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# **INTRODUCTION OF THE OWNER'S 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 **GUN BLADE NY**, 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 415-632-7580 Fax 415-632-7594 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**

 $\cdot$  Verify the amperage of the branch circuit outlet before plugging in the power plug. Do not overload the circuit.

 $\cdot$  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**

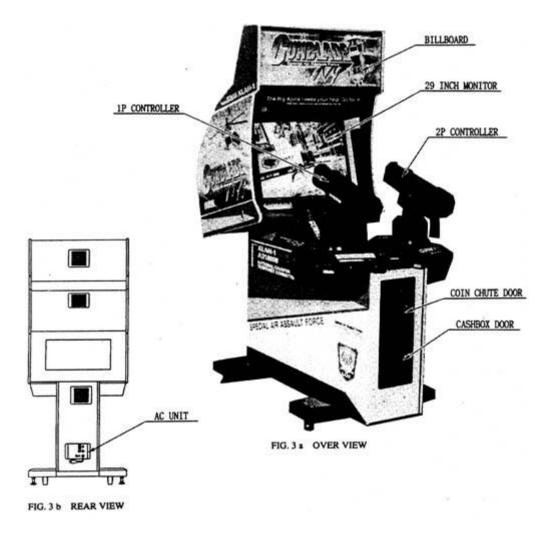
This game has been tested and found to comply with the Federal Communications Commission Rules.

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.



# **SPECIFICATIONS**



	WIDTH	LENGTH	HEIGHT	WEIGHT
ASSEMBLED GAME	48 IN	73 IN	89 IN	662 IN

# **INSTALLATION ITEMS**

The following items are supplied with the machine. Be sure that these items remain with the game if it is transported or sold.

- 1 Service Manual, Gun Blade NY
- 1 Tamperproof wrench, M4
- 1 Tamperproof wrench, MS
- 1 Remote Controller, Mitsubishi Projection TV

# **ASSEMBLY AND PRECAUTIONS**

- Perform the assembly work by following the procedure stated herein. Failing to comply with the instructions can cause an injury or electrical shock.
- Assembly should be performed as per the instructions in this manual. This is a complex machine and erroneous assembly can cause electrical shock or damage to the machine resulting in undesired operation.
- When assembling the machine, be sure that more than one person is available to perform the work. Depending on the assembly work, there are some cases in which performing the work alone can cause personal injury or damage the game.

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

- 1 Securing in place (leg adjusters)
- 2 Assembly check
- 3 Power check

# **LEG ADJUSTERS**

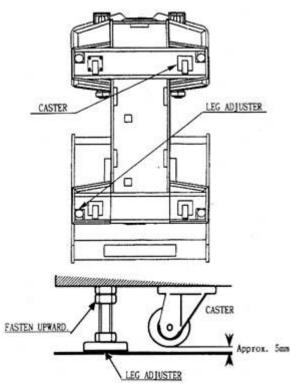
Make sure that all the leg adjusters are in contact with the floor. If not, the cabinet may move, causing an accident.

This machine has 4 casters and 4 leg adjusters. When the installation position is determined, cause the leg 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.

Move the machine to the installation position.

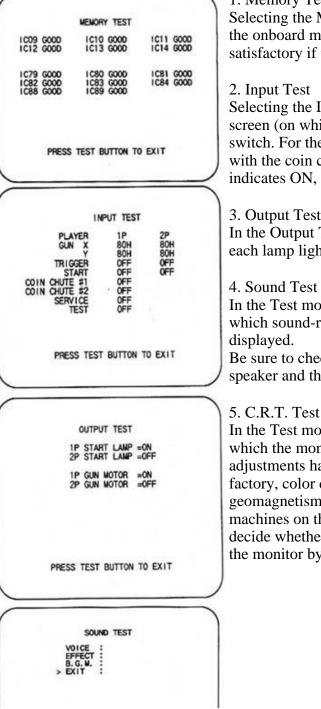
Cause all of the leg adjusters to make contact with the floor. By using a wrench, make adjustments in the height of the leg adjusters to ensure that the machine's position is level.

After making adjustments, fasten the leg adjuster nut upward and secure the height of the leg adjuster.



## **Assembly Checks**

In the test mode, perform the following tests:



## 1. Memory Test

Selecting the Memory Test on the test mode menu screen causes the onboard memory to be tested automatically. The game board is satisfactory if the display beside each IC number shows GOOD.

Selecting the Input Test on the test mode menu screen causes the screen (on which each switch is tested) to be displayed. Press each switch. For the coin switch test, insert a coin from the coin inlet with the coin chute door open. If the display beside each switch indicates ON, the switch and wiring connections are satisfactory.

## 3. Output Test

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

In the Test mode, selecting Sound Test causes the screen (on which sound-related board and wiring connections are tested) to be

Be sure to check if the sound is satisfactorily emitted from each speaker and the sound volume is appropriate.

In the Test mode menu, selecting C.R.T. Test allows the screen (on which the monitor is tested) to be displayed. Although the monitor adjustments have been made at the 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 on the periphery. By watching the test mode screen, decide whether an adjustment is needed. If it is necessary, adjust the monitor by referring to the Monitor Adjustments section.

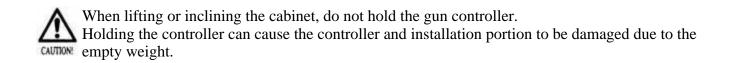
# **POWER CHECKS**

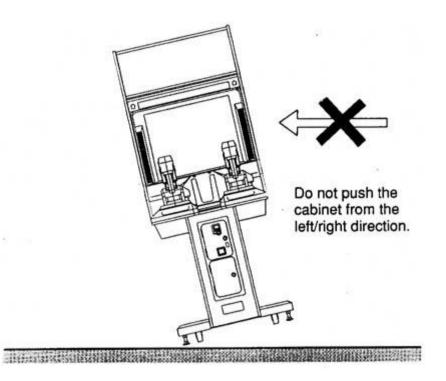
When moving the machine, be sure to pull the plug out from the power supply. Moving the machine with the plug inserted can cause the power cord to be damaged, resulting in fire or electric shock.

When moving the machine on the floor, retract the leg adjusters so that the casters come in contact with the floor. During transportation, pay careful attention that the casters do not tread over power cords or wires. Damaging the power cords can cause short circuit or electric shock.

In places with steps or inclines, separate the PTV from the base and cabinet to move them. Attempting to move these parts together, or incline the PTV as it is attached to the base can cause the PTV to fall from the base.

When moving the PTV, do not push it from the front or rear. Push from the side at all times. Pushing the PTV from the front or rear can cause it to overturn causing damage and serious personal injury. Due to the weight of the PTV cabinet, have two or more persons available at all times when attempting to move the PTV.





## **OPERATION**

To ensure safe operation of the product, be sure to comply with all the following precautions.

Be sure that all the leg adjusters are in contact with the floor surface. If they are not, the cabinet can move and cause an accident.

warms? Do not put any heavy items on the product. Placing heavy items on the product can cause a accident. Do not climb on the game. Climbing on the game can cause accidents as well as damage to the controller and other parts. To inspect the upper portion of the game, use a sturdy step or ladder.

To avoid accidents, be sure to provide a sufficient space for operation by considering the most crowded situations. Insufficient space for operation can cause customers to come in contact with the moving parts of the game and hit each other, resulting in injury.

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

To avoid electric shock and short circuit, do not allow customers to put hands and fingers or extraneous matter into openings of product or small openings in and around the doors. To avoid falls or injuries, prevent customers from leaning on or climbing on the game. To avoid electric shock, do not allow the customers to unplug the power plug without good reason. To avoid injury resulting from falling objects or electric shock due to spilled liquids, do not allow customers to place heavy items or drinks on the machine.



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

## HOW TO PLAY

Insert coin(s). When the number of credits needed for game play are available, "PRESS START" is displayed. Press the start button to have the mission select screen appear.

Choose from one of the three missions, REGAIN THE UN HQ, BIG APPLE LIBERATION, and SCORE ATTACK REMIX, by sighting the desired one and pulling the trigger.

Moving the sight with the controller and pulling the trigger fires projectiles repeatedly.

The enemy who is trying to shoot you is indicated with a warning marker.

In the missions except SCORE ATTACK REMIX, destroying all the enemies in a stage clears that stage, allowing procession to the next stage. In the SCORE ATTACK REMIX, when one minute has elapsed in each stage, the player proceeds to the next stage.

When each player's endurance is exhausted, the game is in the status of waiting to continue. If no coins are inserted to continue the game, the game is over.

### **Features of Each Mission**

REGAIN THE UN HQ

To regain the UN headquarters. The difficulty is relatively easy. BIG APPLE LIBERATION Confront the terrorists to regain Manhattan. This level is relatively difficult.

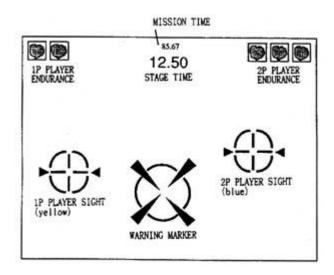
SCORE ATTACK REMIX

Different from the above two missions, each stage in this mission ends in one minute and the player proceeds to the next stage. Also, note that in this mission, which stage the player proceeds to after finishing a stage depends on the score earned in the stage that was finished.

#### Advice

The enemy's projectile can be shot down. Pay attention not only to attacking but also to defense. When attacked, the enemy is thrown in the air or escapes. When attacking the enemy, read its movements ahead of time.

There is nothing the player should not shoot. Depending on the attack, some items will explode. Try to effectively utilize these explosions.



# EXPLANATION OF TEST AND DATA DISPLAY

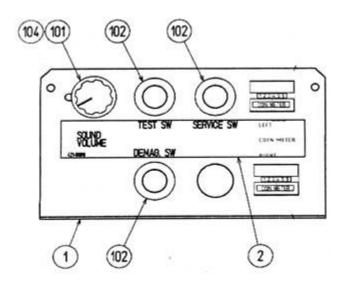
By operating the switch unit, periodically perform the tests and data check. When installing the machine initially, or collecting cash, or when the machine does not function properly, perform checks in accordance with this section.

The following test modes should be utilized as applicable.

Items	Description
Installation of Machine	<ul> <li>When the machine is installed, perform the following:</li> <li>1. Check to see that each setting is per standard setting made at the time of shipment.</li> <li>2. In the INPUT test mode, check each SW and VR.</li> <li>3. In the OUTPUT test mode, check each of the lamps, motors, etc.</li> <li>4. In the MEMORY test mode, check the IC's on the PC board.</li> </ul>
Memory	Choose MEMORY test in the MENU mode to allow the memory test to be performed. In this test, PROGRAM RAMs, ROMs and IC s on the PC board are checked.
Monthly Servicing	Monthly 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 the lamps.
	In the INPUT test mode, check each SW and VR. Adjust or replace each SW or VR. 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 correct.
IC Board	1. MEMORY TEST2. 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.

# SWITCH UNIT

Do not touch places other than those specified. Touching places not specified can cause an electric shock or short circuit.



Open the coin chute door and the switch unit shown will appear. The functioning of each SW is as follows:

TEST BUTTON	For the handling of the test button, refer to the following pages.
SERVICE BUTTON	Gives credits without registering on the coin meter.
SPEAKER VOLUME	Can adjust the volume of all speakers of the machine. By considering the environmental aspects of the installation location, adjust to the appropriate sound volume.
SUPER WOOFER VOL	Only the sound volume of the cabinet superwoofer can be adjusted.
COIN METER	Registers total number of coins.

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## **TEST MODE**

The Test Menu allows the functioning of each part of the Cabinet to be checked, the monitor to be adjusted, and the coins and game related various settings to be performed.

- Press the **Test Button** to cause the following Test Menu to be displayed on the monitor.
- Press the **Service Button** until the arrow ---> is moved to the desired item to make a selection.
- Bring the arrow ---> to the desired item and press the **Test Button** to enter the selected item's test.
- Choosing EXIT and pressing the Test Button will finish the test mode, and the game mode returns on the screen after network checking.

TEST MENU	
MEMORY TEST	
INPUT TEST	
OUTEUT TEST	
SOUND TEST	
C.R.T. TEST	
GALLE ASSIGNMENTS	
ÇQIN ASSIGNMENTŞ	
AIM SET	
. BOOKKEEPING	
BACKUP DATA CLEAR	
> EXIT	
SELECT WITH SERVICE BUTTON	1
AND PRESS TEST BUTTON	
	)

## **MEMORY TEST**

The Memory Test mode is for checking the on-board memory IC functioning. GOOD is displayed for normal ICs and BAD is displayed for abnormal ICs.

- When the test is completed, if the results are shown as below, it is satisfactory.
- When the test is not finished, IC Board malfunctioning may be the cause.
- After finishing the test, press the Test button to return to the Menu mode.

	MEMORY TEST		
1009 0000	1010 6000	1011 6000	
1012 6000	(C13 6000	IC14 GOOD	
1079 6000	1080 6000	IC81 600D	
1C82 G00D	1083 6000	1C84 G00D	
1088 6000	1089 6000		
PRESS	TEST BUTTON TO	7 EXIT	

## **INPUT TEST**

When Input Test is selected, the monitor will show the following, allowing you to watch the status of each switch. On this screen, periodically check the status of each switch.

- By pressing each switch, if the display on the right-hand side of the name of each switch changes to ON from OFF, the switch and the wiring connections are satisfactory. When the Controller (Lever) is operated in the direction of the arrow, the right-hand side indication of the Switch name becomes ON.
- To check Coin Chute #1 and Coin Chute #2 Coin Switches, open the Coin Chute Door and insert coin(s) into the slot.
- To return to the Menu mode, press the Test button.

IN PLAYER GUN X Y TRIGGER START CDIN CHUTE #1 CDIN CHUTE #1 CDIN CHUTE #2 SERVICE TEST	PUT TEST 1P 80H 80H 0FF 0FF 0FF 0FF 0FF 0FF 0FF	21P 803H 800H DFF CFF	
PRESS TEST	виттон то	D EXIT	
GUN X : Und	left	right	
GUN Y : Und	down	up verbon	

# **OUTPUT TEST**

Selecting Output Test allows the status of each lamp to be viewed. Periodically check the status of each lamp on this screen.

<--- Repeatedly displays sequentially in order of Winner Lamp, 7-SEG. At this time lamp and 7-SEG L-ED tests are performed in the manner corresponding to the item displayed.

This game does not have 7-SEG LED. During the display of 7-SEG, only the Start button flashes.

- While this screen is displayed, the Start button continues to flash.
- Press the Test button to return to the menu mode.

		7
	CUTPUT TEST	
	1P START LAND WON	
[	2P START LAMP = OFF	
	11P GUN MOTORON	
	2P GUN MOTOR = OFF	
	PRESS TEST BUTTON TO EXIT	
Ę		)

## SOUND TEST

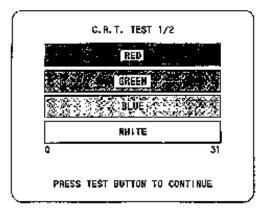
Selecting Sound Test allows sounds (sound effects, announcement, background music, etc.) to be chosen and heard. In this mode, check the sound-related IC Board and each speaker. Press the Service button to bring the arrow ---> to the desired sound item. Press the Test button to have the selected sound played. Each time the Test button is pressed, the next sound is played.

f	SOUND TEST	ì
	VOICE : EFFECT : B.G.M. : > EXIT :	
		!
	SELECT WITH SERVICE SUITION	
	AND MHESS TEST BUTTON	

## **CRT TEST**

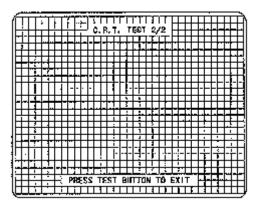
Choose CRT Test to display the screen on which the Monitor adjustment is checked. By watching the screen, periodically check if adjustments are needed or not. For adjustment, refer to the Section of Monitor Adjustment stated herein.

In figure below, check the Monitor's color adjustment. Perform color adjustment by watching this screen.



The color bar of 4 colors i.e. red, green blue and white is darkest at the left end and becomes brighter towards the right end.

Pressing the Test button will have the following crosshatch screen appear.



In this figure, check the Monitor size and position adjustment by watching the screen.

Adjust the Monitor in the manner so that the crosshatch lines to not go beyond the screen. Adjust the Monitor to ensure that crosshatch lines do not have distortions.

Press the Test button to return to the menu mode.

# **GAME ASSIGNMENTS**

Selecting **Game Assignments** will have the following screen appear, allowing play time, game difficulty, etc. to be set. Refer to the following for the contents of each item.

Before exiting the setting will not be changed. Be sure to press test to Exit after changing the setting. This will store your settings.

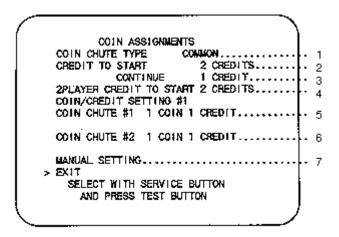
GAME ASSIG	SNMENTS	\$		
ADVERTISE SOUND COUNTRY GAME DIFFICULTY SHIFTING DIFFICULTY PLAYER LIFE GUN REACTION CABINET TYPE > EXIT		ON XXXXX 4 / 3 4 / 8 3 ON DX	]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]	
SELECT WITH SE	-			

Game Difficulty	Game difficulty can be varied by changing the enemy missile speed or the ratio of damage the player suffers when attacked, etc. Choose from among 4 levels, Easy, Normal, Hard, Hardest.
Advertise Sound	Set this to ON to have sound produced during Demo mode, and OFF for no sound.
Country	Message language. Select USA for USA and Export for other countries.
Cabinet Type	Set to Deluxe or Standard, depending on which type is applicable.

# COIN ASSIGNMENTS

This 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 is not effective until Exiting. Be sure to Press test to Exit after setting change.



Credit to StartSets the number of credits required when starting the game.Credit to<br/>ContinueThis sets the number of credits required to continue game.Coin/Credit<br/>SettingHow many coins correspond to how many credits. In this machine, selection as per<br/>the adjacent chart is possible.Manual SettingAllows for finer settings. See chart.

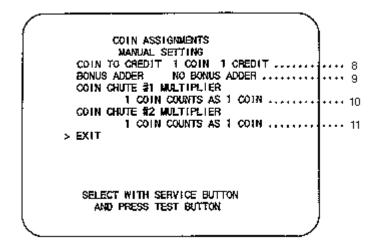
- 1. Press the Service button or Shift button to bring the arrow to the desired change item.
- 2. Press the Test button or the Start button to select the setting change item.
- 3. Move the arrow to Exit and press the Test button or the Start button to return the menu mode to the screen.

## COIN/CREDIT SETTING (COIN CHUTE COMMON TYPE)

NAME OF FUNCTIONING OF COIN FUNCTIONING OF COIN

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

## MANUAL SETTINGS



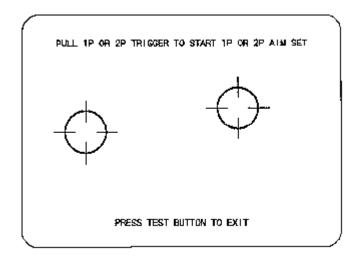
- 8 Determines conversion of coin/credit.
- 9 This sets how many conversion coins should be inserted to obtain one service coin.
- 10 This sets how many conversion coins are represented by a coin inserted in coin chute one.
- 11 This sets how many conversion coins are represented by a coin inserted in coin chute two.

	1 COIN, 1 CREDIT
	2 COINS, 1 CREDIT
	3 COINS, 1 CREDIT
	4 COINS, 1 CREDIT
COIN TO CREDIT	5 COINS, 1 CREDIT
	6 COINS, 1 CREDIT
	7 COINS, 1 CREDIT
	8 COINS, 1 CREDIT
	9 COINS, 1 CREDIT
	NO BONUS ADDER
	2 COINS GIVE 1 EXTRA COIN
	<b>3 COINS GIVE 1 EXTRA COIN</b>
	<b>4 COINS GIVE 1 EXTRA COIN</b>
BONUS ADDER	<b>5 COINS GIVE 1 EXTRA COIN</b>
	6 COINS GIVE 1 EXTRA COIN
	7 COINS GIVE 1 EXTRA COIN
	<b>8 COINS GIVE 1 EXTRA COIN</b>

	9 COINS GIVE 1 EXTRA COIN
	1 COIN COUNTS AS 1 COIN
	1 COIN COUNTS AS 2 COINS
	1 COIN COUNTS AS 3 COINS
	1 COIN COUNTS AS 4 COINS
COIN CHUTE MULTIPLIER	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

# **AIM SET / GUN CALIBRATION**

By adjusting the guns' VR value from the aspect of the software, the sighting position can be set correctly. After VR adjustment and replacement, or game board replacement, but sure to perform Aim Set on this screen.



### **Setting Procedure**

Pull the 1P (left player) gun trigger one time and release. Move the 1P gun fully to all of its mechanical stops (all directions). Pull and release the 1P gun trigger again to store the settings. Perform the same procedure (steps 1-3) on 2P gun (right player). Press the test button to have the menu mode return to the screen.



The above procedure must be performed each time the aim set test is entered to assure proper game play.

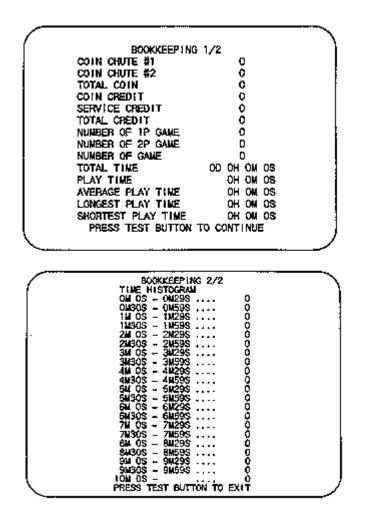
IMPORTANT:

## BOOKKEEPING

Selecting the bookkeeping in the menu mode displays the bookkeeping data up to the present on the following two screens.

Press the test button again to proceed to the next screen.

When screen 2/2 is displayed, pressing the test button returns to the menu mode.



- COIN CHUTE~ : Number of coins put in. As seen from the front of the cabinet, the right-hand side is #1 and the left-hand side is #2. Note that depending on the destinations, only one Coin Chute is available.
- TOTAL COIN : Total number of coins inserted in each coin chute.
- COIN CREDIT : Number of credits registered by inserting coins.

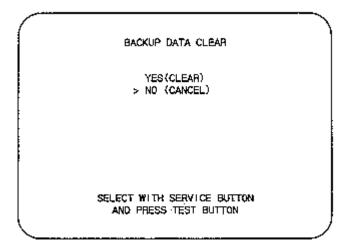
- SERVICE CREDIT : Credits registered by the SERVICE BUTTON.
- TOTAL CREDIT : Total number of credits (COIN CREDITS + SERVICE CREDITS).
- NUMBER OF 1P GAME : The number of game played by 1P (Left Player).
- NUMBER OF 2P GAME : The number of game played by 2P (Right Player).
- TOTAL TIME : The total energized time.
- TIME HISTOGRAM : By-playtime play frequency.

# **BACK UP DATA CLEAR**

Clears the contents of bookkeeping. When clearing, use the service button to bring the arrow (>) to "YES (CLEAR)" and press the test button. When data has been cleared, "COMPLETED" will be displayed.

Bring the arrow to "NO (CANCEL)" and press the test button to return to the menu mode without clearing the data.

Also, note that the game setting contents are not affected by the backup data clear operation.



# CONTROLLER

In order to prevent an electric shock and short circuit, be sure to turn off power before performing work that requires you to touch the interior of the product. Be careful so as not to damage any wiring. Damaged wiring can cause an electric shock or short circuit accident.

In the test menu, when the controllers VR values cannot be adjusted to the allowable range, it is necessary to adjust the VR installation position or replace the VR. Also, be sure to apply grease to the mechanism every 3 months.

To perform the above-mentioned work, remove the controller from the cabinet.

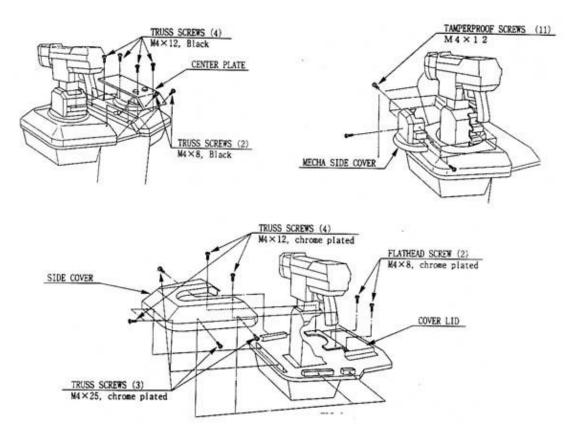
When performing this work, also remove the side cover and mechanism side cover.

### Removing the Side Cover and Mecha Side Cover

By taking off a total of 8 screws, remove the side covers L and R.

By taking off a total of 11 tamperproof screws, remove the mech side cover L and R.

Take off the two screws to remove the Hide Plate.



# **VR ADJUSTMENT**

Do not touch places other than those specified. Touching places not specified can cause an electric shock or short circuit.

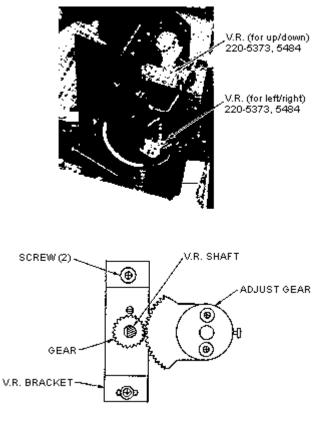
Loosen the 2 screws which secure the VR bracket in order to move the bracket.

Move the VR bracket to disengage the adjust gear mesh and move the VR shaft in a manner so that the VR shaft cut portion faces the opposite side of the adjust gear as shown.

Have the gears meshed and tighten the two screws.

Slowly swing the controller up and down, left and right to check if the value exceeded the VR mobile range.

After finishing adjustments, be sure to set sights on the aim set screen in the test mode.



## **VR REPLACEMENT**

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

By removing the cord clamp, first remove the VR blue 3P for up/down and VR red 3P for left/right. Take off the two screws which secure the VR bracket to remove the bracket.

Remove volume gear from the VR to replace the VR.

After replacing the VR, perform work by following the procedure as per VR adjustment.

#### **REPLACEMENT OF TRIGGER SW**

In order to prevent an electric shock and short circuit be sure to turn off power before performing work which involves touching the interior of the product. Be careful so as not to damage wiring. Damaged wiring can cause an electric shock or short circuit accident.

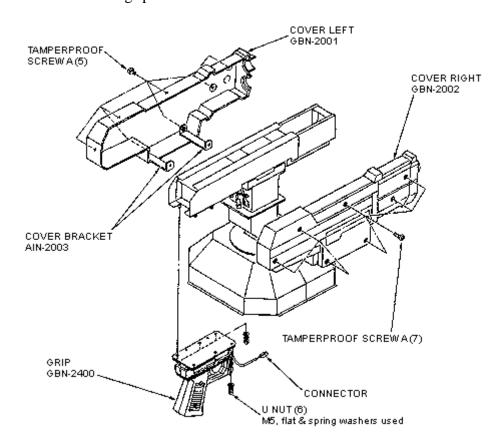
When the trigger is pulled, if ON is not shown in the trigger display in then test menu input test screen, the micro sw may be malfunctioning. In that case it is necessary to replace the micro sw.

#### **REMOVING THE GRIP**

Take off 7 tamperproof screws A and cover right.

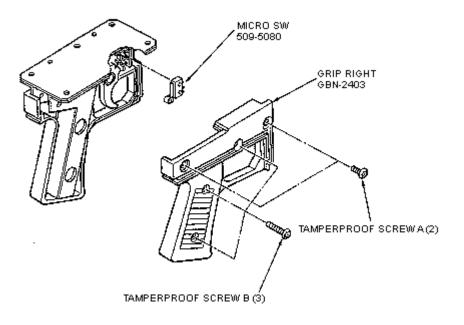
Take off 5 tamperproof screws A and remove the cover left with cover bracket attached to it. Pay attention to the wires attached to the bracket so that they are not damaged. Disconnect the connector which is connected to the grip.

Remove 6 U nuts to remove the grip.



## **REPLACING THE MICRO SWITCH**

Take off two tamperproof screws A and 3 tamperproof screws B to remove the Grip Right. In this status, the micro switch can be replaced.



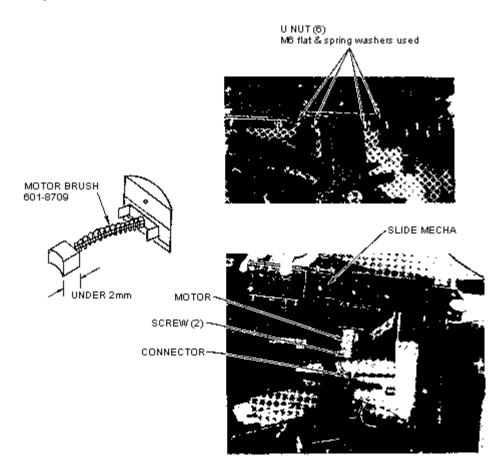
## **REPLACEMENT OF MOTOR BRUSH**

On the output test screen in the test mode, when 1P gun or 2P gun display indicates ON, if the gun does not vibrate, first check the switch unit's circuit protector. If the circuit protector is satisfactory, check the motor brush.

By referring to the figures below, remove the cover left, cover right and the grip.

Remove a total of 6 U nuts to withdraw the slide mecha. Pay attention to the wirings to remove the connector.

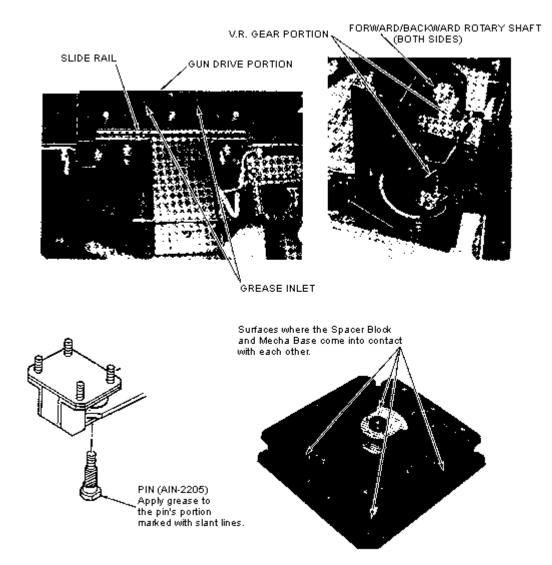
Take off the two screws from the lower part of the motor to remove the brush. If the motor brush is worn away as shown, replace the motor brush. When replacing the brush, be sure to replace brushes for both sides simultaneously.



#### GREASING

Be sure to apply grease to specified parts as indicated in the periodic maintenance schedule. Failure to apply the proper grease can result in damage to parts.

Once every three months, apply grease to the game mechanisms specified below. Use white lithium or spray grease as indicated.



#### 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. Tum 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.

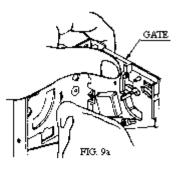
4. Remove the CRADLE.

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 off as per 5. above, further apply a dry cloth, etc. to cause the coin selector to dry completely.

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



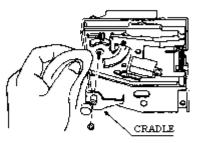
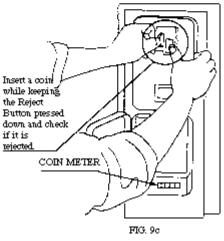


FIG.9b



#### **COIN INSERTION TEST**

Once every month, when perl 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 pressed down?

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# CAUTIONS AND WARNINGS CONCERNING SAFETY FOR HANDLING THE MONITORS

Before handling the monitors, be sure to read the following explanations and comply with the caution/ warning instructions given below. Note that the caution/warning symbol marks and letters are used in the instructions.

Indicates that handling the monitors erroneously by disregarding this warning may cause a potentially hazardous situation, which could result in death or serious injury.

Indicates that handling the monitors by disregarding this caution may cause a potentially hazardous situation, which could result in personal injury and/or material damage.

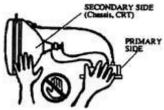
Indicates that access to a specific part of the equipment is forbidden.

Indicates the instruction to disconnect a power connector or plug.

When performing such work as installing and removing the monitor, inserting and disconnecting the external connectors to and from the monitor and its interior, be sure to disconnect the power connector (plug) before beginning the work. Proceeding the work without following this instruction may result in shock or malfunctioning.

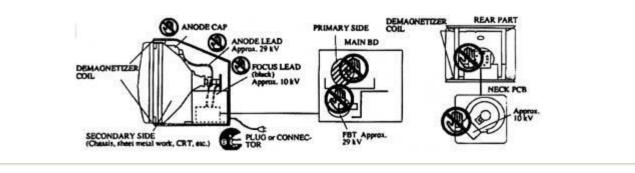
Using the monitor by converting it without obtaining prior permission is not allowed. SEGA shall not be liable for any malfunctioning and accidents caused by this conversion.

**Primary side and Secondary side** The monitor's circuit, which is divided into the Primary side and Secondary side, is insulated. Do not touch the primary side, and do not touch both sides simultaneously. Not following this instruction can cause a very dangerous shock. When making monitor adjustments, use a non-conductive driver and make adjustments without touching any part othor than the Adjustment V.R. and



knob. Also, be sure not to cause a short circuit to the Primary side and Secondary side. If short-circuited, it may cause a dangerous shock or malfunctioning.

**High-tension Voltage** Some of the parts inside the monitor are subject to high-tension voltage in excess of 20,000 volts. Therefore, be sure not to touch the monitor's interior. Should soldering, paper wastes, etc. fall into the monitor interior, turn the power off so as not to cause a 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 dangeous high-tension voltage. The monitor should be used with the Chassis, CRT and PCB. 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 has been charged with high-tension voltage may be discharged, causing a very hazardous situation. Therefore, under no circumstances should it be disassembled.

**Static Electricity** Touching the CRT surface sometimes causes you to feel slight electricity. This is because the CRT surfaces are subject to static; this will not adversely affect the human body.

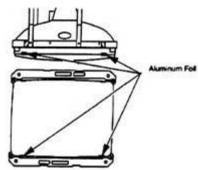
**Installation and removal** Ensure that the Magnetizer Coil, FBT (Fly-Back-Transformer), Anode Lead and Focus Lead are not positioned close to the sheet metal work's sharp edges, etc. and avoid damaging the insulated portions so as not to cause shock and malfunctioning. (For the name of parts, refer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

## STATIC CONVERGENCE ADJUSTMENT

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 cleaning, refer to the corresponding section of Periodic Inspection Table. Do not apply or rub with a hard item (a rod with pointed edge, pen, etc.) to or on the CRT surfaces.

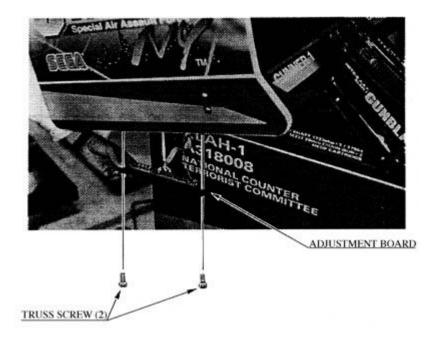
Avoid applying stickers, seals, etc. on the CRT face.

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

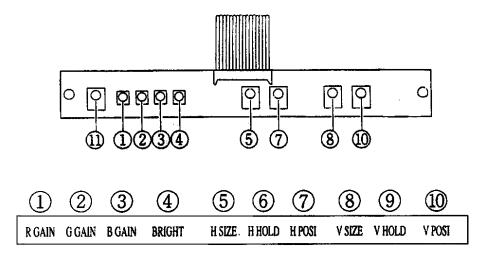


#### NANAO MONITOR

Monitor adjustments have been made at the time of shipment. Do not make further adjustments without ajustifiable reason. Adjusting the monitor and its high tension parts is dangerous. Also, erroneous adjustment can cause deviated synchronization and projection fault, resulting in a malfunction. When making adjustments, use a resinous alignment screwdriver. Servicing with a bare hand or using a conductive tool can cause electric shock.



NANAO monitor: 2 0 0 - 5 2 4 2 - 2 4- O 4 (24K mode) 2 0 0 - 5 3 8 7 - 2 4



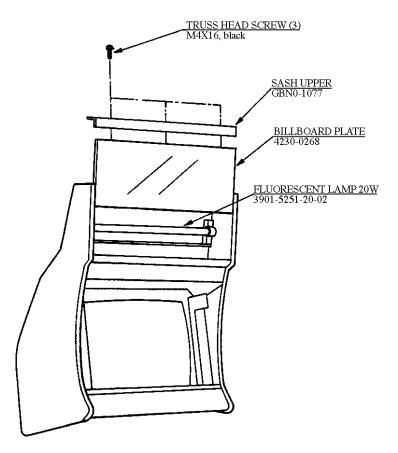
- (1) R-GAIN
- (2) G-GAIN ..... Controls colors.
- (3) B-GAIN
- (4) BRIGHT ..... Controls screen brightness.
- (5) H. SIZE ..... Controls horizontal screen size.
- (6) H. HOLD ..... Provides horizontal synchronization, i.e., controls right/left hold.
- (7) H. POSI ..... Controls horizontal display position 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.

#### **REPLACEMENT OF THE FLUORESCENT LAMP**

When performing work, be sure to turn power off. Working on the machine with power on can cause an electric shock or short circuit accident. The fluorescent lamp, which gets very 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 position. Using an unstable step can cause falls resulting in both personal injury and product damage.

Remove the billboard holder and pull the billboard upward to remove and replace the fluorescent lamp.



## PERIODIC INSPECTION TABLE

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

Be sure to clean the interior of the cabinet and inspect and clean the power supply plug once per year. Using the cabinet with dust accumulated can cause a malfunction or fire. Note that careless cleaning work can cause an accident and therefore, proper attention must be paid to ensure continued safe operation of this product.

ITEMS	DESCRIPTION	PERIOD
	Lamp Check	Monthly
Controller	Trigger switch Check	Monthly
	Greasing	Quarterly
	Check coin switches	Monthly
Coin Chute Tower	Coin Insertion Test	Monthly
	Coin Selector Cleaning	Quarterly
PTV Monitor	Check Adjustments	Monthly
	Screen Cleaning	Weekly
Game Board	Memory Test	Monthly
Game Board	Setting Check	Monthly
Interior	Cleaning	Annually
Cabinet Surfaces	Cleaning	As needed
Power Plug	Inspection and Cleaning	Annually

## TROUBLESHOOTING

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

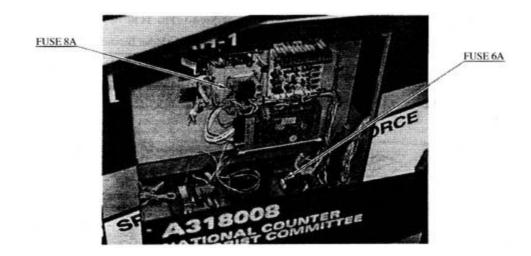
For troubleshooting, first check the connection of the wiring connectors.

PROBLEM	CAUSE	COUNTER MEASURE	
When the main SW is turned ON, the machine is not activated.	The cord is not plugged in.	Firmly insert the plug into the outlet.	
	Incorrect power	Make sure that the power supply	
	source/voltage.	voltages are correct.	
	Primary or secondary	First, remove the cause of overcurrent	
	fuse blown.	then replace the fuse.	
		Primary Fuse:	7A 250V Fast Blo
		Secondary Fuse:	5A 250V Slo Blo
			4A Slo Blo
			4A Fast Blo

#### **REPLACEMENT AND ADJUSTMENT OF FUSES**

Be sure to use fuses meeting the specified rating. Using fuses exceeding the specified rating can cause a fire or electric shock.

As shown in the figures below, open the side door on the left hand side of the cabinet, and the fuse appears in the positions shown.



The items listed below will assist in troubleshooting when a problem occurs. As a first step, check all wiring connector connections and verify AC power to the machine.

PROBLEM	CAUSE	COUNTER MEASURE
During game, projectiles are displayed on the screen, but no action of left/right guns.	The rectifier board fuse is blown due to an instantaneous overload.	After eliminating the cause of the overload, replace the rectifier board fuse. 514-5036-8000 Fuse 6.4oX30 8000mA 125V
MONITOR screen is blackened and the fluorescent lamp does not light up.	Primary or secondary fuse blown.	First, remove the cause of overcurrent, then replace the fuse. Primary Fuse: 7A 250V Fast Blo Secondary Fuse: 4A 250V Slo Blo, 4A 250V Fast Blo
MONITOR screen is all blue.	Defective connections between boards.	Make sure of correct connections between boards.
The color of image on MONITOR screen is incorrect.	Incorrect monitor adjustment. RGB connections are mixed up.	Make appropriate adjustments. Reconnect RGB cables correctly.
The on-screen image of the monitor sways or shrinks.		Make sure that the power supply voltages are correct.
During game play, controller sighting is irregular.	Aim set is incorrect. VR malfunction. Poor mesh of adjust gear.	Perform Aim set. Replace the VR. Adjust ADJUST GEAR mesh.
During game play, when controller's trigger is pulled, no projectiles are displayed on the screen.	SW malfunctioning.	Replace SW.
During game play, projectiles are		Eliminate the cause of the overcurrent, restore the SW unit circuit breaker to its original

displayed on the screen but no	overcurrent.	condition.
action from one of the two guns.	The motor brushes are worn out.	Replace motor brushes.
	Fluorescent lamp needs replacement.	Replace lamp.
Marquee lamp doesn't light up.		Check connector connections in the marquee.
	Primary fuse is blown.	Replace fuse.
Sound is not emitted.	Sound volume adjustment is not correct.	Adjust the service panel volume.

## **GAME BOARD**

In order to prevent an electric shock, be sure to turn power off before performing work and touching interior parts of the machine. Be careful so as not to damage wiring and cause an electric shock or short circuit.

Do not expose the game board without good reason. In this product, setting changes are made during the test mode. The game board need not be operated. Use the game board as is, with the settings made at the time of shipment.

#### TAKING OUT THE IC BOARD

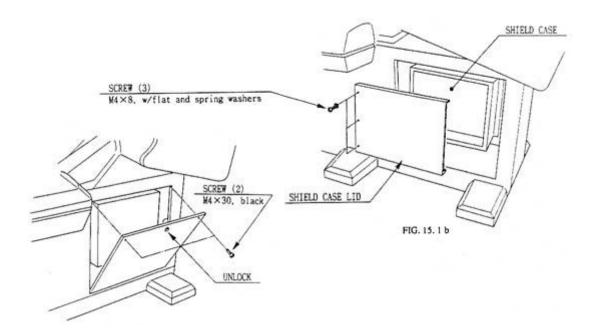
When replacing the IC board (Game board) take out the IC board by using the following procedure.

Turn the main switch off.

The shield case is inside the side door on the right side of the cabinet. Unlocking the door can cause the side door to open due to its weight. To avoid injury and to prevent damaging the door, etc., be sure to hold the door while unlocking. Carefully open the door. The door has a stopper to prevent it from opening in excess of 90 degrees.

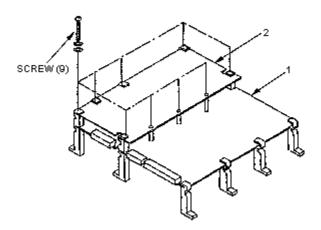
Take off the 3 screws to remove the case lid. The game board is contained in the shield case.

Take off the 3 screws to remove Case Lid. The Game Board is contained in the Shield Case.



#### **COMPOSITION OF GAME BOARD**

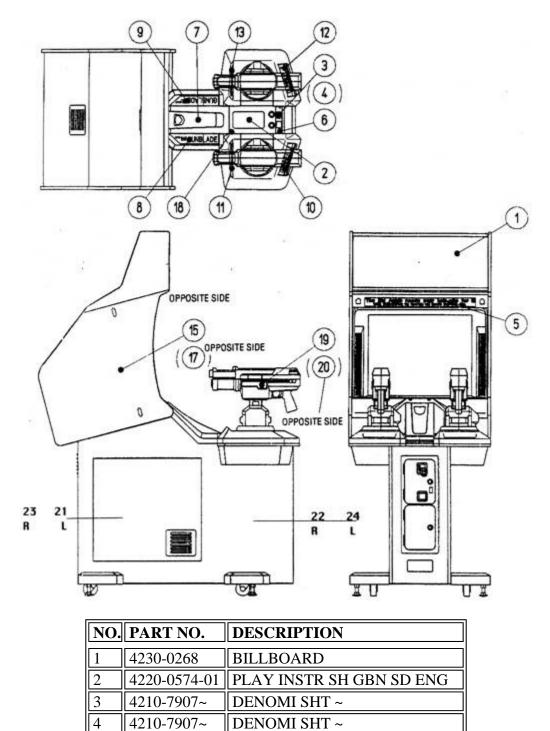
Game Board Gun Blade NY (833-12562)



No.	PART No.	DESCRIPTION
(1)	837-10854-02-91	M0DEL2 B- CRX MAIN BD COM
(1)	837-12312-91	B-CRX MAIN BD COM REV 1.1
(2)	834-12563	ROM BD GUNBLADE NY

## **DESIGN RELATED PARTS**

For the Warning Display sickers, refer to Section 1.



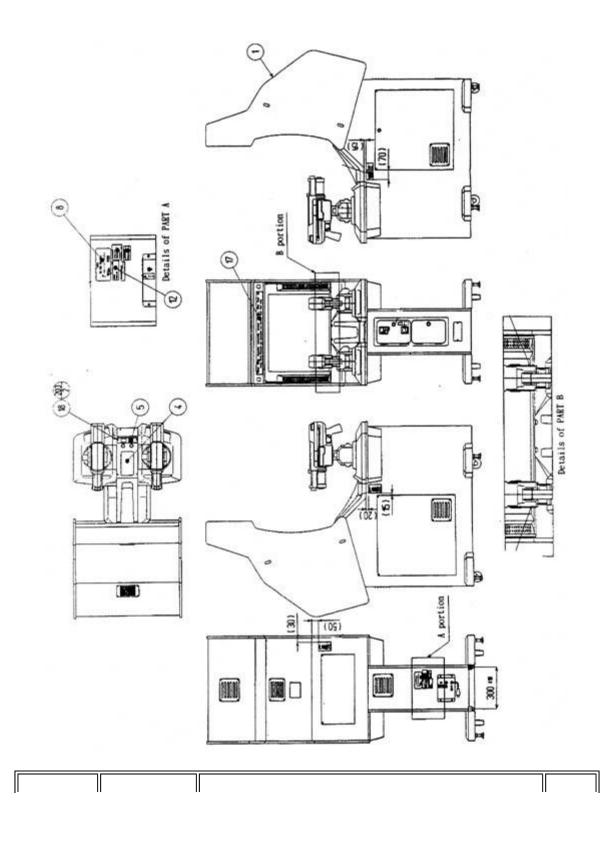
I		
5	GBN0-0005	STICKER MONITOR MASK
6	GBN0-0006	DENOMI PLATE
7	GBN-1050-B	STICKER CENTER COVER
8	GBN-1050-C	STICKER CENTER COVER L
9	GBN-1050-D	STICKER CENTER COVER
10	GBN-1051-B	STICKER SIDE COVER L
11	GBN-1051-C	STICKER SIDE COVER L TO P
12	GBN-1052-B	STICKER SIDE COVER R
13	GBN-1052-C	STICKER SIDE COVER R TO P
15	GBNN-00607	DECAL, LEFT MAIN CABINET
17	GBNN-00608	DECAL, RIGHT MAIN CABINET
18	GBN0-0003-B	CENTER SHEET
19	GBN-2005	GUN DESIGN PLATE L
20	GBN-2006	GUN DESIGN PLATE R
21	999-0561	DOOR LEFT
22	999-0565	SIDE LOWER LEFT
23	999-0562	DOOR RIGHT
24	999-0564	SIDE LOWER RIGHT

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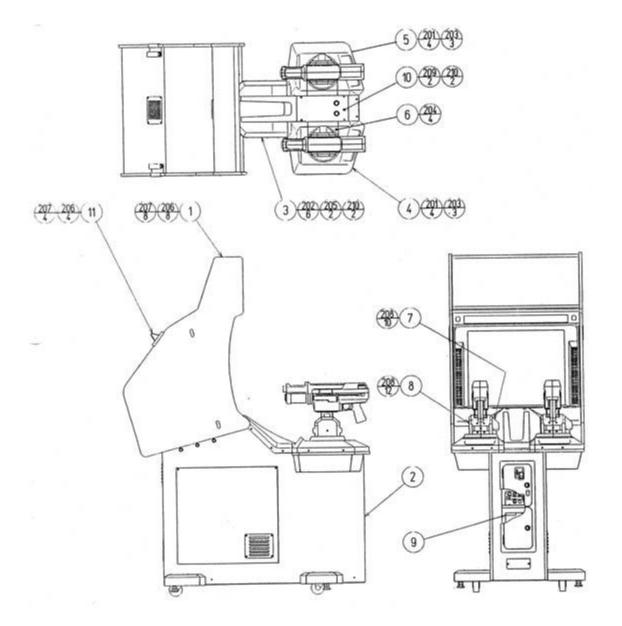
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# (1) TOP ASSY GUNBLADE NY U/R



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN0-10001	ASSY CABINET U/R	
4	4220-0574-01	PLAY INSTR SH GBN U/R ENG	
5	4210-7907-~	DENOMI SH~	
8	STW-00081	UL/FCC LABEL	
12	STW-00082	STICKER SERIAL NUMBER	
17	GBN1-0005	STICKER MONITOR MAS	
18	GBN1-0006	DENOMI PLATE	
402	4200-6216-03	OWNERS MNL GUNBLADE NY U/R EN	
409	4540-0006-01	WRENCH FOR TAMP PRF SCR DUAL TYPE M4	
410	540-0007-01	WRENCH FOR TAMP PRF SCR DUAL TYPE M5	

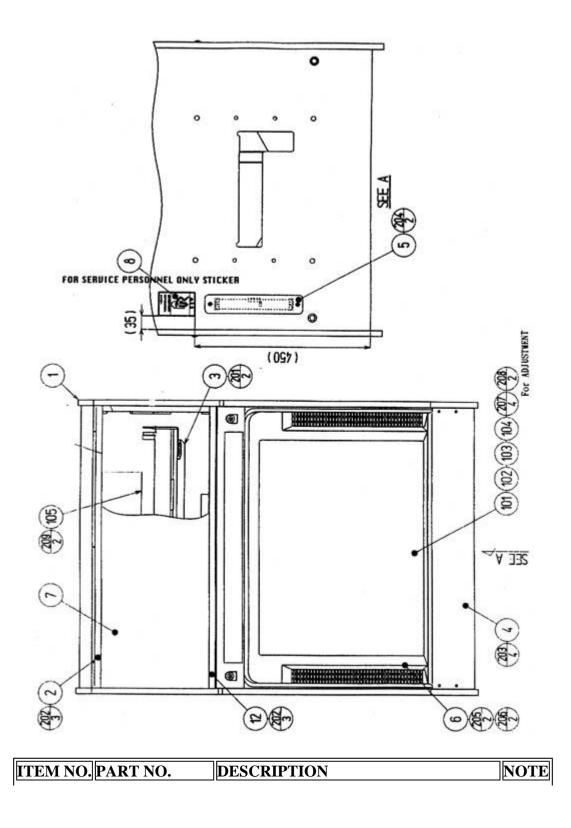
# (2) ASSY CABINET U/R (GBN-10001)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN-1070	ASSY MONITOR	
2	GBN-1500	ASSY CABINET LOWER	
3	GBN-1050	CENTER COVER	
4	GBN-1051	SIDE COVER L	
5	GBN-1052	SIDE COVER R	

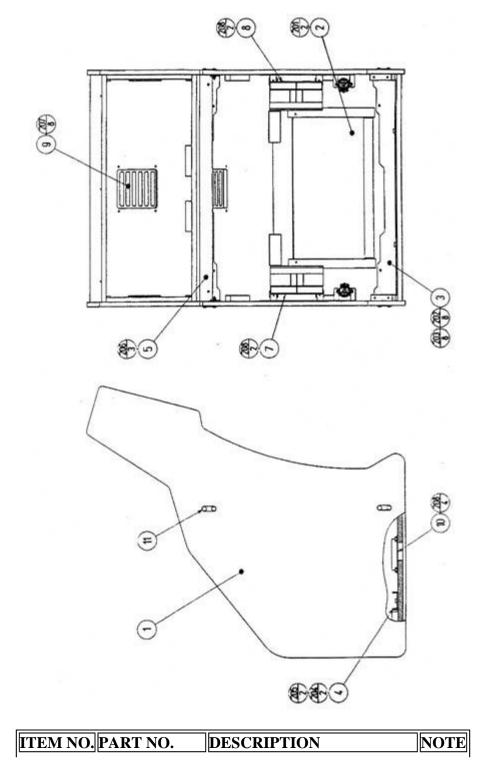
6	GBN-1053	COVER LID	
7	GBN-2003	MECHA SIDE COVER L	
8	GBN-2004	MECHA SIDE COVER R	
9	253-5366	CASH BOX	
10	GBN-1560	ASSY START SWITCH	
11	BVG-0033	SHIPPING BRKT S	
201	000-T00412-0C	M SCR TH CRM M4X12	
202	000-T00416-OC	M SCR TH CRM M4X 16	
203	000-T00425-OC	M SCR TH CRM M4X25	
204	000-F00408	M SCR FH M4X8	
205	068-441616-OB	FLT WSHR BLK 4.4-16X1.6	
206	030-000830-SB	HEX BLT W/S BLK M8x30	
207	060-F00800-OB	FLT WSHR BLK M8	
208	008-T00412-OB	TMP PRF SCR TH BLK M4X12	
209	000-T00408-OB	M SCR TH BLK M4X8	
210	000-T00412-OB	M SCR TH BLK M4X12	

## (3) ASSY MONITOR (GBN-1070)



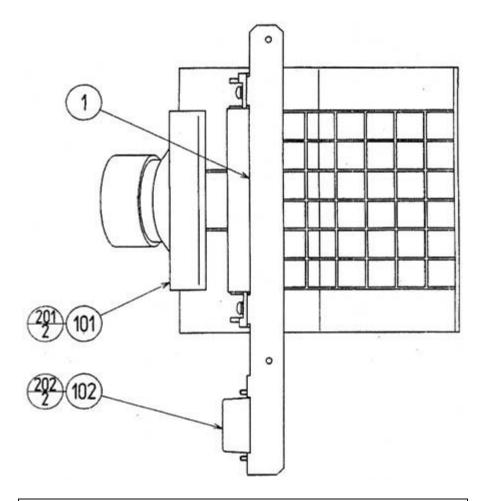
1	GBN0-1071	ASSY SUB CABI MONITOR	
$\frac{1}{2}$	GBN0-1077	SASH UPPER	
2			
3	GBN-1079	FL BRKT	
4	GBN0-1080	MASK HOLDER	
5	GBN0-1081	ADJUST PANEL	
6	TTR-1067	MONITOR MASK	
7	4230-0268	BILLBOARD PLATE GBN U/R	
8	GNRC-00587	STICKER SERVICE PERSONNEL ONLY	
9	GBN0-1080-B	STICKER MASK HOLDER	
12	GBN-1078	SASH LOWER	
101	2000-5387-24	ASSY CLR DSPL 29 NANAO 120 V	
102	2800-5112	BUSH FOR TV	
103	2800-5113	COLLAR FOR TV	
104	2800-5114	SPACER 6. 4-25 X 2	
201	011-T03512	TAP SCRTH 3.5X12	
202	000-T00416-OB	M SCR TH BLK M4X16	
203	OOO-T00425-OB	M SCR TH BLK M4X25	
204	000-T00420-OB	M SCRTH BLK M4X20	
205	000-T00530-OB	M SCR TH BLK M5x30	
206	068-552016-OB	FLT WSHR BLK 5. 5-20 X 1. 6	
207	050-F00600	FLG NUT M6	
208	000-P00305-W	M SCR PH W/FS M3X8	
209	000-P00416-W	M SCR PH W/FS M4X 16	

# (4) ASSY SUB CABI MONITOR (GBN0-1071)



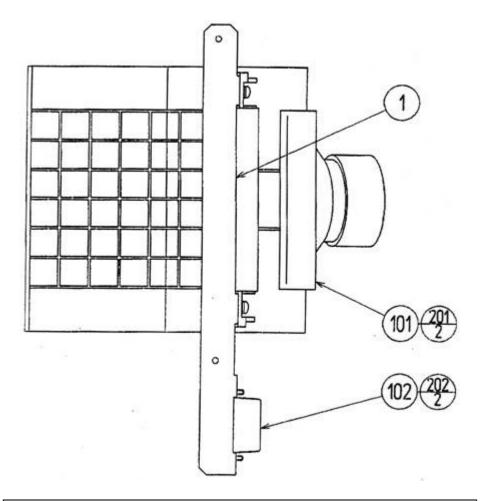
			r
1	GBN1-1072	MONITOR BOX	
2	GBN0-1073	BACK DOOR	
3	GBN1-1074	MONITOR SUPPORT	
4	GBN0-1075	JOINT BEAM	
5	GBN1-1076	MASK SUPPORT	
7	GBN-1090	ASSY SPEAKER L	
8	GBN-1095	ASSY SPEAKER R	
9	UP1-1018	AIR VENT	
10	TTR0-1008	NUT PLATE 2-M8	
11	1171 -5235	PLATE 6-30	
101	280-0419	HARNESS LUG	
102	280-5009	CORD CLAMP 021	
103	280-5275-SR10	CORD CLAMP SR10	
201	000-T00430-OB	M SCRTH BLK M4X30	
202	031-000630-OC	CRG BLTCRM M6x 30	
203	050-F00600	FLG NUT M6	
204	030-000830-SB	HEX BLT W/S BLK M8X30	
205	068-852216-OB	FLT WSHR BLK 8. 5-22 X 1. 6	
206	000-P00416-W	M SCR PH W/FS M4 X 16	
207	000-T00416-OB	M SCR TH BLK M4X16	
208	011 -T03512	TAP SCR TH 3. 5X12	
209	011 -F00310	TAP SCR FH 3X10	

# (5) ASSY SPEAKER L (GBN-1090)



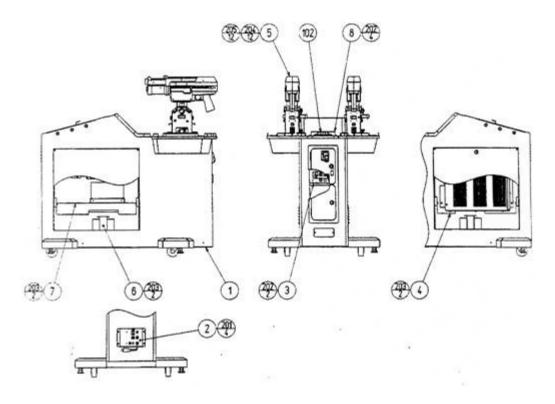
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN1-1091	SP BRKT L	
101	130-5152	SPEAKER BOX MINI DOME 12W	
102	130-5112	TWEETER 8 OHM 2W o 35	
201	000-P00412- W	M SCR PH W/FS M4X12	
202	000-P00308- W	M SCR PH W/FS M3X8	

# (6) ASSY SPEAKER R (GBN-1095)



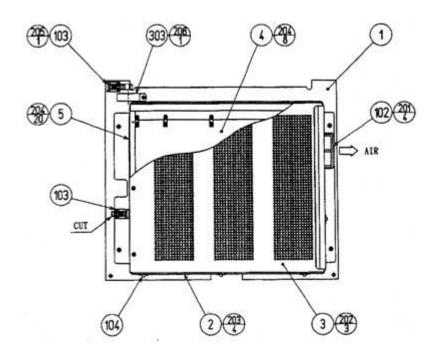
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN1-1096	SP BRKT R	
101	130-5152	SPEAKER BOX MINI DOME 12W	
102	130-5112	TWEETER 8 OHM 2W o 35	
201	000-P00412-W	M SCR PH W/FS M4X12	
202	000-P00308-W	M SCR PH W/FS M3X8	

# (7) ASSY CABINET LOWER (GBN-1500)



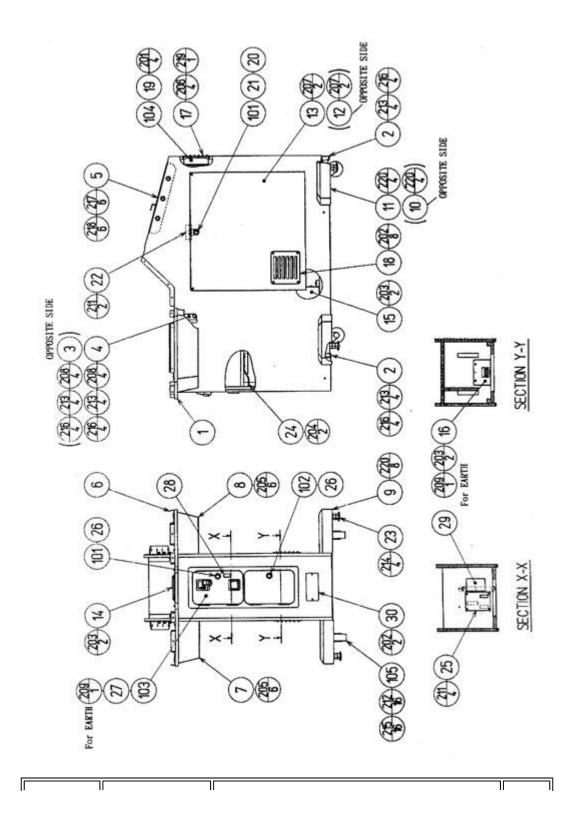
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN1-1501	ASSY SUB CABINET LOWER	
2	GBN1-1530	AC UNIT	
3	GBN1-1540	SW UNIT	
4	GBN0-0200	ASSY MAIN BD	
5	GBN1-20001	ASSY CONTROLLER U/R	
6	GBN14200	ASSY AC PWR SPLY	
7	GBN 1 4300	ASSY ELEC BASE	
8	GBN1-1054	MOUNT BRKT	
102	601-5526-110	BUSH 1.6T	
201	000-T00416-OB	M SCR TH BLK M4X16	
202	000-P00416-W	M SCR PH W/FS M4X16	
203	OOO-P00530-W	M SCR PH W/FS M5X30	
204	030-000830-S	HEX BLT W/S M8X30	
205	060-F00800	FLT WSHR M8	

## (8) ASSY MAIN BD (GBN-0100)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN0-0201	WOODEN BASE MAIN BD	
2	1050-5218	SHIELD CASE	
3	1050-5219-91	SHIELD CASE LID	
4	833-12562	GAME BD GUNBLADE NY	
5	839-0778	FLT BD B-CRX RCT	
102	2601-0055	FAN MOTOR DC5V	
201	000-P00330-W	M SCR PH W/FS M3X30	
202	000-P00408-W	M SCR PH W/FS M4X8	
203	000-P00412-W	M SCR PH W/FS M4X 12	
204	010-P00308-F	S-TITF SCR PH W/F M3X8	
205	Oll-F00310	TAP SCR FH 3XIO	
206	Oll-T03512	TAP SCR TH 3.5X12	

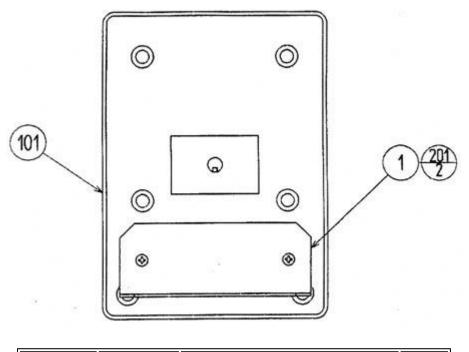
# (9) ASSY SUB CABINET LOWER (GBN-1501)



ITEM N	NO. PART NO.	DESCRIPTION	NOTE
1	GBN1 -1502	WOODEN CABI U/R	
2	GBN1-1503	FOOT BASE	
3	GBN1-1504	MECHA SUPPORT L	
4	GBN1-1505	MECHA SUPPORT R	
5	GBN1-1506	JOINT BASE	
6	GBN1-1507	COVER BRKT	
7	GBN1 -1508	MECHA COVER L	
8	GBN1-1509	MECHA COVER R	
9	GBN1-1510	FOOT COVER F	
10	GBN1-1511	FOOT COVER L	
11	GBN1-1512	FOOT COVER R	
12	GBN1-1513	SIDE DOOR L	
13	GBN1-1514	SIDE DOOR R	
14	GBN1-1515	CENTER BRKT	
15	GBN-1550	ASSY WOOFER	
16	6101-0395-01	METER UNIT S	
17	UP1-1018	AIR VENT	
18	1051-5239-03	AIR VENT	
19	HN -1042X	FAN BRKT	
23	6011-5699X	LEG ADJUSTER BOLT	
30	GBN1-1020	SPEAKER NET	
104	2601-0011-02	AXIAL FLOW FAN AC120V 60HZ	
105	6011-6224	CASTER 0 75	
106	3101-5029-F20	SUMITUBE F F20MM	
201	000-P00312-W	M SCR PH W/FS M3X 12	
202		M SCR TH CRM M4X 16	
203		M SCR PH W/FS M4X16	
204		M SCR PH W/FS M4X20	
205	000-P0042S-W	M SCR PH W/FS M4X25	
206	000-T00425-OB	M SCR TH BLK M4X25	
207	000-T00430-OB	M SCRTH BLK M4X30	
208	000-P00525-W	M SCR PH W/FS M5X25	
209	010-P00406-F	S-TITE SCR PH W/F M4X6	
210	011-F00310	TAP SCR FH 3X10	
211	Oll-T03512	TAP SCR TH 3. 5X12	
212	030-000616-S	H EX BLT W/S M6 X 16	
213	030-000830-S	HEX BLT W/S M8x30	
214	050-H01600	HEX NUT M16	
215	060-F00600	FLT WSHR M6	
216	060-F00800	FLT WSHR M8	

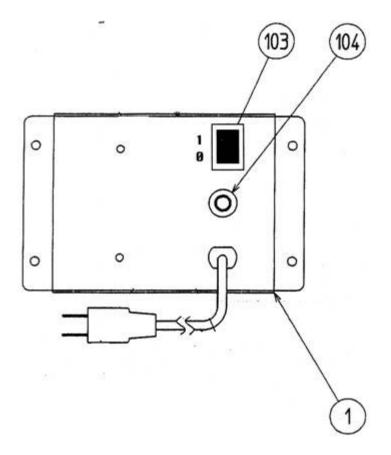
217	030-000830-SB	HEX BLT W/S BLK M8x30	
218	068-852216-OB	FLT WSHR BLK 8. 5-22 X 1. 6	
219	050-F00400	FLG NUT M4	
220	000-T00408-OB	M SCR TH BLK M4X 8	
301	600-6720-18	WIRE HARN FAN MOTOR	
302	600-6720-19	WIRe HARN AC EXT	
303	600-6720-20	WIRE HARN SPEAKER EXT	
304	600-6720-21	WIRE HARN MARS EXT	
306	600-6720-23	WIRE HARN A/D EXT	
307	600-6720-24	WIRE HARN GUN MOTOR EXT	
308	600-6720-25	WIRE HARN VOLUME EXT	
309	600-6720-26	WIRE HARN 1/01 EXT	
310	600-6720-27	WIRE HARN DEMAG EXT	
311	600-6720-28	WIRE HARN 1/02 EXT	
312	600-6720-37	WIRE HARN RGB EXT	
313	600-6720-41	WIRE HARN EARTH MAIN	
314	600-6720-42	WIRE HARN EARTH METER	
315	600-6709-52	WIRE HARN EARTH 400MM	
316	600-6709-54	WIRE HARN EARTH 150MM	
317	600-6720-43	WIRE HARN EARTH MECHA COVER L	
318	600-6455-01	WIRE HARN COIN CHUTE DOOR TWIN	
319	600-6720-48	WIRE HARN EARTH 100MM	

# (10) ASSY WOOFER (GBN-1550)



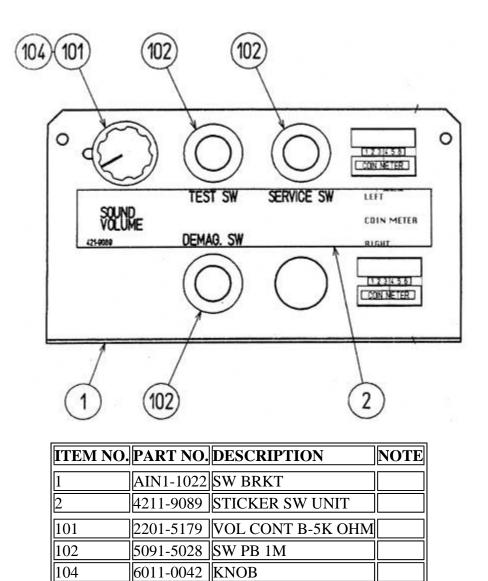
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN-1551	WOOFER BRKT	
101	130-5155	SPEAKER BOX SUB WOOFER	
201	012-P00412	TAP SCR PH 4X12	

# (11) AC UNIT (GBN1-1530)

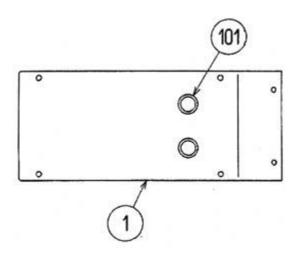


ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN1-1531	AC BRKT	
103	5091-5234	SW ROCKER 25A	
104	5121-5033-8000	FUSE 250V 7A	

# (12) SW UNIT / COIN METER (AIN1-1022)

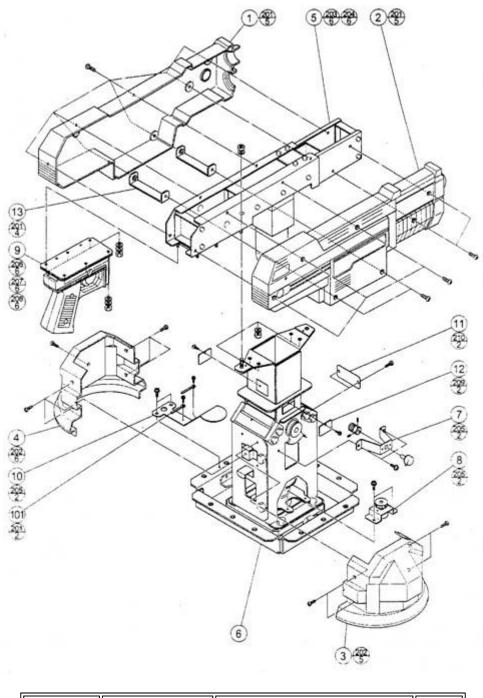


# (13) ASSY START SWITCH (GBN-1560)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN-0003	CENTER PLATE	
101	5091-0161	PUSH BUTTON SWITCH 1T YELLOW W/LAMP	

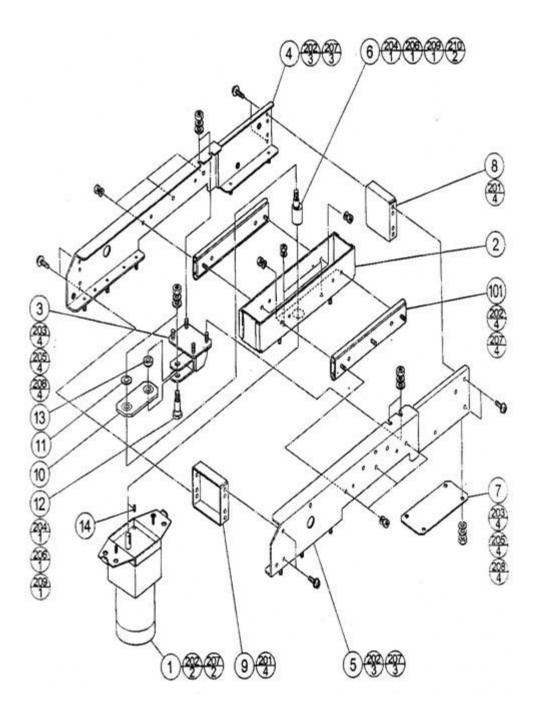
# ASSY CONTROLLER (GBN1-2000)



ITEM	NO. PART NO.	DESCRIPTION	NOTE
1	GBN0-2001	COVER LEFT	

2	GBN0-2002	COVER RIGHT	
3	GBN0-2050	ASSY SLIDE MECHA	
4	GBN0-2300	ASSY SWING BASE UR	
5	GBN0-2200	ASSY VOLUME U/D	
6	GBN0-2250	ASSY VOLUME UR	
7	GBN0-2400	ASSY GRIP	
8	GBN0-2007	WIRE GUIDE	
9	GBN0-2008	LID A	
10	GBN0-2009	LID B	
11	AIN0-2003	COVER BRACKET	
102	280-5275-SR10	CORD CLAMP	
201	008-T00512-OB	TMP PRF SCR TH BLK	
202	060-\$00600	SPR WSHR M6	
203	050-U00600	U NUT M6	
204	OOO-P00408-W	M SCR PH W/FS M4X8	
205	050-U00500	U NUT M5	
206	060-\$00500	SPR WSHR M5	
207	060-F00500	FLT WSHR M5	
208	000-P00308-WB	M SCR PH W/FS BLK M3X8	
209	000-T00408-OB	M SCRTH BLK M4X8	
210	010-P00308-F	S-TITE SCR PH W/F M3X8	

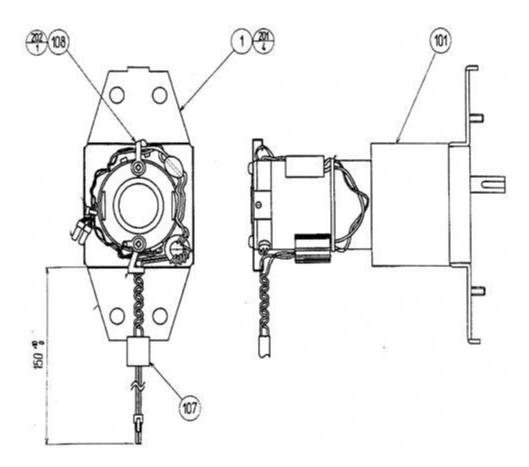
#### (15) ASSY SLIDE MECHA (GBN1-2050)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN1-2070	ASSY MOTOR	
2	GBN1-2051	BASE CENTER	

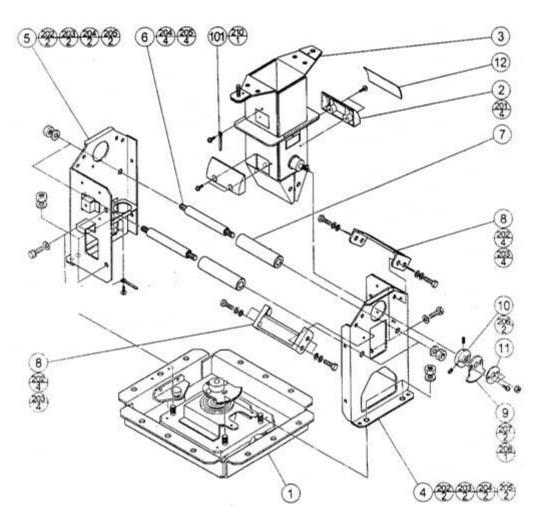
3	GBN0-2052	JOINT BRKT	
4	GBN0-2053	BASE RIGHT	
5	GBN0-2054	BASE LEFT	
6	GBN0-2055	CAM	
7	GBN0-2056	JOINT PLATE	
8	GBN0-2057	FRONT BRKT	
9	GBN0-2058	REAR BRKT	
10	AIN0-2203	JOINT BAR	
11	AIN0-2204	SPACER	
12	AIN0-2205	PIN	
13	AIN0-2213X	JOINT SPACER	
14	GHO0-3783	KEY 3 X 3 X 12	
101	100-5169	SLIDE RAIL	
201	000-P00410-W	M SCR PH W/FS M4 X 10	
202	050-U00400	U NUT M4	
203	050-U00500	U NUT M5	
204	050-U00600	U NUT M6	
205	060-F00500	FLT WSHR M5	
206	060-F00600	FLT WSHR M6	
207	060-S00400	SPR WSHR M4	
208	060-S00500	SPR WSHR M5	
209	060-S00600	SPR WSHR M6	
210	020-000410-HZ	HEX SKT CAP SCR BLK OZ M4 X 10	

# (16) ASSY MOTOR (GBN1-2070)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN-2071	MOTOR BRACKET	
101	350-5292	MOTOR DC 24V 600RPM	
107	610-0402	ASSY WIRE GUN MOTOR	
201	000-P00408-S	M SCR PH W/S M4X8	
202	010-P00306	S-TITE SCR PH M3X6	

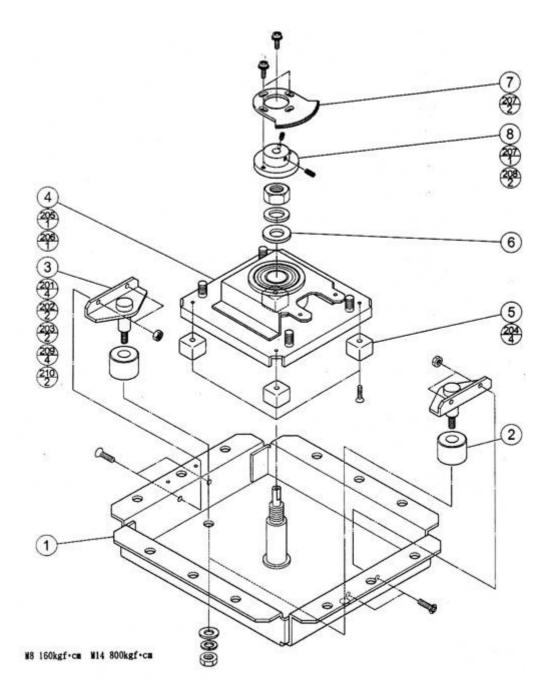
# (17) ASSY SWING BASE U/R (GBN-2300)



ITEM NO	. PART NO.	DESCRIPTION	NOTE
1	GBN0-2350	ASSY BASE UR	
2	GBN0-2101	CORNER GUARD	
3	GBN0-2102	MAIN SHAFT	
4	GBN0-2103	SWING BRACKET A	
5	GBN0-2104	SWING BRACKET B	
6	GBN0-2105	SHAFT	
7	GBN0-2106	STOPPER	
8	GBN0-2107	CORNER HOLDER	
9	601-6005	ADJUST GEAR	
10	TTR0-2009	GEAR HOLDER 80	

11	GLC0-2122	GEAR PLATE	
12	GBN0-2108	HOLE SHEET	
201	000-P00310-WB	M SCR PH W/FS BLK M3XIO	
202	030-000612-S	HEX BLTW/S M6X12	
203	060-F00600	FLT WSHR M6	
204	050-H00800	HEX NUT M8	
205	060-S00800	SPR WSHR M8	
206	028-A00410-P	SET SCR HEX SKT CUP P M4X10	
207	000-P00410-S	M SCR PH W/S M4XIO	
208	050-F00400	FLG NUT M4	
209	010-P00308-F	S-TITE SCR PH W/F M3X8	
210	000-P00306-W	M SCR PH W/FS M3 X 6	

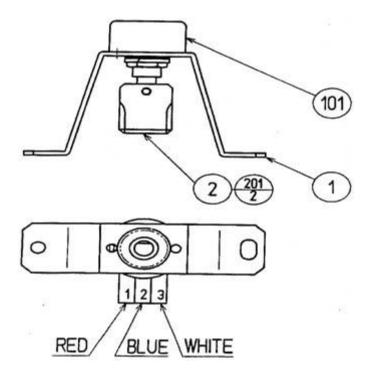
#### (18) ASSY BASE (GBN-2150)



ITEM N	NO. PART NO.	DESCRIPTION	NOTE
1	GBN0-2151	BOTTOM BASE	
2	GBN0-2152	BOTTOM STOPPER	

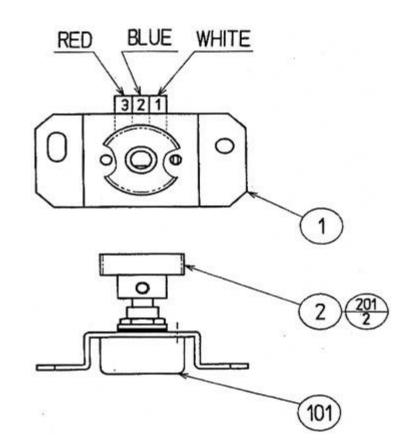
3	GBN0-2153	STOPPER BRKT	
4	GBN0-2154	SWING BASE	
5	AIN-2107	SPACER BLOCK B	
6	AIN0-2108	RING	
7	601-6450	GEAR 110	
8	TTR0-2010	GEAR HOLDER 110	
201	000-F00512	M SCR FH M5X12	
202	060-S00800	SPR WSHR M8	
203	060-F00800	FLT WSHR M8	
204	000-F00416	M SCR FH M4X16	
205	050-H01400	HEX NUT M14	
206	060-S01400	SPR WSHR M14	
207	000-P00410-W	M SCR PH W/FS M4X10	
208	028-A00410-P	SET SCR HEX SKT CUP P M4X10	
209	050-U00500	U NUT M5	
210	050-H00800	HEX NUT M8	

# (19) ASSY VOLUME U/D (GBN-2200)



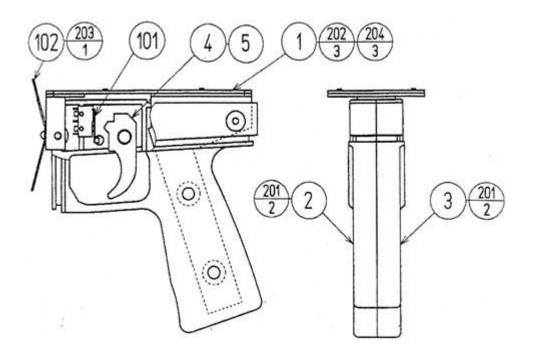
<b>ITEM NO</b>	.PART NO.	DESCRIPTION	NOTE
1	GBN0-2201	VR BRKT U/D	
2	601-7945	GEAR 20	
101	220-5373	VOL CONT B-5K OHM	
	220-5484	VOL CONT B-5K OHM	
201	028-C00308-P	SCR CH CUP M3X8	

# (20) ASSY VOLUME L/R (GBN-2250)



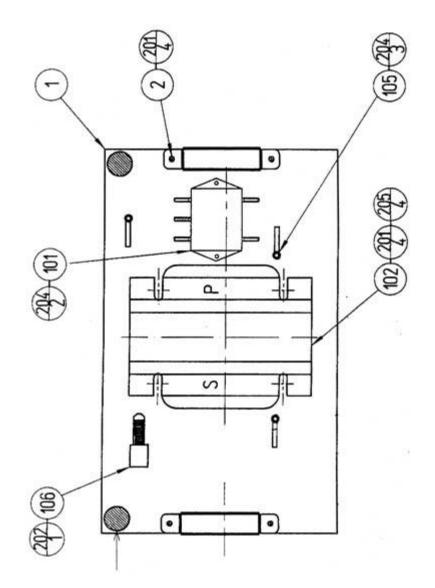
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN0-2251	VR BRACKET LR	
2	601-6555	GEAR 20	
101	220-5373	VOL CONT B-5K OHM	
201	000-00410-HZ	HEX SKT CAP SCR BLK OZ M4X10	

# (21) ASSY GRIP (GBN-2400)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	AIN-2401	GRIP BASE	
2	GBN-2402	GRIP LEFT	
3	GBN-2403	GRIP RIGHT	
4	GBN-2404	LEVER	
5	AIN-2405	TORSION SPRING	
101	509-5080	SW MICRO TYPE	
201	008-T00512-OB	TMP PRF SCR TH BLK M5X12	
202	FAS-080008	TMP PRF SCR PH W/F M3X 8	
204	050-C00500-3B	CAP NUT TYPE3 BLK M5	

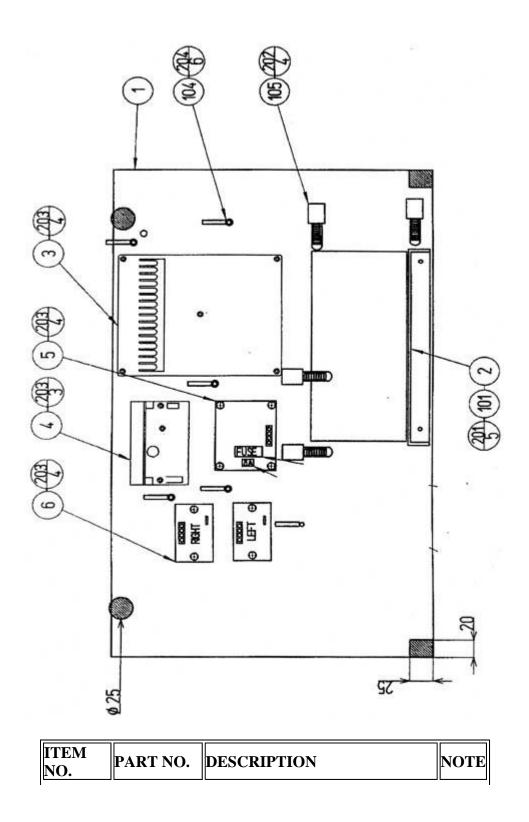
# (22) ASSY AC PWR SPLY (GBN-4200)



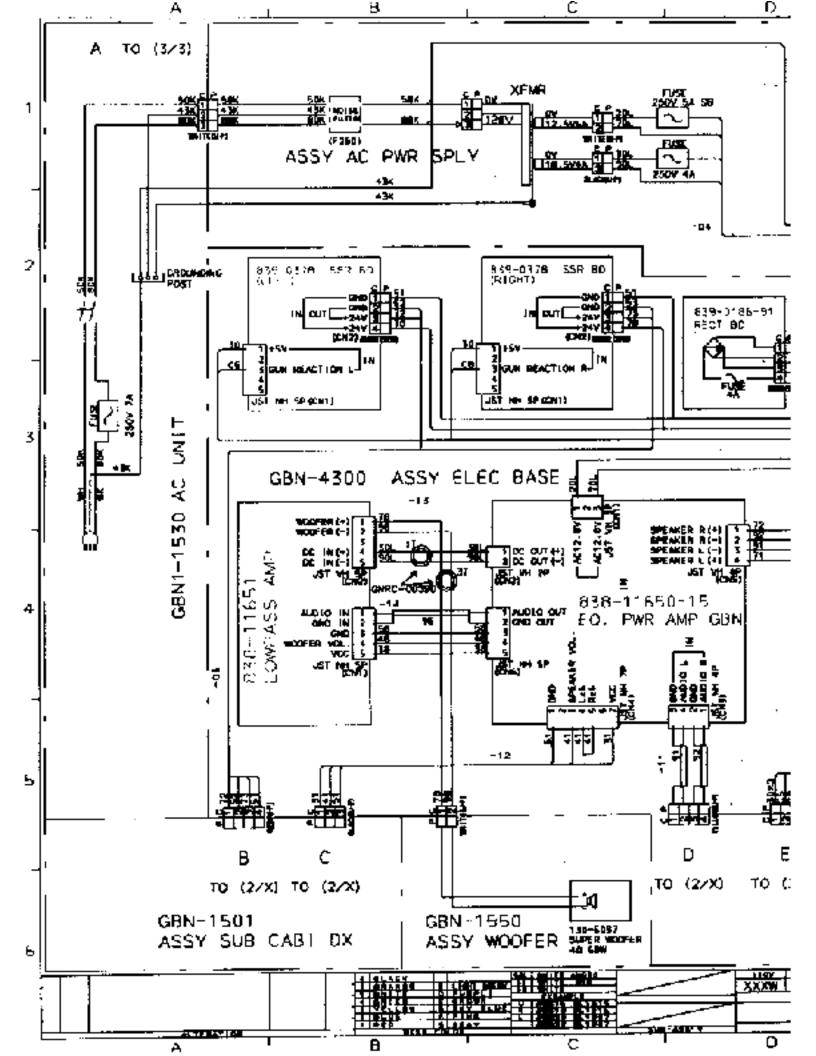
ITEM N	O. PART NO.	DESCRIPTION	NOTE
2	GBN-4201	WOODEN BASE PWR SPLY	
3	GBN-4002	HANDLE	
101	GNRC-00586	FILTER 10AMPEMI SHAFFNER	
102	5601-5330 514	NOISE FILTER 20A	
201	000-P00516-W	M SCR PH W/FS M5x16	
202	011-F00310	TAP SCR FH 3xl0	

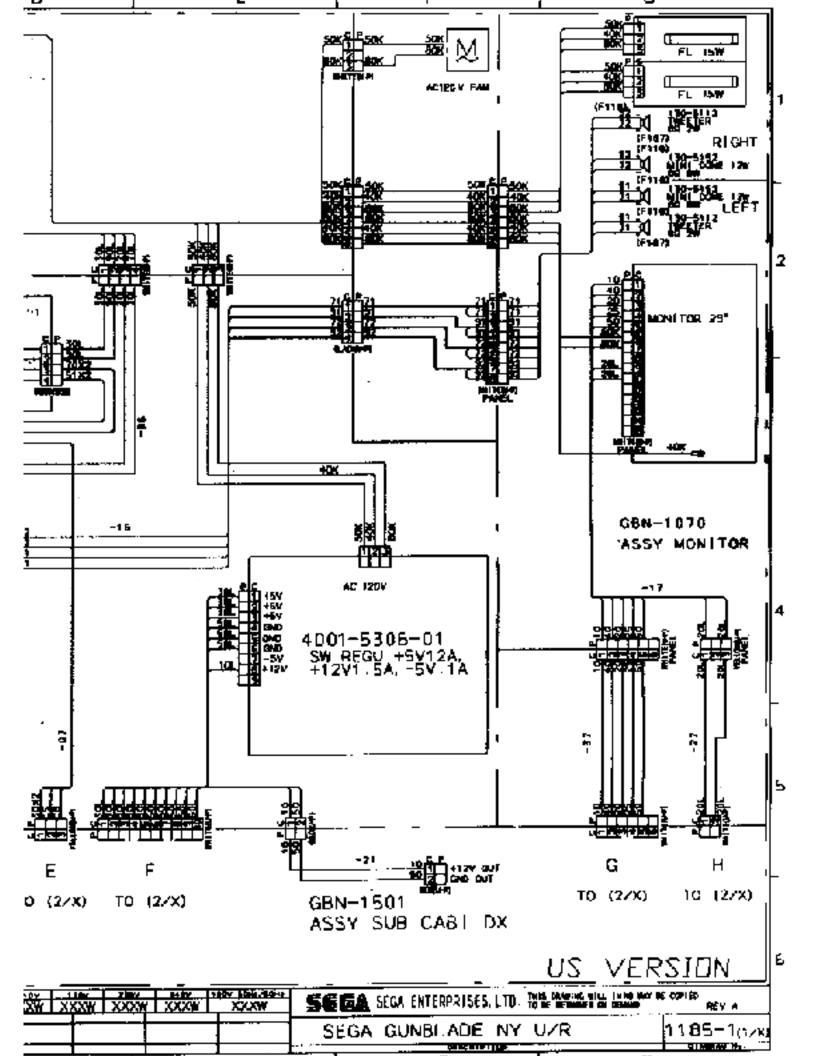
203	011-P00325	TAP SCR PH 3x25	
204	011-T03512	TAP SCR TH 3.5x12	
206	068-552016	FLT WSHR 5. 5-20x1.6	

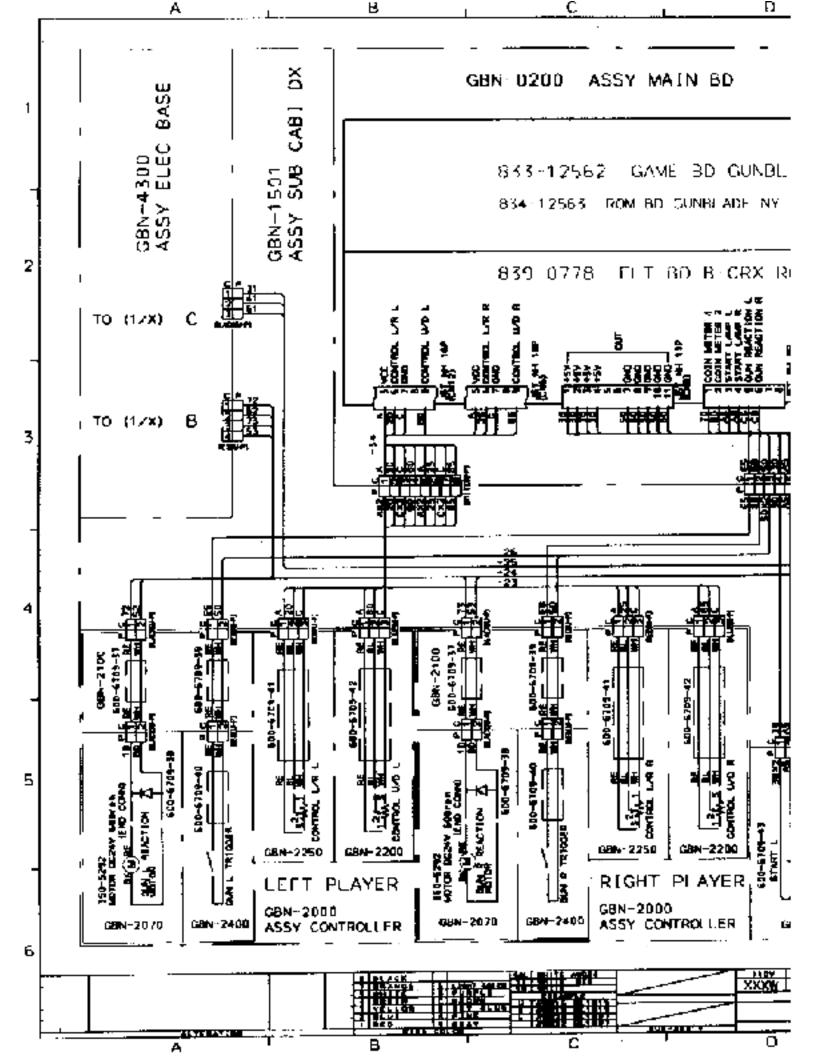
#### (23) ASSY ELEC BASE (GBN-4300)

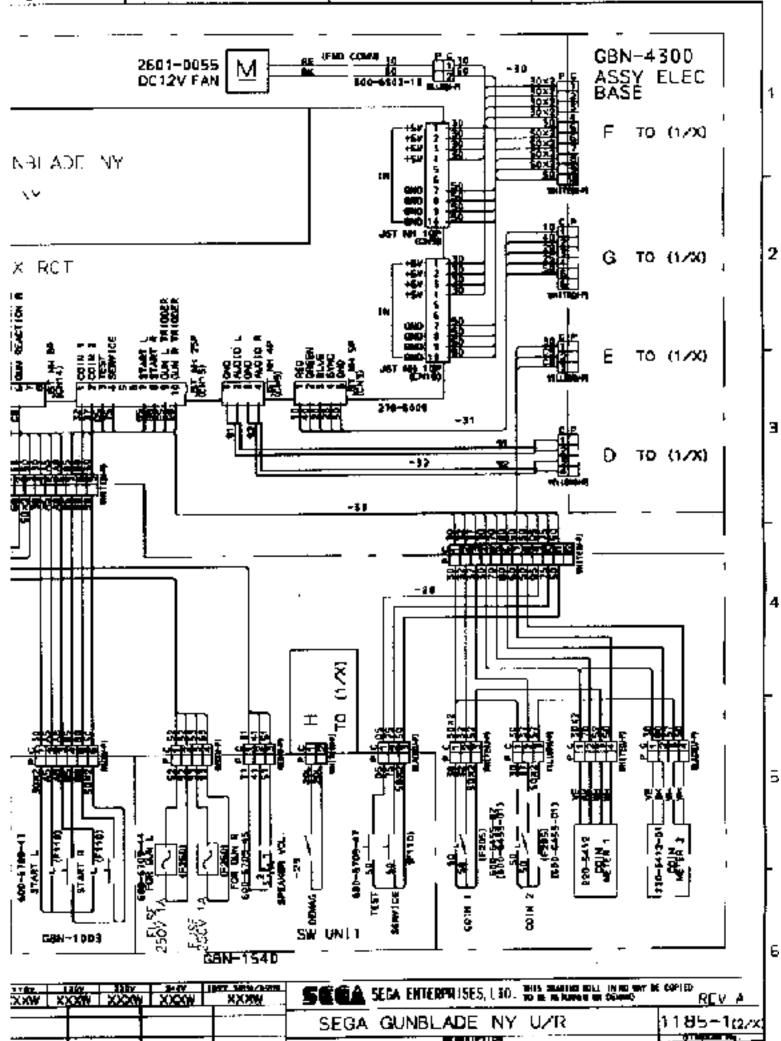


1	GBN-4301	WOODEN BASE ELEC	
2	GBN-4102	SW REGU BRKT EQ.	
3	838-11650- 15	PWR AMP GBN	
4	838-11651	LOWPASS AMP RECT	
5	839-0186-91	BD DC 24V 2A DC SSR	
6	839-0378	BD CONN ORANGE	
7	421-6595-07	STICKER 8A	
101	400-5306-01	SW REGU +5V12A, +12V1. 5A, - 5V .1A	
102	514-5036- 8000	FUSE 6.40 x30 8000mA 125V	
103	601-0460 280	PLASTIC TIE BELT 100MM	
104	280-0419	HARNESS LUG	
105	280-5009	CORD CLAMP 021	
201	000-P00412- W	M SCR PH W/FS M4X12	
202	Oll-F00310	TAP SCR FH 3X10	
203	Oll-P00325	TAP SCR PH 3X25	
204	011-T03512	TAP SCR TH 3.5X12	









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