## OWNER'S MANUAL



## SEEA

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BEFORE USING THE PRODUCT, BE SURE TO READ THE FOLLOWING:
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## 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, "INITIAL D 4."

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.

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

| Installation space: | $1,130 \mathrm{~mm}(44.5 \mathrm{in}$.$) [Width] x 1,660 mm (65.4 in.) [Depth]$ |
| :--- | :--- |
| Height: | $1,970 \mathrm{~mm}(77.6 \mathrm{in})$. |
| Weight: | $318 \mathrm{~kg}(701.1 \mathrm{lbs})$. |
| Power, maximum current: | $2.5 \mathrm{~A}(\mathrm{AC} 230 \mathrm{~V}, 50 \mathrm{~Hz}$ Area $)$ |
| Monitor: | 32 Type LCD Monitor |

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

## Definition of 'Site Maintenance Personnel or Other Qualified Individuals'

## A WARNING <br> 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 specialized 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.

## A 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.
- 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.
- 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 WARNING DISPLAYS

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

## $\triangle$ 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 LIMITATIONS OF USAGE

## A 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 $100 \mathrm{~V} \sim 120 \mathrm{~V}$ area), and 7 A or higher (AC $220 \mathrm{~V} \sim 240 \mathrm{~V}$ 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 $100 \mathrm{~V} \sim 120 \mathrm{~V}$ area) and 7 A or higher (AC $220 \mathrm{~V} \sim 240 \mathrm{~V}$ area). Using a cord rated lower than the specified rating can cause a fire and electric shock.


## 2-2 OPERATION AREA

## A WARNING

- For safe operation and management of this product, allow at least 70 cm of space between cabinets when allocating floor space and space for people to move through.
- 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, compensation for damage to a third party, resulting from the failure to observe this instruction.
- If the machine does not fit through the entryway to the installation location, do not disassemble it without first consulting the instructions. If the machine still does not fit through the entryway after following the procedures in this manual, contact your retailer or the office listed in this manual.


## stop IMPORTANT

For transporting the machine into the location's building, the minimum necessary dimensions of the opening (of doors, etc.) are $1.3 \mathrm{~m}(\mathrm{~W})$ and $1.8 \mathrm{~m}(\mathrm{H})$.

Note: This product can be split in to 2 major pieces to enable entry through a standard doorway. Please see section 8 of this manual titled "Precautions When Moving".

## Sample Layout



2-2 FIG. 01

## 3 PRECAUTIONS REGARDING PRODUCT OPERATION

For safe operation of this product, comply with the following warnings.

## 3-1 BEFORE OPERATION

- Do not climb on the product. Climbing on the product can cause falling down accidents. To check the top portion of the product, use a step ladder.
- To avoid electric shock, check to see if door \& cover parts are damaged or omitted.
- 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, flowerpots, cups, water tanks, cosmetics, and receptacles/containers/vessels containing chemicals and water.


## A CAUTION

－During daily cleaning，be sure to check the surface of the steering wheel，gear shifter，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 seat for any abnormality，wetness， 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 making bodily contact with each other，hitting accidents， 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 completly dried．

## ［Inspecting Initial D cards］

Refill cards before beginning operations．Paying out all cards will cause an error． Refer to＂11－1 Setting Dedicated Cards＂before operating．You can refill the cards even when power to the machine is on．

## 3-2 DURING OPERATION (PAYING ATTENTION TO CUSTOMERS)

To avoid injury and trouble, be sure to constantly give careful attention to the behavior and manner of the visitors and players.

## WARNING

- For safety reasons, do not allow any of the following people to play the game.
- Those who need assistance such as the use of an apparatus when walking.
- Those who have high blood pressure or a heart problem.
- Those who have experienced muscle convulsion or loss of consciousness when playing video games, etc.
- Those who have neck or spinal cord problems.
- Those who are intoxicated.
- Pregnant women.
- Persons susceptible to motion sickness.
- Persons who disregard the product's warning displays.
- Even players who have never been adversely affected by light stimulus might experience dizziness or headache depending on their physical condition when playing the game.

Especially, small children can be subject to those conditions. Caution guardians of small children to keep watch on their children during play.

- Instruct those who feel sick during play to have a medical examination.
- To avoid injury from falls and electric shocks due to spilled drinks, instruct the player not to place heavy items or drinks on the product.
- To avoid electric shocks and short circuits, do not allow customers to put hands and fingers or extraneous matter in the openings of the product or small openings in or around the doors.
- To avoid falls and resulting injury, immediately stop the customer from leaning against or climbing on the product, etc.
- To avoid electric shock and short circuit, do not allow customers to unplug the power plug without a justifiable reason.
- This product is intended for 1 Player only. Playing the game by 2 or more Players riding on the seat together can cause falling down and collision accidents by striking head, hand, or elbow.
- Persons other than the player should not be allowed to touch the controls during play. They may brush against or collide with the controls or the player, possibly resulting in accidents.


## A WARNING

- Customers should be warned not to place children on their laps while they play the game. Doing so may cause the child to become trapped between the player and the control panel and/or cause the machine to tip over.



## A CAUTION

Immediately stop such violent acts as hitting and kicking the product. Such violent acts can cause parts damage or falling down, resulting in injury due to fragments and falling down.

PRECAUTIONS TO BE HEEDED BEFORE STARTING THE OPERATION (CARD SYSTEM)

- The product is capable of rewriting the printing on cards. However, be aware that it may not always do so completely, and that in some cases the card may not be completely erased. Even where sufficient maintenance is performed, printing may be performed incorrectly under such conditions where there are scratches on the card, bends in the card, or the sudden insertion of a foreign objects into the card reader. This does not affect the data recorded on the card.
- The product will automatically stop play if it determines that cheating has occurred. The following are considered acts of cheating. Since the actions listed here may cause incorrect functioning or damage to parts, be sure to caution players against taking them.
- Use of cards other than dedicated cards
- Use of folded, bent, dirty, broken, damaged, or deformed cards
- Use of cards with adhered seals or extraneous matter on them
- Insertion of two cards together
- Incorrect insertion of cards
- When a card is extracted quickly
- Removal of cards in contradiction to on-screen instructions


## 4 PART DESCRIPTION



Principle Measurements

| Item | Measurement (Width $\times$ Length $\times$ Height) |
| :---: | :---: |
| Cabinet (Without POP, seat adjusted forward) | $1,083 \mathrm{~mm} \times 1,568 \mathrm{~mm} \times 1,704 \mathrm{~mm}$ |
| Complete cabinet (Seat adjusted backward) | $1,083 \mathrm{~mm} \times 1,668 \mathrm{~mm} \times 1,974 \mathrm{~mm}$ |

## 5 ACCESSORIES

Confirm that the accessories listed 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.
Initial D cards (Initial D driver's licenses) are sold separately. To purchase cards, place an order to the office listed in this document, or to where you purchased this product, with the following part number, clearly specifying your name and desired quantity.

CARD PACKAGE INID4 ENG
601-11926-01 (box of 100 Initial D cards)

5 TABLE 01

```
DESCRIPTION: OWNER'S MANUAL
Part No. (Qty.): 420-7019UK (1)
Note: This manual
```

Figures:

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 separately.

LINDBERGH SERVICE MANUAL 420-6921-01 (1)<br>Explanation of built-in game board

NETWORK (LAN) CABLE (3 m) 600-7269-0500UK (1)


TAMPERPROOF SCREW WRENCH (for M4) 540-0006-01 (1)

TAMPERPROOF SCREW WRENCH (for M5) 540-0007-01 (1)

## CLEANING KIT 601-11949 (1) <br> CLEANING KIT 601-11949 (1)

1 set 30 sheet package


KEY MASTER
220-5775UK (2)
For opening/closing the doors


VOLUME
220-5753 or 220-5484 (1)


POWER CABLE
LM1227 <UK>
LM1246 <EURO>
For installation, see chapter 6.


The DVD software kit, DVD drive, and DVD wire are sold separately, and require installation of this product's software. If the product is not complete at the time of delivery, contact the seller or make arrangements using the kit number listed below. The DVD DRIVE and DVD wire that come with SEGA's "The House of the Dead 4" are compatible with this product.

5 TABLE 02
XKT-1604-D-EX2: DVD-ROM KIT TFF EXP
DVD SOFTWARE KIT (1)


NOTE: When you order the DVD-ROM disc only, specify the part number 610-0726-0030 (DVD SOFT TFF EXP).

## 5 TABLE 03

XKT-1515-01: DVD DRIVE KIT FOR LBG ENG

SERVICE MANUAL DVP ENG
420-6923-01 (1)

DVD DRIVE
610-0719-01-91 (1)
For software installation.


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


## 6a ASSEMBLY AND INSTALLATION

## A WARNING

- The work described below should be carried out by the site maintenance personnel or other qualified professional. If there are no personnel available with the necessary knowledge or skills, send a job request to the contact listed in this document.
- Be sure to install this product as indicated in this document. Improper installation may cause damage to the product, or accidents resulting in death or injury.
- 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 exposed in areas of heavy foot traffic. Doing so may cause them to become damaged, possibly resulting in electric shock and/or short circuits. Make all efforts to place cables away from aisles. Be sure to attach a protective cover when placing cables in an aisle.


## A CAUTION

To perform work safely and securely, be sure to prepare a step which is in a secure and stable condition. Performing work without using the step can cause violent falling down accidents.

## Network Cable Connection Overview



6a FIG. 01

## Tools necessary for work

- Philips screwdrivers (for M4)

- Hexagonal screwdriver (for M4 hexagon bolts and nuts)

- Spanner with measuring distance of 24 mm to opposite side



## 6-1-1 ATTACHING THE POP

Use three screws to fasten the POP to the cabinet. Use a step when carrying out this procedure.


6a-1-1 FIG. 01


6a-1-1 FIG. 02
For performing work, prepare a step.

## 6a-1-2 SECURING IN PLACE

## A WARNING

Be sure to ground the adjusters, and secure the product firmly to the installation location. If the cabinet moves either during assembly work or during operation after the completion of assembly, a serious accident may occur.

This product has 7 casters and 4 adjusters.


6a-1-2 FIG. 01 BOTTOM VIEW

1
Move the product to the installation site. See Chapter 2 for examples of installation.
Ensure that you leave enough aisle space for the player to sit in the seat. Additionally, leave at least 200 mm of space on the side of the cabinet with the exhaust vent (the rear surface of the cabinet) for ventilation.

2
Use a wrench to set adjuster heights so that the unit will stay level.
3
After setting, turn adjuster nuts upwards to tighten them and secure adjuster heights.


6a-1-2 FIG. 02

Refer to this Fig. (Scale:1/100) for the layout of the place of installation.


6a-1-2 FIG. 03

## 6a-1-3 REFILLING THE CARDS

## stop IMPORTANT

- Be sure to use the product's dedicated cards. Using any other cards may cause the product to malfunction or become damaged.
- Be sure to adhere to the assigned procedures, orientation, and quantities when loading the cards. Loading the cards incorrectly may cause damage to the product or malfunctions.
- Be sure to load only new cards, straight out of the box. Do not load warped, deformed, or used cards.

Remove the truss screw.


Use the master key to unlock the CARD R/W drawer.


Refill the Initial D cards. Place the cards in the orientation shown in the diagram, loosen them, and load 100 cards. Do not load more than 101 cards, as this may result in damage to the product or malfunctions.


6a-1-3 FIG. 06

Ensure that the cards are loaded in the proper orientation.


6a-1-3 FIG. 07

Place the retainer over the refilled cards.


6a-1-3 FIG. 08

Carry out steps 1 and 2 in reverse order and relock the Card R/W drawer..

## 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.

NOTE: The key chip is instaled on all machines manufactured in the EU.

Remove the 2 truss screws, and use the master key to unlock the tail lid and remove it.


6a-1-4 FIG. 01


6a-1-4 FIG. 02

Take out the key chip and the sticker supplied with the DVD software kit. Insert the key chip into the LINDBERGH. Push the key chip all the way into the slot, paying attention to its orientation. Place the sticker on the LINDBERGH.


Attach the tail lid, lock it, and fix it in place with the 2 truss screws.

## 6a-1-5 CONNECTING NETWORK CABLES

1 The AC BRKT houses the NETWORK adaptor. This is positioned above the On/OFF switch.


6a-1-5 FIG. 01
2
Smply offer the NETORK cable (supplied) up to the NETWORK PORT and push in untill the connector locks into place.


6a-1-5 FIG. 02

## A 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.
- Have available a securely grounded indoor earth terminal. Without proper grounding, customers could be electrocuted and product operations might not always be stable.
- Do not expose the power cable or earth wire. 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.


## 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.


Fully insert the power cord connector on the side opposite the power plug into the AC unit inlet.

3 Fully insert the power cord plug into the outlet.
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 $>$


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 $>$


6a-1-6 FIG. 03

5
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.
<For Taiwan>


6a-1-6 FIG. 04

## A 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 a load is applied, the connector or its terminal pins could break, causing a short circuit or fire.
- 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.
[Do not use or store in these locations]
- 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 off heat (a heater, etc.)
- Close to anything with a strong magnetic field (magnets, monitor, speakers, radio, etc.)
- Anywhere that is likely to get wet (kitchen, etc.)
- Anywhere with a slope or incline
- Anywhere with corrosive gas in the air (chlorine, hydrogen sulfide, ammonia, sulfur dioxide, etc.)
- Anywhere with strong static electricity
[Do not use in these locations]
- Close to anything that is highly retentive of heat (carpet, sponge, cardboard, etc.)
- Anywhere that blocks the DVD DRIVE air vent.
- The DVD DRIVE is a delicate piece of equipment. Avoid the following.
- Dropping or shaking it violently.
- Getting water or other liquids on it, or placing small items on top of it.
- Placing large or heavy items on top of it.
- Drinking or smoking close to the DVD DRIVE.
- Do not turn off the power to the DVD DRIVE when its access lamp is on or flashing, as this could cause damage to the device.
- Do not allow any foreign materials, such as liquids, metals or smoke inside the DVD DRIVE.
- 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 agents 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 IC boards 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 a grounded metal surface.
- Some parts are not designed and manufactured specifically for the kit. The manufacturers may discontinue, or change the specifications of such generalpurpose parts. If this is the case, SEGA cannot repair or replace a failed kit whether or not a warranty period has expired.


## stop IMPORTANT

- Do not use a DVD-ROM with a damaged front. This may cause a malfunction.
- Insert the DVD-ROM into the DVD DRIVE with the label facing upwards.
- Do not get fingerprints 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, thinner, etc.), cleaning sprays, or antistatic agents.
- 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 in the DVD-ROM DRIVE, malfunctions, such as the inability to remove the disc from the drive, may result.
- When cleaning a heavily contaminated disc, use a clean cloth that has been soaked in water and squeezed. After wiping, remove any remaining moisture with a clean, dry cloth.


## How to Hold a Disc

When handling a disc, be careful not to contaminate it with your fingerprints.

With both hands:
Put your thumbs and forefingers on
4 opposite sides of the disc.


## With one hand:

Insert your forefinger into the center hole, while placing your thumb and middle finger on opposite sides of the disc.


- The software is already installed on to the Game Board (LINDBERGH) before leaving the factory. If for any reason the software requires re-instalation, then please follow the instructions herein.
- 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 LINDBERGH service manual and take corrective action.

Install the software in the LINDBERGH cabinet.
For safety and to prevent erroneous operation, connect the DVD drive and the LINDBERGH before connecting the power cord.
Have the DVD drive, DVD wire, and DVD software kit ready.

Connect the DVD wire to the connector on the rear of the DVD drive. Connect the 2 connectors on the side with the DVD tag.


6a-2 FIG. 01

Confirm that the main switch of the AC unit is set to OFF.

3
Remove the two truss screws, and use the master key to unlock the tail lid and remove it.


6a-2 FIG. 02


6a-2 FIG. 03

Remove the 2 flange nuts, and take off the blind plate.


6a-2 FIG. 04


6a-2 FIG. 05
Pass the DVD wires into the interior of the cabinet from the area where you removed the blind plate.


6a-2 FIG. 06

Connect the DVD wire to the LINDBERG.
Connect the NH6 pin to the connectors on the side with the "LINDBERGH" tag. You can connect the USB MINI A connector to any open port, but port 1 will be used for purposes of this document.


6a-2 FIG. 07

7
Perform step 3 in reverse to attach the tail lid, lock it, and fix it in place with 2 truss screws.


Turn main switch of the AC unit on.

The LINDBERGH startup screen will appear on the monitor. Wait for at least 1 minute. The product will read an error. Confirm that it is "Error 22."If this is correct, proceed to the next step. Refer to the service manual and take appropriate action if the product is not in "Error 22".

1 Take out 1 urea (resin-head) screw and remove the DVD DRIVE case lid.


6a-2 FIG. 08

Press the DVD DRIVE switch and the DVD DRIVE tray will come out. Set the DVD from the DVD kit into the tray. Always have the labeled side facing upward.


6a-2 FIG. 09

Press the DVD DRIVE switch. The tray goes back into the drive.

Turn the power back on. First turn the main switch off, wait for at least 10 seconds, and then turn it on again.


Software is installed automatically from the DVD to the LINDBERGH. In some cases, it may take about 10 minutes to install software to the LINDBERGH.

15
When installation is complete, the game will startup automatically. Confirm that the game starts.

Press the DVD DRIVE switch so that the tray comes out. Remove the DVD.

Press the DVD DRIVE switch so that the tray goes back into the unit. If the power is cut off, the tray will not move.


Set the main switch to OFF.

Remove the blind panel, and then remove the DVD wire from the LINDBERGH.

21
Fix the blind panel in place with 2 flange nuts.
22
Attach the DVD DRIVE case lid and fasten it with 1 urea screw.

## stop IMPORTANT


#### Abstract

When installing 2 or more cabinets, carry out the settings for cabinet seat number and in-store competition during the game test mode. By setting different numbers but identical alphabet settings you can have competitions between cabinets. You cannot have competitions between cabinets with different alphabetic settings.


Set, adjust, and confirm the following settings in test mode. Refer to the LINDBERG service manual for information on system test mode, and the Initial D4 service manual for information on game test mode.

In system test mode, set COIN ASSIGNMENTS as follows.
COIN ASSIGNMENTS
$\begin{array}{ll}\text { - COIN CHUTE TYPE: } & \text { COMMON } \\ \text { - SERVICE TYPE: } & \text { COMMON }\end{array}$

- Check whether or not the speakers are functioning correctly using SPEAKER TEST in system test mode. The speakers on this product are in the following configuration. Set RIGHT SPEAKER and LEFT SPEAKER to "ON" and check that they output sound.

| SPEAKER | SETTING |
| :--- | :--- |
| RIGHT SPEAKER | USED |
| LEFT SPEAKER | USED |
| REAR RIGHT SPEAKER | UNUSED |
| REAR LEFT SPEAKER | UNUSED |
| CENTER SPEAKER | UNUSED |
| WOOFER SPEAKER | UNUSED |

- Check whether or not the speakers are connected and functioning correctly using INPUT TEST in the game test mode.
- Check whether or not the speakers are connected and functioning correctly using OUTPUT TEST in the game test mode.
- Adjust STEEERING, GAS, and BRAKE in INPUT ASSIGNMENTS in game test mode.
- Seat numbers are assigned using SEAT NUMBER in the GAME ASSIGNMENTS section of game test mode. You can have the in-store competitions by connecting cabinets together and assigning them different seat numbers. The seat numbers are "SINGLE", " 1 ", and " 2 ".
To conduct in-store competitions, set one cabinet to " 1 " and the other one to " 2 ". Set this field to "SINGLE" when installing only one cabinet, or if you do not want to conduct in-store competitions.
- Carry out a card check in IC CARD R/W \& PRINTER TEST in game test mode, and check that the card read/ write function is performing correctly. The check will print a test card, and you can also use ERASE PRINT in the same test mode to erase the printed characters. Although in some cases the printed characters may not be completely erased, this will not harm IC card's functionality.
- Check that the network is functioning correctly in NETWORK TEST in games test mode.
- Adjust the following settings to suit the operating environment.
- Volume adjustment
- Store closing time
- Time setting

Contact the point of purchase for this product if you are unable to adjust the volume using the procedures described in this document.

## 6b TEST MODE

## 6b-1 SWITCH UNIT

## stop IMPORTANT

Be sure to move the seat to the rear position before opening the coin chute door.

Open the coin chute door, and the switch unit shown will appear.


6b-1 FIG. 01


TEST BUTTON:

SERVICE BUTTON:

Used in TEST Mode.
Use this to select items and move to the next screen during TEST Mode.
Gives credits without registering on the coin meter. Use this to move the cursor during TEST Mode.

## 6b-2 SYSTEM TEST MODE

## stop IMPORTANT

- Refer to BOOKKEEPING in GAME TEST MODE for data on this product.
- 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.
- Read the LINDBERGH Service Manual included with this product for details on SYSTEM TEST MODE. Be sure, however, to use the product settings outlined in this manual.

In the SYSTEM TEST MODE, LINDBERGH board functioning can be checked, the monitor adjusted, and the coin setting performed. Refer to LINDBERGH service manual for the details.
Note that the settings of the following items need to be performed in accordance with the instruction given.

COIN ASSIGNMENTS

- COIN CHUTE TYPE:

COMMON

- SERVICE TYPE:

COMMON

NETWORK SETTING

- DHCP:

ENABLE

## 6b-3 GAME TEST MODE

## 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.


## 6b-3-1 GAME TEST MODE Menu

Select GAME TEST MODE from the System Test Menu Screen as follows.


6b-3-1 FIG. 01

1
Use SERVICE Button to move the cursor to the desired test item.

Press the TEST Button to enter the selected item.

## INPUT TEST:

OUTPUT TEST:
FORCE FEEDBACK:
INPUT ASSIGNMENTS:
GAME ASSIGINMENTS: PASSWORD CONFIRMATION:
IC CARD R/W \& PRINTER TEST:
IC CARD RESTORATION:
NETWORK TEST:
CLOSE SETTING:
BOOKKEEPING:
BACKUP DATA CLEAR: EXIT:

[^0][^1]
## 6b-3-2 INPUT TEST

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


Test the STEERING, GAS and BRAKE controls to ensure that they are functioning properly and that the parameters change smoothly as each input device is operated.

Display N, UP and DOWN using the GEAR POSITION. N should display there is no control input. Verify that both UP and DOWN display in sync with the position of the gear shifter.

Other controls are working properly if the OFF display changes to ON when operating the corresponding input device.

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

## TESTABLE INPUT DEVICES

Steering wheel, pedals (GAS, BRAKE), gear position, Start Button, View Change Button, Directional Buttons (UP, DOWN, RIGHT, LEFT), SERVICE Button, TEST Button.


6b-3-2 FIG. 02

## 6b-3-3 OUTPUT TEST

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

OUTPUT TEST

| START BUTTON | OFF |
| :--- | :--- |
| VIEW CHANGE BUTTON | OFF |
| UP BUTTON | OFF |
| DOWN BUTTON | OFF |
| RIGHT BUTTON | OFF |
| LEFT BUTTON | OFF |

$\rightarrow$ EXIT

SELECT WITH SERVICE BUTTON
AND
PRESS TEST BUTTON

6b-3-3 FIG. 01

Move the cursor with the SERVICE Button, and use the TEST Button to illuminate the lamp indicated by the cursor.

| START BUTTON: | Lights up the $\bigcirc$ button. |
| :--- | :--- |
| VIEW CHANGE BUTTON: | Lights up the $\square$ button. |
| UP BUTTON: | Lights up the $\checkmark$ button. |
| DOWN BUTTON: | Lights up the $\checkmark$ button. |
| RIGHT BUTTON: | Lights up the $\Omega$ button. |
| LEFT BUTTON: | Lights up the $\because$ button. |

Move the cursor to EXIT and press the TEST button to return to the Game Test Menu Screen.

## A CAUTION

- When you select "FORCE FEEDBACK", a connection test runs and the STEERING rotates.
- When the connection check completes, a screen below is displayed, and you may adjust the STEERING resistance.


6b-3-4 FIG. 01

- FORCE:

Set the STEERING resistance. The ** indicates the current resistance setting.
The smaller the value, the weaker the resistance; the larger the value, the stronger the resistance.
(Minimum value is 0 ; the maximum value is 10 . The default setting is 4.)
Move the cursor to UP or DOWN and press the TEST Button to change the value.

## - FORCE TEST:

Verifies the STEERING motor is working properly.
Toggle between OFF and ON by aligning to CENTER and pressing the TEST Button.
The STEERING will rotate and stop in the center position. Pressing the SERVICE Button moves the cursor to the next menu item and CENTER changes to OFF. Control of the STEERING is then released.
When the RIGHT menu item is ON, the STEERING rotates to the right as far as possible and then stops. Press the SERVICE Button again to turn it OFF and release control of the STEERING.
When the LEFT menu item is ON, the STEERING rotates to the left as far as possible and then stops. Press the SERVICE Button again to turn it OFF and release control of the STEERING.

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

## 6b-3-5 INPUT ASSIGNMENTS

Select INPUT ASSIGNMENTS to display the following screen.

INPUT ASSIGNMENTS
STEERING $\quad * * \mathrm{H}$
GAS PEDAL $\quad * * H$
BRAKE PEDAL **H
-> EXIT
SELECT WITH SERVICE BUTTON
AND
PRESS TEST BUTTON

6b-3-5 FIG. 01
**H displays one of 256 different values for each input control from 00H to FFH. [0.1.2.3.4.5.6.7.8.9.A.B.C.D.E.F]

STEERING: Adjust the centering of the STEERING control. GAS PEDAL, BRAKE PEDAL: Adjust the GAS and BRAKE pedals.

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

## STEER ADJUSTMENTS

Make adjustments to STEERING.
Press the TEST Button to display the following screen.


6b-3-5 FIG. 02

Center the STEERING. When the " 0 " displayed is not exactly aligned with the " $\wedge$ " mark above CENTER, use the cursor to select RIGHT or LEFT and move the " 0 " until it is displayed directly above the " "»" mark.

Move the cursor to RIGHT and press the TEST Button to move the " 0 " to the right. Each time you press the TEST Button, " 0 " moves slightly to the right.
Move the cursor to LEFT and press the TEST Button to move the " 0 " to the left. Each time you press the TEST Button, "0" moves slightly to the left.

Move the cursor to EXIT and press the TEST Button to return to the INPUT ASSIGNMENTS Screen.

## GAS ADJUSTMENTS

Make adjustments to GAS.
Press the TEST Button to display the following screen.

GAS ADJUSTMENTS
$\left(\mathrm{MIN}{ }^{* *}{ }^{* *}: M A X{ }^{* *}\right.$ H)
GAS $={ }^{* *} \mathrm{H}$
MAX
v
0
$\wedge$
MIN
RESET
-> EXIT
FIRST, STEP ON THE GAS PEDAL FULLY, AND RELEASE IT SELECT WITH SERVICE BUTTON

AND
PRESS TEST BUTTON

6b-3-5 FIG. 03

Set the MAX position by stepping on the GAS pedal. The "MAX" display moves to the right depending on how hard the pedal is pressed.
Entering GAS ADJUSTMENTS without having the GAS pedal pressed down automatically sets the MIN position.
NOTE: If you enter GAS ADJUSTMENTS with the GAS pedal pressed down, set the MIN position by releasing the GAS pedal. The " MIN" display moves to the left depending on how much the pedal is released.

Move the cursor to RESET and press the TEST Button to reset MAX and MIN.
Move the cursor to EXIT and press the TEST Button to return to the INPUT ASSIGNMENTS Screen.

## BRAKE ADJUSTMENTS

Make adjustments to BRAKE.
Press the TEST Button to display the following screen.


6b-3-5 FIG. 04

Set the MAX position by stepping on the BRAKE pedal. The "MAX" display moves to the right depending on how hard the pedal is pressed.
Entering BRAKE ADJUSTMENTS without having the BRAKE pedal pressed down automatically sets the MIN position.

NOTE: If you enter BRAKE ADJUSTMENTS with the BRAKE pedal pressed down, set the MIN position by releasing the BRAKE pedal. The " MIN" display moves to the left depending on how much the pedal is released.

Move the cursor to RESET and press the TEST Button to reset MAX and MIN.
Move the cursor to EXIT and press the TEST Button to return to the INPUT ASSIGNMENTS Screen.

## 6b-3-6 GAME ASSIGNMENTS

Select GAME ASSIGNMENTS to display the following screen.

GAME ASSIGNMENTS

| ADVERTISE SOUND | ON |
| :--- | :--- |
| GAME DIFFICULTY | NORMAL |
| DEFAULT VIEW | DRIVER |
| SEAT NUMBER | 1P |
| CARD R/W USE | ON |
| CONTINUE | ON |

IN-STORE VS LIMIT OF WIN 3 TIMES
-> EXIT
SELECT WITH SERVICE BUTTON
AND
PRESS TEST BUTTON

6b-3-6 FIG. 01

- ADVERTISE SOUND:

Turn sound on the Advertise Screen on and off.
ON: Sound is played on the Advertise Screen.
OFF: Sound is not played on the Advertise Screen (except when inserting coins).

- GAME DIFFICULTY:

Set the level of difficulty for the game.
You may select one of 5 different levels of difficulty: VERY EASY, EASY, NORMAL, HARD, and EXPERT.
This setting does not affect the speed of rivals in "Legend of the Streets" mode.

## - DEFAULT VIEW:

Set the view perspective at the start of races.
You may select one of the following 2 settings: DRIVER view or REAR view.

## - SEAT NUMBER:

This setting assigns a seat number to the cabinet for use in "In-store Battle". You may select one of the following settings: SINGLE, 1P, or 2P.
When setting up cabinets for In-store battles, assign each cabinet the number " 1 P " or " 2 P " (make sure they are not assigned the same number).
Set to SINGLE if you do not need to set the cabinet up for In-store battles.

- CARD R/W USE:

Set the operating mode of the card reader/writer. Normally this should be set to ON.

- CONTINUE:

Enable/Disable Continue function.
ON: Enables Continue for "Legend of the Streets", "Time Attack" and "In-store Battle" games.
OFF: Disable Continue.
IN-SHOP VS LIMIT OF WIN is automatically set to 1 and cannot be selected.

## - IN-STORE VS LIMIT OF WIN:

Set the maximum number of consecutive wins for In-store battles.
1,3,5: The game automatically ends after the set number of consecutive wins.
INFINITY: Players can continue playing without inserting credits as long as they keep winning.
Move the cursor to EXIT and press the TEST Button to return to the Game Test Menu Screen.

## 6b-3-7 PASSWORD CONFIRMA-

Select PASSWARD CONFIRMATION to display the following screen.


6b-3-7 FIG. 01

When you receive a password notice from SEGA or a sales agent, enter the password here to update product specs.

Use the SERVICE Button to move the cursor to INPUT PASSWORD and press the TEST Button to enable password entry.

Press the SERVICE Button to select characters to input (A-Z, 3-9). Passwords are 8 characters in length.

After entering the password, use the SERVICE Button to move the cursor to CONFIRM and press the TEST Button. If the password is correct, the screen displays "RESULT: PASSWORD APPLIED" and you can update the software.

## 6b-3-8 IC CARD R/W \& PRINTER TEST

## sTop IMPORTANT

- Be sure to test the operation of the card reader/writer regularly.
- Previous printing may remain on the surface of the card after printing new text or images. This does not affect the data stored on the card.

Select IC CARD R/W \& PRINTER TEST to display the following screen.

| IC CARD R/W \& PRINTER TEST |  |
| :---: | :---: |
| RESET UNIT |  |
| CHECK CARD |  |
| CHECK PRINTER |  |
| CHECK STOCKER |  |
| CLEAN ROLLER |  |
| CLEAN STOCKER |  |
| ERASE PRINT |  |
| $\rightarrow$ EXIT |  |
| UNIT STATUS : --- |  |
| UNIT RESULT : --- |  |
| SENSOR(PT1) | : OFF |
| SENSOR(PT3) | : OFF |
| SENSOR(PT4) | : OFF |
| SENSOR(PT5) | : OFF |
| SENSOR(PT6) | : OFF |
| SENSOR(DISPENSER) | : OFF |
| SENSOR(SHUTTER1) | : OFF |
| SENSOR(SHUTTER2) | : OFF |
| SELECT WITH SERVICE BUTTONAND |  |
|  |  |
| PRESS TEST BUTTON |  |

6b-3-8 FIG. 01

- Screen display

| RESET UNIT: | Reset the reader/writer |
| :--- | :--- |
| CHECK CARD: | Check a card |
| CHECK PRINTER: | Check the card printer |
| CHECK STOCKER: | Check the card stocker |
| CLEAN ROLLER: | Clean the card delivery roller |
| CLEAN STOCKER: | Clean the card stocker roller |
| ERASE PRINT: | Erase the printing created with the CHECK PRINTER |
| UNIT STATUS: ---: | Check reader/writer operations |
| UNIT RESULT: ---: | The results of reader/writer operations |

- RESET UNIT

Choose this option to reset (reinitialize) the reader/writer unit.
UNIT STATUS will display "INITIALIZING," followed by "DONE," indicating the reset is complete.

- CHECK CARD

Choose this option and UNIT STATUS will display "INSERT THE CARD REQUIRES CHECKING". Insert the card you wish to check.
UNIT RESULT will display one of the following depending on the results of the check.

| NEW CARD: | The card is new |
| :--- | :--- |
| DEADLINE CARD: | The card is expired |
| NORMAL: | The card is normal and has no problems |
| INTERRUPTED CARD: | The card was interrupted while writing |
| UNKNOWN CARD: | The card status is unknown |
| DELETE CARD: | The card is used up |
| BROKEN CARD: | The card is broken |
| UNKNOWN ID: | The ID is unknown |
| UNKNOWN VERSION: | The version is unknown |

When the check is complete, UNIT STATUS displays "EJECTED. REMOVE THE CARD". Remove the card.

## - CHECK PRINTER

Choose this option and UNIT STATUS will display "INSERT THE DISPOSABLE CARD".
Insert a card. UNIT STATUS will display "MAKING IMAGE (WAIT MOMENTS ...)" and the printer will begin printing to the card. Printing is complete when UNIT STATUS displays "EJECTED. REMOVE THE CARD". Remove the card and check the printing.
NOTE: This only tests the printer. It does not affect card data.

## - CHECK STOCKER

Choose this option and UNIT STATUS will display "DRAWING OUT2". The stocker will dispense a card. If the card exits properly through the dispenser slot, UNIT STATUS will display "EJECTED. REMOVE THE CARD AND PLACE BACK INTO STOCK".
NOTE: This tests the stocker. It does not affect card data. If the card is new, return it to the stocker.

## - CLEAN ROLLER

Clean each type of roller used to deliver cards.
Choose this option and UNIT STATUS will display "CLEANING UNIT ROLLER".
Insert a cleaning card to clean each type of roller.
When the operation is complete, the cleaning card is ejected. Remove the card to finish the cleaning.

## - CLEAN STOCKER

Clean the stocker's card dispenser rollers.
Empty the stocker before cleaning. Place a cleaning card in the stocker and close the lid.
Choose this option and UNIT STATUS will display "CLEANING STOCKER ROLLER". The roller cleaning will then begin. Cleaning is complete when UNIT STATUS displays "DONE".
Remove the cleaning card from the stocker and replace the card stock.

- ERASE PRINT

Choose this option and UNIT STATUS will display "INSERT CARD".
Insert a printed card. UNIT STATUS will display "ERASING..." and the print erase process will begin. Erasing is complete when UNIT STATUS displays "EJECTED. REMOVE THE CARD". Remove the card.
NOTE: This only tests the print erase function. It does not affect card data.
If an error occurs during a check, UNIT RESULT may display one of the following messages.

| CARD JAM: | The card is stuck |
| :--- | :--- |
| SHUTTER ERROR: | Shutter error |
| PRINTER ERROR: | Printer error |
| UNIT ERROR: | Unit error |
| UNKNOWN ERROR: | Unknown error |
| READ ERROR: | Read error |
| CARD EMPTY: | There are no cards in the stocker |

SENSOR (***) indicates the status of the sensors.
It displays the status of the card sensors on the card reader/writer and printer.

## 6b-3-9 IC CARD RESTORATION

Select IC CARD RESTORATION to attempt to restore IC card data using backup data saved on the cabinet.
The cabinet will save up to 10 data files that were not properly transferred to IC cards due to accidental power outages during play, card write failures, or card data transfer failures.

## NOTES:

- Each new file beyond the 10th will overwrite the oldest existing file.
- IC card restoration is only possible if backup data is saved on the cabinet. It is not possible to restore IC cards containing data that was damaged while playing on other cabinets.


## Restoring IC cards after renewal failure

An old IC card is ejected as "EXPIRED", but the game freezes or the power fails before the new IC card renewal process begins.
The old card's access code is displayed under SELECT ACCESS CODE (marked with a "*" on the right side). Insert the card with "EXPIRED" printed on it to restore the card to its pre-renewal status and start the renewal process over on the game cabinet.

A problem occurs while creating the new IC card and the write process is interrupted.
The new IC card's access code is displayed under SELECT ACCESS CODE. Insert the new IC card and try to restore it.


6b-3-9 FIG. 01

- Screen Display

SELECT ACCESS CODE: Select the access code of the card you wish to restore.
RESTORE: Restore the IC card.
STATUS:
Displays the restoration status.
RESULT:
Displays the results of restoration.

## - SELECT ACCESS CODE

Use the SERVICE Button to move the cursor to this item and press the TEST Button to select an access code.

NOTE: " NO DATA" is displayed if there are no saved data files.

- RESTORE

Use the SERVICE Button to move the cursor to this item and press the TEST Button. STATUS will display "INSERT THE CARD REQUIRES RESTORING".
Insert the IC card printed with the access code selected under SELECT ACCESS CODE.
RESULT will display one of the following messages depending on the results:

| FINISHED NORMALLY: | Restoration was successful. |
| :--- | :--- |
| WRITE ERROR: | Failed to write. |
| READ ERROR: | Failed to read. |
| CARD R/W UNIT NO RESPONSES: | The unit is not responding. |
| DIFFERENT ACCESS CODE: | The card inserted does not match the access code. |

When the operation is complete STATUS displays "EJECT". Remove the card.
NOTE: If restoration is successful and RESULT displays "FINISHED NORMALLY", the saved play data is cleared from the cabinet.

## 6b-3-10 NETWORK TEST

Select NETWORK TEST to display the below NETWORK TEST Screen.

NETWORK TEST
CURRENT SEAT NUMBER 1P
PAIR LINK *****

PRESS TEST BUTTON TO EXIT

6b-3-10 FIG. 01

After the NETWORK TEST Screen appears, the test will begin automatically.

- CURRENT SEAT NUMBER

Displays the current seat number assigned in GAME ASSIGNMENTS.

- PAIR LINK

Displays the link status with the other cabinet. ${ }^{* * * * *}$ will display one of the following according to the communication status.

| GOOD: | The seat number on the other cabinet is properly assigned and the cabinets are <br> communicating normally. <br> The other cabinet's seat number is set to SINGLE, or the two cabinets are assigned to the <br> same seat number. <br> If this message appears even though the seat numbers are assigned correctly, check the <br> cable connection, etc. |
| :--- | :--- |
| BAD: | Displayed if the CURRENT SEAT NUMBER is set to SINGLE. |
| N/A: | Check in progress. |

Press the TEST Button when the check is finished to go back to the menu screen.

## 6b-3-11 CLOSE SETTING

## STOP IMPORTANT

CLOSE SETTING disables card play from 20 minutes prior to the designated time until 7:00 AM. The screen displays store closing information on the Advertise Screen beginning 30 minutes prior to the designated time.

Card play is disabled 20 minutes before the designated time even if the current player is on a winning streak.

Select CLOSE SETTING to display the following screen.

The game will be unusable for card play starting 20 minutes before the time you set until 7:00 AM the next morning.


6b-3-11 FIG. 01

CLOSE SETTING is set to OFF on the above screen. Move the cursor to SCHEDULE TYPE and press the TEST Button to change the setting. The time setting screen will appear for the selected item.

Times can be set in 15 minute increments from 19:00 to 30:45 (6:45 AM).

| OFF: | Do not set a closing time. |
| :--- | :--- |
| SCHEDULE TYPE EVERY DAY: | Set a daily closing time. |
| SCHEDULE TYPE WEEK: | Set closing times for each day of the week. |

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

## SCHEDULE TYPE EVERY DAY

Set the daily store closing time. This time setting will be used everyday.

CLOSE SETTING
SCHEDULE TYPE EVERY DAY
CLOSE 24: 00
-> EXIT

```
    SELECT WITH SERVICE BUTTON
        AND
        PRESS TEST BUTTON
```

6b-3-11 FIG. 02

Move the cursor to " $24: 00$ " and press the TEST Button to change it. The time changes each time the button is pressed.
The hour can be set between 19 and 30 , and the minutes can be set to $00,15,30$, or 45 .
Move the cursor to EXIT and press the TEST Button to return to the Game Test Menu Screen.

## SCHEDULE TYPE WEEK

Set a different store close time for each day of the week.

| CLOSE SETTING |  |
| :---: | :---: |
| SCHEDULE TYPE WEEK |  |
| SUN | CLOSE |
| MON | $24: 00$ |
| TUE | $24: 00$ |
| WED | $24: 00$ |
| THU | 24:00 |
| FRI | 24:00 |
| SAT | 24: 00 |
| $\rightarrow$ EXIT |  |
| SELECT WITH SERVICE BUTTON |  |
| AND |  |
| PRESS TEST BUTTON |  |

6b-3-11 FIG. 03

Set a closing time for each day of the week.
Move the cursor to each item and press the TEST Button to change it. The time changes each time the button is pressed.
The hour can be set between 19 and 30 , and the minutes can be set to $00,15,30$, or 45 .
SUN: Set the closing time for Sunday.
MON: Set the closing time for Monday.
TUE: Set the closing time for Tuesday.
WED: Set the closing time for Wednesday.
THU: Set the closing time for Thursday.
FRI: Set the closing time for Friday.
SAT: Set the closing time for Saturday.
Move the cursor to EXIT and press the TEST Button to return to the Game Test Menu Screen.

## 6b-3-12 BOOKKEEPING

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

BOOKKEEPING 1/3

## BOOKKEEPING 1/3

COIN 1 0
COIN 2 0
TOTAL COINS 0

COIN CREDITS 0
SERVICE CREDITS 0
TOTAL CREDITS 0

PRESS TEST BUTTON TO CONTINUE

6b-3-12 FIG. 01

View the number of credits inserted.

| COIN 1: | The number of coins inserted in COIN CHUTE 1 |
| :--- | :--- |
| COIN 2: | The number of coins inserted in COIN CHUTE 2 |
| TOTAL COINS: | The total number of coins inserted |
| COIN CREDITS: | The number of credits purchased with the inserted coins |
| SERVICE CREDITS: | The number of credits added by the SERVICE Button |
| TOTAL CREDITS: | The total number of credits |

Press the TEST Button to move to the screen $2 / 3$ of BOOKKEEPING.

## BOOKKEEPING 2/3



6b-3-12 FIG. 02

View the number of times the game has been played.
NUMBER OF GAMES:
NUMBER OF KOUDOU:
NUMBER OF TIME ATTACK:
NUMBER OF INSHOP VS:
NUMBER OF CARD SELL:
NUMBER OF CARD PLAY:
NUMBER OF CAR ADDITION:

The total number of games played The number of "Legend of the Streets" plays The number of "Time Attack" plays
The number of "In-store Battle" plays
The number of cards sold
The number of games played using cards
The number of additional cars purchased using cards
NOTE: If no opponent is found for " In-store Battle" mode and the game is finished in "Legend of the Streets" or
" Time Attack" mode, the game is counted as an " In-store Battle" play.
Press the TEST Button to move to screen $3 / 3$ of BOOKKEEPING.

BOOKKEEPING 3/3

## BOOKKEEPING 3/3

TOTAL TIME PLAY TIME
AVERAGE PLAY TIME LONGEST PLAY TIME SHORTEST PLAY TIME

OD OH OM OS OD OH OM OS OM OS OM OS OM OS

PLAY TIME HISTOGRAM
OMOOS ~ OM59S 0
1MOOS ~ 1 M59S 0
2MOOS ~ 2M29S 0
2M30S ~ 2M59S 0
3MOOS ~ 3M29S 0
3M30S ~ 3M59S 0
4MOOS ~ 4M29S 0
$4 \mathrm{M} 30 \mathrm{~S} \sim 4 \mathrm{M} 59 \mathrm{~S} \quad 0$
5MOOS ~ 5M29S 0
5M30S ~ 5M59S 0
6MOOS ~ 6M29S 0
6M30S ~ 6M59S 0
7MOOS ~ 7M29S 0
7M30S~7M59S 0
8MOOS ~ 8M29S 0
8M30S ~ 8M59S 0
9MOOS ~ 9M29S 0
9M30S ~ 9M59S 0
10MOOS~10M29S
0
OVER 1OM30S
0
PRESS TEST BUTTON TO EXIT

6b-3-12 FIG. 03

View gameplay times.

| TOTAL TIME: | The total play time |
| :--- | :--- |
| PLAY TIME: | The total play time |
| AVERAGE PLAY TIME: | The average play time |
| LONGEST PLAY TIME: | The longest play time |
| SHORTEST PLAY TIME: | The shortest play time |

Display the number of plays by time length category.
PLAY TIME HISTOGRAM: List of play times
Press the TEST Button to return to the Game Test Menu Screen.

## 6b-3-13 BACKUP DATA CLEAR

Select BACKUP DATA CLEAR to display the following screen.
$\square$
6b-3-13 FIG. 01

This screen allows you to clear backup data. Use the cursor to select YES or NO.
YES: Clear all data in BOOKKEEPING.
NO: Go back to the menu screen without clearing data.

## BACKUP DATA CLEAR

$$
\begin{aligned}
& \rightarrow-> \text { YES (CLEAR) } \\
& \text { COMPLETED }
\end{aligned}
$$

## SELECT WITH SERVICE BUTTON

 ANDPRESS TEST BUTTON

6b-3-13 FIG. 02

Select YES and press the TEST Button to clear all data in BOOKKEEPING. Clearing data does not affect other game settings. When the data has been cleared, the screen displays "COMPLETED".

Be sure to clean the card reader/writer head after clearing backup data.
Press the TEST Button again to return to the Game Test Menu Screen.

## 7 GAME DESCRIPTION

## 7-1 GAME OVERVIEW

The game is a car racing game with three different game modes: "Legend of the Streets", "Time Attack" and "In-store Battle".
The card system allows players to store information such as the cars, wins/loss records and car tune-up status on an Initial D License (IC card).

NOTE: Credits (money) are required to purchase a License.


7-1 FIG. 01

## Initial D License (IC Card)

Purchasing an Initial D License when you start the game creates your car. Each Initial D License can store data for 3 cars.
The Initial D License stores your name, Character (portrait), cars (up to 3), customizations, rivals defeated, Time Attack records, and battle results.
Your name, Character (photo-style portrait), areas cleared, and Key are printed on the face of your Initial D License.
NOTE: The Key is necessary when recording results on the Net-Rankings.


7-1 FIG. 02

## Car Selections

## TOYOTA

TRUENO GT-APEX [AE86]
LEVIN GT-APEX [AE86]
LEVIN SR [AE85]
MR2 G-Limited [SW20]
ALTEZZA RS200 [SXE10]
NISSAN
SKYLINE GT-R V•spec II [BNR32]
SKYLINE GT-R V•spec II Nur [BNR34]
SILVIA K's [S13]
SILVIA Q's [S14]
SILVIA spec-R [S15]
180SX TYPE II [RPS13]
HONDA
CIVIC SiR•II [EG6]
CIVIC TYPE R [EK9]
INTEGRA TYPE R [DC2]
S2000 [AP1]

## MAZDA

RX-7 Type R [FD3S]
RX-7 $\infty$ III [FC3S]
RX-8 Type S [SE3P]
ROADSTER [NA6CE]

## SUBARU

IMPREZA WRX type R STi Version V [GC8] IMPREZA WRX STI [GDBF]

## MITSUBISHI

LANCER GSR Evolution III [CE9A]
LANCER RS EVOLUTION IV [CN9A]
LANCER Evolution IX GSR [CT9A]

## SUZUKI

CAPPUCCINO [EA11R]

## INITIAL D

SILEIGHTY

Race Course

| Class | Area | Course | Time of day, weather |
| :--- | :--- | :--- | :--- |
| Easy | Lake Akina | Circular Course/3 laps, Clockwise \& Counterclockwise | Day/Night, Clear/Rain |
| Normal | Myogi | One Way, Uphill/Downhill | Day/Night, Clear/Rain |
| Hard | Akagi | One Way, Uphill/Downhill | Day/Night, Clear/Rain |
| Hard | Akina | One Way, Uphill/Downhill | Day/Night, Clear/Rain |
| Hard | Irohazaka | One Way, Downhill/Reverse | Day/Night, Clear/Rain |
| Expert | Tsukuba | One Way, Outbound/Inbound | Day/Night, Clear/Rain |

## Race Screen



7-1 FIG. 03

## 7-2 GAME FLOW

## 1 Advertise (Stand-by), Movie Screens

Insert coins until you have enough credits. The game will then start automatically.


7-2 FIG. 01


7-2 FIG. 02

## Card Entry Screen

If you already have an Initial D License, insert it. If you don't have an Initial D License, you may play without one (your data will not be saved).
You may also purchase an Initial D License.


7-2 FIG. 03

## My Character Selection Screen

If you're purchasing an Initial D License, you must first select a Character. As you play the game, you will collect Character Parts that you can use to customize your selected Character.


7-2 FIG. 04

## Name Entry Screen

If you're purchasing an Initial D License, enter your name (driver's name) at the player name input screen.

NOTE: Your name can be up to 6 characters long,


7-2 FIG. 05

## Card Data Check Screen

You can check the recorded data on this screen.

NOTE: After your first play, you can view your battle results, Time Attack records, and other data.


7-2 FIG. 06

## Configurations

When a card is inserted, a number of options may be set.
Press the View Change Button at the Card Data Check Screen to go to the Configuration Screen. Use the Up and Down Buttons on the Configuration Screen to choose menu items and the Left and Right Buttons to change settings.


7-2 FIG. 07

| Difficulty: | Change the difficulty level of "Legend of the Streets" mode. Different <br> difficulty levels become available as you clear more races. |
| :--- | :--- |
| Race Volume: | Adjust the sound volume during races. |
| Voice Volume: | Turn rivals' voices during races on and off. |
| Navigation Display: | Turn the in-race navigation screen display on and off. |
| Steering: | Set steering wheel stiffness. |
| Force Quit: | Turn the Force Quit function on and off. This function allows you to forcibly <br> end a race by pressing the Start and View Change Buttons at the same time. <br> NOTE: Only possible in "Legend of the Streets" and " Time Attack" modes. |
| Default Settings: | Return all settings on the page to their default values. |

## 7 Car Selection Screen when playing without an Initial D License, adding a new car, or adding additional car data

Select your car's maker, model, body color, and transmission.
Press Up and Down to make your selection and press the Start Button to confirm.


7-2 FIG. 08

## Garage Screen

When playing with an Initial D License, you can have up to 3 cars by choosing "Add Car Data" and inserting the required number of credits.

NOTE: Credits (money) are required for " Add Car Data".


7-2 FIG. 09


7-2 FIG. 10

## Mode Select Screen

Choose from 3 different modes of play.

| Legend of the Streets: | Engage in a Battle (race) against rival characters from Initial D. |
| :--- | :--- |
| Time Attack: | Race alone and try to beat the best time. |
| In-store Battle: | Play a Battle against other game machines in-store. |



7-2 FIG. 11

## Continue Screen

The Continue Screen appears after 1 Battle (race) in "Legend of the Streets" and "Time Attack" modes, and after the match (or at the end of the alternate mode if no opponent is found) in "In-store Battle" mode.
Choose YES and insert the required number of coins to continue playing in the selected mode.


7-2 FIG. 12

## NOTES:

- If the Consecutive Wins setting for " In-store Battle" mode (found under IN-SHOP VS LIMIT OF WIN on the GAME ASSIGNMENTS screen) is set to " 3 " or " 5," you earn a Consecutive Win point bonus after defeating 3 or 5 opponents in a row and the game ends without the option of continuing. If the Consecutive Wins setting is set to " INFINITY," you can continue the game as long as you can find new opponents and beat them.
- The game ends without the option of continuing in all modes 20 minutes before the store closing time set under CLOSE SETTING, or if the CONTINUE setting on the GAME ASSIGNMENTS screen is set to "OFF."


## Customizing Shop

When you play "Legend of the Streets," "Time Attack," or "In-store Battle" mode using an Initial D License, points are added to your card based on your race results. Once every few plays, the Customizing shop appears, allowing you to use your points to customize your cars.


7-2 FIG. 13 Shop Screen

## My Character Screen

When you play "Legend of the Streets," "Time Attack," or "In-store Battle" mode using an Initial D License, once every few plays the Character Parts Screen appears and you get a Character Part.


7-2 FIG. 14


7-2 FIG. 15 My Character Screen

Game Over
In "Legend of the Streets," "Time Attack," and "In-store Battle" modes, the game is over at the end of the mode.
If you're playing with an Initial D License, don't forget to take it with you when you go.


7-2 FIG. 16

## 7-3 MODE OVERVIEW

## 7-3-1 Legend of the Streets

## Game Content \& Rules

Battle head-to-head against rival characters on 6 different courses. Each checkpoint you pass adds time to the overall time limit. The first one across the finish line with the allotted time wins. If you run out of time or cross the finish line second, you lose.
Beat all 23 initially selectable rival characters and Secret Rival I will appear. Beat Secret Rival I and Secret Rival II will appear for the Final Race. Beat Secret Rival II and a third hidden character, Secret Rival III, will appear for a Special Race.
Finish the Special Race to view the game ending.

## Select Rivals

For Easy, Normal, Hard, and Expert Courses, select rival characters to race against. Before and after each Battle, you can view a "Rival Cut Scene" starring the selected rival character(s).


7-3-1 FIG. 01


7-3-1 FIG. 02

## Rival Characters

| Easy | Lake Akina | Iggy / Tak / Two Guys from Tokyo |
| :--- | :--- | :--- |
| Normal | Myogi | Kenji / Shingo / Maya \& Simone / Zack |
| Hard | Akagi | Kent / Kyle / K.T. / Ry |
| Hard | Akina | Cole / Kylie / Aki / Ry / Tak |
| Hard | Irohazaka | Hawk / Kyle / Kai |
| Expert | Tsukuba | Dice / Smiley / Toshiya Joshima / Kozo Hoshino |

## 7-3-2 Time Attack

## Game Content \& Rules

This is a race against time. The goal is to cross the finish line as quickly as you can.
Route, Time of Day and Weather can be selected for each of the 6 courses.
Each checkpoint you pass adds time to the overall time limit.
If you're using an Initial D License, points are added to it.


7-3-2 FIG. 01

When you set a new personal best in Time Attack mode using an Initial D License, an Internet Rankings password is displayed on the screen.
Visit the Initial D Internet Rankings webpage (http://initiald.sega.com) and enter this password on to add your best time to the Internet Rakings.


7-3-2 FIG. 02

Passwords are stored on your Initial D License for you to view again later.
You can see a list of passwords for Time Attack courses you've previously raced on the "View Card Data" screen, which appears after you insert your Initial D License.

## 7-3-3 In-store Battle

## Game Content \& Rules

Engage in battle against other game machines in the same store.
Whoever passes each checkpoint first gets time added to their overall time limit.
The first player to cross the finish line or the player in first place when time is up wins.
If no opponents can be found, the game switches modes and you will play in "Legend of the Streets" or "Time Attack" modes while waiting for an opponent.

## 7-4 INITIAL D LICENSE

## 7-4-1 Limit on Card Use

You can play up to 150 times using the same Initial D License. After that, you must create a new license through the "Initial D License Renewal" process. When you renew, the data from your old license will be transferred to your new one. You keep all the points you've collected. You cannot play using data on an expired Initial D License until you renew the license.

NOTE: Credits (money) are required to renew a license.


7-4-1 FIG. 01
Initial D License Renewal Instructions Screen


7-4-1 FIG. 02
Initial D License Renewal Screen

## INITIAL D License

A new Initial D License is issued, allowing you to play using the new license.
You will no longer be able to play using the previous (old) license.


7-4-1 FIG. 03
Initial D License (old)


7-4-1 FIG. 04
Initial D License (new)

## 7-4-2 Recovery Procedures When an Initial D License Renewal Fails

If an error occurs during renewal, follow the procedures listed below the corresponding error message to restore. Should you be unable to restore even after following these steps, try restoring using the IC CARD RESTORATION option in GAME TEST mode.

## Failed to eject the old Initial D License

The following message is displayed.
<License Ejection Error>
Failed to eject old Initial D license.
Please press the Start and View Change buttons.
If you cannot eject your license, please call an attendant. /403 or 404
Press the Start and View Change Buttons. If the license is successfully ejected, the renewal process will continue.
If the old Initial D License is not ejected after performing the above operation, hold down the Up and Start buttons and press the TEST Button.
The following message will be displayed:
<Resume Process>
Please remove the stuck Initial D license.
The removed license is expired. Please give it to the customer.
When finished, please close the lid and press the Start button.
Remove the stuck (old) Initial D License and make sure the lid is fully closed, then press the Start Button. The renewal process will continue.
The removed (old) Initial D License is expired. Return it to the customer.

## The new license is stuck

The following message is displayed:
$<$ License Dispensing Error>
Stocker failed to dispense new Initial D license.
Please call an attendant for assistance. /403

Hold down the Up and Start buttons and press the TEST Button.
The following message will be displayed:

## <Resume Process \#1>

Please remove the stuck Initial D license.
When finished, please close the lid and press the Start button.
Remove the stuck (new) license and make sure the lid is fully closed, then press the Start Button.
The following message will be displayed.

## $<$ Resume Process \#2>

Please insert the removed Initial D license.

Insert the removed (new) license into the insertion slot.
The license renewal process will continue. When the process is complete, the player will be able to play the game.

## An error occurs when inserting the new license

One of the following error messages is displayed.

- The inserted card is stuck
<Card Error>
An error occurred when authenticating an Initial D license.
The card is stuck. /403
If the cabinet fails in ejecting the card automatically, the normal stuck card error message is displayed and the restoration process is aborted. (See Chapter 3.)
- A problem occurs with the shutter when inserting a card
$<$ A shutter error has occurred.>
If your license is in the slot, please remove it and press the start button. / 404
Displayed when the card gets stuck in the shutter, etc.
Remove the card and press the Start Button to retry the renewal process.
- The inserted license is not a new license
<Card Error>
An error occurred when authenticating an Initial D license.
This is not a new card. /407
Check the license and insert it again.
If the license fails to renew after 3 tries, the screen switches to the normal authentication failure error message and the restoration process is aborted. (See Chapter 3.)
- A read error occurs
<Card Error>
An error occurred when authenticating an Initial D license. /401 or 406 or 408 or 409 or 413
The license is ejected. Re-insert it and try the renewal process again.
If the license fails to renew after 3 tries, the screen switches to the normal read error message and the restoration process is aborted. (See Chapter 3.)
- A data write error occurs
<Renewal Error>
An error occurred when renewing an Initial D license.
Please redo by pressing the Start and View Change buttons. /402 or 405
Press the Start and View Change Buttons to try writing to the card again.
If the license fails to renew after 3 tries, the screen switches to the normal read error message and the restoration process is aborted. (See Chapter 3.)


## 8 PRECAUTIONS WHEN MOVING THE MACHINE

## A WARNING

When moving the machine, be sure to unplug the power plug. Moving the machine with the plug as is inserted can damage the power cord and cause fire and electric shock hazards. Take care not to tread on or otherwise harm the power cord while moving the machine.


8 FIG. 01


## 8-1 SEPERATING THE CABINETS TO GAIN ACCESS THROUGH A STANDARD DOORWAY

## A WARNING

It is possible to separate the machine in to two halves to enable it to be installed in to a location where the entrance may be restricted. ie. a standard doorway.
This is not a recommended procedure but it can be carried out if there is no other alternative.

Total operation should take 2 people approx 30 minutes.
This work should be carried out by site maintenence 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.

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

This operation must be carried out by 2 personnel. The are some instances in which by working with one person alone can cause personal injury or parts damage.
Be careful not to damage wires. Damaged wires can cause an electric shock, fire hazzaerd or short circuit.
Do not carelessly push the monitor cabinet, this can cause it topple over.
Provide sufficient space in which to carry out this operation. Do not perform this operation in places where there is a gradient difference as on a slope or ditch. This can cause personal injury and damage to the product.

Locate and remove the $5 \times 13 \mathrm{~mm}$ hex bolts positioned at the lower rear of the cabinet．


Hex bolt M8x30

Locate and remove the 4 x M4x35 security screws located in the rear panel．Remove these screws and the panel to reveal central connection housing．Disconnect all harnesses from this location including the EARTH using an M4（ 7 mm ）socket tool．


Central Connection Housing

Torx Security M4x35

Locate and remove the $4 \times \mathrm{M} 6 \times 30$ socket cap screws positioned within the floor plate．Once the screws have been removed，lift out the floor plate and safely store．
 socket cap screws


Lift out the floor plate

Locate and remove the $4 \times M 4 \times 20$ machine screws from the plate located behind the accel and brake pedals. Remove the plate and safely store. This is needed so that the Central Connection Housing can be pulled through the display cabinet.


Locate and remove the $4 \times \mathrm{M} 8 \times 20$ Hex bolts which secure the Accel Brake plate. Disconnect the Accel Brake assembly, remove and store in a safe place.


Locate and remove the $6 x$ M8x35 Hex Bolts (3 each side) which secure the Base cabinet to the Display cabinet


M8x30 Hex Bolts x6

7 Locate and remove the $8 x \mathrm{M} 8 \times 35$ hex bolts from the base of the cabinet.


Once all fixings have been removed, carefully slide the two cabinet apart. IMPORTANT: One person should hold the Display cabinet steady whilst the other person carefully pulls out the Base cabinet from it's position.


Reassemble the machine in the reverse order following the instructions and warnings highlighted in this manual.

## 9 CONTROL PANEL

## A WARNING

- In order to prevent an electric shock and short circuit, be sure to turn power off before performing work by touching the interior parts of the product.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit.
- Do not touch undesignated places. Touching places not designated can cause electric shock or short circuit.
- This work should be performed by the Location's Maintenance Man or Serviceman. Performing work by non-technical personnel can cause electric shock hazard.
- Do not perform work other than those specified in this Manual in order to prevent accidents during performing work and operation after performing work. If performing work other than those stated in this manual is required for repair, contact the offices herein stated in this manual.
- Be very careful when soldering. Handling a soldering iron carelessly may result in a fire or a burn.
- Be extremely careful when heating the heat-shrinkable tube. Failure to do so may result in a fire or burns.
- The motor parts will be very hot after shutting down the game. After shutdown, wait a few moments for the motor parts to cool before you begin working on the unit.


## A CAUTION

- Exercise extreme caution when handling the internal parts of the Control Panel. Watch out for damage, warping and loss. The loss of just one piece may result in damage to or lead to faulty operation of the entire unit.
- Be careful that your fingers do not get caught when opening and closing the control panel, adjusting the VR bracket, or performing other maintenance tasks.
- When securing the plastic-made parts, do not excessively fasten screws and nuts. Failure to observe this may damage the parts and cause injury due to fragments resulting from damage.
- Do not touch the steering wheel when switching on the unit. The steering wheel undergoes automatic initialization after the unit is switched on.


## stop IMPORTANT

Be sure to perform volume's move value setting in the INPUT ASSIGNMENTS in the Game Test Mode after replacing or adjusting the Volume.

## 9-1 OPENING THE CONTROL PANEL

If the steering wheel is not functioning correctly, or if adjusting the volume has no effect in test mode, the volume may not be engaged correctly or it may be defective. Follow the steps below to adjust the gear engagement or replace the volume. In this unit, as long as the volume's maximum range of motion is not exceeded when the steering wheel is turned to the extreme left or right, the volume should not fail. Make sure that the steering wheel is centered (that is to say, positioned to drive directly forward), and install the volume so that its axis is aligned in the direction indicated by the diagram, with the gears engaged appropriately (see 9-2 FIG 01). To adjust or replace the volume, open the control panel according to the steps below. For this task, you will require a tamperproof wrench (for M4 screws).

Switch off the unit.

Using a tamperproof wrench, remove the four screws that secure the control panel upper cover, and then detach the cover.


9-1 FIG. 01


9-1 FIG. 02

Remove all four hexagonal bolts that secure the control panel. Do this carefully, as the control panel will open when the bolts are removed.


HEXAGON BOLT (4), black
M8x20, w/flat \& spring washers, large flat washer used
9-1 FIG. 03
4
Slowly open the control panel, making sure it is fully supported as you do so. Be careful that your hands or feet do not get caught between the panel and game unit. Also, do not support the steering wheel portion of the panel, as this may deform or damage the wheel.


9-1 FIG. 04

## 9-2 ADJUSTING/REPLACING THE VOLUME

## Adjustment Procedure

1. Loosen the two screws that secure the VR bracket, and adjust the gear and the angle of engagement by moving the VR bracket.

Center the steering wheel, and engage the gear while making sure that the D-cut flat edge of the volume axis is aligned in the direction indicated (see 9-2 FIG. 01).

Tighten the two screws and secure the VR base.

Turn the steering wheel and check that the gears move smoothly.

Close and secure the control panel.

Switch on the unit. Be careful not to touch the steering wheel when doing so. After the unit is switched on, the steering wheel undergoes automatic initialization.

Configure the volume values on the INPUT ASSIGNMENTS screen in Game Test Mode.
It is recommended that the steering wheel volume be set to $80 \mathrm{H} \pm 8 \mathrm{H}$ when the steering wheel is centered. Confirm that when the steering wheel is turned to the left the numbers decrease, and when it is turned to the right the numbers increase (see Service Manual).

## Replacement Procedure

1 Detach the connector.


9-2 FIG. 02

Remove the two screws that secure the VR bracket and lift out the volume with the bracket.


3
Loosen the screws on the gear holder, and detach the gear holder.


Remove the nuts that secure the VR bracket, and detach the volume from the VR bracket (see 9-2 FIG. 04).
5
Using wire cutters or a knife, remove the heat-shrinkable tubing that covers the soldered parts. Melt the solder with a soldering gun, and detach the volume from the wires.


Cover each wire separately with the heat-shrinkable tubing.


Solder the wires to each of the new volume's terminals. Carefully check the wiring schematic when connecting the wires to the volume.


Cover the soldered parts with heat shrinkable tubing, and use the dryer to apply heat until the tubing adheres to the soldered parts.


Reattach the VR bracket and gear holder to the volume.
10
While the steering wheel is centered, engage the volume axis with the gear, making sure that the D-cut flat side is aligned as indicated in the diagram. Then secure the VR bracket with two screws (see 9-2 FIG 01).


Turn the steering wheel and check that the gear moves smoothly.

Reattach the connector.

Close the control panel and secure it.

Switch on the unit. Be careful not to touch the steering wheel when doing so. After the unit is switched on, the steering wheel undergoes automatic initialization.

Configure the volume values on the INPUT ASSIGNMENTS screen in Game Test Mode.
It is recommended that the steering wheel volume be set to $80 \mathrm{H} \pm 8 \mathrm{H}$ when the steering wheel is centered. Confirm that when the steering wheel is turned to the left the numbers decrease, and when it is turned to the right the numbers increase (see Service Manual).

## 9-3 GREASING

- Use only the specified grease. Using any other kind of grease can result in damage to parts.
- Do not apply grease to locations other than as specified. Doing so may create a risk of operational problems and deterioration of parts.
- The period for greasing specified herein is a standard. Apply greasing to the specified portions as occasion arises.

Once every three months, apply grease to the parts indicated. Use Grease Mate-brand spray grease (Part No.: 090-0066)


9-3 FIG. 01

## 9-4 STOPPER RUBBER REPLACEMENT

Refer to the section "9-1 Opening the Control Panel", and open the control panel.
1
Remove the 4 bolts, then remove stopper holder (TFF-2511).


9-4 FIG. 01


9-4 FIG. 02

Remove stopper bolt S (TFF-2507) and the hexagonal socket screw, then replace stopper rubber S (TFF-2508) with the stopper rubber S (TFF-2508-01) that is included in this kit.


9-4 FIG. 04

Reverse the process to finish the procedure.

## 9-5 REPLACING THE INPUT SWITCH BOARD

If the start button, view change button, or the up/down/left/right directional buttons are not working correctly, it is possible that the switch board is malfunctioning. Follow the steps below to replace the input switch board.

1
Switch off the unit.
2
Use a tamperproof wrench to remove the four tamperproof screws and lift off the input switch cover. The wires should still be connected.


9-5 FIG. 01


Disconnect the two connectors, and remove the input switch cover.


9-5 FIG. 02

Detach connector.


Remove the four screws and lift the input switch base.


9-5 FIG. 04


9-5 FIG. 05

Remove the input switch rubber and board.


9-5 FIG. 06

## 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.

If the shift lever switch input does not function correctly on the INPUT TEST screen, the switch may need to be replaced. Also, grease should be applied to the sliding parts of the mechanism once every three months. To carry out this maintenance, you must first remove the shift lever unit.
For this task, you will need a tamperproof wrench (for M5 screws), a socket driver (for M4, M5 screws), and a Phillips-head screwdriver (for M4 screws).

## 10-1 REMOVING THE SHIFT LEVER



Switch off the unit.
2
Use the tamperproof wrench to remove the four screws, and then lift up the shift lever.


10-1 FIG. 01

Detach the connector and remove the shift lever．


10－1 FIG． 02

To reattach the unit，reverse the steps described above．The unit must be installed in the correct direction． Be sure to check the UP／DOWN indicator and align the unit correctly（see 10－1 FIG．01）．
After reattaching the unit，use the INPUT TEST screen in Game Test Mode to check that it is operating nor－ mally（see Service Manual）．

## 10-2 SWITCH REPLACEMENT AND GREASING

Follow the instructions below to change the microswitch.

Once every three months, apply grease to the indicated parts. We recommend Grease Mate-brand spray grease (Part No.: 090-0066).

1 Unscrew and remove the M3x16 Self Tapping Screw (2) which secure the switch to the Gear Shift base.


Remove the switch.

Replace the swicth with one of the same type.

Follow steps 1 to 3 in reverse order to refit.


10-2 FIG. 01
Apply grease to the area show in the diagram once every three months.

## 11 CARD READER/WRITER

## 11-1 SETTING DEDICATED CARDS

## stop IMPORTANT

- Be sure to use dedicated cards available for this product. Use of ones other than such dedicated cards may cause a malfunction or failure of the machine.
- Be sure to set the specified number of card in the specified orientation by using the specified procedure. Wrong setting of the cards may cause the machine to fail.
- Set virgin cards taken out from a container that was unpacked immediately before use. Do not include a corrugated, bent, or used card in the card deck.
- You can refill the cards while the product is operating. Take care not to touch anything other than the loading area.

When the product has run out of cards, a message will appear on screen. Carry out the following procedure to refill the cards.


11-1 FIG. 01

Once unlocked, slide the drawer mechanism forwards to reveal the Card R/W unit. Lower the Face plate to gain better access when servicing.



11-1 FIG. 03

## 3

Lift the dispenser retainer as shown in the diagram.


11-1 FIG. 04

Refill the Initial D cards. Place the cards in the orientation shown in the diagram, loosen them, and load 100 cards. Do not load more than 101 cards, as this may result in damage to the product or malfunction.


11-1 FIG. 06


11-1 FIG. 07

Replace the retainer over the refilled cards.


11-1 FIG. 08

Carry out steps 1 and 2 in reverse order and replace and lock the cover, then fix it in place with the truss screw.

## sTop IMPORTANT

## Always use the designated Cleaning Card. Using anything other than the designated card may cause faulty operation and/or unit failure.

The product counts the number of times the game is played and the number of new cards issued. When either the play count or the number of new cards issued exceeds 200, a cleaning reminder is displayed the next time the power is turned off and on again.
The above numbers will be cleared after cleaning takes place.
The cleaning process varies depending on whether the play count or the number of new cards issued has been reached.

When the Play Count Exceeds 200

When the play count exceeds 200 , the screen in the diagram below appears the next time the power is turned off and on.


11-2 FIG. 01

Insert a cleaning card as shown in the diagram.


11-2 FIG. 02

NOTE: Cleaning cards can be used up to 3 times. However, do not use a cleaning card if there is no longer alcohol on the surface, if the card feels dried out, if there is a large amount of dirt on the surface, or if the fabric has become fuzzy.

1 When the number of new cards issued exceeds 200, the screen below appears the next time the power is
turned off and on.


11-2 FIG. 03

Following the instructions on the screen, remove the cards from the stocker, insert a cleaning card into the stocker, and press the Start and TEST Buttons simultaneously.


11-2 FIG. 04

## Caution!

Do not press the Start and TEST Buttons before inserting the cleaning card. Doing so may soil the cards inside and/or cause the reader/writer to break down.

NOTE: Be sure to use a new cleaning card when cleaning the stocker rollers.

## Cleaning the Stocker Rollers

Carry out the following procedure once every 10 days to clean the Stock Rollers. Further, check whether or not the rollers are dirty when refilling the cards, and clean them if they are dirty.

NOTE: Be sure to use a new cleaning card when cleaning the stocker rollers.

1 Enter GAME TEST MODE and select "IC CARD R/W \& PRINTER TEST". Do not select or execute CLEAN STOCKER at this time.


11-2 FIG. 05

Carry out steps 1 through 3 in " $7-1$ Setting Dedicated Cards" and remove the cover and raise the retainer.

3 Remove all of the Initial D cards.


11-2 FIG. 06


11-2 FIG. 07

5 Place the retainer on top of the cleaning card.


11-2 FIG. 08

Select CLEAN STOCKER and press the test button. Roller cleaning will commence. During cleaning "CLEANING STOCKER ROLLER" will display in the UNIT STATUS area, and change to "DONE" when complete.


11-2 FIG. 09

Lift the retainer, and remove the cleaning card. Check that the rollers are no longer dirty.

NOTE: If the rollers are still dirty, use a new cleaning card and repeat steps 4 through 6 to repeat the cleaning process.


11-2 FIG. 10

Check that the rollers are dry, and then replace the Initial D cards.


11-2 FIG. 11

## Head Cleaning

This product counts the number of times the game is played. When the number of plays exceeds 200, a notice appears on screen the next time the product is turned on, requesting that a cleaning card be inserted into the card $\mathrm{R} / \mathrm{W}$. Follow the on-screen instructions to clean the heads. Cleaning the heads resets the number of plays recorded above.

NOTE: You can use the same cleaning card up to 3 times. However, do not use the card if the alcohol on its surface has evaporated, there is no moisture present, there is a lot of dirt on the cleaning card surface, or if the card has become extremely worn.


11-2 FIG. 12

## A CAUTION

When attempting to perform this operation without powering down so that game play can be restored, exercise extreme caution. Machine parts may move unexpectedly when the power is ON. This may result in fingers being caught or severed and other injuries.

If a trouble such as card jamming occurs on the card reader/writer, you are notified of the trouble on the screen. You cannot proceed to a play unless you resolve the trouble at this time. First identify the trouble before you begin to take action. (Refer to the Service Manual)

Unlock the Card RW drawer.


11-3 FIG. 01

Once unlocked, slide the drawer mechanism forwards to reveal the Card R/W unit. Lower the Face plate to gain better access when servicing.


11-3 FIG. 02
Pull out the tray


11-3 FIG. 03

Pulling on the green shaft attached to the card R/W unlocks the hatch lock. Remove the hatch while pulling the green shaft.


11-3 FIG. 04


11-3 FIG. 05


11-3 FIG. 06

Close the hatch while pulling the green shaft. With the hatch closed, let go of the green shaft. Check that the hatch is firmly in place.

Carry out steps 1 and 2 in reverse order and attach and lock the cover, then fix it in place with the truss screw.

## 11-4 EXCHANGING THE CARD R/W UNIT

## 1 Unlock the Card R/W drawer.



11-4 FIG. 01

Once unlocked, slide the drawer mechanism forwards to reveal the Card R/W unit. Lower the Face plate to gain better access when servicing.


11-4 FIG. 02


11-4 FIG. 03

Remove the 4 screws.


11-4 FIG. 05

Pull out the card R/W unit. Since the unit is still wired, take extra care as you remove the 2 connectors.

After you remove the 2 flat head screws and the cap, you can exchange the card $\mathrm{R} / \mathrm{W}$ unit.


11-4 FIG. 07

Carry out steps 2 through 5 in reverse order and attach the replacement card R/W unit.

## 11-5 INITIAL D LICENSE RESTORATION PROCEDURE

If the product fails to renew an Initial D License or an error occurs during the renewal process, you can attempt to restore the license. Refer to the Service Manual and follow the on-screen instructions when restoring a license through the game screen.

Restoring in Test Mode (see Service Manual)

1. Select IC CARD RESTORATION from the GAME TEST MODE screen in Test Mode.

Under SELECT ACCESS CODE, select the card to restore.
The ACCESS CODE is printed on the back of the card.

The ACCESS CODE is displayed on the screen when a problem occurs after ejecting an "Expired" Initial D License that has reached its limit. Two different types of ACCESS CODE may be displayed as follows:
(1) If the renewal process for a new Initial D License is halted by a freeze or other problem, the ACCESS CODE for the "Expired" Initial D License is displayed.
(2) If a problem occurs or the data write process is interrupted while creating the new Initial D License, the ACCESS CODE for the new Initial D License is displayed.

Select RESTORE. STATUS will display "INSERT THE CARD REQUIRES RESTORING". Insert the card with the ACCESS CODE you selected in step 2 as shown in the diagram.


11-5 FIG. 01

If restoration is successful, the restored state of the Initial D License depends on which type of ACCESS CODE was displayed in step 2.
(1) "Expired" Initial D License

The following screen appears the next time the game is played, enabling the player to renew the license again.


11-5 FIG. 02
(2) New Initial D License

The renewal process is complete. The new Initial D License may now be used to play the game as normal.
NOTE: If restoration is not successful, repeat the process beginning with step 2.

## 12 ACCELERATOR \& BRAKE

## A 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. However, the unit must be switched on when using test mode. Do not touch any part of the unit except those areas indicated.
- Be careful not to damage the wires. Damaged wires may cause an electric shock, short circuit or present a risk of fire.
- This work should be performed by site maintenance personnel or other skilled professionals. Work performed by non-technical personnel can cause a severe accident such as an electric shock.
- To prevent accidents while working or while operating the product after it has been installed, be sure not to conduct any procedures other than those given in this manual. There are cases in which procedures not covered in this manual require special tools and skills. If a procedure not given in this manual is required, request service from the office given in this manual or from the point of purchase.


## A CAUTION

Do not touch the steering wheel when switching the unit on. The steering wheel undergoes automatic initialization immediately after the unit is switched on.

## stop IMPORTANT

Be sure to perform volume's move value setting in the Input Test in the Game Test Mode after replacing or adjusting the Volume.

[^2]
## 12-1 ADJUSTING/REPLACING THE VOLUME

When the accelerator pedal is not being pressed, the accelerator volume should have a value of 30 H or less. When the pedal is being pressed, the value should be C 0 H or greater.
When the brake pedal is not being pressed, the value should be 35 H or less. When the pedal is being pressed, it should be D 0 H or more. You can view these values in test mode. Note that the unit must be switched on to use test mode. Do not touch any part of the unit except those areas indicated when the unit is switch on, as there is a danger of electrical shock or short-circuit.
For this task, you will need a Phillips-head screwdriver (for M4, M5 screws).

## Adjusting Procedure

On the accelerator and brake pedal unit, remove the two truss screws and lift off the front cover.


Loosen the single screw that secures the potentiobase, and move the base to adjust the volume values.


## 12-1 FIG. 02

Secure the potentiobase.

Configure the volume values on the INPUT ASSIGNMENTS screen in Game Test Mode (see Service Manual).

## Replacing the Volume

1) Switch off the unit.

2 Remove the two screws and lift off the potentio cover.


12-1 FIG. 03

3
Detach the connector from the volume to be replaced.
4
Remove the single screw that secures the potentiobase (see 12-1 FIG. 02).


Without detaching the volume, remove the potentiobase (see 12-1 FIG. 03).


Remove the base and gear from the volume, and replace it.

$\square$
After replacement, configure the volume as described above in "Adjusting Procedure"
8
When you have finished, check that the values change smoothly in response to pedal input.

## stop IMPORTANT

Use only the specified grease. Using any other kind of grease can result in damage to parts.

Once every three months, you should apply grease to the gear contacts and spring parts.
Use Grease Mate-brand spray grease (Part No.: 090-0066).


12-2 FIG. 01

## 13 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.

## 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:

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

Remove the Coin Selector from the coin chute door.

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


FIG. 13a

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

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


FIG. 13b

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 RE-
JECT Button pressed down?

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


FIG. 13c

## Adjusting the Price of Play

This product comes equiped 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 EXCEL CREDIT board houses 2 DIL Switches. These allow the operator to select the price of play, type of coin acceptor and region.

## Excel Credit Board



| DIL SW3 (Regional Settings) | Adjust these switches to specify the type of Coin Acceptor <br> used and currency. Default = SW1\&SW2 ON - SR3 in <br> parrallel made, Sterling. |
| :--- | :--- |
| SERVICE BUTON | Provides a service credit when pressed. |
| Status LED | Flashes when functioning. |
| O/I Connector | Inputs and Outputs to and from host. |
| CN5 | To secondary SR3 Coin Acceptor. |
| CH2 | To secondary Coin Acceptor (Mars, NRI, ect.) |
| DIL SW1 (credit settings) | Adjust to required price of pay. |
| CH1 | To primary Coin Acceptor (Mars, Nri, ect.) |
| CN3 | To primary SR3 Coin Acceptor. |


| Credit Board Mode Settings Switch 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | Setting | Switch 3 Setting |  |  |  |  |  | Coin Validator Programming |  |  |  |  |  |  |  | C120/SR3 Only |  |  |  |
|  |  | SW1 | SW2 | SW3 | SW4 | SW5 | SW6 | COIN1 | COIN2 | COIN3 | COIN4 | COIN5 | COIN6 | COIN7 | COIN8 | COIN9 | COIN10 | COIN11 | COIN12 |
| UK | Coin Controls C220 Parallel | OFF | OFF | OFF | OFF |  |  | £1 | 50p new | 20p | 10p | - | 50p old | - | - |  |  |  |  |
| UK | $\begin{array}{\|l\|} \hline \text { Coin Controls } \\ \text { C220 Binary } \\ \hline \end{array}$ | 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 | - | $\begin{gathered} \text { 50p } \\ \text { old } \end{gathered}$ |  |  |  |  |
| UK | Coin Controls SR3 Parallel | ON | ON | OFF | OFF |  |  | £1 | 50p new | 20p | 10p | - | £2 | - | $\begin{aligned} & 50 \mathrm{p} \\ & \text { old } \end{aligned}$ | - | - | - | - |
| $\begin{gathered} \hline \text { UK } \\ \text { Euro } \\ \hline \end{gathered}$ | Coin Controls SR3 Parallel | OFF | OFF | ON | OFF |  |  | $\begin{aligned} & £ 2 \\ & € 2 \\ & \hline \end{aligned}$ | $\begin{aligned} & £ 1 \\ & € 1 \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 50p new } \\ 50 \phi \\ \hline \end{gathered}$ | $\begin{aligned} & 20 \mathrm{p} \\ & 20 \phi \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 10 \mathrm{p} \\ & 10 \phi \\ & \hline \end{aligned}$ | ${ }^{-}$ | - | - | 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 |  |  | - | 50 BFr | 20 BFr | 5 BFr |  |  |  |  |  |  |  |  |
| 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 | 25 Pta | $\begin{gathered} \hline 200 \mathrm{Pt} \\ \text { old } \end{gathered}$ | $\begin{gathered} \text { 50Pta } \\ \text { old } \end{gathered}$ | $\begin{gathered} \hline 25 \mathrm{Pta} \\ \text { old } \\ \hline \end{gathered}$ |  |  |  |  |
| Spain | SR3/NRI Parallel | ON | ON | OFF | ON |  |  | 500Pta | 200Pta | 100Pta | 50Pta | 25 Pta | - | - | 200Pta | - | $\begin{gathered} \text { 50Pta } \\ \text { old } \end{gathered}$ | $\begin{gathered} 25 \mathrm{Pta} \\ \mathrm{old} \end{gathered}$ | - |
| Spain | Coin Controls C220 Parallel | OFF | OFF | ON | ON |  |  | 100Pta | 50Pta new | - | $\begin{aligned} & \text { 25Pta } \\ & \text { new } \end{aligned}$ | - | $\begin{gathered} \text { 50Pta } \\ \text { old } \end{gathered}$ | - | $\begin{gathered} \text { 25Pta } \\ \text { old } \end{gathered}$ |  |  |  |  |
| $\begin{array}{\|c\|} \hline \text { Portugal } \\ \text { Euro } \\ \hline \end{array}$ | Parallel | ON | OFF | ON | ON |  |  | $\underset{€ 1}{200 \mathrm{Es}}$ | $\begin{gathered} 100 \mathrm{Es} \\ 50 \phi \\ \hline \end{gathered}$ | 50Es | - | - | - | - | - |  |  |  |  |
|  | TBA |  |  |  |  | OFF |  | TBA |  |  |  |  | Please Note <br> The credit board automatically sets the validator for parallel and binary operation through an output on pin 8 of the 17 way pinstrip. For the feature to work it is necessary for the validator interconnecting cable to include at wire at this position |  |  |  |  |  |  |
|  |  |  |  |  |  | ON |  | TBA |  |  |  |  |  |  |  |  |  |  |  |
|  | Channels |  |  |  |  |  | OFF | Direct M |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | ON | 2 channel Mode |  |  |  |  |  |  |  |  |  |  |  |

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

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

|  |  | N | $\times$ N ${ }^{\sim}$ | $\bigcirc$ | N | $\sim$ | $\bigcirc$ | $\bigcirc{ }^{\circ} \cdot \stackrel{ }{0}$ | $\stackrel{\rightharpoonup}{\infty} \stackrel{\rightharpoonup}{\infty} \stackrel{\rightharpoonup}{*}$ | $\stackrel{\rightharpoonup}{\infty} \overrightarrow{\mathrm{V}} \stackrel{\rightharpoonup}{\circ}$ | ज) $\overrightarrow{\text { ज }}$ | $\stackrel{\rightharpoonup}{\text { a }} \stackrel{\rightharpoonup}{\text { a }}$ | $\vec{\omega} \mid \vec{N}$ | $\rightarrow \vec{\square}$ | $\stackrel{\rightharpoonup}{0} 0$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | N | M | ¢ | N | $\left\|\begin{array}{c} \infty \\ 0 \\ 0 \end{array}\right\|$ |  | S | $0^{\circ}$ | Mo | 0 | $80$ | G) | ofor | B | 茾完 | \|hele | ole |  |  |  |  |  |
|  |  |  |  |  |  | $\square$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - | 융 | 2 O | 2 O | $\bigcirc$ | OO | 융ㅇㅇㅇ | 2 Z |  | 2 O | 2 O | , 12 | 윢 2 | 2 O |  | $\bigcirc$ | $\bigcirc$ | 2 |  |  |  |  |  |
|  |  | - | 2 z 2 Z 운 | 윢 | 2 |  |  | $2{ }^{2} 8$ |  |  | 28 | 윢ㄲㄲㄲ | ${ }_{\square}^{\text {¢ }}$ | 20 | 2 윢 | 2 | 앙ㄲ | \|o |  |  |  |  |  |
|  | 8 | \% 2 육 | 윢윢 |  | 28 | $2 \%$ | $\bigcirc \bigcirc$ | 육유 | $\bigcirc$ |  | 08 | - | - | 잉 | $\bigcirc$ | ? | 2 O |  |  |  |  |  |  |
|  |  | 2 Z ㅇㅇㄹ | 2282 | O | - |  |  | 0 | 유육 | $0$ | 2 O | - | - | O | 0 | 2 20 |  |  |  |  |  |  |  |
|  | 2 | $2 \mathrm{O} \mathrm{Z}^{2}$ | 2 O | 2 Z | 2 Z | 28 | $2{ }_{2}{ }^{2}$ | 22 | 228 |  |  |  | (1) | 윢 |  | $\bigcirc{ }_{0}^{0} 0$ | 윢 | \% |  |  |  |  |  |



## SELECTING STERLING / EURO OPTION

The SR3 coin acceptor (suppied) is programmed to accept UK Stering 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 chaging over o 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.

## 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.

Pllease 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 | SW2 | SW3 | LSB | TOTAL | SW5 | SW6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SW1 | 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 1 st 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.

## 14 MONITOR (LCD DISPLAY)

14-1 SAFETY PRECAUTIONS WHEN HANDLING THE MONITOR

## A 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.


## A 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.

## 14-3 ADJUSTMENT METHOD

## 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.

## Controls - Adjustment Procedures

This section explains basic control procedures for making adjustments using the buttons on the monitor adjustment board.
To view the monitor adjustment board, you should remove the control panel upper cover.


14-3 FIG. 02

## Button Names and Functions



14-3 FIG. 03

## MENU:

Turn the Picture Menu display on and off.
UP:
Move the cursor up to highlight a menu item.
Increase the value of, or change, a selected menu item.

## DOWN:

Move the cursor down to highlight a menu item.
Decrease the value of, or change, a selected menu item.

## ENTER:

Select, or execute, a highlighted menu item.

## SELECT:

Turn off the Picture Menu, and change the input type (either Analog RGB or DVI).
Each time the SELECT Button is pressed, the input type changes as follows.
$(---$ Analog RGB $\rightarrow$ DVI $\rightarrow$ Analog RGB ---)

## LED:

LED illuminates green: Monitor is operating.
LED flashes red: Power is off.

## POWER:

Turn the LCD monitor on and off. (Usually, it's not necessary to operate.)

## On-Screen Display (OSD)

Press the MENU Button while the OSD is not displayed to bring up the Picture Menu. On the Picture Menu, it is possible to perform various screen adjustments.
Use the UP and DOWN Buttons to highlight the item you want to adjust.
After highlighting the desired item, press the ENTER Buttons to select and begin the adjustment.
Within each item, press the MENU Buttons to exit the adjustment screen. The adjustment values at this time will be saved simultaneously.

NOTE: H POSITION and V POSITION only function when the input type is Analog RGB.

| BRIGHTNESS | 050 |
| :--- | :---: |
| CONTRAST | 050 |
| COLOR TEMP | NORMAL |
| H POSITION | $* * *$ |
| V POSITION | $* * *$ |
| BACKLIGHT | 010 |
| AUTO ADJUST | PRESS ENTER |

14-3 FIG. 04 Picture Menu Screen

## Available Settings

- BRIGHTNESS (adjust brightness)

Adjust screen brightness.
Values: 0-100 (" 0 " being the darkest setting, and " 100 " being the brightest)

## - CONTRAST (adjust contrast)

Adjust contrast level.
Values: 0-100 ("0" having the least amount of difference between light and dark, and " 100 " having the most)

## - COLOR TEMP (adjust color)

Adjust screen color. The following three color schemes are available.
Settings: COOL/NORMAL/WARM

## - H POSITION (adjust horizontal position)

(only available when the input type is Analog RGB)
When the screen position does not fit even if performing the AUTO ADJUST setting, adjust the horizontal position of screen images.
Values: 0-999 (The screen moves to the left with UP Button, and move to the right with DOWN Button.)

## - V POSITION (adjust vertical position)

(only available when the input type is Analog RGB)
When the screen position does not fit even if performing the AUTO ADJUST setting, adjust the vertical position of screen images.
Values: 0-999 (The screen moves upward with UP Button, and move downward with DOWN Button.)

## - BACKLIGHT (adjust backlight)

Adjust the backlight.
Values: 0-10 (" 0 " being the darkest setting, and " 10 " being the brightest)

- AUTO ADJUST (adjust screen automatically)

Automatically adjusts the screen position based on the video input signal.

## 15 PERIODIC INSPECTION

The items listed below require periodic checks and maintenance to guarantee the performance of this machine and to ensure safe operation.

## A WARNING

- Be sure to check once a year 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 dust as is accumulated can cause fire and electric shock hazards.
- Never use a water jet, etc. to clean inside and outside the cabinet. If the machine gets wet for any reason, do not use it until it has completely dried.
- Periodically once a year, request the place of contact herein stated or the Distributor, etc. where the product was purchased from, as regards the internal cleaning. Using the product with dust as is accumulated in the interior without cleaning can cause a fire or accident. Note that cleaning the interior parts can be performed on a pay-basis.
- 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.

15 TABLE 01

| ITEMS | DESCRIPTION | PERIOD |
| :--- | :--- | :--- |
| CABINET | Check that the stoppers and adjust- <br> ers are secured | Daily |
|  | Clean stocker section rollers | Every 10 days |
|  | Head cleaning | See "Note" below |
| CONTROL PANEL | Volume inspection | Monthly |
|  | Inspect engagement of adjust gears | Every 3 months |
|  | Apply grease | Every 3 months |
|  | Inspect input switches | Monthly |
| SHIFT LEVER | Apply grease | Every 3 months |
|  | Volume inspection | Monthly |
|  | Apply grease to gear and spring parts | Every 3 months |
| COINCHUTE DOOR | Clean screen | Weekly |
|  | Check adjustments | Monthly, or when moved |
|  | Inspect coin switch | Coin insert test |
| SEAT | Clean coin selector | Monthly |
| GAME BOARD | Apply grease to seat rail section | Every 3 months |
| ELECTRONIC/ELEC- | Inspection, Cleaning | Monthly |
| TRICAL PARTS | Inspection, Cleaning | 1 year |
| POWER PLUG | CABINET INTERIOR | Cleaning |
| CABINET SURFACES | Cleaning | 1 year |

## Cleaning the Cabinet Surfaces

When the cabinet surfaces become dirty, remove stains with a soft cloth soaked in water or diluted (with water) chemical detergent and then wrung dry. To avoid damaging the finish, do not use such solvents such as thinner, benzene, 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 parts, 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.

## Seat (Greasing to Seat Rail Portion)

Move the seat as far forward as it can go, remove the five screws, and detach the seat frame back lid. Inside, there are rails under both sides of the seat.
Apply spray grease to the rails once every three months (use NOK KLUBER L60 or GREASE MATE: SEGA Part No. 090-0066).
After greasing, move the seat a few times forward and backward so as to allow the grease to be applied all over uniformly.


## 16 TROUBLESHOOTING

## A WARNING

- 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.
- 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.
- 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.
- After the cause of circuit protector activation has been removed, have the circuit protector re-engaged. If the unit is used continuously as is, there could be heat generation or fire, depending on the cause of the activation.

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

16 TABLE 01

| PROBLEMS | CAUSE | COUNTERMEASURES |
| :--- | :--- | :--- |
| When the main SW is turned <br> ON, the machine is not activated. | The power is not ON. | Firmly insert the plug into the outlet. |
|  | Incorrect power source/voltage. | Make sure that the power supply/voltage <br> are correct. |
| FL box fluorescent lamp does <br> not glow. | Faulty connection of connectors | Join connectors securely between cabinet <br> and FL unit. |
|  | Fluorescent lamp and glow lamp <br> need replacement. | Replace the fluorescent lamp and the glow <br> lamp. |
|  | Sound volume adjustment is not <br> correct. | Adjust the switch unit's sound adjustment <br> volume. (See Service Manual.) |
|  | Faulty connections for various <br> connectors. | Check the connections for the game board, <br> amp, speakers and volume connectors. |
|  | Malfunctioning board, amplifier <br> and speaker. | Conduct sound test to confirm <br> (see Service Manual). |
| Sound comes from the speak- <br> ers and the fluorescent lights are <br> working normally, but the moni- <br> tor remains blank and no images <br> appear. | Faulty connection in the video <br> connectors or monitor power <br> connector. | Check that the connectors are inserted cor- <br> rectly in the monitor and game board. |
|  | Monitor is broken. | Contact the dealer where the unit was pur- <br> chased. |


| PROBLEMS | CAUSE | COUNTERMEASURES |
| :---: | :---: | :---: |
| Colors on the monitor screen are strange. | Faulty connection for the visual signal connector. | Check the visual signal connector connection and make sure it is secured properly. |
|  | Screen adjustment is not appropriate. | Make adjustment appropriately. |
| Does not accept input from any switch or volume. | Faulty connector connections. | Check the connection for the I/O board and cabinet connector. <br> Check the power for the I/O board. |
| The steering (servomotor) does not respond correctly or accurately. | An error occurred during the power-on check. | Switch the power off and on again, and confirm that the power-on check is performed correctly. |
|  | Steering volume is not configured correctly. | Configure the volume in test mode (See Service Manual). |
|  | Volume not installed correctly/ Adjust gears not engaged correctly. | Adjust the installation, and confirm in test mode. |
|  | Volume is broken. | Replace volume |
|  | A wire has been severed/disconnected. | Check that the wires running close to any moving parts are connected properly. When replacing wires, route them so that they do not come into contact with any moving parts. |
| The steering (servomotor) does not respond at all. | An error occurred during the power-on check. | Switch the power off and on again, and confirm that the power-on check is performed correctly. |
|  | Faulty connection. | Check all the connectors leading from the game board to the servo driver and from the servo driver to the servomotor. |
|  | The thermal element in the servo driver has activated. | The thermal element kicks in when the internal temperature reaches approximately 70 ${ }^{\circ} \mathrm{C}$. When the temperature cools sufficiently, the unit will automatically start up again. |
|  | The servo driver fuse has blown due to a momentary overloading. | Contact the dealer where the unit was purchased. |
| The steering (servomotor) is weak. | The recoil mechanism has come out of adjustment with use. | Reconfigure settings in test mode (See Service Manual). |
| Accelerator and brake inputs do not work correctly. | Volume is not configured correctly. | Configure the volume in test mode (See Service Manual). |
|  | Volume not installed correctly/ Adjust gears not engaged correctly. | Adjust the installation, and confirm in test mode. |
|  | Faulty connection. | Check all the connections inside the accelerator and brake units, and check the connections leading from the game cabinet to the accelerator and brake. |
|  | Volume is broken. | Replace volume. |
| Pressing the start, view change, or directional buttons has no effect. The buttons do not flash. | Faulty connection. | Check all the connections between the I/O board, the cabinet, and the switch unit. |
|  | Rubber section is torn. | Check to see if the rubber section inside the switch unit is torn. |
|  | Switch unit is broken. | Contact the dealer where the unit was purchased. |
| Cannot perform DVD setup. The display stays at the LINDBERGH logo and does not advance to the advertising screen (Error 6). | DVD drive is broken. Connecting cable is broken. | Check the manual that came with the DVD drive kit. |
|  | DVD disc is broken. | Contact the dealer where the unit was purchased. |
| The display stays at the LINDBERGH logo and does not advance to the advertising screen (other error). | LINDBERGH configured incorrectly or malfunctioning. | Refer to the LINDBERGH Service Manual. |


| PROBLEMS | CAUSE | COUNTERMEASURES |
| :--- | :--- | :--- |
| The in-store competition racing <br> function does not work. | Transmission cables are discon- <br> nected. <br> Transmission cables are not con- <br> nected correctly. | Check that the transmission cable connec- <br> tions are connected inside the cabinet and <br> between the cabinets. Check the LAN con- <br> nection LED on the LINDBERGH. Recon- <br> nect the transmission cables correctly. |
|  | Error in the cabinet seat settings <br> (Error Code 6018). | In test mode, confirm that the cabinet seat <br> settings are correctly configured <br> (See Service Manual). |
|  | Transmission cable is broken. | Replace transmission cable. Contact the <br> dealer where the unit was purchased. |
|  | Incompatible card. | In test mode, check the compatibility of the <br> card. |
|  | Error in the card usage settings. | In test mode, check the card usage settings. |
|  | Data saved to the card is cor- <br> rupted. | Use card recovery mode and try to restore <br> the card. |
|  | Faulty serial connector. | Check the connector in test mode. <br> Check the connections to the connector. |
|  | IC card unit is broken. | Contact the dealer where the unit was pur- <br> chased. |

For other error warnings displayed on the screen, refer to your Initial D 4 Service Manual or LINDBERGH Service Manual.

## 17 GAME BOARD

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.


## A 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.

## A WARNING

－When returning the game board after making repairs or replacements，make sure that there are no errors in the connection of connectors．Erroneous con－ nections 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 mak－ ing connections，the connector or its terminal fixtures could be damaged，re－ sulting in electrical shock，short circuits or fires．

Switch off the main unit．

Remove the two truss screws，open the lock， and detach the tail lid．


17－1 FIG． 01


17－1 FIG． 02

Undo the cord clamp and detach the three connectors. When detaching the D-SUB connector, first loosen the two screws that secure it in place.


17-1 FIG. 03
4. Detach the connector.


17-1 FIG. 04

Detach the four connectors.

Detach the connectors.
YL WHITE 4P, SM WHITE 4P, SM WHITE 5P, SM WHITE 8P


17-1 FIG. 05


17-1 FIG. 6


17-1 FIG. 7

SCREW (4)
M4x25, w/flat \& spring washers, large flat washer used

Detach all connectors that are connected to the game board. The COM connector is secured with two screws. Use a flathead screwdriver to loosen the screws before detaching the connector.


17-1 FIG. 8

Remove the four screws and detach the game board.


17-1 FIG. 9

## 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.

ASSY CASE LBG L 1GB TFF EXP (844-0014D-12)


17-2 FIG. 01

DIP SW Setting

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


17-2 FIG. 02

## 18 DESIGN-RELATED PARTS

For the warning display stickers, refer to Section 1.


## 19 PARTS LIST

(1)TOP ASSY TFF STD
(2) TFF-10001UK

ASSY COCKPIT CABI
(3) TFF-0500UK ASSY LCD CABI
(4) TFF-0600UK ASSY LCD
(5) TFF-0650UK ASSY SPKR L
(6) TFF-0660UK ASSY SPKR R
(7) TFF-4400UK ASSY ELEC BD LCD
(8) TFF-0700UK ASSY BILLBOARD
(9) TFF-0800UK ASSY SIDE FRAME L
(10) TFF-0850UK ASSY SIDE FRAMER
(11) TFF-1000UK ASSY BASE
(12) TFF-1 100 UK ASSY SUB COCKPIT
(13)TFF-1150UK

ASSY SUB BASE
(14) TFF-0300UK ASSY CONSOLE
(15) TFF-0400UK ASSY AC UNIT
(16) TFF-1001UK ASSY CTRL PANEL COVER
(17) TFF-1 200UK ASSY ACCEL\&BRAKE BASE


ITEM NO.

| 1 | TFF-1001UK |
| :--- | :--- |
| 2 | TFF-1200UK |
| 4 | TFF-1600UK |
| 5 | TFF-1000UK |
| 6 | TFF-1020UK |
| 9 | TFF-0001UK |
| 10 | TFF-0002UK |
| 11 | TFF-0003UK |
| 12 | TFF-0004UK |
| 13 | TFF-0005UK |
| 14 | TFF-0006UK |
| 16 | TFF-0008UK |
| 18 | LB1046 |
| 21 | $421-7988-91 U K$ |
| 22 | $421-7020 U K$ |
| 26 | PK0427 |
| 27 | PK0428 |
| 29 | TFF-1004UK |
| 36 | LB1130 |
| 37 | TFF-1102UK |
| 102 | $220-5727-01 B$ |
| 103 | PP1087 |
| 201 | $000-P 00408-W B$ |
| 202 | $000-00406-0 B$ |
| 203 | $000-T 00408-0 B$ |
| 205 | $030-000820-W B$ |
| 210 | FAS-290056 |
| 211 | FAS-680026 |
| 215 | $000-T 00430-0 B$ |
| 216 | $030-000816-S$ |
| 217 | $068-852216$ |
| 218 | $030-000835-S B$ |
| 219 | $068-852216-0 B$ |
| 220 | $030-000845-S B$ |
| 401 | $540-0006-01$ |
| 402 | $540-0007-01$ |
| 404 | OS1019 |
| 405 | LM1227 |
| 406 | LM1246 |
| 407 | $600-7269-0500 U K$ |
| 408 | $220-5753$ |
| 409 | $601-11949$ |
| 410 | SAECE-153 |
| 411 | $440-C S 0186 U K$ |
| 412 | $509-504$ |
| 413 | TFF-0711UK |
| 414 | $420-5340-01$ |
| 415 | $610-0727-0030$ |
| 416 | TFF-1554UK |
|  |  |



ITEM NO.

PART NO.
TFF-1000UK TFF-0500UK TFF-0700UK TFF-0800UK TFF-0850UK TFF-0300UK TFF-1500UK TFF-1550UK TFF-2500-1 TFF-4100UK TFF-1001UK TFF-1002
TFF-1560UK
TFF-1005UK
TFF-1006UK
TFF-2001
TFF-2002
TFF-2003
TFF-2004UK 440-WS00220UK
TFF-1161UK
TFF-1162UK TFF-1810UK TFF-1158UK TFF-1106UK

280-L00709-0S
000-P00408-WB
030-000616-SB 000-P00408-W 030-000820-WB 068-852216-0B
FAS-200069 000-P00430-WB 050-F00400 068-441616-0B 008-T00410-0B 050-H01200 FAS-200072 FAS-290045 060-S01200 030-000820-SB 0068-652016-0B FAS-000006 030-000825-S 068-852216 050-H00800 060-S00800 050-U00400 068-441616 000-T00420-0B 000-T00620-0B 068-652016 030-000620-S

TFF-60037UK
TFF-60038UK

DESCRIPTION
NOTE
ASSY SUB COCKPIT
ASSY LCD CABI
ASSY BILLBOARD
ASSY SIDE FRAME L
ASSY SIDE FRAME R
ASSY CONSOLE
ASSY INPUT SW RUBBER
ASSY L PANEL COVER W/CARD RW
ASSY HANDLE MECCA
ASSY I/O BD
CNTRL PANEL COVER
CNTRL PANEL COVER UPPER
ASSY CARD RW BASE
STICKER COCKPIT BASE L
STICKER COCKPIT BASE R
STEERING WHEEL
STEERING CAP
SPCL WSHR M12
HANDLE COLLAR
WARNING STICKER TRAP HAZZARD
DOOR BACK LOWER
DOOR BACK ELEC
STICKER CARD STOCKER
COCKPIT PILLAR LID
CNTRL PANEL BRKT R
STANDOFF 7OD 4ID 9L
M SCR PH W/FS BLK M4×8
HEX BLT W/S BLK M6X16
M SCR PAN W/FS BLK M4X8
HEX BLT W/S BLK M8×20
WSHR 220D FLT BLK M8
HEX SKT CAP SCR BLK W/S M8X20
M SCR PAN W/FS BLK M4X30
NUT FLG SER PAS M4
WSHR 16OD FLT BLK M4
M SCR TMP TH BLK M4X10
NUT PAS M12
HEX SKT H CAP SCR CRM M4X12
HEX SKT LH CAP SCR STN M4X6
WSHR SPR PAS M12
HEX BLT W/S BLK M8X20
WSHR 200D FLT BLK M6
M SCR PH PORICURVO M3X10
HEX BLT W/S PAS M8X25
WSHR 220D FLT PAS M8
NUT PAS M8
WSHR SPR PAS M8
NUT NYLOK PAS M4
WSHR 16OD FLT PAS M4
M SCR TH BLK M4X20
M SCR TH BLK M6X20
WSHR 200D FLT PAS M6
HEX BLT W/S PAS M6X20
WEH MOTOR
WH ENCODER


## (4) ASSY LCD (TFF-0600UK)



| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- |
|  |  |  |
| 1 | TFF-0621UK | LCD BASE |
| 2 | $280-5113$ | COLLAR FOR TV |
| 3 | $068-652516$ | WSHR 25OD FLT PAS M6 |
| 4 | $253-5569$ | BUSH FOR LCD |
| 5 | $123-5123$ | STUD BOLT M6 FOR LCD |
| 7 | TFF-0622UK | SPEAKER SHIM |
| 101 | $200-6032-S M S N G$ | ASSY LCD DSPL 32 SMSNG |
| 201 | $050-$ F00600 |  |
| 202 | $00-P 00408-W$ | MLG NUT M6 |
|  |  | M SCR PAN W/FS PAS M4X8 |

## (5) ASSY SPKR L (TFF-0650UK)



ITEM NO.
1
2

101

201
202

PART NO.
TFF-0651UK
TFF-0652
130-5265

000-F00408-0B
000-P00508-WB

SPEAKER COVER
SPEAKER BOX W/WOOFER

M SCR FH BLK M4×8
M SCR PH W/FS BLK M5×8
(6) ASSY SPKR R (TFF-0660UK)


ITEM NO
PART NO.
DESCRIPTION
NOTE

| 1 | TFF-0661UK |
| :---: | :--- |
| 2 | TFF-0652 |
| 101 | $130-5265$ |
| 201 | $000-$ F00408-0B |
| 202 | $000-$ P00508-WB |

SPKR BRKT R
SPEAKER COVER
SPEAKER BOX W/WOOFER
M SCR FH BLK M4×8
M SCR PH W/FS BLK M5×8


| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :---: |
| 1 | TFF-4401UK | ELEC BOARD LCD |  |
| 101 | $838-14515-A 0191$ | SOUND AMP ANALOG IN |  |
| 104 | OS1011 | PCB FEET RICHCO LCBS-L-5-01 |  |
| 105 | $400-050-024-01$ | PSU 24VDC 50W MW LPS 50-24 |  |
| 106 |  | PSU FOR LCD SMSNG |  |
| 107 | $280-A 01264-W X$ | ROUTER TWIST D12 S06.4 WOOD X |  |
| 203 | $012-P 00316$ | N4X5/8" S/TAP SCR PAN PAS |  |
| 205 | $000-P 00316-W$ | MSCR PAN PAS M3X16 | NOT SHOWN |
| 301 | TFF-60054UK | WH AC ELEC BD LCD IN | NOT SHOWN |
| 303 | TFF-60056UK | WH DC AMP PWR | NOT SHOWN |
| 304 | TFF-60057UK | WH AUDIO VOLUME | NOT SHOWN |

ISIT SI\&甘d


| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :---: | :---: | :---: |
| 1 | TFF-0701UK | BILLBOARD BASE |  |
| 2 | TFF-0702UK | PANEL HOLDER |  |
| 3 | TFF-0703UK | PANEL SASH |  |
| 4 | TFF-0704 | BILLBOARD PANEL |  |
| 5 | TFF-0705 | PANEL SIDE CAP L |  |
| 6 | TFF-0706 | PANEL SIDE CAP R |  |
| 12 | TFF-0712 | STICKER SIDE CAP |  |
| 13 | LB1119 | STICKER FL32W 100V |  |
| 14 | LB1104 | STICKER CAUTION HOT SURFACE |  |
| 101 | 390-5695-30-AUK | ASSY FL TRAY 100V 32W |  |
| 102 | LT1014 | TUBE FL 30W 36" DIA25MM |  |
| 103 | OS1230 | FOAMM STRIP 2MM X 10MM |  |
| 104 | OS1220 | FOAMM STRIP 8MM SQ ADHESIVE |  |
| 201 | 000-P00408-W | M SCR PH W/FS M $4 \times 8$ |  |
| 203 | 000-T00525-0B | M SCR TH BLK M5×25 |  |
| 204 | 050-F00400 | FLG NUT M4 |  |
| 205 | 068-551616-0В | FLT WSHR BLK M5 160D |  |
| 301 | TFF-60059UK | WH AC BILLBOARD |  |

301
TF-60059UK
WH AC BILLBOARD


| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- |
| 1 | TFF-0801UK | PILLAR BASE L |
| 2 | TFF-0002 | PILLAR CAP L |
| 3 | TFF-0803UK | STICKER PILLAR L |
| 4 | TFF-0804 | SIDE PILLAR |
| 6 | TFF-0806UK | PILLAR BOLT PLATE |
| 8 | TFF-0007UK | PILLAR NUT PLATE |
| 201 |  |  |
| 202 | FAS-100002 | S-TITE SCR PH W/F M4×25 |
| 203 | $068-650016$ | FLT WSHR 6.5-20×1.6 |
| 204 | $060-$ SO0600 | SPR WSHR M6 |
| 205 | $050-H 00600$ | HEX NUT M6 |
| 206 | $000-T 00412-0 C$ | M SCR TH CRM M4×12 |
|  | $068-441616-0 C$ | FLT WSHR CRM 4.4-16×1.6 |


(10) ASSY SIDE FRAME R (TFF-0850UK)

| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- |
| 1 | TFF-0851UK | PILLAR BASE R |
| 2 | TFF-0852 | PILLAR CAP R |
| 3 | TFF-0853UK | STICKER PILLAR R ENG |
| 5 |  |  |
| 7 | TFF-0804 | SIDE PILLAR |
| 9 | TFF-0806UK | PILLAR BOLT PLATE |
|  |  | PILLAR NUT PLATE |
| 201 | FAS-1000002 |  |
| 202 | $068-652016$ | S-TITE SCR PH W/F M4×25 |
| 203 | $060-$ SLO0600 WSHR 6.5-20 $\times 1.6$ |  |
| 204 | $050-H 00600$ | SPR WSHR M6 |
| 205 | $000-T 00412-0 C$ | HEX NUT M6 |
| 206 | $068-441616-0 C$ | M SCR TH CRM M4 $\times 12$ |
|  |  |  |



| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- |
|  | TFF-1150UK | ASSY SUB BASE |
| 1 | TFF-0400UK | AC UNIT |
| 6 | TFF-4000UK | ASSY MAIN BD |
| 7 | TFF-4200UK | ASSY TRANS BD |
| 22 | TFF-1011UK | CONN JOINT PLATE |
| 23 | HDF-0656 | CABLE PLATE |
| 24 | TFF-1153UK | COCKPIT JOINT BRKT |
|  |  |  |
| 101 | $839-1176 R$ | CONN BD JVS \& RGB |
| 206 | $068-852216-0 B$ | FLT WSHR BLK 8.5-22×1.6 |
| 208 | $000-T 00410-0 B$ | M SCR TH BLK M4×10 |
| 209 | $000-$ P00425-WB | M SCR PH W/FS BLK M4×25 |
| 210 | $050-F 00400$ | FLG NUT M4 |
| 211 | $068-441616-0 B$ | FLT WSHR BLK 4.4-16×1.6 |
| 219 | $000-P 00412-W B$ | M SCR W/FS BLK M4X12 |
| 220 | $050-F 00300$ | NUT FLG SER PAS M3 |
| 221 | $030-000816-S$ | HEX BLT W/S PAS M8X16 |



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | TFF-1151UK | COCKPIT BASE |  |  |
| 3 | TFF-1110UK | CTRL PNL BRKT |  |  |
| 4 | TFF-1104UK | CTRL PANEL SUPPORT BRKT |  |  |
| 7 | TFF-1111UK | CTRL PNL STOPPER L |  |  |
| 10 | TFF-1108UK | CTRL PANEL HINGE COLLAR |  |  |
| 11 | TFF-1155UK | STAY SIDE HOLDER |  | 19 |
| 12 | TFF-1156UK | CNTRL PANEL LOWER |  | 0 |
| 13 | TFF-1157UK | CNTRL PANEL UPPER |  | 8 |
| 15 | 105-5340-01 | FAN BKT LONG |  | D |
| 102 | 601-11987 | SOFT DOWN HINGE TOK |  | ᄃ |
| 106 | 260-0011-02 | AXIAL FLOW FAN AC100V |  | $\bar{\sigma}$ |
| 107 | FN1012 | MESH GUARD METAL 120MM FAN |  |  |
| 109 | 253-5460-01 | AIR VENT BLACK |  |  |
| 110 | 601-S0001UK | SLIDE (L\&R) ACCURIDE 3033 |  |  |
| 111 | 601-11101 | LEG ADJUSTER BOLT M16 L100 |  |  |
| 201 | 030-000825-SB | HEX BLT W/S BLK M $8 \times 25$ |  |  |
| 203 | 068-852216 | FLT WSHR PAS 8.5-22×1.6 |  |  |
| 204 | 030-000616-S | HEX BLT W/S M6×16 |  |  |
| 205 | 068-652016-0B | FLT WSHR BLK 6.5-20×1.6 |  |  |
| 207 | 000-P00412-W | M SCR PH W/FS M $4 \times 12$ |  |  |
| 208 | 050-F00600 | FLG NUT M6 |  |  |
| 213 | 020-000612-0Z | SKT CAP OZ M6X16 |  |  |
| 214 | 008-T00420-0B | M SCR TMP TH BLK M4X20 |  |  |
| 215 | 030-000620-S | HEX BLT W/S PAS M6X20 |  |  |
| 216 | 050-F00800 | FLG NUT SER PAS M8 |  |  |
| 217 | 030-000820-S | HEX BLT W/S PAS M8X20 |  |  |
| 218 | 000-P00312-W | M SCR PAN PAS W/FS M3X12 |  |  |
| 219 | 012-P00316 | S/TAP PAN PAS N4X5/8" |  |  |
| 308 | TFF-6002UK | ASSY WIRE COCKPIT CTRL PANEL |  |  |
| 309 | TFF-60031UK | WH MOTOR EXT |  |  |
| 317 | TFF-60049UK | WH AC AMP BD EXT COCKPIT |  |  |
| 318 | LGJ-60036UK | WH BILLBOARD FAN AC |  |  |
| 319 | TFF-6004UK | ASSY WH LCD CABI EXT |  |  |
| 320 | 600-7141-200UK | CABLE JVS TYPE A-B 200CM |  |  |

## (13) ASSY SUB BASE (TFF-1150UK)



| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- |
| 2 | TFF-1152UK | BASE |
| 8 | TFF-1107UK | CABLE BLIND PLATE |
| 9 | TFF-1171UK | FAN BKT BASE |
|  |  |  |
| 106 | $260-0011-02$ | AXIAL FLOW FAN AC100V |
| 107 | FN1012 | MESH GUARD METAL FAN 120MM |
| 108 | OS1195 | RIVET SNAP MMOSS SR1811 |
|  |  |  |
| 210 | $050-F 00400$ | NUT FLG SER M4 |
| 211 | $012-H B 0512$ | N10X1/2" S/TAP HEX B PAS |
| 212 | $060-$-00500 | WSHR FORM A FLT PAS M5 |
| 213 | $050-$ U00400 | NUT NYLOK PAS M4 |
| 307 |  |  |
| 318 | TFF-6001UK | ASSY WIRE BASE |
| 319 | LGJ-60036UK | WH BILLBOARD FAN |
| 320 | $600-7009-3000 U K$ | ASSY RGB CA D-SUB 15P 3000MM |
|  |  | CABLE JVS TYPE A-B 300CM |



| ITEM NO. | PART NO. |
| :---: | :--- |
| 1 |  |
| 2 | TFF-0301UK |
| 6 | VTS-HOD-D-R |
| 10 | DUT-0302UK |
| 11 | TFF-0303UK |
| 12 | LB1103 |
| 13 | TFF-0304UK |
|  |  |
| 101 | $610-040508-91$ |
| 102 | $220-5374-01$ |
| 103 | $220-5575 U K$ |
| 105 | $220-5610-01$ |
|  |  |
| 201 | $000-P 0041-W$ |
| 202 | $050-F 00400$ |
| 203 | $008-$-00516-0B |
| 204 | $050-$ U00800 |
| 205 | $068-852216$ |
|  |  |
| 302 | LM1006LOR |
| 304 | TFF-60104UK |
| 305 | $600-9020-44 K$ |

DESCRIPTION
NOTE
CONSOLE BOX BLANK
VTS BOARD HOD
COIN PATH PLATE
CCT FLOOR
STICKER CAUTION FORK
LOCKING CLASP
BRKT PADLOCK
ASSY UP/DOWN SHIFTER
DOOR DFMD W/FR \& LOCK C120 UNIV
LOCK (J9117) KEY TO LIKE 22M
SR3 STD BODYBSR3INGB
M SCR PAN W/FS PAS M4X10
NUT FLG SER PAS M4
M SCR TMP TH BLK M5X16
NUT NYLOK PAS M8
WSHR 220D FLT PAS M8
LOOM COIM MECH LAMP
WH COIN VTS
WH EART 200MM M4 M4


ITEM NO.

PART NO.
TFF-0401UK TFF-0402UK LB1096

EP1382
EP1387
EP1391
310-5029-D508
514-5078-500
LB1126-5-250

000-P00308-W 050-F00400

TFF-60001UK 600-9030-44K 600-9050-44K

DESCRIPTION
AC BKT
CONN COVER
STICKER PROTECTIVE EARTH
FILTER SCHAFFNER FN682-10/06
IEC INLET \& SW BZV01/Z0000/70
COUPLER INLINE LAN RJ45 UTP
HEAT SHRINK SLEEVE 50.8DIA
FUSE 5X20 CERAMIC SB 5000MA
FUSE LABEL 5A 250V

M SCR PAN W/FS PAS M3X8 NUT FLG SER PAS M4

WH AC UNIT IN
WH EARTH 300MM M4 M4 WH EARTH 500MM M4 M4


| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :---: |
| 1 | TFF-1001-A | CTRL PANEL COVER BLANK |  |
| 2 | TFF-1001-BUK | CTRL PANEL PLATE |  |

## (17) ASSY ACCEL\&BRAKE BASE (TFF-1200UK)



| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- |
| 1 | TFF-2200 | ASSY ACCEL\&BRAKE |
| 2 | TFF-1201UK | BASE ACCEL\&BRAKE |
| 3 | TFF-1202UK | FOOTREST BASE |
| 201 | $030-000825-S B$ | HEX BLT W/S BLK M8×25 |
| 202 | $060-F 00800-0 B$ | FLT WSHR BLK M8 |
| 301 | TFF-60040UK | WH ANALOG ACCEL\&BRAKE |



ITEM NO. PART NO.
DESCRIPTION
NOTE

| 1 | SPG-2201 |
| :---: | :--- |
| 2 | SPG-2202 |
| 3 | TFF-2203 |
| 4 | SPG-2204 |
| 5 | TFF-2205 |
| 6 | SPG-2206 |
| 7 | SPG-2207 |
| 8 | TFF-2208 |
| 9 | SPG-2209 |
| 10 | SPG-2210 |
| 11 | TFF-2211 |
| 12 | TFF-2212 |
| 13 | SPG-2213X |
| 14 | SPG-2214 |
| 15 | TFF-2223 |
| 16 | TFF-2222 |
| 17 | TFF-2224 |
| 18 | SPG-2216 |
| 19 | AFT-2804 |
| 20 | SPG-2219 |
| 21 | SPG-2220 |
| 22 | SPG-2221 |
| 23 | TFF-2225 |
|  |  |
| 101 | $100-5263$ |
| 102 | $220-5484$ |
| 102 | $22-5753$ |
| 104 | $601-7944$ |
| 105 | $310-5029-F 15$ |
| 106 | $280-0419$ |
| 201 | $028-A 00304-P$ |
| 202 | $020-000520-0 Z$ |
| 203 | $000-P 00420$ |
| 204 | $000-P 00512-W$ |
| 205 | $000-T 00408-0 C$ |
| 206 | FAS-450005 |
| 207 | $000-P 00405$ |
| 208 | FAS-000001 |
| 210 | $060-F 00400$ |
| 211 | FAS-450025 |
| 301 | $600-6840-01$ |
|  |  |

BASE
ACCEL PEDAL
BRAKE PEDAL
ACCEL SPRING
BRAKE SPRING
SHAFT
ACCEL GEAR
BRAKE GEAR
NEUTRAL STOPPER
VR PLATE ACCEL
VR PLATE BRAKE
AMPL GEAR
GEAR SHAFT
STOPPER
BRAKE CUSHION
BRAKE STOPPER
STOPPER ANGLE
COVER
VR COVER AFT
GEAR STAY
WSHR
NEUTRAL STOPPER D
NEUTRAL SPACER B
BEARING 12(OILES 80F-1212)
VOL CONT B-5K OHM
VOL CONT B-5K OHM (TOCOS)
GEAR 15
SUMITUBE F F 15MM
HARNESS LUG
SET SCR HEX SKT CUP P M3X4
HEX SKT H CAP SCR BLK M5X20
M SCR PH M4X20
M SCR PH W/FS M5X12
M SCR TH CRM M4X8
SPR PIN BLK OZ 6X10
M SCR PH M4X5
M SCR TH CRM M3X6
FLT WSHR M4
SPR PIN BLK OZ 8X10
WIRE HARN ACCEL\&BRAKE YL
19) ASSY INPUT SW RUBBER (TFF-1500UK)

$\left(\frac{201}{4} \frac{3}{1}\right.$

© 0

ITEM NO.

| 1 | TFF-1501 |
| :---: | :--- |
| 2 | TFF-1502 |
| 3 | TFF-1503 |
| 4 | TFF-1504UK |
| 102 | $838-14707$ |
| 201 | FAS-000097 |
| 301 | TFF-60039UK |

DESCRIPTION
NOTE
INPUT SW COVER
INPUT SW RUBBER CONTACT
INPUT SW BASE
STICKER INPUT SW COVER
RUBBER SW BD TFF
M SCR PH W/SMALL FS M4×8
WH INPUT SW

## (20) ASSY SEAT (TFF-1600UK)



ITEM NO. PART NO.
TFF-1621UK
TFF-1603UK TFF-1605 TFF-1617UK TFF-1618UK TFF-1619UK TFF-1609 TFF-1620
TFF-1611
TFF-1616UK
TFF-1615UK
601-9059-91
601-9060-91
000-P00410-WB
030-000840-S
050-H00800
060-S00800
068-852216
FAS-290059
030-000845-S
FAS-680026
030-000816-S

DESCRIPTION
SEAT BASE
UPPER SEAT ENG
LOWER SEAT
SEAT TRAY
SEAT FRAME L
SEAT FRAME R
HEADREST BACK COVER
SEAT FRAME COVER
SEAT FRAME COVER CAP
SEAT FRAME BACK LID
STICKER SIDE SEAT BASE ENG
SEAT RAIL L
SEAT RAIL R
M SCR PH BLK W/FS M4×10
HEX BLT W/S M8×40
HEX NUT M8
SPR WSHR M8
FLT WSHR 8.5-22×1.6
HEX SKT SCR BH STN M6×20
HEX BLT W/S M8×45
FLT WSHR STN $6.5-20 \times 1.6$
HEX BLT W/S M $8 \times 16$

NOTES:

1. Lock screws (except for U-NUT).
2. Tighten screws to the following to
(M3) $0.74 \mathrm{~N} \cdot \mathrm{~m}$, (M4) $1.8 \mathrm{~N} \cdot \mathrm{~m}$, (M6) $5.6 \mathrm{~N} \cdot \mathrm{~m}$, (M8) $17.4 \mathrm{~N} \cdot \mathrm{~m}$.
3. Use (2) to guide (13), and attach without allowing the HANDLE SHAFT (3) to tilt. 4. Attach (104) with initial tension within 95 to 150 N .
Span $=15$ [mm,
Unit weight $=0.039[\mathrm{~kg} /(10 \mathrm{~mm}$ Width x 1 m Length $)]($ Bando $)$


ITEM NO.

| 1 | TFF-2501 |
| :--- | :--- |
| 2 | TOF-2502 |
| 3 | TFF-2502 |
| 4 | TFF-2503 |
| 5 | TFF-2504 |
| 6 | TFF-2505 |
| 7 | TFF-2506 |
| 8 | TFF-2507 |
| 9 | TFF-2508-01 |
| 10 | TFF-2509 |
| 11 | SPG-2505 |
| 12 | DYN-1270 |
| 13 | TFF-2511 |
| 14 | TFF-2512 |
| 15 | TFF-2513 |
| 16 | TFF-2514 |
| 17 | TOF-2515 |
| 18 | $601-6172$ |
| 19 | SPG-2504 |
| 20 | ORA-2503 |
| 21 | SPG-2453 |
| 22 | ORA-2507 |
| 23 | $253-5592$ |
| 24 | $253-5593$ |
| 25 | TFF-2515 |
|  |  |
| 101 | $350-5805-01$ |
| 102 | $220-5484$ |
| 102 | $220-5753$ |
| 103 | $310-5029-F 20$ |
| 104 | $601-11089$ |
| 105 | $100-5168$ |
| 106 | $100-5285$ |
| 107 | $280-5275-$ SR10 |
|  |  |
| 201 | $028-A 00408-P$ |
| 202 | $030-000820-S$ |
| 203 | $065-S 012 S 0-Z$ |
| 204 | $000-P 00410-W$ |
| 205 | $030-000612-S$ |
| 206 | $060-F 00600$ |
| 207 | $030-000840-S$ |
| 208 | $068-852216$ |
| 209 | $050-U 00800$ |
| 210 | $060-F 00800$ |
| 211 | $012-P 00412$ |
| 212 | $050-$-000400 |
| 213 | $020-000612-0 Z$ |
| 214 | $060-S 00600$ |
| 215 | FAS-650021 |
| 301 | $600-6866-01$ |
|  |  |

DESCRIPTION
MECHA BASE
MECHA BASE LID
HANDLE SHAFT
SPACER COLLAR A STOPPER BLOCK A STOPPER BLOCK B SPACER COLLAR B STOPPER BOLT S STOPPER RUBBER S STOPPER BLOCK SHAFT PULLEY 60 S5M STOPPER KEY STOPPER HOLDER STOPPER RUBBER STOPPER BOLT VR BRKT GEAR HOLDER GEAR 48 PULLEY 20 S5M MOTOR BRKT
KEY $4 \times 4 \times 40$
MOTOR SHAFT COLLAR
MOTOR INSULATOR A
MOTOR INSULATOR B SPACER COLLAR C

SERVO MOTOR Y21C-5010S
VOL CONT B-5K OHM
VOL CONT B-5K OHM (TOCOS)
SUMITUBE F F 20MM
TIMING BELT ( 150 S5M 520)
BEARING 20 (NSK 6904ZZ)
BEARING 20(6804ZZ)
CORD CLAMP SR10
SET SCR HEX SKT CUP P M4×8
HEX BLT W/S M8×20
STP RING BLK OZ S12
M SCR PH W/FS M $4 \times 10$
HEX BLT W/S M6×12
FLT WSHR M6
HEX BLT W/S M $8 \times 40$
FLT WSHR 8.5-22×1.6
U NUT M8
FLT WSHR M8
TAP SCR \#2 PH $4 \times 12$
U NUT M4
HEX SKT H CAP SCR BLK OZ M6×12
SPR WSHR M6
WAVE WSHR WW-20
WIRE HARN ASSY HANDLE MECHA VR

## (22) ASSY MAIN BD (TFF-4000UK)



ITEM NO. PART NO.
TFF-4001UK
844-0001D-91-12
SHT-4904UK SGT-4603UK LB1101 LB1111

400-5457-91
838-14578
280-A01264-WX
280-A02064-WX
000-P00412-W
012-P00325
000-P00308-W
TFF-60013UK
TFF-60014UK TFF-60015UK TFF-60016UK TFF-60017UK 600-7360-0600 600-7361-0600

DESCRIPTION
WOODEN BASE MAIN BD
ASSY CASE LBG L 1GB 7800 EXP
ELEC BRKT
ELEC BRKT
STICKER WARNING BATTERY NOT SHOWN
STICKER PLEASE RECYCLE
SW REGU ATX/JVS
CONVERT BD RS232C/RS422
ROUTER TWIST D12 S06.4
ROUTER TWIST D20 S06.4
M SCR PH W/FS M4×12
TAP SCR PH $3 \times 25$
M SCR PH W/FS M3×8
WH AC MAIN BD IN
WH LINDBERGH 232C TO DRIVER BD
WH LINDBERGH 232C TO R/W
WH AUDIO MAIN BD OUT
WH MAIN BD 422 TO DRIVER BD
WH LBG PWR 24P P TO P 0600MM
WH LBG PWR 18P P TO P 0600MM

NOTE

NOT SHOWN

## (23) ASSY I/O BD (TFF-4100UK)



ITEM NO. PART NO.
1
2

101
102
103
104
105
201
301
302
303
304
305
306
307
308
309
311

DESCRIPTION
NOTE
WOODEN BASE I/O BD I/O CONTROL BD 3 FOR JVS COM

SERVO MOTOR DRIVE BD SER
DISTRIBUTION BD
ROUTER TWIST D09
ROUTER TWIST D12 ROUTER TWIST D20

TAP SCR PH $3 \times 25$
WH AC I/O BD IN
WH AC DISTRIBUTION BD OUT WH DRIVER BD TO MOTOR WH AC DRIVER BD IN WH DRIVER BD TO MAIN BD WH DRIVER BD TO ENCODER WH SIGNAL I/O BD WH DC 5V IN WH ANALOG I/O BD WH DRIVER BD MOTOR LINK

## (24) ASSY TRANS BD (TFF-4200UK)



ITEM NO. PART NO.
DESCRIPTION
NOTE
WOODEN BASE TRANS BD
DISTRIBUTION BD
XFMR
PSU 24DVC 100W MW LPS-100-24
PSU 12VDC 5-W MW LPS-050-12
PCB FEET
ROUTER TWIST D12 S06,4
TAP SCR PH $3 \times 16$
M SCR PH W/FS M4×16
WSHR 16OD FLT PAS M4
TAP SCR PAN PAS N4X1"
WH AC TRANS BD OUT\#
WH DC TRANS BD OUT
WH AC SW REGU

1
101 838-14551-02UK
104
105
106
107
108
201
203
204
206
303
304
305

TFF-4201UK

838-14551-02UK 400-100-024-01 400-100-024-01 400-050-012-01 OS1011 280-A01264-WX

012-P00316 000-P00416-W 068-441616 012-P00325

TFF-60008UK TFF-60047UK TFF-60048UK
(25) ASSY TAIL LID (TFF-1020UK)


| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- |
|  |  |  |
| 1 | TFF-1021UK | TAIL LID |
| 3 | TFF-1023UK | STICKER TAIL LID |
| 4 | DP-1167UK | TNG LKG |
| 101 | $220-5575 U K$ | CLY LOCK MASTER W/O KEY (J9117) |
| 102 | $253-5460-01$ | AIR VENT BLK |
| 202 | $000-P 00412-$ WB | M SCR PH BLK W/FS M4×12 |



| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- |
| 1 | TFF-1152-AUK | BASE BLANK |
| 101 | MA1019 |  |
| 102 | $601-11101$ | CASTER 75 |
| 201 | $030-00816-S$ |  |
| 202 | $050-H 01600$ | HEX BLT W/S PAS |
| 203 | $060-$ F00800 | M16 NUT PAS |
|  |  | WSHR FORM A FLT PAS M8 |



| ITEM NO. | PART NO. | DESCRIPTION |
| :---: | :--- | :--- |
| 1 |  | TFF-1551UK | CTRL PANEL BRKT L $\quad$ NOTE



| ITEM NO. | PART NO. | DESCRIPTION | NOTE |
| :---: | :--- | :--- | :---: |
|  |  |  |  |
| 2 | TFF-1552UK | BASE CARD R/W |  |
| 101 | TFF-1808 | IC CARD R/W CAP |  |
| 201 | $610-0791-01$ | IC CARD RW W/WATER GUARD V |  |
| 207 | $000-P 00408-W B$ | M SCR PAN W/FS BLK M4X8 |  |
|  | FAS-000178 | M SCR CSK BLK M2.6X12 |  |



PART NO.
DESCRIPTION
NOTE
$\begin{array}{ll}1 & \text { TFF-1603-A } \\ 2 & \text { TFF-1603-BUK } \\ 3 & \text { TFF-1603-C }\end{array}$
UPPER SEAT BLANK
STICKER UPPER SEAT UPPER SEAT CUSHION
(30) ASSY SHIFTER (610-0408-91)


11) 1816


## A 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


Note 2: The character following the wire color code indicates the size of the wire.
U: AWG16
K: AWG18
L: AWG20
None: AWG22
'SEGA machines do be in complyment with that RoSE thing'





[^0]:    Test each input
    Test each output
    Set the STEERING resistance
    Adjust input settings
    Adjust game settings
    Password entry screen
    Test card reader/writer functions
    (data reading/writing, stocking and printing cards)
    IC card restoration mode
    Test the network
    Adjust store closing settings
    View game backup data
    Clear game backup data
    Go back to the System Test Menu

[^1]:    3
    After the test is complete, move the cursor to EXIT and press the TEST Button to return to the System Test Menu Screen.

[^2]:    If the accelerator or brake pedals are not functioning correctly, you may need to adjust the positioning of the volume or replace it with a new one. In addition, you should apply grease to the gear contacts and spring parts once every three months.

