter 3
MONITOR - TOUCH PANEL	Screen Cleaning	Weekly	
	Check Screen Adjustments	Monthly	
	Touch Panel Adjustment	Weekly	Chapter 9
MONITOR - PROJECTOR	Screen Cleaning	Weekly	Chapter 11
	Check Screen Adjustments	Monthly	Chapter 11
CONTROL UNIT (GUN)	Cleaning, Looking for Damage	Daily	
	Sight Adjustment	Weekly	Chapter 9
GAME BOARD	Individual Test	Monthly	SM-Chapter 4
	Confirm settings	Monthly	Chapter 9
COIN CHUTE DOOR	Coin Switch Inspection	Monthly	Chapter 9
	Coin insertion test	Monthly	Chapter 12
	Selector cleaning	Every 3 months	Chapter 12
FLUORESCENT LIGHT	Inspection of Lighting Fixtures	Ass appropriate	Chapter 13
POWER CABLES	Inspection, Cleaning	1 year	Last page
CABINET INTERIOR	Cleaning	1 year	Last page
CABINET SURFACES	Cleaning	As appropriate	See below

Cleaning the Cabinet Surfaces

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

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

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15 TROUBLESHOOTING

⚠WARNING

● The work described below should be carried out by the site maintenance personnel or other qualified professional. Work carried out by personnel without the necessary skill or technology can cause accident.

● If no improvements can be noted even after the following measures have been taken, disengage the power and contact the point of purchase or the office indicated in these instructions. If the power is left on while there is an abnormality, a fire, electric shock or other serious accident can occur.

● When working with the product, be sure to turn the power 'OFF' . Working with the power 'ON' may cause an electric shock or short circuit.

● Be careful not to damage the wires. Damaged wires may cause an electric shock, short circuit or present a risk of fire.

● If problems other than those covered in this manual arise, or if no improvements can be noted after measures given in this manual have been taken, do not take measures indiscriminately. Cut off the power immediately and contact the office shown in this manual or the dealer from whom the product was originally purchased. Indiscriminate countermeasures could lead to unforeseeable accidents. They could also result in permanent damages.

● If an error message is displayed, have the problem looked at by a store maintenance person or a technician. Unless the problem is addressed by someone with specialized knowledge or skills, there could be electrical shock, short circuits or fire. If there are no store maintenance people or technicians, or moving mechanisms are involved, cut off the power immediately and contact the office shown in this manual or the dealer from whom the product was originally purchased.

● Once the reason that the breaker or circuit protector activated has been removed, restore the breaker or circuit protector to its original condition. If the product is used while the reason for activation has not yet been removed, heat and/or fire could be generated.

15-1 TROUBLE NOT RELATED TO THE GAME BOARD

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

15-1 TABLE 01 - TROUBLESHOOTING TABLE

PROBLEMS	CAUSE	COUNTERMEASURES
When the main SW is turned ON, the machine is not activated.	The power is not ON.	Firmly insert the plug into the Power Outlet.
	Incorrect power source/voltage.	Make sure that the power supply/voltage are correct.
	Loose FUSE or wire around the AC Power line and harness.	Check Fuses, AC Power harness, wiring and connectors.
The Projector does not project an image	The VGA cable may not be fitted correctly.	Check the VGA connection at both Lindbergh and at the PTV, ensure that the 2 thumbscrews are secure at each end.
No sound output.	Volume is not adjusted properly.	Adjust the volume. (See Chapter 9.)
	Board or Amplifier malfunction.	Check by performing a speaker test. (See Chapter 9.)
The Control Unit (GUN) does not target correctly.	Due to external or environmental factors the targeting is off.	Perform the Gun Adjustment in the Test Mode. (See Chapter 9.)
	LED Board malfunction	Check that the LED lights up. If not does not light up, replace it.
	Sensor may be faulty	Replace the Optic Sensor.
	LED Board and Cover are contaminated	Clean off soiled surface.
	Fuse on the Sensor Unit has blown due to a momentary Electrical Overload	Fix the source of the Overload, then replace the Fuse.
The Control Unit (GUN) does not appear to be operating correctly	A fault with the Microswitch	Check ON/OFF function in the Input Test, and if not working exchange the Microswitch
	A fault with the LED Board	Check that the LEDs are ON. If not exchange them.
	The Sensor Unit is Broken	Exchange the Sensor Unit
The lights in the cabinet does not come on.	The fluorescent light is dead.	Exchange the fluorescent light. (See Chapter 13.)
The Touch Screen does not appear to be operating correctly	Touch Panel is not Set Up correctly	Set it correctly in TOUCH PANEL ADJUSTMENT in the Test Mode
	Touch Panel usage is set to OFF	Set the Touch Panel to ON in the GAME ASSIGNMENT in the test Mode.

⚠️ **WARNING**

- If an error is displayed, have the site maintenance personnel or other qualified individuals resolve it. If someone without specialized or technical knowledge attempts to rectify the problem, electric shock, short circuits or fire may result.

  If there is no site maintenance personnel or other qualified individuals available, turn off the power and contact your retailer or the office listed in this manual.

- If a problem not described in this manual and the LINDBERGH service manual occurs, or the resolution to a problem described in this manual is not effective, do not make further attempts to resolve the problem yourself. Immediately turn off the power and contact your retailer or the office listed in this manual. Any unguided attempts to solve such problems may lead to a serious accident.

This product displays the following messages when it detects an error. Read the error description and follow the steps indicated. Refer to the LINDBERGH Service Manual for details on error messages displayed with the LINDBERGH Logo.

Error 01
DISPLAY   Game Program Not Found.
CAUSE   The key chip is not connected.
COUNTERMEASURES   Check that the key chip is connected correctly. Check that the keychip is not inserted
                     the wrong way or that the key chip from a different system is not inserted.

Error 02
DISPLAY   Game Program Not Available.
CAUSE   The key chip is not supported.
COUNTERMEASURES   Send the LINDBERGH board in for repair with the key chip still in place.

Error 05
DISPLAY   Wrong Region.
CAUSE   The game is for a foreign region.
COUNTERMEASURES   Use a domestic game.

Error 06
DISPLAY   I/O Device Not Found.
CAUSE   The LINDBERGH board's I/O board cannot be found.
COUNTERMEASURES   Send the LINDBERGH board in for repair with the key chip still in place.

Error 07
DISPLAY   Graphic Card Not Found.
CAUSE   The LINDBERGH board's graphics card cannot be found.
COUNTERMEASURES   Send the LINDBERGH board in for repair with the key chip still in place.

Error 08
DISPLAY   Sound Card Not Found.
CAUSE   The LINDBERGH board's sound card cannot be found.
COUNTERMEASURES   Send the LINDBERGH board in for repair with the key chip still in place.

Error 09
DISPLAY   System Memory Not Enough.
CAUSE   The LINDBERGH board does not have enough memory.
COUNTERMEASURES   Send the LINDBERGH board in for repair with the key chip still in place.

Error 10
DISPLAY   Unexpected Game Program Failure.
CAUSE   The game program crashed due to an unexpected error.
COUNTERMEASURES   Turn the power off and then restart.

Error 11
DISPLAY   JVS I/O board is not connected to main board.
CAUSE   (1) The I/O board is not connected.
                       (2) Unreliable connection between the main board and the I/O board.
COUNTERMEASURES   (1) Connect the I/O board to the main board. Verify that the power cable is connected to
                           I/O board.
                       (2) Reconnect or replace the JVS cable that connects the I/O board to the main board.

Error 12
DISPLAY   JVS I/O board does not fulfill the game spec.
CAUSE   The correct I/O board is not connected.
COUNTERMEASURES   Use an I/O board that provides the proper input/output for the game.

Error 14
DISPLAY   Network firmware version does not fulfill the game spec. Required version XX.XX.
CAUSE   The firmware version installed on either the network board or the DIMM Media board is older than the required
version.
COUNTERMEASURES   Use a network board or DIMM Media board with firmware that meets or exceeds the required version.

Error 15
DISPLAY   Game Program Not Found.
CAUSE   The key chip is not connected.
COUNTERMEASURES   Check that the key chip is connected correctly. Check that the key chip is not inserted the wrong way or that
                       the key chip from a different system is not inserted.

Error 21
DISPLAY   Game Program Not Found on Game Disk.
CAUSE   There is no program image on the game disk.
COUNTERMEASURES   Check that a game disk corresponding to the key chip is inserted into the drive.

Error 22
DISPLAY   Game Program Not Found on Device.
CAUSE   There is no game image on the game installer device.
COUNTERMEASURES   Perform a reinstall from the game disk.

Error 24
DISPLAY   DVD Drive Not Found.
CAUSE   The DVD drive cannot be found.
COUNTERMEASURES   Connect the DVD drive.

Error 25
DISPLAY   Game Disk Not Found.
CAUSE   The game disk cannot be found.
COUNTERMEASURES   Insert the game disk.

Error 26
DISPLAY   Storage Device Not Found.
CAUSE   The program installer device cannot be found.
COUNTERMEASURES   Send the LINDBERGH board in for repair with the key chip still in place.

Error 27
DISPLAY   Storage Device is Not Acceptable.
CAUSE   The program installer device does not have enough space.
COUNTERMEASURES   Send the LINDBERGH board in for repair with the key chip still in place.

Error 28
DISPLAY   This Game Disk is Not Acceptable.
CAUSE   The game disk cannot be read correctly.
COUNTERMEASURES   Exchange the game disk for a proper game disk. Check that the game disk is not scratched, damaged or dirty.

Error 29
DISPLAY   Cannot Control DVD Drive.
CAUSE   The DVD drive cannot be controlled.
COUNTERMEASURES   The DVD drive may be damaged.

Error 31
DISPLAY   Storage Device Not Enough.
CAUSE   The program installer device does not have enough space.
COUNTERMEASURES   Send the LINDBERGH board in for repair with the key chip still in place.

Error 32
DISPLAY   Installing Game Program Failed.
CAUSE   Transfer of the program failed.
COUNTERMEASURES Check that the DVD drive is connected correctly. Check that the game disk is not scratched, damaged or dirty.

Error 33
DISPLAY   Storage Device is Not Acceptable.
CAUSE   The program installer device cannot be found.
COUNTERMEASURES Send the LINDBERGH board in for repair with the key chip still in place.

Error 34
DISPLAY   Storage Device Not Found.
CAUSE   The program installer device cannot be found.
COUNTERMEASURES Send the LINDBERGH board in for repair with the key chip still in place.

Error 35
DISPLAY   Storage Device is Not Acceptable.
CAUSE   The program installer device does not have enough space.
COUNTERMEASURES Send the LINDBERGH board in for repair with the key chip still in place.

Error 36
DISPLAY   Storage Device May be Broken.
CAUSE   The program installer device is broken.
COUNTERMEASURES Send the LINDBERGH board in for repair with the key chip still in place.

Error 37
DISPLAY   Verifying Game Program Failed.
CAUSE   The program image is unverified due to the program image not existing on the game disk or server.
COUNTERMEASURES Check that the correct game disk is inserted.

Error 41
DISPLAY   Server Not Respond.
CAUSE   The server is not responding.
COUNTERMEASURES Check the network settings. Set IP Address and other settings. Check that the network cable has not been pulled out.

Error 42
DISPLAY   Server Mount Failed
CAUSE   The server directory is could not be reached.
COUNTERMEASURES Check the network settings. Set IP Address and other settings. Check that the network cable has not been pulled out.

Error 43
DISPLAY   IP Address Not Assigned.
CAUSE   An IP Address could not be obtained from the DHCP server.
COUNTERMEASURES Check the network settings. Set IP Address and other settings. Check that the network cable has not been pulled out.

Error 44
DISPLAY   Game Program Not Found on Server.
CAUSE   No program image on the network server.
COUNTERMEASURES Check that the game title, place on the network server, and the key chip correspond to each other.

Caution 51
DISPLAY   Wrong Resolution Setting.
CAUSE   The game does not support the current resolution settings.
COUNTERMEASURES Change the DIP SW to the correct settings and restart.

Caution 52
DISPLAY   Wrong Horizontal/Vertical Setting.
CAUSE   The monitor horizontal/vertical settings are incorrect.
COUNTERMEASURES Change the DIP SW to the correct settings and restart.

🔟 GAME BOARD

⚠ WARNING

- When working with the product, be sure to turn the power off. Working with the power on may cause an electric shock or short circuit.

- Be careful not to damage the wires. Damaged wires may cause an electric shock, short circuit or present a risk of fire.

- Do not use this product with connectors other than those that were connected and used with the game board at the time of shipping. Do not carelessly connect wires to connectors that were not used at the time of shipping, as this may cause overheating, smoke or fire damage.

⚠ CAUTION

In this product, setting changes are made during the test mode. The game board need not be operated. Use the game board, etc. as is with the same setting made at the time of shipment so as not to cause electric shock and malfunctioning.

(STOP) IMPORTANT

Static electricity from your body may damage some electronics devices on the IC board. Before handling the IC board, touch a grounded metallic surface so that the static electricity can be discharged.

⚠ WARNING

- When returning the game board after making repairs or replacements, make sure that there are no errors in the connection of connectors. Erroneous connections can lead to electrical shock, short circuits or fires.

- When connecting a connector, check the direction carefully. Connectors must be connected in only one direction. If indiscriminate loads are applied in making connections, the connector or its terminal fixtures could be damaged, resulting in electrical shock, short circuits or fires.

16-1   REMOVING THE GAME BOARD

1 Switch off the main unit.

2 Remove the security screws and un-lock the Service Door located on the Left Hand side of the Gun Console.

 Remove the door

3 Remove the Game Board Tray fixing screw, located in the top Right Hand corner of the Game Board Tray.

3 With the Service Door open and the Fixing Bolt removed, action the following before sliding the game Board Tray out of the Console.

Remove all connectors fitted to the LINDBERGH Game Board.
Care should be taken, 'Do Not' pull on the wiring in order to disconnet the plug or sockets as this could damage their terminations.Some of the connectors may be secured by screws.
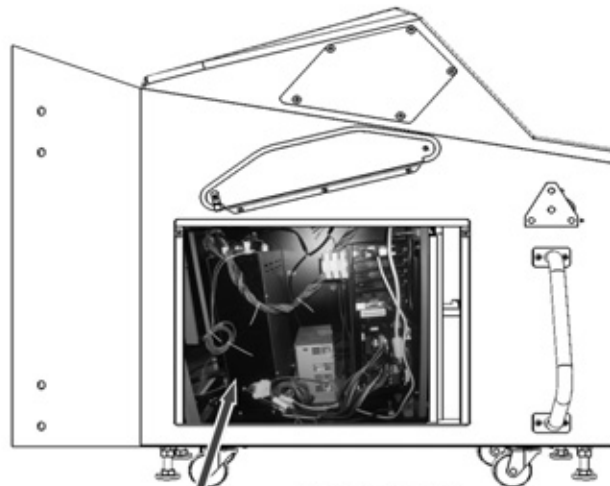
LINDBERGH
GAME BOARD
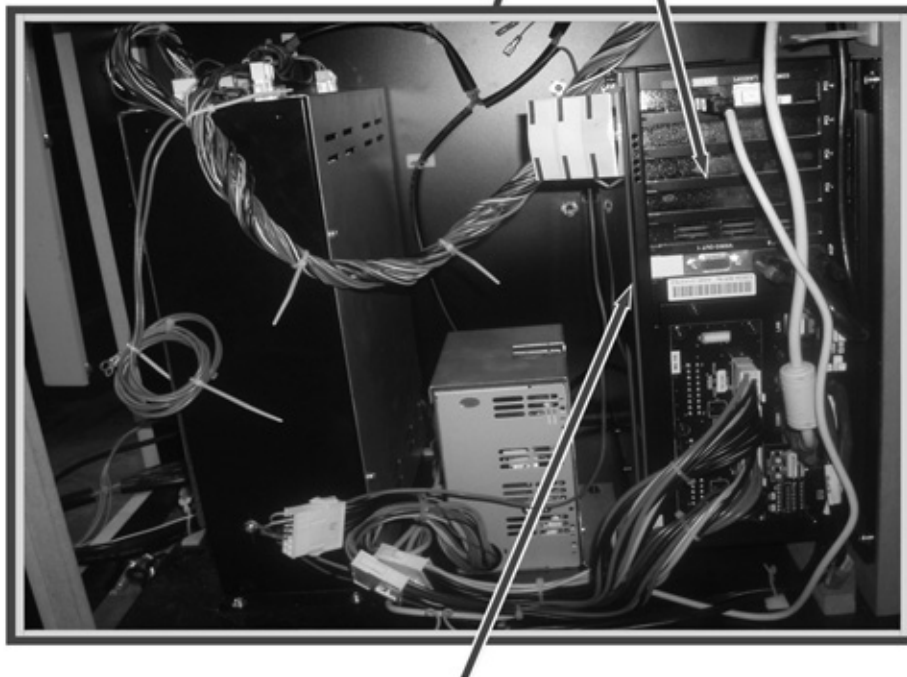
REMOVE ALL CONNECTION TO THE LINDBERGH GAME BOARD

(STOP) **IMPORTANT**

- ● **With the key chip inserted into it, this board serves as a special-purpose game board for the product.**
- ● **Use with the dip switches (DIP SW) on the board at the prescribed settings. If settings do not match the product, an error message will be displayed. In some cases, the game cannot be started.**

BOARD NUMBER STICKER
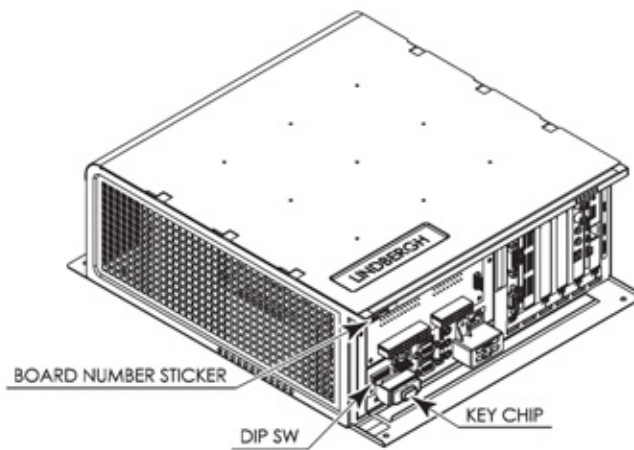
DIP SW

KEY CHIP

DIP SW Setting

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

O N

1 2 3 4 5 6 7 8

⚠ WARNING

- When connecting the DVD wire connector, check the orientation carefully and connect securely. The connector must be connected in the proper direction. If it is connected in the wrong direction or indiscriminately at an incline so that if a load is applied, the connector or its terminal pins could break, possibly causing a short circuit or fire.

- Be careful not to damage the DVD wire by getting it caught between object, etc. Doing so may cause a short circuit or fire.

(STOP) IMPORTANT

- The KEY CHIP is a precision device. It can be damaged by heat, impact and static electricity. exercise caution in handling this equipment.

- The KEY CHIP must be used as a set with the DVD-ROM disc included in the package.

- Prepare the separately sold DVD Drive and the DVD Wire (2M) supplied with this product. Connect the LINDBERGH (Game Board) and the DVD drive with the DVD wire in order to install software.

- For your Safety and to prevent Malfunction, do this before plugging in the power cord.

---

1 Remove the Service Door on the Left Hand side of the Gun Console to reveal the LINDBERGH Game Board.

---

2 Remove the 'KEY CHIP' from the 'DVD' Software Kit, and insert the Key Chip into the 'LINDBERGH' . At this point, make sure to insert the Key Chip in the right direction and pushed all of the way in. At this time also attach the 'IDENTITY STICKER' to the Lindbergh.
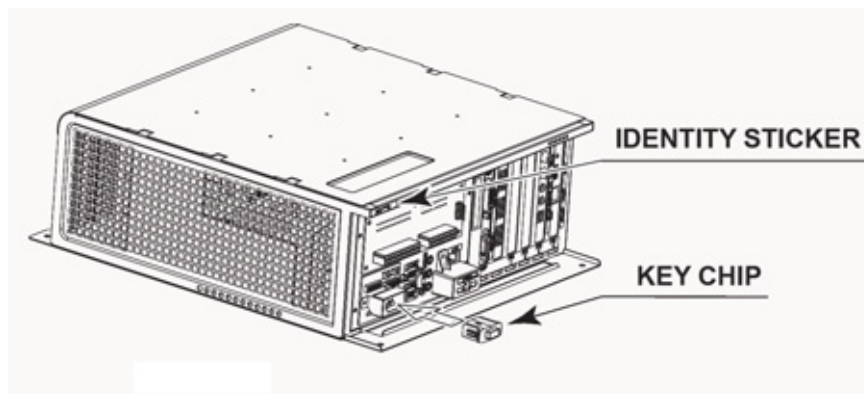
3   Connect the DVD Wire (2 Metres) to the LINDBERGH connect the connector on the side with the LINDBERGH tag.   The 'USB MINI A' can be connected to any of the ports 1 - 4.   (See below)

LINDBERGH GAME BOARD
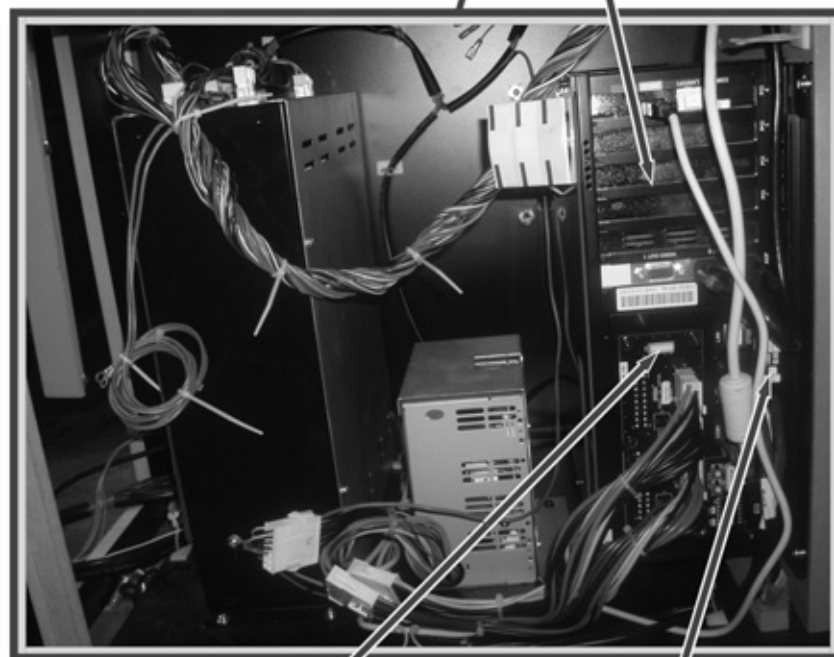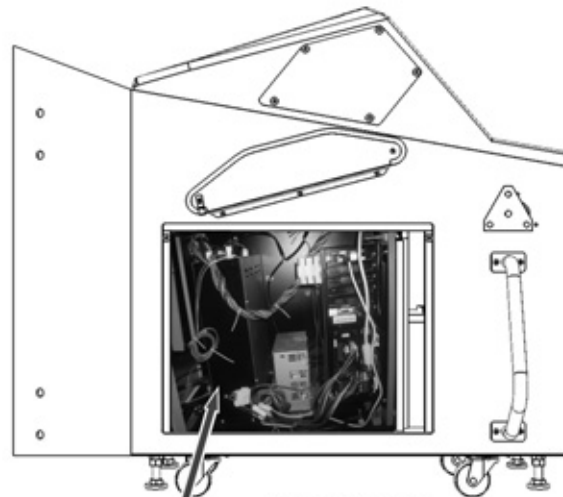
NH 6PIN CONNECTOR

USB MINI A

⚠WARNING

- Be careful not to damage the DVD wire by getting it caught between objects, etc. Doing so may cause a short circuit or fire.

- The following explanation assumes that the product has been assembled properly as explained above. If there is an error or if the product operates in a manner other than as indicated below, cut off the power supply immediately. Failure to do so may result in a fire or electrical shock.

- If you look directly at the laser beam in the DVD DRIVE, you could suffer vision impairment. Do not look inside the DVD DRIVE.

STOP **IMPORTANT**

- Do not use or store the DVD Drive or DVD Wire in any of the following locations, as this may result in serious damage.

  - Anywhere which may vibrate or shock the equipment.
  - In direct sunlight.
  - In damp or dusty places.
  - In places with a sharp change in temperature.
  - Close to anything that gives of heat. (Heater etc.)
  - Close to anything with a strong magnetic field. (magnets, monitors, speakers radio, etc)
  - Anywhere that is likely to get wet.
  - Anywhere with a slope or incline.
  - Anywhere with corrosive in the air. (Chlorine, hydrogen sulfide, ammonia, sulphur dioxide etc)
  - Anywhere with strong static electricity.

[Do not use in these locations]

  - Close to anything that is highly retentive of heat. (carpets, sponge, cardboard, etc.)
  - Anywhere that blocks the DVD air vent.

- The DVD is a delicate piece of equipment. Avoid the following.

  - Dropping or shaking it violently,
  - Getting water or liquids on top of it.
  - Placing small or large items on top of it
  - Drinking of smoking close to the DVD Drive.

- Do not turn off the power to the DVD when it's Access Lamp is on or flashing, as this could cause damage to the device.

- Do not allow any foreign objects, such as liquids, metals, or smoke inside the DVD drive.

STOP **IMPORTANT**

- Use a soft dry cloth to wipe off any dirt or marks on the DVD Drive.
  - If you need to use a cleaning agent, always use a "neutral" agent diluted in water.
  - Never use products or cleaning agent containing benzene, alcohol, thinners, etc.
- Do not touch the LENS inside the DVD Drive. Doing so may prevent it from reading accurately.
- The chip components on the IC board can be damaged by electrostatic discharge from the human body, before handling an IC board always neutralize any static charge in the body by touching grounded metal surface.
- Some parts are not designed and manufactured specifically for the Software Kit . Manufactures may discontinue, or change the specification of such general purpose parts. In which case, SEGA cannot repair or replace a failed component whether of not the warranty period has expired.

HANDLING THE DVD-ROM DISC

STOP **IMPORTANT**

- Do not use a DVD with a damaged Face. This may cause a malfunction.
- Insert the DVD ROM into the DVD Drive with the label facing upwards.
- Do not get finger prints or dust particles on the disc. Contaminated discs may lower audio and video quality, and may result in read malfunctions.
- When cleaning the disc, do not use volatile chemicals (benzene, thinners, cleaning sprays, or antistatic agents, etc.).
- Do not use a cracked, warped, or damaged disc.
- Do not attach papers or seals onto the disc to avoid scratching it.
- Do not use a disc with signs of peeled seals, tape, etc
- If such a disc is placed the DVD ROM Drive, malfunctions, such as the inability to remove the disc from the drive, may result.
- When cleaning a contaminated disc, use a soft cloth that has been soaked in water and squeezed. After wiping, remove any remaining moisture with a clean dry cloth. (See 6-5 Fig 01)
- When handling a Disc be careful not to contaminate it with your fingerprints.

HANDLING THE DISC

1   • To clean a disc, wipe it with a soft cloth, from the centre outwards.

17-2 Fig 01

2   • When handling a disc, using both hands, put your thumbs and forefingers on the opposite sides of the disc.

17-2 Fig 02

3   • Placing the DVD ROM into the DVD Drive, with one hand, put your forefinger into the centre hole while placing your thumb and middle finger on opposite sides of the disc. When inserting a DVD ROM into the Drive make sure that the label is facing upwards.

17-2 Fig 03

🛑 **IMPORTANT**

- The software is not installed on the game board (LINDBERGH RED) when the power supply is engaged, so the "Error 22" message is not a malfunction.

  However, if there is another error display, or if there is no video output at all, there might have been an error in product assembly, wiring connections might be faulty, or the LINDBERGH RED might not be functioning properly.

- After the power supply is engaged, wait for "Error 22" message to be displayed. If the product is indiscriminately operated in any way beforehand, there could be unexpected problems or malfunctions, as well as damage to parts.

- Once "Error 22" is displayed, set the DVD-ROM in the DVD DRIVE and re-engage the power supply. Installation takes place.

- After the power supply is engaged, the DVD DRIVE tray will not come out for about 30 seconds even if you press the switch. This is due to DVD DRIVE initialization.

- The DVD DRIVE tray can come out or return only while the power supply is engaged. The tray cannot be opened or closed while the power is off.

- Even after the software has been installed, store the DVD software kit, DVD DRIVE and DVD wire in a secure location.

- If for any reason installation cannot be completed, an error is displayed. Refer to the service manual and take corrective action.

SOFTWARE INSTALLATION
Take out the DVD Software Kit provided.

1   • Switch ON the MAIN POWER Switch on the AC Unit.

2   • The LINDBERGH starts up and an image appears on the screen (However, this may take several minutes depending on the type of display used), then an ERROR will occur. Check that it is "ERROR 22" and proceed to the next operation. If it's not "ERROR 22" take corrective measures as indicated in the LINDBERGH Service Manual.

3 • Remove 1 urea (Resin Head) Screw, and then remove the DVD Case.

17-2 Fig 04
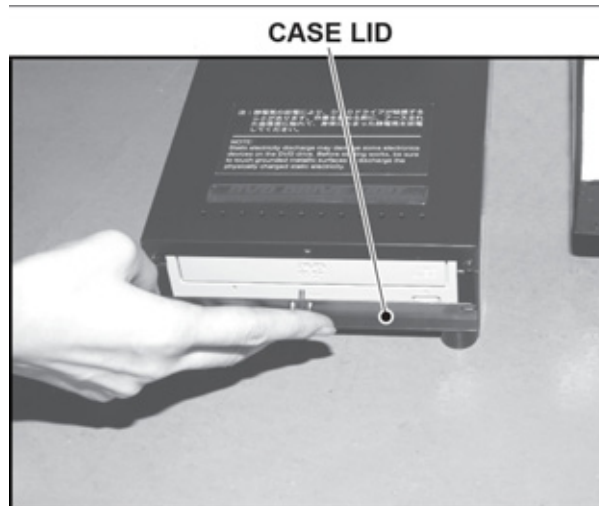
4 • Press the DVD Drive switch and the DVD Drive tray will open. Set the DVD ROM from the DVD Software Kit into the Tray. Always have the DVD label facing upwards.

17-2 Fig 05

5 • Press the DVD Drive switch and the DVD Drive tray will close

6 • Reset Power, Turn the MAIN POWER Switch OFF, wait a while and then turn it back on again.

7 • The Software installs Automatically from the DVD ROM to the LINDBERGH, In some cases, it may take up to 30 minutes for the installation to the LINDBERGH to be complete.

8 • After the software installation, the Game Image will appear automatically.

GAME IMAGE

17-2 Fig 06

9 • Press the DVD Drive switch to open the tray, and remove the DVD ROM.

10 • Press the DVD Drive switch again to close the tray, When the power is off, the tray can not be moved.

11 • Set the MAIN POWER Switch OFF'

12 • Remove the DVD Wire (2m) from the DVD DRIVE.

13 • Refer to steps 1-13 in "6-3 ATTACHING THE DVD DRIVE AND KEY CHIP" and follow the steps in reverse order to detach the DVD Wire (2m) from the cabinet.

14 • Attach the DVD Drive case lid and fasten it with 1 urea (Resin Head) Screw. Store the DVD Drive and DVD Software Kit at a location where there is no dust or cigarette smoke.

15 • Turn ON the MAIN POWER Switch on the AC unit. When the Game Image appears, installation is complete. (See 6-5 Fig 06)

18 DESIGN-RELATED PARTS

For the warning display stickers, refer to Section 1.

ADH-0555UK BILLBOARD PLATE

ADH-0558UK BILLBOARD POP

ADH-0556UK BILLBOARD FRONT PLATE

ADH-0511UK
STICKER L UPPER DLP SIDE

ADH-0512UK
STICKER R UPPER DLP SIDE

ADH-0515UK STICKER SPACER CABI TOP

ADH-0606UK STICKER FRONT PANEL L

ADH-0514UK STICKER R LOWER DLP SIDE

ADH-0513UK STICKER L LOWER DLP SIDE

ADH-0607UK STICKER FRONT PANEL R

TOUCH SCREEN
ADH-P085-2UK F COVER STICKER UP 2

ADH-P084-2UK F COVER STICKER UNDER 2

ADH-P018-2UK INST DECAL MULTI

ADH-P074-2UK SIDE STICKER L 2   ADH-P075-2UK SIDE STICKER R 2

BRAKEDOWN ON ALL SUB ASSEMBLIES

```
ADH-0000UK -TOP ASSY        ADH-0500UK - ASSY DLP        ADH-0550UK - ASSY
      ADH DX                                                 BILLBOARD DX

                                                          ADH-0530UK - ASSY
                                                           MONITOR MASK

                                                          ADH-0650UK - ASSY DLP
                                                                BASE

                                                          ADH-0600UK - ASSY
                                                           FRONT PANEL

                                                          ADH-0680UK - ASSY
                                                            BACK DOOR

                                                          ST-0400UK - ASSY AC
                                                                 BRKT

                                                          ADH-4200UK - ASSY
                                                                XMFR

                            ADH-1000UK - ASSY            ADH-1100UK - ASSY SUB-
                             FRONT CABINET                 CABI FRONT

                                                          ADH-1300UK - ASSY GUN
                                                               HOLDER

                                                          ADH-4100UK - ASSY
                                                                ELEC

                                                          ADH-4500UK - ASSY PWR
                                                                SPLY

                                                          ADH-4000UK ASSY MAIN
                                                                 BD

                                                          ADH-1200UK - ASSY TOP    ADH-1250UK - ASSY LCD
                                                               BOARD

                                                          ADH-2000UK - ASSY
                                                           FRONT COVER

                                                          ADH-1150UK - ASSY SIDE
                                                                DOOR
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1 - TOP ASSEMBLY   (ADH-0000UK)

No.	Component Part	Description	Quantity
1	ADH-0500UK	ASSY DLP	1
2	ADH-1000UK	ASSY FRONT CABINET	1
20	421-7020UK	STICKER CAUTION FORK	4
21	LB1102	STICKER DANGEROUS VOLTAGE	2
28	421-7988-91UK	STICKER SERIAL NUMBER UK	2
29	LB1046	LABEL TESTED FOR ELEC. SAFETY	1
30	LB1130	LABEL WEEE WHEELIE BIN	1
31	PP1087	BOX CASH FOR MINI DOOR	1
32	220-5727-01B	DOOR CASH H.S. STS	1
401	030-000840-S	M8X40 BLT W/S PAS	7
402	060-F00800	M8 WSHR FORM A FLT PAS	7
404	540-0006-01	WRENCH M4 TMP SCR	1
405	420-7032-01UK	SERVICE MANUAL LBG RED	1
406		SERVICE MANUAL DLP	1
407		SERVICE MANUAL ADH DX	1
408	OS1019	SELF SEAL BAG 9X12.3/4	2
409	440-CS0186UK	STICKER C EPILEPSY MULTI	1
410	SAECE-xxx	DECLARATION OF CONFORMITY	1
411	LM1227	UK MAINS LEAD 10A WITH PLUG	1
412	LM1246	EUROLEAD 10A EUROPEAN SOCKET	1
413	PK0434	PALLET ADH FRONT CABI	1
414	PK0435	SHRINK BAG ADH FRONT CABI	1
415	PK0438	PALLET ADH DLP CABI	1
416	PK0439	SHRINK BAG ADH DLP CABI	1
417	ADH-P018-2UK	INST DECAL MULTI	1
1	ADH-P018-21UK	INST DECAL ENG	1
2	ADH-P018-22UK	INST DECAL FRE	1
3	ADH-P018-23UK	INST DECAL GER	1
4	ADH-P018-24UK	INST DECAL ITA	1
5	ADH-P018-25UK	INST DECAL SPA	1
6	ADH-P018-26UK	INST DECAL RUS	1
99	ADH-P018-AUK	INST DECAL MULTI BLANK	1
418	ADH-0556UK	ILLBOARD FRONT PLATE	1
1	ADH-0556-AUK	BILLBOARD FRONT PLATE BLANK	1
419	ADH-0558UK	BILLBOARD POP	1
1	ADH-0558-AUK	BILLBOARD POP BLANK	1

2 - ASSY FRONT CABI (ADH-1000UK)

No.	Component Part	Description	Quantity
1	ADH-1100UK	ASSY SUB CABI FRONT	1
2	ADH-1300UK	ASSY GUN HOLDER	2
3	ADH-G000-BLK	ASSY PUMP CONTROLLER BLACK	2
4	ADH-4100UK	ASSY ELEC	1
5	ADH-4500UK	ASSY PWR SPLY	1
6	ADH-4000UK	ASSY MAIN BD	1
7	ADH-1200UK	ASSY TOP BOARD	1
8	ADH-2000UK	ASSY FRONT COVER	1
9	ADH-1150UK	ASSY SIDE DOOR	1
10	ADH-F055-1	GUN HOLDER SHAFT	4
11	ADH-F056-1	GUN HOLDER CUSHION	4
12	ADH-F039-3UK	SIDE FENCE	2
13	253-5460-01	AIR VENT BLACK	1
14			1
15	ADH-F026-1UK	BOARD SUPPORT BRKT	1
16	ADH-F049-2UK	AC OUTLET BRKT	1
17	ADH-F050-1UK	TOP BOARD BRKT	2
18	FNT-1017UK	TONGUE GUARD	2
20	DUT-0302UK	COIN PATH PLATE	1
21	LB1103	STICKER CAUTION	2
22	ADH-0304UK	LOCKING HASP	1
23	ADH-0305UK	BRKT PADLOCK	1
101	220-5374-01	DOOR DFMD W/FR&LOCK C120 UNIV	1
102	220-5575UK	LOCK (J9117) KEY TO LIKE 22MM W CAM	1
103	VTS-HOD-D-R	VTS BOARD HOD	1
105	220-5610-01	SR3 STD BODYBSR3INGB	1
201	000-P00420-W	M4X20 MSCR PAN W/FS PAS	15
202	000-P00535-S	M5X235 MSCR PAN W/S PAS	2
203	000-P00635-W	M6X35 MSCR PAN W/FS PAS	3
204	000-T00412-0B	M4X12 MSCR TH BLK	4
205	000-T00416-0B	M4X16 MSCR TH BLK	6
206	000-T00520-0B	M5X20 MSCR TH BLK	8
207	008-T00412-0B	M4X12 TMP PRF TH BLK	6
208	008-T00425-0B	M4X25 TMP PRF TH BLK	10
209	008-T00430-0B	M4X30 TMP PRF TH BLK	2
210	031-000525-0B	M5X25 CRG BLT BLK	10
211	050-F00300	M3 NUT FLG SER PAS	2
212	050-F00400	M4 NUT FLG SER PAS	4
213	050-F00500	M5 NUT FLG SER PAS	10
214	050-U00800	M8 NUT NYLOK PAS	8
215	068-441616-0B	M4 WSHR 16OD FLT BLK	14
216	068-552016	M5 WSHR 20OD FLT PAS	2
217	068-852216	M8 WSHR 22OD FLT PAS	8
218			4
219			2
302	LM1006LOR	LOOM COIN MECH LAMP	1
303	ADH-62001UK	WH IO MAIN	1
304	ADH-62003UK	WH VTS1	
305	ADH-60006UK	WH AC IN	1
306	ADH-60015UK	WH EARTH CORE	1
307	ADH-60016UK WH EARTH M6		1
308	ADH-60017UK WH EARTH M4		1
309	600-7009-2500UK	ASSY RGB CA D-SUB 15P 2500MM	1

1 - ASSEMBLY - DLP (ADH-0500UK)

No.	Component Part	Description	Quantity
1	ADH-0530UK	ASSY MONITOR MASK	1
2	ADH-0550UK	ASSY BILLBOARD DX	1
3	ADH-0600UK	ASSY FRONT PANEL	1
4	ADH-0650UK	ASSY DLP BASE	1
5	ADH-0680UK	ASSY BACK DOOR	1
6	ADH-4200UK	ASSY XMFR	1
7	ST-0400UK	AC UNIT ST	1
8	ADH-0501UK	BRKT DLP HOLDER	2
10	ADH-0503UK	BRKT MASK HOLDER	2
12	ADH-0505UK	BRKT JOINT DLP BASE	1
13	253-5460-01	AIR VENT BLACK	1
14	105-5340-01	FAN BRKT LONG	2
15	ADH-0511UK	STICKER L UPPER DLP SIDE	1
1	ADH-0511-AUK	STICKER L UPPER DLP SIDE BLANK	1
16	ADH-0512UK	STICKER R UPPER DLP SIDE	1
1	ADH-0511-AUK	STICKER L UPPER DLP SIDE BLANK	1
17	ADH-0513UK	STICKER L LOWER DLP SIDE	1
1	ADH-0513-AUK	STICKER L LOWER DLP SIDE BLANK	1
18	ADH-0514UK	STICKER R LOWER DLP SIDE	1
1	ADH-0513-AUK	STICKER L LOWER DLP SIDE BLANK	1
19	ADH-0506UK	SPACER CTRL CABI	1
1	ADH-0506-AUK	SPACER CTRL CABI BLANK	1
2	ARC-1006	LEG BRKT	2
3	117-5233UK	PLATE LEG BRKT	4
203	029-B00625-0B	M6X25 SKT BH BLK	8
20	ADH-0507UK	BRKT JOINT SPACER CABI	2
21	ADH-0515UK	STICKER SPACER CABI TOP	1
1	ADH-0515-AUK	STICKER SPACER CABI TOP BLANK	1
30	ADH-0532UK	PROTECT SCREEN DLP	1
31	ADH-0533UK	RETAINING BRKT HORIZ DLP	2
101	200-6062-SAN	???	1
102	260-0011-02	AXIAL FLOW FAN AC100V 50-60Hz	1
103	FN1012	MESH GUARD METAL 120mm FAN	2
101	601-5699UK-01	LEG ADJ M16X100 1L/NUT	2
201	000-T00516-0B	M5X20 MSCR TH BLK	4
202	000-P00420-W	M4X20 MSCR PAN W/FS PAS	20
203	030-000620-S	M6X20 BLT W/S PAS	8
204	060-F00600	M6 WSHR FORM A FLT PAS	8
205	068-552016-0B	M5 WSHR 20OD FLT BLK	4
206	000-P00430-WB	M4X30 MSCR PAN W/FS PAS	6
207	068-441616-0B	M5 WSHR 16OD FLT BLK	2
208	000-P00820-W	M8X20 MSCR PAN W/FS PAS	10
209	030-000620-SB	M6X20 BLT W/S BLK	5
210	068-652016-0B	M6 WSHR 20OD FLT BLK	5
211	000-P00312-W	M3X12 MSCR PAN W/FS PAS	4
212	030-000830-SB	M6X20 BLT W/S BLK	6
213	068-852216-0B	M8 WSHR 22OD FLT PAS	12
301	TFF-60001UK WH	AC BRKT	1
302	ADH-60003UKWH	AC MAIN	1
303	ADH-60011UKWH	SPEAKER EXT	1
304	ADH-66001UKWH	FL UNIT	1

1 - ASSEMBLY - BILL BOARD (ADH-0550UK)

No.	Component Part	Description	Quantity
1	ADH-0551UK	BILLBOARD BOX	1
2	ADH-0552UK	BILLBOARD STAY	1
3			1
4	CTF-0554UK	CONNECTOR LID	1
5	ADH-0555UK	BILLBOARD PLATE	1
1	ADH-0555-AUK	BILLBOARD PLATE BLANK	1
6			1
7	CTF-0557UK	BILLBOARD LID	1
8			1
9	CTF-0559UK	BILLBOARD FL BRKT	1
10	ADH-0560UK	FRONT PLATE SASH	1
11	CTF-0561UK	POP BRKT	1
12	CTF-0562UK	POP HOLDER	1
13	CTF-1002UK	WASHER CTF	2
15	253-5460-01	AIR VENT BLACK	1
16	LB1119	STICKER 100W 30W	1
17	LB1104	STICKER CAUTION, HOT SURFACE	1
18	LB1102	STICKER DANGER VOLTAGE	1
101	390-5695-30-AUK	FL TRAY 100V 30W	1
102	LT1014	TUBE FL 30W 36" DIA 25MM	1
205	FAS-290034	M5X15 LH CAP SCR STN	2
206	000-T00408	M4X8 MSCR CSK PAS	4
207	000-T00410-OB	M4X10 MSCR TH BLK	19
208	068-441616-OB	M4 WSHR 160D FLT BLK	4
210	050-F00400	M4 FLANGE NUT	5
301			1

1 - ASSEMBLY - MONITOR MASK   (ADH-1100UK)

No.	Component Part	Description	Quantity
1	ADH-0531UK	MASK BASE	1
2	JPT-1082	IR COVER	10
101	838-13145R02	LED BD GUN SENSE HOD	10
201	050-U00300	M3 NUT NYLOK PAS	20
202	068-330808-PN	M3 WSHR 8OD FLT NYLON	20
203	050-F00400	M4 NUT FLG SER PAS	1
301	ADH-60007UK	WH LED SENS SHORT	4
302	ADH-60008UK	WH LED SENS LONG	2
303	ADH-60009UK	WH LED SENS EXT	1
304	ADH-60013UK	WH LED SENS MID	3

1 - ASSEMBLY - DLP BASE (ADH-0650UK)

No.	Component Part	Description	Quantity
1	ADH-0531UK	MASK BASE	1
2	JPT-1082	IR COVER	10
101	838-13145R02	LED BD GUN SENSE HOD	10
201	050-U00300	M3 NUT NYLOK PAS	20
202	068-330808-PN	M3 WSHR 8OD FLT NYLON	20
203	050-F00400	M4 NUT FLG SER PAS	1
301	ADH-60007UK	WH LED SENS SHORT	4
302	ADH-60008UK	WH LED SENS LONG	2
303	ADH-60009UK	WH LED SENS EXT	1
304	ADH-60013UK	WH LED SENS MID	3

1 - ASSEMBLY - FRONT PANEL   (ADH-0600UK)

No.	Component Part	Description	Quantity
1	ADH-0601UK	FRONT PANEL	1
2	SRS-0553UK	PANEL BRKT UPPER	1
3	SRS-0554UK	PANEL BRKT LOWER	1
4	SRS-0552UK	SIDE BRKT	2
5			
6	ADH-0606UK	STICKER FRONT PANEL L	1
7	ADH-0607UK	STICKER FRONT PANEL R	1
8			1
9			1
101	130-016-04060WP	???	2
201	050-F00500	M5 NUT FLG SER PAS	12
202	068-552016	M5 WSHR 20OD FLT PAS	12
203	M4X16M	SCR PAN W/FS PAS	8
204	029-B0430-0B	M4X30 SKT BH BLK	8
301			1

1 - ASSEMBLY - BACK DOOR   (ADH-0680UK)

No.	Component Part	Description	Quantity
1	ADH-0681UK	REAR DOOR DLP	1
1	117-0062	PLATE LOCK RETAINER	1
101	220-5574UK	LOCK (J9117) KEY TO LIKE 22MM W CAM	1
2	FNT-1703UK	TANG	1

1 - ASSEMBLY - AC BRACKET (ADH-0400UK)

No.	Component Part	Description	Quantity
1	TFF-0401UK	AC BRKT	1
2	ST-0403UK	PLATE AC CAP	1
3	LB1096	STICKER PROTECTIVE EARTH	1
101	EP1382	FILTER SCHAFFNER FN682-10/06	1
102	EP1387	IEC INLET & SW BZV01/Z0000/70	1
107	EP1391	COUPLER INLINE LAN RJ45 UTP CODE ILC	1
108	310-5029-D508	HEAT SHRINK SLEEVING 50.8DIA	4
112	514-5078-5000	FUSE 5X20 CERAMIC SB 5000mA	1
113	LB1126-5-250	FUSE LABEL 5A 250V	1
201	000-P00308-W	M3X8 MSCR PAN W/FS PAS	4
202	050-F00400	M4 NUT FLG SER PAS	5
301	TFF-60001UK	WH AC UNIT IN	1
302	600-9030-44K	WH EARTH 300MM M4 M4	1
303	600-9050-44K	WH EARTH 500MM M4 M4	1

1 - ASSEMBLY - TRANSFORMER   (ADH-4200UK)

No.	Component Part	Description	Quantity
1	ADH-4201UK	WOODEN BASE TRANS BD	1
101	560-LBGH-01UK	TRANSFORMER 100V	1
201	000-P00416-W	M4X16 MSCR PAN W/FS PAS	4
202	068-441616	M4 WSHR 16OD FLT PAS	4

1 - FRONT CABINET ASSEMBLY   (ADH-1000UK)

No.	Component Part	Description	Quantity
1	ADH-1100UK	ASSY SUB CABI FRONT	1
2	ADH-1300UK	ASSY GUN HOLDER	2
3	ADH-G000-BLK	ASSY PUMP CONTROLLER BLACK	2
4	ADH-4100UK	ASSY ELEC	1
5	ADH-4500UK	ASSY PWR SPLY	1
6	ADH-4000UK	ASSY MAIN BD	1
7	ADH-1200UK	ASSY TOP BOARD	1
8	ADH-2000UK	ASSY FRONT COVER	1
9	ADH-1150UK	ASSY SIDE DOOR	1
10	ADH-F055-1	GUN HOLDER SHAFT	4
11	ADH-F056-1	GUN HOLDER CUSHION	4
12	ADH-F039-3UK	SIDE FENCE	2
13	253-5460-01	AIR VENT BLACK	1
15	ADH-F026-1UK	BOARD SUPPORT BRKT	1
16	ADH-F049-2UK	AC OUTLET BRKT	1
17	ADH-F050-1UK	TOP BOARD BRKT	2
18	FNT-1017UK	TONGUE GUARD	2
20	DUT-0302UK	COIN PATH PLATE	1
22	ADH-0304UK	LOCKING HASP	1
23	ADH-0305UK	BRKT PADLOCK	1
101	220-5374-01	DOOR DFMD W/FR&LOCK C120 UNIV	1
102	220-5575UK	LOCK (J9117) KEY TO LIKE 22MM W CAM	1
103	VTS-HOD-D-R	VTS BOARD HOD	1
105	220-5610-01	SR3 STD BODYBSR3INGB	1
201	000-P00420-W	M4X20 MSCR PAN W/FS PAS	15
202	000-P00535-S	M5X235 MSCR PAN W/S PAS	2
203	000-P00635-W	M6X35 MSCR PAN W/FS PAS	3
204	000-T00412-0B	M4X12 MSCR TH BLK	4
205	000-T00416-0B	M4X16 MSCR TH BLK	6
206	000-T00520-0B	M5X20 MSCR TH BLK	8
207	008-T00412-0B	M4X12 TMP PRF TH BLK	6
208	008-T00425-0B	M4X25 TMP PRF TH BLK	10
209	008-T00430-0B	M4X30 TMP PRF TH BLK	2
210	031-000525-0B	M5X25 CRG BLT BLK	10
211	050-F00300	M3 NUT FLG SER PAS	2
212	050-F00400	M4 NUT FLG SER PAS	4
213	050-F00500	M5 NUT FLG SER PAS	10
214	050-U00800	M8 NUT NYLOK PAS	8
215	068-441616-0B	M4 WSHR 16OD FLT BLK	14
216	068-552016	M5 WSHR 20OD FLT PAS	2
217	068-852216	M8 WSHR 22OD FLT PAS	8
302	LM1006LOR	LOOM COIN MECH LAMP	1
303	ADH-62001UK	WH IO MAIN	1
304	ADH-62003UK	WH VTS	1
305	ADH-60006UK	WH AC IN	1
306	ADH-60015UK	WH EARTH CORE	1
307	ADH-60016UK	WH EARTH M6	1
308	ADH-60017UK	WH EARTH M4	1
309	600-7009-2500UK	ASSY RGB CA D-SUB 15P 2500MM	1

1 - ASSEMBLY - GUN HOLDER   (ADH-1300UK)

No.	Component Part	Description	Quantity
1	ADH-F080-1UK	GUN HOLDER BASE	2
2	ADH-F079	GUN HOLDER TRIM	2

1 - SUB CABINET FRONT (ADH-1100UK)

No.	Component Part	Description	Quantity
1	ADH-F010-4UK	FRONT CABINET	1
2	ADH-F038UK	ADJUSTER PLATE	4
101	601-5699UK-01	LEG ADJ M16X100 1L/NUT	4
102	MA1019	CASTER 75	4
201	030-000625-S	M6X25 BLT W/S PAS	8
202	030-000816-S	M8X16 BLT W/S PAS	16

1 - ASSEMBLY - ELECTRICAL (ADH-4100UK)

No.	Component Part	Description	Quantity
1	ADH-F044-2UK	BD CASE	1
2	ADH-F046-2UK	ELEC SIDE COVER	2
101	400-100-024-01	PSU 24VDC 100W MW LPS-100-24	1
102	400-050-012-01	PSU 12VDC 50W MW LPS-50-12	1
103	838-14515-A0191	SOUND AMP ANALOG IN	1
104	839-1315	CLASS D10W STEREO AMP	1
105	838-14465R03	IC BD G SENCE 1 (OMC-GZH200-H)	1
106	837-14505	I/O CONTROL BD FOR JVS	1
107	280-7783		1
108			1
109	OS1011	RICHCO PART No. LCBS-L-5-01	8
201	000-P00308-W	M 3X8 MSCR PAN W/FS PAS	4
202	000-P00316-W	M 3X16 MSCR PAN W/FS PAS	8
203	000-P00318-W	M 3X18 MSCR PAN W/FS PAS	4
204	000-P00408-W	M 4X8 MSCR PAN W/FS PAS	4
205	012-P00316	N4X5/8" S/TAP PAN PAS	8
301	ADH-61001UK	WH PCB BOX AC	1
302	ADH-61002UK	WH AMP POWER	1
303	ADH-61003UK	WH PCB MAIN	1
304	ADH-61004UK	WH SPEAKER OUT	1
305	ADH-61005UK	WH SPEAKER IN	1
306	HDF 60032UK	WH FREQ	1
307	600-7141-100UK	CABLE JVS TYPE A-B 100CM	1

1 - ASSEMBLY - POWER SUPPLY (ADH-4500UK)

No.	Component Part	Description	Quantity
1		ELEC BRKT	1
2			1
101	400-5457-91UK	SW REGU ATX FSP	1
201		???	2

1 - ASSEMBLY - MAIN BOARD (ADH-4000UK)

No.	Component Part	Description	Quantity
1	ADH-F012-1UK	BD BASE BOARD	1
2	845-0001D-02	ASSY CASE LBJ L 512MB EXP	1
201	000-P00416-W	M4X16 MSCR PAN W/FS PAS	4
301	600-7360-0400	WH LBG PWR 24P P TO P 0400MM	1
302	600-7361-0400	WH LBG PWR 18P P TO P 0400MM	1

1 - ASSEMBLY - TOP BOARD (ADH-1200UK)

No.	Component Part	Description	Quantity
1	ADH-F011-3UK	TOP BOARD	1
2	ADH-1250UK	ASSY LCD	1
3	ADH-F048-1UK	SIDE BRKT	2
201	000-P00420-W	M4X20 MSCR PAN W/FS PAS	4
202	000-P00625-W	M6X25 MSCR PAN W/FS PAS	4
301	600-7917-100UK	ASSY RGB CA D-SUB TO DVI 100CM	1

1 - ASSEMBLY - LCD (ADH-1250UK)

No.	Component Part	Description	Quantity
1	ADH-F027-3UK	LCD BASE BRKT	1
2	ADH-F025UK	LCD BRKT	1
101	200-6086	TOUCH PANEL 15TYPE	1
201	000-P00408-W	M4X8 MSCR PAN W/FS PAS	4
202	000-P00508-W	M5X8 MSCR PAN W/FS PAS	4

1 - ASSEMBLY - FRONT COVER   (ADH-2000UK)

No.	Component Part	Description	Quantity
1	ADH-F017-3UK	FRONT COVER	1
2	ADH-F047-1UK	INST PLATE	1
3	ADH-P018-2-AUK	INST PANEL BLANK	1
4	ADH-F059-3	TOUCH PANEL SEAL V	2
5	ADH-F060-3	TOUCH PANEL SEAL H	2
6	ADH-P074-2UK	SIDE STICKER L 2	1
7	ADH-P075-2UK	SIDE STICKER R 2	1
8	ADH-P084-2UK	F COVER STICKER UNDER 2	1
9	ADH-P085-2UK	F COVER STICKER UP 2	1
101	509-6101	SW PB OBSA-45UM-Y-1FLED-Y-5V	2
201	008-T00412-0B	M4X12 TMP PRF TH BLK	10
202	031-000420-0B	M4X20 CRG BLT BLK	2
203	050-F00400	M4 NUT FLG SER PAS	12
204	068-441616-0B	M4 WSHR 16OD FLT BLK	3

1 - ASSEMBLY - SIDE DOOR (ADH-1150UK)

No.	Component Part	Description	Quantity
1	ADH-F013-3UK	SIDE DOOR	1
1	117-0062	PLATE LOCK RETAINER	2
201			4
101	220-5574UK	LOCK (J9117) KEY TO LIKE 22MM W CAM	2
2	FNT-1703UK	TANG	2

20 WIRE COLOR CODE TABLE

⚠ WARNING

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

The color codes for the wires used in the diagrams in the following chapter are as follows.

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

Wires other than those of any of the above 5 single colors will be displayed by 2 alphanumeric characters.

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

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

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

<Example> 51·········WHITE/RED

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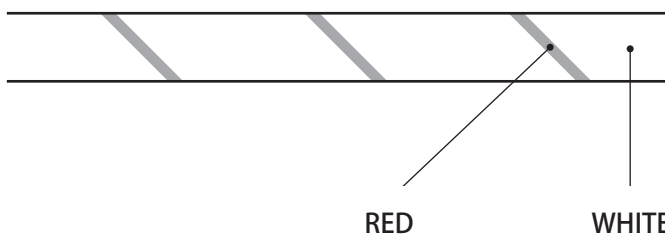
 Note 2:   The character following the wire color code indicates the size of the wire.

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

EP1387 IEC INLET & SW

5A
514-5078-5000

SWITCH

NOISE FILTER
EP 1382

TFF-60001UK

EP1393

AC BRKT STUD

TFF-0400UK
AC UNIT

EP1393

CFB-4003-01UK

600-9000-44K

43K(x6) ADH-66002UK

560-LBGH-01UK
XFMR 220-240V
100V 8A

838-14551-02UK
AC DISTRIBUTION BD

ADH-60003UK

ADH-60006UK

Ⓐ
A4
3/3

ADH-66005UK

DLX ONLY

260-0011-02
FAN AC 100V

LGJ-60036UK

ADH-66002UK

Ⓑ
A5
3/3

Ⓒ
A1
3/3

FL UNITS

STD
390-0100-18-CUK
390-0100-18-DUK

DLX
390-5695-40-CUK
390-5695-40-GUK

ADH-66001UK

DLX

(TIED BACK
ON STD)

POWER

DLX CABINET

200-6062-SAN
DISPLAY 62" DLP SAN

DLX   STD

ADH-66004UK

STD CABINET

200-5949-PFX
ASSY 29" CRT

600-7009-2500UK

Ⓓ
B5
2/3

STD

ADH-66004UK

STD ONLY

260-0011-02
FAN AC 100V

LGJ-60036UK

RIGHT SPEAKER

130-016-04060WP (DLX)
130-013-04040WP (STD)

LEFT SPEAKER

ADH-60011UK

ADH-62001UK

Ⓔ
H1
2/3

ASSY FRONT CABI
ADH-1000UK

838-13145R02
LED BD GUN SENSE HOD

ADH-60013UK (STD)
HDF-65011UK (DLX)

ADH-60007UK (STD)
HDF-65011UK (DLX)

ADH-60007UK (STD)
HDF-65011UK (DLX)

ADH-60007UK (STD)
HDF-65011UK (DLX)

ADH-60013UK (STD)
HDF-65011UK (DLX)

ADH-60008UK (STD)
HDF-65010UK (DLX)

ADH-60008UK (STD)
HDF-65010UK (DLX)

ADH-60009UK

ADH-62001UK

Ⓕ
H3
2/3

ASSY MASK
ADH-0530UK (DLX) : ADH-3200UK (STD)

						DRAWN	CHKD	TOP LEVEL			ORIGINAL SIZE
1	RED	8	BLACK	E	LIGHT GREEN						A3
2	BLUE	9	GREY			MS		ADH-0000UK	SEGA AMUSEMENTS EUROPE, LTD.		
3	YELLOW	A	PINK	U	AWG 16 UL1015			&			
4	GREEN	B	SKY BLUE	K	AWG 18 UL1015			ADH-0002UK	PRIMEVAL HUNT DISPLAY CABINET DLX / STD		ADH 1/3
5	WHITE	C	BROWN	L	AWG 20 UL1007						
6		D	PURPLE		AWG 22 UL1007	25/02/08					PART NO.
7	ORANGE										

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TO BE RETURNED ON DEMAND.

COLOUR CODE   WIRE TYPE   DESCRIPTION

ALTERATIONS

SEGA AMUSEMENTS EUROPE, LTD.

PRIMEVAL HUNT GUN CABINET DLX / STD

TOP LEVEL	ADH-0000UK & ADH-0002UK
ORIGINAL SIZE	A3
DRAWN	MS
25/02/08	
ADH 2/3	

WIRING DIAGRAMS 21

21
WIRING DIAGRAMS

ASSY FRONT COVER
ADH-2000UK

EARTH MAP

EARTH PLATE o 43K 600-9080-44K 43K o AC BRKT (DLX & STD)

EARTH PLATE o 43K 600-9120-44K 43K o MONITOR MASK (DLX)

EARTH PLATE o 43K 600-9020-44K 43K o MONITOR MASK (STD)

COIN DOOR
M5

CONTROL PANEL
M4

ADH-66006UK

1P START BUTTON
509-6101
SW PB OBSA-45UM-Y-1FLED-Y-5V

	+5V
	2P START LAMP
	2P START
	GND
NH 4P

2P START BUTTON
509-6101
SW PB OBSA-45UM-Y-1FLED-Y-5V

	+5V
	1P START LAMP
	1P START
	GND
NH 4P

ADH-62001UK

+5V
+5V
+12V
+3.3V
MAIN VOL
SHOT VOL
1P START
2P START
SERVICE
TEST
COIN1
COIN2
COIN METER1
COIN METER2
1P START LAMP
2P START LAMP
COIN LAMP
VOL GND
GND
GND
GND

VTS-HOD-D-R

ASSY VTS

TEST

SERVICE

N/U

STATUS   SPEAKERS

SERVICE

VOL 1

N/U

N/U

AMP CST 100

9 WAY U-P BLACK

5 WAY U-P BLACK

ADH-62001UK

ASSY FRONT CABI
ADH-1000UK

ADH-60006UK

0.187x0.5T TAG

E
L
N

601-6851UK
AC OUTLET

15inch
TOUCH PANEL
200-6086

ELEC ASSY
COVER
M4

EP1393

838-13144R03
SENSOR BD ADH

LEFT SIDE SPEAKER
120-5262-93
AW SHOTGUN

RIGHT SIDE SPEAKER
120-5262-93
AW SHOTGUN

TRIGGER PUMP
PUMP

WHWAS-CON0

CONTORL UNIT 1P

838-13144R03
SENSOR BD ADH

LEFT SIDE SPEAKER
120-5262-93
AW SHOTGUN

RIGHT SIDE SPEAKER
120-5262-93
AW SHOTGUN

TRIGGER PUMP
PUMP

WHWAS-CON0

CONTORL UNIT 2P

ADH-62001UK

ADH-62001UK

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

U	AWG 16 UL1015
K	AWG 18 UL1015
L	AWG 20 UL1007
	AWG 22 UL1007
WIRE TYPE

DRAWN MS
25/02/08

CHKD

TOP LEVEL
ADH-0000UK
&
ADH-0002UK

SEGA AMUSEMENTS EUROPE, LTD.

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ORIGINAL SIZE
A3

PRIMEVAL HUNT GUN CABINET DLX / STD
DESCRIPTION

ADH 3/3
PART NO.

ALTERATIONS