

OWNER'S MANUAL

SEGA UFO CATCHER™



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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BEFORE USING THE PRODUCT, BE SURE TO READ THE FOLLOWING:

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INTRODUCTION

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

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 thick underlining, the word "IMPORTANT" and the symbol below

IMPORTANT

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

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SPECIFICATIONS

Installation space:	1,683 mm (66.3 in) [Width] x 875 mm (34.4 in) [Depth] <Full options assembled: 989 mm (38.9 in) [Depth]>
Height:	1,972 mm (77.6 in)
Weight:	295 kg (650.4 lb)
Power, maximum current:	267 W, 2.4 A (AC 120 V, 60 Hz)

Definition of 'Site Maintenance Personnel or Other Qualified Individuals' **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 and unplug the electrical cord from the outlet. 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.
- Completely make connector connections for IC BD and others. 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.
- Be sure to perform periodic maintenance inspections herein stated.

⚠ WARNING

- This game machine can be installed at a storefront but could tip over due to sudden strong drafts or building winds. It could also tip over from man-made loads. If the game machine does fall down, a serious accident could result. To prevent the machine from falling down, carry out the following procedures and make every effort to operate the machine safely.
 - Never place the product at a site that is inclined or has level differences. If there are inclines or level differences, make sure the site is level before placing the machine on it.
 - Do not add decorations to the product that will cause its center of gravity to be elevated. Also, be aware that there are cases in which it is illegal to add electrical units to the product interior.
 - Make sure that the adjusters are always in contact with the floor.
 - Use rope, chain, and/or fixtures for securing furniture to secure the product so that it will not fall down in an earthquake.

IMPORTANT

- 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 the ones designed and manufactured not 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. 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.

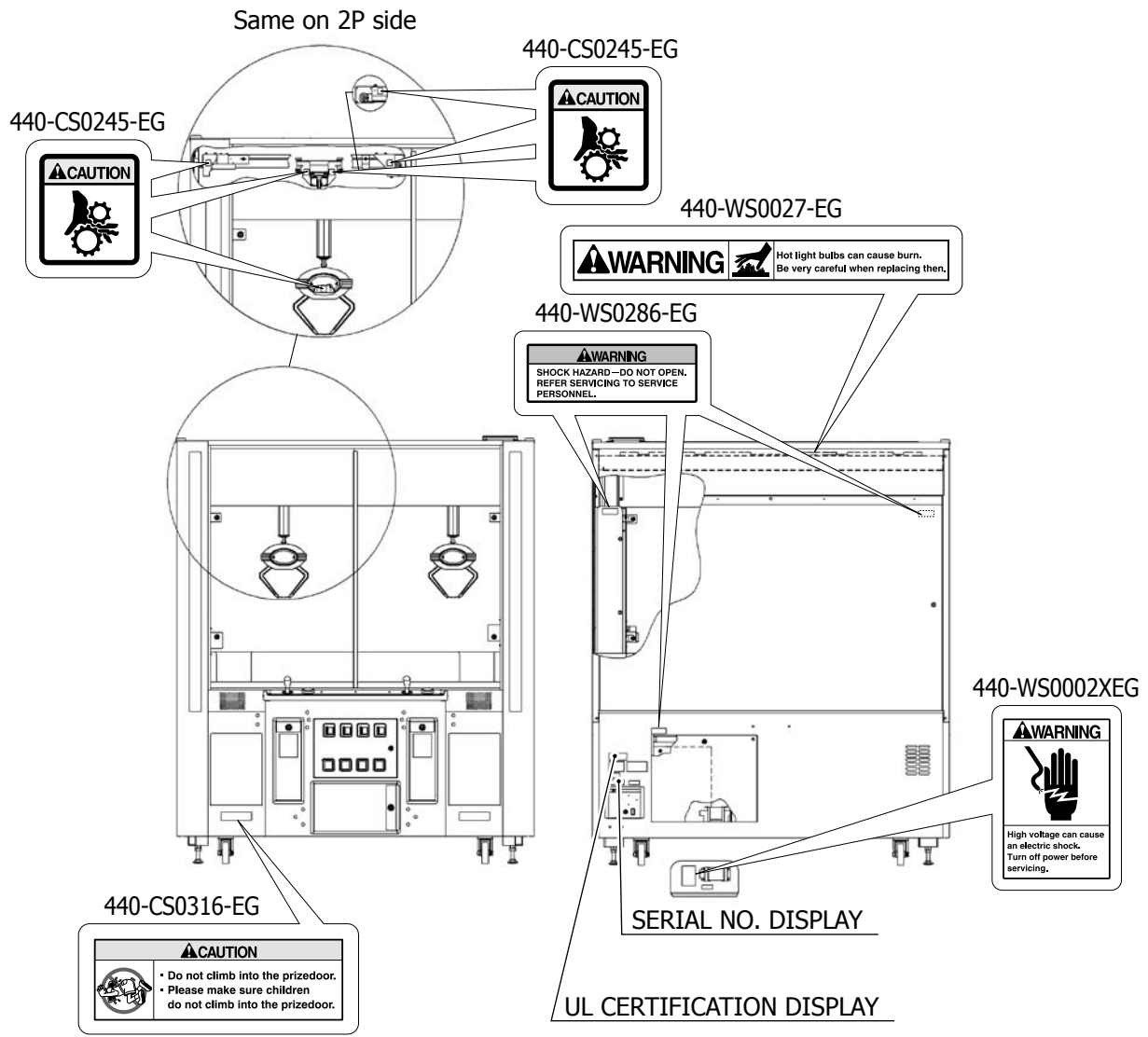


FIG. 1

2 PRECAUTIONS REGARDING INSTALLATION LOCATION

WARNING

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

- Places subject to rain or water leakage, or places subject to high humidity in the proximity of an indoor swimming pool and or shower, etc.
- Places subject to direct sunlight, or places subject to high temperatures in the proximity of heating units, etc.
- Places filled with inflammable gas or vicinity of highly inflammable/volatile chemicals or hazardous matter.
- Dusty places.
- Sloped surfaces.
- Places subject to any type of violent impact.
- Vicinity of anti-disaster facilities such as fire exits and fire extinguishers.
- The operating (ambient) temperature range is from 5°C to 35°C (5°C to 30°C with LCD).

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 7A or higher. 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 7A or higher. Using a cord rated lower than the specified rating can cause a fire and electric shock.

2-2 OPERATION AREA

⚠ WARNING

- For the operation of this machine, secure a minimum area of 1.7 m (66.9 in) [W] x 1.6 m (60.0 in) [D]. <Full options assembled: 1.7 m (66.9 in) [W] x 1.8 m (70.9 in) [D]>
- Do not block the ventilation port on the top surface. Heat may build up and cause a fire.
- SEGA shall not be held responsible for damage or compensation for damage to a third party, resulting from the failure to observe this instruction.

IMPORTANT

In order to transport the machine into a building, the minimum necessary dimensions of the opening (of doors, etc.) are 0.9 m (35.4 in) [W] and 2 m (78.7 in) [H].

Electricity Consumption:

MAX. 2.4 A (AC 120 V, 60 Hz)

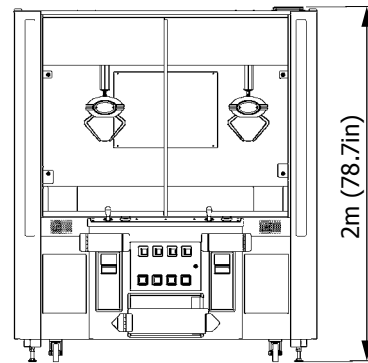
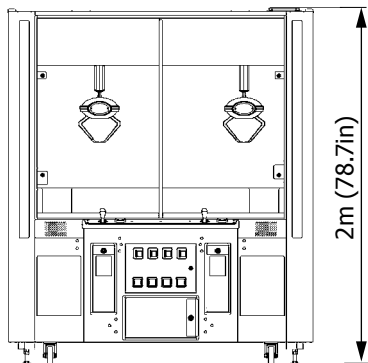
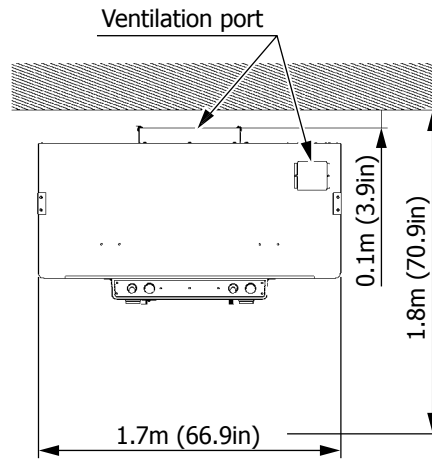
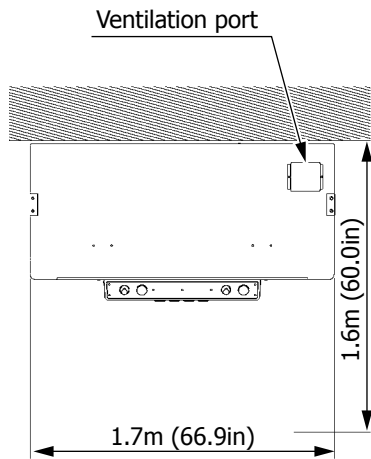


FIG. 2-2a Basic Cabinet

FIG. 2-2b Full Options Cabinet (See Section 21.)

3 PRECAUTIONS REGARDING PRODUCT OPERATION

3-1 BEFORE OPERATION

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

WARNING

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

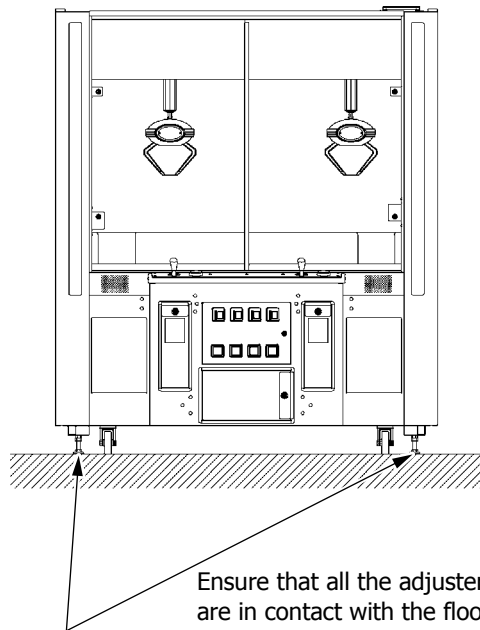


FIG. 3-1

Ensure that all the adjusters are in contact with the floor.

- 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 place items over the ventilation port on the top surface. Heat may build up and cause a fire.
- Do not put any heavy items on this product. Placing heavy items on the product can cause accidents or damage to parts.
- Do not climb on the product. Climbing on the product can cause accidents. To check the top portion of the product, use a stepladder.
- To avoid electric shock, check that none of the door & cover parts are damaged or missing.
- 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 or water.

CAUTION

To avoid injury, be sure to provide sufficient space by considering the crowd situation at the installation location. Insufficient installation space can cause customers to bump into each other, causing trouble.

3-2 DURING OPERATION (PAYING ATTENTION TO CUSTOMERS)

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

WARNING

- 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 shocks and short circuits, do not allow customers to unplug the power plug without a justifiable reason.

CAUTION

- If hands or fingers are placed deeper than necessary into the prize retrieval slot or coin return slot, they could get caught, resulting in injury. Caution is required, especially for small children.
- Immediately stop such violent acts as hitting and kicking the product. Such violent acts can cause parts damage or cause the cabinet to fall over, resulting in injury.

4 PART DESCRIPTIONS

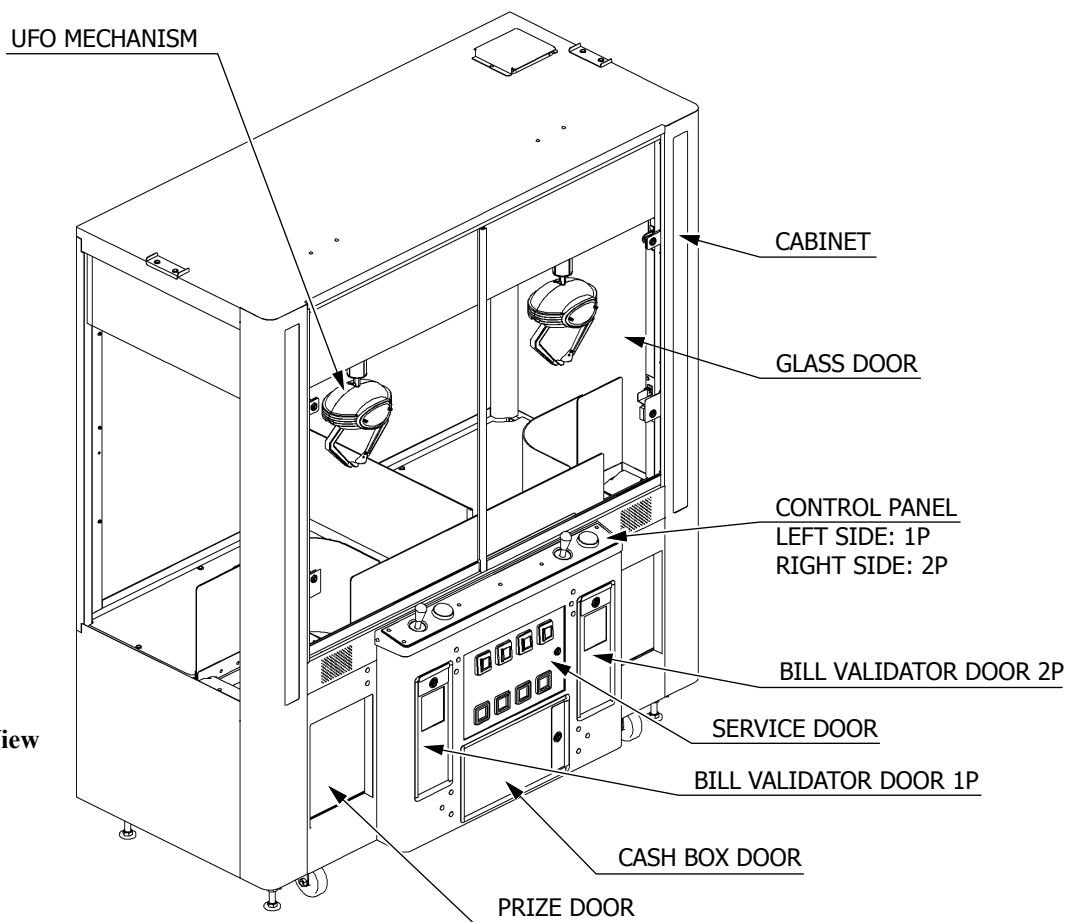


FIG. 4a Overall View

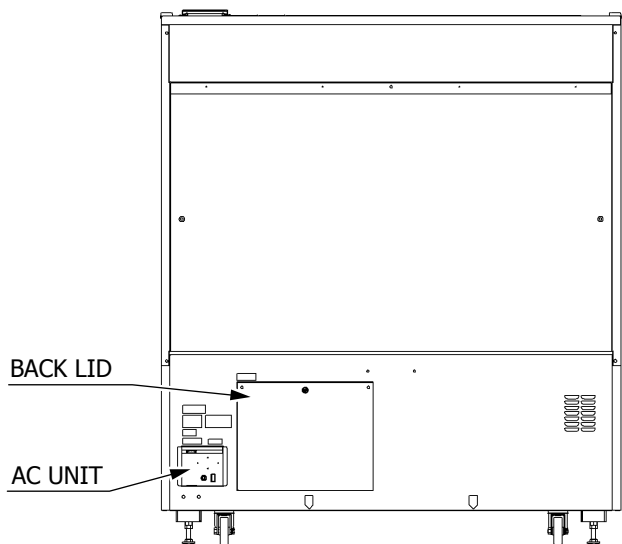


FIG. 4b Rear Panel View

NOTE: For optional items, see Section 21.

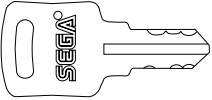
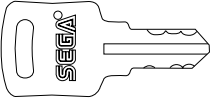
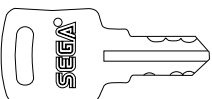

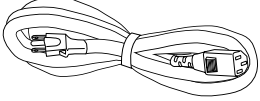
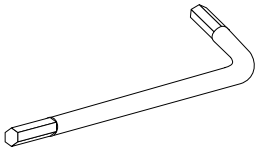
5 ACCESSORIES

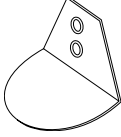
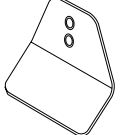
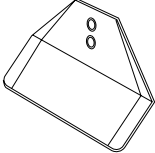
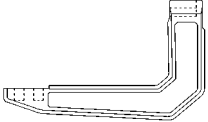
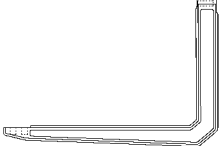
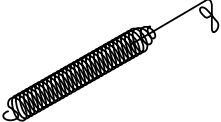
Confirm that the accessories listed in the table below are present when setting up the product.
 Accessories marked "Spare" in the usage note column are consumable items but included as spares.

TABLE 5 ACCESSORIES

DESCRIPTION: OWNER'S MANUAL
 Part No. (Qty.): 420-6953 (1)
 Usage notes & Diagram: This manual

Parts not labeled with part numbers are as yet unregistered or cannot be registered. Be sure to handle all parts with care, as some parts are not available for purchase separately.

<p>OPERATOR'S KEY 220-5793-2-A002 (4) For opening/closing the glass door and service door</p>	
<p>MASTER KEY 220-5793-2-A001 (2) For opening/closing the back lid</p>	
<p>KEYS (3 TYPES) (2 of each) - For cash box door - For bill validator door 1P (left) - For bill validator door 2P (right)</p>	
<p>TRUSS SCREW (CHROME) 000-T00408-0C (2) For installation, see Section 6 [2]</p>	
<p>POWER CORD 600-7326 (1) For installation, see Section 6 [6]</p>	
<p>TAMPERPROOF WRENCH M4 540-0006-01 (1) Tool</p> <p><i>NOTE: The wrench shown in the figure is provided as an accessory tool but a driver type tool, the 540-0018 (DRIVER TAMPER M4), is also available. If you wish to purchase it, contact the office indicated on these instructions or where the product was purchased.</i></p>	

<p>SHOVEL W30 EG-3405Y (4) For replacement, see Section 12-4</p>	
<p>SHOVEL W40 MKW-2120 (4) For replacement, see Section 12-4</p>	
<p>SHOVEL W60 EG-3404 (4) For replacement, see Section 12-4</p>	
<p>ARM S UCS-3430 (4) For replacement, see Section 13</p>	
<p>ARM L UCS-3432 (4) For replacement, see Section 13</p>	
<p>SLIDE SPRING USS-3418 (2) Spare, see Section 13</p>	

6 INSTALLATION

WARNING

To install the unit, follow these instructions in this manual carefully. If the unit is not installed properly, it may cause personal injury or damage to the machine.

Carry out the following five steps to assemble and install the product.

6-1 SECURE THE UNIT AT THE INSTALLATION SITE (MANIPULATE THE ADJUSTERS)

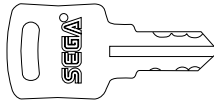
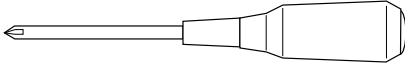
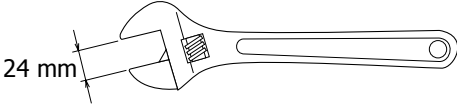
6-2 REMOVE SHIPPING BRACKETS

6-3 ATTACH PARTITION

6-4 CONNECT POWER CORD

6-5 ACTIVATE POWER SUPPLY

For assembly and installation, you need a Philips screwdriver, adjustable wrench (for 24mm hexagonal bolts) and the operator's key.

OPERATOR'S KEY	
PHILIPS SCREWDRIVER (For M4 screws)	
WRENCH (for M16 HEXAGONAL BOLTS)	

6-1 SECURE THE UNIT AT THE INSTALLATION SITE (MANIPULATE THE ADJUSTERS)

WARNING

Make sure that all the adjusters are in contact with the floor. Otherwise the cabinet may move, causing an accident.

The product comes with 4 casters and 4 adjusters (Figure 6-1a). After the installation site has been determined, have the adjusters come directly in contact with the floor, establish a gap of about 5 mm between the casters and the floor surface, and adjust the adjusters so that the game machine is level.

1. Move the product to the installation site.
2. Adjust the adjusters so that they come in contact with the floor. Use the wrench to adjust the heights of the adjusters so that the game machine is level.
3. After making adjustments, tighten the adjuster nut upwards so that the adjuster height is fixed.

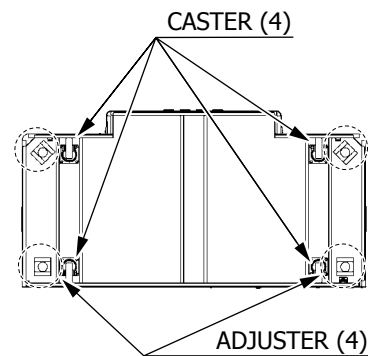


FIG. 6-1a Bottom View

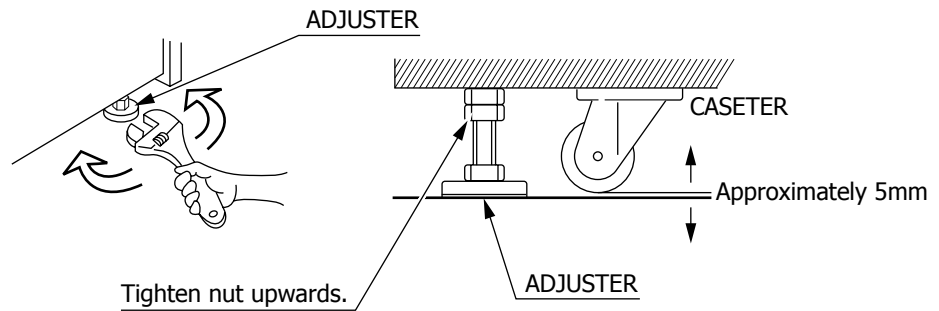


FIG. 6-1b Adjuster in contact with floor

A 1:100 scale view of the unit. Use it as a reference for installation site layout.

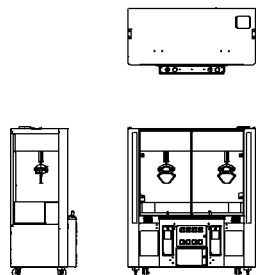


FIG. 6-1c Basic Cabinet

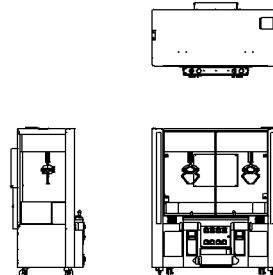


FIG. 6-1d Full Options Cabinet
(See Section 21.)

6-2 REMOVE SHIPPING BRACKETS

CAUTION

- Hold the parts to be removed firmly and then remove the screws that hold them in place. If parts are not held firmly, they may fall and cause an accident.
- Do not move the UFO mechanism while holding onto parts not described in the procedures. You may get your fingers, etc., caught and be injured.

IMPORTANT

- The mechanism is secured in place for shipment so it will not be damaged during transport. Before activating the power supply, be sure to remove the shipping brackets used to secure the mechanism. If they are not removed, parts may get damaged.
- Shipping brackets are required for preventing damage during transport. Be sure to store them carefully.

1. Open the glass door with the operator's key.

Unlock and open glass door.
(The opposite side can be opened in similar fashion)



PHOTO 6-2a

2. Remove the screw in the shipping bracket mechanism.

SHIPPING BRACKET MECHANISM

SCREW (1)
M4 x 8, with flat
& spring washers

Z MECHANISM

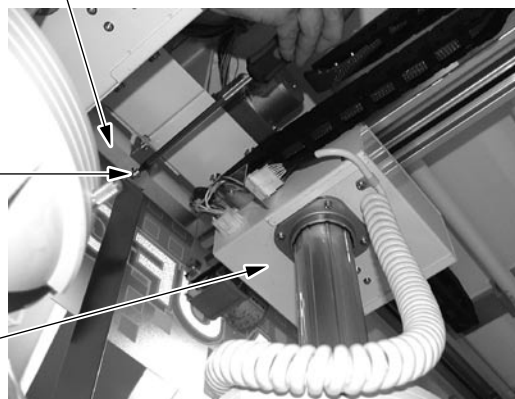


PHOTO 6-2b

3. Move the UFO mechanism to a location where it will be easy to work. Place hand as shown in the photo and move the mechanism. Do not move holding other parts as you may get your fingers caught and be injured. Also, the mechanism itself may become damaged.

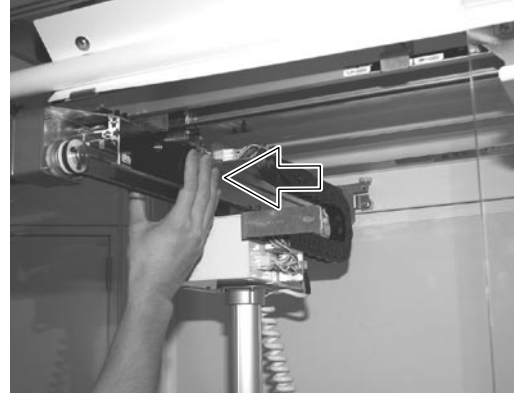
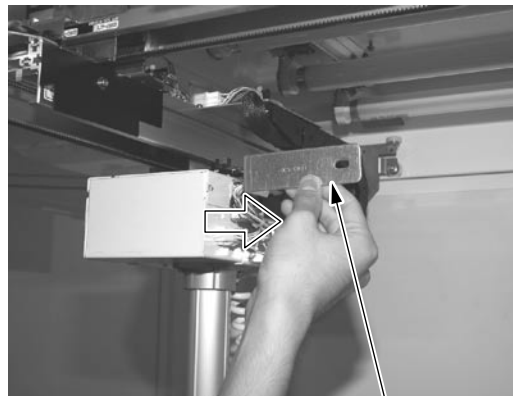


PHOTO 6-2c

4. Remove the screw. Make sure to hold the shipping bracket mechanism so it will not fall down, then remove the screw.



SHIPPING BRACKET MECHANISM



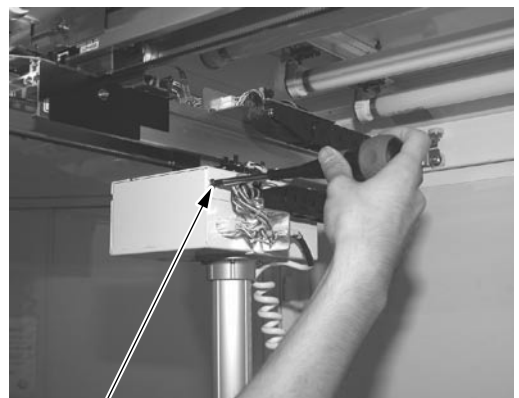
Remove

PHOTO 6-2d

SCREW (1)

M4 x 8, with flat & spring washers

5. Secure in place with the accessory truss screw.
6. Perform steps 3, 4, and 5 again on the opposite side.

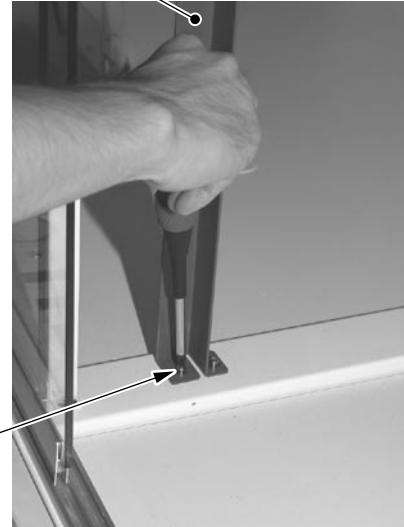


TRUSS SCREW (1), chrome
M4 x 8

PHOTO 6-2e

7. Remove the two screws at the bottom of the shipping center bar.

SHIPPING CENTER BAR



SCREW (2)
M4 x 8, with flat & spring washers

PHOTO 6-2f

8. Remove the screw at the top of the shipping center bar.
Make sure to hold the shipping center bar, then remove the screw.

SCREW (1)
M4 x 8, with flat & spring washers



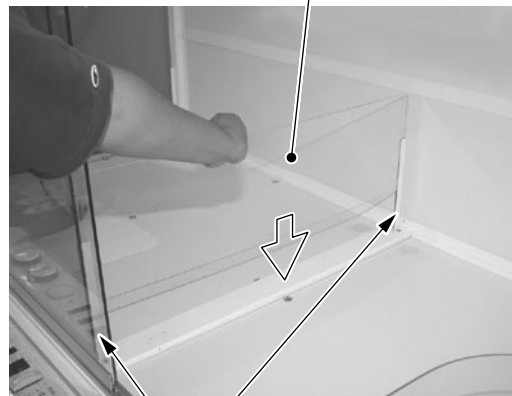
SHIPPING CENTER BAR

PHOTO 6-2g

6-3 ATTACH PARTITION

When attaching the partition, insert the partition CL into the partition bracket CL.

PARTITION CL



PARTION BRACKET CL

PHOTO 6-3

6-4 CONNECT POWER CORD

WARNING

- Use a power supply equipped with an electric leakage circuit breaker. If you use a power supply without an electric leakage circuit breaker, a short circuit may occur and start a fire.
- After laying out the power cord on the floor, make sure that it is securely protected from exposure. If the cord is exposed anywhere, it could easily be damaged if a customer should trip or stumble over it. Such damages could cause accidents from electrical shocks or short circuits. Either lay out the cord so it will not interfere with customer traffic, or protect it with a cover.

1. There is an AC unit on the cabinet rear panel. The AC unit has a main switch and an inlet for connecting the power cord.

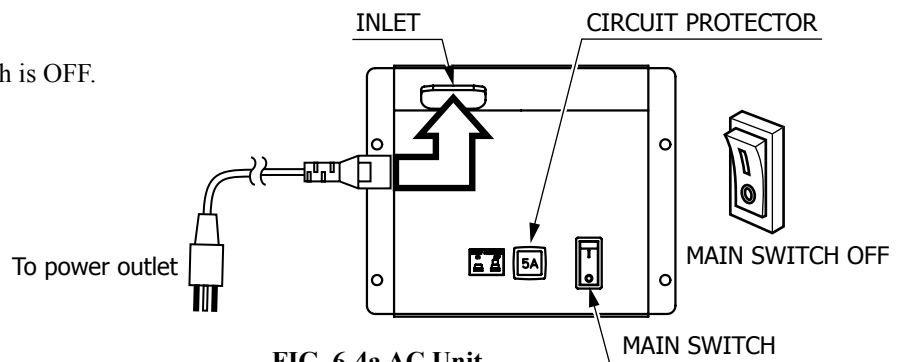


FIG. 6-4a AC Unit

3. The power cord is inserted from the bottom of the cabinet and comes out through a hole in the AC unit. However, it is not absolutely necessary to pass the cord through the hole. In some cases, depending on the environment in which the unit will be used, you can connect the power cord directly into the inlet.

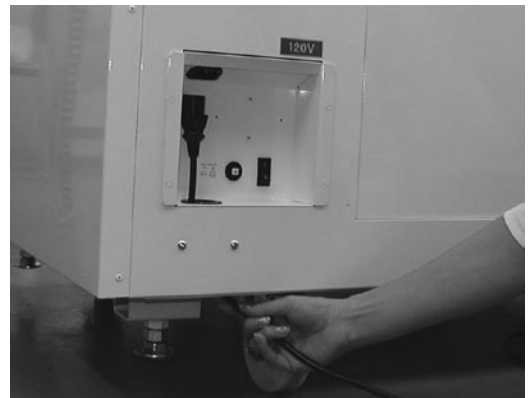


PHOTO 6-4

4. Insert the power cord connector into the inlet securely.
5. Insert the power cord plug into the power outlet securely.
6. Lay out the power cord. Place a cover over the laid out power cord so that it will be protected.

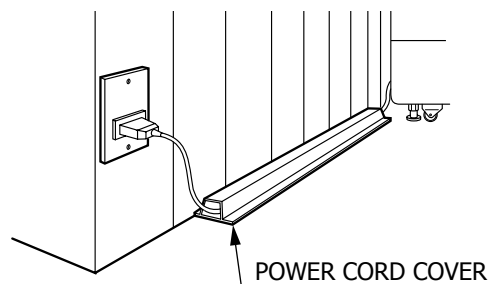


FIG. 6-4b Power Card Layout

6-5 ACTIVATE POWER SUPPLY

On this product, there is a power supply switch on the AC unit on the cabinet rear panel and on the internal switch unit. (The internal switch unit is inside the service door. Use the operator's key to open the service door.)

Even when both of these switches are ON, there will be no power unless the glass doors on right and left are closed securely. Normally, leave one of these switches ON and turn the other power supply switch ON/OFF to use. When the power supply is activated, the billboard, the internal fluorescent lighting, and the left and right fluorescent lights all turn on.

Now we will check the operation (initialization) of all motors and sensors in the UFO mechanism of this product.

These operations are also carried out upon completion of the test mode.

When in [Display mode], all of the 7-segment displays (numeric display, hereafter "7-seg display") read "-", the game cannot be played, and coins are returned. Initialization also does not take place. (See Section 12.)

INITIALIZATION

During initialization, the UFO mechanism moves in the following sequence.

If an error is discovered during this series of operations, an error message is displayed and the UFO mechanism stops. (See Section 19)

1. UFO returns to home position (above the prize drop-out slot).
2. UFO moves toward the back of the cabinet. When it reaches the back limit, the UFO stops.
3. UFO moves sideways toward the center of the cabinet. When it reaches the center limit, the UFO stops.
4. UFO descends. When it reaches the lower limit, the UFO rises. Upon reaching the upper limit, the UFO stops.
5. UFO moves toward the front of the cabinet. When it reaches the front limit, the UFO stops.
6. UFO moves sideways toward the home position. Upon reaching the home position, the UFO stops. During stages 1 to 6 above, the UFO arm remains at the angle it assumed when the power supply was activated.
7. The UFO arm opens and closes.
8. After the arm closes, the catch sensor inside the UFO is initialized. This operation cannot be seen, but an error message will be displayed if there is an error in the sensor.

When the above initialization procedures are complete, the customer-standby status is assumed.

In this product, credits are remembered even if the power has been cut off. However, partial credits attained for multiple coins and bonus adder counts are deleted.

If credits remain, the game-play status is assumed upon completion of initialization.

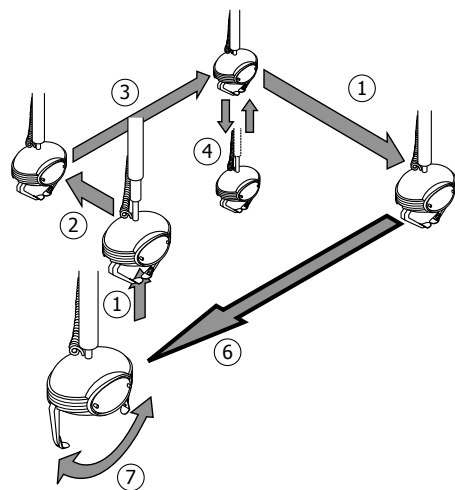


FIG. 6-5 Initialization of UFO mechanism on player 1 side (left seat)

7 PRECAUTIONS WHEN MOVING

⚠ WARNING

Carefully observe the following when moving the product. Failure to follow these instructions may result in personal injury during movement and/or damage to the cabinet.

- Disconnect the power cord plug before moving the product. Be careful not to damage the power cable during movement.
- To move the product over the floor, retract the adjusters and have the casters come in contact with the floor.
- After the casters are in contact with the floor, exercise special caution, as the unit could move by itself if the floor is inclined.
- To lift the cabinet, always lift it holding the bottom. If you lift the cabinet holding other areas, parts or attachments could be damaged due to the weight of the cabinet.

⚠ CAUTION

- Do not press on glass components while moving the product. Careless handling could cause damage to other parts. Fragments may also cause injury.
- When moving the cabinet over areas with level differences and the cabinet is projected to tilt due to the incline, attach shipping brackets and secure the UFO mechanism in place. If the UFO mechanism is not secured in place, parts could be damaged.

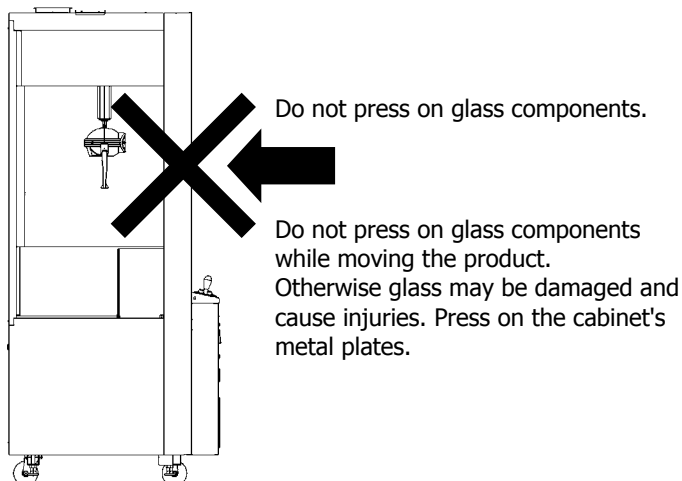


FIG. 7a

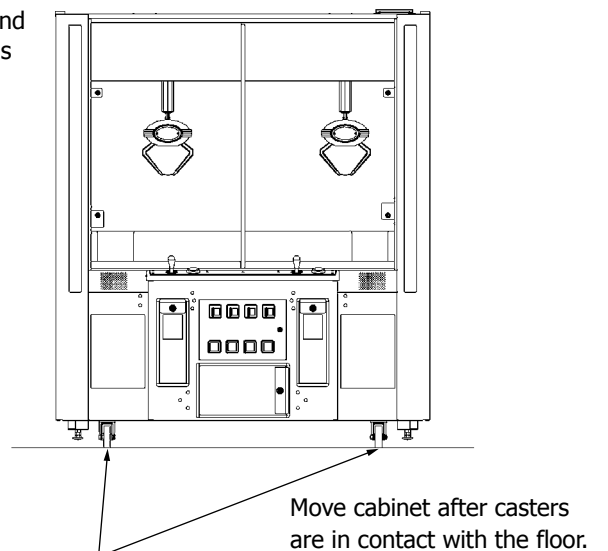


FIG. 7b

8 PRIZE REPLACEMENT

CAUTION

- Observe and follow the conditions listed below for prizes used with this product. Failure to follow the conditions could lead to product malfunctions and components may be damaged. The prizes themselves may also be damaged.
- Prizes can be stacked up to a maximum height of 40 cm (15.7 in), and 800 g (1.8 lb) or less in weight. If this limit is exceeded, there could be product malfunctions and components may be damaged. The prizes themselves may also be damaged.
- Exercise special care when handling glass components. Careless handling could cause damage to the glass. Fragments may also cause injury.
- If the larger arm L has been attached, enlarge the prize drop-out slot for large-size prizes. Otherwise there could be malfunctions or damage when the arm makes contact. The prizes themselves may also be damaged.
- Do not place prizes on, or suspend them from, the mechanism rail or moveable parts. This could cause product malfunctions and components may be damaged.
- Even if prizes meet the conditions set forth in these instructions, there could be unexpected faulty operations due to prize materials, shapes, and/or centers of gravity.

Use the operator's key to open the glass door, then place prizes in the play field.

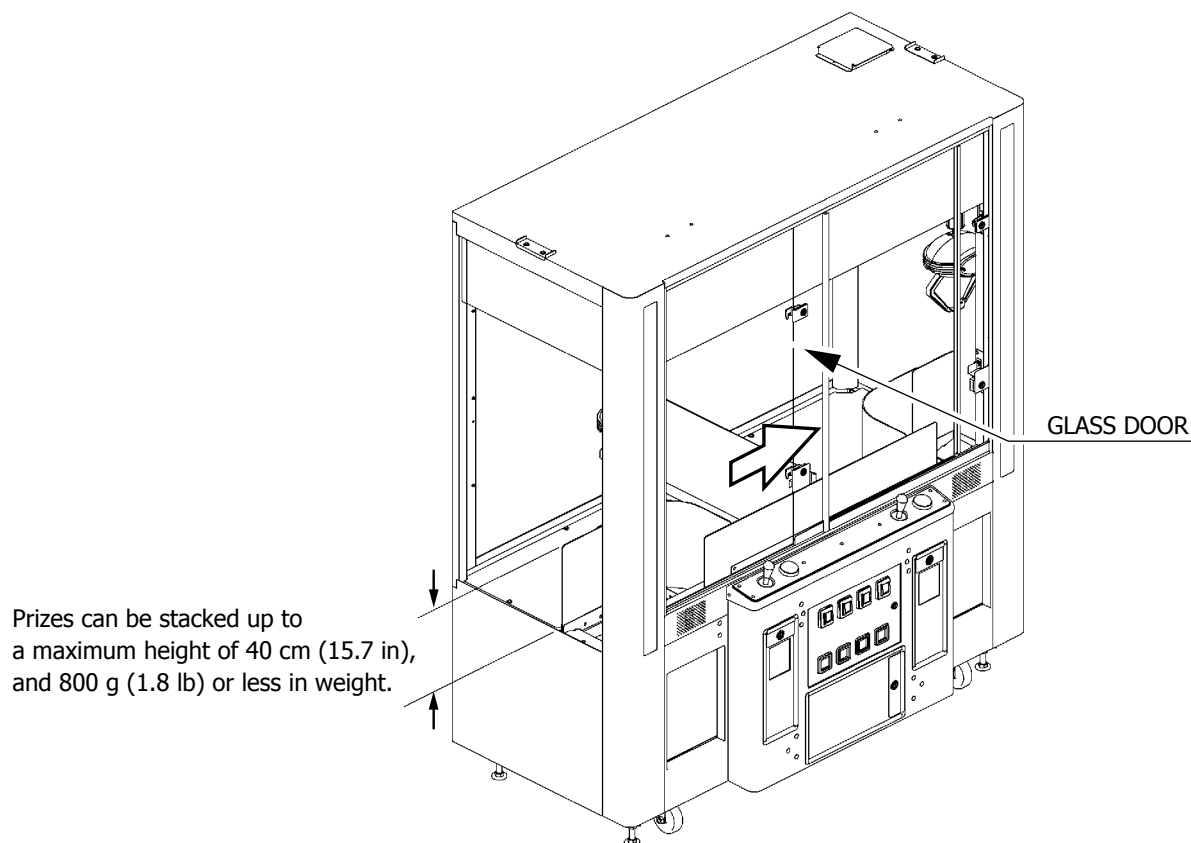
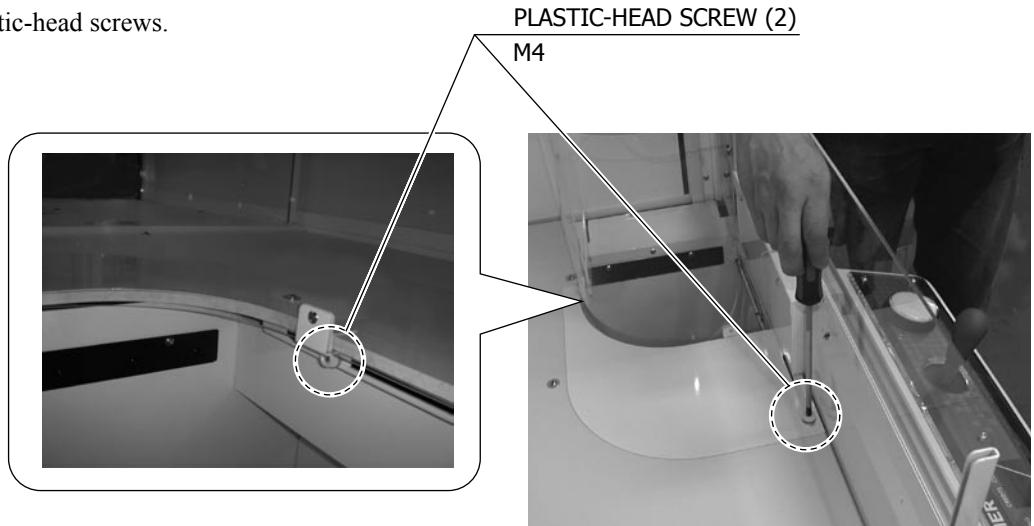


FIG. 8

CHANGING THE PRIZE DROP-OUT SLOT

If arm L has been attached for large-size prizes, enlarge the prize drop-out slot.
(These instructions are for the 2P side drop-out slot.)

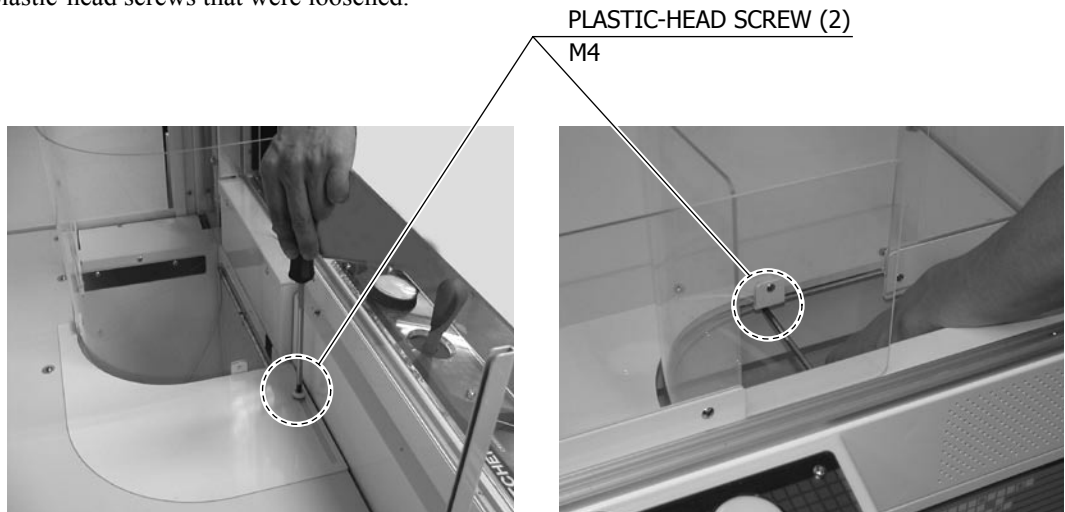
1. Loosen the 2 plastic-head screws.



2. Support the bottom of the corner partition and slide it to widen the drop-out slot. Do not press down on the top of the corner partition (acrylic) to slide. Excessive force could damage components.



3. Tighten the 2 plastic-head screws that were loosened.



9 GAME CONTENT

The following explanations apply when the product functions normally. If the product behaves in a manner at variance with the content below, there may be a malfunction of some sort. Try to identify the cause of the problem immediately and repair it so that the unit can be operated normally.

HOW TO PLAY

In this product, the internal fluorescent lighting (for both billboard and internal lighting), and the left and right fluorescent lights light up when there is electrical continuity.

During customer-standby status, the UFO mechanism is stationary at the home position (above the prize drop-out slot).

All the buttons' lights on the control panel go out and the BGM outputs standby music.

The BGM can also be set for no output.

Play fee and play count are displayed on the 7-seg displays on the control panel.

When in [Display mode], all of the 7-seg displays read “-”, the game cannot be played, and coins (or bills) are returned. (See Section 12.)

1. When coins are inserted, the time remaining (how long the UFO mechanism can be operated) and the number of games remaining are displayed on the 7-seg displays at the seat that is being playing.

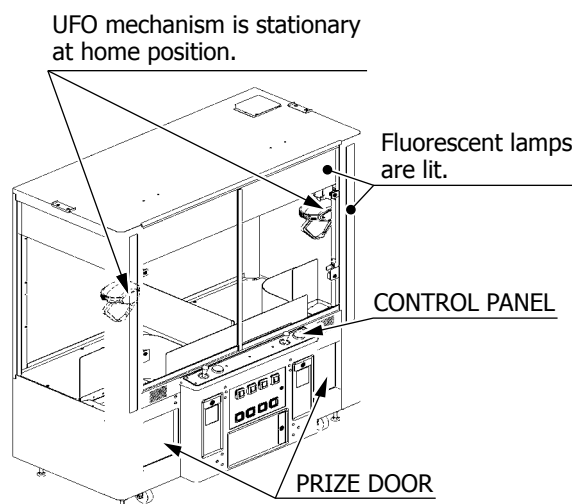


FIG. 9a Customer-standby Status

2. When 9 credits are exceeded, no more coins are accepted. (The coins are returned.)
For example, if it is set so that 1 coin equals 2 credits and 8 credits have been established, the total becomes 10 credits when the next coin is inserted. At this time, the 7-seg display blinks alternately between “1” and “0” and no more coins can be accepted.

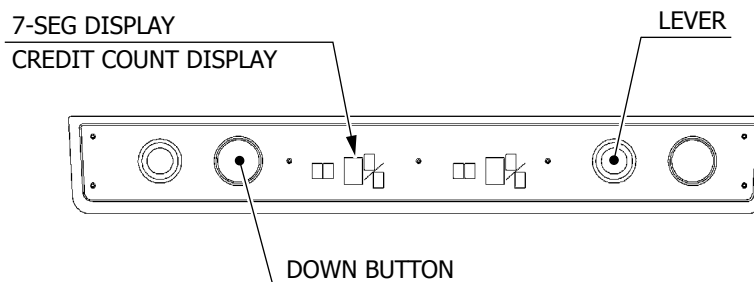


FIG. 9b Control Panel

3. When the lever is manipulated, time count begins and the UFO mechanism moves in the direction in which the lever is manipulated.
4. The arm of the UFO mechanism opens automatically whenever time runs out or the DOWN BUTTON has been pressed.

5. When the arm of the UFO mechanism opens completely, the UFO mechanism begins to descend.
6. Whenever the UFO mechanism comes in contact with a prize or other obstacle, or when the wire is stretched to its full length, the UFO mechanism stops descending and the arm closes.
7. After the arm has closed, the UFO mechanism begins to ascend. When it reaches the upper limit sensor, the UFO mechanism moves back to home position.
8. When the UFO mechanism reaches the home position, the arm opens.
9. When a prize passes the sensor, the fanfare rings.
10. When the arm opens and closes, 1 game is complete. If no credits remain at this time and the 7-seg display reads 0, the game is over. The BGM switches back to standby music. If credits remain, the next game can be played.
11. If the lever is not manipulated for 90 seconds, 1 credit is erased and the UFO mechanism arm opens and descends at the current position. The arm then closes and ascends and the UFO mechanism returns to home position.

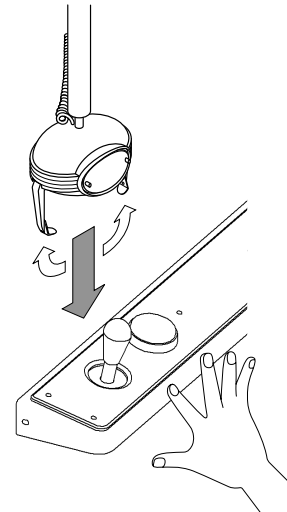
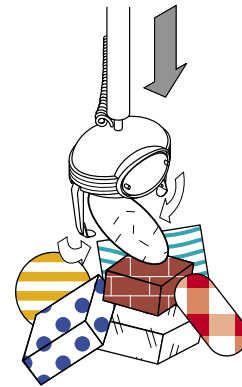
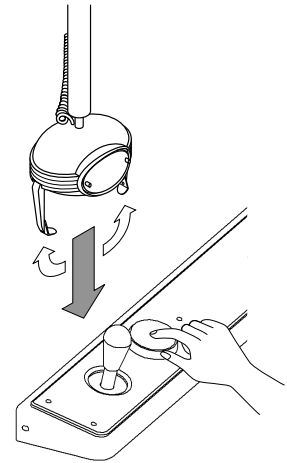


FIG. 9c

10 GAME BOARD

WARNING

- Before performing work, be sure to turn the power off and unplug the electrical cord from the outlet. Performing the work without turning the power off can 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 expose the Game Board, etc. for any reason. Doing so may cause electric shock or malfunctioning.

CAUTION

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.

To access the game board, remove the 2 tamperproof screws on the back side of the cabinet, then use the master key to remove the back lid. The game board is inside.



PHOTO 10

GAME BOARD CONFIGURATION DIAGRAM

GAME BD UCU: 834-14606 (R)

The DIP SWs on the game board are not used for game settings but must all be set to OFF.

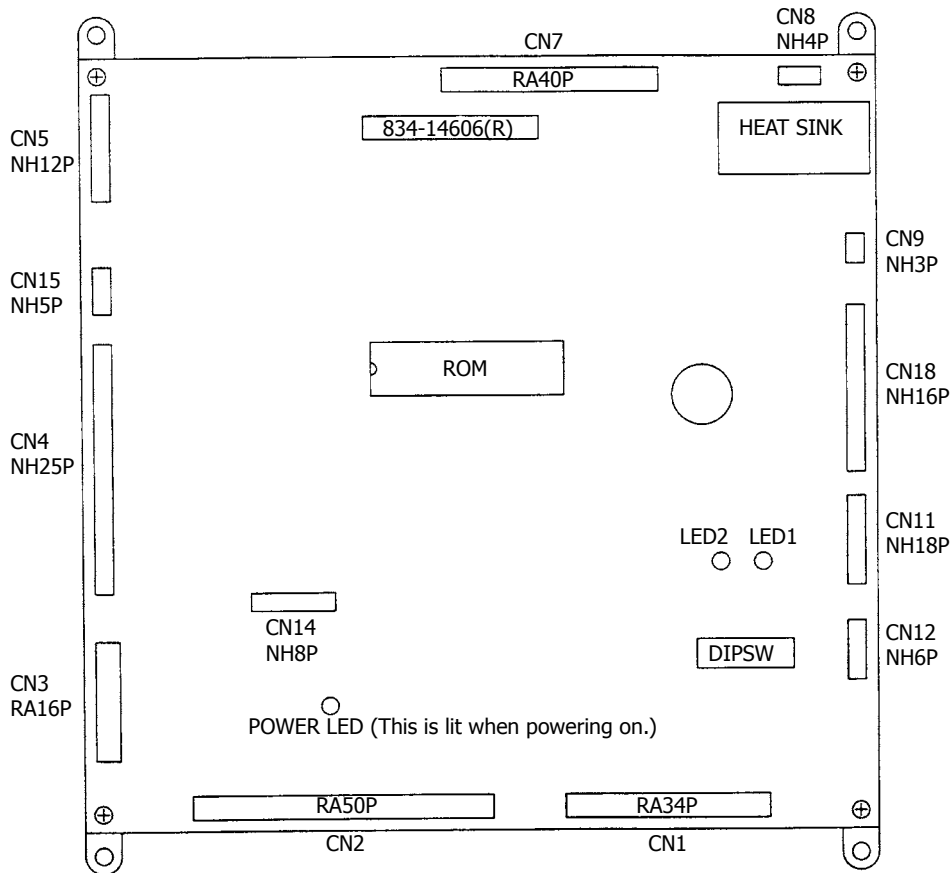


FIG. 10

CONNECTORS AND INPUT/OUTPUT

- [CN1 (JST RA34P)]: Switch, Analog Input
- [CN2 (JST RA50P)]: Switch, Sensor Input
- [CN3 (JST RA16P)]: Power Supply Input
- [CN4 (JST NH25P)]: Lamp, Catch Motor Output
- [CN5 (JST NH12P)]: Not used.
- [CN7 (JST RA40P)]: Meter, AC Motor Output
- [CN8 (JST NH4P)]: Speaker Output
- [CN9 (JST NH3P)]: Sound Volume Input
- [CN10 (JST NH16P)]: 7-seg Display Output
- [CN11 (JST NH10P)]: 7-seg Display Output
- [CN12 (JST NH6P)]: Not used.
- [CN14 (JST NH8P)]: Not used.
- [CN15 (JST NH5P)]: DIPSW BD Signal

11 EXPLANATION OF TEST AND DATA DISPLAY

11-1 SWITCH UNIT AND CASH BOX

⚠ WARNING

Do not touch any areas other than those indicated. Touching other areas may cause accidents from electrical shocks or short circuits.

IMPORTANT

If the coin meter circuit is left detached, games cannot be played.

When you open the service door at the bottom of the cabinet front panel, you will find a switch unit deep inside. The functions of each button on the switch unit are as described below.

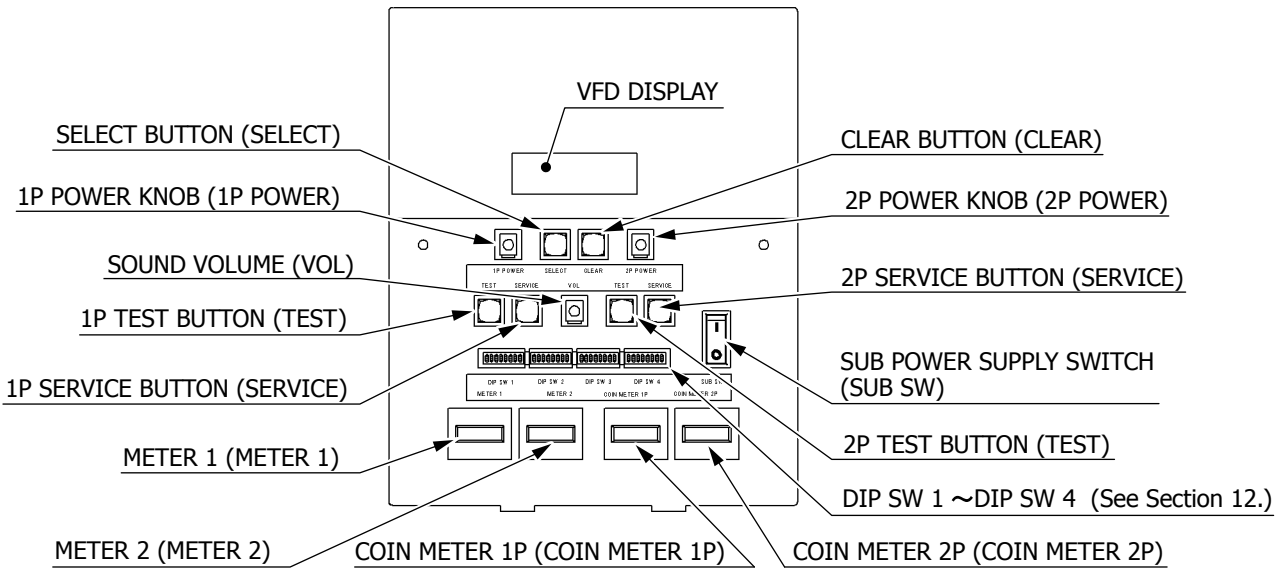


FIG. 11-1

- VFD Display: Monitor for displaying conditions such as income data.
- 1P Power Knob: Adjusts the strength of the 1P UFO mechanism spring. Adjustment ranges from 00 (weakest) to 99 (strongest).
- 2P Power Knob: Adjusts the strength of the 2P UFO mechanism spring. Adjustment ranges from 00 (weakest) to 99 (strongest).
- Select Button: Used when switching VFD display content.
- Clear Button: Used when clearing data displayed on VFD.
- Test Button: Separated for 1P and 2P. Used when entering the test mode and when completing the test mode.

- Service Button: Separated for 1P and 2P. Used when increasing the number of credits for service without tabulating the coin meter. If this button is pressed when an error has occurred, the error sound stops. If it is pressed in test mode, credits are cleared.
- Sound Volume: Adjusts the game music volume. Set for a suitable volume in consideration of the surrounding environment.
- Meter: Count content set with DIP SW2 is displayed on meter 1 and meter 2.
- Coin Meter: Separated for 1P and 2P. Counts the number of coins inserted in the coin slot.
- Sub Power Supply Switch: This is a power supply switch. The main switch is located on the AC unit on the cabinet rear panel. There is power when both switches are ON.

Open the cash box door to find the cash box inside.

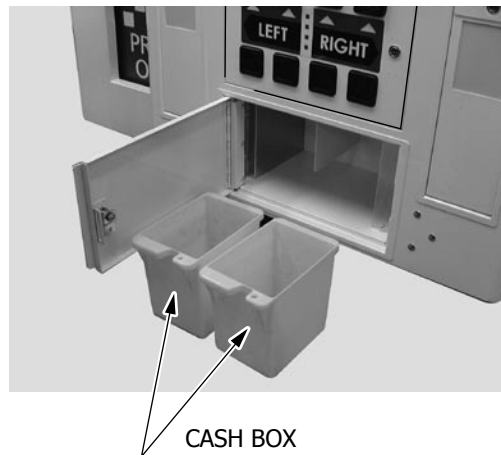


PHOTO 11-1

11-2 VFD DISPLAY CONTENT

Normally, the POWER setting screen is displayed.

When the select button is pressed, the current credit status can be displayed on VFD.

Each time the select button is pressed, the screen changes.

If there are no operations for 60 seconds, the POWER setting screen is restored.

When the select button is kept depressed for 2 seconds or longer, [Current count] and [Total count] can be toggled.

In [Current count], upon switching to [Service count since last clearing], the screen will return to [Income since last clearing].

In [Total count], upon switching to [Backup clear], the screen will return to [Total income count].

To clear data, enter test mode. Press the clear button when [CLEAR?] is displayed, and the data can be cleared.

In [Current count], it is possible to clear the data but the data cannot be cleared without being in test mode (The clear screen will not be displayed).

In [Total count], backup data cannot be cleared without both 1P and 2P being in test mode (The clear screen will not be displayed).

The data backup period lasts for two days after power has been cut off.

DISPLAY CONTENT

[Current count]

Total counts since the data had last been cleared are displayed. Examples include today's income, income after replacement of prizes, etc. (Data items can be cleared independently)

Current count

```
CURRNT  
COUNT
```

Income since last clearing

Displays income count since data had last been cleared. (One unit = 25 cents)

```
1P: 000000    current  
2P: 000000    coin
```

Display during 1P test mode

```
1P  CoinCount  
    000000 CLEAR?
```

Display during 2P test mode

```
2P  CoinCount  
    000000 CLEAR?
```

Play count since last clearing

Displays prize-out count since data had last been cleared.

```
1P: 000000    current  
2P: 000000    prize
```

Display during 1P test mode

```
1P  PrizeCount  
    000000 CLEAR?
```

Display during 2P test mode

```
2P  PrizeCount  
    000000 CLEAR?
```


Play count since last clearing

Displays play count since data had last been cleared. Since this is the play count, the display may differ from income depending on the setting.

1P: 000000	current
2P: 000000	credit

Display during 1P test mode

1P	CreditCount
	000000 CLEAR?

Display during 2P test mode

2P	CreditCount
	000000 CLEAR?

Payout rate since last clearing

Displays rate calculated from play count and prize-out count since data had last been cleared.

1P: 000%	current
2P: 000%	payout

Service count since last clearing

Displays number of games played using service button since data had last been cleared.

1P: 000000	current
2P: 000000	service

Display during 1P test mode

1P	ServiceCount
	000000 CLEAR?

Display during 2P test mode

2P	ServiceCount
	000000 CLEAR?

[Total Count]

Even when data has been cleared in [Current count], data in total count is not erased. This data accumulates unless the backup data is cleared.

Total count

TOTAL COUNT

Total income count

Displays total income count until backup is cleared.

1P: 000000	total
2P: 000000	coin

Total prize-out count

Displays total prize-out count until backup is cleared.

1P: 000000	total
2P: 000000	prize

Total play count

Displays total play count until backup is cleared.

1P: 000000	total
2P: 000000	credit

Total payout rate

Displays rate calculated from total play count and total prize-out count until backup is cleared.

1P: 000000	total
2P: 000000	payout

Total service count

Displays total service count until backup is cleared.

1P: 000000	total
2P: 000000	service

Backup data clear (Display when both 1P and 2P in test mode)

All data can be cleared. ([Current count] and [Credit] are also cleared)

BACKUP DATA CLEAR?

DISPLAY FLOW-CHART

The screen changes each time the select button is pressed.

If no other buttons are pressed and no operations are performed for 60 seconds, the POWER setting screen is restored.

When the select button is kept depressed for 2 seconds or longer, [Current count] and [Total count] can be toggled.

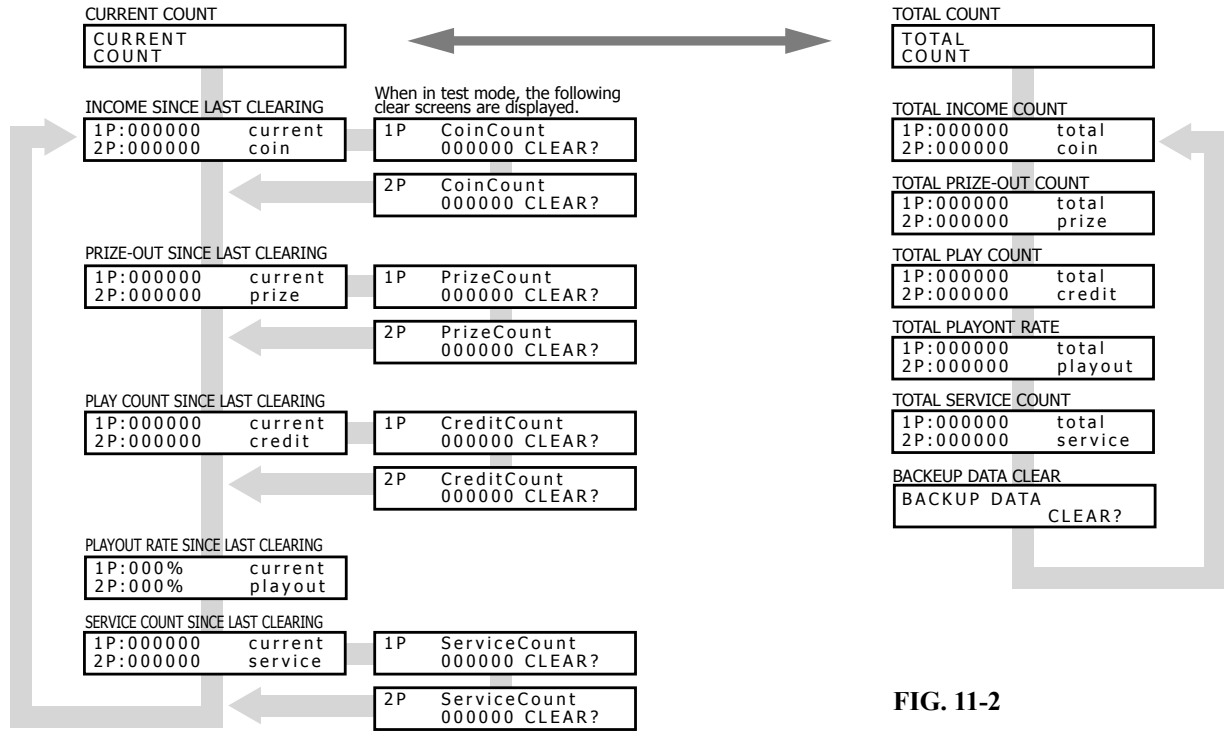


FIG. 11-2

POWER SETTINGS

Spring strength can be changed within the range of 00 to 99 by turning the power knob.

When the knob is turned to the right, the spring becomes stronger (low level of difficulty). When it is turned to the left, the spring becomes weaker (high level of difficulty).

1P and 2P can be changed independently.

When the knob is turned, the POWER value is shown on the VFD.

To display current POWER without turning the knob, press and hold down on the select button while pressing the clear button. Current POWER is shown on the VFD.

1P	POWER:	00
2P	POWER:	99

In the case shown in the figure above, 1P is set to high level of difficulty and 2P is set to low level of difficulty.

The power can be changed during operation so there is no need to reactivate the power supply.

Power becomes effective after changes have been made.

11-3 EXPLANATION OF TEST MODE

When the test button is pressed, the mechanism stops operating and test mode is established.

When in test mode, the test mode number is displayed on the 7-seg display.

There are a total of 4 test mode types. Test mode number is changed using the down button and operation is done using the lever.

To end test mode, press the test button once again.

When initialization completes normally, the credits before test mode are restored and game mode is re-established. However, partial credits attained for multiple coins are deleted.

Coins are not accepted during test mode. If the service button is pressed during test mode, credits are cleared.

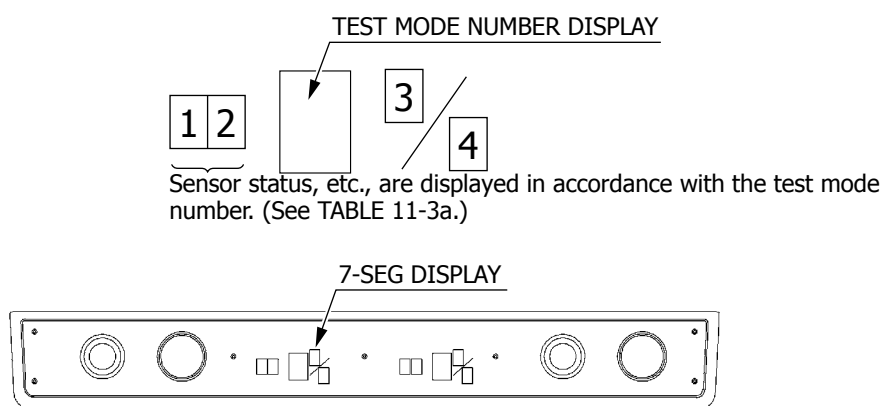
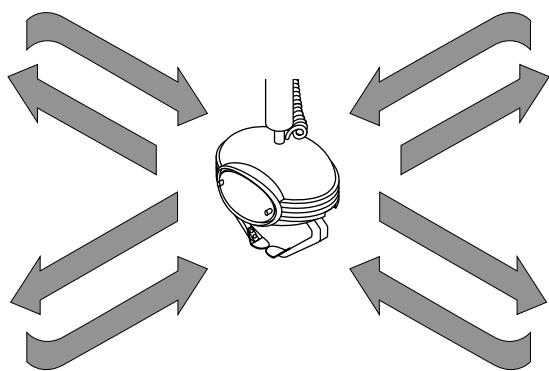


FIG. 11-3a

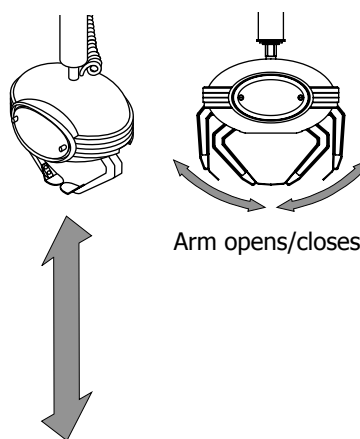
TABLE 11-3a

Test Mode Number	Operation Content
Test mode 1	UFO mechanism moves forward/backward/left/right as the lever is moved forward/backward/left/right.
Test mode 2	UFO mechanism moves up/down as the lever is moved forward/backward.
Test mode 3	When the lever is manipulated, the arm opens/closes repeatedly.
Test mode 4	Prize sensor and down switch lamp can be checked.



Moves forward/backward/left/right

FIG. 11-3b



Moves up/down

FIG. 11-3c

During test mode, the content for the small 7-seg display are as indicated below.
 If the limit sensor is entered or operation has just begun, "0" is displayed.

TABLE 11-3b

Test Mode Number	7-Seg Display Reads	Content
Test mode 1	7-seg 1 7-seg 2 7-seg 3 7-seg 4	Limit sensor LEFT Limit sensor RIGHT Limit sensor FWD Limit sensor BACK
Test mode 2	7-seg 1 7-seg 2 7-seg 3 7-seg 4	Limit sensor UP Limit sensor DOWN — —
Test mode 3	7-seg 1 7-seg 2 7-seg 3 7-seg 4	Open sensor — — —
Test mode 4	7-seg 1 7-seg 2 7-seg 3 7-seg 4 (Down switch also lights up in response to prize sensor)	Prize sensor — — —

12 DIP SW SETTINGS

⚠ WARNING

Turn off the power supply before changing DIP SW. If the power is left on while DIP SW are changed, electrical shock may occur.

IMPORTANT

- Make sure the DIP SW that are designated to be OFF are turned OFF. If DIP SW are set to other than prescribed settings, there will be instances when behavior is not suited to actual operations.
- Changed settings do not become effective until the power supply has been reactivated after changing DIP SW.
- The DIP SW on the game board are not used for game settings but must all be set to OFF.

With this product, settings can be changed to those shown in the table by changing the DIP SW (DIP Switch) settings on the switch unit.

DIP SW 1 adjusts coin credit settings; DIP SW 2 sets common game operations for 1P and 2P; DIP SW 3 and 4 set the game operations for 1P and 2P, respectively.

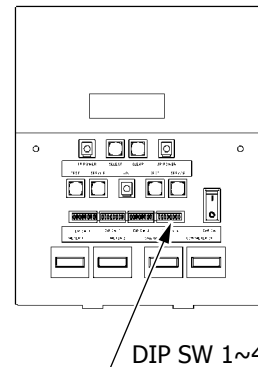


FIG. 12


COIN SETTINGS

Coin credit settings (credits awarded per coin) are set using DIP SW 1.

When 9 credits are exceeded, no more coins are accepted and the coins are returned.

However, if 1 coin is worth 2 credits or more, and 8 credits are remaining, 10 credits or more are established (10 credits or more can be established, depending on the setting).

For example, if it is set so that 1 coin equals 2 credits and 8 credits have been established, the total becomes 10 credits when the next coin is inserted. At this time, the 7-seg displays blink alternately between “1” and “0” and no more coins can be accepted.

When FREE PLAY is selected, “” is shown on the 7-seg display and games can be played without engaging the coin and service switches.

SETTING COMMON GAME OPERATIONS FOR 1P AND 2P

Common game operations for 1P and 2P are set with DIP SW 2.

BGM SOUND

Sounds for when the unit is in customer-standby status or when a game is being played can be set.

BGM1: Two music pieces change each time a game is completed.

BGM2: Game music is played also while in customer-standby status.

BGM3: Two Christmas songs change each time a game is completed.

BGM4: No music is heard during customer-standby status or game play.

METER SETTINGS

TOTAL COIN (BILL=4COIN) / TOTAL PRIZE

- METER 1: 1P + 2P total coins are counted.
- METER 2: 1P + 2P total prizes are counted.

TOTAL COIN (25¢) /TOTAL BILL (\$1)

- METER 1: 1P + 2P total 25-cent coins are counted.
- METER 2: 1P + 2P total \$1-bills are counted.

1P PRIZE/2P PRIZE

- METER 1: 1P prizes are counted.
- METER 2: 2P prizes are counted.

1P BILL (\$1) /2P BILL (\$1)

- METER 1: 1P \$1-bills are counted.
- METER 2: 2P \$1-bills are counted.

CRIME PREVENTION MODE

To prevent theft, an alarm sounds whenever the prize sensor activates during customer-standby status.

PRIZE COUNT (during customer-standby)

If the prize sensor activates during customer-standby, there is an option to count it as a prize-out or not. (Prize-out is counted even while crime prevention mode is operating)

SETTING GAME OPERATIONS FOR 1P AND 2P SEPERATELY

Settings can be changed for game operations on the 1P side using DIP SW 3 and the 2P side using DIP SW 4.

PLAY TIME

Sets the time period during which manipulations can be made during game play.

GAME MODE

NORMAL MODE (1credit for 1game)

1 credit allows for 1 game to be played.

TIMER MODE (Games can be played any number of times during the time period.)

Games can be played any number of times if still within the time period.

DISPLAY MODE

Setting so that games cannot be played (for display, etc.).

In this mode, coins are not accepted and games cannot be played. All of the 7-seg displays read “-” and coins are returned. Initialization also does not take place.

PRIZE SENSOR

Setting to use the prize sensor. Prize sensor is used when set to [ON]. If the sensor breaks down, set to [OFF].

The sensor will not respond to any action and prizes are not counted when obtained.

Even when set to ON and the sensor is broken, [Crime Prevention Mode] and [Prize Count (during customer-standby)] will not work.

DIP SW1 COIN SETTINGS

DIP_SW1		1	2	3	4	5	6	7	8
COIN 1P	1 COIN 1 CREDIT	OFF	OFF	OFF	OFF				
	2 COINS 1 CREDIT	ON	OFF	OFF	OFF				
	3 COINS 1 CREDIT	OFF	ON	OFF	OFF				
	4 COINS 1 CREDIT	ON	ON	OFF	OFF				
	5 COINS 1 CREDIT	OFF	OFF	ON	OFF				
	6 COINS 1 CREDIT	ON	OFF	ON	OFF				
	7 COINS 1 CREDIT	OFF	ON	ON	OFF				
	8 COINS 1 CREDIT	ON	ON	ON	OFF				
	9 COINS 1 CREDIT	OFF	OFF	OFF	ON				
	4 COINS 2 CREDITS	ON	OFF	OFF	ON				
	NOT USE								
	NOT USE								
	NOT USE								
	NOT USE								
	FREE PLAY	ON	ON	ON	ON				
COIN 2P	1 COIN 1 CREDIT					OFF	OFF	OFF	OFF
	2 COINS 1 CREDIT					ON	OFF	OFF	OFF
	3 COINS 1 CREDIT					OFF	ON	OFF	OFF
	4 COINS 1 CREDIT					ON	ON	OFF	OFF
	5 COINS 1 CREDIT					OFF	OFF	ON	OFF
	6 COINS 1 CREDIT					ON	OFF	ON	OFF
	7 COINS 1 CREDIT					OFF	ON	ON	OFF
	8 COINS 1 CREDIT					ON	ON	ON	OFF
	9 COINS 1 CREDIT					OFF	OFF	OFF	ON
	4 COINS 2 CREDITS					ON	OFF	OFF	ON
	NOT USE								
	NOT USE								
	NOT USE								
	NOT USE								
	FREE PLAY					ON	ON	ON	ON

DIP SW2 SETTING COMMON GAME OPERATIONS FOR 1P AND 2P

DIP_SW2		1	2	3	4	5	6	7	8
BGM SOUND	BGM1	OFF	OFF						
	BGM2	ON	OFF						
	BGM3 (Xmas)	OFF	ON						
	OFF	ON	ON						
METER SETTINGS	TOTAL COIN (BILL=4COIN) /TOTAL PRIZE			OFF	OFF				
	TOTAL COIN (25¢) /TOTAL BILL (\$1)			ON	OFF				
	1P PRIZE/2P PRIZE			OFF	ON				
	1P BILL (\$1) /2P BILL (\$1)			ON	ON				
CRIME PREVENTION MODE	ON					OFF			
	OFF					ON			
PRIZE COUNT (During customer-standby)	OFF						OFF		
	ON						ON		

NOTE: Set No. 7 and 8 switches to OFF.

DIP SW3 (1P) DIP SW4 (2P) SETTING GAME OPERATIONS FOR 1P AND 2P SEPERATELY

DIP_SW3,4		1	2	3	4	5	6	7	8
PLAY TIME	15s	OFF	OFF	OFF					
	20s	ON	OFF	OFF					
	30s	OFF	ON	OFF					
	40s	ON	ON	OFF					
	50s	OFF	OFF	ON					
	60s	ON	OFF	ON					
	90s	OFF	ON	ON					
	120s	ON	ON	ON					
GAME MODE	NORMAL MODE (1 credit for 1 game)				OFF				
	TIMER MODE (Games can be played any number of times during the time period)				ON				
DISPLAY MODE	NORMAL GAME							OFF	
	NO ACTIVITY (AND NO INITIALIZATION)							ON	
PRIZE SENSOR	ON								OFF
	OFF								ON

NOTE: Set No. 5 and 6 switches to OFF.

13 ARM MECHANISM

⚠ WARNING

- Before performing work, be sure to turn the power off and unplug the electrical cord from the outlet. Performing the work without turning the power off can 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.

⚠ CAUTION

- When securing plastic components, be careful not to tighten screws or nuts excessively. This may cause damage to the components. Fragments may also cause injury.
- Before starting to manipulate the arm mechanism, cut off the power supply during customer-standby status. Otherwise there could be malfunctions or damage.

13-1 ARM REPLACEMENT

To replace the arm L, enlarge the prize drop-out slot. (See Section 8)
For the following procedures, an M3 slotted screwdriver is required.

1. Cut off the power supply in customer-standby status.
2. Use the operator's key to open the glass door.
3. Move the UFO mechanism to a location where it will be easy to work. Place hand as shown in the photo and move the mechanism. Do not move holding other parts as you may get your fingers caught and be injured. Also, the mechanism itself may become damaged.

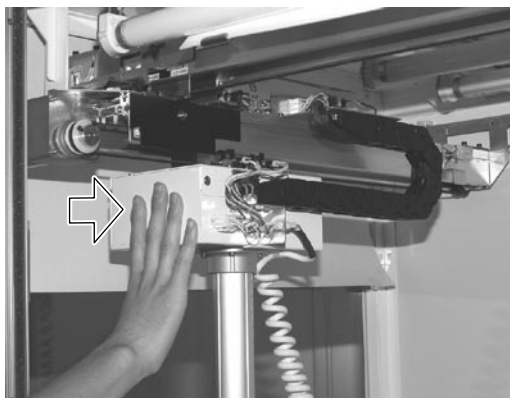


PHOTO 13-1a

4. Loosen the two screw shafts on the back of the UFO mechanism.

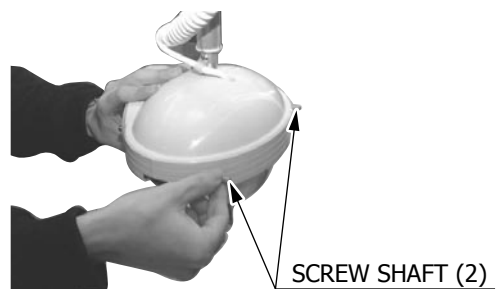


PHOTO 13-1b

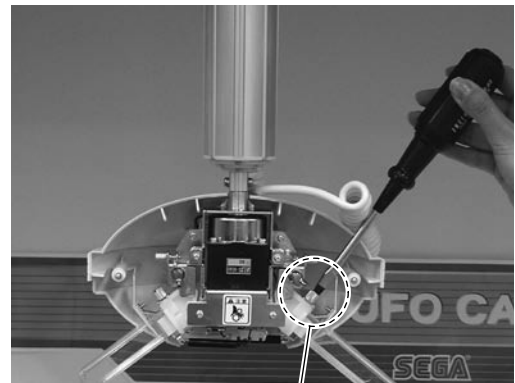
5. Remove the UFO front cover

UFO FRONT COVER



PHOTO 13-1c

6. Use a slotted screwdriver to loosen the bolts that holds the arm in place.



ARM BOLT
M3 x 6

PHOTO 13-1d

7. There are U-shaped notches on the mechanism mask. Slide the mechanism mask toward you and then remove it.

NOTE: For arm replacement on the opposite (left) side, slide the mask mechanism away from you and then remove it. (Notch orientations are different)

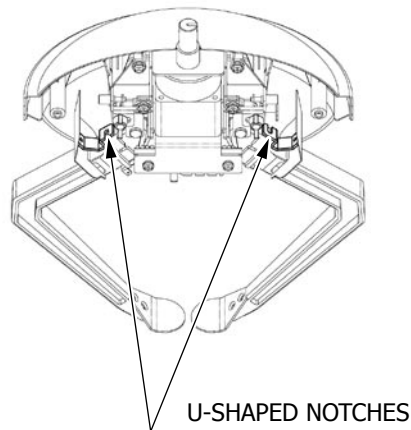


FIG. 13-1

MECHANISM MASK

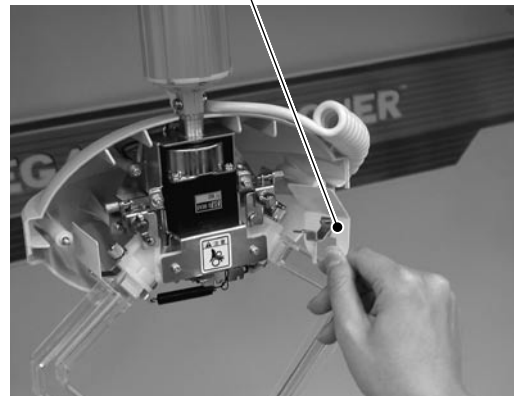


PHOTO 13-1e

8. Remove the arm and attach the arm S or L replacement.
9. Refer to step 7 and reattach the mechanism mask. Pay special attention to the direction of the U-shaped notch when attaching.

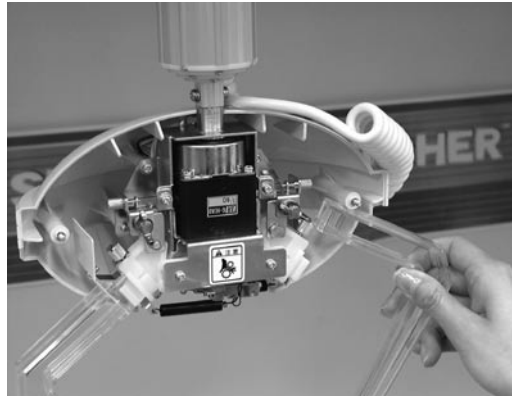
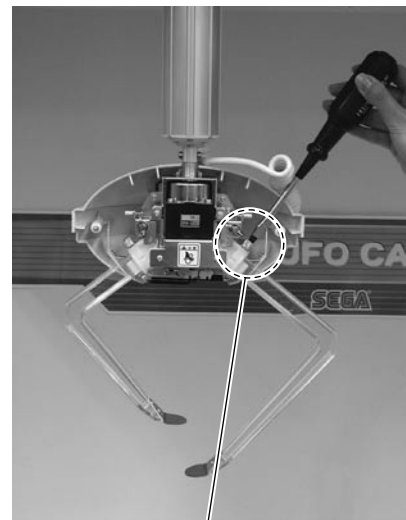


PHOTO 13-1f

10. Use a slotted screwdriver to tighten the bolt that holds the arm in place (which had been loosened).



ARM BOLT
M3 x 6

PHOTO 13-1g

11. The arm on the opposite (left) side can be replaced by following the same procedure.

NOTE: When attaching or removing the mechanism mask as indicated in steps 7 and 9, remember that the slide direction is different. Slide the mechanism mask away from you to remove it; slide it toward you to attach it.

13-2 ADJUSTMENT OF SENSOR BRACKET POSITION

When changing the arm size or to limit the range in which the UFO mechanism can move horizontally, change the position of the sensor bracket. The UFO mechanism stops where the sensor bracket is located. The sensor brackets are in a symmetrical spatial relationship with respect to 1P and 2P.

1. Loosen the wing screw and move the sensor bracket HP (Home Position) to the location indicated by the sticker.

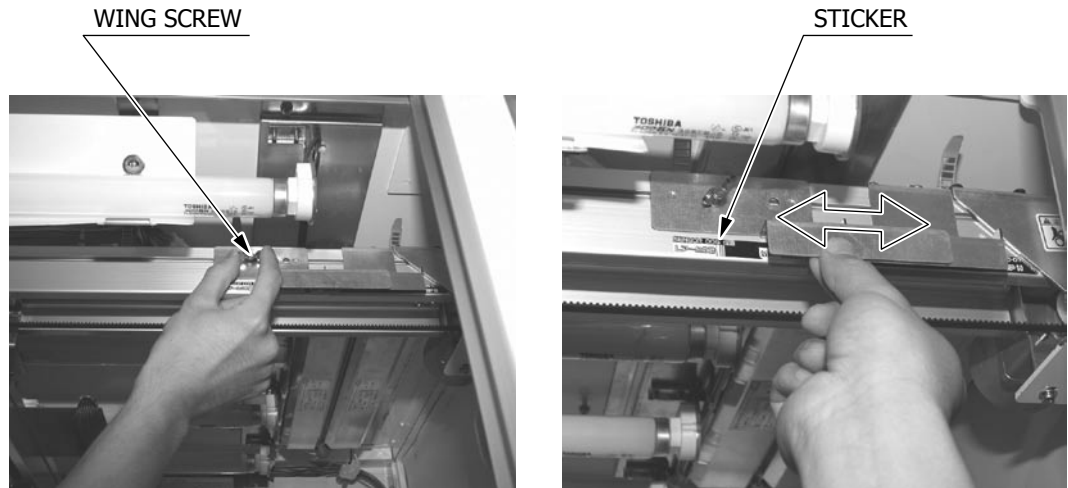
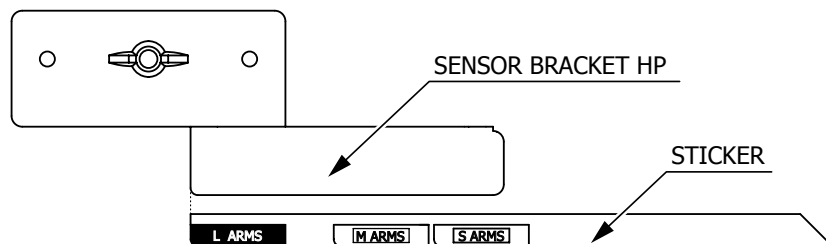
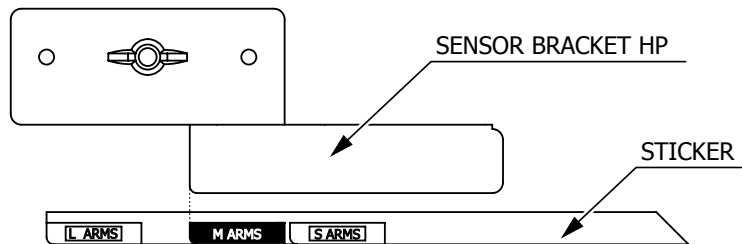


PHOTO 13-2a

When attaching arm L (2P):



When attaching arm M (2P):



When attaching arm S (2P):

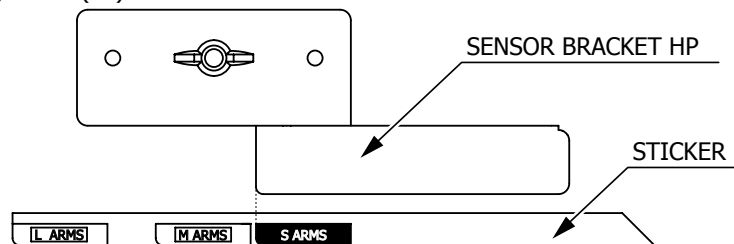


FIG. 13-2a

2. Tighten the wing screw.

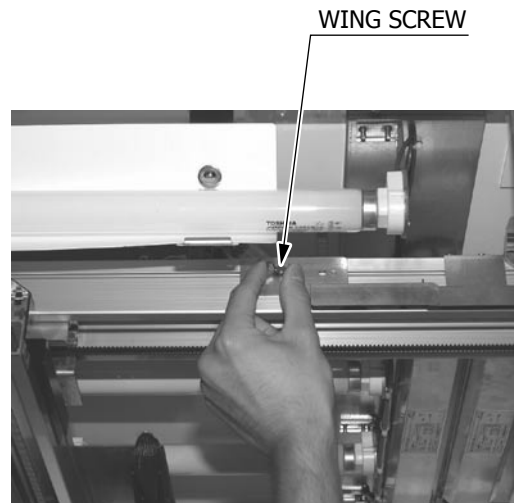


PHOTO 13-2b

3. Follow the above procedures to adjust the sensor bracket limit on the opposite side.



PHOTO 13-2c

The sensor bracket limit positions and areas where the UFO mechanism cannot be moved to are as shown in the illustration.

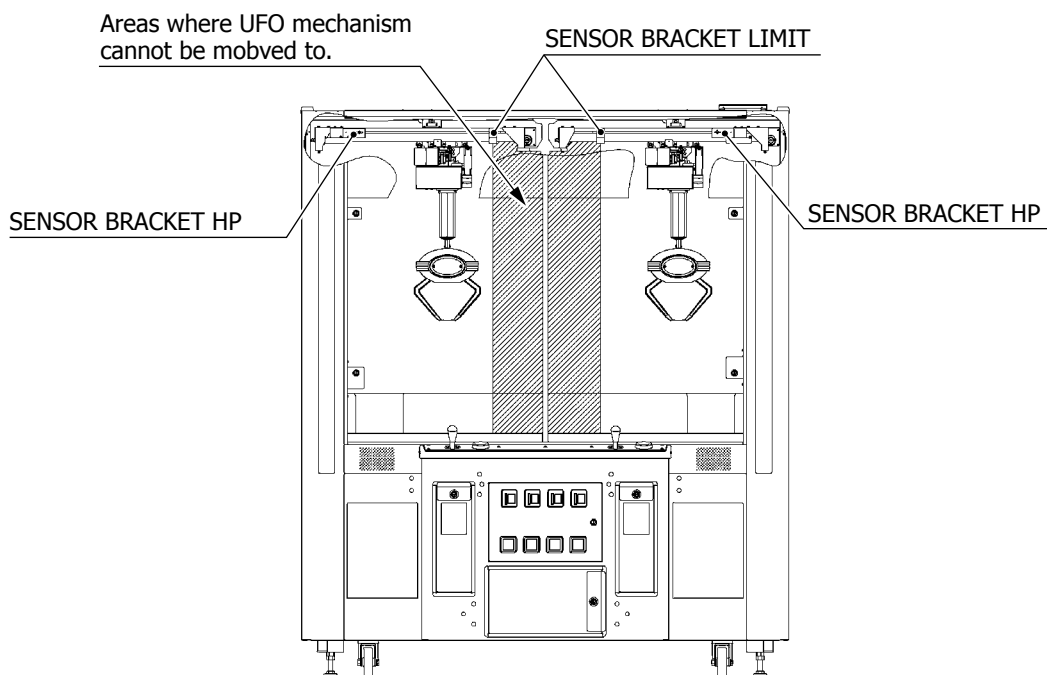


FIG. 13-2b

LIMITS ON FORWARD/BACKWARD MOVEMENT OF UFO MECHANISM

To limit the range in which the UFO mechanism can be moved forward/backward, change the position of the sensor bracket limit. The UFO mechanism stops where the sensor bracket limit is located.

1. Loosen the wing screw at the rear of the Y-oriented mechanism.

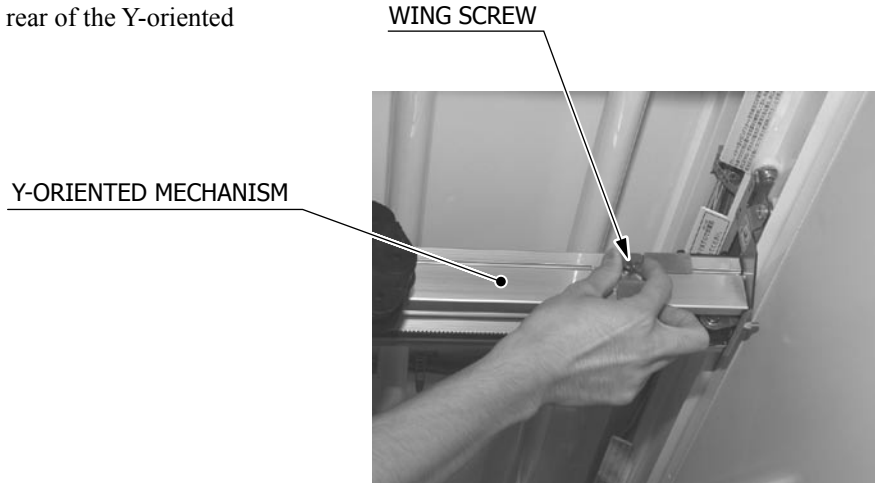


PHOTO 13-2e

2. Move the sensor bracket limit to the desired location and tighten the wing screw.

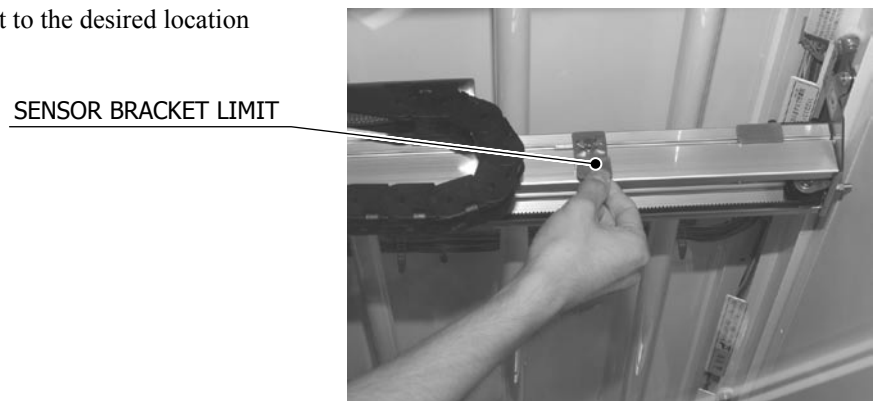


PHOTO 13-2f

The sensor bracket limit positions and areas where the UFO mechanism cannot be moved to are as shown in the illustration.

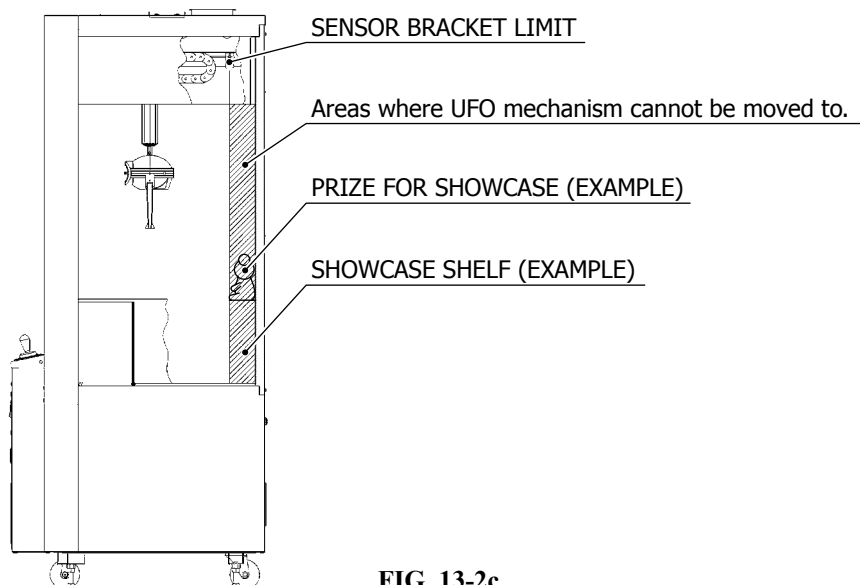


FIG. 13-2c

13-3 SPRING STRENGTH ADJUSTMENT AND SPRING REPLACEMENT

SPRING ADJUSTMENT

Spring strength can be adjusted in three stages according to the position of the shift bracket. At a position close to the spring, the spring is weak (high level of difficulty). The farther the shift bracket is from the spring, the stronger becomes the spring (low level of difficulty). In addition, slight adjustments can be made with the POWER setting. (See Section 11-2.)

1. Grasp the knob of the slide spring to loosen the connection with the shift bracket so that the spring can be moved to the right or left. Move the spring to the desired position.
2. Move the slide spring on the opposite side to the same position. (Establishes uniform strength on the right and left.)

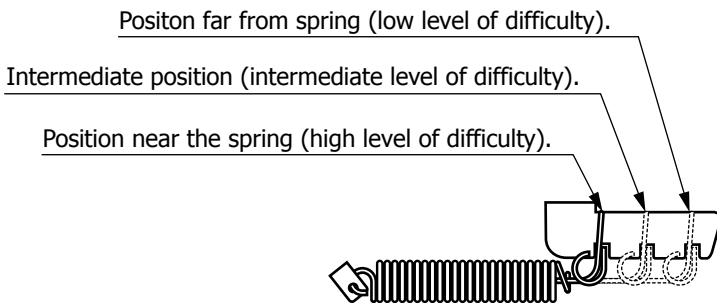


FIG. 13-3a

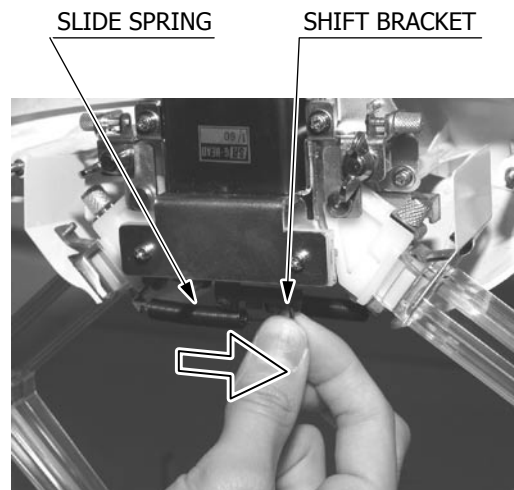


PHOTO 13-3a

When arm size has been replaced, even if the spring position on the shift bracket is the same, the arm gripping force (level of difficulty) will change.

The figure below shows arms of equivalent gripping force. Use it as a guide for setting level of difficulty.

Example) If the spring is at the rightmost position in the shift bracket when arm L is attached, and if the spring is at the leftmost position in the shift bracket when arm S is attached, arm gripping forces will be approximately equal.

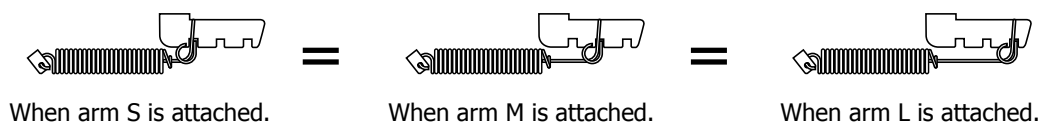


FIG. 13-3b

SPRING REPLACEMENT

1. Grasp the slide spring knob and remove the slide spring from the shift bracket.

Remove slide spring from shift bracket.

SLIDE SPRING
UCS-3418

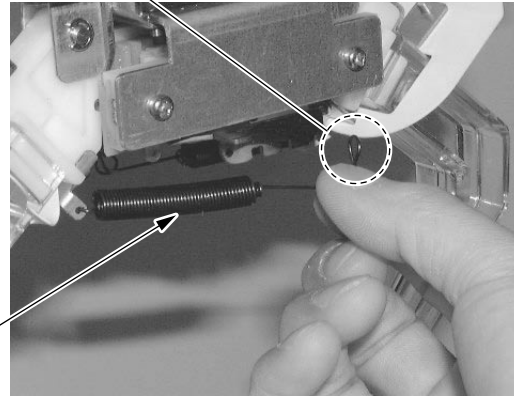


PHOTO 13-3b

2. Remove the slide spring from the spring bracket.

Remove slide spring from spring bracket.

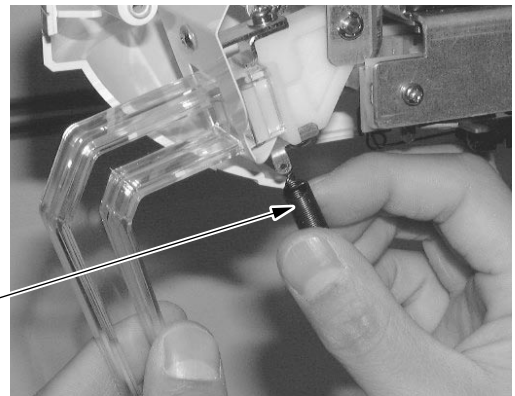


PHOTO 13-3c

3. Attach a new slide spring.
4. Repeat the above procedure on the opposite side and replace.

13-4 SHOVEL REPLACEMENT AND ADJUSTMENT

IMPORTANT

After shovels have been replaced, confirm during initialization that the shovels do not overlap each other when the arm is closed.

Select a shovel in accordance to the prizes being used.
Remove the two flat head screws and replace shovel.

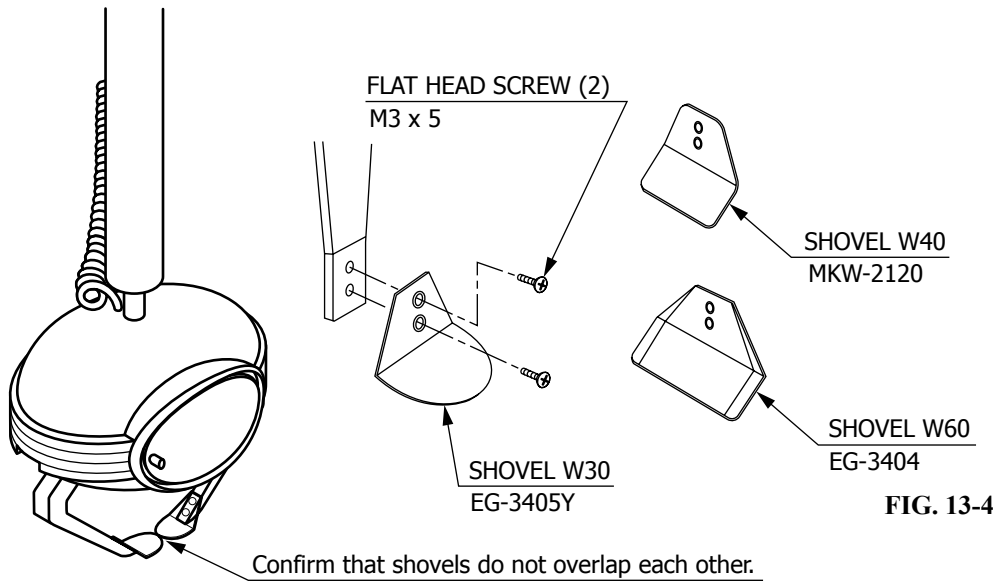


FIG. 13-4

SHOVEL OVERLAP ADJUSTMENT

1. Loosen the two wing screws.
2. Turn the adjustment screw to adjust the distance between shovels.
3. After adjusting so the shovels do not overlap, tighten the two loosened wing screws.

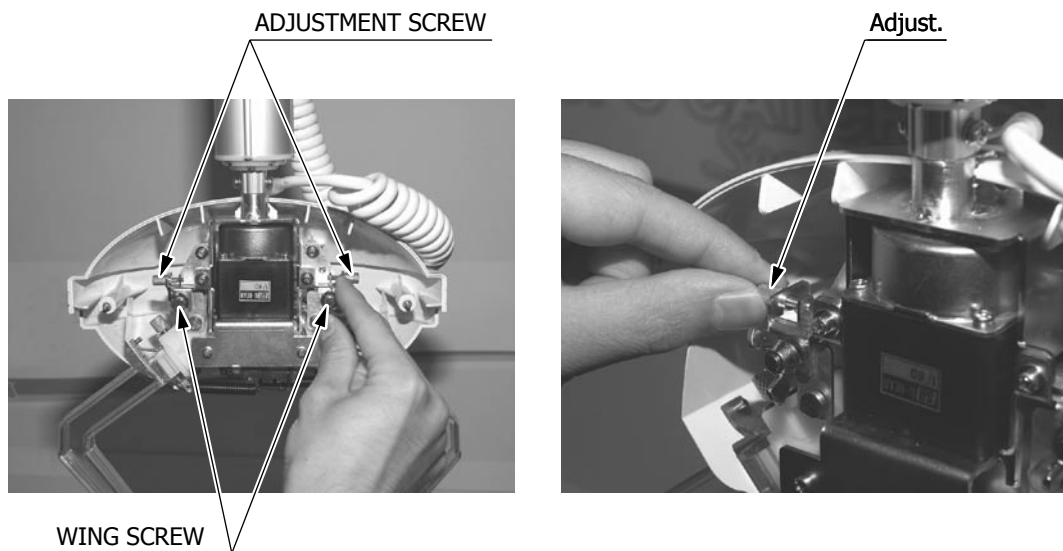


PHOTO 13-4

13-5 OPEN ARM ANGLE ADJUSTMENT

In cases such as when the arm comes in contact with the UFO cover, the open arm angle should be adjusted. For the following procedures, an M3 Philips screwdriver or a screwdriver/spanner for M3 hexagonal nuts is required.

1. Loosen the two screws. Hold the arm mechanism at this time so it will not fall.

SCREW (2)
M3 x 8, with flat & spring washers

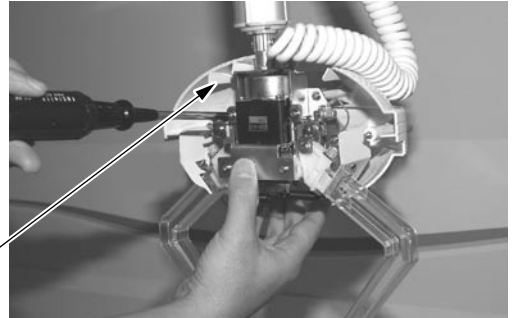


PHOTO 13-5a

2. Remove the arm mechanism.
Be especially careful when removing, as there are connections.

ARM MECHANISM

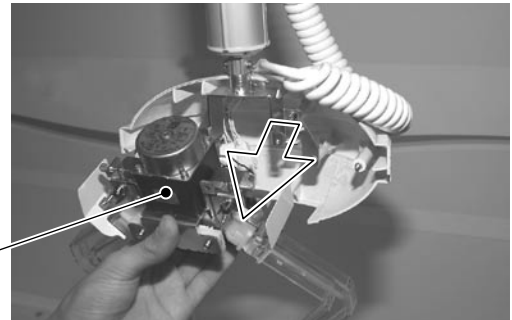


PHOTO 13-5b

3. Loosen the two flange nuts.

FLANGE NUT (2)
M3



PHOTO 13-5c

4. Slide the sensor bracket arm laterally to adjust the open arm angle.
When the arm is slid to side A, the open arm angle becomes large. When the arm is slid to side B, the angle becomes small.

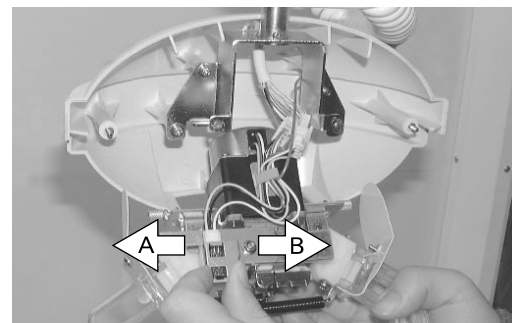


PHOTO 13-5d

5. Tighten the flange nuts and follow the above procedure in reverse order to attach the arm mechanism.
Be sure to confirm at this time that no wiring has been caught.

14 MAINTENANCE OF Z-ORIENTED MECHANISM

WARNING

- Before performing work, be sure to turn the power off and unplug the electrical cord from the outlet. Performing the work without turning the power off can 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.

IMPORTANT

- Use only prescribed grease. Using other types of grease could cause damage to components.
- Apply grease only to prescribed locations. Otherwise, operations may become defective and component materials may be altered.

Apply grease to the following areas once every three months.
For spray grease, use grease mate (PART No. 090-0066).

APPLYING GREASE TO INTERIOR OF Z-ORIENTED MECHANISM

An M4 Philips screwdriver is required for the following procedure.

1. Remove the two connectors.

Remove connector.

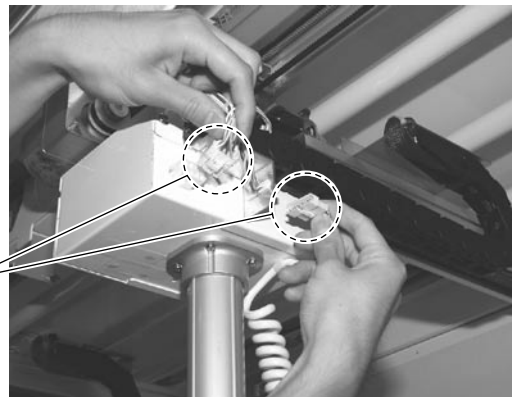


PHOTO 14a

2. Remove the two truss screws on the back side.

TRUSS SCREW (2), chrome
M4 x 8



PHOTO 14b

3. Loosen the two truss screws on the front side.

TRUSS SCREW (2), chrome
M4 x 8



PHOTO 14c

4. Remove the Z-oriented mechanism.

Z-ORIENTED MECHANISM



PHOTO 14d

5. Insert spray grease nozzle into the hole for greasing and apply grease.

HOLE FOR GREASING

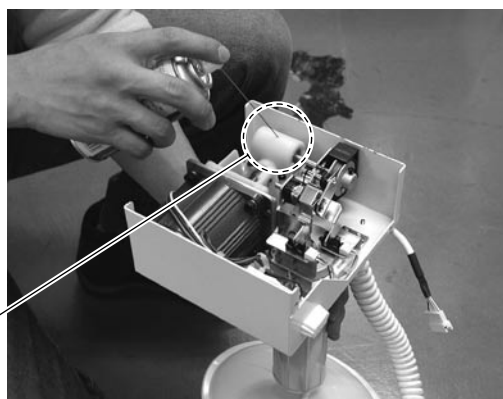


PHOTO 14e

6. Carry out the above procedures in reverse order to reattach the mechanism.
Be sure to confirm at this time that no wiring has been caught.

15 COIN SELECTOR

WARNING

- Before performing work, be sure to turn the power off and unplug the electrical cord from the outlet. Performing the work without turning the power off can 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.

15-1 REMOVING THE COIN SELECTOR

1. Turn the power off.
2. Unlock with the operator's key and open the service door.



PHOTO 15-1a

3. Loosen the thumbscrew on the back of the coin selector.

Loosen thumbscrew.



PHOTO 15-1b

4. Push up the stopper that holds the coin selector in place.

STOPPER

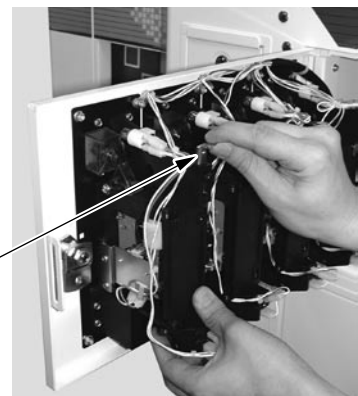


PHOTO 15-1c

5. Open the back hold cover.

BACK HOLD COVER

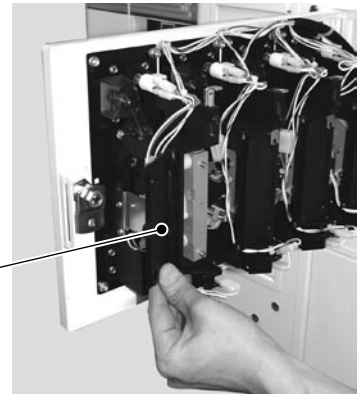


PHOTO 15-1d

6. While paying attention to the lockout lever, slide the coin selector slightly to the right, then remove it by pulling it forward.

LOCKOUT LEVER

BACK HOLD COVER

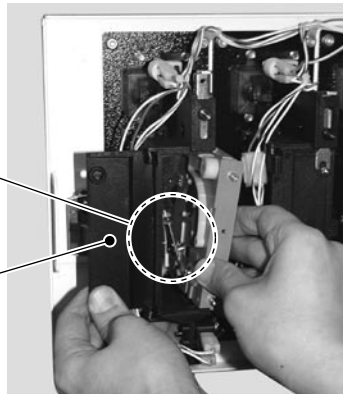


PHOTO 15-1e

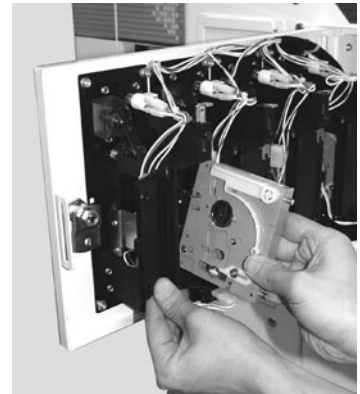


PHOTO 15-1f

15-2 REMOVING A JAMMED COIN

When the coin return button fails to refund coins, open the service door and open the selector gate. Once the jammed coin is removed, insert a standard coin to ensure that the selector is working properly.

15-3 CLEANING THE COIN SELECTOR

IMPORTANT

- Remove and clean smears using a soft cloth dipped in water or diluted chemical detergent and then wrung dry.
- Never apply machine oil, etc. to the coin selector.
- After cleaning the coin selector, properly insert a standard coin to ensure that the selector functions correctly.

The coin selector should be cleaned once every 3 months. When cleaning, follow the procedures below:

1. Open the gate and remove dust using a soft brush (made of wool, etc.).
2. Remove and clean smears by using a soft cloth dipped in water or diluted chemical detergent and then wrung dry.
3. Remove the cradle. When detaching the retaining ring (E ring), be extra careful not to bend the rotational axis.
4. Use a soft cloth to wipe any dirt/debris off the rotational axis and bearings.
5. After wiping as described in the previous step, use a dry cloth, etc. to dry the coin selector completely.

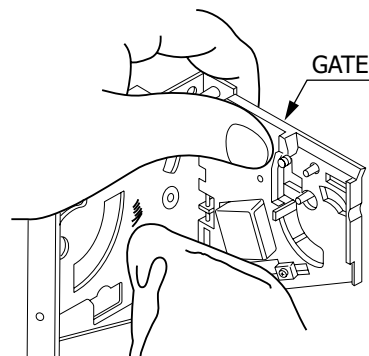


Fig. 15-3a

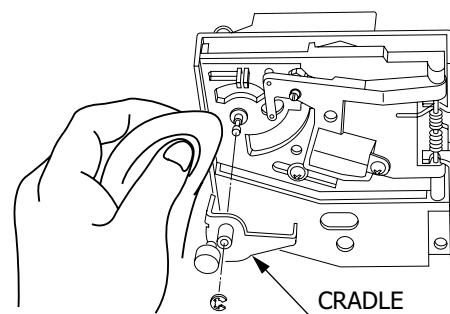


Fig. 15-3b

15-4 COIN INSERTION TEST

Carry out a coin insertion test once per month. At the same time, check the following points:

- Does the Coin Meter count properly?
- Do coins drop into the Cashbox correctly?
- Are coins rejected when inserted while holding down the Reject Button?

16 REPLACEMENT OF FLUORESCENT LIGHTING, LAMPS, AND FUSES

⚠ WARNING

- Before performing work, be sure to turn the power off and unplug the electrical cord from the outlet. Performing the work without turning the power off can cause an electric shock or short circuit.
- Use lamps of the specified ratings. Using lamps with different ratings may cause fires or damage.
- You may get burned by a hot fluorescent lamp or other lamps. Pay full attention to the lamps when performing the work.
- There is the danger of accidents involving electrical shorts circuits or fire caused by factors such as the deterioration of insulation in lighting equipment over time. Check that there are no anomalies such as the following: odors from burning, socket discoloration, frequent lamp replacements.

16-1 FLUORESCENT LIGHTING REPLACEMENT

Replacement of Fluorescent Ceiling Lamps

Remove fluorescent ceiling lamps by pushing them toward the right and replace.

Replacement of Fluorescent Lamps on Sides

⚠ WARNING

The work must only be carried out by personnel with electrical appliance knowledge. Shocks and other serious accidents may result if the work is carried out by unqualified individuals.

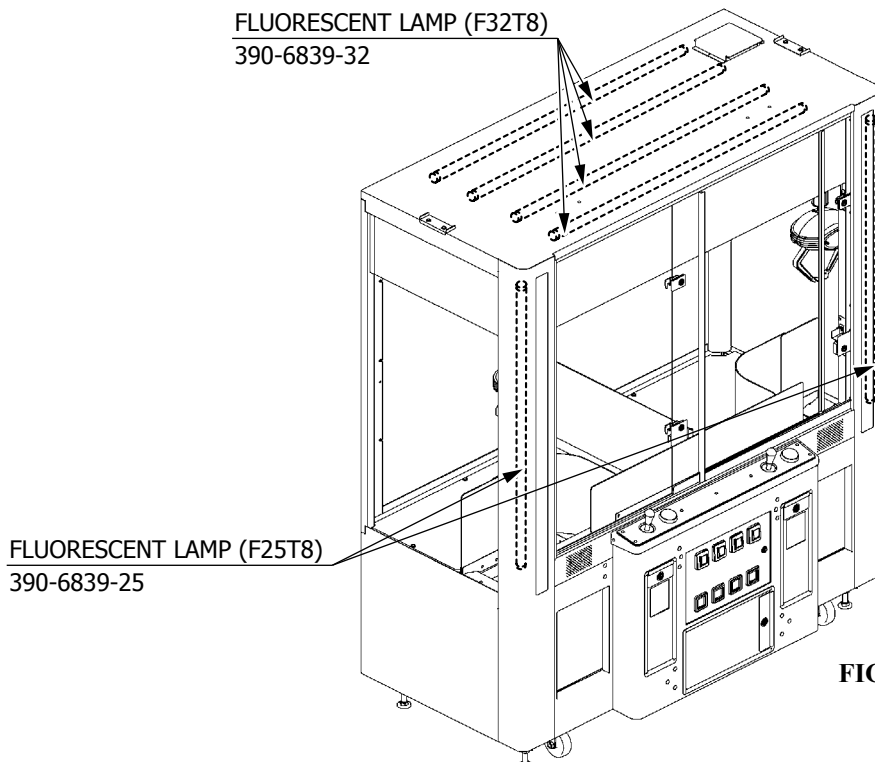


FIG. 16-1

1. Turn the power off.
2. Loosen the two screws and remove the switch cover. Hold the switch cover (L) while removing so it will not fall.
3. Remove fluorescent lamps by pushing them upward and replace. (See FIG. 16-1.)

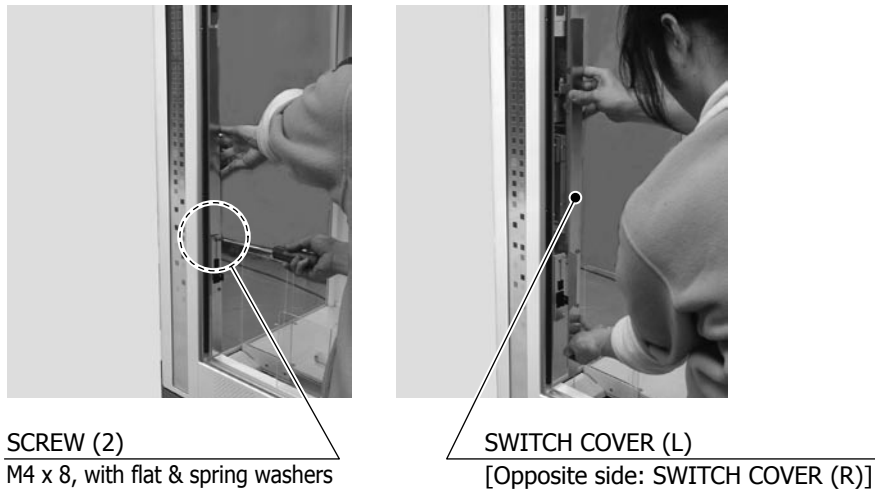


PHOTO 16-1

16-2 LAMP REPLACEMENT

Replacement of Down Button Lamp

⚠ CAUTION

- Be careful not to damage the wires. Damaged wires may cause an electric shock, short circuit or present a risk of fire.
- When fixing the plastic parts, do not fasten the screws and nuts too tightly. Failure to observe this instruction may damage these parts and as a result the broken pieces of these parts may cause a person injury.

The provided tamperproof wrench is required for the following procedures.

1. Turn the power off.
2. Remove the 7 tamperproof screws, then remove the control panel.

TAMPERPROOF SCREW (7), chrome
M4 x 16



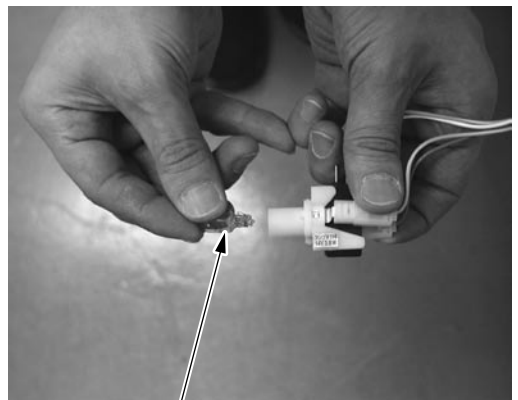
PHOTO 16-2a

3. Hold the switch component between your fingers and remove it from the button base. Be careful not to damage wiring connected to the switch.



PHOTO 16-2b

4. There is a lamp at the tip of the switch component. Pull the lamp out straight without turning it.



WEDGE-BASE LAMP 14V, 3.4W

PHOTO 16-2c

5. Attach the connector so that it goes to the right side and return the control panel to its original position.

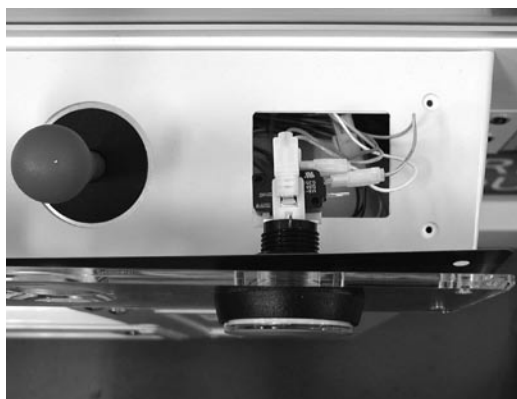


PHOTO 16-2d



PHOTO 16-2e

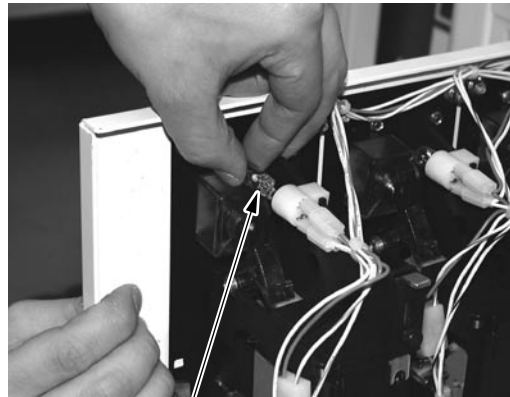
Selector Button Lamp Replacement

1. Turn the power off.
2. Unlock with the operator's key and open the service door.



PHOTO 16-2f

3. Pull the lamp out straight to replace it.



WEDGE-BASE LAMP 12V, 2.2W

PHOTO 16-2g

16-3 FUSE REPLACEMENT

WARNING

- The work must only be carried out by personnel with electrical appliance knowledge. Shocks and other serious accidents may result if the work is carried out by unqualified individuals.
- Before performing work, be sure to turn the power off and unplug the electrical cord from the outlet. Performing the work without turning the power off can cause an electric shock or short circuit.
- After eliminating the cause of a blown fuse, replace the fuse. Depending on the cause of the fuse blow, continued use with the blown fuse may cause the generation of heat and present a risk of fire.
- Be sure to use fuses of the specified rating. Using fuses exceeding the specified rating may cause fire or electric shock.

The provided tamperproof wrench is required for the following procedures.

1. Turn the power off.
2. Remove the 2 tamperproof screws, unlock with the master key and open the back lid.

TAMPERPROOF SCREW (2), chrome
M4 x 8

BACK LID

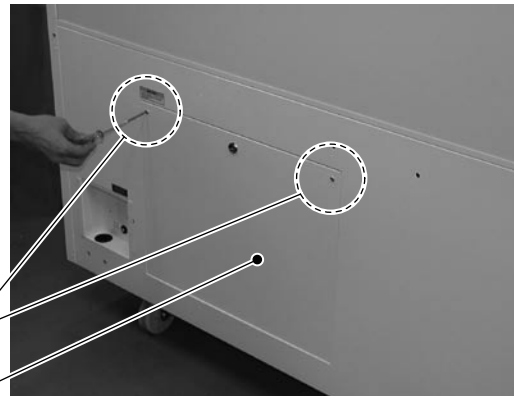


PHOTO 16-3a

3. The 2 fuses are located at the back of the left side. When replacing them, make sure that the ratings are correct.



PHOTO 16-3b

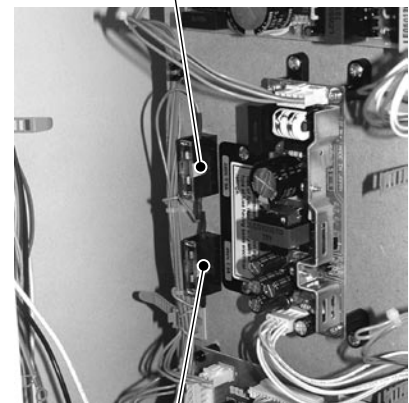


PHOTO 16-3c

17 PERIODIC INSPECTION

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

⚠ WARNING

- **Be sure to check once a year to see whether Power Cords are damaged, the plug is securely inserted, dust has accumulated between the Socket Outlet and the Power Plug, etc. Using the product with accumulated dust can cause fire and electric shock.**
- **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, around once a year, get in touch with the place of contact herein stated or the Distributor, etc. where the product was purchased from, regarding internal cleaning. Using the product with accumulated dust in the interior can cause a fire or accident. Note that professional cleaning will require a fee.**
- **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 anomalies such as odors from burning.**

TABLE 17 PERIODIC INSPECTION TABLE

ITEMS	DESCRIPTION	PERIOD	REFERENCE
CABINET	Check that adjusters in contact with floor	Daily	See Section 3
GEAR COMPONENTS	Apply Grease	3 months	See Section 13
FLUORESCENT LIGHTING	Inspection of Lighting Equipment	As necessary	See Section 16
COIN SELECTOR	Coin Insertion Test	Monthly	See Section 15
	Cleaning	Tri-monthly	See Section 15
GLASS DOOR	Cleaning	As necessary	See below.
CABINET SURFACES	Cleaning	As necessary	See below.
ELECTRICAL/ELECTRONIC COMPONENTS	Inspection	As necessary	See above.
INTERIOR	Cleaning	Annually	See above.
POWER SUPPLY PLUG	Inspection and Cleaning	Annually	See above.

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 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 components, coatings, and print. Before using any cleaning product, read the product's cautionary notes carefully and test the product first on a small area that is not highly visible.

Cleaning the Glass Door

The glass door can easily become dirty so be sure to clean it often. Use regular glass cleaners and wipe both glass surfaces. If you are using a spray glass cleaner, be sure to wipe away cleaner left on surrounding non-glass areas.

18 ERROR MESSAGES

When an error occurs in the mechanism, a number corresponding to the error is displayed on the 7-seg displays on the side (1P or 2P) that the error has occurred. Press the test switch to enter test mode.

Test the mechanism and confirm the location of the error before exiting test mode.

After initialization, credits attained before the error are restored and the game resumes. (Partial credits attained for multiple coins are deleted). For details, see [11-3 Explanation of Test Mode].

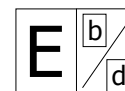
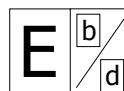
When an error has occurred, the credits are displayed in 2 digits on the small 7-seg displays.

If an error of unknown cause occurs and cannot be resolved, or if the same error occurs frequently, turn the power off and contact the office indicated on these instructions or where the product was purchased.

TABLE 18

No.	7-seg Display Reads	Cause
0	00E	BACK limit sensor in the X-direction does not turn ON.
1	01E	BACK limit sensor in the X-direction does not turn OFF.
2	02E	FWD limit sensor in the X-direction does not turn ON.
3	03E	FWD limit sensor in the X-direction does not turn OFF.
Corrective Measure: Errors involving left/right movements. Check the limit sensor and its operation in test mode 1. (See Section 11)		
4	04E	BACK limit sensor in the Y-direction does not turn ON.
5	05E	BACK limit sensor in the Y-direction does not turn OFF.
6	06E	FWD limit sensor in the Y-direction does not turn ON.
7	07E	FWD limit sensor in the Y-direction does not turn OFF.
Corrective Measure: Errors involving forward/backward movements. Check the limit sensor and its operation in test mode 1. (See Section 11)		
8	08E	UP limit sensor in the Z-direction does not turn ON.
9	09E	UP limit sensor in the Z-direction does not turn OFF.
10	10E	DOWN limit sensor in the Z-direction does not turn ON.
11	11E	DOWN limit sensor in the Z-direction does not turn OFF.
Corrective Measure: Errors involving up/down movements. Check the limit sensor and its operation in test mode 2. (See Section 11)		
12	12E	Open sensor does not turn ON.
13	13E	Open sensor does not turn OFF.
Corrective Measure: Errors involving open/close movements. Check the open sensor and its operation in test mode 3. (See Section 11)		
14	14E	There is no coin meter attached.
Corrective Measure: Errors involving the coin meter. Check the meter, its operation, and wire connections.		
15	15E	Problem with the prize sensor.
Corrective Measure: Errors involving the prize sensor. Check the prize sensor and its operation in test mode. (See Section 11)		
20		Problem with the X-axis.
Corrective Measure: Errors involving the X-axis. Check the limit sensor and its operation in test mode 1.		
21		Problem with the Y-axis.
Corrective Measure: Errors involving the Y-axis. Check the limit sensor and its operation in test mode 1.		

If the following errors occur after the power supply has been activated, there may be a problem with the DIP SW board.



19 TROUBLESHOOTING

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

⚠ WARNING

- In order to prevent electric shock and short circuit, be sure to turn the power off and unplug the electrical cord from the outlet before working on the machine.
- Be careful not to damage wiring. Damaged wiring may cause electric shock or short circuit.
- After fixing the problems regarding the Circuit Protector, reinstate the Circuit Protector. Depending on the cause of the problem, using the Circuit Protector without addressing the malfunction can generate heat and can present a fire hazard.



FIG. 19a

CIRCUIT PROTECTOR

The Circuit Protector uses a bimetal to break the circuit. Due to the heat, the machine cannot be restarted until it cools. Wait at least 1 minute before restarting. (Press the button in.)

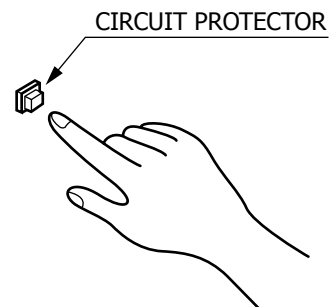


FIG. 19b

20 DESIGN-RELATED PARTS

For the Warning Display Stickers, refer to Section 1.

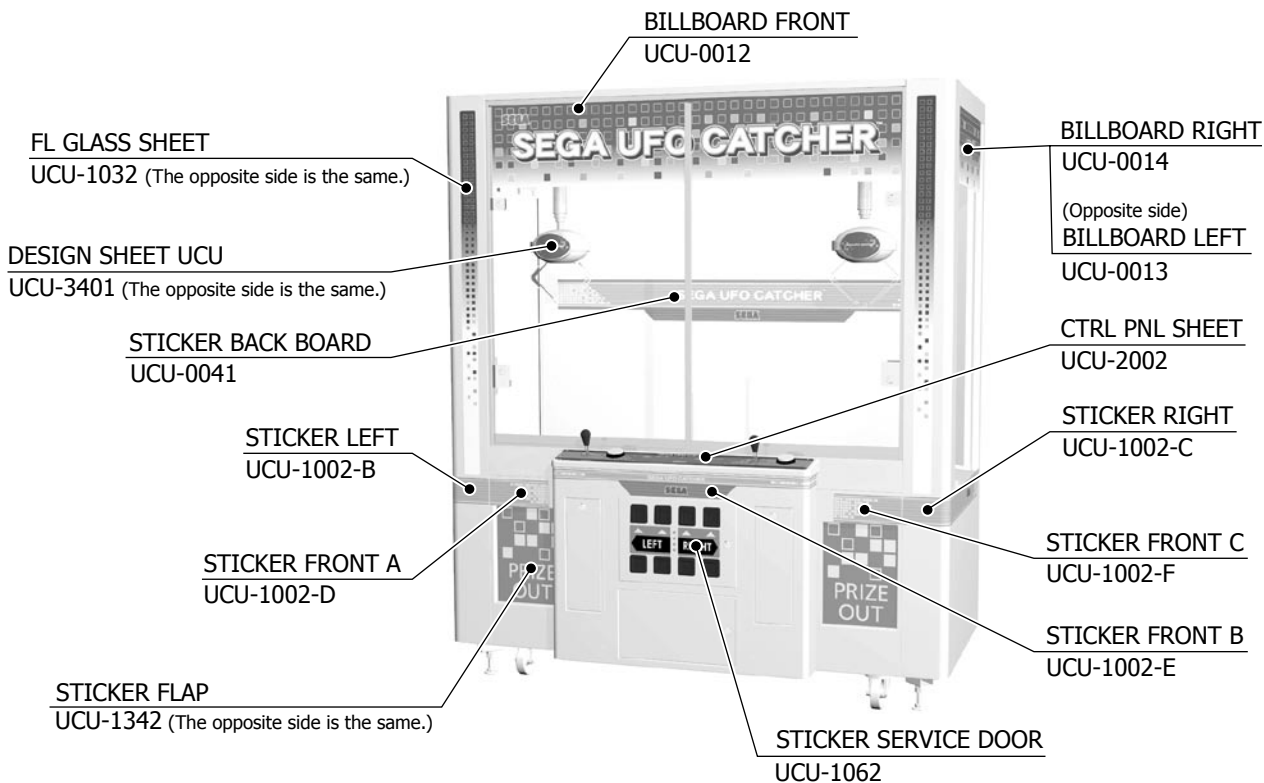


FIG. 20a Basic Cabinet

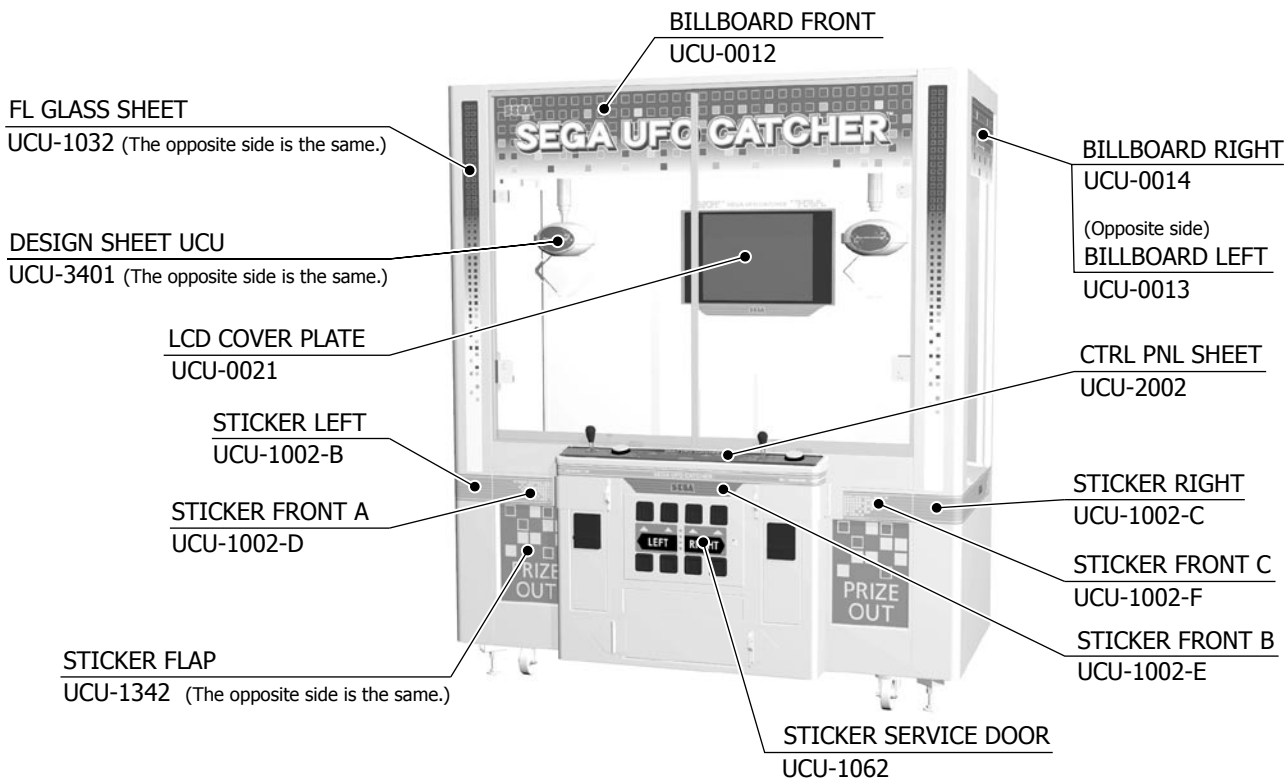


FIG. 20b Full Options Cabinet (See Section 21.)

21 OPTIONAL ITEMS

WARNING

- The work must only be carried out by personnel with electrical appliance knowledge. Shocks and other serious accidents may result if the work is carried out by unqualified individuals.
- Before performing work, be sure to turn the power off and unplug the electrical cord from the outlet. Performing the work without turning the power off can 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.

The following optional items are available for the SEGA UFO CATCHER.

- Dollar Bill Validator: 2 sets
- Security Bar
 - Coin Security Bar: 1 set
 - Bill Security Bar: 2 sets
- LCD Unit
 - LCD Case + Cable Cover: 1 set
 - LCD Monitor: 1 set
 - Movie Player: 1 set

21-1 DOLLAR BILL VALIDATOR

DOLLAR BILL VALIDATOR INSTALLATION

IMPORTANT

Be sure to use the “AE2432D5” dollar bill validator made by MEI.

Install the dollar bill validators on the 2 bill validator doors on the left and right of the cabinet front panel.

1. Turn the power off.
2. Unlock with key and open the bill validator door.

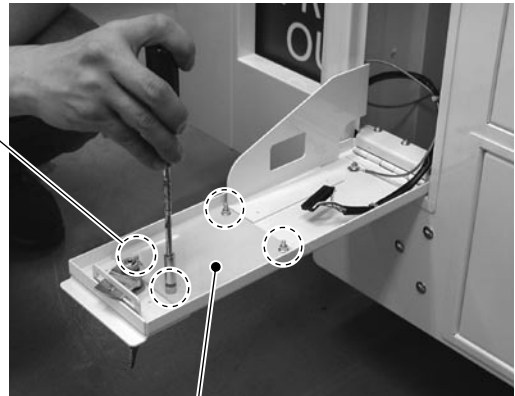


BILL VALIDATOR DOOR

PHOTO 21-1a

3. Remove the 4 flange nuts, then remove the blind plate.

FLANGE NUT (4)
M4



BLIND PLATE

PHOTO 21-1b

4. Attach the dollar bill validator with the 4 flange nuts that were removed.

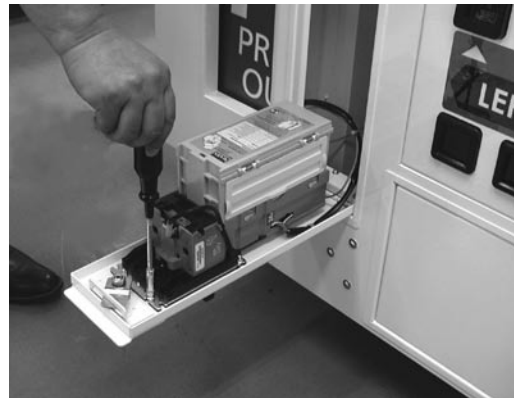


PHOTO 21-1c

5. Connect the one connector.



PHOTO 21-1d

NOTE: The photos show installation on the cabinet left side. Install the bill validator on the right side in the same manner.

DIP SWITCH SETTINGS

1. Set the DIP SWITCHES for use as illustrated below.

1	free
2	free
3	free
4	ON
5	OFF
6	OFF
7	OFF
8	ON

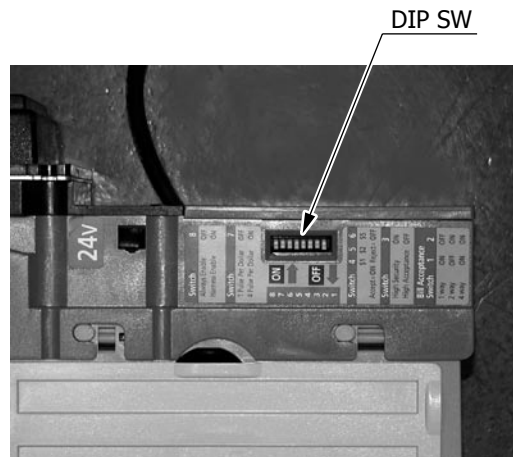


PHOTO 21-1e

NOTE: For details on bill validator handling, inspection, changing settings, etc., refer to the sticker attached or the [Bill Acceptor (Validator) "Installation Guide"] provided with the bill validator.

21-2 SECURITY BAR

The following types of security bars are available.

- Coin Security Bar: 1 set
- Bill Security Bar: 2 sets



PHOTO 21-2a



PHOTO 21-2b

COIN SECURITY BAR INSTALLATION

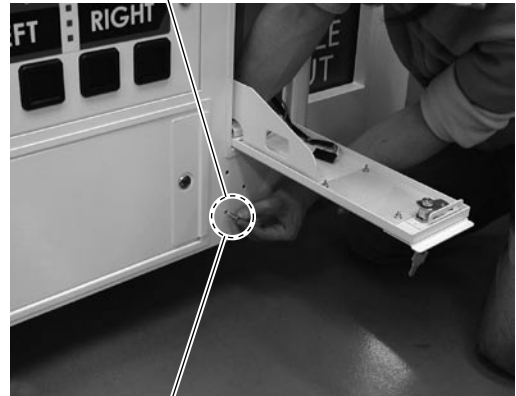
1. Turn the power off.
2. Unlock with key and open the right bill validator door.



PHOTO 21-2c

- Remove the 3 flange nuts on the inside of the bill validator door, then remove the 3 carriage bolts from the cabinet front side. Be careful not to drop or lose the flange nuts.

FLANGE NUT (3)
M6 (Inside)



CARRIAGE BOLT (3), chrome
M6 x 20

PHOTO 21-2d

- Set the coin security hook on the cabinet and secure it in place with the 3 flange nuts that were removed.
- Unlock with key and open the left bill validator door.

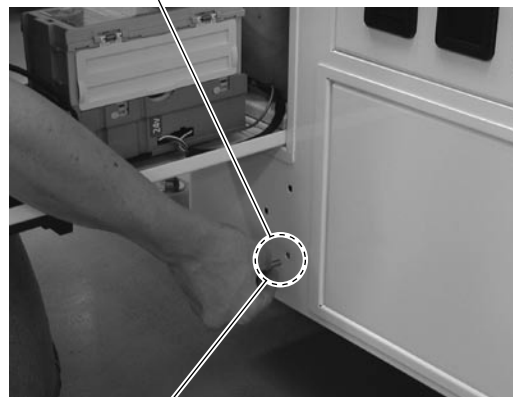


COIN SECURITY HOOK

PHOTO 21-2e

- Remove the 3 flange nuts on the inside of the bill validator door, then remove the 3 carriage bolts from the cabinet front side. Be careful not to drop or lose the flange nuts.

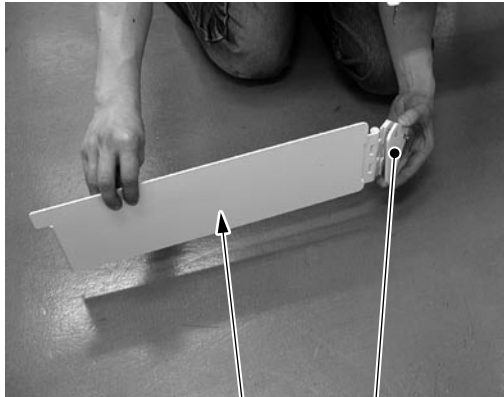
FLANGE NUT (3)
M6 (Inside)



CARRIAGE BOLT (3), chrome
M6 x 20

PHOTO 21-2f

7. Set the spacer in the coin security bar and secure it in place on the cabinet with the 3 flange nuts that were removed.



COIN SECURITY BAR
SPACER

PHOTO 21-2g



PHOTO 21-2h

8. Close both the left and right service doors.

BILL SECURITY BAR INSTALLATION

1. Turn the power off.
2. Unlock with key and open the left bill validator door.



PHOTO 21-2i

3. Remove the 3 flange nuts on the inside of the bill validator door, then remove the 3 carriage bolts from the cabinet front side. Be careful not to drop or lose the flange nuts.



PHOTO 21-2j

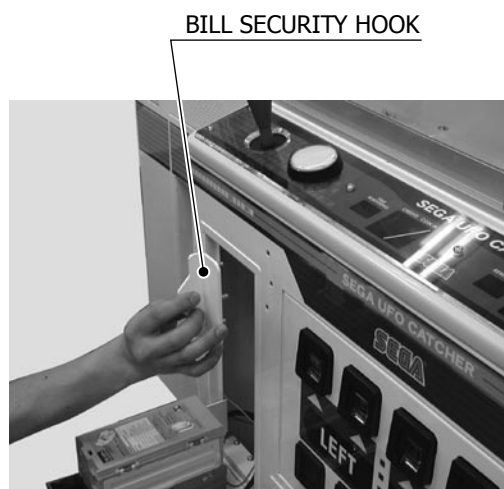


FLANGE NUT (3)
M6 (Inside)

CARRIAGE BOLT (3), chrome
M6 x 20

PHOTO 21-2k

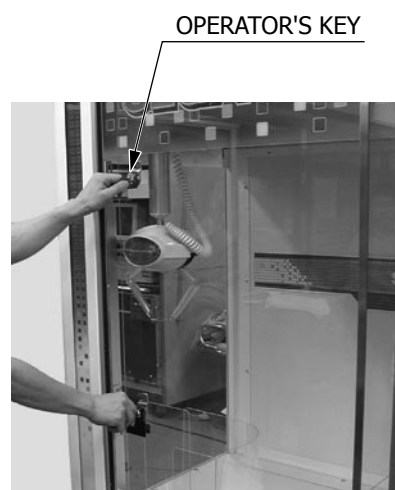
- Set the bill security hook on the cabinet and secure it in place with the 3 flange nuts that were removed.



BILL SECURITY HOOK

PHOTO 21-2l

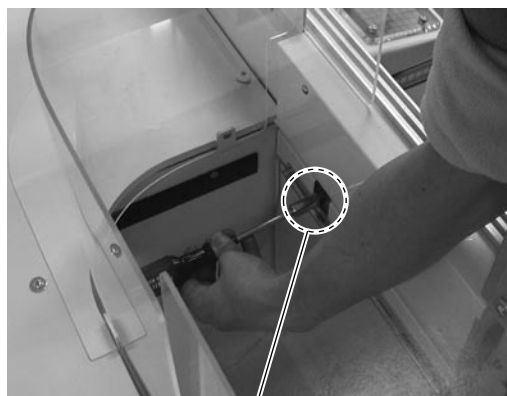
- Unlock the glass door with the operator's key and open it.



OPERATOR'S KEY

PHOTO 21-2m

- Remove the 2 flange nuts inside the cabinet, then remove the 2 carriage bolts from the cabinet front side.



FLANGE NUT (2)
M6

PHOTO 21-2n

FLANGE NUT (2) (Opposite side)
M6



CARRIAGE BOLT (2), chrome
M6 x 20

PHOTO 21-2o

7. Close the left bill validator door.
8. Set the bill security bar on the cabinet and secure it in place with the 2 flange nuts that were removed.



PHOTO 21-2p

NOTE: Follow the same procedure to install the bill security bar on the right side. There are no differences in procedure for the left and right sides.

21-3 LCD UNIT (LCD CASE + CABLE COVER)

IMPORTANT

Always use an LCD monitor provided by SEGA.

LCD UNIT ASSEMBLY

1. Assemble the LCD case and cable cover with the 4 screws.

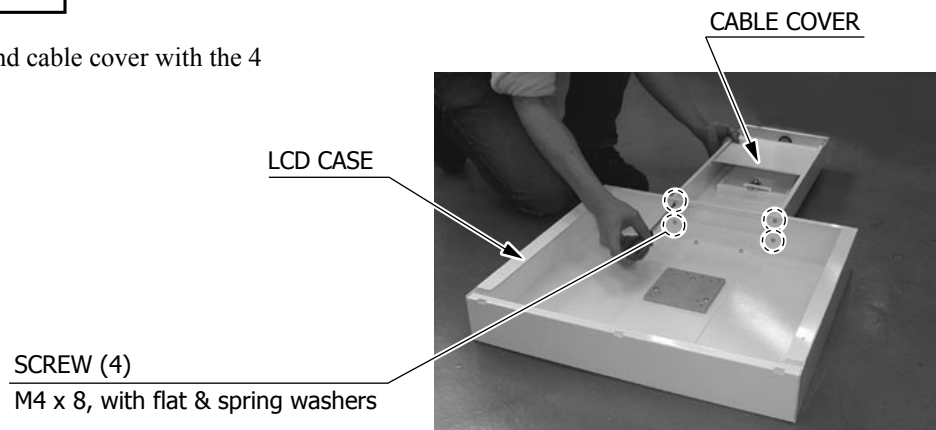


PHOTO 21-3a

2. Remove the 4 flange nuts, then remove the LCD bracket

FLANGE NUT (4)
M4

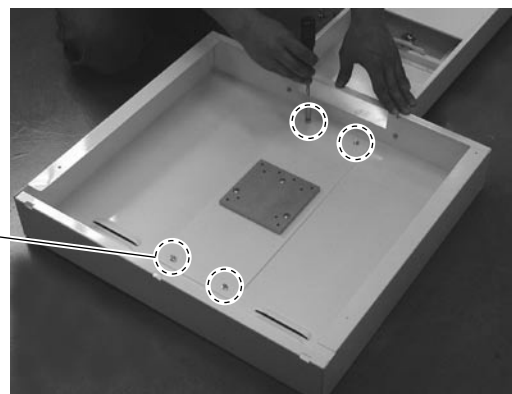
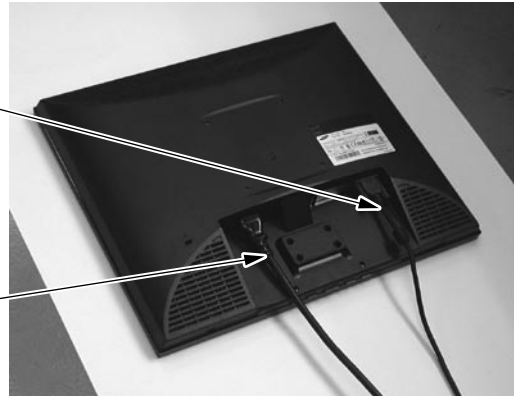


PHOTO 21-3b

3. Remove the LCD monitor stand, then connect the RGB cables and the power cable.

POWER CABLE

RGB CABLE



NOTE: The LCD monitor may differ from the one shown in the photo.

PHOTO 21-3c

4. Use the 4 truss screws to attach the LCD bracket to the monitor.
(Attach the LCD bracket so that the wooden area held down by two points is on the upper side.)

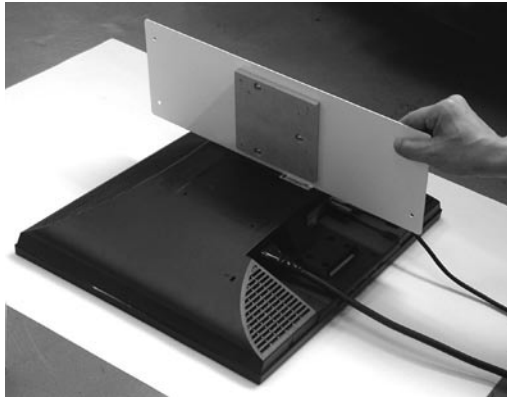
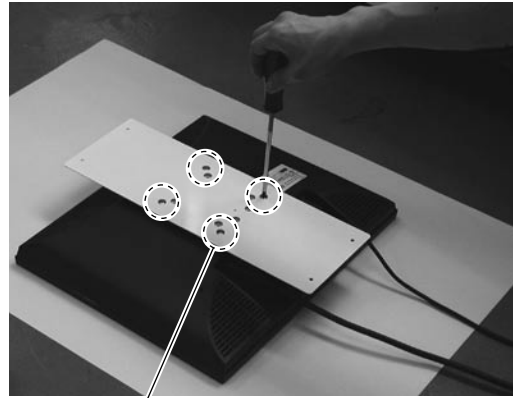


PHOTO 21-3d



TURSS SCREW (4)
M4 x 15

PHOTO 21-3e

5. Return the LCD bracket with monitor attached to the LCD case and secure it in place with the 4 flange nuts removed in step 2. Be careful not to damage the cables.

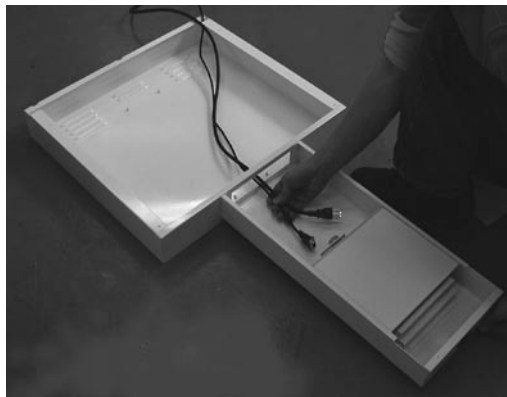


PHOTO 21-3f

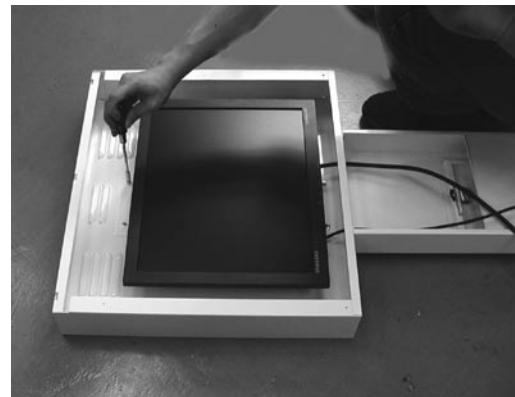


PHOTO 21-3g

- Bundle the cables and secure them in place with a cable tie.
In bundling the cables, leave enough space for connectors to be connected to each unit.

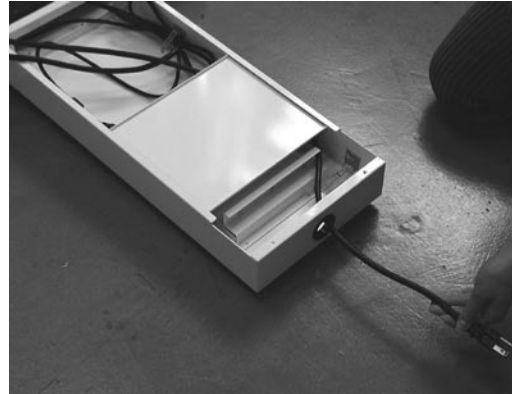


PHOTO 21-3h

- Turn the unit over and use the master key to open LCD unit door.

LCD UNIT DOOR

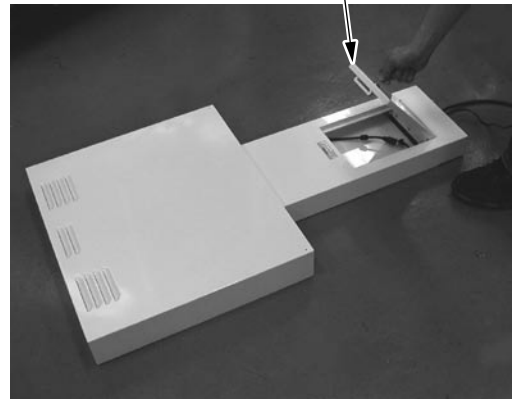


PHOTO 21-3i

- Use double-sided tape to secure the movie player to the inside surface of the LCD unit door, then connect the RGB cables and AC adaptor cable. Connect the RGB cables and AC adaptor cable as shown in the illustration.

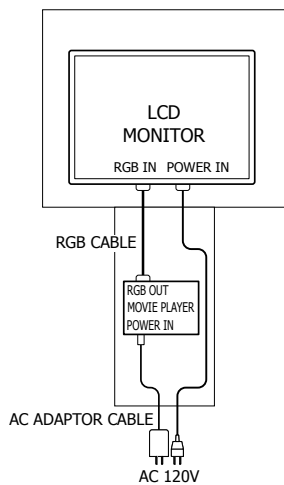


FIG. 21-3a

MOVIE PLAYER

AC ADAPTOR CABLE

RGB CABLE

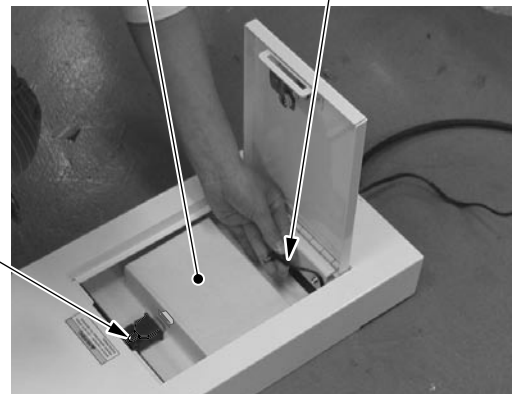


PHOTO 21-3j

NOTES:

- Tune the monitor before assembly. After attaching the monitor to the inside panel, the tuning button becomes hidden, and tuning may become difficult.
- The movie player may differ from the one shown in the photo.
- For details on the handling of the LCD monitor or the movie player, refer to the instruction manual provided with each unit.

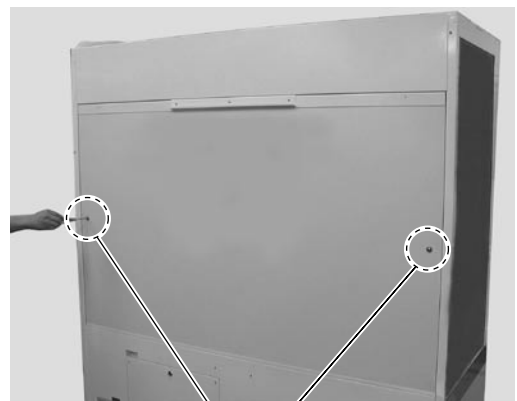
INSTALLATION OF LCD UNIT ON CABINET

1. Remove the 2 truss screws from inside the cabinet.



PHOTO 21-3k

2. Remove the 2 tamperproof screws on the left and right of the cabinet rear panel.



TAMPERPROOF SCREW (2), chrome
M4 x 8

PHOTO 21-3l

3. Remove the 1 tamperproof screw in the center, then remove backboard B.
Hold backboard B at this time so it will not fall while working.

TAMPERPROOF SCREW (1), chrome
M4 x 8

BACKBOARD B

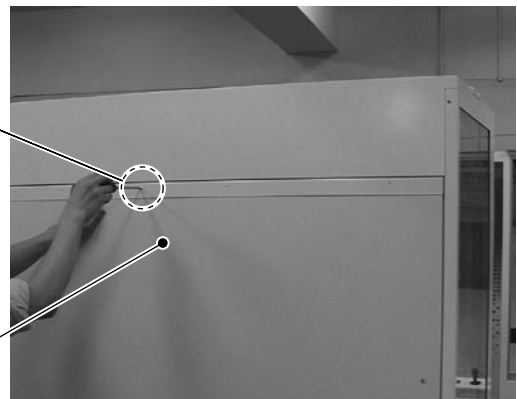


PHOTO 21-3m

4. Remove the backboard upper bracket from backboard B.

BACKBOARD UPPER BRACKET

BACKBOARD B

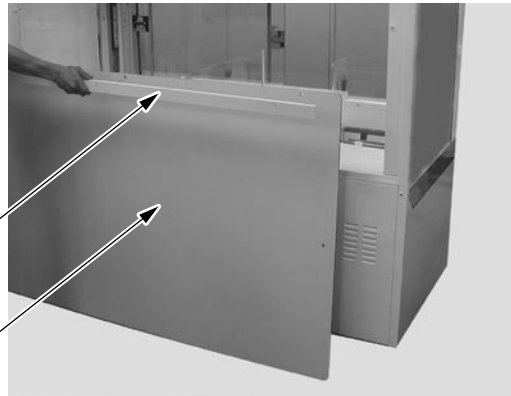


PHOTO 21-3n

5. Use the 2 provided truss screws to install the LCD unit hook to the backboard upper bracket.

TRUSS SCREW (2),chrome
M4 x 8

LCD UNIT HOOK

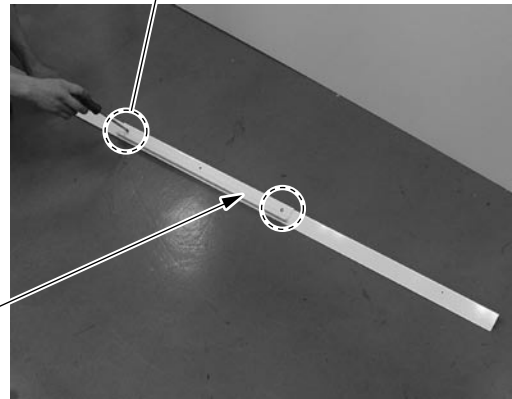


PHOTO 21-3o

6. Attach the LCD unit hook to backboard A (the side with no sticker should face the outer side of the cabinet).

LCD UNIT HOOK

BACKBOARD A

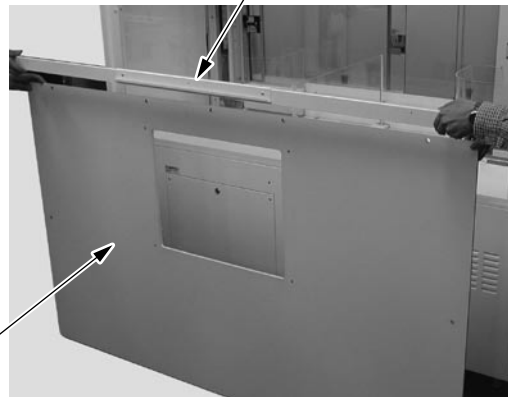


PHOTO 21-3p

7. Load backboard A onto the cabinet rear panel, then secure it in place by reversing the steps used to remove the truss screw in the center and the 2 tamperproof screws on the left and right from backboard B. Hold backboard A at this time so it will not fall while working.
8. Secure in place with 2 truss screws from inside the cabinet.



PHOTO 21-3q



PHOTO 21-3r

9. Suspend the LCD unit on the LCD hooks.
Have 2 people do this job, as the assembled LCD unit weighs over 15 kg.

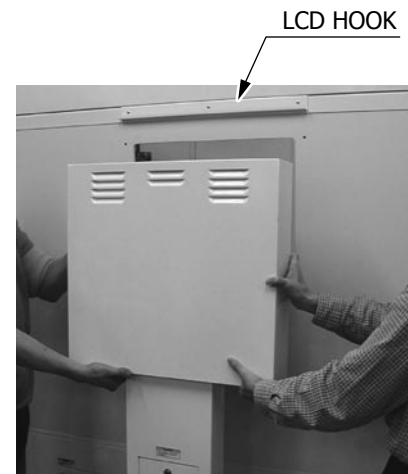


PHOTO 21-3s

10. Use the 4 truss screws provided to secure the LCD cover to the inside of the cabinet. Make sure that the LCD cover does not fall while working.

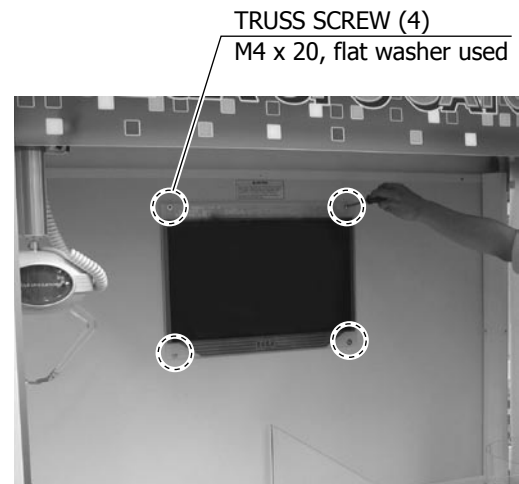


PHOTO 21-3t

11. Remove the 2 tamperproof screws, unlock with the master key and open the back lid.

TAMPERPROOF SCREW (2), chrome
M4 x 8

BACK LID

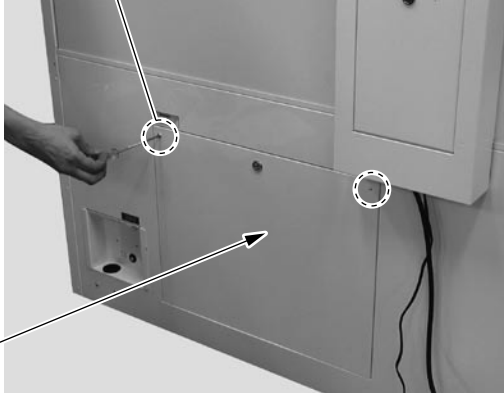


PHOTO 21-3u



PHOTO 21-3v

12. Secure the LCD unit with 2 screws from the inside of the cabinet.

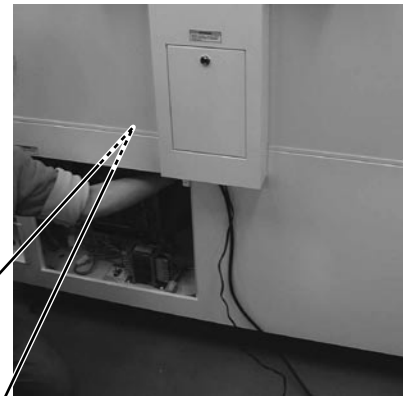


PHOTO 21-3w



SCREW (2)
M4 x 8, with flat & spring washers

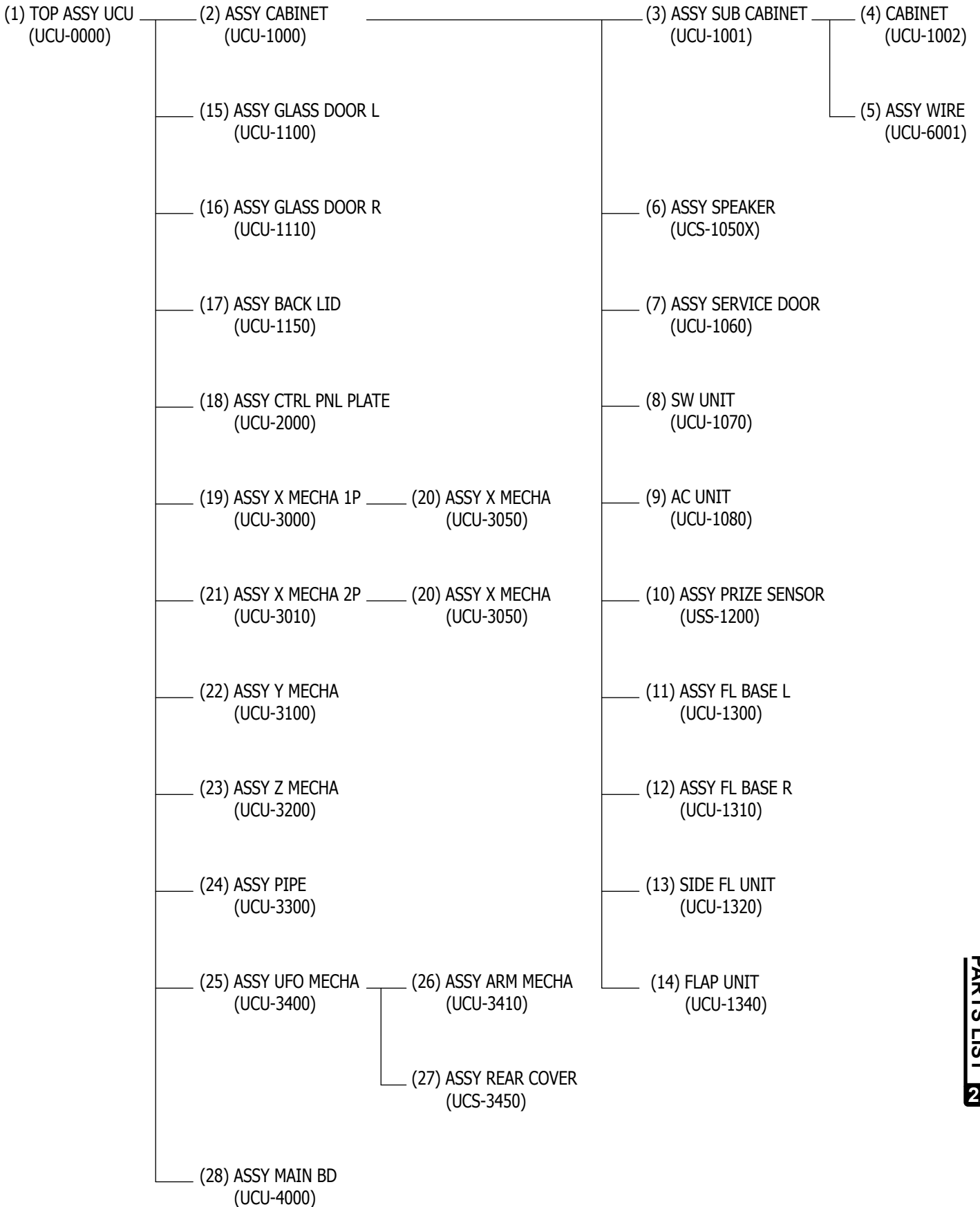
PHOTO 21-3x



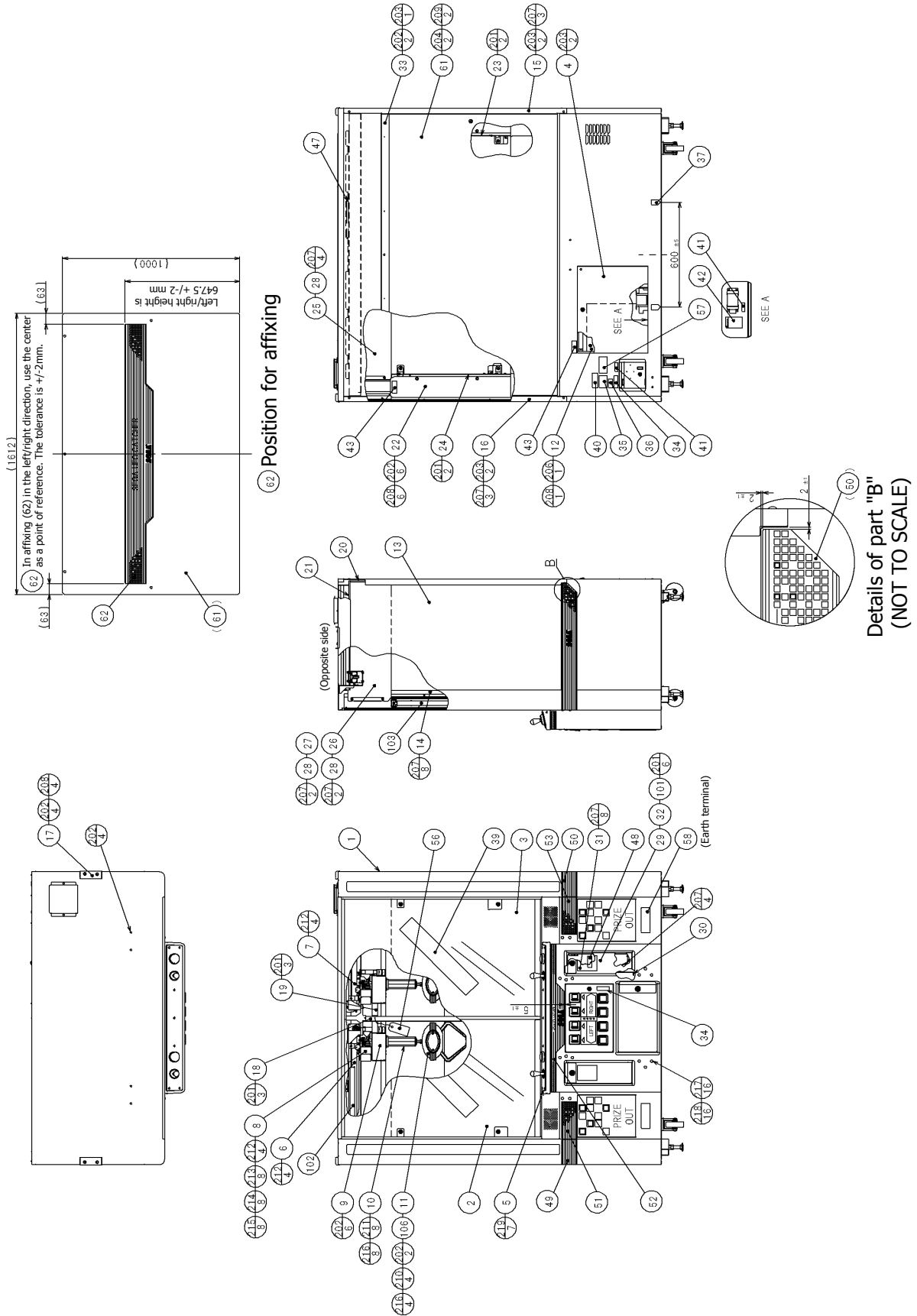
PHOTO 21-3y

13. Close the back lid and lock.

22 PARTS LIST

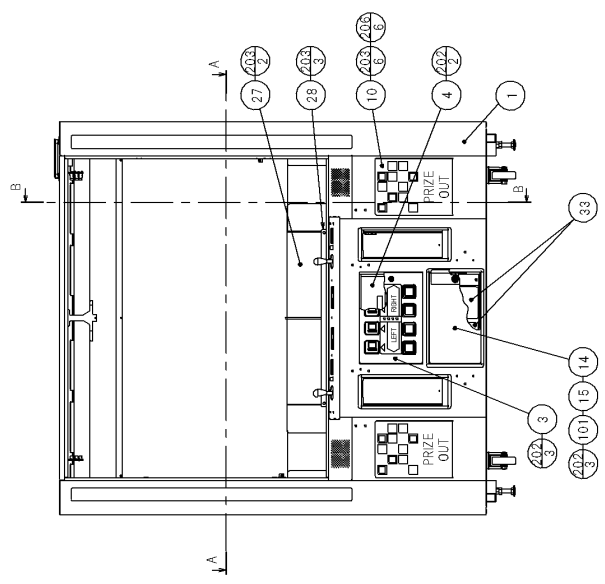
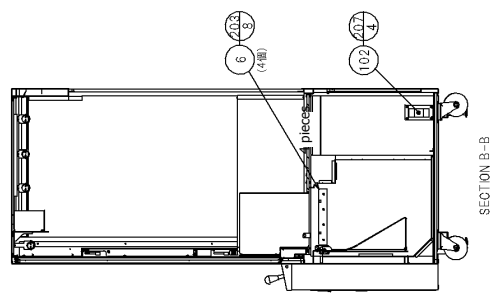
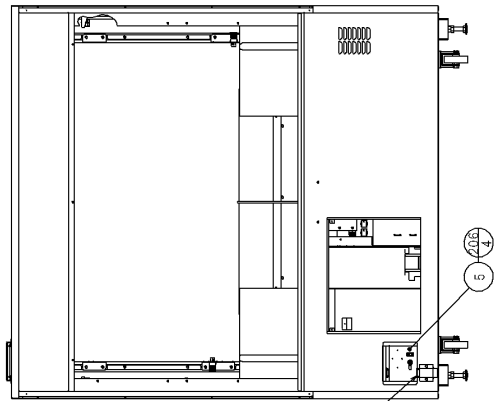
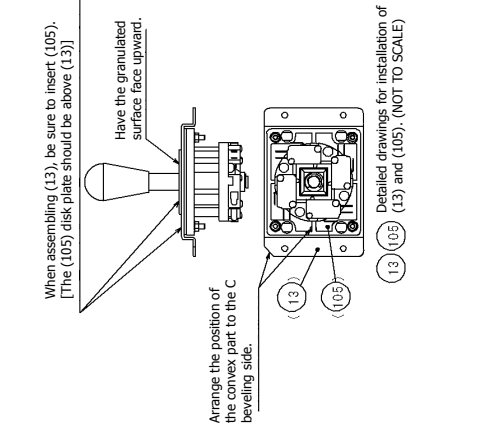
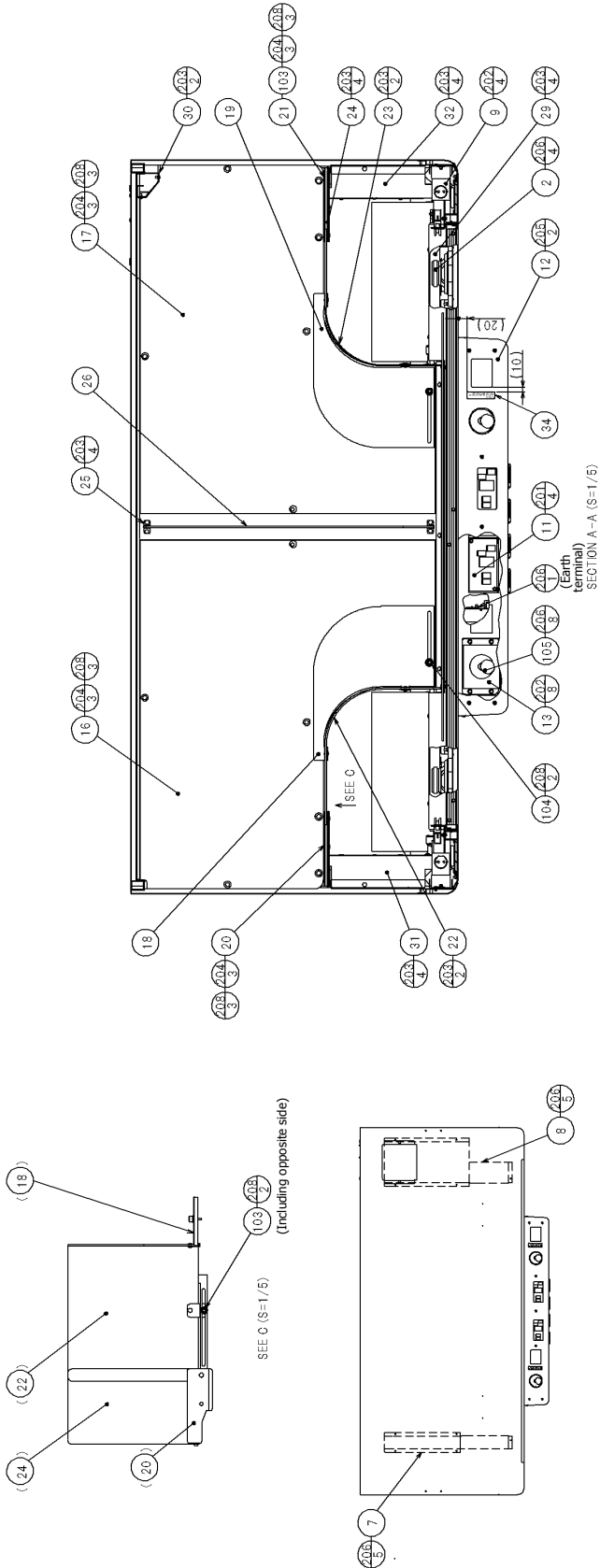


(1) TOP ASSY UCU (UCU-0000)



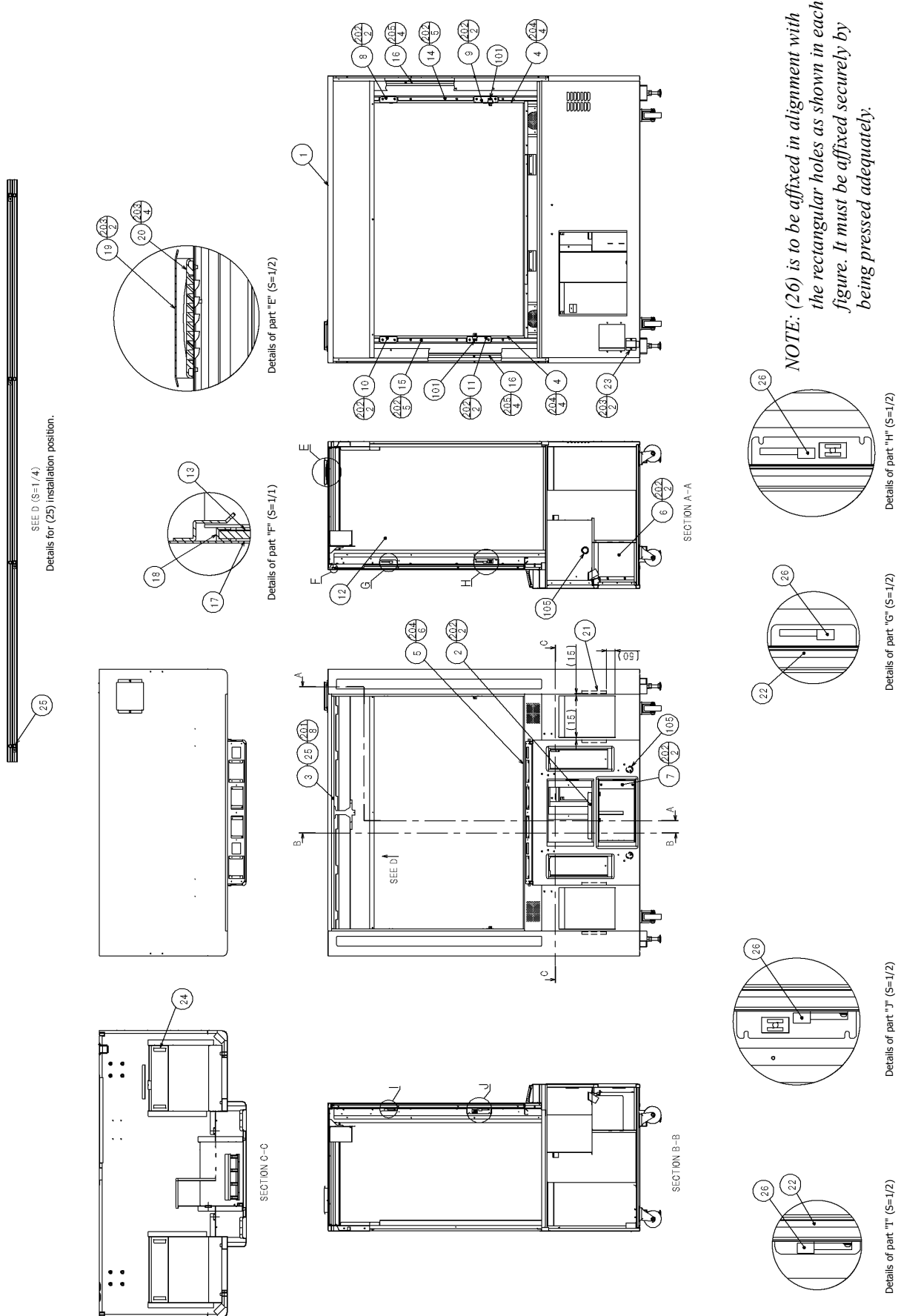
ITEM NO.	PART NO.	DESCRIPTION	NOTE	
1	UCU-1000	ASSY CABINET	101 220-5794	CLY LOCK W/KEYS
2	UCU-1100	ASSY GLASS DOOR L	102 390-6836-32	FL FO32/841/XP/ECO SYLVANIA
3	UCU-1110	ASSY GLASS DOOR R	103 390-6836-25	FL FO25/841/XP/ECO SYLVANIA
4	UCU-1150	ASSY BACK LID	104 280-5275-SR10	CORD CLAMP SR10
5	UCU-2000	ASSY CTRL PNL PLATE	105 601-0460	PLASTIC TIE BELT 100 M/M
6	UCU-3000	ASSY X MECHA 1P	106 280-5124-04	NYLON CLAMP NK04
7	UCU-3010	ASSY X MECHA 2P		
8	UCU-3100	ASSY Y MECHA	201 000-P00408-W	M SCR PH W/FS M4x8
9	UCU-3200	ASSY Z MECHA	202 000-T00408-OC	M SCR TH CRM M4x8
10	UCU-3300	ASSY PIPE	203 008-T00408-OC	TMP PRF SCR TH CRM M4x8
11	UCU-3400	ASSY UFO MECHA	204 008-T00412-OC	TMP PRF SCR TH CRM M4x12
12	UCU-4000	ASSY MAIN BD	206 000-P00425-S	M SCR PH W/S M4x25
13	UCU-0001	SIDE GLASS	207 050-F00400	FLG NUT M4
14	UCU-0002	SIDE GLASS SASH A	208 068-441616-OC	FLT WSHR CRM 4.4-16x1.6
15	UCU-0003	SIDE GLASS SASH B L	209 068-552016-OC	FLT WSHR CRM 5.5-20x1.6
16	UCU-0004	SIDE GLASS SASH B R	210 000-P00406-OC	M SCR PH CRM M4x6
17	UCU-0005	SHIPPING BRKT TOP	211 000-P00410-OC	M SCR PH CRM M4x10
18	UCU-0006	SHIPPING CENTER BAR	212 000-P00410-W	M SCR PH W/FS M4x10
19	UCS-0007	SHIPPING BRKT MECHA	213 020-000410-OZ	HEX SKT H CAP SCR BLK OZ M4x10
20	UCU-0007	GLASS EDGE GUARD A	214 060-F00400	FLT WSHR M4
21	UCU-0008	GLASS EDGE GUARD B	215 060-S00400	SPR WSHR M4
22	UCU-0009	FL COVER PLATE	216 FAS-600004	SPR WSHR CRM M4
23	UCU-0010	SW COVER L	217 050-F00600	FLG NUT M6
24	UCU-0011	SW COVER R	218 031-000620-OC	CRG BLT CRM M6x20
25	UCU-0012	BILLBOARD FRONT	219 008-T00416-OC	TMP PRF SCR TH CRM M4x16
26	UCU-0013	BILLBOARD LEFT		
27	UCU-0014	BILLBOARD RIGHT	301 UCU-60016	WH BILLVALIDATOR
28	UCU-0015	BILLBOARD WASHER	302 UCU-60026	WH EARTH BILL
29	UCU-0016	BILL VALIDATOR DOOR		
30	UCU-0017	BILL DOOR CUSSION	401 601-6604-70	CARTON BOX 70
31	UCU-0042	BLIND PLATE	403 420-6953	OWNERS MANUAL UCU ENG
32	DP-1148X	LKG TNG	404 UCS-3430	ARM S
33	UCU-0018	BACK BD UPPER BRKT	405 UCS-3432	ARM L
37	421-11416	STICKER CAUTION FORK	406 EG-3404	SHOVEL W60
38	421-8479-01	STICKER INSTR SUNLIGHT ENG	407 MKW-2120	SHOVEL W40
39	421-7974-01	STICKER CAUTION GLASS ENG	408 EG-3405Y	SHOVEL W30
41	421-6690-01	STICKER 120V	409 600-7326	AC CABLE CONNECT TYPE USA 15A
42	440-WS0002XEG	STICKER W POWER OFF ENG	410 220-5793-2-A001	KEY MASTER A001
43	440-WS0286-EG	STICKER W DO NOT OPEN ENG	411 220-5793-2-A002	KEY MASTER A002
47	440-WS0027-EG	STICKER W HIGH TEMP WIDE ENG	413 540-0006-01	WRENCH M4 TMP SCR
48	421-12116	STICKER BILL VALIDATOR	414 USS-3418	SLIDE SPRING
49	UCU-1002-B	STICKER LEFT	415 000-T00408-OC	M SCR TH CRM M4x8
50	UCU-1002-C	STICKER RIGHT		
51	UCU-1002-D	STICKER FRONT A		
52	UCU-1002-E	STICKER FRONT B		
53	UCU-1002-F	STICKER FRONT C		
54	621-000110-US	PACKING SET UCU-0000		
57	421-6119-91	STICKER FCC		
58	440-CS0316-EG	STICKER C PRIZEDOOR ENG		
61	UCU-0040	BACK BOARD B		
62	UCU-0041	STICKER BACK BOARD		

(2) ASSY CABINET (UCU-1000)



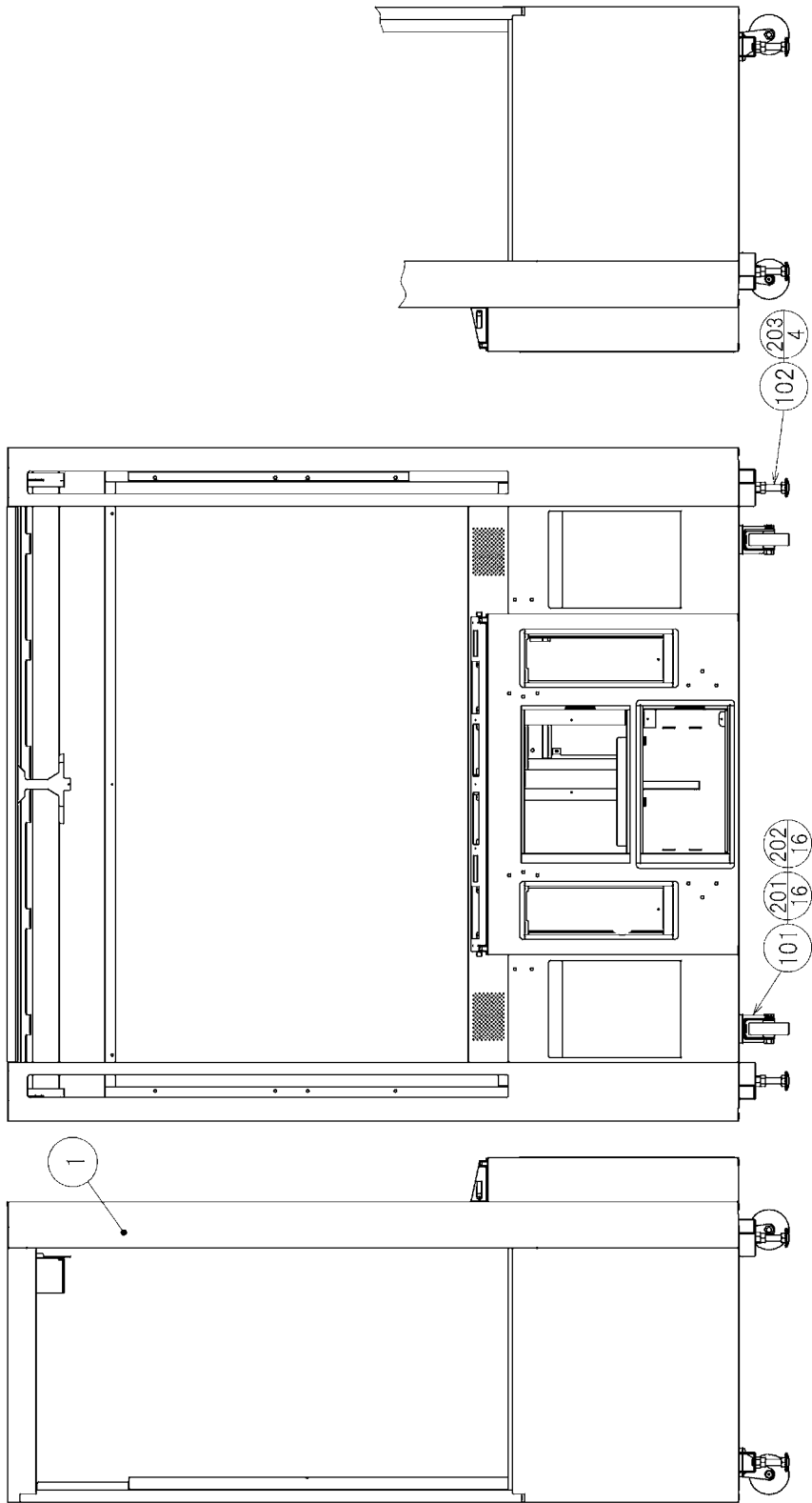
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1001	ASSY SUB CABINET	
2	UCS-1050X	ASSY SPEAKER	
3	UCU-1060	ASSY SERVICE DOOR	
4	UCU-1070	SW UNIT	
5	UCU-1080	AC UNIT	
6	USS-1200	ASSY PRIZE SENSOR	
7	UCU-1300	ASSY FL BASE L	
8	UCU-1310	ASSY FL BASE R	
9	UCU-1320	SIDE FL UNIT	
10	UCU-1340	FLAP UNIT	
11	839-1276R	CREDIT BD US	
12	UCU-1003	CTRL PNL COVER	
13	UCU-1004	LEVER BRKT	
14	UCU-1005	CASH BOX DOOR	
15	DP-1148X	LKG TNG	
16	UCU-1006	FIELD PLATE L	
17	UCU-1007	FIELD PLATE R	
18	UCU-1008	CHUTE ADJUST PLATE L	
19	UCU-1009	CHUTE ADJUST PLATE R	
20	UCU-1010	PARTITION HOLDER L	
21	UCU-1011	PARTITION HOLDER R	
22	UCU-1012	CORNER PARTITION L	
23	UCU-1013	CORNER PARTITION R	
24	UCU-1014	FIX PARTITION	
25	UCU-1015	PARTITION BRKT CL	
26	UCU-1016	PARTITION CL	
27	UCU-1017	PARTITION FRONT	
28	UCU-1018	PARTITION BRKT FRONT	
29	UCU-1019	SPEAKER COVER	
30	UCU-1020	WIRE COVER	
31	UCU-1021	PRIZE SENSOR COVER L	
32	UCU-1022	PRIZE SENSOR COVER R	
33	253-5366	CASH BOX	
34	421-12106-01	STICKER BULB 3.8W14V UL	
101	220-5794	CLY LOCK W/KEYS	
102	560-5530-V	XFMR100-120V100V2A24V5A WB UL	
103	601-11480-8	PLAPOINT L=8	
104	601-11480-20	PLAPOINT L=20	
105	509-6121-01	JOYSTICK 8WAY 50-6070-10(HAPP)	
106	280-6581-29	BUSHING NB-29	
201	000-P00308-W	M SCR PH W/FS M3x8	
202	000-P00408-W	M SCR PH W/FS M4x8	
203	000-T00408-0C	M SCR TH CRM M4x8	
204	000-T00416-0C	M SCR TH CRM M4x16	
205	008-T00408-0C	TMP PRF SCR TH CRM M4x8	
206	050-F00400	FLG NUT M4	
207	050-F00500	FLG NUT M5	
208	068-441616-0C	FLT WSHR CRM 4.4-16x1.6	
301	UCU-60013	WH JOY STICK	

(3) ASSY SUB CABINET (UCU-1001)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1002	CABINET	
2	UCU-1023	COIN CHUTE LOWER	
3	UCS-1007	SASH UPPER	
4	UCS-1008	SASH SIDE	
5	UCU-1024	SASH LOWER	
6	UCU-1025	BOX ADJUST WALL L	
7	UCU-1026	BOX ADJUST WALL R	
8	UCU-1027	HOOK UPPER L	
9	UCU-1028	HOOK LOWER L	
10	UCU-1029	HOOK UPPER R	
11	UCU-1030	HOOK LOWER R	
12	UCU-1031	FL GLASS	
13	UCU-1032	FL GLASS SHEET	
14	UCU-1033	FL GLASS SASH A L	
15	UCU-1034	FL GLASS SASH A R	
16	UCU-1035	FL GLASS SASH B	
17	UCU-0007	GLASS EDGE GUARD A	
18	UCU-1036	GLASS EDGE GUARD C	
19	UCU-1037	LOOVER COVER	
20	253-5460-02	AIR VENT WHITE	
21	UCS-1046	FLAP CUSHION T10	
22	UCS-1022	DOOR CUSHION	
23	UCU-1038	AC UNDER COVER	
24	USS-1023	FLAP STOPPER	
25	USS-1024	DOOR ADJUSTER	
26	UCU-1039	TNG CUSHION	
27	UCU-6001	ASSY WIRE	
101	509-5753	LINE INTERRUPT SW	
102	280-5277	CORD CLAMP 18	
103	280-5292	CORD CLAMP 18 PUSH TYPE	
104	280-5275-SR10	CORD CLAMP SR10	
105	280-6581-29	BUSHING NB-29	
201	000-P00312-W	M SCR PH W/FS M3x12	
202	000-P00408-W	M SCR PH W/FS M4x8	
203	000-T00408-OC	M SCR TH CRM M4x8	
204	010-F00308	S-TITE SCR FH M3x8	
205	050-F00400	FLG NUT M4	
301	UCU-60001	WH AC PRI	
302	UCU-60017	WH PRIZE SENSOR	

(4) CABINET (UCU-1002)



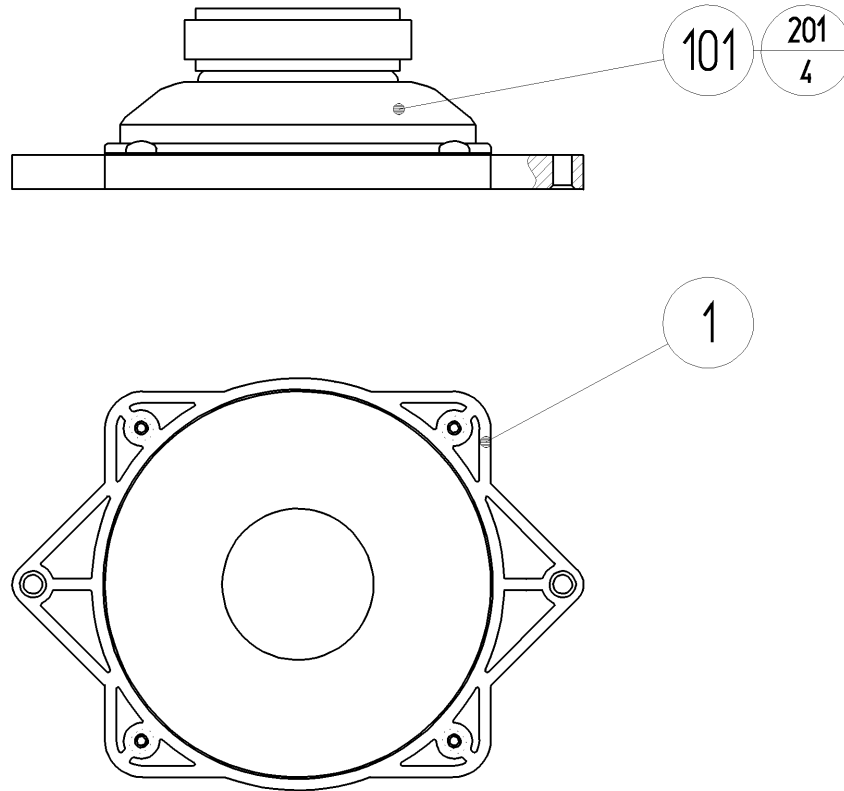
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1002-A	CABINET BLANK	
101	601-8714	CASTER FAI100	
102	601-5699X	LEG ADJUSTER BOLT M16x75	
201	030-001020-S	HEX BOLT W/S M10x20	
202	060-F01000	FLT WSHR M10	
203	050-H01600	HEX NUT M16	

(5) ASSY WIRE (UCU-6001)

This is comprised of the following wire harnesses. ASSY drawing is not available.

ITEM NO.	PART NO.	DESCRIPTION	NOTE
101	601-0460	PLASTIC TIE BELT 100 M/M	
102	310-5033-15-160	SPIRAL TUBE 15 160CM	
301	UCU-60002	WH AC FL	
302	UCU-60003	WH AC SEC	
303	UCU-60004	WH CABI 1	
304	UCU-60007	WH FL EXT	
305	UCU-60008	WH CABI 2	
306	UCU-60009	WH DIPSW BD	
307	UCU-60010	WH SP EXT	
308	UCU-60012	WH CREDIT BD	

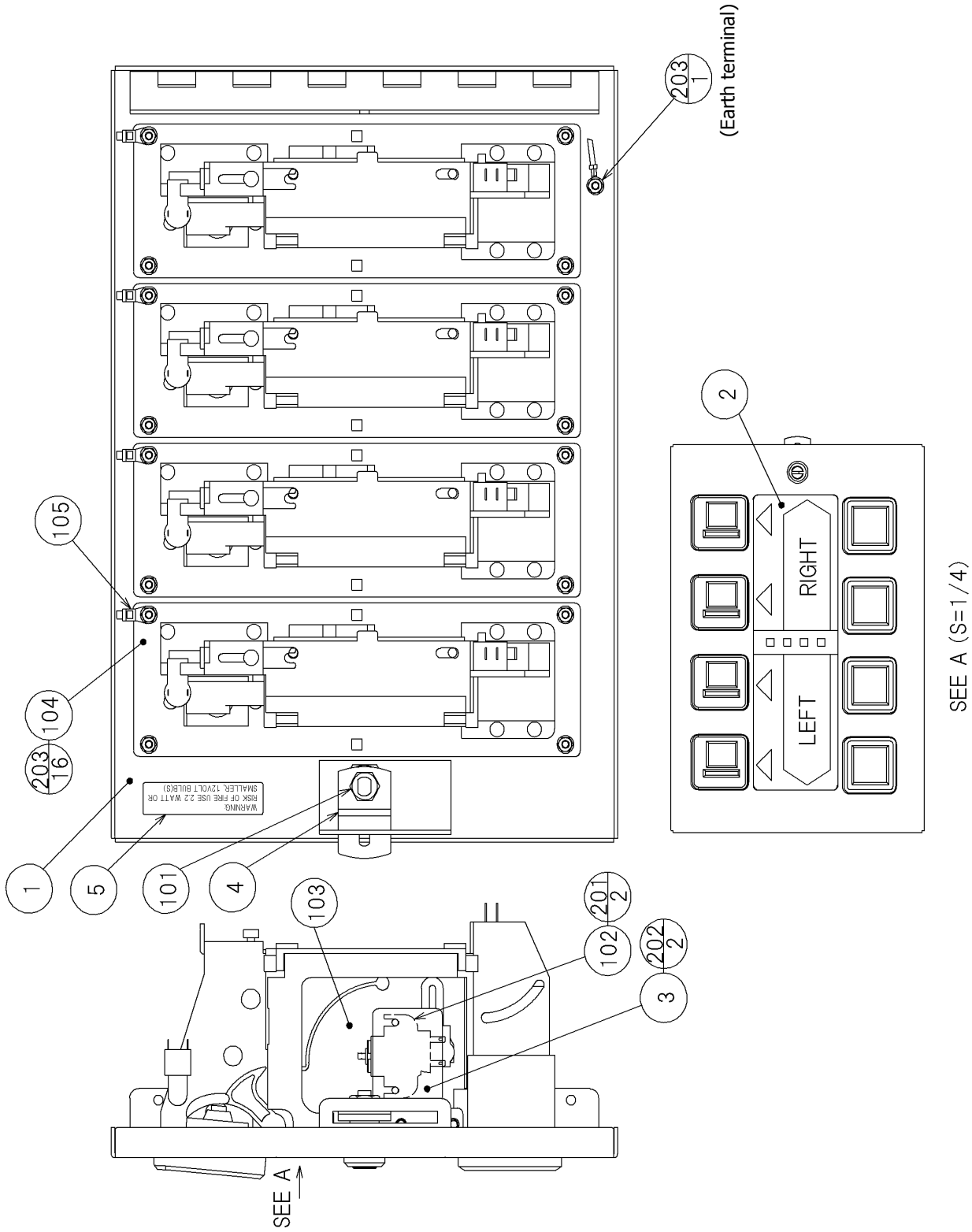
(6) ASSY SPEAKER (UCS-1050X)



NOTE: Pay close attention to the surface orientation of the cross-section (slanted line) area.

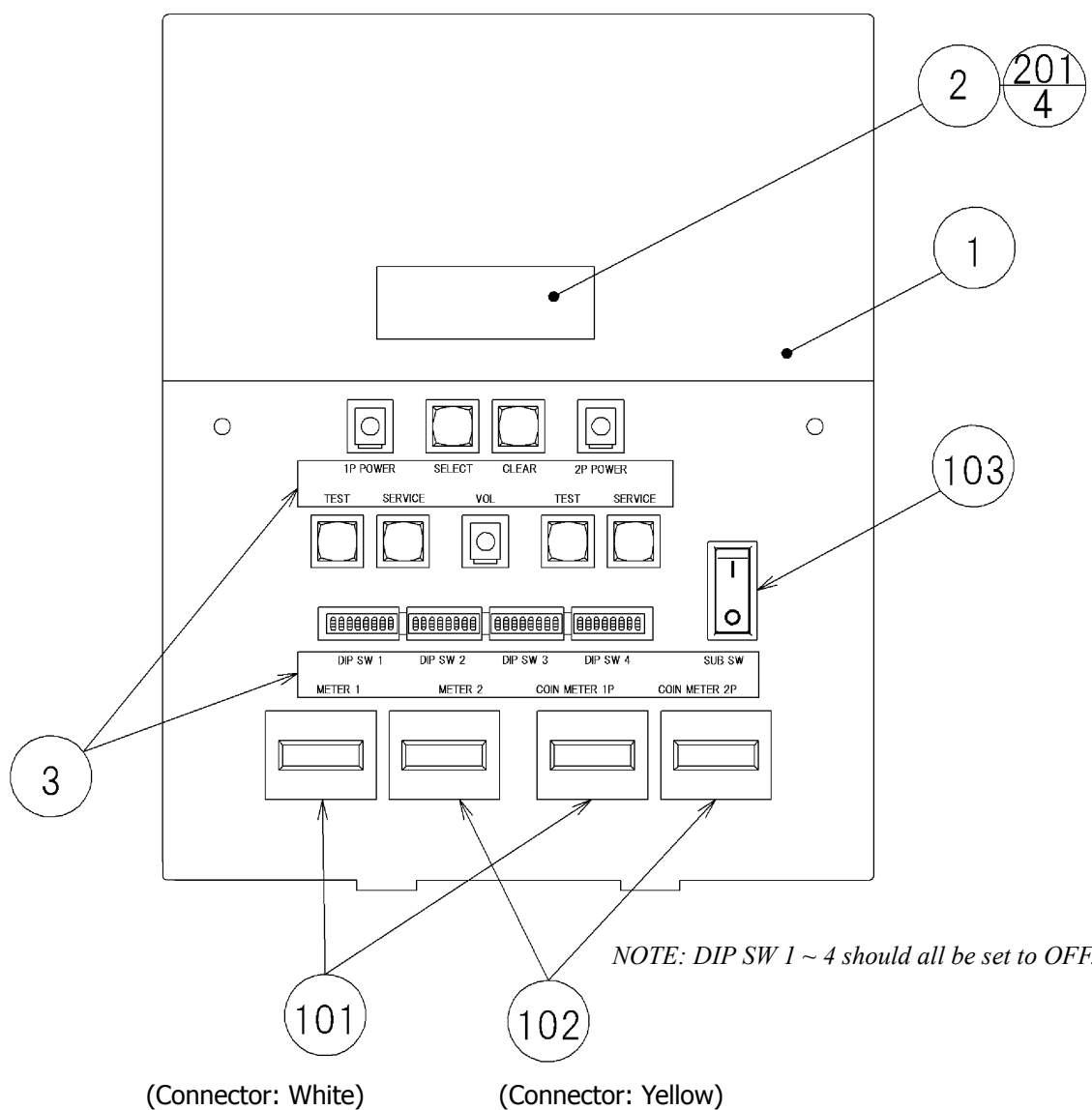
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UAT-1051	SPEAKER BASE	
101	130-5034	SPEAKER 8 OHM 10W F 100A59-1	
201	012-P00408	TAP SCR #2 PH 4x8	

(7) ASSY SERVICE DOOR (UCU-1060)



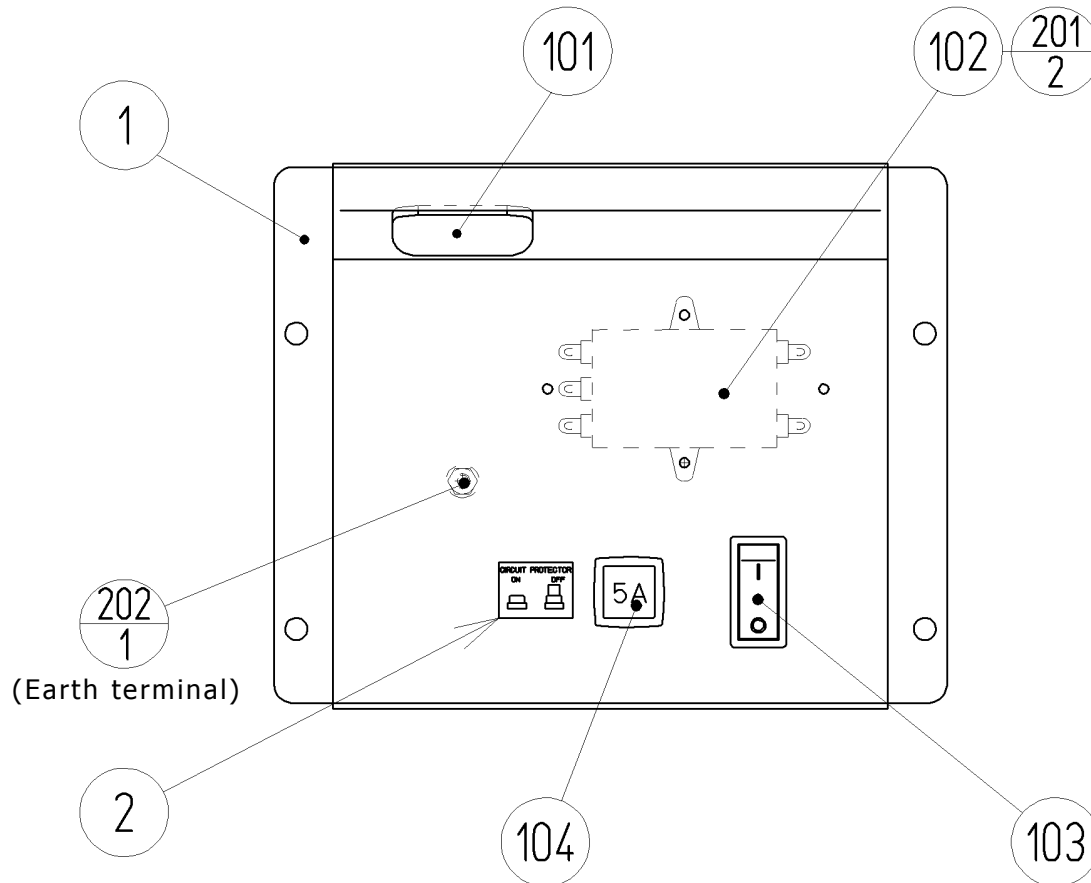
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1061	SERVICE DOOR	
2	UCU-1062	STICKER SERVICE DOOR	
3	UCU-1063	LT SOLENOID BRKT FOR LORENZO	
4	DP-1148X	LKG TNG	
5	421-12106-02	STICKER BULB 2.2W12V UL	
101	220-5793-1-A002	CLY LOCK MASTER W/O KEY A002	
102	124-5088	SOL QL-102 DC12V FOR 220-5310	
103	220-5208-05	COIN CHUTE REJ 25 AD-81P	
104	220-5786	C.C BRKT A0710 (LORENZO)	
105	601-6316-S8	TIE BELT W/CLAMP S8	
106	601-0460	PLASTIC TIE BELT 100 M/M	
107	280-5275-SR10	CORD CLAMP SR10	
201	000-P00308-W	M SCR PH W/FS M3x8	
202	000-P00408-W	M SCR PH W/FS M4x8	
203	050-F00400	FLG NUT M4	
301	UCS-60031	WH EARTH DOOR	
302	UCU-60015	WH SERVICE DOOR	

(8) SW UNIT (UCU-1070)



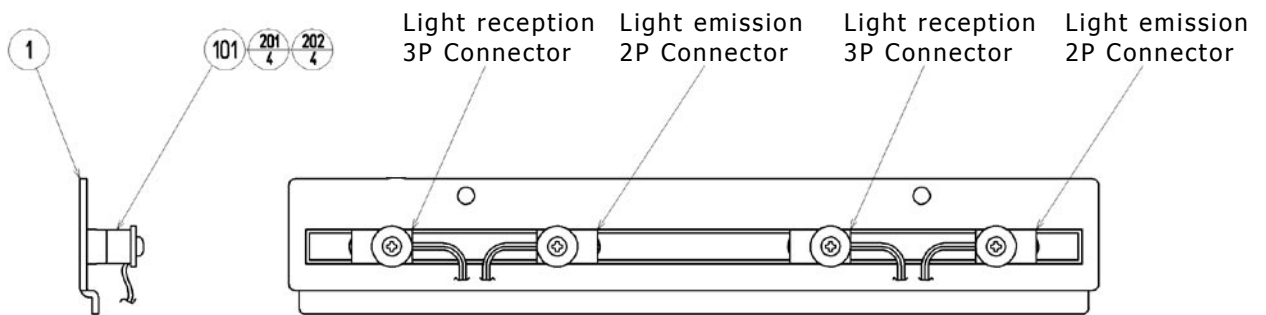
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1071	SW AND VOL PLATE	
2	837-14485R	DIPSW BD USS	
3	421-12100	STICKER SW UNIT UCU	
101	220-5798-01	MAG CNTR 4P MZ674-DC5V-D41 JC	
102	220-5798-02	MAG CNTR 6P MZ674-DC5V-D42 JC	
103	509-6102-V-B	SW ROCKER J8 V-B AJ8202BF	
104	601-0460	PLASTIC TIE BELT 100 M/M	
201	050-F00300	FLG NUT M3	

(9) AC UNIT (UCU-1080)



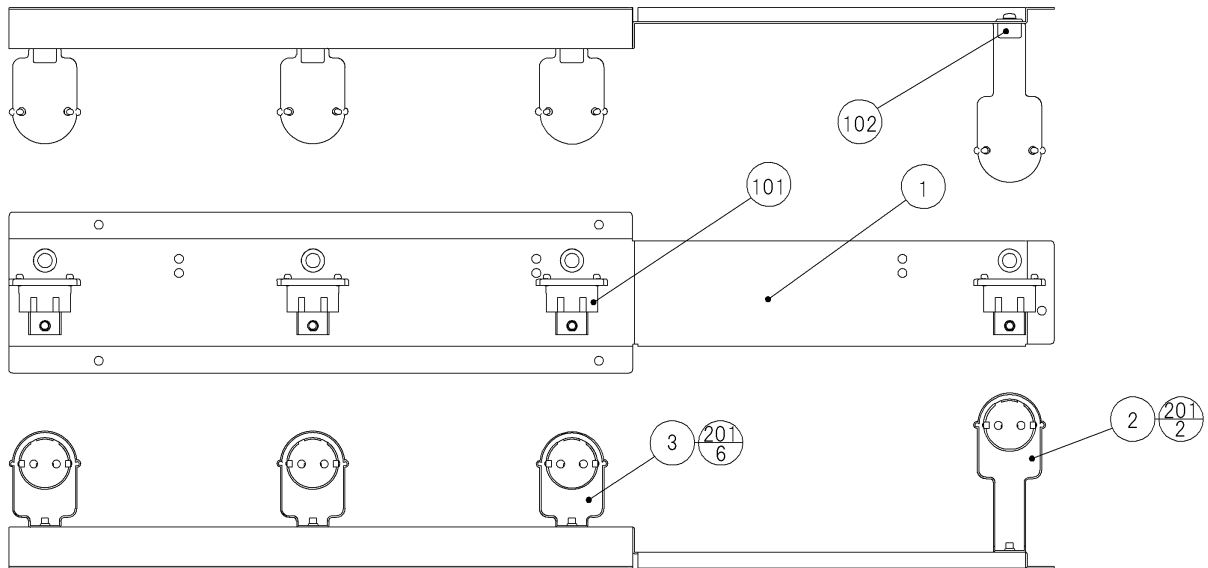
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1081	AC BRKT	
2	421-7468-01	STICKER C.P W/PIC	
101	214-0202	AC INLET PANEL TYPE	
102	270-5020	NOISE FILTER AC250V 6A	
103	509-6102-V-B	SW ROCKER J8 V-B AJ8202BF	
104	512-5046-5000	C.P 5000MA CE UL	
105	280-5275-SR10	CORD CLAMP SR10	
106	601-0460	PLASTIC TIE BELT 100 M/M	
201	010-P00308-F	S-TITE SCR PH W/F M3x8	
202	050-F00400	FLG NUT M4	
301	UCS-60035	WH EARTH FILTER L	
302	UCU-60021	WH AC UNIT	

(10) ASSY PRIZE SENSOR (USS-1200)



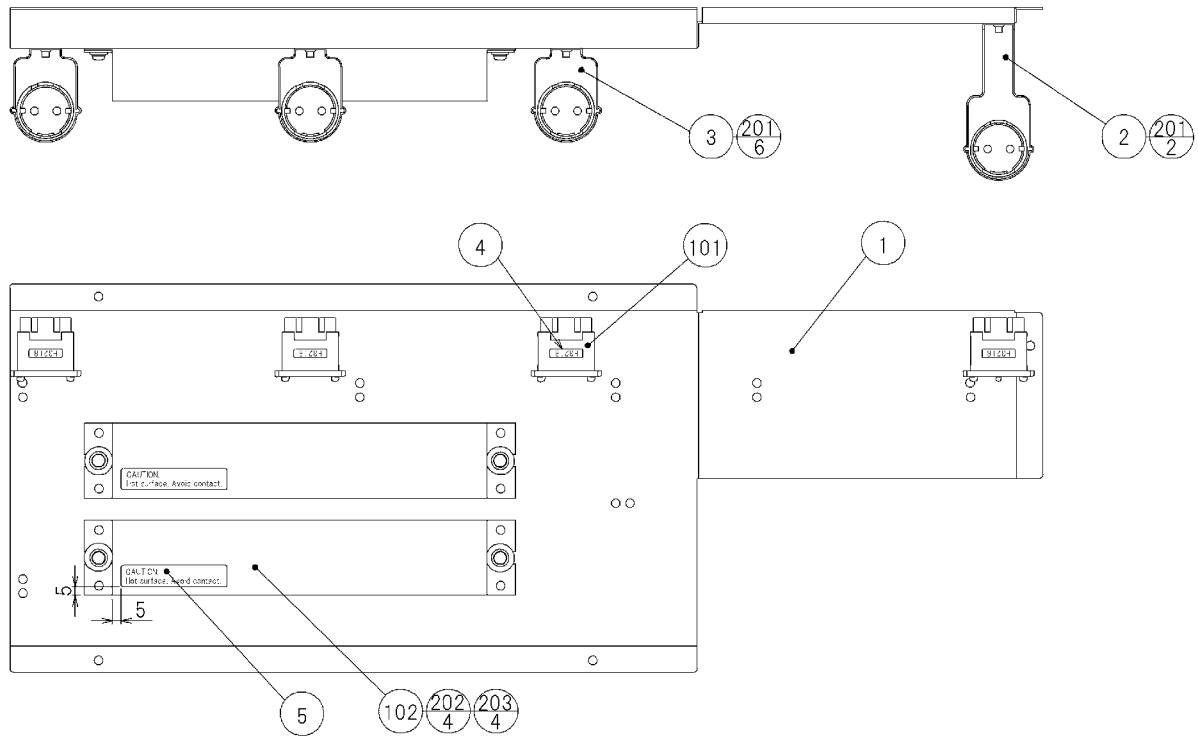
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCS-1202	PRIZE SENSOR PLATE B	
101	370-5173-01	PHOTO SENSOR OMT-15DJST-YL	
201	012-P00314	TAP SCR #2 PH 3x14	
202	FAS-680014	FLT WSHR 3-12X1.6	

(11) ASSY FL BASE L (UCU-1300)



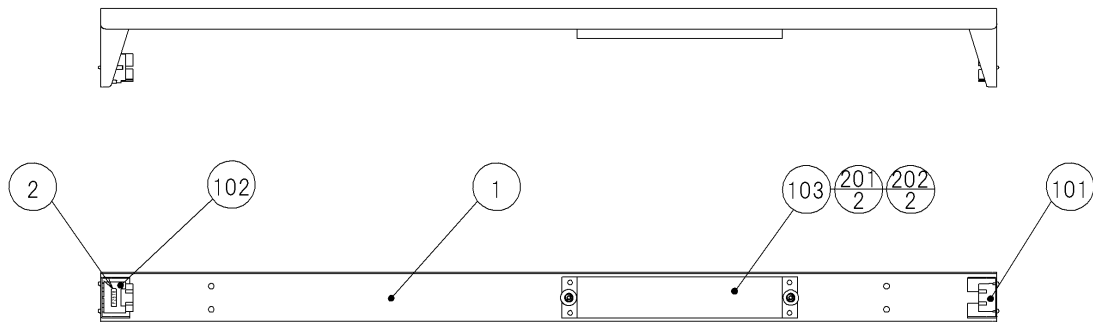
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1301	CEILING FL BASE L	
2	UCU-1302	FL HOLDER BRKT A	
3	UCU-1303	FL HOLDER BRKT B	
101	214-0271	FL SOCKET 26.420.4400.50 BJB	
102	280-6581-8	BUSHING NB-8	
103	601-0460	PLASTIC TIE BELT 100 M/M	
201	000-P00408-W	M SCR PH W/FS M4x8	
301	UCU-60025	WH FL 3	

(12) ASSY FL BASE R (UCU-1310)



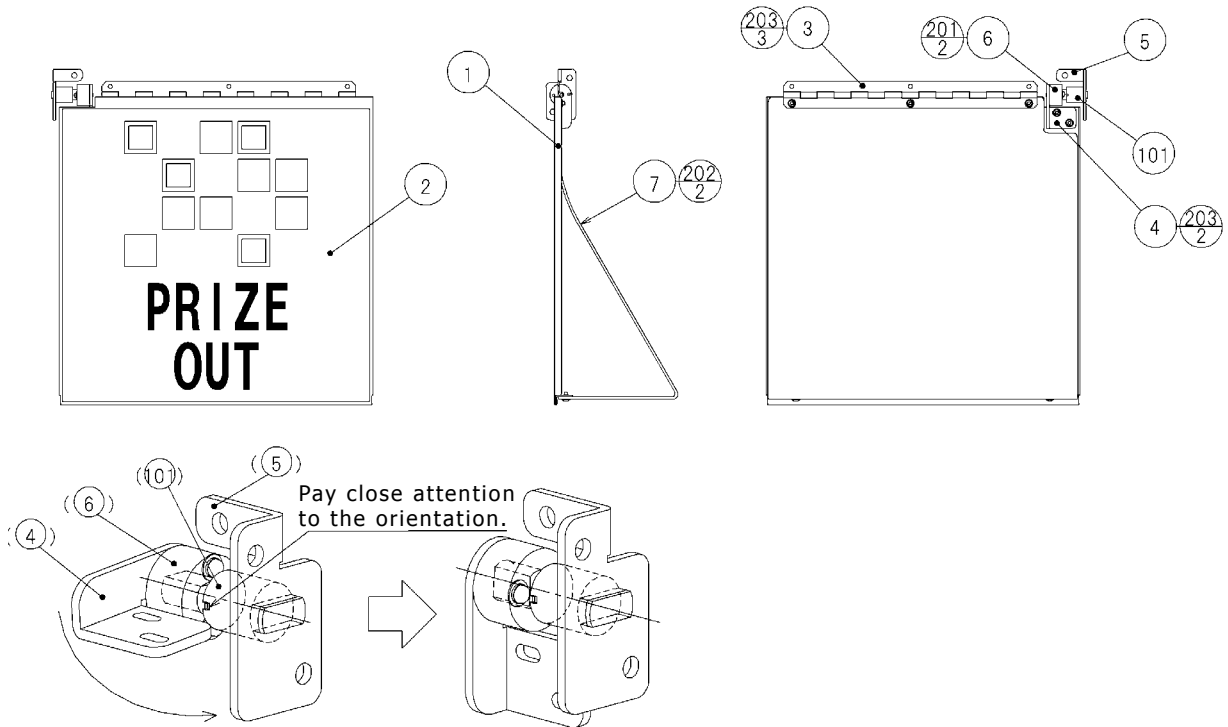
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1311	CEILING FL BASE R	
2	UCU-1302	FL HOLDER BRKT A	
3	UCU-1302	FL HOLDER BRKT A	
4	421-12109-32T8	STICKER FL RATING 32T8	
5	421-12107	STICKER HOT SURFACE UL	
101	214-0272	FL SOCKET 26.420.4404.50 BJB	
102	390-6828	INVERTER QT2X32 T8/120 ISN-SC	
103	601-0460	PLASTIC TIE BELT 100 M/M	
104	209-0032-91	CONN CLOSED END	
201	000-P00408-W	M SCR PH W/FS M4x8	
202	000-P00410-W	M SCR PH W/FS M4x10	
203	068-441616	FLT WSHR 4.4-16x1.6	
301	UCU-60023	WH FL 1	
302	UCU-60024	WH FL 2	
303	UCU-60027	WH FL SOCKET	

(13) SIDE FL UNIT (UCU-1320)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1321	SIDE FL BASE	
2	421-12109-25T8	STICKER FL RATING 25T8	
101	214-0271	FL SOCKET 26.420.4400.50 BJB	
102	214-0272	FL SOCKET 26.420.4404.50 BJB	
103	390-6829	INVERTER QT1X32 T8/120 ISN-SC	
104	280-5275-SR10	CORD CLAMP SR10	
105	209-0032-91	CONN CLOSED END	
106	601-0460	PLASTIC TIE BELT 100 M/M	
201	050-F00400	FLG NUT M4	
202	068-441616	FLT WSHR 4.4-16x1.6	
301	UCU-60022	WH FL SIDE	
302	UCU-60027	WH FL SOCKET	

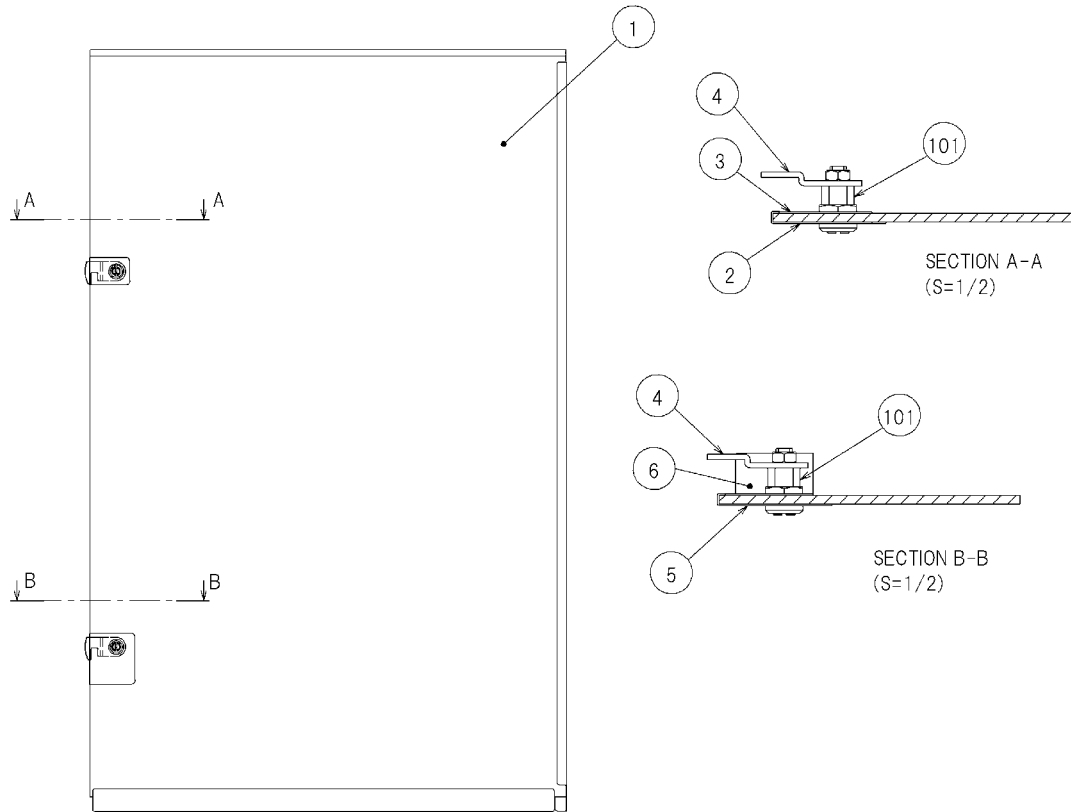
(14) FLAP UNIT (UCU-1340)



Attach (101) in the condition in which it was delivered, then turn it 90 degrees.

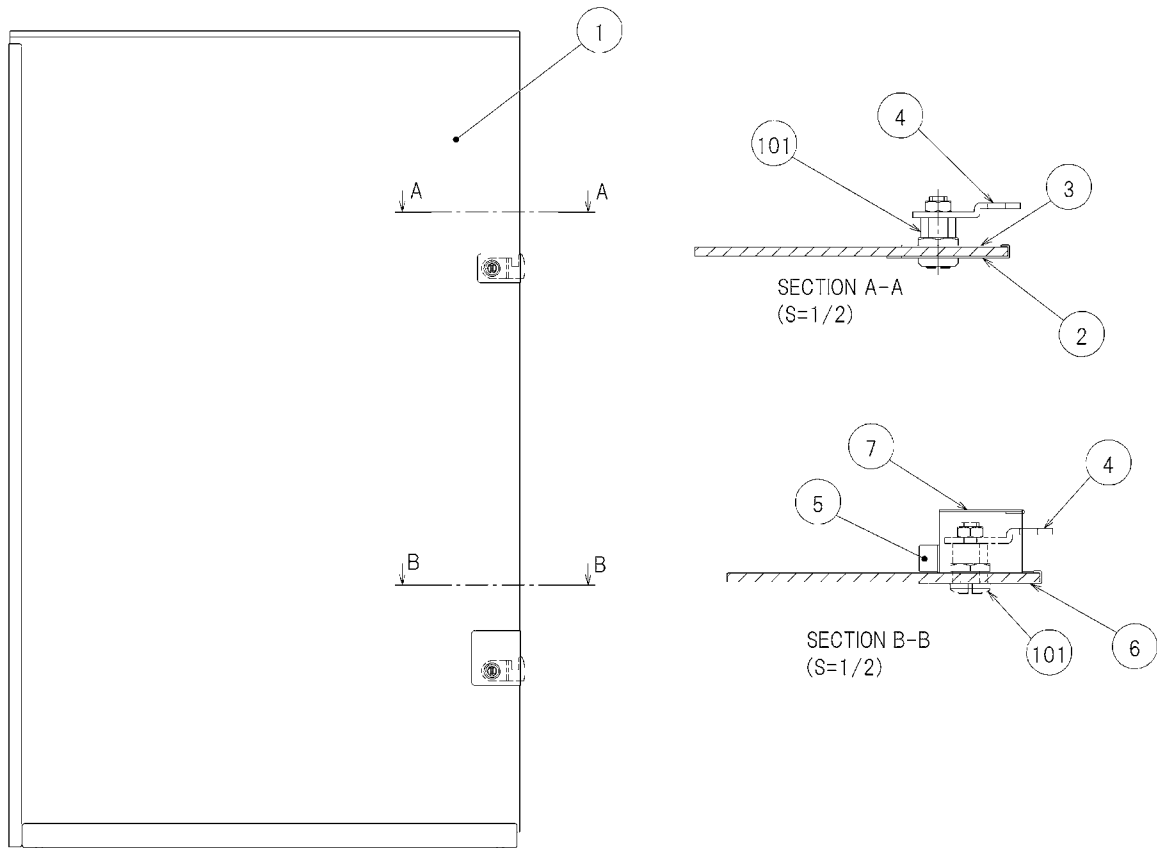
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1341	FLAP PANEL	
2	UCU-1342	STICKER FLAP	
3	UCU-1343	FLAP HINGE	
4	UCU-1344	DAMPER BRKT A	
5	UCU-1345	DAMPER BRKT B	
6	UCU-1346	DAMPER SLEEVE	
7	UCU-1347	FLAP INNER	
101	601-11728	TORQUE DAMPER TD14A1-20K-R	
201	000-P00320-W	M SCR PH W/FS M3x20	
202	000-T00408-0C	M SCR TH CRM M4x8	
203	050-F00400	FLG NUT M4	

(15) ASSY GLASS DOOR L (UCU-1100)



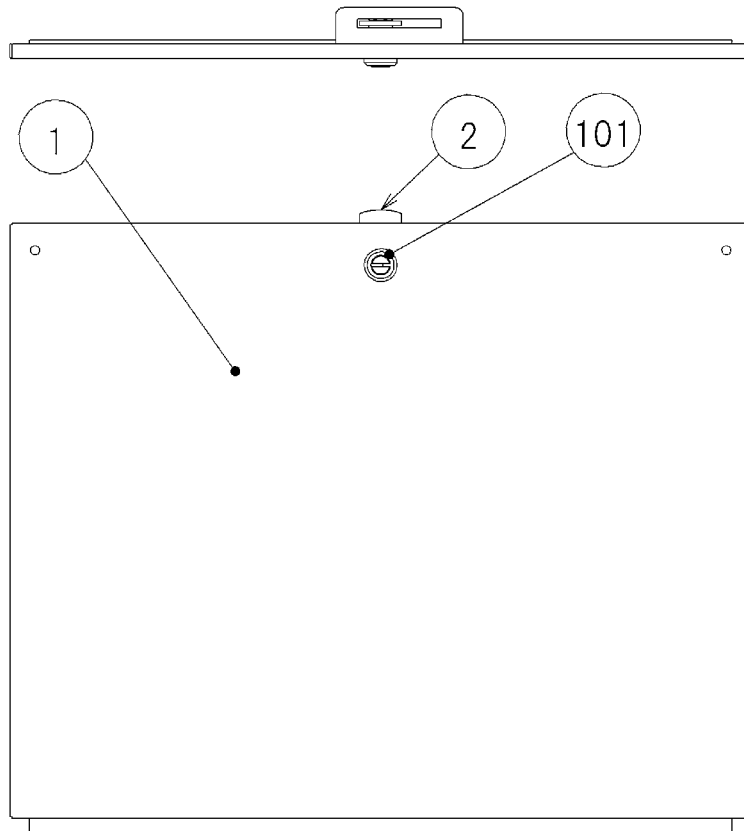
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1101	FRONT GLASS	
2	UCS-1102	LOCK BRKT	
3	UCS-1103	LOCK PLATE	
4	UCM-1101	LOCKING TONGUE	
5	UCU-1102	LOCK BRKT LOWER	
6	UCU-1103	INTERLOCK PLATE L	
101	220-5793-1-A002	CLY LOCK MASTER W/O KEY A002	

(16) ASSY GLASS DOOR R (UCU-1110)



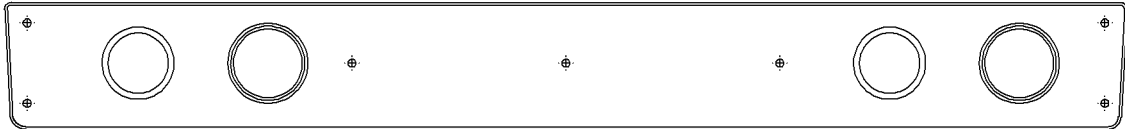
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1101	FRONT GLASS	
2	UCS-1102	LOCK BRKT	
3	UCS-1103	LOCK PLATE	
4	UCM-1101	LOCKING TONGUE	
5	UAT-1413	DOOR STOPPER RUBBER	
6	UCU-1102	LOCK BRKT LOWER	
7	UCU-1104	INTERLOCK PLATE R	
101	220-5793-1-A002	CLY LOCK MASTER W/O KEY A002	

(17) ASSY BACK LID (UCU-1150)



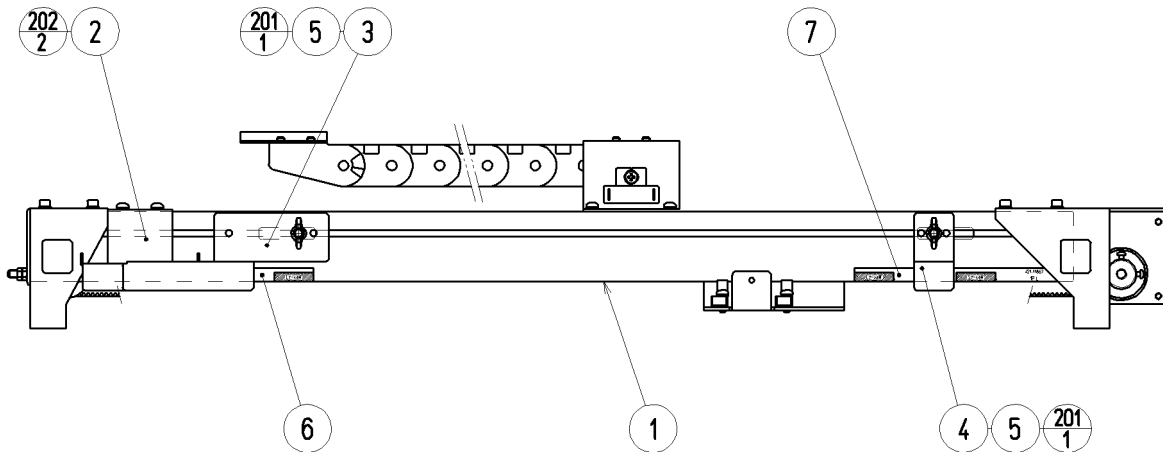
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-1151	BACK LID	
2	DP-1167	TNG LKG	
101	220-5793-1-A001	CLY LOCK MASTER W/O KEY A001	

(18) ASSY CTRL PNL PLATE (UCU-2000)



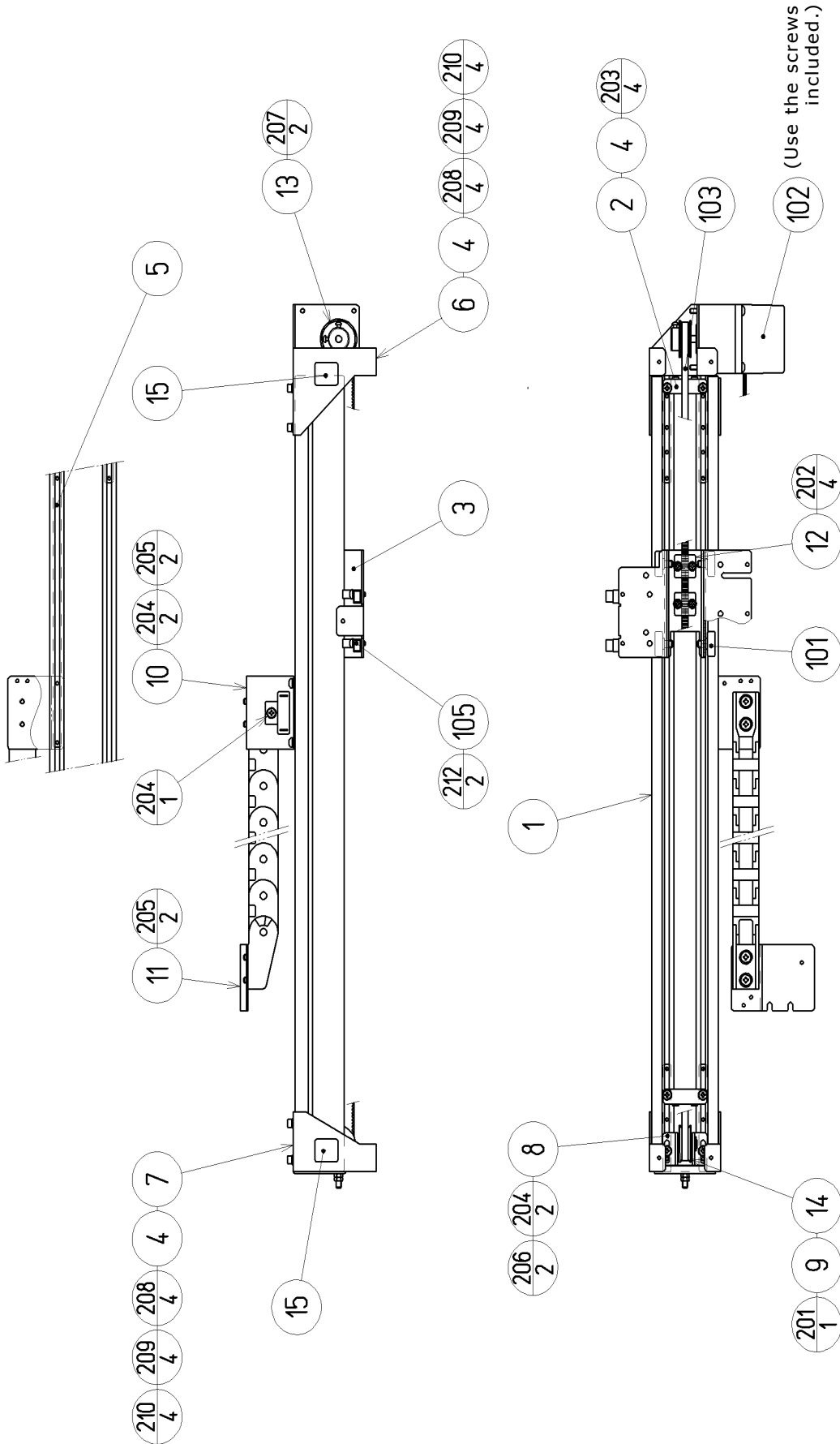
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-2001	CTRL PNL PLATE	
2	UCU-2002	CTRL PNL SHEET	
101	509-5406S	SW PUSH BUTTON 60M-W(OBSA-60M)	
301	UCU-60014	WH CTRL SW	

(19) ASSY X MECHA 1P (UCU-3000)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-3050	ASSY X MECHA	
2	USS-3001X	SENSOR DOG HP FIX	
3	USS-3002X	SENSOR DOG HP 1P	
4	USS-3003X	SENSOR DOG LIMIT	
5	UCS-3014X	NUT PLATE S	
6	421-11866-02	STICKER DOG POS 1P HOME ENG	
7	421-11867-02	STICKER DOG POS 1P LIMIT ENG	
201	032-000408-0C	WING BLT CRM M4x8	
202	000-P00410-W	M SCR PH W/FS M4x10	

(20) ASSY X MECHA (UCU-3050)

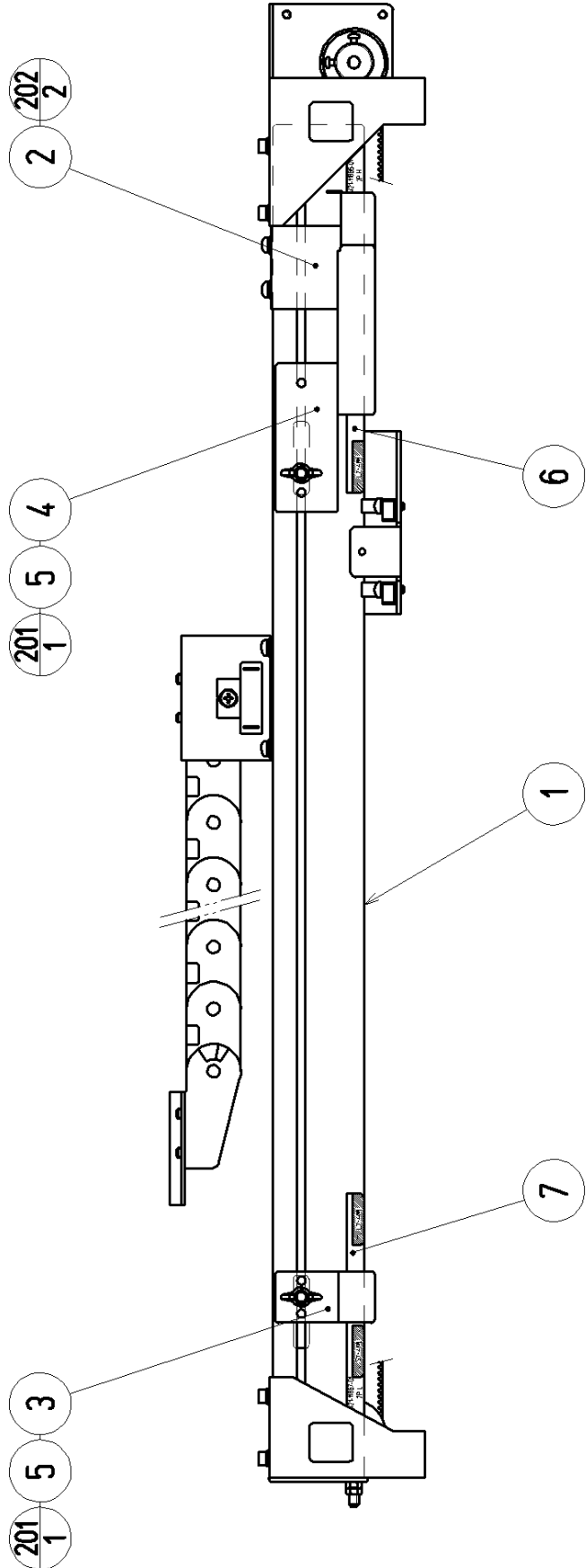


Belt tension:	Min 16 N (1.6 kgf) Max 25 N (2.6 kgf)
Belt unit mass:	0.23 g/cm ²
Belt width:	6 mm
Pulley center distance:	705 mm

NOTE: When securing the harness inside the cable carrier to the metal plate with the tie belt, do so with the cable carrier (harness) extended.

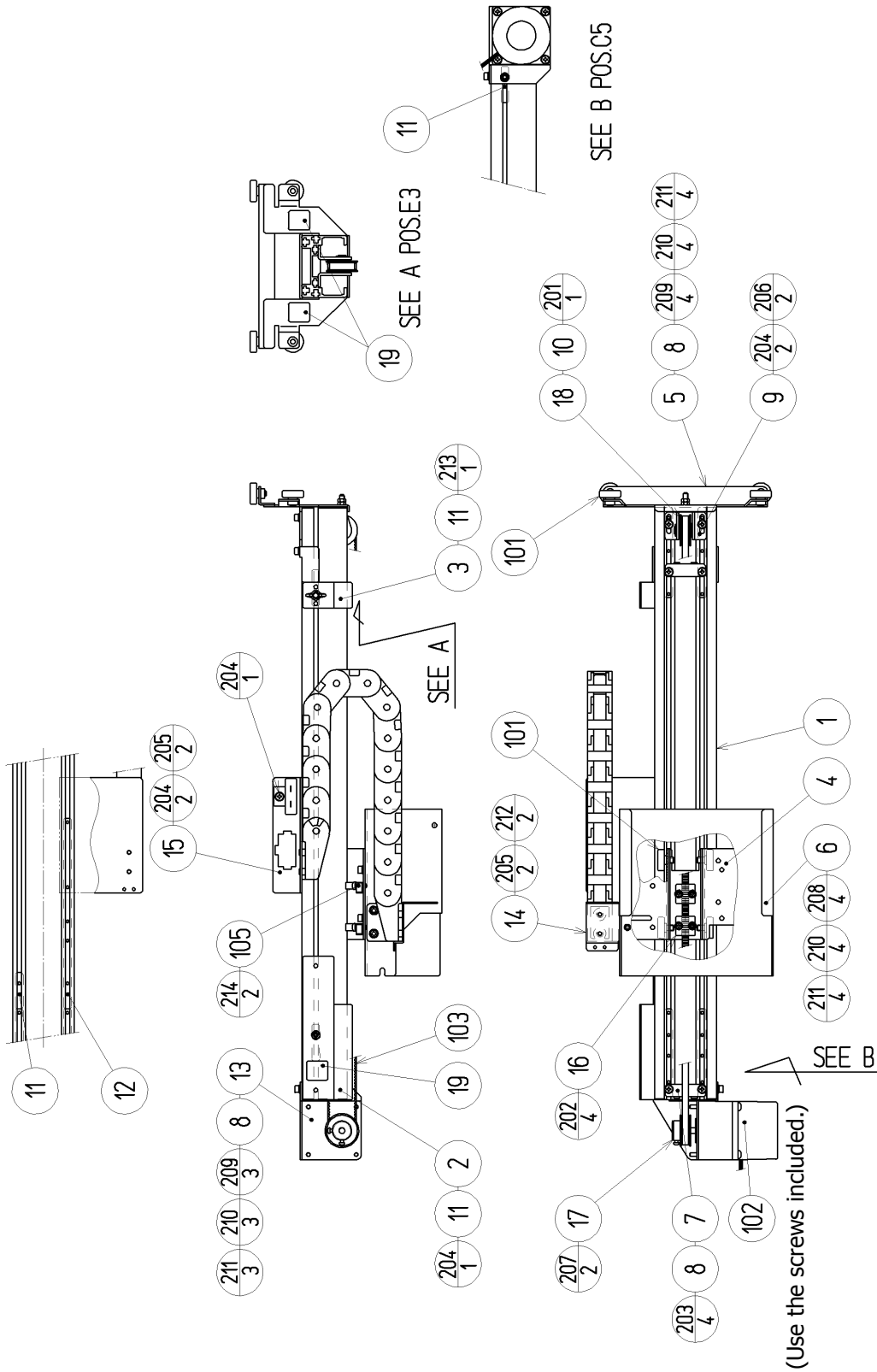
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	105-5450-697	MECHA RAIL L=697	
2	UCS-3001X	STOPPER	
3	USS-3051Y	CARRIAGE X	
4	UCS-3004X	NUT PLATE COMMON	
5	UCU-3005	NUT PLATE CB X2	
6	UCS-3006X	MOTOR BRKT X	
7	UCS-3007X	X MECHA BRKT	
8	UCS-3009X	PULLEY BRKT	
9	UCS-3010	PULLEY SHAFT	
10	UCS-3012X	CABLEBEAR BRKT X FIX	
11	UCS-3013X	CABLEBEAR BRKT X MOVE	
12	253-5522	BELT HOLDER S3M 06	
13	350-5667	PULLEY A (30 S3M 06)	
14	350-5668	PULLEY B (30 S3M 06)	
15	440-CS0245-EG	STICKER C GEAR S ENG	
101	100-5272	BEARING 22 (DR-22-B2)	
102	350-5669-01	MOTOR AC100V 2W 1/20 W/CONN	
103	601-11102	TIMING BELT 500 S3M 06	
104	601-0460	PLASTIC TIE BELT 100 M/M	
105	370-5251	PHOTO INTERRUPTER KI1301-BB	
106	280-5277	CORD CLAMP 18	
107	280-5275-SR10	CORD CLAMP SR10	
108	601-6231-C040	EDGING NEW TYPE L=40	
201	065-E00600	E RING 6MM	
202	000-P00308-W	M SCR PH W/FS M3x8	
203	000-P00408-S	M SCR PH W/S M4x8	
204	000-P00410-W	M SCR PH W/FS M4x10	
205	000-P00510-W	M SCR PH W/FS M5x10	
206	050-H00500	HEX NUT M5	
207	028-P00310-P	SET SCR PH CUP P M3x10	
208	020-000410-OZ	HEX SKT H CAP SCR BLK OZ M4x10	
209	060-S00400	SPR WSHR M4	
210	060-F00400	FLT WSHR M4	
211	000-P00408	M SCR PH M4x8	
212	000-P00412-S	M SCR PH W/S M4x12	
301	UCU-60018	WH CABLE BEAR X	

(21) ASSY X MECHA 2P (UCU-3010)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-3050	ASSY X MECHA	
2	USS-3001X	SENSOR DOG HP FIX	
3	USS-3003X	SENSOR DOG LIMIT	
4	USS-3011X	SENSOR DOG HP 2P	
5	UCS-3014X	NUT PLATE S	
6	421-11866-03	STICKER DOG POS 2P HOME ENG	
7	421-11867-03	STICKER DOG POS 2P LIMIT ENG	
201	032-000408-0C	WING BLT CRM M4x8	
202	000-P00410-W	M SCR PH W/FS M4x10	

(22) ASSY Y MECHA (UCU-3100)

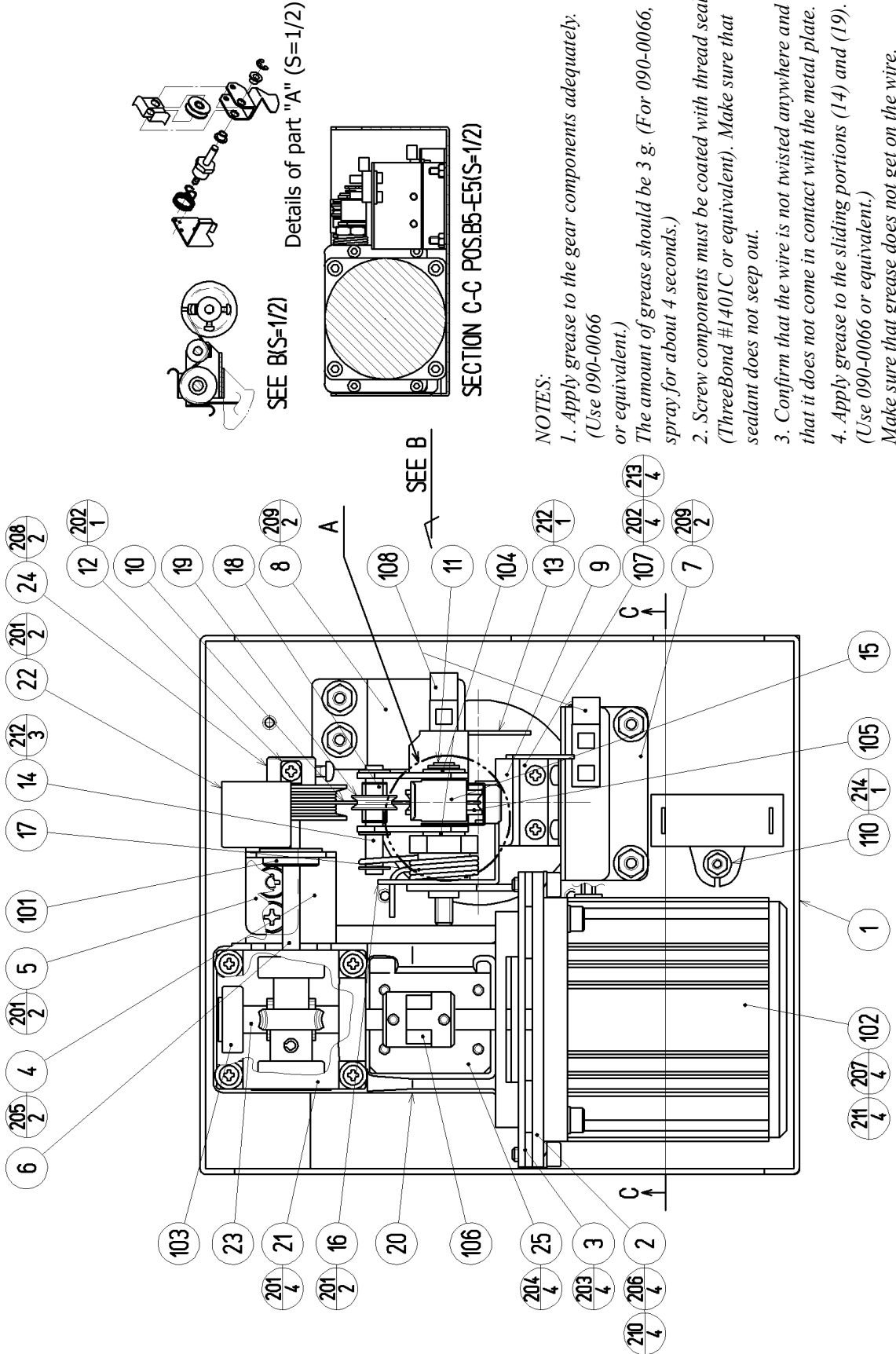


Belt tension:	Min 16 N (1.6 kgf)
	Max 25 N (2.6 kgf)
Belt unit mass:	0.23 g/cm ²
Belt width:	6 mm
Pulley center distance:	621 mm

NOTE: When securing the harness inside the cable carrier to the metal plate with the tie belt, do so with the cable carrier (harness) extended.

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	105-5450-613	MECHA RAIL L=613	
2	USS-3103X	SENSOR DOG Y	
3	USS-3003X	SENSOR DOG LIMIT	
4	USS-3052X	CARRIAGE Y	
5	USS-3101X	ROLLER BRKT	
6	UCU-3102	Z MECHA COVER	
7	UCS-3001X	STOPPER	
8	UCS-3004X	NUT PLATE COMMON	
9	UCS-3009X	PULLEY BRKT	
10	UCS-3010	PULLEY SHAFT	
11	UCS-3014X	NUT PLATE S	
12	UCS-3101X	NUT PLATE CB Y	
13	UCS-3102X	MOTOR BRKT Y	
14	UCS-3105X	CABLEBEAR BRKT Y MOVE	
15	UCM-3104X	CABLEBEAR BRKT Y FIX	
16	253-5522	BELT HOLDER S3M 06	
17	350-5667	PULLEY A (30 S3M 06)	
18	350-5668	PULLEY B (30 S3M 06)	
19	440-CS0245-EG	STICKER C GEAR S ENG	
101	100-5272	BEARING 22 (DR-22-B2)	
102	350-5669-01	MOTOR AC100V 2W 1/20 W/CONN	
103	601-11103	TIMING BELT 444 S3M 06	
104	601-0460	PLASTIC TIE BELT 100 M/M	
105	370-5251	PHOTO INTERRUPTER KI1301-BB	
106	280-5277	CORD CLAMP 18	
107	280-5275-SR10	CORD CLAMP SR10	
201	065-E00600	E RING 6MM	
202	000-P00308-W	M SCR PH W/FS M3x8	
203	000-P00408-S	M SCR PH W/S M4x8	
204	000-P00410-W	M SCR PH W/FS M4x10	
205	000-P00510-W	M SCR PH W/FS M5x10	
206	050-H00500	HEX NUT M5	
207	028-P00310-P	SET SCR PH CUP P M3x10	
208	020-000408-0Z	HEX SKT CAP SCR BLK 0Z M4x8	
209	020-000410-0Z	HEX SKT H CAP SCR BLK 0Z M4x10	
210	060-S00400	SPR WSHR M4	
211	060-F00400	FLT WSHR M4	
212	050-F00400	FLG NUT M4	
213	032-000408-0C	WING BLT CRM M4x8	
214	000-P00412-S	M SCR PH W/S M4x12	
301	USS-60017	WH MECHA Y	
302	UCU-60019	WH CABLE BEAR Y	

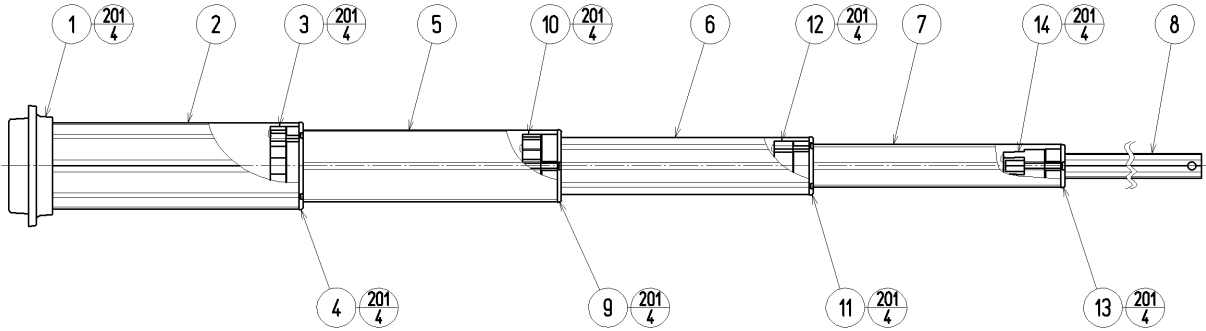
(23) ASSY Z MECHA (UCU-3200)



- NOTES:**
1. Apply grease to the gear components adequately. (Use 090-0066 or equivalent.)
The amount of grease should be 3 g. (For 090-0066, spray for about 4 seconds.)
 2. Screw components must be coated with thread sealant (ThreeBond #140IC or equivalent). Make sure that sealant does not seep out.
 3. Confirm that the wire is not twisted anywhere and that it does not come in contact with the metal plate.
 4. Apply grease to the sliding portions (14) and (19). (Use 090-0066 or equivalent.)
Make sure that grease does not get on the wire.

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-3201	Z MECHA BASE	
2	UCM-3202	MOTOR BRKT	
3	UCM-3203X	GEAR BOX BRKT	
4	UCM-3204X	BEARING BRKT	
5	UCM-3205X	PULLEY COVER BRKT	
6	UCM-3206	WORM WHEEL	
7	UCM-3207Y	SENSOR BRKT LIFT-UP	
8	UCM-3208X	SENSOR BRKT LIFT-DOWN	
9	UCM-3209Y	SENSOR DOG LIFT-UP	
10	UCU-3212	LIFT WIRE	
11	UCS-3205	MAIN SHAFT	
12	UCS-3206X	WIRE STOPPER	
13	UCS-3207X	SENSOR DOG LIFT-DOWN	
14	UCS-3208	TENSION SHAFT	
15	UCS-3209	WIRE GUIDE	
16	UCM-3210X	STOPPER BRKT	
17	UCS-3215	TORSION SPRING	
18	UCR-3210X	WIRE GUIDE A	
19	UCM-3211	TENSION PULLEY	
20	DCR-3601	GEAR BOX	
21	DCR-3602	GEAR COVER	
22	DCR-3603	DRUM COVER	
23	DCR-3605	WORM GEAR A	
24	DCR-3607	PULLEY 1A	
25	DCR-3613X	NUT PLATE	
101	100-5444	BEARING 8 (NSK F625ZZ)	
102	350-5807	MOTOR AC100V 10W UL	
103	100-5301	BEARING 6 (626ZZ)	
104	100-5089	BEARING 6PH (80F-0605)	
105	100-5398	ROLLER BEARING 22 (DU-22-H6)	
106	601-11105	COUPLING 6-6 (NBK L035-S)	
107	601-11107	HINGE (TAKIGEN B-1100-1)	
108	370-5161	PHOTO INTERRUPTER GP1A71A	
109	280-5275-SR10	CORD CLAMP SR10	
110	152-0244	CAP M0PC4.5M20 JSU20X455AQA	
201	000-P00308-W	M SCR PH W/FS M3x8	
202	000-P00304	M SCR PH M3x4	
203	000-F00408	M SCR FH M4x8	
204	FAS-000133	M SCR PH W/FS CRM M3X16	
205	012-P00308	TAP SCR #2 PH 3x8	
206	020-000410-0Z	HEX SKT H CAP SCR BLK 0Z M4x10	
207	020-000512-0Z	HEX SKT H CAP SCR BLK 0Z M5x12	
208	028-C00308-P	SET SCR CH CUP P M3x8	
209	050-F00400	FLG NUT M4	
210	060-S00400	SPR WSHR M4	
211	060-S00500	SPR WSHR M5	
212	065-E00400	E RING 4MM	
213	060-S00300	SPR WSHR M3	
214	050-F00300	FLG NUT M3	
301	UCU-60020	WH MECHA Z	

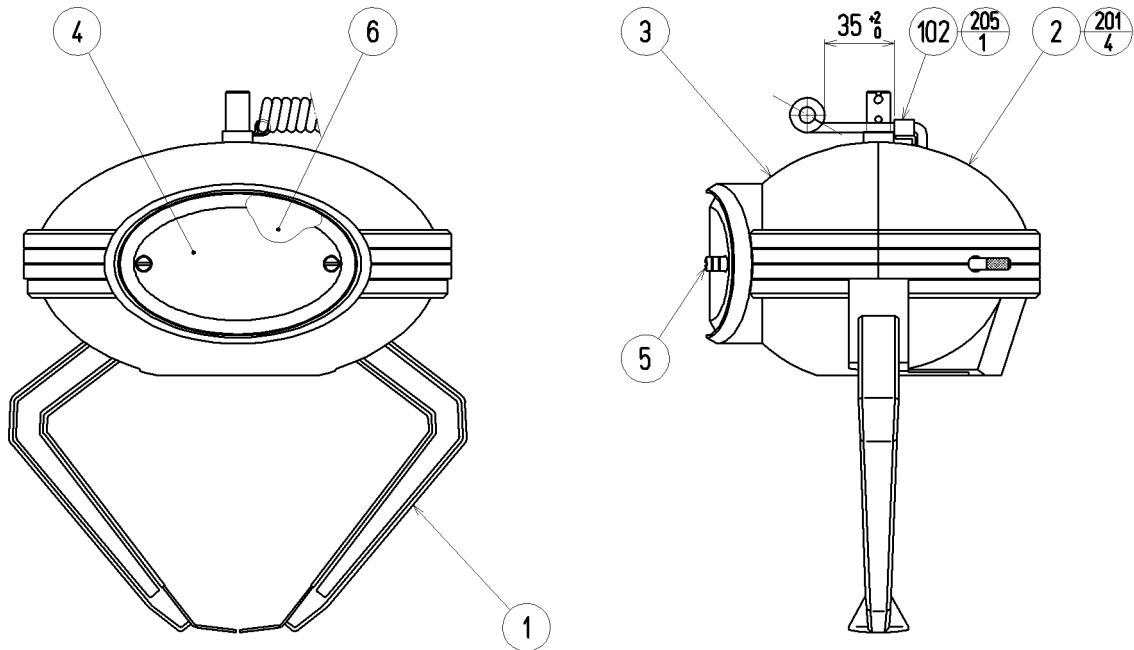
(24) ASSY PIPE (UCU-3300)



*NOTE: Screw components must be coated with thread sealant (ThreeBond #1401C or equivalent).
Make sure that sealant does not seep out.*

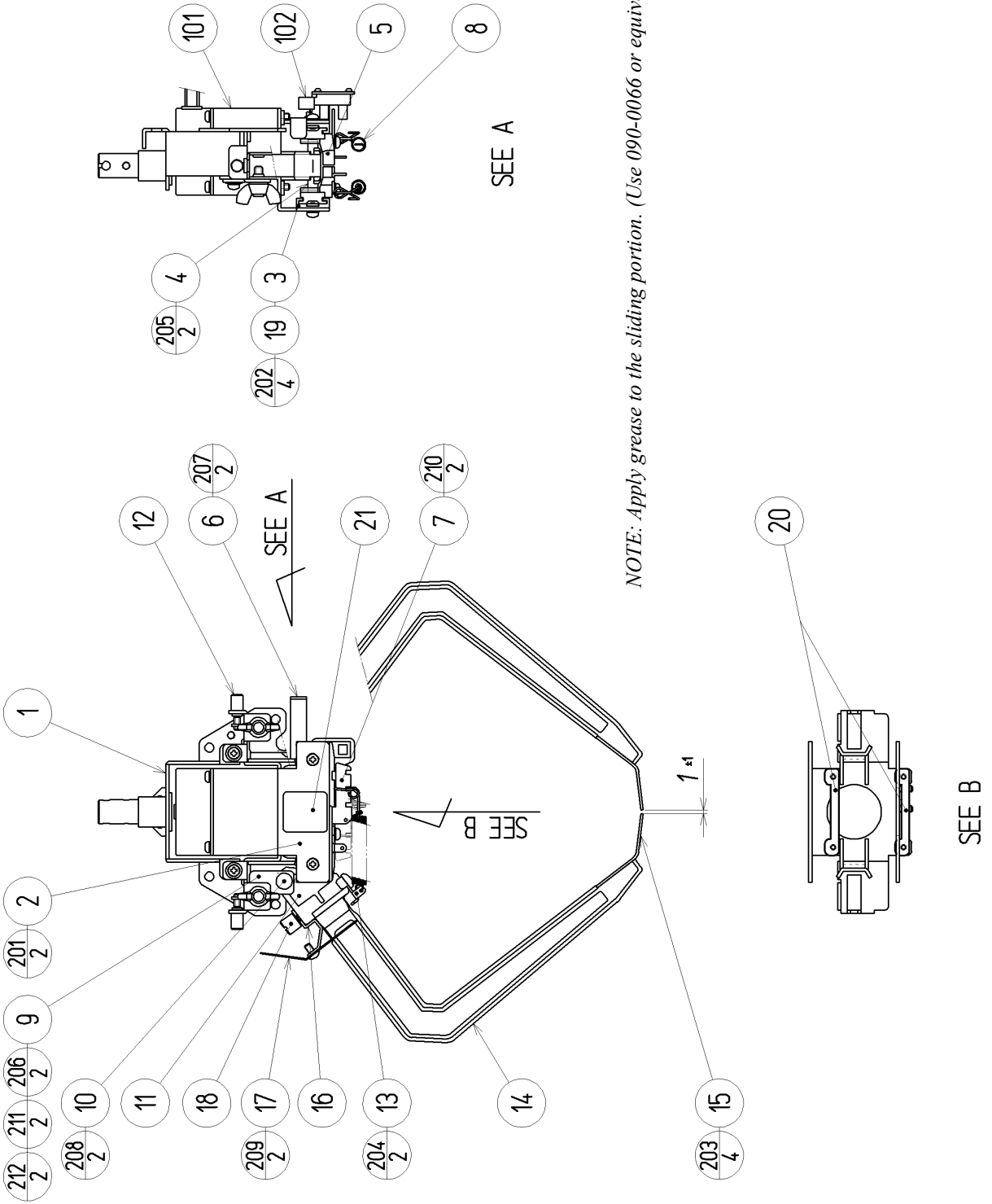
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCM-3301	FLANGE	
2	UCU-3302	PIPE S	
3	UCM-3303	STOPPER A UPPER	
4	UCM-3304	STOPPER S LOWER	
5	UCU-3305	PIPE A	
6	UCU-3306	PIPE B	
7	UCU-3307	PIPE C	
8	UCU-3308	PIPE D	
9	UCS-3306	STOPPER A LOWER	
10	UCS-3307	STOPPER B UPPER	
11	UCS-3308	STOPPER B LOWER	
12	UCS-3309	STOPPER C UPPER	
13	UCS-3310	STOPPER C LOWER	
14	UCS-3311	STOPPER D UPPER	
201	FAS-120021	TAP SCR PH #2 CRM 2.6X6	

(25) ASSY UFO MECHA (UCU-3400)



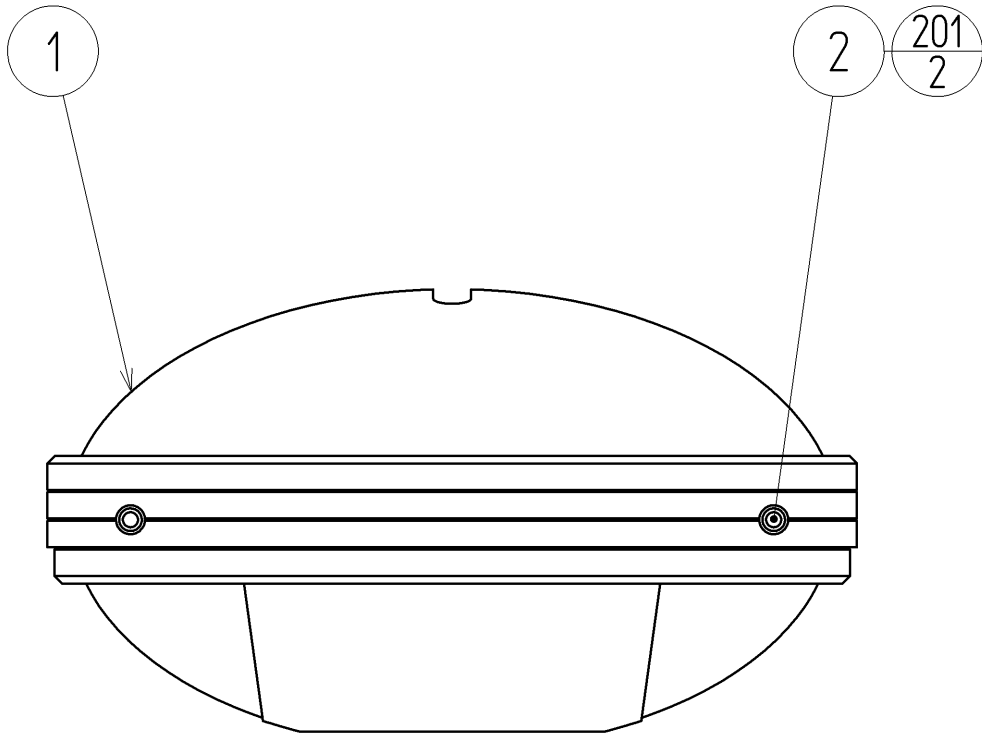
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCU-3410	ASSY ARM MECHA	
2	UCS-3450	ASSY REAR COVER	
3	UCS-3401	UFO COVER FRONT	
4	UCS-3402	CLEAR PLATE	
5	UCS-3403	KNOB BOLT	
6	UCU-3401	DESIGN SHEET UCU	
101	280-5275-SR10	CORD CLAMP SR10	
102	280-5124-03	NYLON CLAMP NK03	
201	000-P00308-W	M SCR PH W/FS M3x8	
202	000-P00408	M SCR PH M4x8	
203	060-S00400	SPR WSHR M4	
204	060-F00400	FLT WSHR M4	
205	000-T00408-0C	M SCR TH CRM M4x8	
301	UCS-60020	WH CURL CORD	
302	UCS-60021	WH ARM	

(26) ASSY ARM MECHA (UCU-3410)



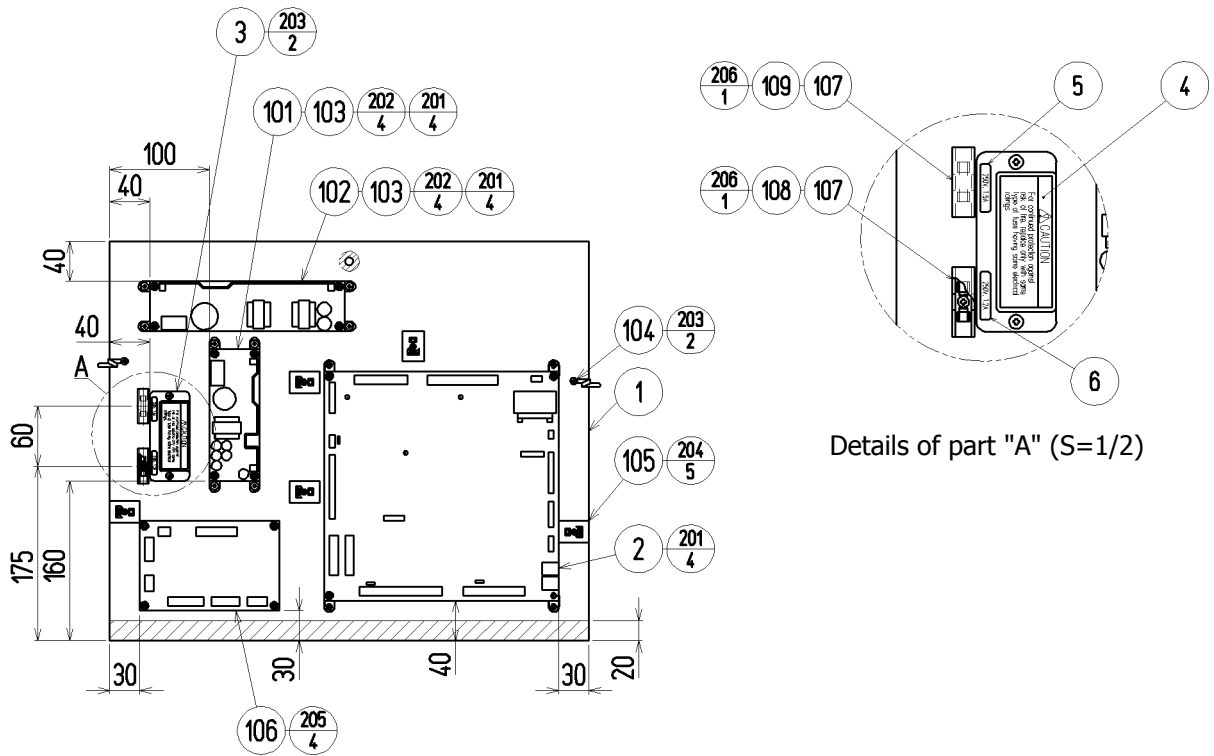
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	USS-3411	ARM MECHA BRKT UPPER	
2	USS-3412X	ARM MECHA BRKT LOWER	
3	UCS-3413	RAIL GUIDE	
4	DPT-3158X	PINION GEAR	
5	UCS-3414	SLIDER W/RACK	
6	UCS-3415X	SENSOR BRKT ARM	
7	USS-3417	SHIFT BRKT	
8	USS-3418	SLIDE SPRING	
9	USS-3413X	ARM HOLDER	
10	UCR-3313	ARM SHAFT	
11	DPT-3101	ARM BASE ADJ	
12	UCS-3425	ADJUST SCREW	
13	UCS-3426X	SPRING BRKT	
14	UCS-3431	ARM M	
15	EG-3405Y	SHOVEL W30	
16	USS-3414X	ARM FIX BRKT	
17	USS-3415	MECHA MASK	
18	USS-3416X	ARM FIX BOLT	
19	UCS-3418X	NUT PLATE FOR RAIL	
20	UCS-3421X	NUT PLATE FOR MOTOR	
21	440-CS0245-EG	STICKER C GEAR S ENG	
101	350-5526-01	MOTOR PULSE DC12V	
102	370-5161	PHOTO INTERRUPTER GP1A71A	
201	000-P00308-W	M SCR PH W/FS M3x8	
202	000-P00305-S	M SCR PH W/S M3x5	
203	000-F00305	M SCR FH M3x5	
204	012-P00408	TAP SCR #2 PH 4x8	
205	028-A00304-P	SET SCR HEX SKT CUP P M3x4	
206	032-000408-0C	WING BLT CRM M4x8	
207	050-F00300	FLG NUT M3	
208	065-E00300	E RING 3MM	
209	FAS-000001	M SCR TH CRM M3X6	
210	FAS-000045	M SCR PH W/S BLK M3X6	
211	060-S00400	SPR WSHR M4	
212	060-F00400	FLT WSHR M4	

(27) ASSY REAR COVER (UCS-3450)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCS-3451	UFO COVER REAR	
2	UCS-3452	SCREW SHAFT	
201	065-E00200	E RING 2MM	

(28) ASSY MAIN BD (UCU-4000)



NOTES:

1. Make sure that there is no parts, wiring, etc. in the slash mark portions.
2. All game board DIP SW should be set to OFF.

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	UCS-4001	WOODEN BASE	
2	834-14606R	GAME BD UCU	
3	105-5496	PL STICKER PLATE UL A	
4	440-CS0282-EG	STICKER C FUSE REPLACEMENT ENG	
5	421-12108-5000	STICKER FUSE RATING 5A	
6	421-12108-2000	STICKER FUSE RATING 2A	
101	400-5421-03005YSW	REGU LCA30S-5-Y	
102	400-5421-05012	SW REGU LCA50S-12	
103	280-6681	L-LOCK LT-320PCG	
104	280-0419	HARNESS LUG	
105	280-5277	CORD CLAMP 18	
106	838-14411R12	SSR BD 12EA	
107	514-5093	FUSE HILDR F-64AB COVER	
108	514-5138-2000	FUSE SG5013 5X20 2000MA 250V	
109	514-5138-5000	FUSE SG5013 5X20 5000MA 250V	
110	310-5029-F20	SUMITUBE F F 20MM	
201	011-T03516	TAP SCR TH 3.5x16	
202	000-P00310-W	M SCR PH W/FS M3x10	
203	011-T03512	TAP SCR TH 3.5x12	
204	011-F00310	TAP SCR FH 3x10	
205	011-P00325	TAP SCR PH 3x25	
206	011-P00312	TAP SCR PH 3x12	
301	USS-60004	WH MAIN BD VOL	
302	USS-60005	WH MAIN BD SP	
303	USS-60007	WH MAIN BD 4	
304	UCU-60005	WH MAIN BD 1	
305	UCU-60006	WH MAIN BD 2	
306	UCU-60011	WH MAIN BD AC	

23 WIRE COLOR CODE TABLE

THE WIRE COLOR CODE is as follow:

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

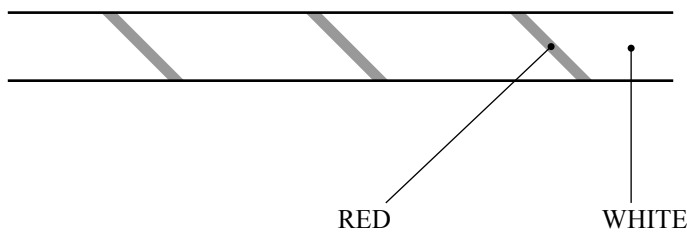
Wires other than those of any of the above 5 single colors will be displayed by 2 alphanumeric characters.

- 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

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SEGA UFO CATCHER

OWNER'S MANUAL

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