INITAL D ARCADE STAGE 4

OWNERS MANUAL



OWNER'S MANUAL





IMPORTANT

- Before using this product, read this manual carefully to understand the contents herein stated.
- After reading this manual, be sure to keep it near the product or in a convenient place for easy reference when necessary.



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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 mm (44.5 in.) [Width] x 1,660 mm (65.4 in.) [Depth]

Height: 1,970 mm (77.6 in.) Weight: 318 kg (701.1 lbs.)

Power, maximum current: 2.5 A (AC 230 V, 50 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

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.

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.

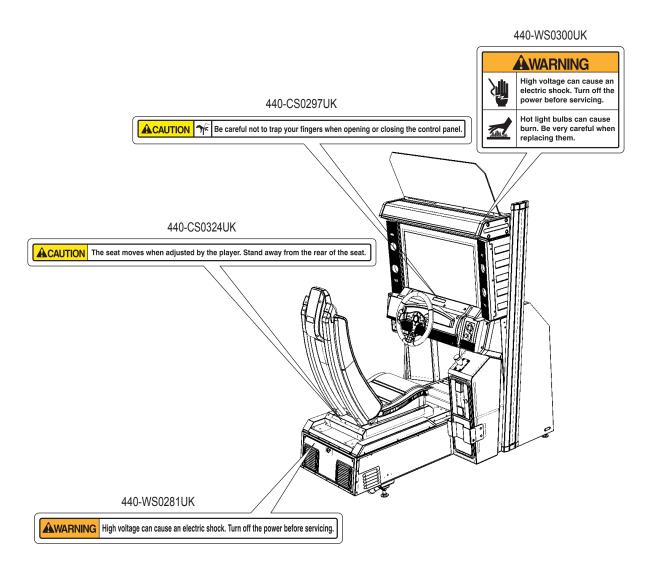
CONCERNING THE STICKER DISPLAY

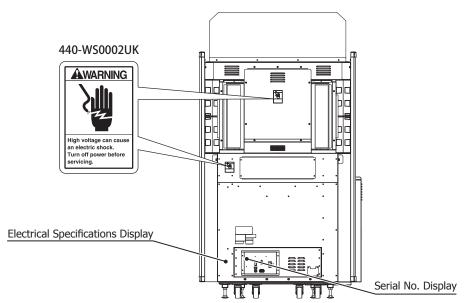
This SEGA product has stickers attached describing the product manufacture No. (Serial No.) and Electrical Specifications. It also has a Sticker describing where to contact for repair and for purchasing parts.

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

A 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

WARNING

- Be sure to check the Electrical Specifications. Ensure that this product
 is compatible with the location's power supply, voltage, and frequency
 requirements. A plate describing Electrical Specifications is attached to the
 product. Non-compliance with the Electrical Specifications can cause a fire
 and electric shock.
- This product requires a breaker and earth mechanism as part of the location facilities. Using the product without these can cause a fire and electric shock.
- Ensure that the indoor wiring for the power supply is rated at 15 A or higher (AC single phase 100 V ~ 120 V area), and 7 A or higher (AC 220 V ~ 240 V area).
 Non-compliance with the Electrical Specifications can cause a fire and electric shock.
- Be sure to use an independent power supply equipped with an earth leakage breaker. Using a power supply without an earth leakage breaker can cause an outbreak of fire if a power surge occurs.
- Putting many loads on one electrical outlet can cause generation of heat and a fire resulting from overload.
- When using an extension cord, ensure that the cord is rated at 15 A or higher (AC 100 V ~ 120 V area) and 7 A or higher (AC 220 V ~ 240 V area). Using a cord rated lower than the specified rating can cause a fire and electric shock.

Electricity Consumption:

MAX. 2.5A (AC 230 V, 50 Hz)

2-2 OPERATION AREA

WARNING

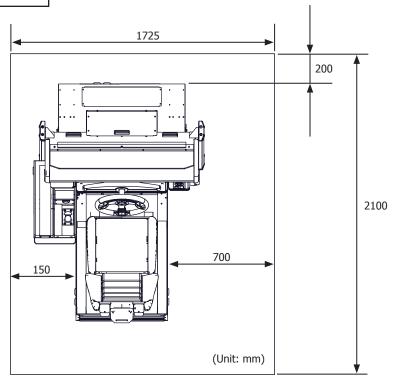
- For safe operation and management of this product, allow at least 70 cm of space between cabinets when allocating floor space and space for people to move through.
- Be sure to provide sufficient space specified in this manual. Do not allow objects to block the ventilation ports. It can cause generation 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 m (W) and 1.8 m (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

A WARNING

- To ensure maximum safety for the players and the customers, ensure that where
 the product is operated has sufficient lighting to allow any warnings to be read.
 Operation under insufficient lighting can cause bodily contact with each other,
 hitting accident, and/or trouble between customers.
- Be sure to perform appropriate adjustment of the monitor (LCD).
 - For operation of this machine, do not leave monitor's flickering or deviation as is. Failure to observe this can have a bad influence upon the players' or the customers' physical conditions.
- It is suggested that a space is allocated for players who feel sick while playing the game to take a rest.
- Check if all of the adjusters are in contact with the surface. If they are not, the Cabinet can move and cause an accident.
- Do not put any heavy item on this product. Placing any heavy item on the product can cause a falling down accident or parts damage.
- 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

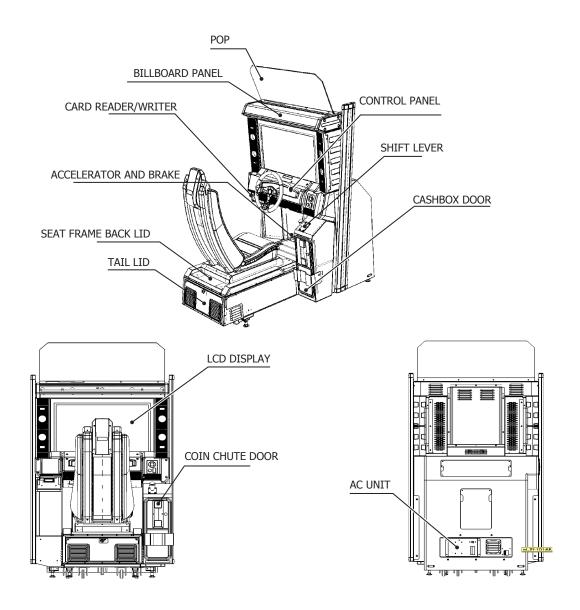
Immediately stop such violent acts as hitting and kicking the product. Such violent acts can cause parts damage or falling down, resulting in injury due to fragments and falling down.



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 x Length x Height)
Cabinet (Without POP, seat adjusted forward)	1,083 mm x 1,568 mm x 1,704 mm
Complete cabinet (Seat adjusted backward)	1,083 mm x 1,668 mm x 1,974 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)

Explanation of built-in game board

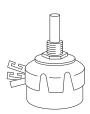
NETWORK (LAN) CABLE (3 m) 600-7269-0500UK (1)



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

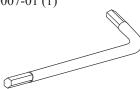


VOLUME 220-5753 or 220-5484 (1)



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

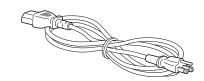
TAMPERPROOF SCREW WRENCH (for M5) 540-0007-01 (1)



CLEANING KIT 601-11949 (1) 1 set 30 sheet package



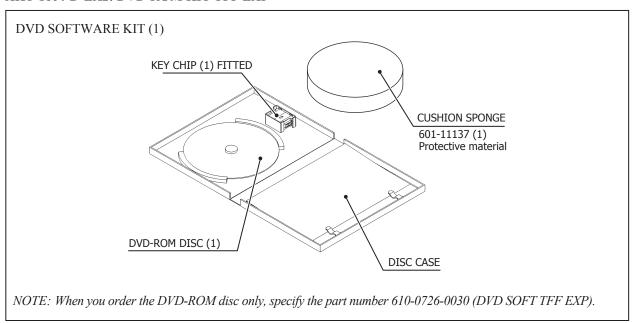
POWER CABLE LM1227 <UK> LM1246 <EURO> For installation, see chapter 6.



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.

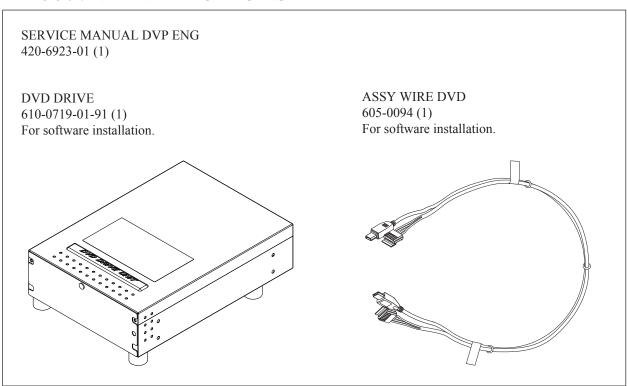
5 TABLE 02

XKT-1604-D-EX2: DVD-ROM KIT TFF EXP



5 TABLE 03

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



6a ASSEMBLY AND INSTALLATION

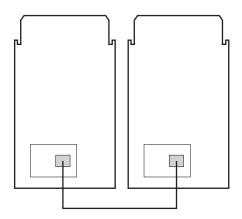
WARNING

- 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.

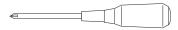
Network Cable Connection Overview



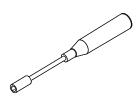
6a FIG. 01

Tools necessary for work

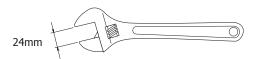
- Philips screwdrivers (for M4)



- Hexagonal screwdriver (for M4 hexagon bolts and nuts)



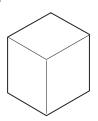
- Spanner with measuring distance of 24 mm to opposite side



- Master key



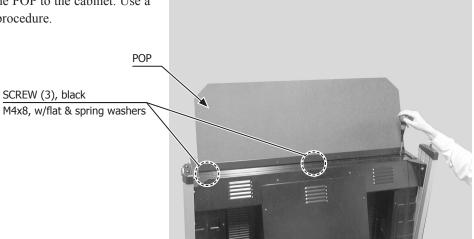
- Step



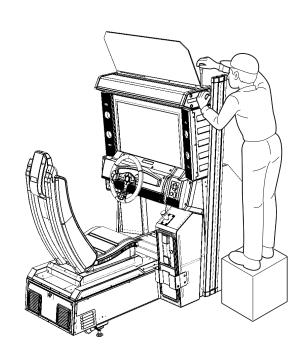
6-1 INSTALLING THE CABINET

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

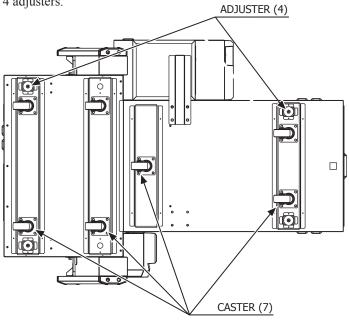


6a-1-1 FIG. 02 For performing work, prepare a step.

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.

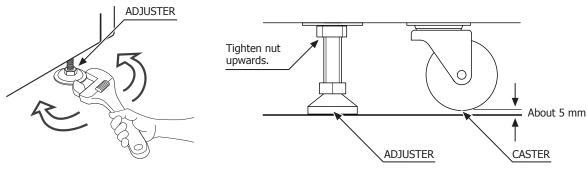
This product has 7 casters and 4 adjusters.



6a-1-2 FIG. 01 BOTTOM VIEW

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



6a-1-2 FIG. 02







6a-1-2 FIG. 03



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.



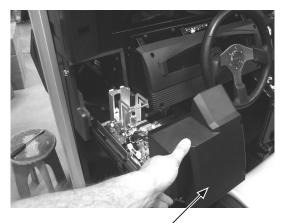
Remove the truss screw.

KEY 220-5575UK (1)

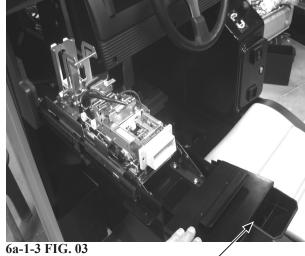


Unlock the CARD R/W drawer

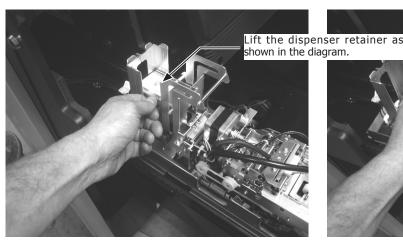
6a-1-3 FIG. 01

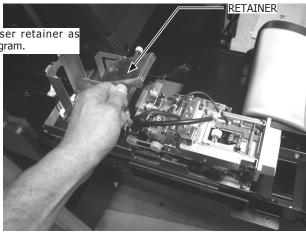


Once unlocked, pull the drawer out slowly to reveal the CARD R/W ASSY



Drop down the facia to make access easier.



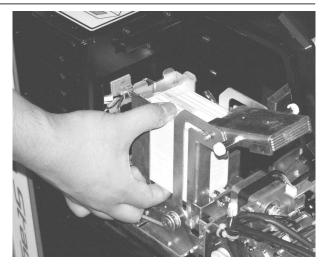


6a-1-3 FIG.04 6a-1-3 FIG. 05

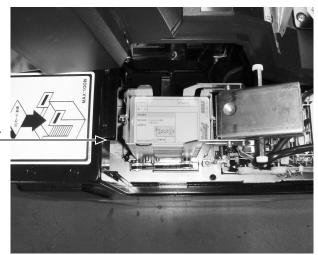
6a-1-3 FIG. 02

4

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..

6a-1-4 ATTACHING THE KEY CHIP

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.

STICKER

844-0014D-12



6a-1-4 FIG. 03

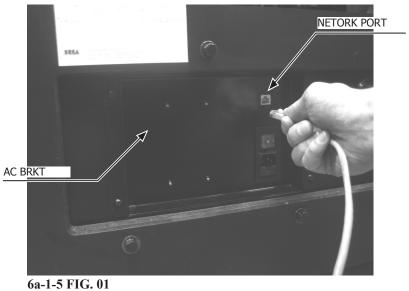
Unlock.

TAIL LID

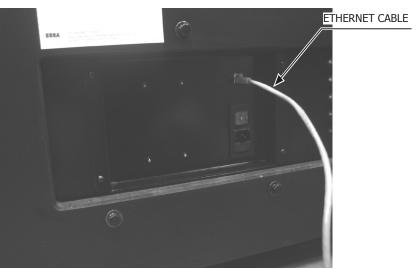
Attach the tail lid, lock it, and fix it in place with the 2 truss screws.

6a-1-5 CONNECTING NETWORK CABLES

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



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

6a

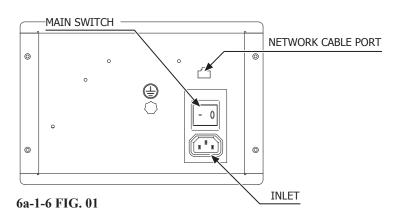
A WARNING

- 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.

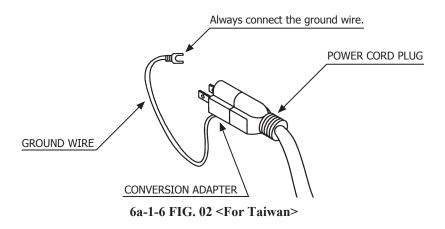
Confirm that the main switch is at OFF.



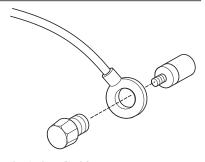
7 Fully insert the power cord connector on the side opposite the power plug into the AC unit inlet.

? 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 boltand-nut combination. Remove the nut and pass the bolt through the ground terminal, then secure the nut to the bolt. <For Taiwan>

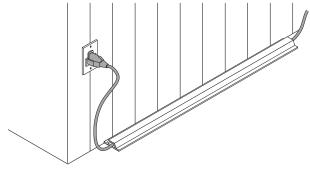


6a-1-6 FIG. 03

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-2 TURNING ON THE POWER (CONNECTING THE DVD DRIVE AND INSTALLING THE SOFTWARE)

Note: The software is installed prior leaving the fatory on all EU machines.

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.

STOP IMPORTANT

- 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 general-purpose parts. If this is the case, SEGA cannot repair or replace a failed kit whether or not a warranty period has expired.

6a



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.



STOP IMPORTANT

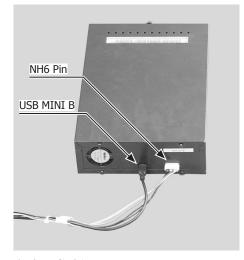
- The software is already installed on to the Game Board (LINDBERGH) before leaving the factory. If for any reason the software requires re-installation, then please follow the instructions herein.
- After the power supply is engaged, wait for "Error 22" message to be displayed. If the product is indiscriminately 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

2

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

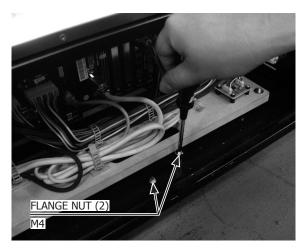
Remove the two truss screws, and use the master key to unlock the tail lid and remove it.



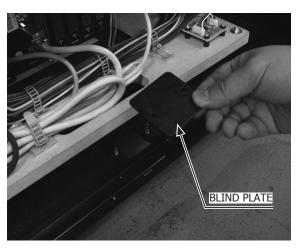


6a-2 FIG. 03

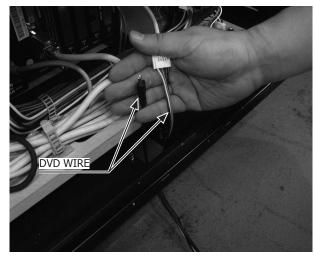
Remove the 2 flange nuts, and take off the blind plate.





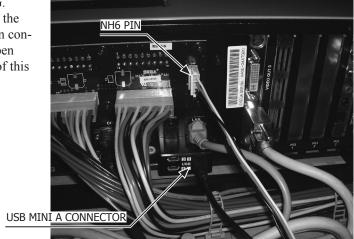


Pass the DVD wires into the interior of the cabinet from the area where you removed the blind plate.



6a-2 FIG. 06

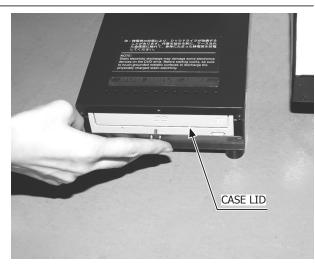
Connect the DVD wire to the LINDBERG.
Connect the NH6 pin to the connectors on the side with the "LINDBERGH" tag. You can connect the USB MINI A connector to any open port, but port 1 will be used for purposes of this document.



6a-2 FIG. 07

- 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".

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.
- 13 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.
- **16** 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 DVD wire from the DVD DRIVE.

- **20** Remove the blind panel, and then remove the DVD wire from the LINDBERGH.
- 71 Fix the blind panel in place with 2 flange nuts.
- Attach the DVD DRIVE case lid and fasten it with 1 urea screw.
- Store the DVD DRIVE, DVD wire and DVD DRIVE kit in a location free of dust and cigarette smoke.

6a-3 INSTALLATION SETTINGS



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

- COIN CHUTE TYPE: COMMON COMMON COMMON

• 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.

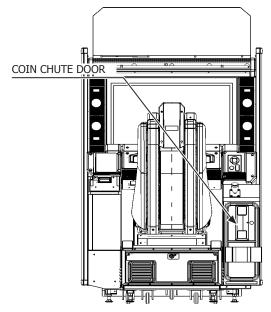
6b TEST MODE

6b-1 SWITCH UNIT

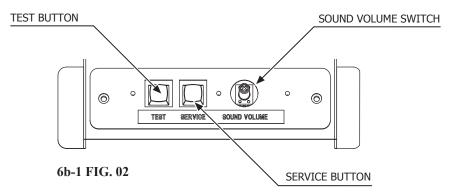


Be sure to move the seat to the rear position before opening the coin chute door.

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



6b-1 FIG. 01



TEST BUTTON: Used in TEST Mode.

Use this to select items and move to the next screen during TEST Mode.

SERVICE BUTTON: Gives credits without registering on the coin meter.

Use this to move the cursor during TEST Mode.

SOUND VOLUME SWITCH: Adjusts the sound volume of the speakers.

6b-2 SYSTEM TEST MODE



- 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



- 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.

GAME TEST MODE

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

SELECT WITH SERVICE BUTTON
AND
PRESS TEST BUTTON

6b-3-1 FIG. 01

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

9 Press the TEST Button to enter the selected item.

INPUT TEST: Test each input OUTPUT TEST: Test each output

FORCE FEEDBACK: Set the STEERING resistance

INPUT ASSIGNMENTS: Adjust input settings
GAME ASSIGNMENTS: Adjust game settings
PASSWORD CONFIRMATION: Password entry screen

IC CARD R/W & PRINTER TEST: Test card reader/writer functions

(data reading/writing, stocking and printing cards)

IC CARD RESTORATION: IC card restoration mode

NETWORK TEST: Test the network

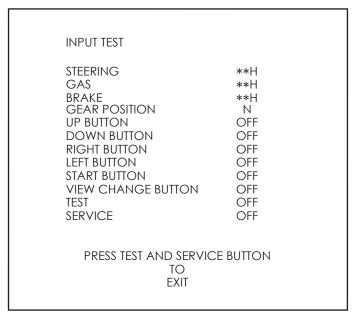
CLOSE SETTING: Adjust store closing settings
BOOKKEEPING: View game backup data
BACKUP DATA CLEAR: Clear game backup data

EXIT: Go back to the System Test Menu

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

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.



6b-3-2 FIG. 01

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.

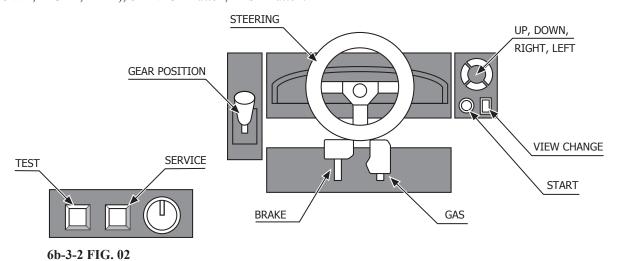
Display N, UP and DOWN using the GEAR POSITION. N should display there is no control input. Verify that both UP and DOWN display in sync with the position of the gear shifter.

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-3-3 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.

OFF

OFF

OFF

OFF

OFF

OFF

OUTPUT TEST START BUTTON VIEW CHANGE BUTTON UP BUTTON DOWN BUTTON RIGHT BUTTON LEFT BUTTON

-> 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 □ button.

VIEW CHANGE BUTTON: Lights up the □ button.

UP BUTTON: Lights up the □ button.

DOWN BUTTON: Lights up the ○ button.

RIGHT BUTTON: Lights up the ○ button.

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.

```
FORCE FEEDBACK
   (MIN 0: MAX 10: DEFAULT 4)
   FORCE =
        UP
        DOWN
   FORCE TEST (FORCE = **)
        CENTER
                       OFF
        RIGHT
                       OFF
        LEFT
                       OFF
-> EXIT
  SELECT WITH SERVICE BUTTON
             AND
       PRESS TEST BUTTON
```

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.

6b-3-5 INPUT ASSIGNMENTS

Select INPUT ASSIGNMENTS to display the following screen.

INPUT ASSIGNMENTS

STEERING **H

GAS PEDAL **H

BRAKE PEDAL **H

-> EXIT

SELECT WITH SERVICE BUTTON

AND

PRESS TEST BUTTON

6b-3-5 FIG. 01

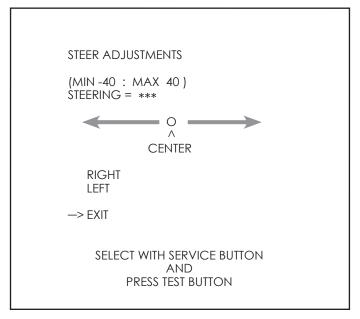
**H displays one of 256 different values for each input control from 00H to FFH. [0.1.2.3.4.5.6.7.8.9.A.B.C.D.E.F]

STEERING: Adjust the centering of the STEERING control.

GAS PEDAL, BRAKE PEDAL: Adjust the GAS and BRAKE pedals.

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 "^" 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.

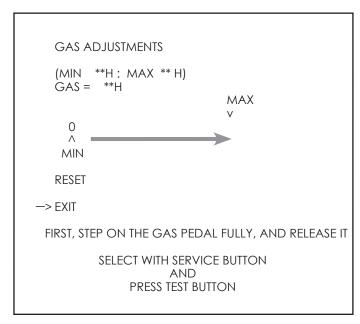
Move the cursor to LEFT and press the TEST Button to move the "0" to the left. Each time you press the TEST Button, "0" moves slightly to the left.

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.



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.

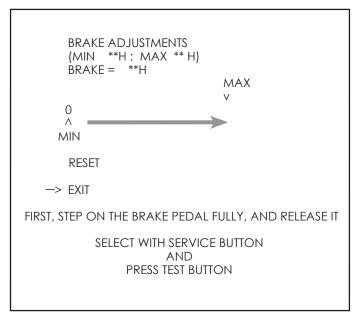
Move the cursor to RESET and press the TEST Button to reset MAX and MIN.

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 "1P" or "2P" (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.

6b-3-7 PASSWORD CONFIRMA-

Select PASSWARD CONFIRMATION to display the following screen.

PASSWORD CONFIRMATION

INPUT PASSWORD: *******

CONFIRM -> EXIT

RESULT: ---

SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON

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.



- 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
 -> EXIT
  UNIT STATUS: ---
  UNIT RESULT: ---
  SENSOR(PT1)
                         : OFF
  SENSOR(PT3)
                         : OFF
  SENSOR (PT4)
                         : OFF
  SENSOR (PT5)
                         : OFF
  SENSOR (PT6)
                         : OFF
  SENSOR (DISPENSER)
                         : OFF
  SENSOR (SHUTTER 1)
                         : OFF
  SENSOR(SHUTTER2)
                         : OFF
SELECT WITH SERVICE BUTTON
           AND
     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.

```
IC CARD RESTORATION

SELECT ACCESS CODE: [****-****-***** (*/*)]
RESTORE
EXIT

STATUS: ---
RESULT: ---

SELECT WITH SERVICE BUTTON
AND
PRESS TEST BUTTON
```

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

communicating normally.

BAD: The other cabinet's seat number is set to SINGLE, or the two cabinets are assigned to the

same seat number.

If this message appears even though the seat numbers are assigned correctly, check the

cable connection, etc.

N/A: Displayed if the CURRENT SEAT NUMBER is set to SINGLE.

CHECKING...: Check in progress.

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

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.

CLOSE SETTING

SCHEDULE TYPE OFF

 \rightarrow EXIT

SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON

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.

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.

SCHEDULE TYPE WEEK

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

```
CLOSE SETTING
    SCHEDULE TYPE
                   WEEK
           CLOSE
    SUN
            24:00
    MON
           24:00
    TUE
            24:00
    WED
            24:00
    THU
            24:00
            24:00
    FRI
    SAT
           24:00
 -> 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.

6b-3-12 BOOKKEEPING

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

BOOKKEEPING 1/3

BOOKKEEPING 1/3	
COIN 1 COIN 2 TOTAL COINS	0 0 0
COIN CREDITS SERVICE CREDITS TOTAL CREDITS	0 0 0
PRESS TEST BUTTON TO CON	ITINUE

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

BOOKKEEPING 2/3 NUMBER OF GAMES 0 FIRST PLAY / CONTINUE NUMBER OF KOUDOU 0 / Ω NUMBER OF TIME ATTACK 0 / 0 NUMBER OF IN-STORE VS 0 / 0 NUMBER OF CARD SELL 0 NUMBER OF CARD PLAY Ω NUMBER OF CAR ADDITION 0 PRESS TEST BUTTON TO CONTINUE

6b-3-12 FIG. 02

View the number of times the game has been played.

NUMBER OF GAMES: The total number of games played

NUMBER OF KOUDOU: The number of "Legend of the Streets" plays

NUMBER OF TIME ATTACK: The number of "Time Attack" plays NUMBER OF INSHOP VS: The number of "In-store Battle" plays

NUMBER OF CARD SELL: The number of cards sold

NUMBER OF CARD PLAY: The number of games played using cards

NUMBER OF CAR ADDITION: 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	OM OS	
PLAY TIME HISTOGRAM		
0M00S ~ 0M59S 1M00S ~ 1M59S 2M00S ~ 2M29S 2M30S ~ 2M59S 3M00S ~ 3M29S 3M30S ~ 3M59S 4M00S ~ 4M29S 4M30S ~ 4M59S 5M00S ~ 5M29S 5M30S ~ 5M59S 6M30S ~ 6M29S 6M30S ~ 6M59S 7M00S ~ 7M29S 7M30S ~ 7M59S 8M00S ~ 8M29S 8M30S ~ 8M59S 9M00S ~ 9M29S 9M30S ~ 9M59S 10M00S~10M29S OVER 10M30S		
PRESS TEST BUTTO	ON TO EXIT	

6b-3-12 FIG. 03

View gameplay times.

TOTAL TIME:
PLAY TIME:
AVERAGE PLAY TIME:
LONGEST PLAY TIME:
The total play time
The average play time
The longest play time
The 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.

BACKUP DATA CLEAR

YES (CLEAR)

-> NO (CANCEL)

SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON

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

—> YES (CLEAR) COMPLETED

SELECT WITH SERVICE BUTTON AND PRESS 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

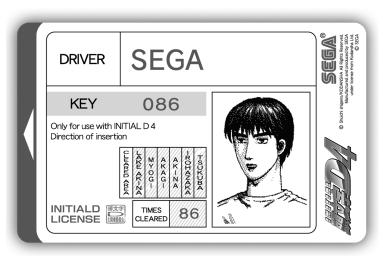
Initial D License (IC Card)

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 ∞ 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

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

5

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.



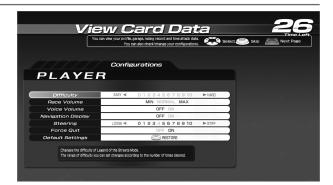
7-2 FIG. 06



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 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 end a race by pressing the Start and View Change Buttons at the same time. NOTE: Only possible in "Legend of the Streets" and "Time Attack" modes.
Default Settings:	Return all settings on the page to their default values.

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

8

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

9

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

10

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."

11

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



7-2 FIG. 14



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. 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.

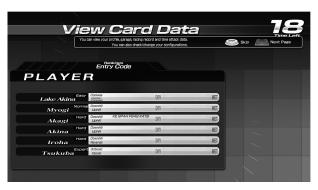
Internet Rankings



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.



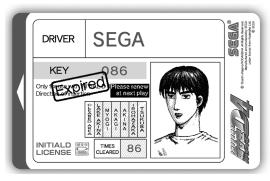
7-4-1 FIG. 01 Initial D License Renewal Instructions Screen



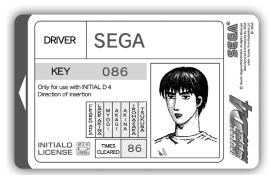
7-4-1 FIG. 02 Initial D License Renewal Screen

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

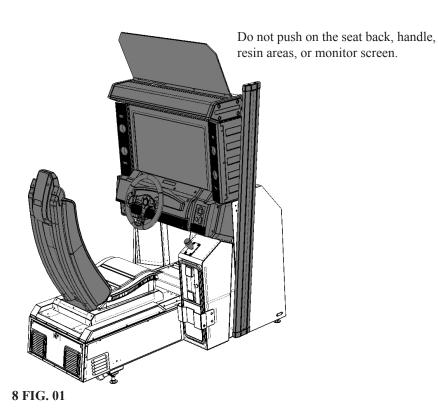
Press the Start and View Change Buttons to try writing to the card again.

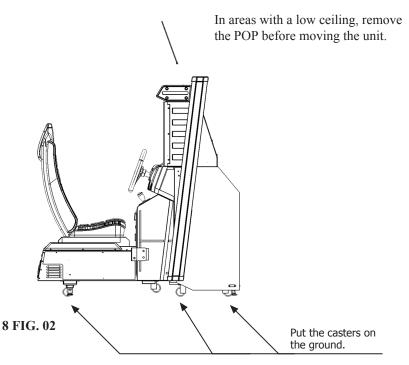
If the license fails to renew after 3 tries, the screen switches to the normal read error message and the restoration process is aborted. (See Chapter 3.)

8 PRECAUTIONS WHEN MOVING THE MACHINE

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.





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

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.

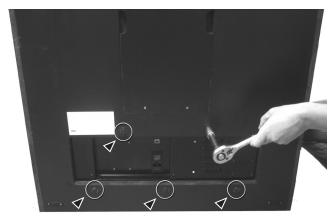
This operation must be carried out by 2 personnel. The are some instances in which by working with one person alone can cause personal injury or parts damage.

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.

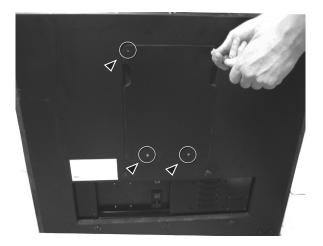
Provide sufficient space in which to carry out this operation. Do not perform this operation in places where there is a gradient difference as on a slope or ditch. This can cause personal injury and damage to the product.

✓ Locate and remove the 5x 13mm hex bolts positioned at the lower rear of the cabinet.



Hex bolt M8x30

Locate and remove the 4x 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 (7mm) socket tool.



Torx Security M4x35



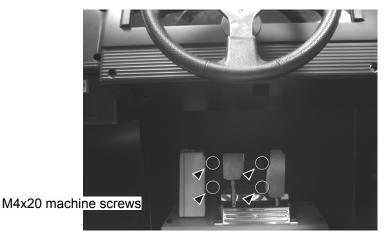
Central Connection Housing

Locate and remove the 4x M6x30 socket cap screws positioned within the floor plate. Once the screws have been removed, lift out the floor plate and safely store.

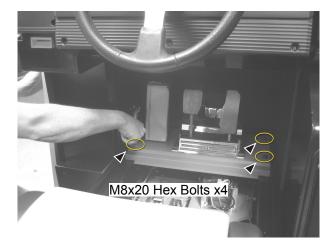


Lift out the floor plate

Locate and remove the 4x M4x20 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 4x M8x20 Hex bolts which secure the Accel Brake plate. Disconnect the Accel Brake assembly, remove and store in a safe place.

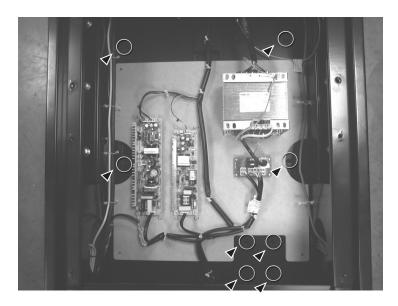


Locate and remove the 6x M8x35 Hex Bolts (3 each side) which secure the Base cabinet to the Display cabinet.

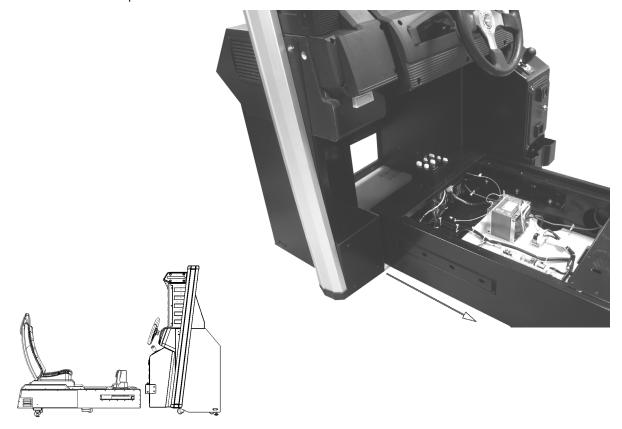


M8x30 Hex Bolts x6

The Locate and remove the 8x M8x35 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.



9 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).

1

Switch off the unit.

2

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



9-1 FIG. 01

CONTROL PANEL UPPER COVER



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.

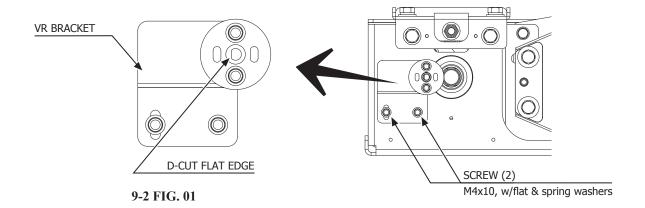


9-1 FIG. 04

9-2 ADJUSTING/REPLACING THE VOLUME

Adjustment Procedure

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



- 2 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 80H±8H 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

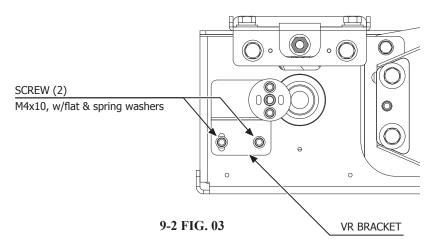
When replacing the volume, you will also need to prepare three lengths of heat-shrinkable tubing (Part No.: 310-5029-F20), as well as use the wires that are already soldered onto the volume. For this task, you will need a Phillips-head screwdriver (for M4 screws), a 2 mm hexagon wrench, an 11 to 12 mm adjustable wrench, wire cutter, knife, wire stripper, soldering iron, and work dryer.

Detach the connector.

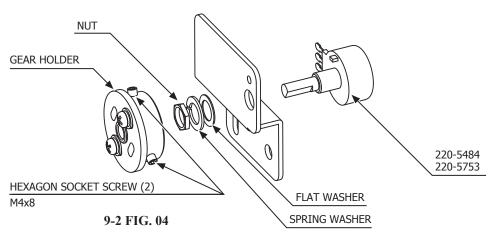
WHITE 3P

9-2 FIG. 02

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



2 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).
- 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.
- 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.
- 12 Reattach the connector.
- 13 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 80H±8H 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).

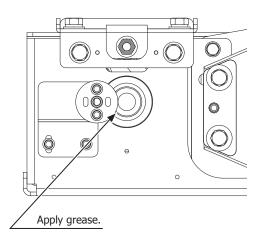
9-3 GREASING



IMPORTANT

- 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).

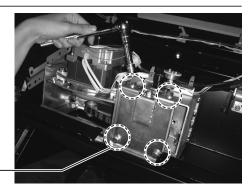


9-3 FIG. 01

9-4 STOPPER RUBBER REPLACEMENT

Refer to the section "9-1 Opening the Control Panel", and open the control panel.

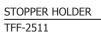
Remove the 4 bolts, then remove stopper holder (TFF-2511).

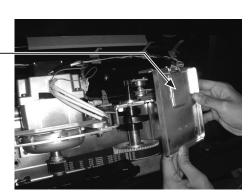


HEXAGON BOLT (4)

M8x40, w/flat washer

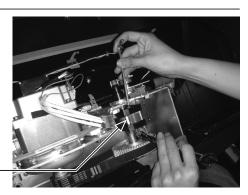
9-4 FIG. 01





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.



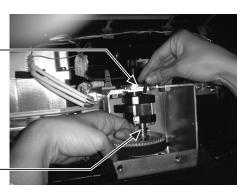
STOPPER RUBBER S

TFF-2508

9-4 FIG. 03

HEXAGON SOCKET SCREW (1), black

M6x12, w/spring washer



STOPPER BOLT S

TFF-2507

9-4 FIG. 04

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.

Switch off the unit.

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

TAMPERPROOF SCREW (4), black M4x10



9-5 FIG. 01

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

Detach connectors.

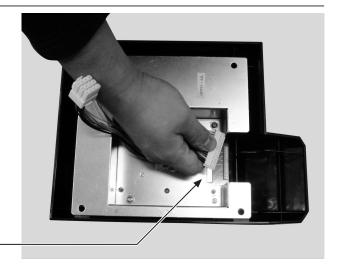
INPUT SWITCH COVER



9-5 FIG. 02

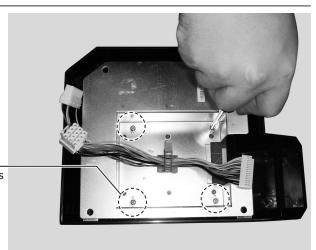
4

Detach connector.



Detach connector.

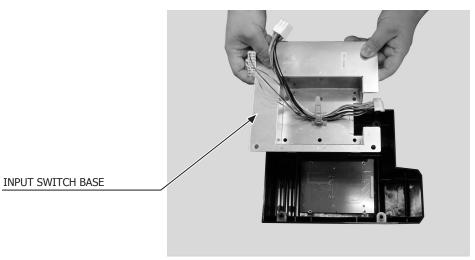
Remove the four screws and lift the input switch base.



SCREW (4)

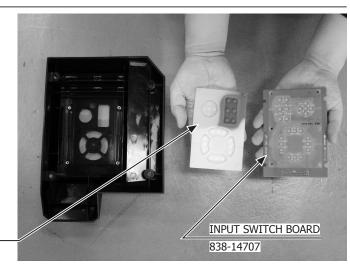
M4x10, w/flat & spring washers

9-5 FIG. 04



9-5 FIG. 05

Remove the input switch rubber and board.



INPUT SWITCH RUBBER

TFF-1502

9-5 FIG. 06

10 SHIFT LEVER

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.
- 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.

TAMPERPROOF SCREW (4) M5x10



10-1 FIG. 01

Detach the connector and remove the shift lever



Detach the connector.

10-1 FIG. 02

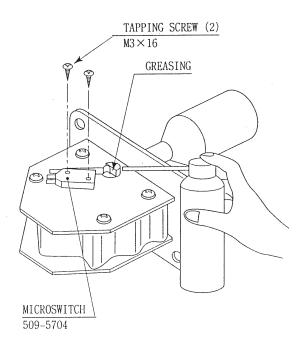
To reattach the unit, reverse the steps described above. The unit must be installed in the correct direction. Be sure to check the UP/DOWN indicator and align the unit correctly (see 10-1 FIG. 01). After reattaching the unit, use the INPUT TEST screen in Game Test Mode to check that it is operating normally (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).

- 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



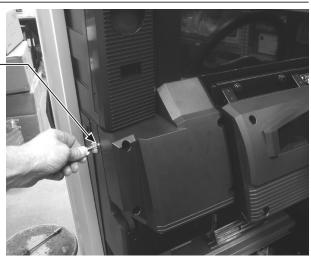
- Be sure to use dedicated cards available for this product. Use of ones other than such dedicated cards may cause a malfunction or failure of the machine.
- Be sure to set the specified number of card in the specified orientation by using the specified procedure. Wrong setting of the cards may cause 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.

1

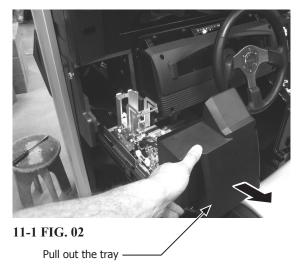
Unlock the Card R/W tray

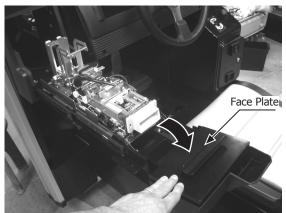
Punch Lock



11-1 FIG. 01

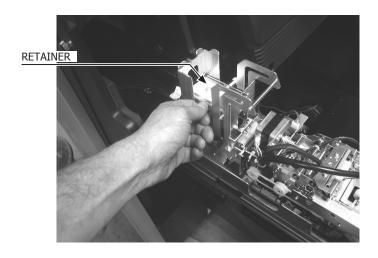
Once unlocked, slide the drawer mechanism forwards to reveal the Card R/W unit. Lower the Face plate to gain better access when servicing.





11-1 FIG. 03

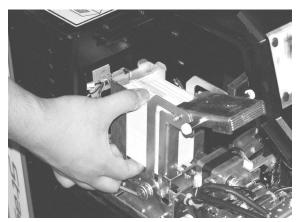
2 Lift the dispenser retainer as shown in the diagram.

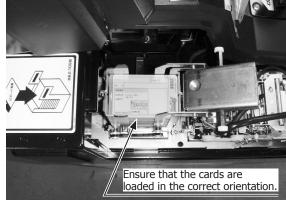


11-1 FIG. 04



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

5

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.

11-2 CLEANING



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.

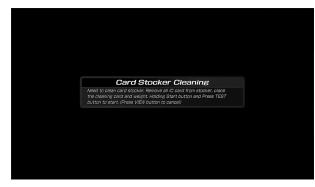


11-2 FIG. 02

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.

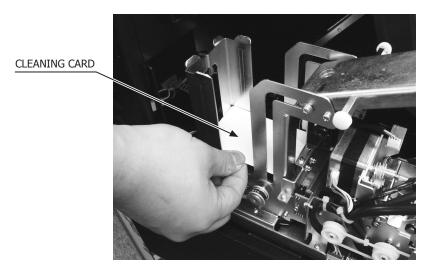
When the Number of New Cards Issued Exceeds 200

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.

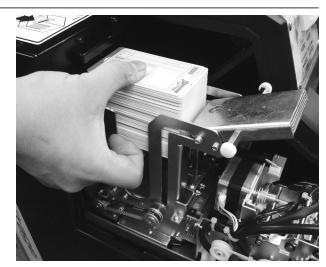
NOTE: Be sure to use a new cleaning card when cleaning the stocker rollers.

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

```
IC CARD R/W & PRINTER TEST
       RESET UNIT
       CHECK CARD
       CHECK PRINTER
       CHECK STOCKER
        CLEAN ROLLER
       CLEAN STOCKER
       ERASE PRINT
     ->EXIT
UNIT STATUS: ---
UNIT RESULT: ---
SENSOR(PT1)
                       :OFF
SENSOR (PT3)
                       :OFF
SENSOR (PT4)
                       :OFF
SENSOR (PT5)
                       :OFF
SENSOR (PT6)
                       :OFF
SENSOR (DISPENSER)
                       :OFF
SENSOR (SHUTTER 1)
                       :OFF
SENSOR (SHUTTER2)
                       :OFF
     SELECT WITH SERVICE BUTTON
                 AND
           PRESS TEST BUTTON
```

11-2 FIG. 05

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

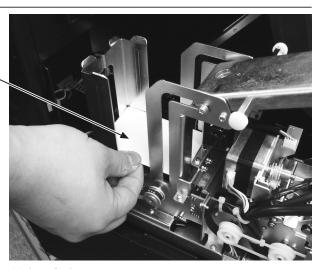


11-2 FIG. 06

4

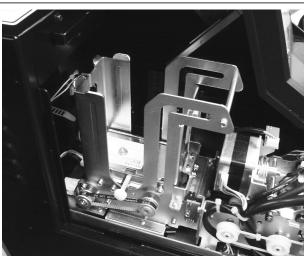
Insert a new cleaning card.

CLEANING CARD



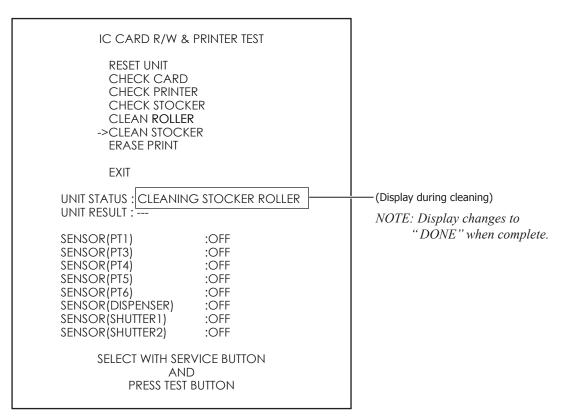
11-2 FIG. 07

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

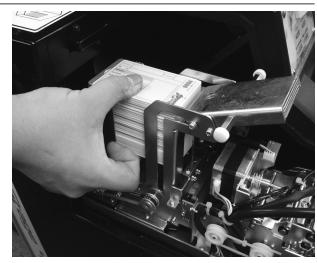
Lift the retainer, and remove the cleaning card. Check that the rollers are no longer dirty.

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

Repeat steps 1 through 3 in "7-1 Setting Dedicated Cards" in reverse order and attach the cover.

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 R/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

11-3 CLEARING CARD JAMS

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)

1

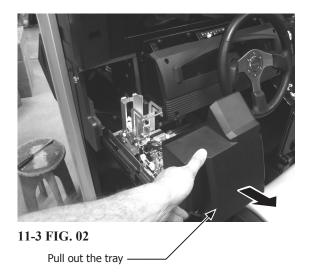
Unlock the Card RW drawer.

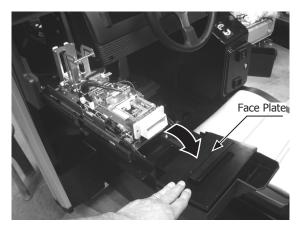
Punch Lock



11-3 FIG. 01

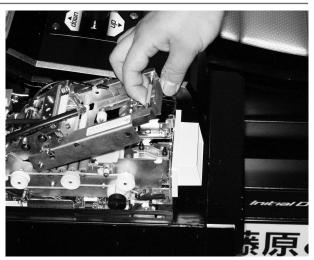
Once unlocked, slide the drawer mechanism forwards to reveal the Card R/W unit. Lower the Face plate to gain better access when servicing.





11-3 FIG. 03

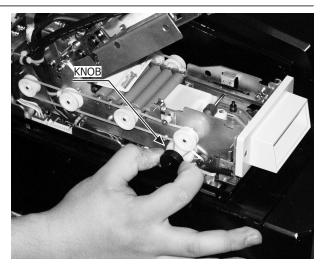
Pulling on the green shaft attached to the card R/W unlocks the hatch lock. Remove the hatch while pulling the green shaft.



11-3 FIG. 04

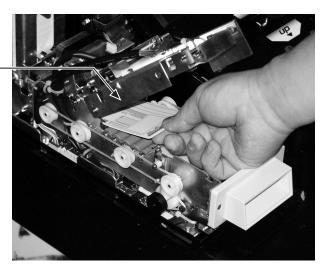


Turn the knobs to remove the stuck card.



11-3 FIG. 05

Remove the stuck card.



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

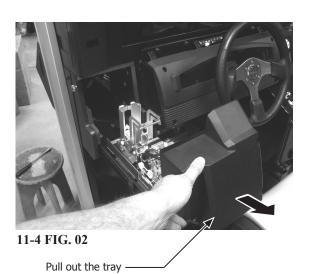
Unlock the Card R/W drawer.

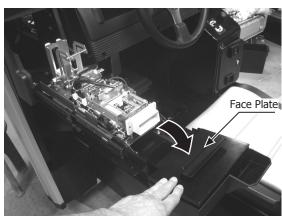
Punch Lock



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.



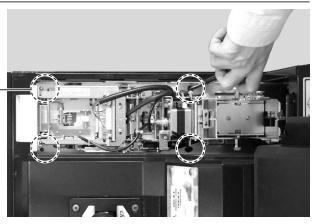


11-4 FIG. 03

Remove the 4 screws.

SCREW (4), black

M4x8, w/flat & spring washers



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.

Remove the connectors.

CARD R/W UNIT

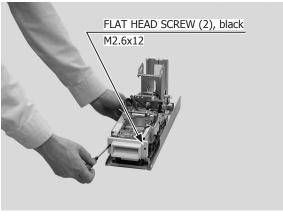


CAP

11-4 FIG. 06

CARD R/W UNIT

After you remove the 2 flat head screws and the cap, you can exchange the card R/W unit.











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)

- Select IC CARD RESTORATION from the GAME TEST MODE screen in Test Mode.
- 2 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.

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.

12-1 ADJUSTING/REPLACING THE VOLUME

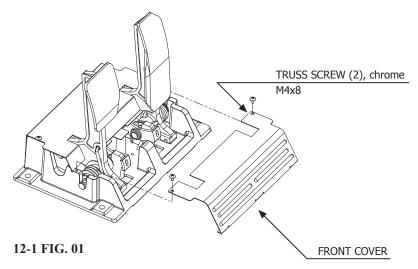
When the accelerator pedal is not being pressed, the accelerator volume should have a value of 30H or less. When the pedal is being pressed, the value should be C0H or greater.

When the brake pedal is not being pressed, the value should be 35H or less. When the pedal is being pressed, it should be D0H 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.

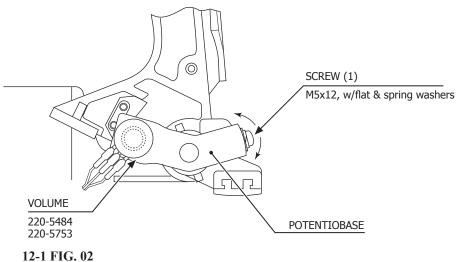
For this task, you will need a Phillips-head screwdriver (for M4, M5 screws).

Adjusting Procedure

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



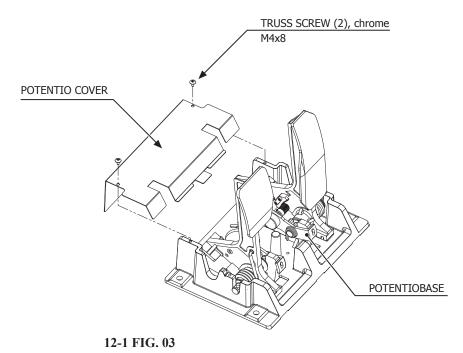
O Loosen the single screw that secures the potentiobase, and move the base to adjust the volume values.



- **3** Secure the potentiobase.
- Configure the volume values on the INPUT ASSIGNMENTS screen in Game Test Mode (see Service Manual).
- Check that the values change smoothly in response to pedal input.

Replacing the Volume

- Switch off the unit.
- **9** Remove the two screws and lift off the potentio cover.



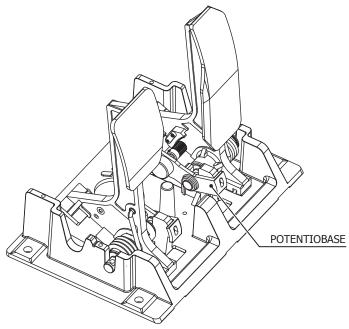
- 2 Detach the connector from the volume to be replaced.
- Remove the single screw that secures the potentiobase (see 12-1 FIG. 02).
- Without detaching the volume, remove the potentiobase (see 12-1 FIG. 03).
- Remove the base and gear from the volume, and replace it.
- After replacement, configure the volume as described above in "Adjusting Procedure"
- When you have finished, check that the values change smoothly in response to pedal input.

12-2 GREASING



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



- 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.).

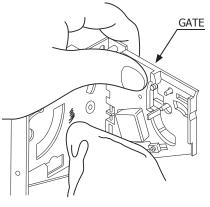


FIG. 13a

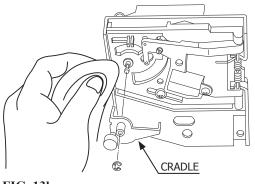


Remove and clean smears by using a soft cloth dipped in water or diluted chemical detergent and then squeezed dry.

5

Remove the CRADLE.

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



- FIG. 13b
- Remove stain from the rotary shaft and shaft receiving portions by wiping off with a soft cloth, etc.
- 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?

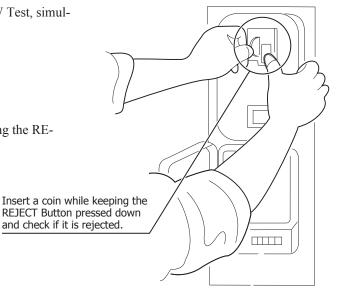


FIG. 13c

Adjusting the Price of Play

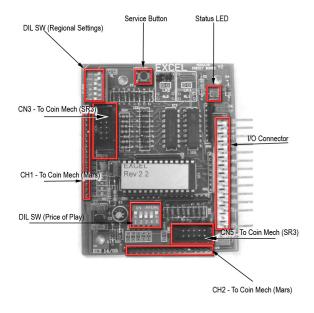
This product comes equiped with a Money Controls SR3 Coin Acceptor. To adjust the price of play ALL credit setting are adjusted via the EXCEL CREDIT BOARD.

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

used and currency. Default = SW1&SW2 ON - SR3 in

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.

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	C120/SR3 Only	COIN10 COIN11 COIN12				1	ı							25Pta old			Please Note The credit board automatically sets the validator for parallel and binary operation through an output on pin 8 of the 17 way pinstrip. For the feature to work it is necessary for the validator interconnecting cable to include at wire at this position			
	C120/S	COIN10				1	1							50Pta old			alidator for 17 way pir erconnectin ition			
		6NIO0				1	50p old							1			Please Note cally sets the valida on pin 8 of the 17 v he validator intercor wire at this position			
		COIN8	-	53	50p old	50p old	1						25Pta old	200Pta	25Pta old	ı	Itomatically output on price vision for the vision for vision for the vision for vision			
		COIN7	-		1	1	1						50Pta old	1		ı	dit board au hrough an is necessal			
	ng	9NIO0	20p old	50p old	53	£2	1	50p old					200Pt old	1	50Pta old	ı	The crec operation t to work it			
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tings Swit	/alidator F	COIN4	10p	10p	10p	10p	20p 20¢	10p	13	5BFr	1NLG	1Sch	50Pta	50Pta	25Pta new	ı				
Credit Board Mode Settings Switch 3	Coin	COIN3	20p	20p	20p	20p	50p new 50¢	20p	50p	20BFr	2.5NLG	5Sch	100Pta	100Pta	ı	50Es				
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		COIN1	£1	£1	£1	£1	£2 €2	£1	10p		-	20Sch	500Pta	500Pta	100Pta	200Es €1	TBA	TBA	Direct Mode	2 channel Mode
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	g																OFF	NO		
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	S	SW2	OFF	OFF	o O	8 O	OFF	OFF	N O	N O	OFF	OFF	N O	o O	OFF	OFF				
		SW1	OFF	NO	OFF	NO	OFF	NO	OFF	NO	340	NO	OFF	NO	OFF	NO				
	Setting		Coin Controls C220 Parallel	Coin Controls C220 Binary	Coin Controls C220 Binary	Coin Controls SR3 Parallel	Coin Controls SR3 Parallel	Mars ME/MS 111 Parallel	NRI Parallel	Parallel	Parallel	SR3 Parallel	Coin Controls C220 Binary	SR3/NRI Parallel	Coin Controls C220 Parallel	Parallel	TBA		Channels	
	Country		UK	Ž	ž	J	Euro	Ϋ́	ž	Belgium	Holland	Austria	Spain	Spain	Spain	Portugal Euro				

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.

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	0												00										50p	50p	50p	50p	50p = 50p 50p	50p = 50p 50p	50p = 50p = 50p = 50p	50p = 50p = 50p	50p = 50p = 50p
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DIL	2	OFF	OFF	NO	NO	OFF	OFF	NO	NO	OFF	OFF	NO	NO	OFF	OFF	NO	NO	OFF	OFF	NO	NO	OFF	OFF	NO	NO	OFF	OFF	NO	NO	OFF	OFF	NO	NO
	_	OFF	NO	OFF	NO	OFF	NO	OFF	NO		NO	OFF	NO	OFF	NO	OFF		OFF		OFF	NO	OFF	NO	OFF			NO	OFF	NO	OFF	NO	OFF	NO
			€2 = 24 plays @ 8.33¢ per play		per play	€2 = 6.66 plays (€2 = 8 plays @ 25¢ per play	ϵ 2 = 8 plays @ 25¢ per play (0)	ıy		€2 = 6 plays @ 33.33¢ per play	- plays	t per play			€2 = 4 plays @ 50¢ per play (0)		8		per play	€4 = 5 plays @ 80¢ per play		er play		$\epsilon = 3$ plays @ $\epsilon 1.66$ per play		@ €2.50 per play	ϵ 10 = 2 plays	€10 = 3 plays @ 3.33¢ per play	Н	€10 = 2 plays @ €5 per play	€30 = 3 play (
Bonus		€1 = 10 plays	€1 = 12 plays @ 8.33¢ per play	€1= 5 plays	€1 = 6 plays @ 16.66¢ per play	€1 = 3.33 plays	€1 = 4 plays @ 25¢ per play	€1 = 4 plays @ 25¢ per play	€1 = 3 plays @ 33.33¢ per play	€1 =	€1 = 3 plays @ 33.33¢ per play	€1	€1 = 3 plays @ 33.33¢ per play		€1 = 1.66 plays	€1 = 2 plays @ 50¢ per play	€1 = 1.25 plays	€1.50 = 2 plays @ 75¢ per play	€1 = 1 play	€1 = 1 play	€2 = 2 plays	€1 = 0.66 plays	€1 = 0.66 plays	€1 = 0.5 play	€1 = 0.5 play	€1.50 = 0.5 play	€1.50 = 0.5 play	€5 = 1 play	€5 = 1 play	€10 = 1.33 plays	€10 = 1.33 plays	€20 = 2 play	Free Play
		$50\phi = 5 \text{ plays}$	$50\phi = 6$ plays @ 8.33p per play	50¢ = 2.5 plays	50¢ = 3 plays @ 16.66¢ per play	50¢ = 1.66 plays	50¢ = 1.66 plays	50¢ = 2 plays @ 25¢ per play	50¢ = 2 plays @ 25¢ per play	50¢ = 1.25 plays	50¢ = 1.25 plays	50¢ = 1 play	50¢ = 1 play	50¢ = 1 play	50¢ = 0.83 play	50¢ = 0.83 play	50¢ = 0.62 play	£1 = 1.25 plays	$2x50\phi = 1 \text{ play}$	$2x50\phi = 1 \text{ play}$	2x50¢ = 1 play	3x50¢ = 1 play	$3x 50\phi = 1 \text{ play}$	$4 \times 50 \phi = 1 \text{ play}$	4x 50¢ = 1 play	$6x50\phi = 1 \text{ play}$	$6x50\phi = 1 \text{ play}$	€1 = 0.2 play	€1 = 0.2 play	€5 = 0.66 play	€5 = 0.66 play	€10 = 1 play	
Price		10¢	10¢	20¢	20¢	30¢	30¢	30¢	30¢	40¢	40¢	20¢	20¢	20¢	⊅ 09	 Ф09	¢08	¢08	€1	€1	€1	€1.50	€1.50	€2	€2	€3	€3	€2	€2	€7.50	€7.50	€10	
		7	2	3	4	2	9	7	∞	6	10	1	12	13	14	15	16	17	18	19	20	21	22	23	24	22	26	27	28	29	30	31	32

SELECTING STERLING / EURO OPTION

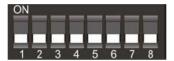
The SR3 coin acceptor (suppied) is programmed to accept UK Stering and the Euro. Factory setting is for the UK Sterling. If the configuration needs to change to the Euro, then please follow the instructions below for chaging over 0 the Euro and visa versa.

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

Switch on the power to the SR3.

Press the reject lever within 20 seconds. The LED will turn RED.

Start entering £1 coins until the LED flashes GREEN, typically after 8 to 10 insertions.

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

Press the reject lever and the LED will turn GREEN. The coin channel has now been programmed. SET ALL SWITCHES TO THE OFF POSITION.

14 MONITOR (LCD DISPLAY)

14-1 SAFETY PRECAUTIONS WHEN HANDLING THE MONITOR

WARNING

Responding to breakdown or abnormality

- If smoke or a strange odor appears, immediately unplug the power cable from the power source.
 - Continuing to use the product may cause a fire or an electric shock. Ensure that smoke is no longer emitted, and contact the point of purchase.
- If nothing displays on the screen, immediately unplug the power cable from the power source.
 - Continuing to use the product may cause a fire or an electric shock. Contact the point of purchase and request an inspection.
- If water or a foreign object enters the monitor's interior, immediately unplug the power cable from the power source.
 - Continuing to use the product may cause a fire or an electric shock. Contact the point of purchase and request an inspection.
- If the monitor is dropped or the cabinet is damaged, immediately unplug the power cable from the power source.
 - Continuing to use the product may cause a fire or an electric shock. Contact the point of purchase and request an inspection.

During operation

- Do not repair, reconstruct, or disassemble the monitor.
 - The monitor's interior contains high voltage parts. A fire or an electric shock could result.
 - For inspections, adjustments, and repair of the monitor's interior, request work from the point of purchase.
- Do not insert foreign objects.
 - If metal objects or flammable materials such as paper are inserted into the interior through ventilation openings or other apertures, an electric shock could result.
- In the event of a thunder storm, do not touch the product or the power cable.

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

14-2 CLEANING THE SCREEN SURFACE

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



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.

M4x10

To view the monitor adjustment board, you should remove the control panel upper cover.

TAMPERPROOF SCREW (4), black

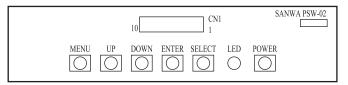
14-3 FIG. 01

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.

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 adjusters are secured	Daily
CARD R/W	Clean stocker section rollers	Every 10 days
CAND N/W	Head cleaning	See "Note" below
	Volume inspection	Monthly
CONTROL PANEL	Inspect engagement of adjust gears	Every 3 months
CONTROL FAIREL	Apply grease	Every 3 months
	Inspect input switches	Monthly
SHIFT LEVER	Apply grease	Every 3 months
ACCELERATOR &	Volume inspection	Monthly
BRAKE	Apply grease to gear and spring parts	Every 3 months
MONITOR	Clean screen	Weekly
MONITOR	Check adjustments	Monthly, or when moved
	Inspect coin switch	Monthly
COINCHUTE DOOR	Coin insert test	Monthly
	Clean coin selector	Every 3 months
SEAT	Apply grease to seat rail section	Every 3 months
GAME BOARD	Confirm setting	Monthly
ELECTRONIC/ELEC- TRICAL PARTS	Inspection, Cleaning	1 year
POWER PLUG	Inspection, Cleaning	1 year
CABINET INTERIOR	Cleaning	1 year
CABINET SURFACES	Cleaning	As appropriate

NOTE: When switching the unit ON/OFF after 200 plays.

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).

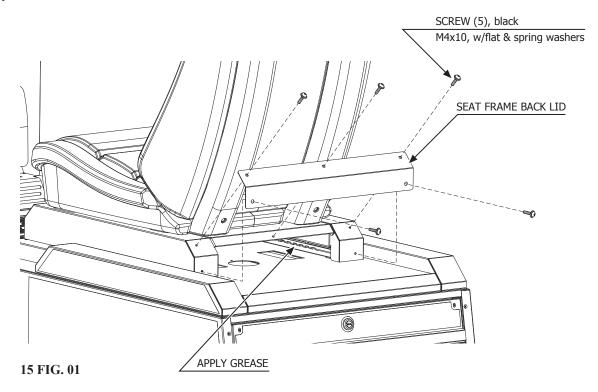
Some general-purpose household, kitchen, and furniture cleaning products may contain strong solvents that degrade plastic parts, coatings, and print. Before using any cleaning product, read the product's cautionary notes carefully and test the product first on a small area that is not highly visible.

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

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

PROBLEMS	CAUSE	COUNTERMEASURES
Colors on the monitor screen are strange.	Faulty connection for the visual signal connector. Screen adjustment is not appro-	Check the visual signal connector connection and make sure it is secured properly. 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. Check the power for the I/O board.
	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).
The steering (servomotor) does not respond correctly or accurately.	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.
	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.
The steering (servomotor) does	Faulty connection.	Check all the connectors leading from the game board to the servo driver and from the servo driver to the servomotor.
not respond at all.	The thermal element in the servo driver has activated.	The thermal element kicks in when the internal temperature reaches approximately 70 °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).
	Volume is not configured correctly.	Configure the volume in test mode (See Service Manual).
Accelerator and brake inputs do	Volume not installed correctly/ Adjust gears not engaged cor- rectly.	Adjust the installation, and confirm in test mode.
not work correctly.	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	Faulty connection.	Check all the connections between the I/O board, the cabinet, and the switch unit.
directional buttons has no effect. The buttons do not flash.	Rubber section is torn.	Check to see if the rubber section inside the switch unit is torn.
The outtons do not mass.	Switch unit is broken.	Contact the dealer where the unit was purchased.
Cannot perform DVD setup. The display stays at the LINDBERGH	DVD drive is broken. Connecting cable is broken.	Check the manual that came with the DVD drive kit.
logo and does not advance to the advertising screen (Error 6).	DVD disc is broken.	Contact the dealer where the unit was purchased.
The display stays at the LIND-BERGH 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	Transmission cables are disconnected. Transmission cables are not connected correctly.	Check that the transmission cable connections are connected inside the cabinet and between the cabinets. Check the LAN connection LED on the LINDBERGH. Reconnect the transmission cables correctly.
function does not work.	Error in the cabinet seat settings (Error Code 6018).	In test mode, confirm that the cabinet seat settings are correctly configured (See Service Manual).
	Transmission cable is broken.	Replace transmission cable. Contact the dealer where the unit was purchased.
	Incompatible card.	In test mode, check the compatibility of the card.
	Error in the card usage settings.	In test mode, check the card usage settings.
Player cannot use IC card.	Data saved to the card is corrupted.	Use card recovery mode and try to restore the card.
	Faulty serial connector.	Check the connector in test mode. Check the connections to the connector.
	IC card unit is broken.	Contact the dealer where the unit was purchased.

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

17 GAME BOARD

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.
- 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.

17-1 REMOVING THE GAME BOARD

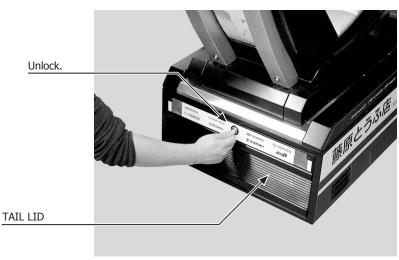
A WARNING

- When returning the game board after making repairs or replacements, make sure that there are no errors in the connection of connectors. Erroneous connections can lead to electrical shock, short circuits or fires.
- When connecting a connector, check the direction carefully. Connectors must be connected in only one direction. If indiscriminate loads are applied in making connections, the connector or its terminal fixtures could be damaged, resulting in electrical shock, short circuits or fires.
- Switch off the main unit.
- Remove the two truss screws, open the lock, and detach the tail lid.



TRUSS SCREW (2), black M4x8

17-1 FIG. 01



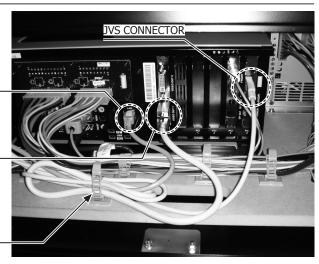
17-1 FIG. 02

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.

TRANSMISSION CABLE

D-SUB CONNECTOR

Undo cord clamp.



17-1 FIG. 03

4

Detach the connector.

Detach the connector.
VL WHITE 3P

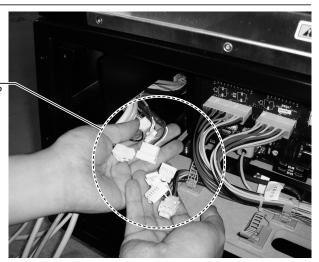


17-1 FIG. 04

5 Detach the four connectors.

Detach the connectors.

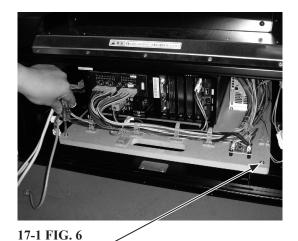
YL WHITE 4P, SM WHITE 4P, SM WHITE 5P, SM WHITE 8P

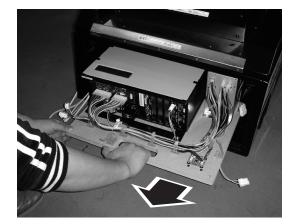


17-1 FIG. 05

6

Using a short screwdriver, remove the two screws that secure the base (wooden board). Remove the base with the game board still attached from the cabinet. Be careful not to damage any wires when doing so.





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.



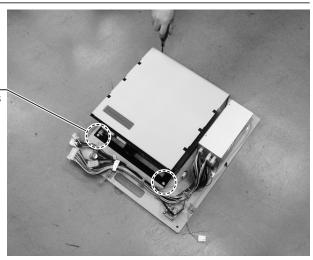
Detach the connectors.

17-1 FIG. 8

Remove the four screws and detach the game board.

SCREW (4)

M4x12, w/flat & spring washers



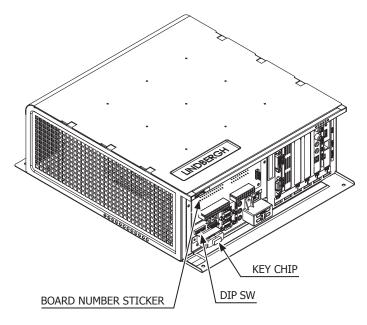
17-1 FIG. 9

17-2 COMPOSITION OF GAME BOARD



- 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.

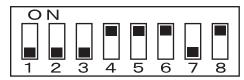
ASSY CASE LBG L 1GB TFF EXP (844-0014D-12)



17-2 FIG. 01

DIP SW Setting

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



17-2 FIG. 02

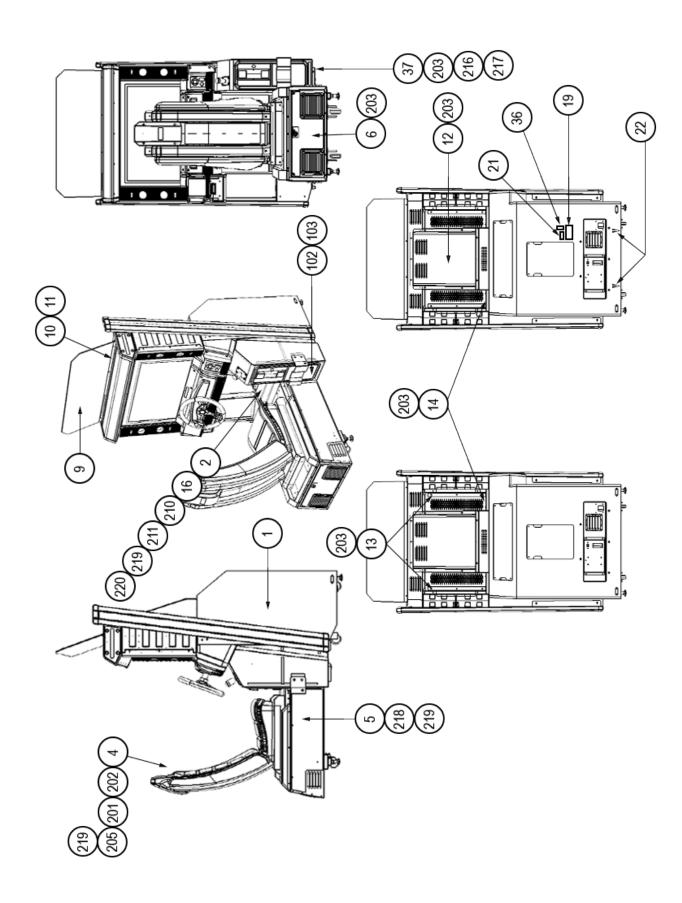
18 DESIGN-RELATED PARTS

For the warning display stickers, refer to Section 1.



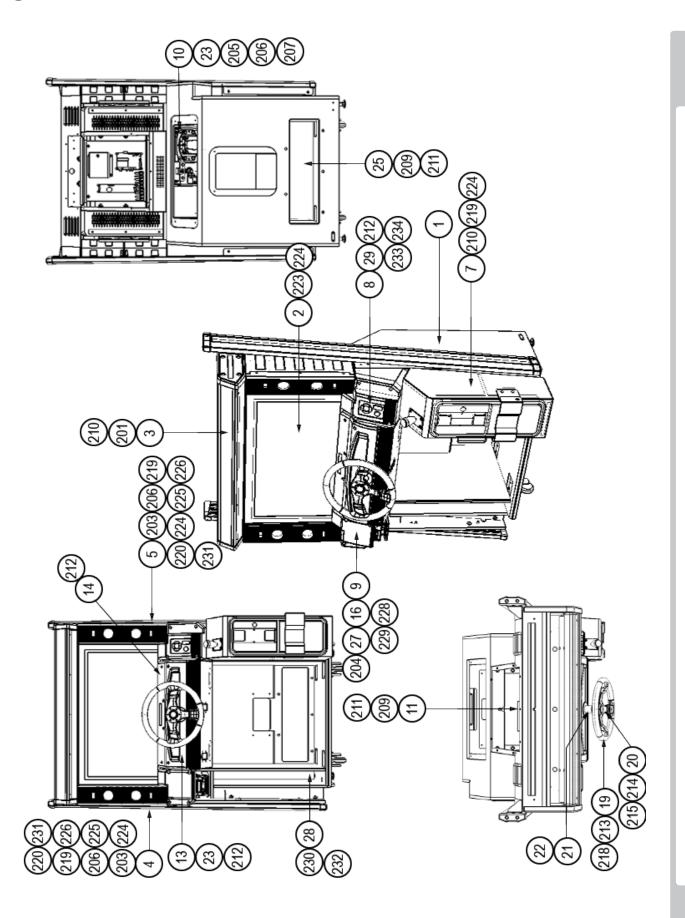
19 PARTS LIST

- (1) TOP ASSY TFF STD
- 2)TFF-10001UK ASSY COCKPIT CABI
- 18 TFF-2200 ASSY ACCEL&BRAKE
- 3 TFF-0500UK ASSY LCD CABI
- 19 TFF-1500UK ASSY INPUT SW RUBBER
- 4 TFF-0600UK ASSY LCD
- 20 TFF-1600UK ASSY SEAT
- 5 TFF-0650UK ASSY SPKR L
- (2) TFF-250-01 ASSY HANDLE MECCA
- 6 TFF-0660UK ASSY SPKR R
- 22 TFF-4000UK ASSYMAIN BD
- 7 TFF-4400UK ASSY ELEC BD LCD
- 23 TFF-4100UK ASSY I/O BD
- 8) TFF-0700UK ASSY BILLBOARD
- 24) TFF-4200UK ASSY TRANS BD
- 9 TFF-0800UK ASSY SIDE FRAME L
- 25) TFF-1020UK ASSY TAIL LID
- 10 TFF-0850UK ASSY SIDE FRAME R
- 26 TFF-1050UK ASSY SIDE DOOR
- 1) TFF-1000UK ASSY BASE
- 27) TFF-1550UK ASSY L PANEL COVER
- 12)TFF-1100UK ASSY SUB COCKPIT
- 28 TFF-1560UK ASSY CARD RW BASE
- 13)TFF-1150UK ASSY SUB BASE
- 29 TFF-1603UK ASSY UPPER SEAT
- 14)TFF-0300UK ASSY CONSOLE
- 30 610-0408-91 ASSY SHIFTER
- ASSY CONSOLI
- (15) TFF-0400UK ASSY AC UNIT
- 16 TFF-1001UK ASSY CTRL PANEL COVER
- (17)TFF-1200UK ASSY ACCEL&BRAKE BASE



1 TOP ASSY TFF STD (TFF-0000UK)

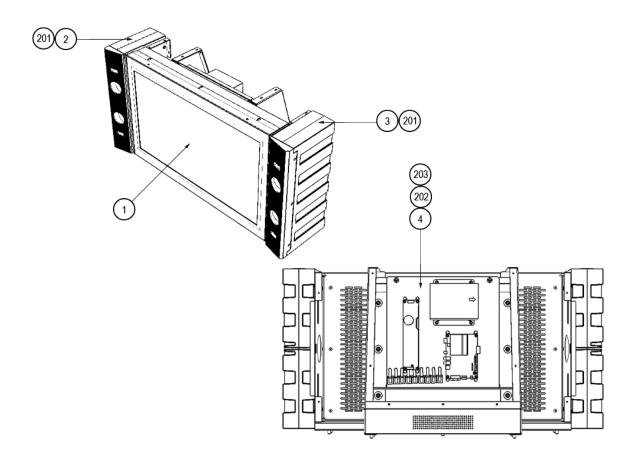
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2 4 5 6 9 10 11 12 13 14 16 18 21 22 26 27 29 36 37	TFF-1001UK TFF-1200UK TFF-1600UK TFF-1000UK TFF-1020UK TFF-0001UK TFF-0002UK TFF-0003UK TFF-0005UK TFF-0005UK TFF-0006UK TFF-0008UK LB1046 421-7988-91UK 421-7020UK PK0427 PK0428 TFF-1004UK LB1130 TFF-1102UK	ASSY COCKPIT CABI ASSY ACCEL & BRAKE BASE ASSY SEAT ASSY BASE ASSY TAIL LID POP POP BRKT POP SUPPORT LCD REAR LID SPKR WIRE COVER LCD BASE REAR LID FOOT BASE LABEL TEST ELEC SPEC STICKER SERIAL NUMBER UK STICKER CAUTION FORK PALLET TFF STD COVER SHRINK TFF STD WIRE COVER LABEL WEEE WHEELIE BIN SUPPORT BRACKET	NOT SHOWN NOT SHOWN NOT SHOWN
102 103	220-5727-01B PP1087	DOOR CASH H.S STS BOX CASH FOR MINI DOOR	
201 202 203 205 210 211 215 216 217 218 219 220	000-P00408-WB 000-T00406-0B 000-T00408-0B 030-000820-WB FAS-290056 FAS-680026 000-T00430-0B 030-000816-S 068-852216 030-000835-SB 068-852216-0B 030-000845-SB	M SCR PH W/FS BLK M4×8 M SCR TH BLK M4×6 M SCR TH BLK M4×8 HEX BLT W/S BLK M8×20 HEX SKT SCR BH STN M6×35 FLT WSHR STN 6.5-20×1.6 M SCR TH BLK M4×30 HEX BLT W/S PAS M8X16 WSHR 22OD FLT PAS M8 HEX BLT W/S BLK M8X35 WSHR 22OD FLT BLK M8 HEX BLT BLK W/S M8X45	
401 402 404 405 406 407 408 409 410 411 412 413 414 415 416	540-0006-01 540-0007-01 OS1019 LM1227 LM1246 600-7269-0500UK 220-5753 601-11949 SAECE-153 440-CS0186UK 509-5704 TFF-0711UK 420-5340-01 610-0727-0030 TFF-1554UK	WRENCH M4 TMP SCR WRENCH M5 TMP SCR SELF SEAL BAG 9X12 3/4 MAIN LEAD UK 10A W/PLUG EUROLEAD 10A EURPOEAN SOCKET ASSY LAN CABLE CAT5 500CM VOL CONT B-5K OHM (TOCOS) CLEANING KIT LEUCO A (30SHT) DECLARATION OF CONFORMITY STICKER C EPILEPSY MULTI SW MICRO TYPE (OMRON K3L13) STICKER INSTR MULTI OWNERS & SERVICE MANUAL TFF STD DVD SOFT KIT TFF EXP INSTR CARD RW MULTI	



2 ASSY COCKPIT CABI (TFF-10001UK)

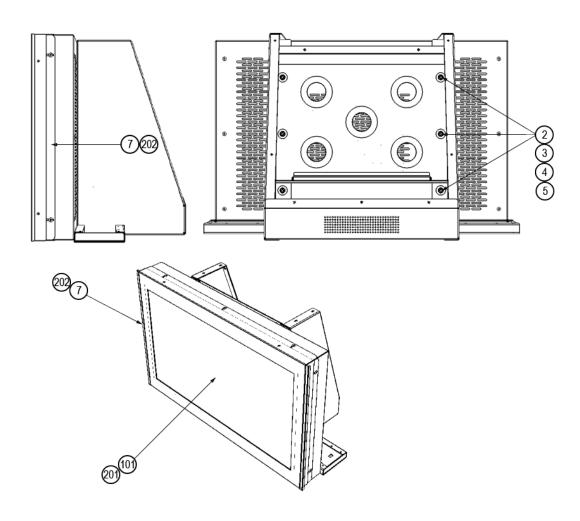
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2 3 4 5 7 8 9 10 11 13 14 16 17 18 19 20 21 22 23 25 26 27 28 29	TFF-1000UK TFF-0500UK TFF-0700UK TFF-0800UK TFF-0850UK TFF-0850UK TFF-1500UK TFF-1550UK TFF-1550UK TFF-1550UK TFF-1560UK TFF-1001UK TFF-1002 TFF-1060UK TFF-1005UK TFF-1005UK TFF-2001 TFF-2002 TFF-2003 TFF-2004UK 440-WS00220UK TFF-1161UK TFF-1162UK TFF-1162UK TFF-11810UK TFF-1158UK TFF-1106UK	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 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	
101	280-L00709-0S	STANDOFF 70D 4ID 9L	
201 203 204 205 206 207 209 210 211 212 213 214 215 218 219 220 221 223 224 225 226 228 229 230 231 232 234	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-00006 030-000825-S 068-852216 050-H00800 060-S00800 050-U00400 068-441616 000-T00420-0B 006-T00620-0B 068-652016 030-000620-S	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 22OD 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 H CAP SCR STN M4X6 WSHR SPR PAS M12 HEX BLT W/S BLK M8X20 WSHR 20OD 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 M6X20 WSHR 20OD FLT PAS M6 HEX BLT W/S PAS M6	
301 302	TFF-60037UK TFF-60038UK	WEH MOTOR WH ENCODER	

3 ASSY LCD CABI (TFF-0500UK)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TFF-0620UK	ASSY LCD	
2	TFF-0650UK	ASSY SPKR L	
3	TFF-0660UK	ASSY SPKR R	
4	TFF-4400UK	ASSY ELEC BD LCD	
201	000-P00408-WB	M SCR PH W/FS BLK M4×8	
202	000-P00425-W	M SCR PH W/FS M4×25	
203	068-441616	FLT WSHR 4.4-16×1.6	
301 302 303 305 306 307	TFF-60050UK TFF-60051UK TFF-60052UK RND-60032 600-7009-1800UK 600-9080-44K	WH AC AMP BD EXT CONSOL WH AUDIO VOLUME EXT LCD CABI WH AUDIO EXT LCD CABI WH POWER 24V ASSY RGB CA D-SUB 15P 1800MM WH EARTH 800MM M4 M4	

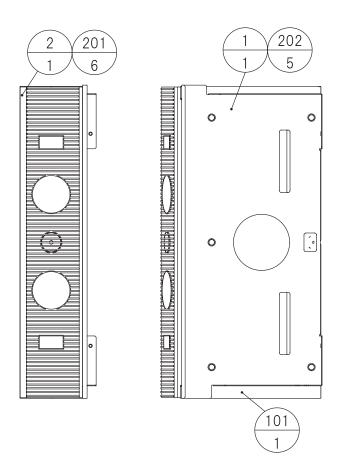
4 ASSY LCD (TFF-0600UK)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2 3 4 5 7	TFF-0621UK 280-5113 068-652516 253-5569 123-5123 TFF-0622UK	LCD BASE COLLAR FOR TV WSHR 250D FLT PAS M6 BUSH FOR LCD STUD BOLT M6 FOR LCD SPEAKER SHIM	
101	200-6032-SMSNG	ASSY LCD DSPL 32 SMSNG	
201 202	050-F00600 00-P00408-W	FLG NUT M6 M SCR PAN W/FS PAS M4X8	

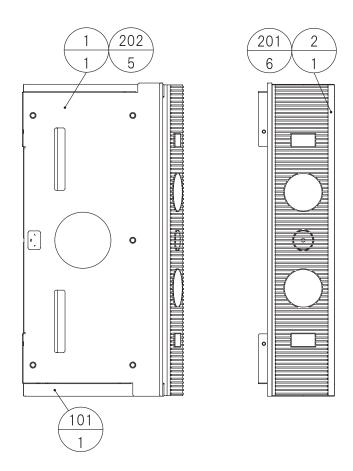
9 PARTS LIST

5 ASSY SPKR L (TFF-0650UK)



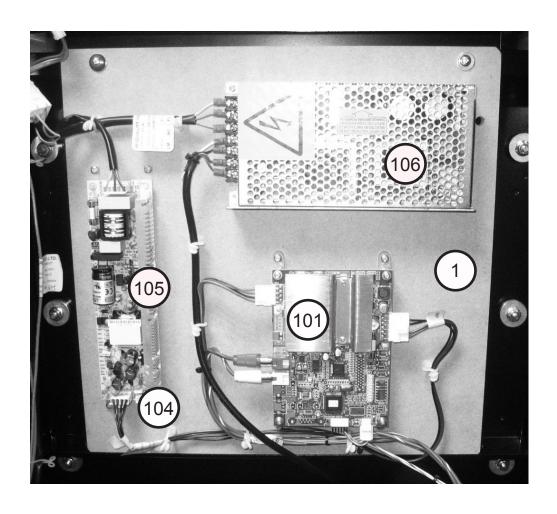
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2	TFF-0651UK TFF-0652	SPKR BRKT L SPEAKER COVER	
101	130-5265	SPEAKER BOX W/WOOFER	
201 202	000-F00408-0B	M SCR FH BLK M4×8 M SCR PH W/FS BLK M5×8	

6 ASSY SPKR R (TFF-0660UK)

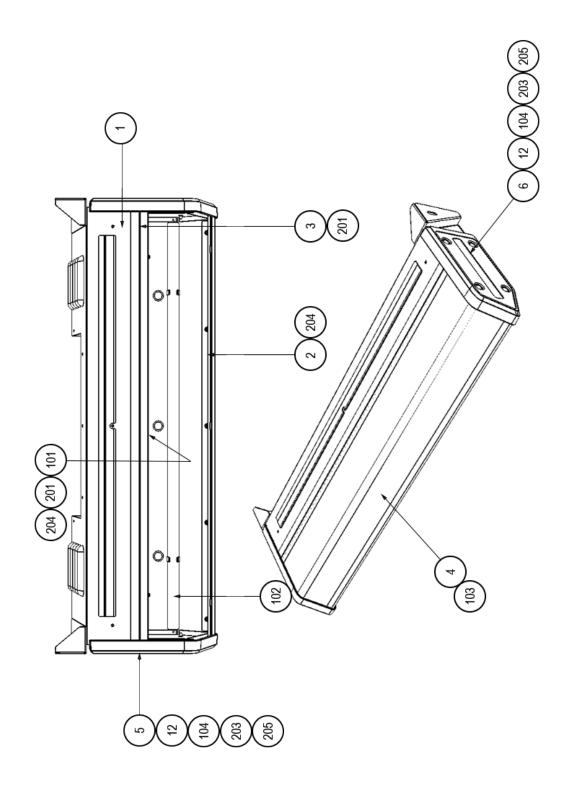


ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TFF-0661UK	SPKR BRKT R	
2	TFF-0652	SPEAKER COVER	
101	130-5265	SPEAKER BOX W/WOOFER	
201	000-F00408-0B	M SCR FH BLK M4×8	
202	000-P00508-WB	M SCR PH W/FS BLK M5×8	

7 ASSY ELEC BD LCD (TFF-4400UK)

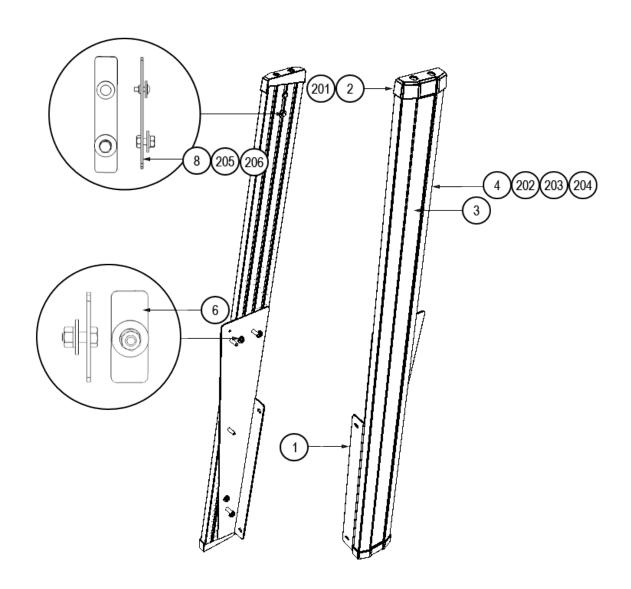


ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TFF-4401UK	ELEC BOARD LCD	
101 104 105 106 107	838-14515-A0191 OS1011 400-050-024-01 280-A01264-WX	SOUND AMP ANALOG IN PCB FEET RICHCO LCBS-L-5-01 PSU 24VDC 50W MW LPS 50-24 PSU FOR LCD SMSNG ROUTER TWIST D12 S06.4 WOOD X	
203 205	012-P00316 000-P00316-W	N4X5/8" S/TAP SCR PAN PAS MSCR PAN PAS M3X16	
301 303 304 305	TFF-60054UK TFF-60056UK TFF-60057UK TFF-60058UK	WH AC ELEC BD LCD IN WH DC AMP PWR WH AUDIO VOLUME WH AUDIO	NOT SHOWN NOT SHOWN NOT SHOWN NOT SHOWN



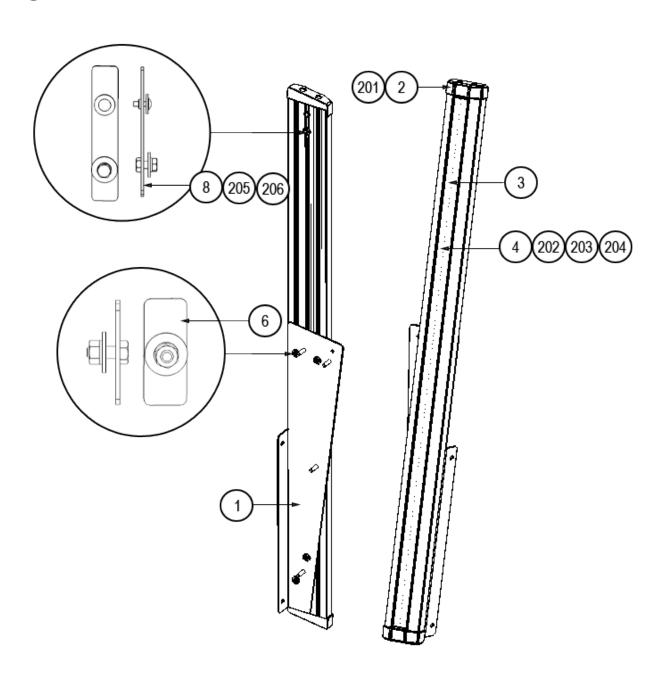
8 ASSY BILLBOARD (TFF-0700UK)

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 M4×8	
203	000-T00525-0B	M SCR TH BLK M5×25	
204	050-F00400	FLG NUT M4	
205	068-551616-0B	FLT WSHR BLK M5 16OD	
301	TFF-60059UK	WH AC BILLBOARD	



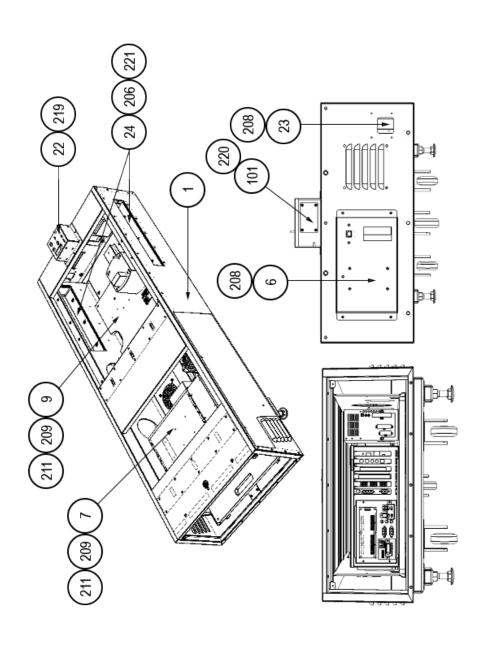
9 ASSY SIDE FRAME L (TFF-0800UK)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2 3 4 6	TFF-0801UK TFF-0802 TFF-0803UK TFF-0804 TFF-0806UK TFF-0007UK	PILLAR BASE L PILLAR CAP L STICKER PILLAR L SIDE PILLAR PILLAR BOLT PLATE PILLAR NUT PLATE	
201 202 203 204 205 206	FAS-100002 068-652016 060-S00600 050-H00600 000-T00412-0C 068-441616-0C	S-TITE SCR PH W/F M4×25 FLT WSHR 6.5-20×1.6 SPR WSHR M6 HEX NUT M6 M SCR TH CRM M4×12 FLT WSHR CRM 4.4-16×1.6	



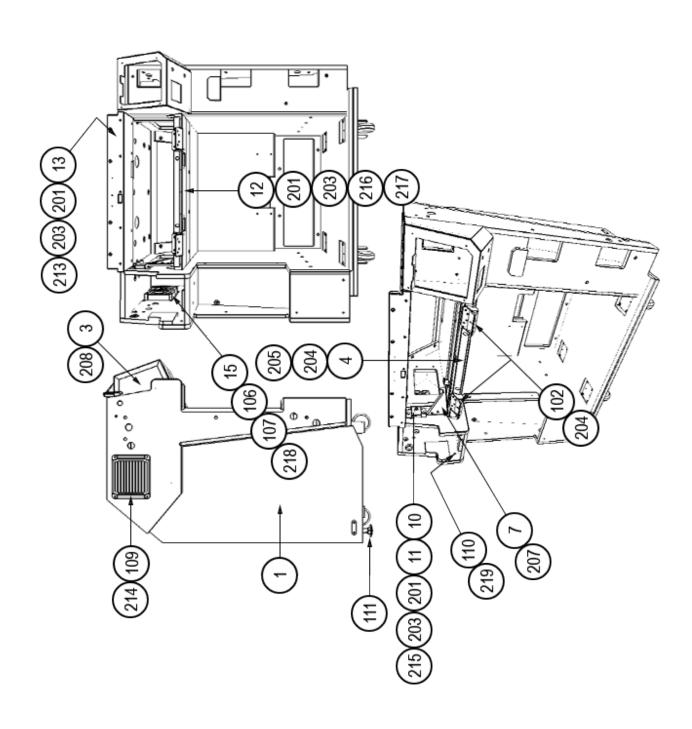
10 ASSY SIDE FRAME R (TFF-0850UK)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TFF-0851UK	PILLAR BASE R	
2	TFF-0852	PILLAR CAP R	
3	TFF-0853UK	STICKER PILLAR R ENG	
5	TFF-0804	SIDE PILLAR	
7	TFF-0806UK	PILLAR BOLT PLATE	
9	TFF-0007UK	PILLAR NUT PLATE	
201	FAS-100002	S-TITE SCR PH W/F M4×25	
202	068-652016	FLT WSHR 6.5-20×1.6	
203	060-S00600	SPR WSHR M6	
204	050-H00600	HEX NUT M6	
205	000-T00412-0C	M SCR TH CRM M4×12	
206	068-441616-0C	FLT WSHR CRM 4.4-16×1.6	



11) ASSY BASE (TFF-1000UK)

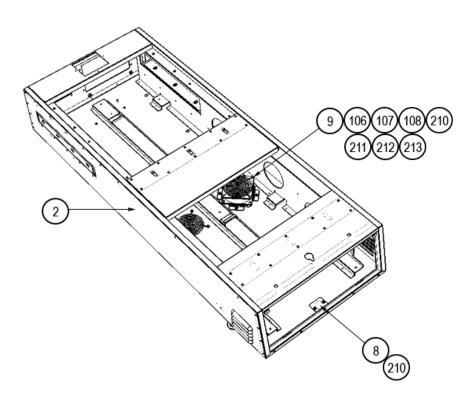
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 6 7 9 22 23 24	TFF-1150UK TFF-0400UK TFF-4000UK TFF-4200UK TFF-1011UK HDF-0656 TFF-1153UK	ASSY SUB BASE AC UNIT ASSY MAIN BD ASSY TRANS BD CONN JOINT PLATE CABLE PLATE COCKPIT JOINT BRKT	
101	839-1176R	CONN BD JVS & RGB	
206 208 209 210 211 219 220 221	068-852216-0B 000-T00410-0B 000-P00425-WB 050-F00400 068-441616-0B 000-P00412-WB 050-F00300 030-000816-S	FLT WSHR BLK 8.5-22×1.6 M SCR TH BLK M4×10 M SCR PH W/FS BLK M4×25 FLG NUT M4 FLT WSHR BLK 4.4-16×1.6 M SCR W/FS BLK M4X12 NUT FLG SER PAS M3 HEX BLT W/S PAS M8X16	



12 ASSY SUB COCKPIT (TFF-1100UK)

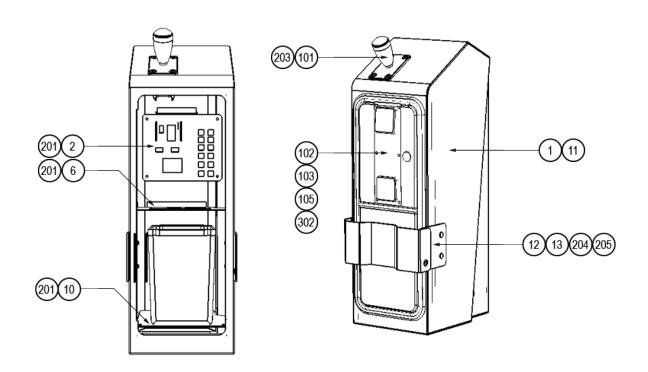
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 3 4 7 10 11 12 13	TFF-1151UK TFF-1110UK TFF-1104UK TFF-1111UK TFF-1108UK TFF-1155UK TFF-1156UK TFF-1157UK 105-5340-01	COCKPIT BASE CTRL PNL BRKT CTRL PANEL SUPPORT BRKT CTRL PNL STOPPER L CTRL PANEL HINGE COLLAR STAY SIDE HOLDER CNTRL PANEL LOWER CNTRL PANEL UPPER FAN BKT LONG	
102 106 107 109 110 111	601-11987 260-0011-02 FN1012 253-5460-01 601-S0001UK 601-11101	SOFT DOWN HINGE TOK AXIAL FLOW FAN AC100V MESH GUARD METAL 120MM FAN AIR VENT BLACK SLIDE (L&R) ACCURIDE 3033 LEG ADJUSTER BOLT M16 L100	
201 203 204 205 207 208 213 214 215 216 217 218 219	030-000825-SB 068-852216 030-000616-S 068-652016-0B 000-P00412-W 050-F00600 020-000612-0Z 008-T00420-0B 030-000620-S 050-F00800 030-000820-S 000-P00312-W 012-P00316	HEX BLT W/S BLK M8×25 FLT WSHR PAS 8.5-22×1.6 HEX BLT W/S M6×16 FLT WSHR BLK 6.5-20×1.6 M SCR PH W/FS M4×12 FLG NUT M6 SKT CAP OZ M6X16 M SCR TMP TH BLK M4X20 HEX BLT W/S PAS M6X20 FLG NUT SER PAS M8 HEX BLT W/S PAS M8X20 M SCR PAN PAS W/FS M3X12 S/TAP PAN PAS N4X5/8"	
308 309 317 318 319 320	TFF-6002UK TFF-60031UK TFF-60049UK LGJ-60036UK TFF-6004UK 600-7141-200UK	ASSY WIRE COCKPIT CTRL PANEL WH MOTOR EXT WH AC AMP BD EXT COCKPIT WH BILLBOARD FAN AC ASSY WH LCD CABI EXT CABLE JVS TYPE A-B 200CM	

13 ASSY SUB BASE (TFF-1150UK)



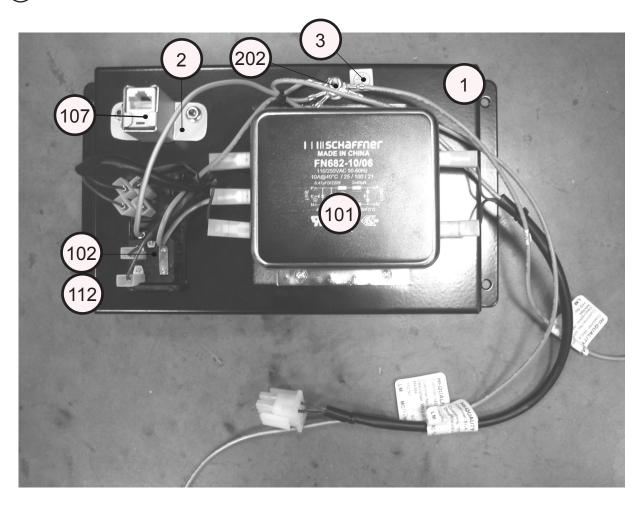
ITEM NO.	PART NO.	DESCRIPTION	NOTE
2	TFF-1152UK	BASE	
8	TFF-1107UK	CABLE BLIND PLATE	
9	TFF-1171UK	FAN BKT BASE	
106	260-0011-02	AXIAL FLOW FAN AC100V	
107	FN1012	MESH GUARD METAL FAN 120MM	
108	OS1195	RIVET SNAP MMOSS SR1811	
210	050-F00400	NUT FLG SER M4	
211	012-HB0512	N10X1/2" S/TAP HEX B PAS	
212	060-F00500	WSHR FORM A FLT PAS M5	
213	050-U00400	NUT NYLOK PAS M4	
307	TFF-6001UK	ASSY WIRE BASE	
318	LGJ-60036UK	WH BILLBOARD FAN	
319	600-7009-3000UK	ASSY RGB CA D-SUB 15P 3000MM	
320	600-7141-300UK	CABLE JVS TYPE A-B 300CM	

14) ASSY CONSOLE (TFF-0300UK)



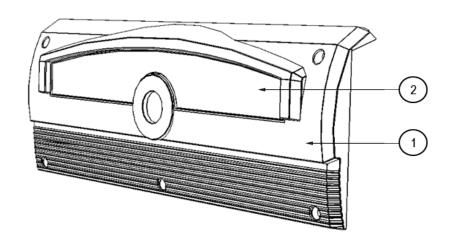
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2 6 10 11 12 13	TFF-0301UK VTS-HOD-D-R DUT-0302UK TFF-0303UK LB1103 TFF-0304UK TFF-0305UK	CONSOLE BOX BLANK VTS BOARD HOD COIN PATH PLATE CCT FLOOR STICKER CAUTION FORK LOCKING CLASP BRKT PADLOCK	
101	610-0408-91	ASSY UP/DOWN SHIFTER	
102	220-5374-01	DOOR DFMD W/FR & LOCK C120 UNIV	
103	220-5575UK	LOCK (J9117) KEY TO LIKE 22M	
105	220-5610-01	SR3 STD BODYBSR3INGB	
201	000-P0041-W	M SCR PAN W/FS PAS M4X10	
202	050-F00400	NUT FLG SER PAS M4	
203	008-T00516-0B	M SCR TMP TH BLK M5X16	
204	050-U00800	NUT NYLOK PAS M8	
205	068-852216	WSHR 22OD FLT PAS M8	
302	LM1006LOR	LOOM COIM MECH LAMP	
304	TFF-60104UK	WH COIN VTS	
305	600-9020-44K	WH EART 200MM M4 M4	

15) ASSY AC UNIT (TFF-0400UK



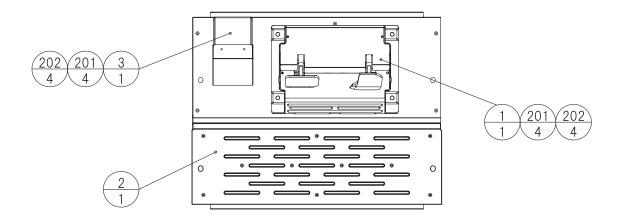
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TFF-0401UK	AC BKT	
2	TFF-0402UK	CONN COVER	
3	LB1096	STICKER PROTECTIVE EARTH	
101 102 107 108 112 113	EP1382 EP1387 EP1391 310-5029-D508 514-5078-500 LB1126-5-250	FILTER SCHAFFNER FN682-10/06 IEC INLET & SW BZV01/Z0000/70 COUPLER INLINE LAN RJ45 UTP HEAT SHRINK SLEEVE 50.8DIA FUSE 5X20 CERAMIC SB 5000MA FUSE LABEL 5A 250V	
201	000-P00308-W	M SCR PAN W/FS PAS M3X8	
202	050-F00400	NUT FLG SER PAS M4	
301	TFF-60001UK	WH AC UNIT IN	
302	600-9030-44K	WH EARTH 300MM M4 M4	
303	600-9050-44K	WH EARTH 500MM M4 M4	

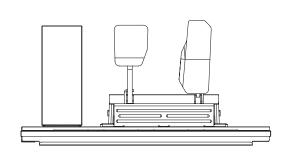
16 CTRL PANEL COVER (TFF-1001UK)



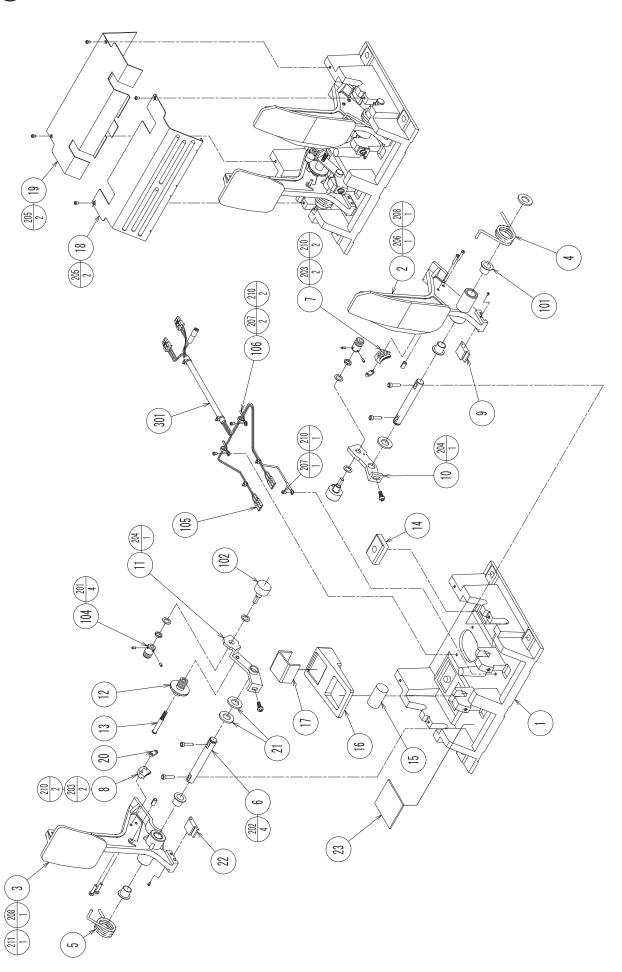
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TFF-1001-A	CTRL PANEL COVER BLANK	

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





ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TFF-2200	ASSY ACCEL&BRAKE	
2	TFF-1201UK	BASE ACCEL&BRAKE	
3	TFF-1202UK	FOOTREST BASE	
201	030-000825-SB	HEX BLT W/S BLK M8×25	
202	060-F00800-0B	FLT WSHR BLK M8	
301	TFF-60040UK	WH ANALOG ACCEL&BRAKE	

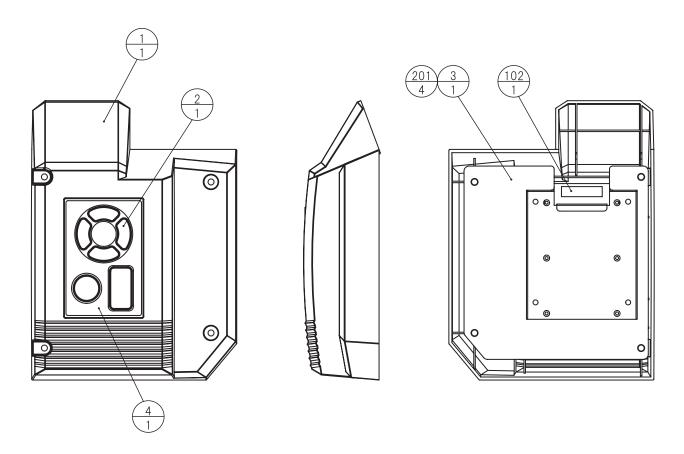


18 ASSY ACCEL&BRAKE (TFF-2200)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	SPG-2201 SPG-2202 TFF-2203 SPG-2204 TFF-2205 SPG-2206 SPG-2207 TFF-2208 SPG-2210 TFF-2211 TFF-2212 SPG-2213X SPG-2214 TFF-2223 TFF-2222 TFF-2224 SPG-2216 AFT-2804 SPG-2219 SPG-2220 SPG-2221 TFF-2225	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	
101 102 102 104 105 106	100-5263 220-5484 220-5753 601-7944 310-5029-F15 280-0419	BEARING 12(OILES 80F-1212) VOL CONT B-5K OHM VOL CONT B-5K OHM (TOCOS) GEAR 15 SUMITUBE F F 15MM HARNESS LUG	
201 202 203 204 205 206 207 208 210 211	028-A00304-P 020-000520-0Z 000-P00420 000-P00512-W 000-T00408-0C FAS-450005 000-P00405 FAS-000001 060-F00400 FAS-450025	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	
301	600-6840-01	WIRE HARN ACCEL&BRAKE YL	

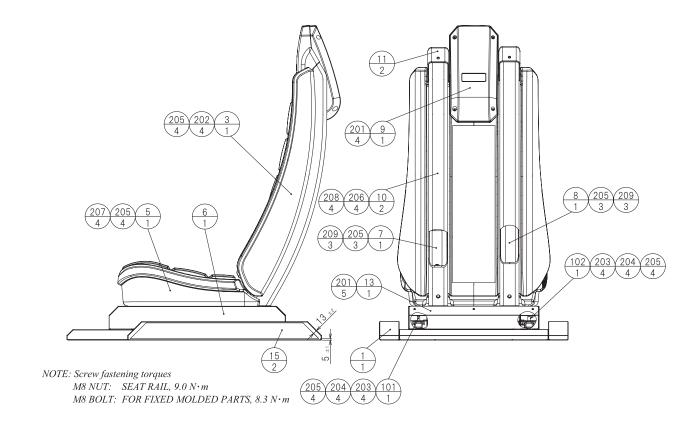
9 PARTS LIST

19 ASSY INPUT SW RUBBER (TFF-1500UK)

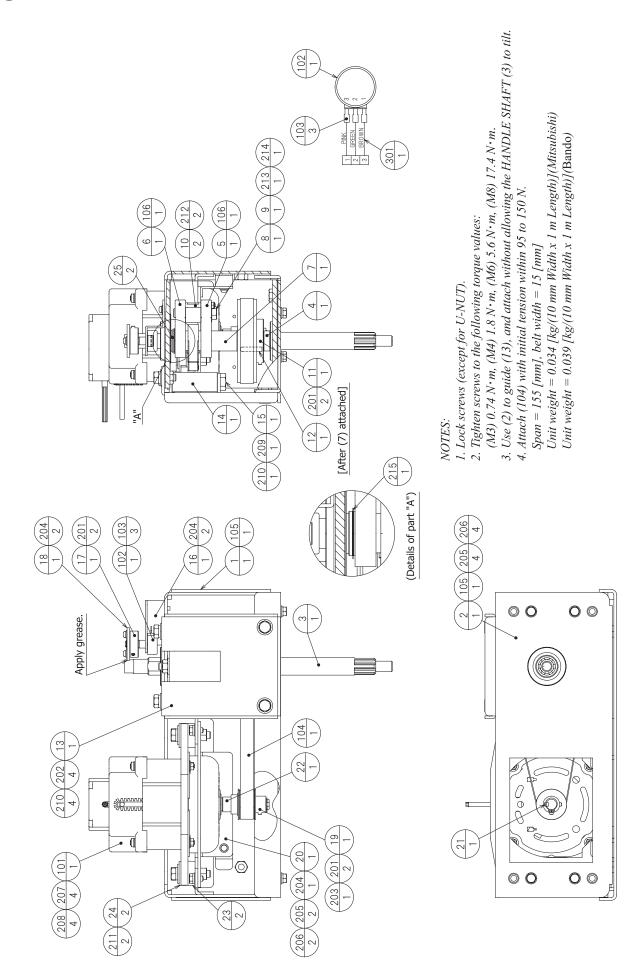


ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2 3 4	TFF-1501 TFF-1502 TFF-1503 TFF-1504UK	INPUT SW COVER INPUT SW RUBBER CONTACT INPUT SW BASE STICKER INPUT SW COVER	
102	838-14707	RUBBER SW BD TFF	
201	FAS-000097	M SCR PH W/SMALL FS M4×8	
301	TFF-60039UK	WH INPUT SW	

20 ASSY SEAT (TFF-1600UK)



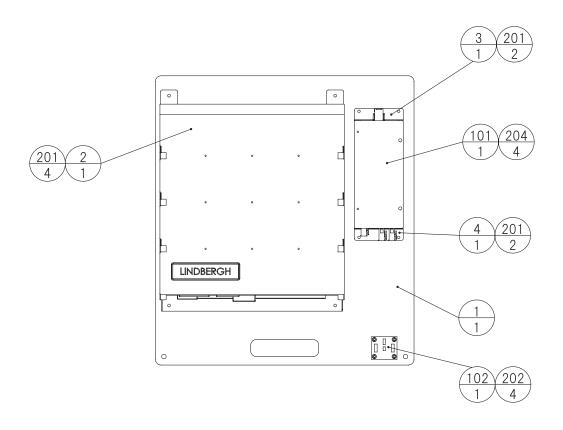
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 3 5 6 7 8 9 10 11 13 15	TFF-1621UK TFF-1603UK TFF-1605 TFF-1617UK TFF-1618UK TFF-1619UK TFF-1609 TFF-1620 TFF-1611 TFF-1616UK TFF-1615UK	SEAT BASE UPPER SEAT ENG LOWER SEAT SEAT TRAY SEAT FRAME L SEAT FRAME R HEADREST BACK COVER SEAT FRAME COVER SEAT FRAME COVER SEAT FRAME COVER CAP SEAT FRAME BACK LID STICKER SIDE SEAT BASE ENG	
101 102	601-9059-91 601-9060-91	SEAT RAIL L SEAT RAIL R	
201 202 203 204 205 206 207 208 209	000-P00410-WB 030-000840-S 050-H00800 060-S00800 068-852216 FAS-290059 030-000845-S FAS-680026 030-000816-S	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 6.5-20×1.6 HEX BLT W/S M8×16	



21) ASSY HANDLE MECHA (TFF-2500-01)

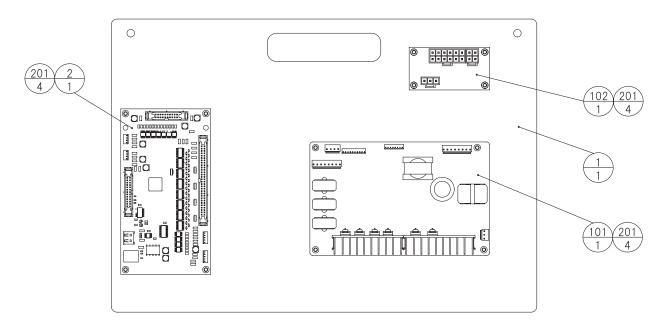
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	TFF-2501 TOF-2502 TFF-2502 TFF-2503 TFF-2504 TFF-2505 TFF-2506 TFF-2507 TFF-2508-01 TFF-2509 SPG-2505 DYN-1270 TFF-2511 TFF-2512 TFF-2513 TFF-2514 TOF-2515 601-6172 SPG-2504 ORA-2503 SPG-2453 ORA-2507 253-5592 253-5593 TFF-2515	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 HOLDER STOPPER RUBBER STOPPER RUBBER STOPPER RUBBER STOPPER HOLDER STOPPER BOLT VR BRKT GEAR HOLDER GEAR 48 PULLEY 20 S5M MOTOR BRKT KEY 4×4×40 MOTOR SHAFT COLLAR MOTOR INSULATOR A MOTOR INSULATOR B SPACER COLLAR	
101 102 102 103 104 105 106	350-5805-01 220-5484 220-5753 310-5029-F20 601-11089 100-5168 100-5285 280-5275-SR10	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	
201 202 203 204 205 206 207 208 209 210 211 212 213 214 215	028-A00408-P 030-000820-S 065-S012S0-Z 000-P00410-W 030-000612-S 060-F00600 030-000840-S 068-852216 050-U00800 060-F00800 012-P00412 050-U00400 020-000612-0Z 060-S00600 FAS-650021	SET SCR HEX SKT CUP P M4×8 HEX BLT W/S M8×20 STP RING BLK OZ S12 M SCR PH W/FS M4×10 HEX BLT W/S M6×12 FLT WSHR M6 HEX BLT W/S M8×40 FLT WSHR 8.5-22×1.6 U NUT M8 FLT WSHR M8 TAP SCR #2 PH 4×12 U NUT M4 HEX SKT H CAP SCR BLK 0Z M6×12 SPR WSHR M6 WAVE WSHR WW-20	
301	600-6866-01	WIRE HARN ASSY HANDLE MECHA VR	

22) ASSY MAIN BD (TFF-4000UK)



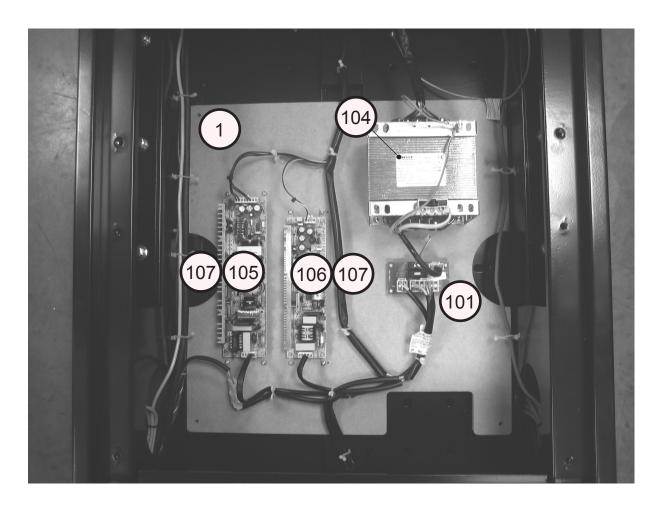
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2 3 4 5 6	TFF-4001UK 844-0001D-91-12 SHT-4904UK SGT-4603UK LB1101 LB1111	WOODEN BASE MAIN BD ASSY CASE LBG L 1GB 7800 EXP ELEC BRKT ELEC BRKT STICKER WARNING BATTERY STICKER PLEASE RECYCLE	NOT SHOWN NOT SHOWN
101 102 103 104	400-5457-91 838-14578 280-A01264-WX 280-A02064-WX	SW REGU ATX/JVS CONVERT BD RS232C/RS422 ROUTER TWIST D12 S06.4 ROUTER TWIST D20 S06.4	
201 202 204	000-P00412-W 012-P00325 000-P00308-W	M SCR PH W/FS M4×12 TAP SCR PH 3×25 M SCR PH W/FS M3×8	
301 302 303 304 305 306 307	TFF-60013UK TFF-60014UK TFF-60015UK TFF-60016UK TFF-60017UK 600-7360-0600 600-7361-0600	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	

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



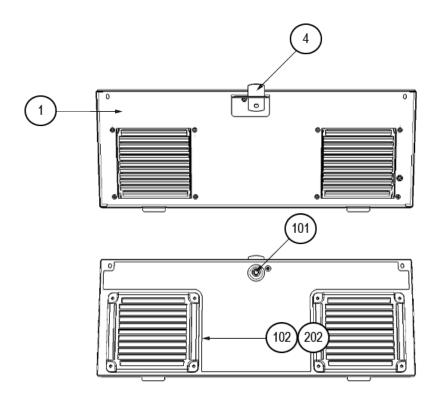
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2	TFF-4101UK 837-14572	WOODEN BASE I/O BD I/O CONTROL BD 3 FOR JVS COM	
101 102 103 104 105	838-14592-91 838-14551-02UK 280-A00964-WX 280-A01264-WX 280-A02064-WX	SERVO MOTOR DRIVE BD SER DISTRIBUTION BD ROUTER TWIST D09 ROUTER TWIST D12 ROUTER TWIST D20	
201	012-P00325	TAP SCR PH 3×25	
301 302 303 304 305 306 307 308 309 311	TFF-60018UK TFF-60019UK TFF-60020UK TFF-60021UK TFF-60023UK TFF-60024UK TFF-60025UK TFF-60026UK TFF-60016UK	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)



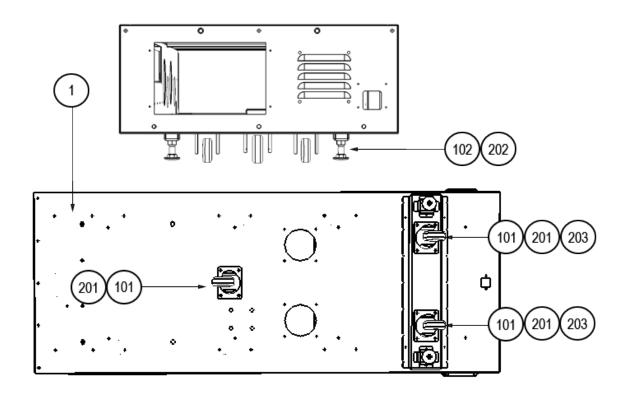
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TFF-4201UK	WOODEN BASE TRANS BD	
101	838-14551-02UK	DISTRIBUTION BD	NOT SHOWN
104	560-LBGH-01UK	XFMR	
105	400-100-024-01	PSU 24DVC 100W MW LPS-100-24	
106	400-050-012-01	PSU 12VDC 5-W MW LPS-050-12	
107	OS1011	PCB FEET	
108	280-A01264-WX	ROUTER TWIST D12 S06,4	
201	012-P00316	TAP SCR PH 3×16	
203	000-P00416-W	M SCR PH W/FS M4×16	
204	068-441616	WSHR 16OD FLT PAS M4	
206	012-P00325	TAP SCR PAN PAS N4X1"	
303	TFF-60008UK	WH AC TRANS BD OUT#	
304	TFF-60047UK	WH DC TRANS BD OUT	
305	TFF-60048UK	WH AC SW REGU	

25 ASSY TAIL LID (TFF-1020UK)



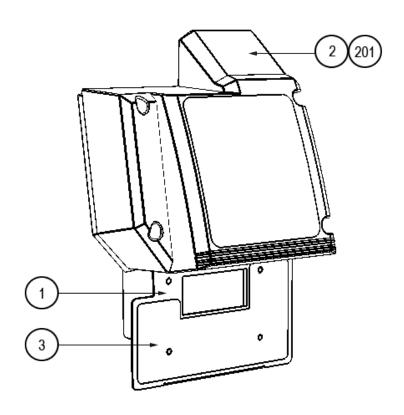
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TFF-1021UK	TAIL LID	
3	TFF-1023UK	STICKER TAIL LID	
4	DP-1167UK	TNG LKG	
101	220-5575UK	CLY LOCK MASTER W/O KEY (J9117)	
102	253-5460-01	AIR VENT BLK	
202	000-P00412-WB	M SCR PH BLK W/FS M4×12	

26 ASSY SIDE DOOR (TFF-1050UK)



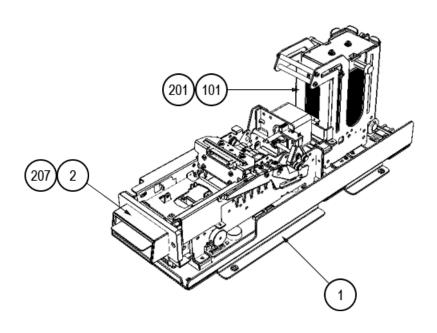
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TFF-1152-AUK	BASE BLANK	
101	MA1019	CASTER 75	
102	601-11101	LEG ADJUSTER BOLT M16 L100	
201	030-00816-S	HEX BLT W/S PAS	
202	050-H01600	M16 NUT PAS	
203	060-F00800	WSHR FORM A FLT PAS M8	

27 ASSY L PANEL COVER (TFF-1550UK)



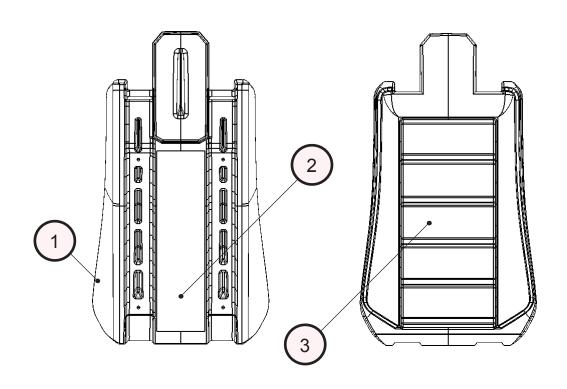
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2 3	TFF-1551UK TFF-1003 TFF-1553UK	CTRL PANEL BRKT L CTRL PANEL COVER L STICKER CARD ENTRY	
201	008-T00410-0B	M SCR TMP TH BLK M4X10	

28 ASSY CARD R/W BASE (TFF-1560UK)



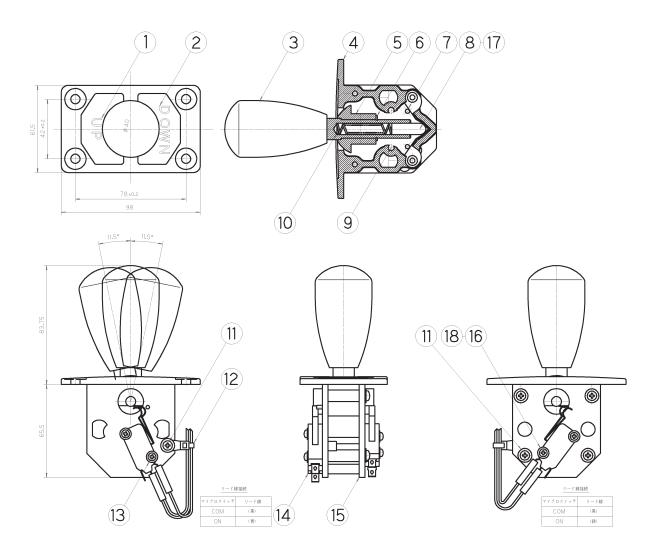
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TFF-1552UK	BASE CARD R/W	
2	TFF-1808	IC CARD R/W CAP	
101	610-0791-01	IC CARD RW W/WATER GUARD V	
201	000-P00408-WB	M SCR PAN W/FS BLK M4X8	
207	FAS-000178	M SCR CSK BLK M2.6X12	

29 ASSY UPPER SEAT (TFF-1603UK)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1 2	TFF-1603-A TFF-1603-BUK TFF-1603-C	UPPER SEAT BLANK STICKER UPPER SEAT UPPER SEAT CUSHTON	

ASSY SHIFTER (610-0408-91)



20 WIRE COLOR CODE TABLE

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

^{&#}x27;SEGA machines do be in complyment with that RoSE thing'

