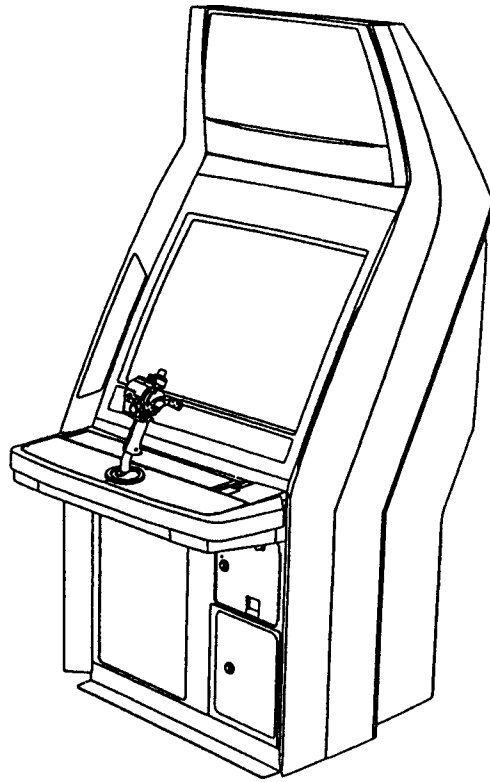


1ST PRINTING
JULY-1998

SEGA™

SEGA
Bass Fishing™

**OWNER'S MANUAL
STD VERSION**



SEGA ENTERPRISES, USA

MANUAL NO. 4201-6394-01



Warranty

Your new Sega Product is covered for a period of 90 days from the date of shipment. This certifies that the Printed Circuit Boards, Power Supplies and Monitor are to be free of defects in workmanship or materials under normal operating conditions. This also certifies that all Interactive Control Assemblies are to be free from defects in workmanship and materials under normal operating conditions. No other product in this machine is hereby covered.

Sellers sole liability in the event a warranted part described above fails shall be, at its option, to replace or repair the defective part during the warranty period. For Warranty claims, contact your Sega Distributor.

Should the Seller determine, by inspection that the product was caused by Accident, Misuse, Neglect, Alteration, Improper Repair, Installation or Testing, the warranty offered will be null and void.

Under no circumstances is the Seller responsible for any loss of profits, loss of use, or other damages.

This shall be the exclusive written Warranty of the original purchaser expressed in lieu of all other warranties expressed or implied. Under no circumstance shall it extend beyond the period of time listed above.

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SPECIFICATIONS

Installation space:	37 in.(L) x 30 in.(W)
Height:	65 in.
Weight:	Approx. 223 lbs.
Power maximum current:	1.8 Amp AC 120V 60 Hz
MONITOR:	29" 3-mode scan display

INTRODUCTION OF THE OWNERS MANUAL

SEGA ENTERPRISES, LTD., has for more than 30 years been supplying various innovative and popular amusement products to the world market. This Owners Manual is intended to provide detailed descriptions together with all the necessary installation, game settings and parts ordering information related to the SEGA BASS FISHING U/R, a new SEGA product.

This manual is intended for those who have knowledge of electricity and technical expertise, especially in ICs, CRTs, microprocessors, and circuit boards. Read this manual carefully to acquire sufficient knowledge before working on the machine. Should there be a malfunction, non-technical personnel should under no circumstances touch the interior system. Should the need arise, contact our main office, or the closest branch office listed below.

SEGA ENTERPRISES, INC. (USA)

Customer Service

45133 Industrial Drive

Fremont, CA 94538

Phone 650-802-1750

Fax 650-802-1754

7:30 am - 4:00 pm, Pacific Standard Time

Monday thru Friday

General Precautions

Follow Instructions: All operating and use instructions should be followed.

Attachments: Do not use attachments not recommended by the product manufacturer as they may cause hazards.

Accessories: Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use only mounting accessories recommended by the manufacturer.

Moving the Product: This product should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product to overturn.

Ventilation: Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the product and to protect it from overheating; these openings must not be blocked or covered. The openings should never be blocked by placing the product in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

Power Sources: This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your location, consult your local power company. For products intended to operate from battery power or other sources, refer to the operating instructions.

Grounding or Polarization: This product is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

Power Cord Protection: Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

Overloading: Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

Object and Liquid Entry: Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

Servicing: Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Damage Requiring Service: Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a) If the power cord or plug is damaged;
- b) If liquid has been spilled, or objects have fallen into the product;
- c) If the product has been exposed to rain or water;
- d) If the product does not operate normally when following the operating instructions. Adjust only those controls that are explained in the operating instructions. An improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation;
- e) If the product has been dropped or damaged in any way;
- f) When the product exhibits a distinct change in performance; this indicates a need for service.

Replacement Parts: When replacement parts are required, be sure the service technician has used replacements parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

Safety Check: Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

Heat: The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

Lithium Battery- Dispose of batteries only in accordance with the battery manufacturer's recommendations. Do not dispose in an open flame condition, since the battery may explode.

Cleaning: When cleaning the monitor glass, use water or glass cleaner and a soft cloth. Do not apply chemicals such as benzene, thinner, etc.

Location: This is an indoor game machine, DO NOT install it outside. To ensure proper usage, avoid installing indoors in the places mentioned below:

- Places subject to rain/water leakage, or condensation due to humidity;
- In close proximity to a potential wet area;
- Locations receiving direct sunlight;
- Places close to heating units or hot air;
- In the vicinity of highly inflammable/volatile chemicals or hazardous matter;
- On sloped surfaces;
- In the vicinity of emergency response facilities such as fire exits and fire extinguishers;
- Places subject to any type of violent impact;
- Dusty places.

INSTALLATION PRECAUTIONS

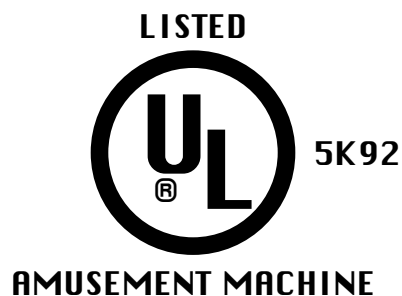
- Verify the amperage of the branch circuit outlet before plugging in the power plug. Do not overload the circuit.
- Avoid using an extension cord. If one is required, use an extension cord of type SJT, 16/3 AWG rated min. 120 VAC, 7A.
- Moving this unit requires a minimum clearance (of doors, etc.) of 32" (W) by 77" (H).
- For the operation of this machine, secure a minimum area of 32" (W) by 42" (D).

REGULATORY APPROVALS

This game has been tested and found to comply with the Federal Communications Commission Rules.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This game has been tested and listed by Underwriters Laboratories, Inc., to ANSI/UL22.



1 . PRECAUTIONS TO BE HEDED FOR OPERATION

In order to prevent accidents, be sure to comply with the following points before and during operation.

PRECAUTIONS TO BE HEDED FOR OPERATION BEFORE STARTING THE OPERATION



- In order to avoid accidents, check the following before starting the operation:
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 climb on the product. Climbing on the product can cause falling down accidents. To check the top portion of the product, use a step.
- To avoid electric shock, check to see if door & cover parts are Locked.
- To avoid electric shock, short circuit and or parts damage, do not put the following items on or in the periphery of the product:
- Flower vases, flower pots, cups, water tanks, cosmetics, and receptacles/containers/vessels containing chemicals and water.



To avoid injury, be sure to provide sufficient space by considering the potentially crowded situation at the installation location. Insufficient installation space can cause the player to come into contact with or hit others and result in injury or trouble.

PRECAUTIONS TO BE HEDED DURING OPERATION



To avoid injury and accidents, those who fall under the following categories are not allowed to play the game:

- * Intoxicated persons.
- * Those who have high blood pressure or heart problems.
- * Those who have experienced muscle convulsion or loss of consciousness when playing video games, etc.
- * Persons susceptible to motion sickness.
- * Persons whose acts runs counter to the products warning displays.

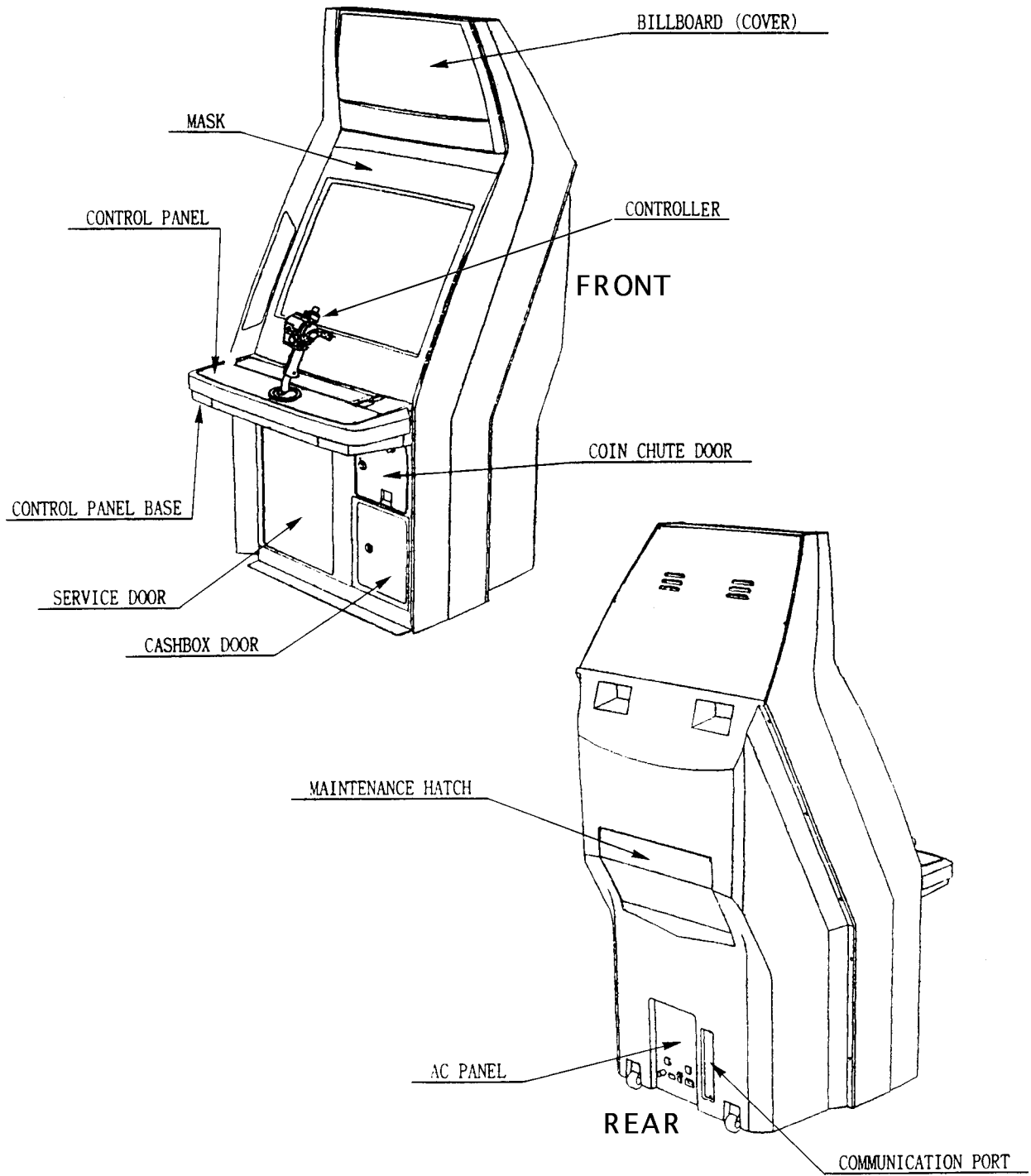


To avoid electric shock and short circuit, do not allow customers to put hands and fingers or extraneous matter in openings of the product or small openings in or around doors.

To avoid falling down and injury resulting from falling down, immediatly stop the customer's leaning against or climbing on the product, etc.

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

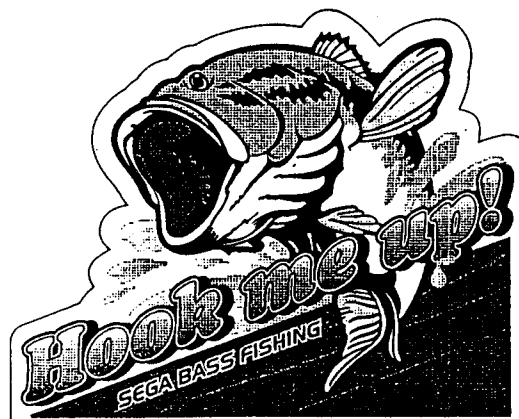
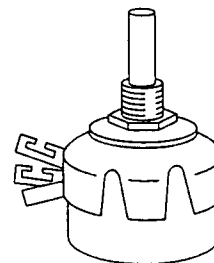
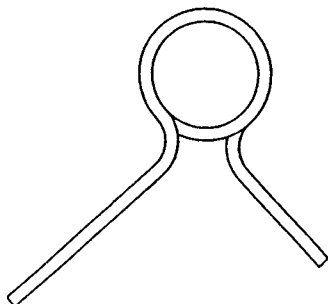
2 . NAME OF PARTS



GAME SPECIFICATIONS	WIDTH	LENGTH	HEIGHT	WEIGHT
	All measurements are in inches			
WHEN ASSEMBLED	30"	X 37"	X 65"	223 LBS.

3. ACCESSORIES

<p>DESCRIPTION OWNERS MANUAL Part No. (Qty.) 4201-6394-01 (1) Note Figures If Part No. has no description, the Number has not been registered or can not be registered. Such a part may not be obtainable even if the customer desires to purchase it. Therefore, ensure that the part is in safekeeping with you.</p>	<p>EXTENSION SPRING HOT-3107 (4) Spare</p>
<p>TORSION SPRING HOT-3015 (1) Spare</p>	<p>VOL CONT B-5K OHM 220-5484 (1) Spare</p>
<p>POP BSS STD 429-0620 (1) Adhere this onto the cabinet with double-sided tape.</p>	



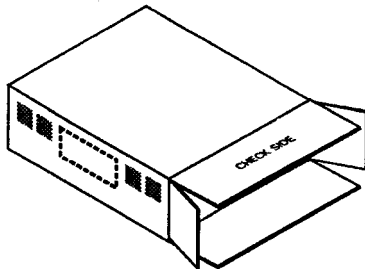


WARNING!

THE SHIPMENT METHOD DESCRIBED BELOW ONLY APPLIES TO 'MODEL 3' BOARDS CONTAINED IN THE FOLLOWING GAMES:

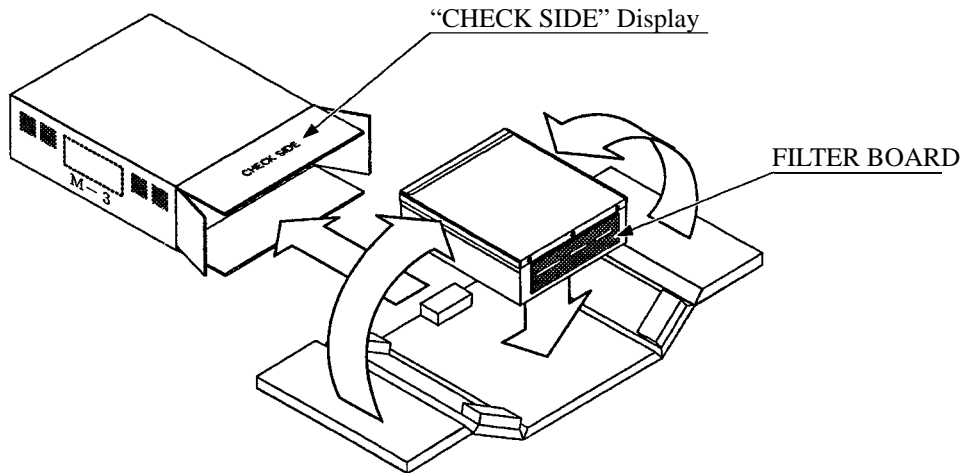
LOST WORLD, VIRTUA FIGHTER 3, SUPER GT, **SEGA BASS FISHING**, STRIKER 2, DAYTONA 2, RALLY, HARELY DAVIDSON

!!NEVER SHIP MODEL 3 GAME BOARDS OUTSIDE OF CAGE!!



CARTON BOX
601-8928 (1)
Used for transporting the GAME BOARD.
{SUPPLIED WITH YOUR GAME}

DO NOT SHIP GAME BOARD WITHOUT THIS BOX AS IT MAY DAMAGE THE GAME BOARD AND VOID YOUR WARRANTY.



WARNING!

NO OTHER GAMES BOARDS ARE TO BE SHIPPED IN THE CAGE AS THEY MAY BE DAMAGED BEYOND REPAIR. PLEASE SHIP THEM WITHOUT CAGE PROPERLY PROTECTED DURING SHIPPING.

4 . ASSEMBLING AND INSTALLATION



WARNING!

Assembling should be performed as per this manual. Since this is a complex machine, erroneous assembling may cause damage to the machine, or malfunctioning to occur.
When assembling, be sure to perform work by plural persons.
Depending on the assembly work, there are some cases in which performing the work by a single person can cause personal injury or parts damage.

When carrying out the assembly work, follow the procedure in the following 4-item sequence:

- 1 SECURING IN PLACE (ADJUSTER ADJUSTMENT)
- 2 POWER SUPPLY
- 3 TURNING POWER ON
- 4 ASSEMBLING CHECK

Note that the tools such as a phillips screwdriver and wrench for M16 hexagon bolt w/24 mm width across flats are required for the assembly work.

1

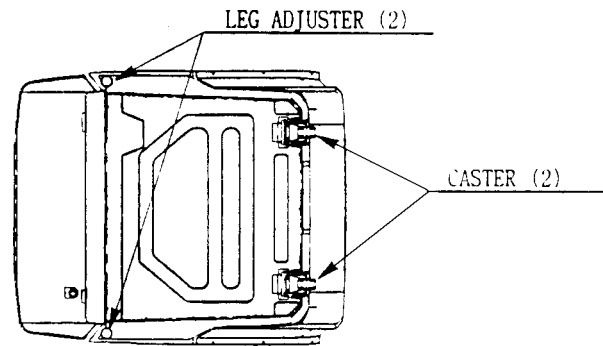
SECURING IN PLACE (ADJUSTER ADJUSTMENT)



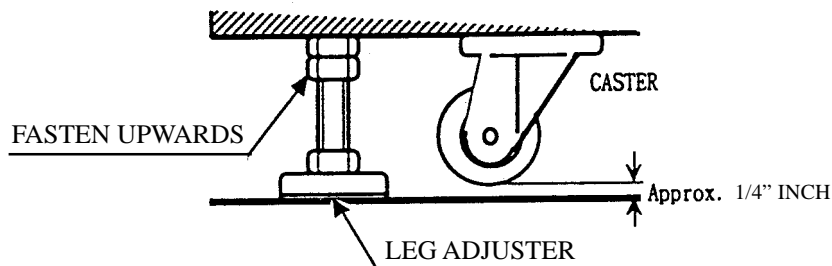
Be sure to have all the Adjusters make contact with the surface. Unless the Adjusters come into contact with the surface, the Cabinet can move of itself, causing an accident.

This machine has 2 each of casters and adjusters (shown below). When the installation position is determined, cause the adjusters to come into contact with the floor directly, make adjustments in a manner so that the casters will be raised approximately 5mm. from the floor and make sure that the machine position is level.

- ① Move the machine to the installation position.
- ② Cause all of the leg adjusters to make contact with the floor. By using a wrench, make adjustments in the height of the leg adjusters to ensure that the machine's position is level.
- ③ After making adjustments, fasten the leg adjuster nut upward and secure the height of the leg adjuster.
- ④ Depending on the floor surface status of the installation location, the Rear Cabinet may move of itself. As shown, the NON-SLIP SHEET is attached to the back side of the CAUTION MAT. Ensure that the Adjuster is installed in the manner to match the position of NON-SLIP SHEET
- ⑤ After making adjustments, fasten the adjuster nut upwards and secure the height of the adjuster



BOTTOM VIEW



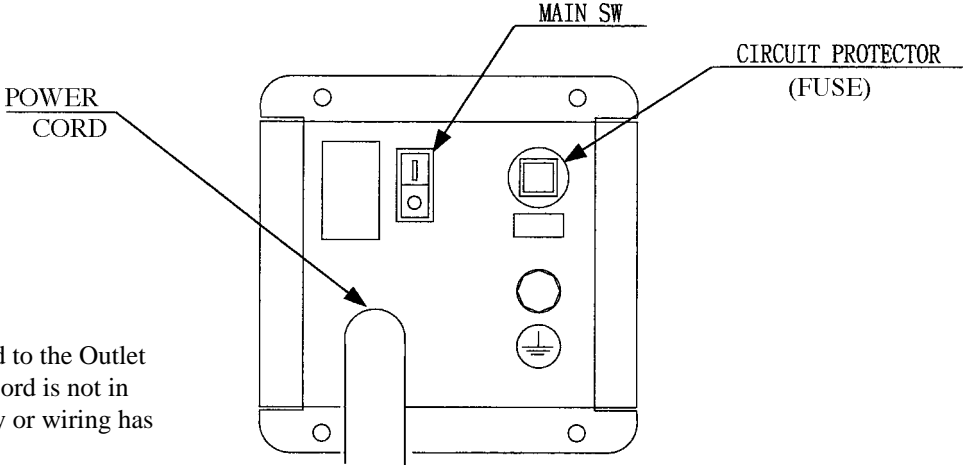
2 POWER SUPPLY



● Ensure that the power cord is not exposed on the surface (passage, etc.). If exposed, they can be caught and are susceptible to damage. If damaged, the cord can cause an electric shock or short circuit. Ensure that the wiring position is not in the customer's passage way or the wiring has protective covering.

The AC unit is mounted on the left side of Front Cabinet DX. The AC Unit incorporates the Main SW, Earth Terminal and Inlet. Firmly insert the Power Plug into the Socket Outlet and the other side of the plug to the Inlet. Turn the Main SW ON to turn power ON.

① Ensure that the Main SW is OFF.



② Connect the Power cord to the Outlet Socket. Ensure power cord is not in customer's passage way or wiring has protective covering.

3 TURNING POWER ON

To turn power on, turn the AC Unit's Main SW on. The Billboard's Fluorescent Lamp lights up and images will be outputted on the projector. Background music (BGM) is outputted during ADVERTISE from the speaker. However, this BGM is not emitted if "No BGM output during ADVERTISE" is set.

4

ASSEMBLING CHECK

The TEST MENU allows for each part of the cabinet to be checked, the Monitor to be adjusted, and the coin and game related various functions to be performed.

CPU ROM TEST			
GOOD	(CROM03 BANK)	IC.1	*****
GOOD	(CROM02 BANK)	IC.2	*****
GOOD	(CROM01 BANK)	IC.3	*****
GOOD	(CROM00 BANK)	IC.4	*****
GOOD	(CROM13 BANK)	IC.5	*****
GOOD	(CROM12 BANK)	IC.6	*****
GOOD	(CROM11 BANK)	IC.7	*****
GOOD	(CROM10 BANK)	IC.8	*****
GOOD	(CROM23 BANK)	IC.9	*****
GOOD	(CROM22 BANK)	IC.10	*****
GOOD	(CROM21 BANK)	IC.11	*****
GOOD	(CROM20 BANK)	IC.12	*****
GOOD	(CROM33 BANK)	IC.13	*****
GOOD	(CROM32 BANK)	IC.14	*****
GOOD	(CROM31 BANK)	IC.15	*****
GOOD	(CROM30 BANK)	IC.16	*****
GOOD	(CROM3)	IC.17	*****
GOOD	(CROM2)	IC.18	*****
GOOD	(CROM1)	IC.19	*****
GOOD	(CROM0)	IC.20	*****

PRESS TEST BUTTON TO EXIT

Selecting the MEMORY TEST on the test mode menu screen causes the on-board memory to be tested automatically. The game board is satisfactory if the display beside each IC No. shows GOOD.

INPUT TEST	
CAST	OFF
SELECT	OFF
COIN	OFF
SERVICE	OFF
TEST	OFF
ROD X	80H
ROD Y	80H
REEL SPEED	80H
STICK X	80H
STICK Y	80H

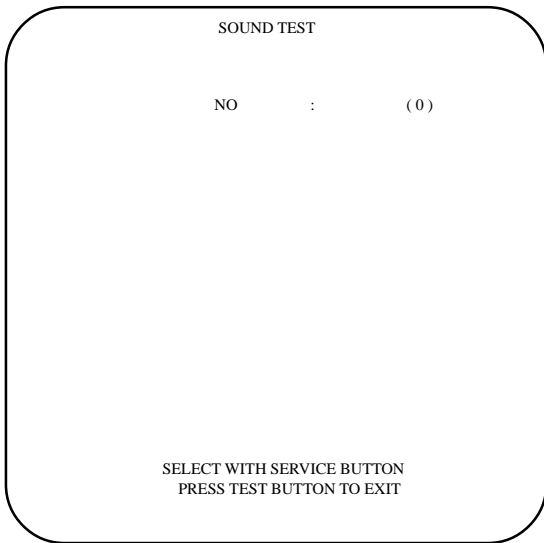
PRESS TEST BUTTON TO EXIT

Selecting the INPUT TEST on the menu screen in the test mode to display the screen on which each SW and Volume is tested. Press each switch. (To check the Coin SW, insert a Coin from the inlet with the Coin Chute Door being opened.) If the display beside each switch is ON, the switch and wiring connection are satisfactory. Check the display of each Volume value. The Volume could have an irregularity caused by differences between machines and vibration during transportation. Set the Volume values by referring to Section ?

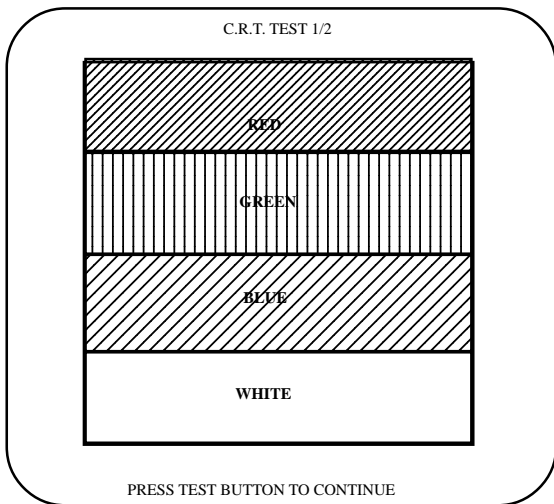
OUTPUT TEST	
>AC MOTOR	OFF
CLUTCH	OFF
REEL BREAK	OFF
EXIT	

SELECT WITH SERVICE BUTTON AND
PRESS TEST BUTTON TO EXIT

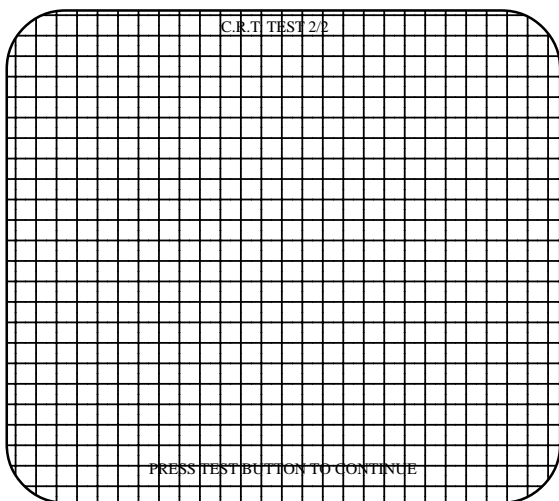
In the output test mode, carry out lamp test to ascertain that each lamp lights up satisfactorily.



In the TEST mode, selecting SOUND TEST causes the screen, on which sound related BD and wiring connections are tested, to be displayed. be sure to check if the sound is satisfactorily emitted from each of speaker and the sound volume is appropriate.



In the TEST mode menu, selecting C.R.T. TEST allows the screen (on which the projector is tested) to be displayed. Although the projector adjustments have been made at the same time of shipment from the factory, color deviation, etc., may occur due to the effect caused by geomagnetism, the location building's steel frames and other game machines in the periphery. By watching the test mode screen, make judgement as to whether an adjustment is needed. If it is necessary, adjust the projector by referring to Section 9.



Perform the above inspections also at the time of monthly inspection.

5 . PRECATIONS TO BE HEEDED WHEN MOVING THE MACHINE



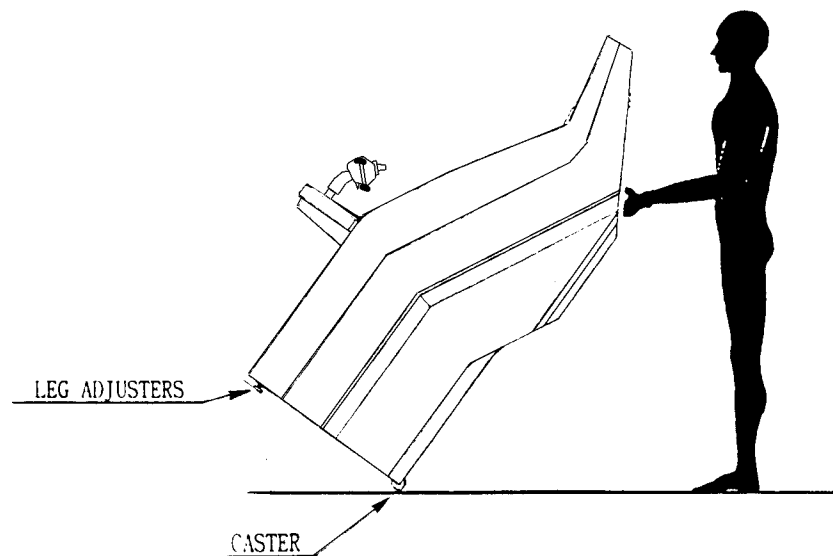
WARNING!

- When moving the machine, be sure to pull out the plug from the power supply. Moving the machine with the plug as is inserted can damage the power cord and cause a fire or electric shock.
- When moving the machine on the floor, retract the Adjusters and ensure that Casters make contact with the floor. During transportation, pay careful attention so that Casters do not tread power cords. Damaging the power cords can cause an electric shock and/or short circuit.
- When lifting the cabinet, be sure to hold the catch portions or bottom part. Lifting the cabinet by holding other portions can damage parts and installation portions, due to the empty weight of the cabinet, and cause personal injury.



CAUTION!

Use care when handling glass made parts. When the glass is damaged, fragments of glass can cause injury

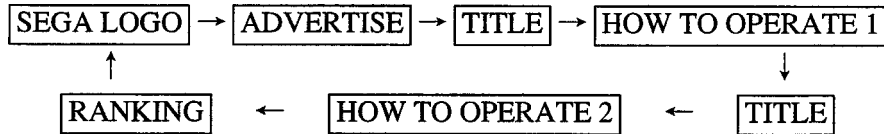


6. CONTENTS OF GAME

The following are operations and responses obtained when the machine functions satisfactorily. Any functioning different from the following may have been caused by a certain fault. Immediately investigate and eliminate the cause of malfunctioning to ensure satisfactory operation.

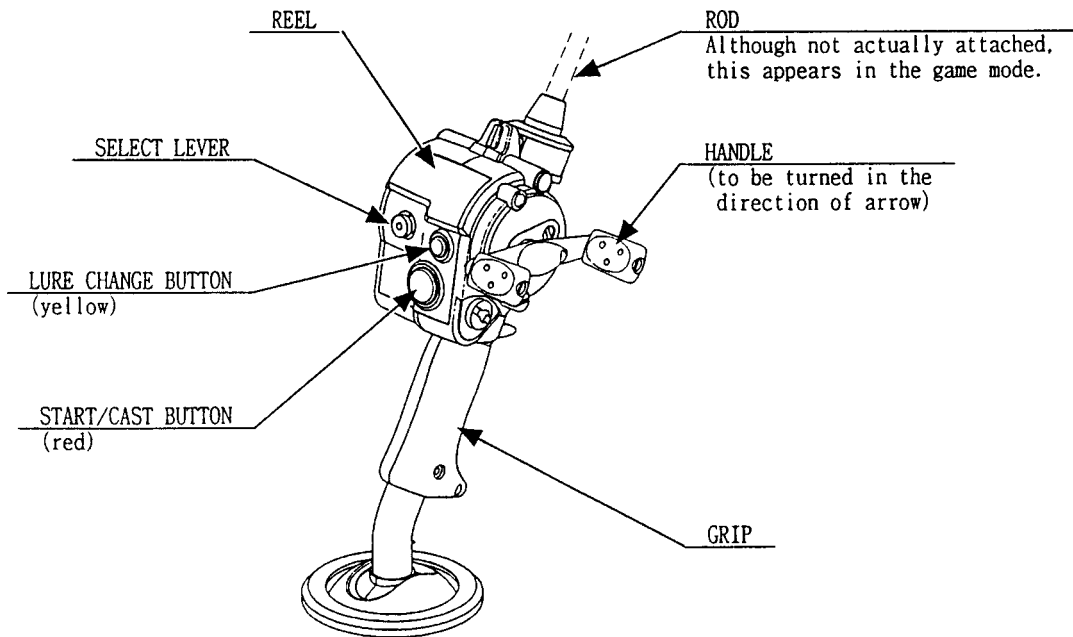
HOW TO PLAY

The ADVERTISE mode appearing on the screen before game play is comprised of the following:

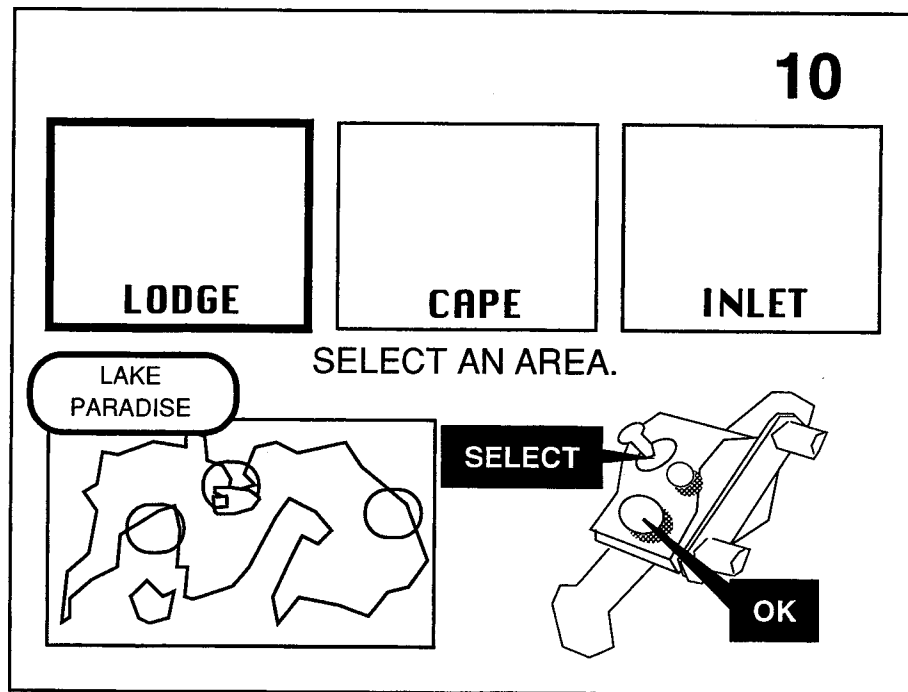


In this game, satisfying the condition of “CLEAR WEIGHT” (the total weight of bass fished up) preset for each area within the time limit results in a STAGE CLEAR. If you continue when the time is up, however, the current total weight will remain effective. Clearing all of the Areas allows you to proceed to the Special Stage where huge bass reside. The player who fishes up big bass can rank among the BIG BASS RANKING players by entering his name.

This game employs an exclusively used Special Controller inclusive of the Game Start Button.

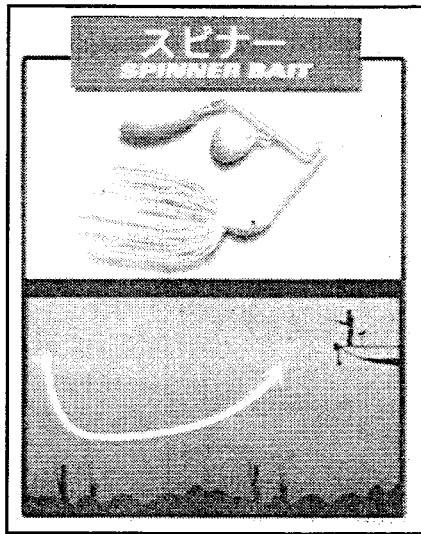


- ① Insert a coin(s). Up to 9 credits can be counted at one time. Coins inserted after counting 9 credits will neither be counted nor returned.
- ② Select a Fishing area from among the 3 Areas of Lake Paradise (a virtual lake). Choose with SELECT LEVER and decide by START/CAST button.



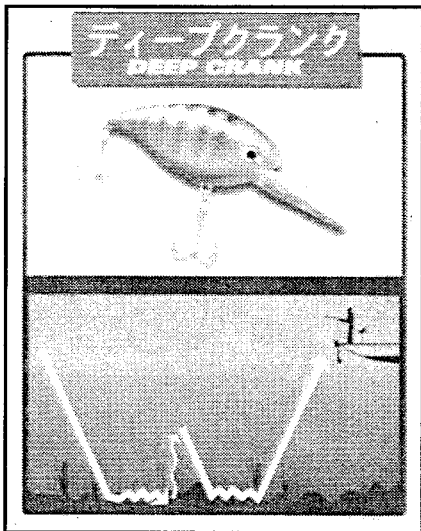
LODGE
CAPE
INLET

- ③ Then, select the LURE. Select with the SELECT LEVER and decide by START/CAST button. Each type of lure has specific characteristics (for example, some may be appropriate for a certain depth of water while others may be suitable for a specific action, time zone, or status of desired bass). By considering these factors, using lures in the most efficient manner will contribute to increasing the bass fishing-up rate. The characteristics of each type of lure are as follows:



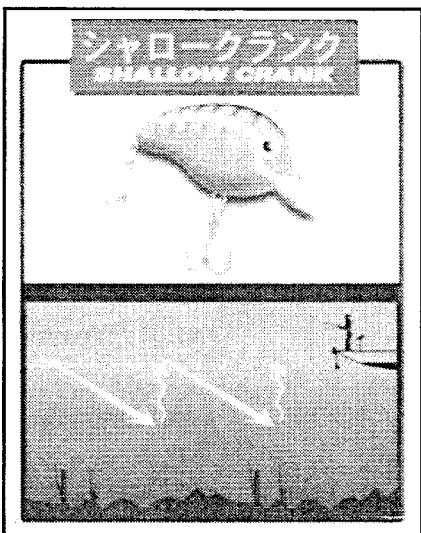
SPINNER BAIT (EASY)

Attract bass with this bait while reeling at a constant speed, or stopping to reel sometimes to allow for blade glistening.



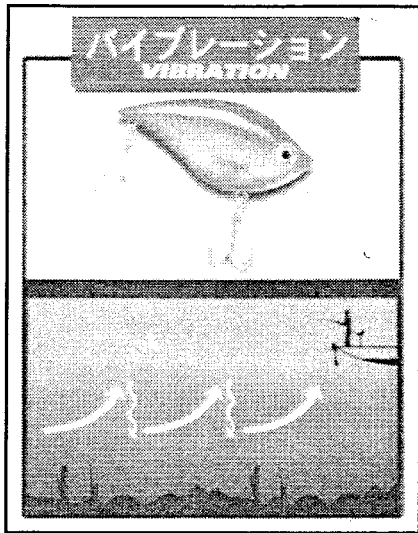
DEEP CRANK (EASY)

This type is used for deep water. Have the lure hit the bottom and reel, then repeat reel and stop action.



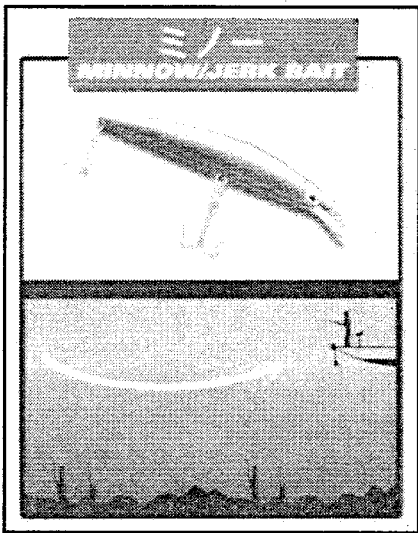
SHALLOW CRANK (EASY)

This is used for shallow water. Have the lure hit the bottom and reel, then repeat reel and stop motion.



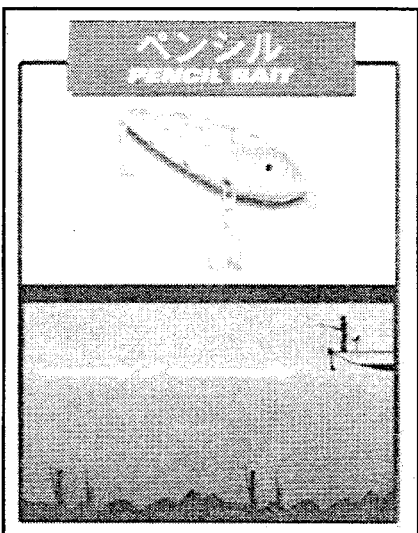
VIBRATION (EASY)

Attract bass by reeling at the constant speed or having the lure hit an obstacle such as a stone, driftwood, etc. to cause irregular movements.



MINNOW/ JERK BAIT (NORMAL)

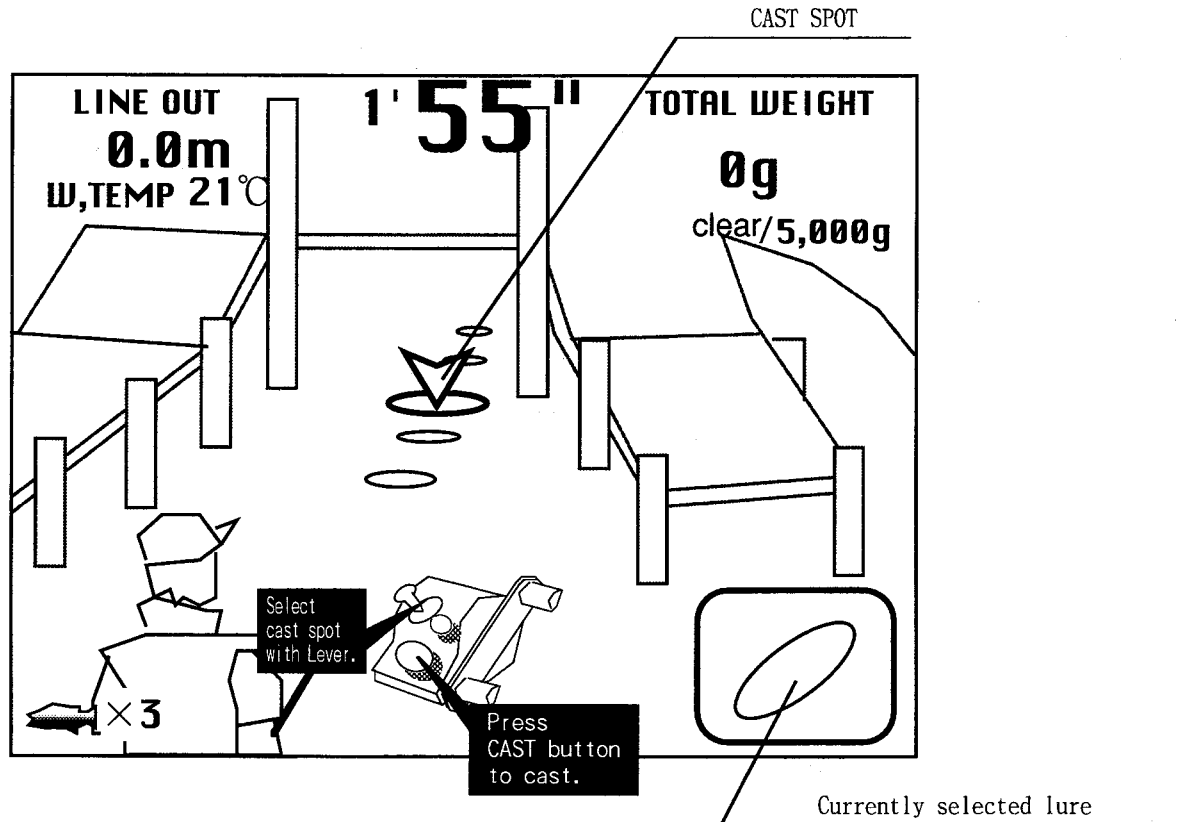
Attract bass by reeling at a constant speed and jerking the rod to reel so that the lure will look like a small fish making a quick escape.



PENCIL BAIT (DIFFICULT)

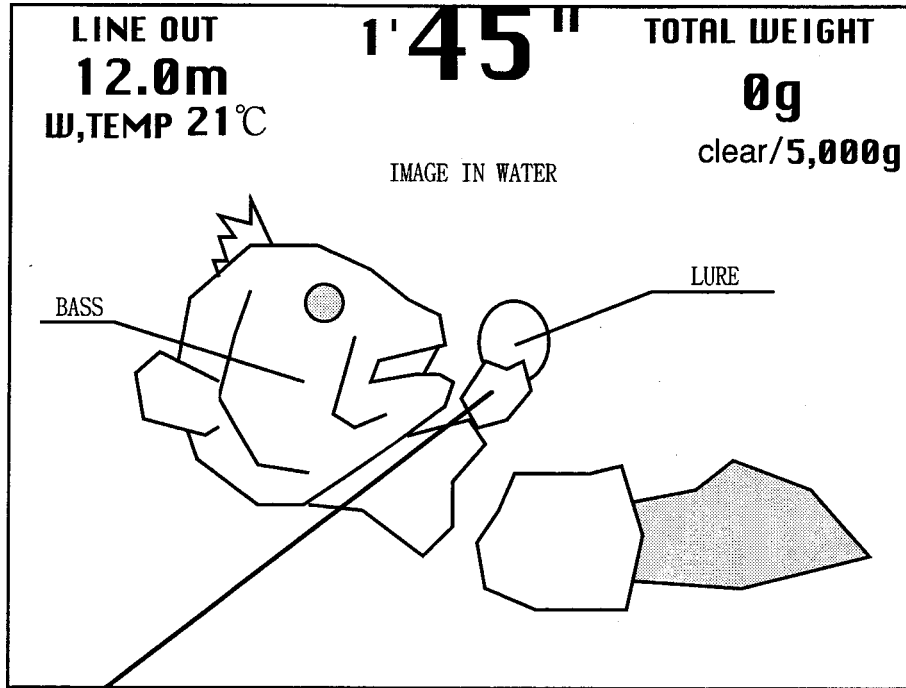
Attract bass to the water surface by reeling the rod while repeating the slightly twitching motion to have the lure look like a small fish or insects writhing on the surface.

- ④ After the lure is decided, set the CAST spot (where to cast the lure). Select with the SELECT LEVER and decide by START/CAST button. Press the START/CAST button to have the lure cast automatically (at this time the player does not have to do the cast movement).



Having its own territory, a big fish is hiding at a certain point in each area depending on the time zone and water temperatures. Cast in various points and find where the big one is.

- 5 When the lure hits the surface, turn the reel handle, move the rod, and activate the lure to attract bass.

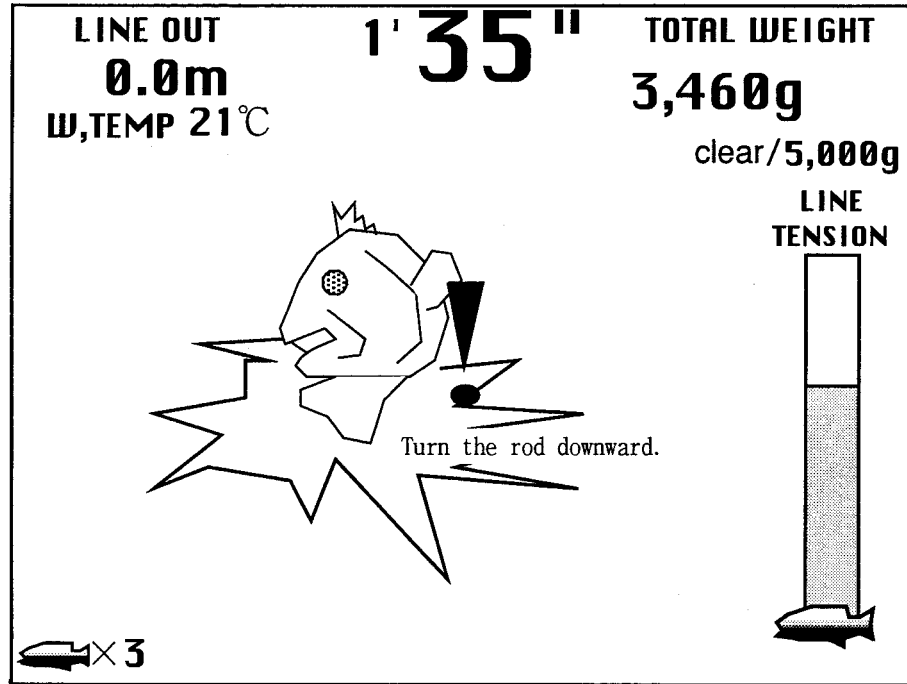


When bass snaps at the lure, pull the rod towards you by hooking up.

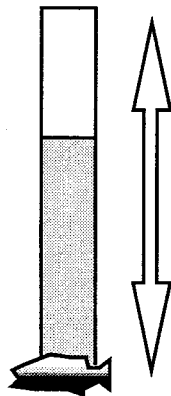
For timely hooking.....FISH! is displayed.
For untimely hooking.....MISS! is displayed.

For a successful hooking, HIT BONUS time is added depending on the size of the hit bass.

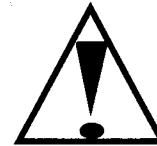
- ⑥ When the bass is hooked, pull it towards you by paying attention to LINE TENSION METER.



LINE TENSION



LINE TENSION METER



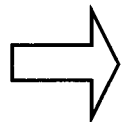
If the line tension is too high, "Line's gonna break!" will be displayed.



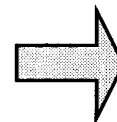
If the line tension is too low, "Reel it in" will be displayed.



Stop reeling and hold out!



"Line's gonna break!"

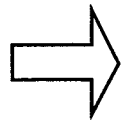


"Line's gonna break!"

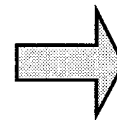
If not operated skilfully.



"Reel it in"



Reel and stretch the line tight.



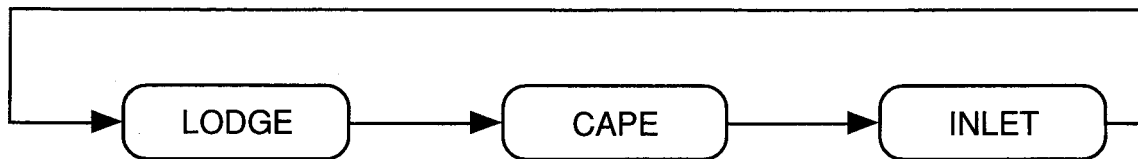
LOST!

If not operated skilfully.

- ⑦ When the bass is fished up, the following 5-step display & WEIGHT to be added to the total weight are shown. Then, BONUS TIME is added depending on the weight of the bass.

SMALL ONE
MEDIUM
BIG ONE
SUPER BIG
RECORD SIZE

- ⑧ If the total weight exceeds the Norm weight, the player can proceed to the next Area. The next Area will be determined automatically as shown.



- ⑨ Clearing all of the Areas allows the player to proceed to the Special Area where lots of big ones are.

* Everytime the player catches 4 basses, the Special Lure will be awarded. Continued use of the lure is allowed in cases of CONTINUE and AREA CLEAR.

* When the player catches a big bass and ranks in the BIG BASS RANKING, he can enter his name. Only the Black Bass is counted for the ranking.

7 . EXPLANATION OF TEST AND DATA DISPLAY

By operating the switch unit, periodically perform the tests and data check. When installing the machine initially or collecting cash, or when the machine does not function correctly, perform checking in accordance with the explanations given in this section. The following shows tests and modes that should be utilized as applicable.

TABLE 7 EXPLANATION OF TEST MODE

ITEMS	DESCRIPTION	SECTIONS
INSTALLATION OF MACHINE	When the machine is installed, perform the following: 1. Check to see that each setting is as per standard setting made at the time of shipment. 2. In the INPUT TEST mode, check each SW and VR. 3. In the OUTPUT TEST mode, check each of lamps. 4. In the MEMORY TEST mode, check ICs on the IC Board.	7 - 9, 7 - 10 7 - 5 7 - 6 7 - 3, 7 - 4
MEMORY	Choose MEMORY TEST in the MENU mode to allow the MEMORY test to be performed. In this test, PROGRAM RAMs, ROMs, and ICs on the IC Board are checked.	
PERIODIC SERVICING	Periodically perform the following: 1. MEMORY TEST 2. Ascertain each setting. 3. In the INPUT TEST mode, test the CONTROL device 4. In the OUTPUT TEST mode, check each of lamps.	7 - 3, 7 - 4 7 - 9, 7 - 10 7 - 5 7 - 6
CONTROL SYSTEM	1. In the INPUT TEST mode, check each SW and VR. 2. Adjust or replace each SW and VR. 3.If the problem can not be solved yet, check the CONTROL's moves.	7 - 5 8 8
PROJECTOR	In the PROJECTOR ADJUSTMENT mode, check to see if the PROJECTOR adjustment is appropriately made.	7 - 8
IC BOARD	1. MEMORY TEST 2. In the SOUND TEST mode, check the sound related ROMs.	 7 - 7
DATA CHECK	Check such data as game play time and histogram to adjust the difficulty level, etc	7 - 12

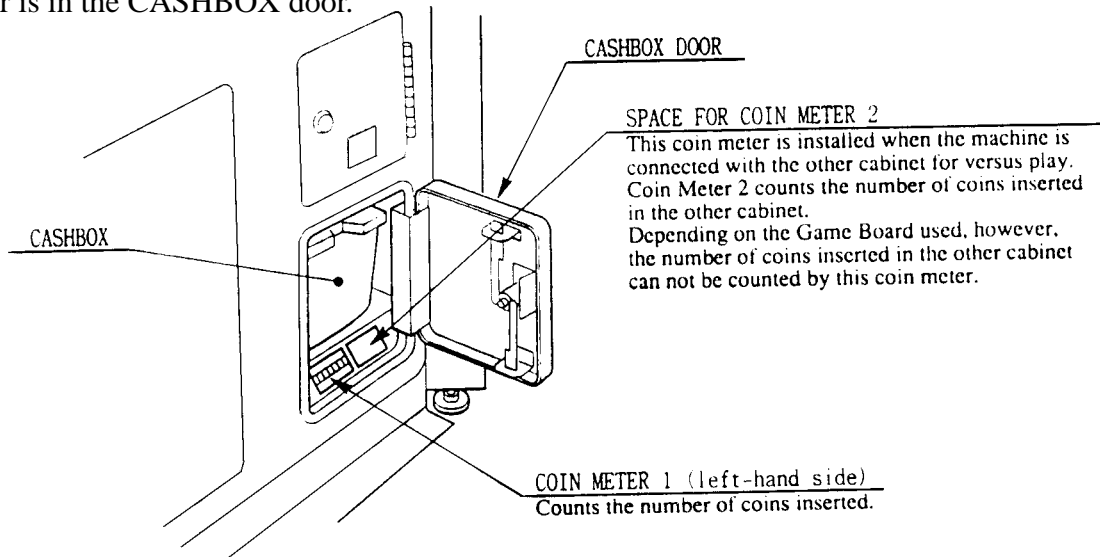
7 - 1 COIN METER, INTERNAL SWITCHES, AND SWITCH UNIT

COIN METER



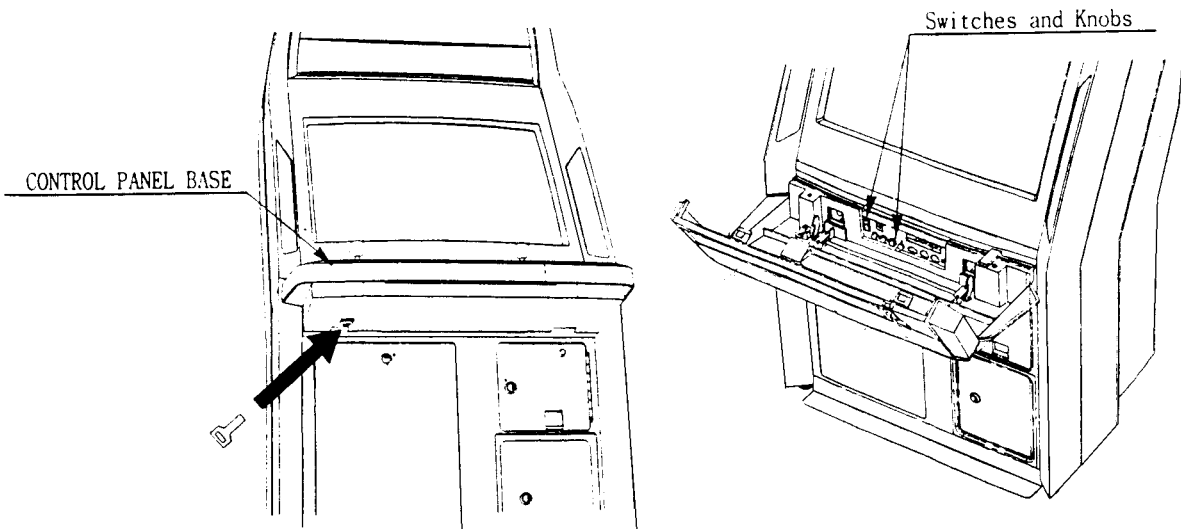
If the COIN METER and the Game Board are electronically disconnected, game play is not possible.
Do not touch places other than those specified. Touching places other than those specified can cause an electric shock or short circuit accident.

The Coin Meter is in the CASHBOX door.



INTERNAL SWITCHES

The Control Panel Base can be opened by unlocking the backside lock.



SWITCH UNIT

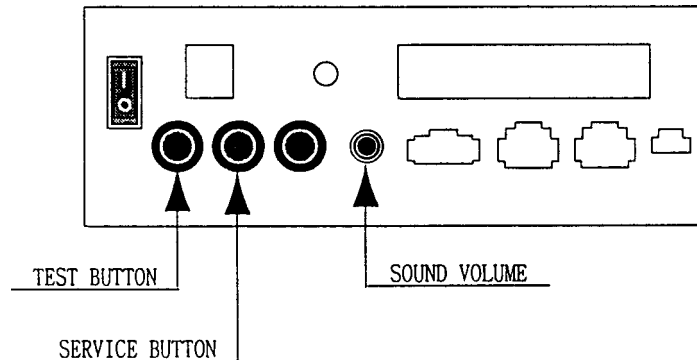


Never touch places other than those specified. Touching places not specified can cause electric shock and short circuit.



- Adjust to the optimum sound volume by considering the environmental requirements of the installation location.
- If the COIN METER and the game board are electrically disconnected, game play is not possible.

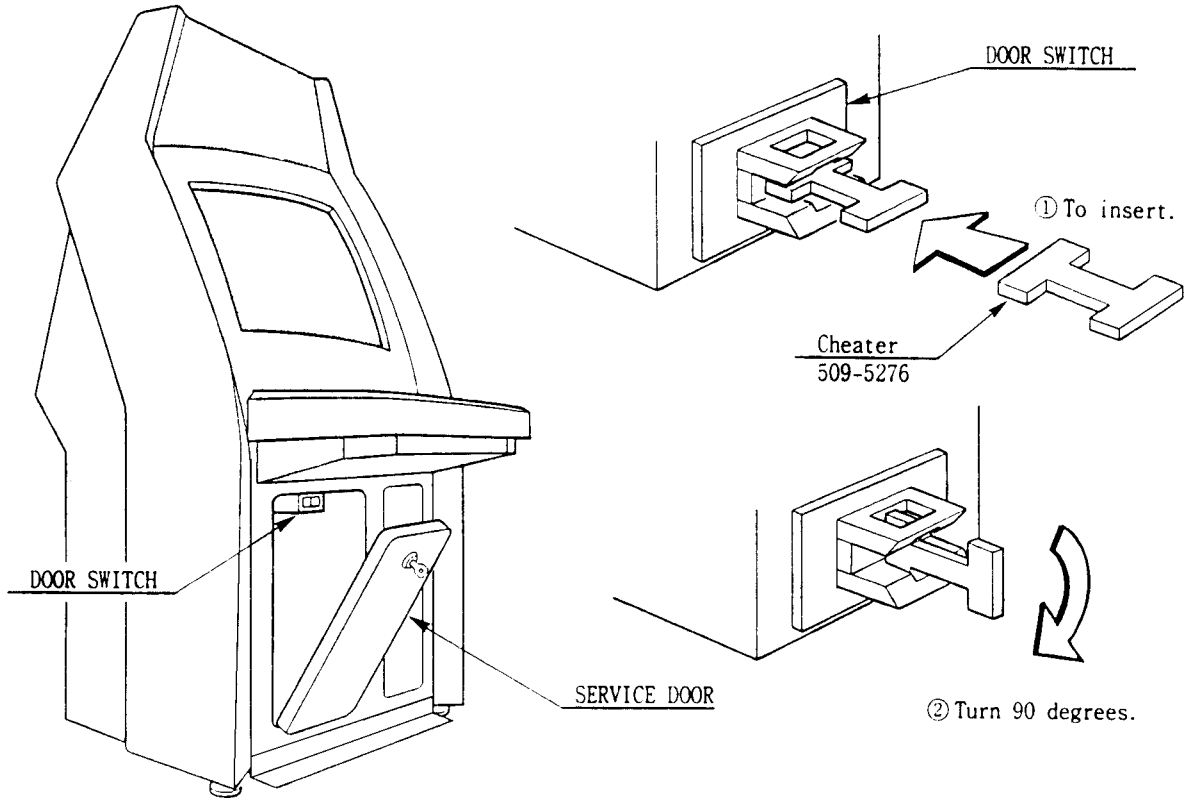
The Control Panel Base can be opened by unlocking the backside lock.
Internal switches will appear when the Base is opened



- ① TEST SWITCH Allows for entering the Test Mode of Game BD.
- ② SERVICE SWITCH SERVICE CREDIT SW. Used without registering on the Coin Meter.
- ③ SOUND VOLUME Adjust the Speaker Volume.

DOOR SWITCH

When the service door is removed, the door switch functions to turn power off automatically. To turn power on with the service door as is removed, use the accessory Cheater as per the (1)-(2) procedure below.



7 - 2 TEST MODE

This mainly checks if the operation of the game BD is accurate, and allows for COIN ASSIGNMENTS/GAME ASSIGNMENTS setting and Projector adjustments.

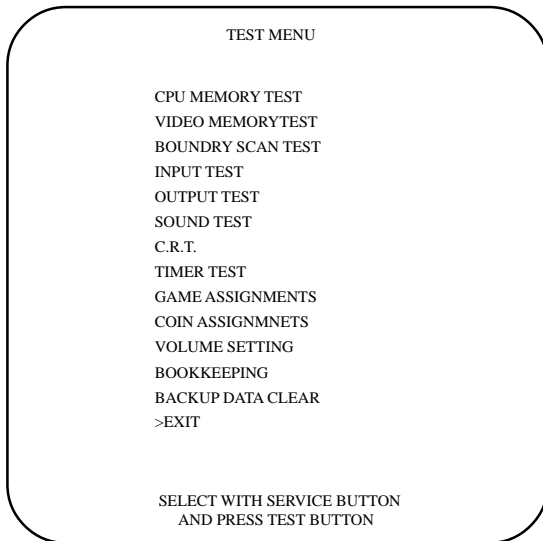


FIG. 7.2 TEST MENU

- ① Push the TEST BUTTON to cause the following TEST MENU to appear:
- ② By pushing the SERVICE BUTTON, bring the “>” mark to the desired item and press the TEST BUTTON. This will select the item’s test.
- ③ After the test is complete, move the “>” mark to “EXIT” and press the TEST BUTTON to return to game mode.

7 - 3 MEMORY TEST

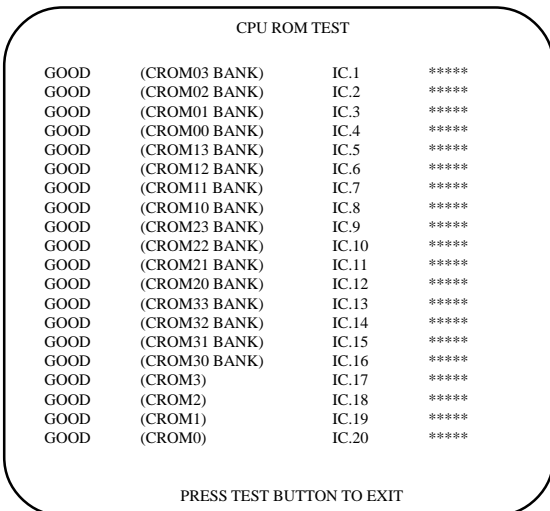


FIG. 7.3a MEMORY TEST

The MEMORY TEST mode is for checking the on-BD memory IC functioning.

“GOOD” is displayed for normal ICs and “BAD” is displayed for abnormal ICs

This test starts immediately after selection from the menu in the test mode. When in execution, the “TESTING NOW” message will be displayed at the lower part of the screen. Press the Test Button to proceed to CPU RAM TEST

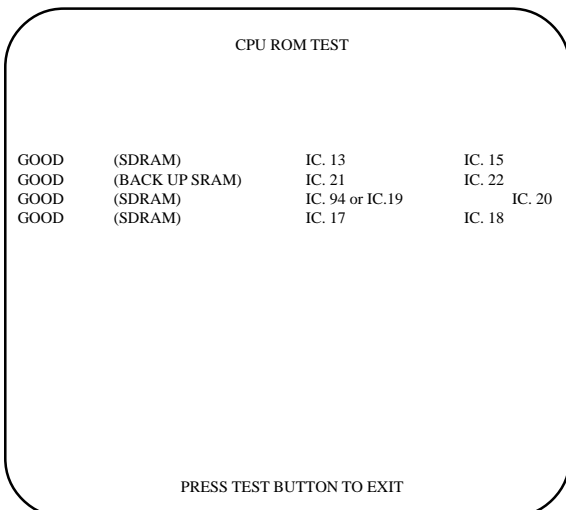


FIG. 7.3b MEMORY TEST

Test starts immediately after proceeding to this mode from CPU ROM TEST. During execution, the “TESTING NOW” message will be displayed at the lower part of the screen. When an error occurs, the ERROR message is shown. After finishing the test, press the TEST button to return to the menu mode.

7 - 4 VIDEO MEMORY TEST

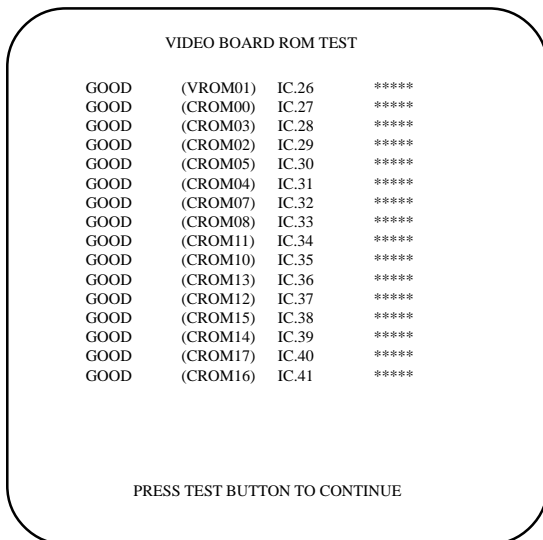


FIG. 7.4a VIDEO MEMORY TEST

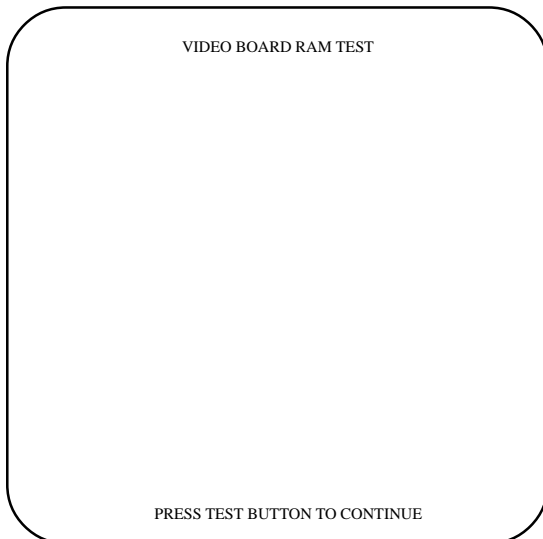


FIG. 7.4b VIDEO MEMORY TEST

7 - 5 BOUNDRY SCAN TEST

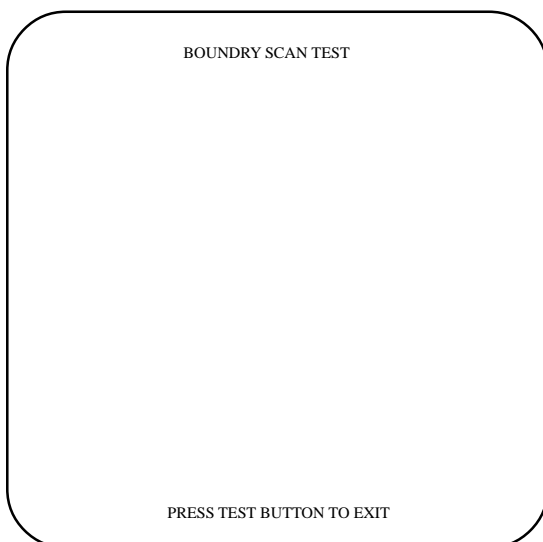


FIG. 7.5 BOUNDRY SCAN TEST

This allows the functioning of the VIDEO MEMORY IC's on the IC board to be checked. "GOOD" is displayed for normal IC's and "BAD" is displayed for abnormal IC's if any.

Test starts immediately after proceeding to this mode from the menu in the test mode. During execution, the "TESTING NOW" message will be displayed at the lower portion of the screen. After finishing the test, press the TEST BUTTON to proceed to VIDEO RAM.

Test starts immediately after proceeding to this mode from the VIDEO BOARD ROM TEST. During execution, the "TESTING NOW" message will be displayed at the lower portion of the screen. If status is satisfactory, nothing will be displayed. After finishing the test, press the TEST BUTTON to return to the menu mode.

Selecting the "BOUNDRY SCAN TEST" causes the Game board's testing in terms of hardware to be performed automatically.

- When the test is completed, if the results are as shown left, it is satisfactory.
- After finishing the test, press the TEST BUTTON to have the MENU MODE return on the screen. Next, turn power off and then turn it back on again. To avoid malfunctioning, have the Board initialized by turning the power off and then on.
- If there is any hardware problems, an error message is displayed. Please contact the offices herein stated or where the product was purchased from.

7 - 6 INPUT TEST

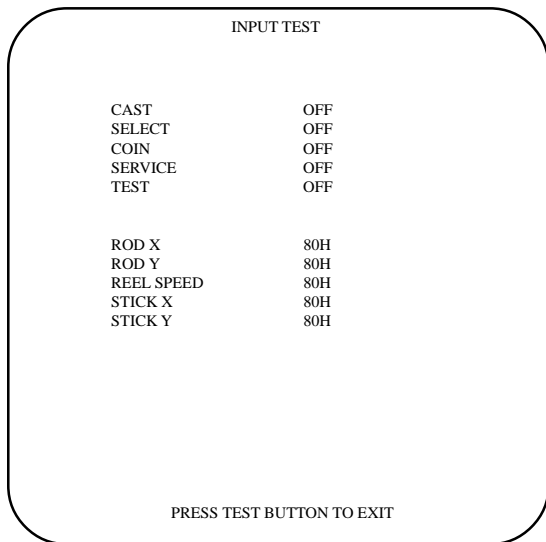


FIG. 7.6 INPUT TEST

7 - 7 OUTPUT TEST

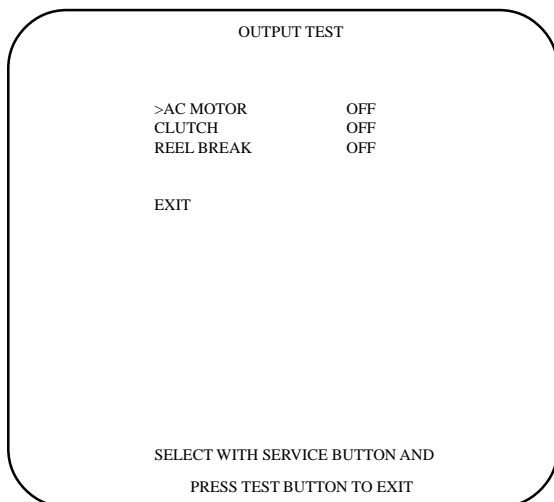


FIG. 7.7 OUTPUT TEST

7 - 8 SOUND TEST

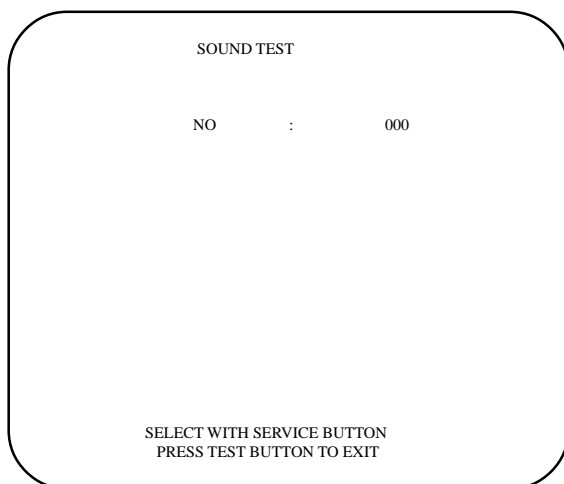


FIG. 7.8 SOUND TEST

- This test mode displays the status of each switch, button, and Volume. When the switch/button corresponds to the name of the item is pressed, if OFF changes to ON, it is satisfactory.

When corresponding Volume is operated, if the Volume value differs in a natural manner, it is satisfactory.

APPROPRIATE VALUE OF TENSION VOLUME

- Tension volume values are displayed in hexadecimal numerals within the range of 00H~ffH. If the value does not satisfy the following limitations, adjust the Volumes gear mesh so as to meet the requirements.

MIN. LIMIT: Over20H

MAX. LIMIT: Under e0H

- ROD X, ROD Y: Volumes which detect reel (rod) operation.
- REEL SPEED: Volume which detects handle operation. 80H when not turned.
- STICK X, STICK Y: Volume which detects Select Lever operation.

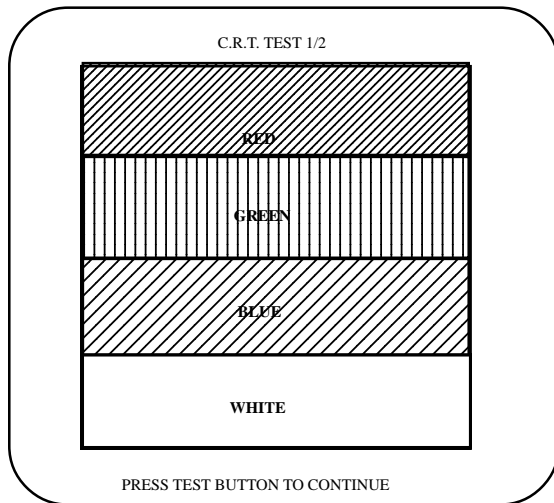
Choose OUTPUT TEST to cause the following lower screen to appear. In this test, check the status of each lamp.

- By using the Service Button, select the desired item and execute the test by pressing the test button to shift OFF to ON. Selecting another item by using the Service Button shifts ON to OFF. Bring the arrow to exit and press test button to return to the menu mode.
- AC MOTOR: The motor inside the Control Panel. with ON the motor rotates.
- CLUTCH: Clutch mechanism inside Control Panel. With ON, GRIP operation becomes weightier.
- REEL BREAK: REEL BRAKE which is in the mechanism inside the Reel Handle. With ON, handle operation becomes weightier.

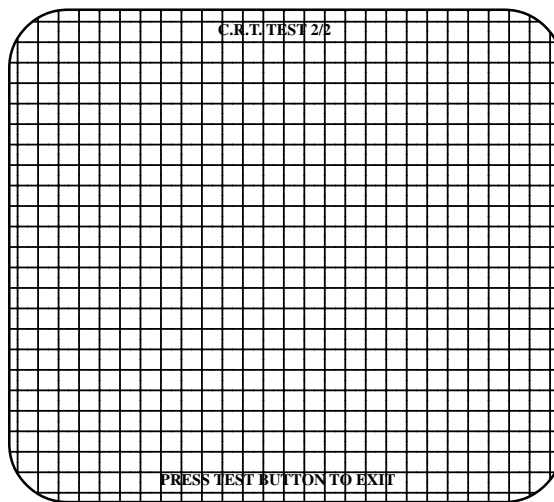
This enables sound used in the game to be checked. Sound related memory and each speaker are checked.

- Press the SERVICE BUTTON to increase the number by one and the sound corresponding to the number will be emitted. Note that No. 000 does not emit any sound.
- Bring the ">" to EXIT and press the TEST BUTTON to return to the MENU MODE.

7 - 9 C.R.T. TEST



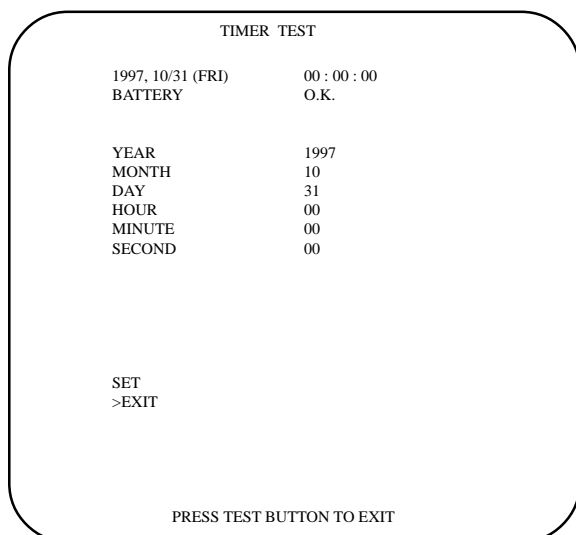
- Select C.R.T. TEST to cause the MONITOR to display the screen shown left, allowing MONITOR adjustment status to be checked.
- Periodically check the MONITOR adjustment status on this screen.
- The screen (1/2) enables color adjustment check to be performed. The color bar of each of the 4 colors, i.e., red, green, blue, and white, is the darkest at the extreme left and becomes brighter towards the extreme right.
- Press the TEST BUTTON to shift to the next screen (2/2).



- The screen (2/2) allows screen size and distortion to be tested.
- Check if the CROSSHATCH FRAME LINE goes out of the screen and if the crosshatch lines are distorted.
- Press the TEST BUTTON to return to the MENU mode.

FIG. 7.9 C.R.T. TEST

7 - 10 TIMER TEST



This test mode allows the setting of year, month, and day, as well as built-in battery, and real time clock to be checked.

- Press the Service Button to bring the arrow to the setting item.
- Press the Test Button to set the desired value for each item.
- Press the Service Button to move the arrow and bring it to SET, then press the test button to change to the set value.
- Bring the arrow to EXIT and press the test button to return to the menu mode.

FIG. 7.10 TIMER TEST

7 - 11 GAME ASSIGNMENTS

Selecting the GAME ASSIGNMENTS in the MENU mode causes the present game settings to be displayed and also the game settings changes (game difficulty, etc.) can be made. Each item displays the following content.

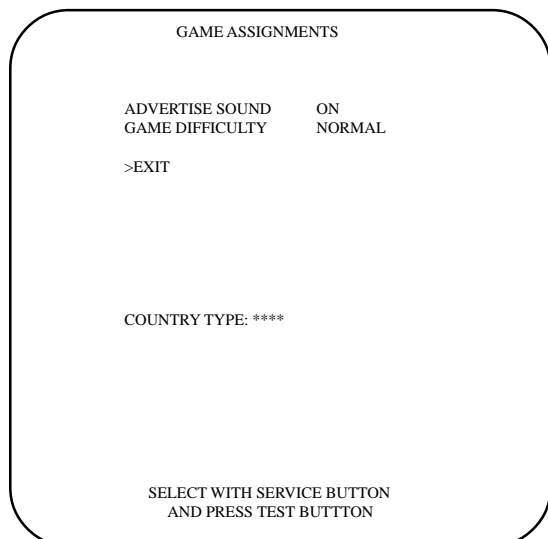
SETTING CHANGE PROCEDURE



IMPORTANT!

Setting changes cannot be stored unless the TEST BUTTON is pressed while the arrow is on EXIT.

- ① Press the SERVICE BUTTON to move the “>” to the desired item.
- ② Choose the desired setting change item by using the TEST BUTTON.
- ③ To return to the MENU mode, move the arrow to EXIT and press the TEST BUTTON.



- **ADVERTISE SOUND**
Determines whether ADVERTISE SOUND is to be emitted or not by the setting to ON when emitting it and to OFF when not emitting it.
- **GAME DIFFICULTY**
Sets the Game Difficulty in 5 categories from 1 to 8. The greater the number is, the higher the difficulty level becomes. Alternately it may display each category by name; Very Easy, Easy, Normal, Hard, Very Hard

The Following FIGURES/TABLES show the factory recommended settings.

7 - 12 COIN ASSIGNMENTS

The “COIN ASSIGNMENTS” mode permits you to set the start number of credits, as well as the basic numbers of coins and credits. This mode expresses “how many coins correspond to how many credits.”

SETTING CHANGE PROCEDURE



IMPORTANT!

Setting changes cannot be stored unless the TEST BUTTON is pressed while the arrow is on EXIT.

- ① Press the SERVICE BUTTON to move the arrow to the desired item.
- ② Choose the desired setting change item by using the TEST BUTTON.
- ③ To return to the MENU mode, move the arrow to EXIT and press the TEST BUTTON.

COIN ASSIGNMENTS			
COIN CHUTE TYPE	COMMON		
CREDIT TO START	2 CREDITS		
CREDIT TO CONTINUE	1 CREDIT		
COIN/CREDIT SETTING #1			
CHUTE#1	1 COIN	1 CREDIT	
CHUTE#2		1 COIN	1 CREDIT
MANUAL SETTING			
>EXIT			
SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON			

- **COIN CHUTE TYPE**
Sets the combination of the number of COIN CHUTES and the number of players as applicable. In the case that the COIN CHUTE is changed, be sure the setting is made in a manner meeting the replaced coin chute.

COMMON:
Coins are accepted in common for both players.

INDIVIDUAL:
Each player uses a coin chute which accepts coins independently.

- **CREDIT TO START**
Number of credits required for starting game (1~5 credits are selected.)
- **CREDIT TO CONTINUE**
Number of credits required for continuing game (1~5 credits are selected.)
- **COIN/CREDIT SETTING**
Sets the CREDITS increase increment per coin insertion. There are 27 settings from #1 to #27, expressed in XX CREDIT as against XX COINS inserted. (TABLE 7.9a, 7.9b) #27 refers to FREE PLAY.
When the COIN CHUTE TYPE is set to INDIVIDUAL, there are some setting numbers not displayed as indicated in TABLE 7.9b.
- **MANUAL SETTING**
This allows credit increase setting as against coin insertion to be further set in the manner finer than COIN/CREDIT SETTING (refer to TABLE 7.9c).

TABLE 7.12a COIN/CREDIT SETTING (COIN CHUTE COMMON TYPE)

SETTING	FUNCTIONING OF CHUTE#1	
SETTING #1	1 COIN	1 CREDIT
SETTING #2	1 COIN	2 CREDITS
SETTING #3	1 COIN	3 CREDITS
SETTING #4	1 COIN	4 CREDITS
SETTING #5	1 COIN	5 CREDITS
SETTING #6	1 COIN	2 CREDITS
SETTING #7	1 COIN	5 CREDITS
SETTING #8	1 COIN	3 CREDITS
SETTING #9	1 COIN	4 CREDITS
SETTING #10	1 COIN	5 CREDITS
SETTING #11	1 COIN	6 CREDITS
SETTING #12	2 COINS	1 CREDIT
SETTING #13	1 COIN	1 CREDIT
SETTING #14	1 COIN	2 CREDITS
SETTING #15	1 COIN	1 CREDIT
	2 COINS	3 CREDITS
SETTING #16	1 COIN	3 CREDITS
SETTING #17	3 COINS	1 CREDIT
SETTING #18	4 COINS	1 CREDIT
SETTING #19	1 COIN	1 CREDIT
	2 COINS	2 CREDITS
	3 COINS	3 CREDITS
	4 COINS	5 CREDITS
SETTING #20	1 COIN	5 CREDITS
SETTING #21	5 COINS	1 CREDIT
SETTING #22	1 COIN	2 CREDITS
SETTING #23	2 COINS	1 CREDIT
	4 COINS	2 CREDITS
	5 COINS	3 CREDITS
SETTING #24	1 COIN	3 CREDITS
SETTING #25	1 COIN	1 CREDIT
	2 COINS	2 CREDITS
	3 COINS	3 CREDITS
	4 COINS	4 CREDITS
	5 COINS	6 CREDITS
SETTING #26	1 COIN	1 CREDITS
SETTING #27	FREE PLAY	

MANUAL SETTING

Selecting MANUAL SETTING in the COIN ASSIGNMENTS mode displays the following screen.

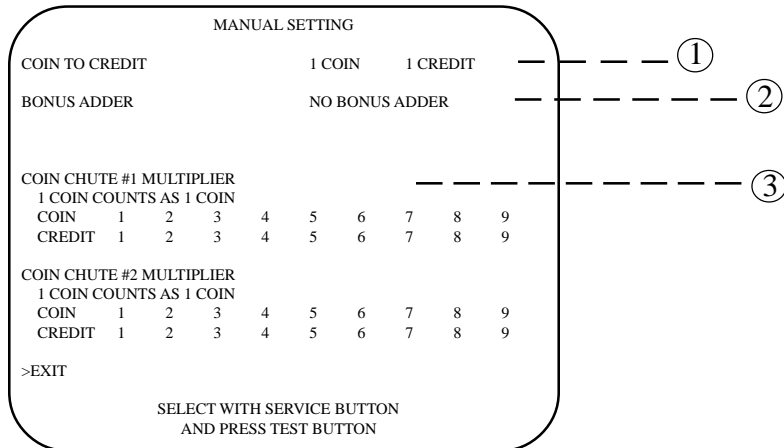


FIG. 7.12b MANUAL SETTING

- ① Determines Coin/Credit setting.
- ② This sets how many coins should be inserted to obtain one Service Coin.
- ③ This sets how many tokens one coin represents.

Table 7.12c MANUAL SETTING

COIN TO CREDIT	1 COIN	1 CREDIT
	2 COINS	1 CREDIT
	3 COINS	1 CREDIT
	4 COINS	1 CREDIT
	5 COINS	1 CREDIT
	6 COINS	1 CREDIT
	7 COINS	1 CREDIT
	8 COINS	1 CREDIT
	9 COINS	1 CREDIT
BONUS ADDER	NO BONUS ADDER	
	2 COINS GIVE 1 EXTRA COIN	
	3 COINS GIVE 1 EXTRA COIN	
	4 COINS GIVE 1 EXTRA COIN	
	5 COINS GIVE 1 EXTRA COIN	
	6 COINS GIVE 1 EXTRA COIN	
	7 COINS GIVE 1 EXTRA COIN	
	8 COINS GIVE 1 EXTRA COIN	
	9 COINS GIVE 1 EXTRA COIN	
COIN CHUTE MULTIPLIER	1 COIN COUNTS AS 1 COIN	
	1 COIN COUNTS AS 2 COINS	
	1 COIN COUNTS AS 3 COINS	
	1 COIN COUNTS AS 4 COINS	
	1 COIN COUNTS AS 5 COINS	
	1 COIN COUNTS AS 6 COINS	
	1 COIN COUNTS AS 7 COINS	
	1 COIN COUNTS AS 8 COINS	
	1 COIN COUNTS AS 9 COINS	

7 - 13 VOLUME SETTING

This allows Slide Volume to be set.

VOLUME SETTING	
AUTO SETTING	
PULL POSITION	MAX dd (df) MIN 74 (75)
SWING POSITION	MAX 98 (95) MIN 07 (03)
REEL	NEUTRAL 88 (88)
>CONTINUE WITH SAVE	
CONTINUE WITHOUT SAVE	
SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON	

Fig. 7.13a VOLUME SETTING

VOLUME SETTING	
MANUAL SETTING	
TENSION	MAX da (de) MIN 07 (06)
STICK X	MAX ao (aB) MIN 61 (62) NEUTRAL 82 (83)
STICK Y	MAX af (a1) MIN 66 (63) NEUTRAL 84 (84)
>EXIT WITH SAVE	
EXIT WITHOUT SAVE	
SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON	

Fig. 7.13b VOLUME SETTING

- Settings of volumes, etc., can be executed. Volume setting has 2 categories, i.e., AUTO SETTING and MANUAL SETTING. AUTO SETTING performs the setting of the Volume of the portions that can be set automatically. MANUAL SETTING executes the setting of the Volume of the portions that can only be set manually. Selecting VOLUME SETTING causes AUTO SETTING to be executed first.

AUTO SETTING

- AUTO SETTING starts of itself. By holding the rod, when the line is pulled, move the rod forward so that the line will be withdrawn up to the limit. If the length is short, "LINE ERROR" occurs.
- When "LINE ERROR" occurs, check to see if the length of the knotted portions at both ends of the line is appropriate or not by referring to Section 8. If the "LINE ERROR" still occurs when the length of the knotted portions is appropriate, then replace the line. During setting, "AUTO SETTING NOW" is displayed. When setting is finished, "AUTO SETTING COMPLETE" and each Volume value are displayed.
- By using the Service Button, select CONTINUE WITH SAVE, press the Test Button to have the results stored, and proceed to the next mode.

7 - 14 BOOKKEEPING

Choosing BOOKKEEPING in the MENU mode displays the data of operating status up to the present are shown on 2 pages. Press the TEST BUTTON to proceed to PAGE 2/2.

BOOKKEEPING		PAGE 1/2
COIN REPORT		
COIN CHUTE #1		XXXXXXXXXX
COIN CHUTE #2		XXXXXXXXXX
TOTAL COINS		XXXXXXXXXX
COIN CREDITS		XXXXXXXXXX
SERVICE CREDITS		XXXXXXXXXX
TOTAL CREDITS		XXXXXXXXXX
NUMBER OF GAMES		
1 P GAMES		XXXXXXXXXX
2 P GAMES		XXXXXXXXXX
NUMBER OF CONTINUE		
1 P GAMES		XXXXXXXXXX
2 P GAMES		XXXXXXXXXX
TOTAL	TIME	XDXXHXXMXXS
PLAY	TIME	XDXXHXXMXXS
AVERAGE PLAY	TIME	XXMXXS
LONGEST PLAY	TIME	XXMXXS
SHORTEST PLAY	TIME	XXMXXS

PRESS TEST BUTTON TO CONTINUE

FIG. 7.14a BOOKKEEPING (1/2)

BOOKKEEPING		PAGE 2/2
TIME HISTOGRAM		
0M00S ~ 0M29S		XXXXXXXXXX
0M30S ~ 0M39S		XXXXXXXXXX
0M40S ~ 0M49S		XXXXXXXXXX
0M50S ~ 0M59S		XXXXXXXXXX
1M00S ~ 1M09S		XXXXXXXXXX
1M10S ~ 1M19S		XXXXXXXXXX
1M20S ~ 1M29S		XXXXXXXXXX
1M30S ~ 1M39S		XXXXXXXXXX
1M40S ~ 1M49S		XXXXXXXXXX
1M50S ~ 1M59S		XXXXXXXXXX
4M00S ~ 4M09S		XXXXXXXXXX
4M10S ~ 4M19S		XXXXXXXXXX
4M20S ~ 4M29S		XXXXXXXXXX
4M30S ~ 4M39S		XXXXXXXXXX
4M40S ~ 4M49S		XXXXXXXXXX
4M50S ~ 4M59S		XXXXXXXXXX
5M00S ~		XXXXXXXXXX

PRESS TEST BUTTON TO EXIT

FIG. 7.14b BOOKKEEPING (2/2)

- **COIN CHUTE#*:**
Number of coins put in each Coin Chute.
- **TOTAL COINS:**
Total number of activations of Coin Chutes.
- **COIN CREDITS:**
Number of credits registered by inserting coins.
- **SERVICE CREDITS:**
Credits registered by the SERVICE BUTTON.
- **TOTAL CREDITS:**
Total number of credits (COIN CREDITS+SERVICE CREDITS).
- **TOTAL TIME:**
The total energized time.

On page (2/2), each play frequency is displayed. When setting difficulty levels, the frequency can be referred to as a standard.

When in the PAGE 2/2 mode, press the TEST BUTTON to return to the MENU mode.

7 - 15 BACKUP DATA CLEAR

BACKUP DATA CLEAR	
	YES (CLEAR)
>NO (CANCEL)	
SELECT WITH SERVICE BUTTON	
PRESS TEST BUTTON TO EXIT	

FIG. 7.15 BACKUP DATA CLEAR

- Clears the contents of BOOKKEEPING and high score player ranking entry.
- When clearing, bring the arrow to “YES” and when not clearing, to “NO”, by using the SERVICE BUTTON, and push the TEST BUTTON.
- When the data has been cleared, “COMPLETED” will be displayed. Bring the arrow to “NO” and press the TEST BUTTON to cause the MENU mode to return on to the screen.
- Note that the contents of the GAME SETTING, COIN SETTING, and BOARD SETTING are not affected by BACKUP DATA CLEAR operation.

8 . CONTROL PANEL



- In order to prevent an electric shock and short circuit, be sure to turn power off before performing work by touching the interior parts of the product.
- Be careful so as not to damage wirings. Damaged wiring can cause an electric shock or short circuit accident. Work should be performed by Location's Maintenance Man or the Serviceman. Performing work by non-technical personnel can cause electric shock or short circuit accident.

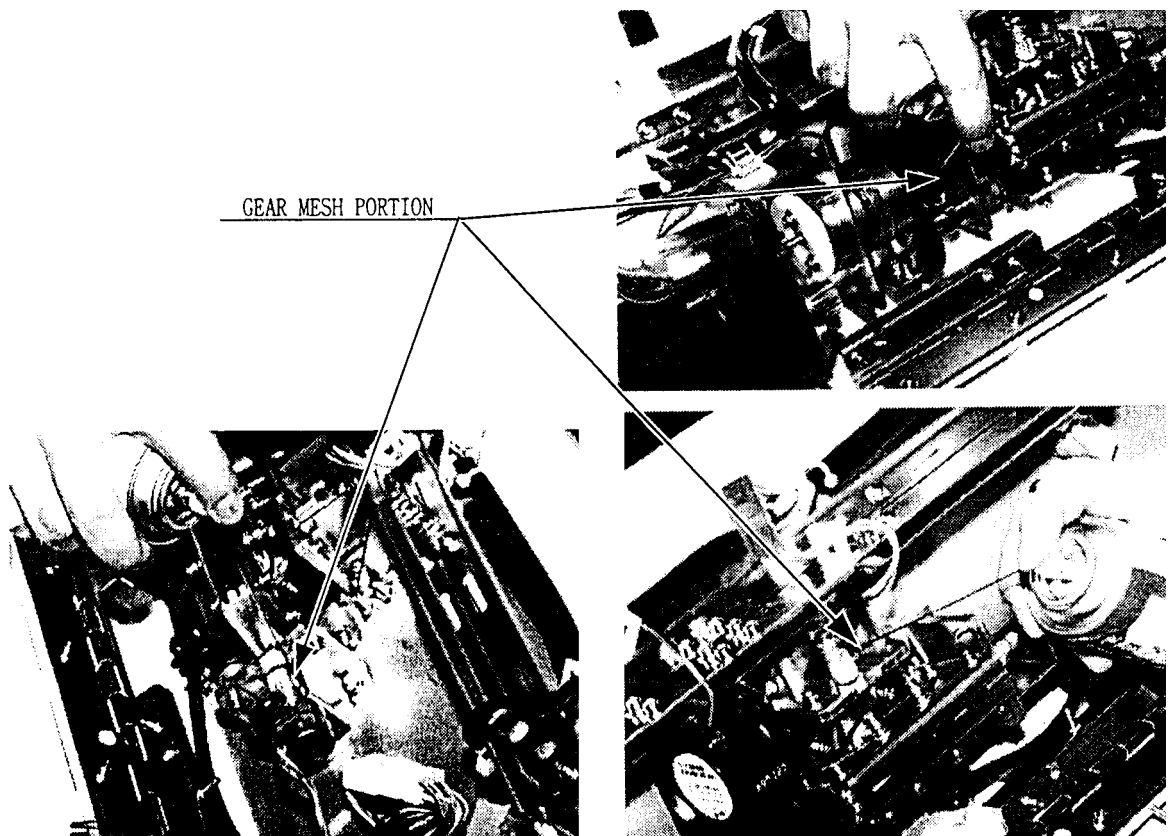


When performing work, use extreme care so as not to exert excessive load or impact to the parts and Control Panel. Careless working can cause injury and or deformation, damage and loss of parts.

The Control Panel of this product has the mechanism in which the motor, clutch, volume, etc. are used. Periodically check the Control Panel in the Test Mode to see if there is any fault, and cope with the problem if any at an early stage. Also, once a month, apply greasing to the mechanism part.

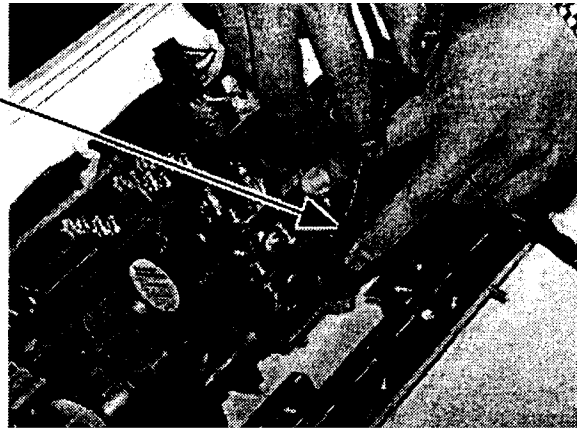
8 - 1 GREASING

Once a month, open the Control Panel and apply greasing to the mechanism part. For Spray Grease, Use Grease Mate (Part No. 090-0066).



INSIDE, GUIDE PLATE

As shown in the PHOTO,
insert the Spray Grease
Nozzle to the inside of Guide
plate and apply grease to the
sliding friction portions of
the part.



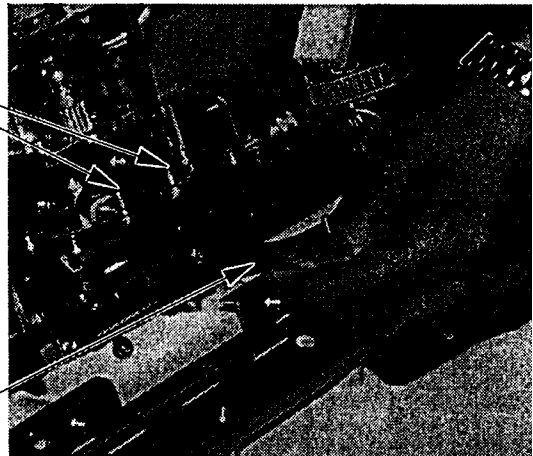
8 - 2 REPLACING THE EXTENSION SPRING

In the case the centering action (to return to the center position) of the reel (rod) is inactive, the cause may be the secular change of or damage to Extension Spring and Torsion Spring. Replace the Extension Spring in the following procedure. Prepare a Spanner (width across flats: 5mm), narrow-edged flat blade type screwdriver, and Philips type screwdriver (M3 and M4 screws).

SCREW (2)
M3×6,
w/flat & spring washers

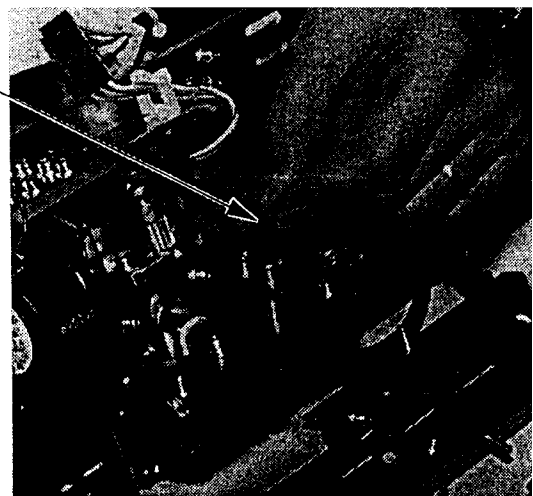
- ① Turn power off and open the Control Panel.

Secure Pin Head with Spanner.



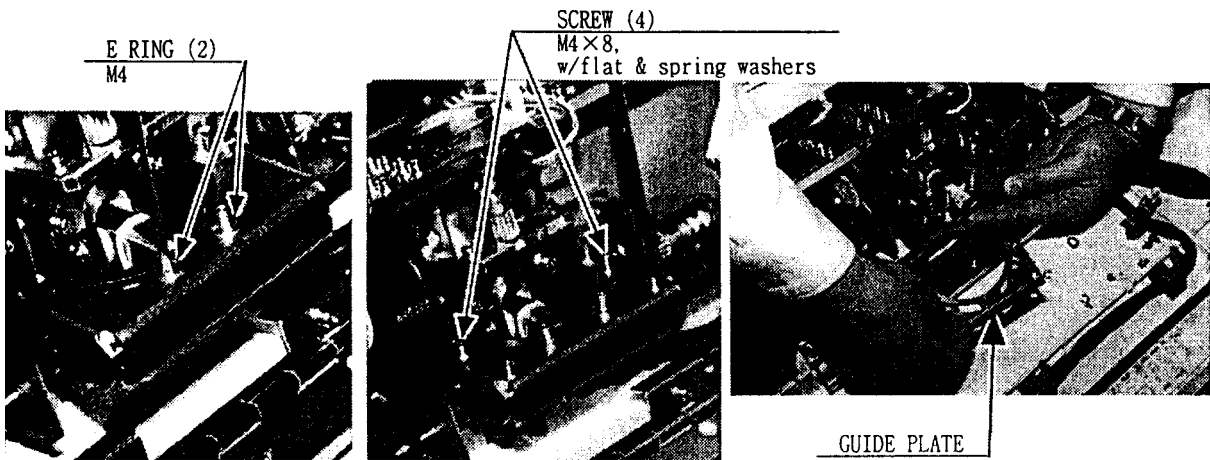
- ② By securing the pin head with spanner, remove the 2 screws with screwdriver and remove the Spring.

EXTENSION SPRING
HOT-3107



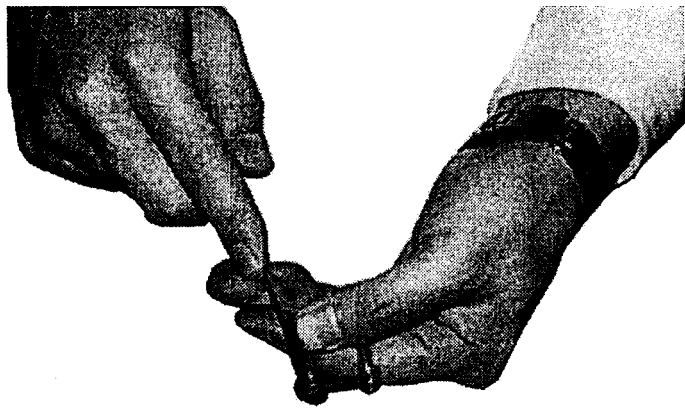
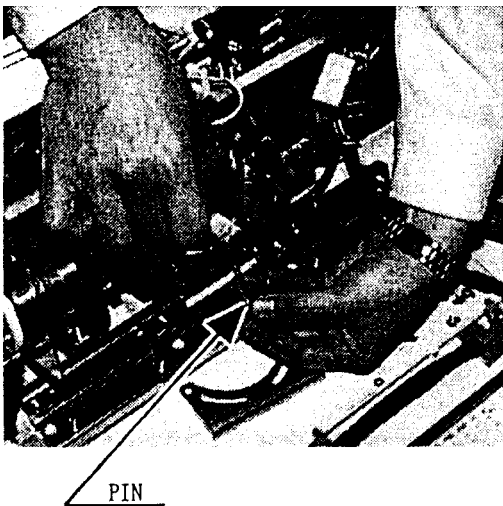
- ③ By using the narrow-edged flat blade type screwdriver remove the E rings.

- ④ Take out the 34 screws and remove the Guide Plate.



- ⑤ Remove the 2 pins. Use care so as not to lose the Collar.

- ⑥ Remove the two E-Rings and the Spring.



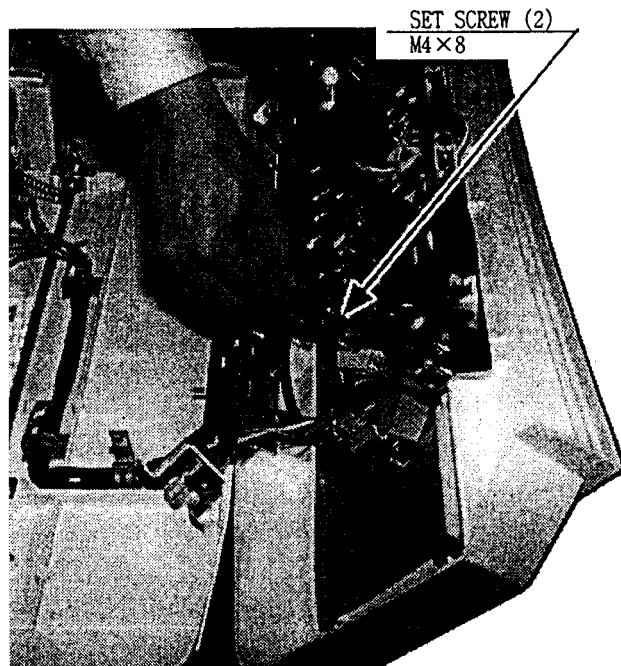
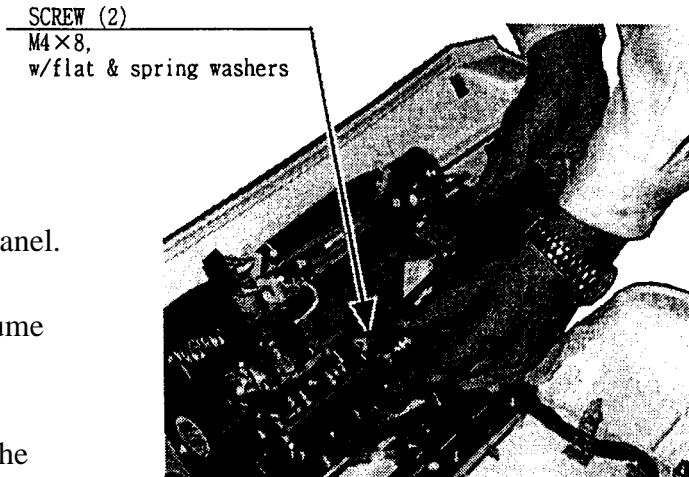
- ⑦ Replace the Spring.

By referring to the ASSY DRAWING HOT-3100, install the Spring, E-Ring, Washer, etc. in the correct sequential order.

8 - 3 REPLACING THE TORSION SPRING

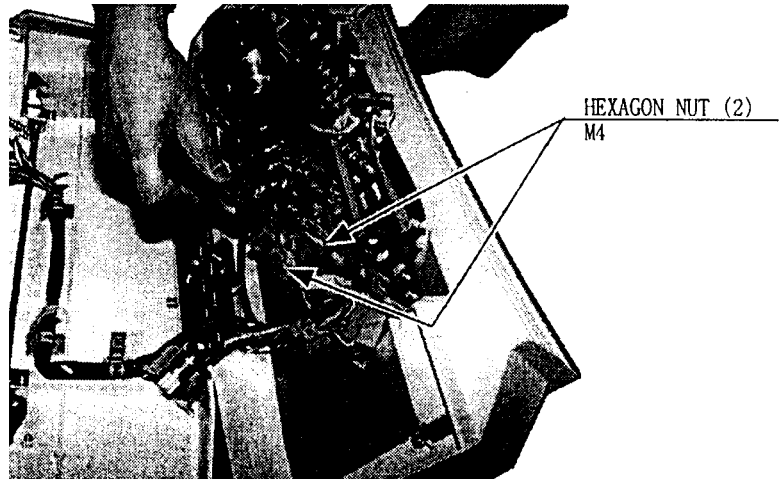
In the case the centering action (to return to the center position) of the reel (rod) is inactive, the cause may be the secular change of or damage to Extension Spring and Torsion Spring. Replace the Extension Spring in the following procedure. Prepare a Philips type screwdriver for M4 screw, a Hexagon Wrench (width across flats: 2mm), and a screw driver for M4 Hexagon Nut (width across flats: 7mm).

- ① Turn power off and open the Control Panel.
- ② Take out 2 screws and remove the Volume together with the Bracket.
- ③ Take out the 2 set screws and remove the Gear.

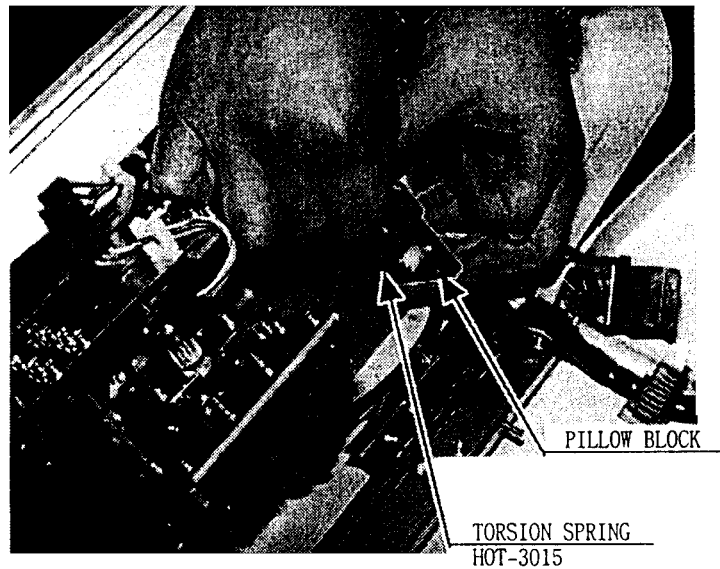


- ④ Take out the 2 Hexagon Nuts and remove the Pillow Block and Torision Spring.

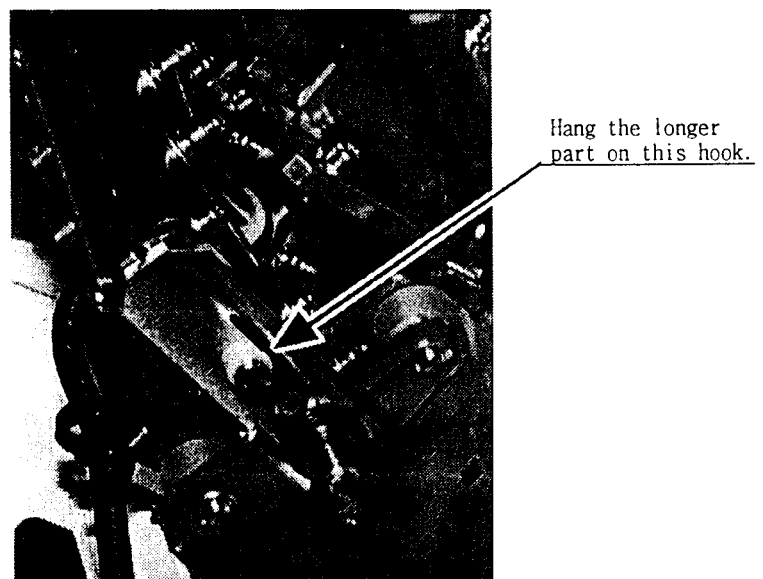
When removing the Pillow Block, be sure to remove the straight from the Shaft. Removing it in an inclined direction can make work more difficult and cause injury hazard. Also, this can cause the oppisite side Shaft to be subject to an excessive load and cause Shaft damage.



- ⑤ Replace the Spring. Ensure that the longer part of the Spring is positioned to the Control Panel's center side.



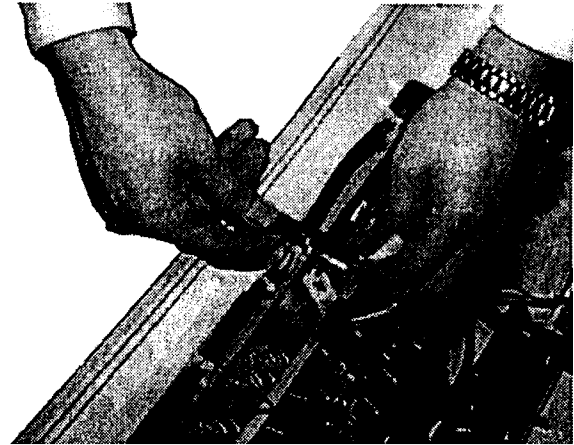
- ⑥ Reassemble by using the oppisite procedure.



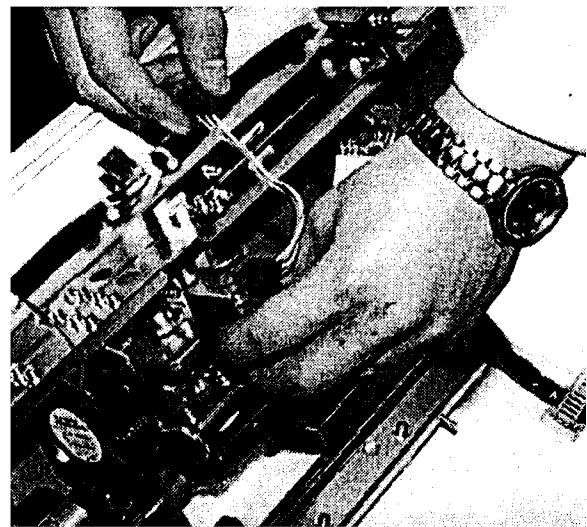
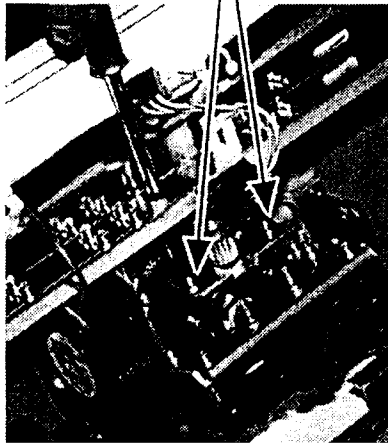
8 - 4 REPLACING THE VOLUME

In the Test Mode, if the value variation of ROD X and ROD Y does not match with reel (rod) operation, the cause may be the Volume Gear Mesh failure, Volume damage, etc. Replace the Volume in the following procedure. Explanations of Volume replacement in the X direction are given below. The Volume in the Y direction is the one to be removed when replacing the Torsion Spring. Prepare a philips type screwdriver for M4 screw and flat-blade type screwdriver for M3 Cheese Head.

- ① Turn the power off and open Control Panel.
- ② Disconnect the Volume Connectors.
The red one is the connector in the X direction, and the blue one is the Volume in the Y direction.
- ③ Take out the 2 screws and remove the Volume together with the Bracket.

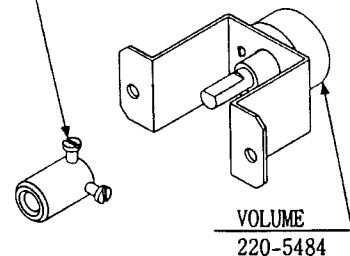


SCREW (2)
M4×8,
w/flat & spring washers



- ④ Take out the 2 Set Screws and remove the Gear.
- ⑤ Replace the Volume. Assemble by using the opposite procedure.
At this time, cause the gears to be engaged in the periphery the center of the Volume's movable range when the reel is positioned at the center.

SET SCREW (2)
M3×6

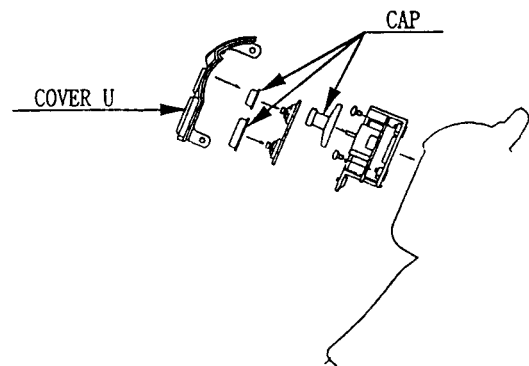
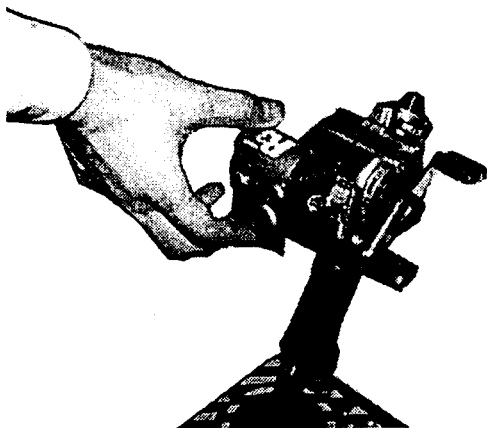
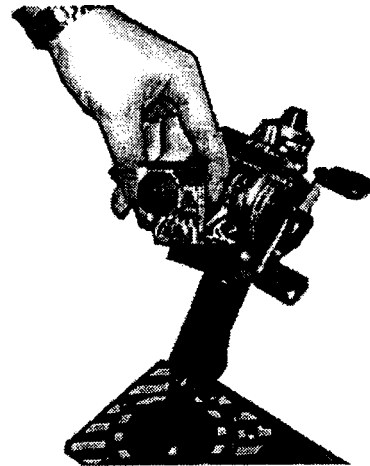
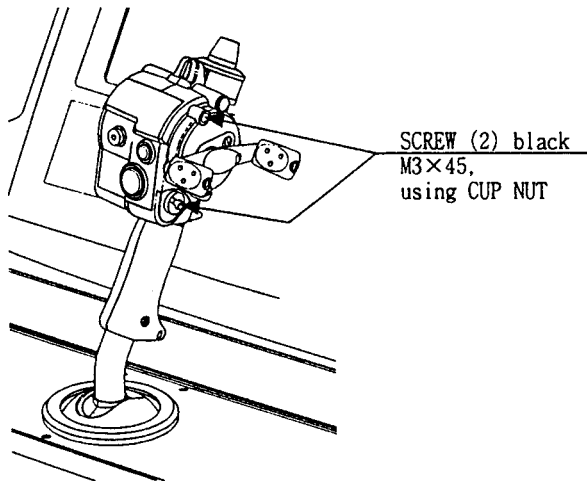


- ⑥ Turn power on and perform Volume setting in the Test Mode.

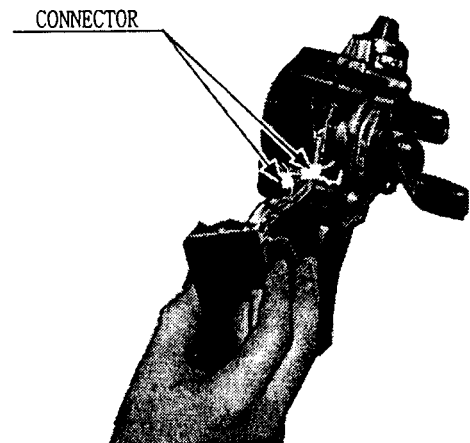
8 - 5 REPLACING THE INTERNAL PARTS OF REEL

Replace the internal parts of reel by using the following procedure.
prepare a Philips screwdriver for M3 screw.

- ① Turn the power off.
- ② Take out 2 screws and remove Cover U.
- ③ Internal SW, etc. can be removed.



- ④ Remove the Connector and replace the Board.
- ⑤ Assemble by using the oppisite procedure.
- ⑥ Turn the power on and perform Volume setting in the Test Mode.



9 . COIN SELECTOR



WARNING!

In order to prevent an electric shock and short circuit, be sure to turn power off before performing work by touching the interior parts of the product.

Be careful so as not to damage wirings. Damaged wiring can cause an electric shock or short circuit accident.



IMPORTANT!

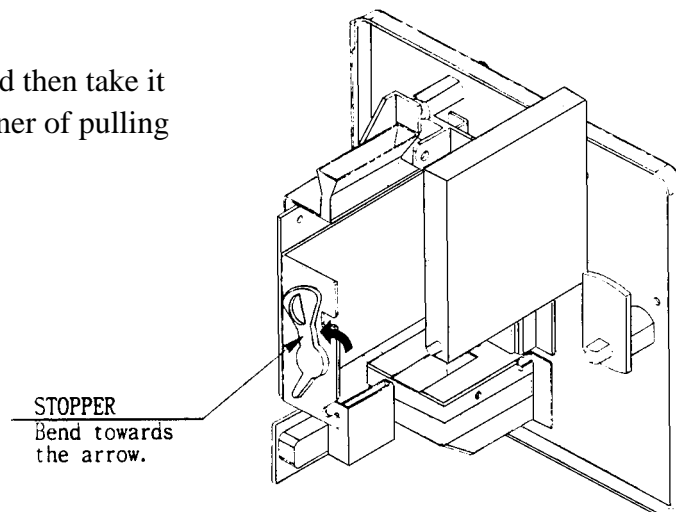
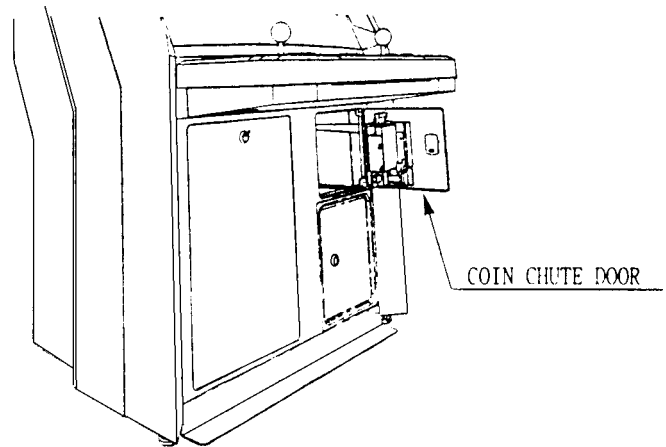
When cleaning the Coin Selector, be sure to use a soft cloth. If the Coin Selector is badly soiled, remove the stains by using a soft cloth dipped in water or warm water and then squeezed dry. Never use chemical detergents or chemicals.

If the Coin Selector is taken out for cleaning or checking, ensure that Coin Selector is accurately functioning after it is returned in place.

The Coin Selector is employed for this product. If the Coin Selector's coin passage is soiled, the coin selection accuracy is deteriorated. Be sure to perform cleaning once every 3 months. Although rarely, coin jam occurs in the periphery of the Coin Selector. Should coin jam occur, or for cleaning, take out the Coin Selector from the machine.

9 - 1 TAKING OUT THE COIN SELECTOR

- ① Turn Power off.
- ② Open the Coin Chute Door.
- ③ While pulling the Coin Chute Bracket's white stopper, bend it towards the arrow direction shown.
- ④ First lift the Coin Selector up and then take it out from the Bracket in the manner of pulling it diagonally upward.



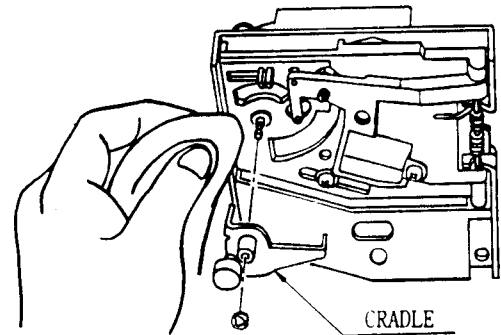
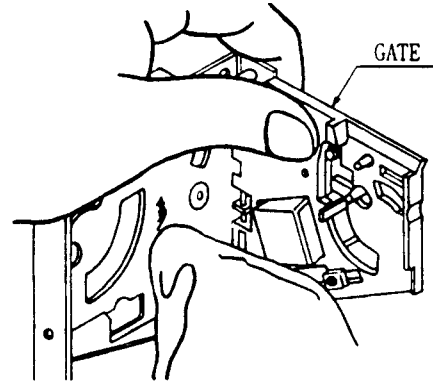
HANDLING THE COIN JAM

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

CLEANING THE COIN SELECTOR

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

- ① Turn the power for the machine OFF. Open the coin chute door.
- ② Open the gate and dust off by using a soft brush (made of wool, etc.).
- ③ Remove and clean smears by using a soft cloth dipped in water or diluted chemical detergent and then squeezed dry.
- ④ Remove the CRADLE. When removing the retaining ring (E-ring), be very careful so as not to bend the shaft.
- ⑤ Remove stain from the shaft and pillow portions by wiping off with a soft cloth, etc.
- ⑥ After wiping as per #5 above, further apply a dry cloth, etc. to cause the coin selector to dry completely.



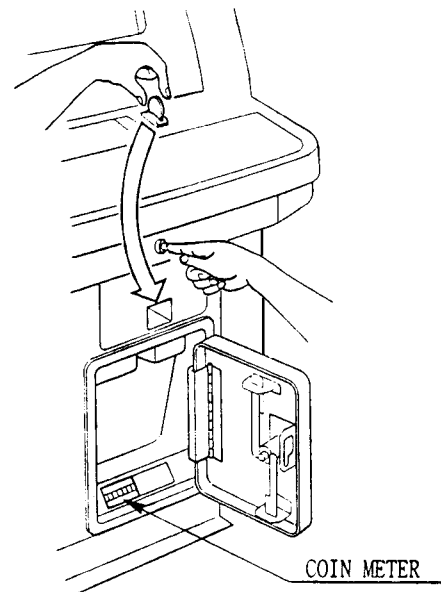
IMPORTANT!

- Never apply machine oil, etc. to the coin selector
- After cleaning the Coin Selecting, Insert a regular coin in the normal working status and ensure that the Selector correctly functions.

COIN INSERTION TEST

Once a month, when performing the COIN SW TEST, simultaneously check the following:

- Does the Coin Meter count satisfactorily?
- Does the coin drop into the Cashbox correctly?
- Is the coin rejected when inserted while keeping the REJECT BUTTON is pressed down?



OPTIONAL DOLLAR BILL ACCEPTOR

● THE COIN DOOR ASSEMBLY USED ON **SEGA BASS FISHING** COMES EQUIPPED TO ACCEPT A DOLLAR BILL ACCEPTOR. ALL NEEDED WIRING CONNECTIONS ARE CONVENIENTLY LOCATED INSIDE THE GAME FOR THIS APPLICATION.

● THE COIN DOOR CAN ACCCOMMODATE THE FOLLOWING VALIDATORS:

HOLE POSITION#1 (FORWARD-MOST POSITION)	VFM5 (MARS)
HOLE POSITION#2	VFM2 (MARS) VFM4 (MARS) DBV45 (JCM)
HOLE POSITION #3	CURRENTLY NOT USED
HOLE POSITION #4	DSI01*

*The back flange on the chute can be removed for hold position #4. If the flange is not removed, it may interfere with the back of the cabinet.

10. MONITOR

10 - 1 CAUTIONS AND WARNINGS CONCERNING SAFE HANDLING OF MONITOR



CAUTION!

When performing such work as installing and removing the monitor, inserting and disconnecting the external connectors to and from monitor, be sure to disconnect the power connector (plug) before starting work. Proceeding the work without following this instruction can cause electric shock or malfunctioning.

Using the monitor by converting it without obtaining a prior permission is not allowed. SEGA shall not be liable for any malfunctioning and accident caused by said conversion.

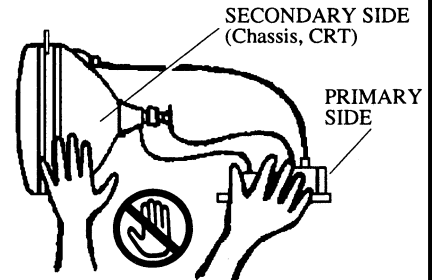


WARNING!

Primary side and secondary side

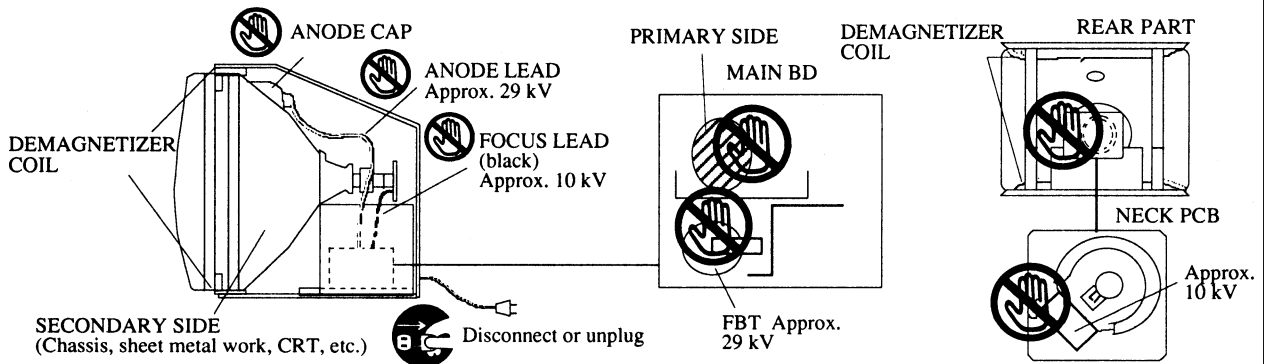
The monitor's circuit which is divided into the Primary side and secondary side, is electrically isolated. Do not touch the primary side and the secondary side simultaneously. Failing to observe the instruction can cause electric shock, and this is very dangerous.

When making monitor adjustments, use a non-conductive driver and make adjustment without touching any other part other than the Adjustment V.R. and Knob. Also, be sure not to cause a short-circuit to the Primary side and the Secondary side. If short-circuited, it can cause electric shock or malfunctioning, which is very dangerous.



High tension Voltage

Some of the parts inside the monitor are subject to high-tension voltage in excess of 20,000 volts and very dangerous. Therefore, do not touch the monitor interior. Should soldering & paper wastes, etc. be mixed in the monitor, turn the power off so as not to cause malfunctioning or fire hazard.



Connecting the CRT and PCB

For combining the CRT and PCB, use the specified part No. to maintain the status of adjustments made at the factory. The anode of the CRT itself will be accumulatively charged as time elapses, generating high tension voltage which is very dangerous. The monitor should be used with the Chassis, CRT and PCB assembled. When repair, etc. is required at the time of malfunctioning, be sure to send it in an "as assembled" condition. If these are disassembled, what's charged to said high tension voltage can be discharged, causing a very hazardous situation. Therefore, under no circumstances should it be disassembled.



CAUTION!

Static Electricity

Touching the CRT surface sometimes causes you to slightly feel electricity. This is because the CRT surfaces are subject to static and will not adversely affect the human body.

Installation and removal

Ensure that the Magnetizer Coil, FBT (Fly-Back Transformer), Anode Lead and Focus Lead are not positioned close to the sheet metal work's sharp edges, etc. and avoid damaging the insulated portions so as not to cause an electric shock and malfunctioning. (For the name of parts, refer to the above figures.)

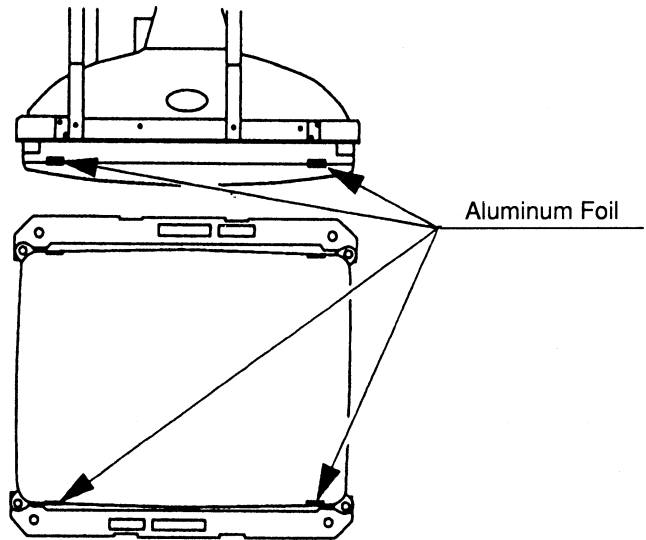


For the purpose of static prevention, special coating is applied to the CRT face of this product. To protect the coating, pay attention to the following points. Damaging the coating film can cause electric shock to the customers. For the caution to be heeded when clearing, refer to the Section of Periodic inspection Table.

Do not apply or rub with a hard item (a rod with pointed edge, pen, etc.) to or on C.R.T. surfaces.

Avoid applying stickers, seals, etc. on the C.R.T. face.

Do not remove aluminum foils from the C.R.T. corners. Removing the aluminum foils can cause static prevention effects to be lowered.



10 - 2 CAUTIONS TO BE HEEDED WHEN CLEANING THE CRT SURFACES



IMPORTANT!

Static preventive coating is applied to the CRT surfaces. When cleaning, pay attention to the following points. Peeling off static preventive coat can cause electric shock.

- Remove smears by using a dry, soft cloth (flannels, etc.). Do not use a coarse gauze, etc.
- For smear removing solvent, alcohol (ethanol) is recommended. When using chemical detergent, be sure to follow instructions below:

*Dilute chemical detergent with water and dip soft cloth in and then thoroughly wring it to wipe smears off.

*Do not use a chemical detergent containing an abradant, powder or bleaching agent.

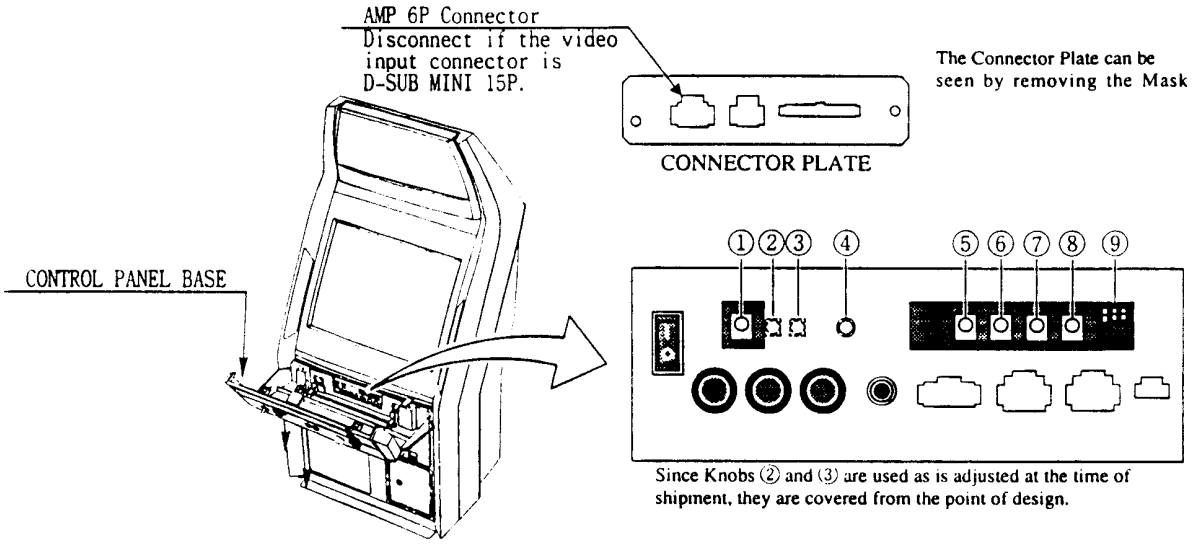
*Do not use alkaline chemical detergents such as "glass cleaner" available on the market or solvents such as thinner, etc.

- Do not rub or scratch the CRT face with hard items such as brushes, scrub brush, etc.

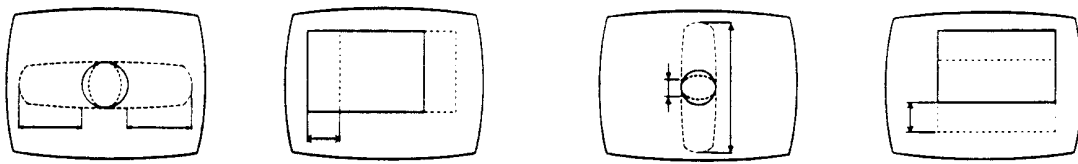
10 - 3 ADJUSTMENT METHOD



Monitor adjustments have been made at the time of shipment. Therefore do not make further adjustment without a justifiable reason. Adjusting the monitor which contains high tension parts is dangerous work. Also, an erroneous adjustment can cause deviated synchronization and image fault, resulting in malfunctioning. To determine whether or not the adjustment is needed, make judgment by watching the monitor's adjustment screen of the replaced Game Board. Normally, monitor adjustment is made with knobs and switches on the Adjustment Board that can be seen by opening the Control Panel Base. Note that in the monitor of this product, correct images can not be obtained unless the settings of the horizontal frequency or video input connector (input impedance/input level) are compatible with the board. When the Game Board is replaced, check the settings.



- ① **CONTRAST (VR282)**
Adjusts image contrast.
- ② **R-GAIN (VR280)**
Turning this to the right will result in the red color becoming darker.
- ③ **B-GAIN (VR281)**
Turning this to the right will result in the blue color becoming darker.
- ④ **BRIGHT (VR283)**
This adjusts the on-screen image brightness.
- ⑤ **H. SIZE (VR284)**
The horizontal image dimension is adjustable.
- ⑥ **H. POSITION (VR285)**
The horizontal image's position is adjustable.
- ⑦ **V. SIZE (VR286)**
The vertical image dimension is adjustable.
- ⑧ **V-POSITION (VR287)**
The image's vertical position is adjustable.

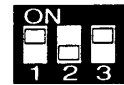


- ⑨ **Mode Change SW (SW281)**
Sets horizontal frequency and video input connector.

First unplug the plug and then operate the switch. Operating the switch as is energized can cause damage and malfunctioning. Connect only the video input connector which is set in the manner consistent with the Game Board, Connecting any one other than the set connector or setting from the predetermined setting can cause malfunctioning.

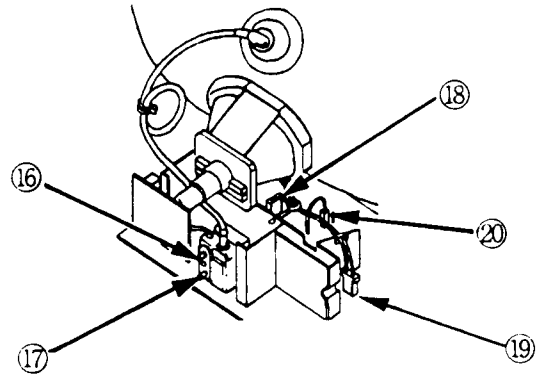
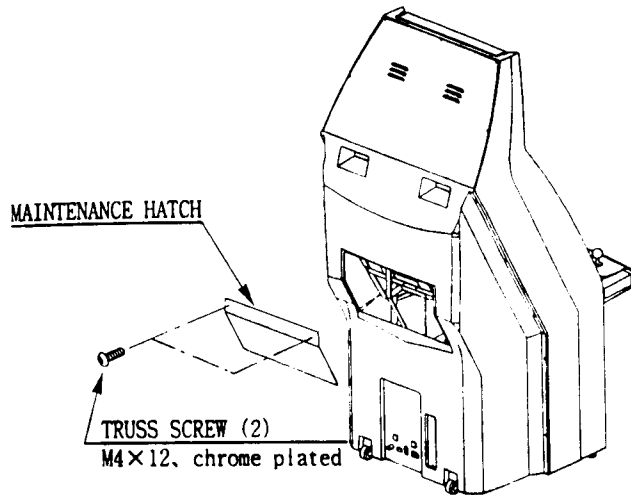
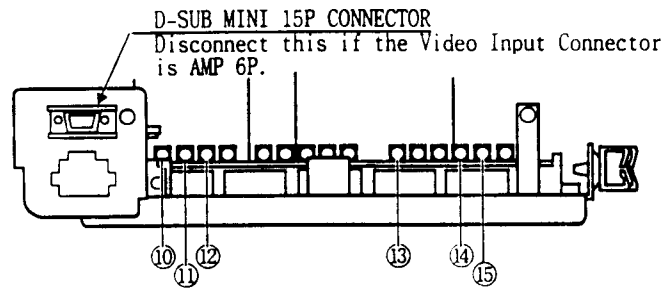
Horizontal frequency	SW 1	SW 2
15 kHz mode	ON or OFF	ON
24 kHz mode	ON	OFF
31 kHz mode	OFF	ON

Video input connector	SW 3
Input impedance/Input level	SW 3
When inputting D-SUB MINI 15P	ON
75Ω / 0.7Vp-p	
When inputting AMP 6P	OFF
2kΩ / 3.0Vp-p	

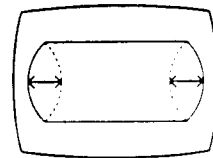
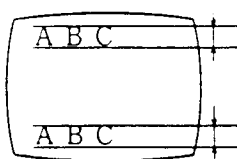
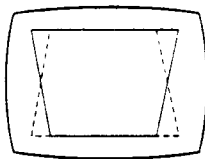


As per the above setting, the horizontal frequency is 24 kHz and video input connector is D-SUB MINI 15P.

Use the knobs and connectors that can be seen by removing the Maintenance Hatch on the backside of the cabinet, normally as is at the time of shipment. In particular, do not touch the knobs not explained herein. When replacing the Game Board or the Monitor, ensure that the direction of the connector's connection is correct as per the Game Board manual. If the connecting direction is wrong, the image is inverted or turned as shown below.



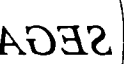
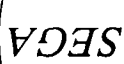


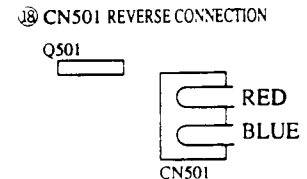
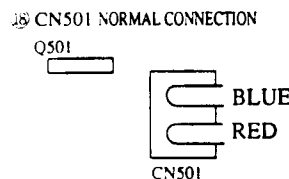
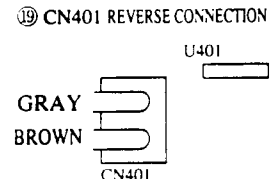
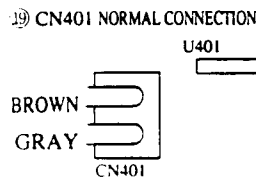
- ⑩ R-CUT OFF (VR201) Turning this to the right will result in the red color becoming darker.
- ⑪ G-CUT OFF (VR202) Turning this to the right will result in the green color becoming darker.
- ⑫ B-CUT OFF (VR203) Turning this to the right will result in the blue color becoming darker.
- ⑬ SPC (VR452) Controls pincushion distortion.
- ⑭ TRAP (VR451) Controls trapezoidal distortions.
- ⑮ V-LIN (VR286) Controls vertical linearity.
- ⑯ FOCUS To be adjusted to the best status.



- ⑰ SCREEN Adjusts to the CUTOFF point.

⑱ DEFLECTING YOKE POLARITY CHANGE CONNECTOR

	⑲ CN401 NORMAL	⑲ CN401 REVERSE
⑱ CN501 NORMAL	 The image displayed is normal.	 A vertically inverted image is displayed by reflex on a mirror.
⑱ CN501 REVERSE	 An image reflected on a mirror appears.	 An image which is turned a 180 degrees is displayed.



⑳ H-SIZE CHANGE TAP (CN509 : WIDE/NARROW)

After H. SIZE is adjusted, if the size is still narrow, or if the horizontal linearity becomes worse (shrinkage of central portion) in the signal in which the horizontal display period is narrow, change the TAP to WIDE side. However, this is effective only in the case where the horizontal frequency is 15.75 kHz.

10 - 4 REMOVAL/REPLACEMENT OF MONITOR



- When performing such work as monitor installation/removal, or inserting/disconnecting the external Connector connected to the monitor and its interior, first be sure to disconnect the power connector (plug). Working with the power plug as is connected can cause electric shock or malfunctioning.
- When replacing the monitor, be very careful. To avoid electric shock, etc., personnel other than those who have technical expertise are not allowed to replace the monitor.
- Perform the assembly work by following the procedure herein stated. Failing to comply with the instructions can cause an electric shock.
- Be sure to use 2 or more persons for replacing the monitor. performing the replacement work by only one person can cause injury or parts damage.
- To ensure performing the work safely, provide sufficient space. Working in places with narrow space can cause injury or working errors.
- Be careful so as not to damage wirings. Damaged wiring can cause an electric shock or short circuit accident.
- Do not touch places other than those specified. touching places not specified can cause an electric shock or short circuit accident.

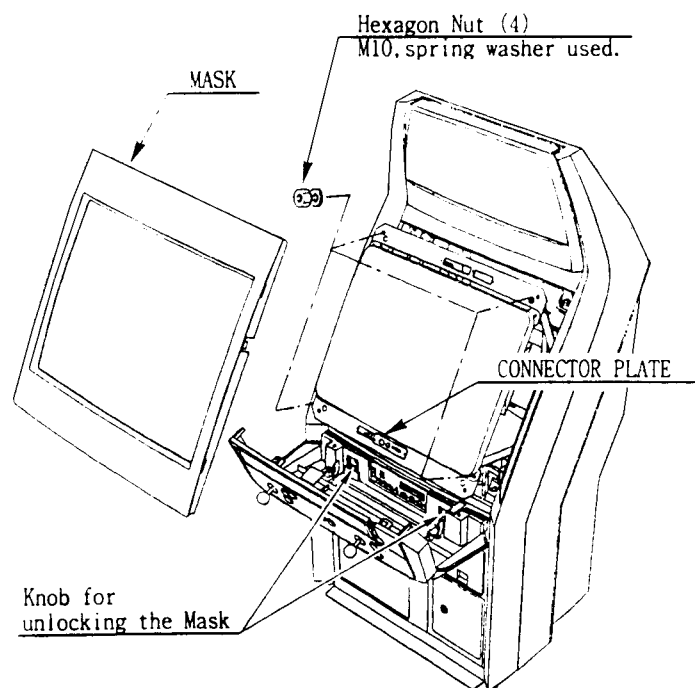


IMPORTANT!

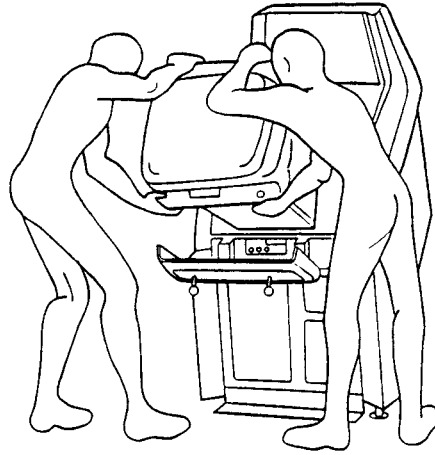
After the vertical/horizontal transposition of the MONITOR, monitor adjustments may be required.

For performing the monitor's vertical/horizontal transposition in the manner consistent with the Game Board, follow the procedure below:

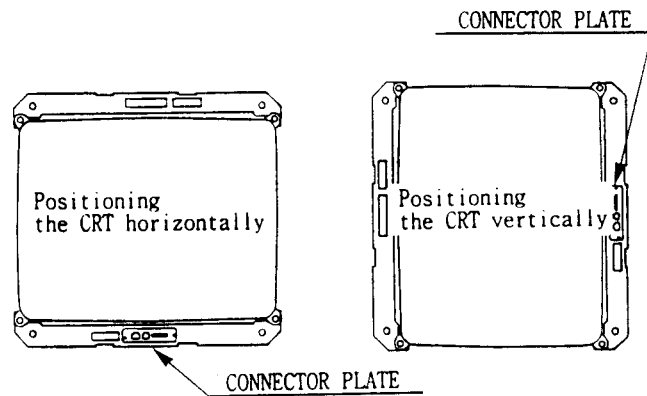
- ① After turning the AC Panel's main SW off, unplug from the Socket Outlet.
- ② Open the Control Panel Base.
Pull the knob in the square hole inside the base downward. The lock will be unlocked and the Mask can be removed.
- ③ When the Mask is removed, the Connector Plate appears. If the CRT is positioned horizontally, the Connector Plate is underneath the CRT, and if the CRT is positioned vertically, it is on the right hand side. Disconnect all of the connectors connected to the Connector Plate.
- ④ If the monitor's video input connector is D-SUB MINI connector, disconnect by removing the Maintenance Hatch on the backside of the cabinet.
- ⑤ Remove the nuts and spring washers which secure the 4 corners of the monitor.



- ① By holding the Monitor's sheet metal portion, pull out the monitor from the cabinet. Since the Monitor is a heavy item, be sure to use 2 workers to perform this work.



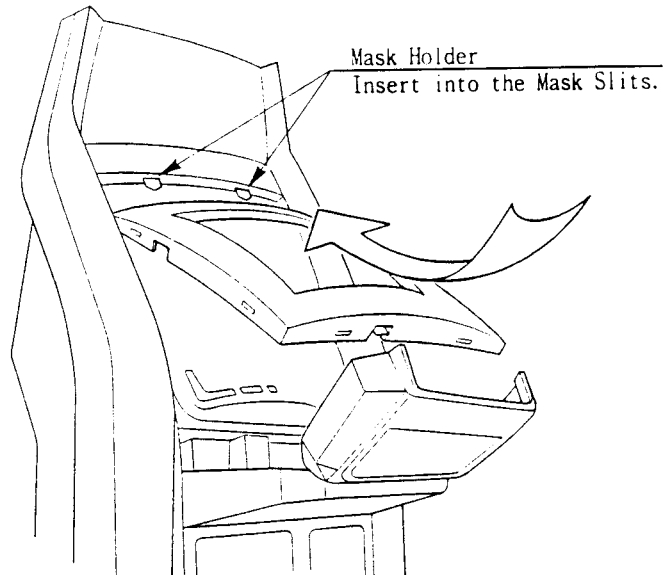
- ② When installing the monitor to the cabinet, to position the CRT vertically, ensure the Connector Plate is on the right-hand side of the CRT and position the CRT horizontally, ensure the Connector Plate is underside the CRT.



- ③ Install the Spring and Nut for the monitor's four corners.
- ④ In the manner consistent with the Game Board setting, connect the video input connector, and make connector connection with the other 2 connectors of the Connector Plate.

- ⑤ Operate the mode change switch in the manner consistent with the Game Board setting.

- ⑥ Install the mask. Insert the 2 Mask holders which are projecting from the upper part of the Front Piece's Mask installation portion into the Mask's 2 slits, and press the Mask's underside in.



11. REPLACEMENT OF FLUORESCENT LAMP AND DISPLAY CARD



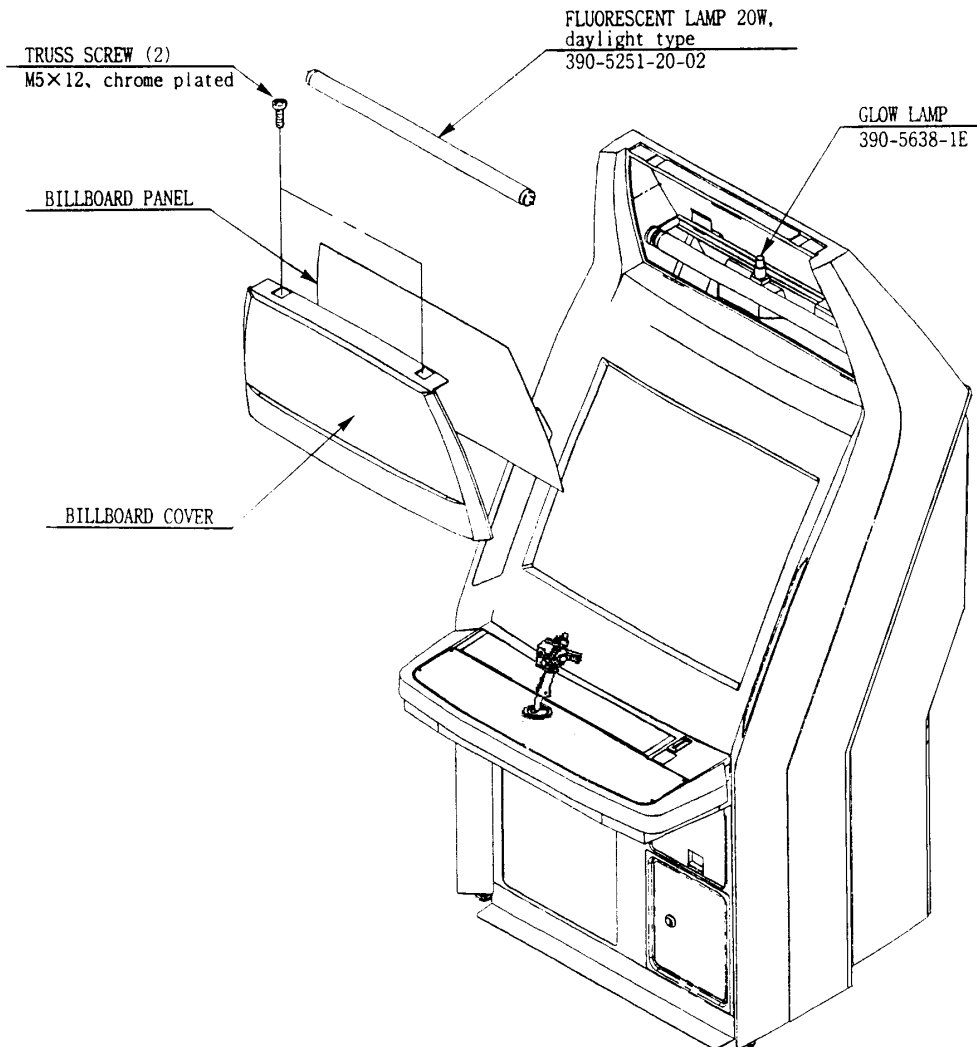
- When performing the work, be sure to turn power off. Working with power on can cause an electric shock or short circuit accident.
- The Fluorescent Lamp, when it gets hot, can cause burns. Be very careful when replacing the Fluorescent Lamp.



To perform work safely and securely, be sure to prepare a step which is in a secure and stable condition. Not using a step or using an unstable step can cause a violent falling down accidents.

11 -1 REPLACEMENT OF FLUORESCENT LAMP

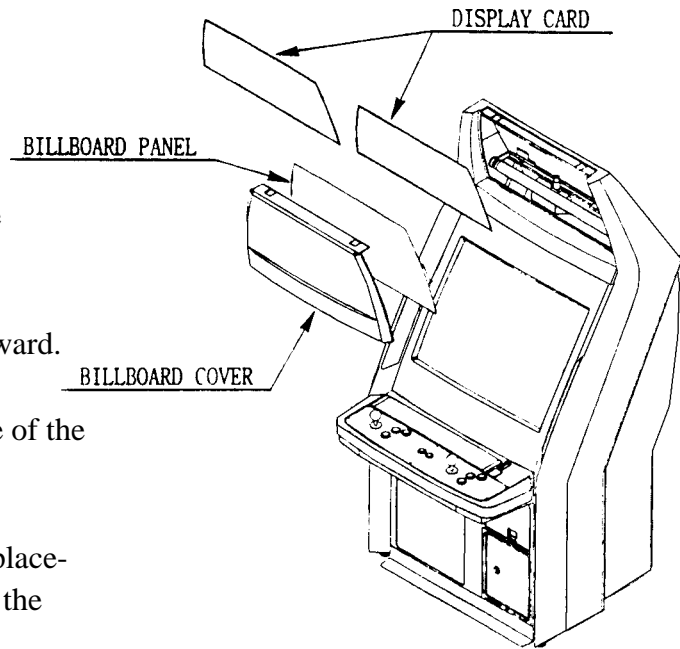
- ① Take off the 2 screws which secure the Holder on the upper part of Billboard.
- ② Take out the billboard from the cabinet and replace the fluorescent lamp (20W)



11 - 2 REPLACEMENT OF DISPLAY CARD

To be performed if Display Card is damaged or if Game Board is replaced.

- ① Turn Power off.
- ② Remove the 2 truss screws which secure the Billboard Cover.
- ③ Remove the Billboard Cover diagonally upward.
- ④ The Display Card is adhered to the backside of the Billboard Panel inside the Billboard cover.
- ⑤ Peel off the Display Card and adhere the replacement Display Card. The adhesive tape is on the Display Card surface.



12 . PERIODIC INSPECTION TABLE

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



- Be sure to check once a year to see if Power Cords are damaged, the plug is securely inserted, dust is accumulated between the Socket Outlet and the Power Plug, etc. Using the product with dust as is accumulated can cause a fire or electrical shock.
- Periodically once a year, request the place of contact herein stated or the Distributer, etc. where the product was purchased from, as regards the interior cleaning. Using the product with dust as is accumulated in the interior without cleaning can cause a fire or accident. Note that cleaning the interior parts can be performed on a pay-basis.

ITEMS	DESCRIPTION	PERIOD	REFERENCE
CHASSIS	Volume V.R. inspection	Monthly	1
	Greasing to gears and pillows	Semi-annually	
	Memory Test	Monthly	1
	Setting Check	Monthly	
CONTROL MECHA (pole)	SW Volume inspection	Monthly	7
	Line Inspection	Monthly	8
	Line Replacement	Semi-annually	8
COIN SELECTOR	Check COIN SW	Monthly	7
	COIN SELECTOR cleaning	Trimonthly	9
MONITOR	Screen cleaning	Weekly	10
	Check adjustments	Monthly	4, 7, 10
GAME BD	Setting check	Monthly	7
INTERIOR	Cleaning	Annually	see above.
POWER PLUG	Inspection and cleaning		
CABINET SURFACES	Cleaning	As necessary	see below

13 . TROUBLESHOOTING

Should trouble occur, first check connector connections.

PROBLEMS	CAUSE	COUNTERMEASURES
With Main SW ON, no activation	Power is not supplied. Power supply/voltage is not correct. AC main fuse causes the power to be cut off due to momentary overload.	Plug in correctly Make sure that power supply/voltage is Check fuse. Remove the cause of overload and replace fuse
Rod Controller's Movements are unsatisfactory	Volume Setting Failure Encoder malfunctioning The fuse is blown due to an overload. Brake malfunctioning Thermal element functioned	Perform Volume setting Replace Encoder. Replace Fuse. Replace Brakes Activates @70°C, recovers after cool-off.
Irregular sound emitted from inside Rear Cabinet	Greasing to gear mesh portion is not satisfactory, or extraneous matter mixed in.	Apply greasing or eliminate extraneous matter.
The color of the image on PROJ. screen is incorrect.	Connector connections are defective.	Check the connection for the RGB and SYNC connectors of the PROJ. TERM. BD and VPM BUFFER BD.
The image on PROJ. screen has color deviation.	Affected by the magnetic field of installation location.	Make CONVERGENCE adjustment. (Refer to Section 9.)
No sound is emitted.	Sound Volume adjustment is not appropriate. Sound BD and speaker are malfunctioning.	Adjust sound volume. (see Section 6). Perform sound test to find and replace defective parts.(Refer to Section 6).
Lateral mecha does not function.	Motor's Overheat.	Motor replacement is needed. (Check Motor Driver as this may be malfunctioning.)
The Fluorescent lamp does not light up.	The Fluorescent tube is burnt out.	Replace the Fluorescent tube (Refer to Section 10).
Switches of Control Panel do not function correctly	Connection fault of connector between Front and Rear Cabi.	Accurately connect the connector.

14 . GAME BOARD



- In order to prevent an electrical shock, be sure to turn power off before performing work by touching the interior parts of the product.
- Be careful so as not to damage wirings. Damaged wiring can cause an electric shock or short circuit accident.



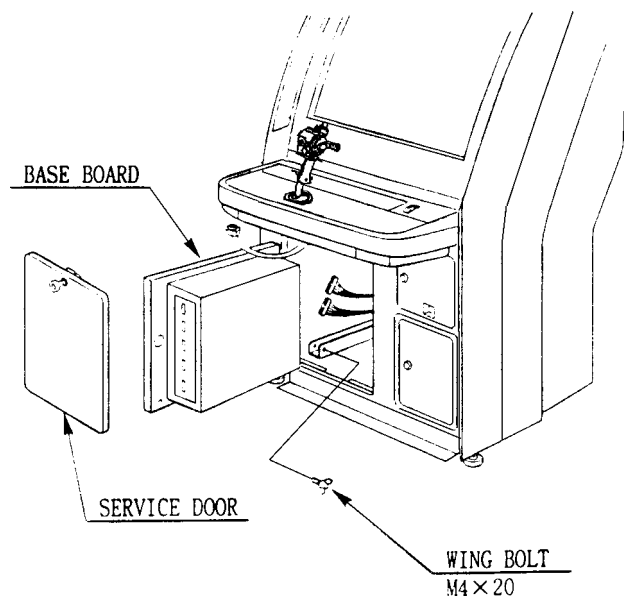
Do not expose the Game BD, etc. without a good reason. In this product, setting changes are made during the test mode. The Game BD need not be operated. Use the Game BD, etc. as is with the same setting made at the time of shipment.

The Game Board replacement method depends on the type of the present Game Board and that of the Game Board to replace with. Herein, how-to-remove the previously installed Game Board is explained. Regarding the method of connecting the Game Board for replacement, refer to the instructions of that particular Game Board. When replacing the ST-V cartridge, first take out the Game Board from the cabinet as per the following procedure. Changing the cartridge within the cabinet can damage parts and wirings.

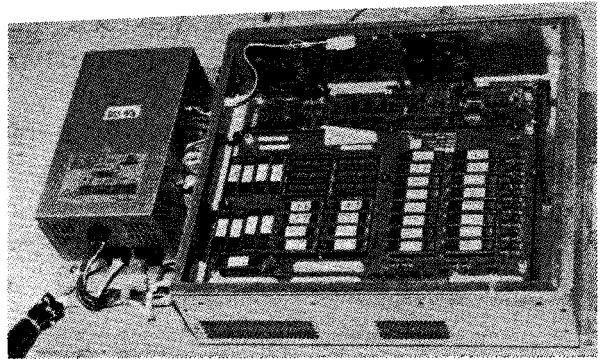
Note that when the Game Board is replaced, the monitor's frequency change, video input connector's reinsertion, and screen adjustment may be needed.

14-1 TAKING OUT THE GAME BOARD

- ① Turn Power off.
- ② Remove the Service Door.
- ③ Disconnect all the connectors connected to the Shield Case. In the case of the Game Board for which the Shield Case is not used, disconnect all of the connectors connected to the Game Board.
- ④ Remove the Wing Bolt which secures the Base Board mounting the Shield Case (Game Board)
- ⑤ Pull out the Base Board with the Shield Case (Game Board) as is mounted, from the cabinet. At this time, to avoid wiring damage, use care so that wires are not caught.

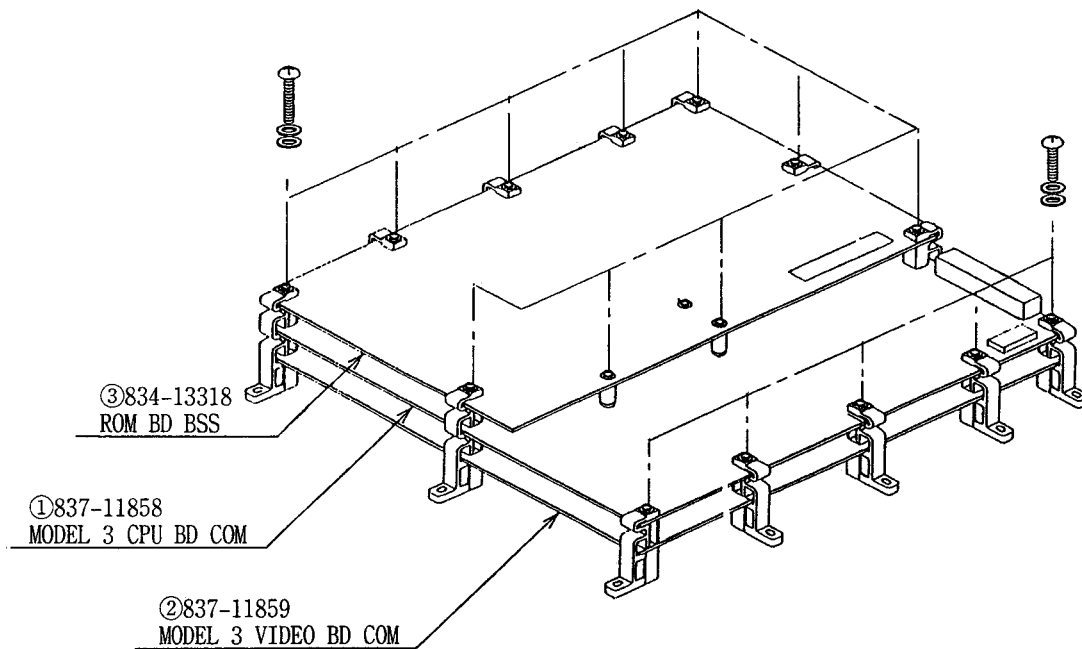


- ⑥ Take Out the 3 screws and the Shield Case Lid to remove the Game Board.



14 - 2 COMPOSITION OF GAME BOARD

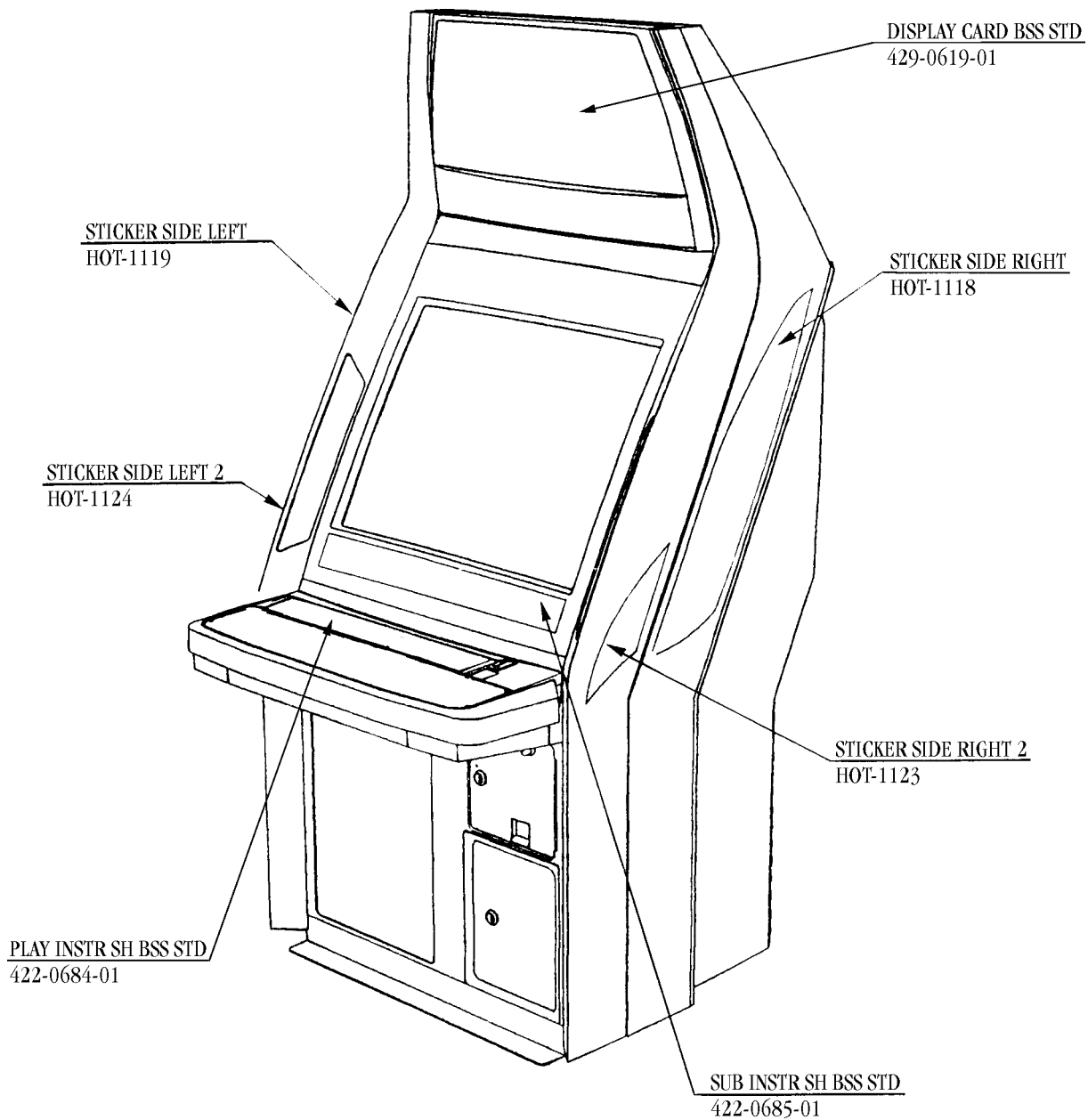
GAME BD BSS
(833-13317)



No.	PART No.	DESCRIPTION
①	837-11858	MODEL3 CPU BOARD COM
②	837-11859	MODEL3 VIDEO BOARD COM
③	834-13318	ROM BD BSS

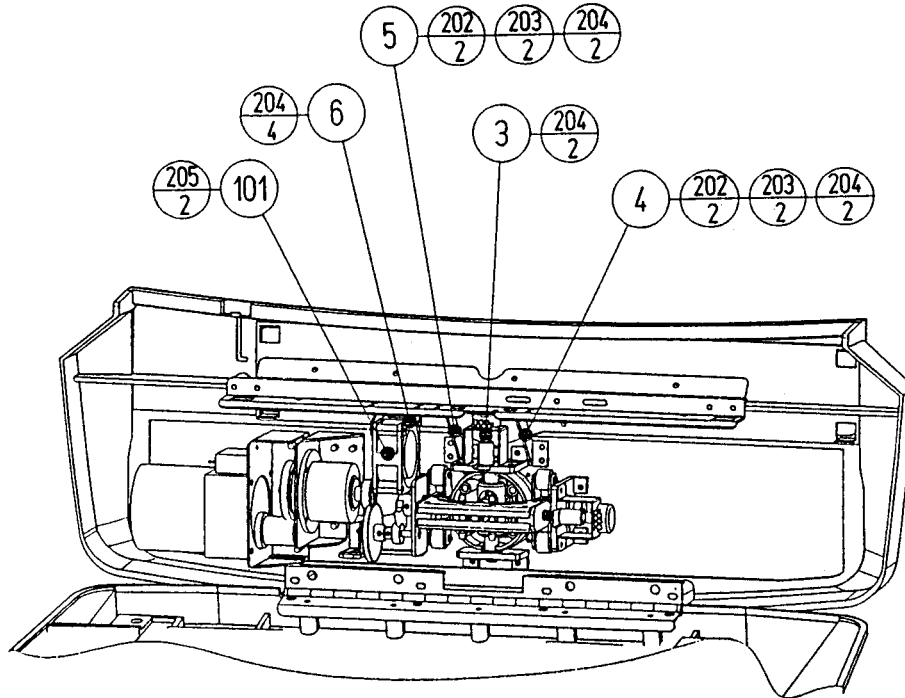
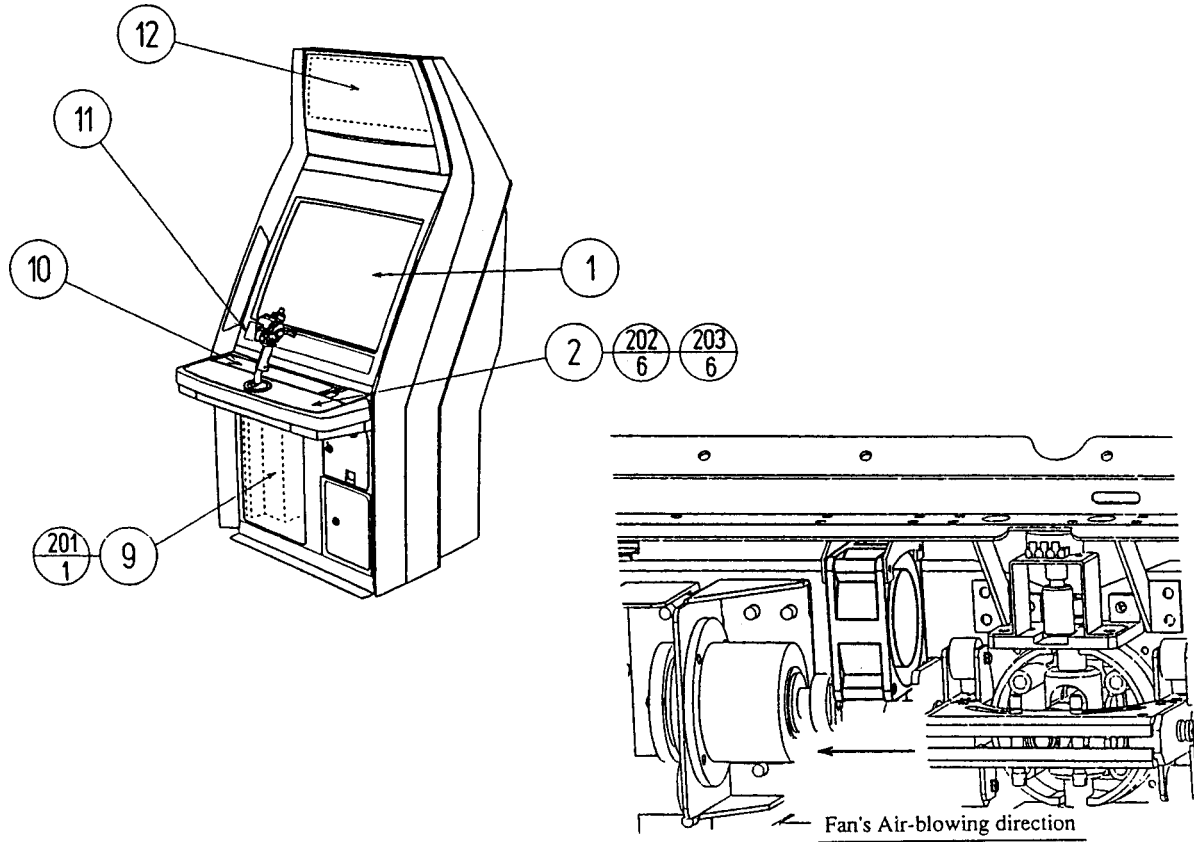
NOTE: THIS PICTURE IS FOR REFERENCE ONLY!! UNIT IS NOT TO BE OPENED. EXPOSING THE GAME BD FOR ANY REASON MAY VOID WARRANTY.

15 . DESIGN RELATED PARTS



16 . PARTS LIST

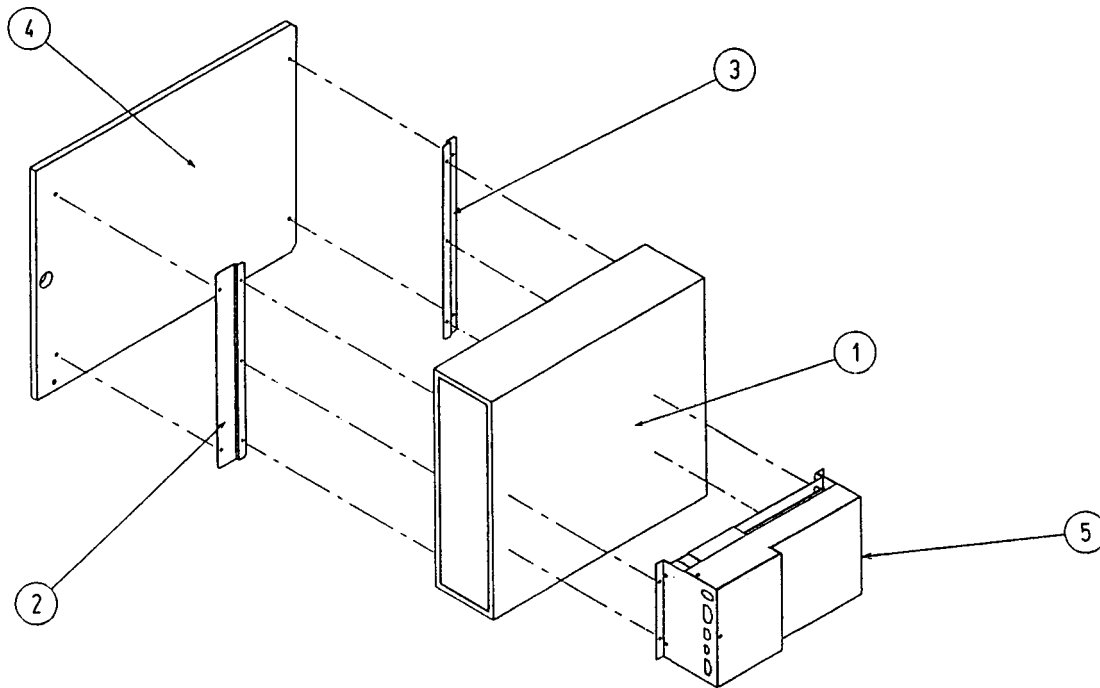
TOP ASSY GET BASS STD



TOP ASSY GET BASS STD

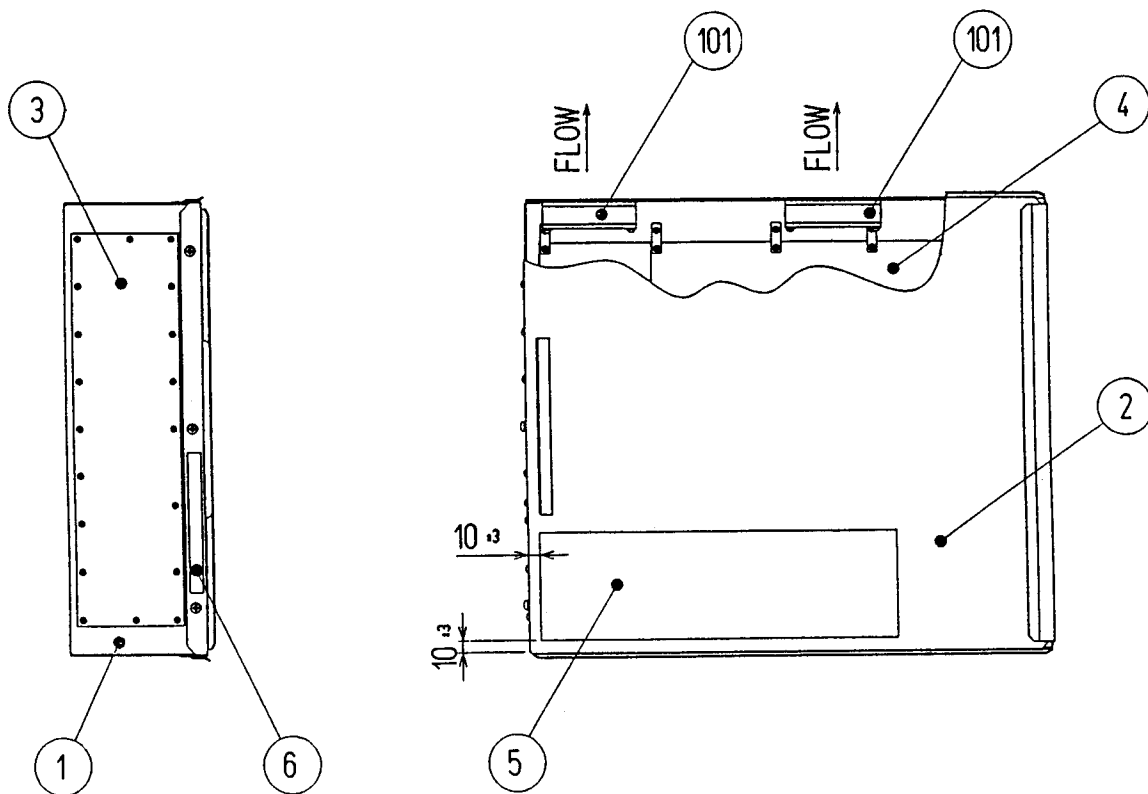
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-10002	ASSY CABINET 24K 750 OHM HC
2	HOT-3000-01	ASSY FISHING CTRL PNL HOT EXP
3	HOT-3080	ASSY VOLUME X
4	HOT-0001	REINFORCE BRKT L
5	HOT-0002	REINFORCE BRKT R
6	HOT-0003	FAN BRKT
9	HOT-0300	ASSY SHIELD CASE BSS STD W/BASE
10	422-0684-01	PLAY INSTR SH BSS STD EXP
11	422-0685-01	SUB INSTR SH BSS STD EXP
12	429-0619-01	DISPLAY CARD BSS STD EXP
101	260-0074	FAN MOTOR DC24V 2410NL-05W-B50
	260-0075	FAN MOTOR DC24V 2410ML-05W-B50
201	032-000420	WING BOLT M4X20
202	031-000416-0C	CRG BLT CRM M4X16
203	050-F00400	FLG NUT M4
204	000-P00408-W	M SCR PH W/FS M4X8
205	000-P00330	M SCR PH M3X30

ASSY SHIELD CASE BSS STD W/BASE (HOT-0300)



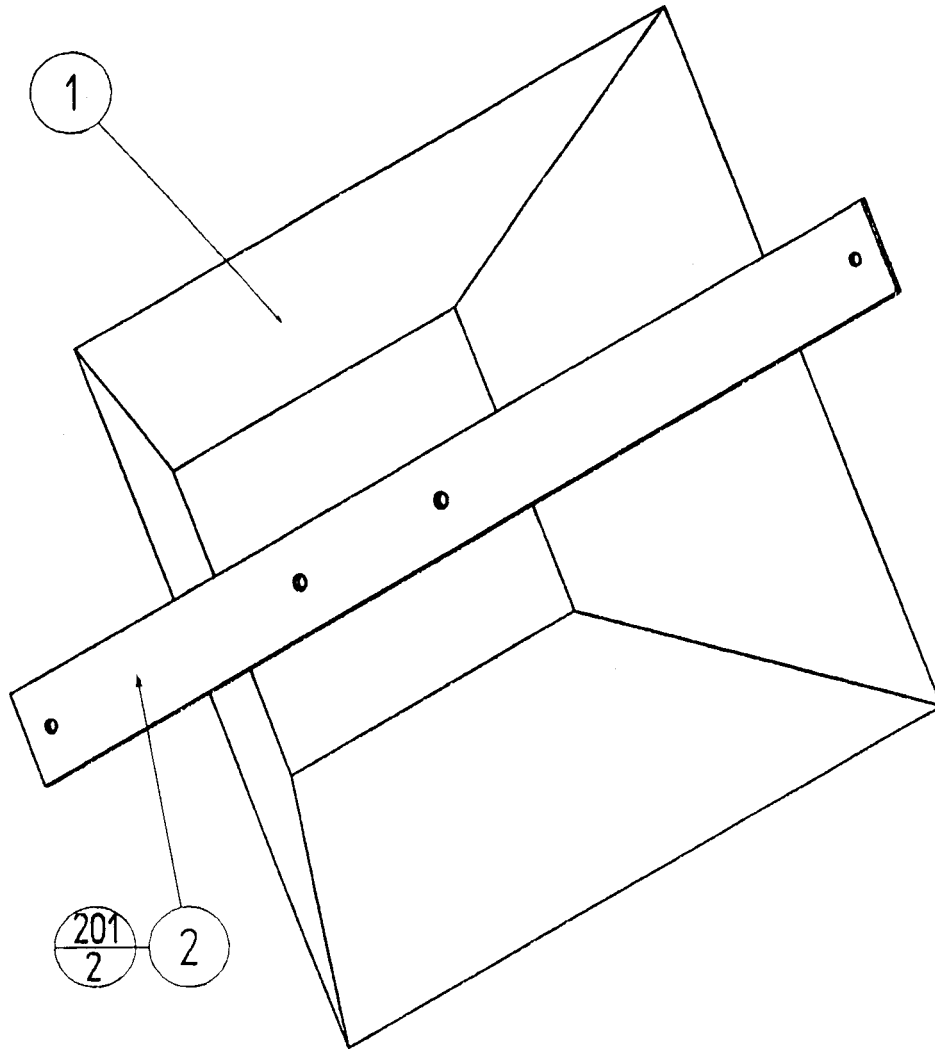
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-0310	ASSY SHIELD CASE BSS STD
2	105-5246	SHIELD CASE BRKT W
3	105-5247	SHIELD CASE BRKT N
4	HOT-0101	WOODEN BASE
5	HOT-4500	DRIVER UNIT

ASSY SHIELD CASE BSS STD (HOT-0310)



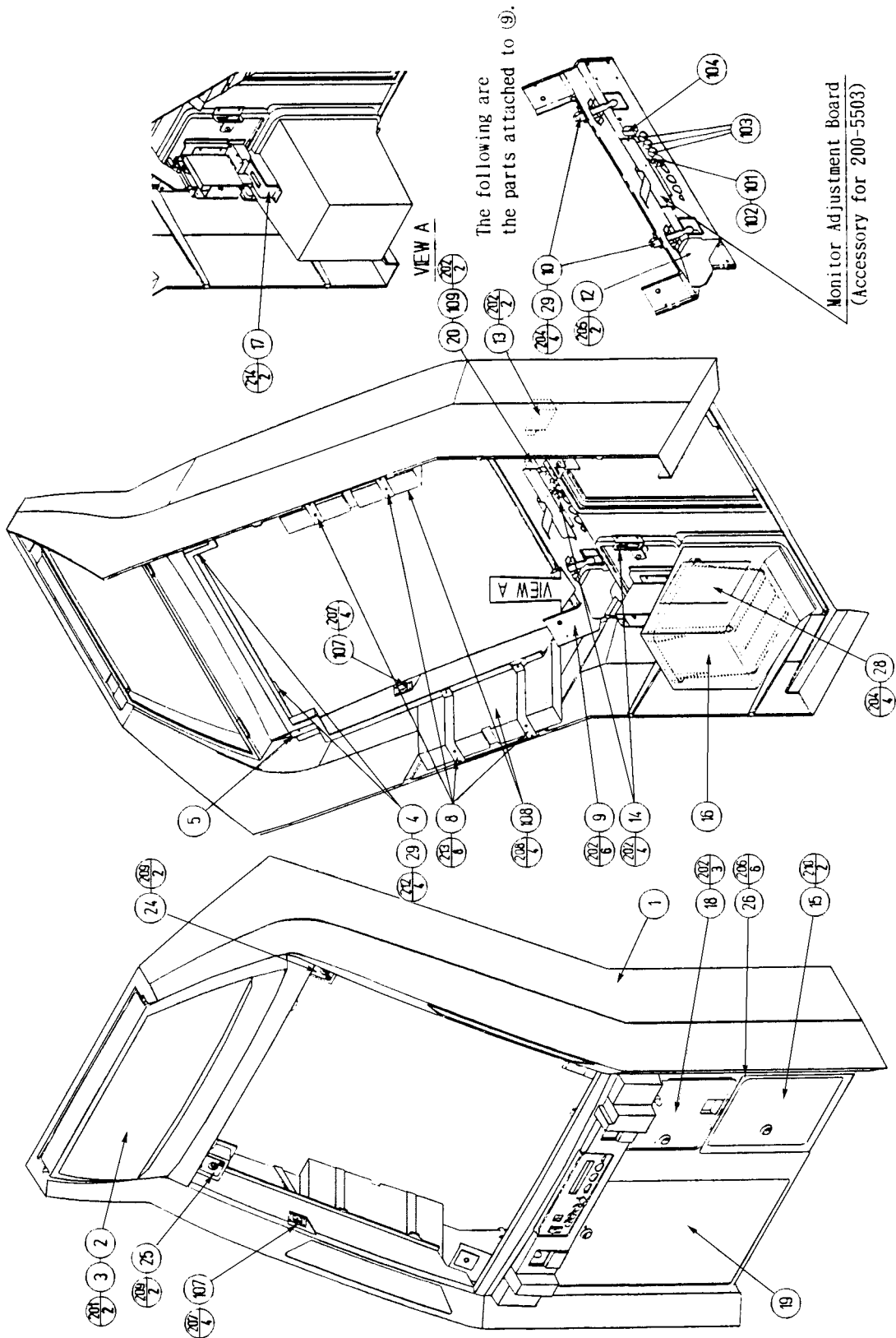
ITEM NO.	PART NO.	DESCRIPTION
1	105-5240Y	SHIELD CASE MODEL 3
2	105-5242X-01	SHIELD CASE LID MODEL 3
3	839-0951	FILTER BD MODEL 3 JPT
4	833-13416	GAME BD BSS STD
101	260-0064	FAN MOTOR DC12V

ASSY SHIELD COVER (HOT-1004)



ITEM NO.	PART NO.	DESCRIPTION
1	200-5258	MONITOR SHIELD
2	200-5506	SHIELD STAY LONG
201	000-P00408-W	M SCR PH W/FS M4X8

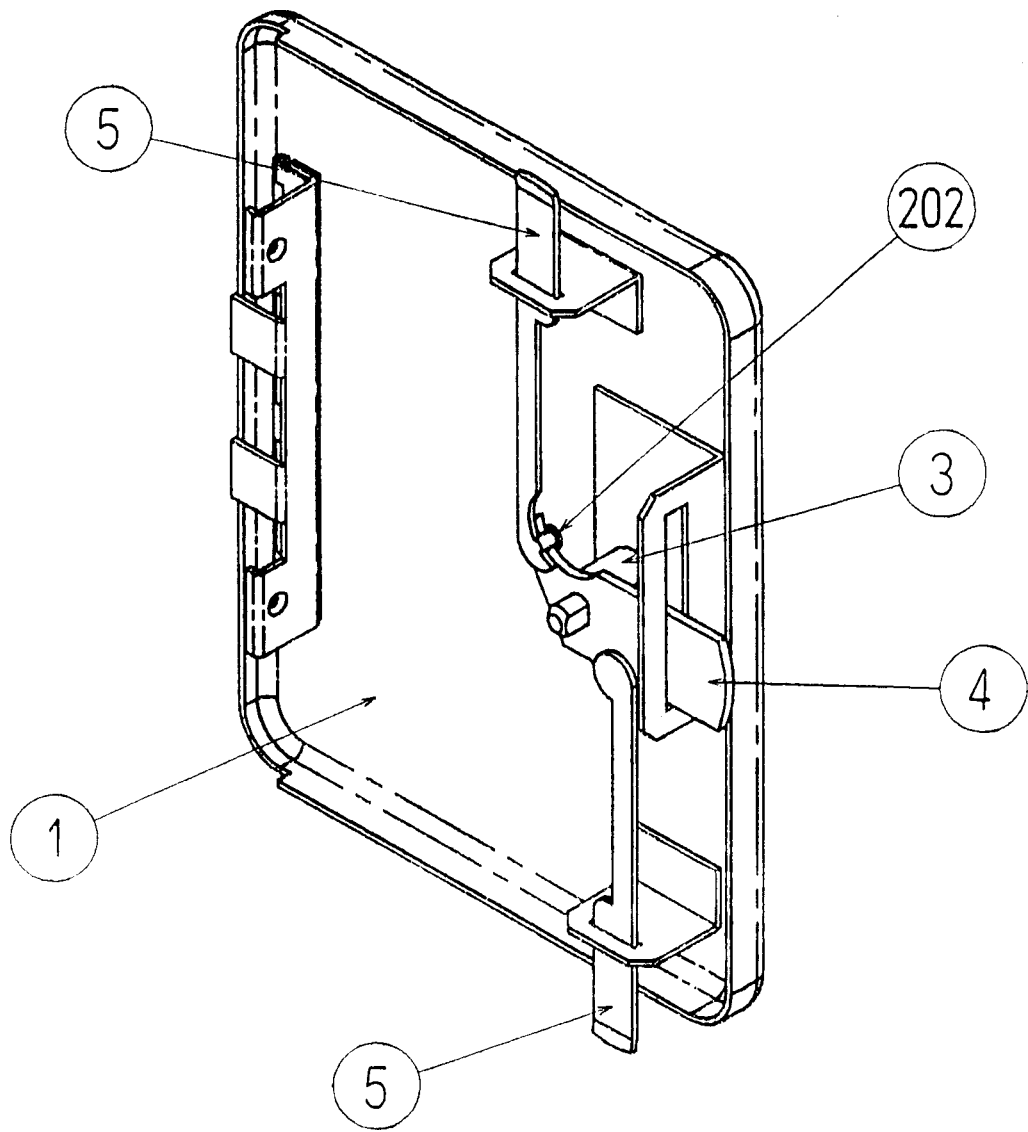
ASSY FRONT CABI (HOT-1100)



ASSY FRONT CABI (HOT-1100)

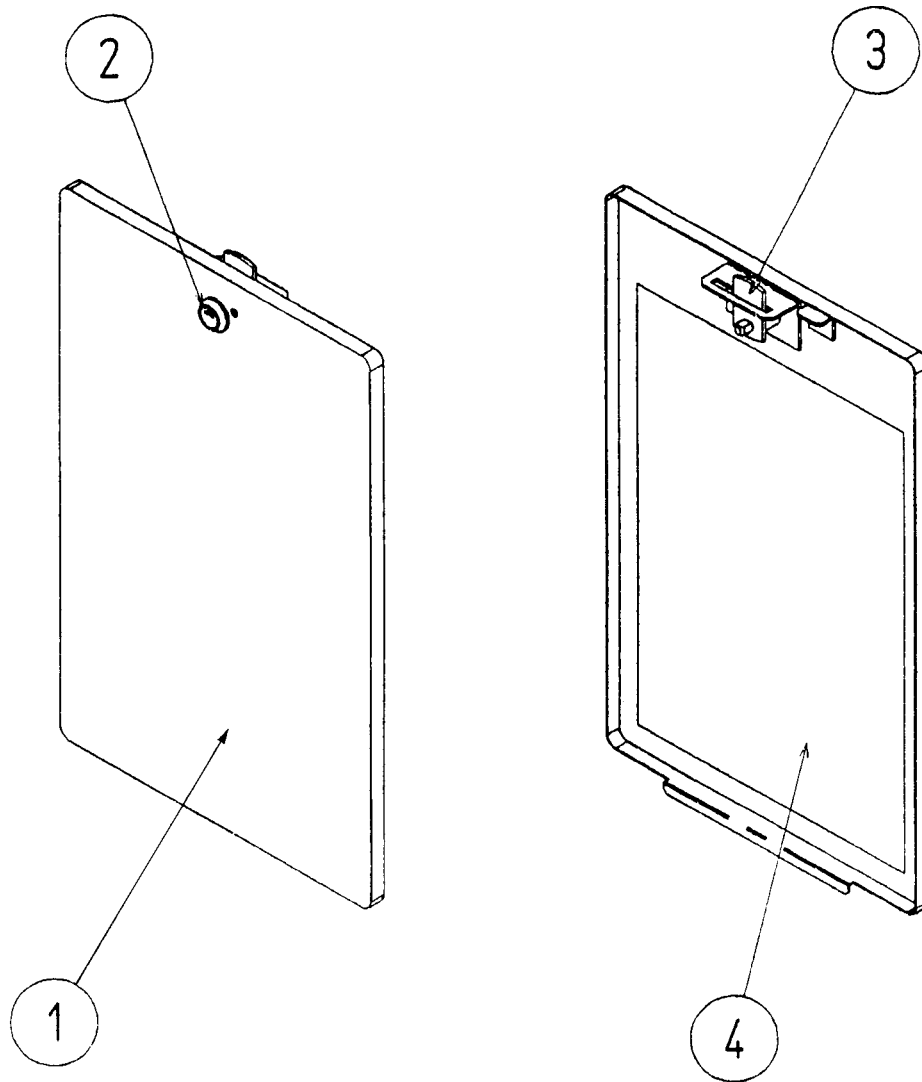
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-1101X	FRONT PIECE
2	HOT-1102	BILLBOARD COVER
3	HOT-1103X	BILLBOARD PNL
4	HOT-1104	MASK HOLDER UPPER
5	HOT-1105	REINFORCE
8	HOT-1108	SPEAKER BRKT
9	HOT-1109	MIDDLE FRAME
10	HOT-1110	LOCK UNIT
12	HOT-1112	COIN CHUTE
13	HOT-1113	BD HOLDER UPPER
14	CQN-1313	LOCK BRKT
15	HOT-1200	ASSY CASH BOX DOOR
16	BOX-CASH	CASHBOX
17	HOT-1116	COIN CEILING
18	HOT-1270	ASSY COIN CHUTE DOOR
19	HOT-1250	ASSY SERVICE DOOR
20	HOT-1119	DOOR SW BRKT
24	HOT-1120	REINFORCE PLATE R
25	HOT-1121	REINFORCE PLATE L
26	HOT-1202	FRAME CASH BOX DOOR
28	839-0894	TERMINAL BD
29	HOT-1125	SPACER
101	220-5420	RHEO STAT 100 OHM 10W
102	601-6999	KNOB 18 SERRATION
	601-8810	KNOB MR-1512-1T
103	509-5028	SW PB 1M
104	509-5453-V-B	SW ROCKER J8 V-B
107	601-8726	CATCH F
108	130-5156	SPEAKER BOX 8 OHM
110	509-5762	LINE INTERRUPT SWITCH
	509-5763	LINE INTERRUPT SWITCH
201	000-T00512-C	M SCR TH CRM M5X12
202	012-T00410-0C	TAP SCR TH CRM 4X10
204	012-P00312	TAP SCR PH 3X12
205	010-P00406-F	S-TITE SCR PH W/F M4X6
206	012-F00310	TAP SCR FH 3X10
207	047-PA3207-6	RVT OPEN TYPE AL 3.2X7.6
208	000-P00512-W	M SCR PH W/FS M5X12
209	000-F00410	M SCR FH M4X10
210	000-F00308	M SCR FH M3X8
211	012-P00316	TAP SCR PH 3X16
212	012-P00412	TAP SCR PH 4X12
213	012-P00410	TAP SCR PH 4X10
214	012-P00306	TAP SCR PH 3X6

ASSY CASH BOX DOOR (HOT-1200)



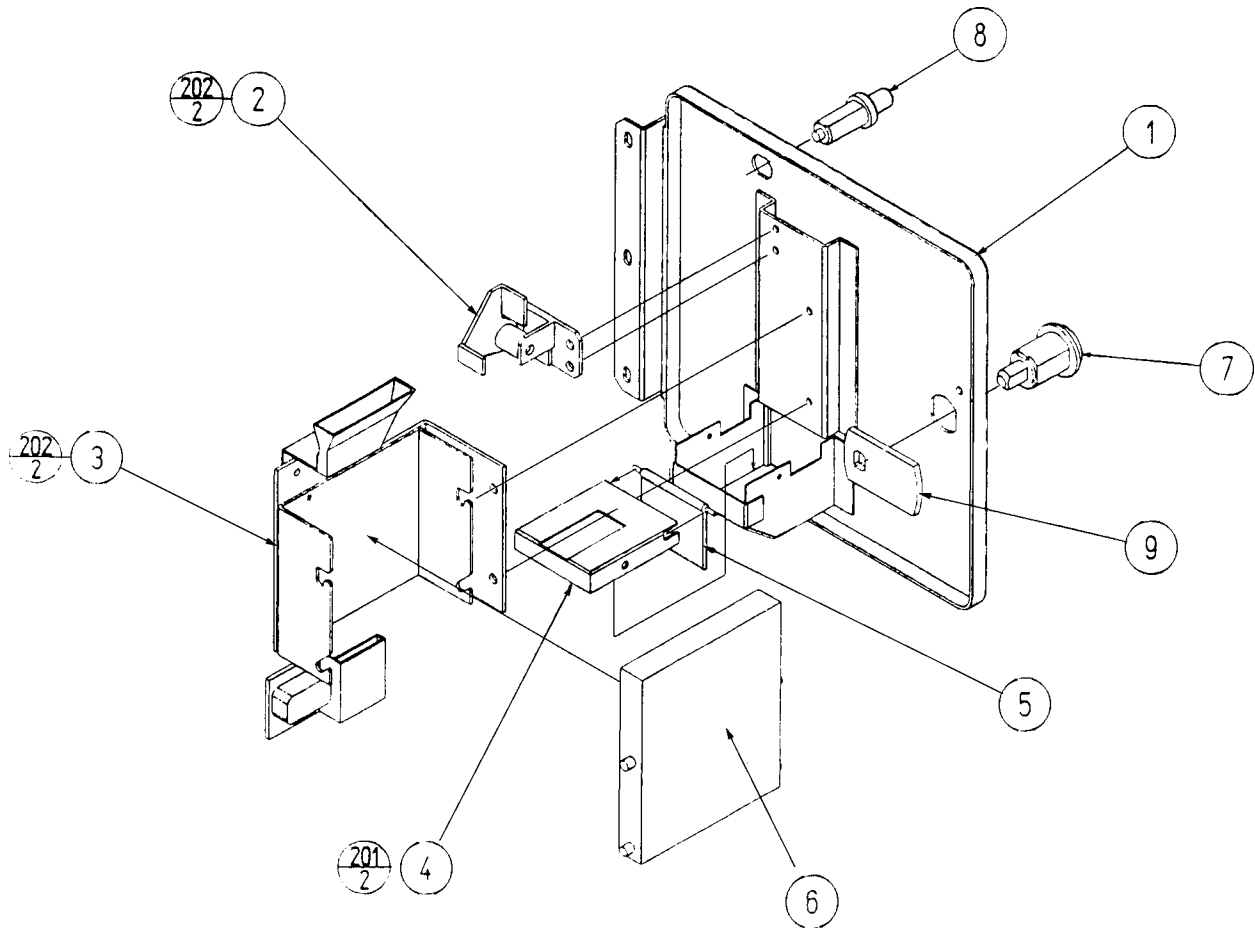
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-1201	CASH BOX DOOR
3	220-5574	CAM LOCK W/KEYS
4	HOT-1203	CENTER TNG
5	HOT-1204	SIDE TNG
202	065-E00300	E RING 3MM

ASSY SERVICE DOOR (HOT-1250)



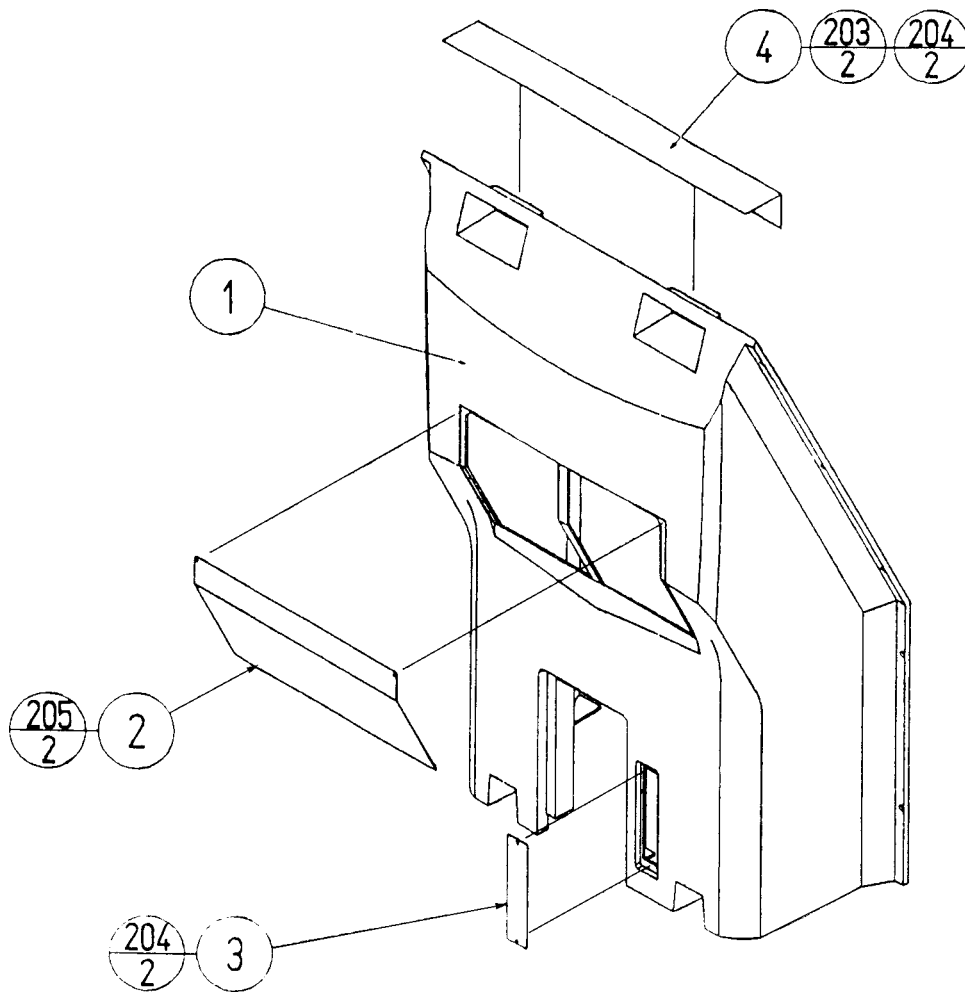
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-1251	SERVICE DOOR
2	220-5575	CAM LOCK MASTER W/O KEY
3	DP-1167	TNG LKG
4	HOT-1252X	PAPER INSULATOR

ASSY COIN CHUTE DOOR (HOT-1270)



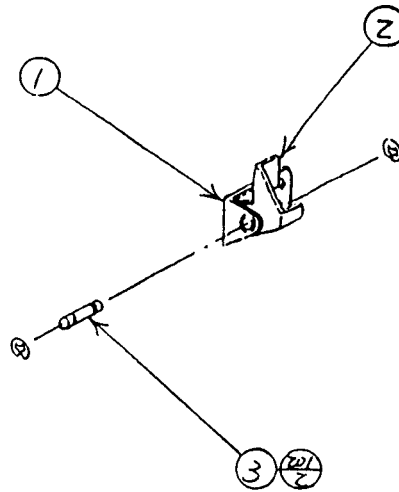
ITEM NO.	PART NO.	DESCRIPTION
1	CQN-1320X	COIN CHUTE DOOR
2	CQN-1321	ASSY REJECT LEVER
3	CQN-1324	ASSY COIN CHUTE BRKT
4	HOT-1271	REJECT LEVER
5	HOT-1272	FLAP
6	220-5208~	COIN CHUTE REJR~
7	220-5575	CAM LOCK MASTER W/O KEY
8	250-5043	REJECT BUTTON ASSY
9	DP-1167	TNG LKG
201	010-P00306-F	S-TITE SCR PH W/F M3X6
202	010-P00408-F	S-TITE SCR PH W/F M4X8

ASSY REAR CABI (HOT-1300)



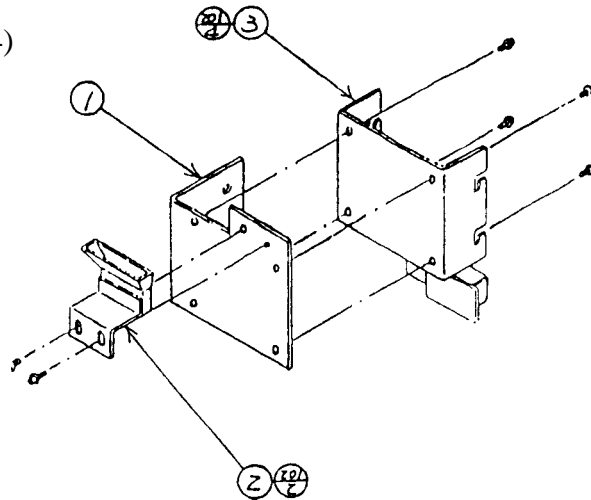
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-1301	REAR PIECE
2	HOT-1304	MAINTENANCE HATCH
3	HOT-1303	LID COMMUNI PORT
4	HOT-1305	HANDLE COVER
203	012-T00410-0C	TAP SCR TH CRM 4X10
204	000-T00410-0C	M SCR TH CRM 4X10
205	000-P00412-WB	M SCR PH W/FS BLK M4X12

ASSY REJECT LEVER (CQN-1321)



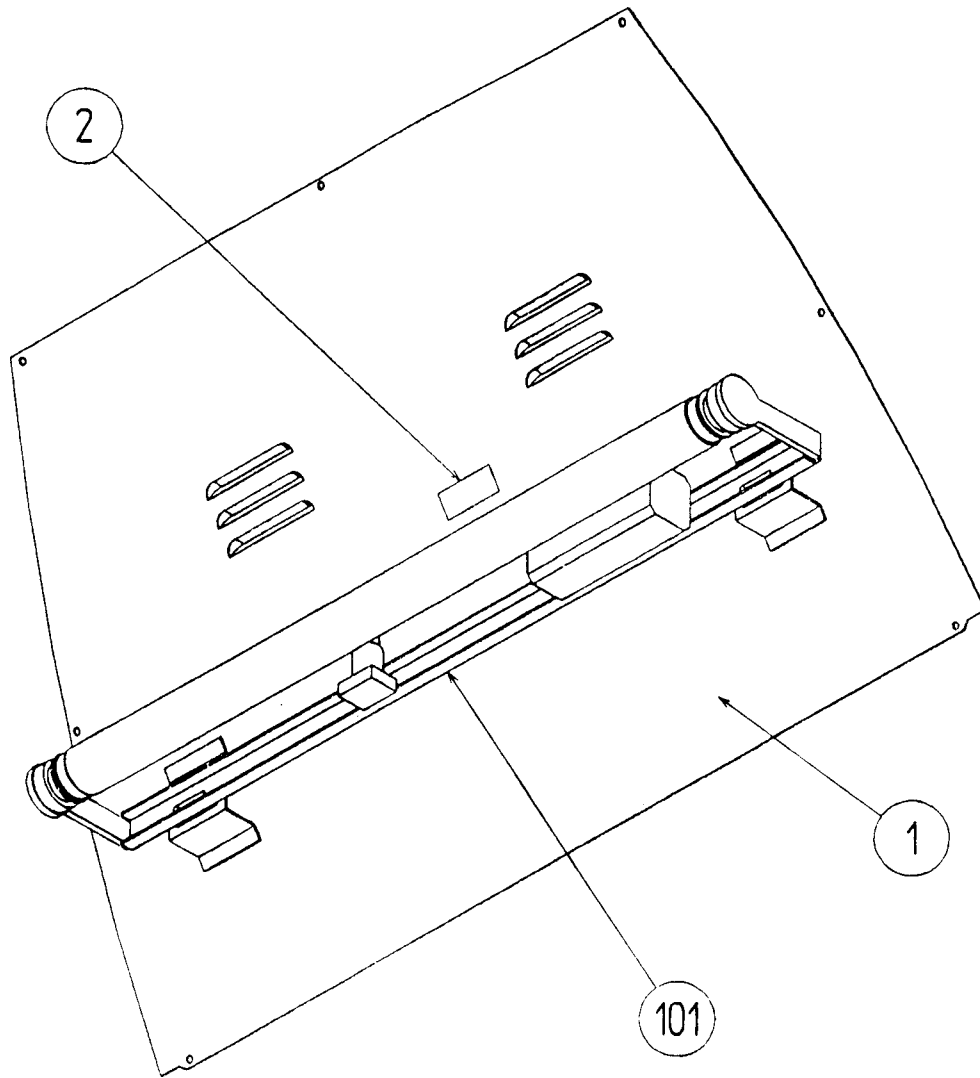
ITEM NO.	PART NO.	DESCRIPTION
1	CQN-1322	REJECT LEVER BRKT
2	CY-1032	REJECT LEVER
3	123-0035	SHAFT
201	069-0039	E RING 3.2

ASSY COIN CHUTE BRKT (CQN-1324)



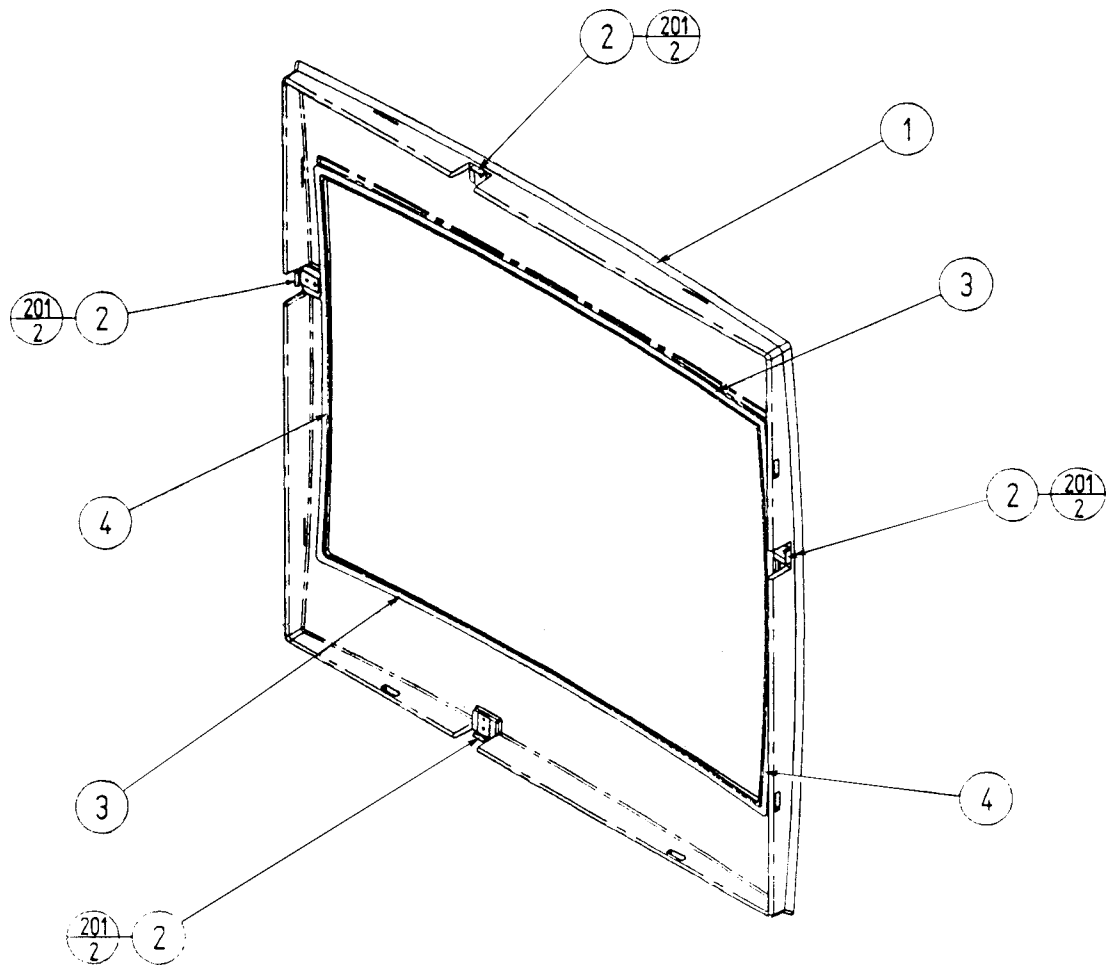
ITEM NO.	PART NO.	DESCRIPTION
1	CY-1009	COIN CHUTE BRKT
2	105-5041	UPPER COIN CHUTE
3	220-5272	CHANNEL BRKT W/O SHUTE
201	010-P00408-F	S-TITE SCR PH W/F M4X8

ASSY FL (HOT-1350)



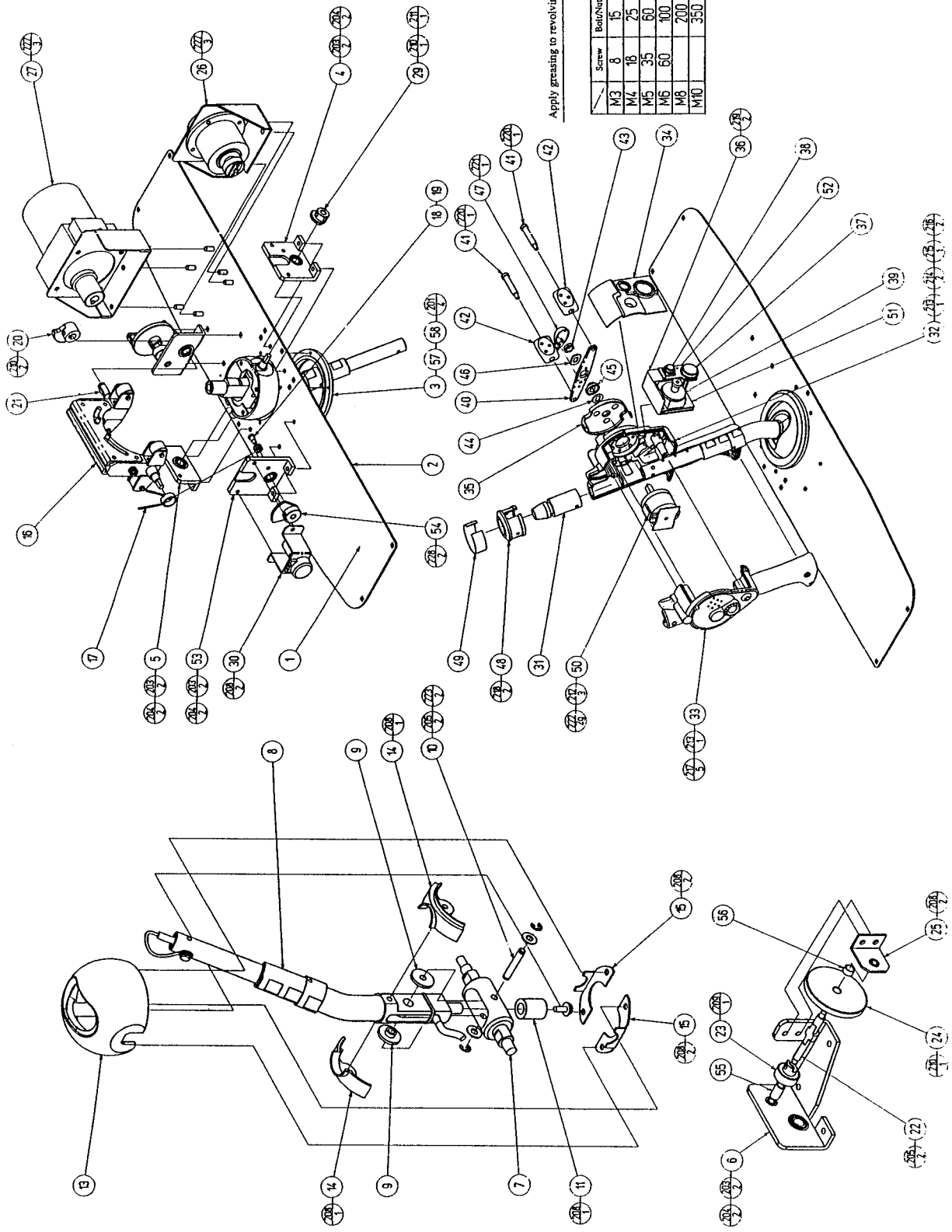
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-1351	FL LID
101	LOCAL PURCHASE	ASSY FL 20W SD W/CONN HIGH S
201	010-P00416-F	S-TITE SCR PH W/F M4X16

ASSY MASK (HOT-1400)



ITEM NO.	PART NO.	DESCRIPTION
1	HOT-1401	MASK
2	601-8725	CATCH M
3	HOT-1402	PACKING L
4	HOT-1403	PACKING S
201	012-P00310	TAP SCR PH 3X10

ASSY FISHING CNTRL PNL HOT EXP (HOT-3000-01)



Apply greasing to revolving and sliding friction parts.

Screw	Ball Nut	Stud Nut	Set Screw	Insert Nut
M3	8	15	6	13
M4	18	25	20	25
M5	35	60	35	18
M6	60	100	90	
M8	200	350	160	
M10				

(kgf · cm)

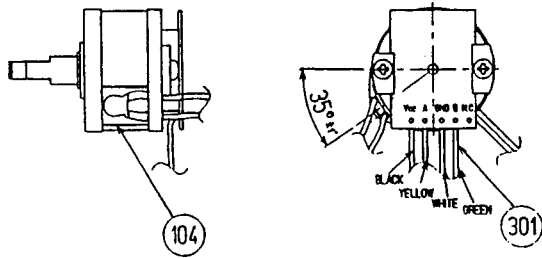
ASSY FISHING CNTRL PNL HOT EXP (HOT-3000-01)

ITEM NO.	PART NO.	DESCRIPTION
1	HOT-3001	CNTRL PNL BASE BSS
2	HOT-3002-01	CNTRL PNL PLATE BSS EXP
3	HOT-3003X	PROTECT RING
4	HOT-3004	PILLOW BLOCK A
5	HOT-3005	PILLOW BLOCK B
6	HOT-3006	BEARING BRKT A
7	HOT-3007	CENTER SHAFT
8	HOT-3050	ASSY ROD
9	HOT-3008	SPACER
10	HOT-3009	PIN A
11	HOT-3010	COLLAR A
13	HOT-3012	DOME
14	HOT-3013	SLIDE
15	HOT-3014	DOME BRKT
16	HOT-3100	ASSY GUIDE
17	HOT-3015	TOR SPRING
18	HOT-3016	SPRING HOOK PIN
19	HOT-3017	SPRING HOOK ROLLER
20	HOT-3018	GEAR LAST
21	BSS-2907	KEY 3X3X8
22	HOT-3020	SIDE SHAFT
23	HOT-3021	GEAR M08Z20
24	HOT-3022	GEAR M08Z60
25	HOT-3023	BEARING BRKT B
26	HOT-3060	ASSY CLUTCH
27	HOT-3070	ASSY MOTOR
29	HOT-3024	GEAR ENCODER
30	HOT-3090	ASSY VOLUME
31	HOT-3025	ROD TIP
32	BSS-3001Z	COVER R
33	BSS-3002Z	COVER L
34	BSS-3003	COVER U
35	BSS-3004	COVER S
36	BSS-3005	BD HOLDER
37	BSS-3006	CAST SW CAP
38	BSS-3007	SELECT SW CAP
39	BSS-3008	JOY STICK CAP
40	BSS-3009	HANDLE BAR
41	BSS-3010	HANDLE PIN
42	BSS-3011	HANDLE GRIP
43	BSS-3012	ORIGINAL NUT M8
44	BSS-3013	SPACER A
45	BSS-3014	SPACER B
46	BSS-3015	SPACER C
47	BSS-3016Y	HANDLE CAP
48	BSS-3017Y	FRONT RING
49	BSS-3018	FRONT RING SPRING
50	BSS-3040	ASSY BRAKE W/PS

ASSY FISHING CNTRL PNL HOT EXP (HOT-3000-01)

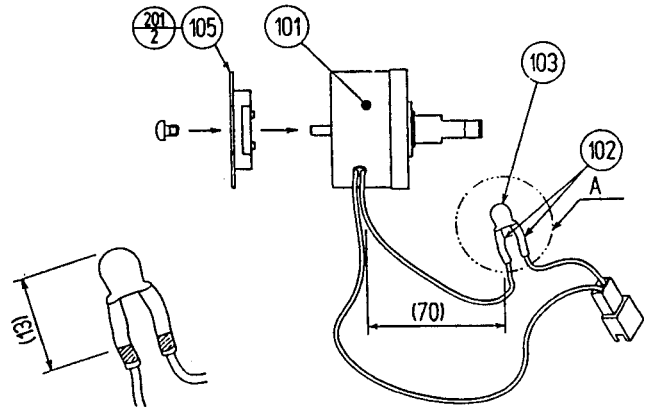
ITEM NO.	PART NO.	DESCRIPTION
51	839-1003	STICK CONT BD.
52	839-1004	REEL SW BD
53	HOT-3026	PILLOW BLOCK C
54	HOT-3027	GEAR ENCODER 2
55	HOT-3028	COLLAR L
56	HOT-3029	COLLAR S
57	HOT-3030	INNER RING
58	HOT-3031	CAUTION RING SHEET
201	000-P00306-W	M SCR PH W/FS M3X6
203	031-000416-0C	CRG BLT CRM M4X16
204	050-F00400	FLG NUT M4
205	065-E00400	E RING 4MM
208	000-P00408-W	M SCR PH W/FS M4X8
209	028-C00306-P	SET SCR CH CUP P M3X6
210	028-C00408-P	SET SCR CH CUP P M4X8
211	028-A00406-P	SET SCR HEX SKT CUP P M4X6
212	000-T00306-0U	M SCR TH UCRM M3X6
213	000-T00308-0B	M SCR TH BLK M3X8
214	000-P00312-0B	M SCR PH BLK M3X12
215	FAS-000037	M SCR BLK M3X35
216	FAS-000038	M SCR PH BLK M3X45
217	FAS-500006	CAP NUT TYPE 3 BLK M3
218	028-A00306-P	SET SCR HEX SKT CUP P M3X6
219	000-P00304-0B	M SCR PH BLK M3X45
220	050-C00400-3C	CAP NUT TYPE3 CRM M4
221	FAS-000045	M SCR PH W/S BLK M3X6
223	060-F00500	FLT WSHR M5
224	060-F00400	FLT WSHR M4
225	060-S00400	SPR WSHR M4
226	050-H00400	HEX NUT M4
227	050-F00500	FLG NUT M5
228	028-C00410-P	SET SCR CH CUP P M4X10

ASSY BRAKE W/PS (BSS-3040)



PIN ASSIGN	
B	GREEN
A	YELLOW
Vcc(+5V)	BLACK
GND	WHITE

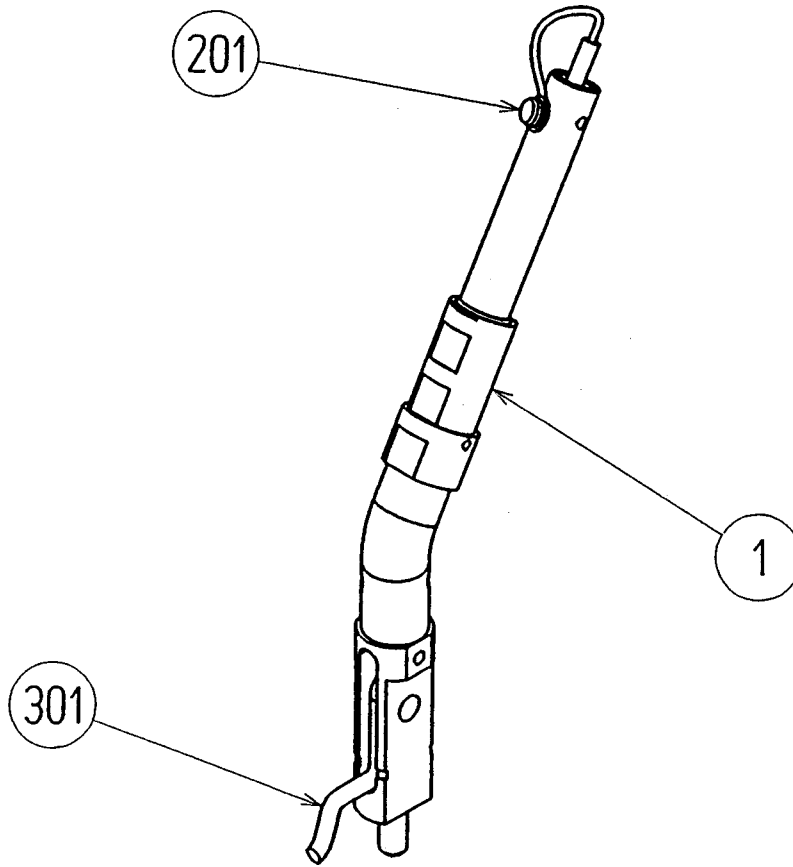
TORQUE
M3 5kgf-cm



Details of PART A

ITEM NO.	PART NO.	DESCRIPTION
101	601-9942	POWDER BRAKE 0.1MM MITSUBISHI
103	512-5052-017	POLYSWITCH RXE017
104	310-5376	SILICONE SHEET
105	370-5165-01-91	ENCODER 100PULSE W/O CONN
201	000-P00304-0B	M SCR PH BLK M3X4

ASSY ROD (HOT-3050)



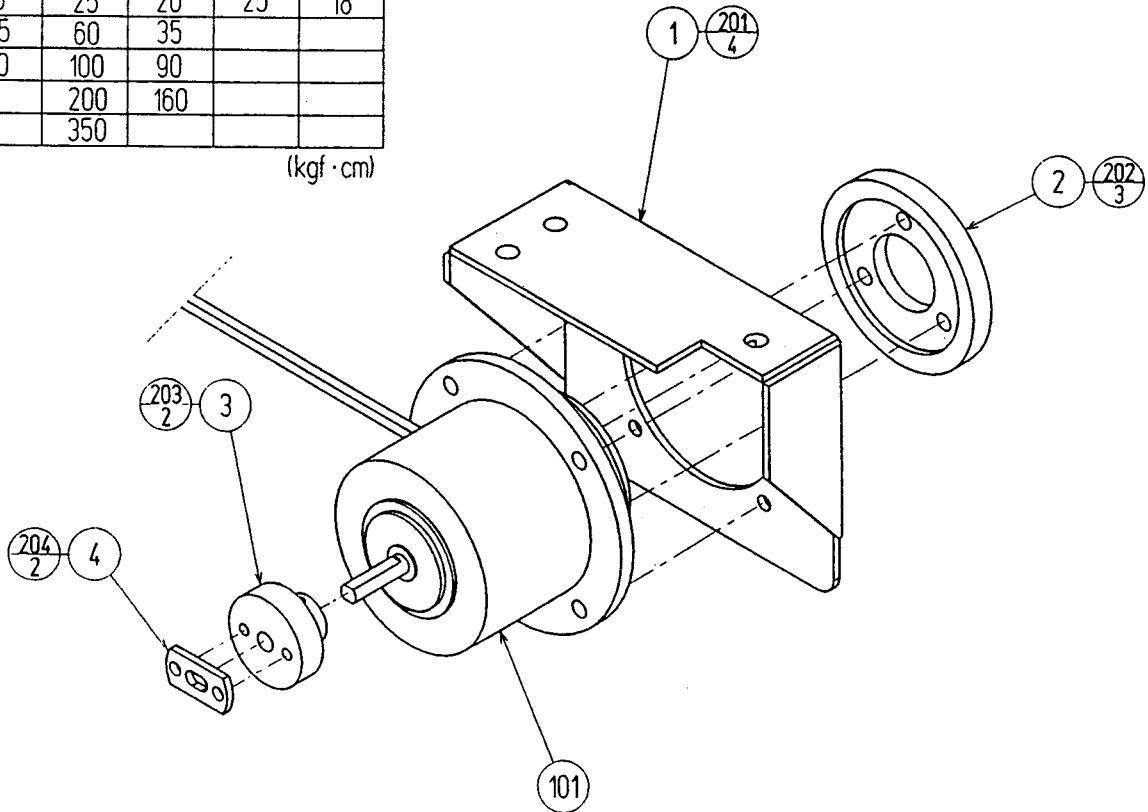
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-3051	ROD
201	000-P00406-W	M SCR PH W/FS M4X6
301	600-7016-014	WIRE HARN ROD FLEX

ASSY CLUTCH (HOT-3060)

Screw Fastening Torque

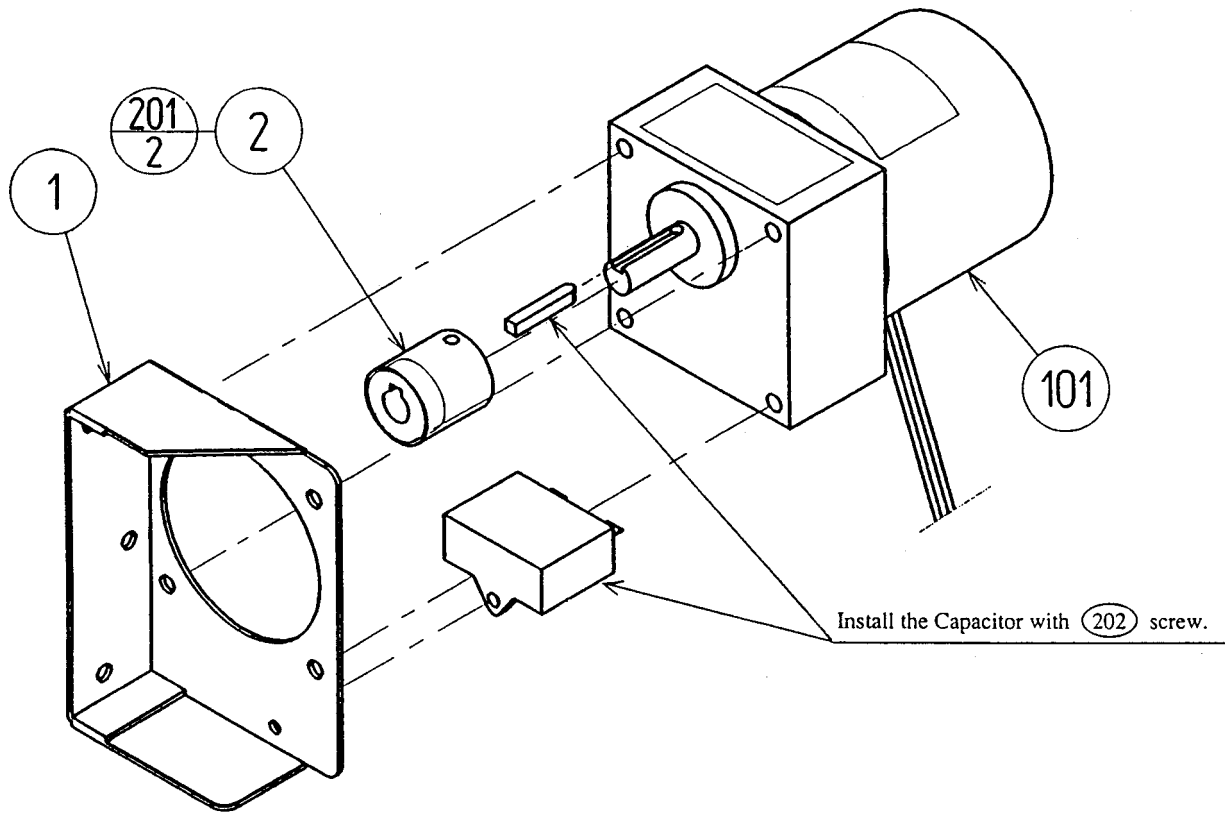
	Screw	Bolt/Nut	Stud/Nut	Set Screw	Insert Nut
M3	8	15	6	13	6
M4	18	25	20	25	18
M5	35	60	35		
M6	60	100	90		
M8		200	160		
M10		350			

(kgf · cm)



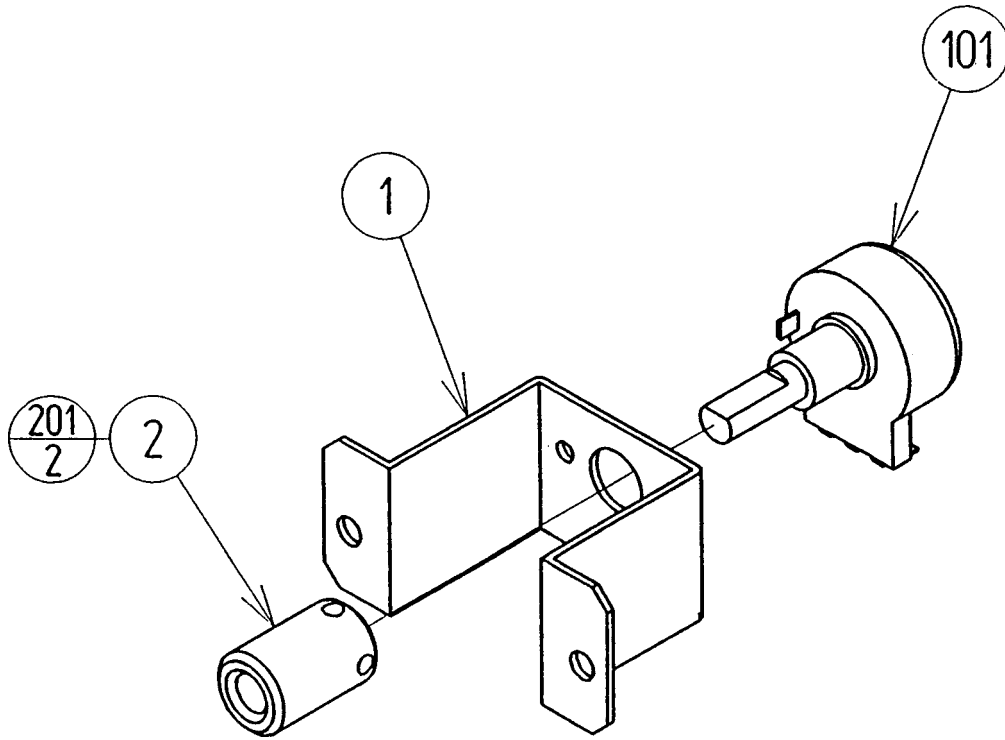
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-3061	CLUTCH BRKT
2	HOT-3062	GEAR CLUTCH IN
3	HOT-3063	GEAR M08Z28
4	HOT-3064	SHAFT HOLDER
101	601-10057	PARTICLE CLUTCH
201	000-P00412-W	M SCR PH W/FS M4X12
202	000-P00408-W	M SCR PH W/FS M4X8
203	028-C00306-P	SET SCR CH CUP P M3X6
204	000-P00306-S	M SCR PH W/FS M3X6

ASSY MOTOR (HOT-3070)



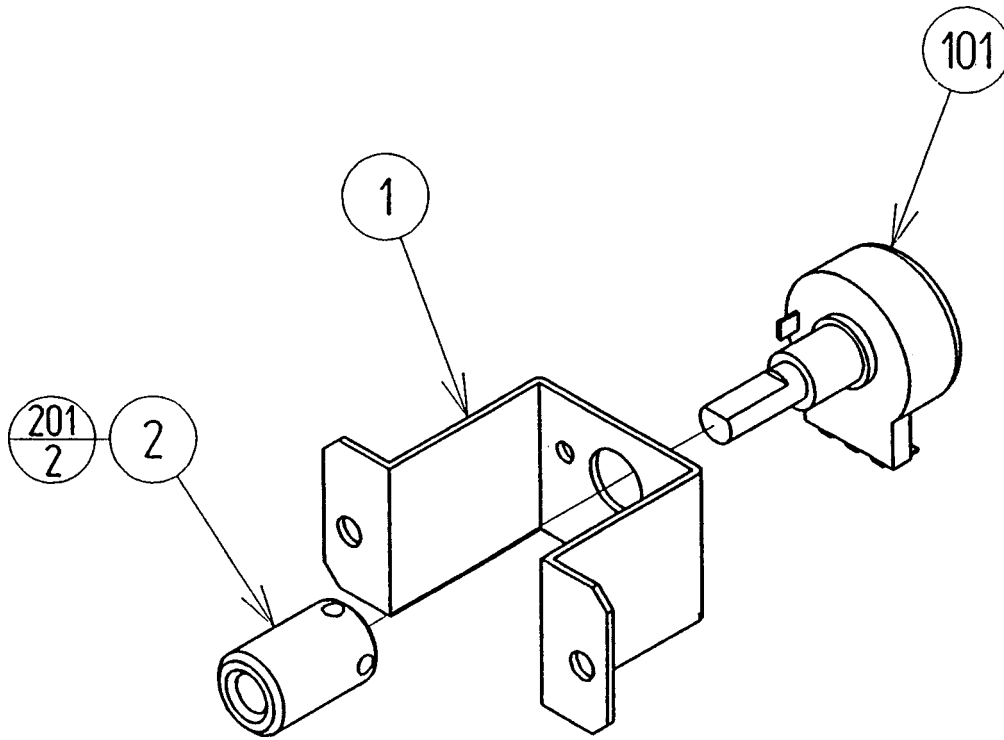
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-3071	MOTOR BRKT
2	HOT-3072	GEAR M1Z22
101	350-5535	MOTOR AC100V 8W
201	028-C00408-P	SET SCR CH CUP P M4X8
202	000-P00412-W	M SCR PH W/FS M4X12

ASSY VOLUME X (HOT-3080)



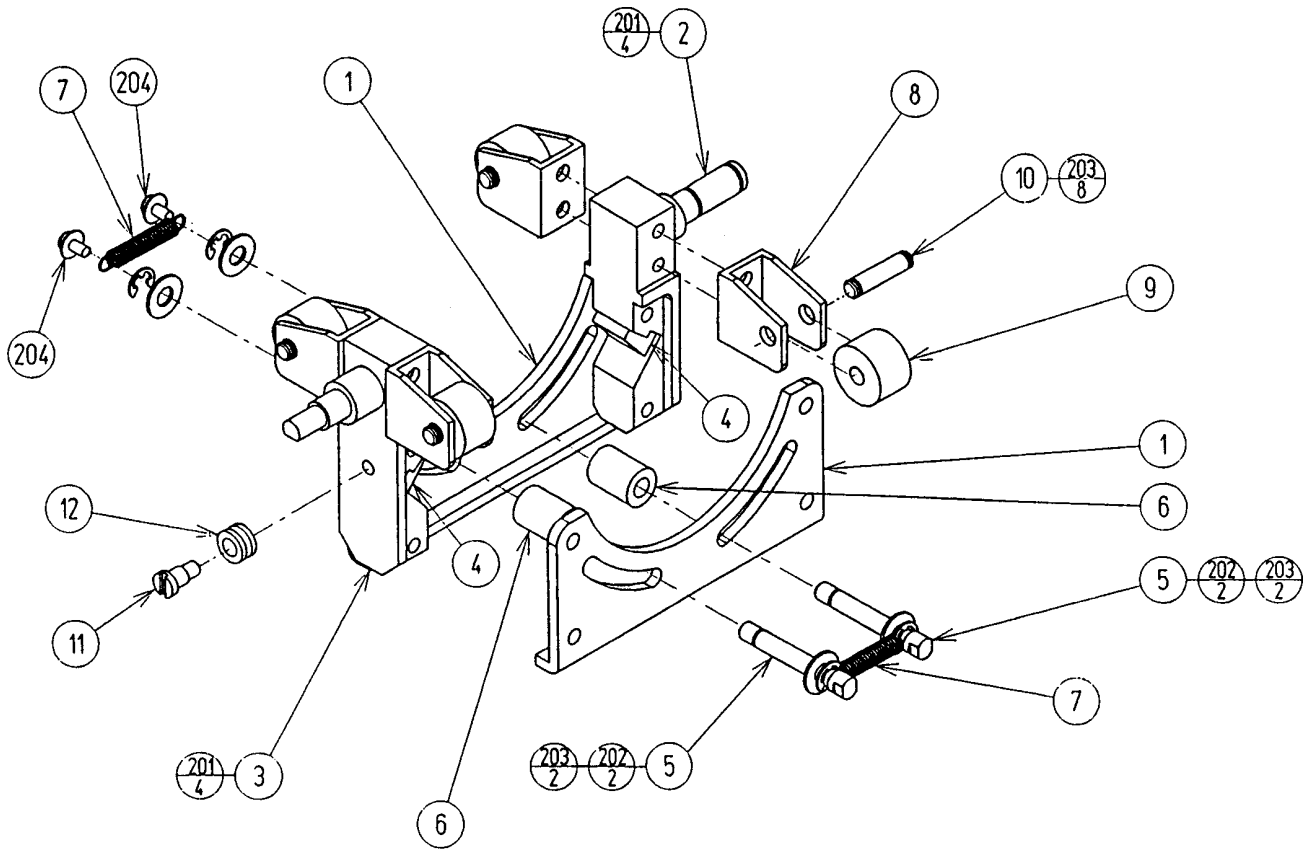
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-3081	VOL BRKT
2	601-5410	GEAR 15 FAI 6
101	220-5484	VOL CONT B-5K OHM
201	028-C00306-P	SET SCR CH CUP M3X6

ASSY VOLUME Y (HOT-3090)



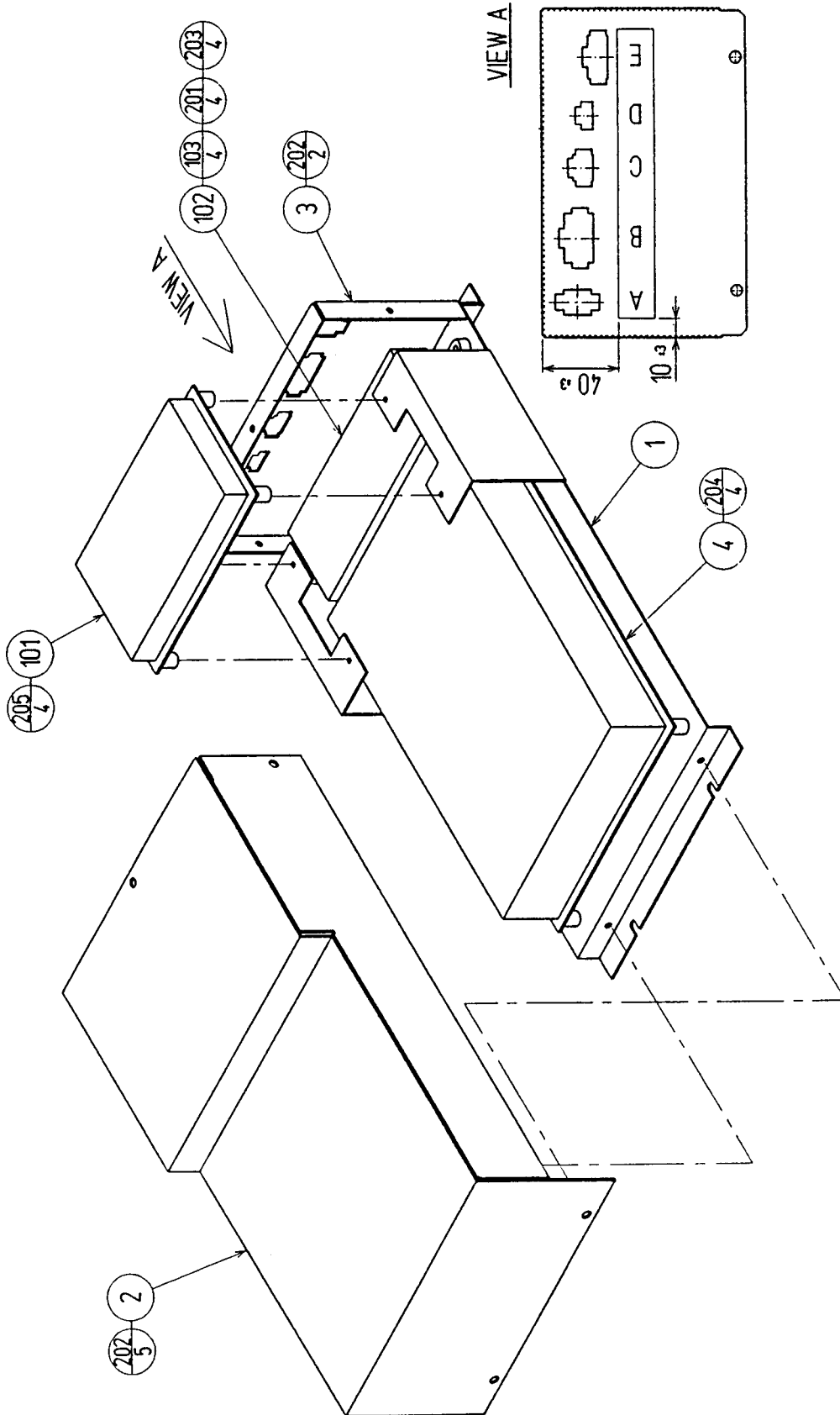
ITEM NO.	PART NO.	DESCRIPTION
1	HOT-3081	VOL BRKT
2	601-5410	GEAR 15 FAI 6
101	220-5484	VOL CONT B-5K OHM
201	028-C00306-P	SET SCR CH CUP P M3X6

ASSY GUIDE (HOT-3100)



ITEM NO.	PART NO.	DESCRIPTION
1	HOT-3101	GUIDE PLATE
2	HOT-3102	GUIDE HOLDER R
3	HOT-3103	GUIDE HOLDER L
4	HOT-3104	CUSHION
5	HOT-3105	PIN B
6	HOT-3106	COLLAR B
7	HOT-3107	EXT SPRING
8	HOT-3108	ROLLER HOLDER
9	HOT-3109	STOP ROLLER
10	HOT-3110	PIN C
11	HOT-3016	SPRING HOOK PIN
12	HOT-3017	SPRING HOOK ROLLER
201	000-P00408-W	M SCR PH W/FS M4X8
202	060-F00500	FLT WSHR M5
203	065-E00400	E RING 4MM
204	000-P00306-W	M SCR PH W/FS M3X6

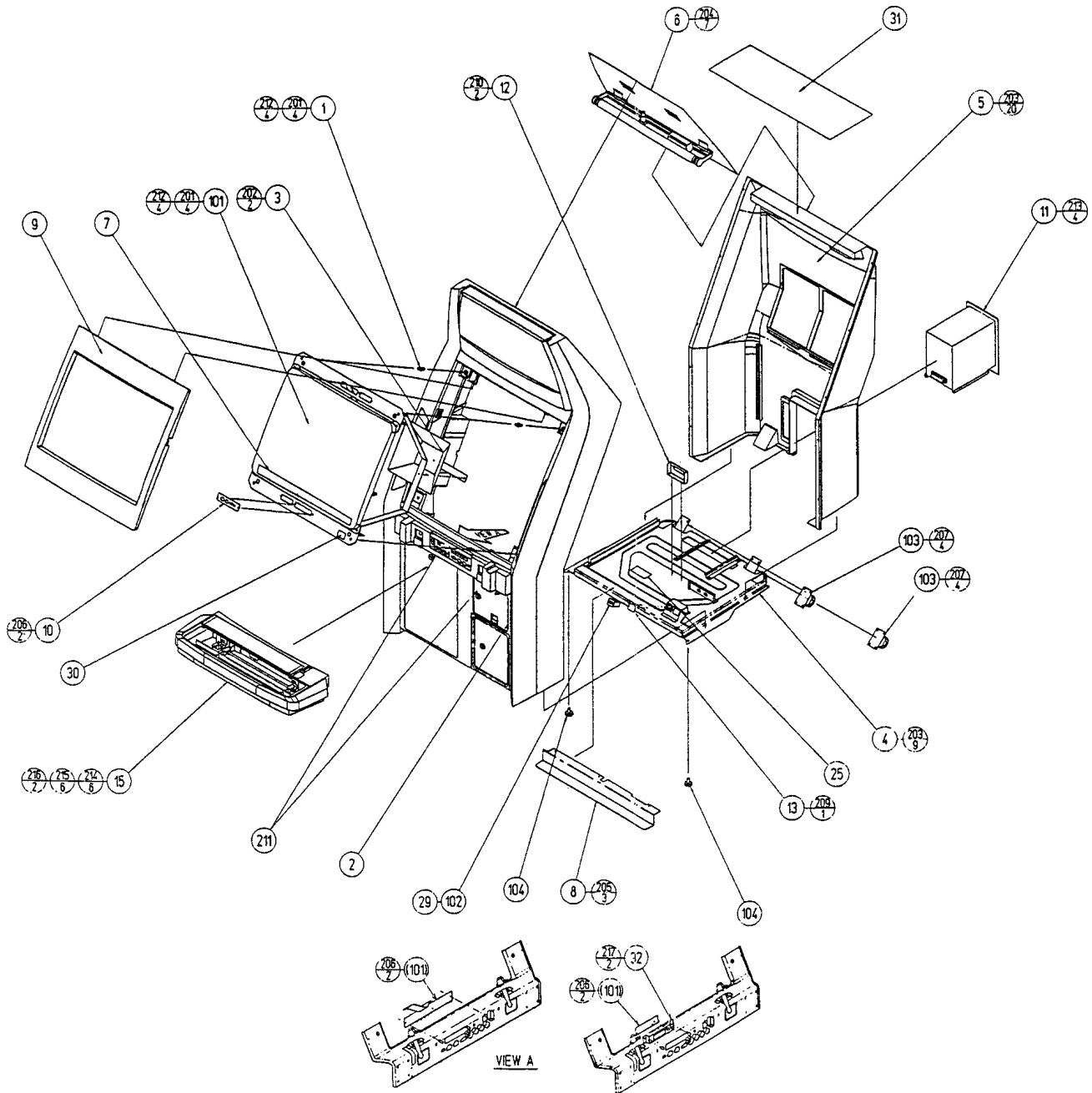
DRIVER UNIT (HOT-4500)



DRIVER UNIT (HOT-4500)

ITEM NO.	PART NO.	DESCRIPTION
1	HOT-4501	DRIVER BASE
2	HOT-4502	DRIVER LID
3	HOT-4503	CONN BRKT
4	839-1031	ENCODER D/A BD
101	838-9507	CLUTCH & MOTOR CONTROL BD
102	400-5368-03024	SW REGU LCA30S-24
103	601-7467	L-LOCK BK
201	000-P00312-W	M SCR PH W/FS M3X12
202	000-P00408-W	M SCR PH W/FS M4X8
203	010-P00312-F	S-TITE SCR PH W/F M3X12
204	010-P00320-F	S-TITE SCR PH W/F M3X20
205	000-P00320-W	M SCR PH W/FS M3X20

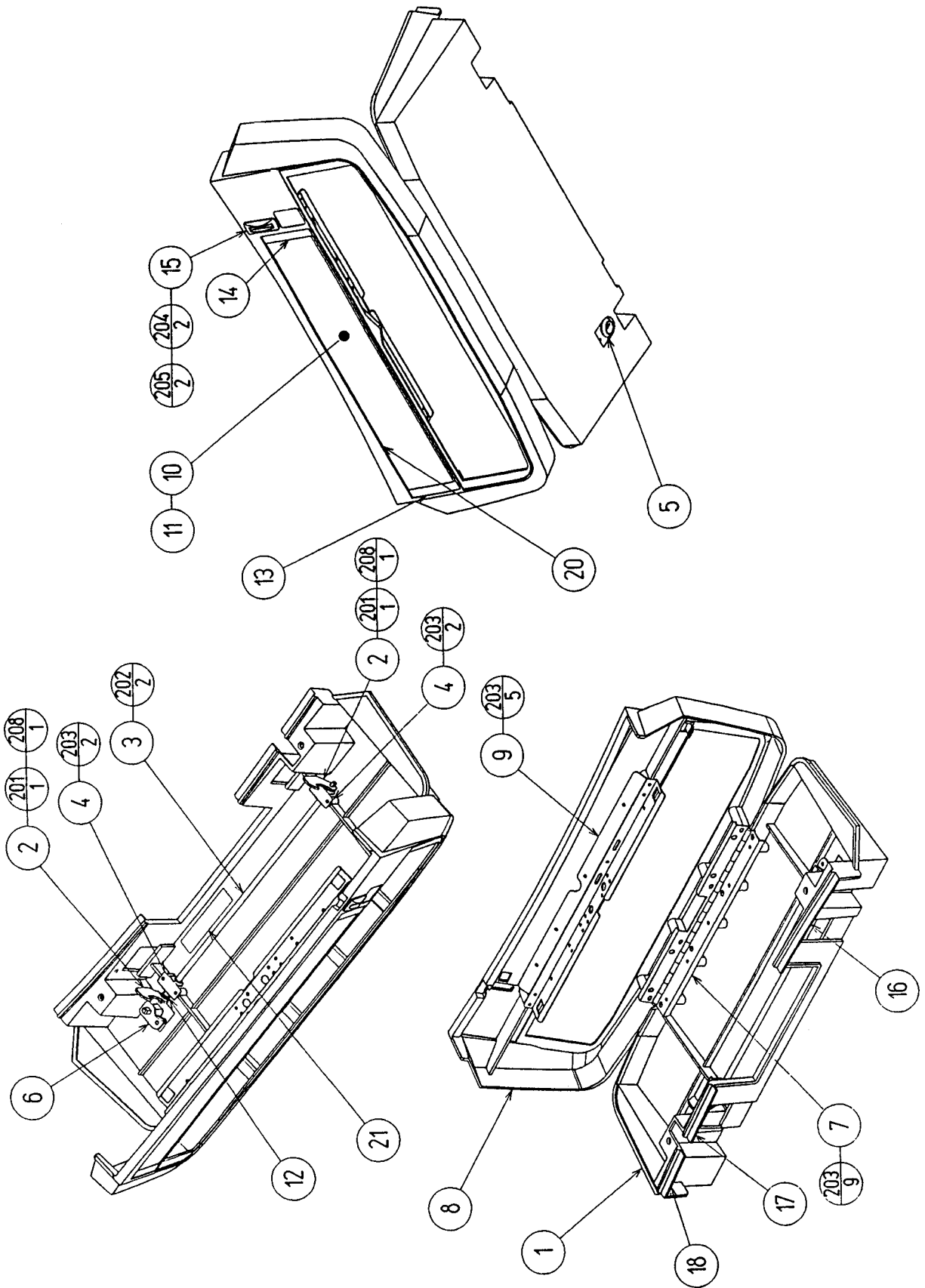
ASSY CABINET 24K 750 OHM HC (HOT-10002)



ASSY CABINET 24K 750 OHM HC (HOT-10002)

ITEM NO.	PART NO.	DESCRIPTION
1	HOT-1001	STUD BOLT
2	HOT-1100	ASSY FRONT CABI
3	HOT-1004	ASSY SHIELD COVER
4	HOT-1002	LOWER BASE
5	HOT-1300	ASSY REAR CABI
6	HOT-1350	ASSY FL
7	CQN-1003	GUTTER
8	HOT-1003X	STEP
9	HOT-1400	ASSY MASK
10	HOT-1005-01	CONN PLATE CRT
11	400-5325-02-91	POWER SUPPLY UNIT EXP
	400-5325-03	POWER SUPPLY UNIT EXP
12	HOT-1006X	CONN BRKT PWR SPLY
13	HOT-1007	LID COIN CNTR
15	HOT-15001	ASSY HARD CONTROL BOX
31	HOT-1008	SHADE
32	HOT-1009	SW BD BRKT
33	SGM-4420	AIR CAP COVER 900X900X1800
101	200-5710	ASSY CLR DSPL 29AUTO MS-2931-S
	200-5642-24	ASSY CLR DSPL 29TYPE 24K 100V
102	220-5569	MAG CNTR W/CONN
	220-5570	MAG CNTR W/CONN
103	999-0169	CASTER 2 1/2"
104	999-0167	LEG ADJUSTER
201	050-H01000	HEX NUT M10
202	000-P00408-WB	M SCR PH W/FS BLK M4X8
203	012-P00520-0C	TAP SCR #2 PH CRM 5X20
204	012-T00410-0C	TAP SCR TH CRM 4X10
205	000-P00420-W	M SCR PH W/FS M4X20
206	000-P00308-W	M SCR PH W/FS M3X8
207	030-000616-S	HEX BLT W/S M6X16
209	010-P00306-F	S-TITE SCR PH W/F M3X6
210	010-P00412-F	S-TITE SCR PH W/F M4X12
211	008-T00408-0C	TMP PRF SCR TH CRM M4X8
212	060-S01000	SPR WSHR M10
213	000-P00412-WB	M SCR PH W/FS BLK M4X12
214	030-000625-SB	HEX BLT W/S BLK M6X25
215	068-652016-0B	FLT WSHR BLK 6.5-20X1.6
216	000-F00512	M SCR FH M5X12
217	000-P00308-W	M SCR PH W/FS M3X8

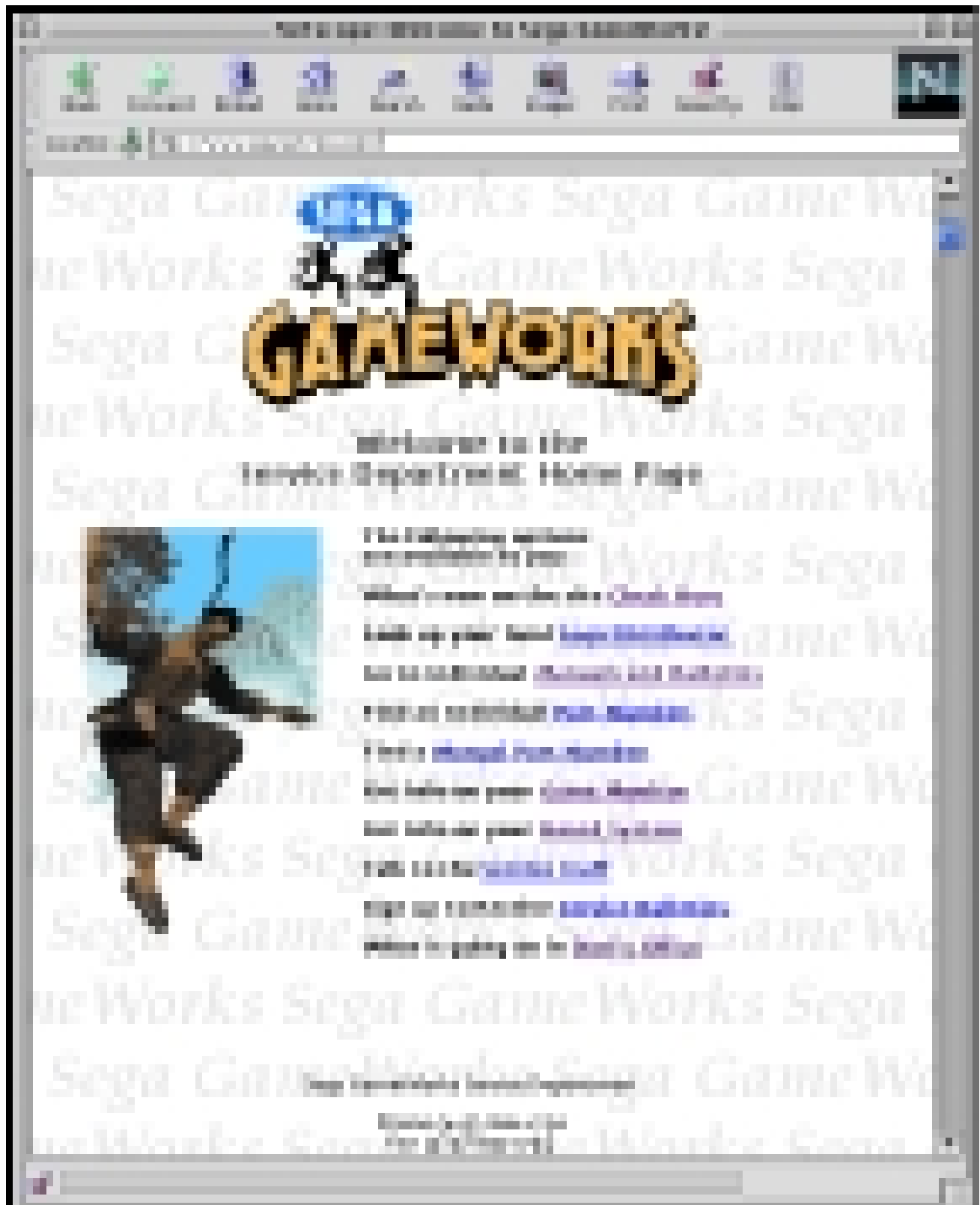
ASSY HARD CONTROL BOX (HOT-15001)



ASSY HARD CONTROL BOX (HOT-15001)

ITEM NO.	PART NO.	DESCRIPTION
1	HOT-1501	CONTL PNL LOWER
2	HOT-1520	LATCH N
3	HOT-1503	SHAFT
4	HOT-1504	LATCH HOLDER
5	220-5575	CAM LOCK MASTER W/O KEY
6	HOT-1505	LKG TNG
7	HOT-1522	HINGE BSS HOT
8	HOT-1506	CONTRL PNL UPPER
9	HOT-1521	LOCK BRKT LONG
10	HOT-1508	INSTRUCTION COVER
11	HOT-1510	SHEET INSTR SPACE
12	HOT-1511	TORSION SPRING
13	HOT-1512X	LATCH INSTR COVER R
14	HOT-1513X	LATCH INSTR COVER L
15	220-5167~	COIN ENTRY~
16	HOT-1515	SPONGE A
17	HOT-1516	SPONGE B
18	HOT-1517	SPONGE C
20	HOT-1519	SPONGE D
21	421-9823	SW INSTR HOT

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