

# **Gunblade NY**

(Revision A)

**SERVICE MANUAL** 

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# 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 **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 415-802-1750
Fax 415-802-1754
7:30 am - 4:00 pm, Pacific Standard Time
Monday thru Friday

General Precautions Page 1 of 2

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# **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

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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.

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**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.

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

**Location:** This 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.

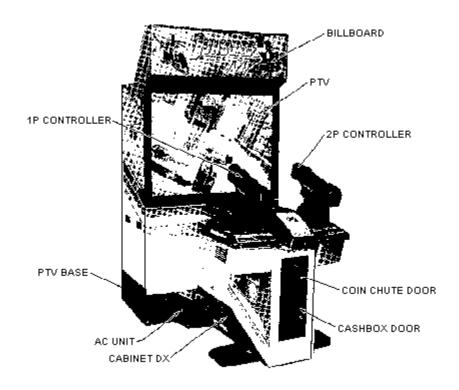
This game has been tested and listed by Underwriters Laboratories, Inc., to ANSI/UL22.



Specifications Page 1 of 1

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# **SPECIFICATIONS**



	WIDTH	LENGTH	HEIGHT	WEIGHT
ASSEMBLED GAME	48 IN	73 IN	89 IN	662 LBS
PTV	45 IN	27 IN	82 IN	298 LBS
PTV BASE	48 IN	24 IN	11 IN	45 LBS
CABINET DX	33 IN	48 IN	50 IN	320 LBS

Installation Items Page 1 of 1

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# **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

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# 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 Assembling the PTV
- 2 Assembling the cabinet
- 3 Securing in place (leg adjusters)
- 4 Power supply
- 5 Assembly check

# ASSEMBLING THE PTV

The PTV unit for this game is shipped assembled. However, refer to these directions if you should need to disassemble the PTV unit for maintenance.

# **WARNING!**

When performing work on the PTV unit, be sure that two or more persons are available to do the work. When mounting the PTV on the PTV base, be sure that the work is performed by 4 or more persons. Executing the work by less than 4 persons can cause severe injury.

#### **CAUTION!**

To perform the work safely, be sure to prepare a step or ladder which is secure and stable. Using an unstable step can cause both personal injury and damage to the product.

Leg Adjusters Page 1 of 1

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# **WARNING!**

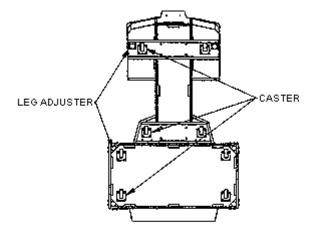
Make sure that all the leg adjusters are in contact with the floor. If they are not, the cabinet can move, causing an accident.

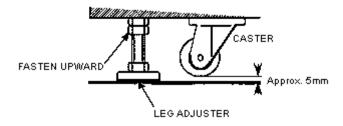
This machine has 8 casters and 6 leg adjusters. When the installation position has been determined, cause the leg adjusters to come into contact with the floor, and make adjustments so that the casters are raised approximately 5mm from the floor. Ensure that the machine is level.

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 is level.

After making adjustments, fasten the leg adjuster nut upwards to secure the height of the leg adjuster.





Assembly Checks Page 1 of 1

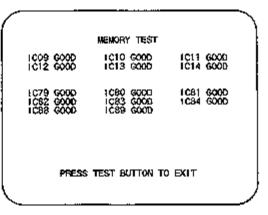
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# **Assembly Checks**

In the test mode, perform the following tests:

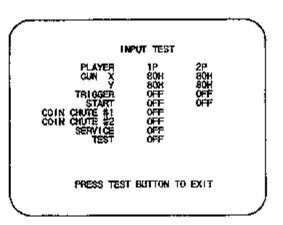
# 1. Memory Test

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



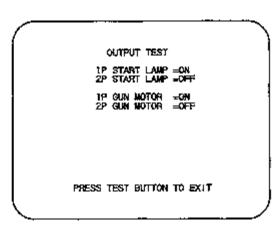
# 2. Input Test

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.



Operation Page 1 of 1

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# **OPERATION**

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

#### **WARNING!**

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.

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.

#### **CAUTION!**

To avoid electric shock, check to see if door and cover parts are damaged or omitted.

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.

# **WARNING!**

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.

# **CAUTION!**

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 Page 1 of 1

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# 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.

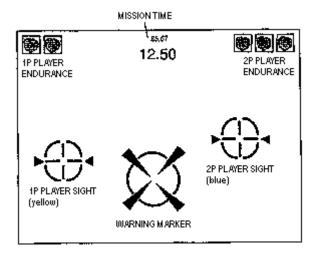
SCORE ATTACK REMIX

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.



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# 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
	When the machine is installed, perform the following:
	1. Check to see that each setting is per standard setting made at the time of shipment.
IIInctallation of Machina	2. In the INPUT test mode, check each SW and VR.
	3. In the OUTPUT test mode, check each of the lamps, motors, etc.
	4. In the MEMORY test mode, check the IC's on the PC board.
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 perform the following:
	1. MEMORY test.
	2. Ascertain each setting.
Monthly Servicing	3. In the INPUT test mode, test the CONTROL device.
	4. In the OUTPUT test mode, check each of the lamps.
Control System	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

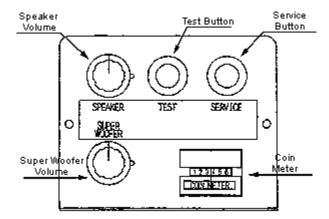
	see if the MONITOR adjustment is correct.
	1. MEMORY TEST
	2. In the SOUND test mode,
	check the sound related ROMs.
	Check such data as game play
Data Check	time and histogram to adjust the
	difficulty level, etc.

Switch Unit Page 1 of 1

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# **WARNING!**

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** Gives credits without registering on the coin meter. **BUTTON** 

Can adjust the volume of all speakers of the machine. By considering the

**SPEAKER** environmental aspects of the installation location, adjust to the appropriate sound **VOLUME** 

volume.

**SUPER** 

Only the sound volume of the cabinet superwoofer can be adjusted. **WOOFER VOL** 

COIN METER Registers total number of coins. Test Mode Page 1 of 1

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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
OUTPUT TEST
OUTPUT TEST
C.R.T. TEST
GAME ASSIGNMENTS
COIN ASSIGNMENTS
AIM SET
BOOKKEEPING
BACKUP DATA CLEAR
> EXIT

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON

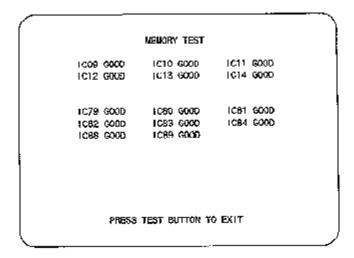
Memory Test Page 1 of 1

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# **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.

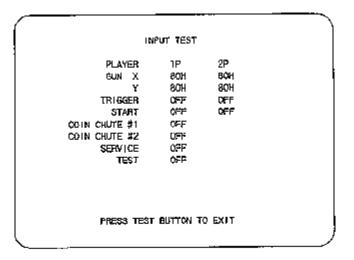


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# **Input Test**

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.



GUN X : Under 30H -> Over dOH left right

GUNY: Under 60H -> Over bOH down up Output Test Page 1 of 1

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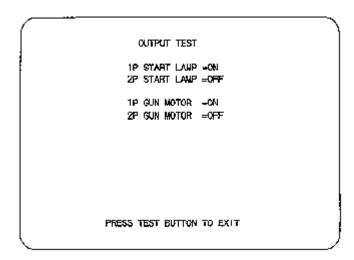
# **Output Test**

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.

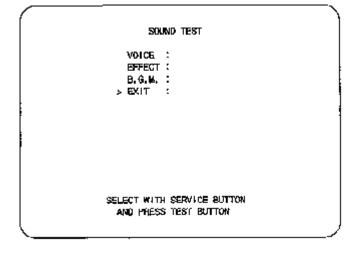


Sound Test Page 1 of 1

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# **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.



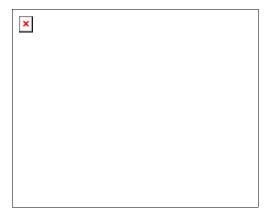
CRT Test Page 1 of 1

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# **CRT Test**

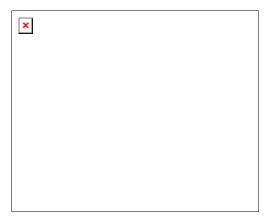
Choose CRT Test to display the screen on which the Monitor adjustment is checked. By watching the screen, periodically check if adjustments are needed or not. For adjustment, refer to the Section of Monitor Adjustment stated herein.

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.

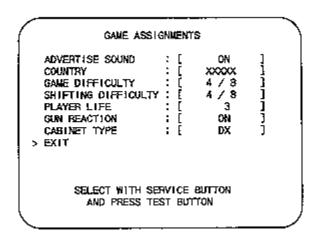
Game Assignments Page 1 of 1

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# **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	Game difficulty can be varied by changing the enemy missile speed or the ratio of
Difficulty	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.

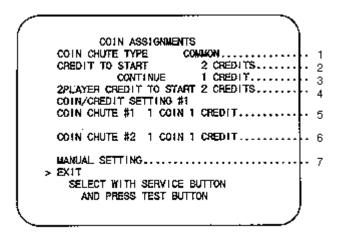
Coin Assignment Page 1 of 1

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# **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 Start** Sets the number of credits required when starting the game.

Credit to

**Continue** 

This sets the number of credits required to continue game.

Coin/Credit

How many coins correspond to how many credits. In this machine, selection as per

**Setting** the adjacent chart is possible.

**Manual Setting** Allows 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 Credits Page 1 of 2

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# COIN/CREDIT SETTING (COIN CHUTE COMMON TYPE)

5 COINS, 6 CREDITS 5 COINS, 6 CREDITS	NAME OF	FUNCTIONING OF COIN	FUNCTIONING OF COIN
SETTING #2	SETTING	CHUTE #1	CHUTE #2
SETTING #3	SETTING #1		1 COIN, 1 CREDIT
SETTING #4	SETTING #2	1 COIN, 2 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, 5 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           SETTING #15         1 COIN, 1 CREDIT         2 COINS, 3 CREDITS           SETTING #16         1 COIN, 3 CREDITS         2 COINS, 3 CREDITS           SETTING #16         1 COIN, 3 CREDIT         2 COINS, 3 CREDITS           SETTING #17         3 COINS, 1 CREDIT         2 COINS, 3 CREDITS           SETTING #18         4 COINS, 1 CREDIT         1 COIN, 1 CREDIT           SETTING #19         1 COIN, 1 CREDIT         1 COIN, 1 CREDIT           SETTING #20         1 COIN, 5 CREDITS         3 COINS, 3 CREDITS           SETTING #21         <	SETTING #3	1 COIN, 3 CREDITS	1 COIN, 1 CREDIT
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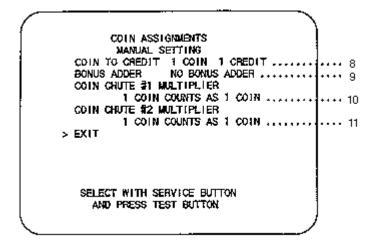
Coin Credits Page 2 of 2

SETTING #26	1 COIN, 6 CREDITS	3 COINS, 3 CREDITS 4 COINS, 4 CREDITS 5 COINS, 6 CREDITS
SETTING #27	FREE PLAY	FREE PLAY

Manual Settings Page 1 of 1

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# **MANUAL SETTINGS**



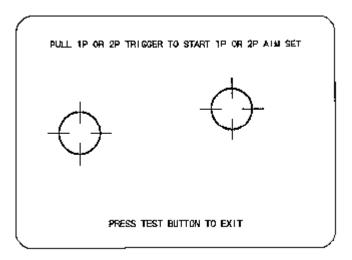
- 8 Determines conversion of coin/credit.
- 9 This sets how many conversion coins should be inserted to obtain one service coin.
- 10 This sets how many conversion coins are represented by a coin inserted in coin chute one.
- 11 This sets how many conversion coins are represented by a coin inserted in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

Aim Set Page 1 of 1

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# **AIM SET**

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.

# **IMPORTANT!**

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

Bookkeeping Page 1 of 1

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# **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.

BOOKKEEP1NG	1/2
COIN CHUTE #1	0
COIN CHUTE #2	0
TOTAL COIN	O
COIN CREDIT	0
SERVICE CREDIT	0
TOTAL CREDIT	0
NUMBER OF 1P GAME	0
NUMBER OF 2P GAME	D
NUMBER OF GAME	D
TOTAL TIME	OD OH OM OS
PLAY TIME	OH OM OS
AVERAGE PLAY TIME	OH OM OS
LONGEST PLAY TIME	OH OM OS
SHORTEST PLAY TIME	OH OM OS
PRESS TEST BUTTON	TO CONTINUE

Backup Data Clear Page 1 of 1

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- 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.

BACKUP DATA CLEAR

YES(CLEAR) > NO (CANCEL)

SELECT WITH SERVICE BUTTON

AND PRESS TEST BUTTON

Controller Page 1 of 1

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# CONTROLLER

#### **WARNING!**

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.

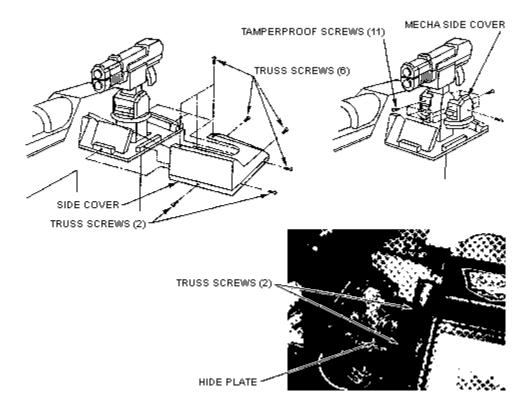
When performing this work, also remove the side cover and mechanism side cover.

# 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 Page 1 of 2

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# VR ADJUSTMENT

#### **WARNING!**

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

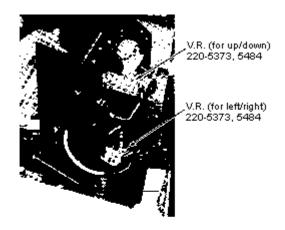
Loosen the 2 screws which secure the VR bracket in order to move the bracket.

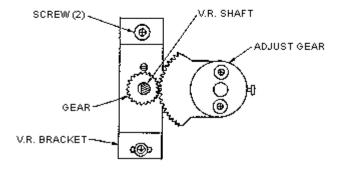
Move the VR bracket to disengage the adjust gear mesh and move the VR shaft in a manner so that the VR shaft cut portion faces the opposite side of the adjust gear as shown.

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

# **WARNING!**

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.

VR Adjustment Page 2 of 2

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.

Trigger Switch Page 1 of 1

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# REPLACEMENT OF TRIGGER SW

# **WARNING!**

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.

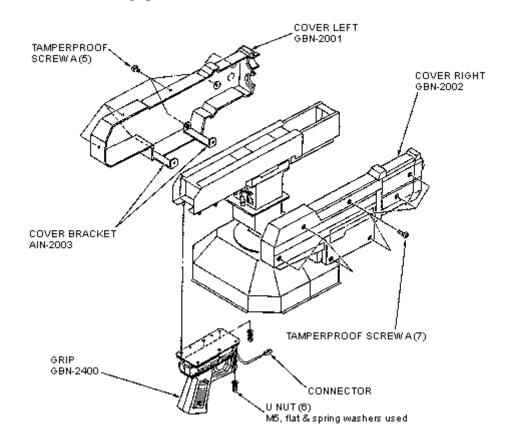
# REMOVING THE GRIP

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.

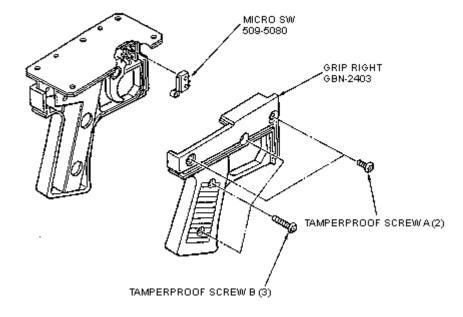


Micro Switch Page 1 of 1

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# 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.



Motor Brush Page 1 of 1

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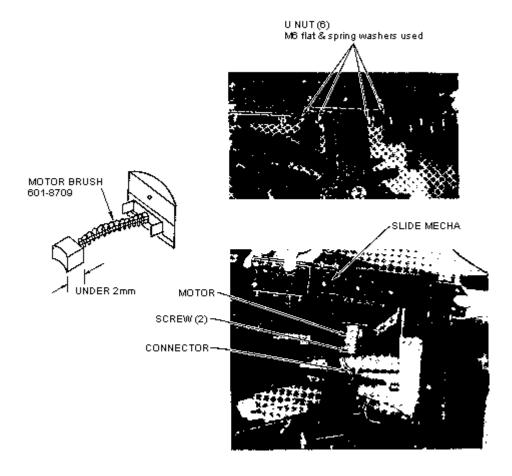
## REPLACEMENT OF MOTOR BRUSH

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 Page 1 of 1

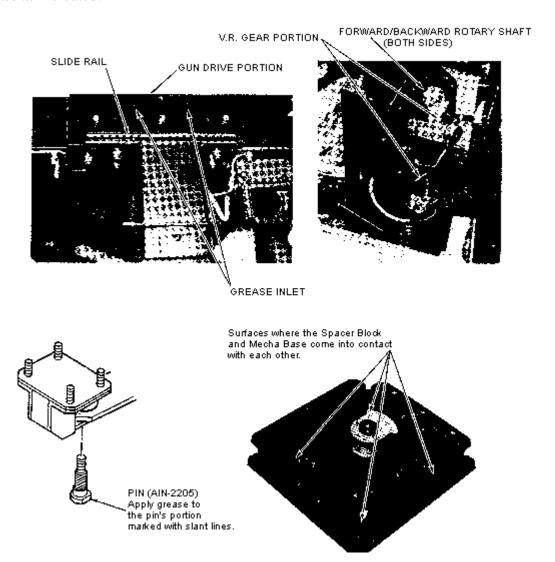
#### [Table of Contents] [Previous Page] [Next Page]

#### **GREASING**

#### **CAUTION!**

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 Page 1 of 2

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#### HANDLING THE COIN JAM

If the coin is not rejected even 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: Turn the power for the machine OFF. Open the coin chute door.

Open the gate and dust off by using a soft brush (made of wool, etc.).

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

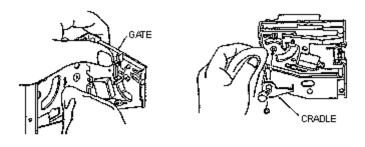
Remove the CRADLE. When removing the retaining ring (E ring). be very careful so as not to bend the shaft.

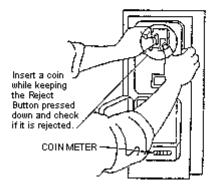
Remove stain from the shaft and pillow portions by wiping off with a soft cloth, etc.

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

#### **STOP: IMPORTANT!**

- 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.





#### **COIN INSERTION TEST**

Coin Selector Page 2 of 2

Once every month when performing the Coin SW Test, simultaneously check the following:

- Does the Coin Meter count satisfactorily?
- Does the coin drop into the Cash box correctly?
- Is the coin rejected when inserted while keeping the Reject Button pressed down?

#### PROJECTOR ADJUSTMENTS

**CAUTION!** Since the projector has been adjusted at the time of shipment, do not make any further adjustments without good reason.

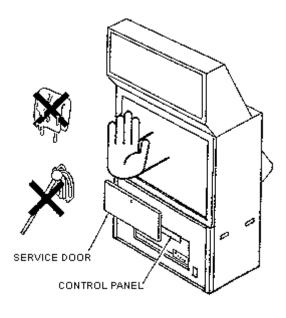
Fine adjustments are stored in the projector. Pressing the fine adjustment switch (Convergence adjustment) results in entering the fine adjustments mode, and this may cause the stored fine adjustment to be changed. During work other than for adjustment, should you touch the fine adjustment switch by mistake, immediately turn off power by using the main switch and then turn it back on again. If any distortion or color deviation is found in the test mode, and adjustments are needed, use the specified adjustment knob or perform the adjustments by using the remote control. Note that projector models and makes may vary, and adjustment methods will differ dependent on the manufacturer.

**STOP: IMPORTANT!** The projector is subject to color deviation due to convergence deviation caused by geomagnetism at the installation location and peripheral magnetic field. After the installation of machine, and before commencing operation, check for convergence deviation and, if deviated, make necessary adjustments.

#### **CLEANING THE SCREEN**

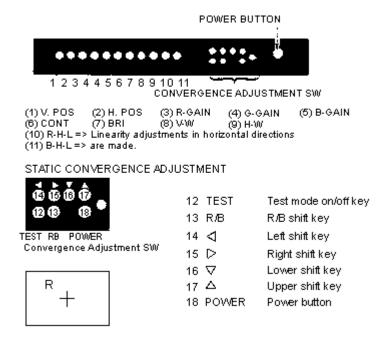
**CAUTION!** Since the projector screen is highly susceptible to damage, pay careful attention to its handling. When cleaning, refrain from using water or volatile chemicals.

When the screen surface becomes dirty with dust, etc, clean it using a soft cloth such as gauze. When water and volatile chemicals such as benzene, thinner, etc, spill onto the the screen surface, it may be susceptible to damage, therefore, refrain from exposing the surface to these liquids. Also, since the screen surfaces are easily susceptible to damage from abrasion, avoid rubbing them with any hard materials or using a duster.



#### MITSUBISHI PROJECTOR

#### MITSUBISHI PROJECTOR CONTROL PANEL



- For the Convergence adjustment mode, press the test mode on/off key (12).
- Ensure that "R" is displayed on the screen.
- Make adjustment so as to cause the red cross pattern to match with the green cross pattern by using Left shift key (14), Right shift key (15), Lower shift key (16), and Upper shift key (17).
- By using R/B shift key (13), cause the red adjustment "R" to shift to blue adjustment "B" and make sure that "B" is displayed on the screen.
- In the same manner as in (3) above, cause the blue cross pattern to match with the green cross pattern.
- After making adjustment, press the test mode on/off key (12) to cancel the Convergence adjustment mode.

Fluorescent Lamp Page 1 of 1

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## REPLACEMENT OF THE FLUORESCENT LAMP

#### **WARNING!**

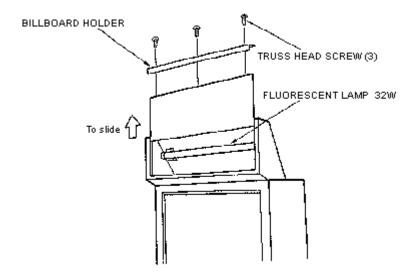
When performing work, be sure to turn power off. Working on the machine with power on can cause an electric shock or short circuit accident.

The fluorescent lamp, which gets very hot, can cause burns. Be very careful when replacing the fluorescent lamp.

#### **CAUTION!**

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 Page 1 of 1

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

Troubleshooting Page 1 of 1

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#### **TROUBLESHOOTING**

#### **WARNING!**

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.

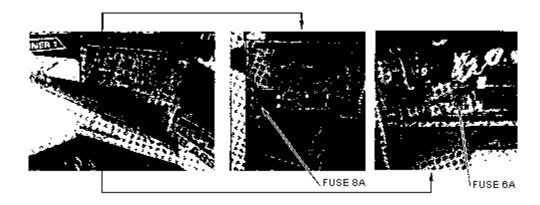
PROBLEM	CAUSE	COUNTER MEAS	URE
When the main SW is turned ON, the machine is not activated.	The cord is not plugged in.	Firmly insert the plu	ig into the outlet.
	<del>*</del>	Make sure that the prolates are correct.	* * *
	-	First, remove the ca	· 11
		Primary Fuse:	7A 250V Fast Blo
		Secondary Fuse:	5A 250V Slo Blo
			4A Slo Blo
			4A Fast Blo

#### REPLACEMENT AND ADJUSTMENT OF FUSES

#### **WARNING!**

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.



Game Board Page 1 of 2

#### [Table of Contents] [Previous Page] [Next Page]

#### **WARNING!**

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.

#### **CAUTION!**

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.

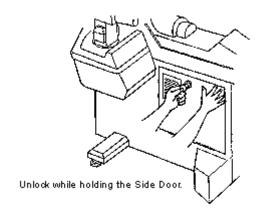
Turn the main switch off.

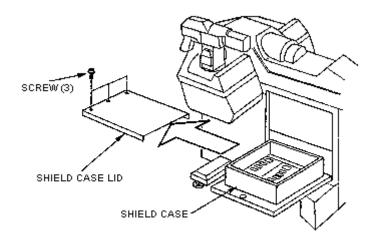
The shield case is inside the side door on the right side of the cabinet. Unlocking the door can cause the side door to open due to its weight. To avoid injury and to prevent damaging the door, etc., be sure to hold the door while unlocking. Carefully open the door. The door has a stopper to prevent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

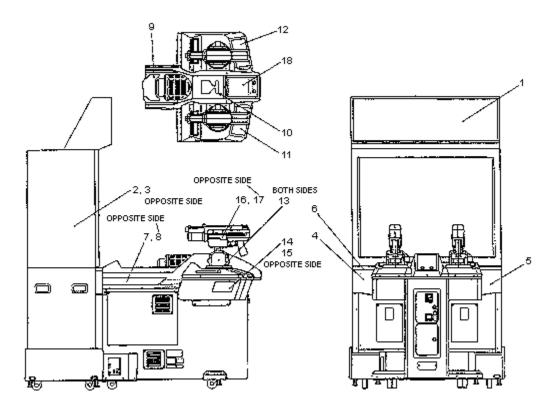
Take off the 3 screws to remove Case Lid. The Game Board is contained in the Shield Case.

Game Board Page 2 of 2





# 16. DESIGN RELATED PARTS



No.	PART No.	DESCRIPTION
1	GBN0-0551	BILLBOARD
2	4210-9083	SIDE STICKER L
3	4210-9084	SIDE STICKER R
7	GBN0-1003-D	STICKER GUNBLADE L
8	GBN0-1003-E	STICKER GUNBLADE R
9	GBN0-1003-F	STICKER A
10	GBN0-1003-G	STICKER MARK
11	GBN0-1004-C	STICKER 1P
12	GBN0-1005-B	STICKER 2P
13	GBN0-1004-D	STICKER B
14	GBN0-1032-A	STICKER GUN BASE L
15	GBN-1033-A	STICKER GUN BASE R
16	GBN-2005	GUN DESIGN PLATE L
17	GBN-2006	GUN DESIGN PLATE R
18	4220-0571-01	PLAY INSTR SH GBN DX

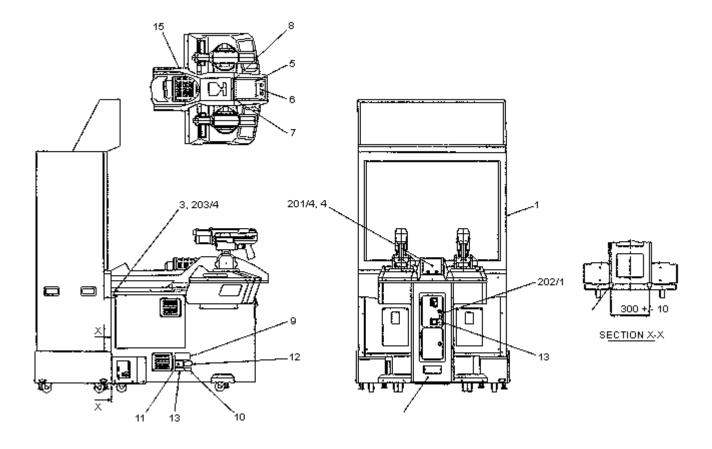
## [HomePage] [GunBlade TOC]

# **Parts Identification Index**

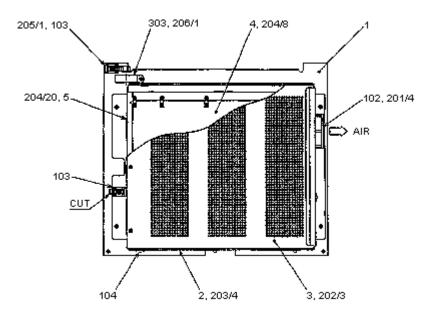
ASSEMBLY	PART NUMBER	PAGE
TOP ASSY GUNBLADE NY DX		53-54
ASSY MAIN BD	GBN-0100	55
ASSY PTV	GBN1-0500	56
ASSY BILLBOARD	GBN1-0550	57
ASSY FRONT PANEL	GBN0-0600	58
ASSY PTV BASE	GBN1-0650	59
ASSY MASK	MGL-1150	60
ASSY CABINET DX	GBN1-1000	61-62
ASSY SIDE DOOR L	GBN-1006	63
ASSY SPEAKER	GBN0-1026	64
ASSY TWEETER	GBN0-1028	65
ASSY WOOFER	GBN0-1030	66
CENTER COVER	GBN1-1003	67
SW UNIT	GBN-1040	68
ASSY CONTROLLER	GBN1-2000	69-70
ASSY SLIDE MECHA	GBN1-2050	71-72
ASSY MOTOR	GBN1-2070	73
ASSY SWING BASE	GBN-2100	74-75
ASSY BASE	GBN-2150	76-77
ASSY VOLUME U/D	GBN-2200	78
ASSY VOLUME L/R	GBN-2250	79
ASSY GRIP	GBN-2400	80
ASSY AC PWR SPLY	GBN-4000	81-82
ASSY ELEC BASE	GBN-4100	83-84

# 17. PARTS LIST

# (1) TOP ASSY GUNBLADE NY DX

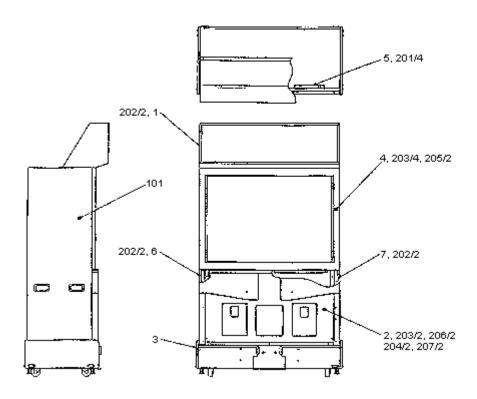


## (2) ASSY MAIN BD (GBN-0100)



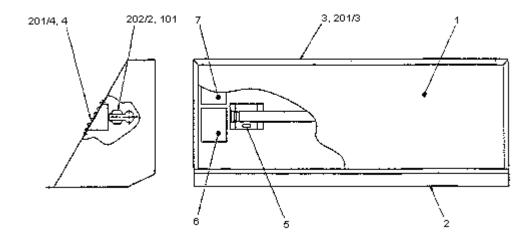
ITEM NO.	PART NO.	DESCRIPTION
1	GBN0-0101	WOODEN BASE MAIN BD
2	1051-5218	SHIELD CASE
3	1051-5219-91	SHIELD CASE LID
4	833-12562	GAME BD GUNBLADE NY
5	839-0778	FLT BD B-CRX RCT

# (3) ASSY PTV (GBN1-0500)



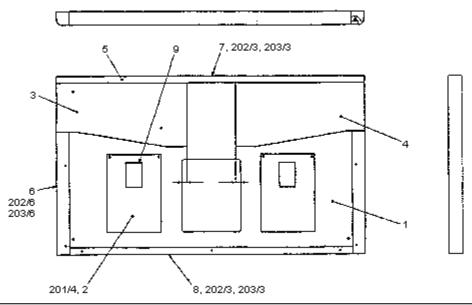
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN1-0550	ASSY BILLBOARD	
2	GBN1-0600	ASSY FRONT PANEL	
3	GBN1-0650	ASSY PTV BASE	
4	MGL1-1150	ASSY MASK	
5	RAL0-0501	MASK HOLDER	
6	DYN0-0501	PANEL MOUNT BRKT L	
7	DYN0-0502	PANEL MOUNT BRKT R	
101	2001-5315-01- GBN	ASSY PROJECTION DISPLAY GBN (W/RC)	
201	000-F00414	M SCR FH M4X14	
202	000-P00516-W	M SCR PH W/FS M5X16	
203	000-T00520-OB	M SCR TH+ BLK M5X20	
204	000-T00520-OC	M SCR TH CRM M5X20	
205	000-T00525-OC	M SCR TH CRM M5X25	
206	068-552016-OB	FLT WSHR BLK 5.5-20X1.6	
207	068-552016-OC	FLT WSHR CRM 5.5-20X1.6	

# (4) ASSY BILLBOARD (GBN1-0550)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN0-0551	BILLBOARD	
2	GBN1-0552	BILLBOARD BOX	
3	GBN0-0553	BILLBOARD HOLDER	
4	105-5239-01	AIR VENT	
101	3901-5538-32EX	ASSY FL32W EX W/CONN HIGH	
201	000-T00408-OB	M SCR TH BLK M4X8	

# (5) ASSY FRONT PANEL (GBN0-0600)

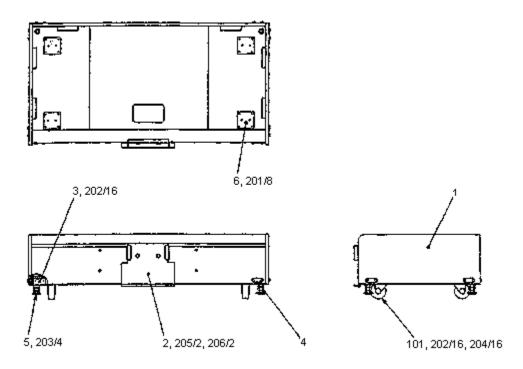


ITEM NO.	PART NO.	DESCRIPTION
1	GBN0-0601	FRONT PANEL
2	GBN0-0602	SERVICE DOOR
6	OUT0-0023	SIDE BRKT
7	OUT0-0024	BRKT UPPER
8	OUT0-4025	BRKT LOWER
201	000-T00430-OC	M SCR TH CRM M4 X 30
202	050-F00500	FLG NUT M5
203	068-552016	FLT WSHR 5.5-20 X 1.6

Assy PTV Base Page 1 of 1

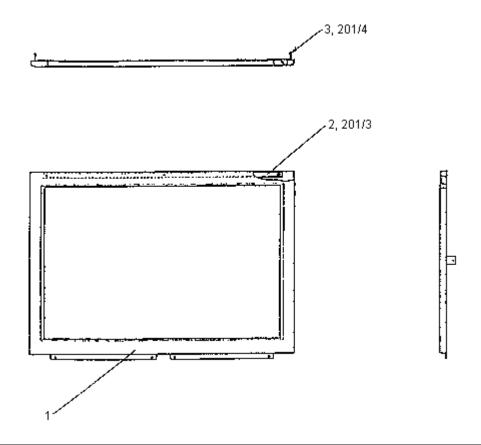
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# (6) ASSY PTV BASE (GBN1-0650)



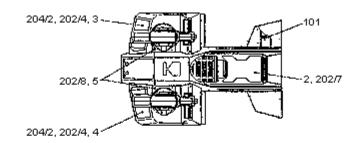
ITEM NO.	PART NO.	DESCRIPTION
1	GBN1-0651	PTV BASE
2	GBN1-0652	JOINT BRKT
3	ARC1-1006	LEG BRACKET BLACK
4	6011-5699X	LEG ADJUSTER BOLT 5/8 X 4
6	SCR1-1008	NUT PLATE FOR CASTER
101	6011-6224	CASTER 0 75
201	234-5000-00	6X3/8 HEX HEAD
202	030-000625-SB	HEX BOLT W/S BLK M6X25
203	050-H01600	HEX NUT M16
204	060-F00600	FLT WSHR M6
205	030-00830-S	HEX BOLT W/S M8X30
206	060-F00800	FLT WSHR M8

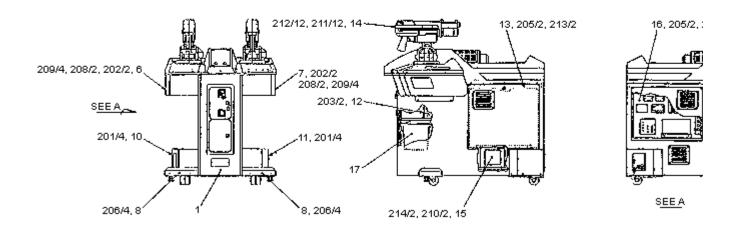
# (7) ASSY MASK (MGL-1150)



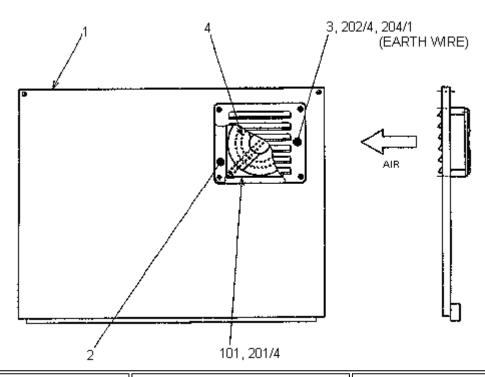
ITEM NO.	PART NO.	DESCRIPTION
1	MGL1-1102	TV MASK
2	MGL1-1151	SLIT PLATE
3	MGL1-1152	MASK SIDE HOLDER
201	0121-F00408-OB	TAP SCR FH BLK M4X8
202	000-F00410	M SCR FH M4X10

## (8) ASSY CABINET DX (GBN1-1000)



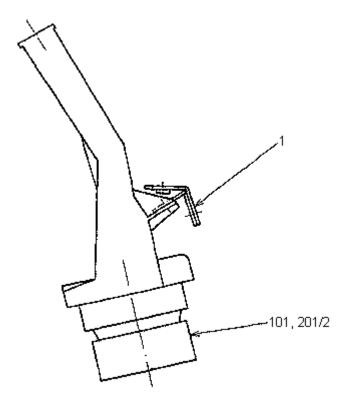


# (10) ASSY SIDE DOOR L (GBN-1006)



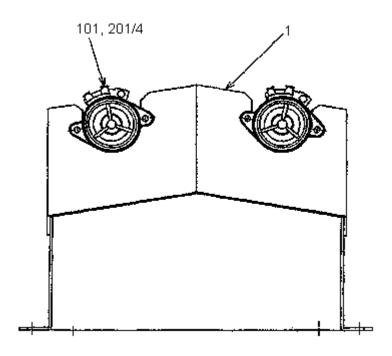
ITEM NO.	PART NO.	DESCRIPTION
1	GBN1-1007	N SIDE DOOR L
2	1050-5238	FAN BRKT AIR
3	1050-5239-01	VENT FAN
4	6011-8543	GUARD
101	2601-0011-02	AXIAL FLOW FAN AC120V 60 HZ
201	000-P00312-W	M SCR PH W/FS M3X12
202	000-T00420-OB	M SCR TH BLK M4X20
204	050-F00400	FLG NUT M4

# (11) ASSY SPEAKER (GBN0-1026)



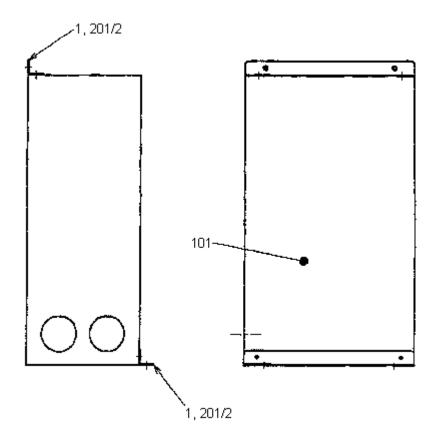
ITEM NO.	PART NO.	DESCRIPTION
1	GBN0-1027	SPEAKER BRKT
101	130-5152	SPEAKER BOX MINI DOME 12W
201	000-P00412-W	M SCR PH W/FS M4X12

# (12) ASSY TWEETER (GBN0-1028)



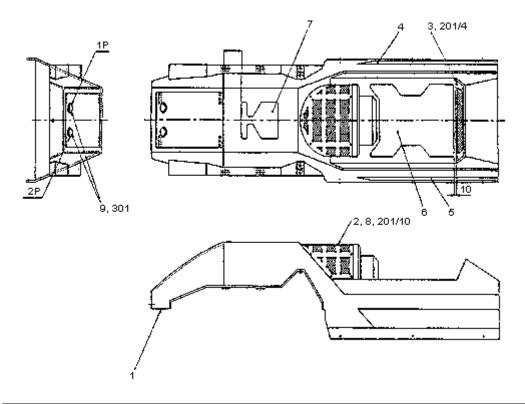
ITEM NO.	PART NO.	DESCRIPTION
1	GBN0-1029	TWEETER BRKT
101	130-5112	TWEETER 8 OHM 2W 0 35
201	000-P00308-W	M SCR PH W/FS M3X8

# (13) ASSY WOOFER (GBN0-1030)



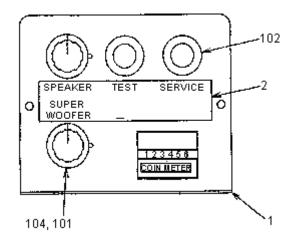
ITEM NO.	PART NO.	DESCRIPTION
1	DYN0-2208	SPEAKER BRKT
101	130-5097	SPEAKER BOX SUPER WOOFER
201	0111-T03512	TAP SCR TH 3.5X12

# (15) **CENTER COVER (GBN1-1003)**



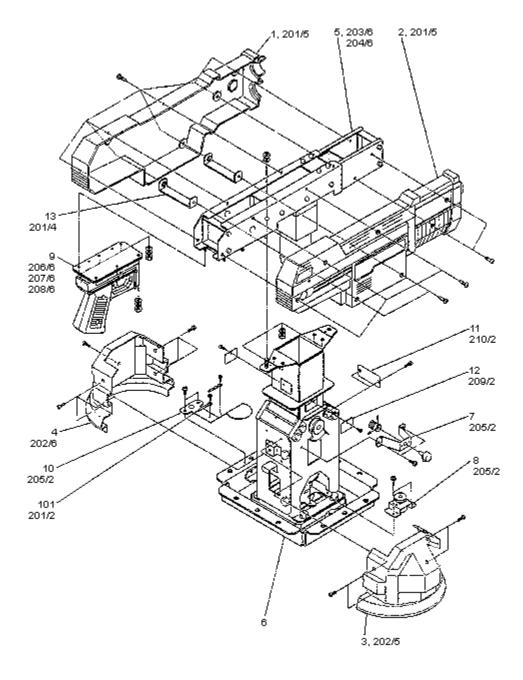
ITEM NO.	PART NO.	DESCRIPTION
1	GBN0-1003-A	CENTER COVER BLANK
2	GBN0-1003-B	ENGINE COVER
3	GBN1-1003-C	TWEETER NET
4	GBN0-1003-D	STICKER GUNBLADE L
5	GBN0-1003-E	STICKER GUNBLADE R
6	GBN0-1003-F	STICKER A
7	GBN0-1003-G	STICKER MARK
8	GBN0-1003-H	COVER BLACK SHEET
9	5091-0161	PUSH BUTTON SWITCH 1T YELLOW W/LAMP

# (17) SW UNIT (GBN-1040)

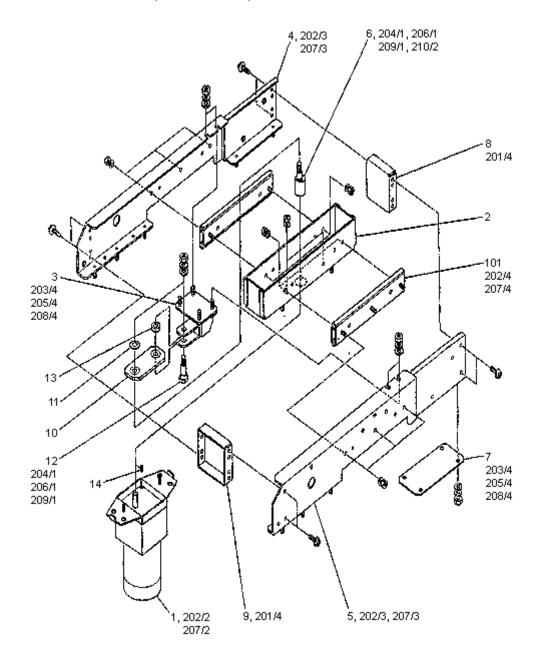


ITEM NO.	PART NO.	DESCRIPTION
1	GBN1-1041	SW BRKT STICKER SW UNIT
2	4211-9074	STICKER SW UNIT
101	220-5179	VOL CONT B-5K OHM
102	5091-5028	SW PB 1M
104	6011-0042	KNOB 22MM

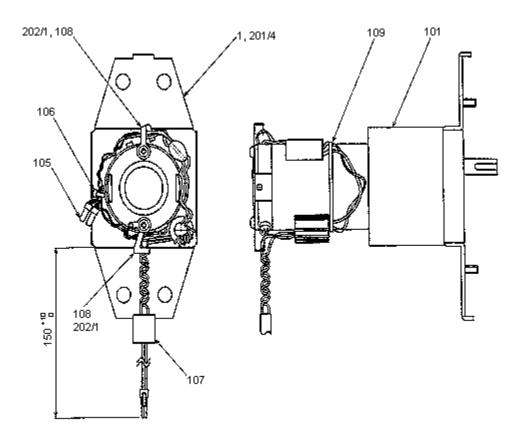
# (18) ASSY CONTROLLER (GBN1-2000)



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

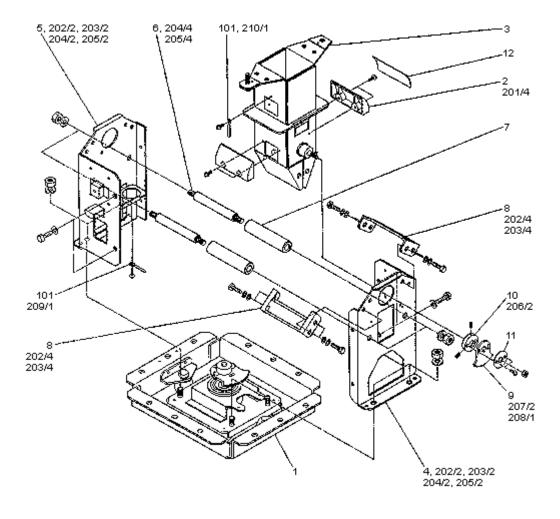


# (20) ASSY MOTOR (GBN1-2070)

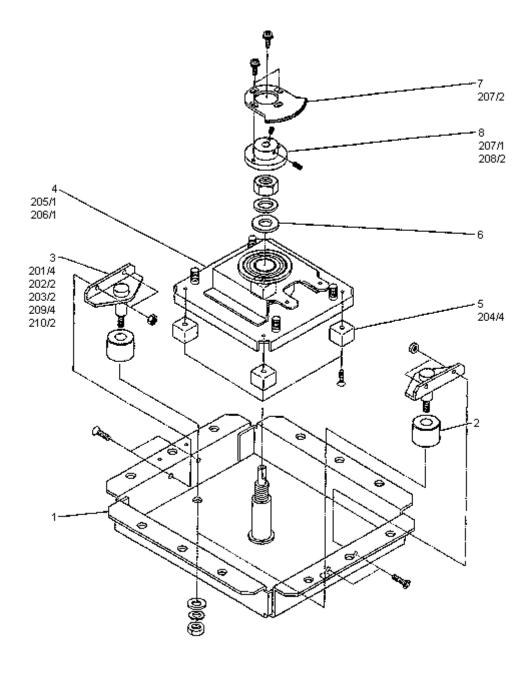


ITEM NO.	PART NO.	DESCRIPTION
1	GBN1-2071	MOTOR BRKT
101	350-5292	MOTOR DC 24V 600RPM
105	2091-0023	CONN CLOSED END
107	610-0402	ASSY WIRE GUN MOTOR
201	000-P00408-S	M SCR PH W/S M4X8
202	010-P00306	S-TITE SCR PH M3X6

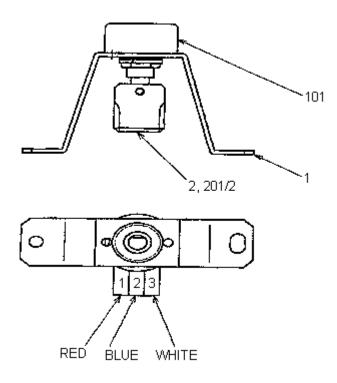
## (21) ASSY SWING BASE (GBN-2100)



# (22) ASSY BASE (GBN-2150)

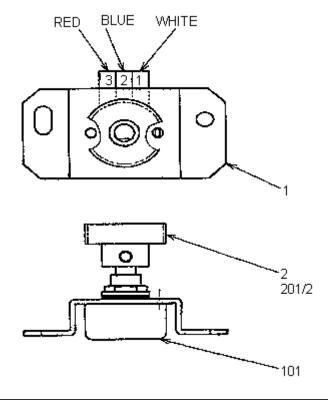


# (23) ASSY VOLUME U/D (GBN-2200)



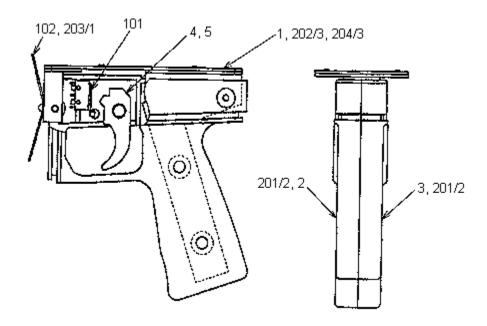
ITEM NO.	PART NO.	DESCRIPTION
1	GBN0-2201	VR BRKT U/D
2	601-7945	GEAR 20
101	220-5373	VOL CONT B-5K OHM
	220-5484	VOL CONT B-5K OHM
201	028-C00308-P	SCR CH CUP M3X8

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



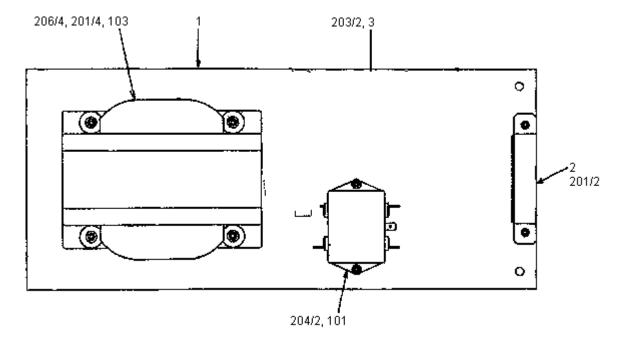
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	GBN0-2251	VR BRKT L/R	
2	601-6555	GEAR Z=30 M=0.75	
101	220-5373	VOL CONT B-5K OHM	
	220-5484	VOL CONT B-5K OHM	
201	020-000410-HZ	HEX SKT CAP SCR	
201	020-000+10-11Z	BLK OZ M4X10	

# (25) ASSY GRIP (GBN-2400)

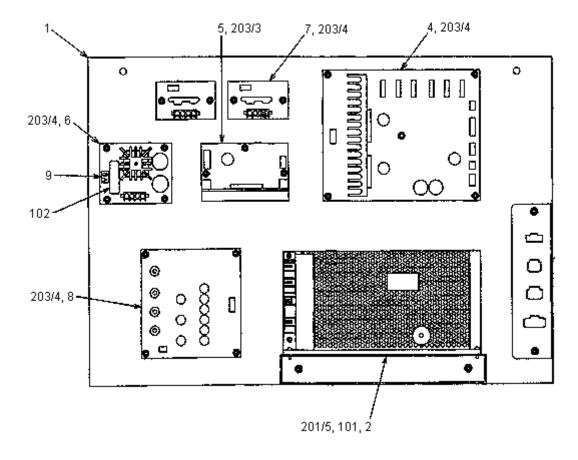


ITEM NO.	PART NO.	DESCRIPTION
1	AIN-2401	GRIP BASE
2	GBN-2402	GRIP LEFT
3	GBN-2403	GRIP RIGHT
4	GBN-2404	LEVER
5	AIN-2405	TORSION SPRING
101	509-5080	SW MICRO TYPE
201	008-T00512-OB	TMP PRF SCR TH BLK M5X12
202	FAS-080008	TMP PRF SCR PH W/F M3X 8
204	050-C00500-3B	CAP NUT TYPE3 BLK M5

# (26) ASSY AC PWR SPLY (GBN-4000)



## (27) ASSY ELEC BASE (GBN-4100)



Manual Comments Page 1 of 1

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## **GUN BLADE NY MANUAL COMMENTS**

SEGA has made every effort to ensure that this manual is accurate. If you find any errors or omissions, or have other comments on the **GUN BLADE NY** manual, please write them and deliver by FAX or mail to:

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