SEGA

STAR WARS TRILOGY ARCADE

U/R VERSION

OWNER'S MANUAL

SEGA ENTERPRISES, INC. USA

Warranty

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

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

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

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

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darl.davidson@seu.sega.com
OR
han.rockhill@seu.sega.com

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650-802-1754 fax

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│                        SPECIFICATIONS                             │
│                                                                   │
│   Installation space:              36.9 in.(D) x 30.1 in.(W)      │
│                                                                   │
│   Height:                          78.9 in.                       │
│                                                                   │
│   Weight:                          Approx. 381.4 lbs.             │
│                                                                   │
│   Power maximum current:           3.22 Amps (AC 120V 60 Hz AREA) │
│                                                                   │
│                                                                   │
│   MONITOR:                         29" COLOR MONITOR              │
│                                                                   │
└─────────────────────────────────────────────────────────────────┘
```

INTRODUCTION OF THE OWNERS MANUAL

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

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

SEGA ENTERPRISES, INC. (USA)
Customer Service
45133 Industrial Drive
Fremont, CA 94538
Phone 650-632-7580
Fax   650-632-7594
7:30 am - 4:00 pm, Pacific Standard Time
Monday thru Friday

General Precautions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

INSTALLATION PRECAUTIONS

- 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.

LISTED

5K92

AMUSEMENT MACHINE

4. NAME OF PARTS

BILLBOARD

29 INCH MONITOR

CONTROLLER (LEVER)

CONTROL PANEL

COIN CHUTE DOOR

CASHBOX DOOR

OVERVIEW

AC UNIT

REAR VIEW
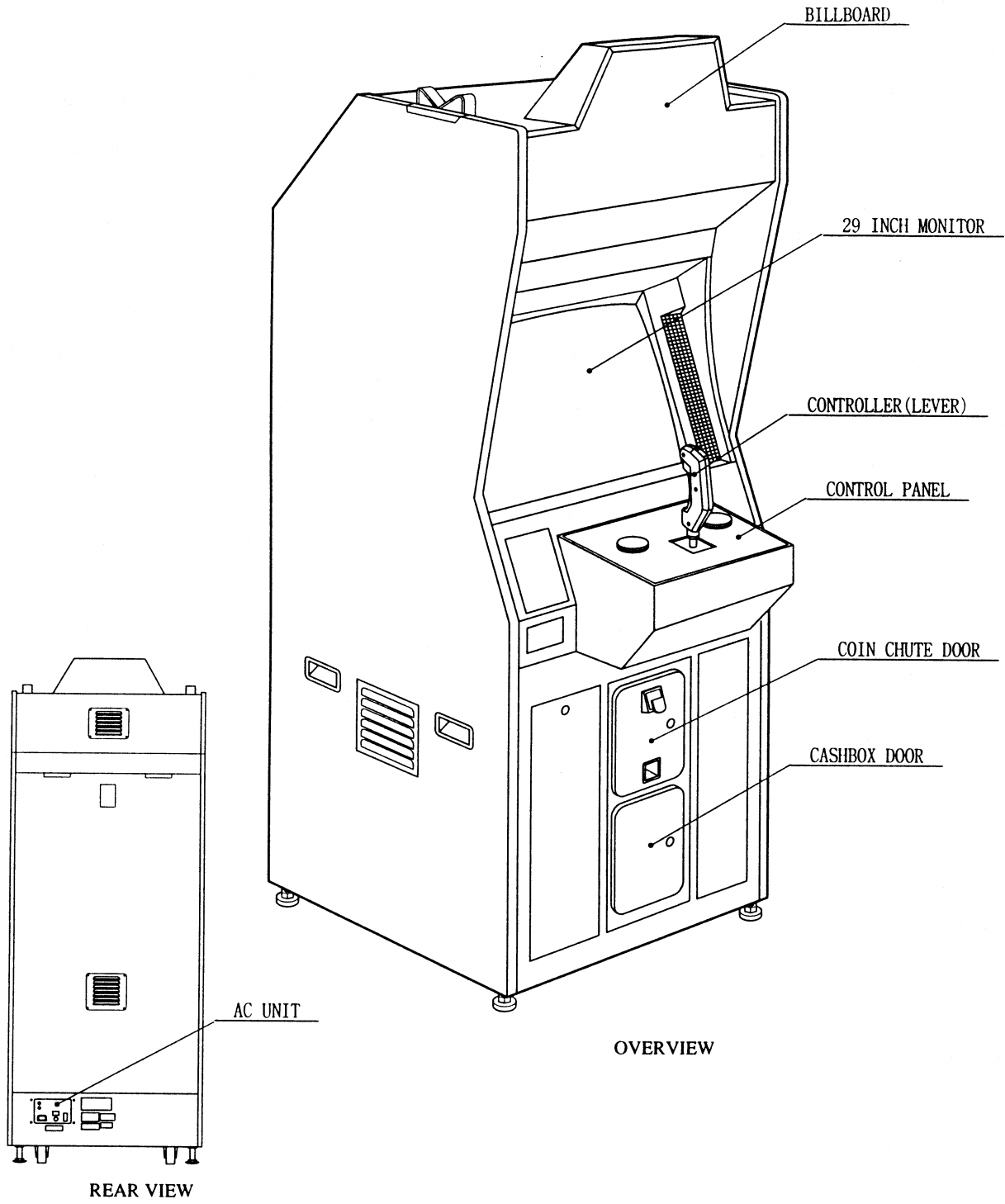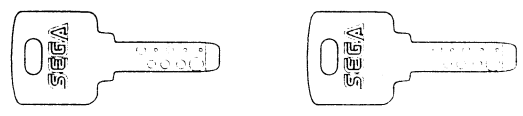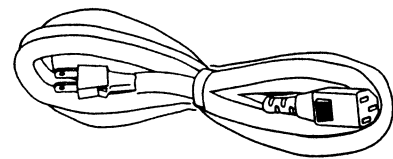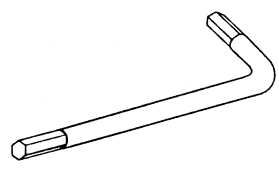
GAME SPECIFICATIONS	WIDTH	HEIGHT	DEPTH	WEIGHT
all measurements are rounded up to the nearest 0.5"				
CABINET U/R				
WHEN ASSEMBLED	30" X	79" X	37"	~383 LBS.

5. ACCESSORIES

DESCRIPTION	OWNERS MANUAL
Part No. (Qty.)	4201-6424-03 (1)
Note	

Figures

If Part No. has no description, the Number has not been registered or can not be registered. Such a part may not be obtainable even if the customer desires to purchase it. Therefore, ensure that the part is in safekeeping with you.

KEY MASTER
220-5576 (2)

For opening/closing the doors

KEY
(2)

For the CASHBOX DOOR

AC Cable (Power Cord)
600-6695
600-6695-01 (1) for USA

Used for installation

TAMPERPROOF WRENCH
M4   (1)
TOOL

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

LOST WORLD, VIRTUA FIGHTER 3, SUPER GT, SEGA BASS FISHING, STRIKER 2
HARLEY DAVIDSON, RALLY 2, DAYTONA 2, DIRT DEVILS, THE OCEAN HUNTER,
STAR WARS TRILOGY, HOUSE OF THE DEAD 2

!!NEVER SHIP MODEL 3 AND/OR NAMOI GAME BOARDS OUTSIDE OF CAGE!!
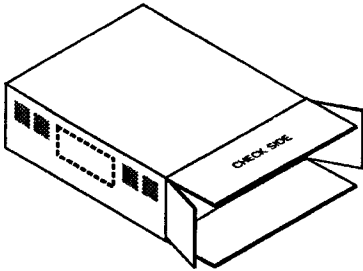
CARTON BOX
601-8928 (1)
Used for transporting the GAME BOARD.
{SUPPLIED WITH YOUR GAME}

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

"CHECK SIDE" Display

FILTER BOARD

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

3. ASSEMBLING PRECAUTIONS

⚠ **WARNING!**

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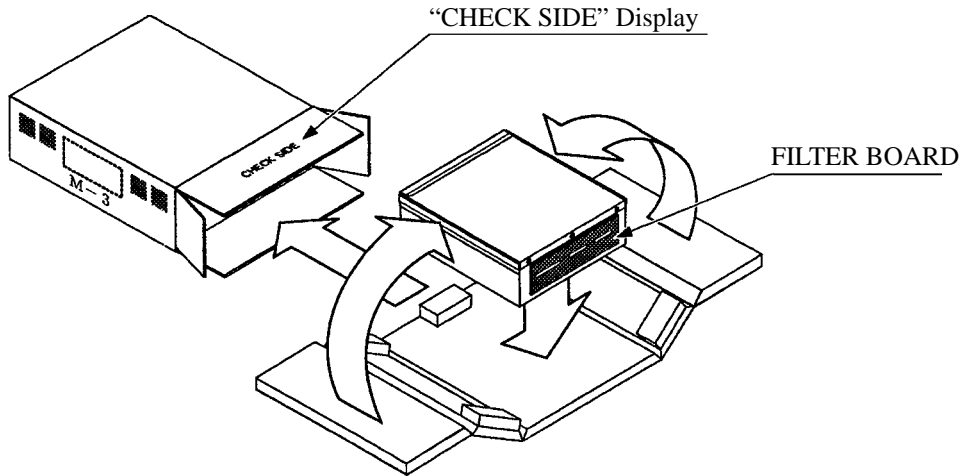When assembling, be sure to perform work by plural persons. Depending on the assembly work, there are some cases in which performing the work by a single person can cause personal injury or parts damage.

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

| 1 | INSTALLING THE BILLBOARD PLATE |

| 2 | SECURING IN PLACE |

| 3 | POWER SUPPLY |

| 4 | ASSEMBLING CHECK |

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

1 INSTALLING THE BILLBOARD PLATE

⚠ **CAUTION!**

Installing the Billboard by one person is difficult. Be sure to use plural persons to perform the work safely and accurately.
To perform work safely and securely, be sure to prepare a step which is in a stable and secure condition. Performing work without using a step can cause a viloent falling down accident.

① Insert the BILLBOARD PLATE as shown.

BILLBOARD PLATE
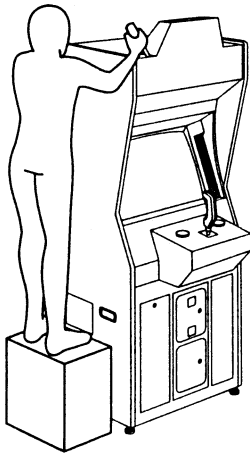
When performing work,
prepare a step.
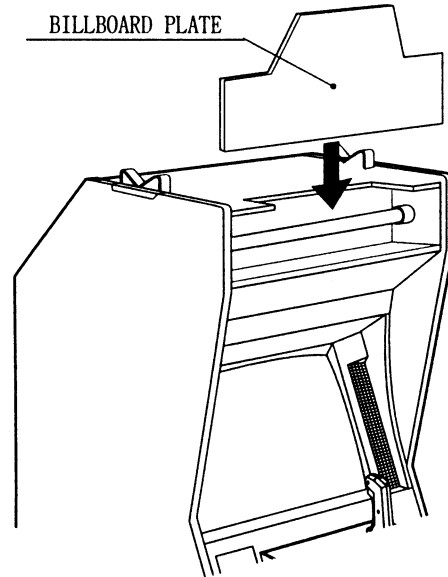
② Install the BILLBOARD CASE with 7 screws.

③ Install the SASH UPPER L & R with 4 screws.

TRUSS SCREW(7)
M4×16, black

BILLBOARD CASE

TRUSS SCREW(4)
M4×16, black

SASH UPPER L

SASH UPPER R
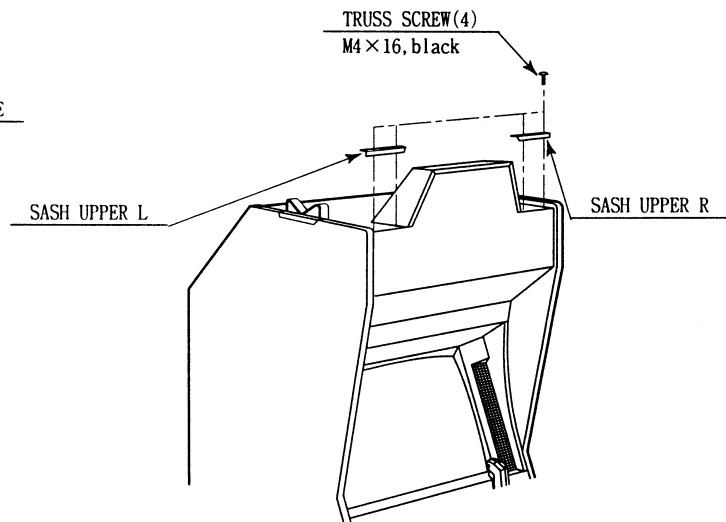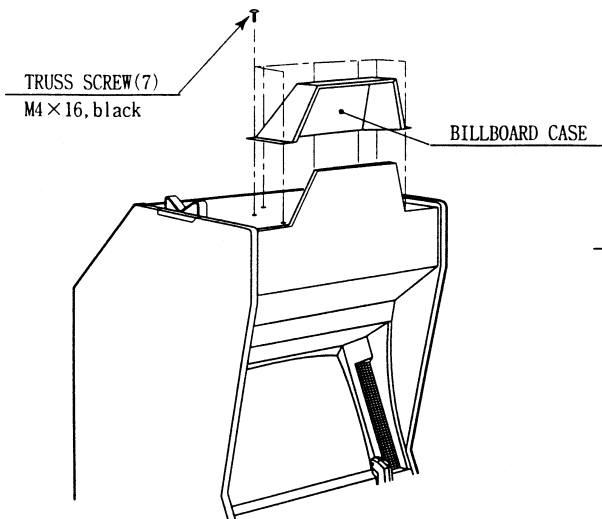
2 SECURING IN PLACE (ADJUSTER ADJUSTMENT)

⚠️ **WARNING!**

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

This machine has 4 each of casters and adjuster (See Below). When the installation position is determined, cause the adjusters to come into contact with the floor directly, make adjustments in a manner so that the casters will be raised approximately 5mm. from the floor and make sure that the machine position is level.

① Move the machine to the installation position.

② Cause all of the leg adjusters to make contact with the floor. By using a wrench, make adjustments in the height of the leg adjusters to ensure that the machine's position is level.

③ After making adjustments, fasten the leg adjuster nut upward and secure the height of the leg adjuster.

ADJUSTER

CASTER

BOTTOM VIEW

Adjust Bolt

Leg Leveler

3 POWER SUPPLY

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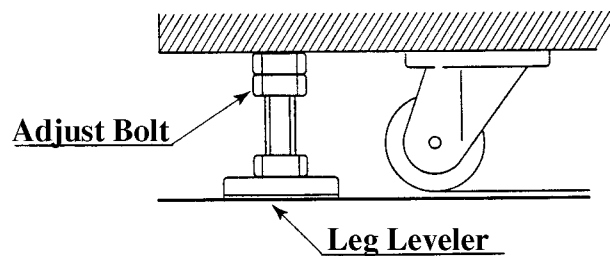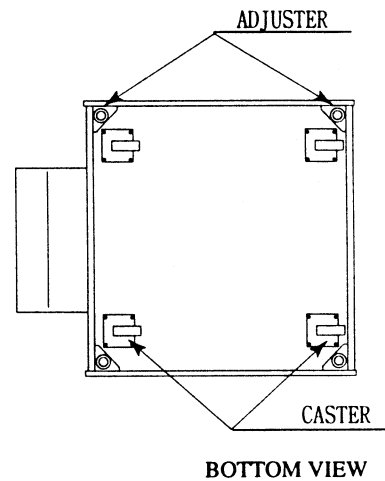
● Ensure that the power cord is not exposed on the surface (passage, etc.). If exposed, they can be caught and are susceptible to damage. If damaged, the cord can cause an electric shock or short circuit. Ensure that the wiring position is not in the customer's passage way or the wiring has protective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

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

① Ensure that the Main SW is OFF.

② The AC unit is located on the left side of the Cabinet. The Ac unit incorporates the Main SW, and power cord.

EARTH TERMINAL

Main SW off

INLET

To the Power Supply Socket outlet

MAIN SW

CIRCUIT PROTECTOR

AC Cable (Power Cord)
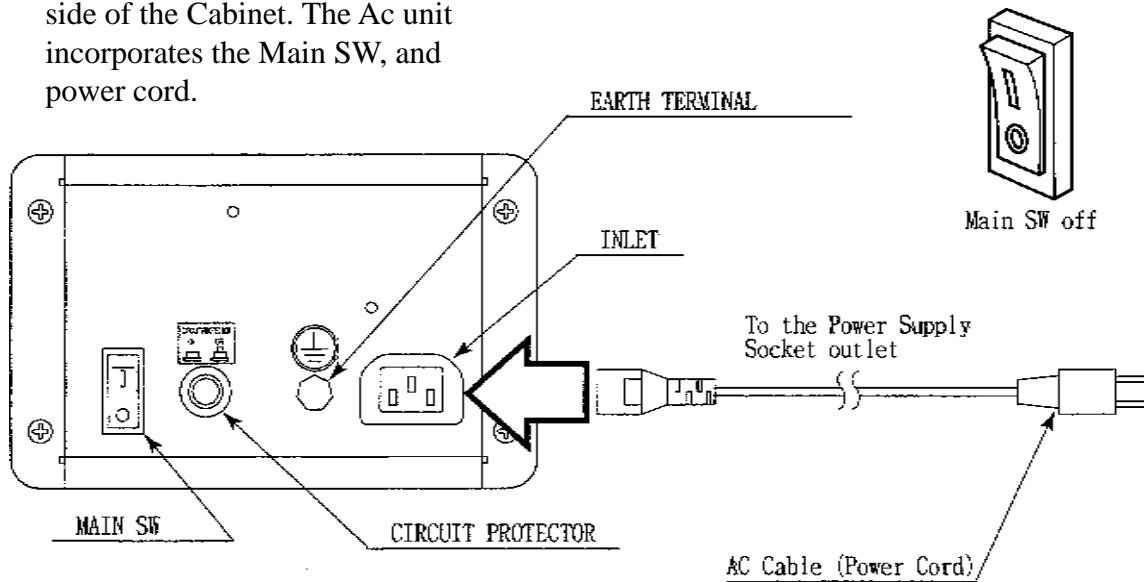
CAUTIONS TO BE HEEDED WHEN TURNING THE POWER ON

WARNING!

First make sure that no one is in the periphery of the bike body and turn the Main SW on. When the power is turned on, the bike body motion starts automatically. The presence of a person(s) in the periphery of the bike can cause an accident. Turning the AC Unit's Main SW on will cause the machine to start the POWER ON check automatically. In the POWER ON check, the bike body banks left and right, then returns to the centering position and stops. During this check, do not touch the bike body. If you do, the body reaction (at the time course-out or crashing) can not be obtained correctly. The Advertise mode is displayed at the same time the checking is finished. An ERROR display is indicated if irregularity is found in the POWER ON check. In case of an irregular reaction during game, turn power off and turn it back on again to finish the POWER ON check.

4 ASSEMBLING CHECK

In the TEST MODE, ensure that the assembly has been made correctly and IC BD is satisfactory (refer to Section 6).
 In the test mode, perform the following test:

```
                    MEMORY TERST

    IC27 GOOD   IC26 GOOD   IC29 GOOD   IC28 GOOD
    IC31 GOOD   IC30 GOOD   IC33 GOOD   IC32 GOOD
    IC35 GOOD   IC34 GOOD   IC37 GOOD   IC36 GOOD
    IC39 GOOD   IC38 GOOD   IC41 GOOD   IC40 GOOD
    IC4  GOOD   IC3  GOOD   IC2  GOOD   IC1  GOOD
    IC8  GOOD   IC7  GOOD   IC6  GOOD   IC5  GOOD
    IC12 GOOD   IC11 GOOD   IC10 GOOD   IC9  GOOD
    IC20 GOOD   IC19 GOOD   IC18 GOOD   IC17 GOOD


    IC16 GOOD   IC15 GOOD   IC14 GOOD   IC13 GOOD
    IC94 GOOD   IC18 GOOD   IC17 GOOD



          PRESS TEST BUTTON TO EXIT
```

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

```
                    INPUT TEST

        X                       --H
        Y                       --H

        EVENT0                  OFF
        EVENT1                  OFF
        FIRE0                   OFF
        FIRE1                   OFF

        COIN CHUTE  #1          OFF
        COIN CHUTE  #2          OFF
        SERVICE                 OFF
        TEST                    OFF

    PRESS TEST AND SERVICE BUTTON TO EXIT
```

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 into the coin inlet with the coin chute door being open. If the display beside each switch indicates "ON," the switch and wiring connections are satisfactory.

```
                    OUTPUT TEST

      > EVENT0
        EVENT1
        PANEL








          PRESS TEST BUTTON TO EXIT
```

```
         SOUND TEST


>  EFFECT      :  SE_COIN
   VOICE       :  SE_its_a_hit
   B.G.M.      :  BM_THEME
   SPEAKER     :  SE_XWSHOT_L
   BGM VOLUME LEVEL      15/15
   SOUND OFF
   EXIT



    SELECT WITH SERVICE BUTTON
     AND PRESS TEST BUTTON
```

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

```
         C. R. T.  TEST      PAGE  1/2

  0              1 5                31

   ┌──────────────────────────────┐
   │              RED             │
   ├──────────────────────────────┤
   │             GREEN            │
   ├──────────────────────────────┤
   │             BLUE             │
   ├──────────────────────────────┤
   │             WHITE            │
   └──────────────────────────────┘

   PRESS  TEST  BUTTON  TO  CONTINUE
```

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 same time of shipment from the factory, color deviation, etc., may occur due to the effect caused by geomagnitism, the location building's steel frames and other game machines in the periphery. By watching the test mode screen, make judgement as to whether an adjustment is needed. If it is neccessary, adjust the monitor by refering to Section 9.

```
              C. R. T.  TEST      PAGE  2/2




   PRESS  TEST  BUTTON  TO  EXIT
```

12

4. PRECAUTIONS TO BE HEEDED WHEN MOVING THE MACHINE

⚠️ **WARNING!**

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

⚠️ **CAUTION!**

Since this machine is a heavy structure of approximately 1000+lbs. its leg adjusters should be retracted when moving the machine over the floor. When moving the machine on the floor with slanted surfaces or step like differences, ensure that the PTV, Front Cabinet and Rear Base are seperated. Lifting the Cabinet with those items as is joined can cause the joint portions to be damaged.

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

Have casters make contact with the floor.
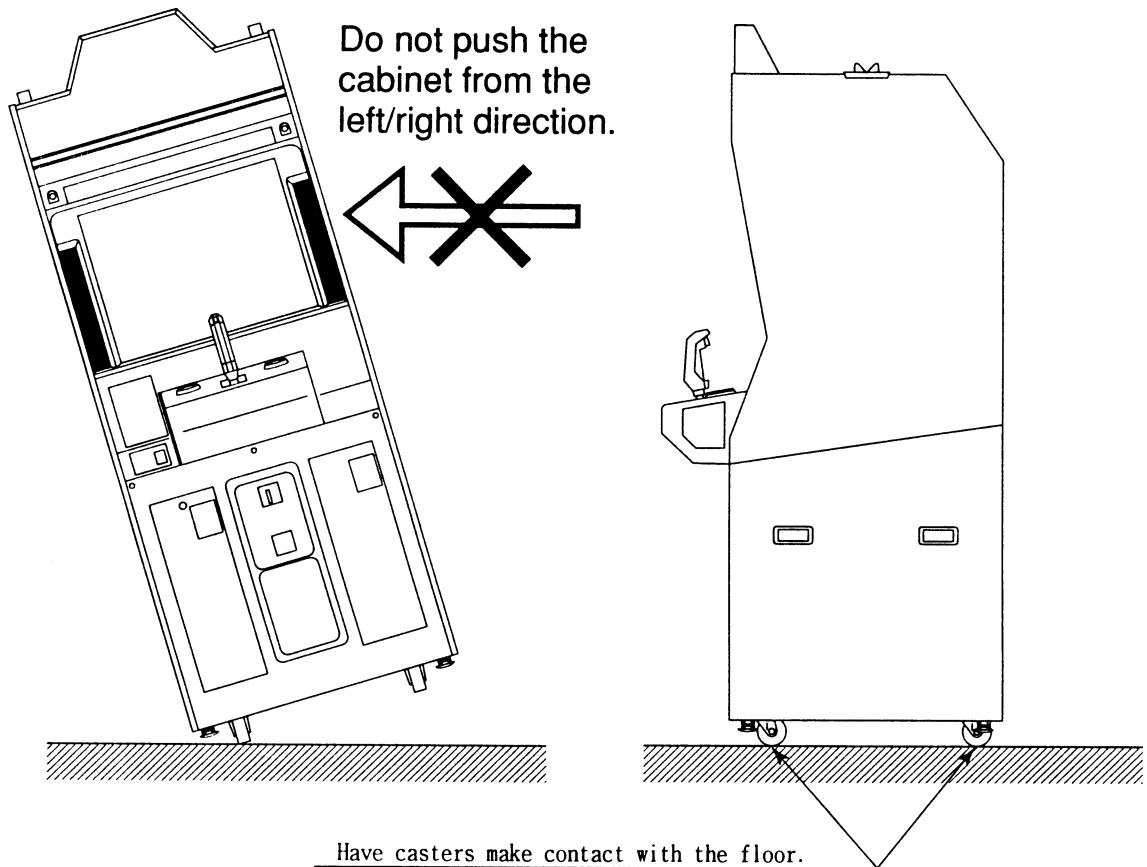
5. CONTENTS OF GAME

The following explanations apply to the case the product is functioning satisfactoriliy. Should there be any moves different from the following contents, some sort of faults may have occurred. Immediately look into the cause of the fault and eliminate the cause thereof to ensure satisfactory operation.
The left/right lamps inside the Control Panel light up during game only.
The EVENT/START button (red buton, one each on the left/right side of LEVER) lights up in particular screens only.

① After inserting one play worth of coin(s), press the EVENT/START button to start, and the STAGE SELECT screen appears.

② At the time of starting the game, only the 3 stages, i.e., "YAVIN," "HOTH," and "ENDOR FOREST" are displayed. By moving the LEVER left/right, select one from among the 3 stages and pull the trigger to decide. (execute the selection).
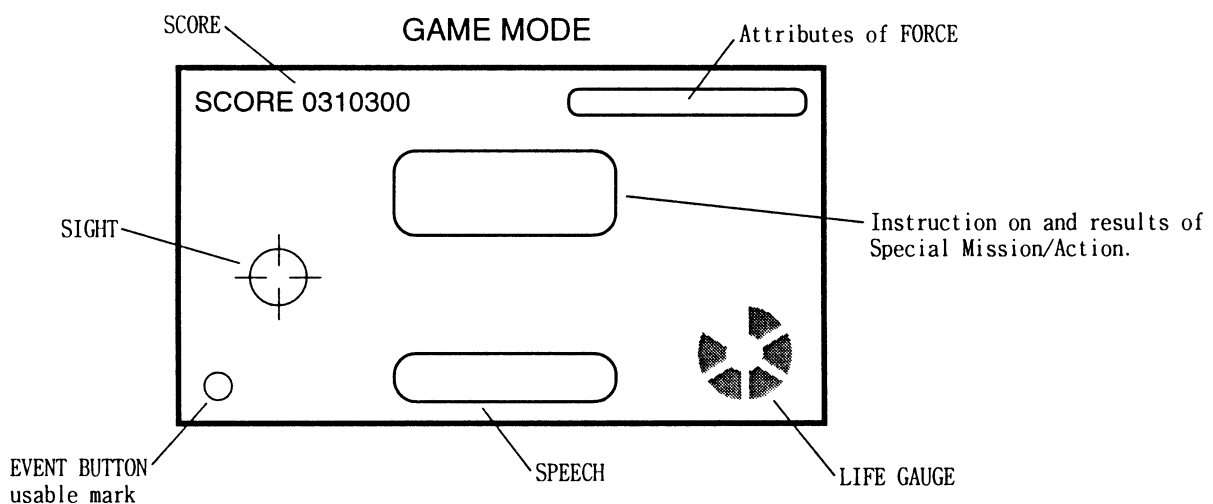
NOTE: The player's flight machine used during game is predetermined per STAGE.

③ After the STAGE is determined, the still screen for loading the game data appears for several seconds (this cannot be skipped). Next, Movie Demo based on that particular STAGE's story setting appears for several seconds (this can be skipped by using the EVENT button).

④ Move the SIGHT by moving the LEVER up/down and left/right, aim at the target and press either the trigger with the forefinger or the thumbs switch with thumb to attack (the function of the trigger at the position corresponding to the forefinger and that of the Thumb SW. at the position corresponding to a thumb identical). It is not necessary to operate the flight machine. In the stage where the player fights while boarding the flight machine, he can continually shoot by keeping the trigger pressed.
The up/down movements of the SIGHT as against the up/down movements of LEVER can be set oppisite each other within the TEST mode.
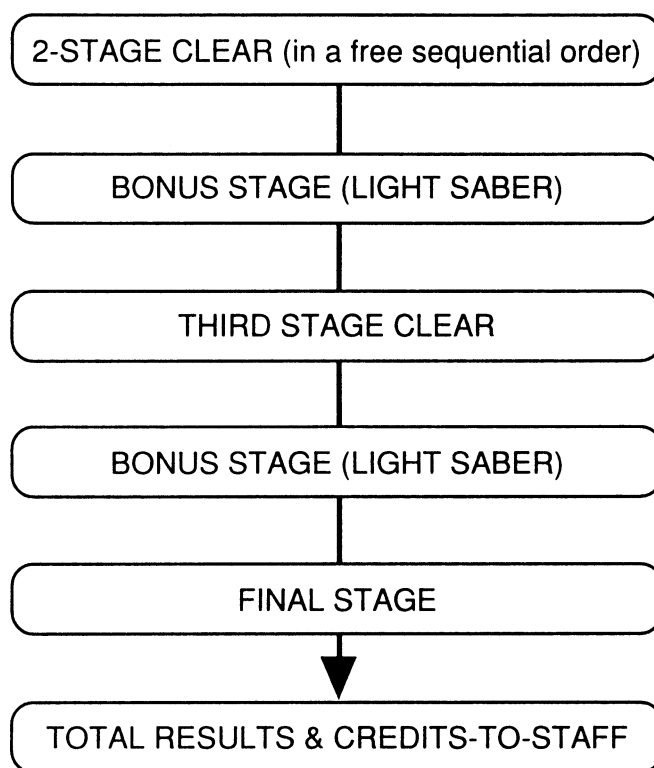

STAGE SELECT
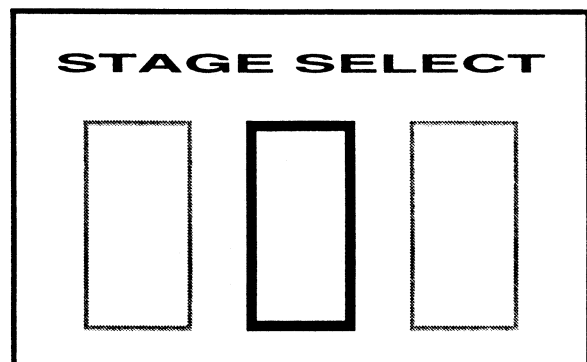
⑤ During game, instruction on Special Mission/Action or hints on play may be displayed at the center of the screen. The player can obtain good results by following the instruction.
During game, SPEECH sound may be emitted on the lower part of the screen. Although hints on play are included sometimes, basically the SPEECH expressions are intended for presentation effects and do not affect game proceeding.

GAME MODE

SCORE

Attributes of FORCE

SCORE 0310300

Instruction on and results of Special Mission/Action.

SIGHT

EVENT BUTTON usable mark

SPEECH

LIFE GAUGE

14

⑥ If the LIFE GAUGE on the lower right side of the screen is depleted, on-screen movements stop and CONTINUE YES or NO is questioned. to continue, insert the necessary number of coins, select YES by moving the LEVER left/ right, and then press the EVENT/START button. In case the count becomes 0 (zero), or if NO is selected and EVENT /START button is pressed, continue play is not possible. If CONTINUE is not selected, the present on-stage results are displayed, then the game is over.
(On the still screen for CONTINUE confirmation, the background of screen may become red sometimes, but this is only for presentation effects shown momentarily at the time of being subject to damage and does not mean any irregularity. The status will be restored to the normal background at the same time game restarts.

⑦ If all of the 3 STAGES shown at first in the STAGE SELECT screen are cleared, the 4th (FINAL) stage appears. When all of the above stages are cleared, game results are shown and then credits-to-staff are displayed. Credits-to-staff can skipped by using the EVENT/START button.

GAME FLOW

2-STAGE CLEAR (in a free sequential order)

|

BONUS STAGE (LIGHT SABER)

|

THIRD STAGE CLEAR

|

BONUS STAGE (LIGHT SABER)

|

FINAL STAGE

↓

TOTAL RESULTS & CREDITS-TO-STAFF

In a specific scene, the on-screen message may insruct you to press the EVENT button. Press either the left/right EVENT buttons as these have the same function.
Even when no particular insruction is given, if a mark is indicated on the lower left side of the screen, or when the Cabinet's EVENT buton is lit, some sort of effects can be obtained (for example, a covering fighter appears) by pressing the button. The type of the effects differs depending on the specific scene and stage.
There will be no adverse effect on the proceeding of game play if the button is not pressed.
This feature is intended for enabling the player to enjoy playing the game better.
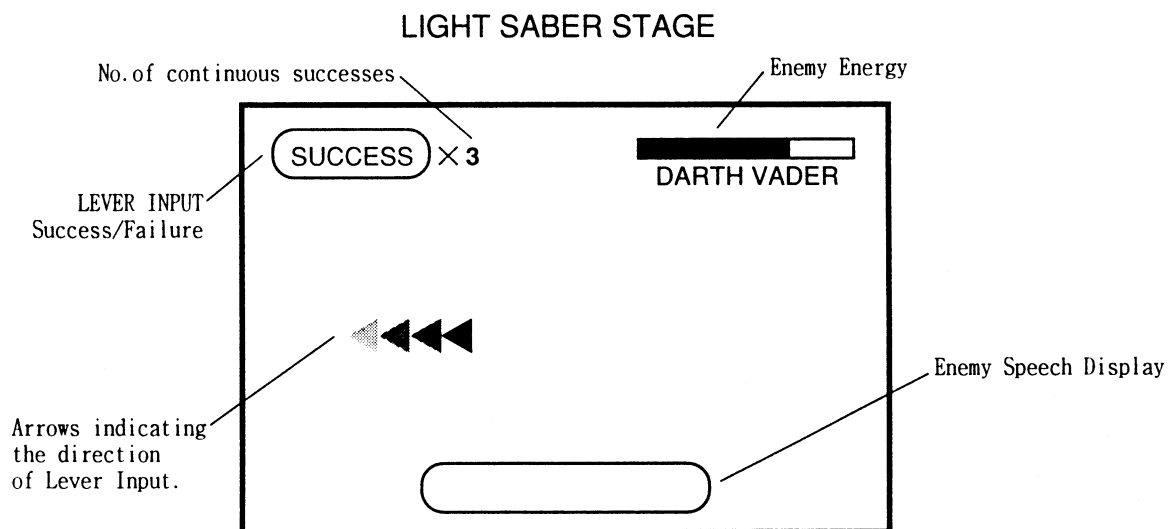
ATTRIBUTES BUTTON

The features of FORCE vary in 6 catagories depending on the actions taken during the game, and influence the performance of score, attack, and defense. Taking actions favorable to friends (by saving them for example) causes LIGHT LEVEL to vary from 1 up to 3. On the contrary, doing things unfavorable to friends (by attacking them for example) causes DARK LEVEL to vary from 1 up to 3. The conditions of variation are not displayed in details. The features are intended to allow players to enjoy playing game fully in depth.

LIGHT SABER STAGE

In the LIGHT SABER STAGE (a breif stage in which the player uses a LIGHT SABER), keep inputting the Lever in the direction of the on-screen arrow to proceed with game play.

This is completely a BONUS STAGE and there will be no game over in the middle of play.

The LIGHT SABER STAGE appears once when 2 of the 3 stages are cleared in a free sequential order, and once again when the remaining stage is cleared. (Not displaying at the time of game start).

LIGHT SABER STAGE

No.of continuous successes

Enemy Energy

SUCCESS ✕ 3

DARTH VADER

LEVER INPUT
Success/Failure

Enemy Speech Display

Arrows indicating
the direction
of Lever Input.

6. EXPLANATION OF TEST AND DATA DISPLAY

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

TABLE 6   EXPLANATION OF TEST MODE

| ITEMS	DESCRIPTION	SECTIONS
INSTALLATION OF MACHINE	When the machine is installed, perform the following: 1. Check to see that each setting is as per standard setting made at the time of shipment.	6 - 8, 6 - 9, 6 - 10
	2. In the INPUT TEST mode, check each SW and VR.	6 - 4
	3. In the OUTPUT TEST mode, check each of lamps.	6 - 7
	4. In the MEMORY TEST mode, check ICs on the IC Board.	6 - 3
MEMORY	Choose MEMORY TEST in the MENU mode to allow the MEMORY test to be performed. In this test, PROGRAM RAMs, ROMs, and ICs on the IC Board are checked.	6 - 3
PERIODIC SERVICING	Periodically perform the following: 1. MEMORY TEST	6 - 3
	2. Ascertain each setting.	6 - 8, 6 - 9
	3. In the INPUT TEST mode, test the CONTROL device	6 - 4
	4. In the OUTPUT TEST mode, check each of the lamps.	6 - 7
CONTROL SYSTEM	1. In the INPUT TEST mode, check each SW and VR.	6 - 4
	2. Adjust or replace each SW and VR.	7
	3.If the problem hasn't been solved yet, check the CONTROL's moves.	7
MONITOR	In the MONITOR ADJUSTMENT mode, check to see if the PROJECTOR adjustment is appropriately made.	9
IC BOARD	1. MEMORY TEST	6 - 3
	2. In the SOUND TEST mode, check the sound related ROMs.	6 - 5
DATA CHECK	Check such data as game play time and histogram to adjust the difficulty level, etc	6 - 11

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⚠ **WARNING!**

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

🛑 **IMPORTANT!**

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

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

① SOUND VOLUME SPEAKER
Controls the speaker volume ofall of the machines speakers.

② SOUND VOLUME WOOFER
Controls the speaker volume only for SEAT & BASE Woofer.

③ TEST BUTTON (TEST SW)
For the handling of the TEST BUTTON, refer to the section on test mode.

④ SERVICE BUTTON (SERVICESW)
Gives credits without registering on the coin meter.

COIN METER

SUPER WOOFER VOLUME   TEST BUTTON
SPEAKER VOLUME   SERVICE BUTTON

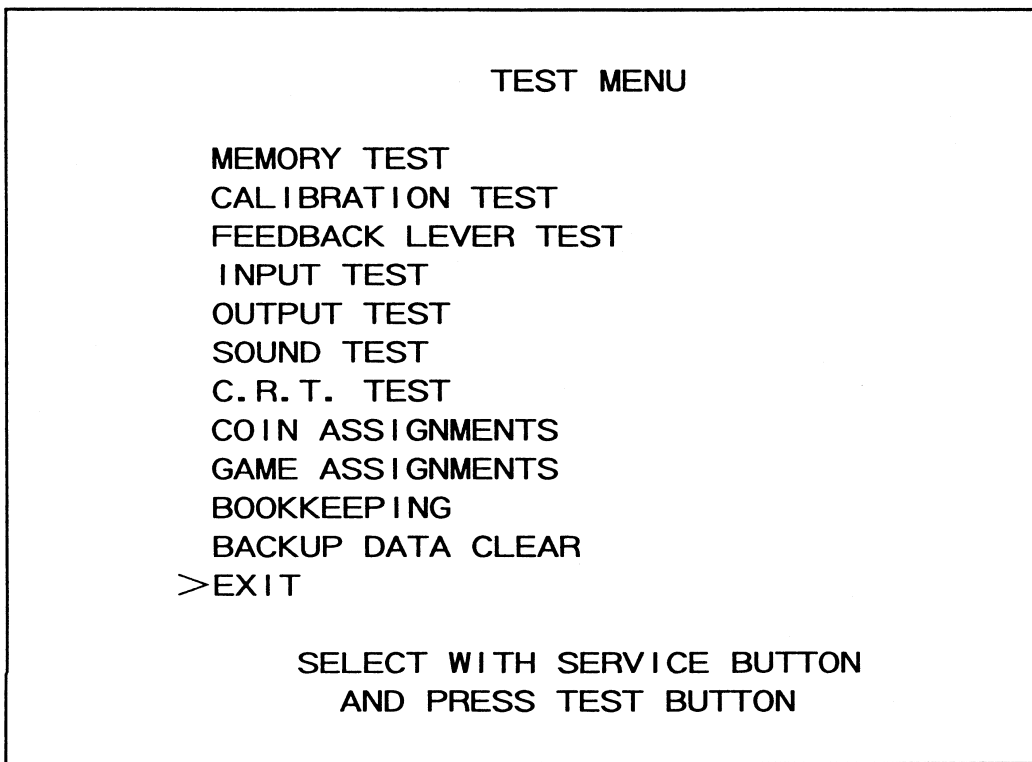| SPEAKER | SUPER WOOFER | TEST | SERVICE |
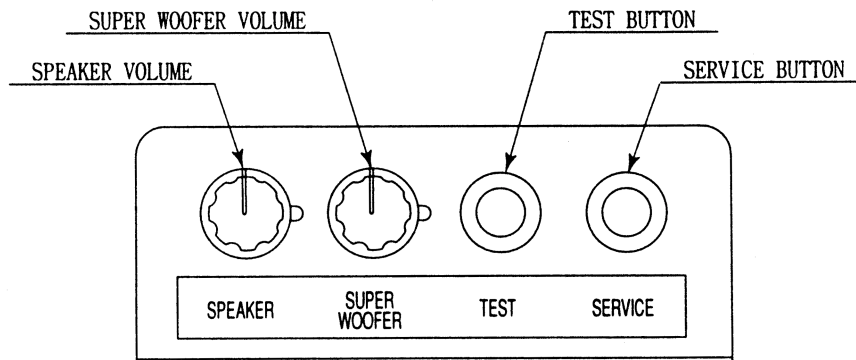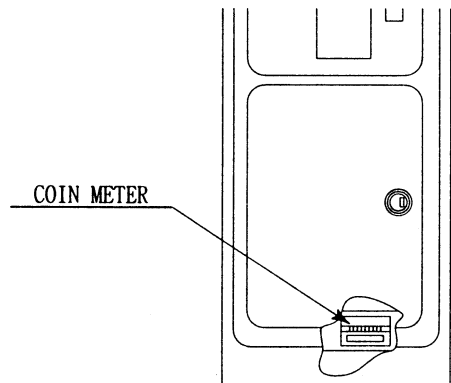
STOP
IMPORTANT!

In case settings are changed in GAME ASSIGNMENTS, COIN ASSIGNMENT the setting changes are not effective unless the test mode is exited and the game mode returns to the screen. The setting changes are ineffective if the power is turned off in the test mode.

The TEST MODE 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.

SELECTION OF TEST ITEMS

```
                    TEST MENU

        MEMORY TEST
        CALIBRATION TEST
        FEEDBACK LEVER TEST
        INPUT TEST
        OUTPUT TEST
        SOUND TEST
        C.R.T. TEST
        COIN ASSIGNMENTS
        GAME ASSIGNMENTS
        BOOKKEEPING
        BACKUP DATA CLEAR
      >EXIT

           SELECT WITH SERVICE BUTTON
             AND PRESS TEST BUTTON
```

● Press the TEST BUTTON to have the menu displayed on the screen.

● Press the SERVICE BUTTON until the pointer is moved to the desired item to make a selection.

● Bring the pointer to the desired item and press the TEST BUTTON to enter the selected item's test.

6 -3 MEMORY TEST

```
              MEMORY TERST

IC27 GOOD   IC26 GOOD   IC29 GOOD   IC28 GOOD
IC31 GOOD   IC30 GOOD   IC33 GOOD   IC32 GOOD
IC35 GOOD   IC34 GOOD   IC37 GOOD   IC36 GOOD
IC39 GOOD   IC38 GOOD   IC41 GOOD   IC40 GOOD
IC4  GOOD   IC3  GOOD   IC2  GOOD   IC1  GOOD
IC8  GOOD   IC7  GOOD   IC6  GOOD   IC5  GOOD
IC12 GOOD   IC11 GOOD   IC10 GOOD   IC9  GOOD
IC20 GOOD   IC19 GOOD   IC18 GOOD   IC17 GOOD


IC16 GOOD   IC15 GOOD   IC14 GOOD   IC13 GOOD
IC94 GOOD   IC18 GOOD   IC17 GOOD


        PRESS TEST BUTTON TO EXIT
```

The MEMORY TEST mode is for checking the on-BD memory IC functioning.
"GOOD" is displayed for normal ICs and "BAD" is displayed for abnormal ICs

● When the test is completed, if the display is as shown left, it is satisfactory.

● After finishing the test, pressing the TEST BUTTON allows the MENU MODE to return on the screen.

6 - 4 CALIBRATION TEST

```
            CALIBRATION TEST

  FLIP LEVER          Up→Down,  Down→Up
  SETUP CALIBRATION
> EXIT




        X MIN ___ CENTER ___ MAX ___
        Y MIN ___ CENTER ___ MAX ___
        X CURRENT VALUE ___
        Y CURRENT VALUE ___


        SELECT WITH SERVICE BUTTON
          AND PRESS TEST BUTTON
```

Selecting CALIBRATION TEST causes the following screen to appear and allows the CONTROLLER's sight tobe set.

● By pressing the SERVICE BUTTON, move the arrow (>) to the desired test item.

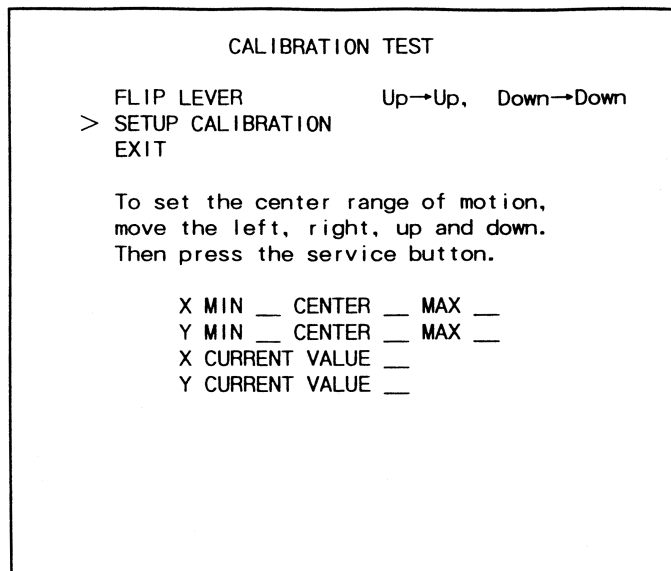● Press the TEST BUTTON to select test item.

```
            CALIBRATION TEST

  FLIP LEVER          Up→Up,  Down→Down
> SETUP CALIBRATION
  EXIT

  To set the center position for the controller
  leave the controler centered
  and press the service button.

        X MIN ___ CENTER ___ MAX ___
        Y MIN ___ CENTER ___ MAX ___
        X CURRENT VALUE ___
        Y CURRENT VALUE ___
```
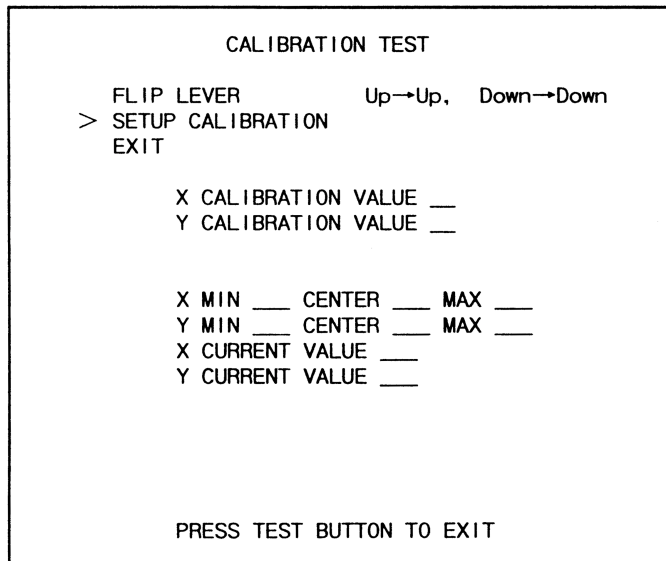
```
          CALIBRATION TEST

FLIP LEVER              Up→Up,  Down→Down
> SETUP CALIBRATION
  EXIT

  To set the center range of motion,
  move the left, right, up and down.
  Then press the service button.

       X MIN __ CENTER __ MAX __
       Y MIN __ CENTER __ MAX __
       X CURRENT VALUE __
       Y CURRENT VALUE __
```

```
          CALIBRATION TEST

  FLIP LEVER            Up→Up,  Down→Down
> SETUP CALIBRATION
  EXIT

       X CALIBRATION VALUE __
       Y CALIBRATION VALUE __


       X MIN ___ CENTER ___ MAX ___
       Y MIN ___ CENTER ___ MAX ___
       X CURRENT VALUE ___
       Y CURRENT VALUE ___




       PRESS TEST BUTTON TO EXIT
```

● FLIP LEVER
Used to intentionially reverse the move-
ments of SIGHT up/down as against
LEVER up/down.

● SETUP CALIBRATION
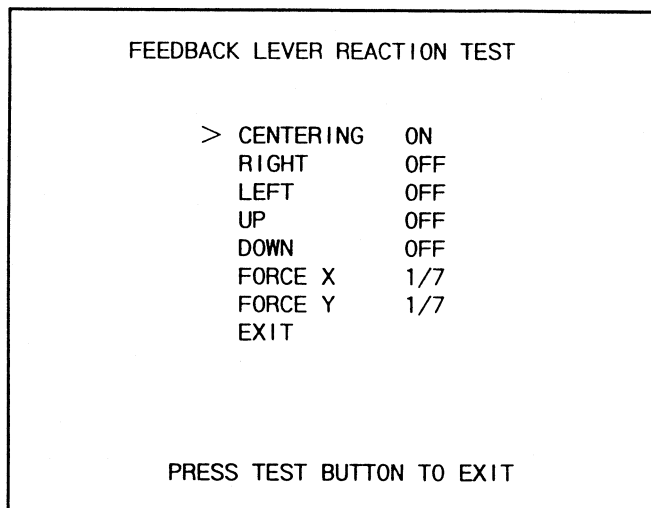Refer to the following screen and explana-
tions.

Move the arrow (>) to SETUP CALIBRA-
TION and then press the TEST BUTTON
to display the following message: "To set
the Center position for the controller, leave
the controller centered and press the
service button."
Leave the Lever centered, press the service
button CALIBRATION TEST (3), move
the Lever fully up/down & left/right, and
then press the service button (CALIBRA-
TION(2)).
Select EXIT and press the TEST BUTTON
to returnt o the Menu Mode.

6 -5 FEEDBACK LEVER REACTION TEST

```
     FEEDBACK LEVER REACTION TEST


       > CENTERING    ON
         RIGHT        OFF
         LEFT         OFF
         UP           OFF
         DOWN         OFF
         FORCE X      1/7
         FORCE Y      1/7
         EXIT




       PRESS TEST BUTTON TO EXIT
```

In this test, check the reaction of Controller
(lever).

● CENTERING
This refers to the force to return the Lever
to the center.

● FORCE X, FORCE Y
Allows for by-direction testing (up/down
and left/right)
Keep the Test Button pressed down to have
the Lever move automatically.

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6 - 6 INPUT TEST

When INPUT TEST is selected, the MONITOR will show the following, allowing you
to watch the status of each switch.
On the screen, periodically check the status of each switch.

```
                INPUT TEST

        X                       --H
        Y                       --H

        EVENT0                  OFF
        EVENT1                  OFF
        FIRE0                   OFF
        FIRE1                   OFF

        COIN CHUTE  #1          OFF
        COIN CHUTE  #2          OFF
        SERVICE                 OFF
        TEST                    OFF

    PRESS TEST AND SERVICE BUTTON TO EXIT
```

● By pressing each switch, if the display
on the righthand side of the name of
each switch changes to ON from OFF,
the SW and the wiring connections are
satisfactory.

● Open the COIN CHUTE DOOR and
insert a coin from the COIN ENRTY to
check the COIN CHUTE SW.

In the INPUT test, pressing the TEST
BUTTON causes the menu to return to
the screen.

6 - 7 OUTPUT TEST

Choose OUTPUT TEST to have the MONITOR screen shown left to appear. This screen allows
lamp status to be checked.Periodically check the lamp status in this mode.

```
                OUTPUT TEST


        >  EVENT0
           EVENT1
           PANEL







            PRESS TEST BUTTON TO EXIT
```

● Press the SERVICE BUTTON to move
the arrow to the desired lamp test item.

● Press the TEST BUTTON. If the display
to the right of the lamp name changes to
ON from OFF, the lamp and wiring
connection are satisfactory.

● Choose EXIT and press the TEST BUT-
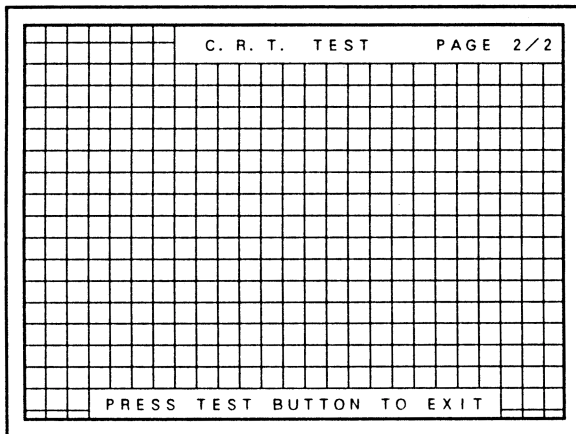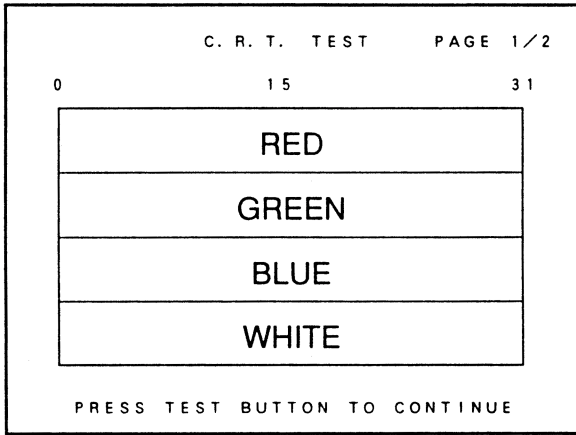TON to return to MENU mode (FIG. 6.2).

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6 - 8 SOUND TEST

```
┌─────────────────────────────────────┐
│             SOUND TEST              │
│                                     │
│                                     │
│   > EFFECT    :  SE_COIN           │
│     VOICE     :  SE_its_a_hit      │
│     B.G.M.    :  BM_THEME          │
│     SPEAKER   :  SE_XWSHOT_L       │
│     BGM VOLUME LEVEL      15/15    │
│     SOUND OFF                      │
│     EXIT                           │
│                                     │
│                                     │
│     SELECT WITH SERVICE BUTTON     │
│       AND PRESS TEST BUTTON        │
│                                     │
└─────────────────────────────────────┘
```

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

● EFFECT:
Sound Effects during game.

● VOICE:
Voice of annuocment and narration during game.

● B.G.M.:
Background music during game.

● SPEAKER:
SE Speaker check.

● BGM VOLUME LEVEL:
BGM sound level 0/15(low)~15/15(high).

● SOUND OFF:
Output sound are all off.

● Press the Service button and move the arrow to select the desired type.

● Press the TEST button to have teh desired type of sound emitted.

● Everytime the TEST button is pressed, the next sound is emitted.

● To return to the MENU MODE, select EXIT and press the TEST button.

```
          C. R. T.   TEST        PAGE  1 ∕ 2

 0                   1 5                      3 1

        ┌─────────────────────────────┐
        │             RED             │
        ├─────────────────────────────┤
        │            GREEN            │
        ├─────────────────────────────┤
        │            BLUE             │
        ├─────────────────────────────┤
        │            WHITE            │
        └─────────────────────────────┘

     P R E S S   T E S T   B U T T O N   T O   C O N T I N U E
```

```
          C. R. T.   TEST        PAGE  2 ∕ 2




     P R E S S   T E S T   B U T T O N   T O   E X I T
```

● Select C.R.T. TEST to cause the MONI-TOR to display the screen shown left, allowing MONITOR adjustment status to
● be checked.

Periodically check the MONITOR adjustment status on this screen.

The screen (1/2) enables color adjustment check to be performed. The color bar of each of the 4 colors, i.e.,red, green, blue, and white, is the darkest at the extreme left and becomes brighter towards the extreme right.

Press the TEST BUTTON to shift to the next page (2/2).

● The screen (2/2) allows screen size and distortion to be tested.

Check if the CROSSHATCH FRAME LINE goes out of the screen and if the crosshatch lines are distorted.

Press the TEST BUTTON to return to the MENU mode.

6 - 10 GAME ASSIGNMENTS

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

SETTING CHANGE PROCEDURE

STOP

IMPORTANT!

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

(1) Press the SERVICE BUTTON to move the arrow to the desired item.

(2) Choose the desired setting change item by using the TEST BUTTON.

(3) To return to the MENU mode, move the arrow to EXIT and press the TEST BUTTON.

```
                GAME ASSIGNMENTS


    >  COUNTRY              EXPORT
       ADVERTISE SOUND      ON
       DIFFICULTY           NORMAL
       CABINET TYPE         DX
       FEED BACK LEVER      ENABLE
       EXIT




          SELECT WITH SERVICE BUTTON
           AND PRESS TEST BUTTON
```

These FIGURES/ TABLES show the factory recommended settings.

● GAME DIFFICULTY
This game allows by-course difficulty level to be set in 4 levels. Depending on the difficulty level set, the intial time varies.

● ADVERTISE SOUND
Setting of sound during Advertise. ON(sound to be emitted), OFF(sound not to be emitted).

● CABINET TYPE
Setting of cabinet. Set to DELUXE for this machine.

● CONTROLLER REACTION
Sets the Controller's vibration strength and off for no vibration.

● COUNTRY
Message language.

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

SETTING CHANGE PROCEDURE

STOP IMPORTANT!

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

① Press the SERVICE BUTTON to move the arrow to the desired item.

② Choose the desired setting change item by using the TEST BUTTON.

③ To return to the MENU mode, move the arrow to EXIT and press the TEST BUTTON.

```
          COIN ASSIGNMENTS

    CREDIT TO START    1 CREDIT
            CONTINUE   1 CREDIT

  > COIN/CREDIT SETTING #1

    COIN CHUTE #1   1COIN 1CREDIT

    COIN CHUTE #2   1COIN 1CREDIT


    MANUAL SETTING
    EXIT


       SELECT WITH SERVICE BUTTON
         AND PRESS TEST BUTTON
```

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

COMMON:
Coins are accepted in common for both players.

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

● CREDIT TO START
Number of credits required for starting game (1~5 credits are selected.)

● CREDIT TO CONTINUE
Number of credits required for continuing game (1~5 credits are selected.)

● COIN/CREDIT SETTING
Sets the CREDITS increase increment per coin insertion. There are 27 setings from #1 to #27, expressed in XX CREDIT as against XX COINS inserted. (TABLE 6.10a, 6.10b) #27 refers to FREE PLAY.
When the COIN CHUTE TYPE is set to INDIVIDUAL, there are some setting numbers not displayed as indicated in TABLE 6.10b.

● MANUAL SETTING
This allows credit increase setting as against coin insertion to be further set in the manner finer than COIN/CREDIT SETTING (refer to TABLE 6.10c).

TABLE 6.11a COIN/CREDIT SETTING (COIN CHUTE COMMON TYPE)

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

27

TABLE 6.11b COIN/CREDIT SETTING (COIN CHUTE INDIVIDUAL TYPE)

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

MANUAL SETTING

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

```
                    MANUAL SETTING

COIN TO CREDIT                  1 COIN      1 CREDIT    — — — — ①

BONUS ADDER                  NO BONUS ADDER             — — — — — ②


COIN CHUTE #1 MULTIPLIER                             — — — — — — — ③
  1 COIN COUNTS AS 1 COIN
  COIN      1    2    3    4    5    6    7    8    9
  CREDIT    1    2    3    4    5    6    7    8    9

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

>EXIT

            SELECT WITH SERVICE BUTTON
              AND PRESS TEST BUTTON
```
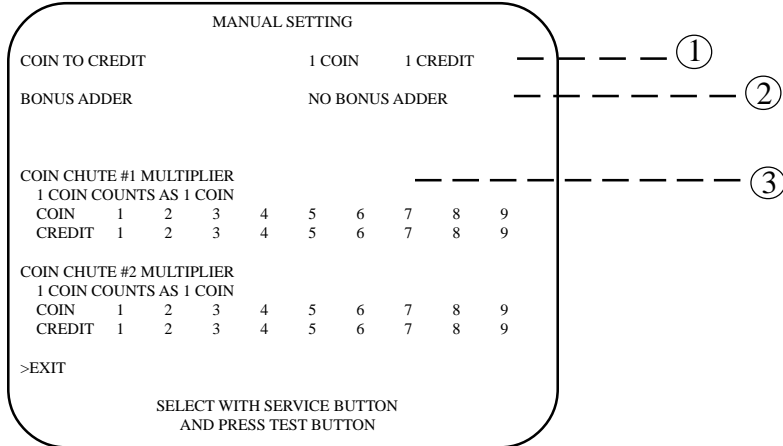
FIG. 6.11b MANUAL SETTING

① Determines Coin/Credit setting.

② This sets how many coins should be inserted to obtain one Service Coin.

③ This sets how many tokens one coin represents.

Table 6.11c MANUAL SETTING

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

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

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

6 - 12 BOOKKEEPING

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

```
                    BOOKKEEPING

         COIN CHUTE #1              1
         COIN CHUTE #2              0
         TOTAL COIN                 1

         COIN      CREDIT      1
         SERVICE CREDIT        0
         TOTAL     CREDIT      1
         NUMBER OF GAMES        1
   TOTAL TIME                 0D  2H  0M  0S
   PLAY TIME                       0H  3M30S
   AVERAGE  PLAY TIME              0H  3M30S
   LONGEST  PLAY TIME              0H  3M30S
   SHORTEST PLAY TIME              0H  3M30S

                 TIME HISTOGRAM

    0M  0S~1M59S            ---->        0
    2M  0S~2M29S            ---->        0
    2M30S~2M59S            ---->        0
    3M  0S~3M29S            ---->        0
    3M30S~3M59S            ---->        0
    4M  0S~4M29S            ---->        0
    4M30S~4M59S            ---->        0
    5M  0S~5M29S            ---->        0
    5M30S~5M59S            ---->        0
    6M  0S~6M29S            ---->        0
    OVER6M30S               ---->        0

           PRESS TEST BUTTON TO EXIT
```

● COIN CHUTE#*:
Number of coins put in each Coin Chute.

● TOTAL COINS:
Total number of activations of Coin Chutes.

● COIN CREDITS:
Number of credits registered by inserting coins.

● SERVICE CREDITS:
Credits registered by the SERVICE BUTTON.

● TOTAL CREDITS:
Total number of credits (COIN CREDITS+SERVICE CREDITS).

● TOTAL TIME:
The total energized time.

6 - 13 BACKUP DATA CLEAR

```
         BACKUP  DATA  CLEAR




            YES    (CLEAR )
        >   NO     (CANCEL)






      SELECT  WITH  SERVICE  BUTTON
        AND  PRESS  TEST  BUTTON
```

Clears the contents of BOOKKEEPING and high score player ranking entry. When clearing, bring the arrow to "YES" and when not clearing, to "NO", by using the SERVICE BUTTON, and push the TEST BUTTON.
When the data has been cleared, "COM-PLETED" will be displayed. Bring the arrow to "NO" and press the TEST BUTTON to cause the MENU mode to return on to the screen.
Note that the contents of the game setting and sighting adjustment are not affected by BACKUP DATA CLEAR operation.

7. CONTROLLER

7 - 1 REPLACING THE VOLUME

① Take out the 2 screws, remove the right-hand side Plate and the Clamp which binds the wiring. Be sure to remove the Clamp first before disconnecting the Connector.

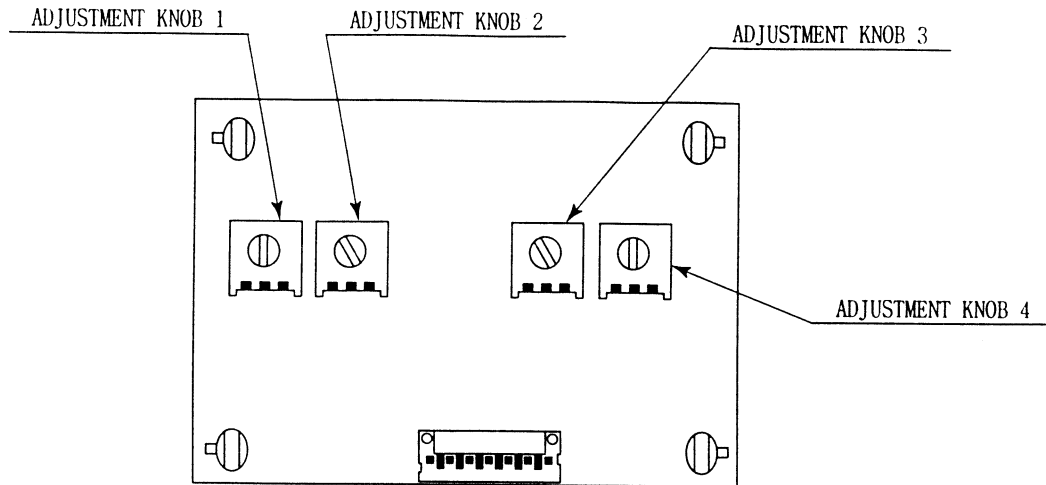② Take out the 7 screws and remove the Control Panel Plate.

TAMPERPROOF SCREW (7) black
M4×10, flat washer used

CONTROL PANEL PLATE

Disconnect the Connector.

TRUSS SCREW(2)
M4×8, black

Be sure to remove the Clamp (which binds the wiring) first before disconnecting the Connector.
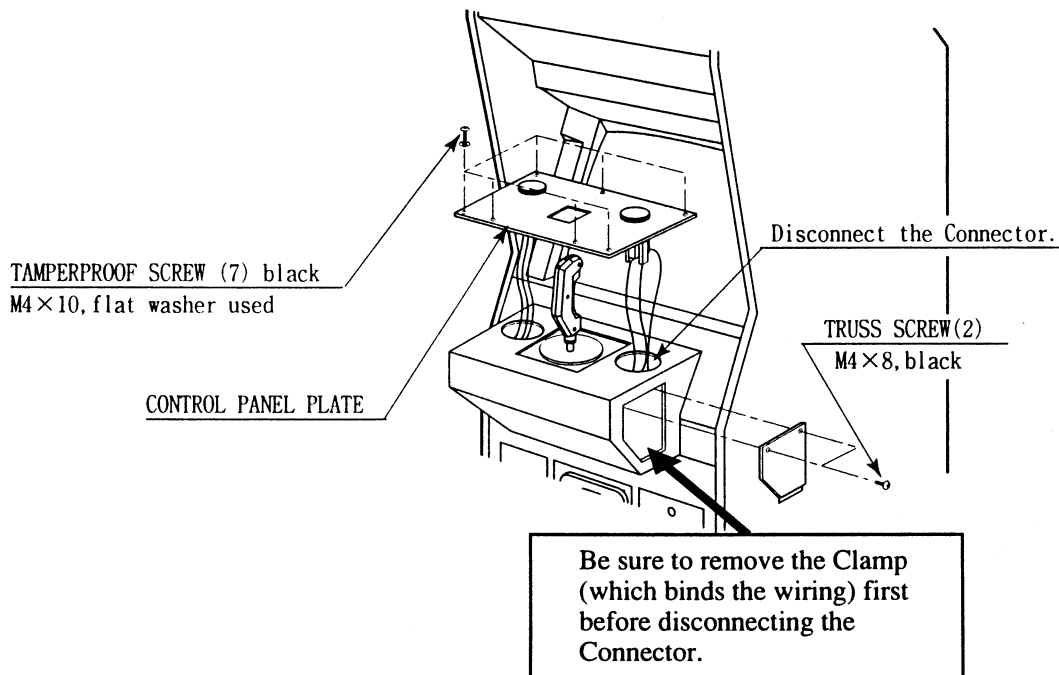
③ Remove the 4 screws and pull out the Controller.

SCREW (4)
M5 × 10,
w/flat and spring washers
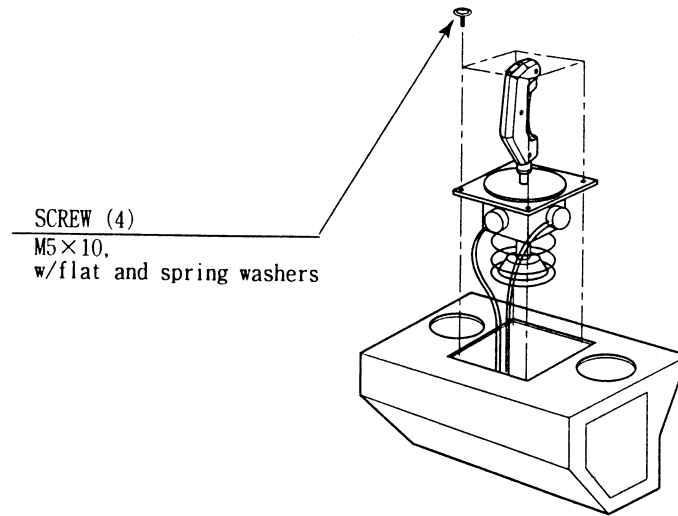
④ Remove the 4 screws and replace the Volume.

VOLUME
220-5485

SCREW(4)
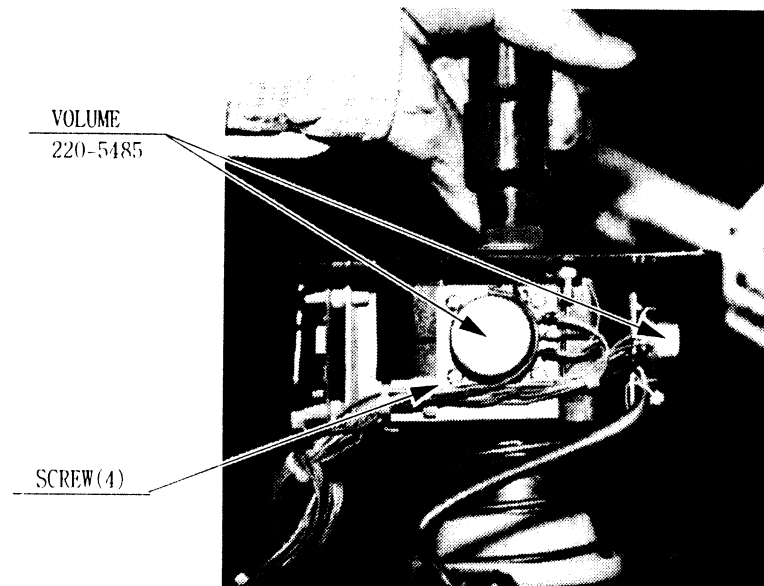
7 - 2 AMP BD ADJUSTING METHOD

ADJUSTMENT KNOB 1   ADJUSTMENT KNOB 2   ADJUSTMENT KNOB 3

ADJUSTMENT KNOB 4

Remove the right-hand side plate, and the Amp BD appears on the upper left portion. Adjust the (CONTROL-LER SIDE) ADJUSTMENT KNOB by using a 'flat-blade' driver.

    ADJUSTMENT KNOB 1 (VR1):
        Adjusts the center position in the UP/DOWN direction.

    ADJUSTMENT KNOB 2 (VR2):
        Adjusts the amplifying ration in the UP/DOWN direction.

    ADJUSTMENT KNOB 3 (VR3):
        Adjusts the amplifying ration in the RIGHT/LEFT direction.

    ADJUSTMENT KNOB 4 (VR4):
        Adjusts the center position in the RIGHT/LEFT direction.

    ADJUSTMENT EXAMPLE: First, cause the INPUT TEST screen to appear.

1.) Set Adjustment Knob (VR1)~(VR4) to the center position.

2.) Facing the Y Axis (up/down direction), bring the Lever to the top limit and move VR2 to make adjustment within the range of 30~3F.

3.) Bring the Lever to the lower limit, move the VR1 to make adjustment within the range of C0~CF. Repeat procedure (2) and (3) several times and make adjustments within the range of the top limit of 30~3F and the lower limit of C0~CF.

4.) Facing the X Axis (left/right direction), incline in the lever to the extreme right-hand end and move VR4 to make adjustment within the range of 30~3F.

5.) Incline the Lever to the extreme left-hand side and move VR3 to make adjustment within the range of C0~CF. Repeat procedure (4) and (5) sevral times and make adjustment wihtin th erange of right-hand limit of 30~3F and the left-hand limit of C0~CF.

⚠ **CAUTION!**

> Do not touch places other than those specified. Touching places not specified can cause an electric shock or short circuit accident. Be sure to use the designated grease. Using undesiganted grease can cause parts damage.
> Do not apply greasing to undesignated places. Failure to observe this can cause malfunctioning or quality deterioration of parts.

Apply spray greasing once every 6 months to the 2 places shown in the figure below, where the spring and gear are engaged. For spray grease, use NOK KLUBER L60 or GREASE MATE.
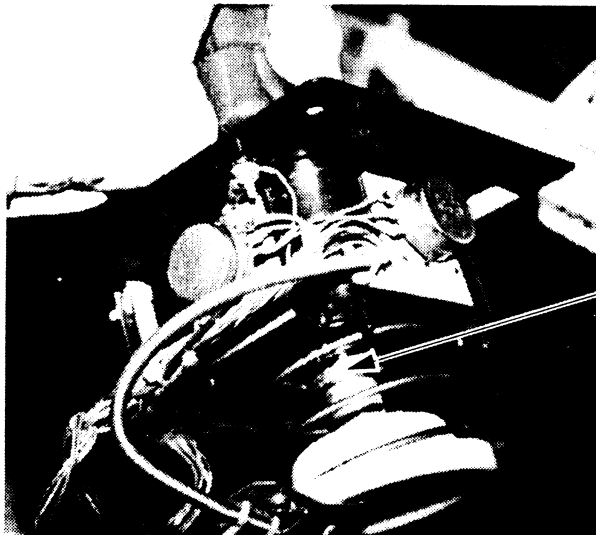
SHAFT'S MOVABLE PORTION

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⚠ **WARNING!**

The Controller has some small parts. When dissassembling, be very careful so as not to lose parts.

When the Trigger SW is pushed, if the INPUT TEST screen does not display "ON", the switch inside the GRIP may be malfunctioning and in this case, switch replacement is needed.

① Remove the screw and disassemble the GRIP

GRIP

TRUSS SCREW
M3

② Replace the Switch.

TAMPERPROOF SCREW
M4

THUMB SW
509-5677

TRIGGER SW
509-5664

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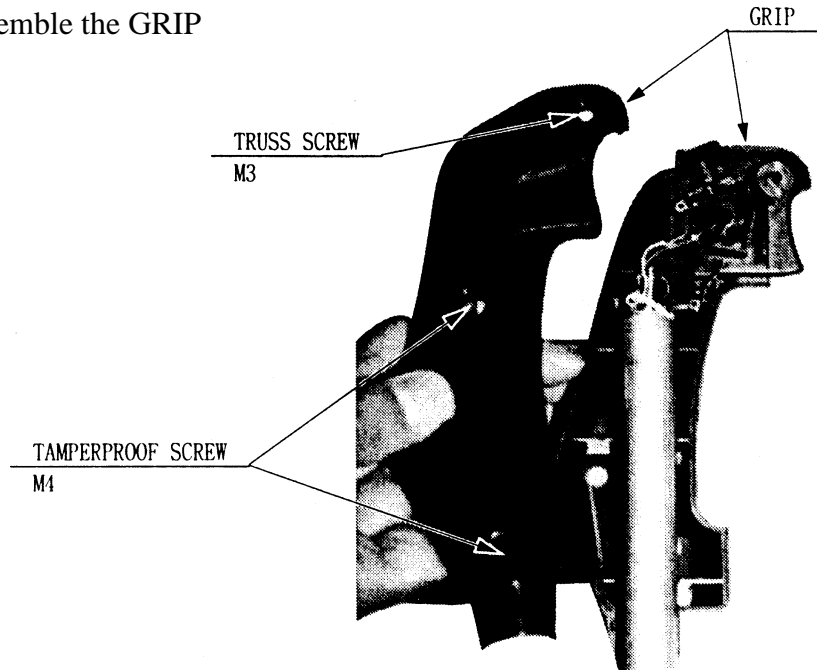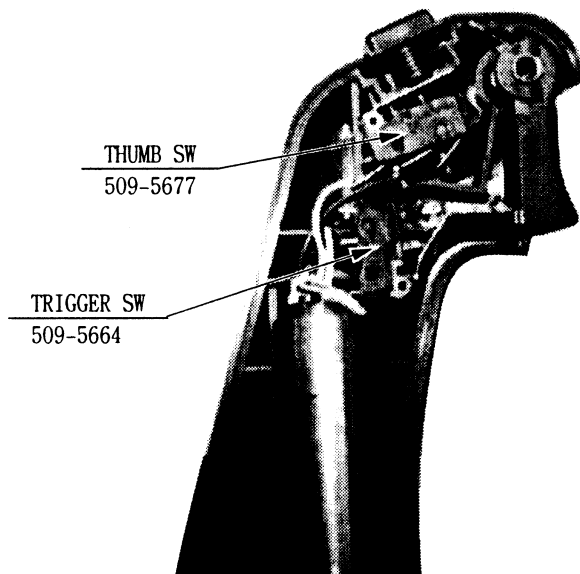
8. COIN SELECTOR

HANDLING THE COIN JAM

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

CLEANING THE COIN SELECTOR

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

① Turn the power for the machine OFF. Open the coin chute door.

② Open the gate and dust off by using a soft brush (made of wool, etc.).

③ Remove and clean smears by using a soft cloth dipped in water or diluted chemical detergent and then squeezed dry.

④ Remove the CRADLE.
When removing the retaining ring(E-ring), be very careful so as not to bend the shaft.

⑤ Remove stain from the shaft and pillow portions by wiping off with a soft cloth, etc.

⑥ After wiping as per #5 above, further apply a dry cloth, etc. to cause the coin selector to dry completely.
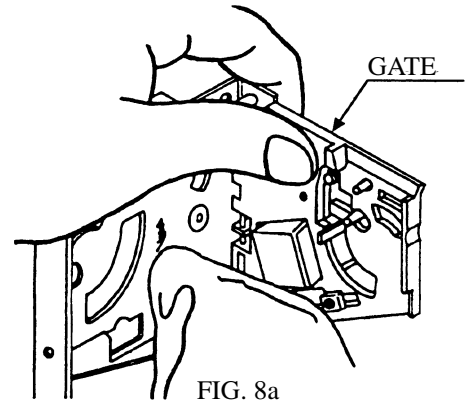
FIG. 8a
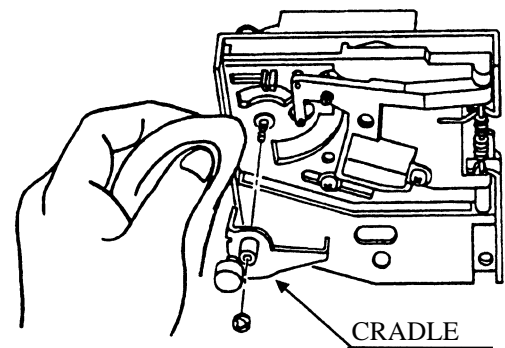
FIG.8b

STOP **IMPORTANT!**

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

COIN INSERTION TEST

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

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

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

COIN METER
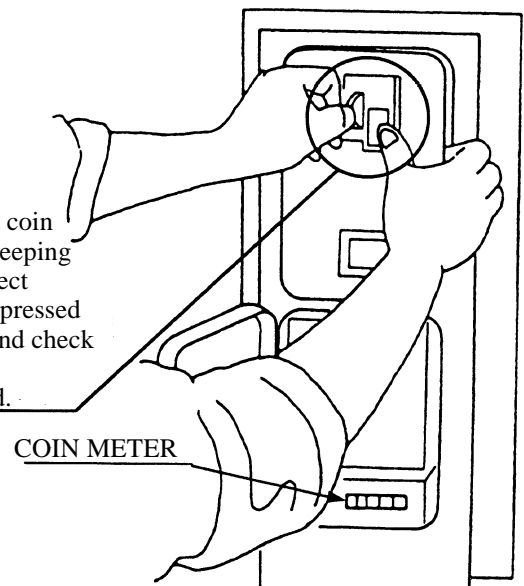
FIG. 8c

OPTIONAL DOLLAR BILL ACCEPTOR

● THE COIN DOOR ASSEMBLY USED ON **STAR WARS TRILOGY U/R** COMES EQUIPPED TO ACCEPT A DOLLAR BILL ACCEPTOR. ALL NEEDED WIRING CONNECTIONS ARE CONVIENENTLY LOCATED INSIDE THE GAME FOR THIS APPLICATION.

● THE COIN DOOR CAN ACCCOMMODATE THE FOLLOWING VALIDATORS:

HOLE POSITION#1   MARS 2000 SERIES
(FORWARD-MOST POSITION)

HOLE POSITION#2   MARS 2000 SERIES
                                             DBV45 (JCM)

HOLE POSITION #3   CURRENTLY NOT USED

HOLE POSITION #4   DSI01*

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

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

C O I N C O N T R O L S
I N T E R N A T I O N A L

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

OVER/UNDER TWO
ENTRY COIN DOOR*
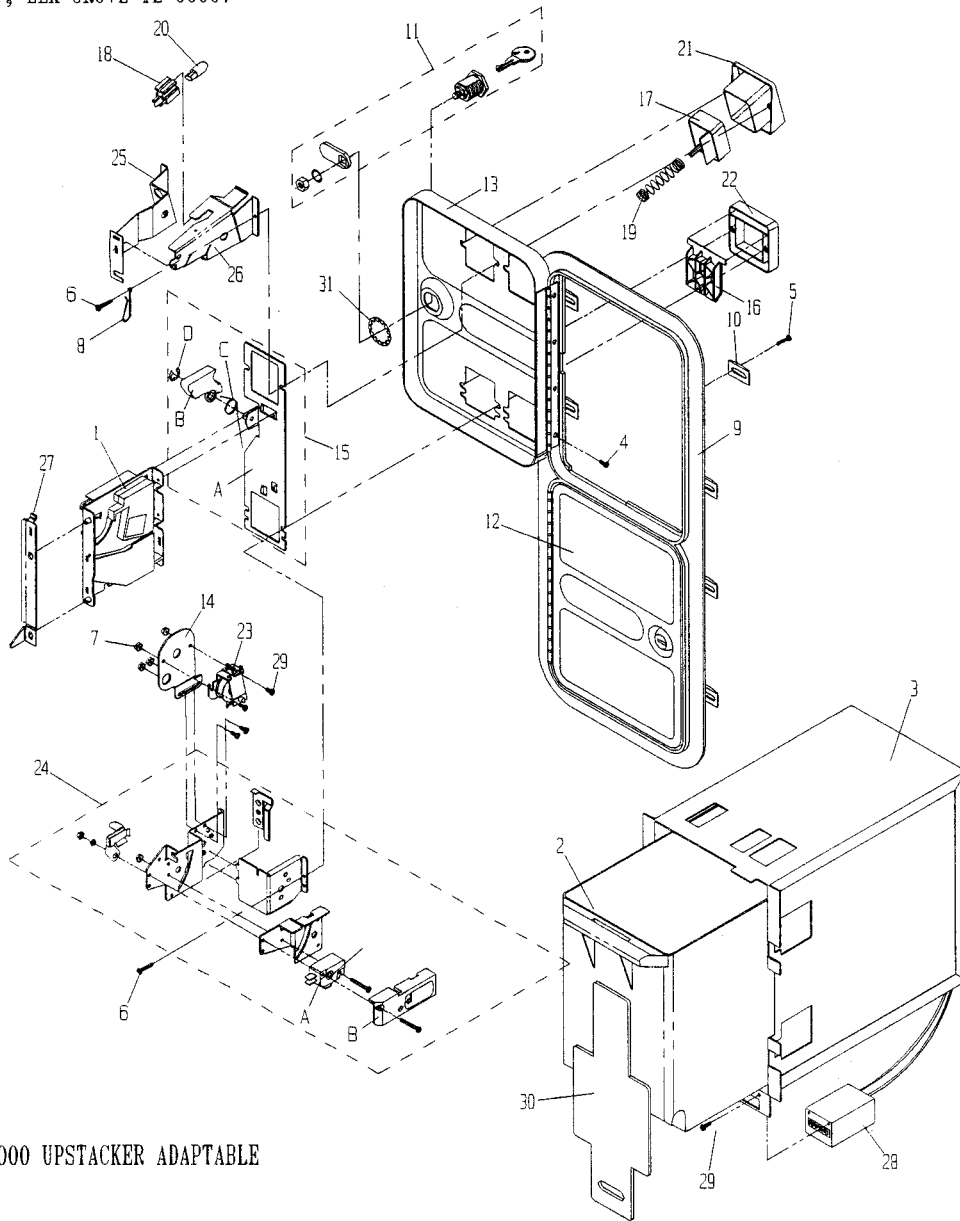
* MARS SERIES 2000 UPSTACKER ADAPTABLE

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

9. MONITOR

⚠ **CAUTION!**
When performing such work as installing and removing the monitor, inserting and disconnecting the external connectors to and from monitor, be sure to disconnect the power connector (plug) before starting work. Proceeding the work without following this instruction can cause electric shock of malfunctioning.
Using the monitor by converting it without obtaining a prior permission is not allowed. SEGA shall not be liable for any malfunctioning and accident caused by said conversion.

⚠ **WARNING!**

Primary side and secondary side
The monitor's circuit which is divided into the Primary side and secondary side, is electrically isolated. Do not touch the primary side and the secondary side simultaneously. Failing to observe the instruction can cause electric shock, and this is very dangerous. When making monitor adjustments, use a non-conductive driver and make adjustment without touching any other part other than the Adjustment V.R. and Knob. Also, be sure not to cause a short-circuit to the Primary side and the Secondary side. If short-circuited, it can cause electric shock or mal-functioning, which is very dangerous.

SECONDARY SIDE
(Chassis, CRT)

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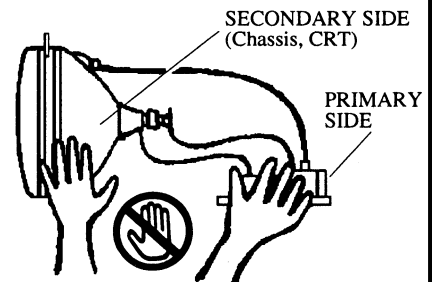
High tension Voltage
Some of the parts inside the monitor are subject to high-tension voltage in excess of 20,000 volts and very dangerous. Therefore, do not touch the monitor interior. Should soldering & paper wastes, etc. be mixed in the monitor, turn the power off so as not to cause malfunctioning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

ANODE CAP

ANODE LEAD
Approx. 29 kV

FOCUS LEAD
(black)
Approx. 10 kV

DEMAGNETIZER COIL

PRIMARY SIDE

MAIN BD

DEMAGNETIZER COIL

REAR PART

NECK PCB

Approx. 10 kV

SECONDARY SIDE
(Chassis, sheet metal work, CRT, etc.)

Disconnect or unplug

FBT Approx. 29 kV
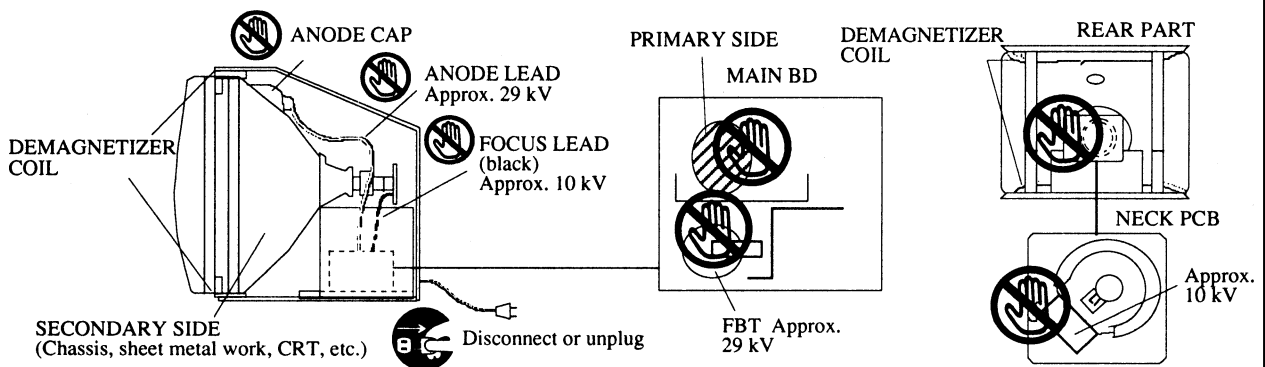
Connecting the CRT and PCB
For combining the CRT and PCB, use the specified part No. to maintain the status of adjustments made at the factory. The anode of the CRT itself will be accumulitavely charged as time elapses, generating high tension voltage which is very dangerous. The monitor should be used with the Chassis, CRT and PCB assembled. When repair, etc. is required at the time of malfunctioning, be sure to send it in an "as assembled" condition. If these are disassembled, what's charged to said high tension voltage can be discharged, causing a very hazardous situation. Therefore, under no circumstances should it be disassembled.

⚠ **CAUTION!**

Static Electricity
Touching the CRT surface sometimes causes you to slightly feel electricity. This is because the CRT surfaces are subject to static and will not adversely affect the human body.
Installation and removal
Ensure that the Magnetizer Coil, FBT (Fly-Back Transformer), Anode Lead and Focus Lead are not positioned close to the sheet metal work's sharp edges, etc. and avoid damaging the insulated portions so as not to cause an electric shock and malfunctioning. (For the name of parts, refer to the above figures.)
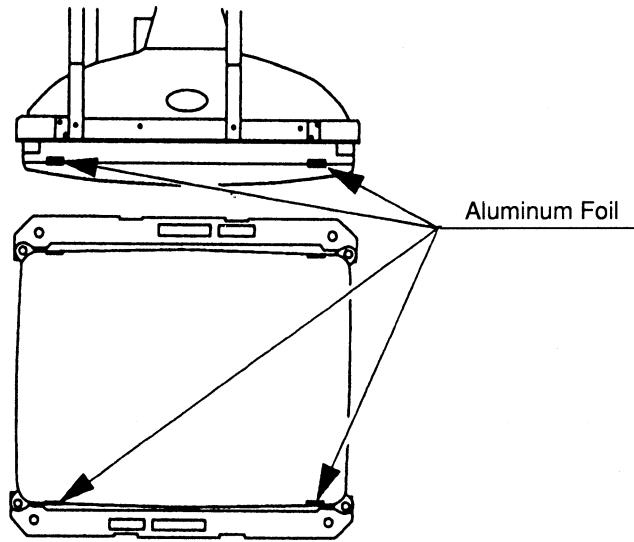
⚠ CAUTION!

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

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

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

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

Aluminum Foil

⚠ CAUTION!

Monitor adjustments have been made at the time of shipment. Therefore do not make further adjustment without a justifiable reason. Adjusting the monitor which contains high tension parts is dangerous work. Also, an erroneous adjustment can cause deviated synchronization and image fault, resulting in malfunctioning.
When making adjustment, utilize a resinous Alignment Rod. Servicing with bare hands or using conductive tools can cause electric shock.

NANAO monitor:　　　　２００－５２４２－２４－０４ (24K mode)
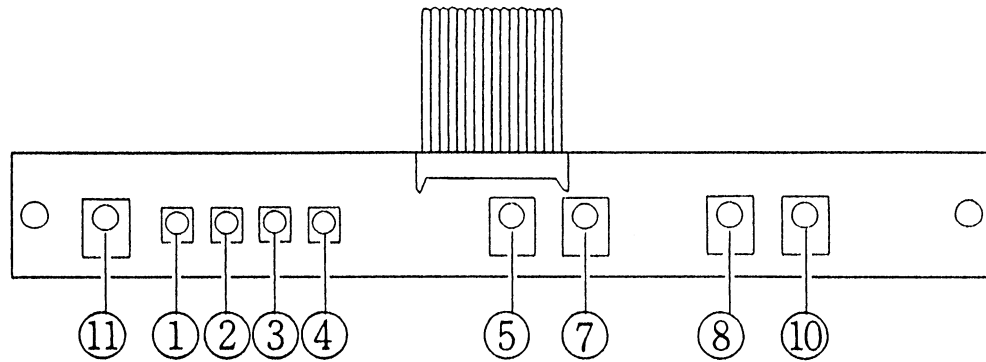
SANWA monitor:　　　　２００－５２４３－２４ (24K mode)
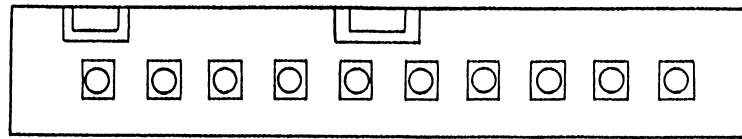
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
R GAIN	G GAIN	B GAIN	BRIGHT	H SIZE	H HOLD	H POSI	V SIZE	V HOLD	V POSI

① R-GAIN

② G-GAIN .... Controls colors.

③ B-GAIN

④ BRIGHT .... Controls screen brightness.

⑤ H. SIZE .... Controls horizontal screen size.

⑥ H. HOLD .... Provides horizontal synchronization, i.e., controls right/left hold.

⑦ H. POSI .... Controls horizontal display position on screen.

⑧ V. SIZE .... Controls vertical screen size.

⑨ V. HOLD .... Provides vertical synchronization, i.e., controls up-down hold.

⑩ V. POSI .... Controls vertical display position on screen.

⑪ CONTRAST .... Adjusts image contrast.

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10. REPLACEMENT OF FLUORESCENT LAMP AND LAMPS

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

⚠️ **CAUTION!**

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

10 - 1 REPLACING THE FLUORESCENT BULB

① Take out the 4 screws and remove Sash Upper L & R.

TRUSS SCREW(4)
M4×16, black

SASH UPPER L

SASH UPPER R
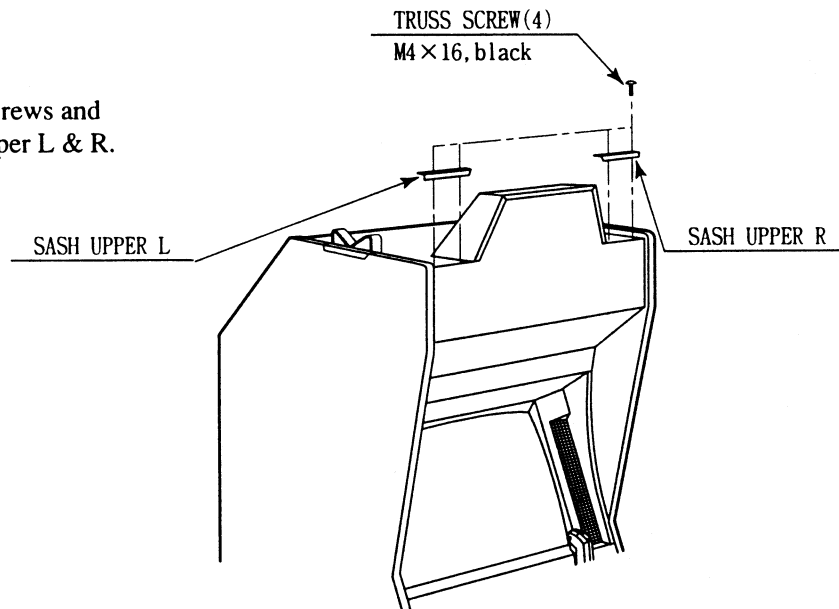
② Take out the 7 screws and remove the Billboard Case.

TRUSS SCREW(7)
M4×16, black
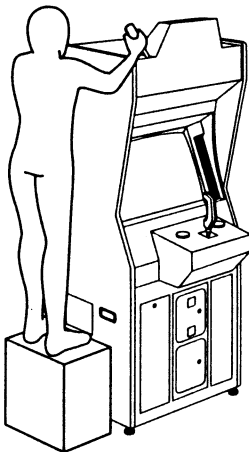
BILLBOARD CASE

When performing work, prepare a step.
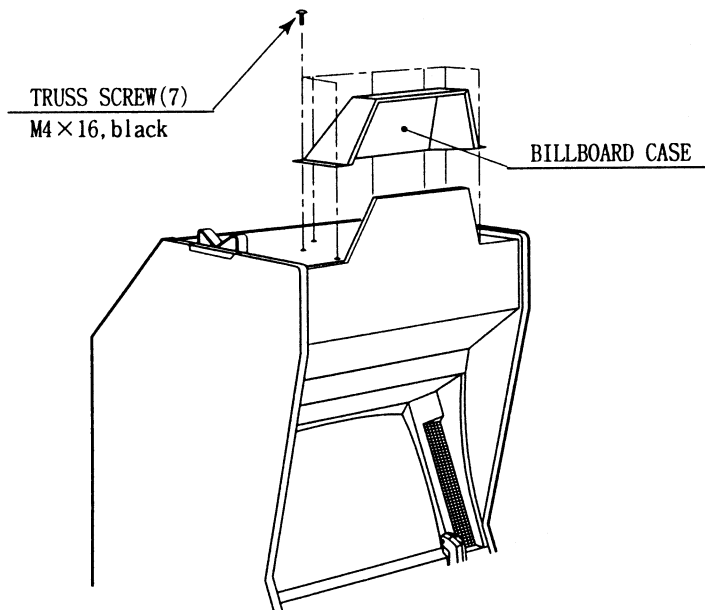
③ Pull out the Billboard and replace the Fluorescent Lamp.

BILLBOARD PLATE

FLUORESCENT LAMP 20W
Local Purchase
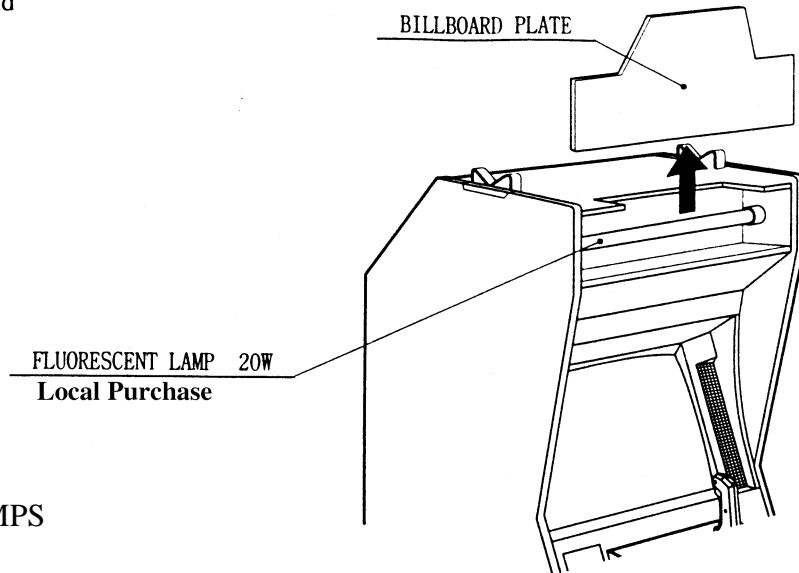
10 - 2 REPLACING THE LAMPS

① Take out the 2 screws, remove the right-hand side Plate and the Clamp which binds the wiring. Be sure to remove the Clamp first before disconnecting the Connector.

② Take out the 7 screws and remove the Control Panel Plate.

TAMPERPROOF SCREW (7) black
M4×10, flat washer used

CONTROL PANEL PLATE

Disconnect the Connector.

TRUSS SCREW(2)
M4×8, black
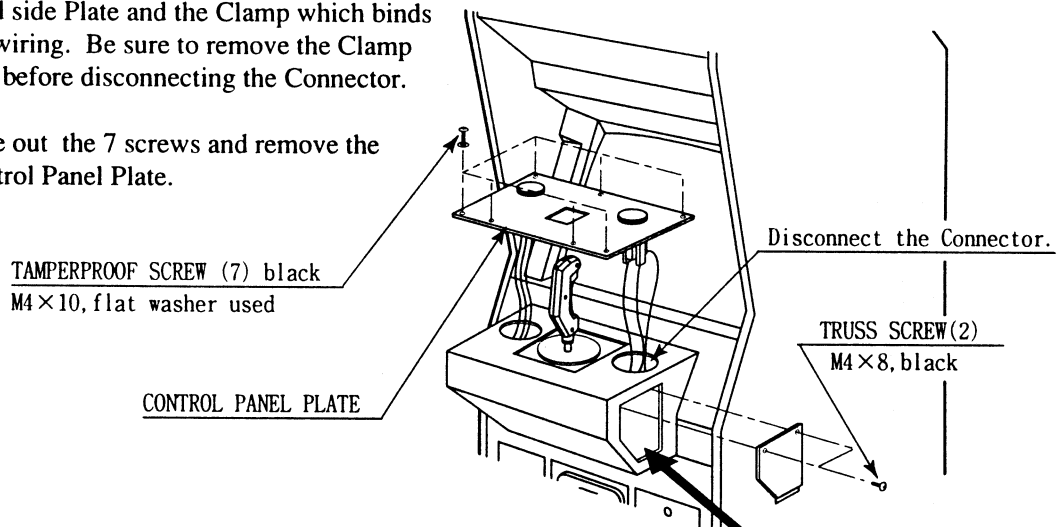
> **Be sure to remove the Clamp (which binds the wiring) first before disconnecting the Connector.**

③ Hold both sides of the switch portion with fingers and pull out from the button's base portion. At this time, be careful so as not to damage the wiring connected to the switch.

④ The lamp is positioned at the end of the switch portion. Pull out the lamp straight without turning it.

WEDGE BULB, 14V 2.7W
390-6605
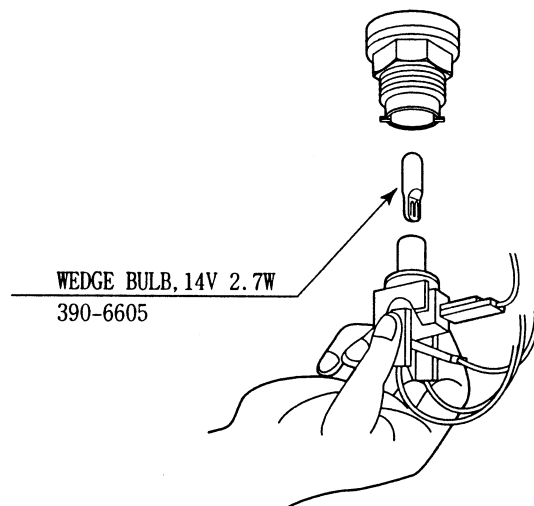
11. PERIODIC INSPECTION TABLE

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

When handling the controller, the player will be in direct contact with it. In order to always allow the player to enjoy the game, be sure to clean it regularly.

⚠️ **WARNING!**

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

ITEMS	DESCRIPTION	PERIOD	REFERENCE
CONTROL MECHA	Check Volume Value and SW		as required
	Grease to gear portion	Weekly	6
	Check Adj. Gear engagement	Monthly	6
COIN SELECTOR	Check COIN SW	Monthly	6
	COIN SELECTOR cleaning	Trimonthly	8
MONITOR	SCREEN cleaning	Weekly	9
	Check adjustments	Monthly	3, 6, 9
GAME BD	Setting check	monthly	6
INTERIOR	Cleaning	Annually	see above.
POWER PLUG	Inspection and cleaning		
CABINET SURFACE	Cleaning	As necessary	see below
CABINET	Ensure that adjusters are in contact with the floor	As necessary	3

CLEANING CABINET SURFACES

When the cabinet surfaces are badly soiled, remove stains with a soft cloth dipped in water or diluted (with water) chemical detergent and squezzed dry. To avoid damaging surface finish, do not use such solvents as thinner, benzine, etc. other than ethyl alcohol, or abrasives, bleaching agent and chemical dustcloth.
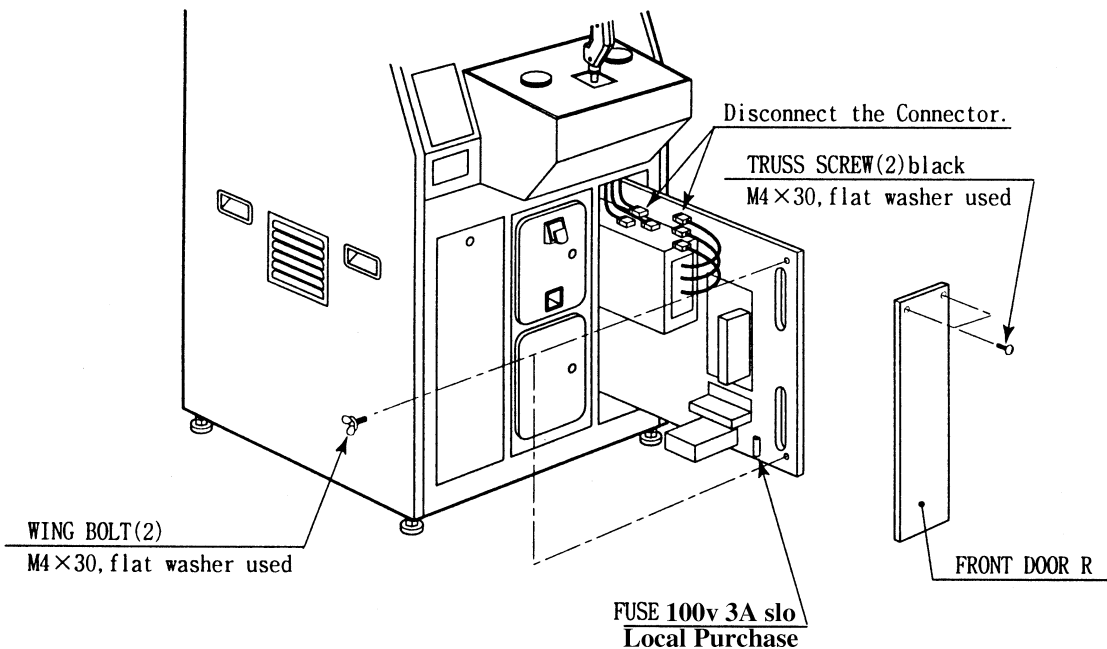
12. TROUBLESHOOTING

Should trouble occur, first check connector connections.

PROBLEMS	CAUSE	COUNTERMEASURES
When the main SW is turned ON, the machine is not activated.	The power is not ON.	Firmly insert the plug into the outlet.
	Incorrect power source/voltage.	Make sure that the power supply/voltage are correct.
	The CIRCUIT PROTECTOR functioned due to momentary overcurrent.	First, remove the cause of overcurrent and reinstate the circuit protector to its original status.
The color on PTV screen is incorrect.	Image adjustment is inappropriate.	Adjust appropriately (see Sec.16).
Color deviation on PTV screen.	Affected by peripheral machines or the building's steel frames.	Perform convergence adjustment (see Sec. 12). Change installation direction or position. Move the machine which causes the problem.
No sound is emitted from the Main Speaker.	Connector connection fault.	Check connector connection.
	Incorrect volume adjustment.	Adjust the SWITCH UNIT's sound adjustment volume (control)(see Sec. 9).
	Malfunctioning BD. and Amp.	Perform SOUND TEST (see Sec. 9).
No sound is emitted from the Woofer.	Connector connection fault.	Check connector connection.
	Incorrect volume adjustment.	Adjust the SWITCH UNIT's sound adjustment volume (control)(see Sec. 9).
	Due to momentary overcurrent, fuse is blown.	After removing the cause of overcurrent, replace Fuse (see Sec. 15). 514-5086-3150 FUSE S.B 3150MA 250V HBC CE
	Malfunctioning BD. and Amp.	Perform SOUND TEST (see Sec. 9).
Background music sound is too low.	BGM VOLUME LEVEL need to be increased.	Increase BGM VOLUME LEVEL in the SOUND TEST.
Billboard's Fluorescent lamp does not light up.	Connector connection fault.	Check connector connection.
	Fluorescent Lamp needs replacement.	Replace the fluorescent lamp. (See Sec. 13)
Fluorescent lamp(s) in the rear of the Seat does not light up.	Connector connection fault.	Check connector connection.
Shooting operation can not be performed satisfactorily.	Connector connection fault.	Check connector connection.
	Switch malfunctioning.	In the INPUT TEST of Test mode, check ON/OFF of FIRE 0 & 1. In case of inaction, replace the switch (see Sections 9 and 10).
CURSOR can not be operated satisfactorily.	Connector connection fault.	Check connector connection.
	CALIBRATION adjustment failure.	In the CALIBRATION TEST of Test Mode, readjust the volume value (see Section 9).
	Volume malfunctioning.	Replace the Volume (see Sec. 10).
CONTROLLER reaction is not satisfactory.	Connector connection fault.	Check connector connection.
	Game assignments are incorrect.	In the GAME ASSIGNMENTS of Test Mode, set the CABINET TYPE to DX. Set FEEDBACK LEVER to ENABLE.
	CALIBRATION adjustment failure. Volume deviation.	In the CALIBRATION TEST of Test Mode, readjust the Volume value (see Sec. 9).
	Volume malfunctioning.	Replace the Volume (see Sec. 10).
	Gear mesh failure.	Adjust gear mesh.

- In case fuse replacement other than those stated inthis manual are neccessary, contact where you purchased the product from for inquires regarding this manner.
- Fuse replacement other than those specified can cause hazards and are strictly forbidden.
- In order to prevent an electric shock, be sure to turn power off and unplug from the socket outlet before performing work by touching the internal parts of the product.
- Be careful so as not to damage wirings. Damaged wiring can cause electric shock and short circuit hazards.
- Be sure to use fuses meeting the specified rating. Using fuses exceeding the specified rating can cause of the fire and electric shock hazards.
- After eliminating the cause of the blowing of fuse, replace the fuse. Depending on the cause of fuse blowing, continued use with fuse as is blown can cause generation of heat and fire hazard.

① Turn the Main SW off.

② Take out the 2 screws and remove Front Door R.

③ Disconnect all of the Connectors connected to the Board.

④ Remove the 2 Wing Bolts, withdraw the Board, and replace fuse. At this time, be careful so as not to damage the wiring.

Disconnect the Connector.

TRUSS SCREW(2)black
M4×30, flat washer used

WING BOLT(2)
M4×30, flat washer used

FUSE 100v 3A slo
Local Purchase

FRONT DOOR R

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13. GAME BOARD

⚠ **WARNING!**

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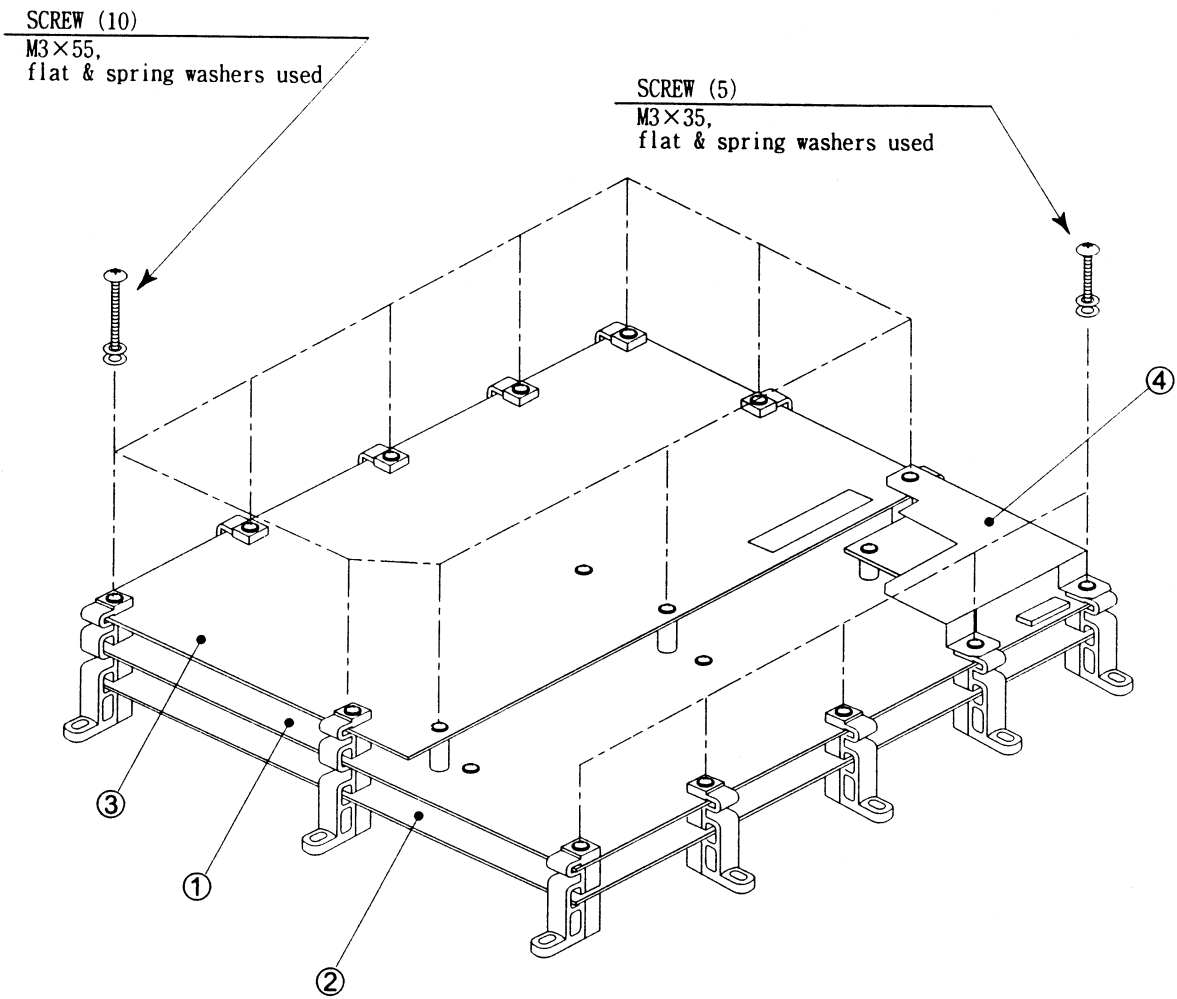
⚠ **CAUTION!**

Do not expose the Game BD, etc. without a good reason. In this product, setting changes are made during the test mode. The Game BD need not be operated. Use the Game BD, etc. as is with the same setting made at the time of shipment. The electronic parts on the IC Board could be damaged due to human static electricity.

13 - 1 GAME BOARD

When replacing or inspecting the Game BD, take out the Game BD by using the following procedure:

① Turn the Main SW off.

② Take out the 2 screws from Front Door L and unlock with Master Key.

SCREW(2)black
M4×30,
flat washer used

UNLOCK.

FRONT DOOR L
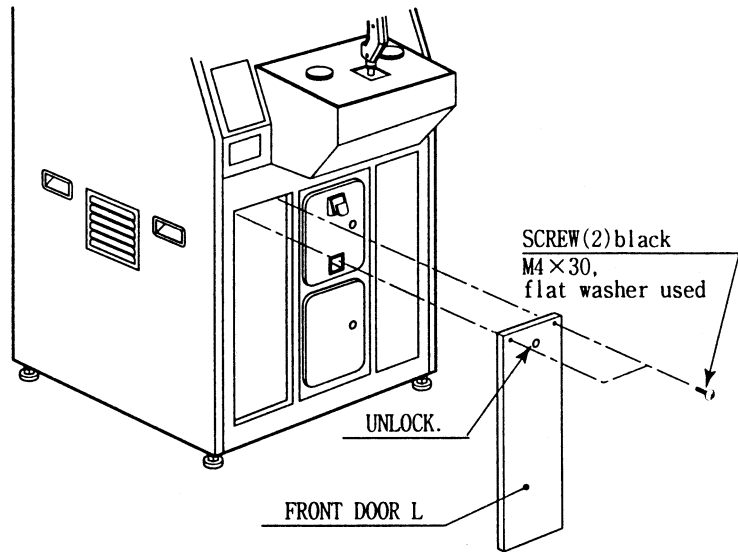
③ Disconnect all of the Connectors connected to the Board.

④ Remove the 2 Wing Bolts and withdraw the Board. At this time, be careful so as not to damage the wiring.

⑤ Take out the 3 screws, remove Shield Case Lid, and replace the Game Board.

Disconnect all of the Connectors.

SHIELD CASE LID

SCREW (3)
M4×8,w/flat
and spring washers
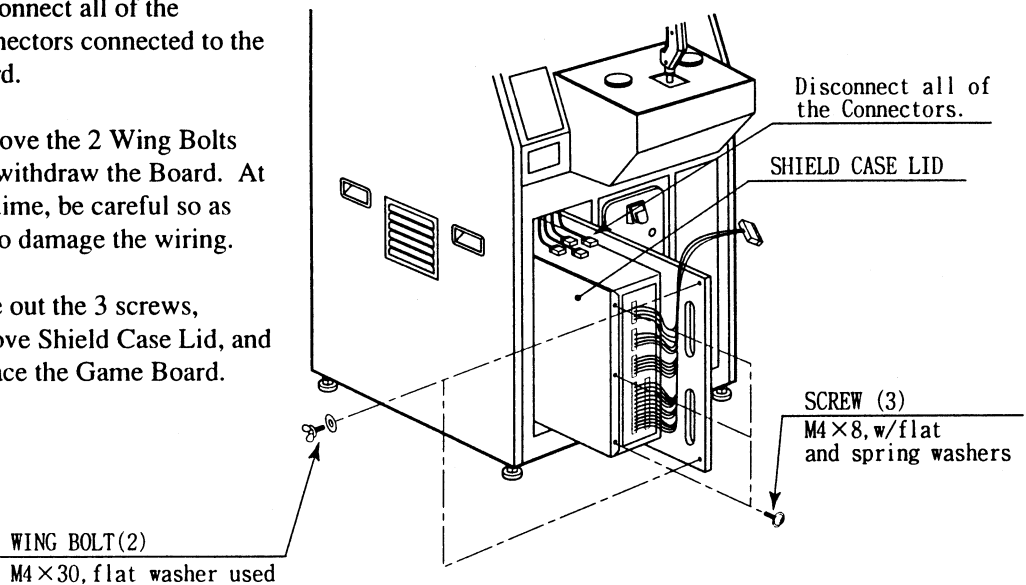
WING BOLT(2)
M4×30,flat washer used

GAME BDSTAR WARS TRILOGY (833-13586)

SCREW (10)
M3×55,
flat & spring washers used

SCREW (5)
M3×35,
flat & spring washers used

No.	PART No.	DESCRIPTION
1	837-12715-91	MODEL3 STEP2 CPU BOARD
2	837-13368	MODEL3 STEP2.1 VIDEO BD
	837-12716-91	MODEL3 STEP2 VIDEO BDARD
3	834-13587	ROM BD STAR WARS TRILOGY
4	837-13588-COM	PFSB SEC BD STW COM

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14. DESIGN RELATED PARTS
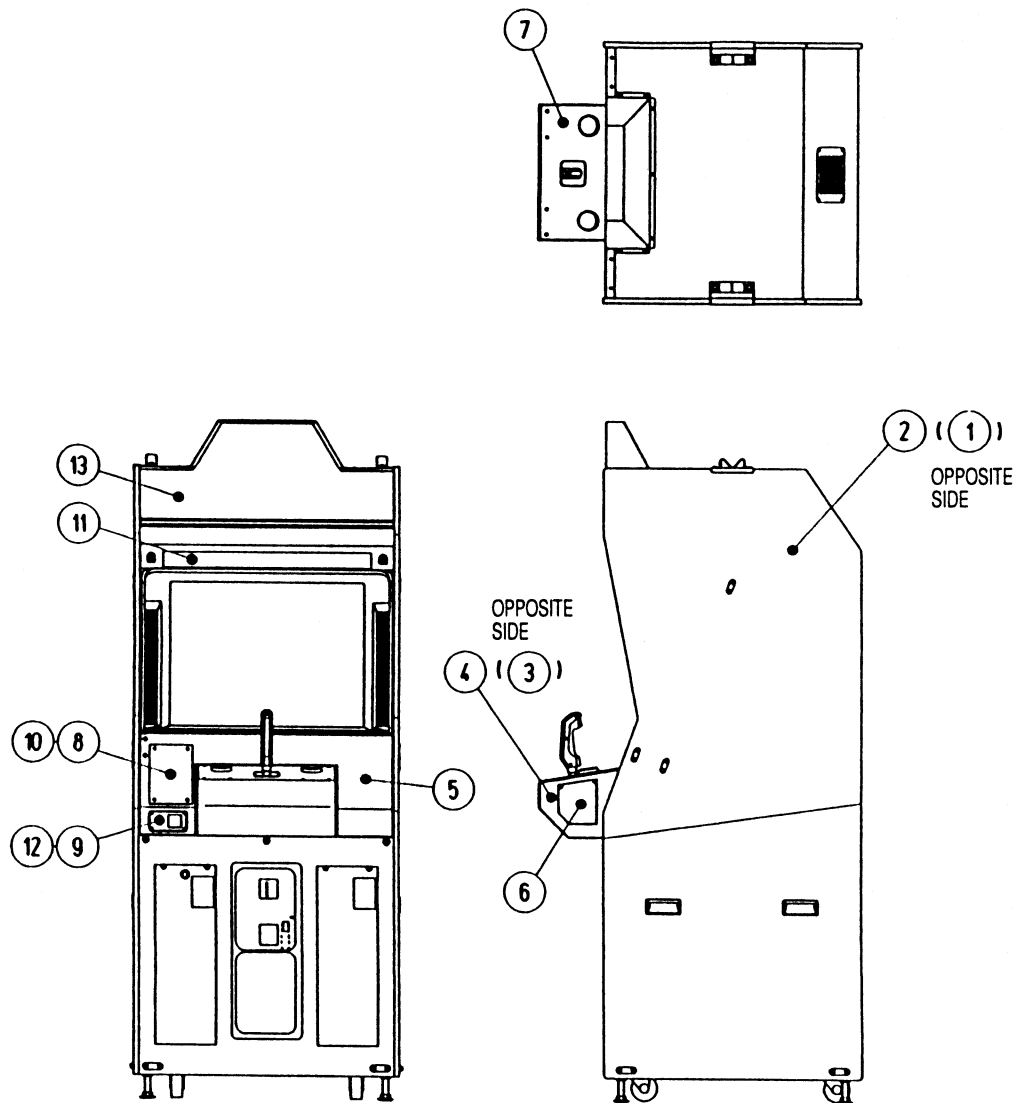
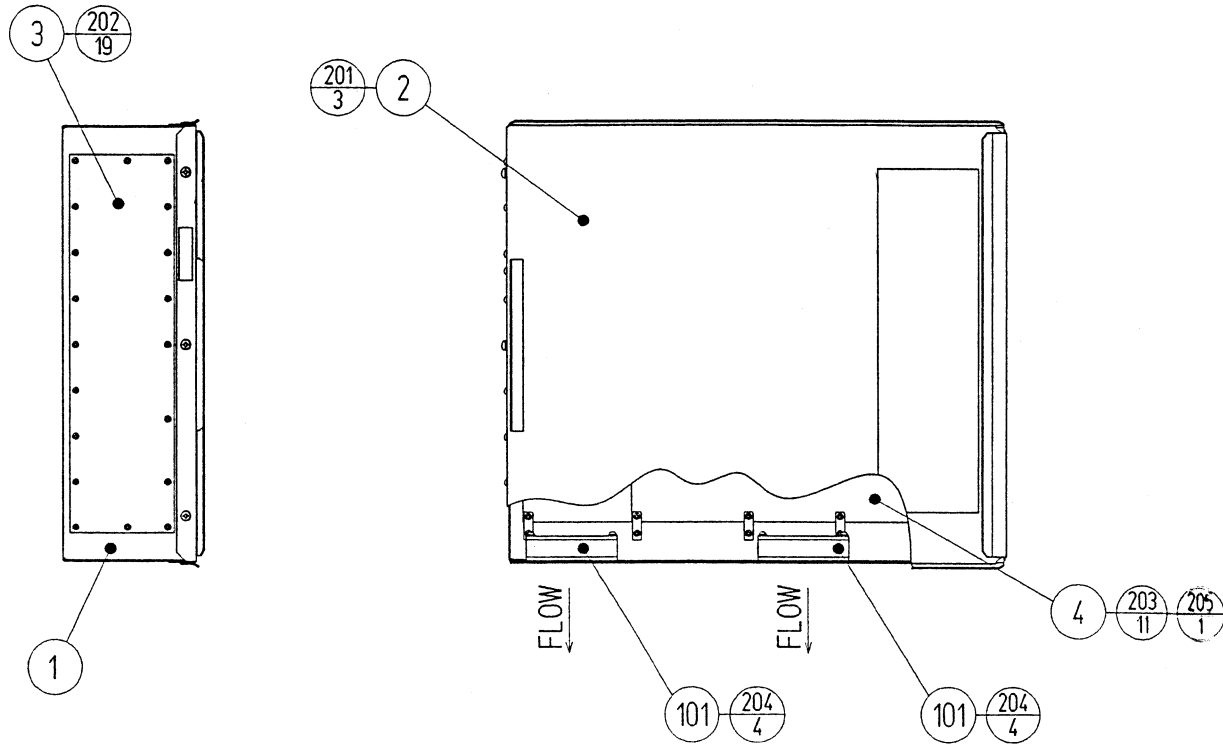| ITEM NO.	PART NO.	DESCRIPTION
1	STW-1509	STICKER SIDE L
2	STW-1510	STICKER SIDE R
3	STW-2501-B	STICKER CONTROL PNL SIDE L
4	STW-2501-C	STICKER CONTROL PNL SIDE R
5	STW-2501-D	STICKER CONTROL PNL TOP
6	STW-2502-B	STICKER CONTROL PNL SIDE COVER
7	STW-2504	CONTROL PNL PLATE
8	STW-0001	INSTR PLATE
9	DYN-0011	DENOMI PLATE W/O ORIGINAL
10	422-0706-01	PLAY INSTR SH STW U/R
11	422-0714	SUB INSTR SH STW U/R
12	421-7308~	DENOMINATION SHEET 1 GAME
13	423-0323	BILLBOARD PLATE STW U/R

15. PARTS LIST

TOP ASSY STAR WARS U/R

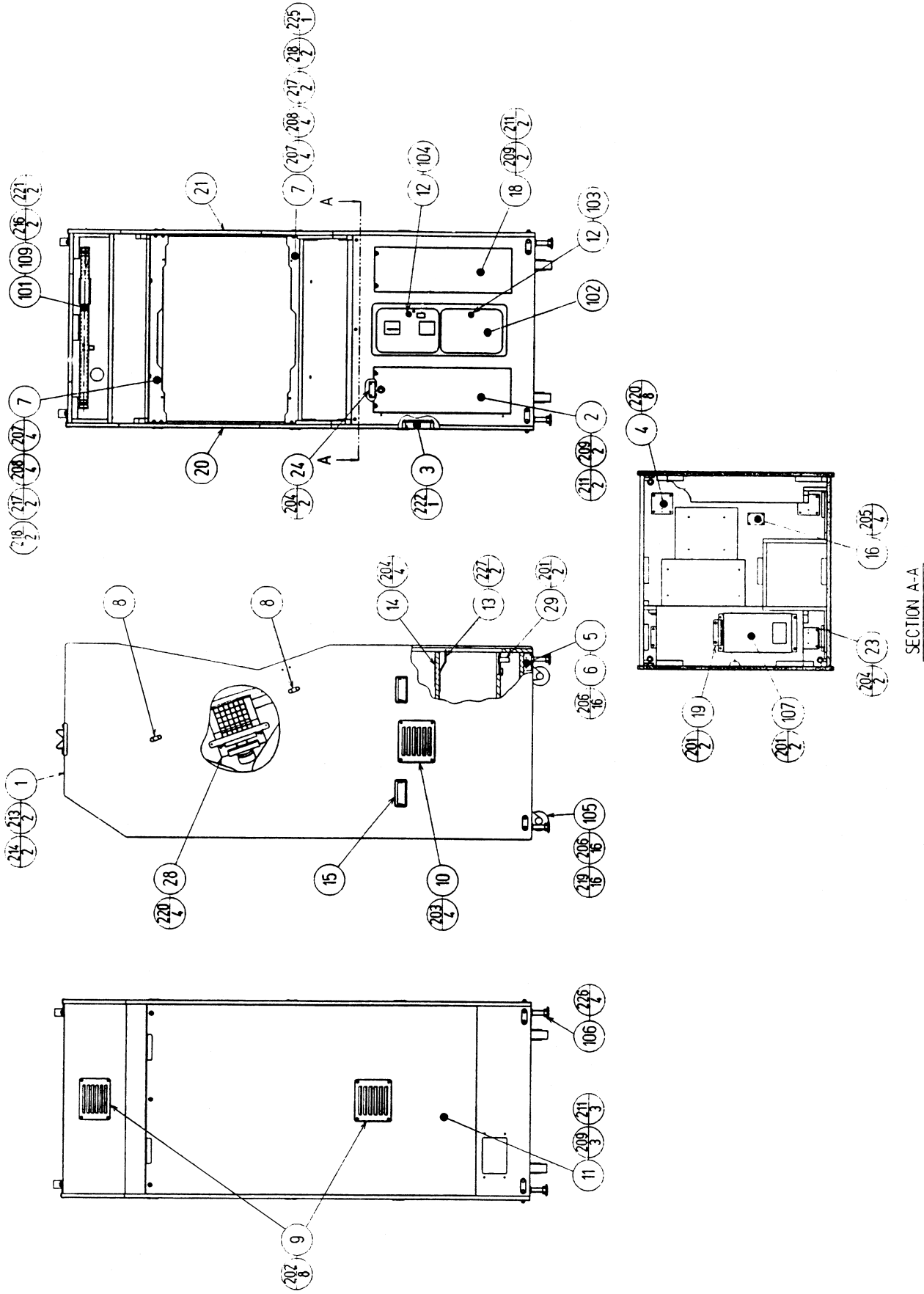| ITEM NO.	PART NO.	DESCRIPTION
1	STW-10001	ASSY CABINET U/R
2	422-0706-01	PLAY INSTR SH STW U/R
3	422-0714	SUB INSTR SH STW U/R
4	STW-0001	INSTR PLATE
5	421-7308~	DENOMINATION SHEET 1 GAME
6	DYN-0011	DEMONI PLATE W/O ORIGINAL
16	421-9486-01	INSTR SH ACCESSORY ENG
201	008-T00412-0B	TMP PRF SCR TH BLK M4X12
202	000-T00416-0B	M SCR TH BLK M4X16

ASSY SHIELD CASE MAIN (STW-0100)

ITEM NO.	PART NO.	DESCRIPTION
1	105-5245X	SHIELD CASE MODEL3 NVS
2	105-5242X	SHIELD CASE LID MODEL3
3	839-0951	FILTER BD MODEL3 JPT
4	833-13586	GAME BD STW TRILOGY
101	260-0064	FAN MOTOR DC12V
201	000-P00408-W	M SCR PH W/FS M4X8
202	010-P00308-F	S-TITE SCR PH W/F M3X8
203	010-P00310-F	S-TITE SCR PH W/F M3X10
204	000-P00320-W	M SCR PH W/FS M3X20
205	010-P00365-F	S-TITE SCR PH W/F M3X65

ASSY SPEAKER (OCN-1090)
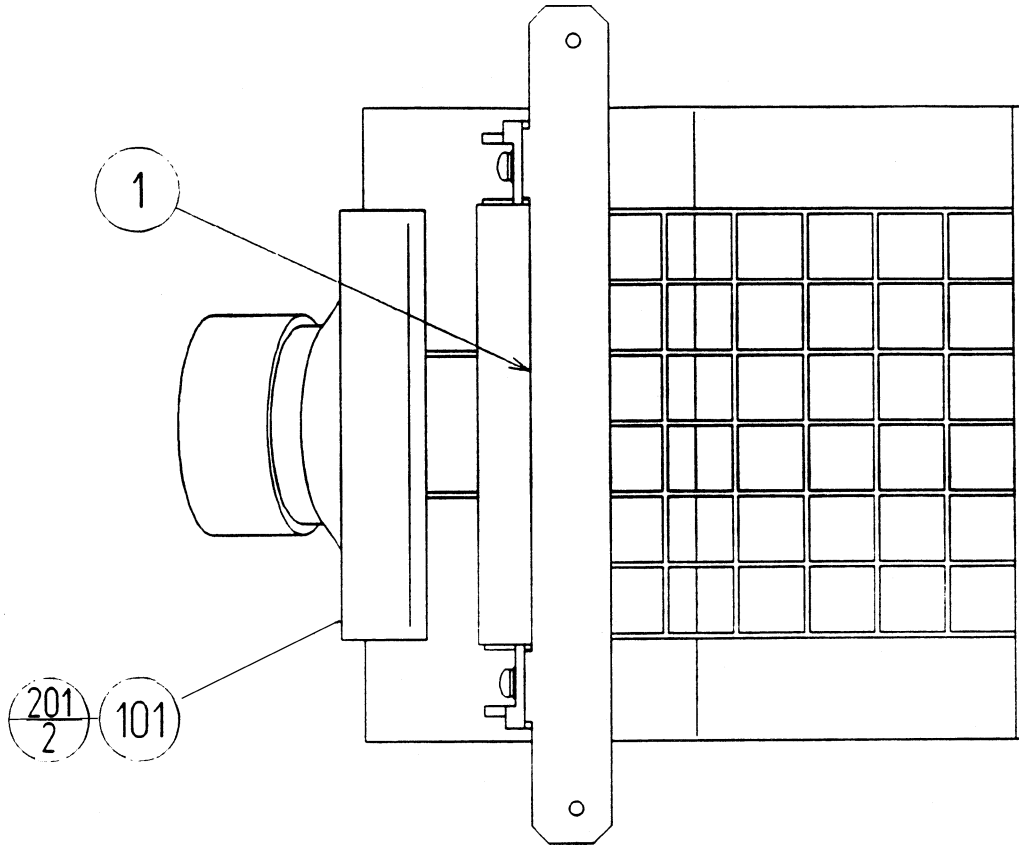
ITEM NO.	PART NO.	DESCRIPTION
1	HLD-1109	SP BRKT
101	130-5152	SPKR BOX MINI DOME 12W
201	000-P00412-W	M SCR PH W/FS M4X12

ASSYSUB-CABI U/R (STW1-1500)

SECTION A-A

ASSYSUB-CABI U/R (STW1-1500)

ITEM NO.	PART NO.	DESCRIPTION
1	NOT AVAILABLE	WOODEN CABINET (STW-1501)
2	STW-1530	ASSY FRONT DOOR L
3	JPT-1530	FAN UNIT
4	STW-1102	NUT PLATE FOR CASTER CE
5	ARC-1006	LEG BRACKET
6	117-5191	PLATE
7	GBN-1074Y	MONITOR SUPPORT
8	117-5235	PLATE 6-30
9	253-5239-01	AIR VENT BLACK
10	105-5239-03	AIR VENT
11	STW-1502	BACK DOOR
12	DP-1167	TNG LKG
13	105-5169	LOCK BRACKET W
14	105-5172	CHUTE PLATE DOUBLE
15	253-5396-02	CABINET HANDLE WHITE
16	838-11856CE-02	CONNECT BD W/FUSE 6.3A CE
18	STW-1511	FRONT DOOR R
19	STW-1508	SW REG BRKT
20	STW-1509	STICKER SIDE R
21	STW-1510	STICKER SDE L
23	STW-1512	KEY COVER
24	117-5098	TNG RETAINER PLATE
28	OCN-1090	ASSY SPEAKER
29	OCN-1520-01	METER UNTI TWIN
102	220-5482-91	ASSY C.C 2DR
103	220-5574	CAM LOCK W KEYS
104	220-5575	CAM LOCK MASTER W/O KEY
105	999-0169	CASTER 2 12"
106	999-0167	LEG ADJUSTER 1/2X13X3
107	400-5330-03	SW REGU FOR MODEL 3
109	LOCAL PURCHASE	ASSY FL20W W/CONN HIGH T CE
201	000-P00416-W	M SCR PH W/FS M4X16
202	000-T00420-0B	M SCR TH BLK M4X20
203	000-T00420-0C	M SCR TH CRM M4X20
204	011-T00312	TAP SCR TH 3X12
205	011-P00325	TAP SCR PH 3X25
206	030-000630-SC	HEX BLT W/S CRM M6X30
207	031-000630-0C	CRG BLT CRM B6X30
208	050-F00600	FLG NUT M6
209	068-441616-0B	FLT WSHR BLK 4.4-16X1.6
211	000-T00430-OB	M SCR TH BLK M4X30
213	031-000530-0B	CRG BLT BLK M5X30
214	050-F00500	FLG NUT M5
215	011-F00316	TAP SCR FH 3X16
217	030-000830-S	HEX BLT W/S M8X30
218	060-F00800	FLT WSHR M8
219	060-F00600	FLT WSHR M6
220	011-T03512	TAP SCR TH 3.5X12
221	068-441616	FLT WSHR 4.4-16X1.6
222	010-P00406-F	S-TITE SCR PH W/F M4X6
223	030-000830-0B	HEX BLT BLK M8X30
224	060-F00800-0B	FLT WSHR BLK M8
225	000-P00408-W	M SCR PH W/FS M4X8
226	050-H01600	HEX NUT M16
227	000-P00420-W	M SCR PH W/FS M4X20

METER UNIT (STW5-1520)

This is located on the SW unit.
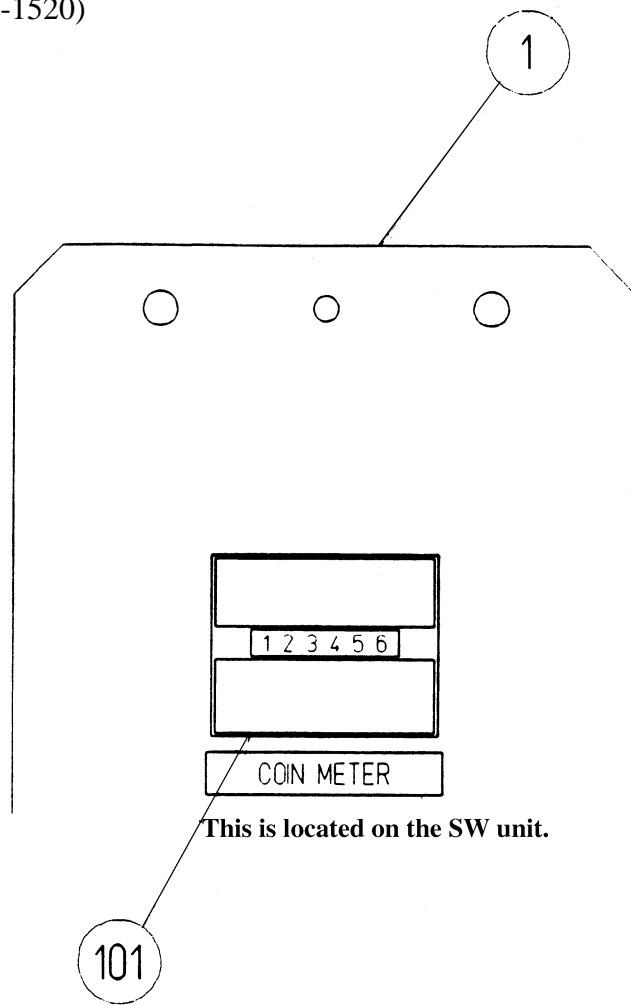
ITEM NO.	PART NO.	DESCRIPTION
1	STW5-1091	SW BRKT
101	220-5643-01	MAG CNTR DCV 6P WHMz-674-D04

ASSY FRONT DOOR L (STW-1530)
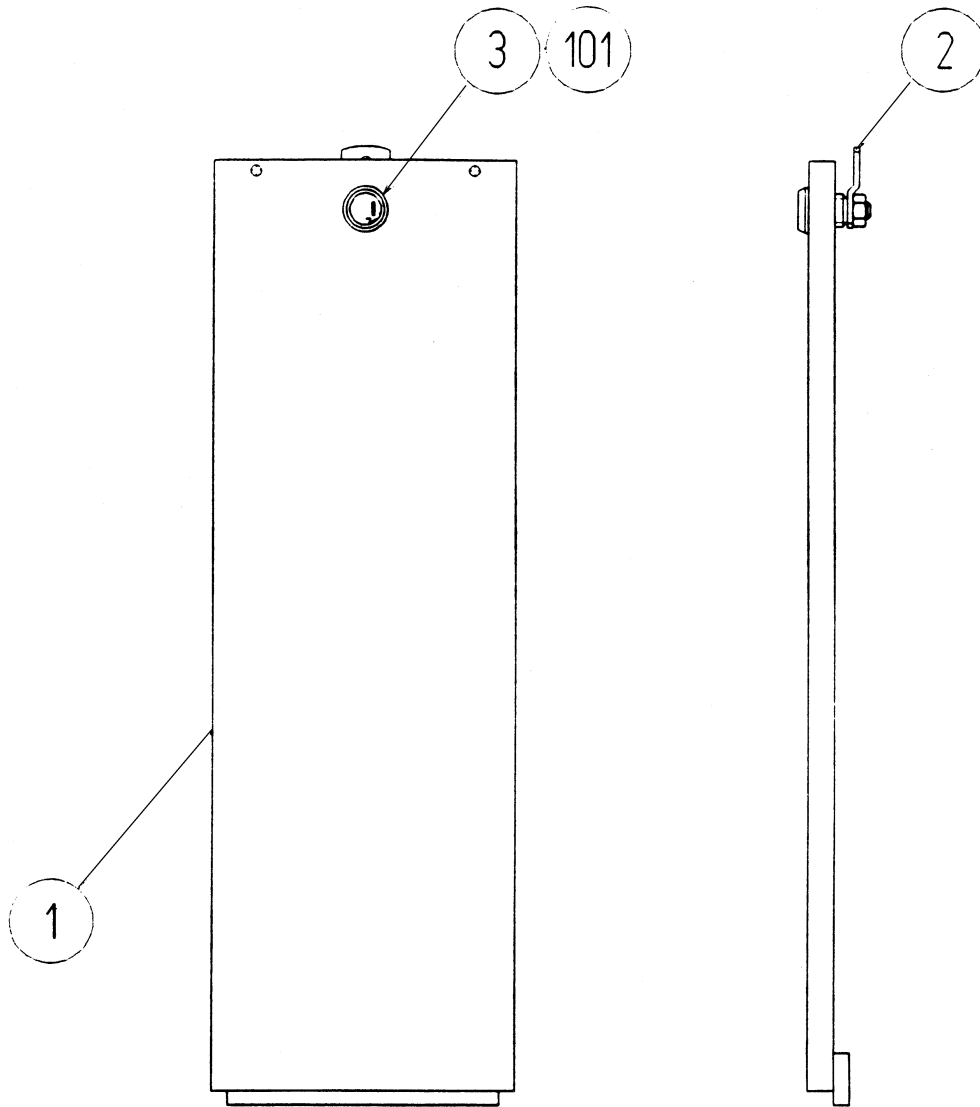
ITEM NO.	PART NO.	DESCRIPTION
1	STW-1531	FRONT DOOR L
2	DP-1148X	LKG TNG
3	117-0062	PLAYTE LOCK RETAINER
101	220-5575	CAM LOCK MASTER W/O KEY

FAN UNIT (JPT-1530)
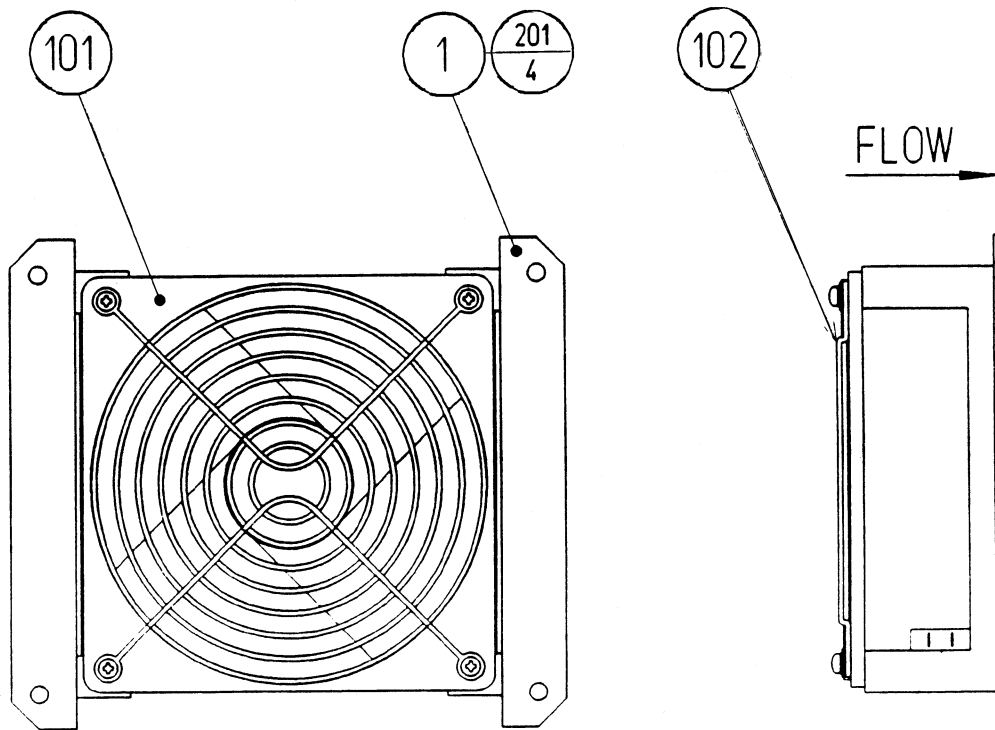
FLOW →

ITEM NO.	PART NO.	DESCRIPTION
1	105-5238	FAN BRKT
101	260-0011-02	AXIAL FLOW FAN AC100V 50-60Hz
102	601-8543	FAN GUARD
201	000-P00312-W	M SCR PH W/FS M3X12

ASSY WOOFER (STW-1540)
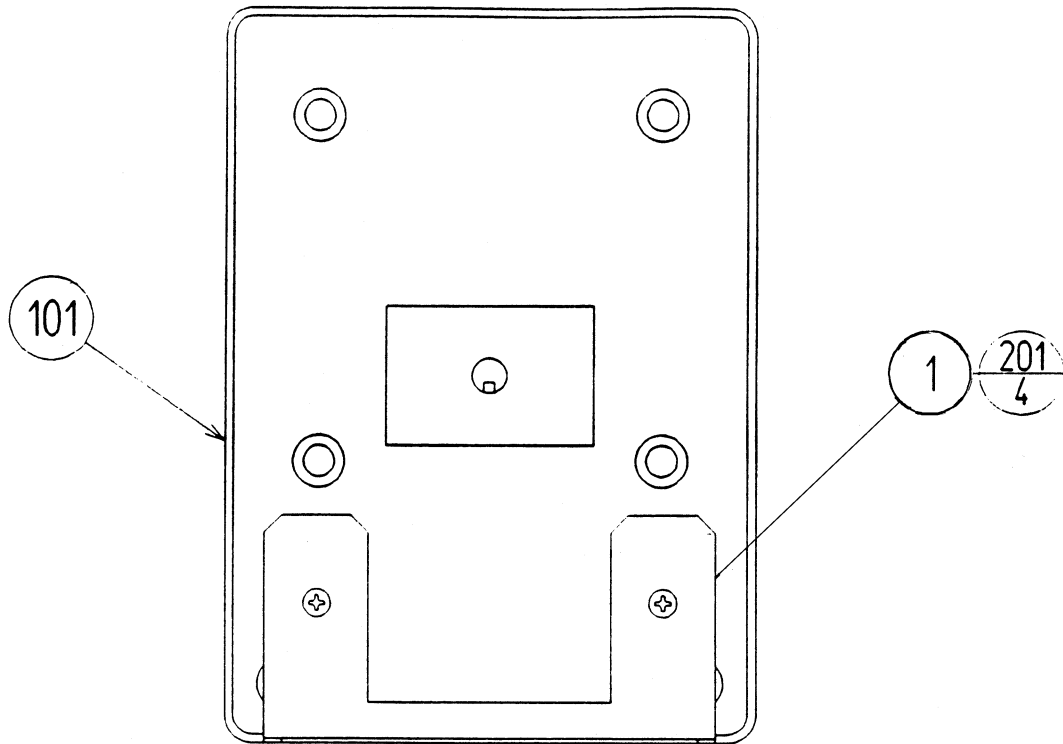
ITEM NO.	PART NO.	DESCRIPTION
1	STW-1541	WOOFER BRKT
101	130-5155	SPEAKER BOX SUB WOOFER
201	012-P00412	TAP SCR #2 PH 4X12

AC UNIT (STW1-1550)
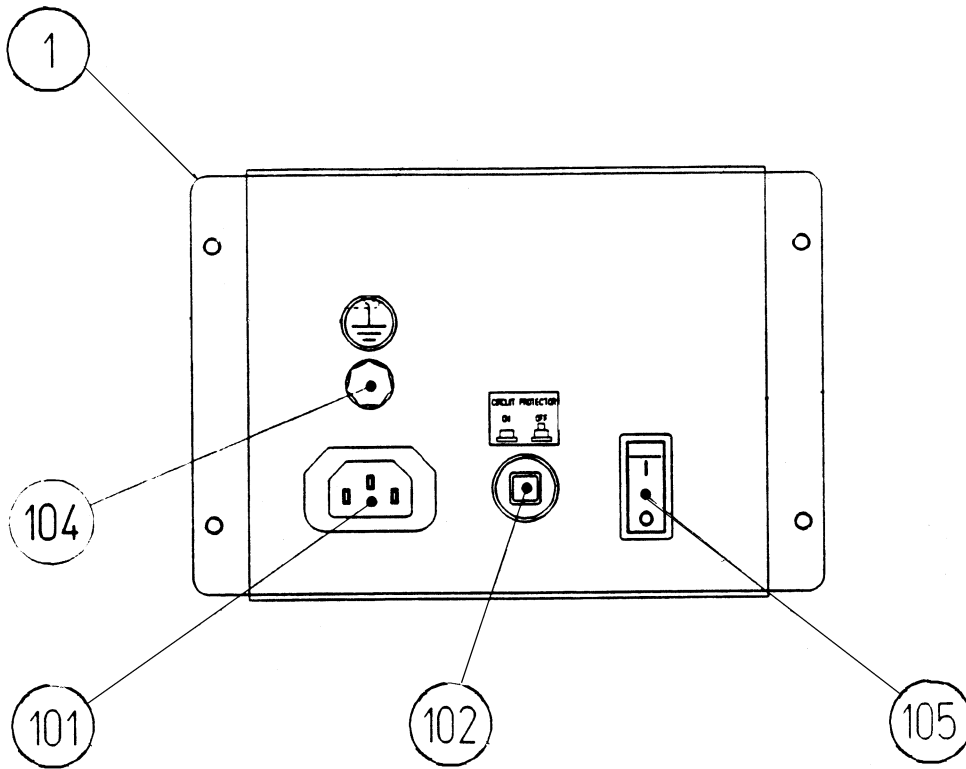
ITEM NO.	PART NO.	DESCRIPTION
1	STW-1561	AC BRACKET U/R
101	214-0202	AC INLET PANEL TYPE
102	LOCAL PURCHASE	5 A SLO FUSE
104	280-0417	TERMINAL BINDING POST BLACK
105	509-5453-91-V-B	SW ROCKER J8 V-B
201	000-F00410	M SCR FH M4X10
202	010-P00306-F	S-TITE SCR PH W/F M3X6

SW UNIT (STW5-1560)
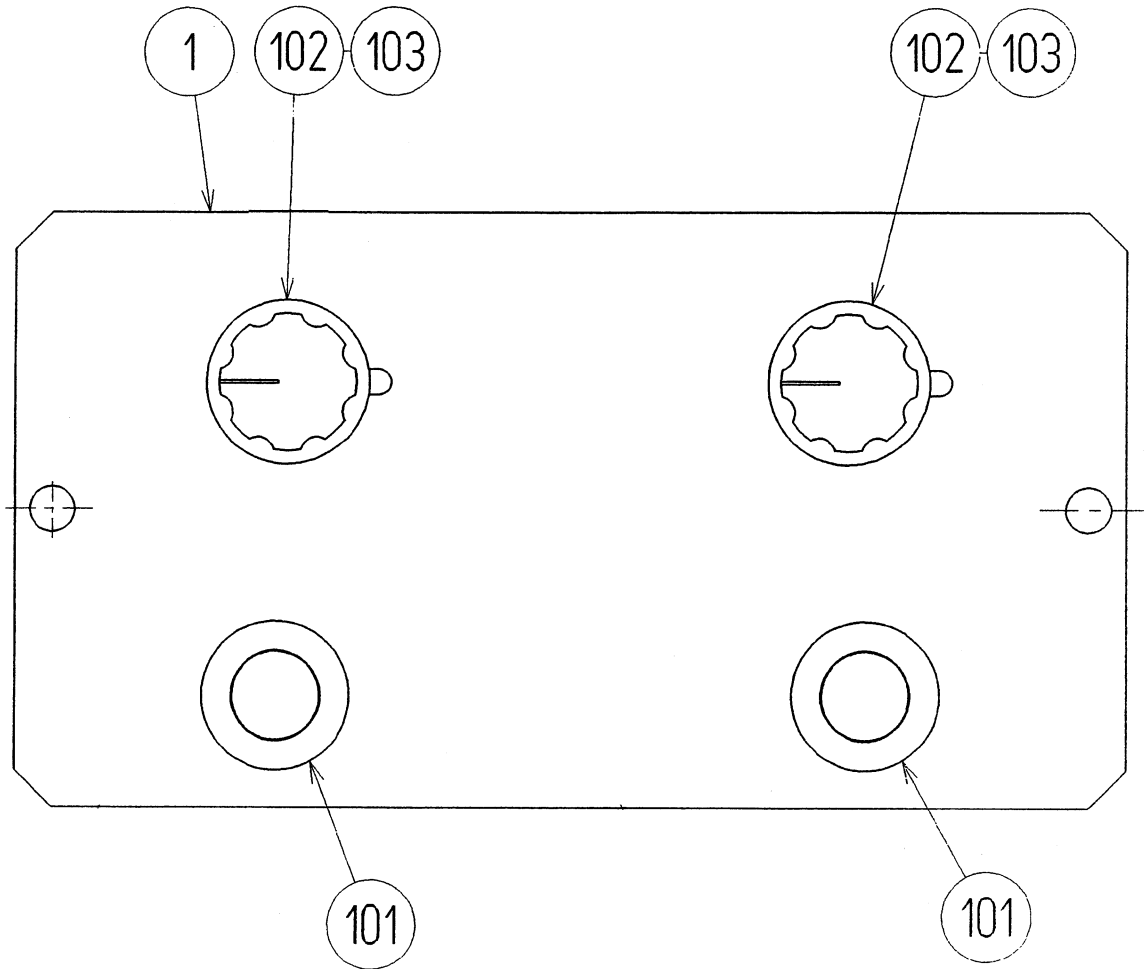
ITEM NO.	PART NO.	DESCRIPTION
1	STW5-1091	SW PLATE
101	509-5028	SW PB 1M (MIYAMA DS-412R)
102	220-5179	VOL CONT B-5K OHM
103	601-0042	KNOB 23MM

ASSY CONTROL PANEL (STW-2500)
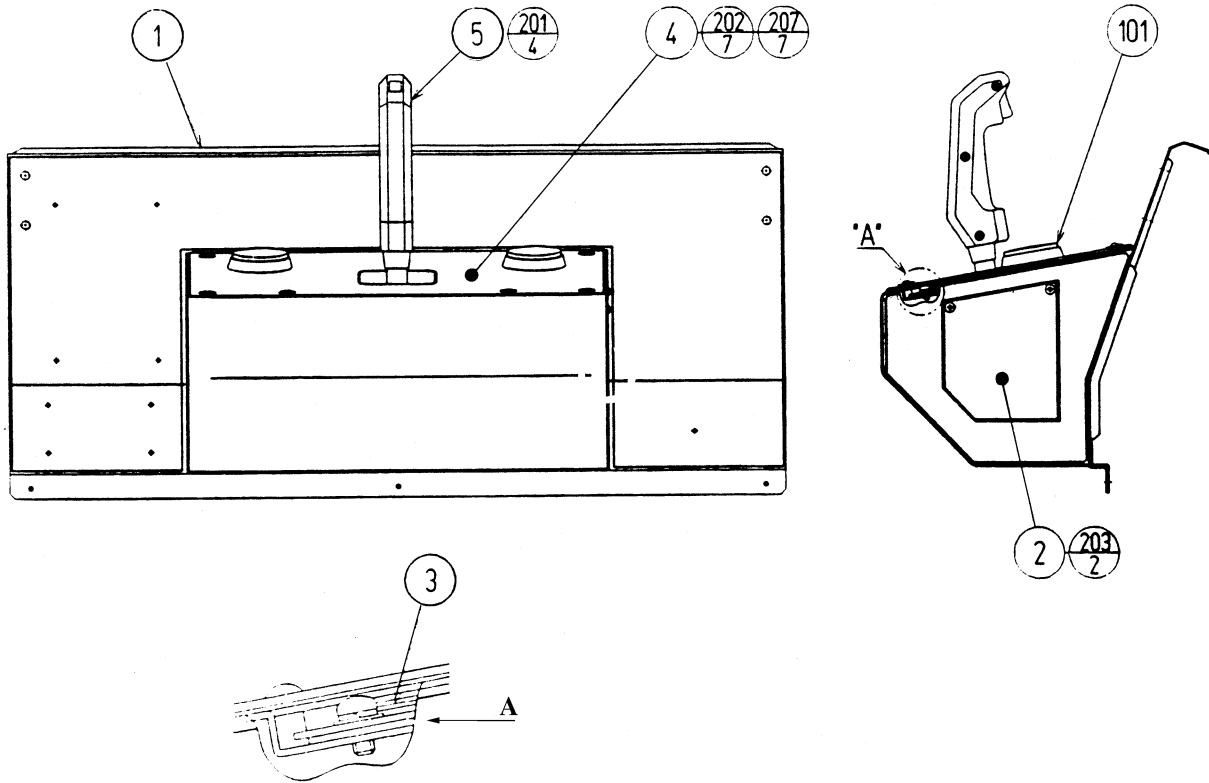
ITEM NO.	PART NO.	DESCRIPTION
1	STW-2501	CONTROL PANEL BASE
2	STW-2502	CONT PNL SIDE COVER
3	STW-2503	RING PLATE
4	STW-2504	CONT PNL PLATE
5	610-0379	JOYSTICK W/TRIGGER HANDLE
101	509-5886-RE	SW PB 60M RED W/H&L 14V2.7W
201	000-P00510-W	M SCR PH W/FS M5X10
202	008-T00410-OB	TMP PRF SCR TH BLK M4X10
203	000-T00408-0B	M SCR TH BLK M4X8
204	068-441616-OB	FLT WSHR BLK 4.4-16X1.6

ASSY SHIELD CASE DS2 (STW-4350)
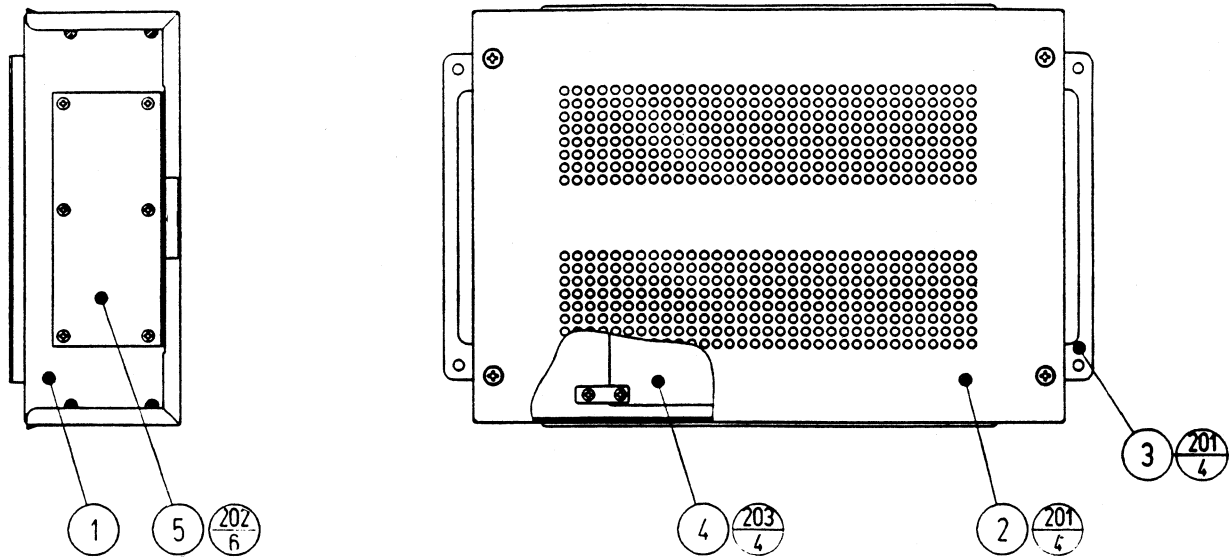
ITEM NO.	PART NO.	DESCRIPTION
1	105-5315	SHIELD CASE MPEG
2	105-5316	SHIELD CASE LID MPEG
3	105-5317	SHIELD CASE BRKT MEPG
4	837-13602	DIGITAL SOUND BD 2 STW
5	839-1021	FLT BD DIGITAL SOUND
201	000-P00408-W	M SCR PH W/FS M4X8
202	010-P00308-F	S-TITE SCR PH W/F M3X8
203	010-P00310-F	S-TITE SCR PH W/F M3X10

ASSY PWR SPLY U/R (STW1-4500)
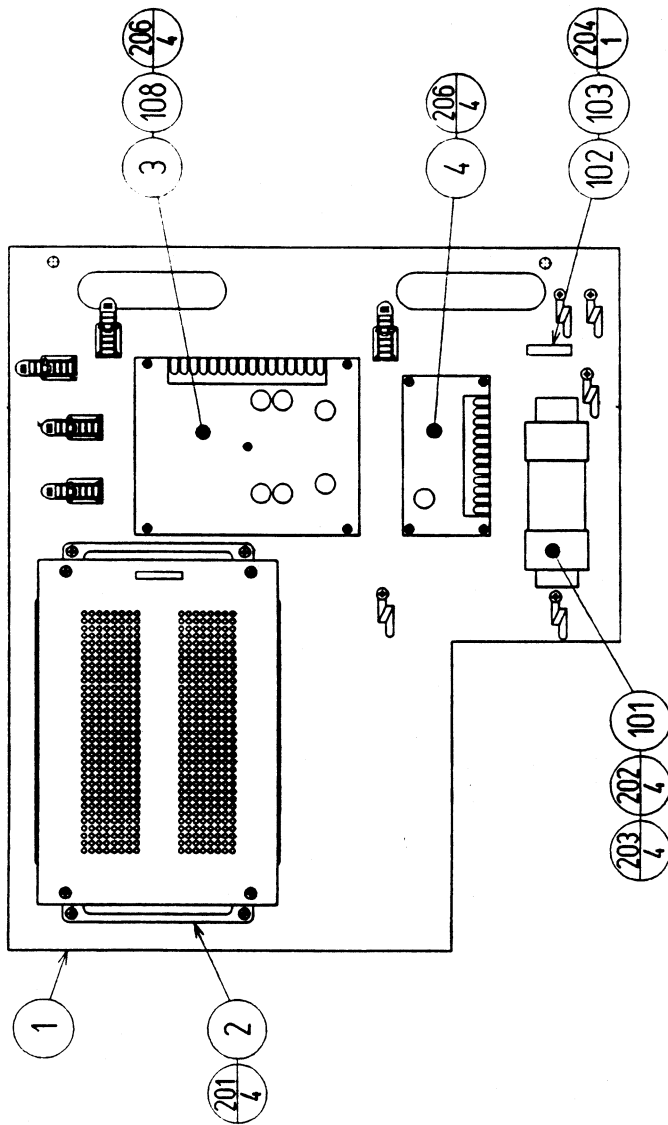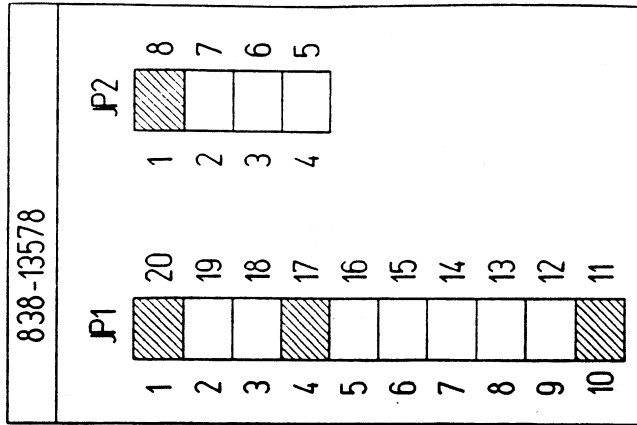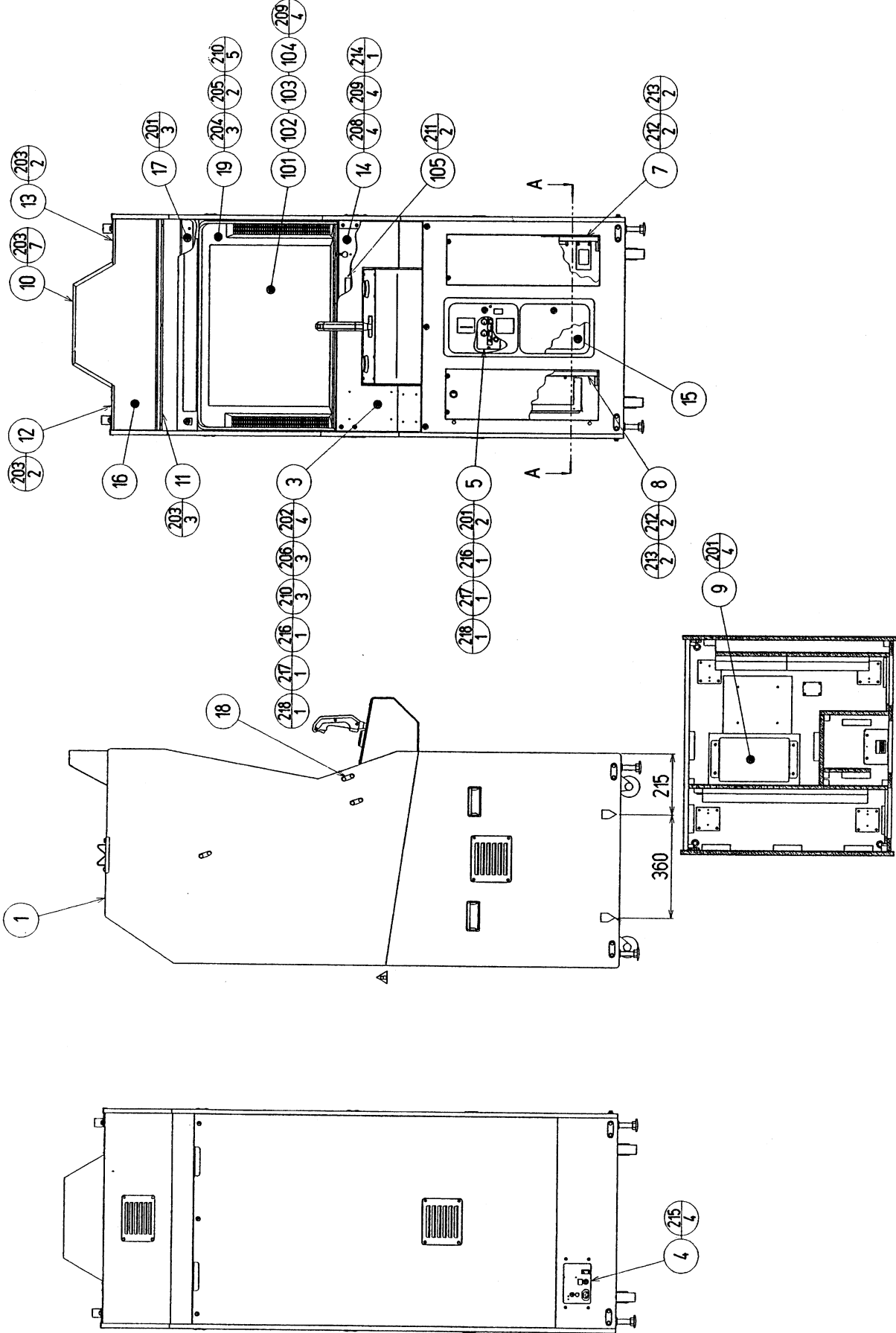
ASSY PWR SPLY (STW1-4500)

ITEM NO.	PART NO.	DESCRIPTION
1	STW-4501	WOODEN BASE PWR SUPPLY U/R
2	STW-4350	ASSY SHIELD CASE DS2
3	838-13578	PWR AMP 2CH & MIXER
4	838-11651-01	LOWPASS AMP W/LARGE HEAT SINK
101	560-5405-V	XMFR 100V 14V 6.3A
102	LOCAL PURCHASE	FUSE 6.25 A SLO
103	514-5084	FUSE HOLDER
108	211-5305	C JMPR SCKT (IMSA-9206H-GF)
201	000-P00412-W	M SCR PH W/FS M4X12
202	000-P00416-S	M SCR PH W/S M4X16
203	068-441616	FLT WSHR 4.4-16X1.6
204	011-F00310	TAP SCR FH 3X10
205	011-T03512	TAP SCR TH 3.5X12
206	011-P00325	TAP SCR PH 3X25

ASSY MAIN BD U/R (STW-4600)
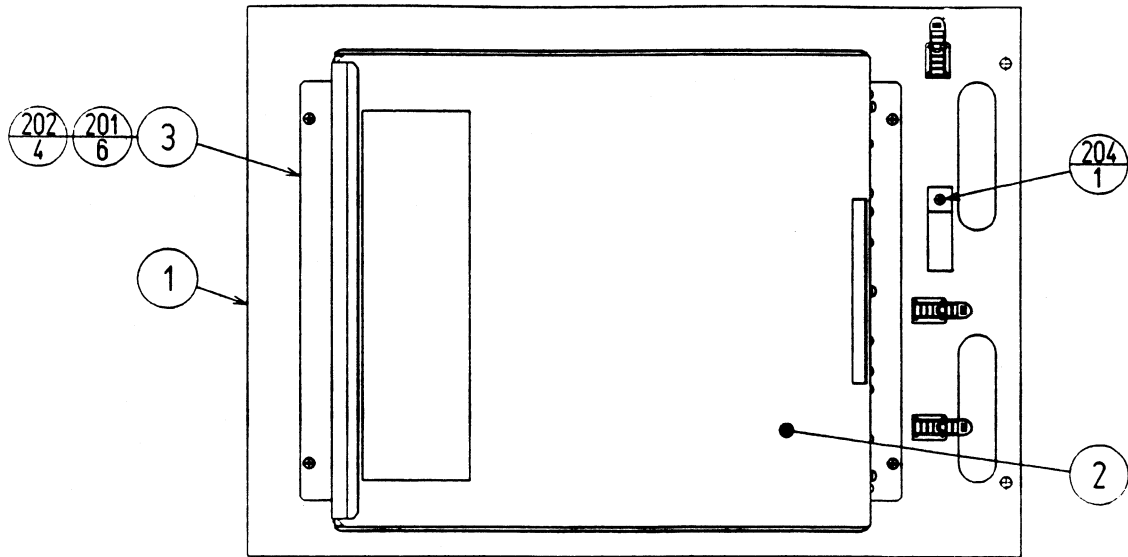
ITEM NO.	PART NO.	DESCRIPTION
1	STW-4601	WOODEN BASE MAIN U/R
2	STW-0100	ASSY SHIELD CASE MAIN
3	105-5241	SHIELD CASE BRKT
201	000-P00408-W	M SCR PH W/FS M4X8
202	000-P00412-W	M SCR PH W/FS M4X12
203	011-F00310	TAP SCR FH 3X10
204	011-T03512	TAP SCR TH 3.5X12

ASSY CABINET U/R (STW1-10001)

SECTION A-A

ASSY CABINET U/R (STW1-10001)

ITEM NO.	PART NO.	DESCRIPTION
1	STW-1500	ASSY SUB-CABI U/R
3	STW-2500	ASSY CONTROL PANEL U/R
4	STW-1550	AC UNIT U/R
5	STW-1560	SW UNIT
7	STW-4500	ASSY PWR SPLY U/R
8	STW-4600	ASSY MAIN BD U/R
9	STW-1540	ASSY WOOFER
10	STW-1503	BILLBOARD CASE
11	STW-1504	SASH LOWER
12	STW-1505	SASH UPPER L
13	STW-1506	SASH UPPER R
14	STW-1507	MASK HOLDER
15	BOX-CASH	CASH BOX
16	423-0323	BILLBOARD PLATE STW U/R
17	GBN-1076	MASK SUPPORT
18	117-5235	PLATE 6-30
19	TTR-1067X	MONITOR MASK
101	200-5242-24-04	ASSY CLR DSPL 29 TYPE 100 V
102	280-5112	BUSH FOR TV
103	280-5113	COLLAR FOR TV
104	280-5114	SPACER 6.4-25X2
105	280-5185-15	SPACER TUBE L=15
201	000-P00416-W	M SCR PH W/FS M4X16
202	000-T00616-0B	M SCR TH BLK M6X16
203	000-T00416-0B	M SCR TH BLK M4X16
204	000-T00520-0B	M SCR TH BLK M5X20
205	000-T00530-0B	M SCR TH BLK M5X30
206	000-T00525-0B	M SCR TH BLK M5X25
208	031-000630-0C	CRG BLT CRM M6X30
209	050-F00600	FLG NUT M6
210	068-552016-0B	FLT WSHR BLK 5.5-20X1.6
211	000-P00325-W	M SCR PH W/FS M3X25
212	032-000430	WING BLT M4X30
213	068-552016-0B	FLT WSHR BLK 5.5-20X1.6
214	000-P00408-W	M SCR PH W/FS M4X8
215	000-T00420-0B	M SCR TH BLK M4X20
216	050-H00400	HEX NUT M4
217	060-F00400	FLT WSHR M4
218	060-S00400	SPR WSHR M4