

SPECIFICATIONS

Installation space:	35 in. (L) x 32 in. (W)
Height:	81 in.
Weight:	Approx. 430 lbs.
Power maximum current:	2.31 Amp AC 120V 60 Hz
MONITOR:	29" NANA0 MONITOR

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 WORLD SERIES '99, 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 415-701-6580

Fax 415-701-6594

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 benzine, thinner, etc.

Location: This 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.
- To avoid electric shock, check to see if door & cover parts are closed.



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.



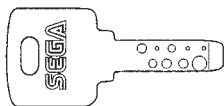
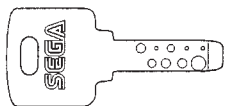
- To avoid electric shock and short circuit, do not allow customers to put hands and fingers or extraneous matter in openings of the product or small openings in or around doors.
- To avoid electric shock and short circuit, do not allow the customers to unplug the power plug without a justifiable reason.
- Although this product has the accident preventive covering attached to potentially hazardous places where hand and fingers could be caught, small children are unable to perceive hazards. Use care so that small children do not come close to the product when in play.
- Immediately stop such violent acts as hitting and kicking the product. Such violent acts can cause parts damage and/or falling down, resulting in injury due to fragments and falling down.

2 . NAME OF PARTS



GAME SPECIFICATIONS	WIDTH in.	LENGTH in.	HEIGHT in.	WEIGHT lbs.
Weight-DURING SHIPPING	All measurements are and rounded UP			~ 460 LBS.
WHEN ASSEMBLED	32"	X 36"	X 81"	430 LBS.

3. ACCESSORIES

DESCRIPTION	OWNERS MANUAL	KEY MASTER	KEY
Part No. (Qty.)	999-0813	220-5576 (2)	(2)
Note		For opening/closing the doors	For the CASHBOX DOOR
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.			

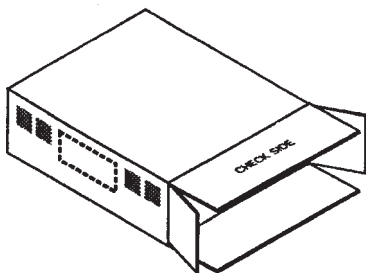


WARNING!

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, HARLEY DAVIDSON, RALLY 2, DAYTONA 2, DIRT DEVILS, HOUSE OF THE DEAD 2, CRAZY TAXI, ZOMBIE REVENGE, STAR WARS TRILOGY, WORLD SERIES '99

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



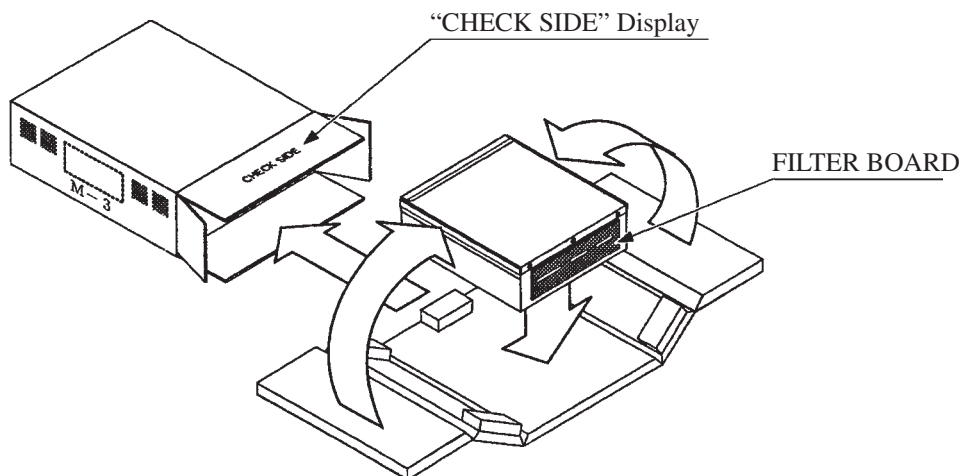
CARTON BOX

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



CAUTION!

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 5-item sequence:

- 1 ASSY OF CABINET
- 2 SECURING IN PLACE (ADJUSTER ADJUSTMENT)
- 3 POWER SUPPLY
- 4 ASSY 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

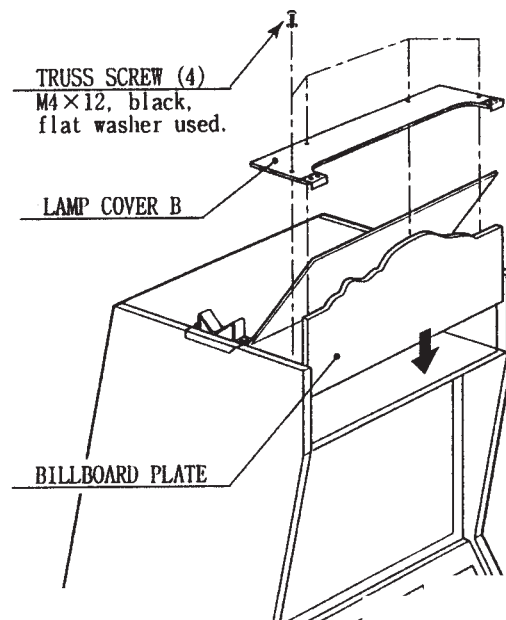
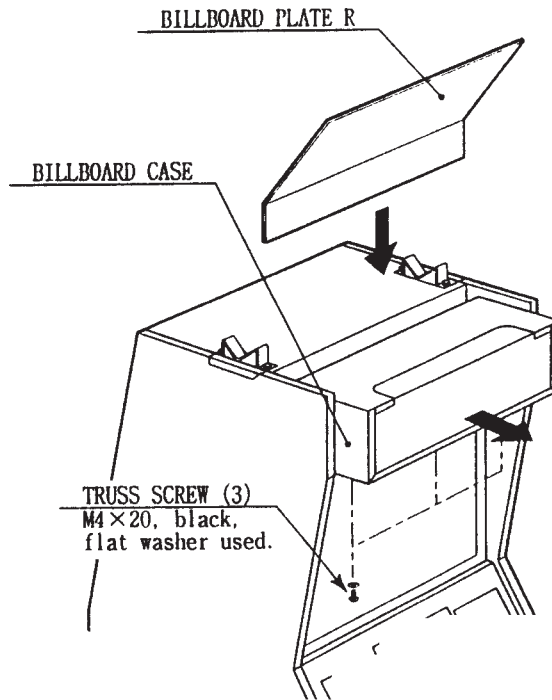
ASSY OF CABINET



CAUTION!

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

- ① Take out the 3 truss screws from the lower part of the Billboard and pull out the Billboard Case towards you.
- ② Apply Billboard Plate R to the rear of Billboard Case with double sided tape.
- ③ Return the Billboard Case to the original position and secure with the 3 truss screws.
- ④ Take out the 4 truss screws to remove the Lamp Cover B.
- ⑤ Insert the Billboard Plate to Billboard Case and secure Lamp Cover B with 4 truss screws.



2

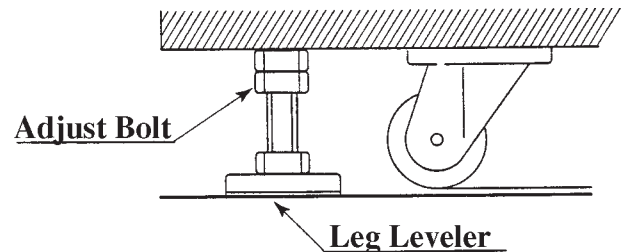
SECURING IN PLACE (ADJUSTER ADJUSTMENT)



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 4 each of casters and 4 each of 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 levelers 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.



3

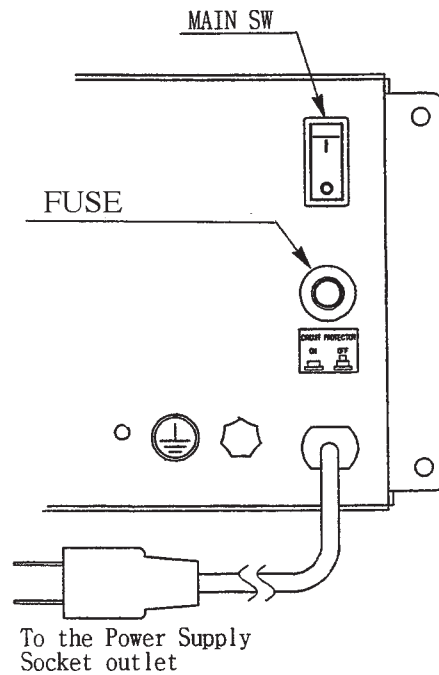
POWER SUPPLY



WARNING!

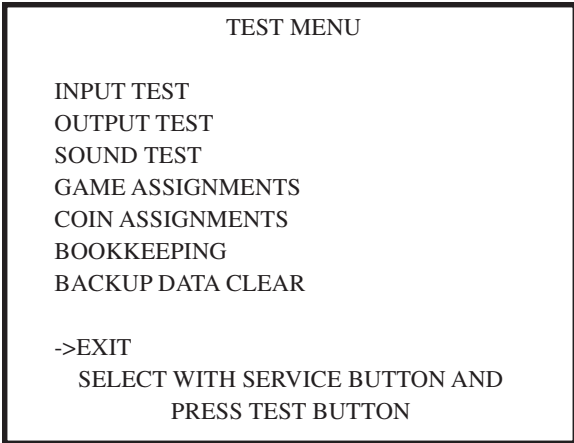
- Ensure that the power cord is not exposed on the surface (passage, etc.). If exposed, they can be caught and are susceptible to damage. If damaged, the cord can cause an electric shock or short circuit.
- Ensure that the wiring position is not in the customer's passage way or the wiring has protective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

Connect the game to the power supply and turn on power to the game. Before connecting power supply be sure that power switch is off



4 ASSYCHECK

GAME TEST MODE



Bring the arrow to the item of GAME TEST MODE in the SYSTEM TEST MENU, and press the Test button to display the TEST MENU peculiar to ZOMBIE RE-VENGE.

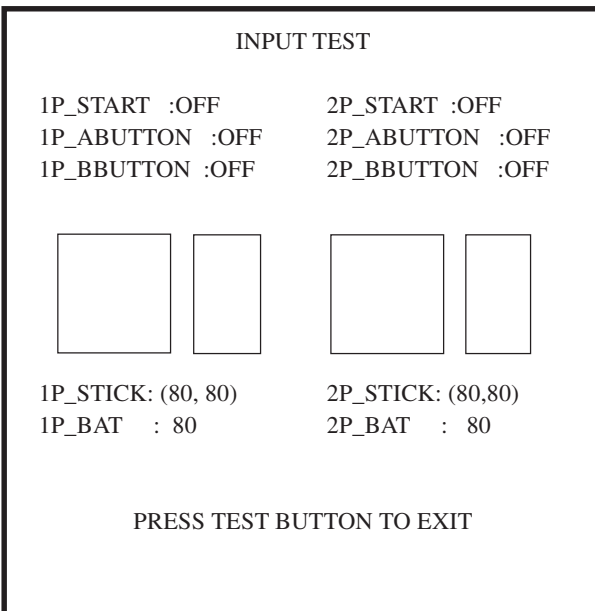
Press the SERVICE button to move the arrow. Bring the arrow the desired item and press the TEST button. Upon finishing the test, bring the arrow to EXIT and press the TEST button to return to the SYSTEM MENU MODE.

INPUT TEST

This test displays the state of each switch.

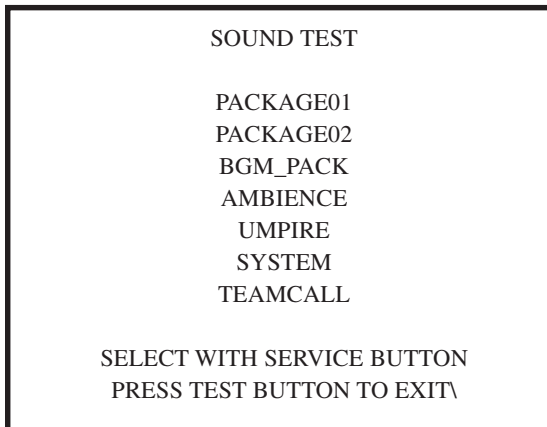
If this switch goes ON when activated, it is satisfactory.

Display varies depending on the JOYSTICK TYPE setting in (3) GAME ASSIGNMENTS.



SOUND TEST

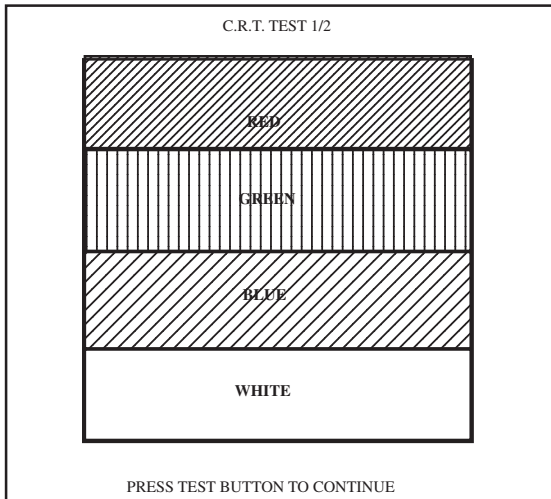
This allows sound and background used in the game to be checked/ tested.



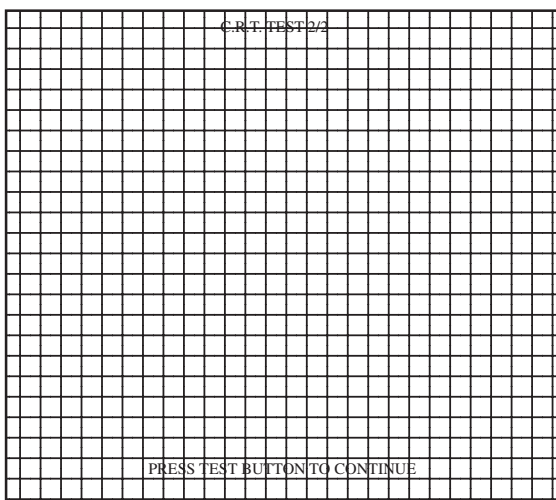
Pressing the service button increase the number by one and changes the sound.

Press the TEST button to have the MENU return to the screen.

CRT TEST



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



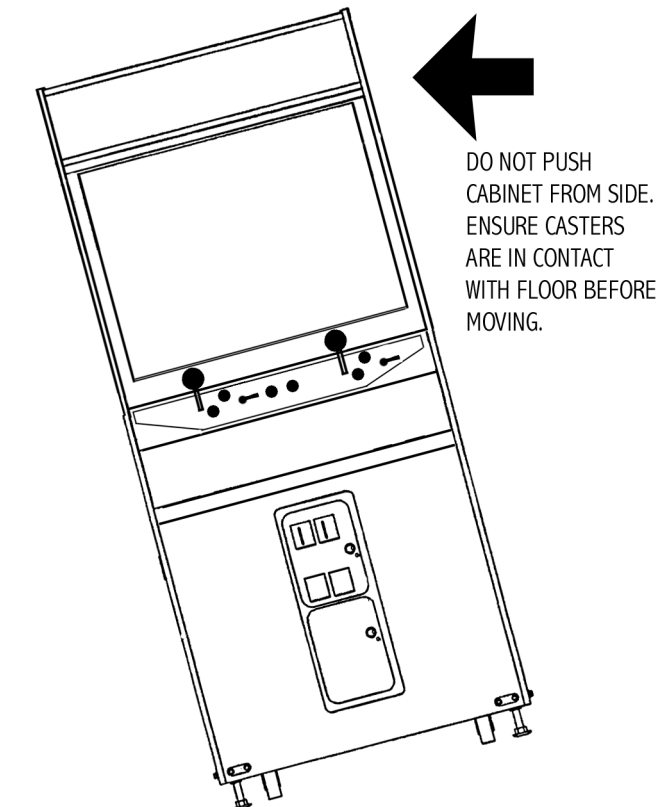
WARNING!

- 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.
- As this game has no casters, the Cabinet must be lifted off of the ground in order to be moved. Plural persons are required to lift cabinet safely. Moving the cabinet with the leg still in contact with the floor, or moving the cabinet by 'rocking' the cabinet can severely damage the cabinet and the legs.
- 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 . 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.

When performing installation, servicing product or changing game boards refer to individual kit instructions for each of the listed items below:

ITEMS	DESCRIPTION
INSTALLATION OF MACHINE	When the machine is installed, perform the following: <ol style="list-style-type: none"> 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.
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: <ol style="list-style-type: none"> 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.
CONTROL SYSTEM	<ol style="list-style-type: none"> 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
MONITOR	In the MONITOR ADJUSTMENT mode, check to see if the MONITOR adjustment is appropriately made.
IC BOARD	<ol style="list-style-type: none"> 1. MEMORY TEST 2. In the SOUND TEST mode, check the sound related ROMs.
DATA CHECK	Check such data as game play time and histogram to adjust the difficulty level, etc

6 - 1 SWITCH UNIT AND COIN METER



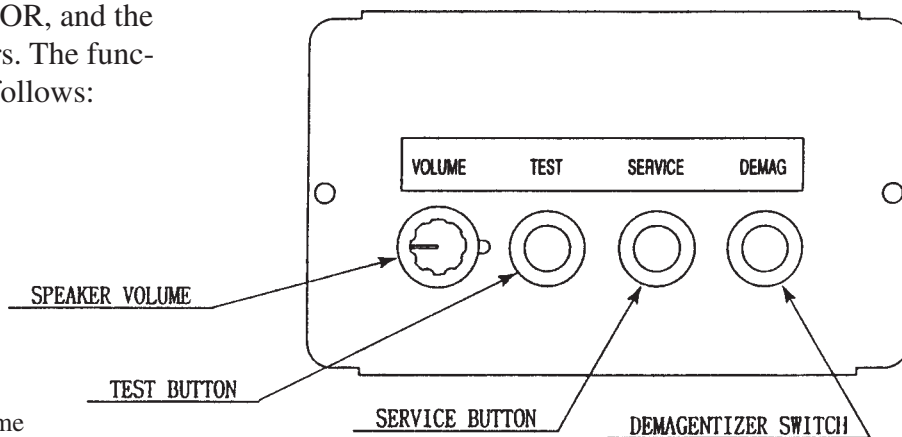
Never touch places other than those specified. Touching places not specified can cause electric shock and short circuit.



- 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.

Open COIN CHUTE DOOR, and the switch unit shown appears. The function of each switch is as follows:

SWITCH UNIT

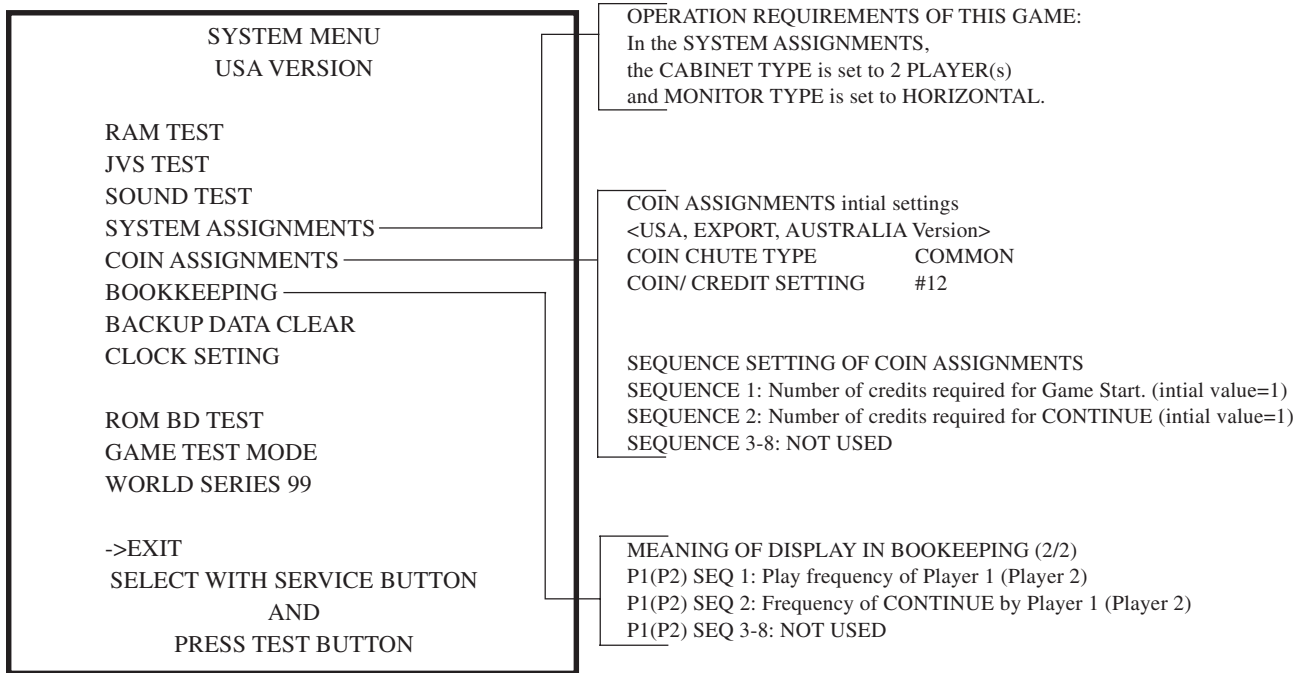


- ① **SOUND VOLUME**
Controls the speaker volume of the right/left speakers.
- ② **TEST BUTTON (TEST SW)**
For the handling of the TEST BUTTON, refer to the section on test mode.
- ③ **SERVICE BUTTON (SERVICE SW)**
Gives credits without registering on the coin meter.

6 - 2 TEST MODE

System Menu. This test mode mainly allows the IC board to be checked for accurate functioning, monitor color to be adjusted as well as COIN ASSIGNMENTS and GAME ASSIGNMENTS to be adjusted.

- 1.) After turning power on, press the TEST button to have the following test item menu displayed.
- 2.) Press the SERVICE button to move the arrow. Bring the arrow to the desired item and press the TEST button.



3.) Bring the arrow to the item of Game TEST MODE and press the TEST button to display the GAME TEST MENU peculiar to ZOMBIE REVENGE. See the next page onward.

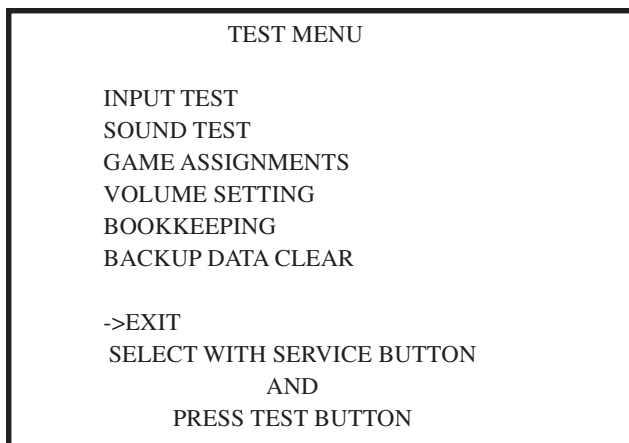
4.) Upon finishing the test, bring the arrow to EXIT and press the TEST button to return to the Gam Mode.



CAUTION!

The contents of settings changes in SYSTEM ASSIGNMENTS, COIN ASSIGNMENTS, and GAME TEST MODE are stored when the test mode is EXITed. If the power is turned off before EXITing, the contents of setting changes are ineffective. Be very careful of this point.

6 - 3 GAME TEST MODE



Bring the arrow to the item of GAME TEST MODE in the SYSTEM TEST MENU, and press the Test button to display the TEST MENU peculiar to ZOMBIE REVENGE.

Press the SERVICE button to move the arrow. Bring the arrow the desired item and press the TEST button.

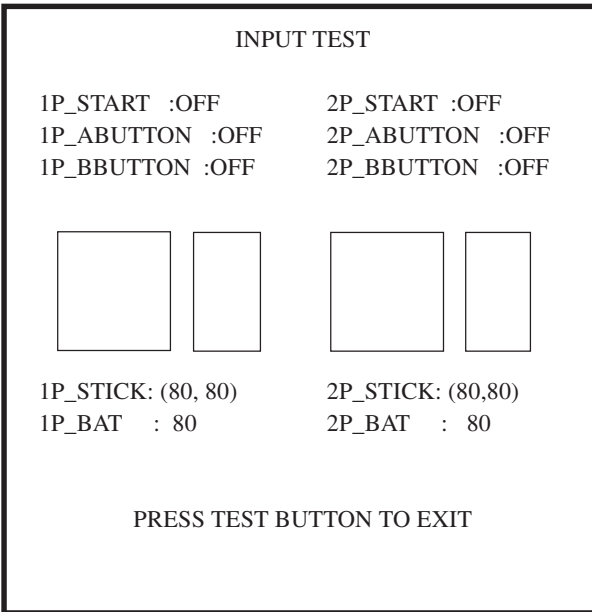
Upon finishing the test, bring the arrow to EXIT and press the TEST button to return to the SYSTEM MENU MODE.

6 - 4 INPUT TEST

This test displays the state of each switch.

If this switch goes ON when activated, it is satisfactory.

Display varies depending on the JOYSTICK TYPE setting in (3) GAME ASSIGNMENTS.



The XX value of 1P (2P)_STICK (XX,YY), indicates the middle value when the STICK is untouched. It indicates the minimum value when the stick is turned to the right, and the maximum value when the STICK is turned to the left. The volume setting is normal if the maximum value is between 70 and 8F, the minimum value is between 00 and 0F, and the maximum between F0 and FF.

The YY value of 1P (2P)_STICK (XX,YY) indicates the middle value when the STICK is untouched. It indicates the minimum value when the STICK is turned down, and the maximum value when the STICK is turned up. The volume setting is normal when the middle value is between 70 and 8F, the minimum value is between 00 and 0F, and the maximum value is between F0 and FF.

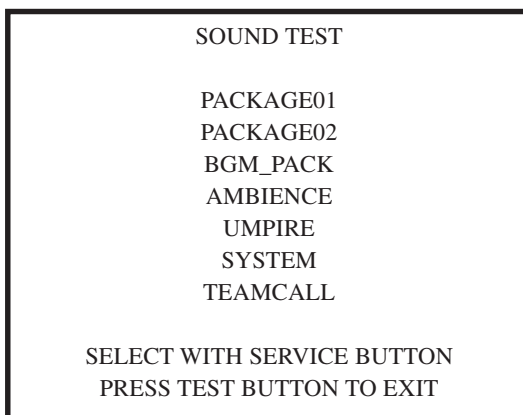
The value of 1P (2P)_BAT indicates the minimum value when the BAT is untouched (face up) position. It indicates the maximum value when the BAT is rotated about half a turn until it is stopped. The volume setting is normal if the minimum value is between 00 and 0F and the maximum value is between F0 and FF.

If any value is abnormal, return to the menu screen and take steps described in #4 "VOLUME SETTING". Then return to this test and confirm the values.

To return to the menu screen, press the TEST Button while holding the SERVICE Button down.

6 - 5 SOUND TEST

This allows sound and background used in the game to be checked/ tested.



To check them, specify the appropriate item using the SERVICE Button and press the TEST Button to generate the sound.

By default, the arrow is located at EXIT.

6 - 6 GAME ASSIGNMENTS

GAME ASSIGNMENTS	
GAME DIFFICULTY	NORMAL
INNINGS	1 CREDIT 2 INNINGS
FAVORITE	OFF
EXTRA INNING	OFF
->EXIT	
SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON TO EXIT	

Allows game difficulty adjustments to be performed/ changed.

SELECTION OF DESIRED ITEM

1.) Press the SERVICE button to move the -> and bring it to the desired item.

2.) Press the TEST button to change the setting.

3.) After the device setting is finished, bring the -> to EXIT and press the TEST button.

(A) INNINGS (FOUR SETTINGS LISTED BELOW)

This sets the number of innings that can be played in the VERSUS-COM mode.

FOUR SETTINGS (listed below)

1 CREDIT 1 INNING	If 1 CREDIT is set, when the game can be continued following the end of the sixth inning, the remaining three innings can be played on one credit.
1 CREDIT 2 INNINGS	
1 CREDIT 3 INNINGS	
1 CREDIT ALL INNINGS	Allows the player all innings on one credit

(B) GAME DIFFICULTY

(VERY EASY, EASY, MEDIUM EASY, NORMAL, MEDIUM HARD, HARD, VERY HARD)

(C) FAVORITE (OFF, Each team)

Sets the favorite team.

The favorite team becomes stronger than the other teams

The favorite team name is displayed in the advertise.

Only one team can be favored at a time

(D) EXTRA INNINGS (OFF, ON)

Enables or disables the extra innings. When set to ON, the game can be played up to 12 extra innings.

6 - 7 VOLUME SETTING

This page allows yo to adjust the volume settings used for the ANALOG STICKS and BAT MECHA.

VOLUME SETTING			
PLAYER1			
STICK-H	HMAX (CO)	HMIN (50)	NOW (80)
STICK-V	HMAX (CO)	HMIN (50)	NOW (80)
BAT	BMAX (CO)	BMIN (OC)	NOW (OC)
PLAYER2			
STICK-H	HMAX (CO)	HMIN (50)	NOW (80)
STICK-V	HMAX (CO)	HMIN (50)	NOW (80)
BAT	BMAX (CO)	BMIN (OC)	NOW (OC)
SAVE AND EXIT			
>EXIT			
SELECT WITH SERVICE BUTTON AND PRESS TEST BUTTON TO EXIT			

ADJUSTING THE VOLUME VALUE

For the 1P and 2P ANALOG STICKS, move each from the untouched position to the maximum position vertically and horizontally.

For the 1P and 2P BATS, pull each from the untouched (face-up) position by about half of a turn until it stops.

Then, with the STICKS and BATS untouched, select SAVE AND EXIT and press the TEST Button to return to the menu screen. This completes adjustments.

After adjustments, be sure to return to the INPUT TEST mode to verify that the values are normal. If they are not normal, come back to the VOLUME SETTING page and readjust the volume settings. If the normal values are not recovered after several retries, probably the BAT MECHA is faulty.

6 - 8 BOOKKEEPING

This test mode allows each of the CREDIT/TIME/GAME data to be ascertained.

BOOKKEEPING	
GAME REPORT PAGE 1/2	
NUMBER OF GAMES	0
1P GAMES	0
2P GAMES	0
NUMBER OF CONTINUE	0
1P GAMES	0
2P GAMES	0
PRESS TEST BUTTON TO EXIT	

- (A) NUMBER OF GAMES
1P, 2P total game playfrequency.
- (B) SINGLE 1P GAMES
Displays the total number of games played at 1P side
- (C) SINGLE 2P GAMES
Displays the total number of games played at 2P side
- (D) DOUBLE GAMES
Displays the number of games that two players began playing.
- (E) VERSUS GAMES
The SERVICE SWITCH usage frequency.
- (F) NUMBER OF CONTINUE
Displays the number of continued games..
- (G) 1P GAMES
Displays the total number of games played at 1P side
- (H) 2P GAMES
Displays the total number of games played at 2P side.

Press the test button to proceed to the next page.

BOOKKEEPING				
PLAY TIME				
VS CPU	COUNT	AVERAGE	LONGEST	SHORTEST
1-2	**	*H *M **S	*H *M **S	*H *M **S
3-4	**	*H *M **S	*H *M **S	*H *M **S
5-6	**	*H *M **S	*H *M **S	*H *M **S
7-8	**	*H *M **S	*H *M **S	*H *M **S
9-10	**	*H *M **S	*H *M **S	*H *M **S
DOUBLE				
1-2	**	*H *M **S	*H *M **S	*H *M **S
3-4	**	*H *M **S	*H *M **S	*H *M **S
5-6	**	*H *M **S	*H *M **S	*H *M **S
7-8	**	*H *M **S	*H *M **S	*H *M **S
9-10	**	*H *M **S	*H *M **S	*H *M **S
VERSUS				
8-9	**	*H *M **S	*H *M **S	*H *M **S
PRESS TEST BUTTON TO EXIT				

- (A) VS CPU:
Displays the results of versus_CPU game.
- (B) DOUBLE:
Displays the results of two-player game.
- (C) VERSUS:
Displays the results of versus game.

The number of items depends on the INNINGS values of GAME ASIGNMENTS. The above examples is for "1 CREDIT 2 INNINGS". "NODATA" is displayed if there is no applicable data.

Press TEST button to return to Menu screen.

6 - 9 BACK UP DATA CLEAR

Clears the contents of BOOKKEEPING.

BACK UP DATA CLEAR

YES (CLEAR)
->NO (CANCEL)

SELECT WITH SERVICE BUTTON AND
PRESS TEST BUTTON TO EXIT

When clearing bring-> to YES and when not clearing, to NO, by using the SERVICE SW and then push the TEST button.

When clearing has been finished, COMPLETED will be displayed.
Pressing the TEST button will have the MENU return to the screen.

7. COIN SELECTOR

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.

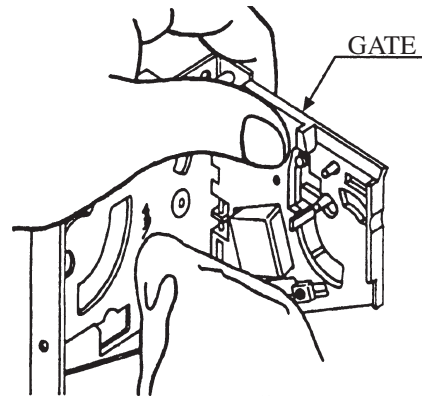


FIG. 11a

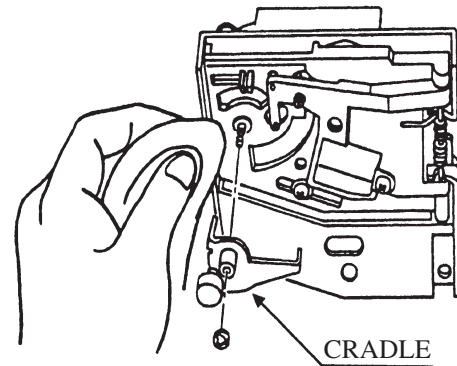


FIG.11b



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?

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

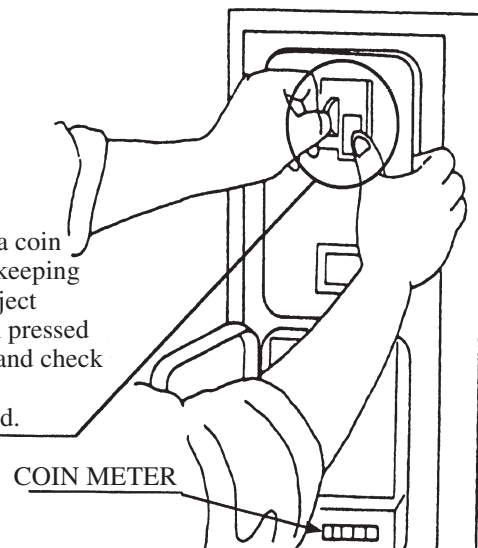


FIG. 11c

OPTIONAL DOLLAR BILL ACCEPTOR

- THE COIN DOOR ASSEMBLY USED ON **WORLD SERIES '99** 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)	Mars 2000 series
HOLE POSITION#2	Mars 2000 series DBV45 (JCM)
HOLE POSITION #3	CURRENTLY NOT USED
HOLE POSITION #4	DSI01*

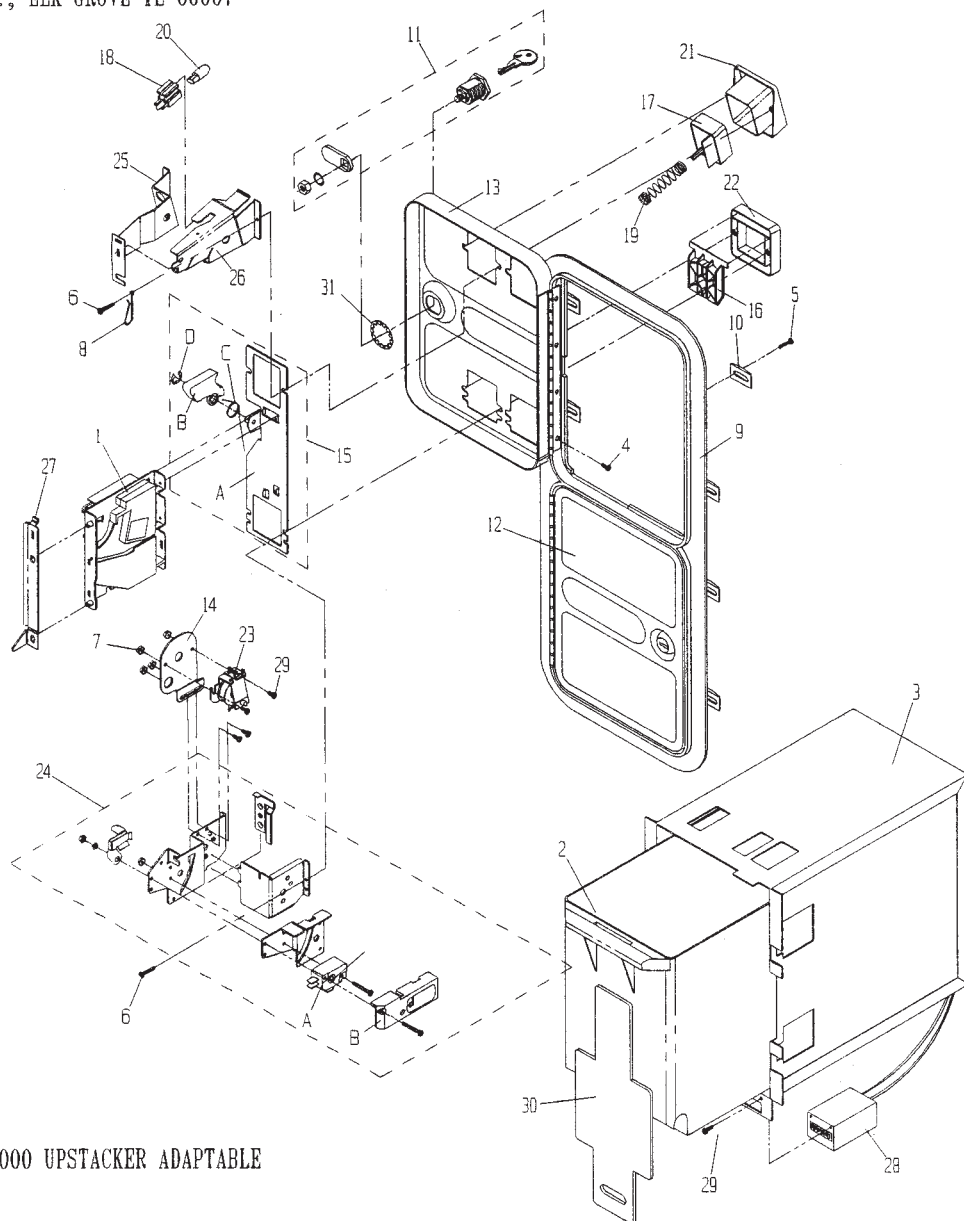
*The back flange on the chute can be removed for hold position #4. If the flange is not removed, it may interfere with the back of the cabinet.

The frame and cashbox enclosure on this coindoor has been modified to accomodate a Mars 2000 series upstacker. A 2000 series stacker can be added by simply removing the top two entry door and replacing it with a one entry door with a cut-out for a stacker. This one entry door can be ordered through Coin Controls or one of Coin Controls authorized distributors. The part number is 91-4000-01. The Mars stacker can be obtained through an authorized Mars distributor.

COIN CONTROLS INTERNATIONAL

1850 HOWARD ST., ELK GROVE IL 60007
(847) 228-1810

OVER/UNDER TWO ENTRY COIN DOOR*



* MARS SERIES 2000 UPSTACKER ADAPTABLE

PART #	DESCRIPTION	COST	PART #	DESCRIPTION	COST	PART #	DESCRIPTION	COST
1)	12-4050-XX S-10 ACCEPTOR	19.50	16)	91-1109-16 REJECT FLAP NYLON, BLACK	2.70	28)	23-1011-00 12V DC METER	8.50
	12-4150-011 S-7 US #.25	12.00	17)	91-1113-01 ENTRY/REJECT BUTTON 25c	4.45		23-1103-00 4.5V DC METER	8.50
2)	20-4177-00 PLASTIC CASHBOX	7.40	18)	91-1117-00 LAMPHOLDER	1.40	29)	90-1032-01 METER & LOCKOUT SCREW	.25
3)	20-4189-00 ENCLOSURE, Z2000	27.50	19)	91-1121-00 E/R BUTTON SPRING	.80	30)	22-1400-00 LOCKING BAR	7.00
4)	90-1002-00 HINGE SCREW	.25	20)	91-1118-00 6V LAMP WEDGE BASE	.95	31)	90-1019-00 3/4" LOCKWASHER	.25
5)	90-1003-00 CLAMP SCREW	.95	21)	91-1311-16 BUTTON BEZEL BLACK	2.70			
6)	90-1017-00 SCREW BEZEL NYLON	.25	22)	91-1312-16 REJECT BEZEL BLACK	2.70			
7)	90-1206-02 #4-40 KEP NUT	.25	23)	91-2125-00 12V LOCKOUT COIL ASSEMBLY	12.85			
8)	90-1300-00 KEYHOOK	.35	24)	91-2216-16 MICROSWITCH ASSEMBLY	15.00			
9)	91-0508-16 FRAME	30.00	24A)	91-1116-16 MICROSWITCH BLACK	5.40			
10)	91-0506-00 CLAMP	.45		91-1116-11 MICROSWITCH WHITE	5.40			
11)	91-0547-00 DOUBLE D CAM LOCK	5.25		91-1116-10 MICROSWITCH RED	5.40			
12)	91-0603-16 BLACK MINI DOOR	8.40	24B)	91-1125-00 MICROSWITCH PLASTIC COVER	.85			
13)	91-0604-16 2 ENTRY UPPER DOOR	10.00	25)	92-1002-01 COIN INLET LAMP SIDE	1.80			
14)	91-1008-039 LOCKOUT BRACKET	4.30	26)	92-1002-021 COIN INLET COVER SIDE	1.80			
15)	91-1008-107 BASEPLATE ASSEMBLY	5.00	27)	92-1002-10 HOLD DOWN BRACKET	1.50			

8. 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.

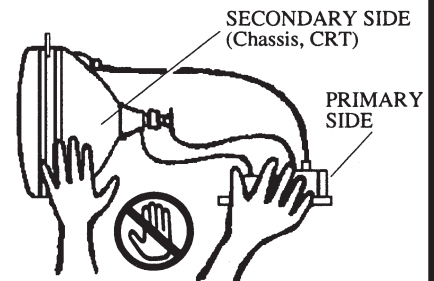


WARNING!

Primary side and secondary side

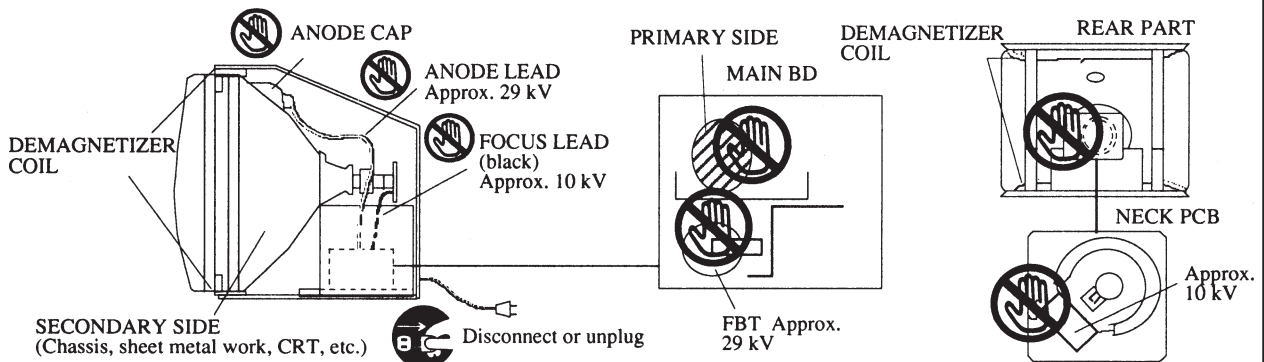
The monitor's circuit which is divided into the Primary side and secondary side, is electrically isolated. Do not touch the primary side and the secondary side simultaneously. Failing to observe the instruction can cause electric shock, and this is very dangerous.

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.)

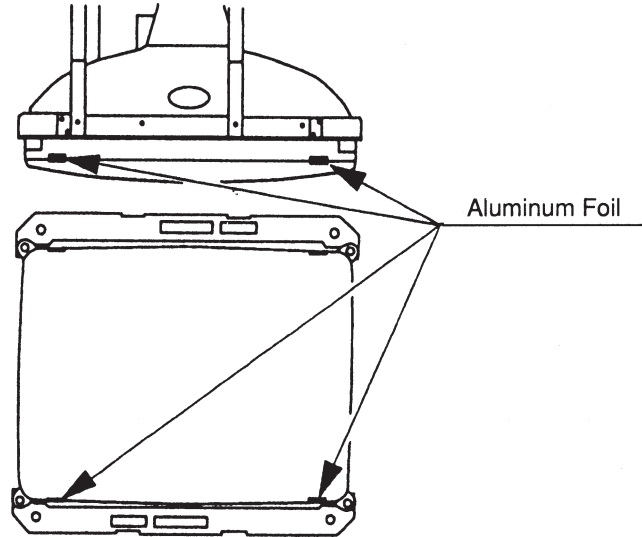


For the purpose of static prevention, special coating is applied to the CRT face of this product. To protect the coating, pay attention to the following points. Damaging the coating film can cause electric shock to the customers. For the caution to be heeded when clearing, refer to the Section of Periodic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

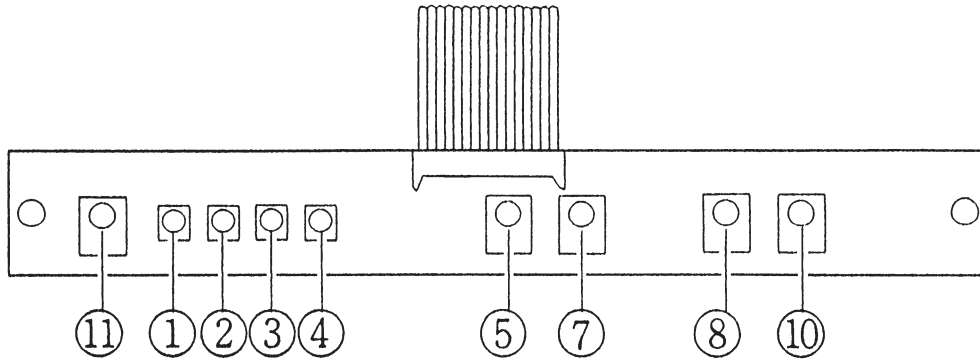


Monitor adjustments have been made at the time of shipment. Therefore do not make further adjustment without a justifiable reason.

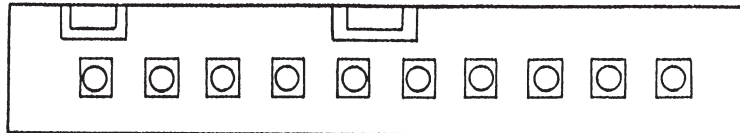
Adjusting the monitor which contains high tension parts is dangerous work. Also, an erroneous adjustment can cause deviated synchronization and image fault, resulting in malfunctioning.

When making adjustment, utilize a resinous Alignment Rod. Servicing with bare hands or using conductive tools can cause electric shock.

NANAO monitor: 2 0 0 - 5 2 4 2 - 2 4 - 0 4 (24K mode)



SANWA monitor: 2 0 0 - 5 2 4 3 - 2 4 (24K mode)



①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
R GAIN	G GAIN	B GAIN	BRIGHT	H SIZE	H HOLD	H POSI	V SIZE	V HOLD	V POSI

- ① R-GAIN
- ② G-GAIN Controls colors.
- ③ B-GAIN
- ④ BRIGHT Controls screen brightness.
- ⑤ H. SIZE Controls horizontal screen size.
- ⑥ H. HOLD Provides horizontal synchronization, i.e., controls right/left hold.
- ⑦ H. POSI Controls horizontal display position on screen.
- ⑧ V. SIZE Controls vertical screen size.
- ⑨ V. HOLD Provides vertical synchronization, i.e., controls up-down hold.
- ⑩ V. POSI Controls vertical display position on screen.
- ⑪ CONTRAST Adjusts image contrast.

9. REPLACEMENT OF FLUORESCENT LAMP



WARNING!

- 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.

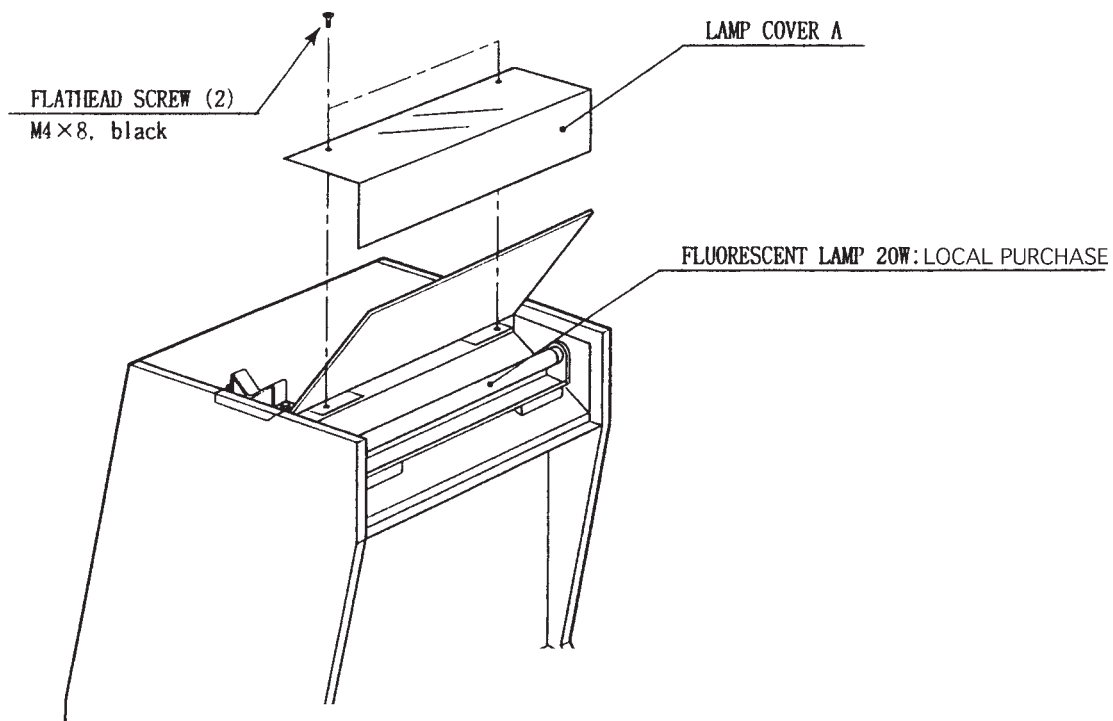


CAUTION!

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 violent falling down accidents.

9 -1 REPLACEMENT OF FLUORESCENT LAMP

- ① Take out the 3 Tamperproof screws securing the billboard plex. Remove the billboard plex.
- ② Be sure to disconnect all connectors conected to the Marquee assembly before removing the FL fixture and/or performing work.
- ③ Replace the bulb and reinstall.



10. PERIODIC INSPECTION TABLE

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

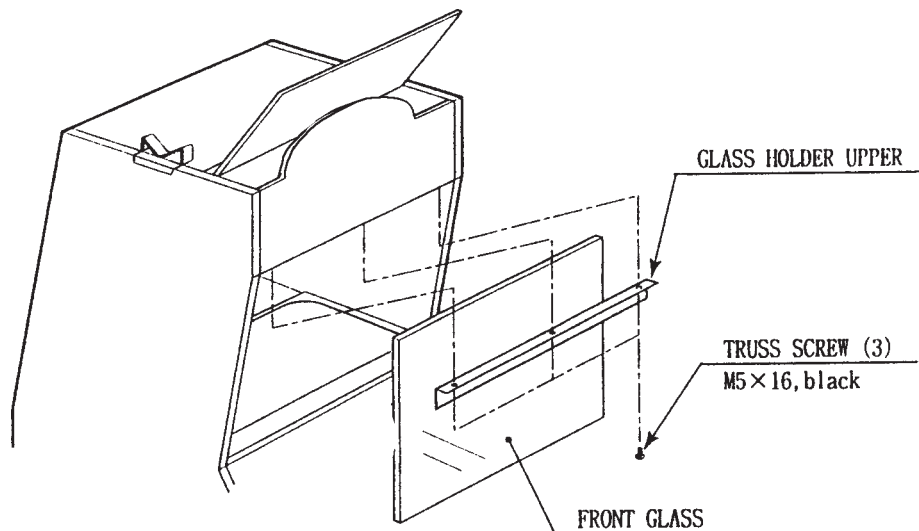


- Be sure to check once a year to see if Power Cords are damaged, the plug is securely inserted, dust is accumulated between the Socket Outlet and the Power Plug, etc. Using the product with dust as is accumulated can cause a fire or electrical shock.
- Periodically once a year, request the place of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

	Item	Interval
CABINET	Check Adjuster's contact with surface.	Daily
MONITOR	Check Adjustments.	Monthly
	Cleaning of CRT surfaces.	Weekly
COIN CHUTE TOWER	Check COIN SW.	Monthly
	Coin insertion test.	Monthly
	Cleaning the COIN SELECTOR	Monthly
Cabinet surfaces	Cleaning	As necessary
INTERIOR	Cleaning	Annually
POWER SUPPLY PLUG	Inspection and cleaning	Annually

CLEANING CABINET SURFACES

If the cabinet is badly stained, use a cloth which is dipped in the chemical detergent liquid diluted with water and then squeezed dry. Do not use thinner, benzene, alcohol or chemical dustcloth as these can damage Cabinet surfaces.



11. 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.	Plug in correctly Make sure that power supply/voltage is correct
Irregular sound emitted from inside 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 12.)
No sound is emitted.	Sound Volume adjustment is not appropriate. Sound BD and speaker are malfunctioning.	Adjust sound volume. (see Section 7). Perform sound test to find and replace defective parts.(Refer to Section 7).

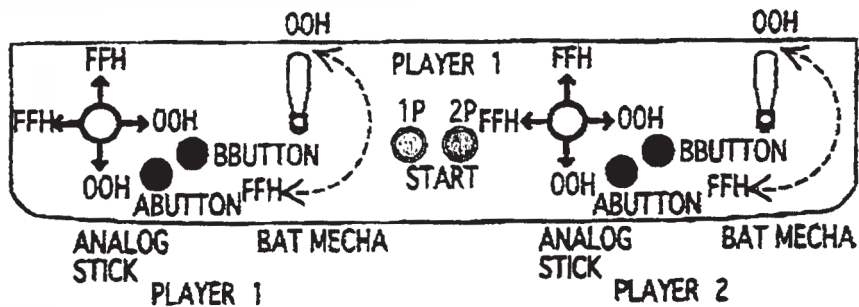
12. CONTROL PANEL/BAT MECHA



WARNING!

- 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.

12 - 1 CONTROL PANEL



EXPLANATION OF CONTROLS:

ANALOG STICK: Move cursor (for throwing, batting); Specify base (for defense, base running)

SW1: Throw (for defense); Steal base (for batting); Advance to next base (for base running) Enter command (within acceptable time).

SW2: Check runner (for throwing); Move between bases (for defense); Return to base (for running) Enter command within acceptable time).

BAT MECHA: Throw, Swing.

START: Start game; Time out (for throwing, batting)

The analog input on the I/O board uses the following channels:

- CH0: 1P ANALOG STICK VOLUME VERTICAL UP(FFH) DOWN(00H)
- CH1: 1P ANALOG STICK VOLUME HORIZONTAL LEFT(FFH) RIGHT(00H)
- CH2: 1P BAT MECHA VOLUME STANDARD POS.(00H) MAX(FFH)
- CH3: (RESERVE)
- CH4: 2P ANALOG STICK VOLUME VERTICAL UP(FFH) DOWN(00H)
- CH5: 2P ANALOG STICK VOLUME HORIZONTAL LEFT(FFH) RIGHT(00H)
- CH6: 2P BAT MECHA VOLUME STANDARD POS.(00H) MAX(FFH)
- CH7: (RESERVE)

REMOVING AND ATTACHING THE BAT MECHA

If you need to remove the BAT MECHA as in the case of a failure, open control panel base and remove the BAT MECHA through the following procedure.

To reinstall the BAT MECHA, reverse the removing procedure, being certain that the BAT MECHA is faced in the correct direction.

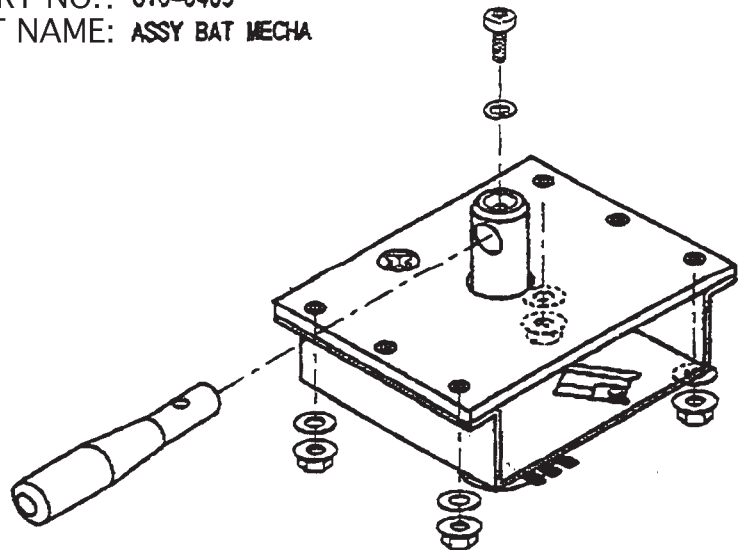


CAUTION!

To prevent electrical shock, be sure to turn off power to the cabinet when removing or attaching the BAT MECHA

- 1.) Remove the wiring connector (AMP 3P, white) located near the volume.
- 2.) Remove the tamperproof screw clamping the bat center axis on the front side of the control panel.
- 3.) Remove the four flange nuts clamping the BAT MECHA body on the back side of control panel.

PART NO.: 610-0409
PART NAME: ASSY BAT MECHA



13. 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.

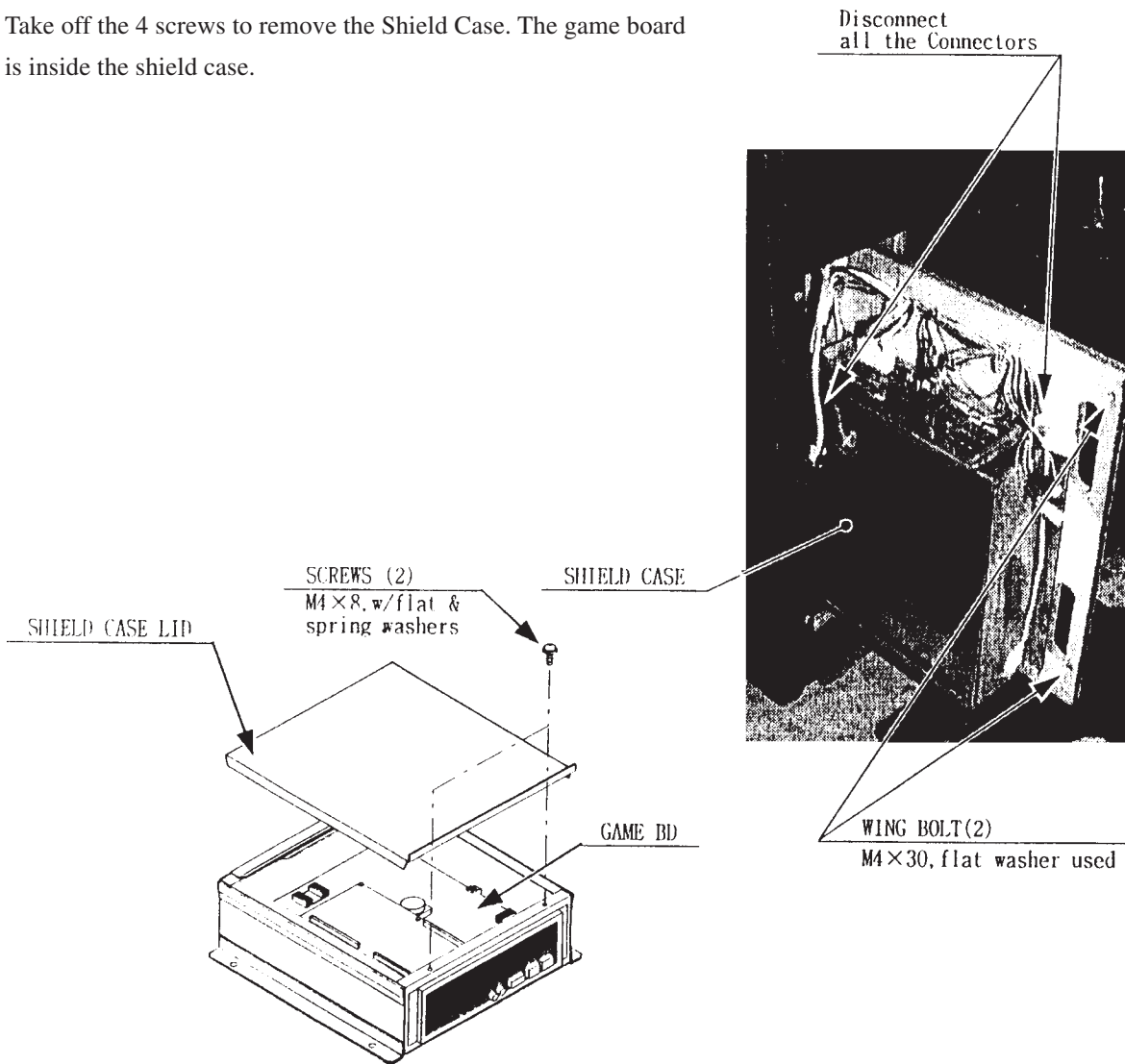


Do not expose the Game BD, etc. without a good reason. In this product, setting changes are made during the test mode. The Game BD need not be operated. Use the Game BD, etc. as is with the same setting made at the time of shipment.

13 -1 REMOVING THE GAME BOARD

To replace the IC Board or to change dip switch settings, take out the IC board using the following procedure;

- ① Turn main switch off.
- ② Unlock Cabi Drawer, pull outward, exposing all game components.
- ③ Disconnect all connectors connected to the Shield Case.
- ④ Take off the 4 screws to remove the Shield Case. The game board is inside the shield case.



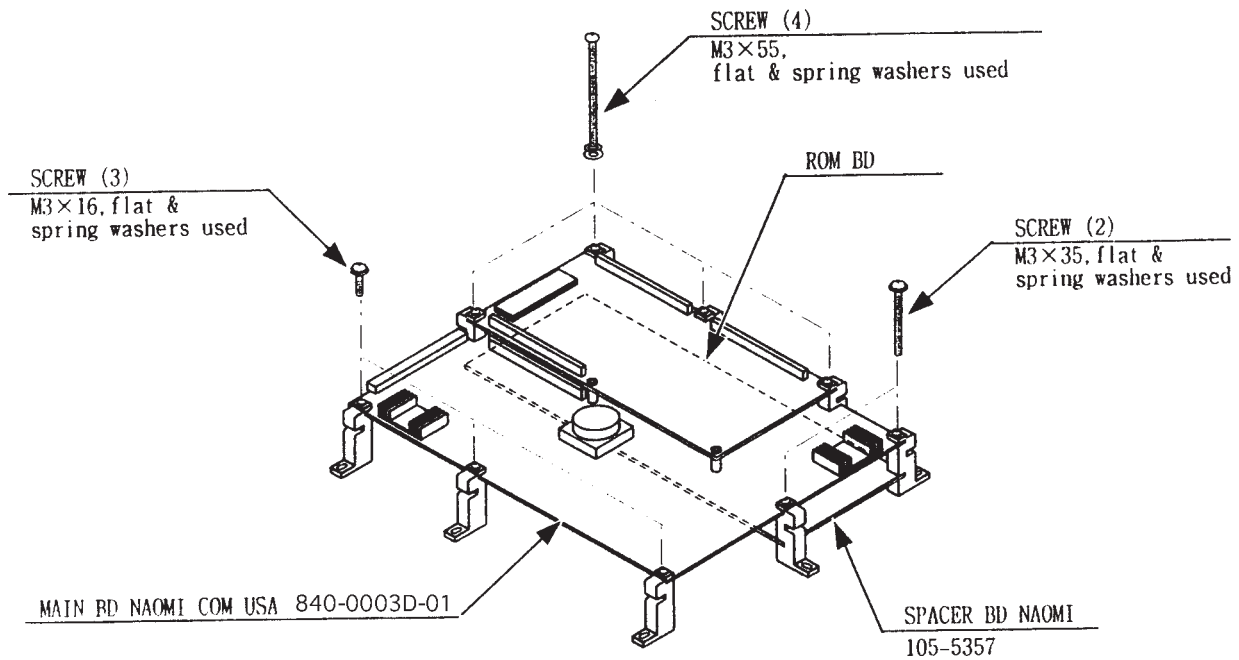
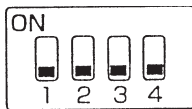
13 -2 COMPOSITION OF GAME BOARD



IMPORTANT!

Ensure that the DIP SW setting is performed as designated. Failure to observe this may cause functioning not suitable for the operation of product, or malfunctioning.

ASSY CASE NAO USA (840-0003D-01) : WORLD SERIES '99

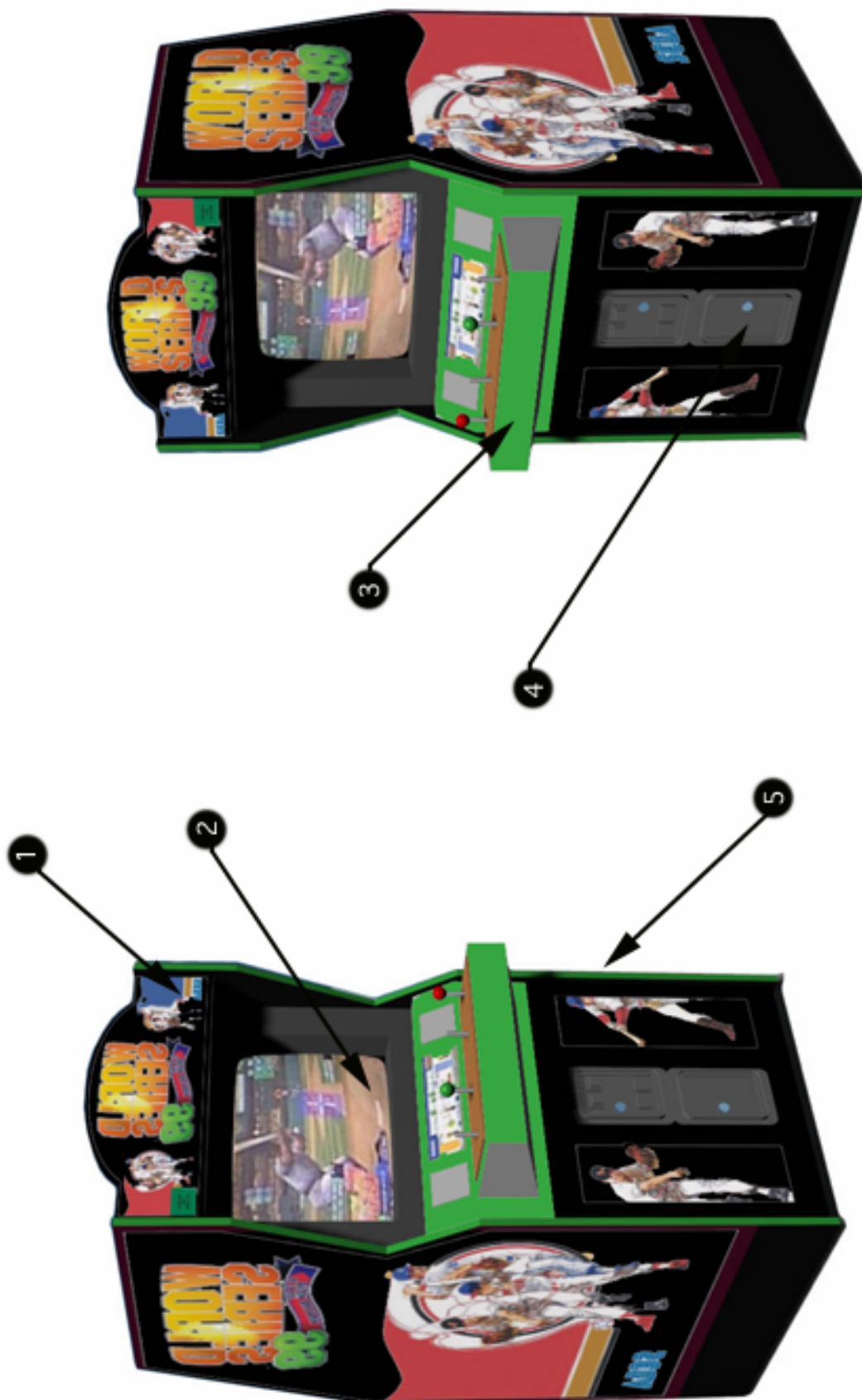


14. DESIGN RELATED PARTS



15. PARTS LIST

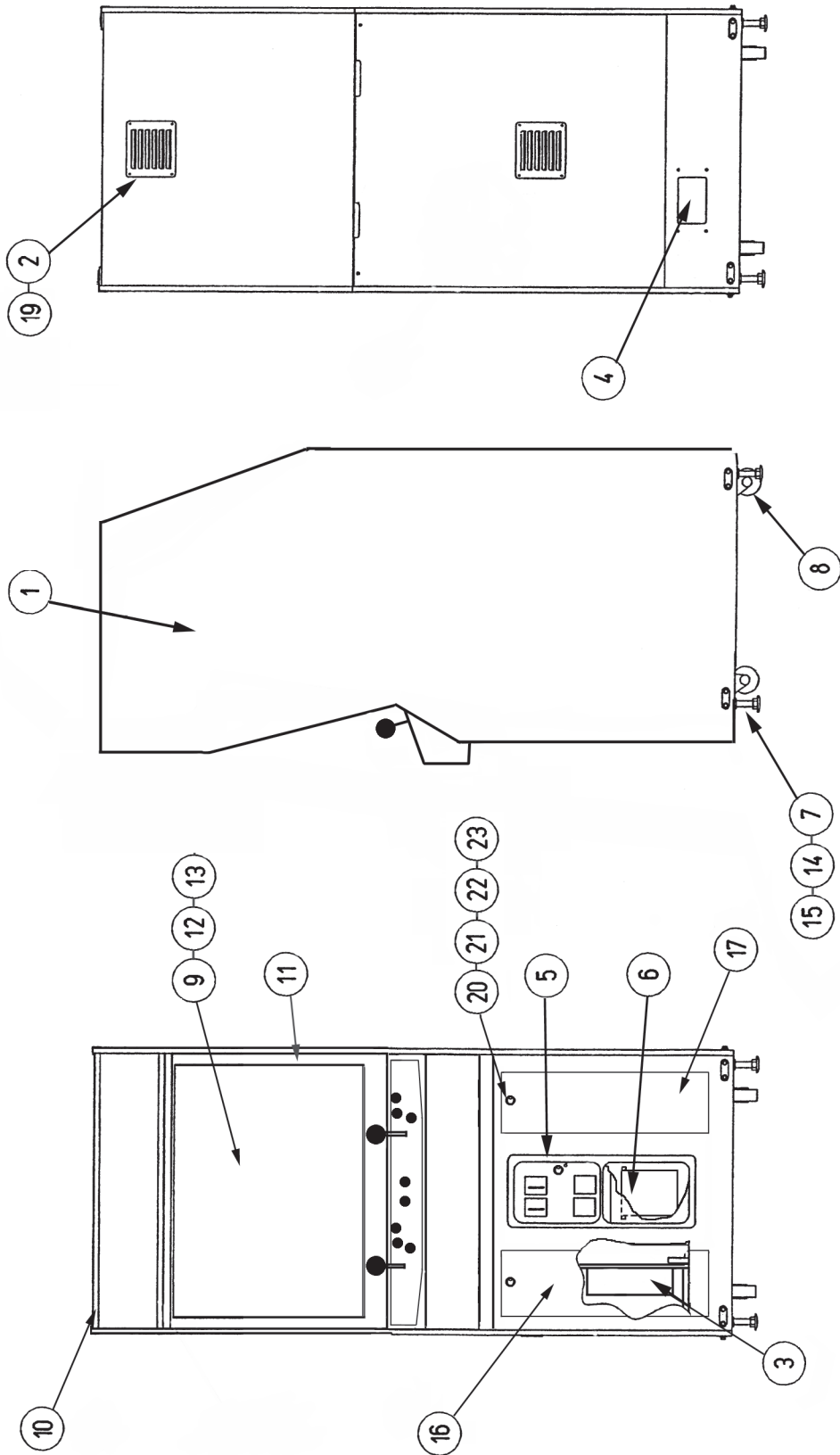
TOP ASSYMLB



TOP ASSY MLB_WS99

ITEM NO.	PART NO.	DESCRIPTION
1	NOT AVAILABLE*	ASSY BILLBOARD MLB_WS99
2	HOD1-1570	ASSY MONITOR 29TYPE 31K
3	SEE DESCRIPTION*	ASSY CONTROL PANEL MLB_WS99
4	SEE DESCRIPTION*	ASSY COIN TOWER
5	SEE DESCRIPTION*	ASSY SUB-CABINET MLB_WS99

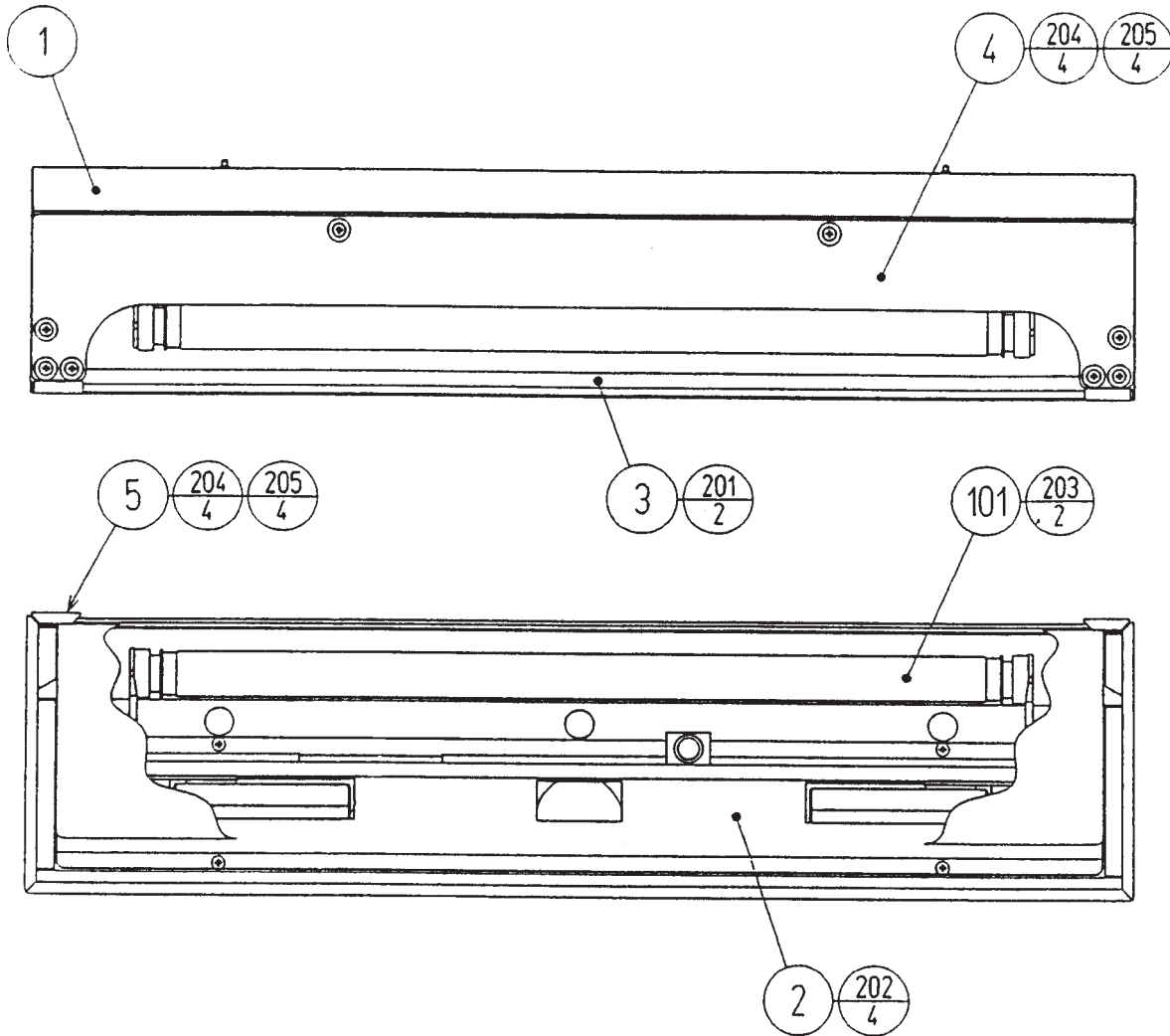
* THESE ITEMS ARE NOT SOLD AS COMPLETE UNITS, PLEASE SEE INDIVIDUAL ASSEMBLIES FOR PART NUMBERS OF ALL ITEMS CONTAINED ON THEM.



ASSY SUB CABI MLB_WS99

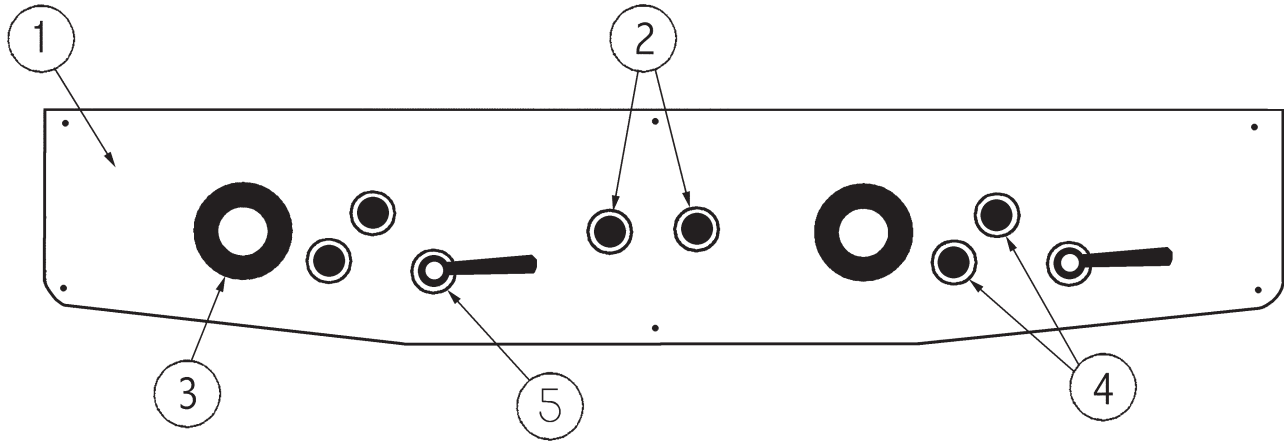
ITEM NO.	PART NO.	DESCRIPTION
1	NOT AVAILABLE	ASSY CABINET
2	HOD-1530	FAN UNIT
3	HOD5-4500	ASSY ELEC BASE
4	DRT1-0400	ASSY AC UNIT
5	92-1003-05	ASSY C.C. 2 DOOR
6	BOX-CASH	CASH BOX
7	601-5699X	LEG ADJUSTER BOLT M16X75
8	601-9377	CASTER FAI=75
9	999-0781	MONITOR GLASS 29" MLB_WS99
10	HOD5-3500	ASSY BILLBOARD
11	999-0782	MONITOR BEZEL 29" MLB_WS99
12	AIN-1033	GLASS HOLDER UPPER
13	COP-1510	GLASS HOLDER LOWER
14	ARC-1006	LEG BRACKET
15	SCR-1008	NUT PLATE FOR CASTER
16	HOD-1502	FRONT DOOR L
17	HOD-1505	FRONT DOOR R
19	253-5460-01	AIR VENT BLACK
20	DP-1148X	LKG TNG
21	DP-1167	TNG LKG
22	117-0062	PLATE LOCK RETAINER
23	117-5098	TNG RETAINER PLATE

ASSY BILLBOARD



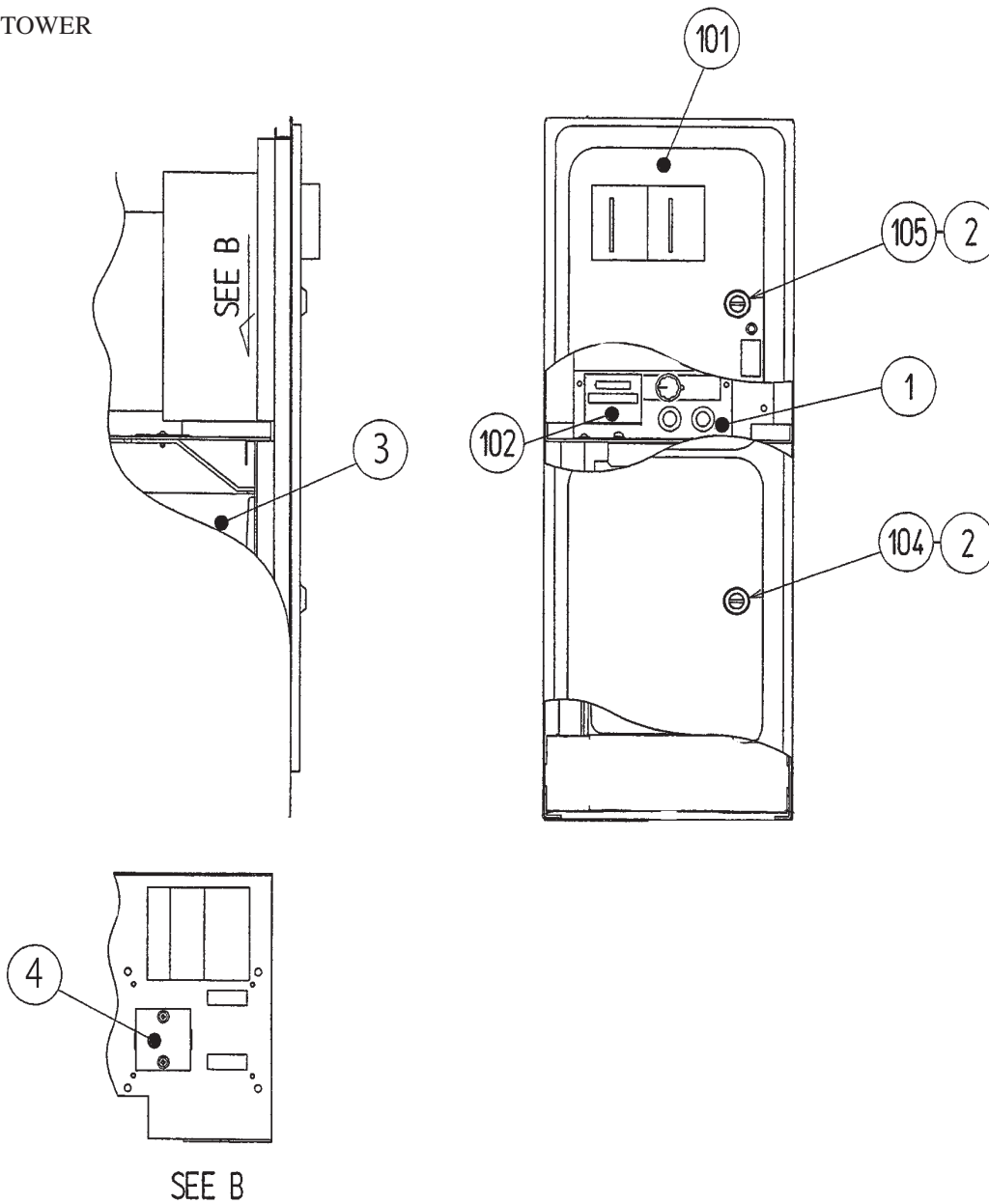
ITEM NO.	PART NO.	DESCRIPTION
1	HOD1-3501	BILLBOARD CASE
2	JPT-3502	REFLECTOR
3	999-0820	MARQUEE PLEX
4	HOD-3504	LAMP COVER B
5	HOD-3505	BILLBOARD UPPER SASH
101	LOCAL PURCHASE	ASSY FL20W SD W/CONN HIGH L
201	000-FOO408-0B	M SCR FH BLK M4X8
202	000-TOO408-0B	M SCR TH BLK M4X8
203	000-P00430-W	M SCR PH W/FS M3X30
204	000-T00412-0B	M SCR TH BLK M4X12
205	068-441616-0B	FLT WSHR BLK 4.4-16X1.6

ASSY CONTROL PANEL



ITEM NO.	PART NO.	DESCRIPTION
1	999-0824	CONTROL PANEL PLATE MLB_WS99 NAO
2	509-5560-Y	PB SW W/L 6V 1L Y
3	610-6723-4C01	ASSY ANALOG JOY 4C GREEN
4	509-5561-G	PB SW W/L 6V 5L G
5	610-0409	ASSY BAT MECHA

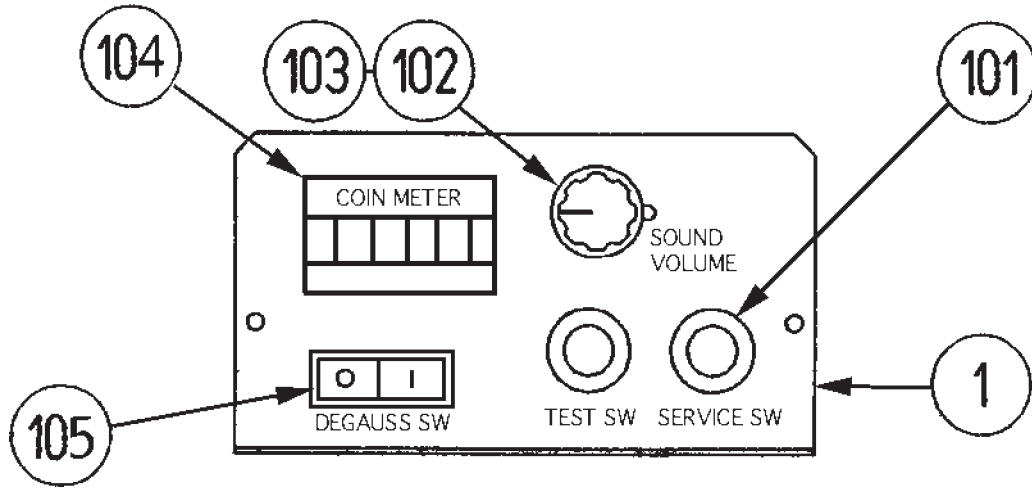
ASSY COIN TOWER



ITEM NO.	PART NO.	DESCRIPTION
1	SPG1-0350	SW UNIT
2	DP-1167	TNG LKG
3	BOX-CASH	CASH BOX
4	105-5202	HOLE COVER
101	92-1003-05*	ASSY C.C. 2DR
102	220-5412	MAG CNTR W/CONN
104	220-5574	CAM LOCK W/KEYS
105	220-5575	CAM LOCK MASTER W/O KEY

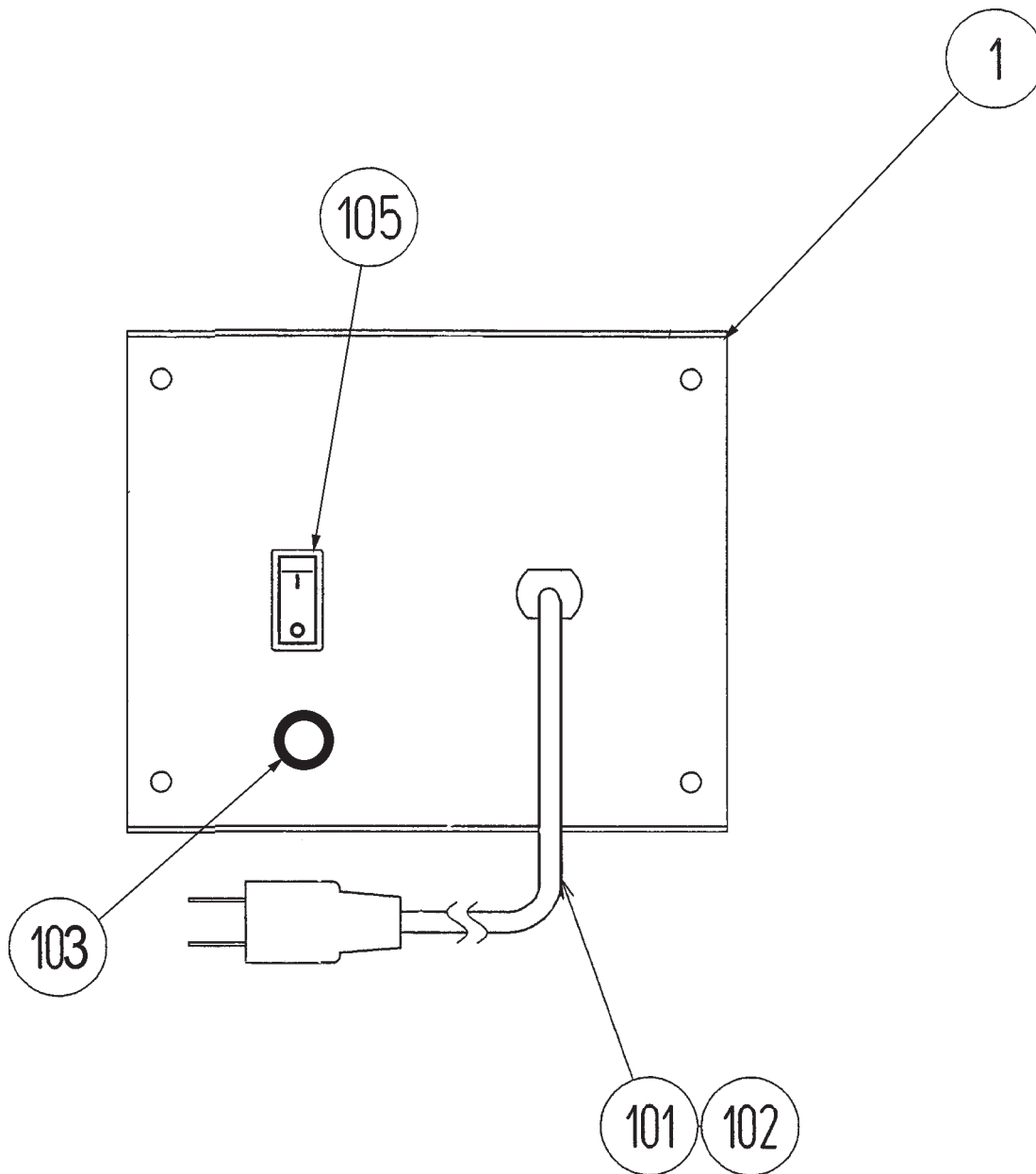
*This is a COIN CONTROLS PART No. and can be ordered through them, please view insert in the COIN DOOR Chapter of this manual for more information.

ASSY SW UNIT (SPG5-0350)



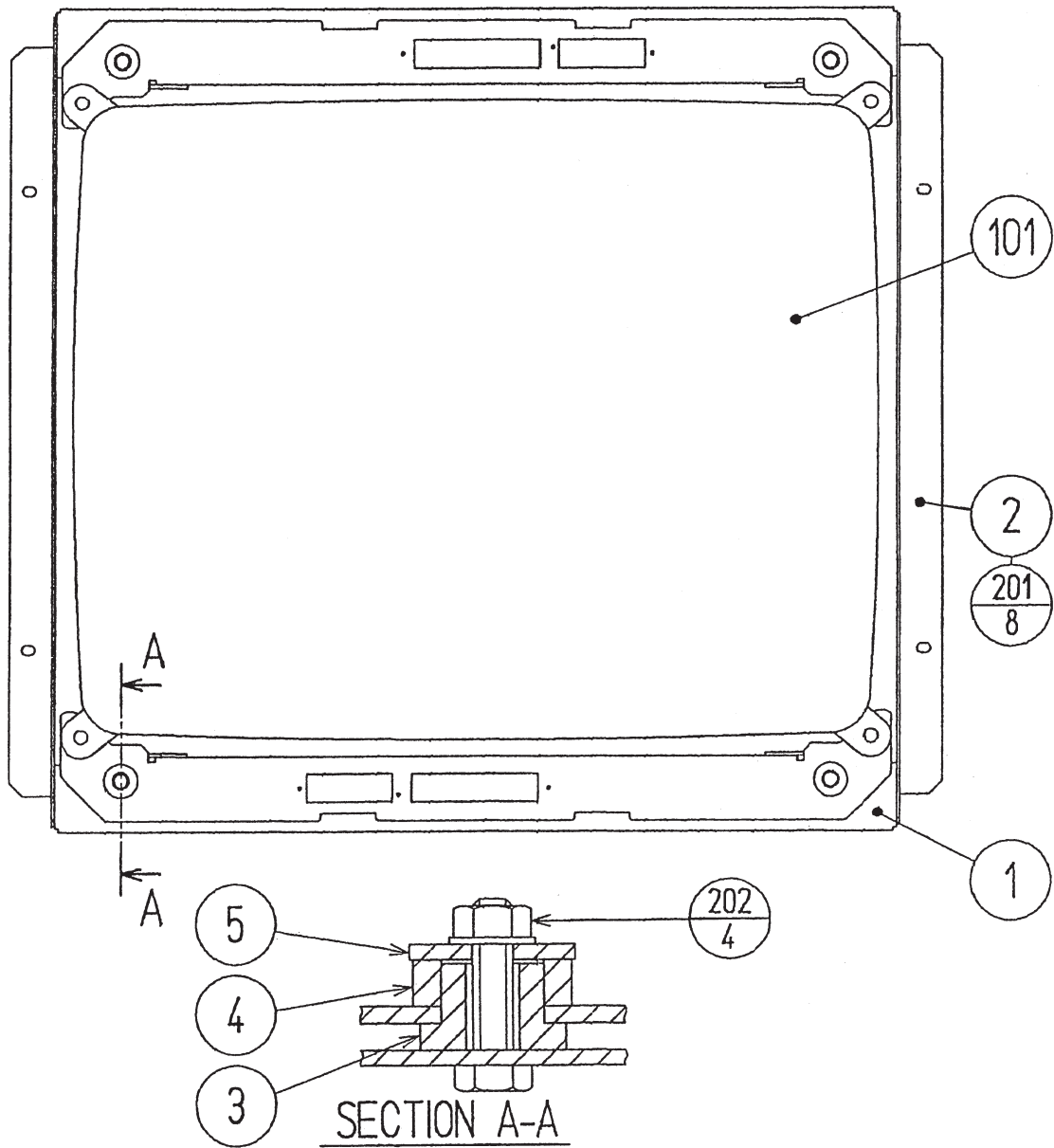
ITEM NO.	PART NO.	DESCRIPTION
1	SPG5-0351	SWITCH BRKT
101	509-5028	SW PB 1M
102	220-5179	VOL CONT B-5K OHM
103	601-0042	KNOB 22MM
104	220-5412	MAG CNTR W/CONN
105	509-5453-91-V-B	ROCKER SWJ8 V-B

ASSY AC UNIT (DRT1-0400)



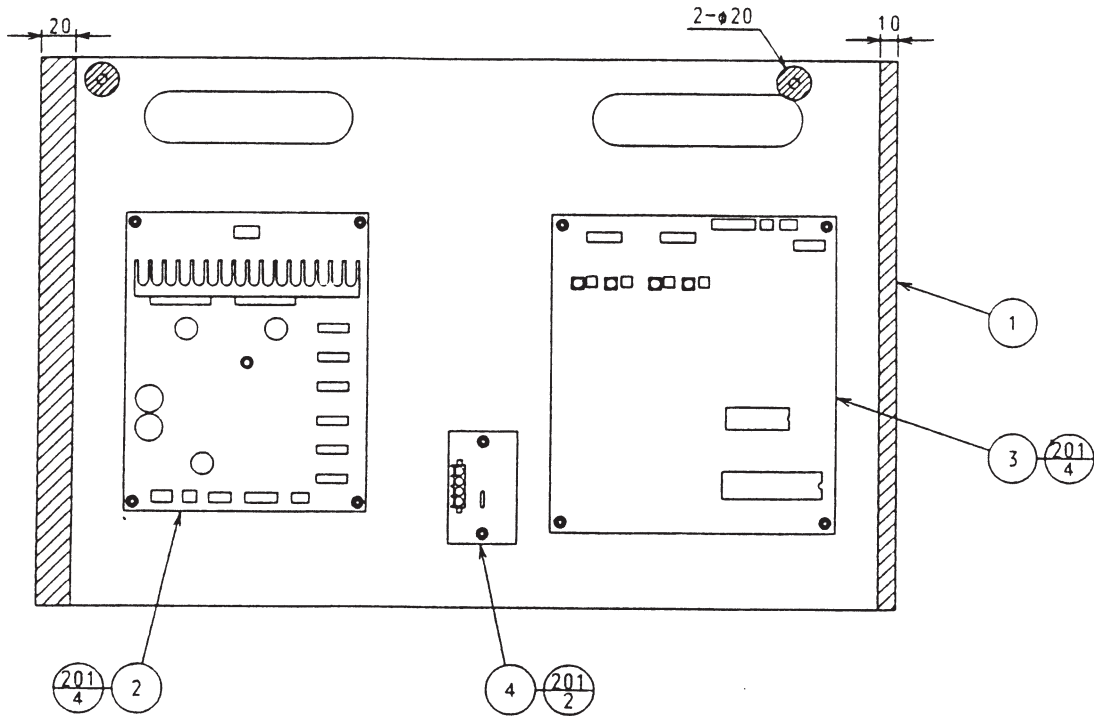
ITEM NO.	PART NO.	DESCRIPTION
1	SPG1-0401	AC BRKT
101	600-5843-25	CA & PLUG ASSY 15A W/F-L=2.5M
102	280-5134-6N34	BUSHING STRAIN RELIEF 6N34
103	LOCAL PURCHASE	FUSE 5A
105	509-5453-91-V-B	SW ROCKER J8 V-B

ASSY MONITOR 29TYPE 31K (HOD1-1570)



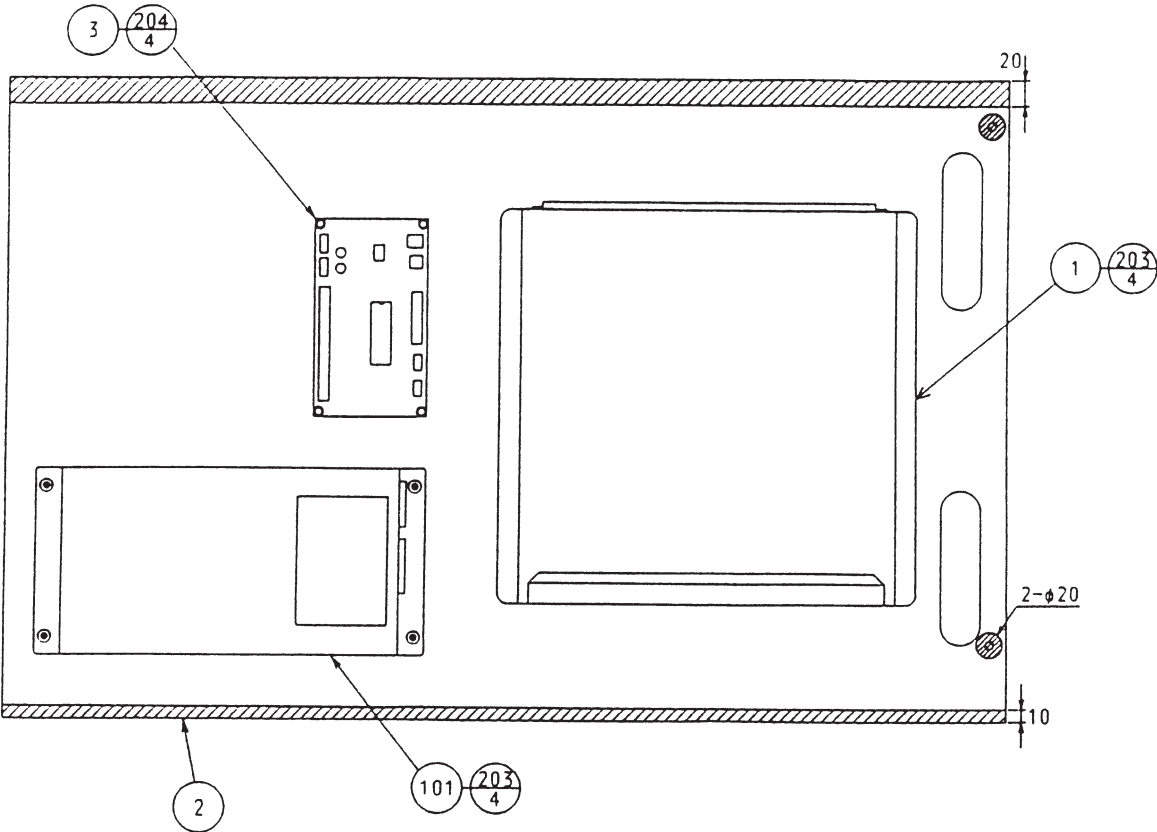
ITEM NO.	PART NO.	DESCRIPTION
1	AIN-1026	MONITOR BRKT A
2	AIN-1027	MONITOR BRKT B
3	280-5112	BUSH FOR TV
4	280-5113	COLLAR FOR TV
5	280-5114	SPACER 6.4-25X2
101	200-5787	ASSY CLR DSPL 29TYPE 31K 100V
201	000-P00512-W	M SCR PH W/FS M5X12
202	050-F00600	FLG NUT M6

ASSY PWR SUPPLY U/R (MLB-4500)



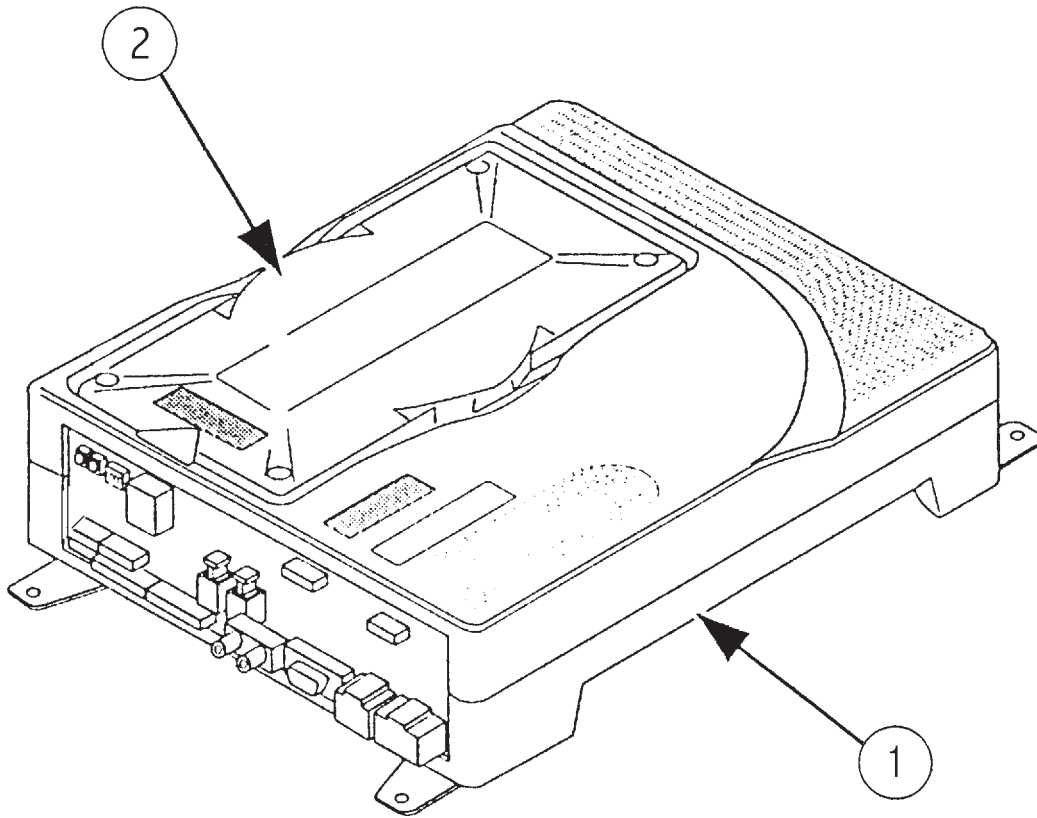
ITEM NO.	PART NO.	DESCRIPTION
1	NOT AVAILABLE	WOODEN BASE ELEC
2	838-11650-29	EQ PWR AMP JPT C
4	839-0979	LAMP COVER B
201	011-P00325	TAP SCR PH 3X25

ASSY MAIN BD U/R (MLB-4600)



ITEM NO.	PART NO.	DESCRIPTION
1	105-5345	ASSY SHIELD CASE NAOMI
2	NOT AVAILABLE	WOODEN BASE MAIN BD U/R
3	837-13551	I/O CONTROL BD FOR JVS
101	400-5330-03	SW REGU FOR MODEL3
203	000-P00416-W	M SCR PH W/FS M4X16
204	011-P00325	TAP SCR PH 3S25

ASSY SHIELD CASE NAO MLB (840-0012D)



ITEM NO.	PART NO.	DESCRIPTION
1	840-0001A-01	GAME BD MLB_WS 99 USA
2	840-0012C	ROM CASE