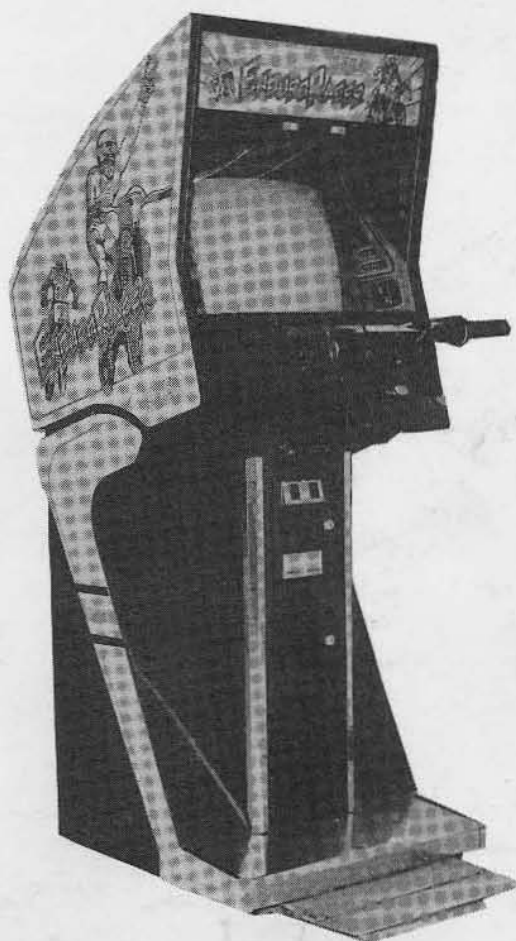


**SEGA®**

# ENDURO RACER

UPRIGHT TYPE

## OWNER'S MANUAL



**SEGA ENTERPRISES, LTD.**



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### UPRIGHT TYPE

#### SPECIFICATIONS

|                    |                                         |
|--------------------|-----------------------------------------|
| INSTALLATION SPACE | : 660 mm (26 in.) W×920 mm (36.2 in.) D |
| HEIGHT             | : 1790 mm (70.5 in.)                    |
| POWER              | : 230 W                                 |
| C. R. T.           | : 20"                                   |
| WEIGHT             | : 110 kg (242.5 lbs)                    |

### NOTE

- o Descriptions herein contained may be subject to improvement changes without notice.

## INTRODUCTION OF THE OWNER'S MANUAL

SEGA ENTERPRISES, LTD., supported by its high electronic technology of LSIs, microprocessors, etc. and a wealth of experience, has for more than 30 years been supplying various innovative and popular game machines to the world market. This OWNER'S manual is intended to provide detailed comments together with all the necessary information covering the operation in general of electronic assemblies, electromechanicals, servicing control, spare parts, etc. as regards the ENDURO RACER, a new SEGA product. The manual is intended for those who have knowledge of electricity and technical expertise especially in ICs, CRTs, microprocessors, etc. Carefully read so as to acquire sufficient knowledge before working on the machine. Should there be a malfunction, non-technical personnel should under no circumstance touch the interior system.

### 1. HANDLING PRECAUTIONS

When installing or inspecting, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.

- o Be sure to turn the power off before working on the machine.
- o To insert or pull out the plug quickly is dangerous.
- o It is necessary to make sure that the power cord or the grounding wire is not exposed on the road, etc. in a manner so as to be dangerous. Make sure that grounding connections are made safely at the position where so specified.
- o Do not use any fuse that does not meet the specified rating.
- o Make complete connections for the IC board and other connectors. Insufficient insertion is very dangerous.

Also, for the IC board circuit inspections, only the logic tone is allowed. The use of a tester is not permitted so be careful in this regard. After confirming that there are no irregularities, turn the power ON.

## 2. PREVENTION OF COUNTERFEITING AND CONVERSION

### LABELLING

To prevent counterfeits and conversions, the following labels are put on all the SEGA products. When handling such goods, be sure to confirm the labels. They are used to prevent illegal acts such as the unauthorized copying of the products and the printed circuit boards thereof or carrying on business by manufacturing similar merchandise or by converting, selling or using such products or printed circuit boards.

#### ORIGINAL SEAL

The following seal is put on the machines manufactured by SEGA.



#### LICENSE SEAL

The following seal is put on the kits, such as the printed circuit boards, of SEGA products.



### COPYRIGHT NOTICE

This SEGA product has the copyright notice as follows:

© SEGA 1986

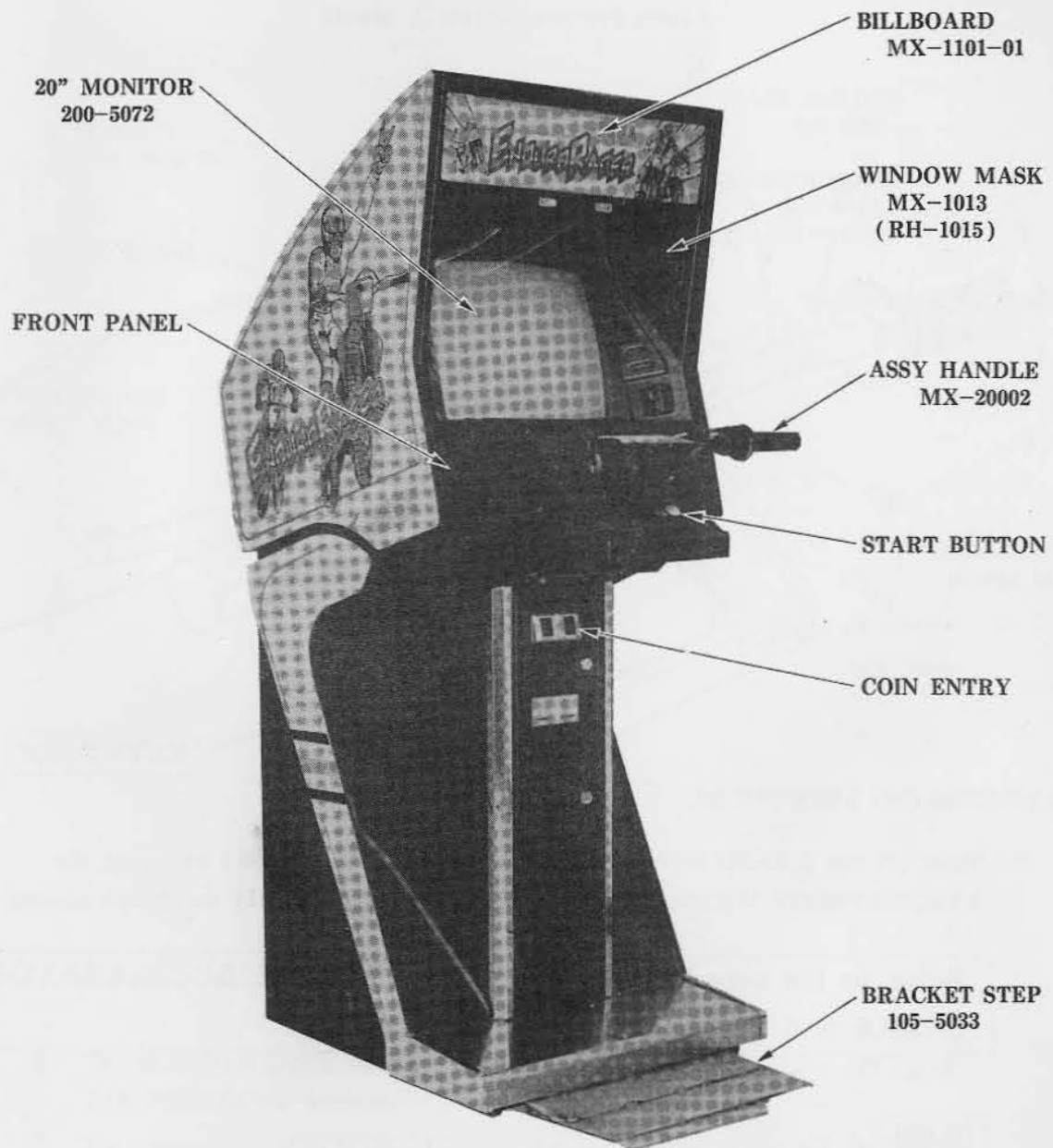
This signifies that this work was disclosed in 1986 and is the property of SEGA ENTERPRISES, LTD.

### 3. PRECAUTIONS CONCERNING THE PLACE OF INSTALLATION

The ENDURO RACER is an indoor game machine. Absolutely do not install it outside. Even indoors, avoid installing in places mentioned below so as to ensure proper usage:

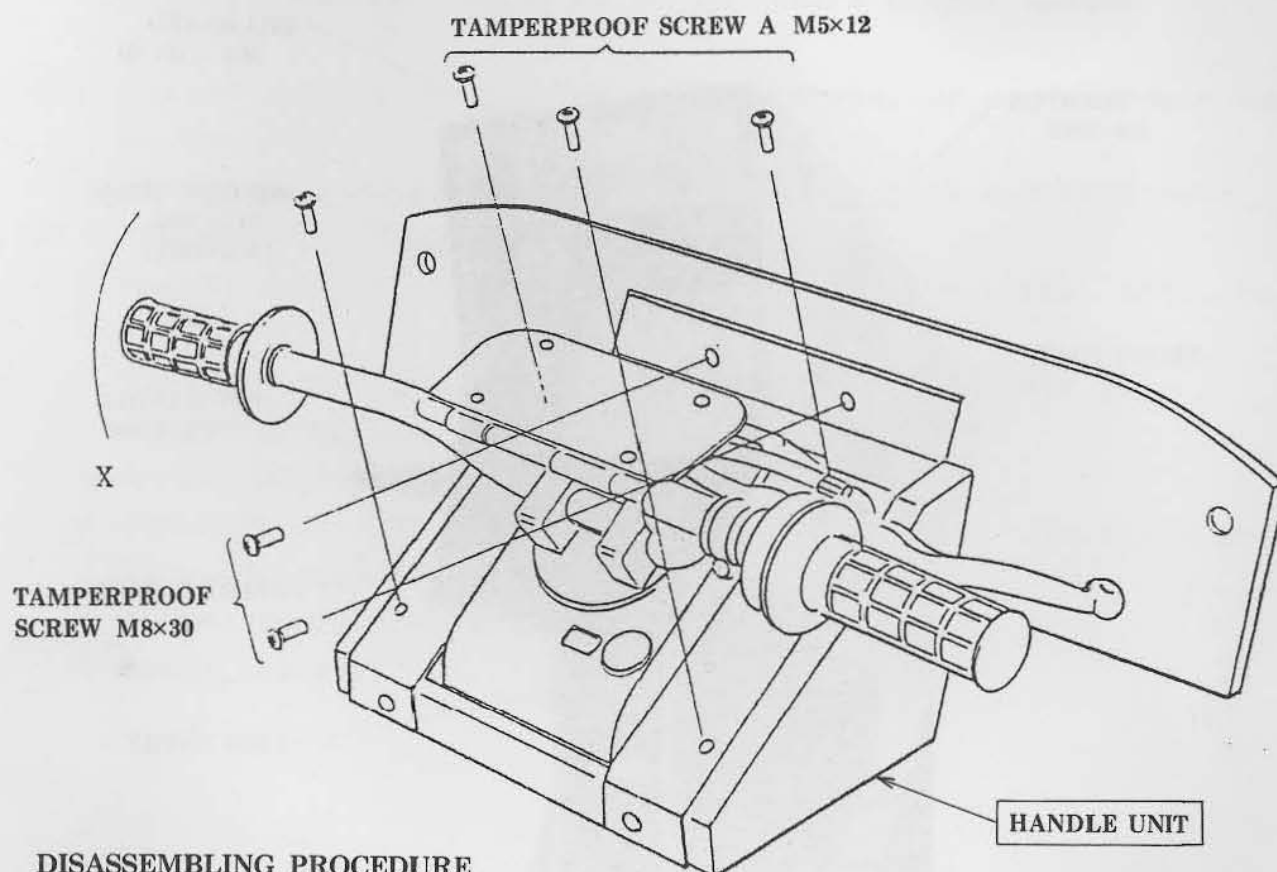
- o Places subject to rain or water leakage, or condensation due to humidity.
- o In the proximity of an indoor swimming pool and/or shower.
- o Places subject to direct sunlight.
- o Places subject to heat sources from heating units, etc., or hot air.
- o Vicinity of highly inflammable/volatile chemicals or hazardous matter.
- o Sloped surfaces.
- o Vicinity of anti-disaster facilities such as fire exits and fire extinguishers.
- o Places subject to any type of violent impact.
- o Dusty places.

#### 4. NAME OF PARTS



## 5. REMOVING THE HANDLE UNIT

- When adjusting the ACCELERATOR and BRAKE, CENTERING, remove the HANDLE UNIT by using the following procedure :



### DISASSEMBLING PROCEDURE

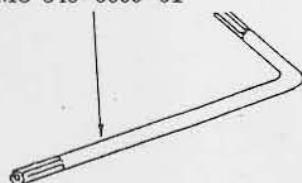
- ① Take off the 6 TAMPERPROOF SCREWS ( M5x12, M8x30 ) by using the TAMPERPROOF WRENCH and remove the HANDLE UNIT as shown above.

Refer to the separate item, **ADJUSTING THE ACCELERATOR, BRAKE and CENTERING.**

### TOOLS

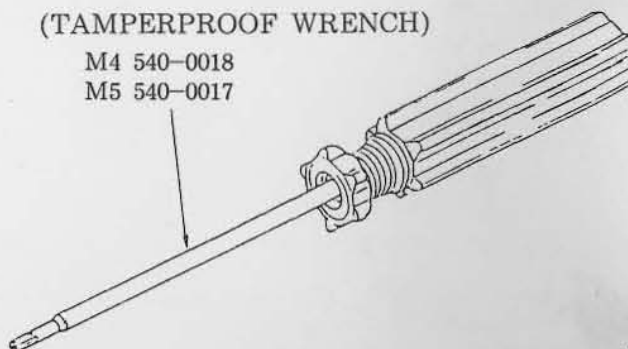
(TAMPERPROOF WRENCH)

M4 540-0006-01  
M5 540-0007-01  
M6 540-0015-01  
M8 540-0009-01

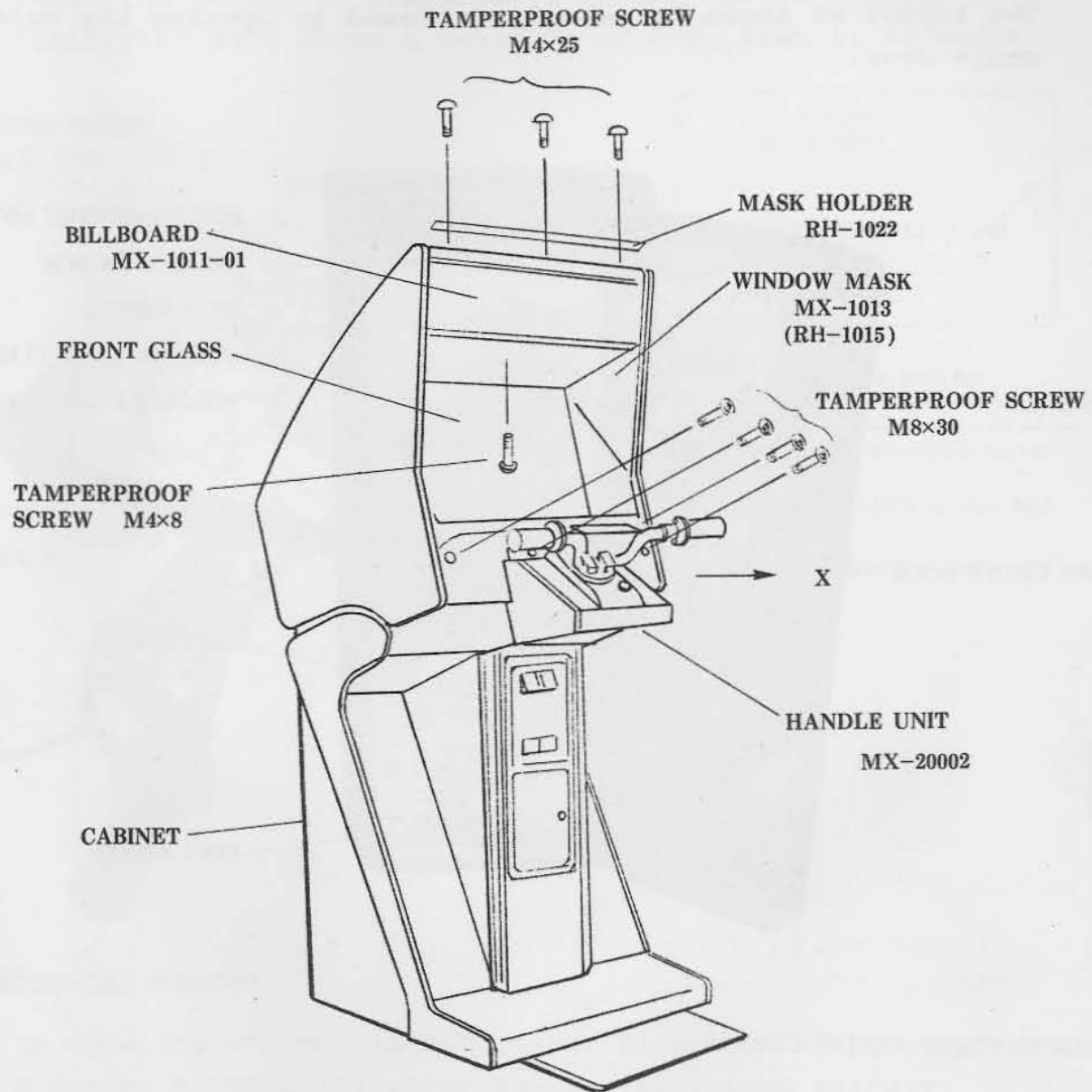


(TAMPERPROOF WRENCH)

M4 540-0018  
M5 540-0017



## 6. SERVICING THE HANDLE UNIT AND WINDOW MASK

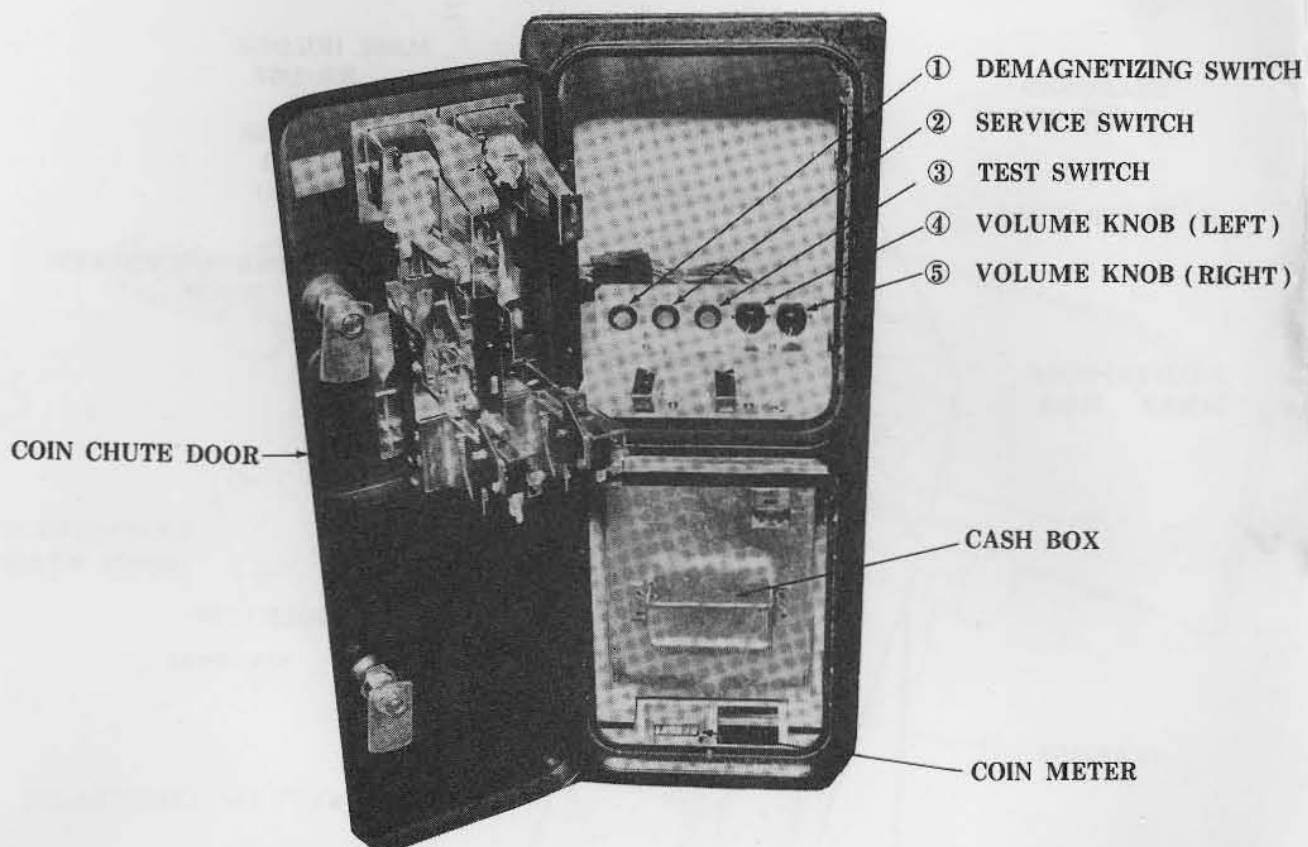


- ① The HANDLE UNIT can be opened towards you by taking off the 4 TAMPERPROOF screws.
- ② To remove the WINDOW MASK from the cabinet, take off the MASK HOLDER FRONT PANEL and then the TAMPERPROOF screws (M4x8) inside the WINDOW MASK.
- ③ Next open it 'towards you.

This allows for the clearing of the monitor screen (CRT surfaces) and the replacement of the BILLBOARD.

## 7. ADJUSTMENT OF THE SERVICE SWITCH

The layout as shown below can be viewed by opening the coin chute door.

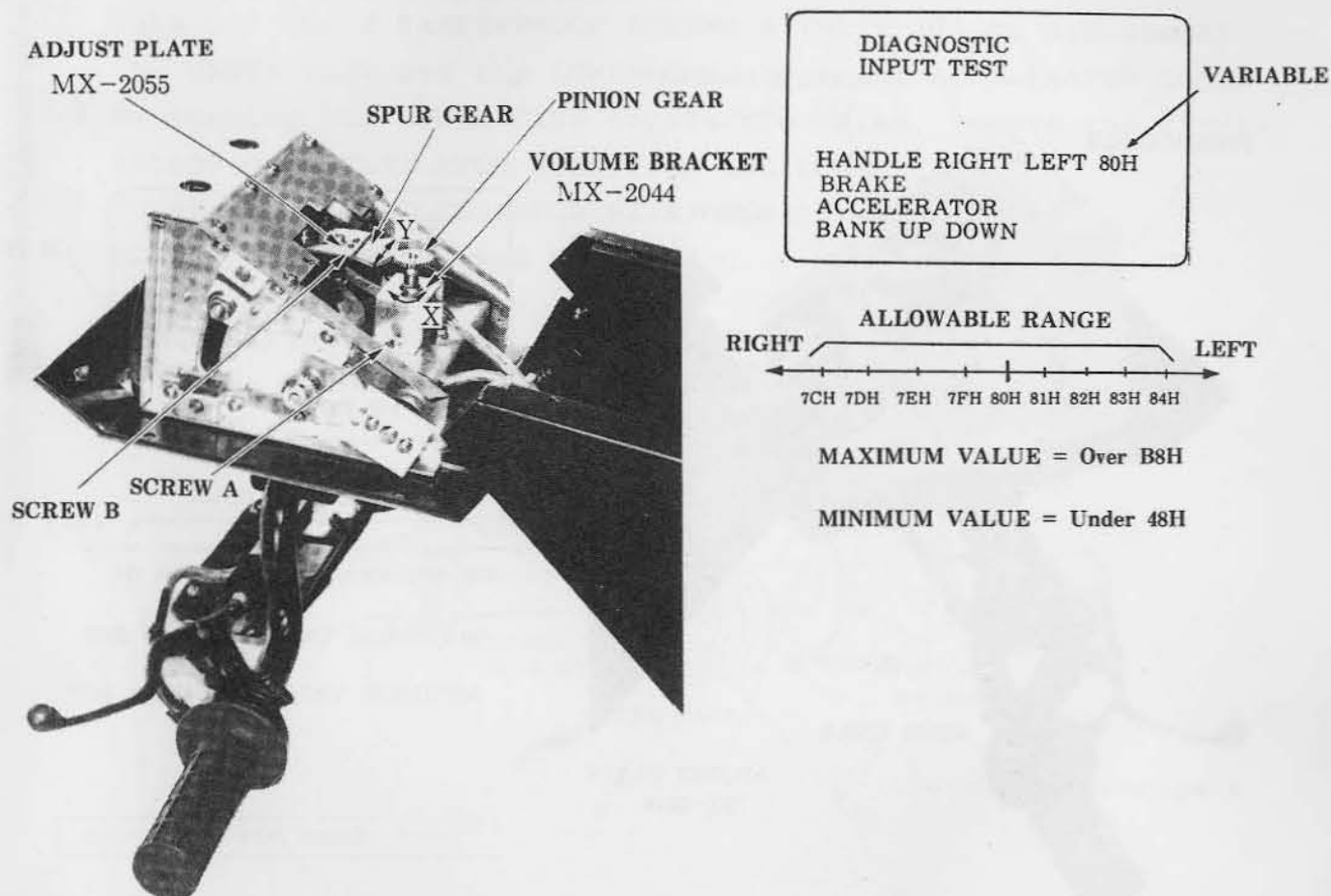


### OPERATING INSTRUCTIONS

- ① DEMAGNETIZING SWITCH.....Used for removing the on-screen color unevenness.
- ② SERVICE SWITCH.....Used for the purpose of servicing and increasing the credits without registering on the meter (this allows you to check the game).
- ③ TEST SWITCH.....For operating this switch, see 16. SELF-TESTING.
- ④⑤ VOLUME ADJUSTMENT.....The volume of the right/left speakers is separately adjusted (pay attention to the right/left volume balance).

## 8. HANDLE'S CENTERING ADJUSTMENT

When the HANDLE is stationary, if the screen display in the SELF-TEST MODE shows a variable of 80H, then it is normal.

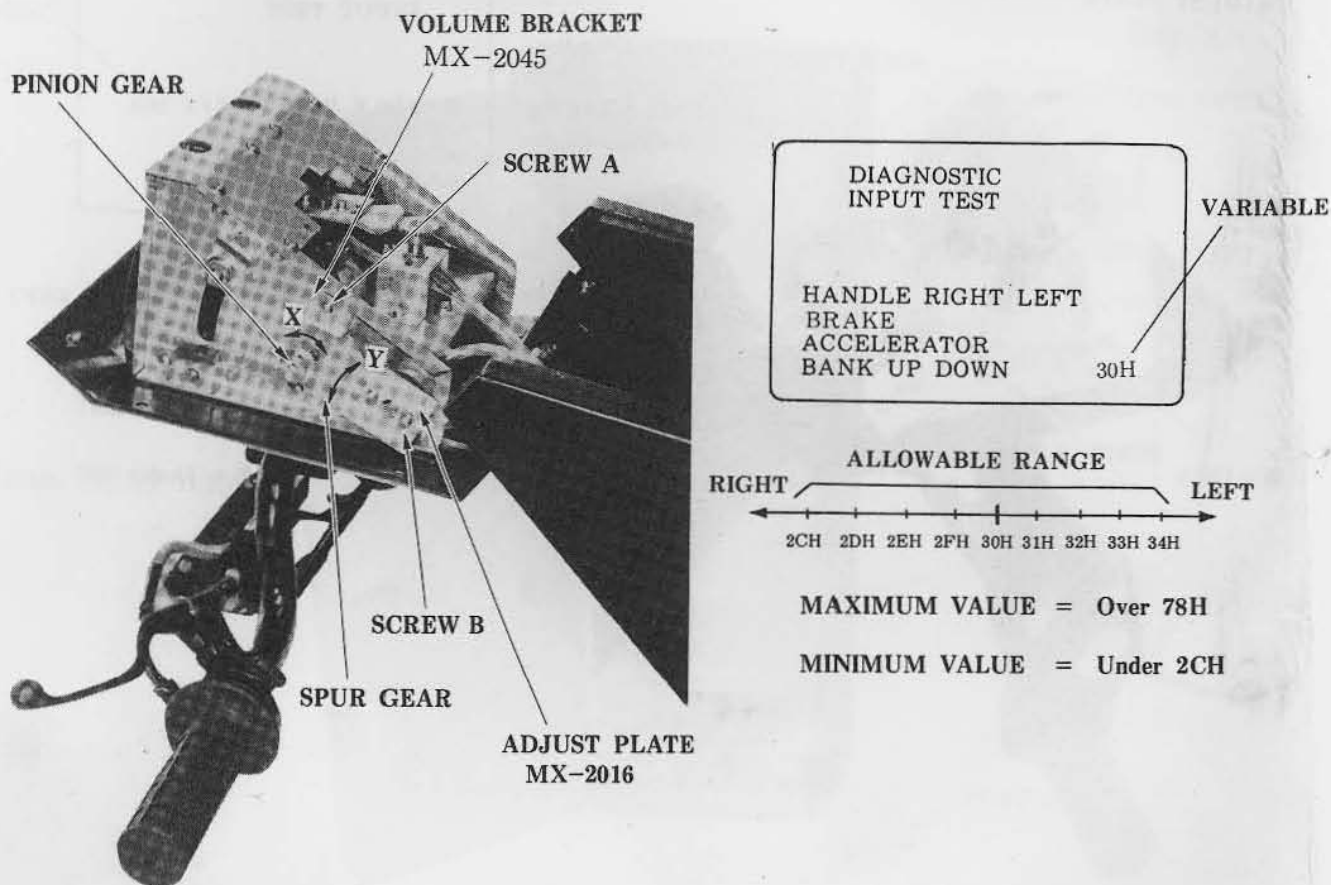


### ADJUSTING METHOD

- ① To move the VOLUME BRACKET in the direction of X, release the 2 SCREWS A (M4 x 10) which fasten the VOLUME BRACKET.
- ② When the VOLUME BRACKET is moved in the direction of X, the PINION and SPUR GEARS will be disengaged. At this time, turn the volume shaft and make adjustments so that the variable is in the allowable range.
- ③ Where necessary, make fine adjustments by loosening SCREWS B (M4 x 10) and moving the ADJUST PLATE in the direction of Y.
- ④ Make the backlash adjustments by moving the VOLUME BRACKET in the X direction.

## 9. HANDLE'S BANK UP DOWN ADJUSTMENT

When the HANDLE is stationary, if the screen display in the SELF-TEST MODE shows a variable of 30H, then it is normal.



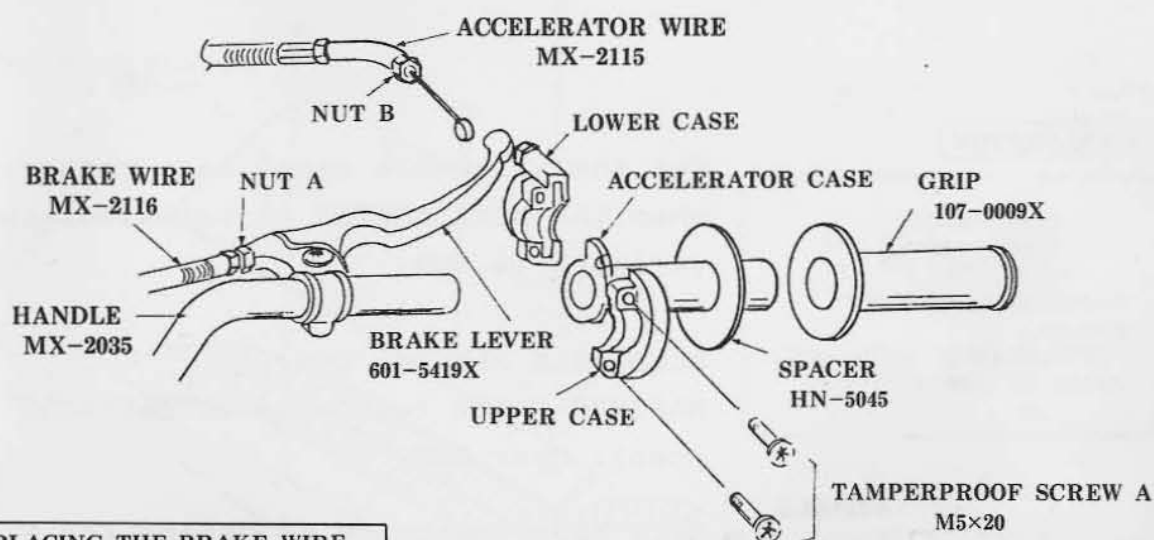
### ADJUSTING METHOD

- ① To move the VOLUME BRACKET in the direction of X, release the 2 SCREWS A (M4 x 10) which fasten the VOLUME BRACKET.
- ② When the VOLUME BRACKET is moved in the direction of X, the PINION and SPUR GEARS will be disengaged. At this time, turn the volume shaft and make adjustments so that the variable is in the allowable range.
- ③ Where necessary, make fine adjustments by loosening SCREWS B (M4 x 10) and moving the ADJUST PLATE in the direction of Y.
- ④ Make the backlash adjustments by moving the VOLUME BRACKET in the X direction.

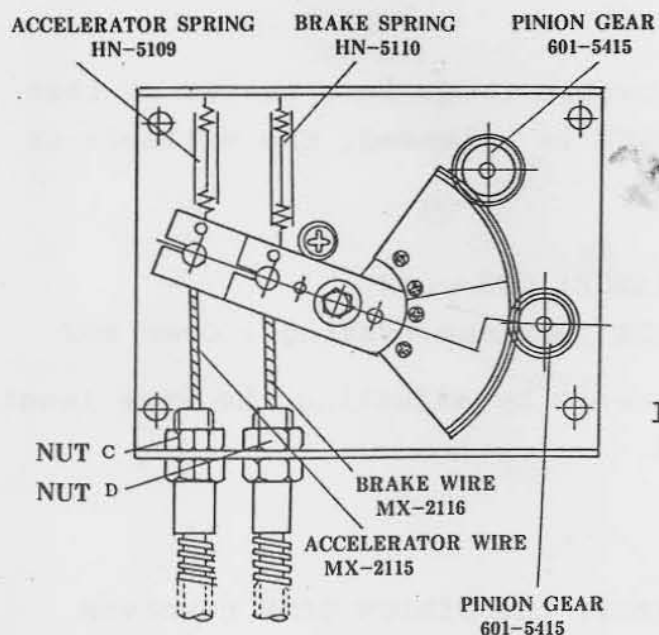
## 10. REPLACING THE PARTS RELATED TO THE ACCELERATOR AND THE BRAKE

### REPLACING THE ACCELERATOR WIRE

- ① Take off the 2 TAMPERPROOF SCREWS A (M5 x 20) to disassemble the UPPER CASE and the LOWER CASE from the ACCELERATOR CASE.
- ② By turning the LOWER CASE counterclockwise, remove the firmly attached ACCELERATOR WIRE from the LOWER CASE.
- ③ To remove the ACCELERATOR WIRE, first take off the ACCELERATOR SPRING and then NUT C.



### REPLACING THE BRAKE WIRE



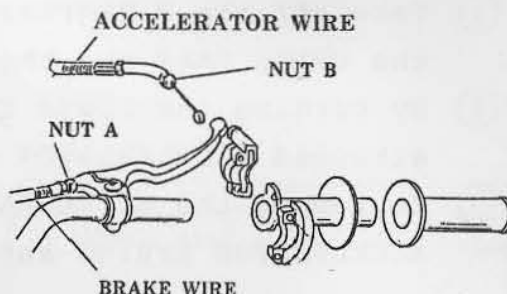
- ① Loosen the BRAKE LEVER NUT first and then remove the BRAKE WIRE.
- ② To completely remove the BRAKE WIRE, take off the BRAKE SPRING first and then NUT D.

### — CAUTION —

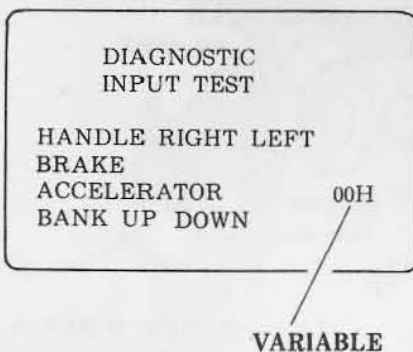
1. When replacing the ACCELERATOR WIRE and the BRAKE WIRE, be sure to take off the PLAY INSTRUCTIONS PLATE first (see page 12 ). After the WIRE replacement, make sure that the necessary adjustments are made.

## 11. ADJUSTING THE ACCELERATOR/BRAKE

- o After replacing the wires for the ACCELERATOR and the BRAKE, carry out the following test.
- o Display the screen in the SELF-TEST MODE (see page 20 ).



### ACCELERATOR



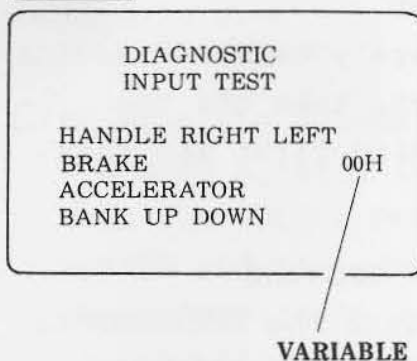
Set the allowable range in a manner so that, when the ACCELERATOR is released, the variable is 00H.

ALLOWABLE RANGE: 00H-04H

MAXIMUM VALUE (with the ACCELERATOR fully open): Over 80H

Make adjustments by adjusting the wire length using NUT B.

### BRAKE



Set the allowable range in a manner so that when the BRAKE is released, the variable is 00H.

ALLOWABLE RANGE: 00H ~ 04H

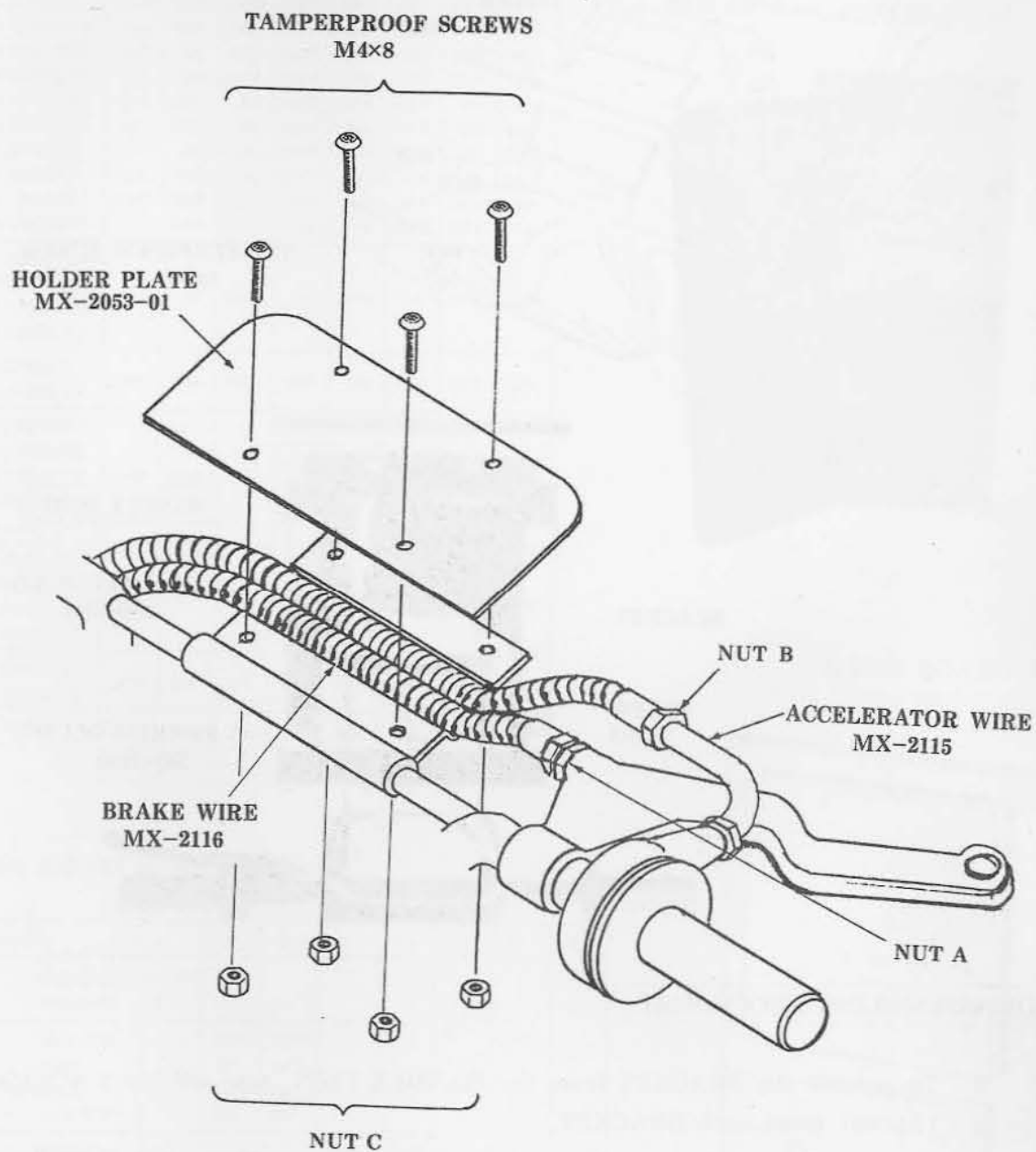
MAXIMUM VALUE (maximum braking): Over 80H

Make adjustments by adjusting the wire length using NUT A.

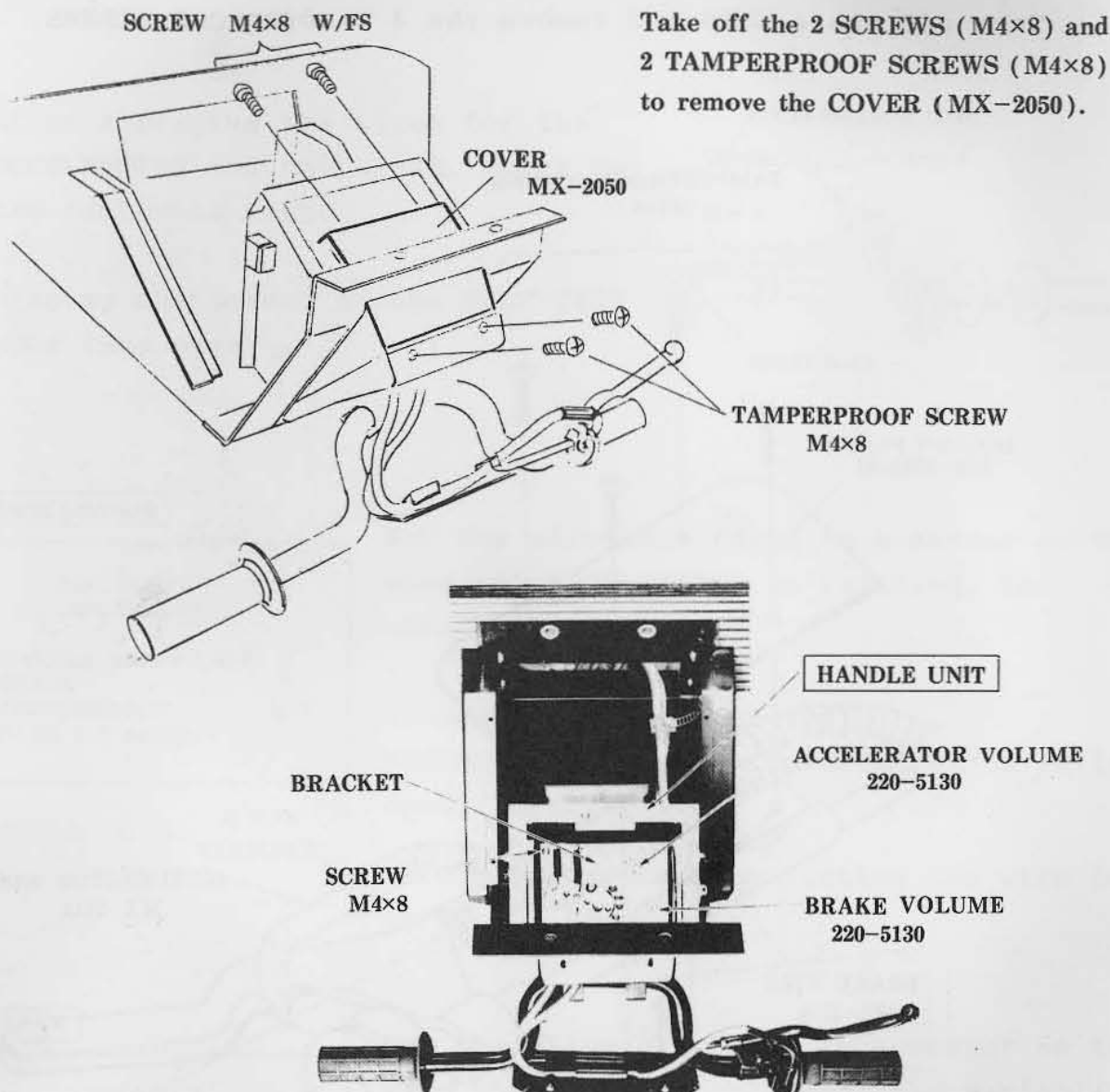
When activating the ACCELERATOR/BRAKE, the PINION GEAR revolves approximately 216°.

## REMOVING THE PLAY INSTRUCTIONS PLATE

Take off the 4 NUTS and remove the 4 TAMPERPROOF SCREWS.



## 12. REPLACING THE VOLUME CONTROL FOR THE ACCELERATOR/ BRAKE



### DISASSEMBLING PROCEDURE

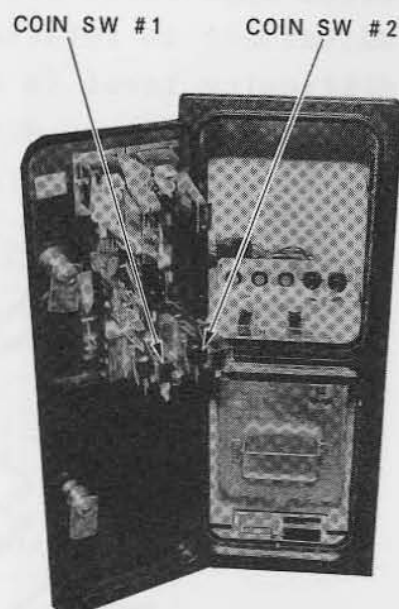
- ① To remove the BRACKET from the HANDLE UNIT, take off the 4 SCREWS (M4x8) from each BRACKET.
- ② To remove the PINION GEAR, release the 2 SET SCREWS of the PINION GEAR attached to the VOLUME CONTROL SHAFT.
- ③ To remove the VOLUME CONTROL from the VOLUME BRACKET, take off the VOLUME CONTROL SHAFT NUT.
- ④ After replacement, assemble in a manner opposite to the above procedure.
- ⑤ Make adjustments by moving the VOLUME BRACKET in the X direction around the SCREW which is used for the backlash adjustments.

## 13. DIP SWITCH SETTING

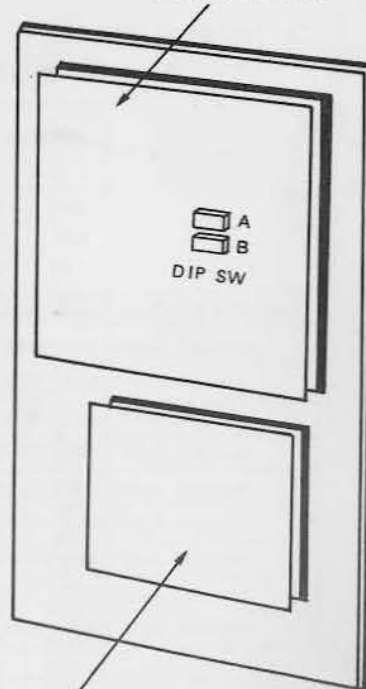
### GAME PRICE SETTING

DIP SW A

| OPTION                                                                                              | 1   | 2   | 3   | 4          | 5   | 6   | 7   | 8   |
|-----------------------------------------------------------------------------------------------------|-----|-----|-----|------------|-----|-----|-----|-----|
| 1 COIN 1 CREDIT                                                                                     | OFF | OFF | OFF | OFF        | OFF | OFF | OFF | OFF |
| 1 COIN 2 CREDITS                                                                                    | ON  | OFF | OFF | OFF        | ON  | OFF | OFF | OFF |
| 1 COIN 3 CREDITS                                                                                    | OFF | ON  | OFF | OFF        | OFF | ON  | OFF | OFF |
| 1 COIN 4 CREDITS                                                                                    | ON  | ON  | OFF | OFF        | ON  | ON  | OFF | OFF |
| 1 COIN 5 CREDITS                                                                                    | OFF | OFF | ON  | OFF        | OFF | OFF | ON  | OFF |
| 1 COIN 6 CREDITS                                                                                    | ON  | OFF | ON  | OFF        | ON  | OFF | ON  | OFF |
| 2 COINS 1 CREDIT                                                                                    | OFF | ON  | ON  | OFF        | OFF | ON  | ON  | OFF |
| 3 COINS 1 CREDIT                                                                                    | ON  | ON  | ON  | OFF        | ON  | ON  | ON  | OFF |
| 4 COINS 1 CREDIT                                                                                    | OFF | OFF | OFF | ON         | OFF | OFF | OFF | ON  |
| 2 COINS 3 CREDITS                                                                                   | ON  | OFF | OFF | ON         | ON  | OFF | OFF | ON  |
| 2 COINS 1 CREDIT<br>4 COINS 2 CREDITS<br>5 COINS 3 CREDITS<br>6 COINS 4 CREDITS                     | OFF | ON  | OFF | ON         | OFF | ON  | OFF | ON  |
| 2 COINS 1 CREDIT<br>4 COINS 3 CREDITS                                                               | ON  | ON  | OFF | ON         | ON  | ON  | OFF | ON  |
| 1 COIN 1 CREDIT<br>2 COINS 2 CREDITS<br>3 COINS 3 CREDITS<br>4 COINS 4 CREDITS<br>5 COINS 6 CREDITS | OFF | OFF | ON  | ON         | OFF | OFF | ON  | ON  |
| 1 COIN 1 CREDIT<br>2 COINS 2 CREDITS<br>3 COINS 3 CREDITS<br>4 COINS 5 CREDITS                      | ON  | OFF | ON  | ON         | ON  | OFF | ON  | ON  |
| 1 COIN 1 CREDIT<br>2 COINS 3 CREDITS                                                                | OFF | ON  | ON  | ON         | OFF | ON  | ON  | ON  |
| FREE PLAY                                                                                           | ON  | ON  | ON  | ON         | ON  | ON  | ON  | ON  |
| COIN SW #1                                                                                          |     |     |     | COIN SW #2 |     |     |     |     |



GAME BOARD A  
( 834-6000-01 )



GAME BOARD B  
( 834-6003-01 )

### OPTION SWITCH SETTING

DIP SW B

| OPTION          | 1                                 | 2         | 3                      | 4                      | 5                      | 6                      | 7                      | 8         |
|-----------------|-----------------------------------|-----------|------------------------|------------------------|------------------------|------------------------|------------------------|-----------|
| TYPE SELECT     | WHEELIE<br>UPRIGHT                | OFF<br>ON |                        |                        |                        |                        |                        |           |
| GAME DIFFICULTY | MEDIUM<br>EASY<br>HARD<br>HARDEST |           | OFF<br>ON<br>OFF<br>ON | OFF<br>OFF<br>ON<br>ON |                        |                        |                        |           |
| TIME ADJUST     | MEDIUM<br>EASY<br>HARD<br>HARDEST |           |                        | OFF<br>ON<br>OFF<br>ON | OFF<br>OFF<br>ON<br>ON |                        |                        |           |
| TIME CONTROL    | MEDIUM<br>EASY<br>HARD<br>HARDEST |           |                        |                        |                        | OFF<br>ON<br>OFF<br>ON | OFF<br>OFF<br>ON<br>ON |           |
| ADVERTISE SOUND | OFF<br>ON                         |           |                        |                        |                        |                        |                        | OFF<br>ON |

## 14. GAME DIFFICULTY SETTING

In this game, by using the DIP SWITCH B on the GAME BOARD B, the 4 difficulty levels can be set for each of the following: ① Other bikes appearance frequency ② Play time adjustments ③ Time adjustment in relation to real time. When shipping, the difficulty level is set at MEDIUM. In actual play, however, a setting to a more difficult or easier level depending on the player's skill levels can be made.

### 1. OTHER CARS' APPEARANCE FREQUENCY (SWITCH 2, 3)

| SWITCH NO. |     | OTHER CARS' APPEARANCE FREQUENCY | DIFFICULTY LEVEL |
|------------|-----|----------------------------------|------------------|
| 2          | 3   |                                  |                  |
| OFF        | OFF |                                  | MEDIUM           |
| ON         | OFF | 30% less than MEDIUM             | EASY             |
| OFF        | ON  | 40% more than MEDIUM             | HARD             |
| ON         | ON  | 80% more than MEDIUM             | HARDEST          |

※ When shipping

### 2. PLAY ADJUSTMENT (SWITCH 4, 5)

| SWITCH NO. |     | PLAY TIME PER STAGE (SEC.) |    |    |    |    | DIFFICULTY LEVEL |
|------------|-----|----------------------------|----|----|----|----|------------------|
| 4          | 5   | 1                          | 2  | 3  | 4  | 5  |                  |
| OFF        | OFF | 60                         | 50 | 50 | 50 | 50 | MEDIUM           |
| ON         | OFF | 65                         | 50 | 50 | 50 | 50 | EASY             |
| OFF        | ON  | 55                         | 50 | 50 | 50 | 50 | HARD             |
| ON         | ON  | 50                         | 50 | 50 | 50 | 50 | HARDEST          |

※ When shipping

### 3. TIME ADJUSTMENT IN RELATION TO REAL TIME (SW 6, 7)

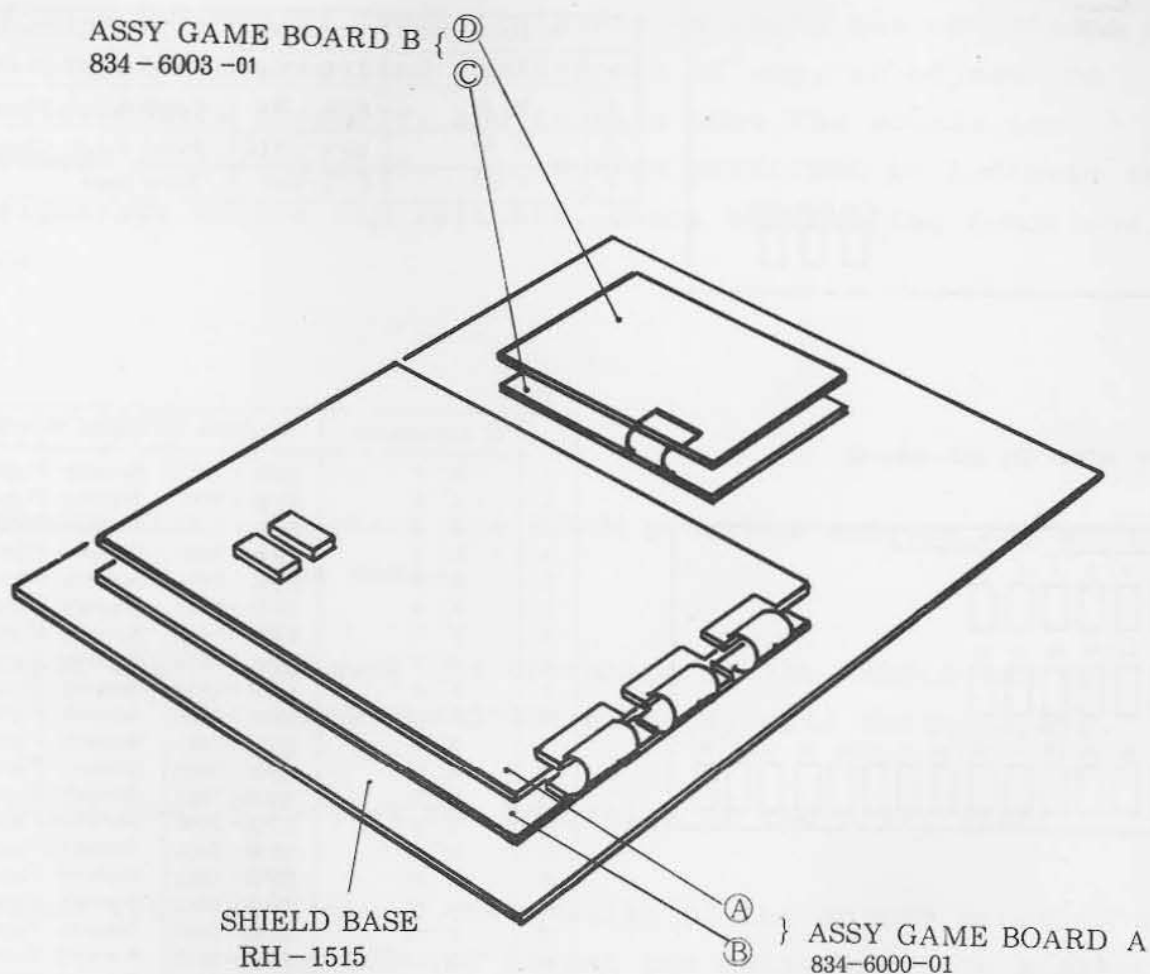
| SWITCH NO. |     | DISPLAY TIME IN SECONDS ADJUSTED IN RELATION TO REAL TIME | DIFFICULTY LEVEL |
|------------|-----|-----------------------------------------------------------|------------------|
| 6          | 7   |                                                           |                  |
| OFF        | OFF | 95%                                                       | MEDIUM           |
| ON         | OFF | 100%                                                      | EASY             |
| OFF        | ON  | 85%                                                       | HARD             |
| ON         | ON  | 80%                                                       | HARDEST          |

※ ← When shipping

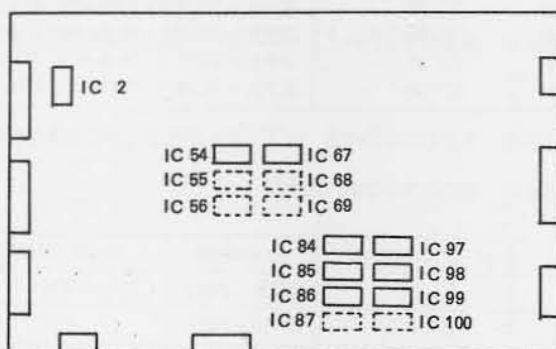
### SPECIFIC SETTING ILLUSTRATION

| DIP SW NO. |     |     |     |     |     | DIFFICULTY      |
|------------|-----|-----|-----|-----|-----|-----------------|
| 2          | 3   | 4   | 5   | 6   | 7   |                 |
| ON         | OFF | ON  | OFF | ON  | OFF | EASY<br>↑       |
| ON         | OFF | ON  | OFF | OFF | ON  |                 |
| ON         | OFF | OFF | OFF | ON  | ON  |                 |
| ON         | OFF | ON  | ON  | OFF | ON  |                 |
| OFF        | OFF | OFF | OFF | OFF | OFF |                 |
| OFF        | OFF | OFF | OFF | OFF | ON  | ← When shipping |
| OFF        | OFF | OFF | ON  | OFF | OFF |                 |
| OFF        | ON  | OFF | OFF | ON  | OFF |                 |
| OFF        | ON  | OFF | OFF | OFF | ON  |                 |
| OFF        | ON  | OFF | ON  | OFF | ON  |                 |
| ON         | ON  | ON  | OFF | OFF | OFF |                 |
| ON         | ON  | OFF | ON  | ON  | OFF |                 |
| ON         | ON  | ON  | ON  | ON  | OFF |                 |
| ON         | ON  | ON  | ON  | ON  | ON  |                 |
| ON         | ON  | ON  | ON  | ON  | ON  | HARDEST<br>↓    |

## 15. EPROM/ROM LOCATION

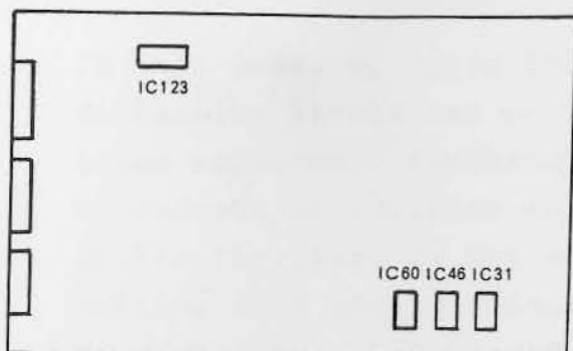


(A) ASSY CPU BD 837-6001-01



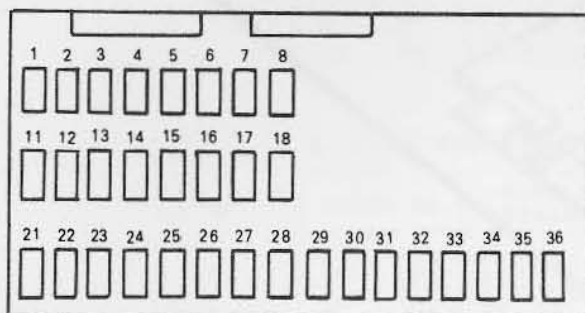
|   | IC LOCATIONS | NUMBERS  | MAIN FUNCTIONS |
|---|--------------|----------|----------------|
| 1 | IC 2         | EPR-7633 | Road Character |
| 2 | IC 54        | EPR-7634 | SUB Program    |
| 3 | IC 67        | EPR-7635 | SUB Program    |
| 4 | IC 84        | EPR-7629 | Main Program   |
| 5 | IC 85        | EPR-7637 | Main Program   |
| 6 | IC 86        | EPR-7638 | Main Program   |
| 7 | IC 97        | EPR-7630 | Main Program   |
| 8 | IC 98        | EPR-7641 | Main Program   |
| 9 | IC 99        | EPR-7642 | Main Program   |

Ⓑ ASSY CONTROL BD 837-6002-01



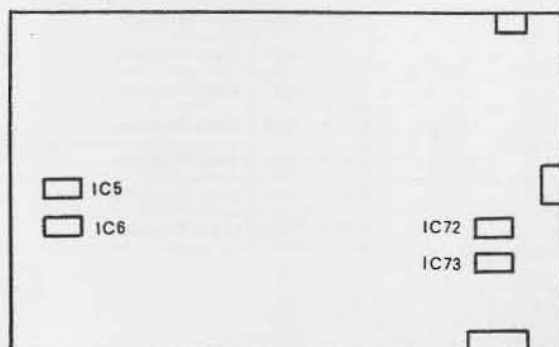
|   | IC LOCATIONS | NUMBERS  | MAIN FUNCTIONS         |
|---|--------------|----------|------------------------|
| 1 | IC 31        | EPR-7644 | Fixed Scroll Character |
| 2 | IC 46        | EPR-7645 | Fixed Scroll Character |
| 3 | IC 60        | EPR-7646 | Fixed Scroll Character |
| 4 | IC123        | EPR-6844 | Zoom Data              |

Ⓒ ASSY ROM BD 837-6004-01



|    | IC LOCATIONS | NUMBERS  | MAIN FUNCTIONS  |
|----|--------------|----------|-----------------|
| 1  | IC 1         | EPR-7647 | Scenery Figures |
| 2  | IC 2         | EPR-7648 | Scenery Figures |
| 3  | IC 3         | EPR-7649 | Scenery Figures |
| 4  | IC 4         | EPR-7650 | Scenery Figures |
| 5  | IC 5         | EPR-7651 | Scenery Figures |
| 6  | IC 6         | EPR-7652 | Scenery Figures |
| 7  | IC 7         | EPR-7653 | Scenery Figures |
| 8  | IC 8         | EPR-7654 | Scenery Figures |
| 9  | IC 11        | EPR-7655 | Scenery Figures |
| 10 | IC 12        | EPR-7656 | Scenery Figures |
| 11 | IC 13        | EPR-7657 | Scenery Figures |
| 12 | IC 14        | EPR-7658 | Scenery Figures |
| 13 | IC 15        | EPR-7659 | Scenery Figures |
| 14 | IC 16        | EPR-7660 | Scenery Figures |
| 15 | IC 17        | EPR-7661 | Scenery Figures |
| 16 | IC 18        | EPR-7662 | Scenery Figures |
| 17 | IC 21        | EPR-7663 | Scenery Figures |
| 18 | IC 22        | EPR-7664 | Scenery Figures |
| 19 | IC 23        | EPR-7665 | Scenery Figures |
| 20 | IC 24        | EPR-7666 | Scenery Figures |
| 21 | IC 25        | EPR-7667 | Scenery Figures |
| 22 | IC 26        | EPR-7668 | Scenery Figures |
| 23 | IC 27        | EPR-7669 | Scenery Figures |
| 24 | IC 28        | EPR-7670 | Scenery Figures |
| 25 | IC 29        | EPR-7671 | Scenery Figures |
| 26 | IC 30        | EPR-7672 | Scenery Figures |
| 27 | IC 31        | EPR-7673 | Scenery Figures |
| 28 | IC 32        | EPR-7674 | Scenery Figures |
| 29 | IC 33        | EPR-7675 | Scenery Figures |
| 30 | IC 34        | EPR-7676 | Scenery Figures |
| 31 | IC 35        | EPR-7677 | Scenery Figures |
| 32 | IC 36        | EPR-7678 | Scenery Figures |

Ⓓ ASSY SOUND BD 837-6005-01



|   | IC LOCATIONS | NUMBERS  | MAIN FUNCTIONS |
|---|--------------|----------|----------------|
| 1 | IC 5         | EPR-7762 | Sound Data     |
| 2 | IC 6         | EPR-7763 | "              |
| 3 | IC 72        | EPR-7764 | Sound Program  |
| 4 | IC 73        | EPR-7765 | "              |

## 16. SELF-TESTING

The main purpose of these tests are to check the operations of the game boards, to find the defects if any, to adjust the monitor colors properly, and to make sure the sounds are produced satisfactorily. It is also performed to indicate the assignments of the dip switches, check bookkeeping functions, etc.

### KIND OF TESTS

- 1) Memory Test : To check the EPROM programs and the map area of the RAMs.
- 2) Input Test : To test the operation of the HANDLE and to check the START buttons, coin switches, etc.
- 3) Output Test : To test the operation of the start lamp.
- 4) Sound Test : To check the quality of the sounds produced by the PCB and adjust the balance of the speakers.
- 5) CRT Test : To check if the colors on the monitor are displayed correctly, and to adjust the linearity.
- 6) Dip Switch Assignment : To indicate each dip switch assignment.
- 7) Bookkeeping : To indicate information data on average score and average play time, etc.

## 1. TEST OPERATION

- (1) Push the test switch and Fig. 1 will be shown on the screen.
- (2) Select CONTINUE or INDIVIDUAL by using the START button.

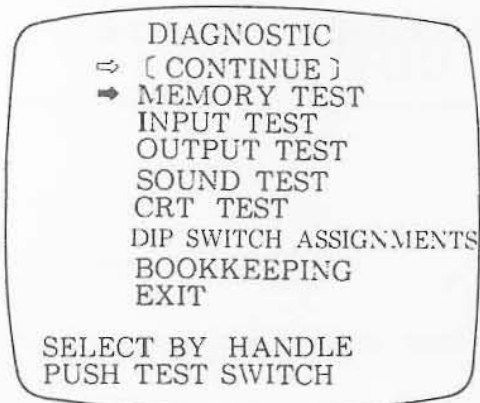


FIG. 1

- (3) Move the accelerator to bring the arrow to the desired position.

SELECT BY ACCELERATOR PUSH TEST SWITCH (Select the desired test item by using the accelerator and push the test switch button.)

### [CONTINUE] :

- o Bring the arrow sign (by operating the ACCELERATOR) to CONTINUE first, and move it to one of the tests to start. Push the TEST button, and the tests will be performed in order, one by one, starting from the test where the arrow was originally set to the EXIT.
- o If the START button is pushed when the arrow is at CONTINUE, it will change to INDIVIDUAL. Pushing it again returns it to CONTINUE.

### [INDIVIDUAL] :

- o If the arrow is at INDIVIDUAL first and brought to a certain test which you want to conduct, only that test is performed by pushing the TEST button.

(4) When each test is finished in the case of CONTINUE, push the TEST button, and it will automatically go into the following test. If the TEST button is pushed in the case of INDIVIDUAL, FIG. 1 is shown. If you want to end the test mode at this time, bring the arrow to EXIT and push the TEST button, and it will return to the ADVERTISEMENT mode.

## 2. TEST ITEMS

### (1) Memory Test:

| DIAGNOSTIC<br>MEMORY TEST |        |        |
|---------------------------|--------|--------|
| **ROMS TEST**             |        |        |
| IC 84                     | IC 85  | IC 86  |
| IC 97                     | IC 98  | IC 99  |
| IC 67                     |        |        |
| IC 54                     |        |        |
| **RAMS TEST**             |        |        |
| IC 83                     | IC 113 | IC 127 |
| IC 96                     | IC 112 | IC 126 |
| IC 110                    | IC 136 | IC 79  |
| IC 103                    | IC 135 | IC 78  |
| IC 63                     |        |        |

Indication of "GOOD" following the IC No. means the IC is all right. Push the TEST button to proceed to the following test item.

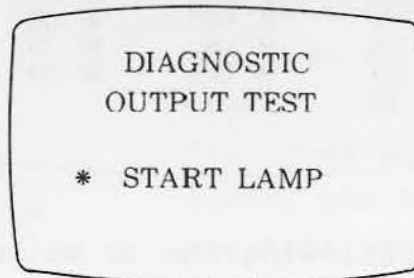
### (2) Input Test

| DIAGNOSTIC<br>INPUT TEST |         |
|--------------------------|---------|
| COIN#1                   | START   |
| COIN#2                   | SERVICE |
| HANDLE RIGHT LEFT        | 80H     |
| BRAKE                    | 00H     |
| ACCELERATOR              | 00H     |
| BANK UP DOWN             | 30H     |

} See page 8~11

- o Operate the dip switches. When "ON" is indicated at the right side of the corresponding item on the screen, it is OK.
- o If the data value increases when the HANDLE is inclined to the left or decreases when it is inclined to the right, it tests out satisfactorily.
- o If the data value increases when the HANDLE is pulled downward and decreases when it is released, the testing is OK.
- o When the tests are ended, push the TEST button.

(3) Output Test



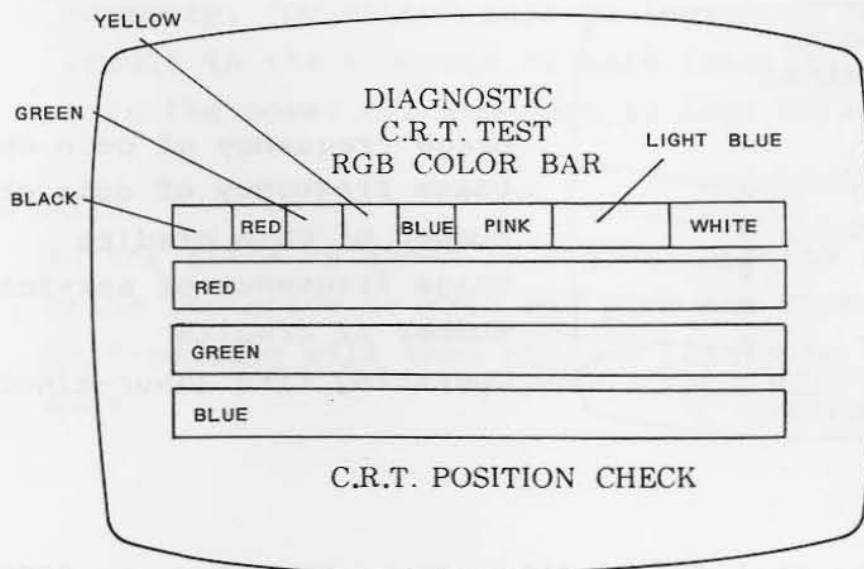
If the start LAMP lights up, it is functioning properly.  
Push the TEST button when the testing has been completed.

#### (4) Sound Test



When the test has been completed, push the TEST button.

#### (5) C.R.T. TEST



When the test has been completed, push the TEST button.

## (6) DIP SWITCH ASSIGNMENTS

DIAGNOSTIC

DIP SWITCH ASSIGNMENTS

|           | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|
| DIP SW. A | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| DIP SW. B | ON  | OFF | OFF | OFF | ON  | OFF | OFF | OFF |

|        |           |        |          |
|--------|-----------|--------|----------|
| A 1234 | COIN SW#1 | 1 COIN | 1 CREDIT |
| A 5678 | COIN SW#2 | 1 COIN | 1 CREDIT |

|       |                 |         |
|-------|-----------------|---------|
| B. 1  | TYPE            | UPRIGHT |
| B. 23 | GAME DIFFICULTY | MEDIUM  |
| B. 45 | TIME ADJUST     | HARD    |
| B. 67 | TIME CONTROL    | MEDIUM  |
| B. 8  | ADVERTISE SOUND | OFF     |

## (7) Bookkeeping

DIAGNOSTIC  
BOOKKEEPING

|                                                                                             |   |                                     |
|---------------------------------------------------------------------------------------------|---|-------------------------------------|
| COIN CHUTE #1                                                                               | 0 | Usage frequency of coin chute 1     |
| COIN CHUTE #2                                                                               | 0 | Usage frequency of coin chute 2     |
| COIN CREDIT                                                                                 | 0 | Number of coin credits              |
| SERVICE CREDIT                                                                              | 0 | Usage frequency of service switch   |
| TOTAL CREDIT                                                                                | 0 | Number of credits                   |
| TOTAL TIME <input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> S |   | Operating time (hour-minute-second) |
| PUSH START BUTTON!                                                                          |   |                                     |

\* Only the data that falls within the range of up to 999H 59M 59S can be memorized. The above screen indication is for testing. When the tests are finished, push the START button and the following will be shown:

| DIAGNOSTIC<br>BOOKKEEPING |                                                                                  |
|---------------------------|----------------------------------------------------------------------------------|
| NUMBER OF GAME            | 203                                                                              |
| AVE. SCORE                | 7230                                                                             |
| TOP SCORE                 | 9320                                                                             |
| LOW SCORE                 | 4230                                                                             |
| ** GAME TIME **           |                                                                                  |
| TOTAL                     | <input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> S |
| AVERAGE                   | <input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> S |
| LONGEST                   | <input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> S |
| PUSH START BUTTON !       |                                                                                  |

Every time the start button is pressed, the bookkeeping test display is repeated. When the test is finished, push the TEST button to end the test (in the case of "INDIVIDUAL", however, the test mode returns to Fig. 1 first).

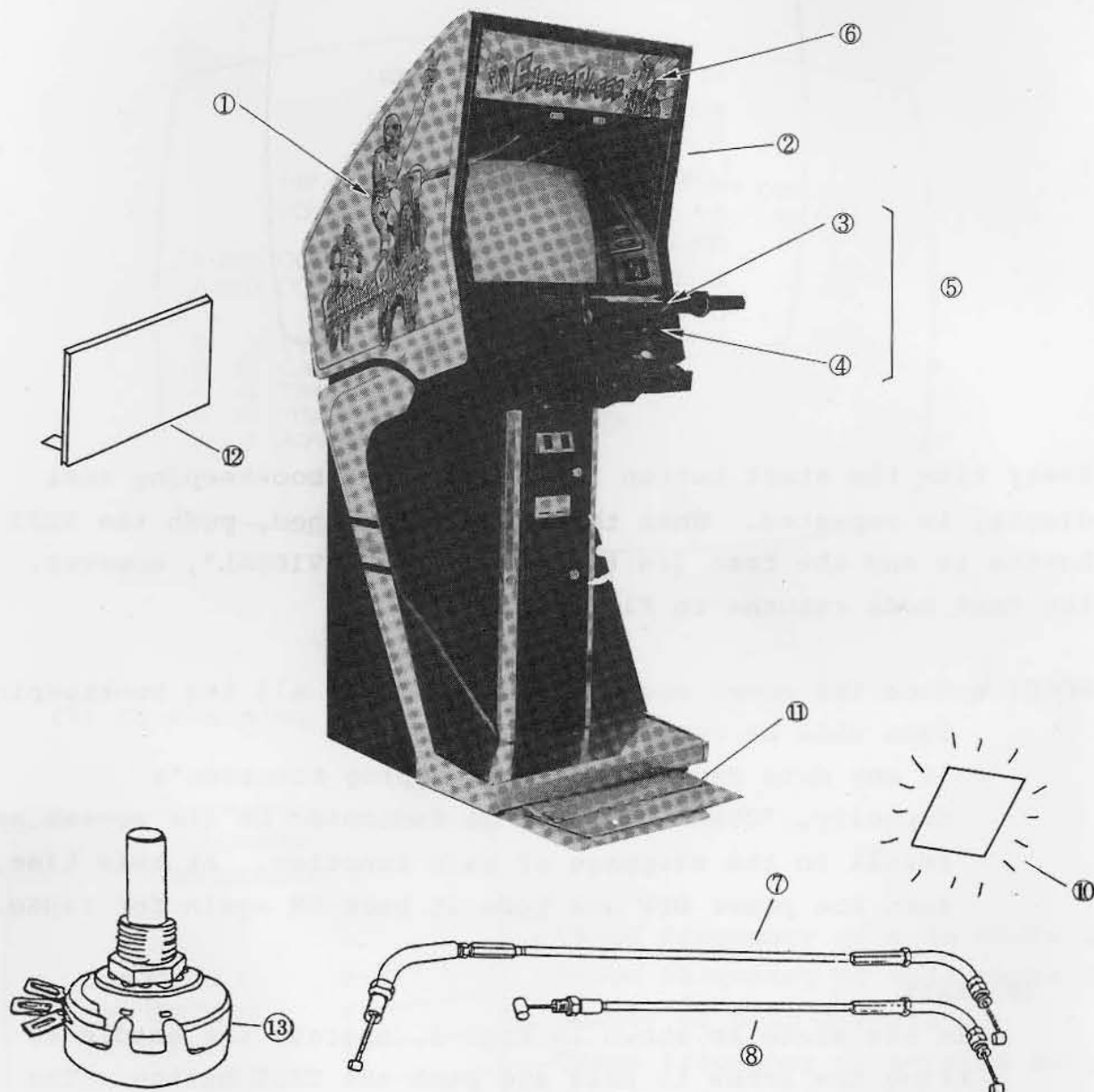
- NOTE:
- o Once the power source is turned OFF, all the bookkeeping data will be completely cleared.
  - o If any data exceeds the bookkeeping function's capacity, "OVERFLOW" will be indicated on the screen and result in the stoppage of said function. At this time, turn the power OFF and turn it back ON again for reuse.

#### (8) EXIT

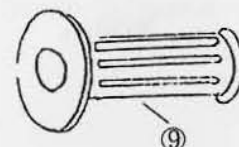
In the state as shown in Fig. 1, operate the handle to bring the arrow to EXIT and push the TEST button. The self-testing will then end and return to the ADVERTISING mode.

## 17. PARTS LIST

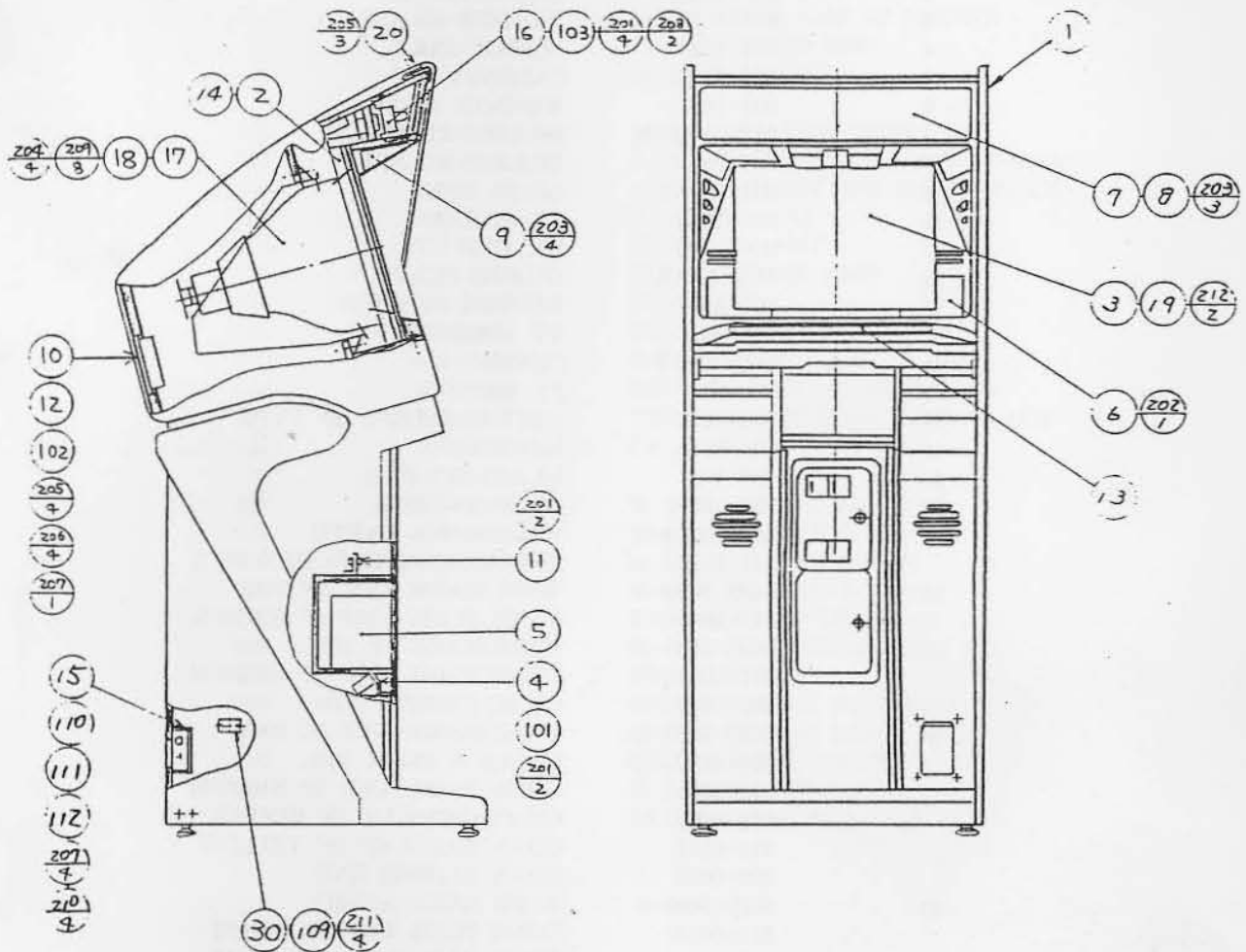
### ① TOP ASSY SEGA ENDURO RACER U/R



| ITEM NO. | PART NO.    | DESCRIPTION                    |
|----------|-------------|--------------------------------|
| 1        | 421-6376    | STICKER CABINET SIDE R         |
| 2        | 421-6377    | STICKER CABINET SIDE L         |
| 3        | MX-2053-01  | HOLDER PLATE ENG               |
| 4        | MX-2500     | ASSY SUB HANDLE                |
| 5        | MX-20002    | ASSY HANDLE ENG                |
| 6        | MX-1011-01  | BILLBOARD PLATE                |
| 7        | MX-2115     | ACCELERATOR WIRE S             |
| 8        | MX-2116     | BRAKE WIRE S                   |
| 9        | 107-0009X   | GRIP LEFT & ACCELERATOR        |
| 10       | 421-5800-43 | ORIGINAL SEAL ENDURO RACER     |
|          | 421-5801-41 | LICENSE SEAL ENDURO RACER      |
| 11       | 105-5033    | BRACKET STEP                   |
| 12       | 422-0163-01 | DISPLAY BOARD ENDURO RACER ENG |
| 13       | 220-5130    | VOLUME CONTROL B 5KΩ           |



② ASSY CABINET U/R (D-1/3)



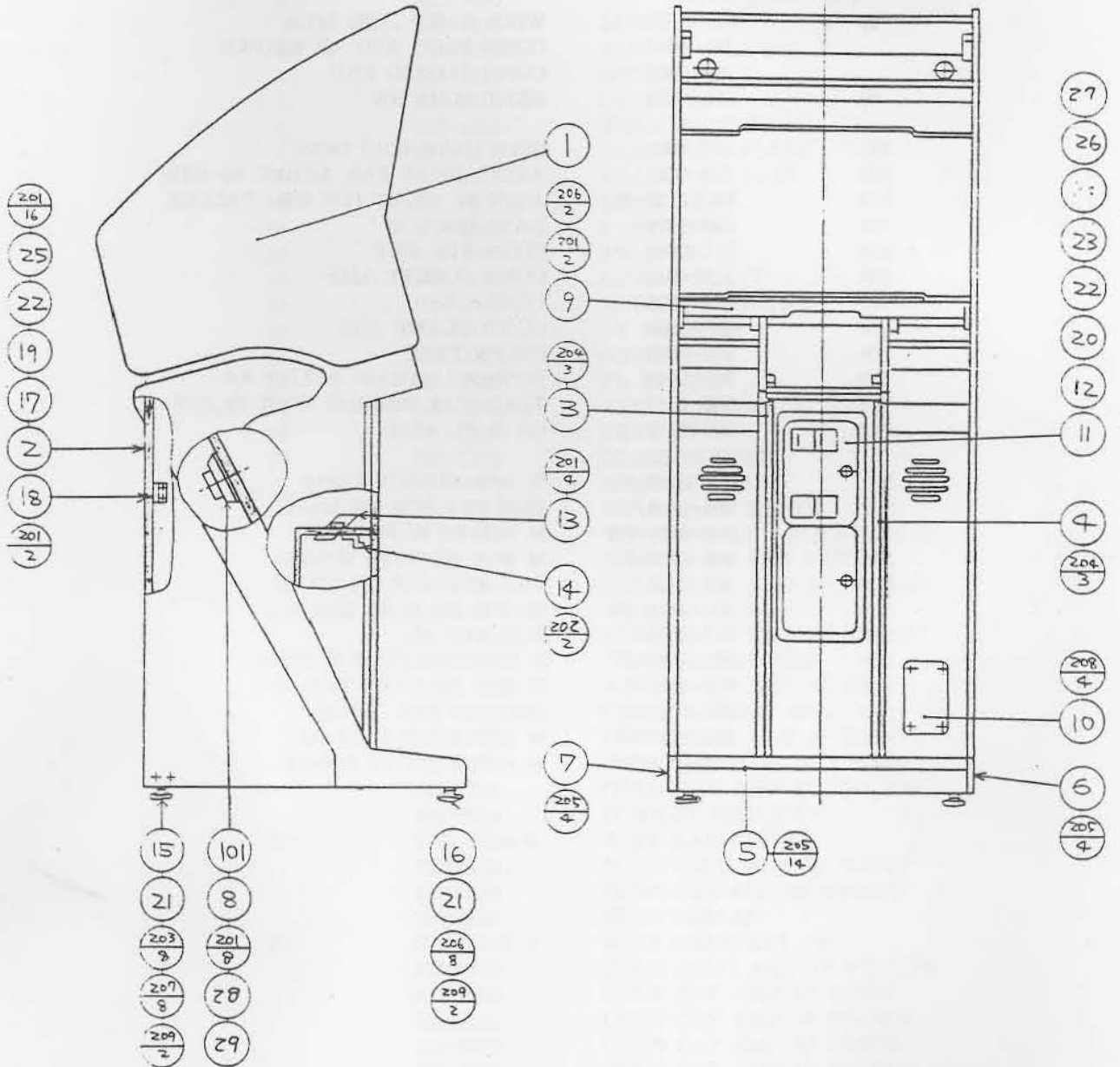
② ASSY CABINET U/R (RH-10002) (D-2/3)

| ITEM NO. | PART NO.    | DESCRIPTION             |
|----------|-------------|-------------------------|
| 1        | RH-1600     | ASSY SUBCABINET U/R     |
| 2        | RH-1512     | MASK BOARD              |
| 3        | RH-1019X    | WINDOW GLASS            |
| 4        | RH-1513     | METER BRKT              |
| 5        | RH-1514     | CASHBOX                 |
| 6        | RH-1015     | WINDOW MASK             |
| 7        | MX-1011-01  | BILLBOARD PLATE         |
| 8        | RH-1017     | BILLBOARD BRKT          |
| 9        | RH-1018X    | MASK BRKT               |
| 10       | HN-1042     | FAN BRKT                |
| 11       | HN-1045     | SW UNIT                 |
| 12       | MO-1051X    | GUARD PLATE             |
| 13       | HN-1069     | RUBBER CUSHION          |
| 14       | TB-3003     | TV MASK 20              |
| 15       | MO-1215Y    | COVER                   |
| 16       | VE-1036     | FL BRKT                 |
| 17       | 200-5072    | ASSY CLR DSPL 20" TYPE  |
| 18       | TY-1019     | BRKT TV                 |
| 19       | RH-1021     | GLASS HOLDER            |
| 20       | RH-1022     | MASK HOLDER             |
| 21       | SGB-3680-2  | WIRE HARN EARTH         |
|          | 211-0167    | TERMINAL LUG ROUND ID 5 |
| 22       | SGB-3680-3  | WIRE HARN FAN MOTOR     |
|          | 211-0085    | CONN PLUG AMP 2P BROWN  |
| 23       | SGB-3680-4  | WIRE HARN FL 15W        |
|          | 211-0085    | CONN PLUG AMP 2P BROWN  |
|          | 209-0023    | CONN CLOSED END         |
| 24       | SGB-3680-5  | WIRE HARN EXT AC 100V   |
|          | 600-5133    | CABLE & CONN 300L       |
|          | 211-0085    | CONN PLUG AMP 2P BROWN  |
|          | 211-0080    | CONN CAP AMP 2P BROWN   |
|          | 211-0117    | CONN CAP AMP 2P YELLOW  |
|          | 209-0032    | CONN CLOSED END         |
| 25       | SGB-3680-8  | WIRE HARN AUDIO         |
|          | 211-0073    | CONN PLUG AMP 4P WHITE  |
|          | 211-0084    | CONN CAP AMP 9P BROWN   |
|          | 212-5034    | CONN FEM 6P             |
| 26       | SGB-3680-9  | WIRE HARN EXT 50P       |
|          | 211-0102    | CONN PLUG AMP 4P YELLOW |
|          | 211-0060    | CONN CAP AMP 3P WHITE   |
|          | 211-0081    | CONN CAP AMP 3P BROWN   |
|          | 211-0072    | CONN CAP AMP 4P WHITE   |
|          | 211-0082    | CONN CAP AMP 4P BROWN   |
|          | 211-0047    | CONN CAP AMP 12P WHITE  |
|          | 211-5105    | CONN FEM 50P            |
| 27       | SGB-3680-11 | WIRE HARN EXT AC 10V    |
|          | 211-0043    | CONN PLUG AMP 2P WHITE  |
|          | 211-0044    | CONN CAP AMP 2P WHITE   |
| 28       | SGB-3680-12 | WIRE HARN RGB           |
|          | 211-0044    | CONN CAP AMP 2P WHITE   |
|          | 211-0060    | CONN CAP AMP 3P WHITE   |
|          | 212-5034    | CONN FEM 6P             |

② ASSY CABINET U/R (RH-10002) (D-3/3)

| ITEM NO. | PART NO.    | DESCRIPTION                   |
|----------|-------------|-------------------------------|
| 29       | SGB-3680-13 | WIRE HARN COIN MTR            |
|          | 211-0087    | CONN PLUG AMP 4P BROWN        |
|          | 209-0023    | CONN CLOSED END               |
| 30       | 105-0064    | BRKT MAIN SW                  |
| 101      | 220-5064    | MAG CNTR 6DIG DC5V            |
| 102      | 260-0011    | AXIAL FLOW FAN AC100V 50-60Hz |
| 103      | 390-5120-01 | ASSY FL LIGHT 15W 60Hz PALUCK |
| 104      | 280-0419    | HARNESS LUG                   |
| 105      | 211-0041    | CONN PIN AMP                  |
| 106      | 211-0042    | CONN SOCKET AMP               |
| 107      | 211-0005    | CONTACT                       |
| 108      | 280-5008    | CORD CLAMP $\varnothing$ 15   |
| 109      | 509-0039    | SW PB TYPE                    |
| 110      | 280-0418    | BUSHING STRAIN RELIEF 8.3     |
| 111      | 280-0417    | TERMINAL BINDING POST BLACK   |
| 112      | 600-0110    | CA & PL ASSY                  |
| 201      | 005-3513-F  | W SCR RH W/F 3.5×13           |
| 202      | 008-0408    | TMP PRF SCR TH M4×8           |
| 203      | 000-0416-FS | M SCR PH W/FS M4×16           |
| 204      | 000-0520-FS | M SCR PH W/FS M5×20           |
| 205      | 008-0425    | TMP PRF SCR TH M4×25          |
| 206      | 000-0310-FS | M SCR PH W/FS M3×10           |
| 207      | 051-0004    | FLG NUT M4                    |
| 208      | 010-0406-F  | S-TITE SCR PH W/F M4×6        |
| 209      | 000-0510-S  | M SCR PH W/S M5×10            |
| 210      | 031-0425-B  | CRG BLT BLK M4×25             |
| 211      | 005-3113-F  | W SCR RH W/F 3.1×13           |
| 212      | 000-0412-FS | M SCR PH W/FS M4×12           |

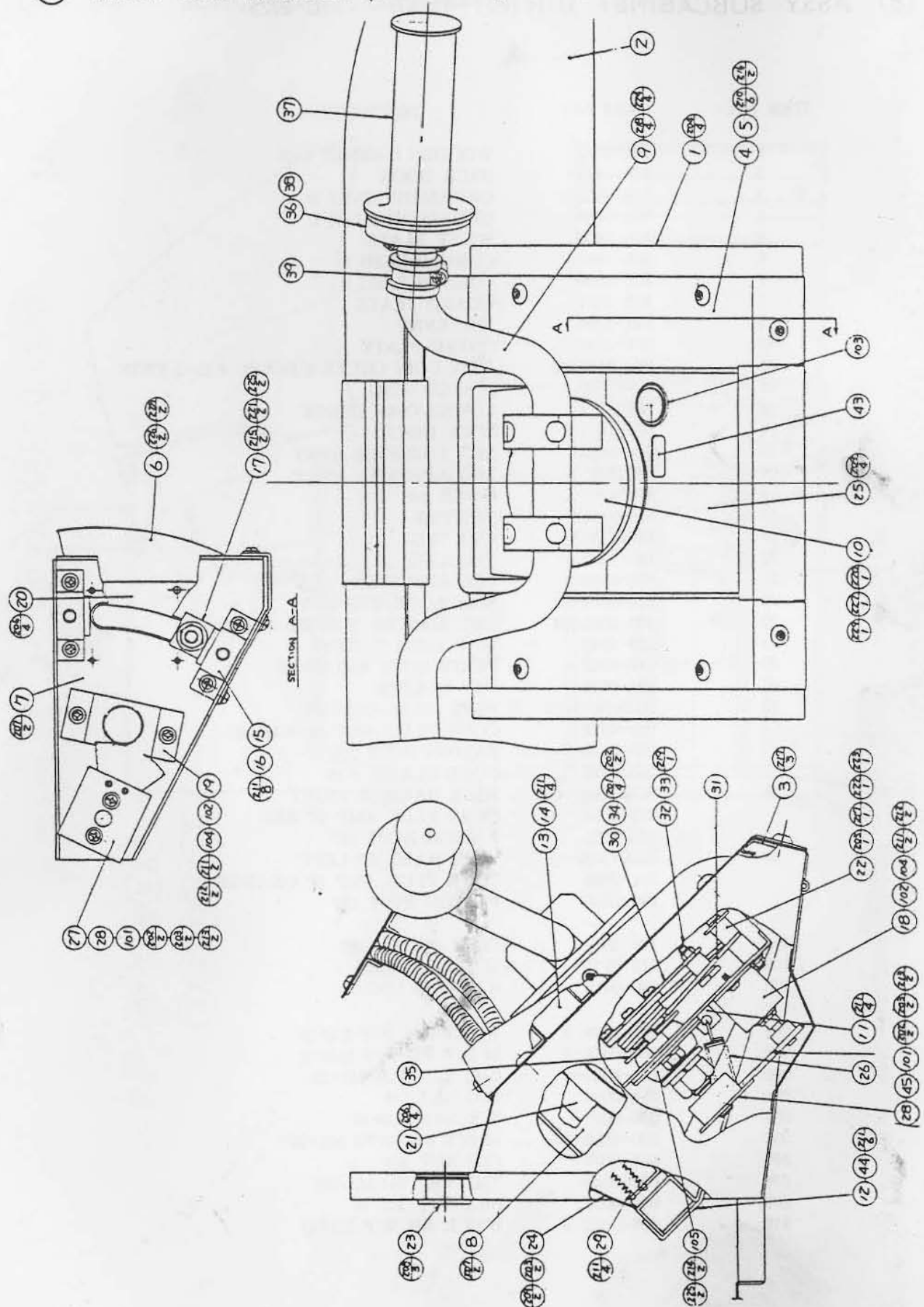
③ ASSY SUBCABINET U/R (RH-1600) (D-1/2)



③ ASSY SUBCABINET U/R (RH-1600) (D-2/2)

| ITEN NO. | PART NO.    | DESCRIPTION                             |
|----------|-------------|-----------------------------------------|
| 1        | RH-1601     | WOODEN CABINET U/R                      |
| 2        | RH-1607     | BACK DOOR                               |
| 3        | RH-1602     | ORNAMENT SASH R                         |
| 4        | RH-1603     | ORNAMENT SASH L                         |
| 5        | RH-1604     | SCUFF PLATE                             |
| 6        | RH-1605     | CORNER SASH L                           |
| 7        | RH-1606     | CORNER SASH R                           |
| 8        | RH-1511     | GUARD PLATE                             |
| 9        | RH-1005     | PNL BRKT                                |
| 10       | RH-1010     | COVER PLATE                             |
| 11       | 220-5128-03 | ASSY COIN CHUTE 2 DOOR $\phi$ 25x2 TWIN |
| 12       | HN-1050     | SPACER RING                             |
| 13       | HN-1051     | LOWER COIN CHUTE                        |
| 14       | HN-1052     | LOCK BRKT                               |
| 15       | TA-1079X    | LEG ADJUSTER BRKT                       |
| 16       | TI-1079     | LEG ADJUSTER BRKT                       |
| 17       | TA-1010     | HINGE 148                               |
| 18       | SH-2061X    | STOPPER                                 |
| 19       | DP-1148X    | LKG TNG                                 |
| 20       | DP-1167     | TNG LKG                                 |
| 21       | 601-0455    | LEG ADJUSTER                            |
| 22       | 220-5044-01 | MAG LOCK W/O KEY                        |
| 23       | 220-5045-01 | KEY MASTER FOR 220-5044-01              |
| 24       | 220-5046    | MAG LOCK W/KEYS                         |
| 25       | 117-0062    | PLATE LOCK RETAINER                     |
| 26       | 109-0045    | KEY HOLDER                              |
| 27       | SGB-3679-10 | WIRE HARN COIN SW                       |
|          | 211-0073    | CONN PLVG AMP 4P WHITE                  |
|          | 280-5016    | FASTON RCPT 205                         |
|          | 280-0425    | CORD CLAMP $\phi$ 10                    |
| 28       | SGB-3680-6  | WIRE HARN SP RIGHT                      |
|          | 211-0094    | CONN PLUG AMP 2P RED                    |
|          | 280-5015    | FASTON RCPT 187                         |
| 29       | SGB-3680-7  | WIRE HARN SP LEFT                       |
|          | 211-0095    | CONN PLUG AMP 2P ORANGE                 |
|          | 280-5015    | FASTON RCPT 187                         |
| 101      | 130-5001    | SPKR 80HM $\phi$ 120                    |
| 102      | 211-0041    | CONN PIN AMP                            |
| 103      | 280-0419    | HARNESS LUG                             |
| 201      | 005-3516-F  | W SCR RH W/F 3.5x16                     |
| 202      | 000-0416-S  | M SCR PH W/S M4x16                      |
| 203      | 031-0525-B  | CRG BLT BLK M5x25                       |
| 204      | 051-0004    | FLG NUT M4                              |
| 205      | 046-0001    | SCR NAIL 1.5x16                         |
| 206      | 000-0520-FS | M SCR PH W/FS M5x20                     |
| 207      | 051-0005    | FLG NUT M5                              |
| 208      | 008-0520    | TMP PRF TH M5x20                        |
| 209      | 059-0007    | HEX NUT 3/8-16                          |
| 210      | 005-3113-F  | W SCR RH W/F 3.1x13                     |

④ ASSY SUB HANDLE (MX-2500) (D-1/3)



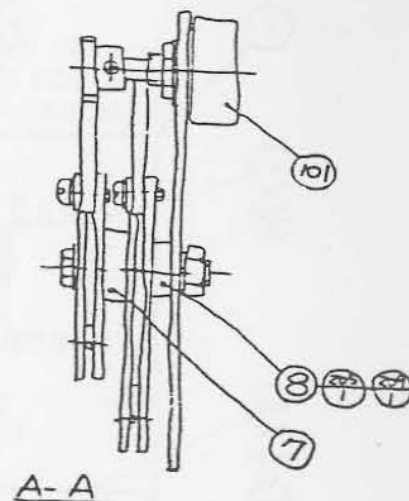
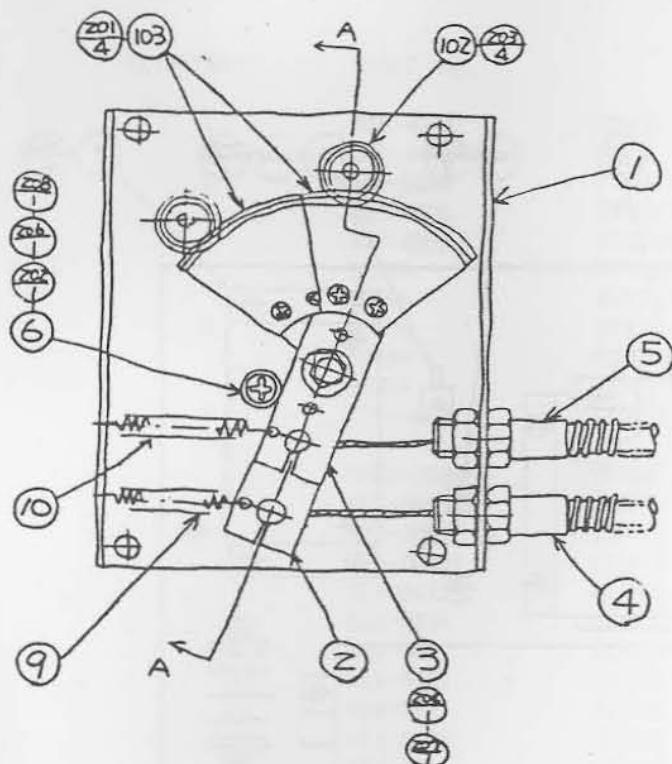
④ ASSY SUB HANDLE (MX-2500) (D-2/3)

| ITEM NO. | PART NO.    | DESCRIPTION                        |
|----------|-------------|------------------------------------|
| 1        | MX-2027     | CONTROL BOX                        |
| 2        | MX-2028     | WOODEN BASE                        |
| 3        | MX-2029     | HANDLE PANEL BASE                  |
| 4        | MX-2030     | HANDLE PANEL                       |
| 5        | MX-2031     | HANDLE PANEL CENTER                |
| 6        | MX-2032     | BASE                               |
| 7        | MX-2033     | HOLDER BASE RIGHT                  |
| 8        | MX-2034     | HOLDER BASE LEFT                   |
| 9        | MX-2035     | HANDLE                             |
| 10       | MX-2036     | HANDLE SHAFT                       |
| 11       | MX-2037     | REAR BASE                          |
| 12       | MX-2038     | PLATE UNDER                        |
| 13       | MX-2039     | BUMPER                             |
| 14       | MX-2040     | BUMPER BRACKET                     |
| 15       | MX-2041     | BUMPER                             |
| 16       | MX-2042     | BUMPER BRACKET                     |
| 17       | MX-2043     | STOPPER BLOCK                      |
| 18       | MX-2044     | VR BRACKET                         |
| 19       | MX-2045     | VR BRACKET                         |
| 20       | MX-2046     | SPACER GUIDE LEFT                  |
| 21       | MX-2047     | SPACER GUIDE RIGHT                 |
| 22       | MX-2048     | STOPPER                            |
| 23       | MX-2049     | PLATE SPACER                       |
| 24       | MX-2050     | COVER                              |
| 25       | MX-2051     | COVER CONTROL                      |
| 26       | MX-2052     | EXTENSION SPRING                   |
| 27       | MX-2016     | ADJUST PLATE                       |
| 28       | MX-2017     | ADJUSTER                           |
| 29       | MX-2111     | ASSY CONTROL                       |
| 30       | MX-2056     | SP HOUSING                         |
| 31       | CY-2107     | SPRING                             |
| 32       | CY-2110     | STUD                               |
| 33       | CY-2111     | SPACER                             |
| 34       | CY-2117     | CAM PLATE                          |
| 35       | GR-2006     | PLSTC WASHER                       |
| 36       | HN-5045     | SPACER                             |
| 37       | 107-0009X   | GRIP LEFT & ACCEL                  |
| 38       | 601-5418X   | ASSY ACCEL CASE                    |
| 39       | 601-5419X   | ASSY LEVER                         |
| 40       | SGB-3738-13 | WIRE HARN START SW                 |
|          | 211-0072    | CONN CAP AMP 4P WHITE              |
|          | 211-0025    | CONN PLUG AMP 12P WHITE            |
| 41       | SGB-3738-15 | WIRE HARN WHEELIE VR               |
|          | 211-0059    | CONN PLUG AMP 3P WHITE             |
| 43       | 421-6403    | STICKER START                      |
| 44       | MX-2054     | CUSHION                            |
| 45       | MX-2055     | ADJUST PLATE                       |
| 101      | 601-5423    | GEAR 1/6                           |
| 102      | 601-5424    | GEAR 30                            |
| 103      | 509-5050    | PUSH BUTTON SWITCHIT YELLOW W/LAMP |
| 104      | 220-5130    | VOL CONT B-5K OHM                  |
| 105      | 100-5033    | BEARING Ø20 (NTN B-BAF 2022)       |
| 106      | 211-0041    | CONN PIN AMP                       |
| 107      | 280-0472    | FASTON RCPT 110                    |

④ ASSY SUB HANDLE (MX-2500) (D-3/3)

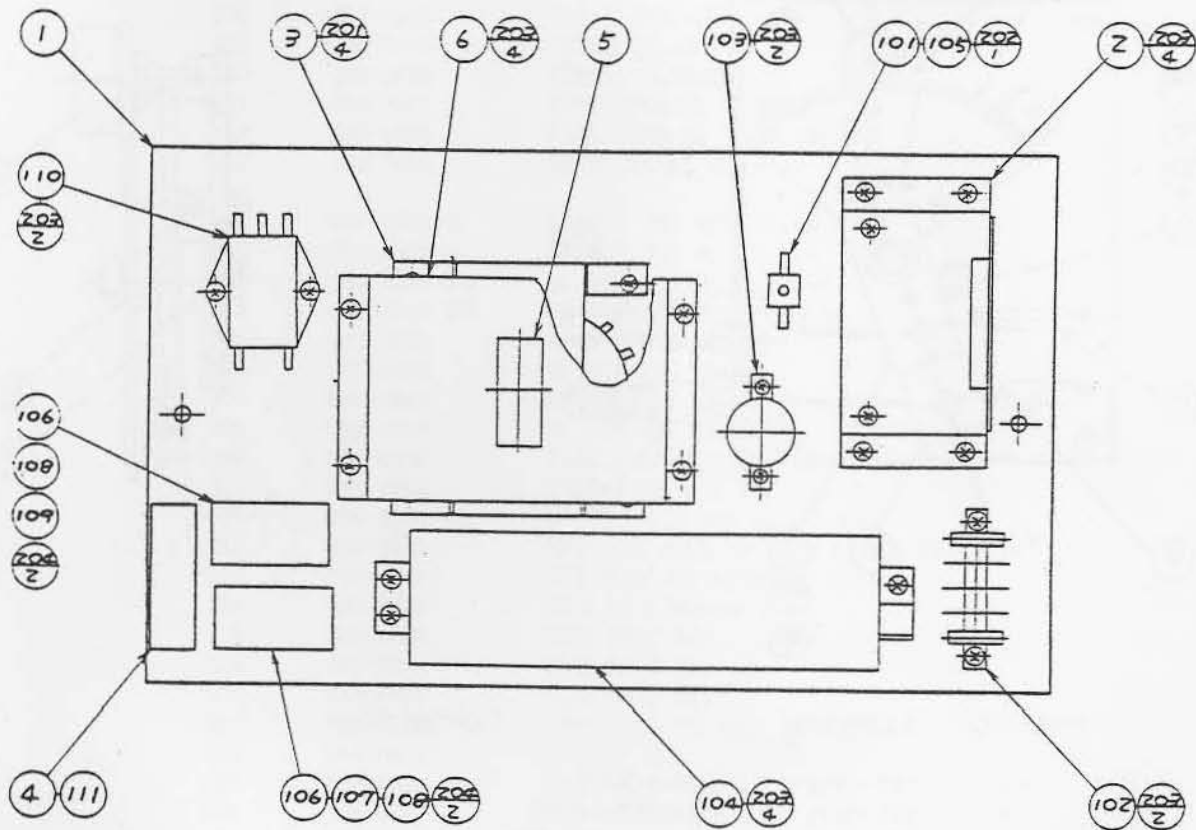
| ITEM NO. | PART NO.    | DESCRIPTION                  |
|----------|-------------|------------------------------|
| 108      | 211-0042    | CONN SOCKET AMP              |
| 109      | 280-0425    | CORD CLAMP $\phi 10$         |
| 110      | 280-5008    | CORD CLAMP $\phi 15$         |
| 111      | 310-5008    | INSL SPIRAL TUBE ID $\phi 6$ |
| 112      | 310-5009    | INSL SPIRAL TUBE ID $\phi 9$ |
| 113      | 310-5002    | HISHI TUBE 2.5m/m            |
| 201      | 000-0406-S  | M SCR PH W/S M4x6            |
| 202      | 000-0408-S  | M SCR PH W/S M4x8            |
| 203      | 000-0408-FS | M SCR PH W/FS M4x8           |
| 204      | 000-0516-FS | M SCR PH W/FS M5x16          |
| 205      | 000-0540    | M SCR PH M5x40               |
| 206      | 001-0416    | M SCR FH M4x16               |
| 207      | 001-0512    | M SCR FH M5x12               |
| 208      | 006-3513    | W SCR FH 3.5x13              |
| 209      | 008-0408    | TMP PRF SCR TH M4x8          |
| 210      | 008-0512    | TMP PRF SCR TH M5x12         |
| 211      | 010-0408-F  | S-TITE SCR PH W/F M4x8       |
| 212      | 028-0014    | SET SCR HEX SKT CP UNBR M4x4 |
| 213      | 028-0021    | SET SCR PH SPECIAL M4x16     |
| 214      | 030-0820    | HEX BLT M8x20                |
| 215      | 050-0008    | HEX NUT M8                   |
| 216      | 051-0004    | FLG NUT M4                   |
| 217      | 051-0005    | FLG NUT M5                   |
| 218      | 029-0038    | TMP SCR TH BLK M6x20         |
| 219      | 054-0005    | U-NUT M5                     |
| 220      | 059-0016    | HEX NUT M14                  |
| 221      | 060-0008    | FLT WSHR M8                  |
| 222      | 069-0001    | FLT WSHR 5.5-20x1.6          |
| 223      | 061-0005    | SPR WSHR M5                  |
| 224      | 061-0006    | SPR WSHR M6                  |
| 225      | 061-0008    | SPR WSHR M8                  |
| 226      | 065-0010    | E RING 10mm                  |
| 227      | 069-0019    | SPR WSHR M14                 |
| 228      | 069-0020    | FLT WSHR M12                 |
| 229      | 069-0045    | FLT WSHR M14                 |

# ⑤ ASSY CONTROL (MX-2111)



| ITEM NO. | PART NO.                | DESCRIPTION                                          |
|----------|-------------------------|------------------------------------------------------|
| 1        | MX-2112                 | BRACKET                                              |
| 2        | MX-2113                 | LEVER LONG                                           |
| 3        | MX-2114                 | LEVER SHORT                                          |
| 4        | MX-2115                 | ACCELERATOR WIRE S                                   |
| 5        | MX-2116                 | BRAKE WIRE S                                         |
| 6        | MX-2117                 | STOP RING                                            |
| 7        | HN-5106                 | SPACER                                               |
| 8        | HN-5107                 | STOD                                                 |
| 9        | HN-5109                 | EXT SPRING ACCEL                                     |
| 10       | HN-5110                 | EXT SPRING BRAKE                                     |
| 11       | SGB-3738-14<br>211-0073 | WIRE HARN ACCEL & BRAKE VR<br>CONN PLUG AMP 4P WHITE |
| 101      | 220-5130                | VOL CONT B-5K OHM                                    |
| 102      | 601-5415                | GEAR 20                                              |
| 103      | 601-5423                | GEAR 1/6                                             |
| 104      | 601-0460                | PLASTIC TIE BELT                                     |
| 105      | 211-0041                | CONN PIN AMP                                         |
| 201      | 000-0408-S              | M SCR PH W/S M4×8                                    |
| 202      | 000-0535                | M SCR PH M5×35                                       |
| 203      | 028-0014                | SET SCR HEX SKT CP UNBR M4×4                         |
| 204      | 030-0508                | HEX BLT M5×8                                         |
| 205      | 050-0006                | HEX NUT M6                                           |
| 206      | 051-0005                | FLG NUT M5                                           |
| 207      | 060-0005                | FLT WSHR M5                                          |
| 208      | 061-0005                | SPR WSHR M5                                          |
| 209      | 061-0006                | SPR WSHR M6                                          |

⑥ ASSY POWER SUPPLY U/R (RH-40002) (D-1/2)

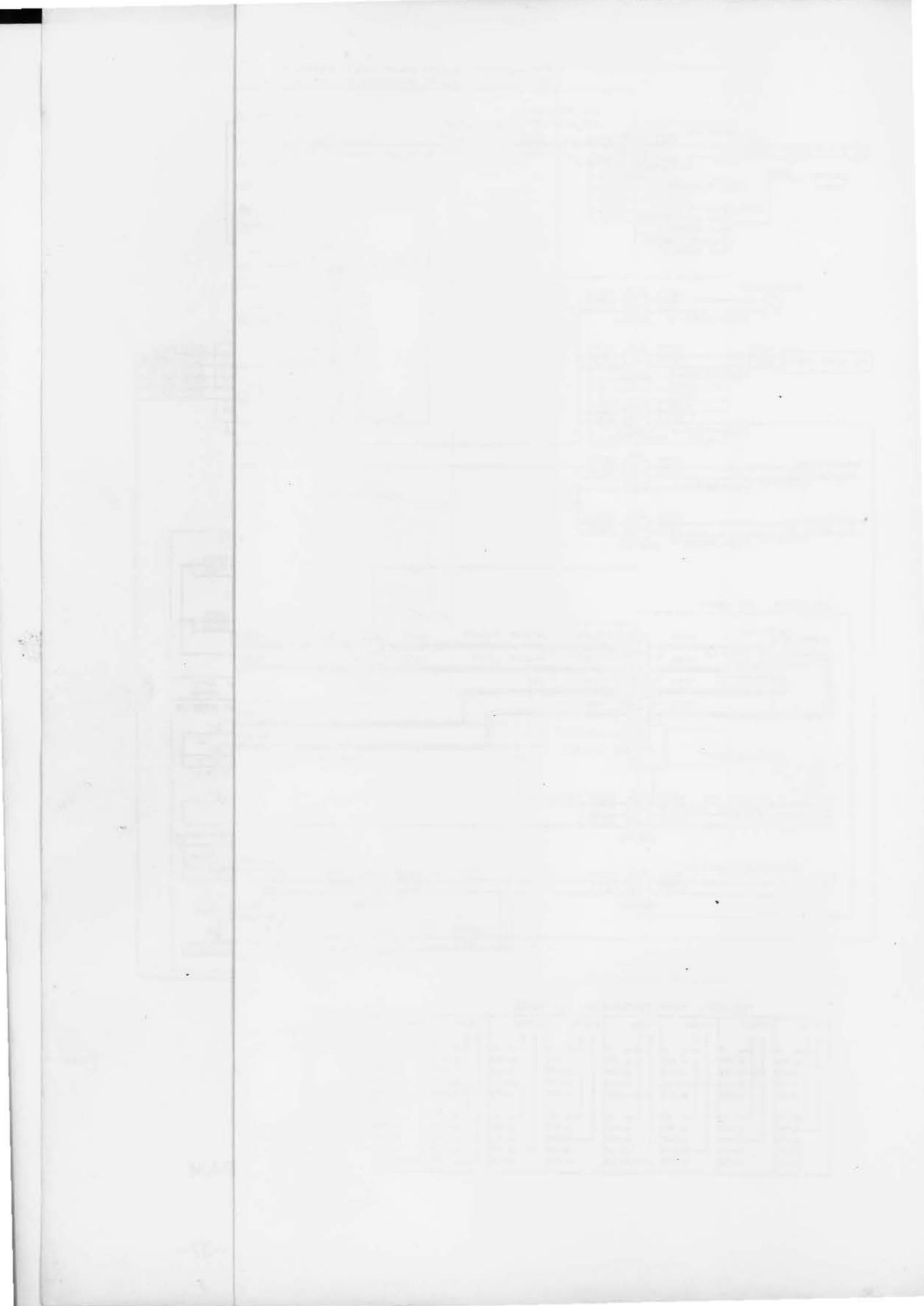


⑥ ASSY POWER SUPPLY U/R (RH-40002) (D-2/2)

| ITEM NO. | PART NO.    | DESCRIPTION                        |
|----------|-------------|------------------------------------|
| 1        | RH-4003     | BASE                               |
| 2        | GR-4600     | PWR AMP DC 39V 15W                 |
| 3        | 560-5076    | PWR XFMR 90-240V 10V 24V 100V      |
| 4        | 421-6202    | STICKER FUSE INSTR (FOR USA)       |
|          | 421-6203    | STICKER FUSE INSTR (200~240V AREA) |
|          | 81319       | STICKER 120V (FOR USA)             |
|          | 80666       | STICKER 200V (200V AREA)           |
| 5        | 80556       | STICKER 220V (220V AREA)           |
|          | 80595       | STICKER 230V (230V AREA)           |
|          | 80309       | STICKER 240V (240V AREA)           |
| 6        | HN-4003     | COVER                              |
| 7        |             |                                    |
|          | SGB-3680-1  | WIRE HARN PWR SPLY (MFG) (UPRIGHT) |
|          | 211-0097    | CONN PLUG AMP 3P RED               |
|          | 211-0044    | CONN CAP AMP 2P WHITE              |
|          | 211-0080    | CONN CAP AMP 2P BROWN              |
|          | 211-0115    | CONN CAP AMP 2P RED                |
|          | 211-0116    | CONN CAP AMP 2P ORANGE             |
|          | 211-0072    | CONN CAP AMP 4P WHITE              |
|          | 211-0123    | CONN CAP AMP 4P YELLOW             |
|          | 211-0157    | CONN FEM 3P                        |
|          | 211-0158    | CONN FEM 6P                        |
|          | 211-5101    | CONN FEM 10P                       |
| 101      | 117-0068    | TERMINAL PLATE IL 3P               |
| 102      | 211-0174    | TERMINAL PLATE 5P                  |
| 103      | 150-0173    | CAP E 4700MF 50V C-TYPE            |
| 104      | 400-5038    | SW REGU 90-240V 5V 12A (CSK-51300) |
| 105      | 481-0065    | DIODE BRIDGE S2VB10                |
| 106      | 514-0064    | FU HLDR 2P W/COVER                 |
| 107      | 514-0036    | FU 3A 6.4×30 mm (FOR USA)          |
|          | 514-0036    | FU 3A 6.4×30 mm (200~240V AREA)    |
| 108      | 514-0040    | FU 4A 6.4×30 mm                    |
| 109      | 514-0034    | FU 5A 6.4×30 mm (FOR USA)          |
| 110      | 601-0429    | NOISE FLTR AC 250V 4A              |
| 111      | 601-0769    | STAPLE MAX #3                      |
| 112      | 280-0419    | HARNESS LUG                        |
| 113      | 211-0167    | TERMINAL LUG ROUND ID 5            |
| 114      | 211-0041    | CONN PIN AMP                       |
| 115      | 211-0042    | CONN SOCKET AMP                    |
| 116      | 211-0005    | CONN CRIMP LOCK                    |
| 117      | 211-5047    | CONTACT                            |
| 201      | 000-0414-FS | M SCR PH W/FS M4×14                |
| 202      | 005-3110    | W SCR RH 3.1×10                    |
| 203      | 005-3113-F  | W SCR RH W/F 3.1×13                |
| 204      | 005-3120    | W SCR RH 3.1×20                    |

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| 1915               | OCTOBER                   |
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# ENDURO RACER

## ○ コイン・クレジットの設定

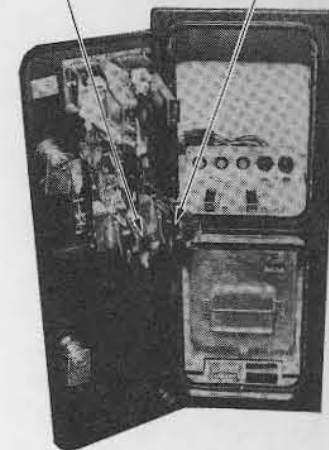
### COIN/CREDIT OPTION SETTING

DIP SW A

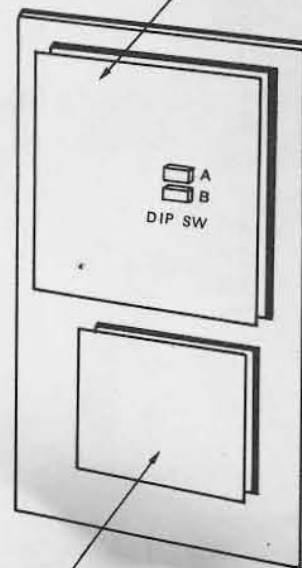
| OPTION            | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 COIN 1 CREDIT   | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| 1 COIN 2 CREDITS  | ON  | OFF | OFF | OFF | ON  | OFF | OFF | OFF |
| 1 COIN 3 CREDITS  | OFF | ON  | OFF | OFF | OFF | ON  | OFF | OFF |
| 1 COIN 4 CREDITS  | ON  | ON  | OFF | OFF | ON  | ON  | OFF | OFF |
| 1 COIN 5 CREDITS  | OFF | OFF | ON  | OFF | OFF | OFF | ON  | OFF |
| 1 COIN 6 CREDITS  | ON  | OFF | ON  | OFF | ON  | OFF | ON  | OFF |
| 2 COINS 1 CREDIT  | OFF | ON  | ON  | OFF | OFF | ON  | ON  | OFF |
| 3 COINS 1 CREDIT  | ON  | ON  | ON  | OFF | ON  | ON  | ON  | OFF |
| 4 COINS 1 CREDIT  | OFF | OFF | OFF | ON  | OFF | OFF | OFF | ON  |
| 2 COINS 3 CREDITS | ON  | OFF | OFF | ON  | ON  | OFF | OFF | ON  |
| 2 COINS 1 CREDIT  | OFF | ON  | OFF | ON  | OFF | ON  | OFF | ON  |
| 4 COINS 2 CREDITS | OFF | ON  | OFF | ON  | OFF | ON  | OFF | ON  |
| 5 COINS 3 CREDITS | OFF | ON  | OFF | ON  | OFF | ON  | OFF | ON  |
| 6 COINS 4 CREDITS | OFF | ON  | OFF | ON  | OFF | ON  | OFF | ON  |
| 2 COINS 1 CREDIT  | ON  | ON  | OFF | ON  | ON  | ON  | OFF | ON  |
| 4 COINS 3 CREDITS | ON  | ON  | OFF | ON  | ON  | ON  | OFF | ON  |
| 1 COIN 1 CREDIT   | OFF | OFF | ON  | ON  | OFF | OFF | ON  | ON  |
| 2 COINS 2 CREDITS | OFF | OFF | ON  | ON  | OFF | OFF | ON  | ON  |
| 3 COINS 3 CREDITS | OFF | OFF | ON  | ON  | OFF | OFF | ON  | ON  |
| 4 COINS 4 CREDITS | OFF | OFF | ON  | ON  | OFF | OFF | ON  | ON  |
| 5 COINS 6 CREDITS | OFF | OFF | ON  | ON  | OFF | OFF | ON  | ON  |
| 1 COIN 1 CREDIT   | ON  | OFF | ON  | ON  | ON  | OFF | ON  | ON  |
| 2 COINS 2 CREDITS | ON  | OFF | ON  | ON  | ON  | OFF | ON  | ON  |
| 3 COINS 3 CREDITS | ON  | OFF | ON  | ON  | ON  | OFF | ON  | ON  |
| 4 COINS 5 CREDITS | ON  | OFF | ON  | ON  | ON  | OFF | ON  | ON  |
| 1 COIN 1 CREDIT   | OFF | ON  | ON  | ON  | OFF | ON  | ON  | ON  |
| 2 COINS 3 CREDITS | OFF | ON  | ON  | ON  | OFF | ON  | ON  | ON  |
| FREE PLAY         | ON  | ON  | ON  | ON  | ON  | ON  | ON  | ON  |

COIN SW #1 COIN SW #2

COIN SW #1 COIN SW #2



GAME BOARD A  
(834-6000)



GAME BOARD B  
(834-6003)

## ○ ゲーム条件の設定

### GAME OPTION SETTING

DIP SW B

| OPTION          | 1                        | 2             | 3             | 4             | 5             | 6             | 7             | 8      |
|-----------------|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| TYPE SELECT     | WHEELIE UP RIGHT         | OFF ON        |               |               |               |               |               |        |
| GAME DIFFICULTY | MEDIUM EASY HARDEST      | OFF ON OFF ON | OFF ON OFF ON |               |               |               |               |        |
| TIME ADJUST     | MEDIUM EASY HARD HARDEST |               |               | OFF ON OFF ON | OFF ON OFF ON |               |               |        |
| TIME CONTROL    | MEDIUM EASY HARD HARDEST |               |               |               |               | OFF ON OFF ON | OFF ON OFF ON |        |
| ADVERTISE SOUND | OFF ON                   |               |               |               |               |               |               | OFF ON |

## ① 他車の出現頻度 (SWITCH 2, 3 で設定)

Other cars' appearance frequency (set by DIP SWITCHES 2 & 3)

| SWITCH NO. | 2   | 3   | The other cars' appearance frequency<br>他車の出現頻度 | Difficulty level<br>難易度 |
|------------|-----|-----|-------------------------------------------------|-------------------------|
| OFF        | OFF | OFF |                                                 | MEDIUM                  |
| ON         | OFF | OFF | MEDIUM 設定に対し 30% 減                              | EASY                    |
| OFF        | ON  | ON  | " 40% 増                                         | HARD                    |
| ON         | ON  | ON  | " 80% 増                                         | HARDEST                 |

※ ← 出荷時 When shipping

## ② ゲーム時間調整 (SWITCH 4, 5 で設定)

Game time adjustment (set by DIP SWITCH 4 & 5)

| SWITCH NO. | 4   | 5   | Game time (seconds) per stage<br>ステージ毎のゲーム時間 (秒) | Difficulty level<br>難易度 |
|------------|-----|-----|--------------------------------------------------|-------------------------|
| OFF        | OFF | OFF | 60 50 50 50 50                                   | MEDIUM                  |
| ON         | OFF | OFF | 65 50 50 50 50                                   | EASY                    |
| OFF        | ON  | ON  | 55 50 50 50 50                                   | HARD                    |
| ON         | ON  | ON  | 50 50 50 50 50                                   | HARDEST                 |

※ ← 出荷時 When shipping  
(WHEELIE TYPE)

※ ← 出荷時 When shipping  
(UPRIGHT TYPE and  
SIT-DOWN TYPE)

## ③ 内部時間調整 (SWITCH 6, 7 で設定)

Inner time adjustment (set by DIP SWITCH 6 & 7)

| SWITCH NO. | 6   | 7   | DISOLAY TIME 1 SEC speed<br>DISPLAY TIME 1 SECの速さ | Difficulty level<br>難易度 |
|------------|-----|-----|---------------------------------------------------|-------------------------|
| OFF        | OFF | OFF | 95%                                               | MEDIUM                  |
| ON         | OFF | OFF | 100%                                              | EASY                    |
| OFF        | ON  | ON  | 85%                                               | HARD                    |
| ON         | ON  | ON  | 80%                                               | HARDEST                 |

※ ← 出荷時 When shipping

## 具体的な設定例

### DETAILED EXAMPLES

| DIP SW NO. | 2   | 3   | 4   | 5   | 6   | 7   | Difficulty level<br>難易度           |
|------------|-----|-----|-----|-----|-----|-----|-----------------------------------|
| ON         | OFF | ON  | OFF | ON  | OFF | OFF | 易しい<br>EASY                       |
| ON         | OFF | ON  | OFF | OFF | OFF | ON  |                                   |
| ON         | OFF | OFF | OFF | OFF | ON  | ON  | ↑                                 |
| ON         | OFF | ON  | ON  | OFF | ON  | ON  | ← WHEELIE TYPE                    |
| OFF        | OFF | OFF | OFF | OFF | OFF | OFF |                                   |
| OFF        | OFF | OFF | OFF | OFF | OFF | ON  |                                   |
| OFF        | OFF | OFF | ON  | OFF | OFF | OFF | ← UPRIGHT TYPE<br>& SIT-DOWN TYPE |
| OFF        | ON  | OFF | OFF | OFF | ON  | ON  |                                   |
| OFF        | ON  | OFF | ON  | OFF | ON  | ON  |                                   |
| ON         | ON  | ON  | OFF | OFF | OFF | OFF | ↓                                 |
| ON         | ON  | OFF | ON  | ON  | ON  | OFF |                                   |
| ON         | ON  | ON  | ON  | OFF | OFF | OFF |                                   |
| ON         | ON  | ON  | ON  | ON  | ON  | ON  | HARDEST<br>難しい                    |