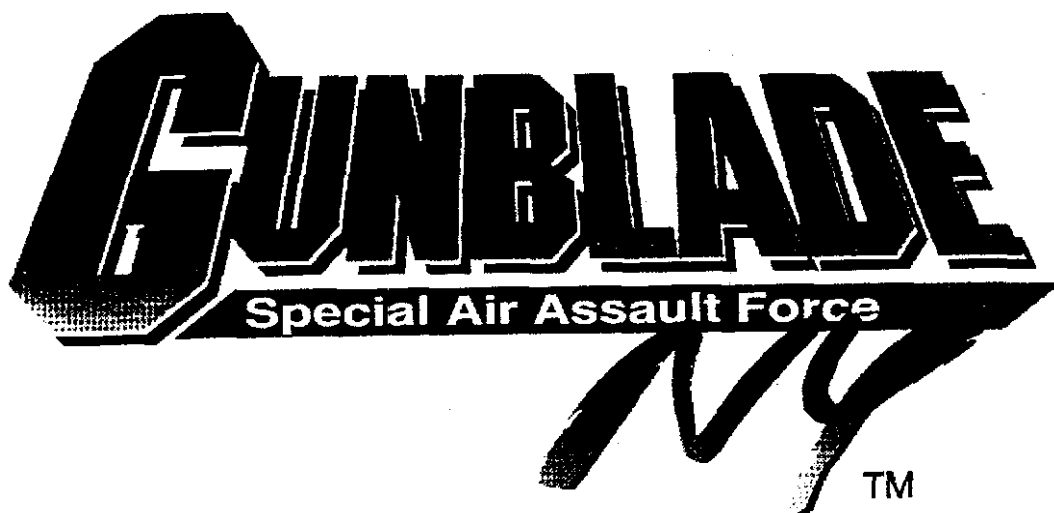


**SEGA™**



**UPRIGHT**

**SERVICE MANUAL**  
**SEGA ENTERPRISES, INC.**



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## General Precautions

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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 can, 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 object, 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 replacement 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.

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

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

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

### INSTALLATION PRECAUTIONS

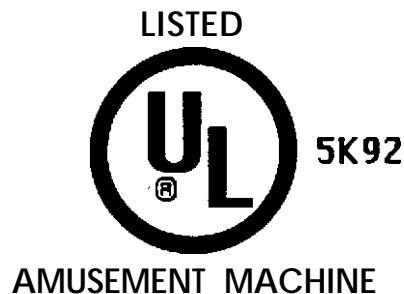
- Verify the amperage of the branch circuit outlet before plugging in the power plug. Do not overload the circuit.
- Avoid using a" extension cord. If one is required, use a" extension cord of type SJT, 16/3 AWG rated min. 120 VAC, 7.A.
- Moving this unit requires a minimum clearance (of doors, etc.)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

### REGULATORY APPROVALS

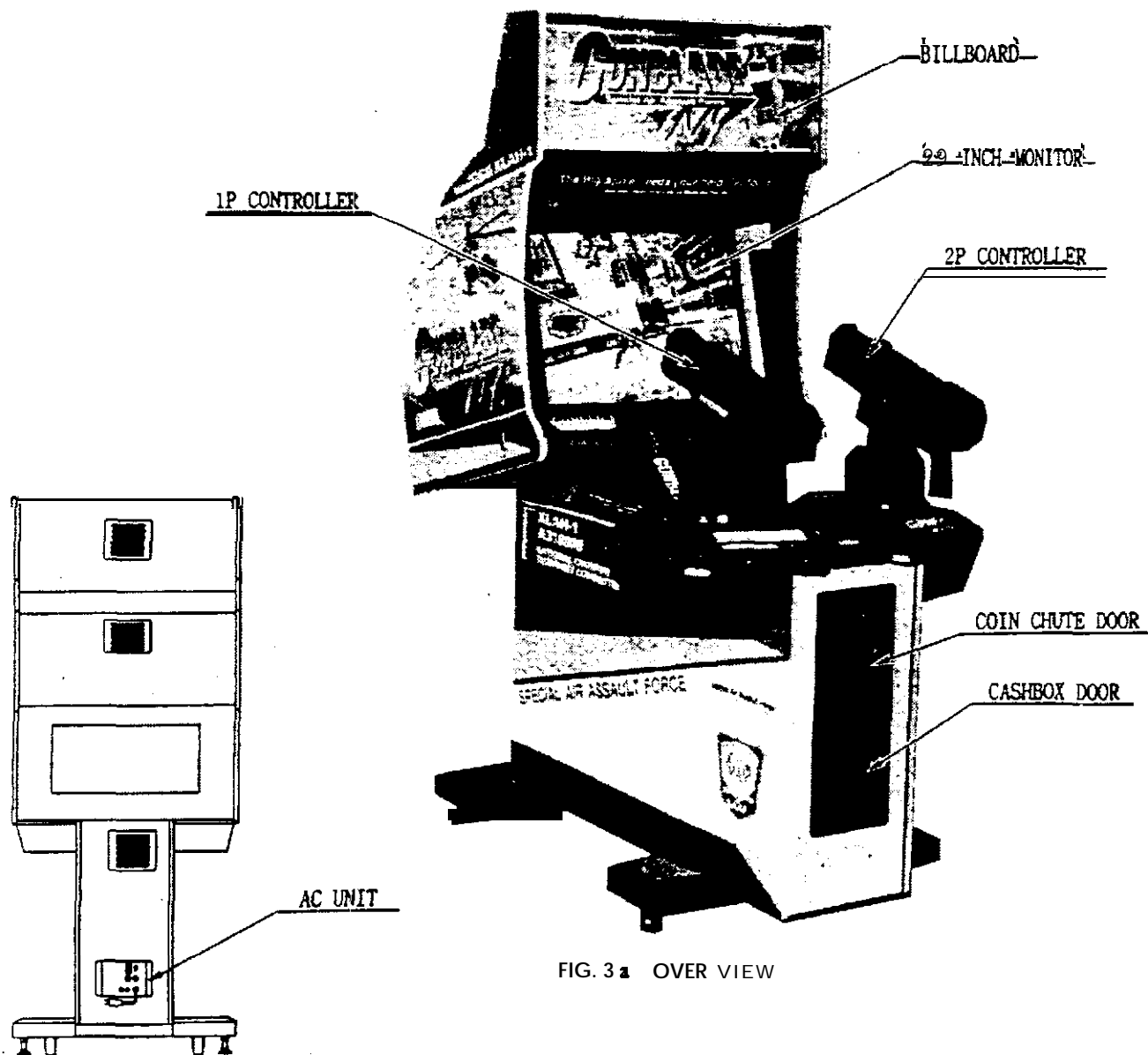
This game has been tested and found to comply with the Federal Communications Commission Rules.

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



	<u>WIDTH</u>	<u>LENGTH</u>	<u>HEIGHT</u>	<u>WEIGHT</u>
<i>ASSEMBLED GAME</i>	<i>48 IN</i>	<i>73 IN</i>	<i>89 IN</i>	<i>662 LBS</i>

## **INSTALLATION ITEMS**

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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, M5
- 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 Power supply
- 3 Assembly check



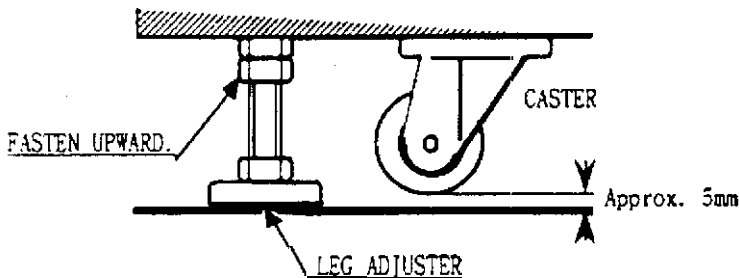
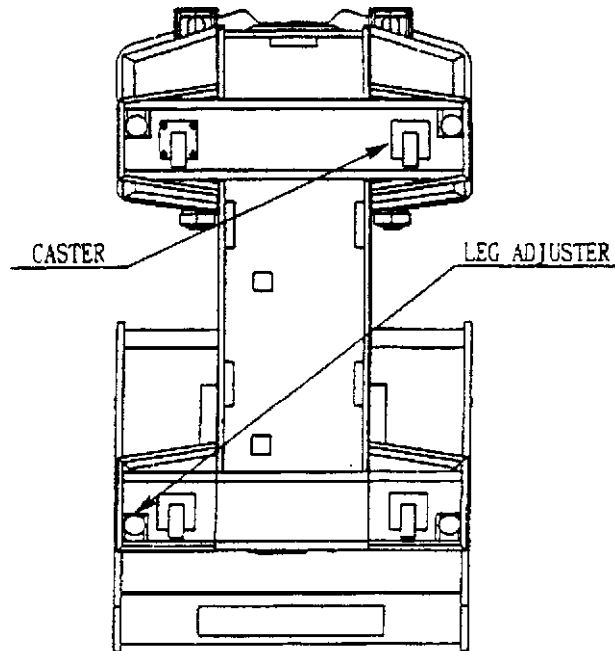
**Make sure that all the leg adjusters are in contact with the floor. If they are not, the cabinet can move, causing an accident**

This machine has 4 casters and 4 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

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.

#### MEMORY TEST

IC09 GOOD	IC10 GOOD	IC11 GOOD
IC12 GOOD	IC13 GOOD	IC14 GOOD
IC79 GOOD	IC80 GOOD	IC81 GOOD
IC82 GOOD	IC83 GOOD	IC84 GOOD
IC88 GOOD	IC89 GOOD	

PRESS TEST BUTTON TO EXIT

#### INPUT TEST

PLAYER	1P	2P
GUN X	80H	80H
Y	80H	80H
TRIGGER	OFF	OFF
START	OFF	OFF
COIN CHUTE #1	OFF	
COIN CHUTE #2	OFF	
SERVICE TEST	OFF	

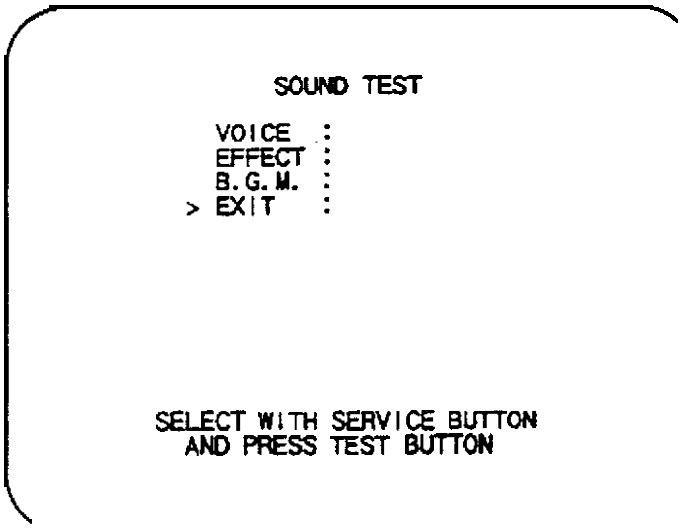
PRESS TEST BUTTON TO EXIT

#### OUTPUT TEST

1P START LAMP	=ON
2P START LAW	=OFF
1P GUN MOTOR	=ON
2P GUN MOTOR	=OFF

PRESS TEST BUTTON TO WIT

(4) SOUND TEST

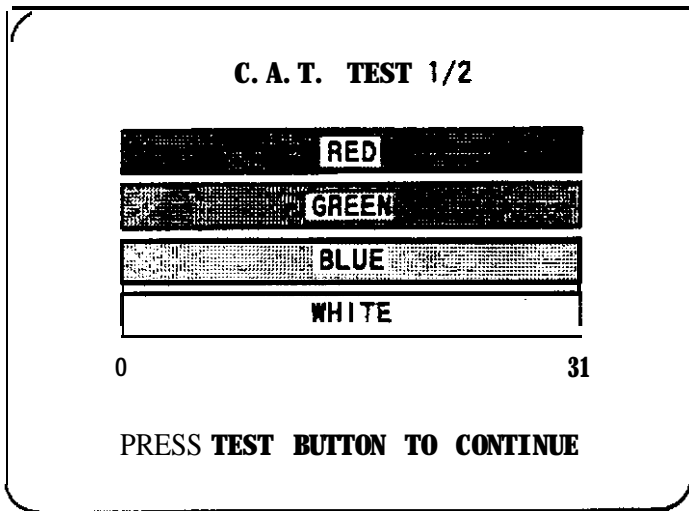


4. Sound Test

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

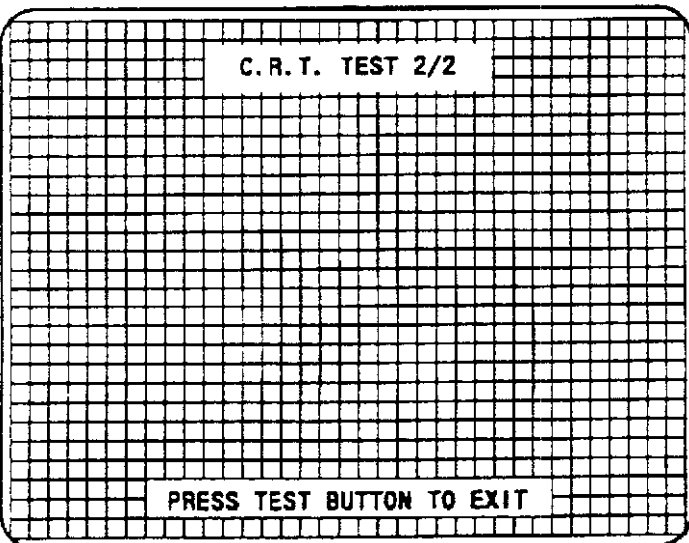
Be sure to check if the sound is satisfactorily emitted from each speaker and the sound volume is appropriate.

(5) C.R.T. TEST



5. C.R.T. Test

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.

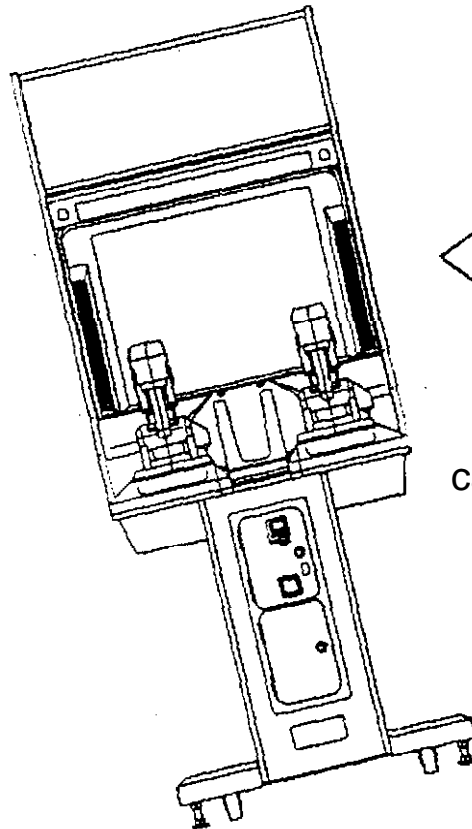




- Ⓜ When moving the machine, be sure to pull the plug out from the power supply. Moving the machine with the plug inserted can cause the power cord to be damaged, resulting in fire or electric shock.
- Ⓜ When moving the machine on the floor, retract the leg adjusters so that the casters come in contact 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.



When lifting or inclining the cabinet, do not hold the gun controller. Holding the controller can cause the controller and installation portion to be damaged due to the empty weight.



Do not push the cabinet from the left/right direction.

## OPERATION

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**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.

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



CAUTION!

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

**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**

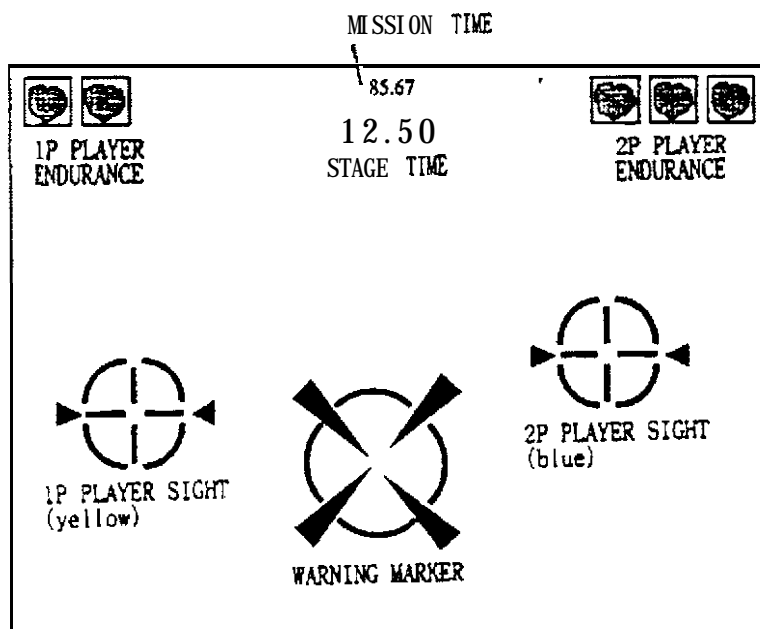
Different from the above two missions, each stage in this mission ends in one minute and the player proceeds to the next stage. Also, note that in this mission, which stage the player proceeds to after finishing a stage depends on the score earned in the stage that was finished.

### 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

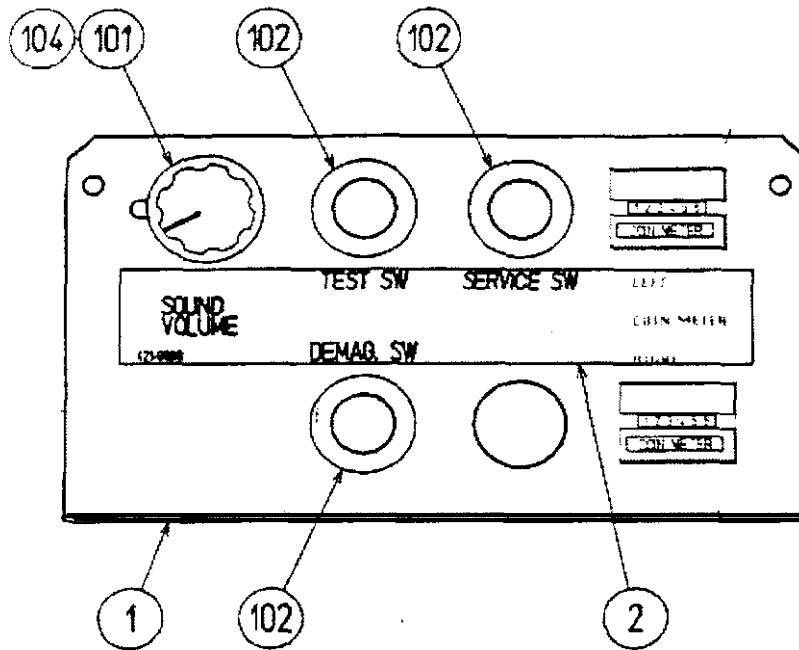
By operating the switch unit, periodically perform the tests and data check. When installing the machine initially, or collecting cash, or when the machine does not function properly, perform checks in accordance with this section.

The following test modes should be utilized as applicable.

Items	Description
Installation of Machine	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. 2. In the INPUT test mode, check each SW and VR. 3. In the OUTPUT test mode, check each of the lamps, t-rotors, 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 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.
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.
IC Board	1. MEMORY TEST 2. In the SOUND test mode, check the sound related ROMs.
Data Check	Check such data as game play time and histogram to adjust the difficulty level, etc.



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.

#### SUPERWOOFER VOLUME

Only the sound volume of the cabinet superwoofer can be adjusted.

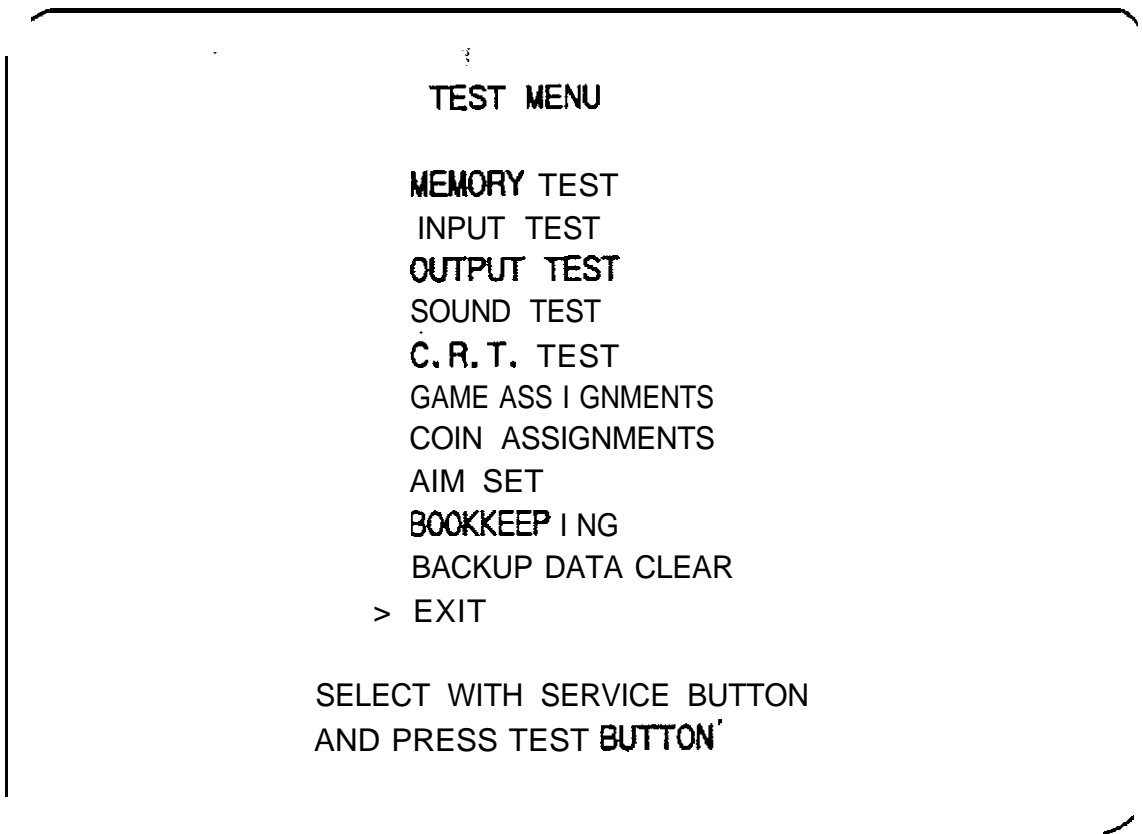
#### COIN METER

Registers total number of coins.

## 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 items test.
- Choosing EXIT and pressing the Test Button will finish the test **mode, and the** game mode returns on the screen after network checking.

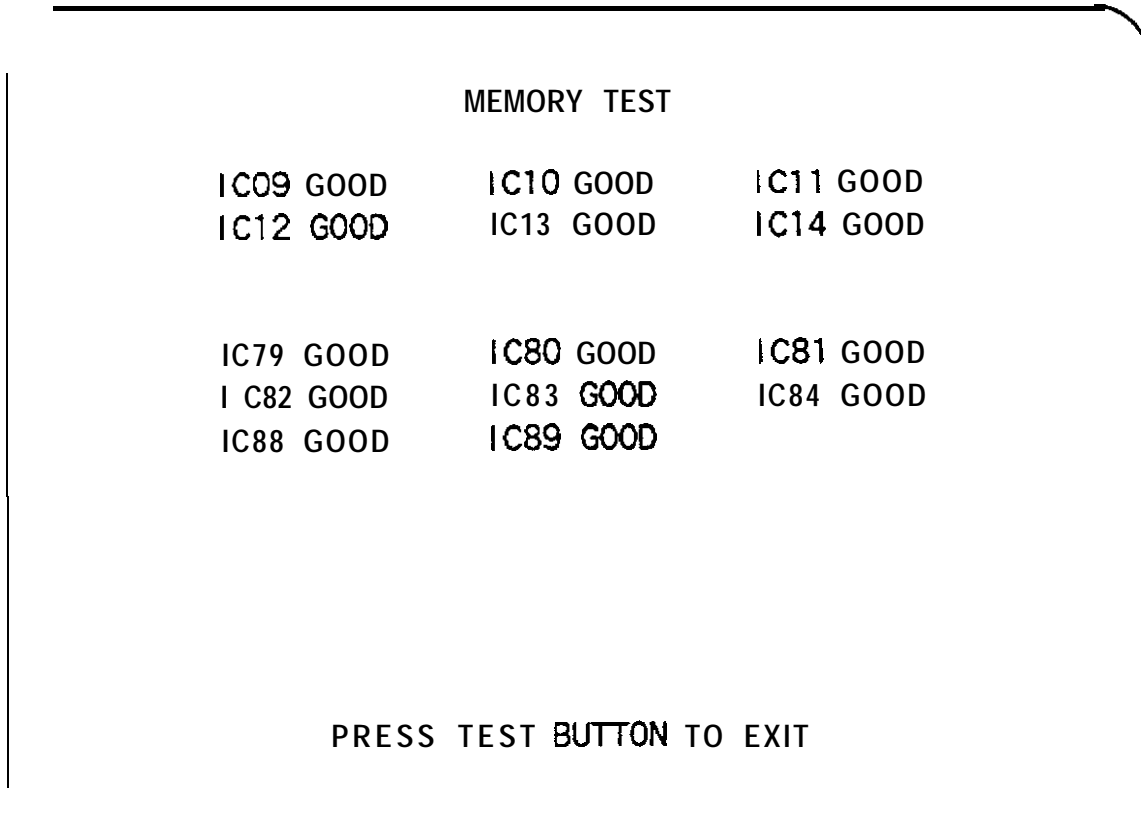




## Memory Test

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 adjacent, 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.



## 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.

INPUT TEST			
PLAYER	1P	2P	
GUN X	80H	80H	
Y	80H	80H	
TRIGGER	OFF	OFF	
START	OFF	OFF	
COIN CHUTE #1	OFF		
COIN CHUTE #2	OFF		
SERVICE	OFF		
TEST	OFF		

PRESS TEST BUTTON TO MIT

GUN X : Under 30H → Over d0H  
left right

GUN Y : Under 60H → Over b0H  
down "P

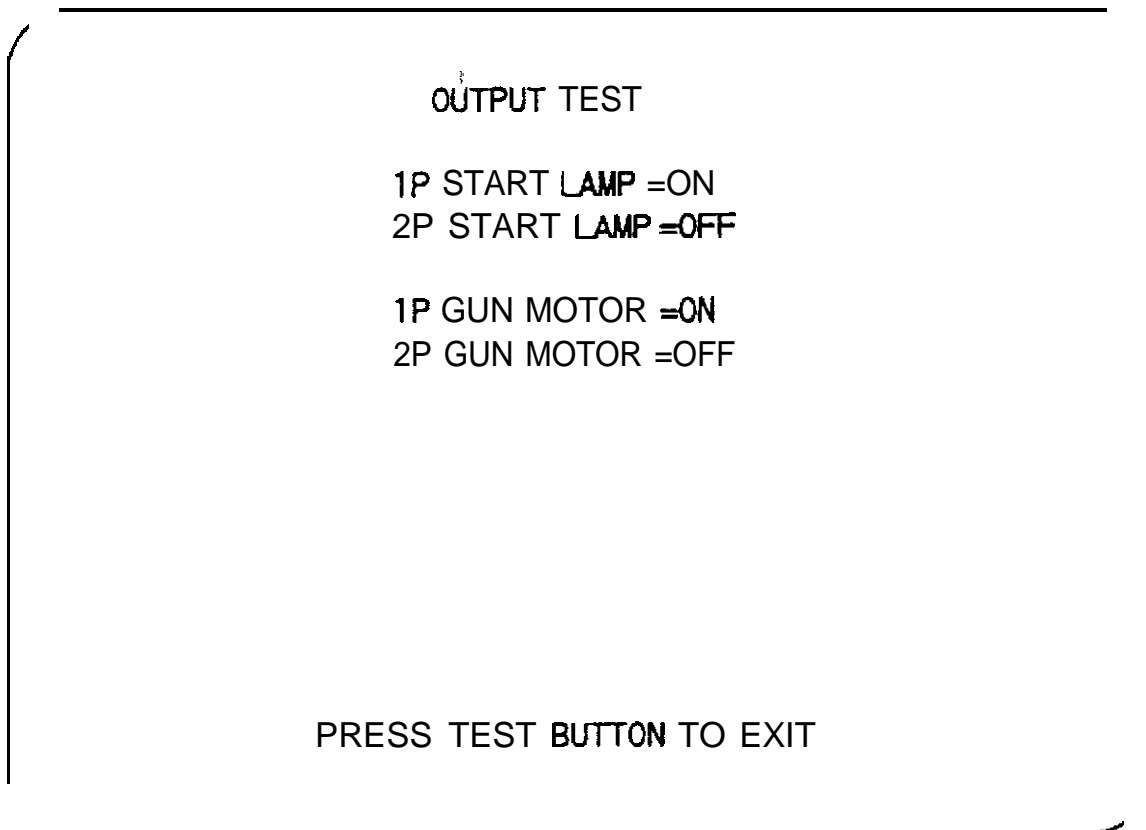
## Output Test

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 LED tests are performed in the manner corresponding to the item displayed.

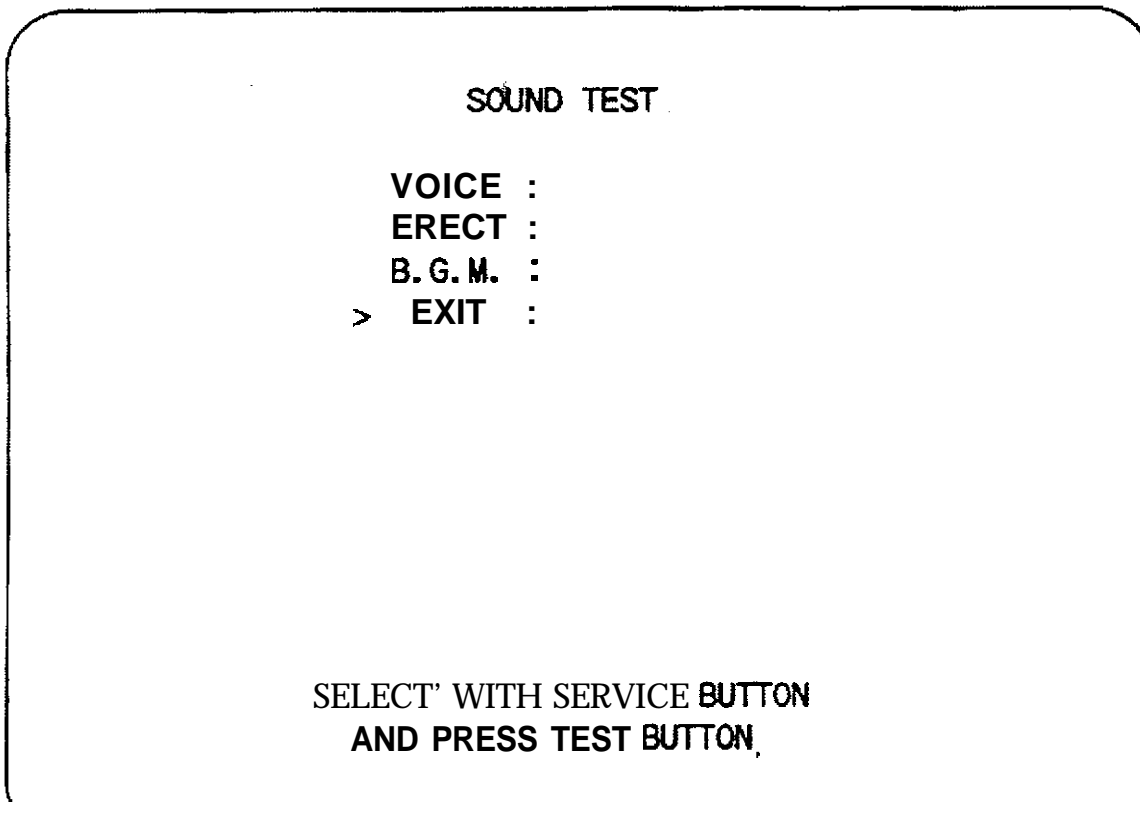
This game does not have 7-SEG LED. During the display of 7-SEG, only the Start button flashes.

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



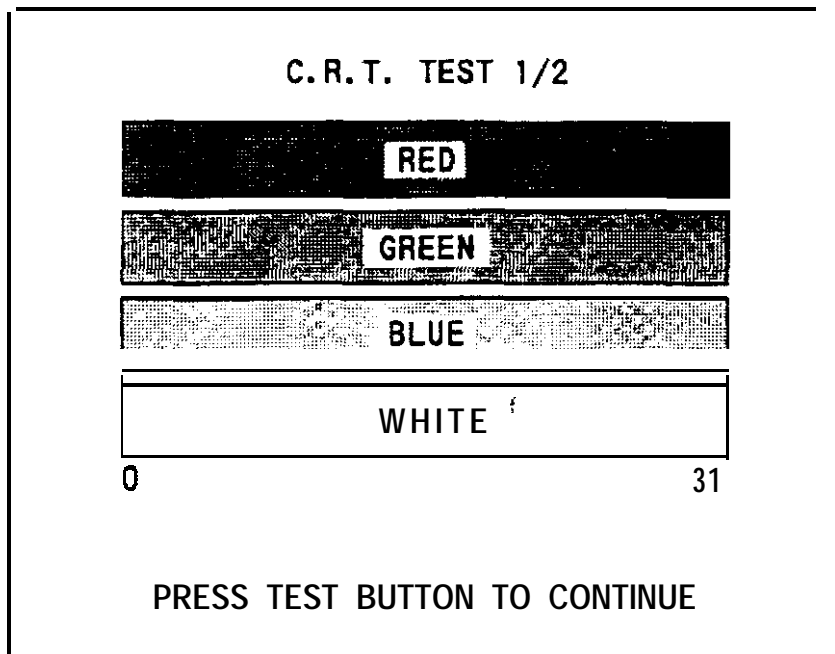
## Sound Test

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

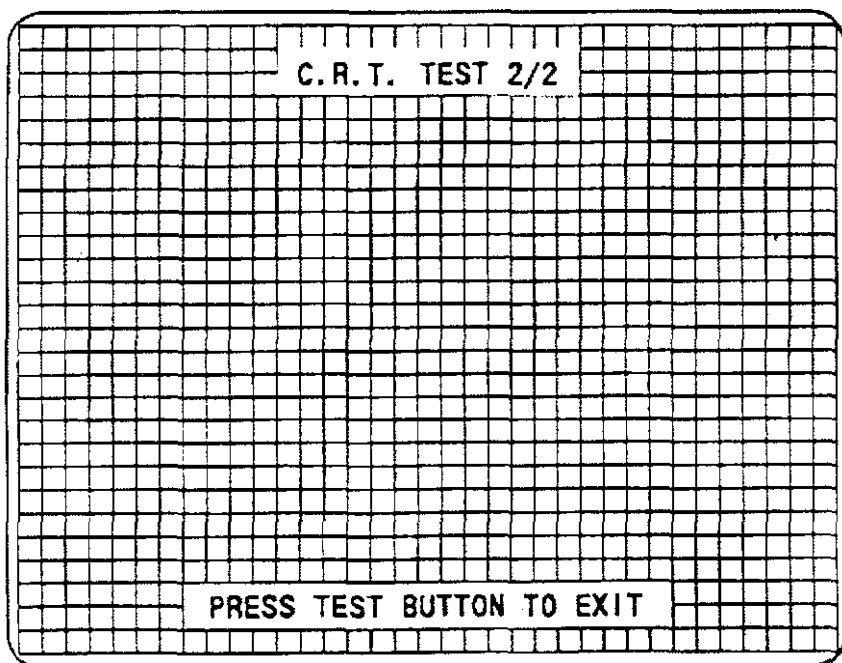
Choose CRT Test to display the screen on which the Monitor adjustment is checked. By watching the screen, periodically check if adjustments are needed or not. For adjustment, refer to the Section of Monitor Adjustment stated herein.



In adjacent figure, 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.

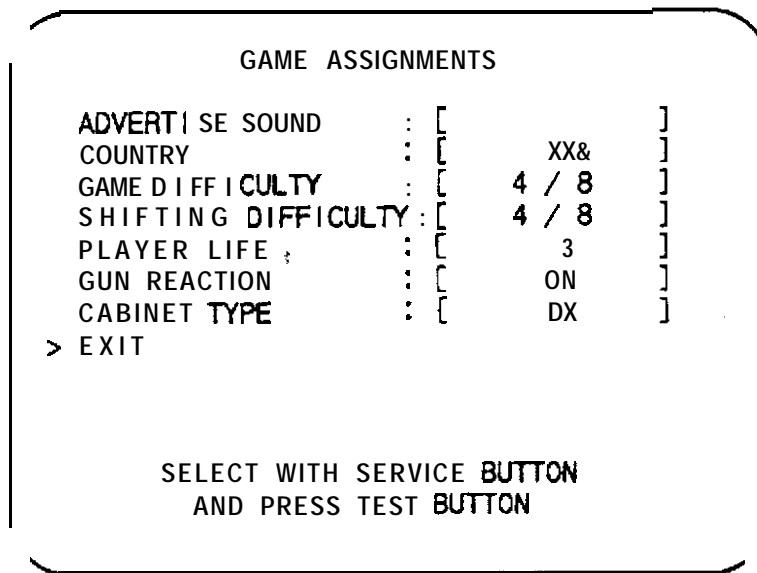
## Game Assignments

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 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 0 N to have sound produced during Demo mode, and 0 FF 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.**

---

COIN ASSIGNMENTS	
COIN CHUTE TYPE <b>COMMON</b> .....	①
CREDIT TO START      2 CREDITS .....	②
CONTINUE          1 CREDIT .....	③
<b>2PLAYER CREDIT TO START 2 CREDITS</b> .....	④
<b>COIN/CREDIT SETTING #1</b>	
COIN CHUTE #1 1 COIN 1 CREDIT .....	⑤
 COIN CHUTE #2 1 COIN 1 CREDIT .....	⑥
 MANUAL SETTING .....	⑦
> EXIT	
SELECT WITH SERVICE <b>BUTTON</b>	
AND PRESS TEST <b>BUTTON</b>	

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

TABLE 8. 10 a COIN/CREDIT SETTING (COIN CHUTE COMMON TYPE)

SETTING	FUNCTIONING COIN CHUTE #1		FUNCTIONING COIN CHUTE #2	
SETTING #1	1 COIN	1 CREDIT	1 COIN	1 CREDIT
SETTING #2	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	-i- 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 COINS	1 CREDIT
SETTING #14	1 COINS	2 CREDITS	2 COINS	1 CREDIT
SETTING #15	-i- COIN	1 CREDIT	1 COIN	1 CREDIT
	2 COINS	3 CREDITS	2 COINS	3 CREDITS
SETTING #16	-i- COIN	3 CREDITS	1 COIN	1 CREDIT
			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
SETTING #20	1 COIN	5 CREDITS	1 COIN	1 CREDIT
			2 COINS	2 CREDITS
			3 COINS	3 CREDITS
			4 COINS	5 CREDITS
SETTING #21	5 COINS	1 CREDIT	5 COINS	1 CREDIT
SETTING #22	-i- COIN	2 CREDITS	3 COINS	1 CREDIT
			5 COINS	2 CREDITS
SETTING #23	2 COINS	1 CREDIT	2 COINS	1 CREDIT
	4 COINS	2 CREDITS	4 COINS	2 CREDITS
	5 COINS	3 CREDITS	5 COINS	3 CREDITS
SETTING #24	1 COIN	3 CREDITS	2 COINS	1 CREDIT
			4 COINS	2 CREDITS
			5 COINS	3 CREDITS
SETTING #25	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	4 CREDITS	4 COINS	4 CREDITS
	5 COINS	6 CREDITS	5 COINS	6 CREDITS
SETTING #26	1 COIN	6 CREDITS	1 COIN	1 CREDIT
			2 COINS	2 CREDITS
			3 COINS	3 CREDITS
			4 COINS	4 CREDITS
			5 COINS	6 CREDITS
SETTING #27	FREE PLAY		FREE PLAY	



# MANUAL SETTINGS

```
COIN ASSIGNMENTS
MANUAL SETTING
COIN TO CREDIT 1 COIN 1 CREDIT ..... ⑧
BONUS ADDER      NO BONUS ADDER ..... ⑨
COIN CHUTE #1 MULTIPLIER
      1 COIN COUNTS AS 1 COIN ..... ⑩
COIN CHUTE #2 MULTIPLIER
      1 COIN COUNTS AS 1 COIN ..... ⑪
> EXIT

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON
```

- 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.

COIN TO CREDIT	1 COIN	1 CREDIT
	2 COINS	1 CREDIT
	3 COINS	1 CREDIT
	4 COINS	1 CREDIT
	5 COINS	1 CREDIT
	6 COINS	1 CREDIT
	7 COINS	1 CREDIT
	8 COINS	1 CREDIT
	9 COINS	1 CREDIT

BONUS ADDER	NO BONUS ADDER	
	2 COINS	GIVE 1 EXTRA COIN
	3 COINS	GIVE 1 EXTRA COIN
	4 COINS	GIVE 1 EXTRA COIN
	5 COINS	GIVE 1 EXTRA COIN
	6 COINS	GIVE 1 EXTRA COIN
	7 COINS	GIVE 1 EXTRA COIN
	8 COINS	GIVE 1 EXTRA COIN
	9 COINS	GIVE 1 EXTRA COIN

COIN CHUTE MULTIPLIER	1 COIN COUNTS AS 1 COIN	
	1 COIN COUNTS AS 2 COINS	
	1 COIN COUNTS AS 3 COINS	
	1 COIN COUNTS AS 4 COINS	
	1 COIN COUNTS AS 5 COINS	
	1 COIN COUNTS AS 6 COINS	
	1 COIN COUNTS AS 7 COINS	
	1 COIN COUNTS AS 8 COINS	
	1 COIN COUNTS AS 9 COINS	

## AIM SET/GUN CALIBRATION

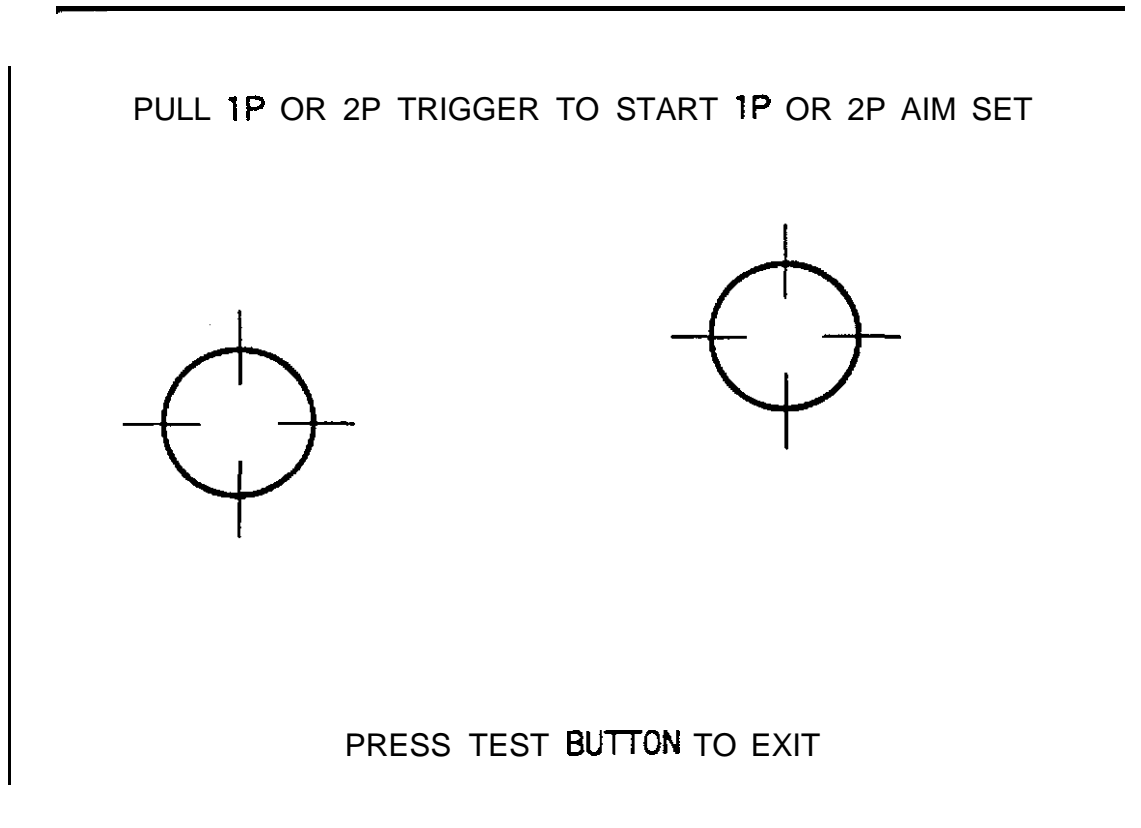
---

The test menu allows the functioning of each part of the cabinet to be checked. Gun calibration is performed from the "Aim Set" screen.

Press the test button to cause the test menu to be displayed on the monitor.

Press the service button until the arrow (▷) is moved to Aim Set.

Press the test button to enter the Aim Set mode.



### Setting Procedure

Pull the 1P (left player) gun trigger one time and release.

The left gun cursor will disappear off the screen.

Move the 1P gun fully to all of its mechanical stops (all directions).

Pull and release the 1 P gun trigger again to store the settings.

The left gun cursor will then reappear.

Perform the same procedure 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

---

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.

BOOKKEEPING 1/2	
COIN CHUTE #1	0
COIN CHUTE #2	0
TOTAL COIN	0
COIN CREDIT	0
SERVICE CREDIT	0
TOTAL CREDIT	0
NUMBER OF 1P GAME	0
NUMBER OF 2P GAME	0
NUMBER OF GAME	0
TOTAL TIME	00 OH 0M 0S
PLAY TIME	0H 0M 0S
AVERAGE PLAY TIME	0H 0M 0S
LONGEST PLAY TIME	0H 0M 0S
SHORTEST PLAY TIME	0H 0M 0S
PRESS TEST BUTTON TO CONTINUE	

BOOKKEEPING 2/2	
TIME HISTOGRAM	
0M 0S - 0M29S	0
0M30S - 0M59S	0
1M 0S - 1M29S	0
1M30S - 1M59S	0
2M 0S - 2M29S	0
3M30S - 3M29S	0
3M30S - 3M59S	0
4M30S - 4M59S	0
5M 0S - 5M29S	0
5M30S - 5M59S	0
6M 0S - 6M29S	0
6M30S - 6M59S	0
7M 0S - 7M29S	0
7M30S - 7M59S	0
8M 0S - 8M29S	0
8M30S - 8M59S	0
9M 0S - 9M29S	0
9M30S - 9M59S	0
10M 0S -	0
PRESS TEST BUTTON TO EXIT	

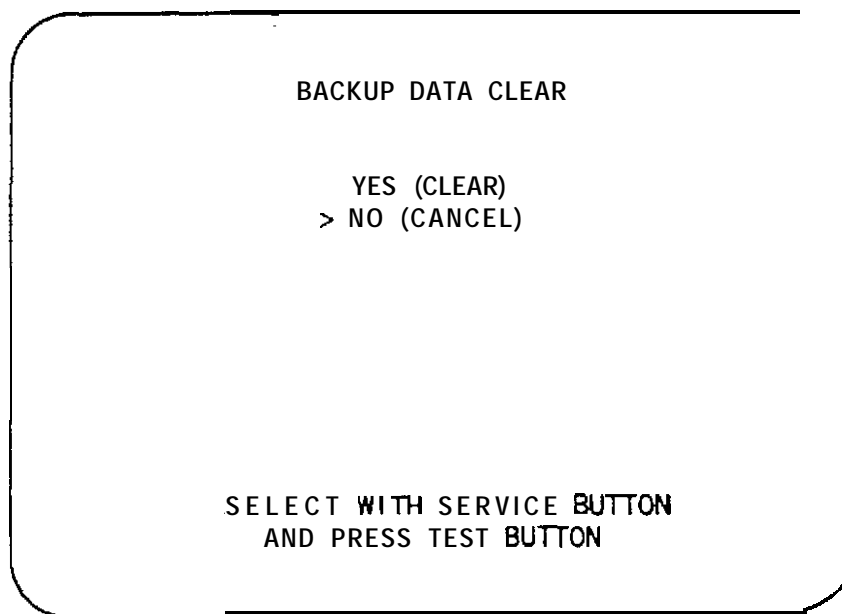
- COIN CHUTE- ..... Number of coins put in. As seen from the front of the cabinet, the right-hand side is #1 and the left-hand side is #2. Note that depending on the destinations, only one Coin Chute is available.
- TOTAL COIN ..... Total number of coins inserted in each coin chute.,
- COIN CREDIT .....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



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** can not 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.

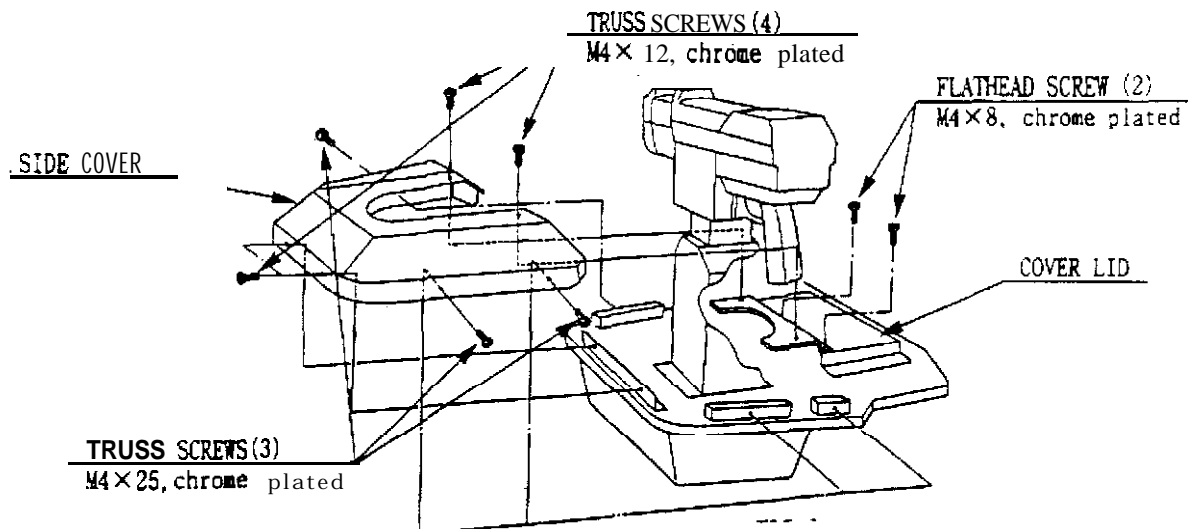
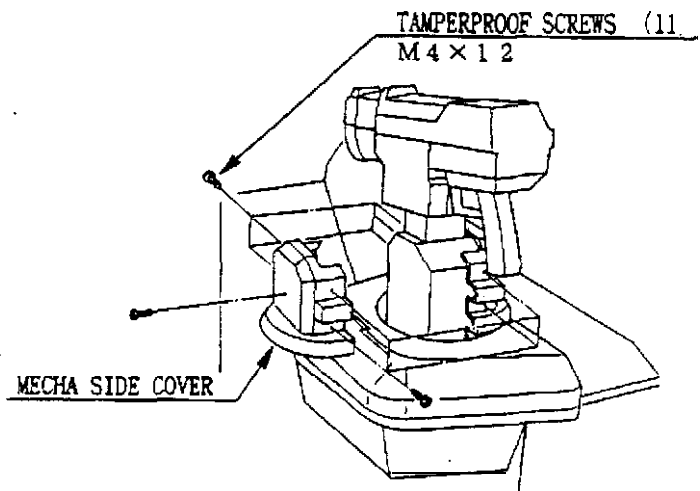
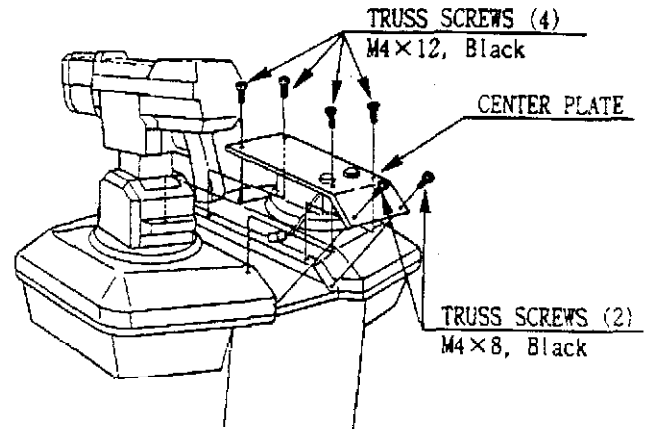
To perform the above mentioned work, remove the controller from the cabinet. When performing this work, also remove the side cover and mechanism side cover.

### 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 mecha side cover **L and R**.

Take off the two screws to remove the Hide Plate.



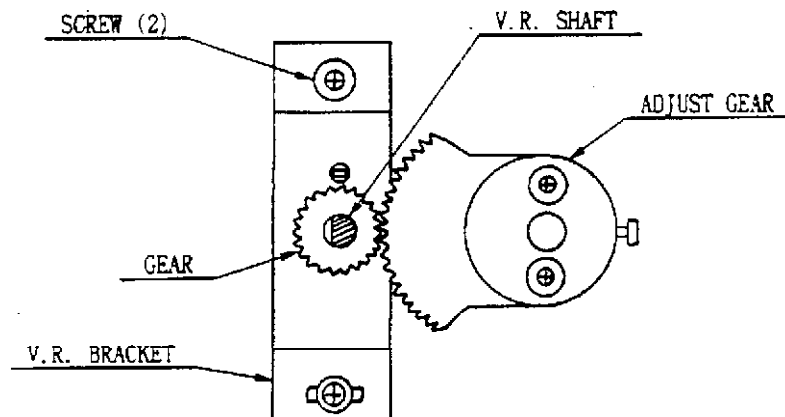
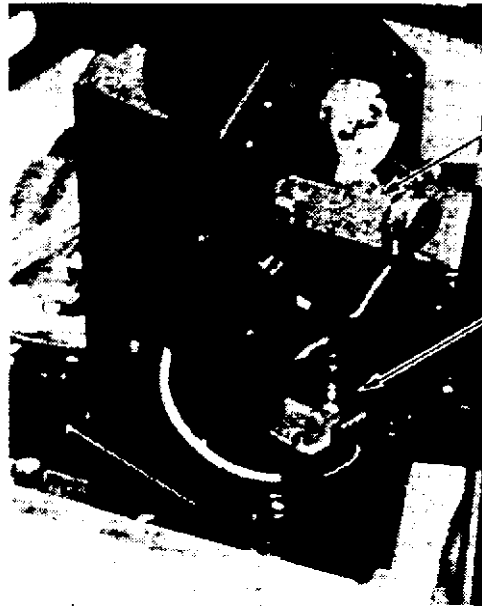
## VR ADJUSTMENT



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

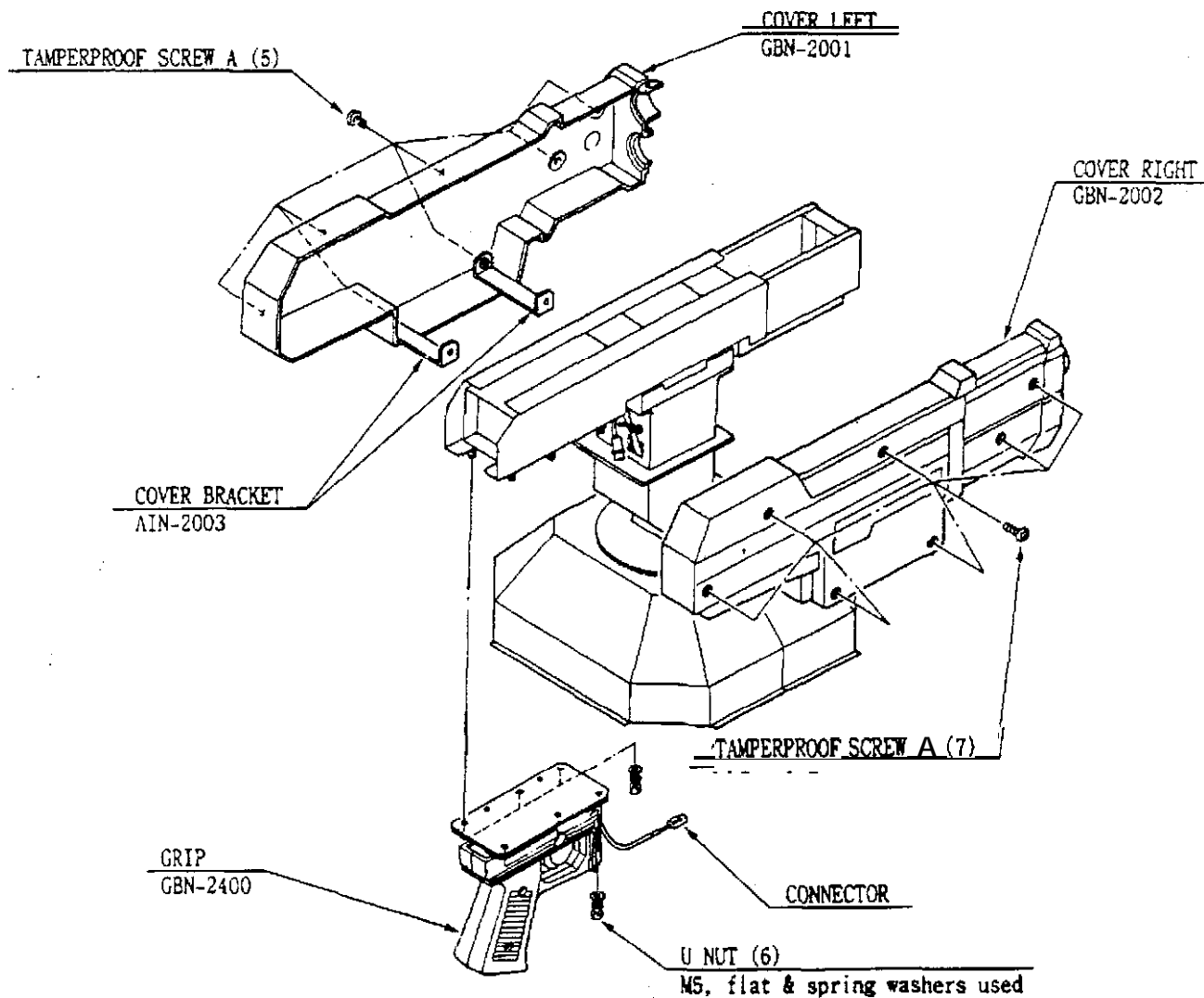
### REMOVING THE GRIP

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 g-tip.

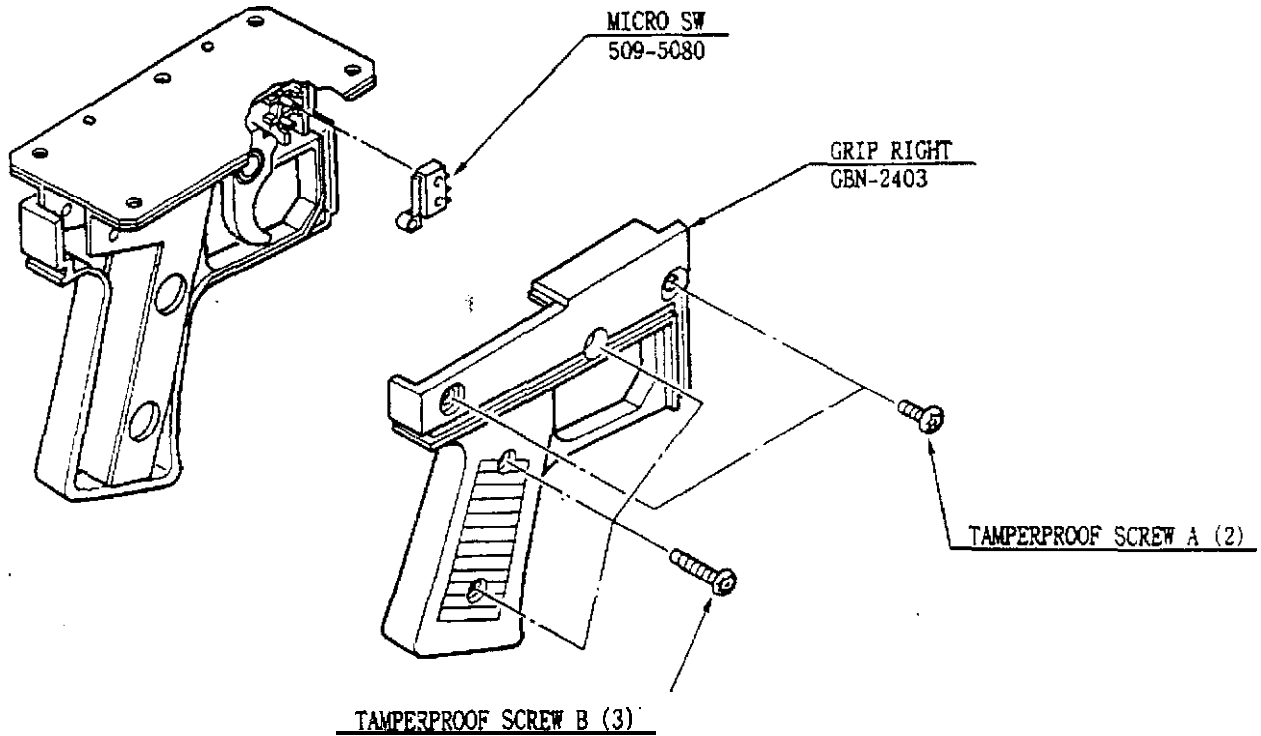
Remove 6 U nuts to remove the grip.





## 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 0 N, 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.

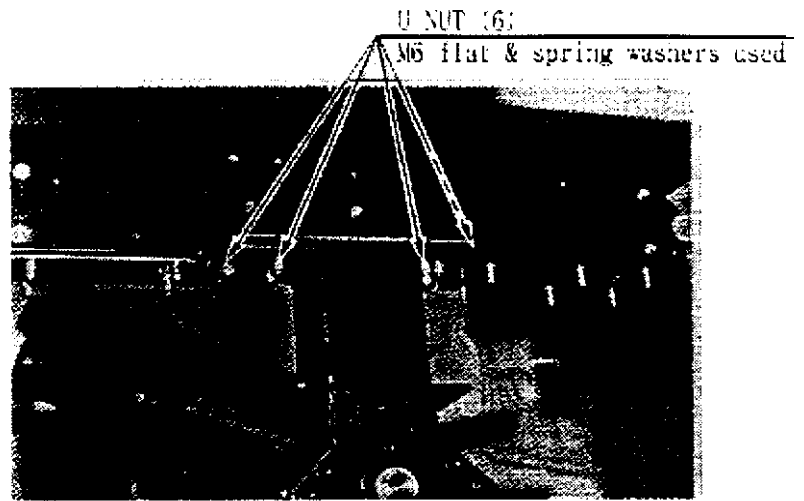


FIG. 9.5 a

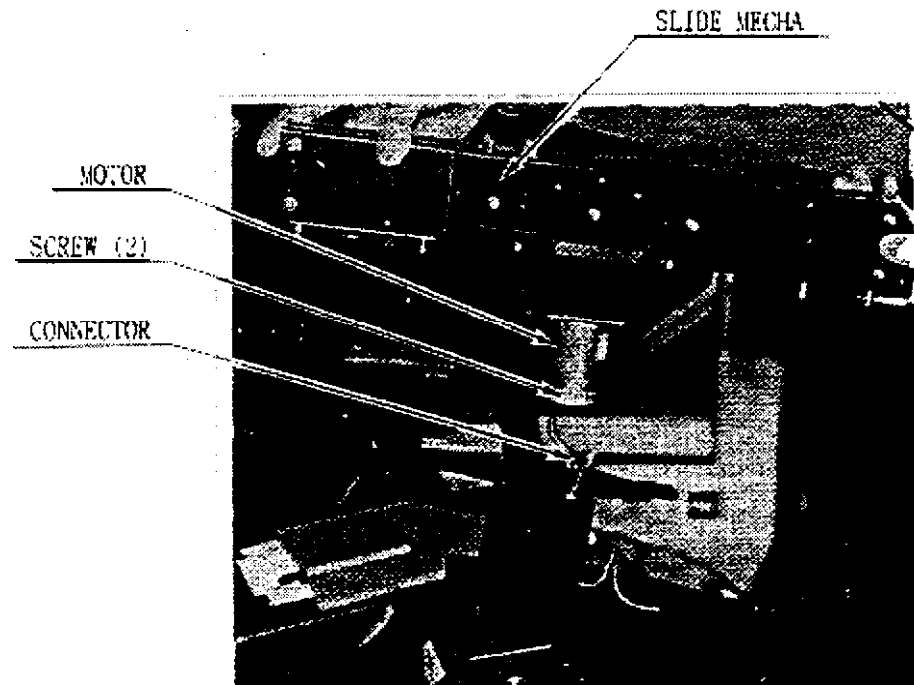


FIG. 9.5 b

# 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.

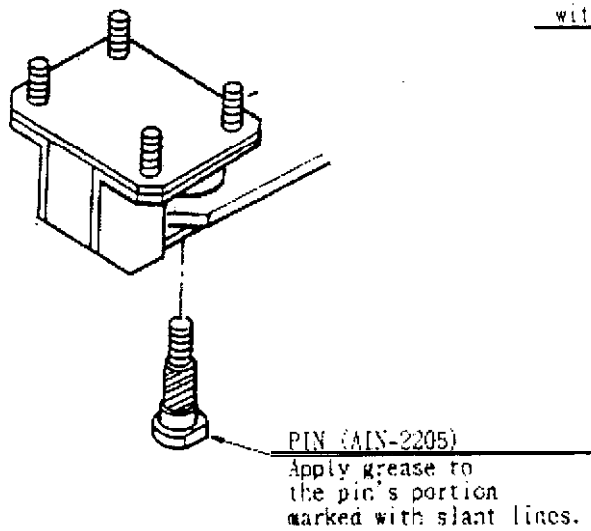
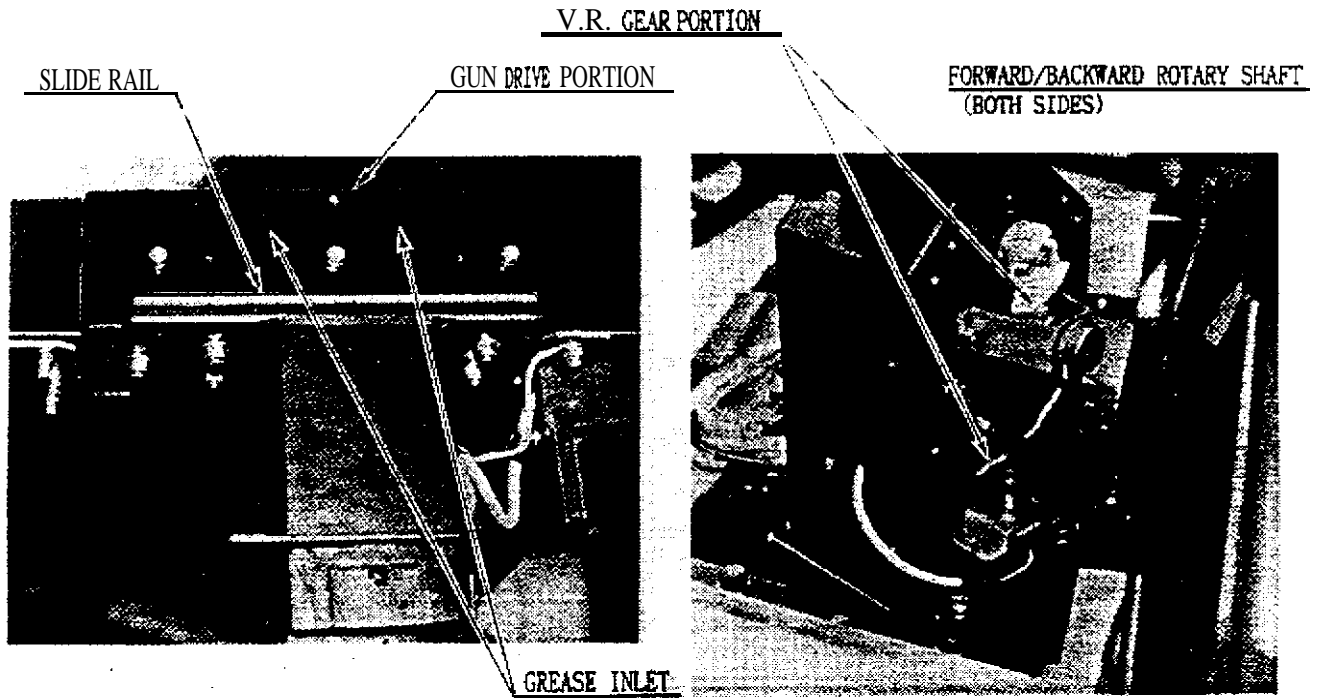


FIG. 9.6 c GUN DRIVE PORTION

Surfaces where the Spacer Block and Mecha Base come into contact with each other.

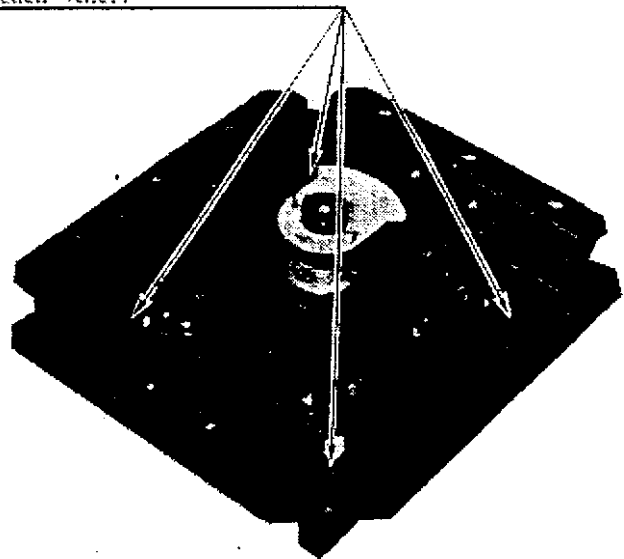


FIG. 9.6 d HORIZONTALLY SLIDING PORTION

## 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:

- ① Turn the power for the machine OFF. Open the coin chute door.
- ② **Open** the gate and dust off by using a soft brush (made of wool, etc.).
- ③ Remove and clean **smears** by using a soft cloth **dipped** in water or diluted chemical detergent and then wrung.
- 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.

## COIN INSERTION TEST

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 Cashbox correctly?
- Is the coin rejected when inserted while keeping the Reject Button pressed down?

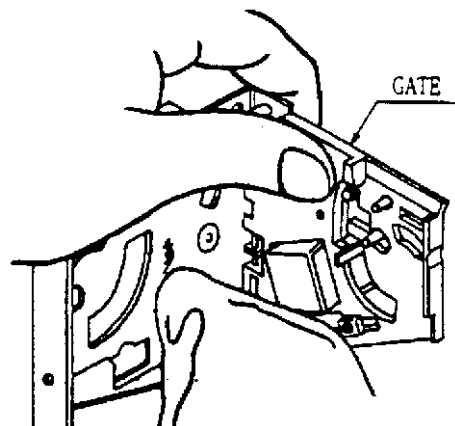


FIG. 10a

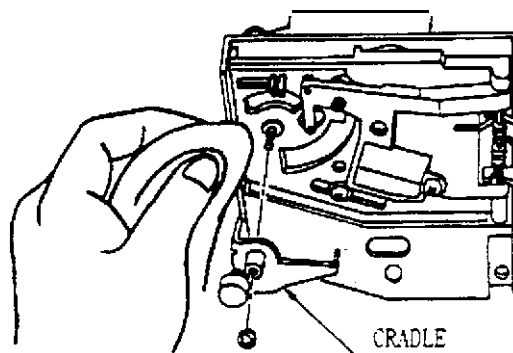


FIG. 10 b

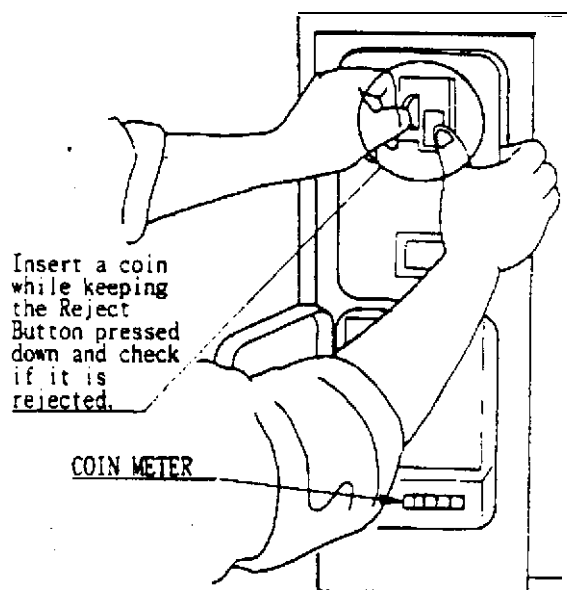


FIG. 10 c

# CAUTIONS AND WARNINGS CONCERNING THE 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.



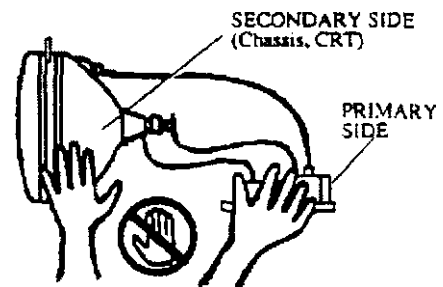
- When performing such work as installing and removing the monitor, inserting and disconnecting the external connectors to and from monitor interior and the monitor, be sure to disconnect the power connector (plug) before starting the work. Proceeding the work without following this instruction can cause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

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



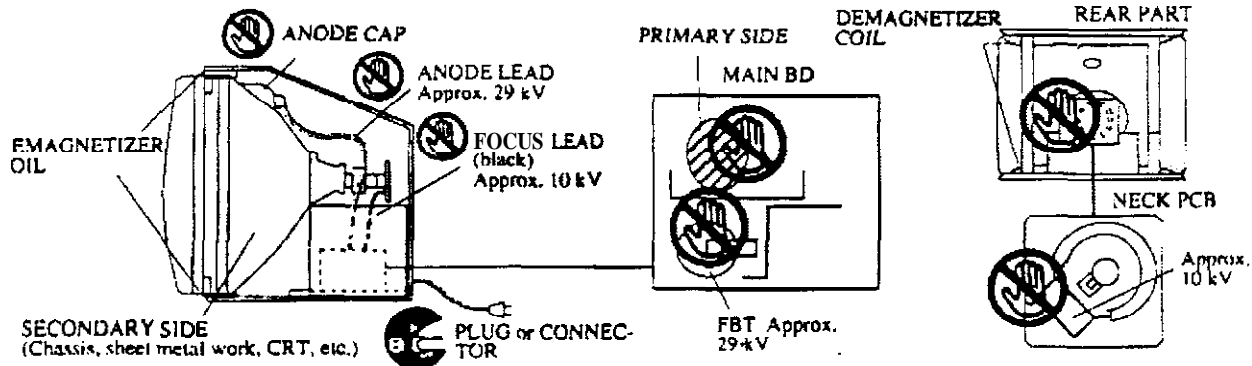
### Primary side and Secondary side

The monitor's circuit which is divided into the Primary side and Secondary side, is insulated. Do not touch the primary side, or do not touch both the primary side and the secondary side simultaneously. Not following the instruction can cause shock and this is very dangerous. When making monitor adjustments, use a non-conductive driver and make adjustment without touching any part other 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 shock or malfunctioning, which is very dangerous.



### High-tension Voltage

Some of the parts inside monitor are subject to high-tension voltage in excess of 20,050 volts and very dangerous. Therefore, be sure not to touch the monitor interior. Should soldering & paper wastes, etc. be mixed in the monitor interior, turn the power off so as not to cause malfunctioning or fire hazard.



### Connecting the CRT and PCB

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

### Static Electricity

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

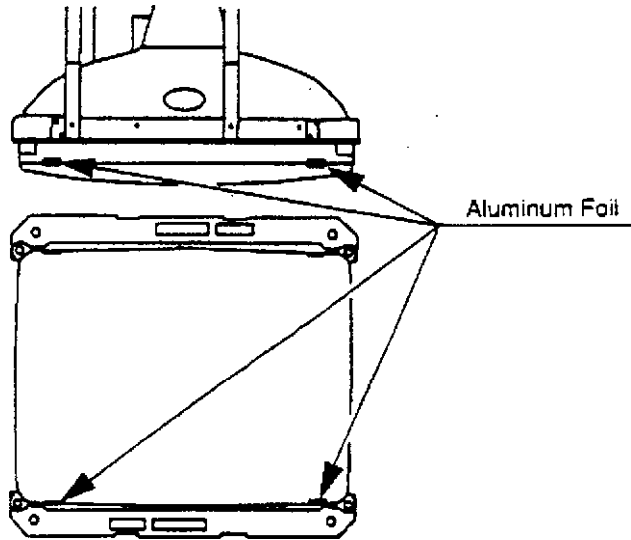
### Installation and removal

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



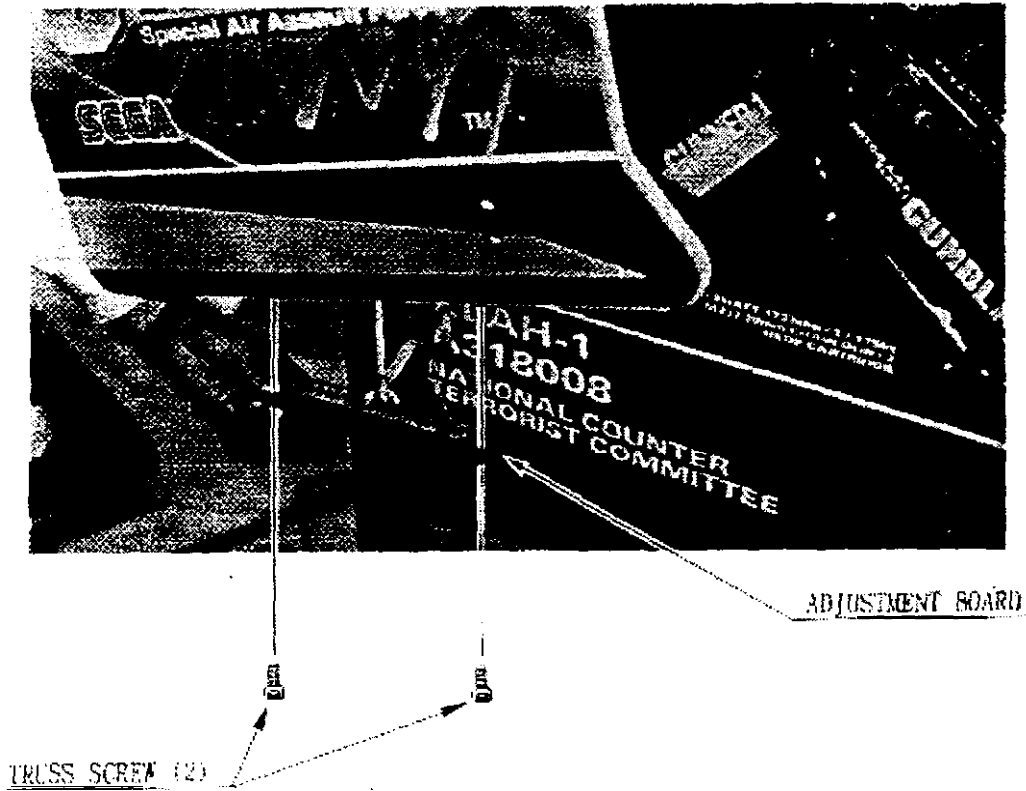
For the purpose of static prevention, special coating is applied to the CRT face of this product. To protect the coating, pay attention to the following points. Damaging the coating film can cause electric shock to the customers. For the caution to be heeded when cleaning, refer to the Section of Periodic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

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

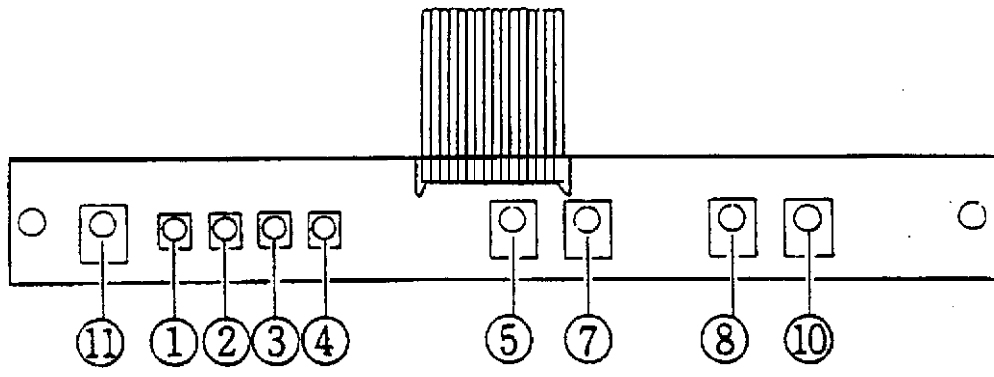


Monitor adjustments have been made at the time of shipment. Do not make further adjustments without a justifiable reason. Adjusting the monitor and its high tension parts is dangerous. Also, erroneous adjustment can cause deviated synchronization and projection fault, resulting in a malfunction.

When making adjustments, use a resious alignment screwdriver. Servicing with a bare hand or using a conductive tool can cause electric shock.



NANA0 monitor:      2 0 0-5 2 4 2-2 4-0 4 (24K mode)  
                              2 0 0 - 5 3 8 7 - 2 4



①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
RGAIN	GGAIN	BGAIN	BRIGHT	H.SIZE.	H.HOLD	H.POSI	V.SIZE	V.HOLD	V.POSI

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



## 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.

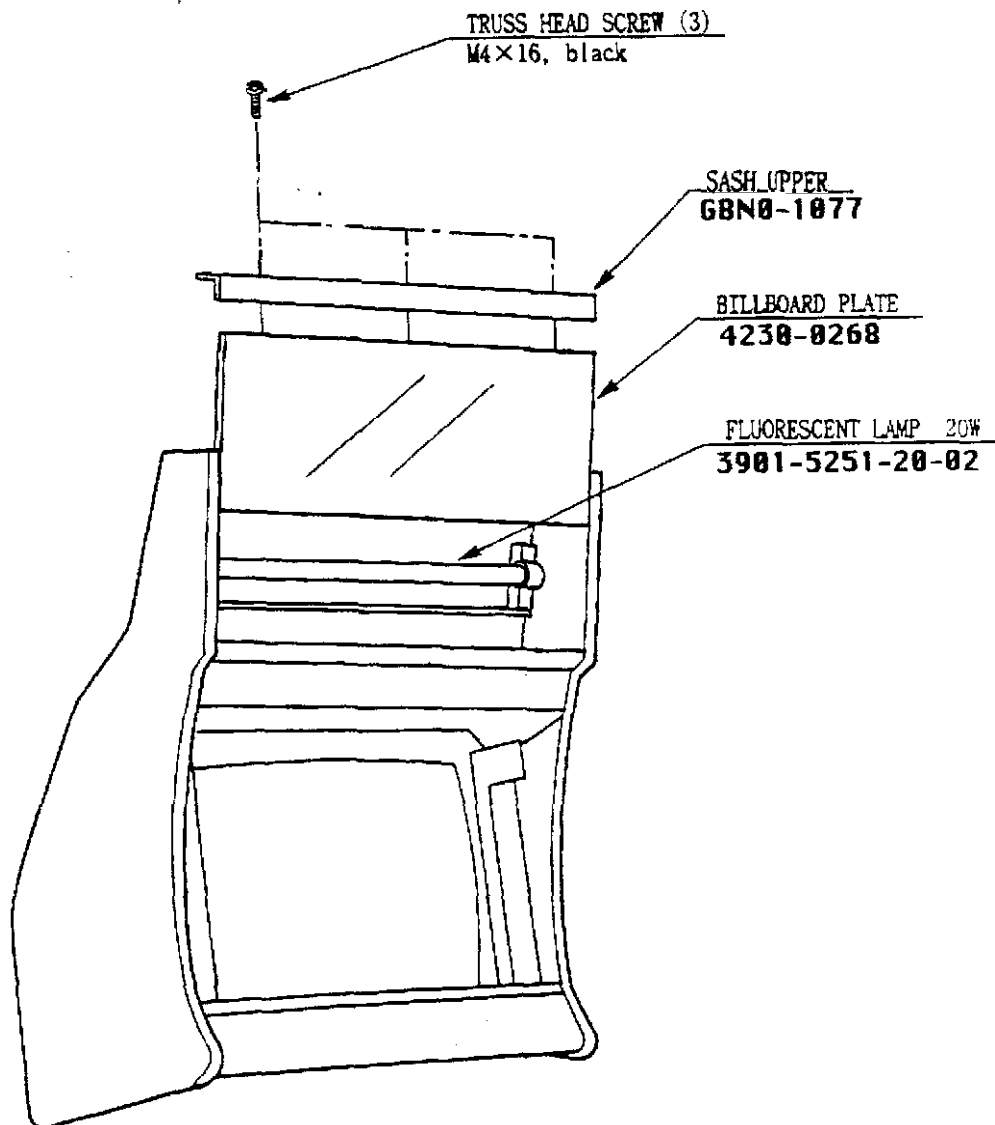
The fluorescent lamp, which gets very hot, can cause burns. Be very careful when replacing the fluorescent lamp.



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 TABLE

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

Be sure to dean the interior of the cabinet and inspect and dean 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 Trigger witch Check Greasing	Monthly Monthly Quarterly
Coin Chute Tower	Check coi n witches Coin Insertion Test Coin Selector Cleaning	Monthly Monthly Quarterly
Monitor	Check Adjustments Screen Cleaning	Monthly Weekly
Game Board	Memory Test Setting Check	Monthly 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. Incorrect power source/voltage.  Primary or secondary fuse blown.	Firmly insert the plug into the outlet. Make sure that the power supply voltages are correct. First, remove the cause of overcurrent, 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.



## TROUBLESHOOTING

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.

TABLE 1: TROUBLESHOOTING

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 6.4xX30 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 So 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.	The power source and voltage are not correct.	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 displayed on the screen but no action from one of the two guns.	The projector malfunctioned due to an instantaneous overcurrent.  The motor brushes are worn out.	Eliminate the cause of the overcurrent, restore the SW unit circuit breaker to its original condition.  Replace motor brushes.
Marquee lamp doesn't light up.	Fluorescent lamp needs replacement. The connector is disconnected.  Primary fuse is blown.	Replace lamp.  Check connector connections in the marquee. Replace fuse.
Sound is not emitted.	Sound volume adjustment is not	Adjust the service panel volume



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.

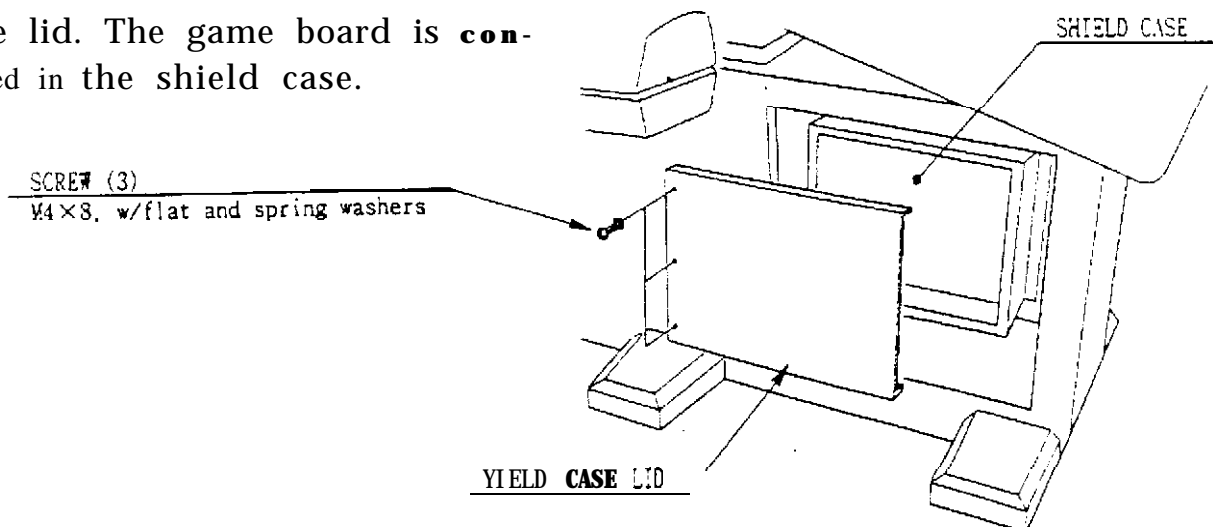
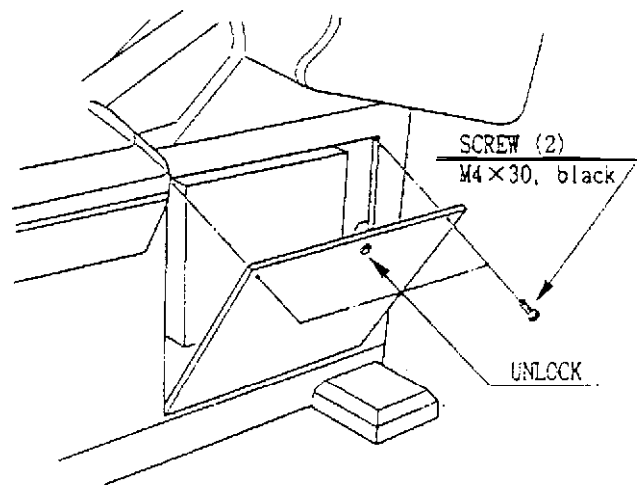


FIG. 15.1b

COMPOSITION OF GAME BOARD  
 Game Board Gun Blade NY (833-12562)

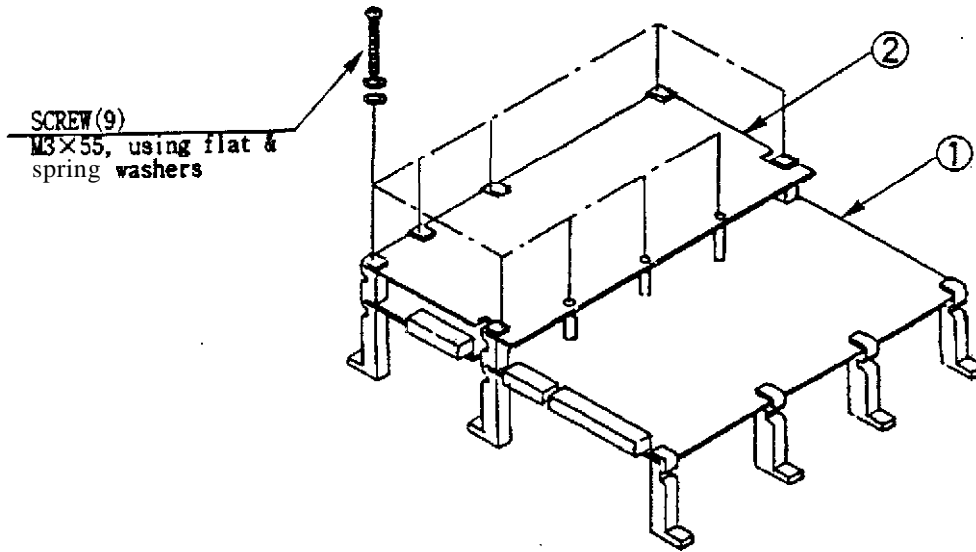
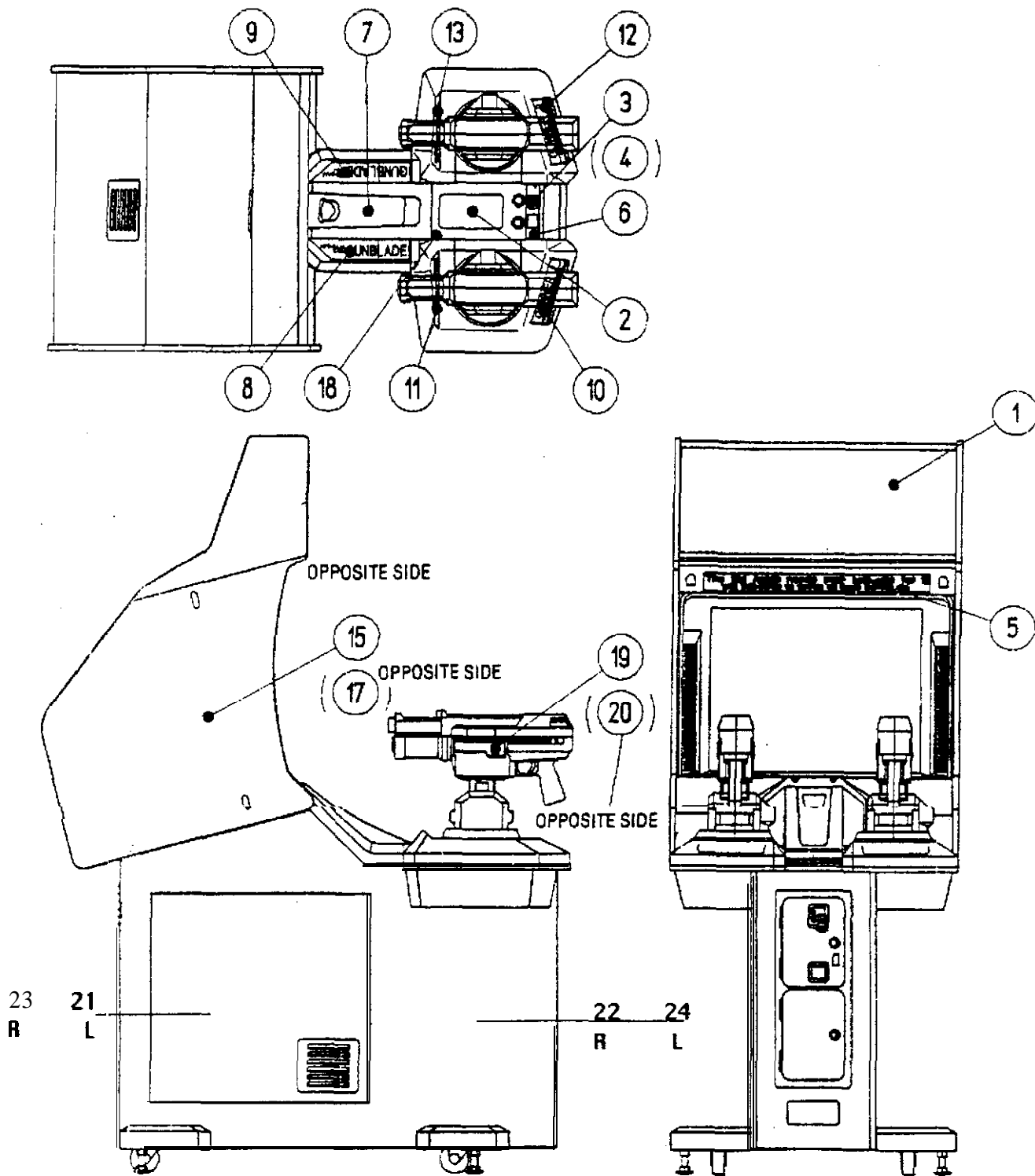


FIG. 15.2

No.	PART No.	DESCRIPTION
①	837-10854-02-91	MODEL2 B-CRX MAIN <b>BD</b> COM
	837-12312-91	B-CRX MAIN BD COM REV 1.1
②	834-12563	ROM BD GUNBLADE NY

# 16. DESIGN RELATED PARTS

For the **Warning** Display stickers, refer to Section 1.



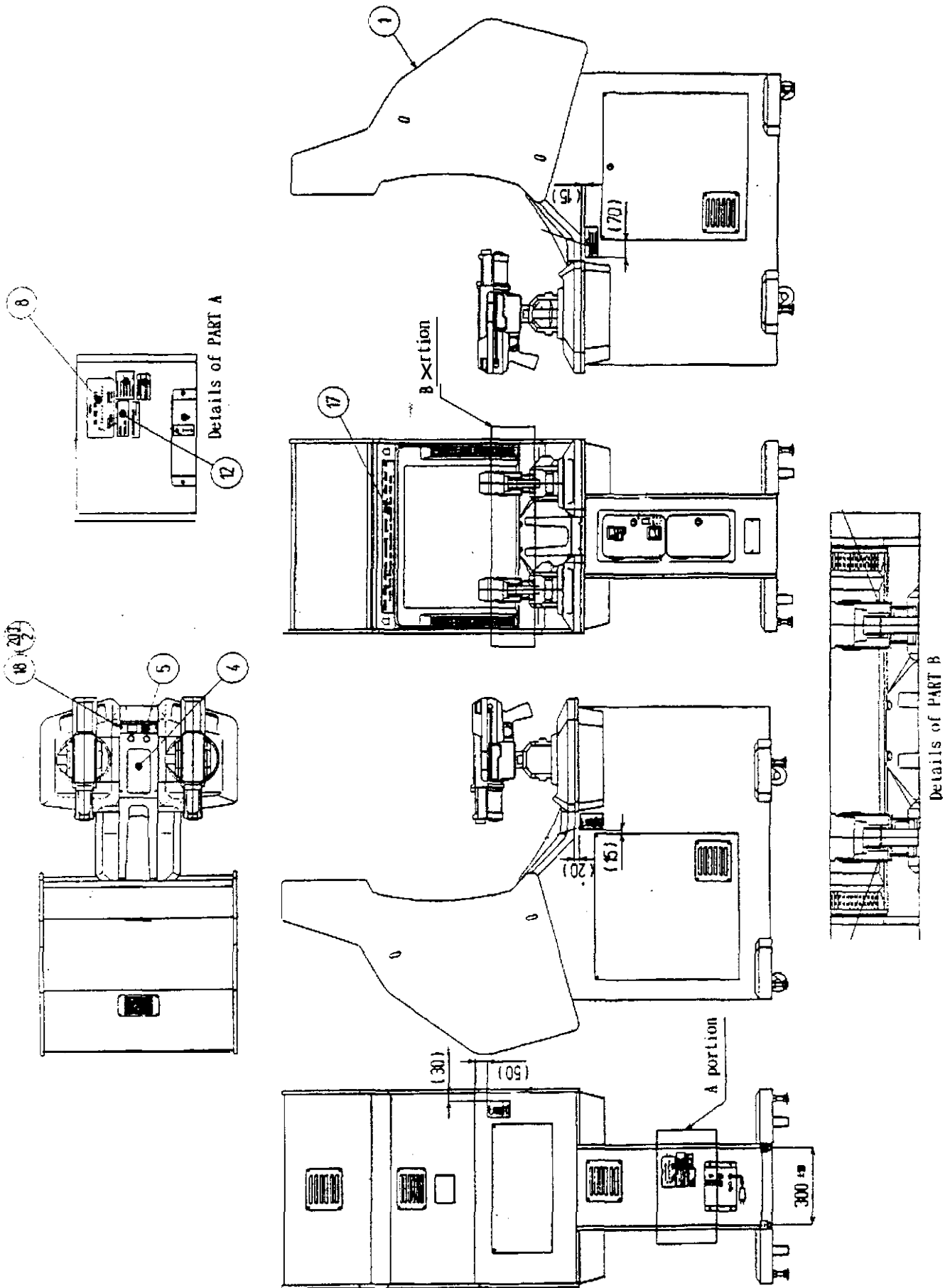
no.	PART No.	DESCRIPTION
1	4230-0268	BILLBOARD
2	4220-0574-01	PLAY INSTR SH GBN SD ENG
3	42 10-7907-	DENO MI SHT ~
4	42 10-7907~	DENO MI SHT ~
5	GBNO-0005	STICKER MO NITOR MASK
6	GBNO-0006	DENO MI PLATE
7	GBN-1050-B	STICKER CENTER COVER
8	GBN-1050-C	STICKER CENTER COVER L
9	CBN-1050-D	STICKER CENTER COVER R
10	GBN-1051-B	STICKER SIDE COVER L
11	GBN-1051-C	STICKER SIDE COVER L TOP
12	GBN-1052-B	STICKER SIDE COVER R
13	GBN-1052-C	STICKER SIDE COVER R TOP
15	GBNN-00607	DECAL, LEFT MAIN CABINET
17	GBNN-00608	DECAL, RIGHT MAIN CABINET
18	CBNO-0003-B	CENTER SHEET
19	GBN-2005	GUN DESIGN PLATE L
20	GBN-2006	GUN DESIGN PLATE R
21	999-056 1	DOOR LEFT
22	999-0565	SIDE LOWER LEFT
23	999-0562	DOOR RIGHT
24	999-0564	SIDE LOWER RIGHT



# 17. PARTS LIST

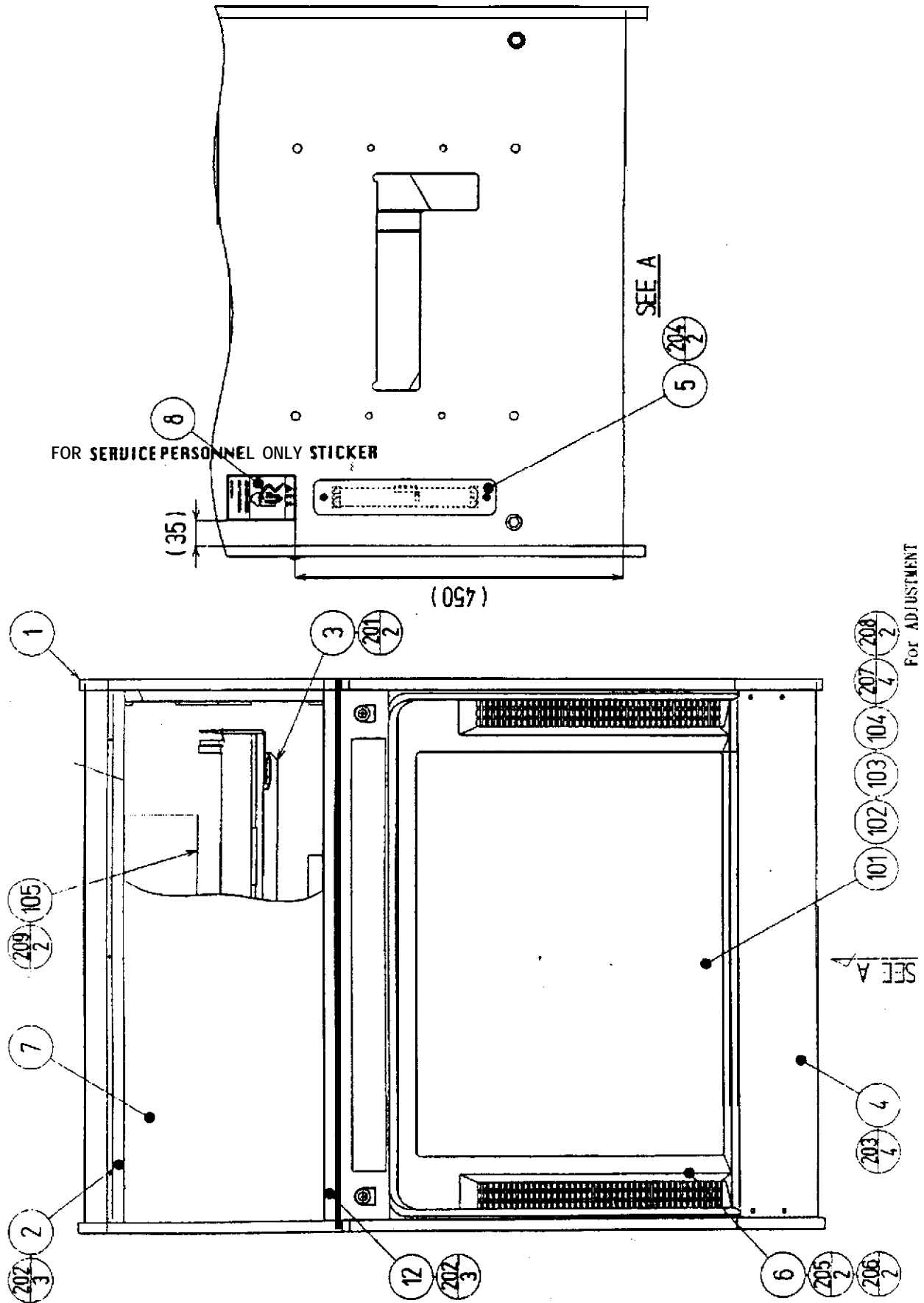
① TOP ASSY GUNBLADE NY U/R

(D-1/2)



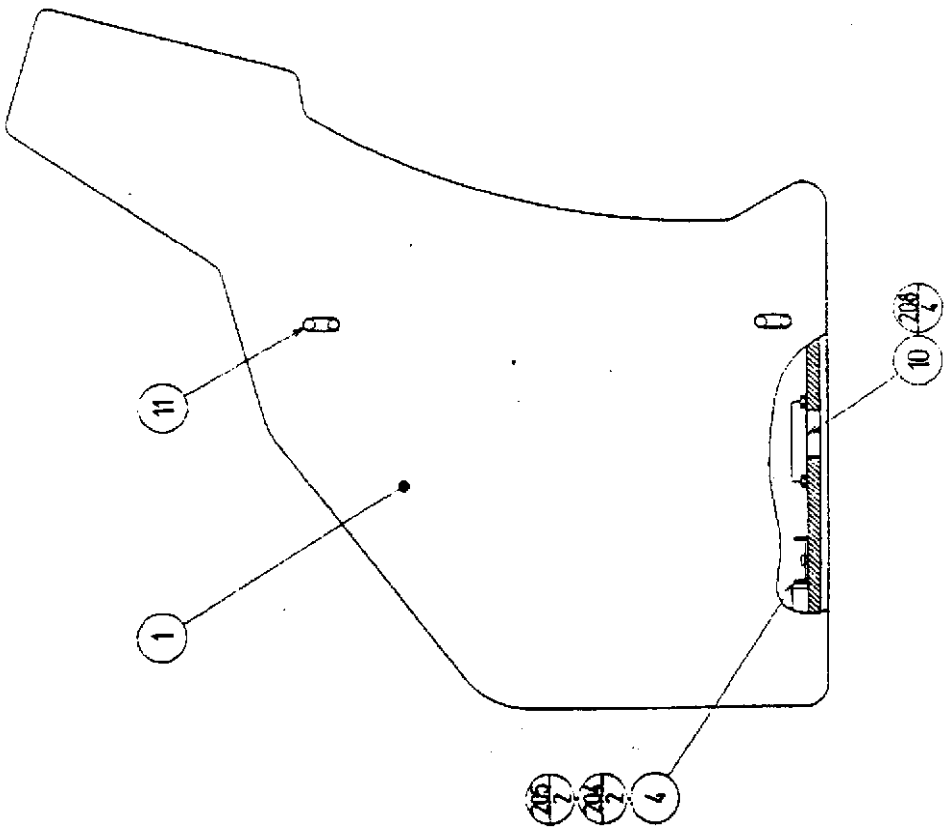
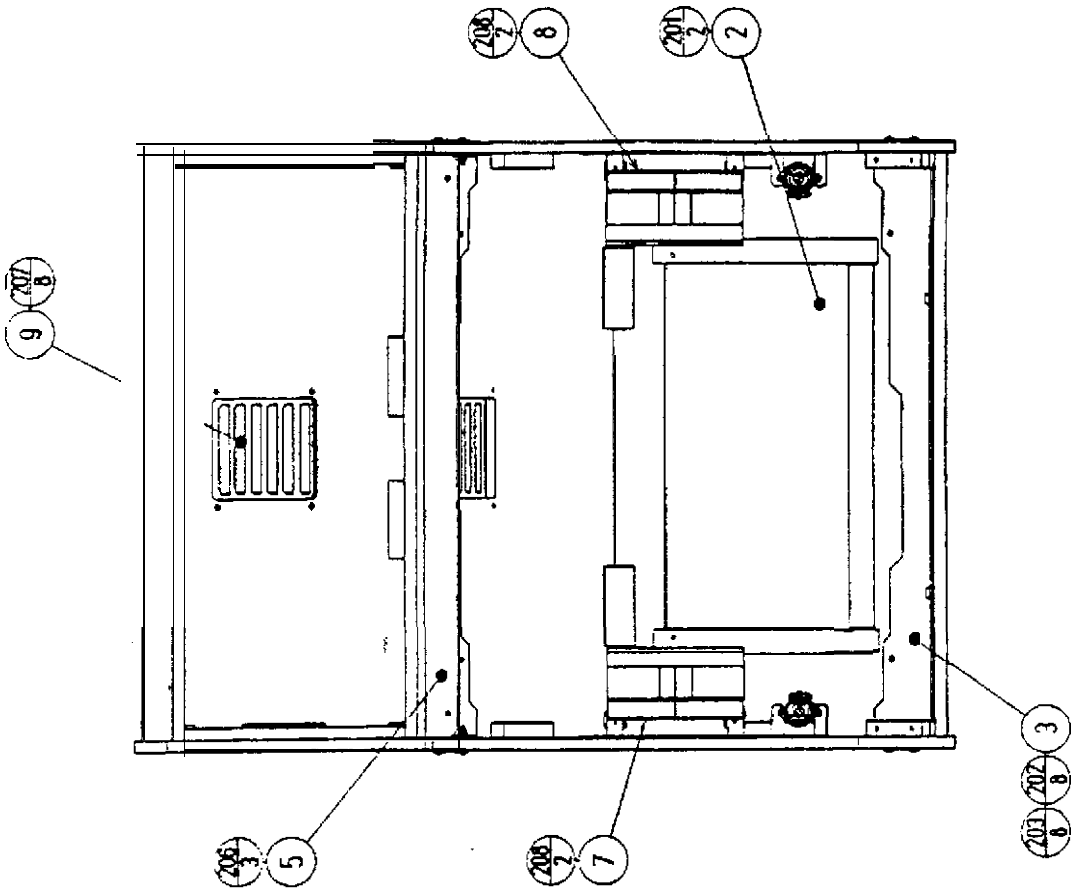
(i) TOP ASSY GUNBLADE NY U/R

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



ITEM NO.	PART NO.	DESCRIPTION
1	GBNO-1071	ASSY SUB CABI MONITOR
2	GBNO-1077	SASH UPPER
3	GBN-1079	FL BRKT
4	GBNO-1080	MASK HOLDER
5	GBNO-1081	ADJUST PANEL
6	TTR-1067	MONITOR MASK
7	4230-0268	BILLBOARD PLATE GBN U/R
8	GNRC-00587	STICKER SERVICE PERSONNEL ONLY
9	GBNO-1080-B	STICKER MASK HOLDER
12	GBN-1078	SASH LOWER
101	2000-5387-24	ASSY CLR DSPL 29 NANA0 120 V
102	2800-5112	BUSH FOR TV
103	2800-5 113	COLLAR FOR TV
104	2800-5114	SPACER 6.4-25 X 2
201	011-T03512	TAP SCR TH 3.5X12
202	000-T00416-OB	M SCR TH BLK M4X16
203	000-T00425-OB	M SCR TH BLK M4X25
204	000-T00420-OB	M SCR TH 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-P0030s-w	M SCR PH W/FSM3X8
209	000-P00416-W	M SCR PH W/FSM4X 16

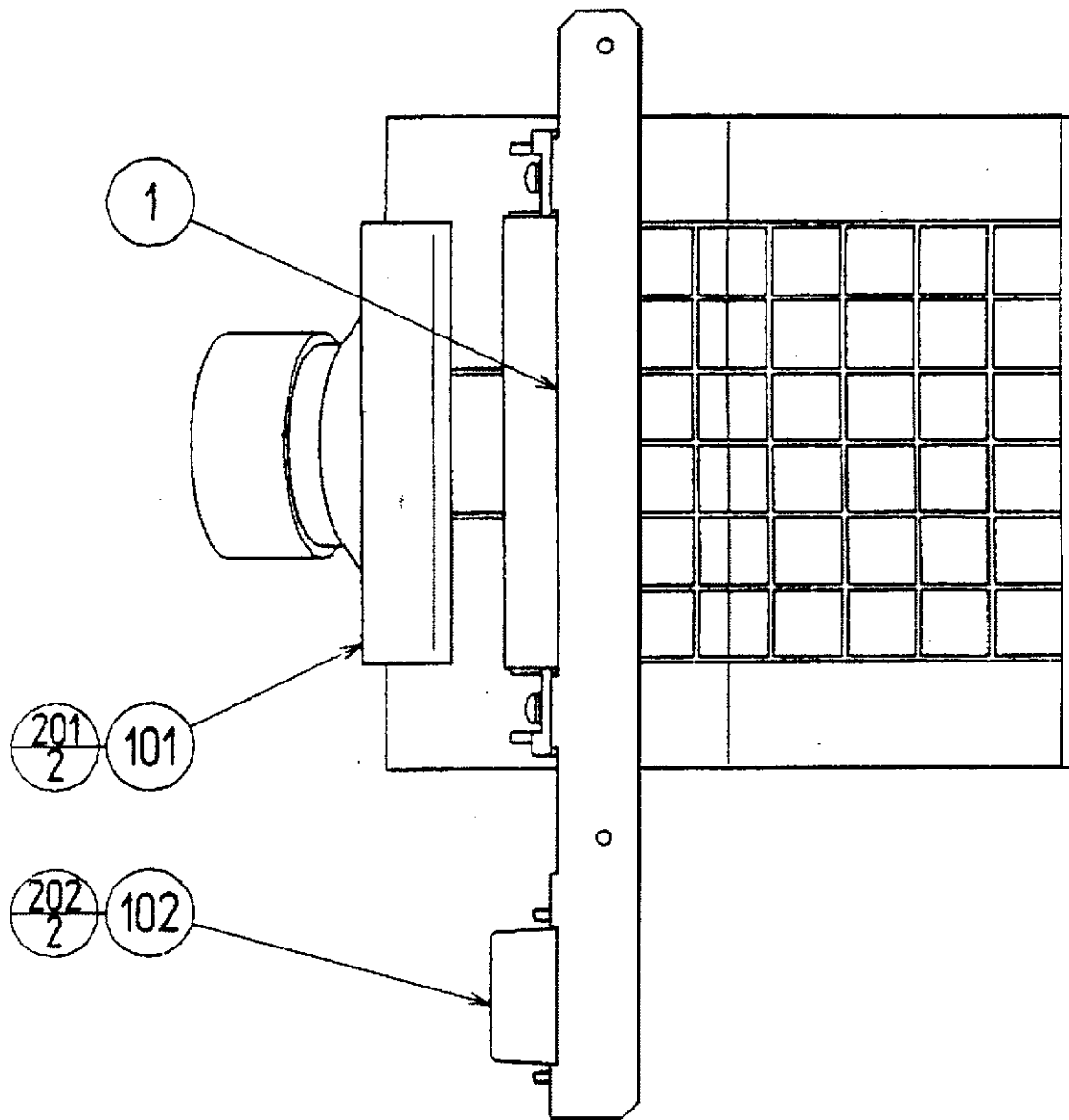
0 ASSY SUB CABI MONITOR GBN0-1071



@ ASSY SUB CAB I MON I TOR (GBN-1071 )

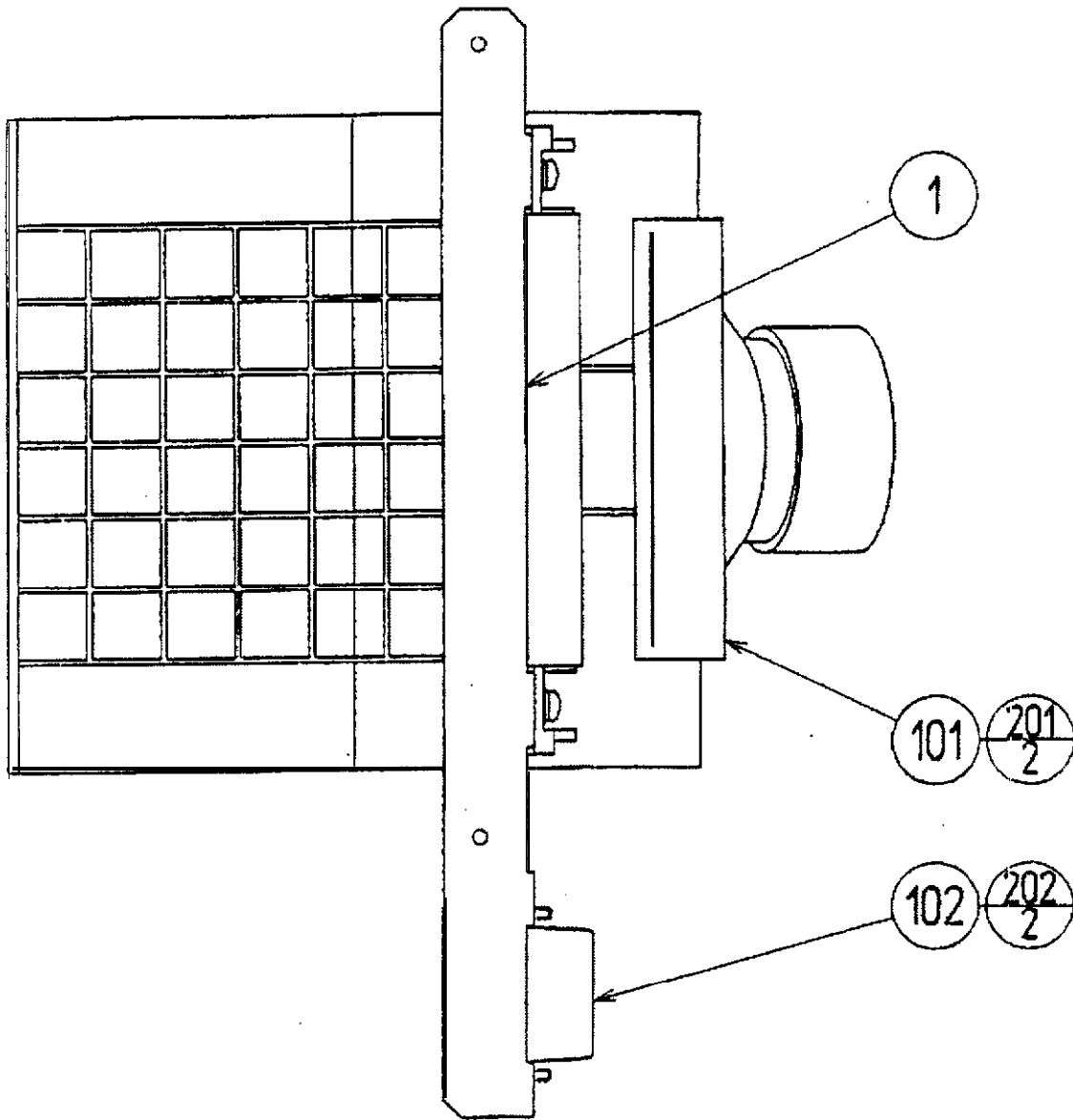
ITEM NO	PART NO.	DESCRIPTION
1	GBNI-1072	MONITOR BOX
2	GBNO-1073	BACK DOOR
3	GBNI-1074	MONITOR SUPPORT
4	GBNO-1075	JOINT BEAM
5	GBN1-1076	MASK SUPPORT
7	GBN-1090	ASSY SPEAKER L
8	GBN-1095	ASSY SPEAKER R
9	UP1-1018	AIR VENT
10	TTRO-1008	NUT PLATE 2-M8
11	1171-5235	PLATE 6-30
101	280-0419	HARNESS LUG
102	280-5009	CORD CLAMP 021
103	280-5275-SR10	CORD CLAMP SR10
201	000-T00430-OB	M SCR TH BLK M4X30
202	031-000630-OC	CRG BLT CRM 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

**ASSY SPEAKER L (GBN-1090)**



ITEM NO.	PART	DESCRIPTION
1	GBN1-1091	SP SRKT L
<b>101</b>	130-5152	SPEAKER BOX MINI DOME 12W
102	130-5112	TWEETER 8 OHM 2W $\phi$ 35
201	000-P00412-W	M SCR PH W/FS M4X12
202	000-P00308-W	M SCR PH W/FS M3X8

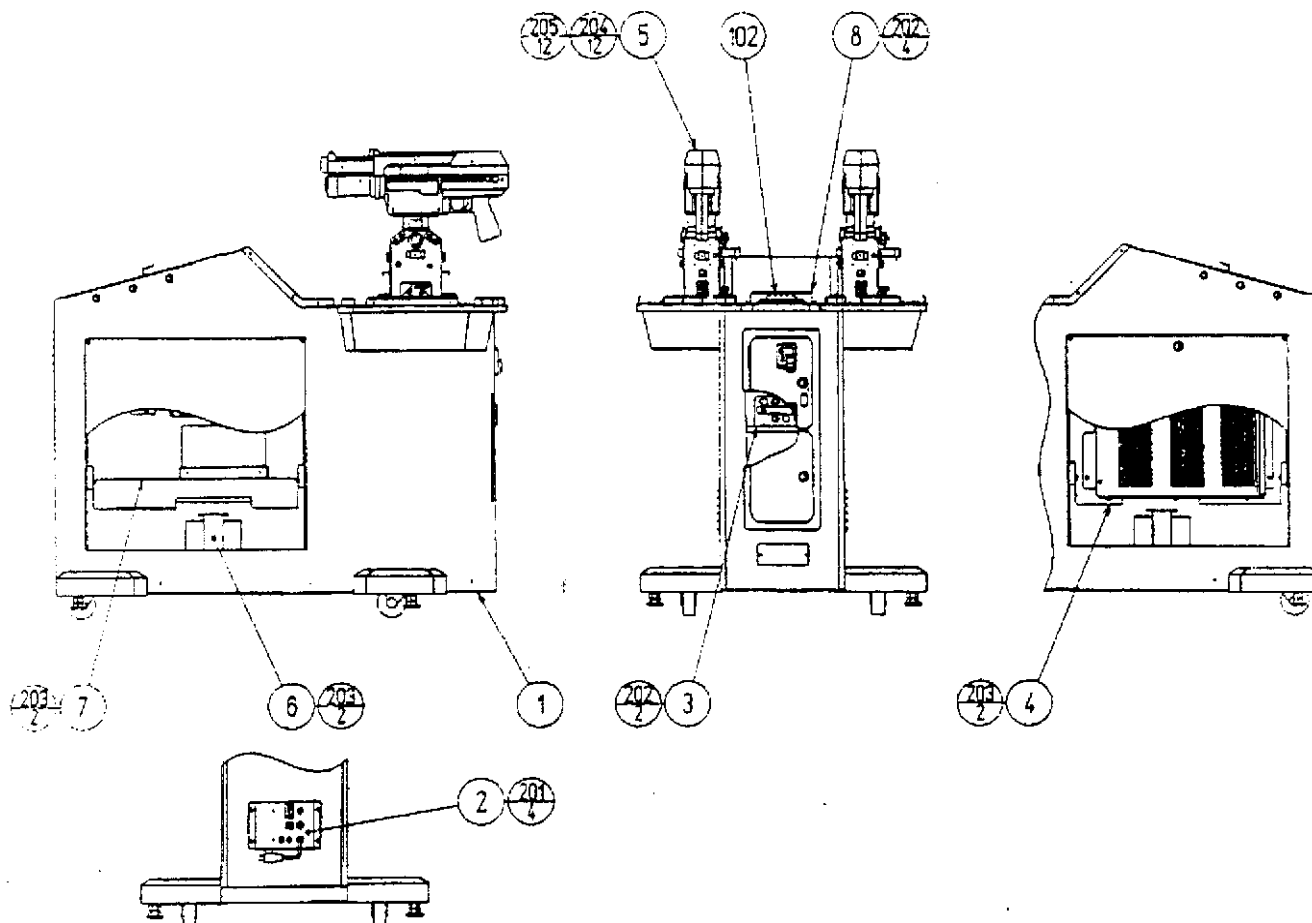
**ASSY SPEAKER R (GBN-1095)**



ITEM NO.	PART	DESCRIPTION
1	GBNI-1096	SP BRKT R
101	130-5152	SPEAKER BOX MINI DOME 12W
102	130.5112	TWEETER 8 OHM 2W $\phi$ 35
201	000-P00412-W	M SCR PH W/FSM4X12
202	000-P00308-W	M SCR PH W/FSM3X8

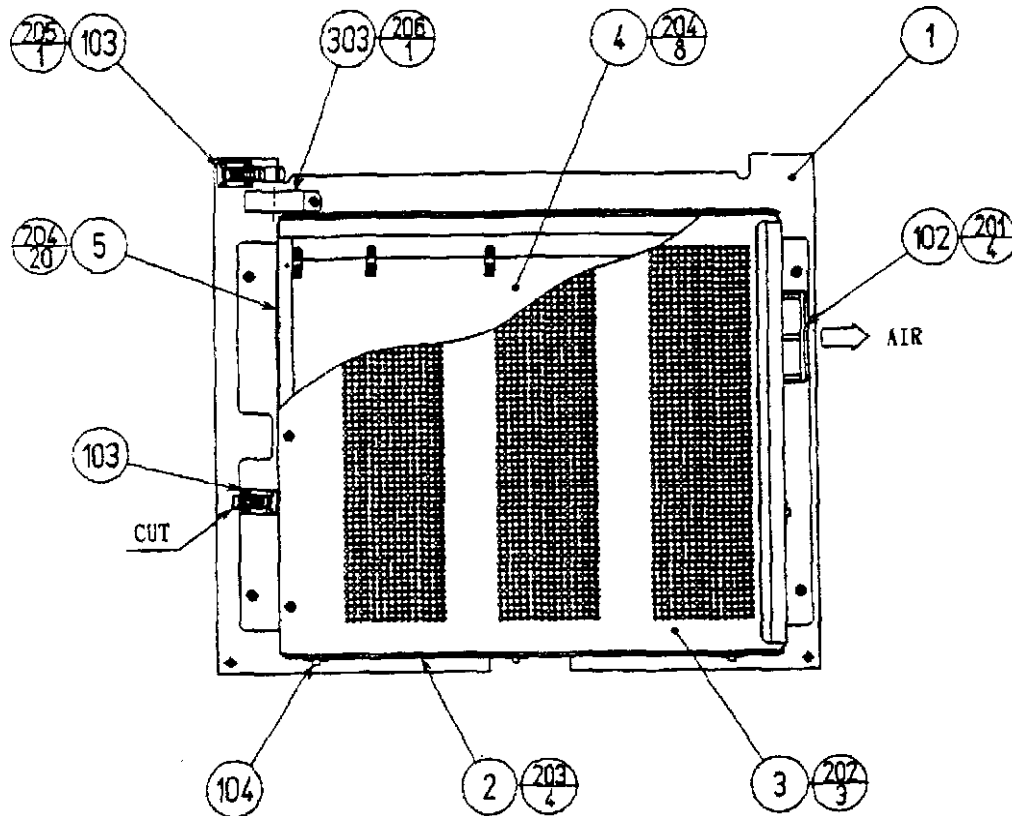


⑦ ASSY CABINET LOWER (GBN-1500)



1	GBN1-1501	ASSY SUB CABINET LOWER
2	GBN1-1530	AC UNIT
3	GBN1-1540	SW UNIT
4	GBNO-0200	ASSY MAIN BD
5	GBN1-20001	ASSY CONTROLLER U/R
6	GBN1-4200	ASSY AC PWR SPLY
7	GBN1-4300	ASSY ELEC BASE
8	GBNI-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/FSM4X16
203	000-P00530-W	M SCR PH W/FSM5X30
204	030-000830-S	HEX BLT W/S M8X30
205	060-F00800	FLT WSHR M8

2 ASSY MAIN BD (GBN-0100)



ITEM NO	PART NO	DESCRIPTION
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 RQT
102	2601.0055	FAN MOTOR DC5V
201	000-P00330-W	M SCR PH W/FSM3X30
202	000-P00408-W	M SCR PH W/FSM4X8
203	000-P00412-W	M SCR PH W/FSM4X 12
204	010-P00308-F	S-TITF SCR PH W/F M3X8
205	OII-F00310	TAP SCR FH 3X10
206	OII-T03512	TAP SCR TH 3.5X12



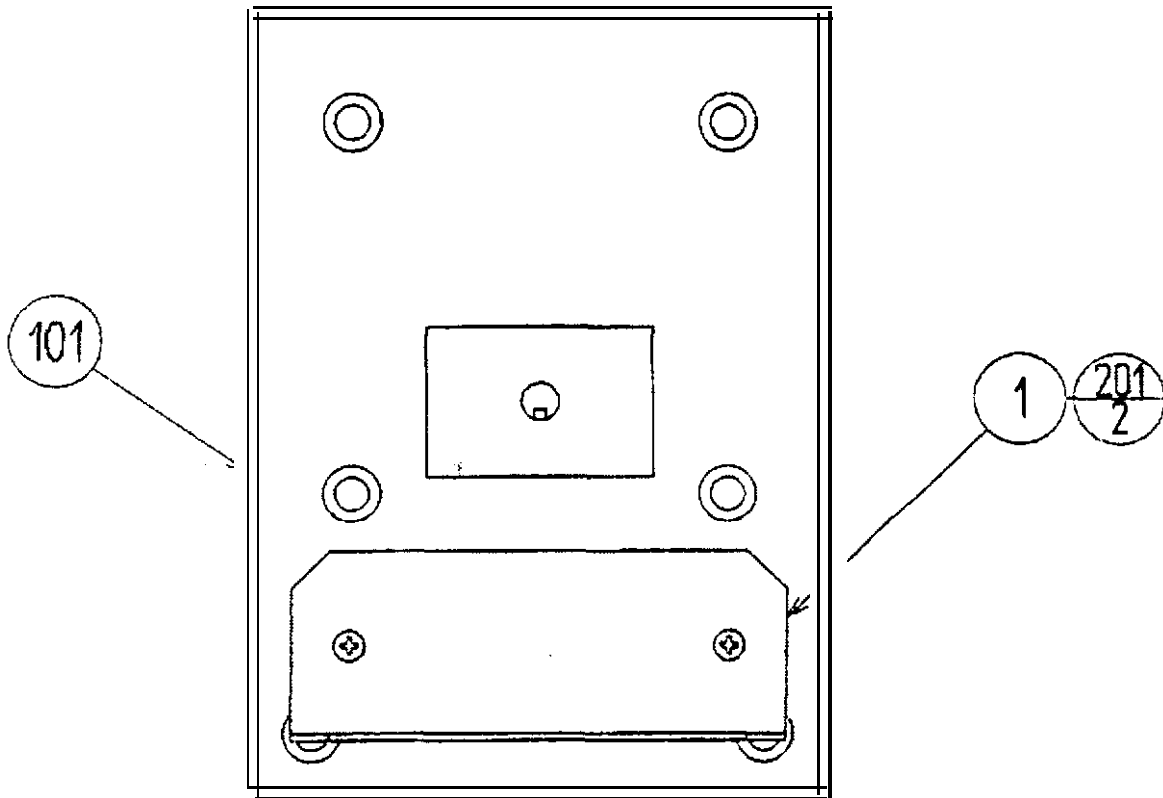
**ASSY SUB CABINET LOWER (GBN-1501)**

ITEM NO.	PART NO.	DESCRIPTION
1	GBN1-1502	WOODEN CABI U/R
2	GBN1-1503	FOOT BASE
3	GBNI-1504	MECHA SUPPORT L
4	GBNI-1505	MECHA SUPPORT R
5	GBNI-1506	JOINT BASE
6	GBN1-1507	COVER BRKT
7	GBNI-1508	MECHA COVER L
a	GBN1-1509	MECHA COVER R
9	GBNI-1510	FOOT COVER F
10	GBN1-1511	FOOT COVER L
11	GBNI-1512	FOOT COVER R
12	GBN1-1513	SIDE DOOR L
13	GBN1-1514	SIDE DOOR R
14	GBN1-1515	CENTERBRKT
15	GBN-1550	ASSY WOOFER
16	6101-0395-01	METER UNITS
17	UP1-1018	AIR VENT
18	1051-5239-03	AIR VENT
19	HN1-1042X	FAN BRKT
23	6011-5699X	LEG ADJUSTER BOLT
30	GBN1-1020	SPEAKER NET
104	2601-0011-02	AXIAL FLOW FAN AC120V 60HZ
105	601 I-6224	CASTER 0 75
106	3101-5029-F20	SUMITUBE F F20MM
201	000-P00312-W	M SCR PH W/FSM3X 12
202	000-T00416	M SCR TH CRM M4X 16
203	000-P00416-W	M SCR PH W/FSM4X16
204	000-P00420-W	M SCR PH W/FSM4X20
205	000-P00425-W	M SCR PH W/FSM4X25
206	000-T00425-OB	M SCR TH BLK M4X25
207	000-T00430-OB	M SCR TH BLK M4X30
208	000-P00525-W	M SCR PH W/FSM5X25
209	010-P00406-F	S-TITE SCR PH W/F M4X6

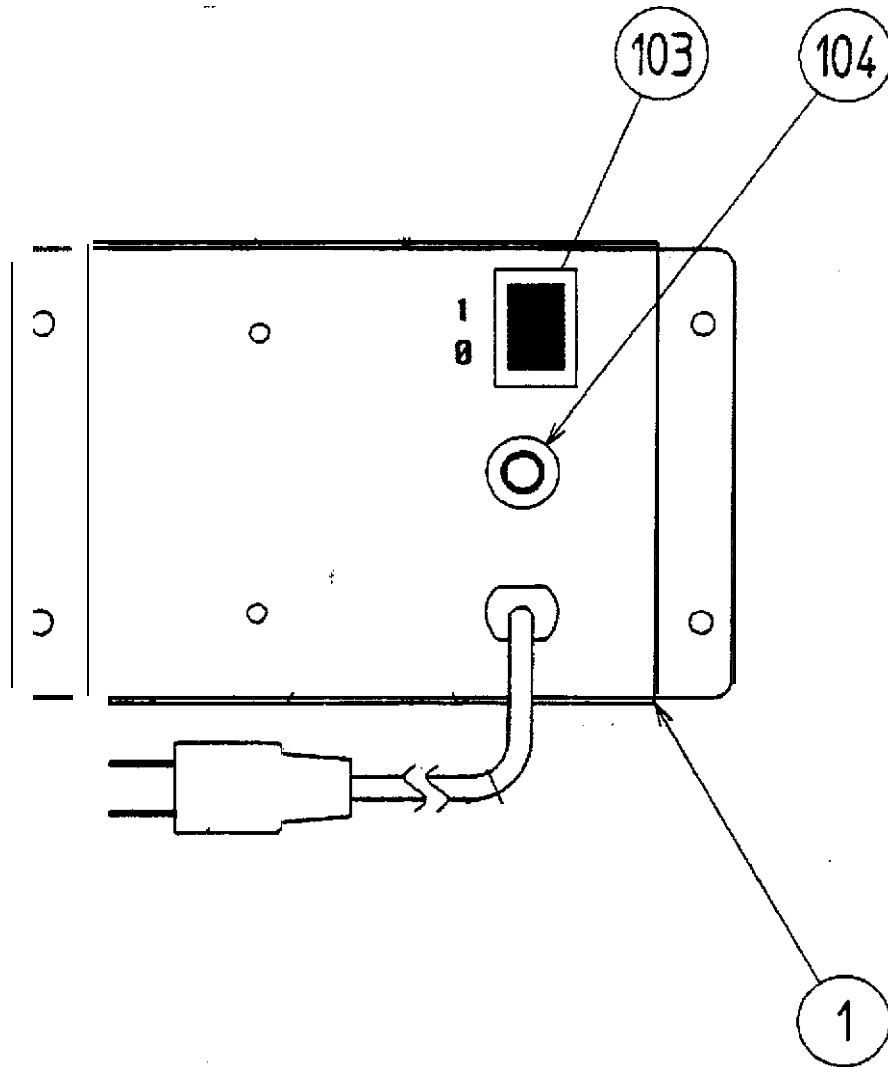
ASSY SUB CABINET LOWER (GBN-1501)

ITEM NO	PART NO	DESCRIPTION
210	011-F00310	TAP SCR FH 3X10
211	011-T03512	TAP SCR TH 3.5X12
212	030-000616-S	HEX 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 M6
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	600-6720-1 9	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 AID EXT
307	600-6720-24	WIRE HARN GUN MOTOR EXT
308	600-6720-25	WIRE HARN VOLUME EXT
309	600-6720-26	WIRE HARN I/O1 EXT
310	600-6720-27	WIRE HARN DEMAG EXT
311	600-6720-28	WIRE HARN 1102 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

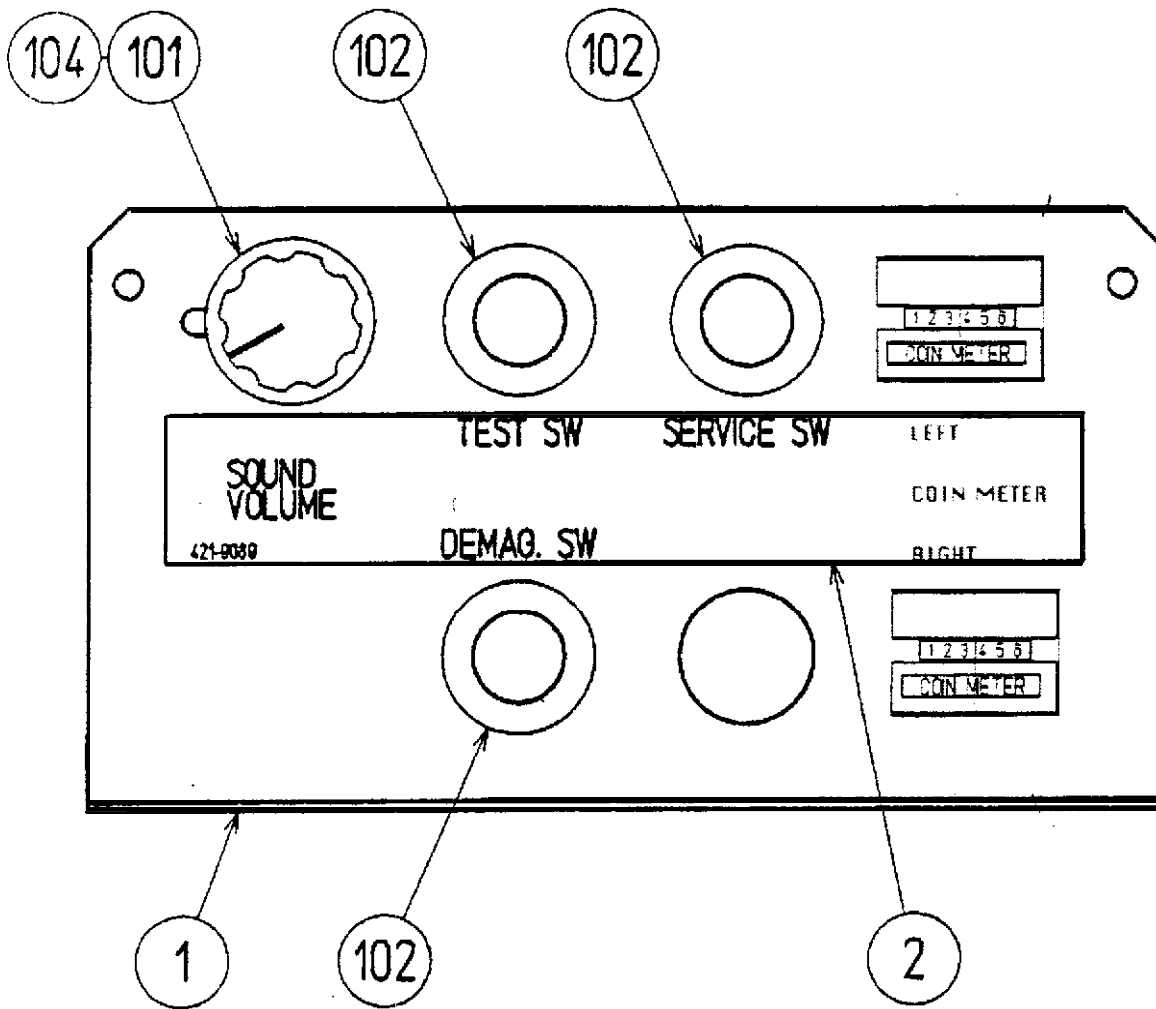
**1** ASSY WOOFER (GBN-1550)



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



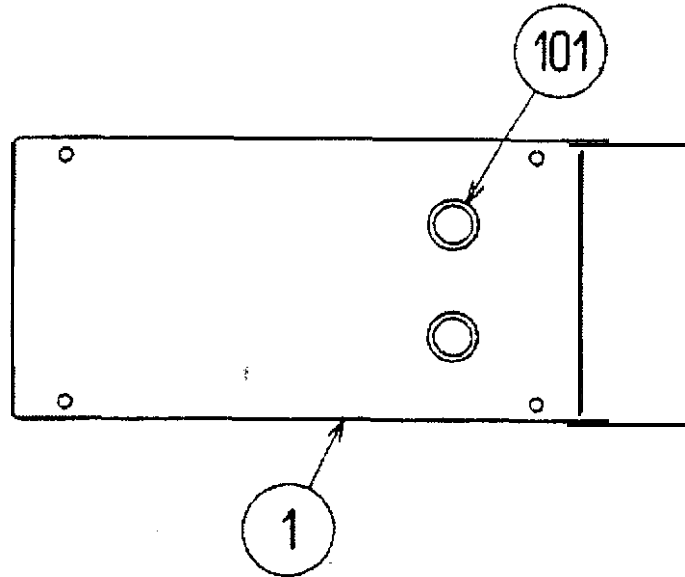
ITEM NO.	PART NO.	DESCRIPTION
1	GBN1-1531	AC BRKT
103	5091-5234	SW ROCKER 25A
104	5121-5033-8000	FUSE 250V @7A



ITEM NO.	PART NO.	DESCRIPTION
1	AIN1-1022	SW BRKT
2	4211-9089	STICKER SW UNIT
101	2201-5179	VOL CONT B-5K OHM
102	5091-5028	SW PB 1M
104	6011-0042	KNOB



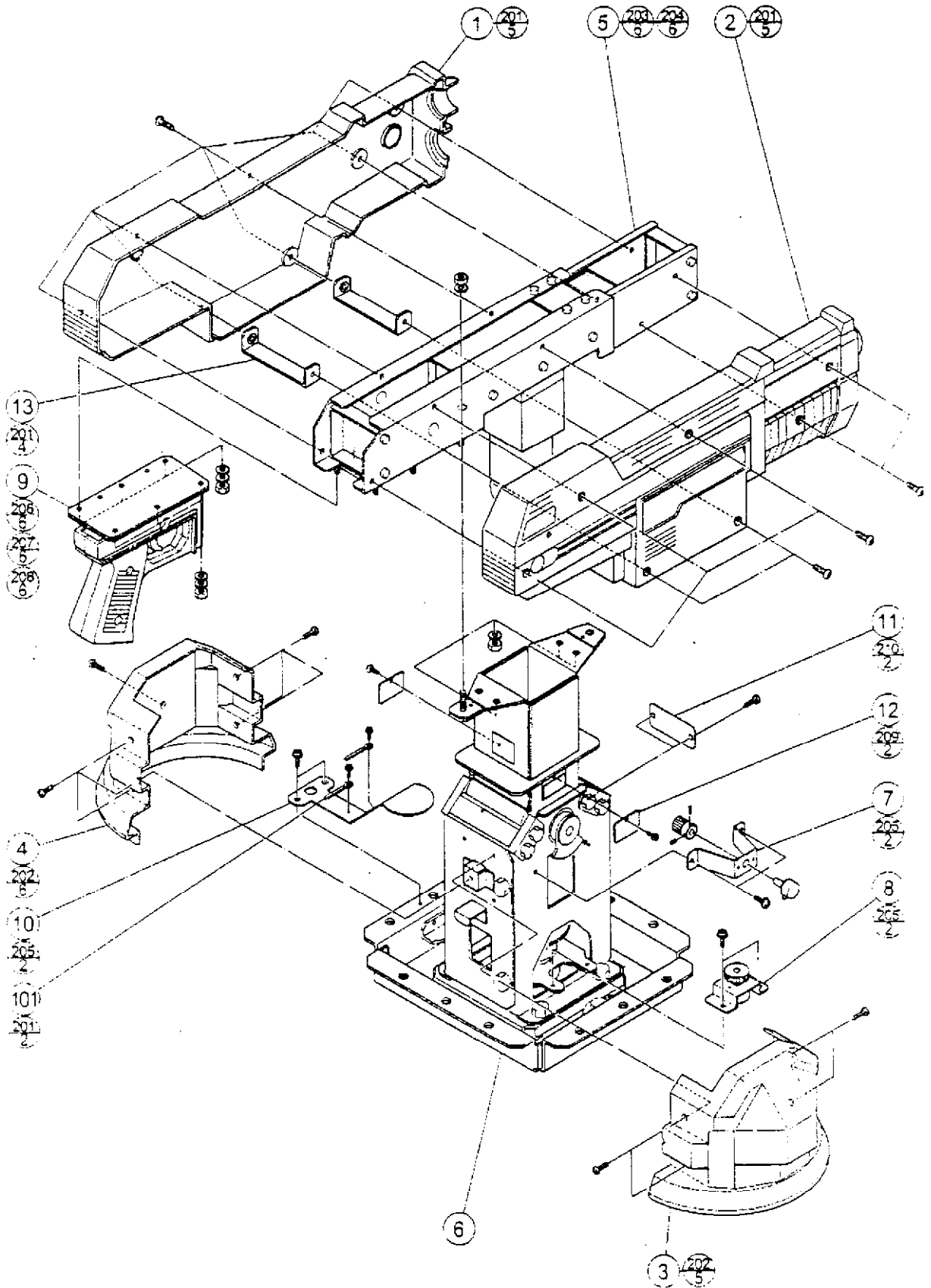
⑭ **ASSY START SWITCH (GBN-1560)**



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

ASSY CONTROLLER (GBN1-2000)

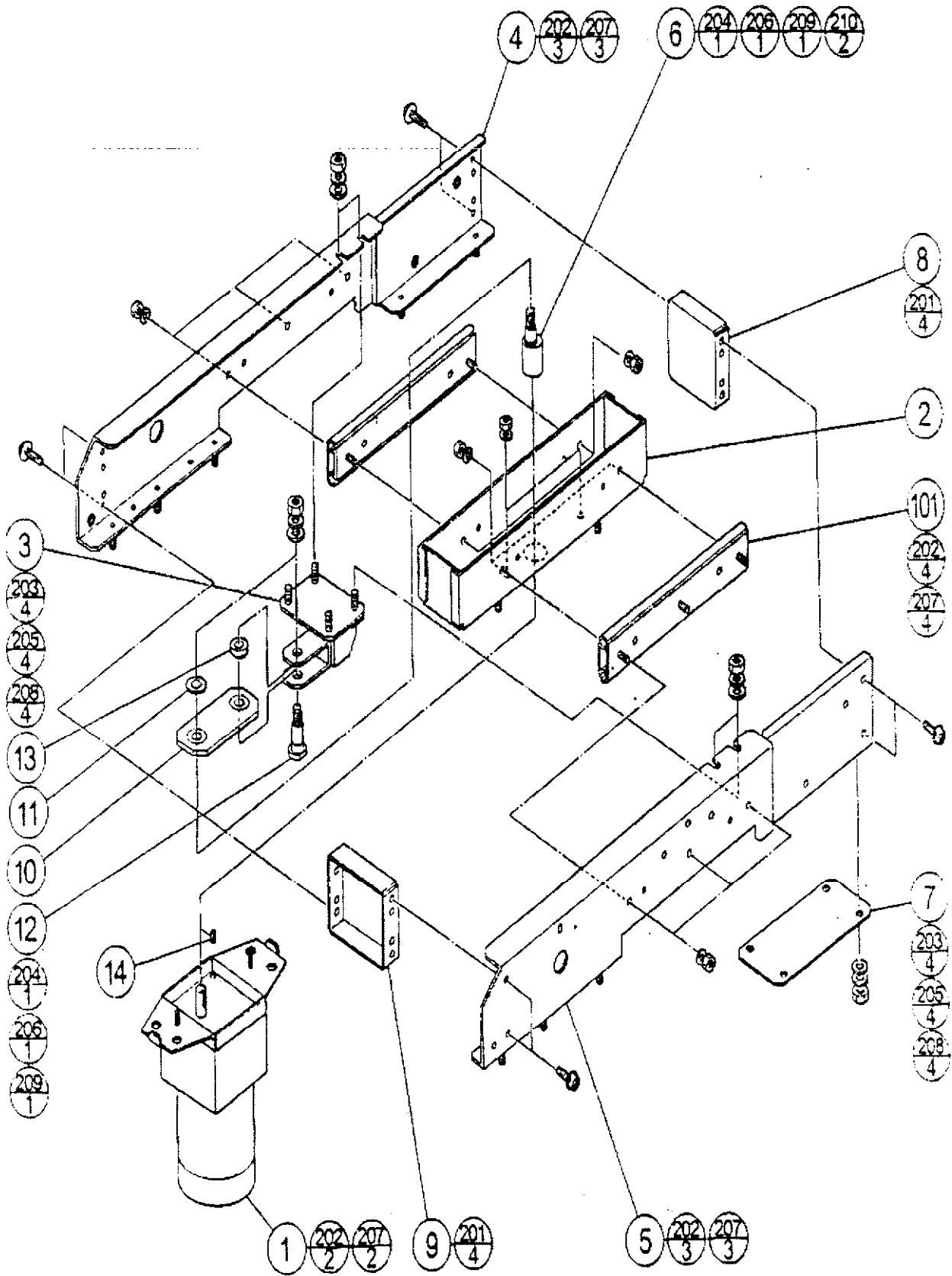
(D-1/2)



ITEM NO.	PART NO.	DESCRIPTION
1	GBNO-2001	COVER LEFT
2	GBNO-2002	COVER RIGHT
3	GBNO-2050	ASSY SLIDE MECHA
4	GBNO-2300	ASSY SWING BASE UR
5	GBNO-2200	ASSY VOLUME U/D
6	GBNO-2250	ASSY VOLUME L/R
7	GBNO-2400	ASSY GRIP
8	GBNO-2007	WIRE GUIDE
9	GBNO-2008	LID A
10	GBNO-2009	LID B
11	AINO-2003	COVER BRACKET
102	280-5275-SR10	CORD CLAMP
201	008-T00512-OB	TMP PRF SCR TH BLK
202	060-S00600	SPR WSHR M6
203	050-U00600	U NUT M6
204	000-P00408-W	M SCR PH W/FS M4X8
205	050-U00500	U NUT M5
206	060-500500	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 SCR TH BLK M4X8
210	010-P00308-F	S-TITE SCR PH W/F M3X8

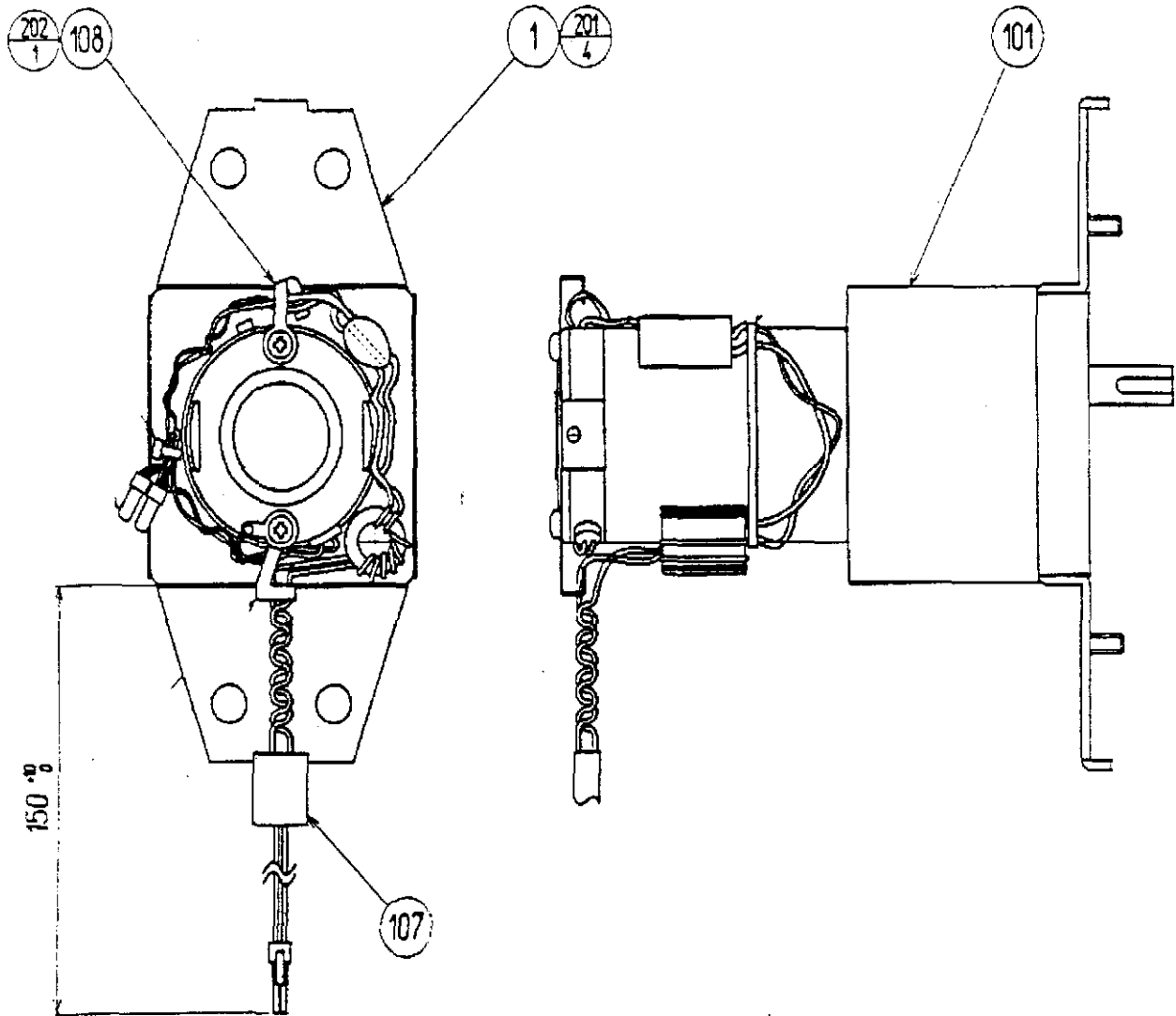
①9 ASSY SLIDE MECHA (GBN1-2050)

(D-1/2)



ITEM NO	PART NO	DESCRIPTION
1	GBNO-2070	ASSY MOTOR
2	GBNO-2051	HASL CENTER
3	GBNO-2052	JOINT BRKT
4	GBNO-2053	BASE RIGHT
5	GBNO-2054	BASE LEFT
6	GBNO-2055	CAM
7	GBNO-2056	JOINT PLATE
8	GBNO-2057	FRONT BRKT
9	GBNO-2056	REAR BRKT
10	AINO-2203	JOINT BAR
11	AINO-2204	SPACLR
12	AINO-2205	PIN
13	AINO-2213X	JOINT SPACER
14	GHOO-3783	KEY 3 X 3 X12
101	100-5169	SLIDE RAIL
201	000-PO041 o-w	M SCR PH W/FSM4X10
202	050-U00400	UNUT M4
203	050-U00500	UNUT M5
204	050-U00600	UNUT M6
205	060-F00500	FLT WASHER M5
206	060-F00600	FLT WASHER M6
207	060-S00400	SPR WASHER M4
208	060-S00500	SPR WASHER M5
209	060-S00600	SPR WASHER M6
210	020-000410-HZ	HEX SKT CAP SCR BLK OZ M4X10

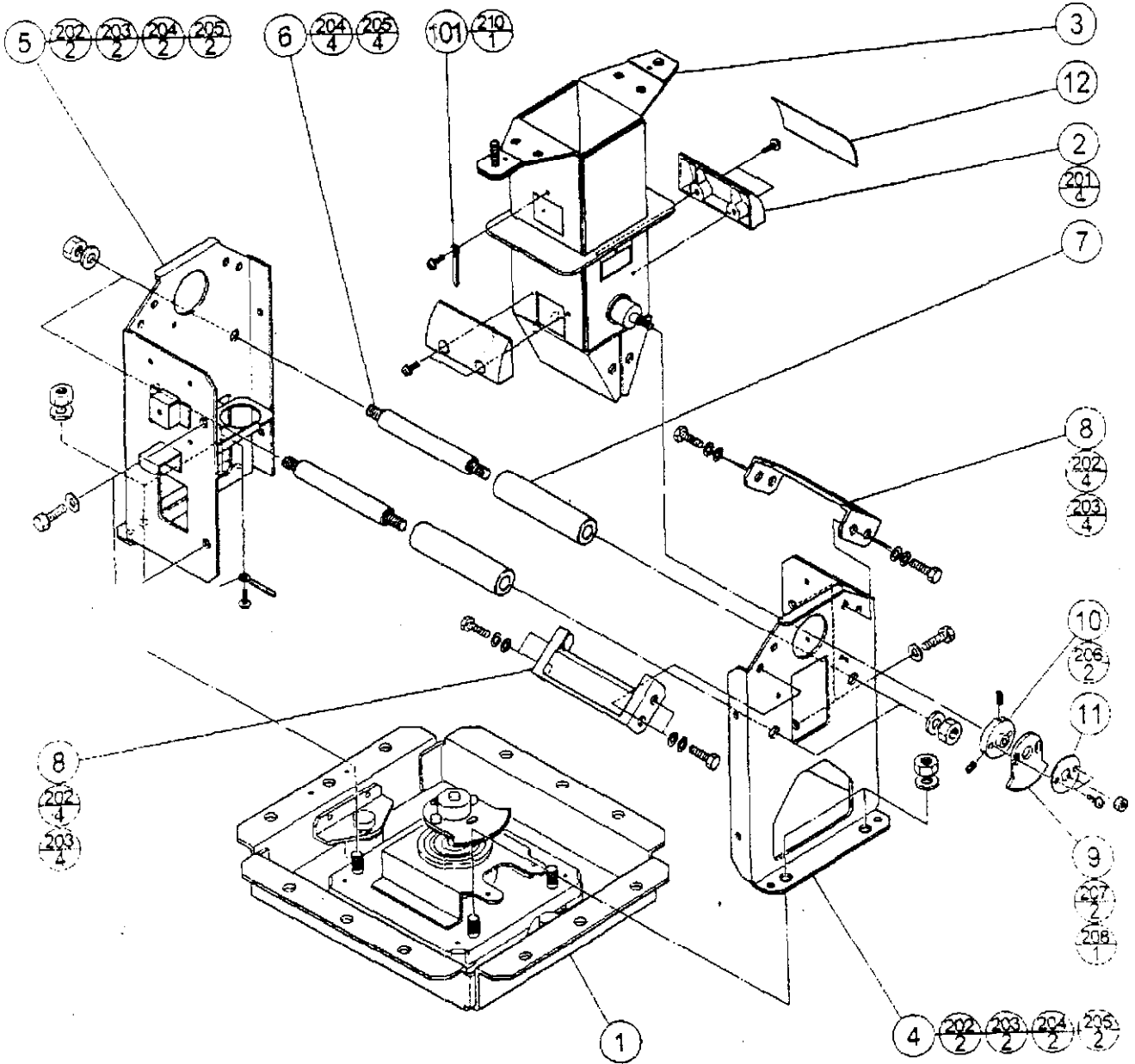
20 ASSY MOTOR (GBN1-2070)



ITEM NO.	PART NO.	DESCRIPTION
1	GBN-2071	MOTOR BRACKET
101	350-5292	MOTOR DC 24V 600RPM
107	61 O-0402	ASSY WIRE GUN MOTOR
201	000-P00408-S	M SCR PH W/S M4X8
202	010-P00306	S-TITE SCR PH M3X6

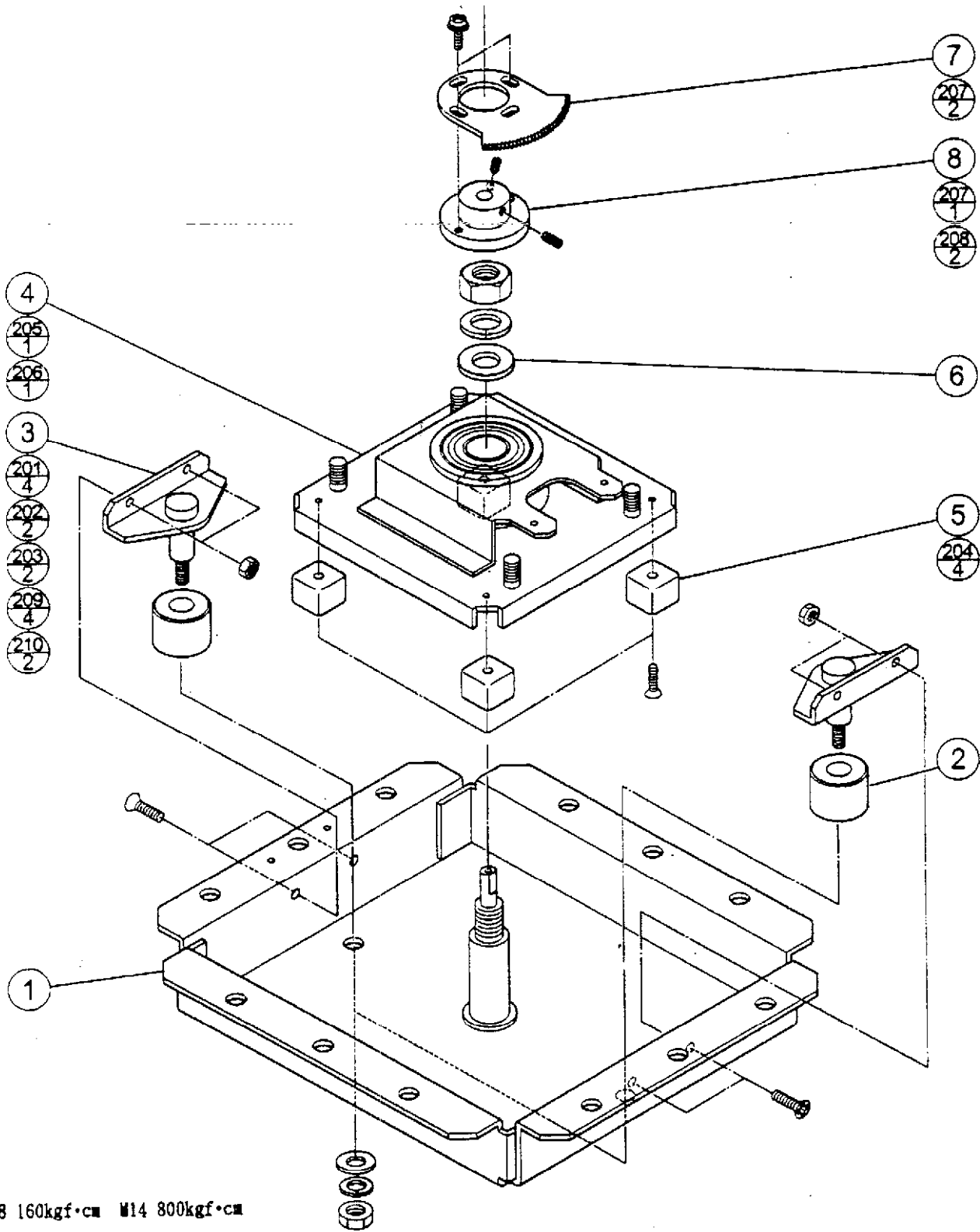
18 ASSY SWING BASE U/R (GBN-2300)

(D-1/2)



ITEM NO.	PART NO.	DESCRIPTION
1	GBNO-2350	ASSY BASE UR
2	GBNO-2101	CORNER GUARD
3	GBNO-2102	MAIN SHAFT
4	GBNO-2103	SWING BRACKET A
5	GBNO-2104	SWING BRACKET B
6	GBNO-2105	SHAFT
7	GBNO-2106	STOPPER
8	GBNO-2107	CORNER HOLDER
9	<del>601-6005</del>	ADJUST GEAR
10	TTRO-2009	GEAR HOLDER 80
11	GLCO-2122	GEAR PLATE
12	GBNO-2108	HOLE SHEET
201	000-P00310-WB	M SCR PH W/FS BLK M3X10
202	030-000612-S	HEX BLTW/SM6X12
203	060-F00600	FLT WSHR M6
204	050-H00800	HEX NUT M8
205	060-S00800	SPR WSHR M8
206	028-A0041 O-P	SET SCR HEX SKT CUP P M4X10
207	000-P00410-S	M SCR PH W/SM4X10
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

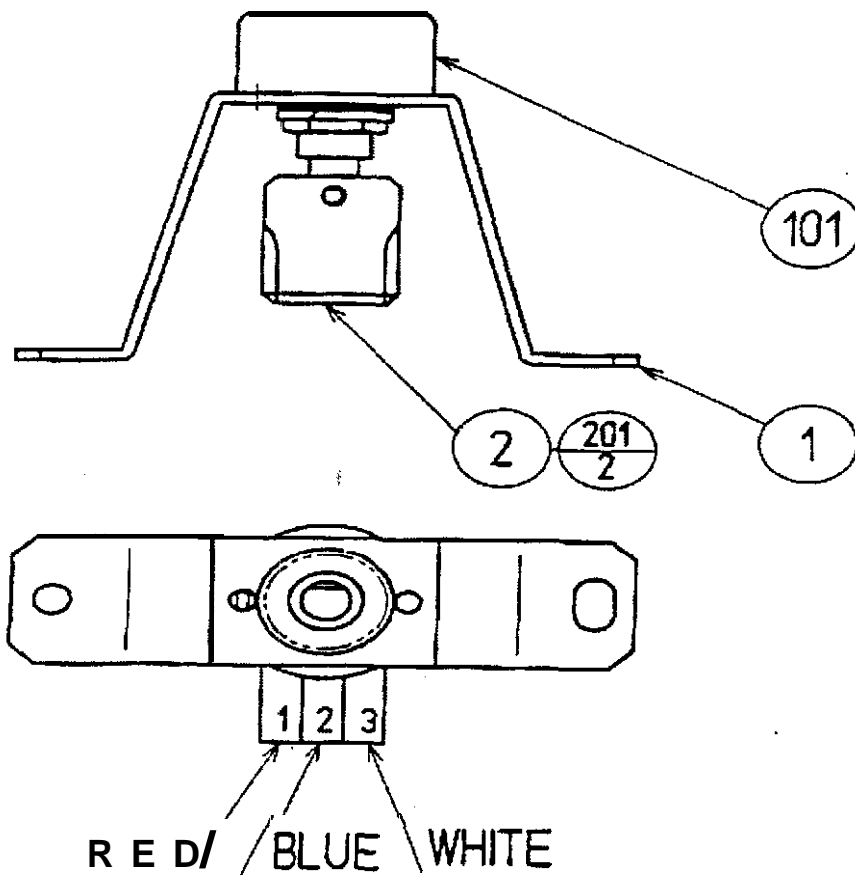




M8 160kgf·cm M14 800kgf·cm

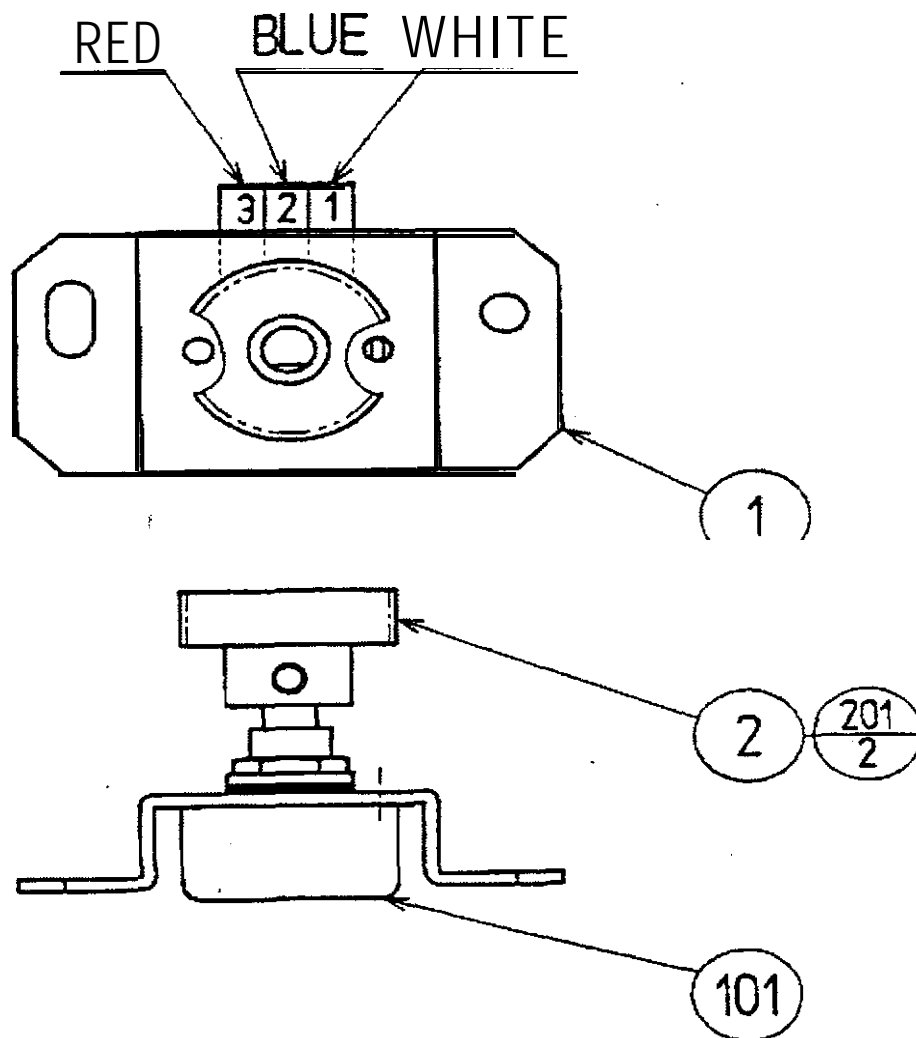
ITEM NO	PART NO.	DESCRIPTION	
1	GBN-2151	BOTTOM BASF	
2	GBN-2155	BOTTOM STOPPER S	
3	GBN-2153	STOPPER BRKT	
4	GBN-2154	SWING BASE	
5	AIN-2107	SPACER BLOCK B	
6	AIN-2108	RING	
<del>7</del>	<del>601-6450</del>	<del>GEAR 110</del>	
8	TTR-2010	GEAR HOLDER 110	
201	000-FO0512	M SCR FH M5X12	
202	060-S00800	SPR WSHR M8	
203	060-F00800	FLT WSHR M8	
204	000-F00416	M SCR FH M4X16	
205	050-H01400	HEX NUT M4	
206	060-S01400	SPR WSHR M4	
207	000-P00410-W	M SCR PH W/FSM4X10	
208	028-A00410-P	SET SCR HEX SKT CUP P	M4X10
209	050-U00500	U NUT M5	
210	050-H00800	HEX NUT M8	

23 ASSY VOLUME U/O (GBN-2200)



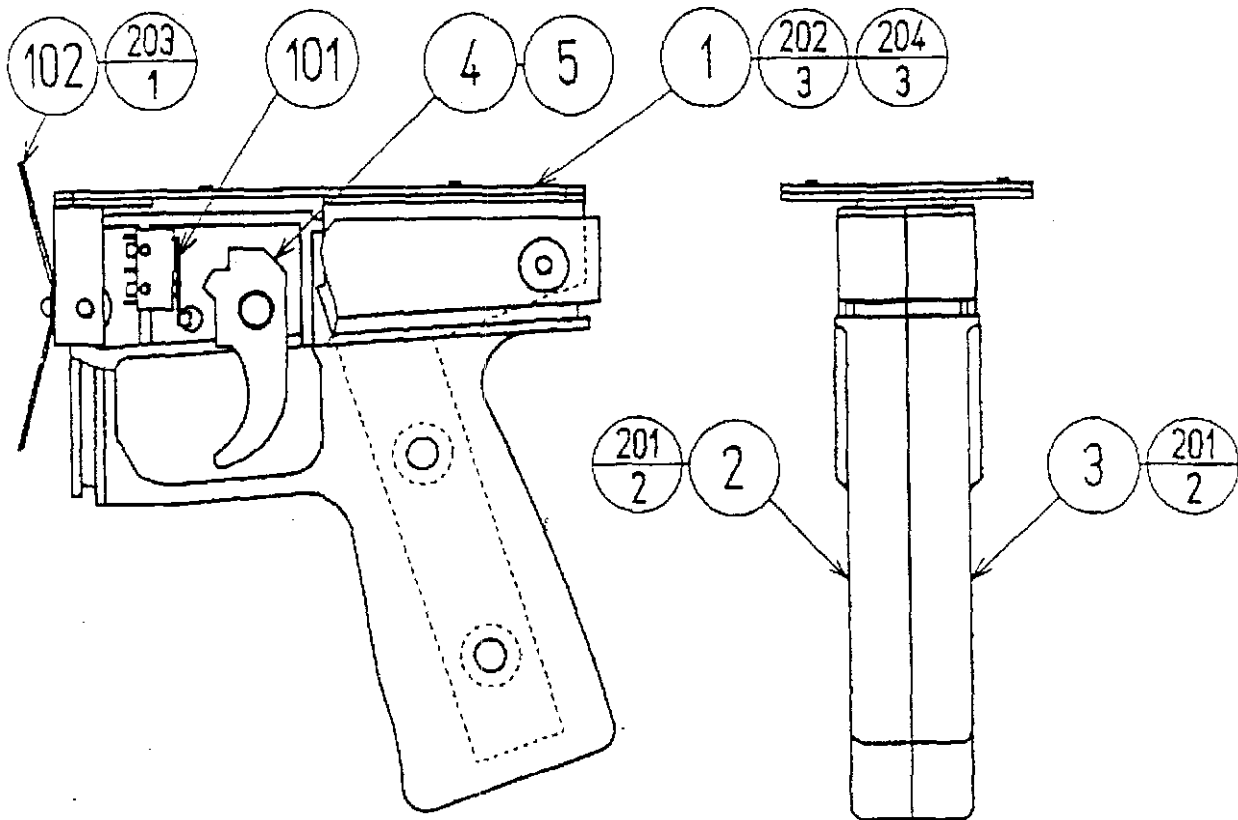
ITEM NO.	PART NO.	DESCRIPTION
1	GBNO-2201	VR BRACKET UD
2	601-7945	GEAR 20
101	220-5373	VOL CONT B-SK OHM
201	028-C00308-P	SET SCR CH CUP P M3X8

24 ASSY VOLUME L/R (GBN-2250)



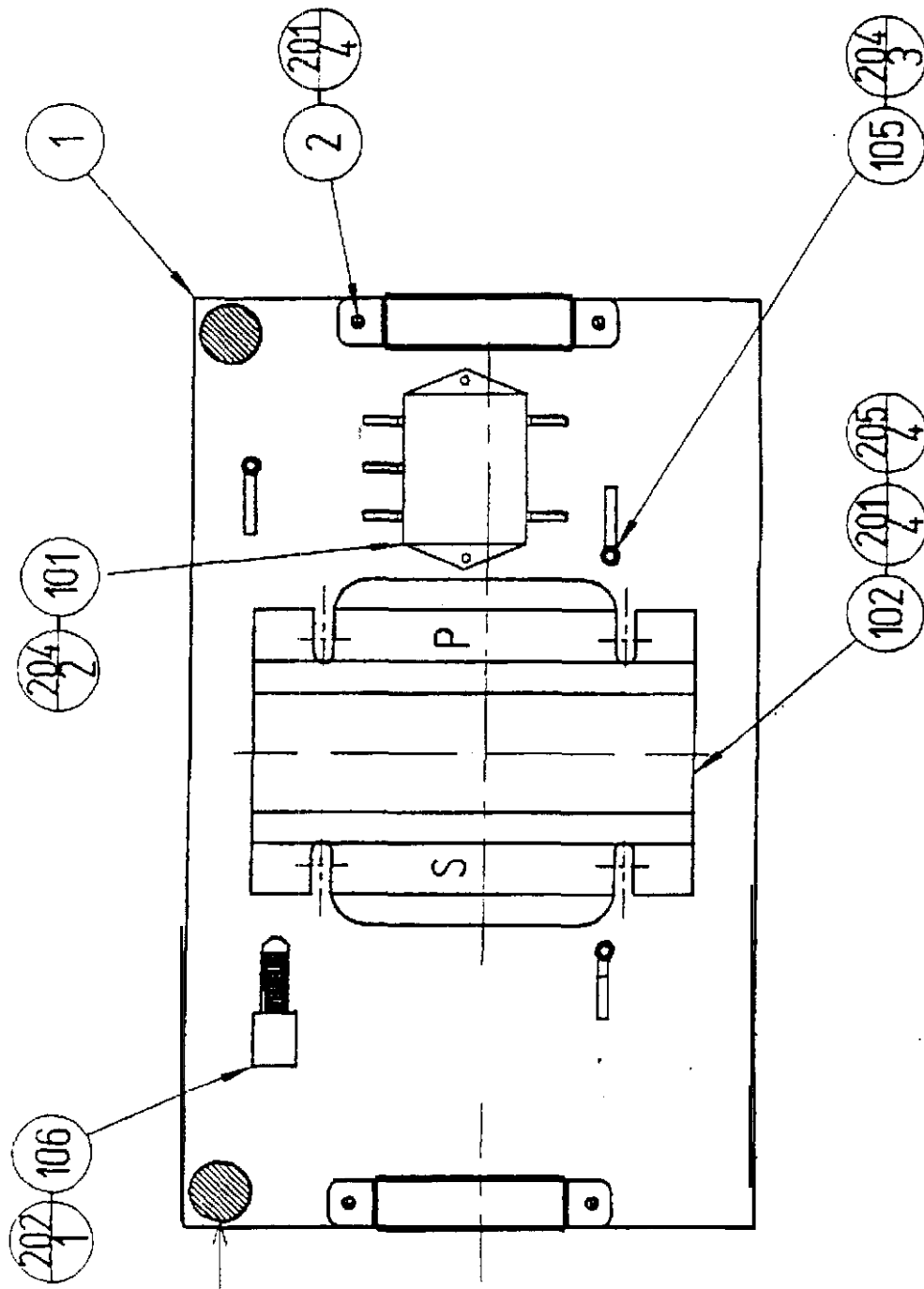
1	<b>GBNO-2251</b>	VR BRACKET LR
2	<b>601-6555</b>	GEAR 20
101	<b>220-5373</b>	VOL CONT B-5K OHM
201	<b>000-00410-HZ</b>	HEX SKT CAP SCR BLK OZ M4X10

25 ASSY GRIP (GBN-2400)



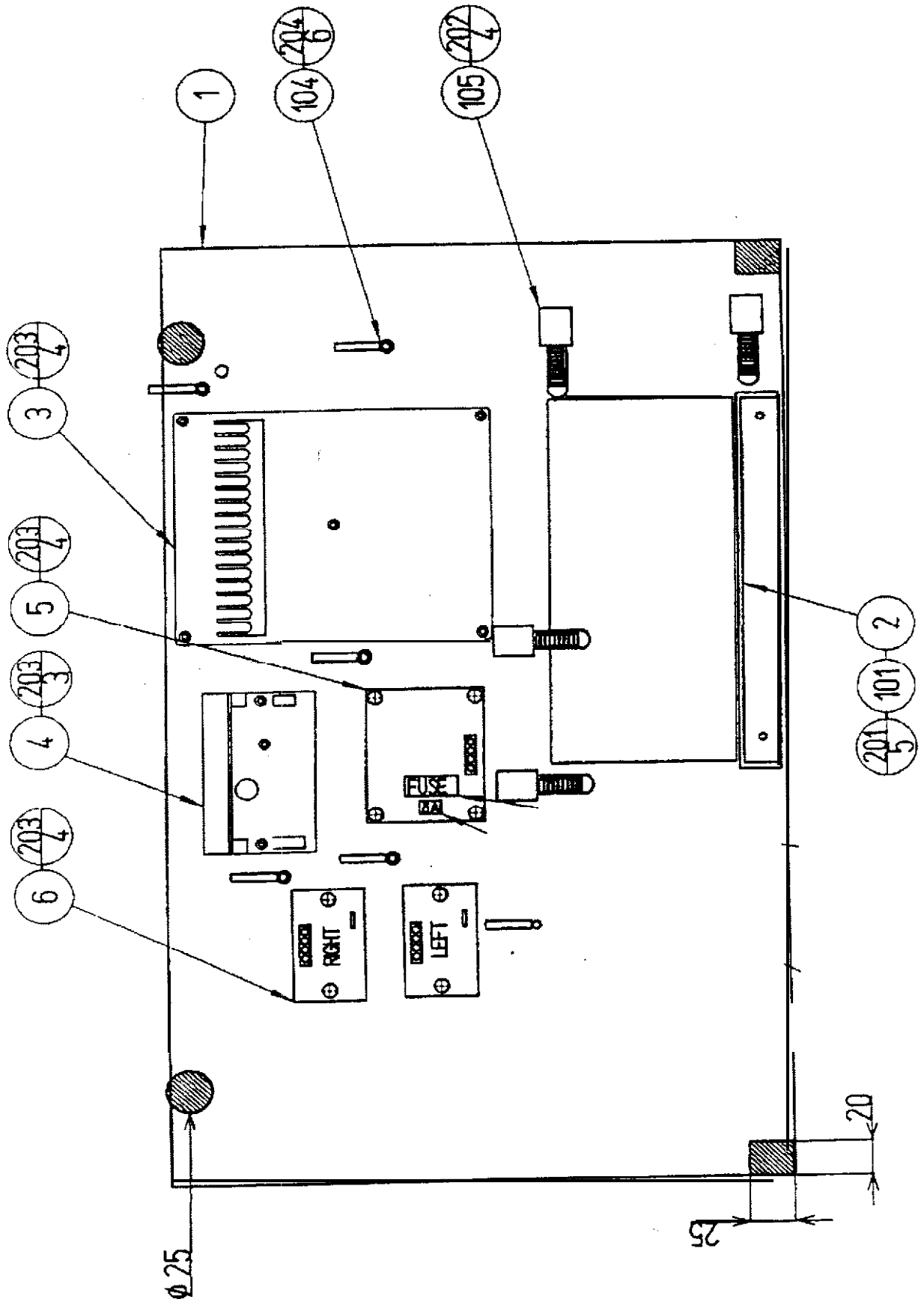
ITEM NO.	PART NO.	DESCRIPTION
	AIN-2401	GRIP BASE
2	GBN-2402	GRIP LEFT
3	GBN-2403	GRIP RIGHT
4	GBN-2404	LEVER
5	AIN-2405	TORSION SPRING
101	509-5080	SW MICRO TYPE
201	008-T00512-OB	TMP PRF SCR TH ELK M5X12
202	FASO80008	TMP PRF SCR PH BLK M5X25
203	O10-P00308-F	S-TITE SCR PH W/F M3X8
204	050-C00500-3B	CAP NUT TYPE3 BLK M5

23 ASSY AC PWH SPLY (G8N-4200)



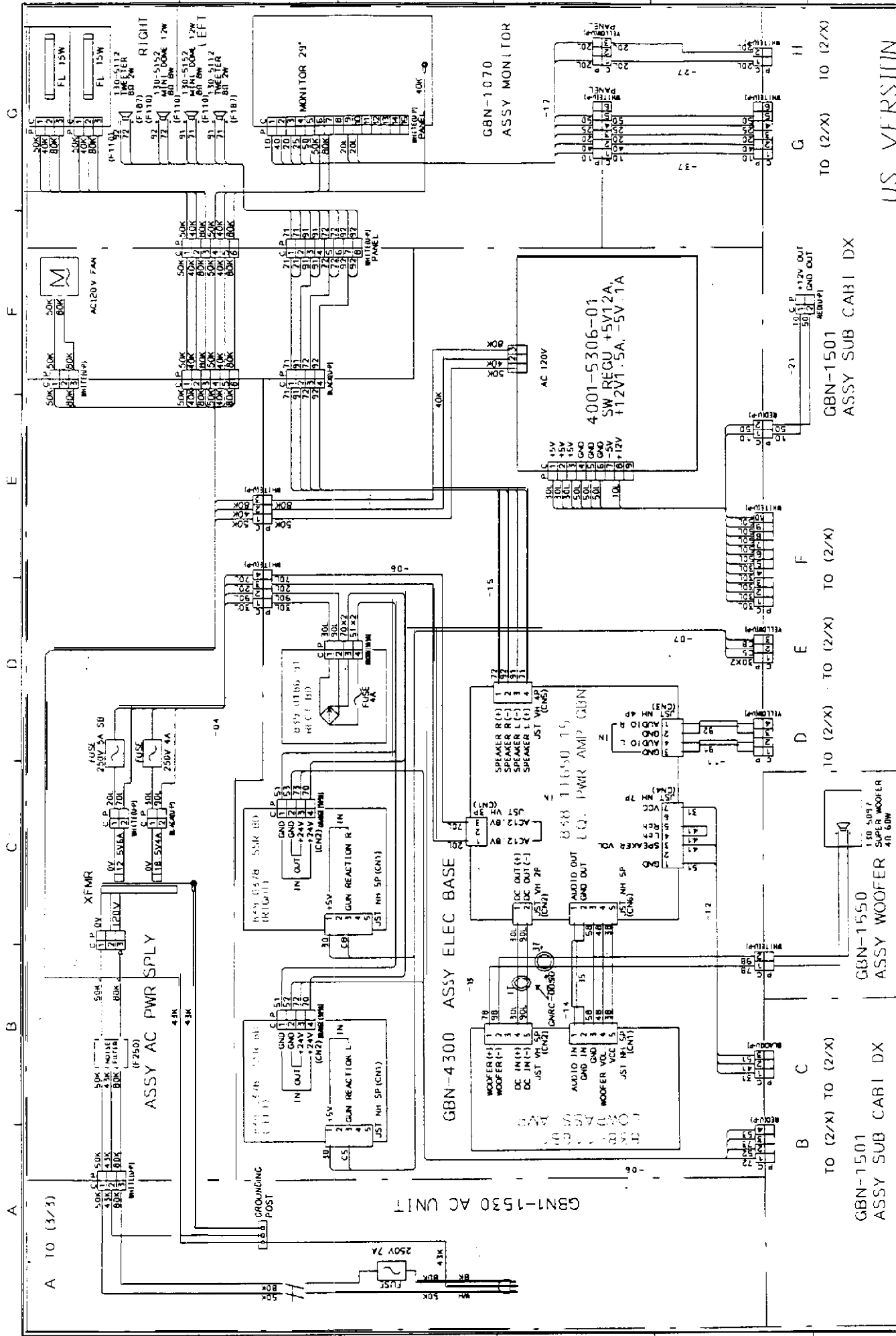
ITEM NO.	PART NO.	DESCRIPTION
2	GBN-4201	WOODEN BASE PWR SPLY
3	GBN-4002	HANDLE
101	GNRC-00586	FILTER 10AMP EMI SHAFFNER
102	5601-5330 514	NOISE FILTER 20A
201	OOO-P00516	M SCR PH W/FSM5x16
202	W OII-F00310	TAP SCR FH 3x10
203	OII-P00325	TAP SCR PH 3x25
204	OII-T03512	TAP SCR TH 3. 5x 12
205	068-552016	FLT WSHR 5. 5-20 x 1.6

24 ASSY ELEC BASE (GBN-4300)





ITEM NO	PART NO	DESCRIPTION
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
<b>101</b>	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/FSM4X12
202	OII-F00310	TAP SCR FH 3X10
203	OII-P00325	TAP SCR PH 3X25
204	011-T03512	TAP SCR TH 3.5X12



ALTERATION	DESCRIPTION
1	10 (2/X) TO (2/X) TO (2/X)
2	10 (2/X) TO (2/X) TO (2/X)
3	10 (2/X) TO (2/X) TO (2/X)
4	10 (2/X) TO (2/X) TO (2/X)
5	10 (2/X) TO (2/X) TO (2/X)
6	10 (2/X) TO (2/X) TO (2/X)

REV	DATE	BY	CHKD	DESCRIPTION
1				INITIAL
2				INITIAL
3				INITIAL
4				INITIAL
5				INITIAL
6				INITIAL

REV	DATE	BY	CHKD	DESCRIPTION
1				INITIAL
2				INITIAL
3				INITIAL
4				INITIAL
5				INITIAL
6				INITIAL

US VERSION

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