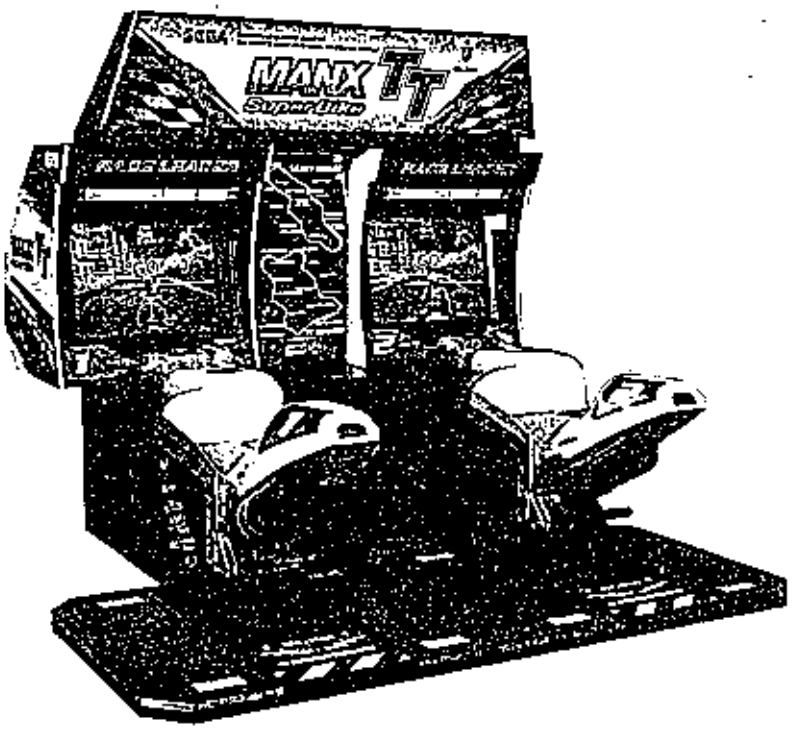
1 ST PRINTING - FB

SEGA

MANX TT SuperBike

TWIN TYPE

OWNER'S MANUAL



STOP
IMPORTANT!

- Before using this product, read this OWNER'S MANUAL carefully to understand the contents herein stated.
- After reading this manual, be sure to keep it available nearby the product or elsewhere convenient for referring to it anytime when necessary.

SEGA ENTERPRISES, LTD.

MANUAL NO. 420 - 6207 - 03

BEFORE USING THE PRODUCT, BE SURE TO READ THE FOLLOWING:

To maintain the safety:

To ensure the safe usage of the product, be sure to read the following before using the product. The following instructions are intended for the users, operators and the personnel in charge of the operation of the product. After carefully reading and sufficiently understanding the warning displays and cautions, handle the product appropriately. Be sure to keep this manual nearby the product or elsewhere convenient for referring to it when necessary.

Herein, explanations which require special attention are enclosed with dual lines. Depending on the potentially hazardous degrees, the terms of WARNING!, CAUTION! and IMPORTANT! are used. Be sure to understand the contents of the displays before reading the text.

WARNING!

Indicates that mishandling the product by disregarding this warning will cause a potentially hazardous situation which can result in death or serious injury.

CAUTION!

Indicates that mishandling the product by disregarding this caution will cause a potentially hazardous situation which can result in personal injury and or material damage.

IMPORTANT!

Indicates that mishandling the product by disregarding this display can cause the product's intrinsic performance not to be obtained, resulting in malfunctioning.

For the safe usage of the product, the following symbol marks are used:

Indicates "HANDLE WITH CARE." In order to protect the human body and equipment, this display is attached to places where the Owner's Manual and or Service Manual should be referred to.

Indicates a "Protective Earth Terminal." Before operating the equipment, be sure to connect it to the Ground.

- **Be sure to turn off power before working on the machine.**
  To prevent electric shock, be sure to turn off power before starting the work in which the worker touches the interior of the product. If the work is to be performed in the power-on status, the Instruction Manual herein always states to that effect.
- **Be sure to ground the Earth Terminal** (this, however, is not required in the case where a power cord with earth is used).
  This product is equipped with the Earth Terminal. When installing the product, Connect the Earth Terminal to the "accurately grounded indoor earth terminal" by using an earth wire. Unless the product is grounded appropriately, the user can be subject to electric shock. After performing repair, etc. for the Control equipment, ensure that the Earth Wire is firmly connected to the Control equipment.
- **Ensure that the Power Supply used is equipped with an Earth Leakage Breaker.**
  This product does not incorporate the Earth Leakage Breaker. Using a power supply which is not equipped with the Earth Leakage Breaker can cause a fire when earth leakage occurs.
- **Be sure to use fuses which meet the specified rating.**
  Using fuses exceeding the specified rating can cause a fire and electric shock.

- **Specification changes (removal of equipment, conversion and addition) not designated by SEGA are not allowed.**
  The parts of the product include warning labels for safety, covers for personal protection, etc. It is very hazardous to operate the product by removing parts and or modifying the circuits. Should doors, lids and protective parts be damaged or lost, refrain from operating the product, and contact the distributor, etc. where the product was purchased from.

- **Ensure that the product meets the requirements of appropriate Electrical Specifications.**
  Before installing the product, check for Electrical Specifications. SEGA products have a nameplate on which Electrical Specifications are described. Ensure that the product is compatible with the power supply voltage and frequency requirements of the location. Using any Electrical Specifications different from the designated Specifications can cause a fire and electric shock.

- **Install and operate the product in places where appropriate lighting is available, allowing warning labels to be clearly read.**
  To ensure safety for the customers, labels and printed instructions describing potentially hazardous situation are applied to places where accidents can be caused. Ensure that where the product is operated has sufficient lighting allowing the warnings to be read. If any label is peeled off, apply it again immediately.

- **When handling the Monitor, be very careful. (Applies only to the product w/monitor).**
  Some of the monitor (TV) parts are subject to high tension voltage. Even after turning off power, some portions are still subject to high tension voltage sometimes. Monitor repair and replacement should be performed only by those technical personnel who have knowledge of electricity and technical expertise.

  In the case where commercially available monitors and printers are used in this product, only the contents relating to this product are explained herein. Some commercially available equipment has functions and reactions not stated in this manual. Read this manual together with the specific Instruction Manual of such equipment.

- Descriptions herein contained may be subject to improvement changes without notice.
- The contents described herein are fully prepared with due care. However, should any question arise or errors be found, please contact SEGA.

INSPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION.

Normally, at the time of shipment, SEGA products are in a status allowing for usage immediately after transporting to the location. Nevertheless, an irregular situation may occur during transportation. Before turning on power, check the following points to ensure that the product has been transported in a satisfactory status.

- ☐ Are there any dented portions or defects (cuts, etc.) on the external surfaces of the cabinet?
- ☐ Are Casters and Leg Adjusters damaged?
- ☐ Do the power supply voltage and frequency requirements meet with those of the location?
- ☐ Are all wiring connectors correctly and securely connected? Unless connected in the correct direction, connector connections can not be made accurately. Do not insert connectors forcibly.
- ☐ Are all IC's of each IC BD firmly inserted?
- ☐ Do power cords have cuts and dents?
- ☐ Do the fuses used meet specified rating? Is the Circuit Protector in an energized status?
- ☐ Are such units as Monitors, Control equipment, IC BD, etc. firmly secured? Are all Earth Wires connected?
- ☐ Are all accessories available?
- ☐ Can all Doors and Lids be opened with the Accessory keys? Can Doors and Lids be firmly closed?

TABLE OF CONTENTS

SPECIFICATIONS

Installation space	: 2,383 mm (W) × 2,068 mm (D) (93.8 in. × 81.4 in.)
Height	: 2,015 mm (79.3 in.)
Weight	: Approx. 470 kg. (1,036 lbs.)
Power, maximum current	: 615W 6.9A (AC 110V 50 Hz AREA) 613W 6.8A (AC 110V 60 Hz AREA) 574W 6.2A (AC 120V 60 Hz AREA) 623W 3.7A (AC 220V 50 Hz AREA) 589W 3.5A (AC 220V 60 Hz AREA) 613W 3.3A (AC 240V 50 Hz AREA) 610W 3.3A (AC 240V 60 Hz AREA)
For TAIWAN	
Power, current	: 600W 6.9A(MAX.) 450W 5.0A(MIN.)
MONITOR	: 29 INCH MONITOR × 2

NOTE: Descriptions in this manual are subject to change without prior 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 descriptions together with all the necessary information covering the general operation of electronic assemblies, electromechanicals, servicing control, spare parts, etc. as regards MANX TT TWIN TYPE, a new SEGA product.

This manual is intended for those who have knowledge of electricity and technical expertise especially in ICs, CRTs, microprocessors, etc. Carefully read this manual 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 this Owner's Manual be lost, it can be purchased by placing an order with the following or where the product was purchased from.

SEGA ENTERPRISES, INC. (U.S.A.)/CUSTOMER SERVICE
45133 Industrial Drive, Fremont, California 94538, U.S.A.
Phone : (415) 802-3100
Fax : (415) 802-1754

SEGA AMUSEMENTS EUROPE LIMITED/AMUSEMENT MACHINE SALES DIVISION
Unit 2 Industrial Estate, Leigh Close, New Malden, Surrey KT3 3NL, England
Phone : (081) 336-2256
Fax : (081) 336-1715

SEGA SOUTHERN EUROPE LIAISON OFFICE
Calle Vallellano, 19-23, 1° A, 37008-Salamanca, Spain
Phone : (923) 265893
Fax : (923) 265913

1. HANDLING PRECAUTIONS

When installing or inspecting the machine, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.
Non-compliance with the following points or inappropriate handling running counter to the cautionary matters herein stated can cause personal injury or damage to the machine.

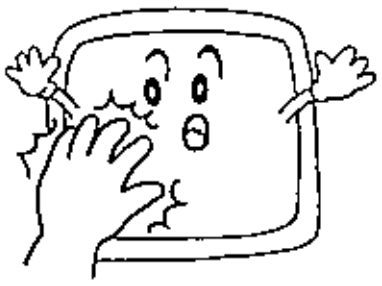
WARNING!

- Before performing the work, be sure to turn power off. Performing the work without turning power off can cause an electric shock or short circuit.
- To avoid electric shock or short circuit, do not insert or pull out the plug quickly.
- Do not expose Power Cords and Earth Wires on the surface, (floor, passage, etc.). If exposed, the Power Cords and Earth Wires are susceptible to damage. Damaged cords and wires can cause electric shock or malfunctioning.
- To avoid causing a fire or electric shock, do not put things on or damage Power Cords.
- When or after installing the product, do not unnecessarily pull the power cord. If damaged, the power cord can cause a fire or electric shock.
- Be sure to perform grounding appropriately. Inappropriate grounding can cause an electric shock.
- Be sure to use fuses meeting specified rating. Using fuses exceeding the specified rating can cause a fire or electric shock.
- Completely make connector connections for IC BD and others. Insufficient insertion can cause an electric shock.
- To avoid causing a fire or electric shock, do not make Specification changes by removing, converting and making additions unless otherwise designated by SEGA.
- Be sure to perform periodic maintenance inspections herein stated.

STOP

IMPORTANT!

- Also, for the IC board circuit inspections, only the logic tester is allowed. The use of a multiple-purpose tester is not permitted, so be careful in this regard.
- When cleaning the CRT surfaces, use a soft, dry cloth. Do not apply chemicals such as thinner, benzine, etc.
- When you touch the monitor (CRT) at the time the power is turned on or off, you might slightly feel electricity. This, however, is caused by static electricity and would not adversely affect the human body.

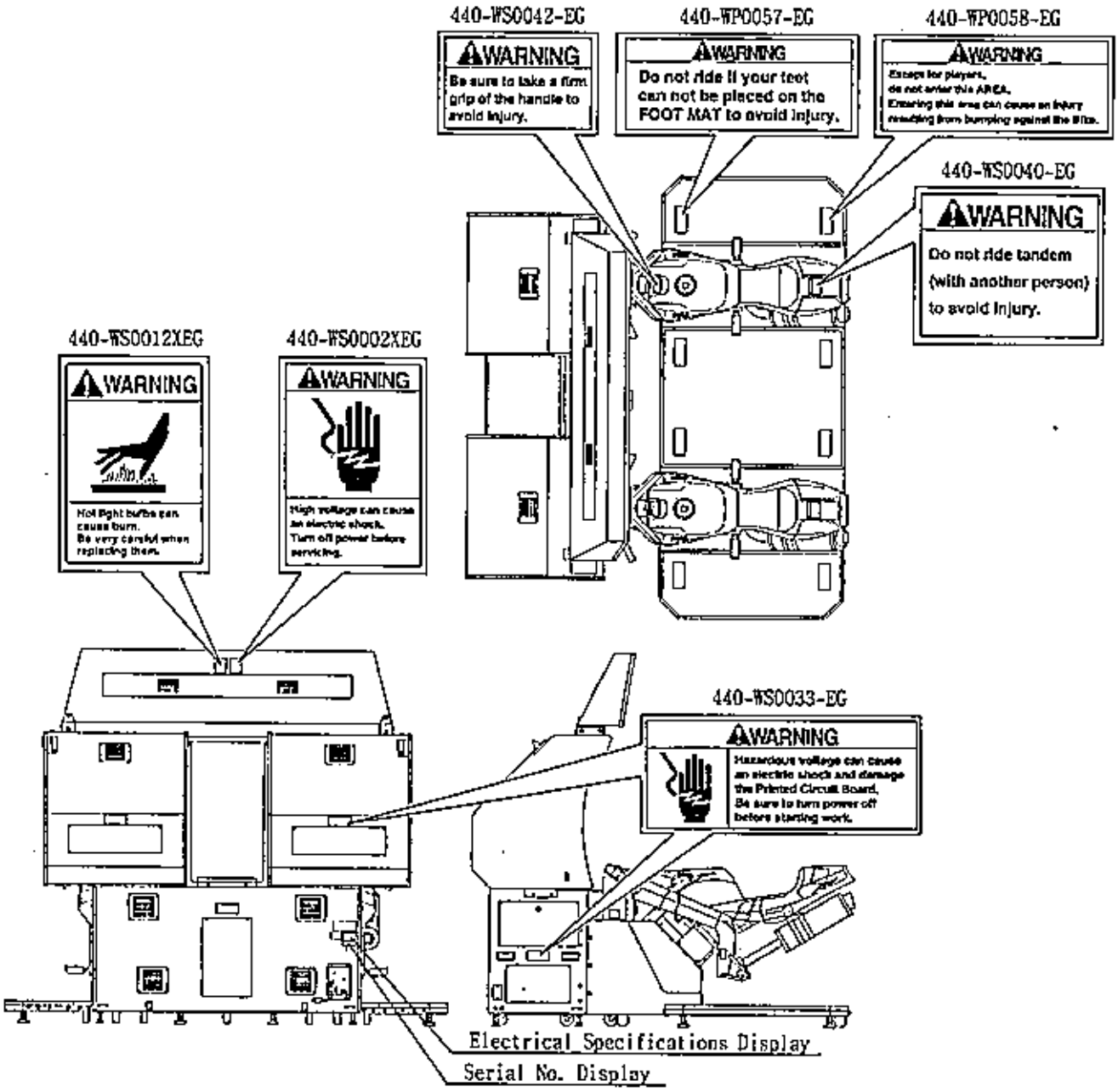


CONCERNING THE STICKER DISPLAY

SEGA product has Stickers describing the product manufacture No. (Serial No.) and Electrical Specifications. Also it has a Sticker describing where to contact for repair and for purchasing parts. When inquiring about or asking for repair, mention the Serial No. and Name of Machine indicated on the Sticker. The Serial No. indicates the product register. Identical machines could have different parts depending on the date of production. Also, improvements and modifications might have been made after the publication of this Manual. In order to meet the above situations, mention the Serial No. when contacting the applicable places.

CONCERNING WARNING DISPLAYS

SEGA product has warning displays on Stickers, Labels and or printed instructions adhered / attached to or incorporated in the places where a potentially hazardous situation can arise. The warning displays are intended for accident prevention for the customers and for avoiding hazardous situation relating to maintenance and servicing work. There are some portions in the Cabinet, which are subject to high tension voltage, etc. where accidents can be caused only by touching. When performing the servicing work , be very careful of the warning displays. Especially, any complex repair and replacement work not mentioned herein, should be performed by those technical personnel who have knowledge of electricity and technical expertise. For the prevention of accidents, caution any customer whose act runs counter to the warnings, as to the effect that he must stop the act.



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.

▶ COPYRIGHT NOTICE ◀

This SEGA product has the copyright notice as follows:

© SEGA 1995

This signifies that this work was disclosed in 1995 and is the property of SEGA ENTERPRISES, LTD.

3. PRECAUTIONS CONCERNING INSTALLATION LOCATION

WARNING!

This product is an indoor game machine. Do not install it outside. Even indoors, avoid installing in places mentioned below so as not to cause a fire, electric shock, injury and or malfunctioning.

- Places subject to rain or water leakage, or places subject to high humidity in the proximity of an indoor swimming pool and or shower, etc.
- Places subject to direct sunlight, or places subject to high temperatures in the proximity of heating units, etc.
- Places filled with inflammable gas or vicinity of highly inflammable/volatile chemicals or hazardous matter.
- Dusty places.
- Sloped surfaces
- Places subject to any type of violent impact.
- Vicinity of anti-disaster facilities such as fire exits and fire extinguishers.
- The operating (ambient) temperature range is from 5℃ to 40℃.
  Only in the case a projector is employed, the temperature range is from 5℃ to 35℃.

LIMITATIONS OF USAGE REQUIREMENTS

WARNING!

- Be sure to check the Electrical Specifications.
  Ensure that this product is compatible with the location's power supply, voltage and frequency requirements.
  A plate describing Electrical Specifications is attached to the product.
  Non-compliance with the Electric Specifications can cause a fire and electric shock.
- This product requires the Breaker and Earth Mechanisms as part of the location facilities. Using them in a manner not independent can cause a fire and electric shock.
- Ensure that the indoor wiring for the power supply is rated at 10A or higher (AC single phase 100~120V), and 7A or higher (AC 220~240V). Non-compliance with the Electrical Specifications can cause a fire and electric shock.
- Be sure to independently use the power supply equipped with the Earth Leakage Breaker. Using a power supply without the Earth Leakage Breaker can cause an outbreak of fire when earth leakage occurs.
- Putting many loads on one electrical outlet can cause generation of heat and a fireresulting from overload.
- When using an extension cord, ensure that the cord is rated at 10A or higher (AC 100~120V area) and 7A or higher (AC 220~240V area). Using a cord rated lower than the specified rating can cause a fire and electric shock.

IMPORTANT!

- Note that for transporting the machine into the location's building, the minimum necessary dimensions of the opening (of doors, etc.) are 0.9m.
- For the operation of this machine, secure a minimum area of 1.3m (W)×2.6m (D).

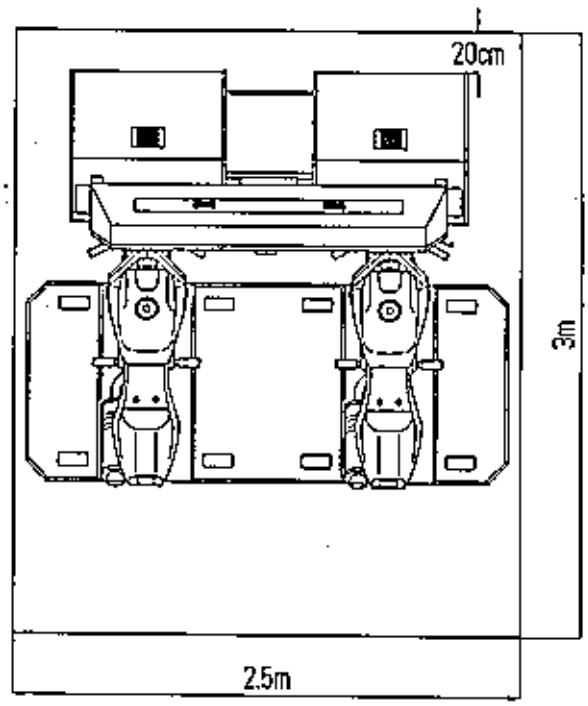


FIG.3

Electric current consumption

MAX. 6.9A (AC 110V 50 Hz)
MAX. 6.8A (AC 110V 60 Hz)
MAX. 6.2A (AC 120V 60 Hz)
MAX. 3.7A (AC 220V 50 Hz)
MAX. 3.5A (AC 220V 60 Hz)
MAX. 3.3A (AC 240V 50 Hz)
MAX. 3.3A (AC 240V 60 Hz)
MAX. 6.9A (For TAIWAN)

4. NAME OF PARTS

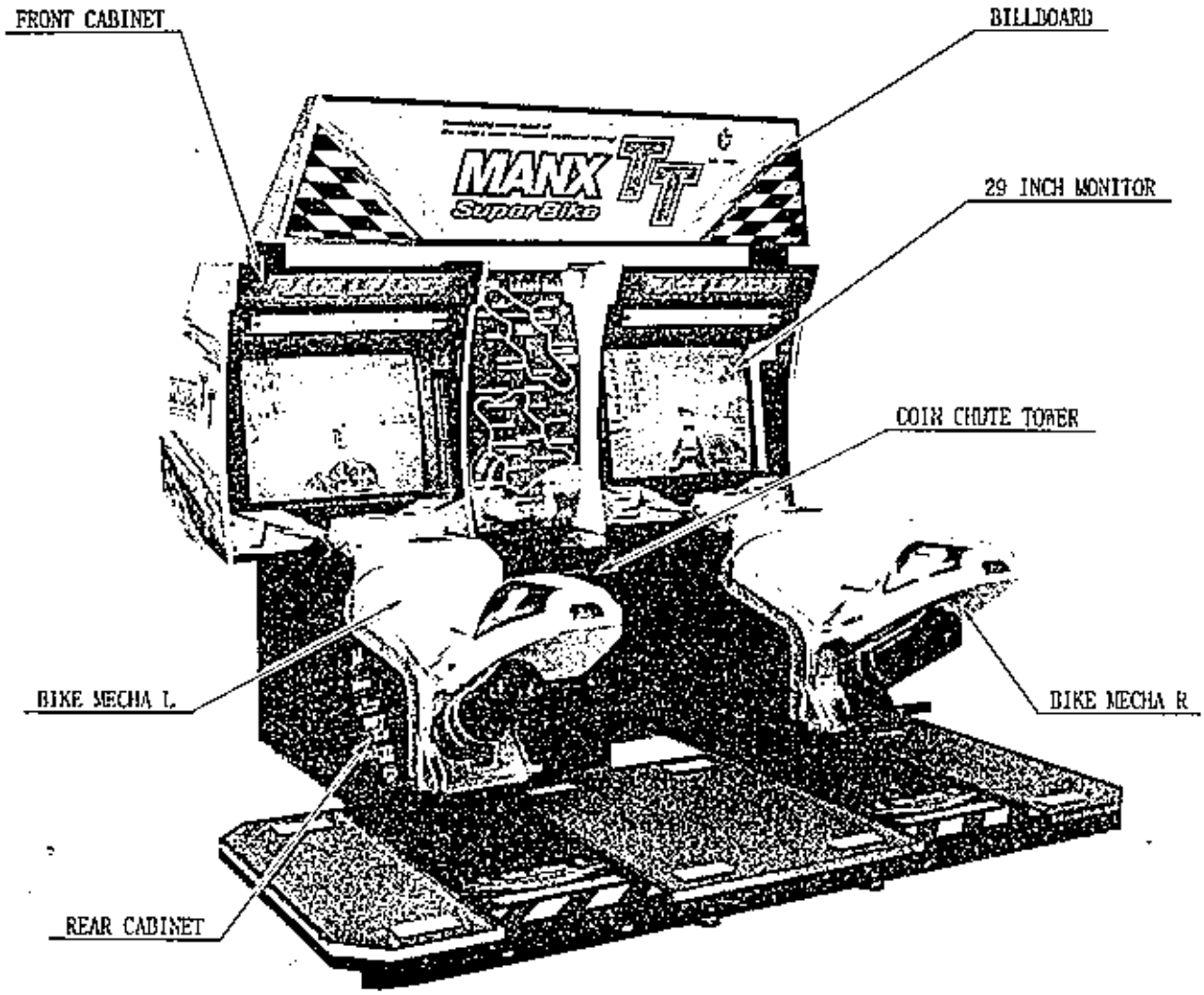


FIG. 4 OVERVIEW

TABLE 4

	Width	Length	Height (mm.)	Weight (kg.)
FRONT CABINET	1,965(1,540:When closed)	× 900	× 2,015	Approx. 270
REAR CABINET	2,383	× 1,440	× 880	Approx. 200
When assembled	2,383	× 2,068	× 2,015	Approx. 470

5. ACCESSORIES

When transporting the machine, make sure that the following parts are supplied.

TABLE 5 ACCESSORIES

Part No.	Qty.	DESCRIPTION	Note
420-6207-03	1	OWNERS MANUAL MANX TT TWIN ENG	
220-5381	2	KEY MASTER FOR 220-5380	For opening/closing the doors
	2	KEY	For the CASHBOX DOOR
220-5373	1	VOL CONT B-5K OHM	For spare, refer to Section 9.
220-5484		VOL CONT B-5K OHM	
514-5036-7000	1	FUSE 6.4 ϕ ×30 7000mA 125V	For spare, refer to Section 15.
421-9041	1	STICKER No.1~8 BIKE TTR TWIN L	For communications play.
421-9042	1	STICKER No.1~8 BIKE TTR TWIN R	
421-9014	1	STICKER FRONT No.1~8	
TTR-0015	2	HOLE PLATE	
310-5050-220110	1	FLEX TUBE	
310-5051-22	2	CONN 22	
600-6664-02	1	WIRE HARN EARTH W/LUG M6	Used for installation, see Sec 6.

6. ASSEMBLING AND PRECAUTIONS TO BE HEEDED WHEN MOVING THE MACHINE

WARNING!

- Perform the assembly work by following the procedure herein stated. Failing to comply with the instructions can cause an electric shock.
- Assembling should be performed as per this manual. Since this is a complex machine, erroneous assembling can cause an electric shock or damage to the machine resulting in not functioning as per specified performance.
- When assembling, be sure to perform the 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 6-item sequence:

1. ASSEMBLING THE FRONT CABINET
2. INSTALLING THE BILLBOARD
3. CONNECTING THE CABINET
4. SECURING IN PLACE (LEG ADJUSTER ADJUSTMENT)
5. POWER SUPPLY, AND EARTH CONNECTION
6. ASSEMBLY CHECK

The Master Key and Cashbox Door Key (accessories) are required for assembly work, in addition to the "plus" (Phillips type) screwdriver, wrench (for M16 hexagon bolts) and socket wrench (for M8 hexagon bolts).

1 ASSEMBLING THE FRONT CABINET

① Remove the SHIPPING BRACKET installed at the time of shipment and the 2 Bolts used for MONITOR locking.

② Widen space between the 2 monitors as shwon.

③ Open the Shield Case Door (refer to HOW TO REMOVE THE GAME BD. Section 16) and connect the 3 Connectors (a total of 6, 3 each on both sides) shown.

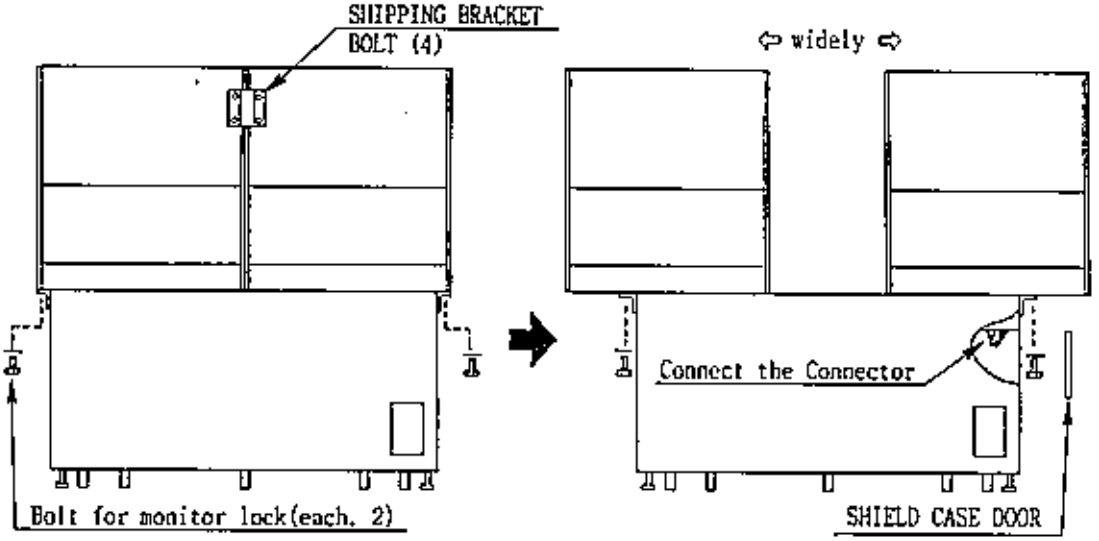


FIG. 6. 1 a

④ Install the JOINT PIPE in between the 2 monitors.

⑤ Install MAP SASH LOWER to MAP HOLDER. (FIG. 6. 1 c)

⑥ Install the Map Holder assembled as per ⑤ above to the Front Cabinet. Securely insert the lower end part of the Map Plate into the Map Holder and secure the upper part of the Map Plate with Map Sash Upper.

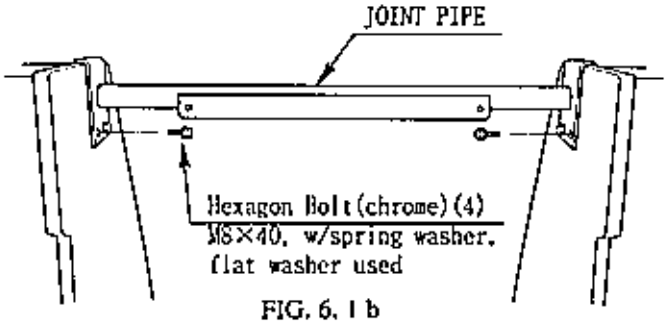


FIG. 6. 1 b

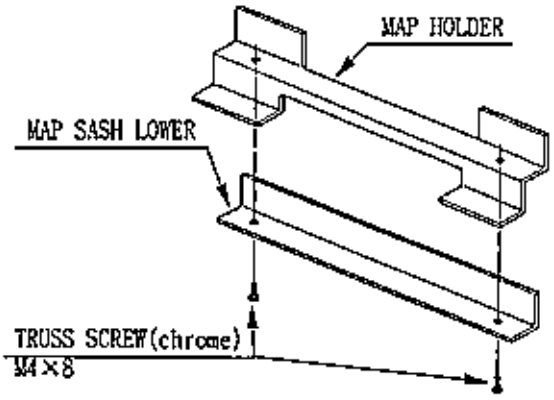


FIG. 6. 1 c

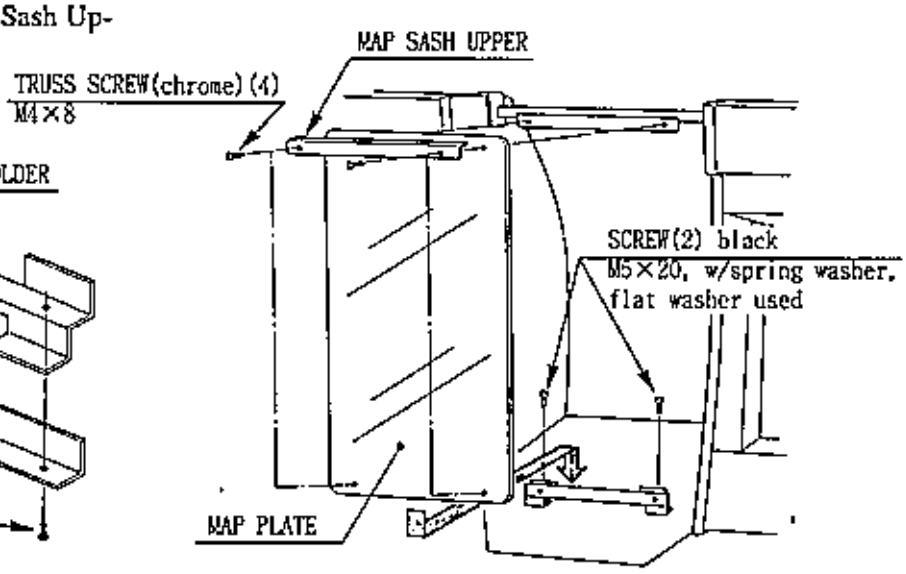


FIG. 6. 1 d

2 INSTALLING THE BILLBOARD

Install the Billboard in between the two monitors as shown. At this time, be sure to connect the left-hand side Connector without fail.

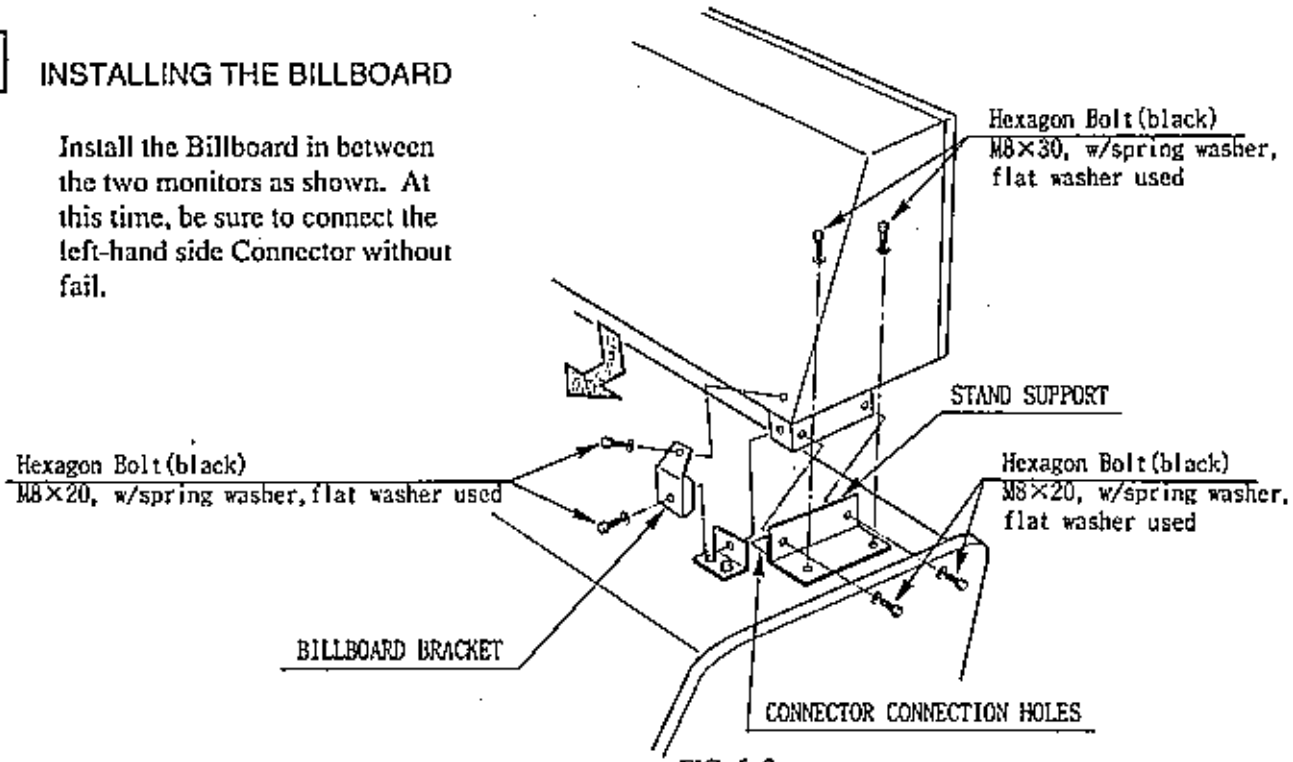


FIG. 6. 2

3 CONNECTING THE CABINET

① Remove the Shipping Bracket installed at the time of shipment, and install BANK GUARD L (R). Refer to 10-2 for installation.

② Connect 2 Connectors (a total of 4) of BIKE MECHA (L, R).

③ By adjusting the height of Front Cabinet's Leg Adjusters, insert the BIKE MECHA.

④ Firmly secure with 6 Hexagon Bolts (a total of 12 for L and R).

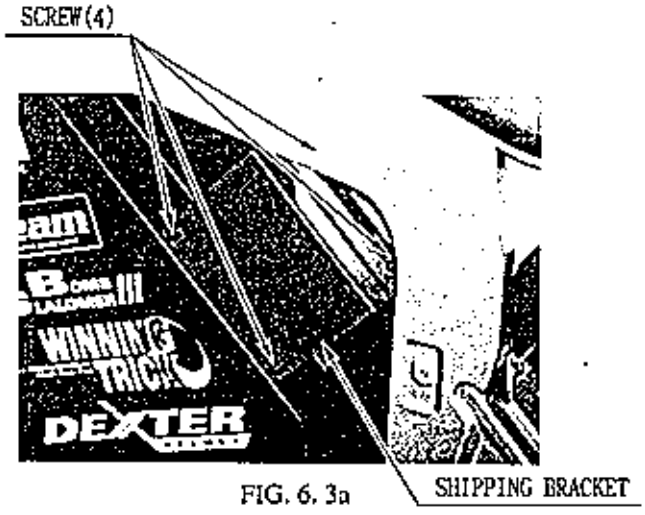


FIG. 6. 3a

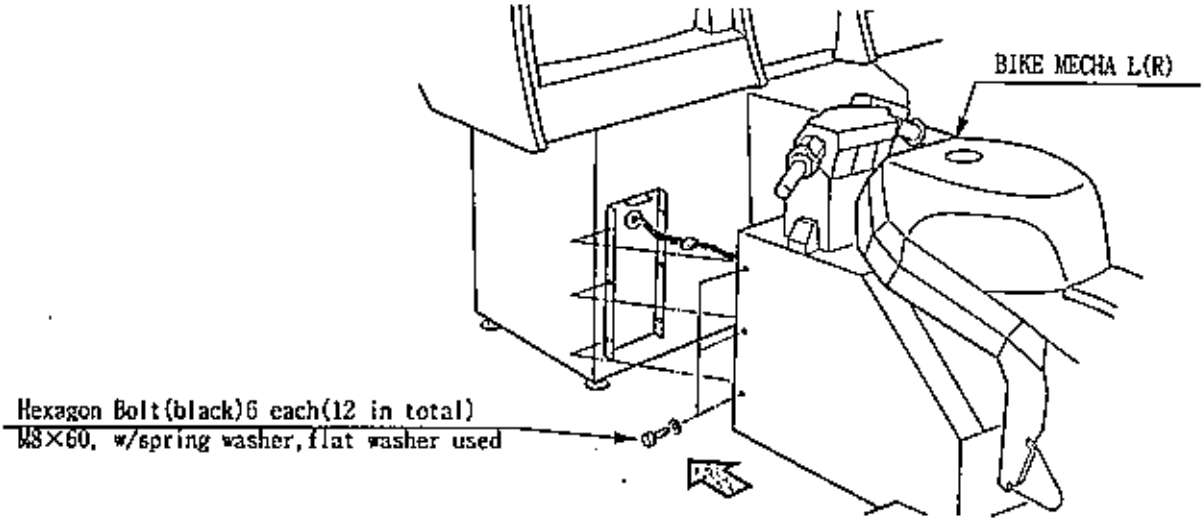


FIG. 6. 3b

⑤ Install FLOOR SIDE L, FLOOR SIDE R and FLOOR CENTER. At this time, adjust the leg adjusters to ensure that the floor is in a level position.

⑥ By using JOINT BRACKETs, firmly secure each floor.

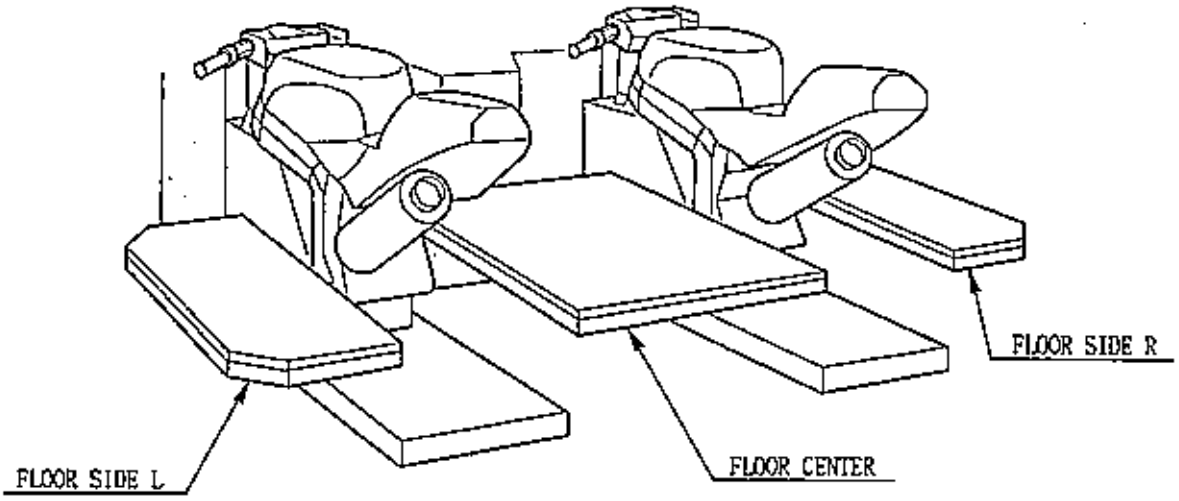


FIG. 6.3 c

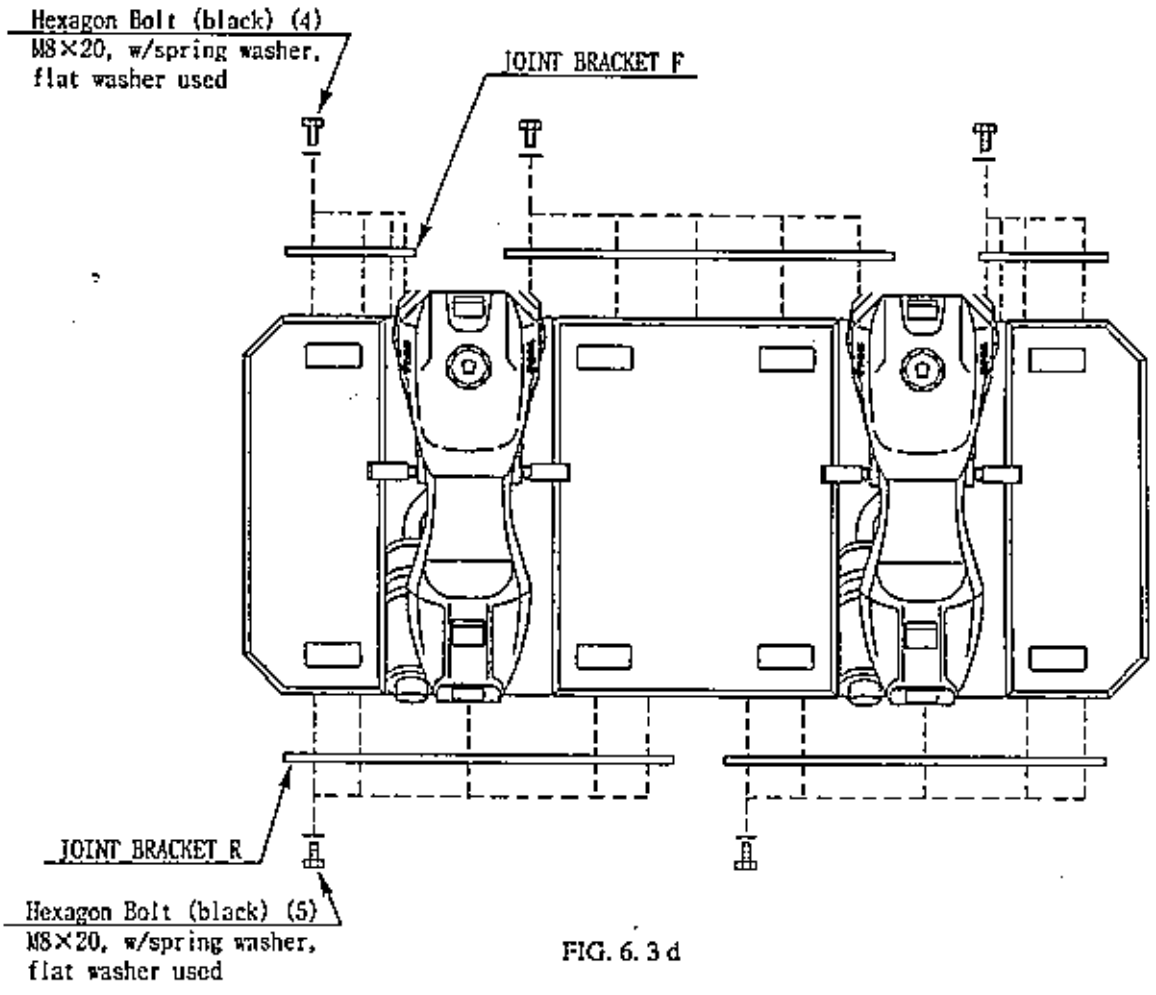


FIG. 6.3 d

4 SECURING IN PLACE (LEG ADJUSTER ADJUSTMENT)

WARNING!

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

This machine has 11 casters (5 for the front cabinet, 6 for the rear cabinet) and 10 leg adjusters (6 for the front cabinet, 4 for the rear cabinet). When the installation position is determined, cause the leg adjusters to come into contact with the floor directly, make adjustments in a manner so that the casters will be raised approximately 5mm. from the floor and make sure that the machine position is level.

① Move the machine to the installation position. When installing the machine against or close to a wall, be sure to secure a passage space to enable the player to take a ride in the machine.

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.

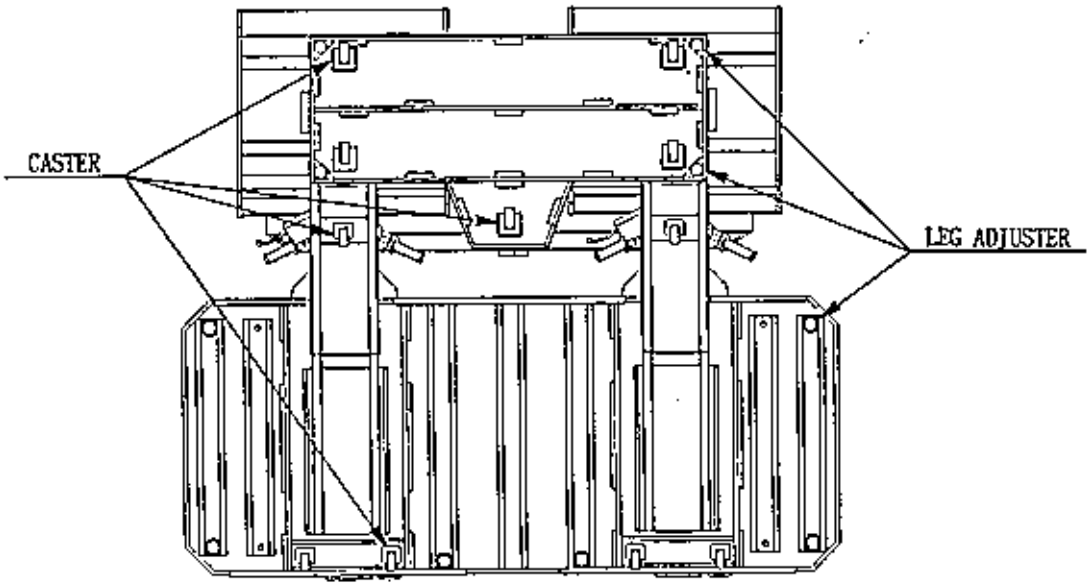


FIG. 6.4 a BOTTOM VIEW

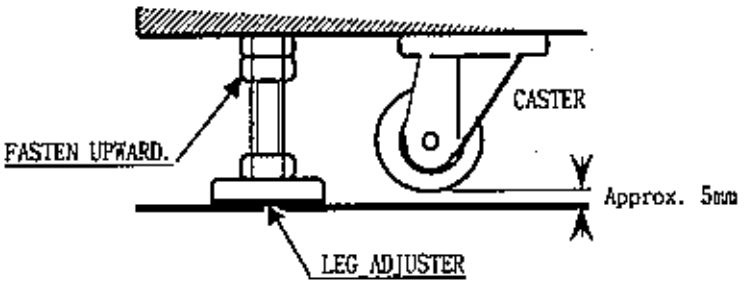


FIG. 6.4 b LEG ADJUSTER

5 POWER SUPPLY, AND EARTH CONNECTION

WARNING!

- Be sure to independently use the power supply socket outlet equipped with an Earth Leakage Breaker. Using a power supply without an Earth Leakage Breaker can cause a fire when the leakage occurs.
- Ensure that the "accurately grounded indoor earth terminal" and the earth wire cable are available. This product is equipped with the earth terminal. Connect the earth terminal and the indoor earth terminal with the prepared cable. If the grounding work is not performed appropriately, customers can be subjected to an electric shock, and the product's functioning may not be stable.
- Ensure that the power cord and earth wire are not exposed on the surface (passage, etc.). If exposed, they can be caught and are susceptible to damage. If damaged, the cord and wire 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.

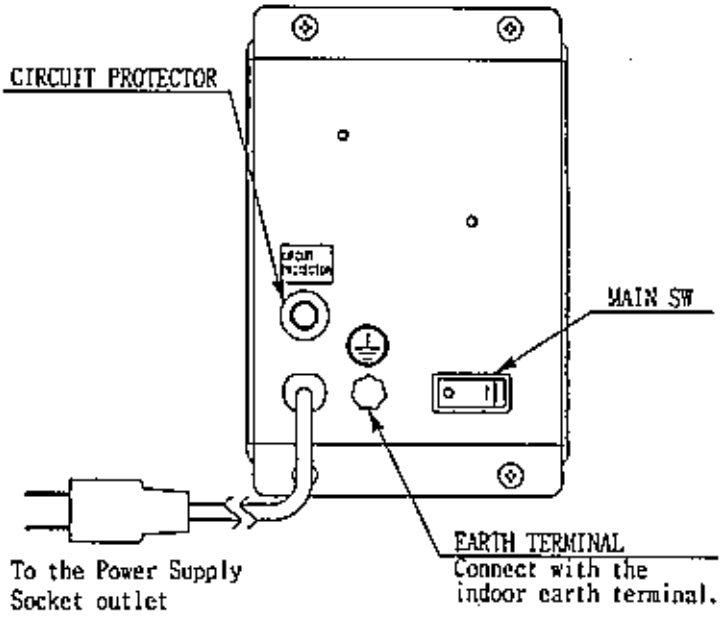


FIG. 6. 5 a AC unit

① The AC Unit is mounted on the back of the FRONT CABINET. The AC Unit incorporates the Main SW, earth terminal and power cord.

② Ensure that the Main SW is OFF.

③ Connect one end of the earth wire to the AC Unit earth terminal, and the other end to the indoor earth terminal. The AC Unit earth terminal has a Bolt and Nut combination. Take off the Nut, pass the earth wire through the Bolt, and fasten the Nut.

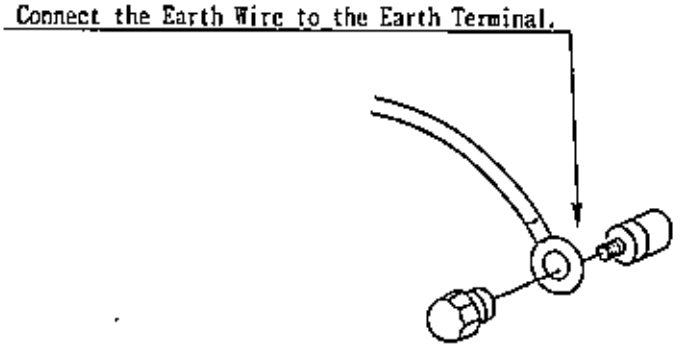


FIG. 6. 5 b Earth Wire Connection

④ Firmly insert the power plug into the socket outlet.

⑤ Perform wiring for the Power Cord and Earth Wire. Install protective covering for the Power Cord and Earth Wire.

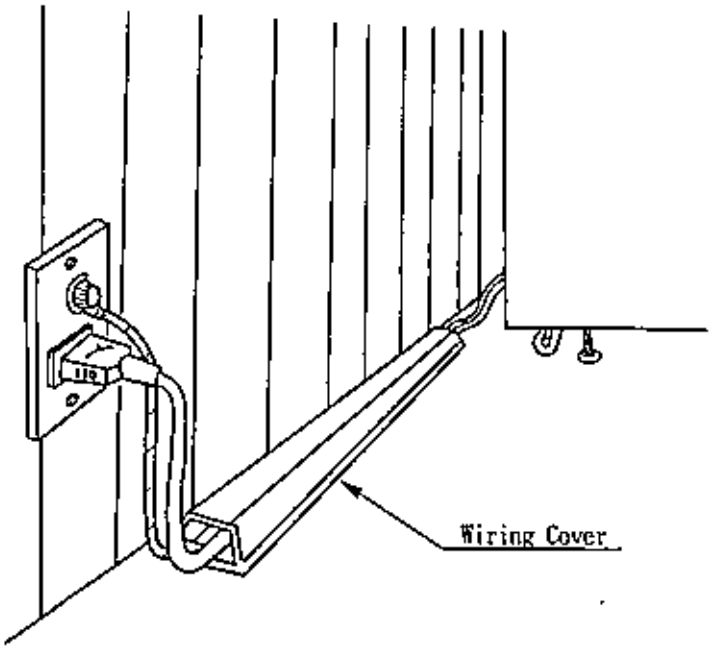
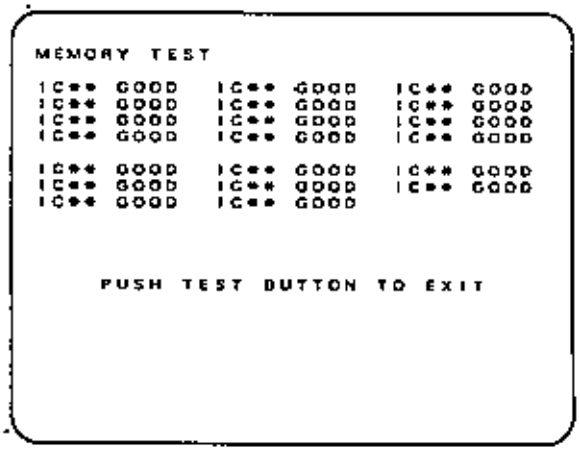


FIG. 6. 5 c Connecting Power Cord and Earth Wire

6 ASSEMBLY CHECK

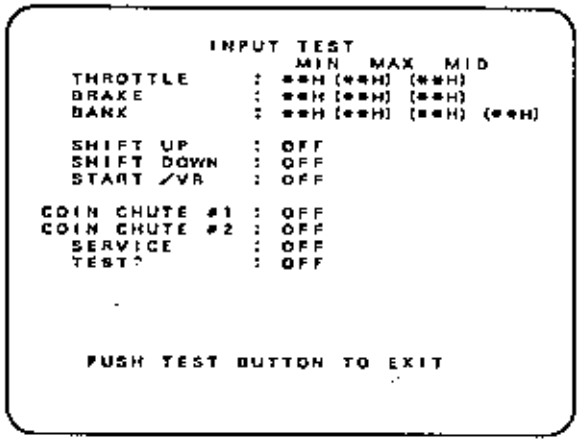
In the TEST MODE, ascertain that the assembly has been made correctly and IC BD. is satisfactory (refer to Section 8).
In the test mode, perform the following test:

(1) MEMORY TEST



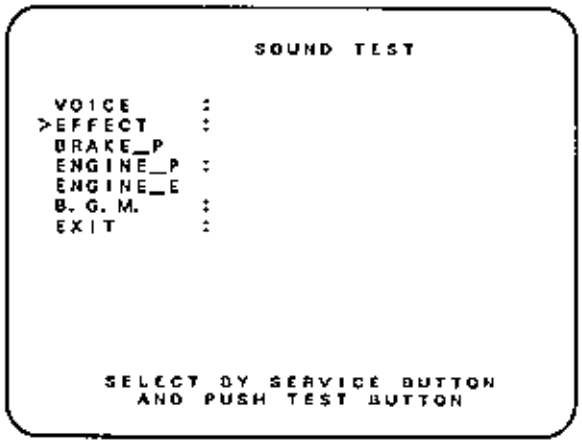
Selecting the MEMORY TEST on the test mode menu screen causes the on-board memory to be tested automatically. The game board is satisfactory if the display beside each IC No. shows GOOD.

(2) INPUT TEST



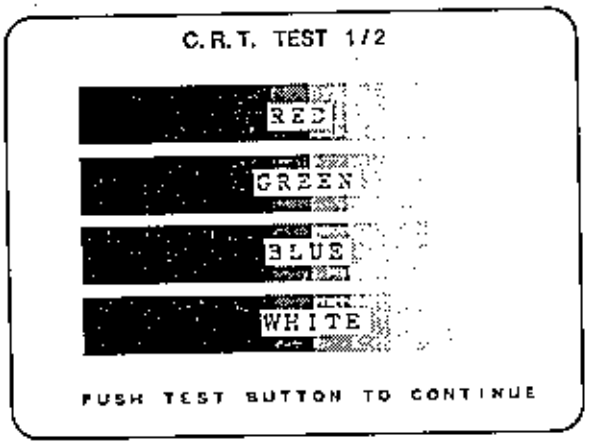
Selecting the INPUT TEST on the test mode menu screen causes the screen (on which each switch and V. R. are tested) to be displayed. Press each switch. For the coin switch test, insert a coin from the coin inlet with the coin chute door open. If the display beside each switch indicates "ON," the switch and wiring connections are satisfactory.
Check the display of each V.R. value. If the V. R. is malfunctioning, refer to Sections 9 & 10.

(3) SOUND TEST



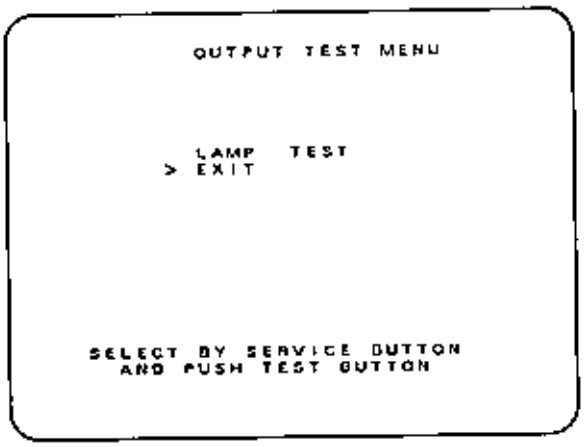
In the TEST mode, selecting SOUND TEST causes the screen (on which sound related BD and wiring connections are tested) to be displayed.
Be sure to check if the sound is satisfactorily emitted from each speaker and the sound volume is appropriate.

(4) C.R.T. TEST



In the TEST mode menu, selecting C.R.T. TEST allows the screen (on which the monitor is tested) to be displayed. Although the monitor adjustments have been made at the time of shipment from the factory, color deviation, etc., may occur due to the effect caused by geomagnetism, the location building's steel frames and other game machines in the periphery. By watching the test mode screen, make judgment as to whether an adjustment is needed. If it is necessary, adjust the monitor by referring to Section 12.

(5) OUTPUT TEST



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

Perform the above inspections also at the time of monthly inspection.

PRECAUTIONS TO BE HEEDED WHEN MOVING THE MACHINE

WARNING!

When moving the machine, be sure to unplug. Moving the machine with the plug as is inserted can damage the power cord, causing a fire and or electric shock. During transportation, use care so as not to damage the power cords by treading on them.

CAUTION!

Since this machine is a heavy structure of approximately 470kg., its leg adjusters should be retracted when moving the machine over the floor. In place where the floor has step-like differences, be sure to separate the 1P COCKPIT and 2P COCKPIT from each other. Lifting the cabinet with 1P and 2P cockpits being still connected may cause damage to the cabinet.

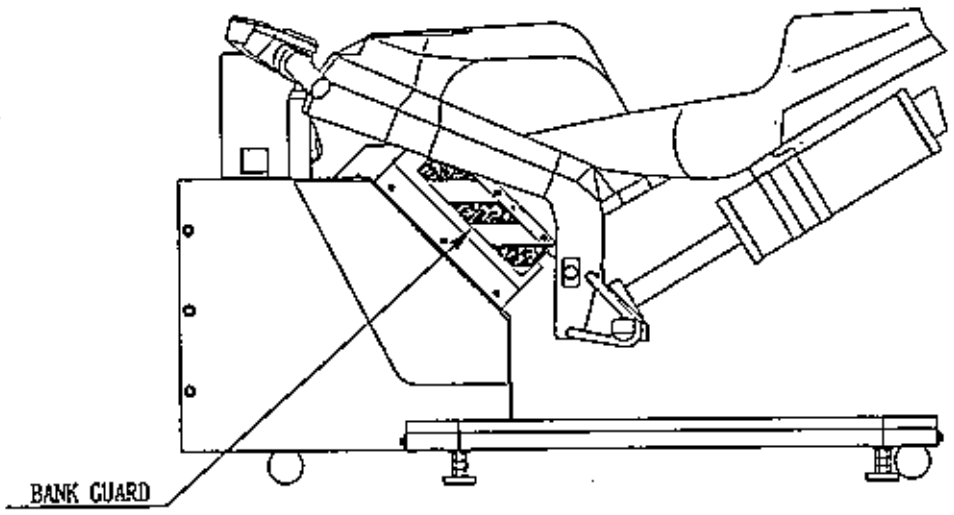
7. OPERATION

PRECAUTIONS TO BE HEEDED BEFORE STARTING THE OPERATION

WARNING!

In order to avoid accidents, check the following before starting the operation:

- To prevent accidents, provide sufficient space for machine installation considering potentially crowded situation. Depending on the player's operation, the bike body banks left and right. If the installation space is limited, the bike can come into contact with and hit customers causing an accident or trouble.
- Check the Bank Guard of the bike mecha's side part for any damage or omission. An irregular Bank Guard can cause injury such as the customer's finger(s) being caught.
- Check if all of the Leg Adjusters are in contact with the surface. If they are not, the Cabinet can move, causing an accident.

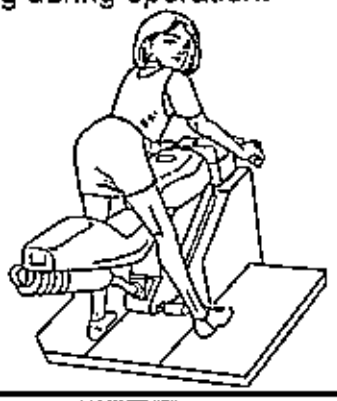


CAUTIONS TO BE HEEDED DURING OPERATION

WARNING!

In order to avoid accidents, check the following during operation:

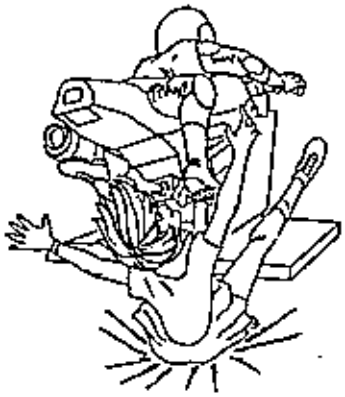
- The player whose feet can not be placed on the base could fall down causing an accident. To avoid an accident, instruct persons of short stature to refrain from playing the game.



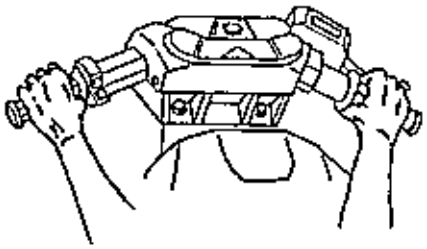
WARNING!

- Instruct those who wear high-heeled shoes to refrain from playing the game by explaining that playing game with high-heeled shoes is very likely to cause potentially hazardous situation.

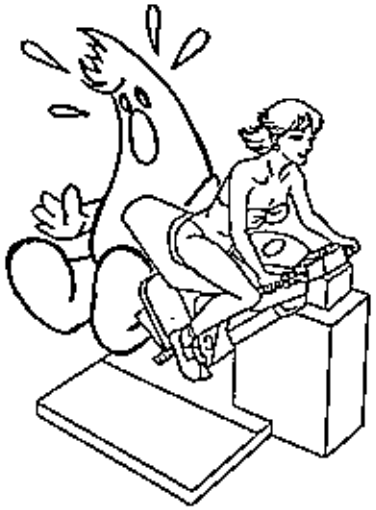
- To avoid injury and parts damage, instruct not to ride tandem (with another person).



- Instruct the player to take a firm grip of the handle during play. To avoid injury, instruct the players to refrain from single-handed taking grip of the handle (which is very likely to cause potentially hazardous situation, should he attempt to do so).

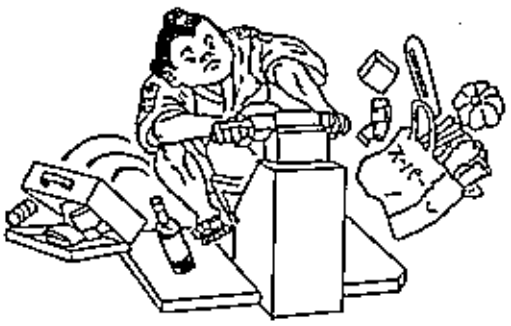


- To avoid injury resulting from coming into contact with the player or the bike body, keep persons other than the player away from the Rear Base.



- To avoid injury, and damage to parts and items, instruct the player not to place things on the base.

- Caution persons under the influence of liquor to refrain from playing the game.



HOW TO PLAY

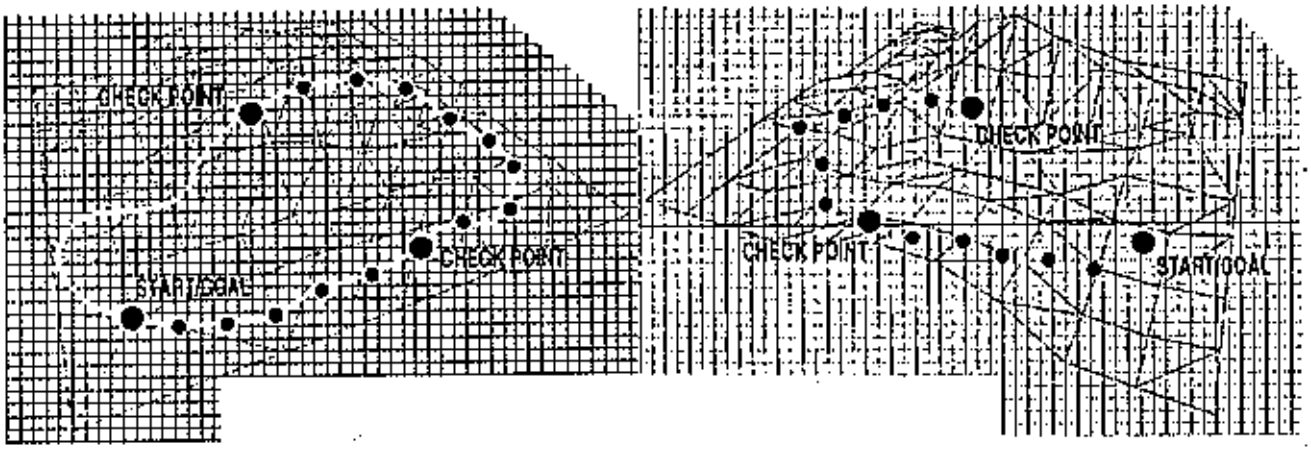
Herein, explanations are given for using the machine independently (2P interactive).

① Ride the bike by striding the bike body.

② As seen from the position facing the Projector screen, 1P side has the Coin Chute on the right-hand side and 2P side has it on the left-hand side. Insert a coin(s). Inserting one play worth coin(s) allows ENTRY screen to appear. Up to 9 credits can be counted at one time. Coins inserted after counting 9 credits will neither be counted nor returned.

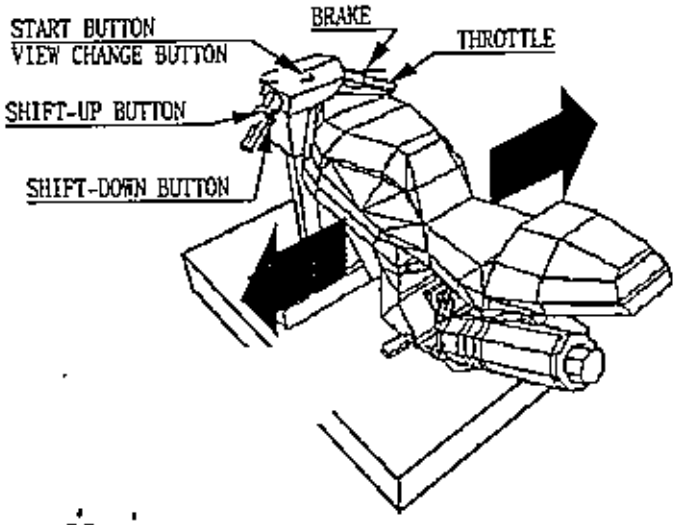
③ When on-screen Time Count becomes zero, or when the other bike has finished entry, the course selection screen appears.

④ The isle where the courses are, appears in the central portion of the screen, with explanations given regarding the easy course on the lower left part of the screen and the technical course on the lower right portion. Incline the bike to select the course and press the START button to make the selection effective (Note 1).
If 2 or more players select different courses, a majority decision applies, if the selection comes to a tie, the easy course is chosen. When only one player is playing, select the course by pressing the Start button while applying the brake or turning the Throttle towards you while applying brake to enter the Time Trial Mode (Note 2).



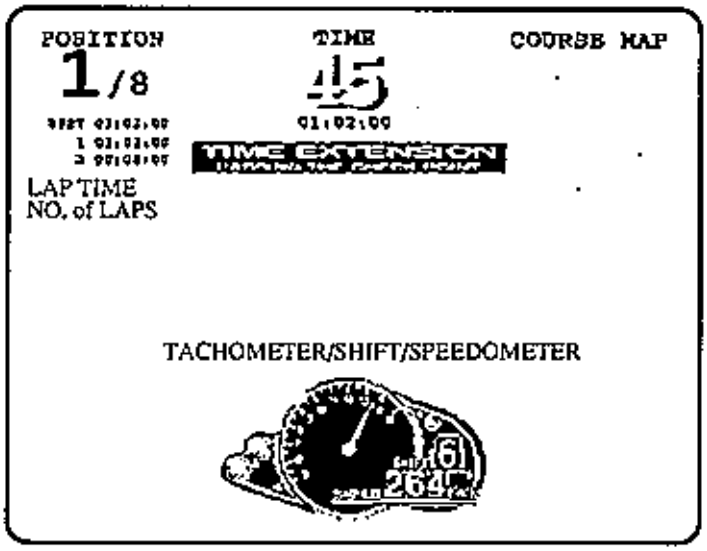
LAKEY COAST T. T. COURSE

⑤ Transmission select screen appears. Choose AUTO or MANUAL by inclining the bike as when selecting the course and press the START button to make the selection effective. At the time of transmission selection, BGM (background music) can be chosen by using the SHIFT button (however, note that the background music initially selected by a seat will apply to all of the seats.



⑥ After the transmission is selected, the game starts.

⑦ In the game mode, the upper left portion of the screen displays the player's position, lap time and No. of laps. The upper center of the screen indicates time limit and the comprehensive lap time. The upper right portion of the screen shows the course map. The lower part of the screen displays tachometer, speedometer and shift (indicated in the central portion of the screen in the Rider's Eye perspective and on the lower right portion in the Rear View perspective). Note 3.



GAME MODE

⑧ When the game starts, time limit countdown starts. Passing a checkpoint before the remaining time becomes zero allows the player to continue game by adding the remaining time of the previous section to the time limit covering up to the next checkpoint. Failing to pass a checkpoint results in GAME OVER.

⑨ Both in the easy and technical courses, finishing 2 laps ends the game. (Note 4)

⑩ The good players can register his name in case of 1P play only. Incline the bike to choose characters and press the START button to make the selection effective. The name entered for DEMO mode will be displayed.

⑪ After one game, if any credits allowing for play still remain, the ENTRY screen will appear.

Note 1 Turning the Throttle towards you and then returning it to the original position can also make the selection effective. Turning the Throttle towards you and leaving it intact without returning it to the original position is ineffective.

Note 2 In the game setting mode, the game mode is set to Race Mode or Time Trial Mode (see 8-7). When set to Race Mode, you can play in the Time Trial Mode by using the aforementioned procedure.

Note 3 During play, pressing the START button alternates RIDER's EYE and REAR VIEW perspectives.

Note 4 Lap frequency setting can be changed.

Note 5 During game play, the bike reacts of itself, depending on the surface condition and the player's operation. Also, engine sound is emitted from the woofer speaker in the muffler in the manner meeting the acceleration status.

ADVICE ON PLAY

- Choose AUTO when you are not familiar with the game.
- When passing corners, try to incline yourself and not the bike.
- In the Technical Course, memorize the course map and try to find the braking points for each corner.
- For shift change, engine sounds and vibration should be taken into consideration apart from the tachometer indicator's movements.

8. 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.

STOP

IMPORTANT!

CAUTIONS TO BE HEEDED WHEN USING THE TEST MODE:

In the case where multiple units are linked for communication play, exiting from the test mode causes the unit to perform the network check automatically. During this time, all of the linked units will not allow the game to be played in normal status. Therefore, be sure not to enter the test mode if any one of the units is in play. On the other hand, if even one unit is in the test mode, make sure that other machines are not in play.

TABLE 8 EXPLANATION OF TEST MODE

ITEMS	DESCRIPTION	REFERENCE 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. 2. In the INPUT TEST mode, check each SW and VR. 3. In the OUTPUT TEST mode, check each of lamps. 4. In the SELF-TEST mode, check ICs on the IC Board.	 8－7, 8－8 8－4 8－11 8－3
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.	8－3
PERIODIC SERVICING	Periodically perform the following: 1. MEMORY TEST 2. Ascertain each setting. 3. In the INPUT TEST mode, test the CONTROL device 4. In the OUTPUT TEST mode, check each of lamps.	 8－3 8－7, 8－8 8－4 8－11
CONTROL SYSTEM	1. In the INPUT TEST mode, check each SW and VR. 2. Adjust or replace each SW and VR. 3. If the problem can not be solved yet, check the CONTROL's moves.	8－4 9, 10
MONITOR	In the MONITOR ADJUSTMENT mode, check to see if the PROJECTOR adjustment is appropriately made.	8－6 12
IC BOARD	1. MEMORY TEST 2. In the SOUND TEST mode, check the sound related ROMs.	8－3 8－5
DATA CHECK	Check such data as game play time and histogram to adjust the difficulty level, etc..	8－9

8—1 SWITCH UNIT

WARNING!

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

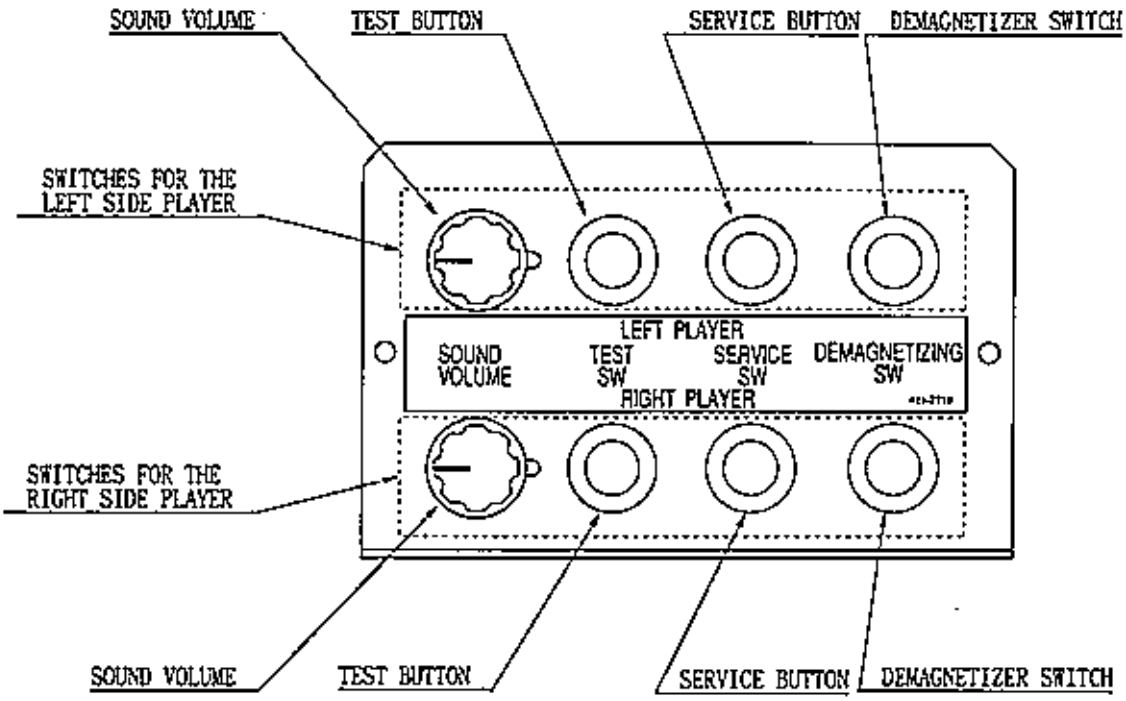


FIG. 8. 1 a SWITCH UNIT

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

TEST BUTTON: TEST	For the handling of the TEST BUTTON, refer to the following pages.
SERVICE BUTTON: SERVICE	Gives credits without registering on the coin meter.
SOUND VOLUME:	Adjusts the volume of the monitor's right-hand side and left-hand side speakers, and the Muffler speaker.
DEMAGNETIZER SWITCH:	Eliminates color unevenness from the screen.

The Handle Mecha's buttons and switches are also used in the test mode. For each functioning, refer to the next page onward.

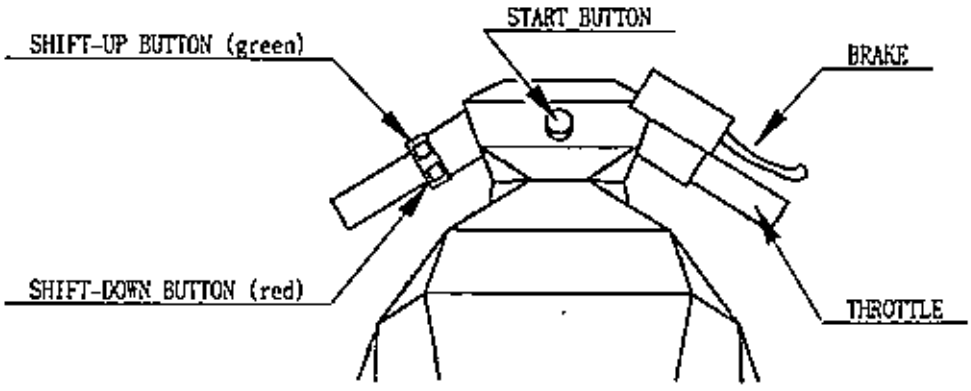


FIG. 8.1 b HANDLE MECHA

8—2 TEST MODE

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

- Pressing the TEST button displays the test menu (FIG. 8.2).
- Press the SERVICE BUTTON till the pointer " > " is moved to the desired item to make a selection.

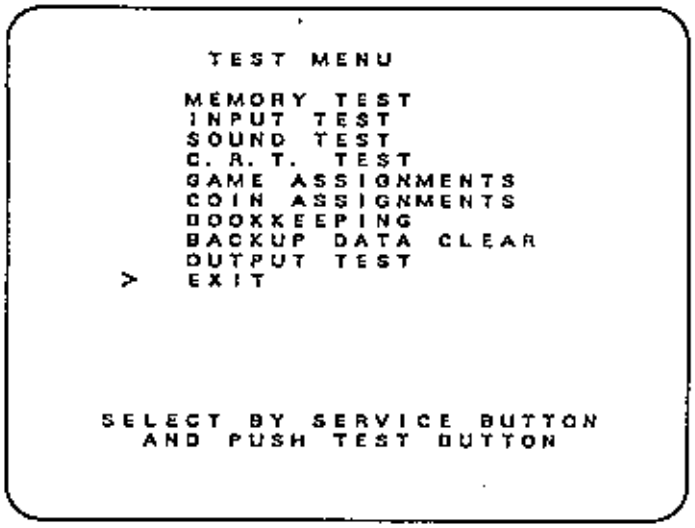


FIG. 8.2 TEST MENU

- Bring the pointer " > " to the desired item and press either the TEST BUTTON or START BUTTON to cause the selected item's test to start.
- Choosing EXIT and pressing the TEST button or the START button will end the Test Mode, causing the Game Mode to return. At the same time, bike body centering is performed, and after centering, the bike is locked.

8—3 MEMORY TEST

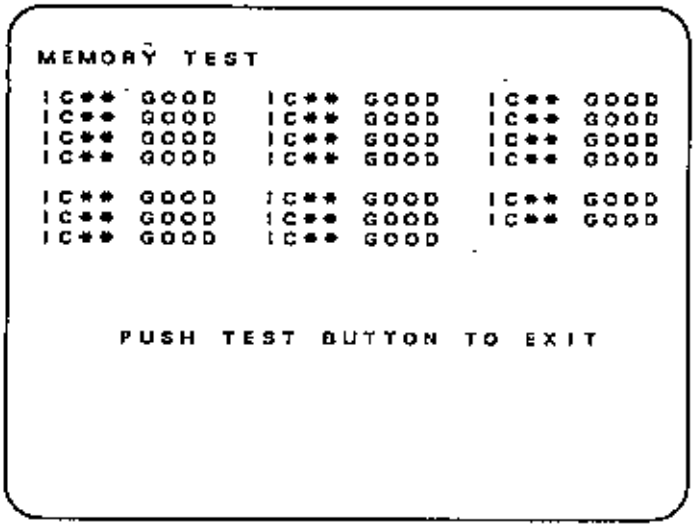


FIG. 8.3 MEMORY TEST

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 results are shown as above, it is satisfactory.
- If the test is not completed, the IC Board may have malfunctioned.
- After finishing the test, press the TEST BUTTON or START BUTTON to return to MENU mode.

8—4 INPUT TEST

```
                INPUT TEST
                      MIN   MAX   MID
   THROTTLE      : **H (**H) (**H)
   BRAKE         : **H (**H) (**H)
   BANK          : **H (**H) (**H) (**H)

   SHIFT UP      : OFF
   SHIFT DOWN    : OFF
   START /VR     : OFF

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



     PUSH TEST BUTTON TO EXIT
```

FIG. 8. 4a INPUT TEST

Selecting INPUT TEST causes the screen shown to appear and allows each switch status and game play related V. R. values to be checked. Also, in this mode, V. R. value setting can be performed.
On this screen, periodically check the status of each switch & V. R.

- By pressing each switch, if the display on the right-hand side of the name of each switch changes to ON from OFF, the SW and the wiring connections are satisfactory.
- To check CHUTE 1 & CHUTE 2 coin switches, open the COIN CHUTE DOOR and insert a coin(s) in the slot.
- To return to the MENU mode, press the TEST BUTTON.

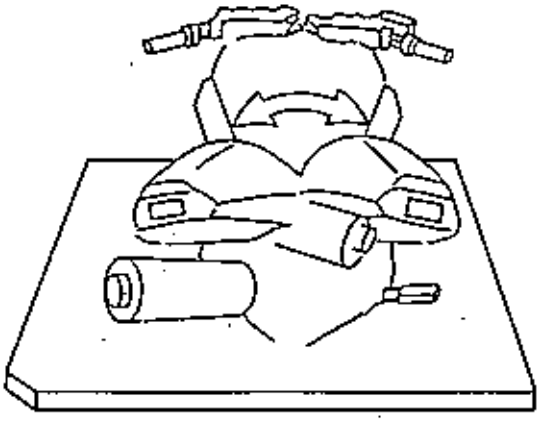


FIG. 8. 4b BANK

V. R. SETTING PROCEDURE

① While pressing the SHIFT-UP button, press the START button to select the desired change item. Release the button to make the selection effective.
② With the SHIFT DOWN button pressed down, move the applicable device for shifting (throttle, brake and bank) fully within the applicable mobile range to set the value. When setting the bank V. R., where the button is released will be the center position.
③ Upon finishing the setting change, press the TEST button to have the menu mode return to the screen.

APPROPRIATE VALUE FOR EACH V. R.

To change V. R. securing position when replacing the V. R., etc. first secure the V. R. at a position displaying the following values. Then, perform V. R. setting in the above mentioned procedure.

THROTTLE : MIN. 20H (without turning the THROTTLE GRIP)

BRAKE : 20H (without pulling the BREAK LEVER)

BANK : MIN. 20H when inclined right ← center position 80H → MAX. F0H when inclined left

8—5 SOUND TEST

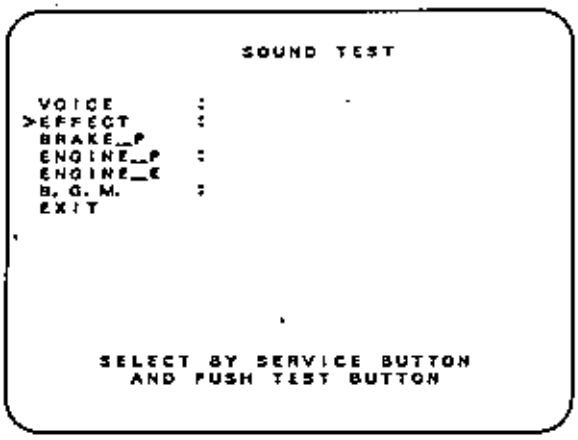


FIG. 8. 5 SOUND TEST

Selecting SOUND TEST allows the desired sound (sound effects, announcement, BGM, etc.), to be chosen and heard. In this test, sound related IC Board and each speaker can be checked. Press the SERVICE button or SHIFT button to bring the arrow (>) to the desired sound test item. Pressing the TEST button or the START button allows the selected type of sound to be emitted. Each time the TEST button or START button is pressed, the next sound is emitted.

- VOICE — Announcement during game.
- EFFECT — Sound effects during game.
- BRAKE_P — Player Bike's braking sound during game.
- ENGINE_P — Player Bike's engine sound during game.
- ENGINE_E — The competitor's engine sound during game.
- B. G. M. — Background music during game.
- EXIT — Returning to Menu Mode.

8—6 C. R. T. TEST

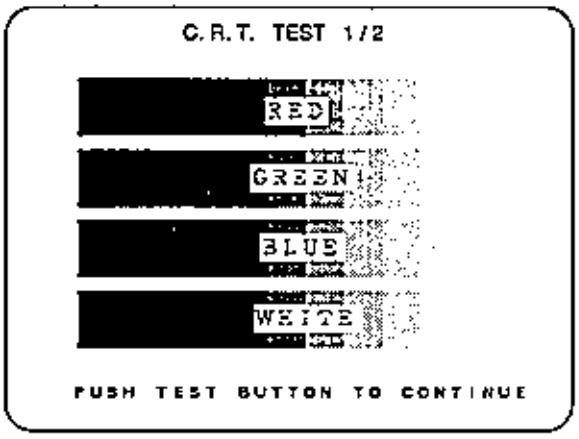


FIG. 8. 6a C. R. T. TEST

Choose C.R.T. TEST to have the Monitor Adjustment check screen appear. By watching the screen, periodically check if adjustments are needed. For the Adjustment Method, refer to the Section of MONITOR. In the screen as per FIG. 8. 6a, check Monitor color adjustments. By watching this screen, make color adjustments. Each of the R (red), G (green) and B (Blue) and white is darkest at the left-hand end and becomes brighter towards the right-hand end.

Press the TEST button to have the following Crosshatch screen appear.

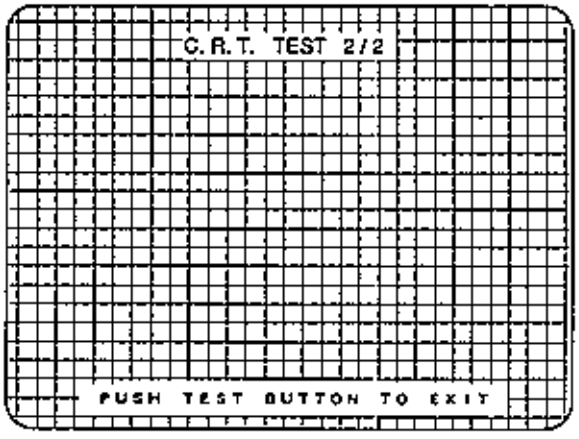


FIG. 8. 6b C. R. T. TEST

In the screen as per FIG. 8.6b, check monitor size and position adjustments. Check size and position adjustments by watching this screen.
Adjust the Monitor to make sure that the crosshatch lines do not go beyond the screen size and crosshatch distortion does not occur.

Press the TEST button to have the menu return to the screen.

8—7 GAME ASSIGNMENTS

Select GAME ASSIGNMENTS to have the following screen appear. This allows settings of lap frequency, game difficulty level, etc. to be performed. Each item displays the contents described as follows:

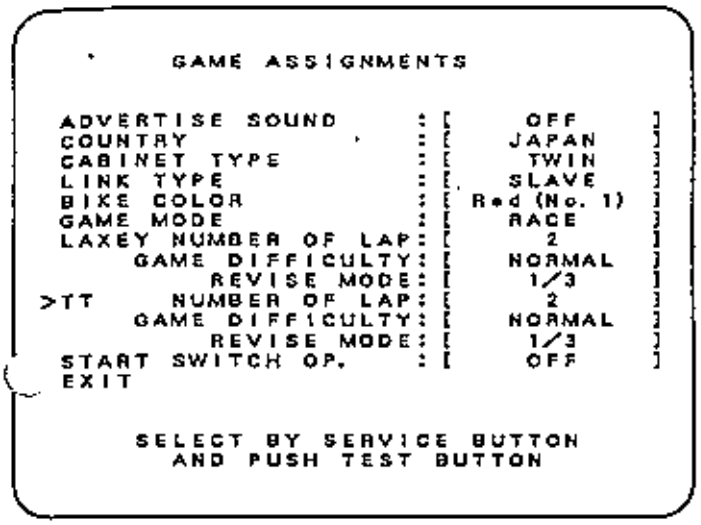


FIG. 8. 7 GAME ASSIGNMENTS

SETTING CHANGE PROCEDURE

STOP

IMPORTANT!

Setting change is not effective till EXITing. Be sure to EXIT after setting change.

① Press the SERVICE button or SHIFT button to bring the arrow (>) to the desired change item.
② Press the TEST button or the START button to select the setting change item.
③ Move the arrow to EXIT and press the TEST button or the START button to return the menu mode to the screen.

- ● ADVERTISE SOUND — Setting of sound to be emitted during Advertise mode.
  OFF: No sound ON: Sound emitted.
- ● COUNTRY — Allows for language setting.
- ● CABINET TYPE — Alternates DX and TWIN. Set to TWIN.
- ● LINK TYPE — For interactive play, set to MASTER or SLAVE. Set one of the Seats to MASTER and set all others to SLAVE.
- ● BIKE COLOR — Selects bike color. At the same time, performs Seat order setting for communication play. For communication play, make sure that an identical number is not set to different seats.
- ● GAME MODE — Select either RACE or T.T. (time trial).
- ● **** NUMBER OF LAP — Lap frequency of each course.
- ● GAME DIFFICULTY — This game allows by-course difficulty level to be set in 4 levels. Depending on the difficulty level set, the initial time varies.
- ● REVISE MODE — Sets REVISE for versus game.
  No Revise: Revise Low 1/3～3/3 Revise High
- ● START SWITCH OP. — Sets whether, at the time of game start, the START button is to be used or not.
  OFF: Not Used. ON: To be used.

8—8 COIN ASSIGNMENT

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."

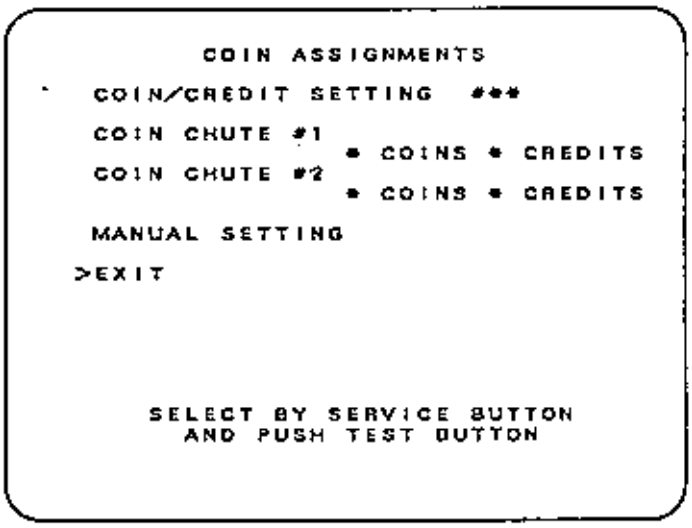


FIG. 8. 8a COIN ASSIGNMENTS

SETTING CHANGE PROCEDURE

STOP
IMPORTANT!

Setting change is not effective until EXITing. Be sure to EXIT after setting change.

① Press the SERVICE button or SHIFT button to bring the arrow (>) to the desired change item.
② Press the TEST button or the START button to select the setting change item.
③ Move the arrow to EXIT and press the TEST button or the START button to return the menu mode to the screen.

- COIN/CREDIT SETTING "How many coins correspond to how many credits." In this machine, selection as per Table 8.8a is possible.
- MANUAL SETTING Allows for finer settings. (Table 8.8b)

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

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

MANUAL SETTING

Selecting MANUAL SETTING in the Coin Assignment mode displays the following screen.

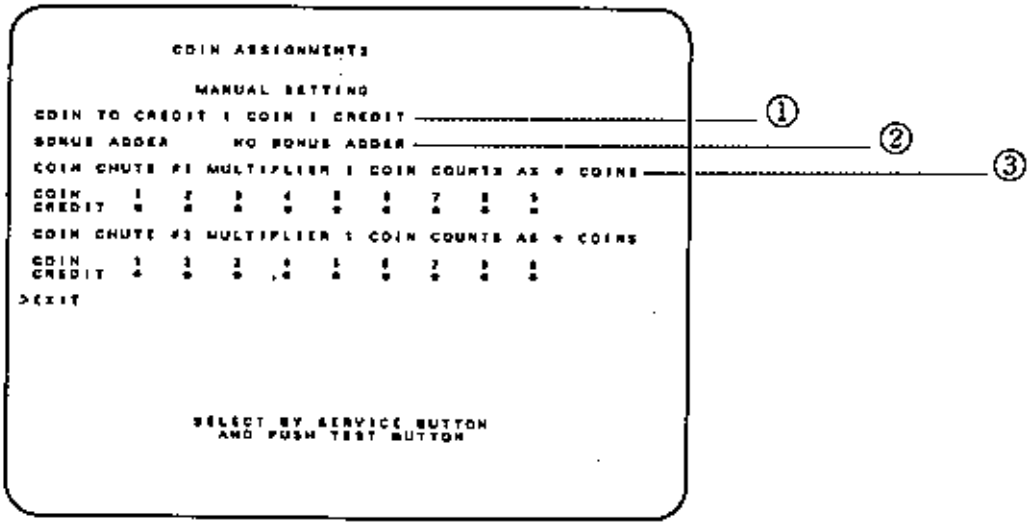


FIG. 8. 8b MANUAL SETTING

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 8. 8b 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

8—9 BOOKKEEPING

Selecting the BOOKKEEPING in the menu mode displays the bookkeeping data up to the present on the following 5 pages.

Each time the TEST button is pressed, the test item proceeds to the next item. Pressing the TEST button or the START button while the 5/5 screen is displayed returns the test menu on the screen.

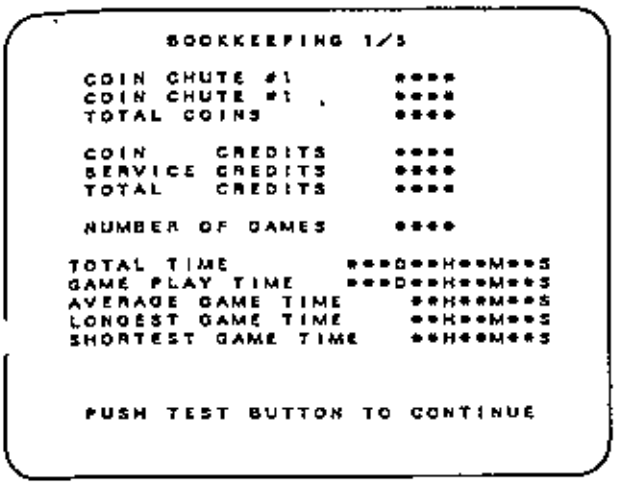


FIG. 8.9 a BOOKKEEPING (1/5)

- COIN CHUTE#＊
  Number of coins put in each chute.
- TOTAL COINS
  Total number of coins inserted in each coin chute.
- 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.
- TIME HISTOGRAM
  By-playtime play frequency.

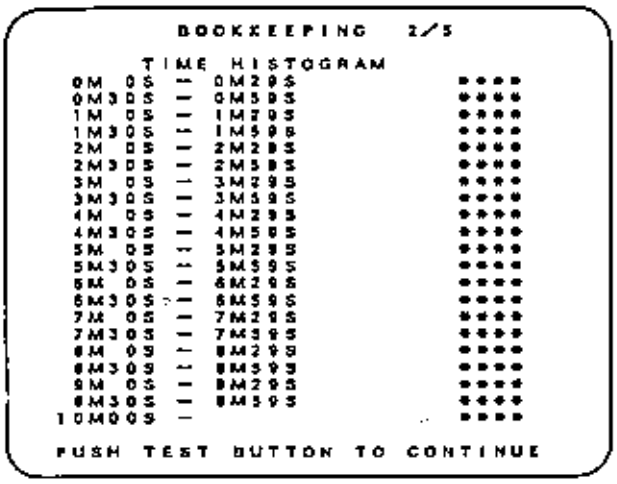


FIG. 8.9 b BOOKKEEPING (2/5)

The 2/5 screen displays by-play-time play frequency. For difficulty setting, etc., refer to this screen.

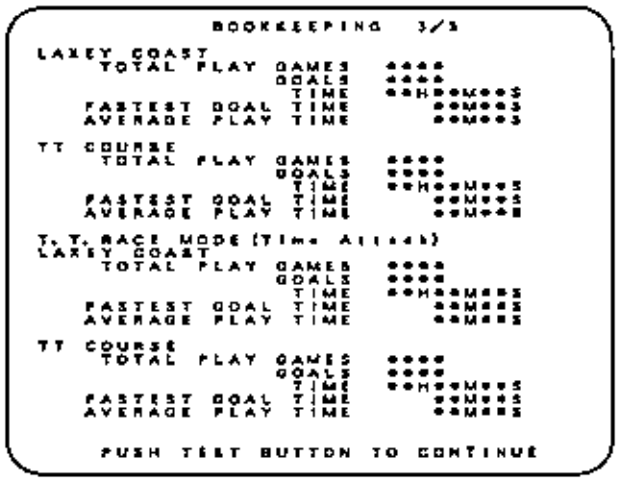


FIG. 8.9 c BOOKKEEPING (3/5)

The 3/5 screen displays by-course play frequency and play time.

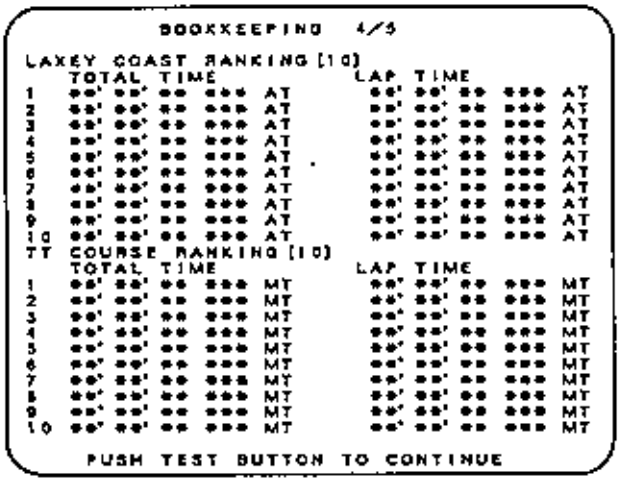


FIG. 8. 9 d BOOKKEEPING (4/5)

The 4/5 screen displays by-course ranking up to the 10th position in the case of RACE mode.

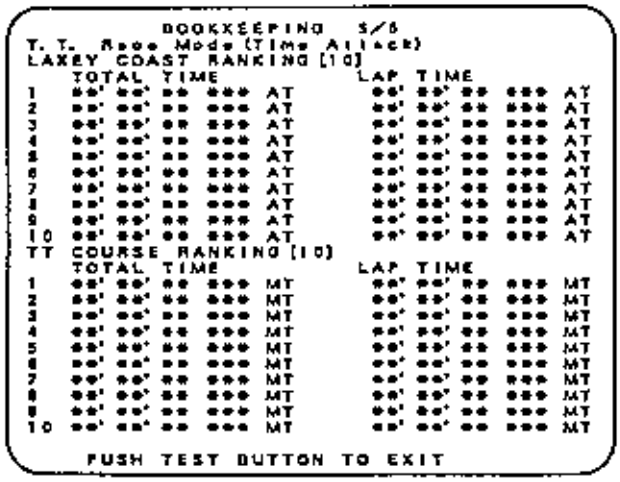


FIG. 8. 9 e BOOKKEEPING (5/5)

The 5/5 screen displays by-course ranking up to the 10th position in the case of T.T. (Time Trial) mode.

8—10 BACKUP DATA CLEAR

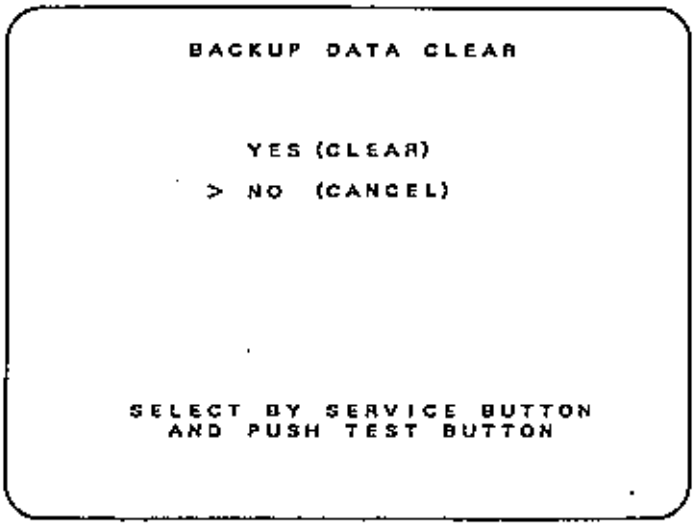


FIG. 8. 10 BACKUP DATA CLEAR

Clears the contents of BOOKKEEPING. When clearing, use the SERVICE BUTTON to bring the arrow (>) to "YES (CLEAR)" and press the TEST BUTTON. When the data has been cleared, "COMPLETED" will be displayed.
Bring the arrow to "NO (CANCEL)" and press the TEST BUTTON to return to the Menu mode without clearing the data.
Also, note that the game setting contents are not affected by BACKUP DATA CLEAR operation.

8—11 OUTPUT TEST

In the OUTPUT TEST, connections between IC Boards, the status of each lamp can be checked. In this mode, periodically check these items.

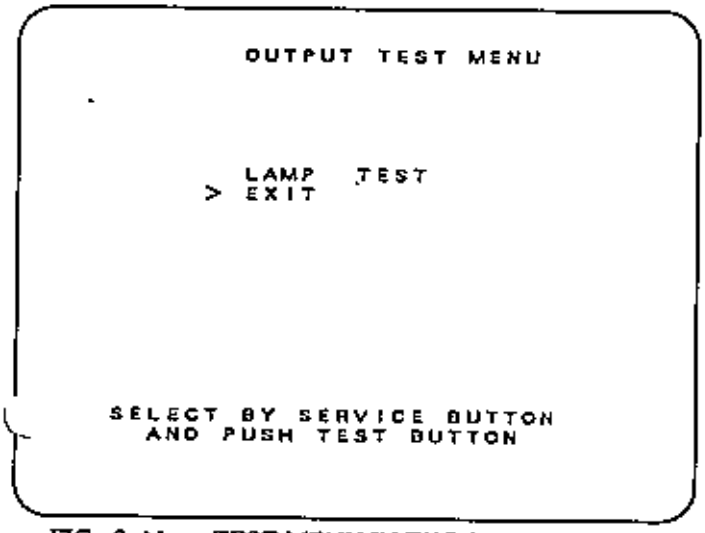


FIG. 8.11 a TEST MENU IN THE OUTPUT TEST MODE

In the menu mode, selecting OUTPUT TEST causes the menu (FIG. 8. 11 a) in the OUTPUT TEST mode to appear on the screen. Select the desired test item in the OUTPUT TEST mode. Upon finishing each test, first return the OUTPUT TEST menu to the screen, and then choose EXIT to return to the menu screen and exit from the test mode.

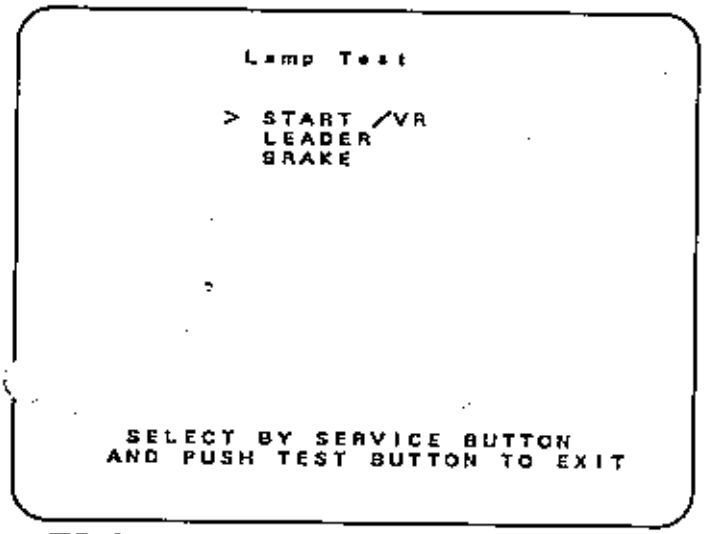


FIG. 8.11 b LAMP TEST

Selecting LAMP TEST in the OUTPUT TEST menu mode displays the screen on which each lamp's functioning check is performed.
If the lamp selected (where the arrow is) flashes, the lamp and its wiring connections are satisfactory.
Press either the TEST button or the START button to return the OUTPUT TEST menu mode to the screen.

9. HANDLE MECHANISM

In the Test Mode, if Throttle and Brake V.R. value variations can not be set within the allowable range, V. R. installation position adjustment or V. R. replacement are needed. Also, make sure to apply grease to the Throttle/Brake mechanism once every 6 months. To perform the above work, remove the Handle Cover and Brake Cover. (When replacing the Throttle V. R., however, remove only the Handle Cover.) When replacing the START button, first remove the wiring connected to the START button and then remove the START button from the Handle Cover.

REMOVING THE HANDLE COVER AND BRAKE COVER

WARNING!

- When working, be sure to turn power off. Working without turning power off can cause electric shock or short circuit accident.
- Be careful so as not to cause damage to wirings. Damaged wiring can cause an electric shock or short circuit accident.

For Throttle/Brake V.R. adjustment, remove the Handle Cover and Brake Cover by using the following procedure. There is a connector's wiring connection inside the Handle Cover. Be very careful so as not to damage the wiring.

① Remove the 5 screws which secure the Handle Cover.
② Remove the 4 screws which secure the Brake Cover.
③ The Handle Cover is removable from the Handle Unit as per ① above. Disconnect the connector to remove the Handle Cover from the Handle Mecha. Then, the Brake Cover is removable.

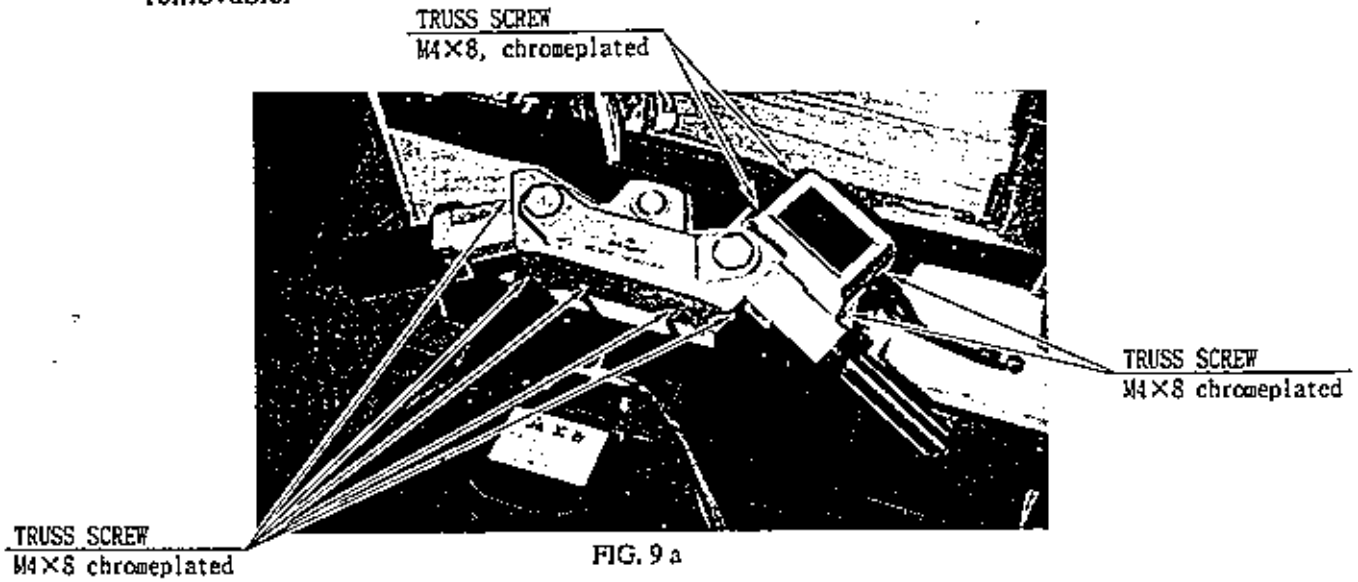


FIG. 9 a

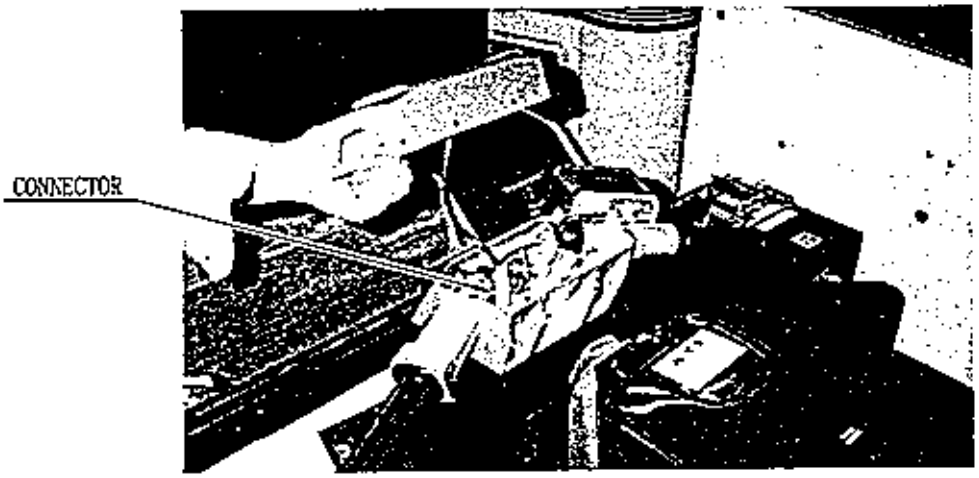


FIG. 9 b

9—1 THROTTLE/BRAKE V. R. ADJUSTMENT

WARNING!

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

This machine has V. R. setting functions. Game is playable satisfactorily if the V. R. Shaft can rotate without any problem within the mobile range of the Grip and Brake Lever. Display the INPUT TEST mode, and while maintaining the status without applying the Throttle and brake respectively to the Grip and Brake Lever, follow the procedure below to make V. R. adjustments.

ADJUSTING THE THROTTLE V. R.

① Remove the Handle Cover.
② Loosen Screw A and move the Gear to ensure that the variation value in the V. R. adjustment mode is within 20H plus or minus 10.
③ If the value is within the specified range, retighten Screw A.
④ Perform V. R. setting. (Refer to 8-4)

ADJUSTING THE BRAKE V. R.

① Remove the Handle Cover and then remove the Brake Cover.
② Loosen Screw B and move the Gear to ensure that the variation value in the V. R. adjustment mode is within 20H plus or minus 10.
③ If the value is within the specified range, retighten Screw B.
④ Perform V. R. setting. (Refer to 8-4.)

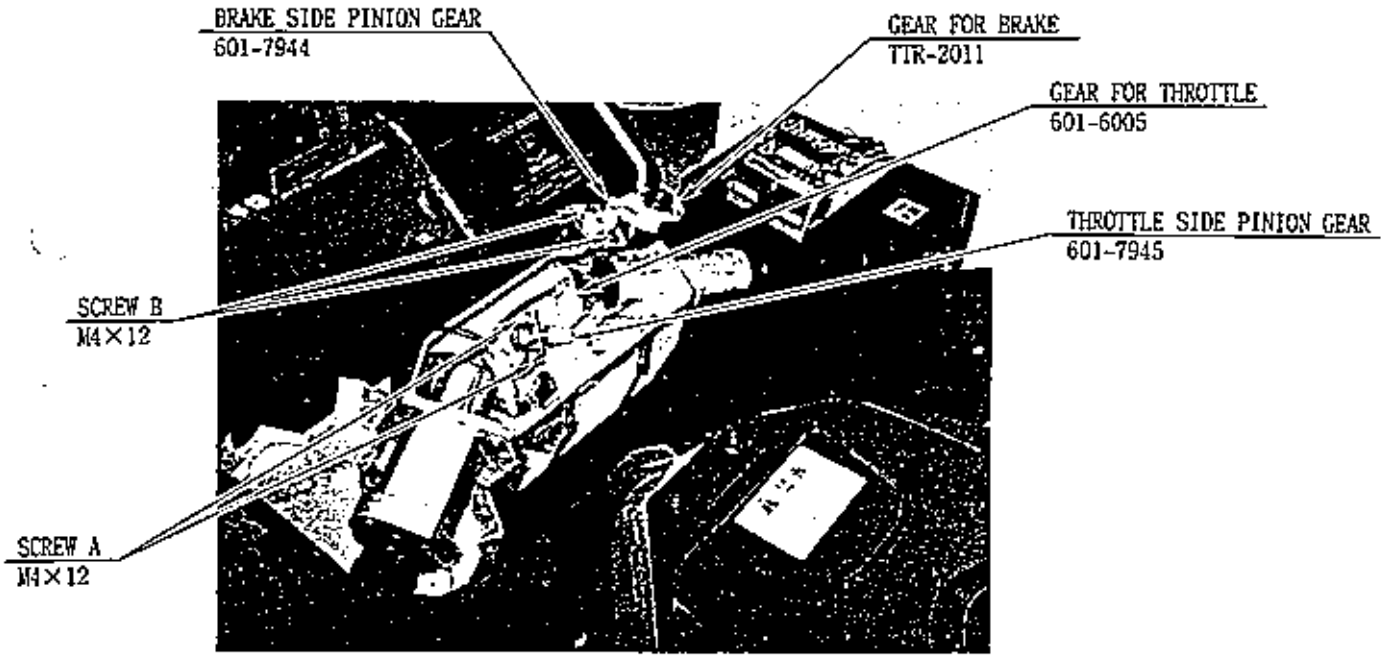


FIG. 9. 1

9—2 THROTTLE/BRAKE V. R. REPLACEMENT

WARNING!

When replacing the VOLUME, be sure to turn power off. Performing replacement work without turning power off can cause electric shock or short circuit accident.

REPLACEMENT PROCEDURE

For V. R. replacement, turn the V. R. shaft to the periphery of V. R. shaft angle in which the V. R. value is the minimum, engage the Gears and secure the V. R. Bracket. At this time, make sure that the throttle and brake are not applied respectively to the Grip and Brake Lever. Game is playable satisfactorily if the V. R. shaft rotates without any problem within the mobile range of the Grip and the Lever.

① Take out the 2 screws which secure the V. R. Bracket to remove the Bracket from the Handle Unit.
② To remove the PINION GEAR, loosen the 2 Set Screws of the Pinion Gear attached to the Shaft of the V. R. to be replaced.
③ Take out Nut A from the V. R. Shaft to remove the V. R. from the Bracket.
④ After replacement, assemble in the procedure opposite to the above.
⑤ In the Test Mode, perform V. R. setting. (Refer to 8-4.)

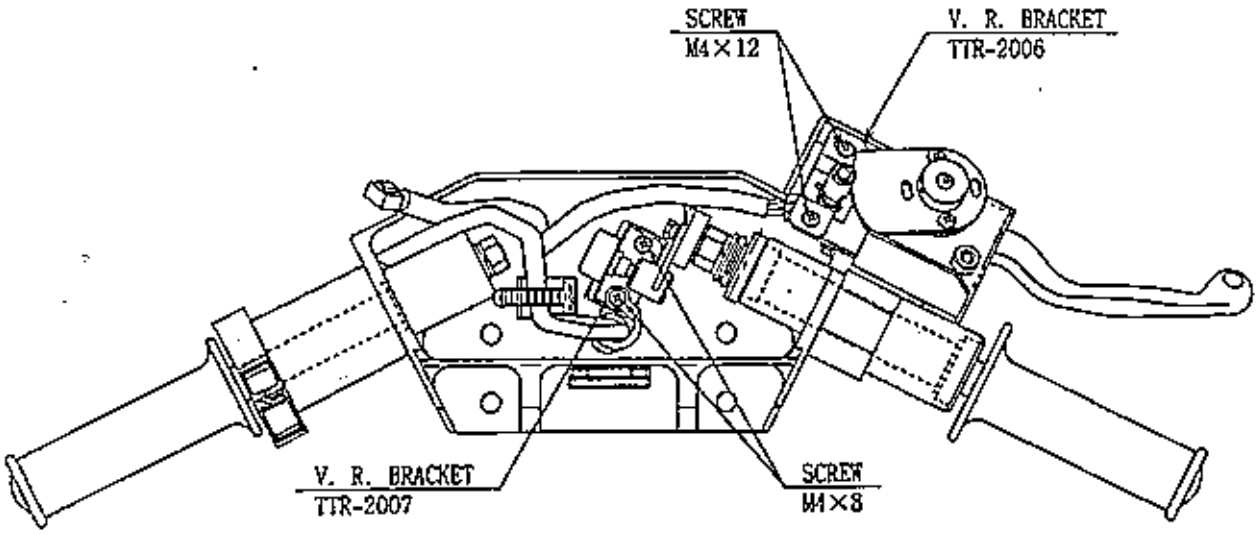
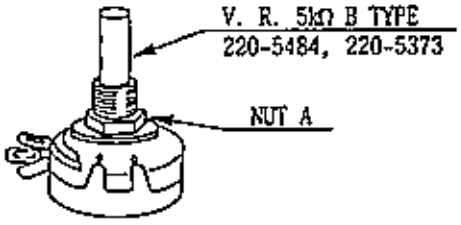


FIG. 9. 2



9—3 GREASING

CAUTION!

> Be sure to apply specified grease. Using grease other than that specified can damage parts.

Apply spray greasing once every 6 months to the 2 places shown in FIG. 9. 3 where the spring and gear are engaged. For spray grease, use NOK KLUBER L60 or GREASE MATE (PART No. 090-0060).

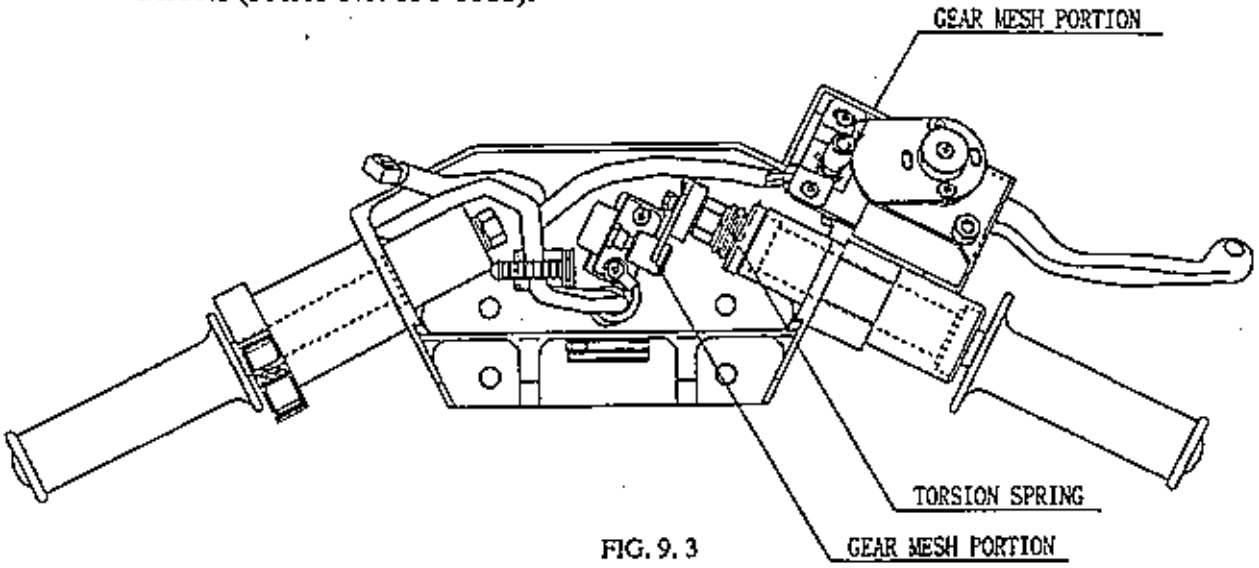


FIG. 9. 3

9—4 SPRING REPLACEMENT

WARNING!

> When replacing the SPRING, be sure to turn power off. Working without turning power off can cause electric shock or short circuit accident.

As shown in FIG. 9.4, remove parts to replace the Torsion Spring.

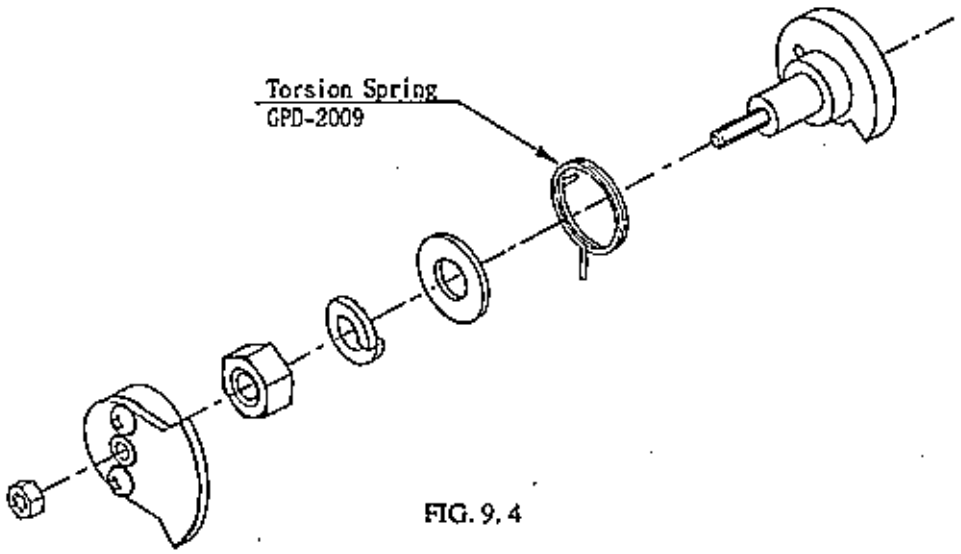


FIG. 9. 4

10. BIKE MECHA

10—1 VOLUME (V. R.) REPLACEMENT

WARNING!

When replacing the VOLUME, be sure to turn power off. Performing replacement work without turning power off can cause electric shock or short circuit accident.

Replace the bike's bank angle V. R. in the following procedure.

① Take out the 4 hexagon socket head bolts to remove the Fuel Cap.

② Take out a total of 3 bolts which secure the Tank to remove the Tank.

③ Take out the 2 screws and remove the Wire Clamp.

④ Take out the 4 screws and remove the Volume (V. R.) Cover.

⑤ Take out the 2 screws and Connector to replace the V. R.

⑥ After V. R. replacement, make adjustment of gear mesh in the manner so that when the bike mecha is banked, the V. R. shaft does not rotate beyond the shaft's predetermined rotation range.

⑦ After the adjustment is finished, install Tank, and Fuel Cap.

⑧ After assembly, perform V. R. setting in the Test Mode.

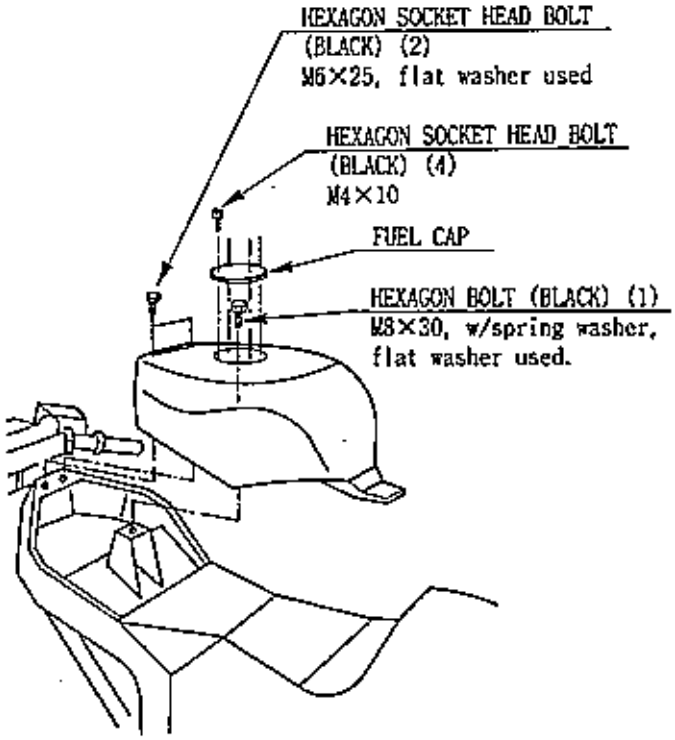


FIG. 10. 1 a

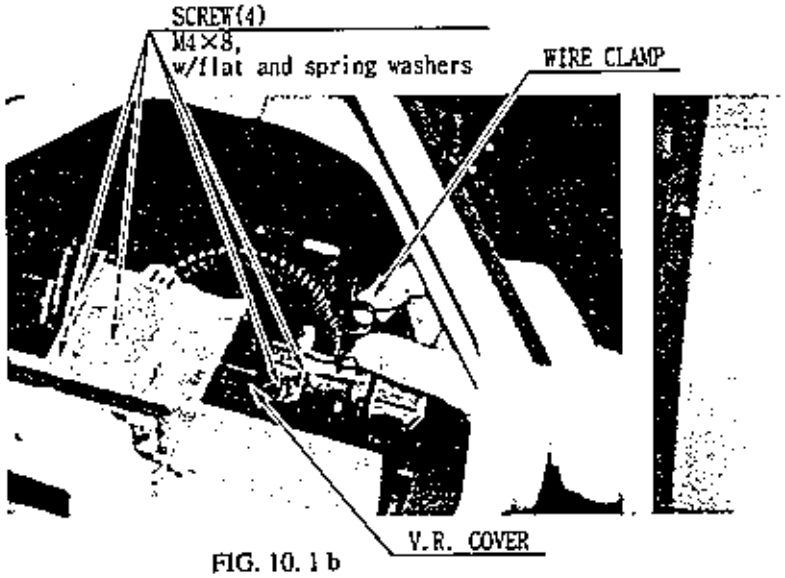


FIG. 10. 1 b

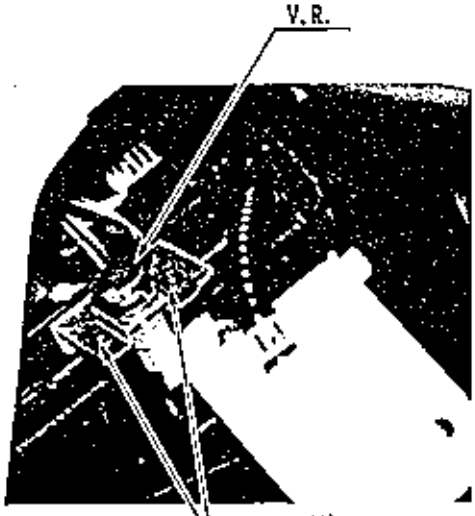


FIG. 10. 1 c

10—2 GREASING

CAUTION!

> Be sure to apply specified grease. Using grease other than that specified can damage parts.

In this machine, greasing need to be applied to the mobile parts once every 6 months. For spray grease, use NOK KLUBER L60 or GREASE MATE (Part No. 090-0060).

① Take out 2 each of screws and remove BANK GUARD L and R.
② Take out 4 screws and remove the VOLUME (V. R.) Cover (FIG. 10. 1 b).
③ Take out 3 each of screws and remove PROTECT COVER L and R.
④ Apply greasing to the portions shown (FIG. 10. 2 c).

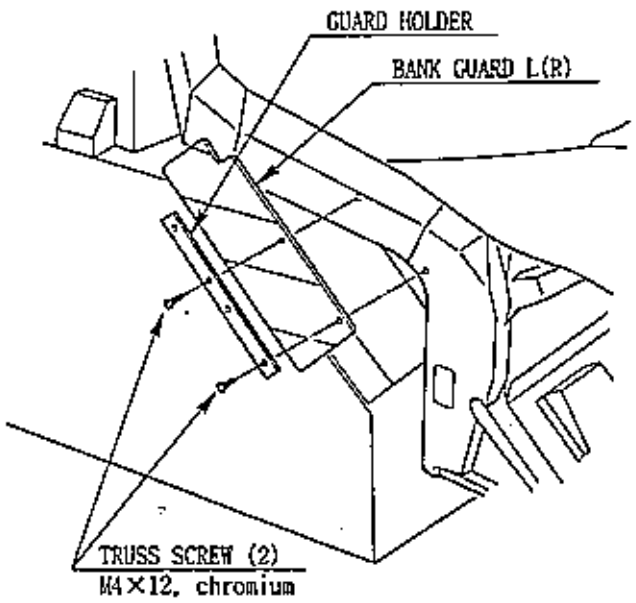


FIG. 10. 2 a

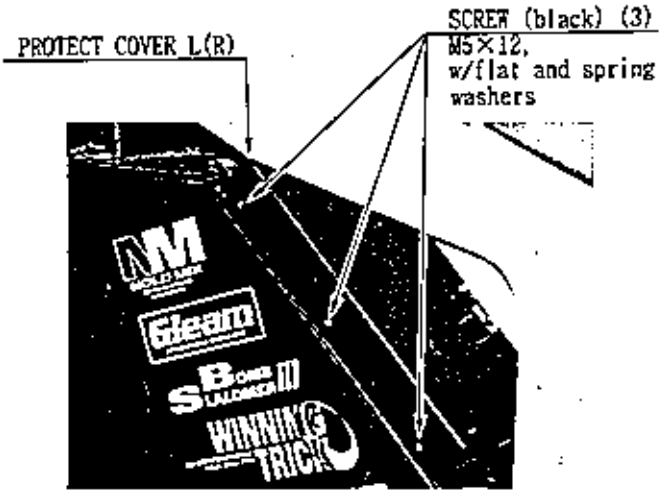


FIG. 10. 2 b

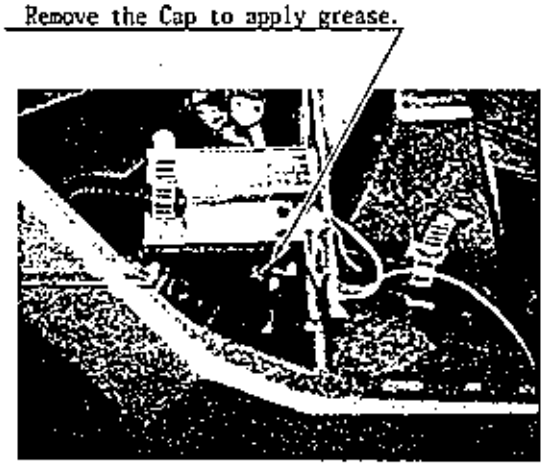


FIG. 10. 2 c

10—3 REPLACEMENT OF BANK GUARD

For the replacement of the BANK GUARD, refer to 10-2.

11. COIN SELECTOR

HANDLING THE COIN JAM

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

CLEANING THE COIN SELECTOR

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

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

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

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

④ Remove the CRADLE.

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

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

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

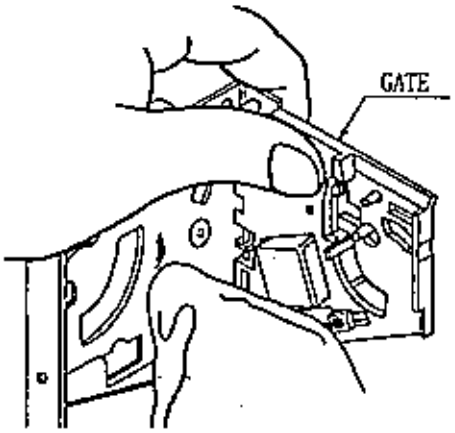


FIG. 11 a

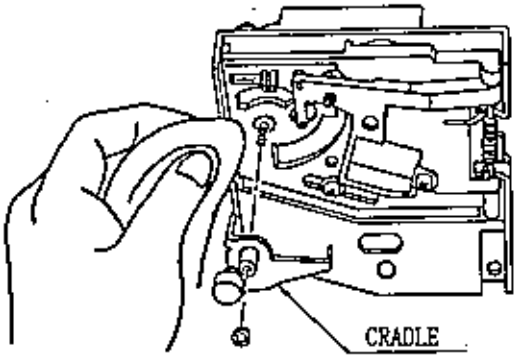


FIG. 11 b

STOP

IMPORTANT!

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

COIN INSERTION TEST

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

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

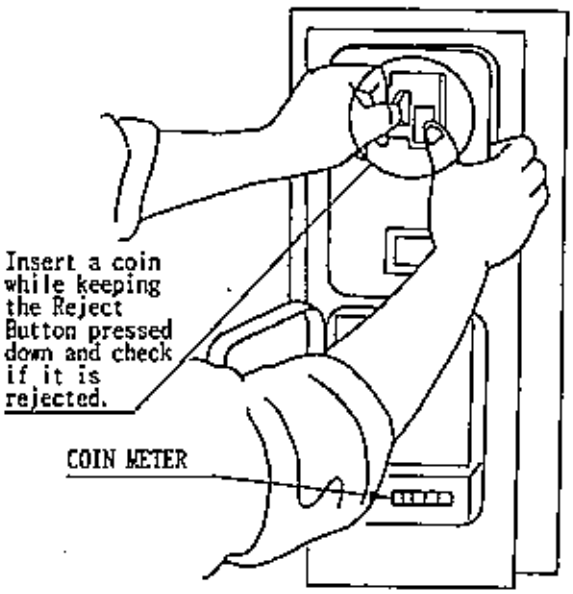


FIG. 11 c

12. MONITOR ADJUSTMENTS

CAUTIONS AND WARNINGS CONCERNING THE SAFETY FOR HANDLING THE MONITORS

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

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

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

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

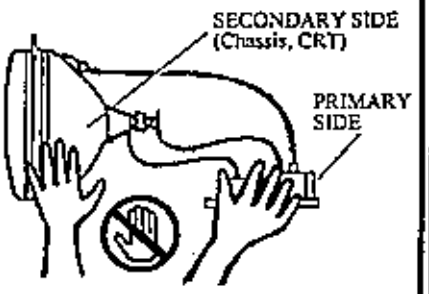
Indicates the instruction to disconnect a power connector or to unplug.

WARNING

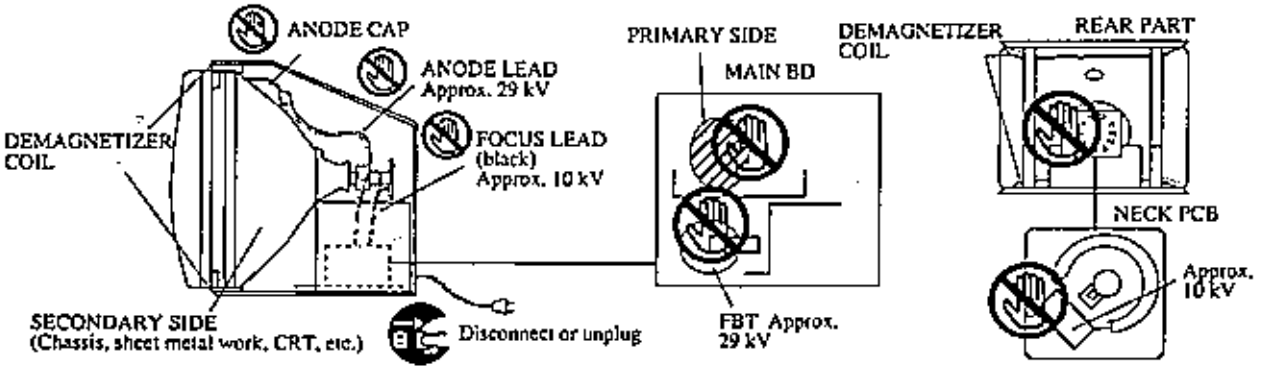
- When performing such work as installing and removing the monitor, inserting and disconnecting the external connectors to and from monitor interior and the monitor, be sure to disconnect the power connector (plug) before starting the work. Proceeding the work without following this instruction can cause electric shock or malfunctioning.
- Using the monitor by converting it without obtaining a prior permission is not allowed. SEGA shall not be liable for any malfunctioning and accident caused by 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, or do not touch both 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 part other than the Adjustment V. R. and knob. Also, be sure not to cause a short-circuit to the Primary side and Secondary side. If short-circuited, it can cause electric shock or malfunctioning, which is very dangerous.



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



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

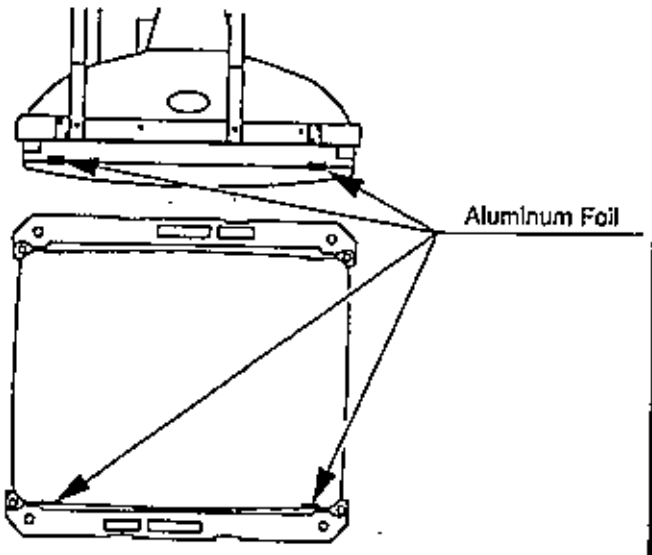
CAUTION

- **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 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 cleaning, refer to the Section of Periodic Inspection Table.

- Do not apply or rub with a hard item (a rod with pointed edge, pen, etc.) to or on the CRT surfaces.
- Avoid applying stickers, seals, etc. on the CRT face.
- Do not remove aluminum foils from the CRT corners. Removing the aluminum foils can cause static prevention effects to be lowered.



WARNING!

- 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 a dangerous work. Also, an erroneous adjustment can cause deviated synchronization and projection fault, resulting in malfunctioning.
- When making adjustment, utilize a resinous Alignment Screwdriver. Servicing with bare hand or using conductive tools can cause electric shock.

Remove the Mask Holder to make monitor adjustment.

There are 2 Monitor Manufacturers (NANAO and SANWA). The Adjustment Control Layout differs depending on the specific Maker. When performing the adjustment, check the Maker by referring to the following.

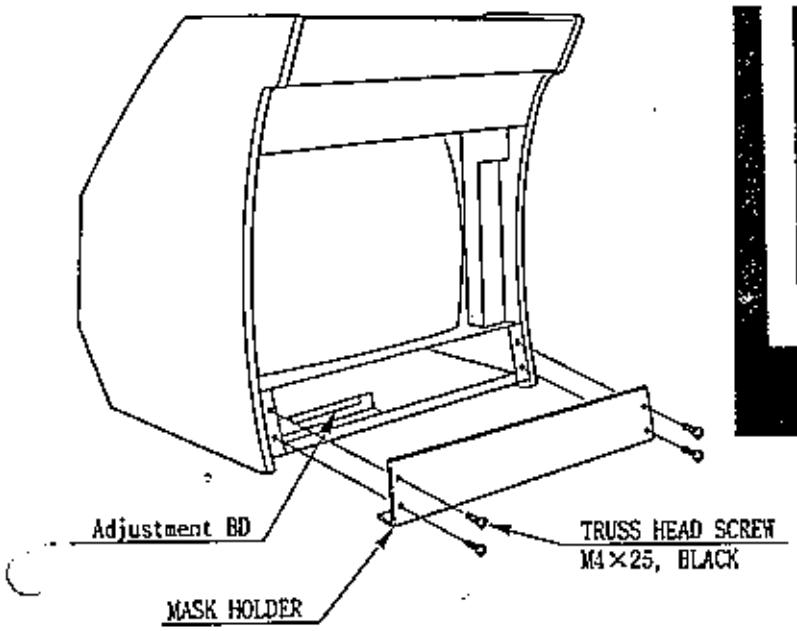


FIG. 12 a

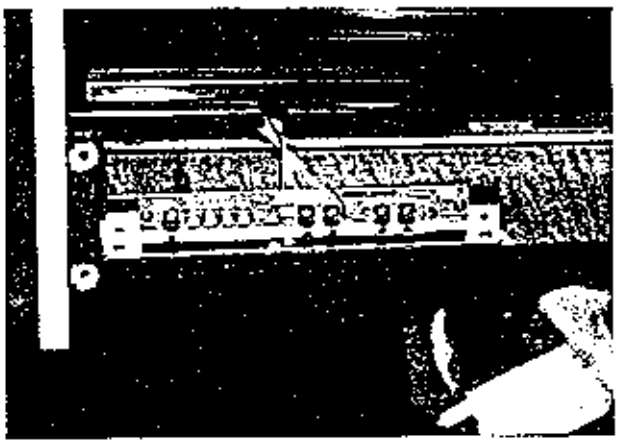
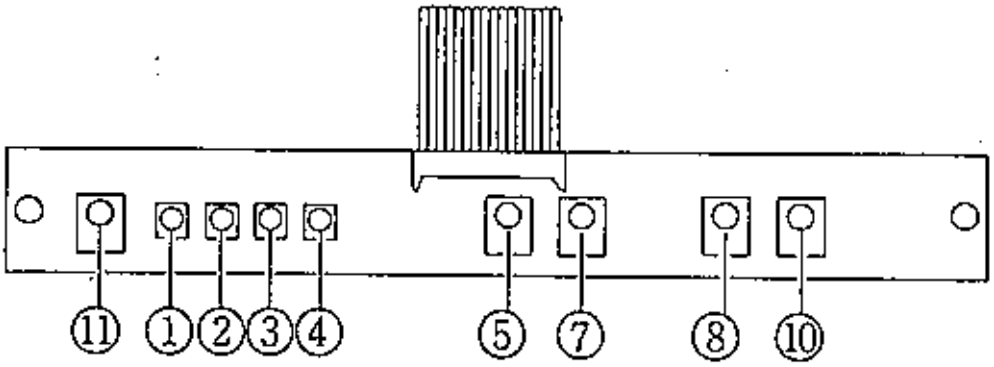
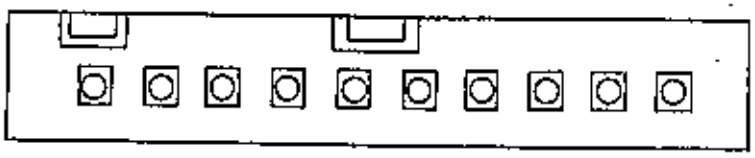


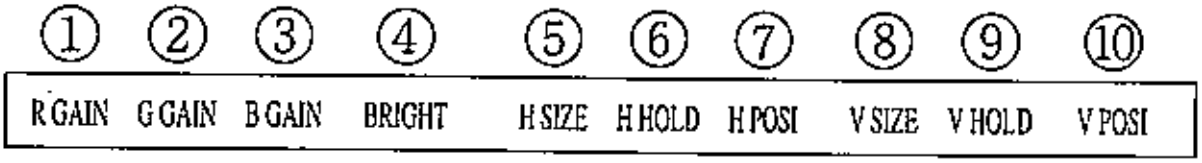
FIG. 12 b Adjustment BD

NANAO monitor: 2 0 0 — 5 2 4 2 — 2 4 — 0 4 (24K mode)



SANWA monitor: 2 0 0 — 5 2 4 3 — 2 4 (24K mode)





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.

13. 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.
- Be sure to use lamps rated as specified. Using lamps not rated as specified can cause a fire or malfunctioning.
- Hot fluorescent lamp and lamps can cause burns. Be very careful when replacing them.

13—1 FLUORESCENT LAMP REPLACEMENT

In the manner as shown, remove the FL LID and hang it on the Billboard to replace the Fluorescent Lamp.

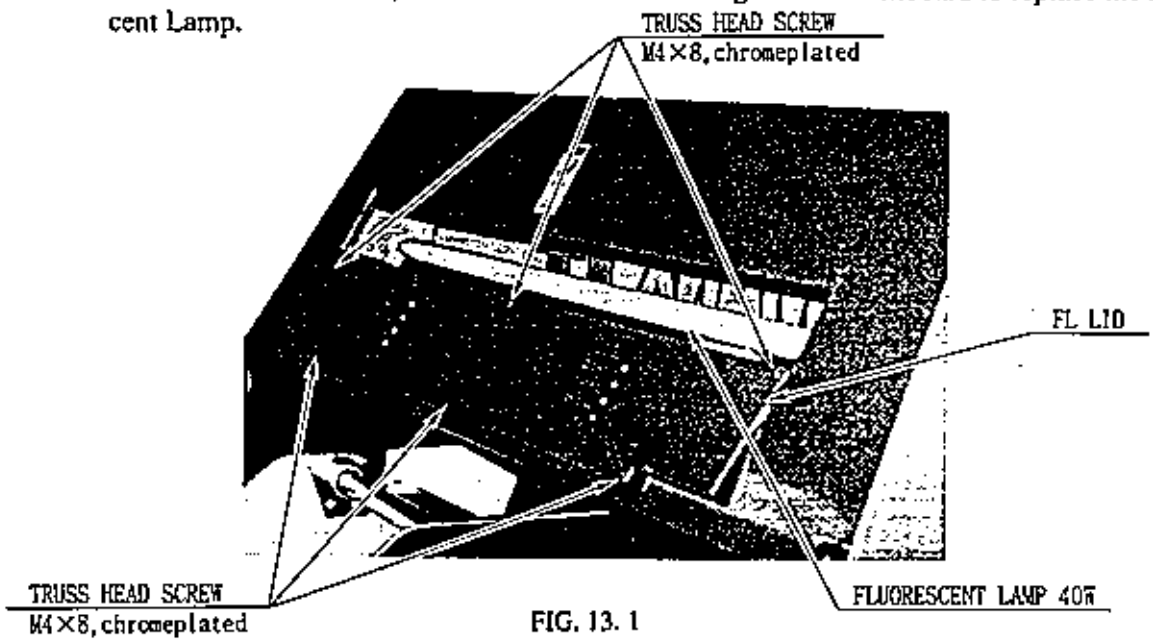


FIG. 13. 1

13—2 LAMP REPLACEMENT

Remove the SASH and DESIGN PLATE LEADER to replace the lamps.

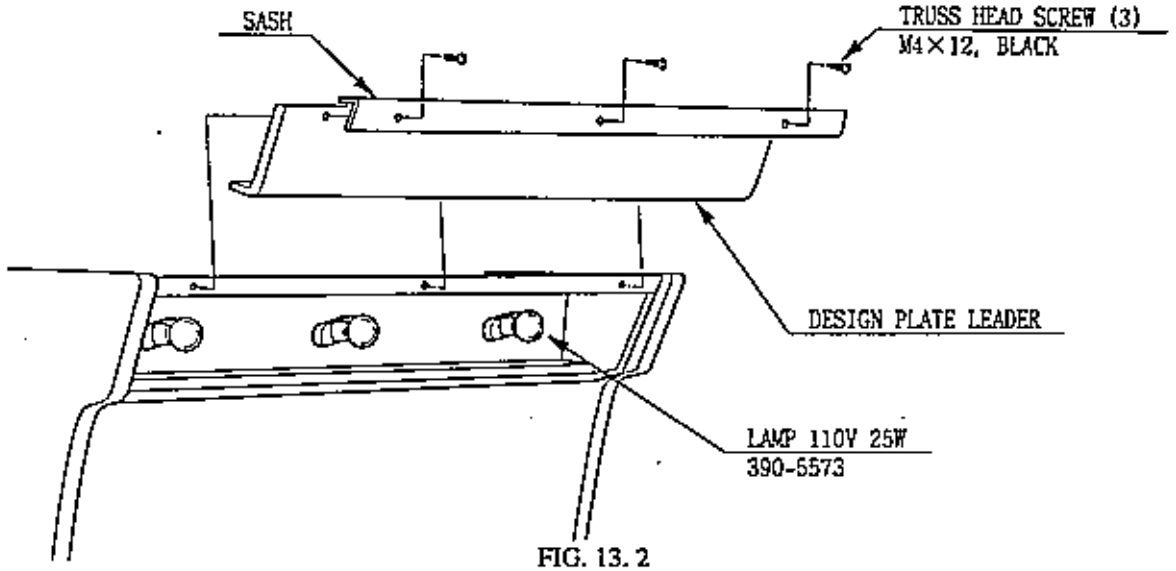


FIG. 13. 2

14. PERIODIC INSPECTION TABLE

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

WARNING!

- Be sure to check once a year to see if Power Cords are damaged, the plug is securely 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 electric shock.
- Periodically once a year, request the place of contact herein stated or the Distributor, etc. where the product was purchased from, as regards the interior cleaning. Using the prduct 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.

TABLE 14

ITEMS	DESCRIPTION	PERIOD	REFERENCE
HANDLE MECHA	Check VOLUME VALUE.	Monthly	8−4, 9−1
	Check SW.	Monthly	8−4
	Check ADJUST GEAR engagement.	Tri-monthly	9−1
	Greasing to gear portion.	Semi-yearly	9−3
BIKE MECHA	Check VOLUME VALUE.	Monthly	8−4, 10−1
	Check ADJUST GEAR engagement.	Tri-monthly	10−1
	Greasing to gear portion.	Semi-yearly	10−1
COIN CHUTE DOOR	Check COIN SWes.	Monthly	8−4
	Coin insertion test.	Monthly	11
	COIN SELECTOR cleaning.	Tri-monthly	11
MONITOR	Check adjustments.	Monthly	8, 12
	Cleaning CRT face.	Weekly	See below.
POWER PLUG	Inspection and cleaning	Annually	See above.
INTERIOR	Cleaning		
Cabinet surfaces	Cleaning	As occasion arises.	See below.

CAUTIONS TO BE HEEDED WHEN CLEANING THE CRT SURFACES

CAUTION!

Static preventive coating is applied to the CRT surfaces. When cleaning, pay attention to the following points. Peeling off of static preventive coat can cause electric shock.

- Remove smears by using a dry, soft cloth (flannels, etc.). Do not use a coarse gauze, etc.
- For smear removing solvent, alcohol (ethanol) is recommended. When using chemical detergent, be sure to follow instructions below:
  - Dilute chemical detergent with water and dip a soft cloth in and then thoroughly wring it to wipe smears off.
  - Do not use a chemical detergent containing an abradant, powder or bleaching agent.
  - Do not use alkaline chemical detergents such as "glass cleaner," or solvents such as thinner, etc.
- Do not rub or scratch the CRT face with hard items such as brushes, scrub brush, etc.

CLEANING THE CABINET SURFACES

If the Cabinet is badly stained, use a cloth which is dipped in the chemical detergent liquid diluted with water and then squeezed dry. Do not use thinner, benzine, alcohol or chemical dustcloth as they can damage the Cabinet surfaces.

15. TROUBLESHOOTING

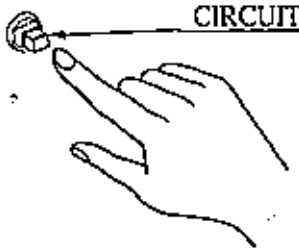
WARNING!

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

For troubleshooting, first check the connection of wiring connectors.

TABLE 15

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 instantaneous overcurrent.	Remove the cause of overcurrent and reinstate the circuit protector to its original status (refer to Sec. 6, See below).
MONITOR screen is blackened and the fluorescent lamp does not light up.	Power supply unit fuse blown due to instantaneous overcurrent.	First remove the cause of overcurrent, then replace the fuse (See below). 514-5036-7000 FUSE 6.4 ϕ ×30 7000mA 125V
The color of image on MONITOR screen is incorrect.	Incorrect monitor adjustment.	Make appropriate adjustments (see Sec. 12).
The on-screen image of the monitor sways and or shrinks.	The power source and voltage sre not correct.	Make sure that the power supply and voltage are correct.
	Power supply capacity is insufficient.	Connect to a socket outlet of larger capacity.



Functions due to the activation of bimetal.
To restore the function, wait for approximately one minute or longer until the bimetal cools off. (Press the Button.)

REPLACEMENT OF FUSE

WARNING!

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

The Power Supply Unit is located inside the Elec door back of the Front cabinet. Disconnect all the Connectors connected to the Power Supply Unit, take out the 2 screws and withdraw the Power Supply Unit. The fuse is contained in the Power Supply Unit.

PROBLEMS	CAUSE	COUNTERMEASURES
Throttle/brake and operation is not satisfactory.	V. R. deviation or malfunctioning. Poor mesh of ADJUST GEAR.	Adjust or replace the V. R. Adjust ADJUST GEAR mesh. (See Sec. 9.)
shift SW operation is not satisfactory.	SW malfunctioning.	SW replacement.
Fluorescent lamp doesn't light up.	Fluorescent lamp needs replacement.	Replace the fluorescent lamp (see Sec. 13). (391-5251-40-01 FL 40WEX)
Leader Lamp does not light up.	Lamp need replacement.	Replace Lamp (see Sec. 13). (390-5573 LAMP 110V 25W)
Communication check can not be finished.	Connection fault of Optic Fiber.	Check optic fiber connector connection. (Refer to Sec. 18).
Communication play is not possible.	Communication cable is disconnected. Cable connections are not correct. Settings for communication play are not correct.	Connect the optic fiber. Connect the optic fiber correctly. Ensure that COMMUNICATION SETTING settings are correct.
Sound is not emitted.	Sound volume adjustment is not correct. Malfunctioning of sound BD and memory.	Adjust the SWITCH UNIT's sound adjustment volume (control). Perform SOUND TEST.

16. GAME BOARD

WARNING!

- In order to prevent an electric shock, be sure to turn power off before performing work by touching the interior parts of the product.
- Be careful so as not to cause damage to 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.

16—1 TAKING OUT THE GAME BD.

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

① Turn the AC Unit's Main SW OFF.

② Remove the 2 Truss Screws (black) from the side of the Front Cabinet, unlock with the Master Key to remove the door.

③ Disconnect all the connectors connected and withdraw the Shield Case.

④ Take out the 3 screws to remove the Case Lid from the Shield Case. The Game Board can be viewed.

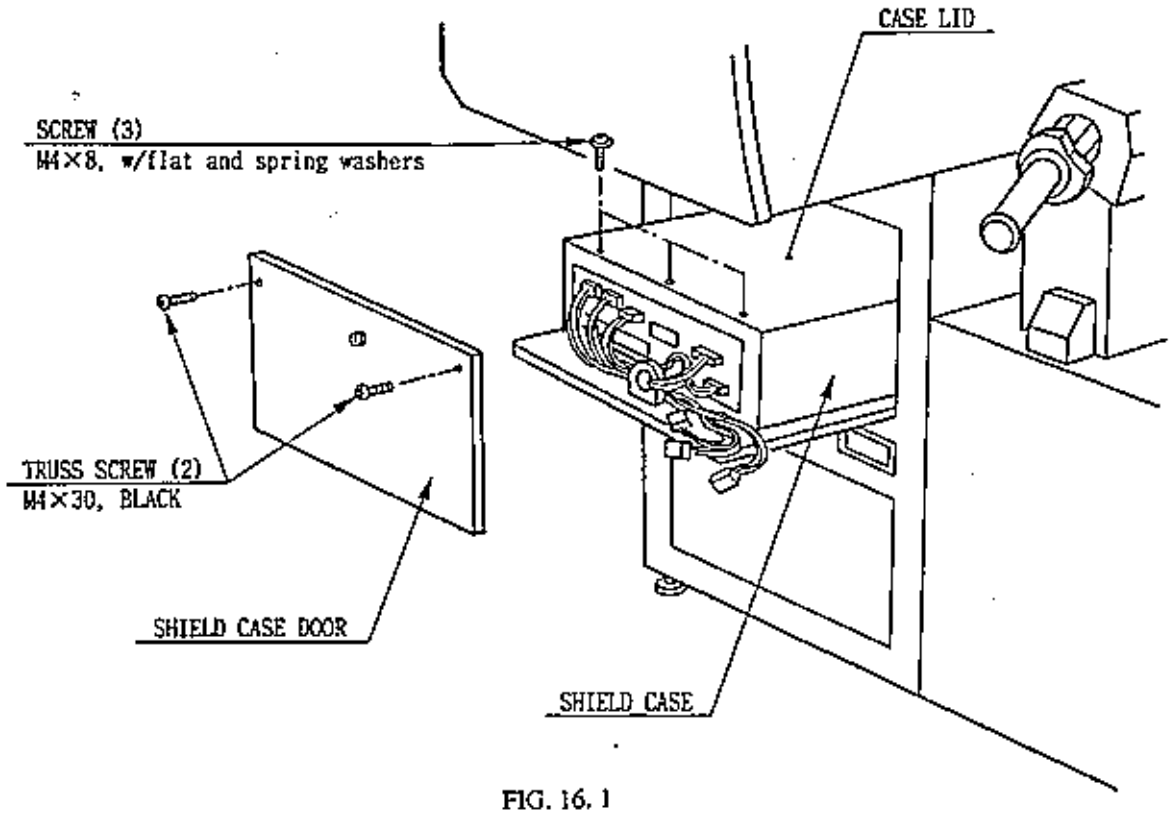


FIG. 16. 1

16—2 COMPOSITION OF GAME BOARD

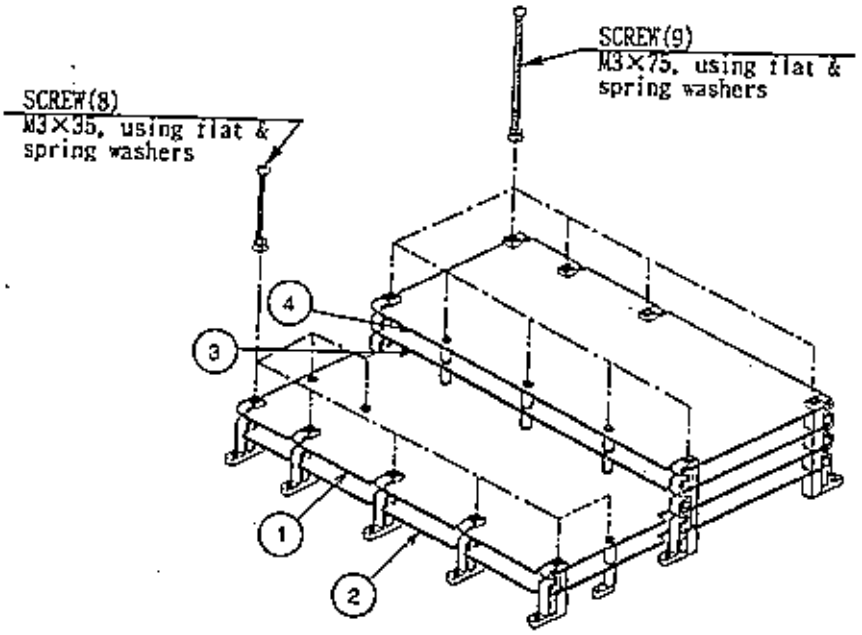
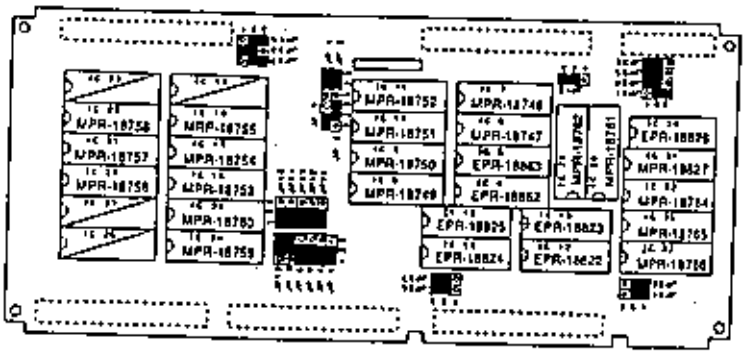


FIG. 16. 2

No.	PART No.	DESCRIPTION
1	837-10848-01-91	MODEL2 A-CRX CPU BD COM
2	837-10849-02	MODEL2 A-CRX VIDEO BD COM
3	837-12396	COMM BD MANX T.T
4	834-12467	ROM BD MANX T.T TWIN

ROM LAYOUT



ROM BD MANX T.T TWIN (834-12467)

17. DESIGN RELATED PARTS

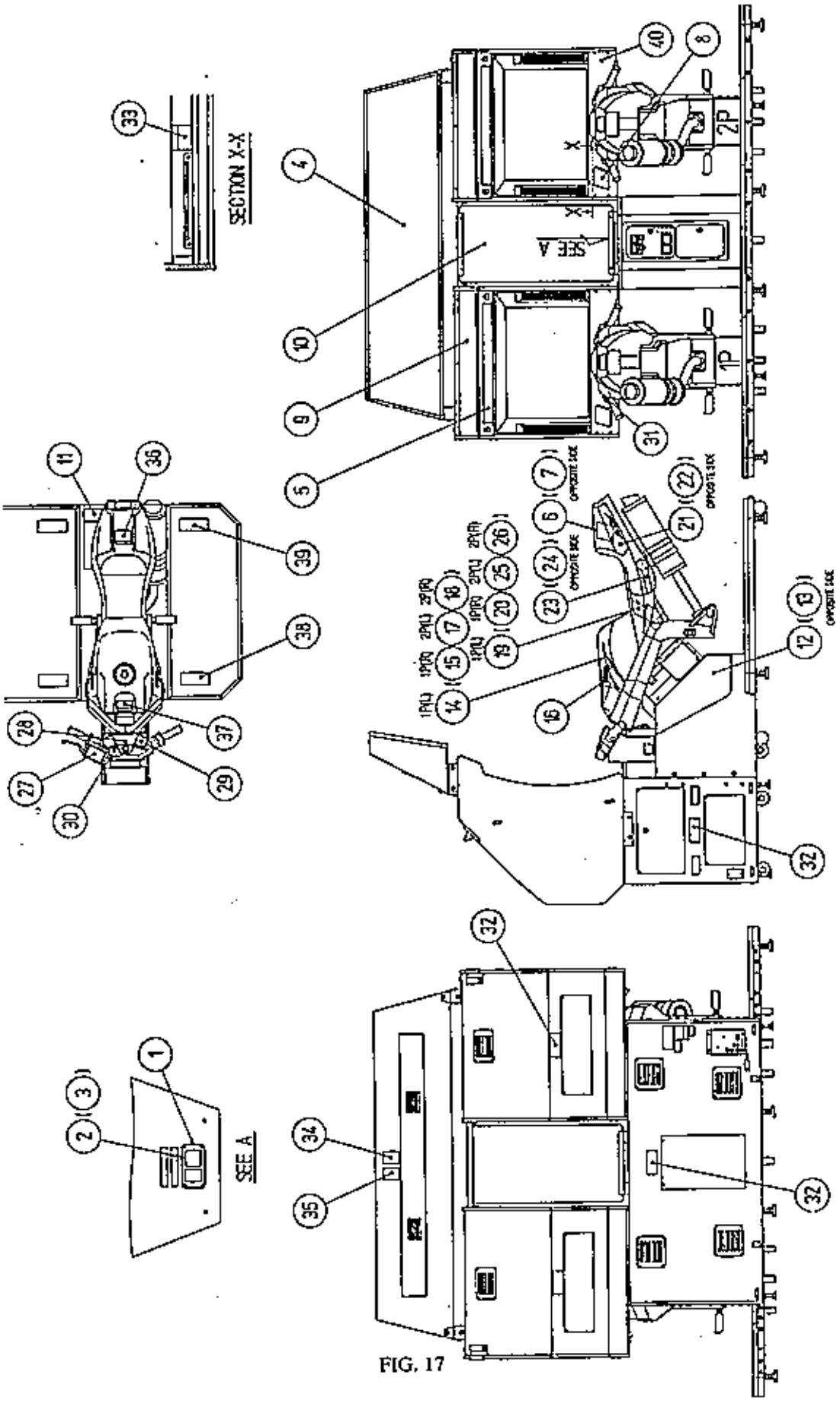


FIG. 17

1	DYN-0010	DENOMI PLATE
2	421-7308-~	DENOMINATION SHEET 1 GAME ~
3	421-7308-~	DENOMINATION SHEET 1 GAME ~
4	423-0263	BILLBOARD PLATE
5	422-0565-01	PLAY INSTR SH TTR TWIN ENG
6	421-9041	STICKER No.1~8 BIKE TTR TWIN L
7	421-9042	STICKER No.1~8 BIKE TTR TWIN R
8	421-9014	STICKER FRONT No.1~8
9	TTR-1064	DESIGN PLATE LEADER
10	TTR-0014	DESIGN PLATE MAP
11	TTR-1502-B	STICKER STEP CENTER
12	TTR-1502-C	STICKER REAR FRAME L
13	TTR-1552-A	STICKER REAR FRAME R
14	TTR-3016-B	STICKER TANK LINE RED L
15	TTR-3016-C	STICKER TANK LINE RED R
16	TTR-3016-D	STICKER SEGA LOGO BLUE STM30
17	TTR-3017-A	STICKER TANK LINE BLUE L
18	TTR-3017-B	STICKER TANK LINE BLUE R
19	TTR-3055-A	STICKER SEAT LINE RED L
20	TTR-3055-B	STICKER SEAT LINE RED R
21	TTR-3055-C	STICKER NO. BASE TWIN L
22	TTR-3055-D	STICKER NO. BASE TWIN R
23	TTR-3051-G	STICKER SEAT COWL SPO A
24	TTR-3051-H	STICKER SEAT COWL SPO B
25	TTR-3058-A	STICKER SEAT LINE BLUE L
26	TTR-3058-B	STICKER SEAT LINE BLUE R
27	TTR-3003-B	STICKER BRAKE
28	TTR-3004-B	STICKER START
29	TTR-3004-C	STICKER TOP BRIDGE
30	TTR-3004-D	STICKER CARBON
31	421-9016	STICKER SHIFT UP/DOWN
32	440-WS0033-EG	STICKER W BD POWER OFF ENG
33	440-CS0053-EG	STICKER C NOT TOUCH W/O KNOB S ENG
34	440-WS0002XEG	STICKER W POWER OFF ENG
35	440-WS0012XEG	STICKER W HIGHT TEMP ENG
36	440-WS0040-EG	STICKER W TTR A ENG
37	440-WS0042-EG	STICKER W TTR C ENG
38	440-WP0057-EG	PLATE W FOOT MAT ENG
39	440-WP0058-EG	PLATE W THIS AREA ENG
40	TTR-1063-B	STICKER MASK HOLDER

18. COMMUNICATION PLAY

For this game, 4 machines can be connected to allow up to 8 players to play simultaneously.

STOP
IMPORTANT!

Mixed communication between TWIN type and DX type is not allowed.

18—1 INSTALLATION PRECAUTIONS

1) When linking a number of machines, be sure to supply sufficient power for the corresponding number of machines. The per unit standard voltage/amperage is 100~120V/10A and 200~240V/7A.

2) Due to the length of the communications cable, the distance in between the machines will be approximately 0.1 meters or less.

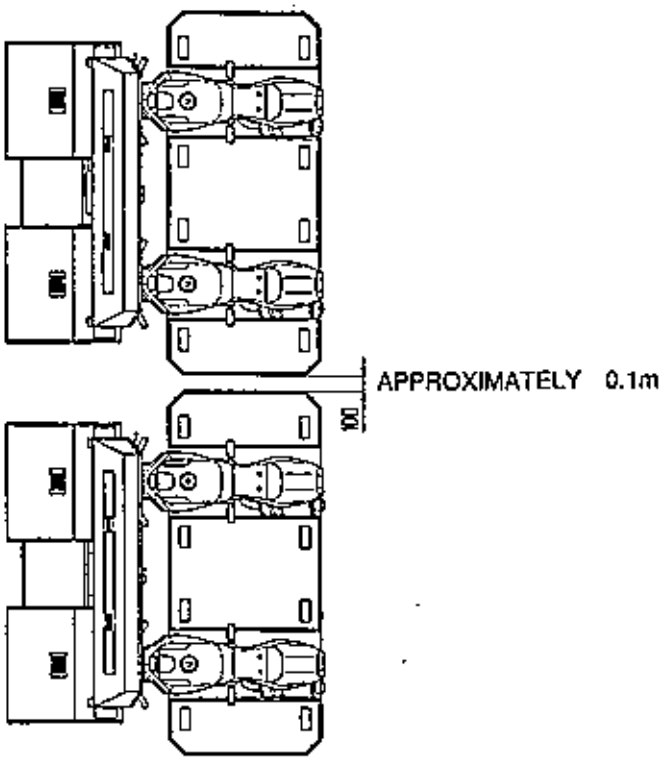


FIG. 18. 1

18—2 CONNECTING THE COMMUNICATION CABLES

The PROTECT TUBE is used to link plural machine units and the communication cables are caused to pass through the PROTECT TUBE. Depending on the number of machine units to be linked, connect the communication cables (optic fiber cables) in the manner shown in Figures 18.2f and 18.2g.

① By taking off 2 screws, remove the HOLE LID of the side where the PROTECT TUBE is to be installed.

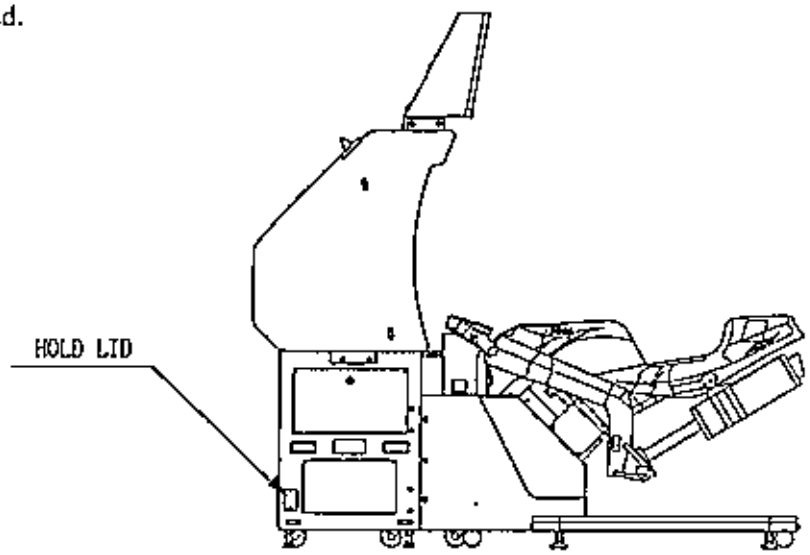


FIG. 18. 2a

② Attach CONNECTOR 22 to the both ends of FLEX TUBE, and assemble the PROTECT TUBE. First, disassemble CONNECTOR 22 (Fig.18.2b).

③ First pass the plastic nut through the flex tube. Otherwise, the following work can not be performed and therefore, be very careful of this point.

④ Install the holder and then the "insert" for both ends of the flex tube by turning them as in bolts and nuts (Fig.18.2c).

⑤ Tighten the plastic nut to the connector. At this time, pass the optic fiber cable through the flex tube ahead of time so as to allow the following work to be performed easily (Fig.18.2d).

⑥ Install the PROTECT TUBE into the HOLE PLATE (TTR-0015) HOLE. Insert the connector into the HOLE PLATE HOLE, put the seal washer through and fasten the metal nut (Fig.18.2e).

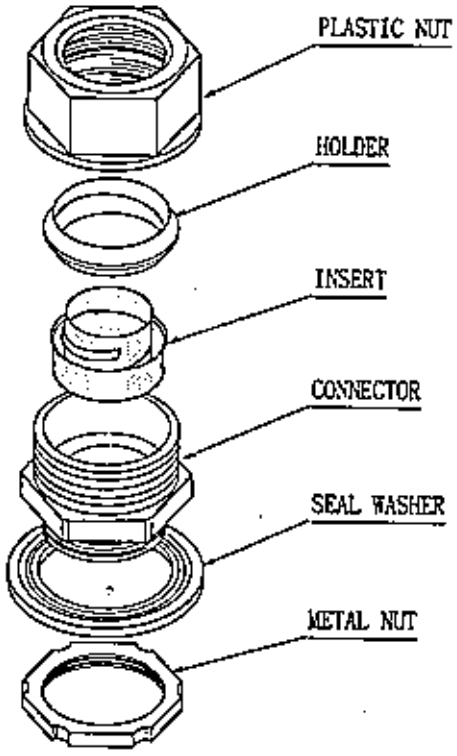


FIG. 18. 2 b

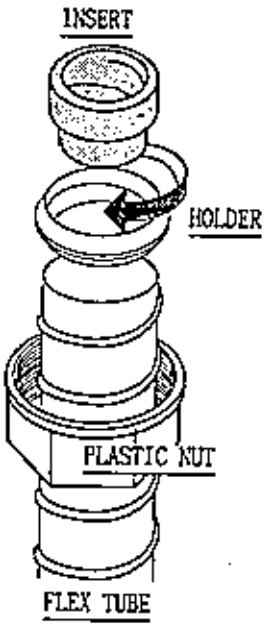


FIG. 18. 2 c

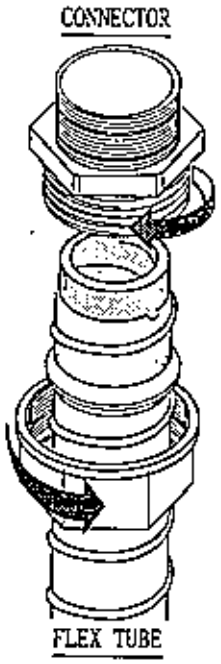


FIG. 18. 2 d

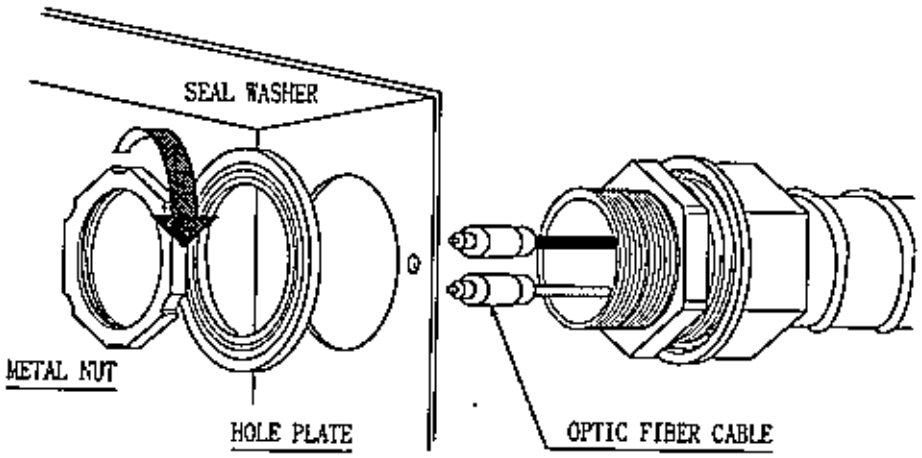


FIG. 18. 2 e

⑦ Connect the communication cable. Redo the connection which is currently made for TWIN (for 2P LINK) to change it for usage.
Depending on the number of units to be connected, communication connections are different. Make connection correctly as shown below.

STOP
IMPORTANT!

The optic fiber cable is used for the communication linkage. Excessive bending may damage the communication cable. Be very careful in this regard.

OPTIC FIBER CONNECTION

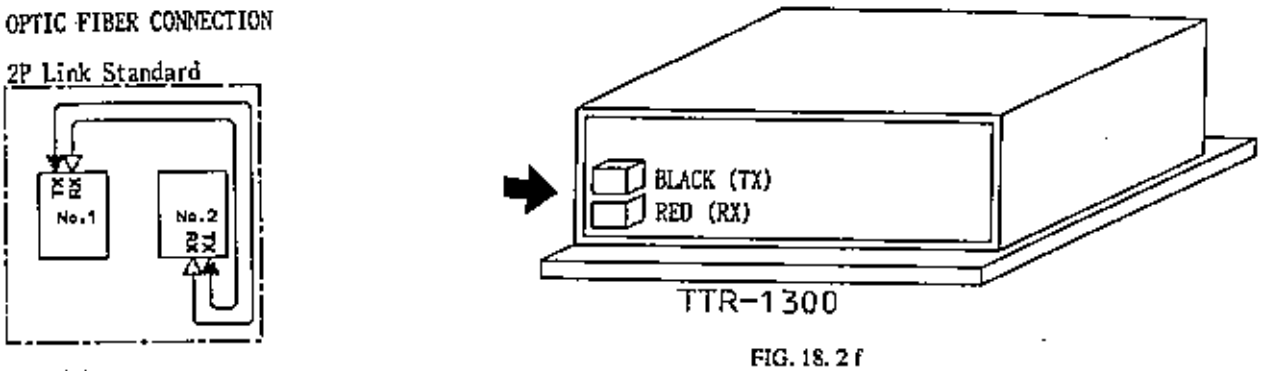


FIG. 18. 2 f

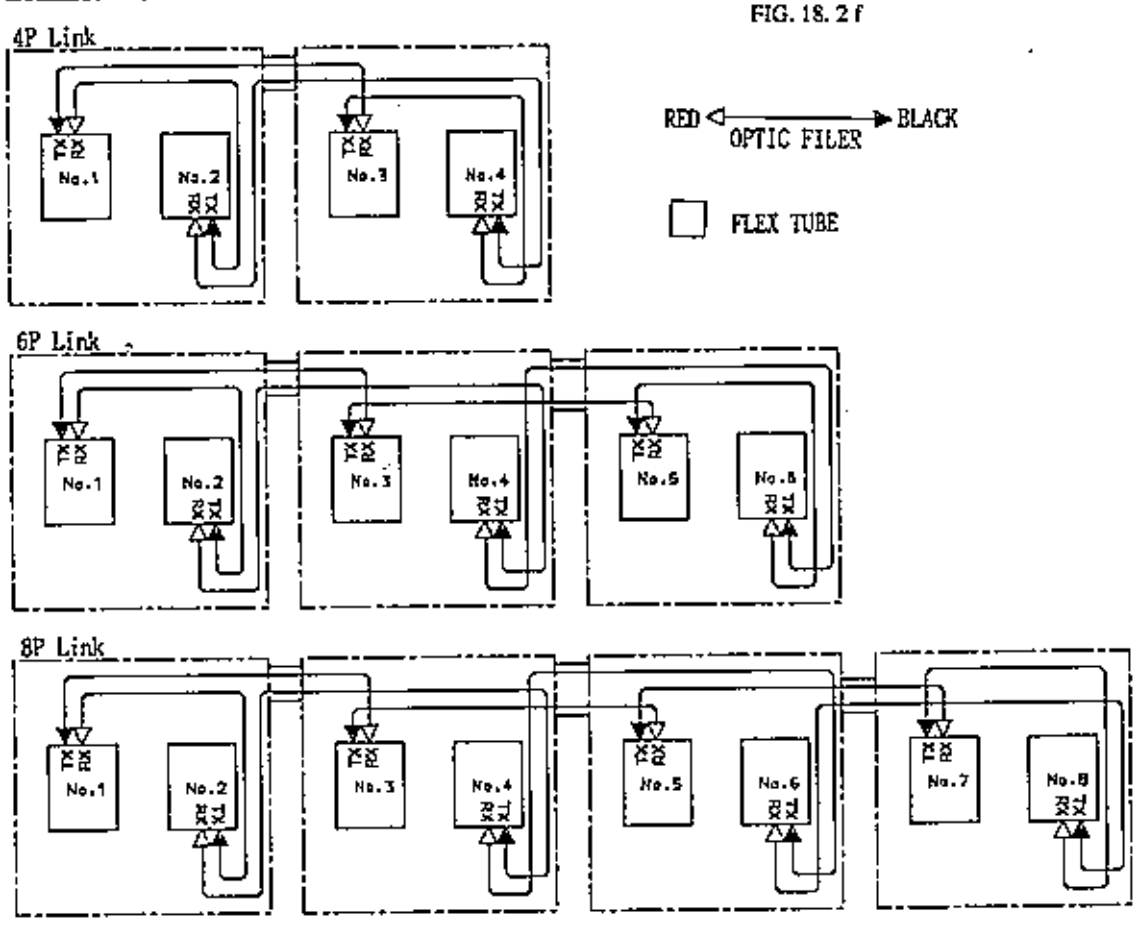


FIG. 18. 2 g

⑧ By using the 2 screws, install the Hole Plate to the position where the Hole Lid was.

⑨ Apply the numeral Stickers (an accessory) to both sides of the Seat Cowl and Monitor's lower left-hand side in the manner so that as seen from the front (monitor side) of the connected machines, the numbers line up sequentially in order of 1, 2, 3 ··· starting from the leftmost Seat (refer to Section 17).

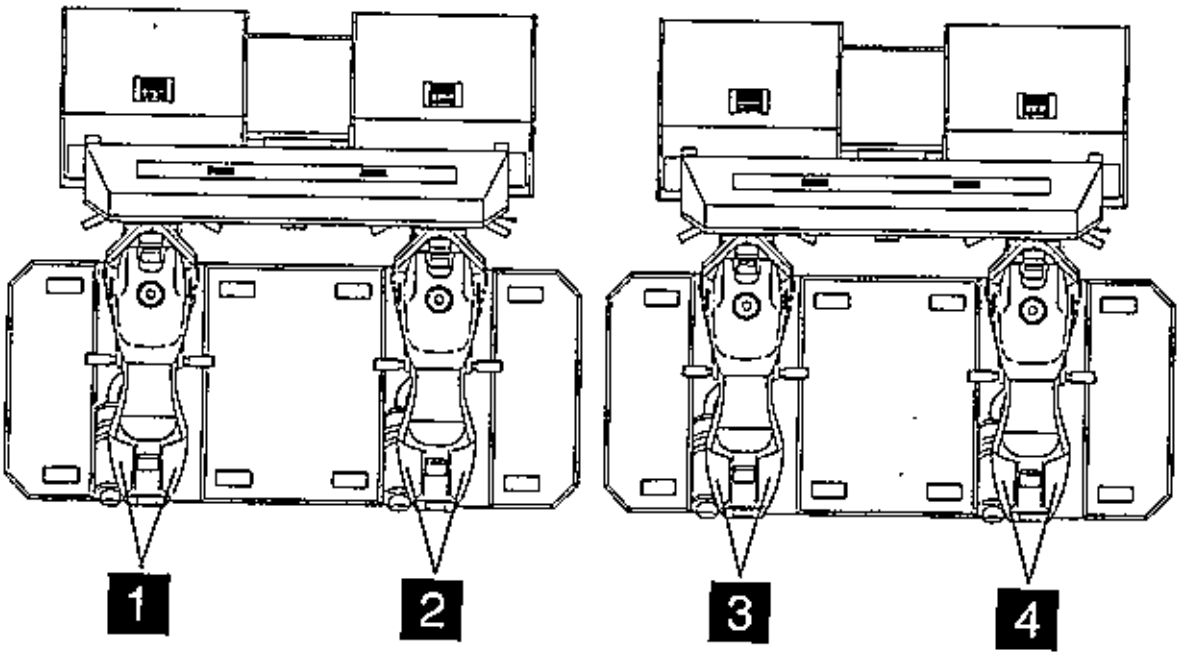


FIG. 18. 2 h

18—3 SETTINGS FOR COMMUNICATION PLAY

STOP
IMPORTANT!

During communication play, if communication is interrupted due to a certain cause, game will be discontinued, resulting in the Network check mode appearing on the screen.

For interactive play, the settings of GAME ASSIGNMENTS need to be changed. One of the Seats should be determined as MASTER (normally the leftmost Seat) and set LINK TYPE to MASTER. All other Seats are set to SLAVE. Thereafter, the other Seats' settings of COUNTRY, GAME MODE, **** NUMBER OF LAP, GAME DIFFICULTY and REVISE MODE will be made the same as the settings of the MASTER Seat. Setting to COUNTRY, etc. by the SLAVE Seats is ineffective. Next, set BIKE color as follows starting from the leftmost Seat:

RED (No. 1), BLUE (No. 2), YELLOW (No. 3), GREEN (No. 4)
GREEN (No. 5), YELLOW (No. 6), BLUE (No. 7), RED (No. 8)

At this time, be very careful so that an identical number is not used for 2 or more Seats. Finishing settings for all seats allows for exiting from the Test mode, and then network check starts. When the Network check is finished, proceed to the ADVERTISE mode.

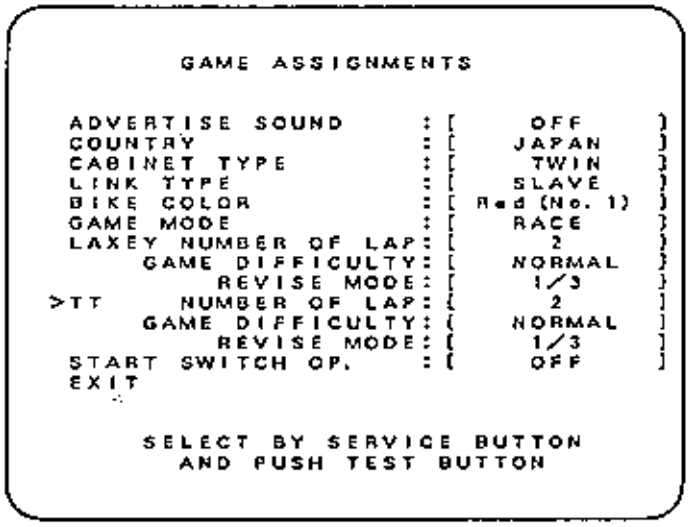


FIG. 18.3

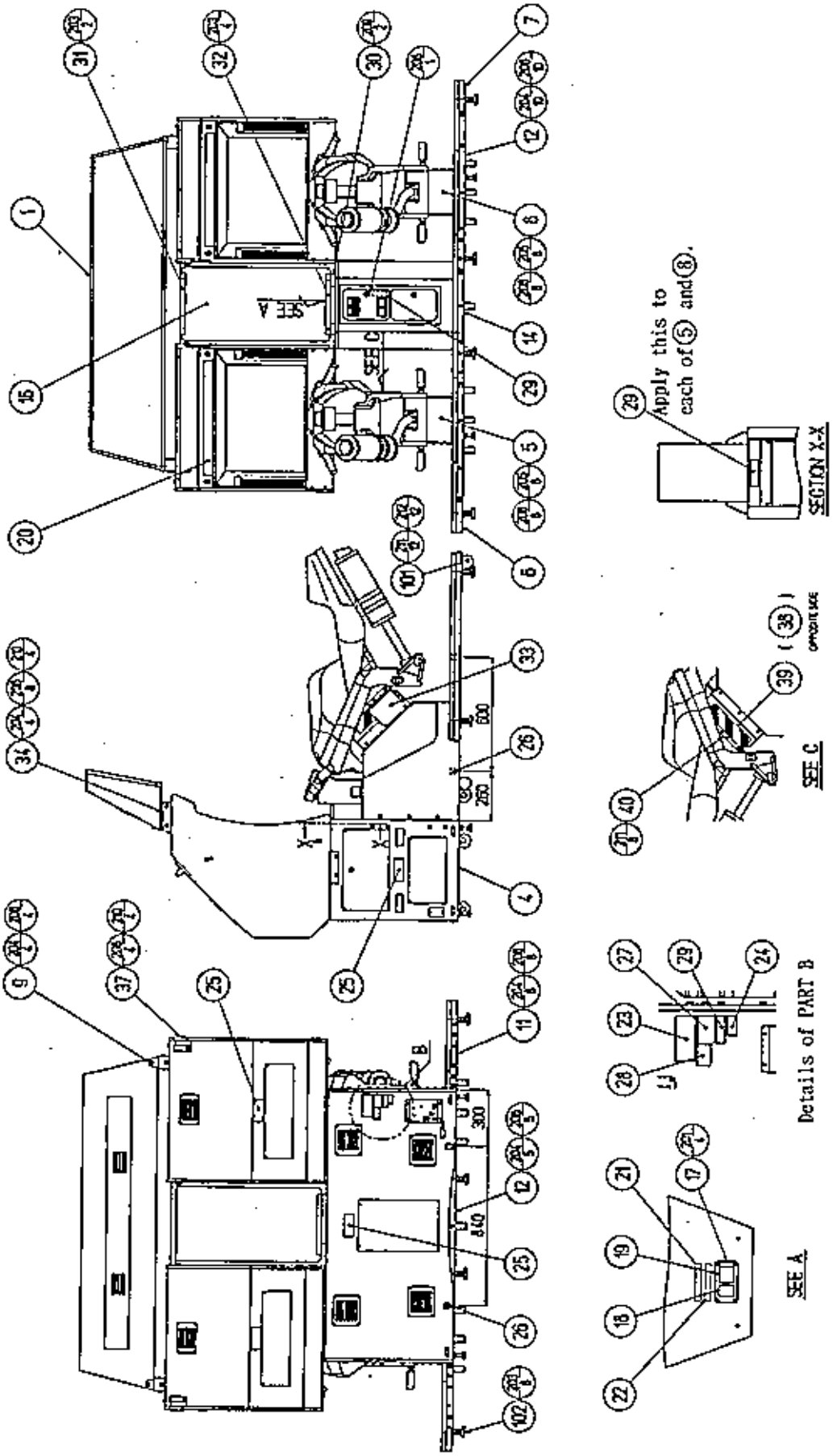
18—4 CAUTIONS TO BE HEEDED WHEN USING THE TEST MODE:

Exiting from the test mode causes the unit to perform the network check automatically. During this time, all of the linked units will not allow the game to be played in normal status. Therefore, be sure not to enter the test mode if any one of the units is in play.

19. PARTS LIST

① TOP ASSY MANX T.T. TWIN

(D-1/3)



① TOP ASSY MANX T.T. TWIN (D-2/3)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-0200	ASSY BILLBOARD	
4	TTR-10001	ASSY FRONT CABINET	
5	TTR-1500	ASSY BIKE MECHA L	
6	TTR-1530	ASSY FLOOR L	
7	TTR-1540	ASSY FLOOR R	
8	TTR-1550	ASSY BIKE MECHA R	
9	TTR-0007	BILLBOARD BRKT	
11	TTR-0009	FLOOR BRKT F	
12	TTR-0010	FLOOR BRKT R	
14	TTR-1520	ASSY FLOOR C	
16	TTR-0014	DESIGN PLATE MAP	
17	DYN-0010	DENOMI PLATE	
19	421-7308 ～	DENOMINATION SHEET 1 GAME ～	
20	422-0565-01	PLAY INSTR SH TTR TWIN ENG	
24	421-6594-91	STICKER CERTIFICATE	
25	440-WS0033-EG	STICKER W BD POWER OFF ENG	
26	421-8885	STICKER CAUTION FORK	
27	421-7987	STICKER ELEC SPEC	OTHERS
	421-8408	STICKER ELEC SPEC FOR TAIWAN	TAIWAN
29	421-7988-91	STICKER SERIAL NUMBER	
30	TTR-0016	MAP HOLDER	
31	TTR-0017	MAP SASH UPPER	
32	TTR-0018	MAP SASH LOWER	
33	TTR-0020	SHIPPING BRKT	
34	TTR-0021	STAND SUPPORT	
35	SGM-4403	POLY COVER 1100×2200×1700	
36	SGM-4404	POLY COVER 1500×500×1000	
37	BVG-0033	SHIPPING BRKT S	
38	TTR-0025	BANK GUARD L	
39	TTR-0026	BANK GUARD R	
40	TTR-0027	GUARD HOLDER	
101	601-5471	CASTER	
102	601-5882	LEG ADJUSTER BOLT φ60	
201	000-T00408-0B	M SCR TH BLK M4×8	
203	030-T00408-0C	M SCR TH CRM M4×8	
204	030-000820-SB	HEX BLT W/S BLK M8×20	
205	030-000860-SB	HEX BLT W/S BLK M8×60	
206	068-852216-0B	FLT WSHR BLK 8.5-22×1.6	
209	000-P00520-WB	M SCR PH W/FS BLK M5×20	
210	030-000830-SB	HEX BLT W/S BLK M8×30	
211	000-T00412-0C	M SCR TH CRM M4×12	
401	601-6604-70	CARTON BOX 70	
402	420-6207-03	OWNERS MANUAL MANX T.T. TWIN ENG	
403	SGM-2675	POLYETHYLENE BAG 240×370	
404	220-5381	KEY MASTER FOR 220-5380	
405	SGM-4111	KEY BAG	
407	220-5373	VOL CONT B-5K OHM	
	220-5484	VOL CONT B-5K OHM	
409	421-9041	STICKER No.1～8 BIKE TTR TWIN L	

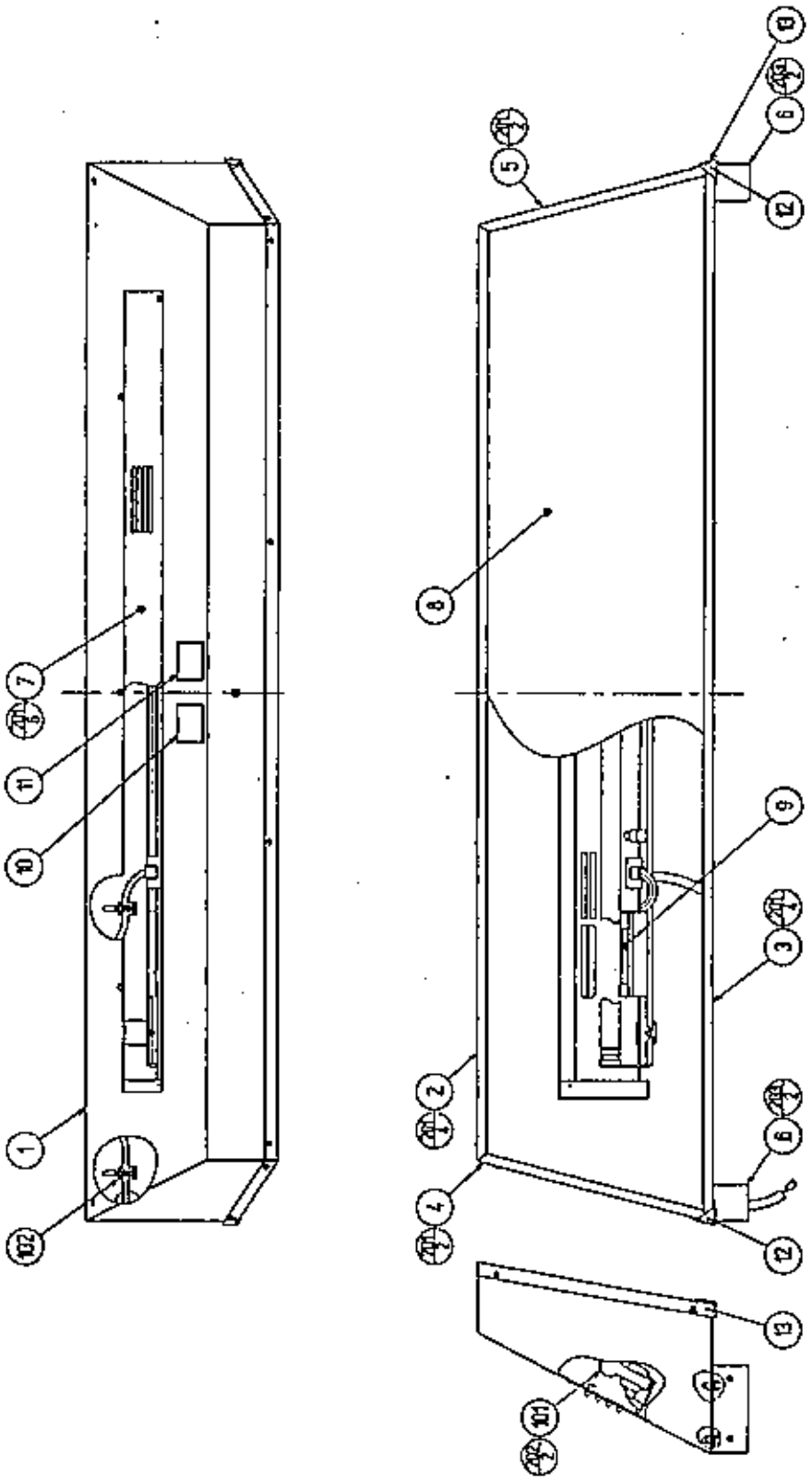
① TOP ASSY MANX T.T. TWIN

(D-3/3)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
410	421-9042	STICKER No.1~8 BIKE TTR TWIN R	
411	421-9014	STICKER FRONT No.1~8	
412	514-5036-7000	FUSE 6.4φ×30 7000mA 125V	
414	TTR-0015	HOLE PLATE	
415	310-5050-220110	FLEX TUBE 22-0110CM	
416	310-5051-22	CONN 22	
418	TTR-0023	SHIPPING BRKT CABI	
419	030-000830-0B	HEX BOLT W/S BLK M8×30	
420	068-852216-0B	FLT WSHR BLK 8.5-22×1.6	
/	GPD-0002X	SHIPPING BRACKET	
/	TTR-0024	SHIPPING BRKT	
/	030-000820-S	HEX BLT W/S M8×20	
/	060-F00800	FLT WSHR M8	
	421-6690 ~	STICKER ~V	
/	600-6618	AC CABLE CONNECT TYPE FOR EXP	AC220~240V AREA
/	421-6119-91	STICKER FCC	USA
/	421-6120-91	STICKER SEGA USA	USA

② ASSY BILLBOARD (TTR-0200)

(D-1/2)

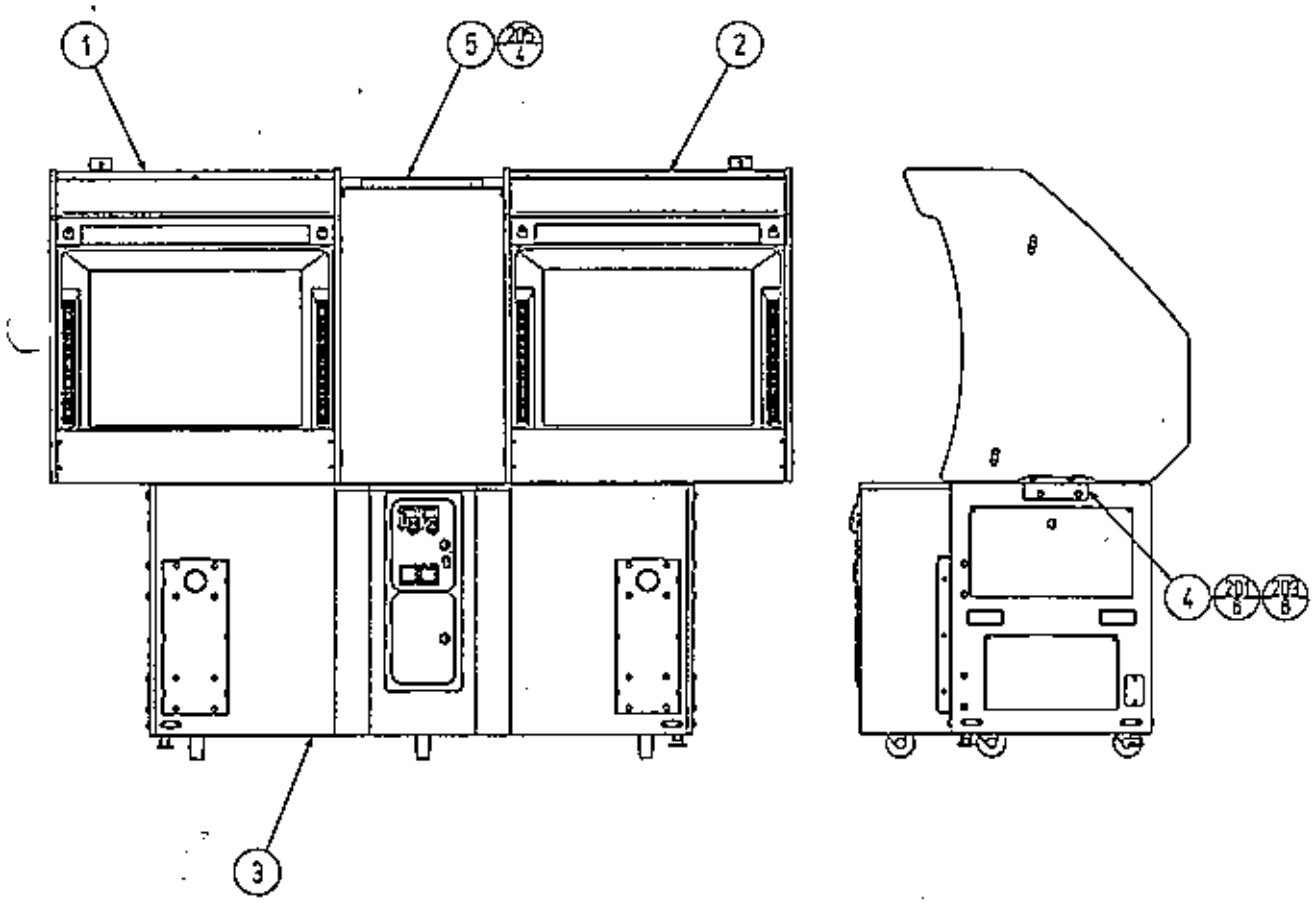


② ASSY BILLBOARD (TTR-0200)

(D-2/2)

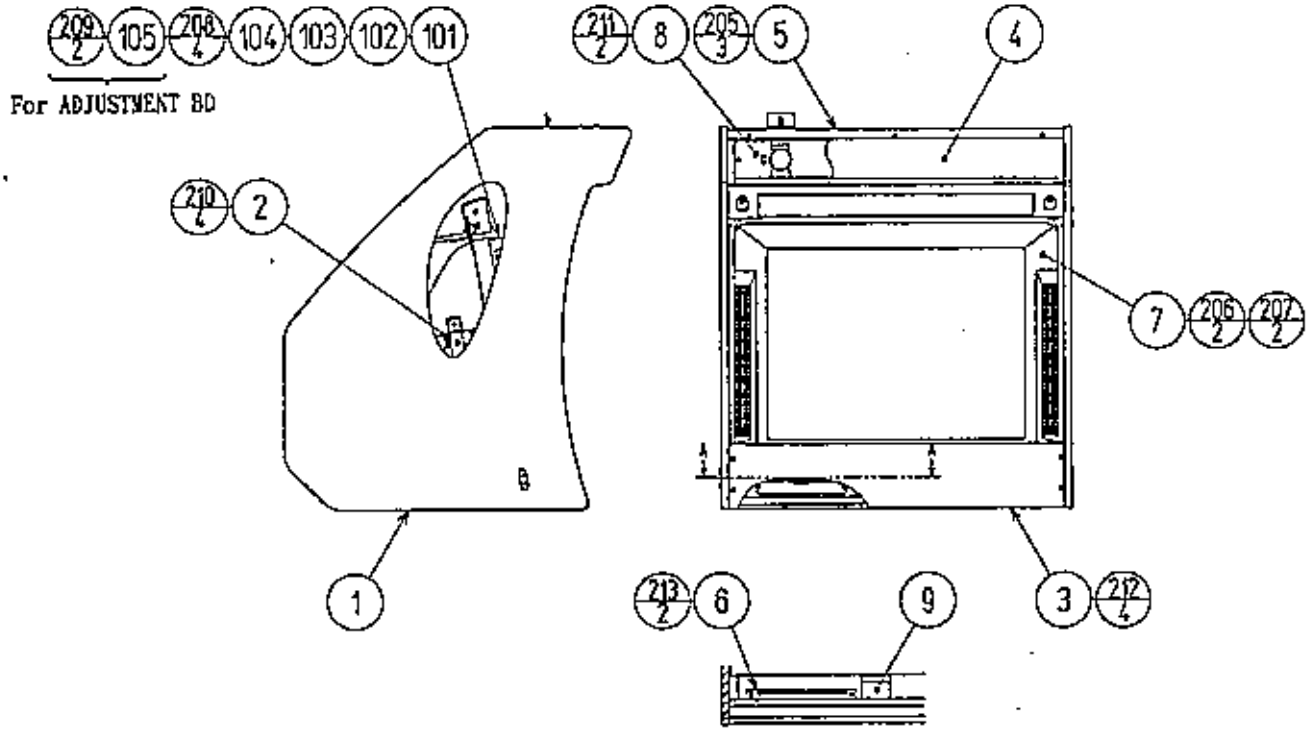
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-0201	BILLBOARD BOX	
2	TTR-0202	CORNER SASH UPPER	
3	TTR-0203	CORNER SASH LOWER	
4	TTR-0204	CORNER SASH LEFT	
5	TTR-0205	CORNER SASH RIGHT	
6	TTR-0206	BILLBOARD STAND	
7	TTR-0207	FL LID	
8	423-0263	BILLBOARD PLATE	
9	421-7501-10	STICKER FL40W	
10	440-WS0002XEG	STICKER W POWER OFF ENG	
11	440-WS0012XEG	STICKER W HIGH TEMP ENG	
12	TTR-0208	EDGE CUSHION F	
13	TTR-0209	EDGE CUSHION S	
101	390-5538-40BX	ASSY FL40W BX W/CONN HIGH	
102	280-5009	CORD CLAMP ϕ21	
201	000-T00408-0C	M SCR TH CRM M4×8	
202	000-P00416-W	M SCR PH W/FS M4×16	
203	030-000820-S	HEX BLT W/S M8×20	
301	600-6697-19	WIRE HARN BILLBOARD	

③ ASSY FRONT CABINET (TTR-10001)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1050	ASSY MONITOR L	
2	TTR-1070	ASSY MONITOR R	
3	TTR-1200	ASSY FRONT CABINET LOWER	
4	TTR-1018	MONITOR LOCK BRKT	
5	TTR-0011	JOINT PIPE UPPER	
201	030-000840-SB	HEX BLT W/S M8×40	
203	060-F00800-0B	FLT WSHR BLK M8	
205	FAS-300007	HEX BLT CRM W/FS M8×40	

④ ASSY MONITOR L (TTR-1050)

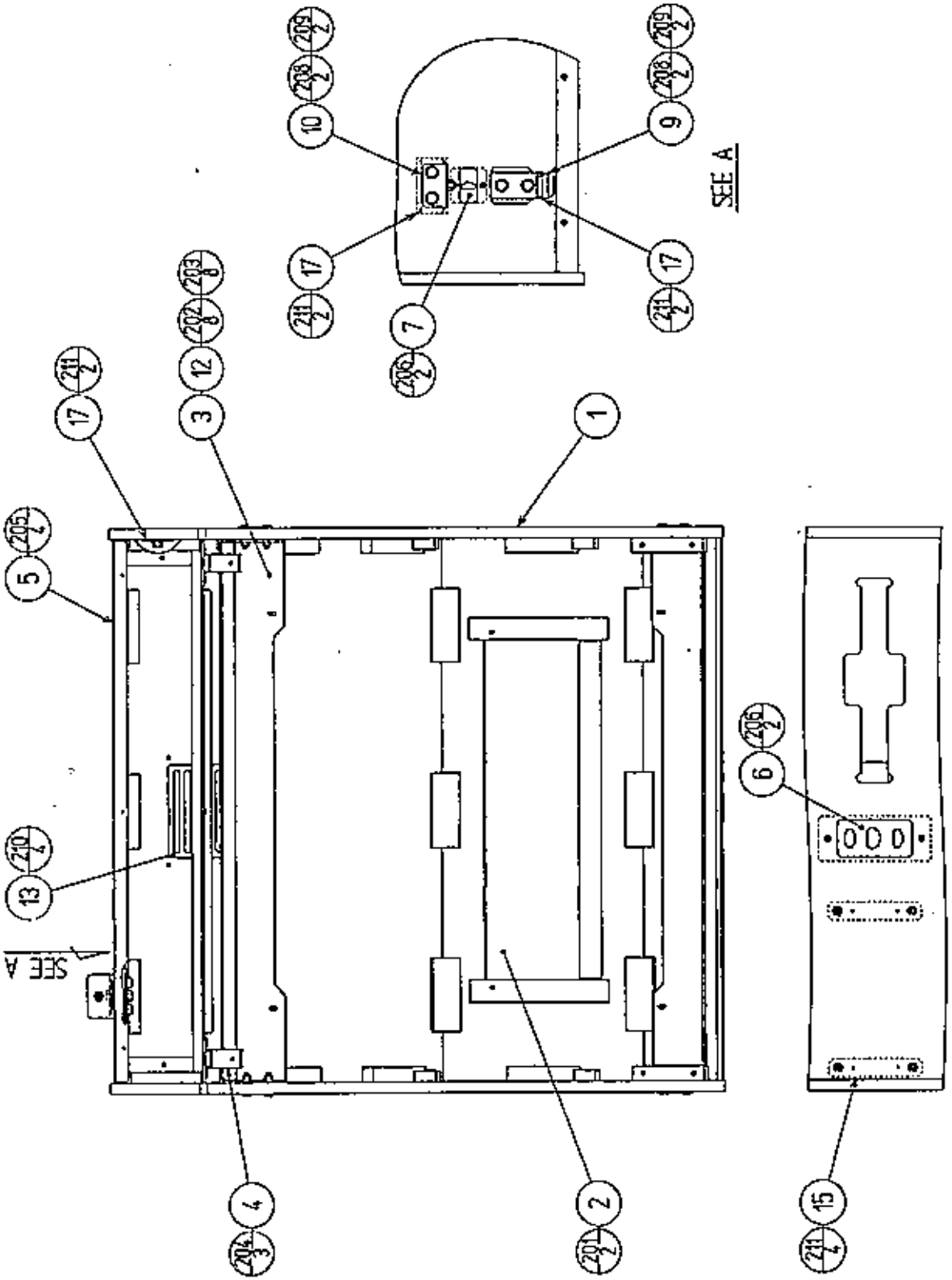


SECTION A-A

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1051	ASSY SUB CABI MONITOR L	
2	TTR-1090	ASSY SPEAKER	
3	TTR-1063	MASK HOLDER	
4	TTR-1064	DESIGN PLATE LEADER	
5	TTR-1065	SASH	
6	TTR-1066	ADJUST PANEL	
7	TTR-1067	MONITOR MASK	
8	TTR-1080	LAMP UNIT	
9	440-CS0053-BG	STICKER C NOT TOUCH W/O KNOB S ENG	
101	200-5242-24-04	ASSY CLR DSPL 29 TYPE 24K 100V	
	200-5243-24	ASSY CLR DSPL 29 TYPE 24K 100V	
102	280-5112	BUSH FOR TV	
103	280-5113	COLLAR FOR TV	
104	280-5114	SPACER 6.4-25×2	
105	280-5185-6	SPACER TUBE L=6	
205	000-T00412-0B	M SCR TH BLK M4×12	
206	000-T00530-0B	M SCR TH BLK M5×30	
207	068-552016-0B	FLT WSHR BLK 5.5-20×1.6	
208	050-F00600	FLG NUT M6	
209	000-P00312-WB	M SCR PH W/FS BLK M3×12	
210	000-P00416-W	M SCR PH W/FS M4×16	
211	000-P00440-W	M SCR PH W/FS M4×40	
212	000-T00425-0B	M SCR TH BLK M4×25	
213	011-P03512	TAP SCR PH 3.5×12	

⑤ ASSY SUB CABI MONITOR L (TTR-1051)

(D-1/2)

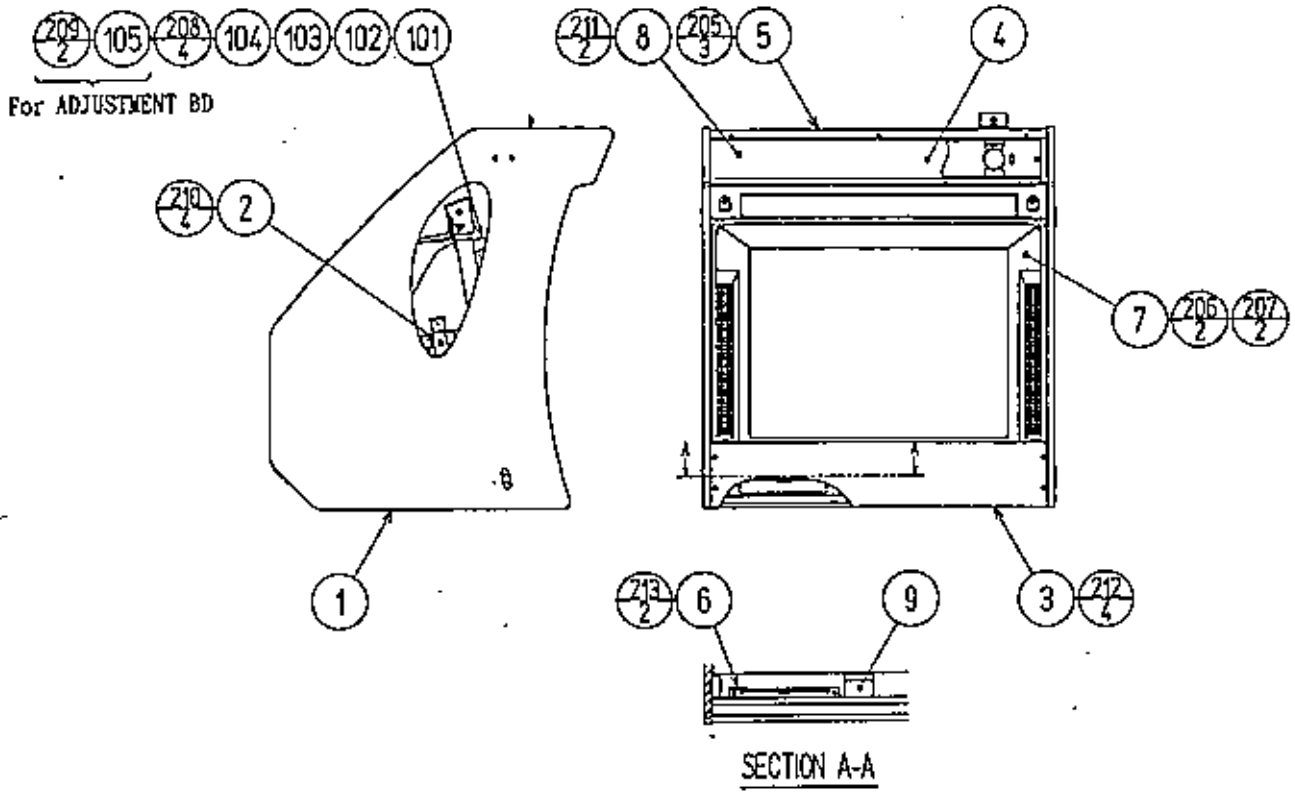


⑤ ASSY SUB CABI MONITOR L (TTR-1051)

(D-2/2)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1052	MONITOR BOX L	
2	TTR-1053	MONITOR BACK LID	
3	TTR-1054	MONITOR SUPPORT	
4	TTR-1055	MASK SUPPORT	
5	TTR-1056	SASH HOLDER	
6	TTR-1057	CONN PLATE CABI	
7	TTR-1058	CONN PLATE FL	
9	TTR-1060	BILLBOARD HOOK	
10	TTR-1061	BILLBOARD HOLDER	
12	117-5235	PLATE 6-30	
13	UP-1018	AIR VENT	
15	TTR-1008	NUT PLATE 2-M3	
17	DYN-2121	NUT PLATE 2-M8	
101	280-0416	HARNESS LUG	
102	280-5009	CORD CLAMP φ21	
201	000-T00430-0B	M SCR TH BLK M4×30	
202	031-000630-0C	CRG BLT CRM M6×30	
203	050-F00600	FLG NUT M6	
204	000-T00416-0B	M SCR TH BLK M4×16	
205	000-F00416	M SCR FH M4×16	
206	000-P00425-WB	M SCR PH W/FS BLK M4×25	
208	030-000830-SB	HEX BLT W/S BLK M8×30	
209	060-F00800-0B	FLT WSHR BLK M8	
210	000-T00420-0B	M SCR TH BLK M4×20	
211	011-T03512	TAP SCR TH 3.5×12	
212	011-T00310	TAP SCR TH 3×10	
213	011-F00310	TAP SCR FH 3×10	
301	600-6697-13	WIRE HARN MONITOR L1	
302	600-6697-14	WIRE HARN MONITOR L2	
303	600-6697-28	WIRE HARN EARTH MONITOR L	

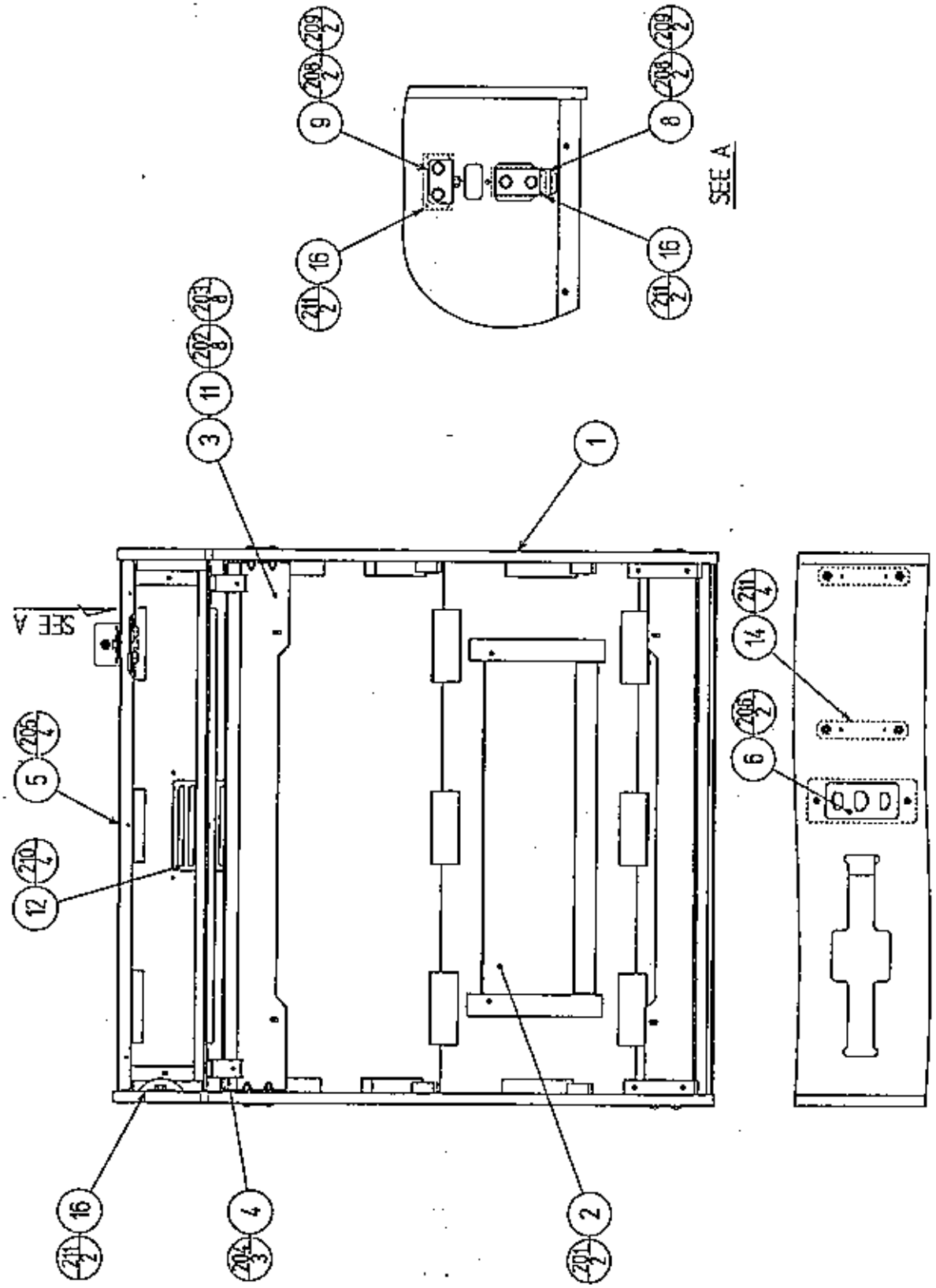
⑥ ASSY MONITOR R (TTR-1070)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1071	ASSY SUB CABI MONITOR R	
2	TTR-1090	ASSY SPEAKER	
3	TTR-1063	MASK HOLDER	
4	TTR-1064	DESIGN PLATE LEADER	
5	TTR-1065	SASH	
6	TTR-1066	ADJUST PANEL	
7	TTR-1067	MONITOR MASK	
8	TTR-1080	LAMP UNIT	
9	440-CS0053-EG	STICKER C NOT TOUCH W/O KNOB S ENG	
101	200-5242-24-04	ASSY CLR DSPL 29 TYPE 24K 100V	
	200-5243-24	ASSY CLR DSPL 29 TYPE 24K 100V	
102	280-5112	BUSH FOR TV	
103	280-5113	COLLAR FOR TV	
104	280-5114	SPACER 6.4-25×2	
105	280-5185-6	SPACER TUBE L=6	
205	000-T00412-0B	M SCR TH BLK M4×12	
206	000-T00530-0B	M SCR TH BLK M5×30	
207	068-552016-0B	FLT WSHR BLK 5.5-20×1.6	
208	050-F00600	FLG NUT M6	
209	000-P00312-WB	M SCR PH W/FS BLK M3×12	
210	000-P00416-W	M SCR PH W/FS M4×16	
211	000-P00440-W	M SCR PH W/FS M4×40	
212	000-P00425-0B	M SCR TH BLK M4×25	
213	011-P03512	TAP SCR PH 3.5×12	

⑦ ASSY SUB CABI MONITOR R (TTR-1071)

(D-1/2)

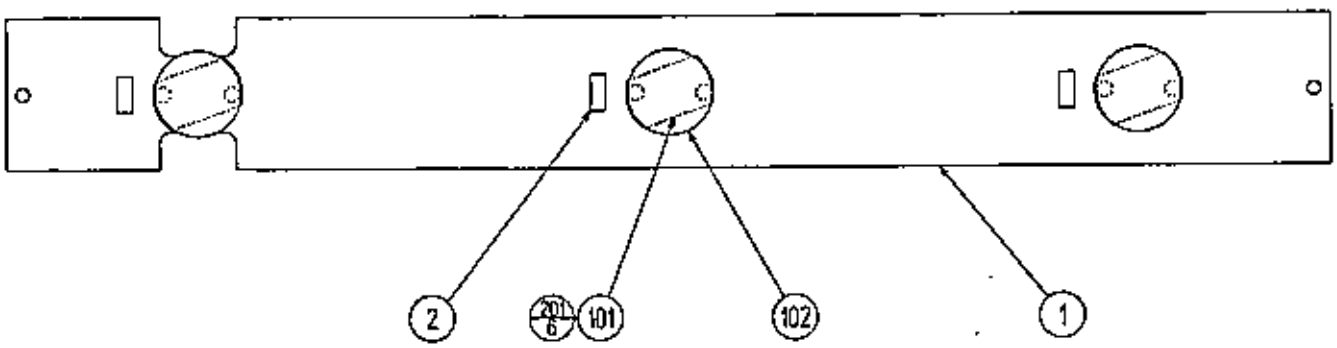


⑦ ASSY SUB CABI MONITOR R (TTR-1071)

(D-2/2)

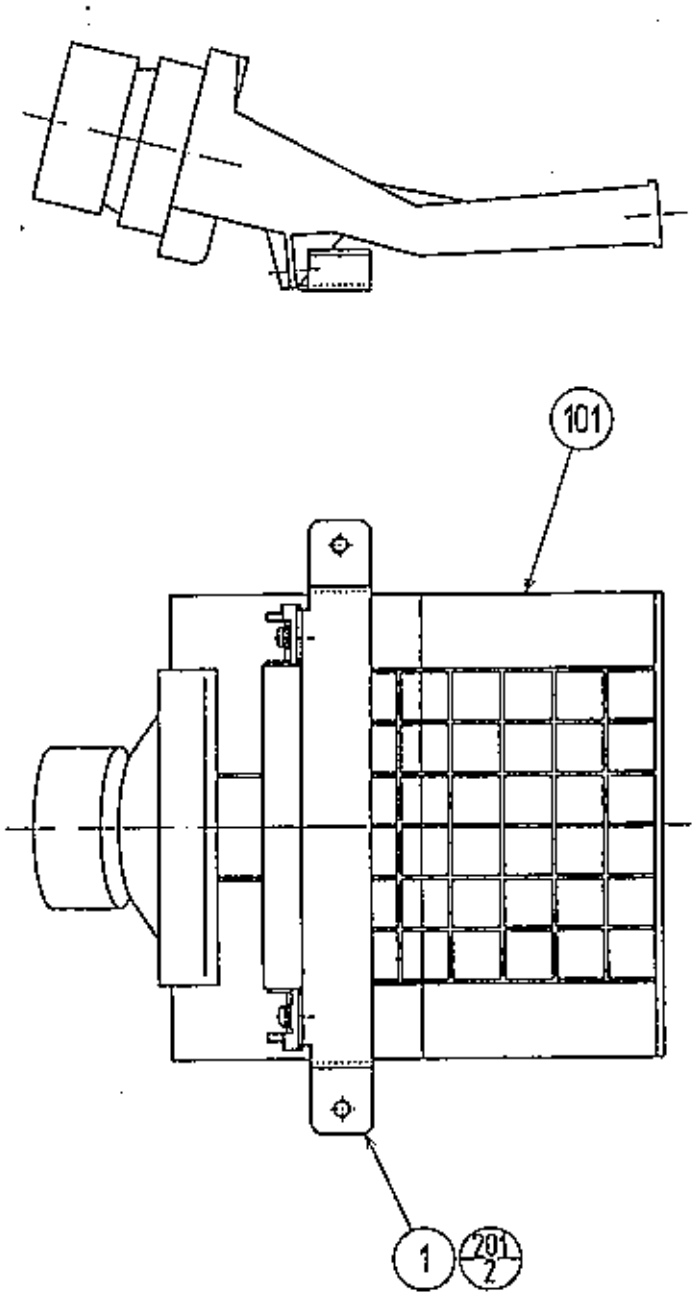
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1072	MONITOR BOX R	
2	TTR-1053	MONITOR BACK LID	
3	TTR-1054	MONITOR SUPPORT	
4	TTR-1055	MASK SUPPORT	
5	TTR-1056	SASH HOLDER	
6	TTR-1057	CONN PLATE CABI	
8	TTR-1060	BILLBOARD HOOK	
9	TTR-1061	BILLBOARD HOLDER	
11	117-5235	PLATE 6-30	
12	UP-1018	AIR VENT	
14	TTR-1008	NUT PLATE 2-M8	
16	DYN-2121	NUT PLATE 2-M8	
101	280-0419	HARNESS LUG	
102	280-5009	CORD CLAMP φ21	
201	000-T00430-0B	M SCR TH BLK M4×30	
202	031-000630-0C	CRG BLT CRM M6×30	
203	050-F00600	FLG NUT M6	
204	000-T00416-0B	M SCR TH BLK M4×16	
205	000-F00416	M SCR FH M4×16	
206	000-P00425-WB	M SCR PH W/FS M4×25	
208	030-000830-SB	HEX BLT W/S BLK M8×30	
209	060-F00800-0B	FLT WSHR BLK M8	
210	000-T00420-0B	M SCR TH BLK M4×20	
211	011-T03512	TAP SCR TH 3.5×12	
212	011-T00310	TAP SCR TH 3×10	
213	011-T00310	TAP SCR FH 3×10	
301	600-6697-17	WIRE HARN MONITOR R1	
302	600-6697-18	WIRE HARN MONITOR R2	
303	600-6697-29	WIRE HARN BARTH MONITOR R	

⑧ LAMP UNIT (TTR-1080)



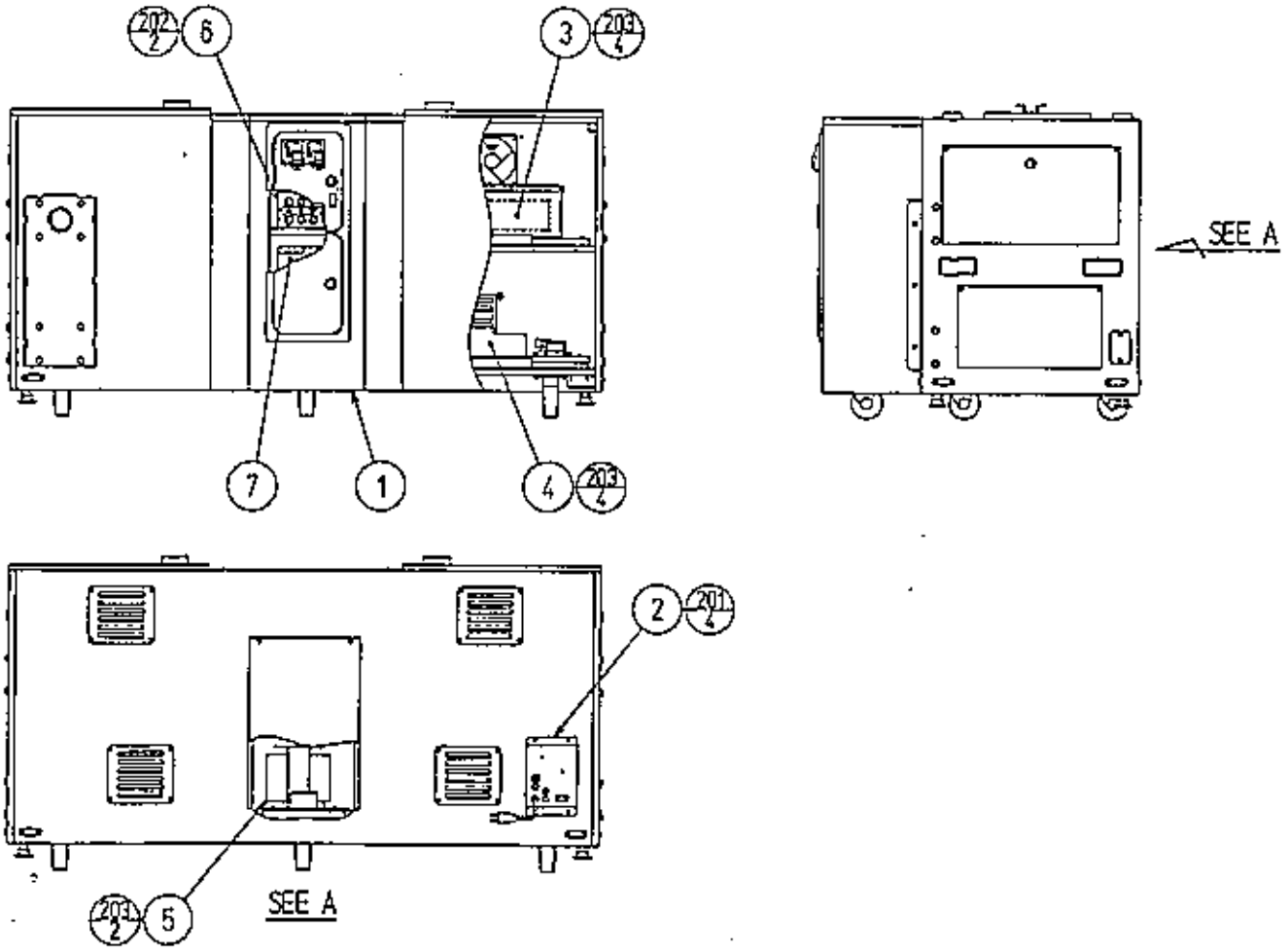
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1081	LAMP BASE	
2	421-7501-01	STICKER 110V 25W	
101	214-0184	LAMP SOKET E17	
102	390-5573	LAMP 110V 25W	
103	280-0419	HARNESS LUG	
201	011-P00320	TAP SCR PH 3×20	
202	011-T00310	TAP SCR TH 3×10	
301	600-6697-16	WIRE HARN LBADER LAMP	

⑨ ASSY SPEAKER (TTR-1090)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1091	SPEAKER BRKT	
101	130-5140	SPEAKER BOX MINI DOME	
201	000-P00412-W	M SCR PH W/FS M4×12	
301	600-6697-15	WIRE HARN SPEAKER	

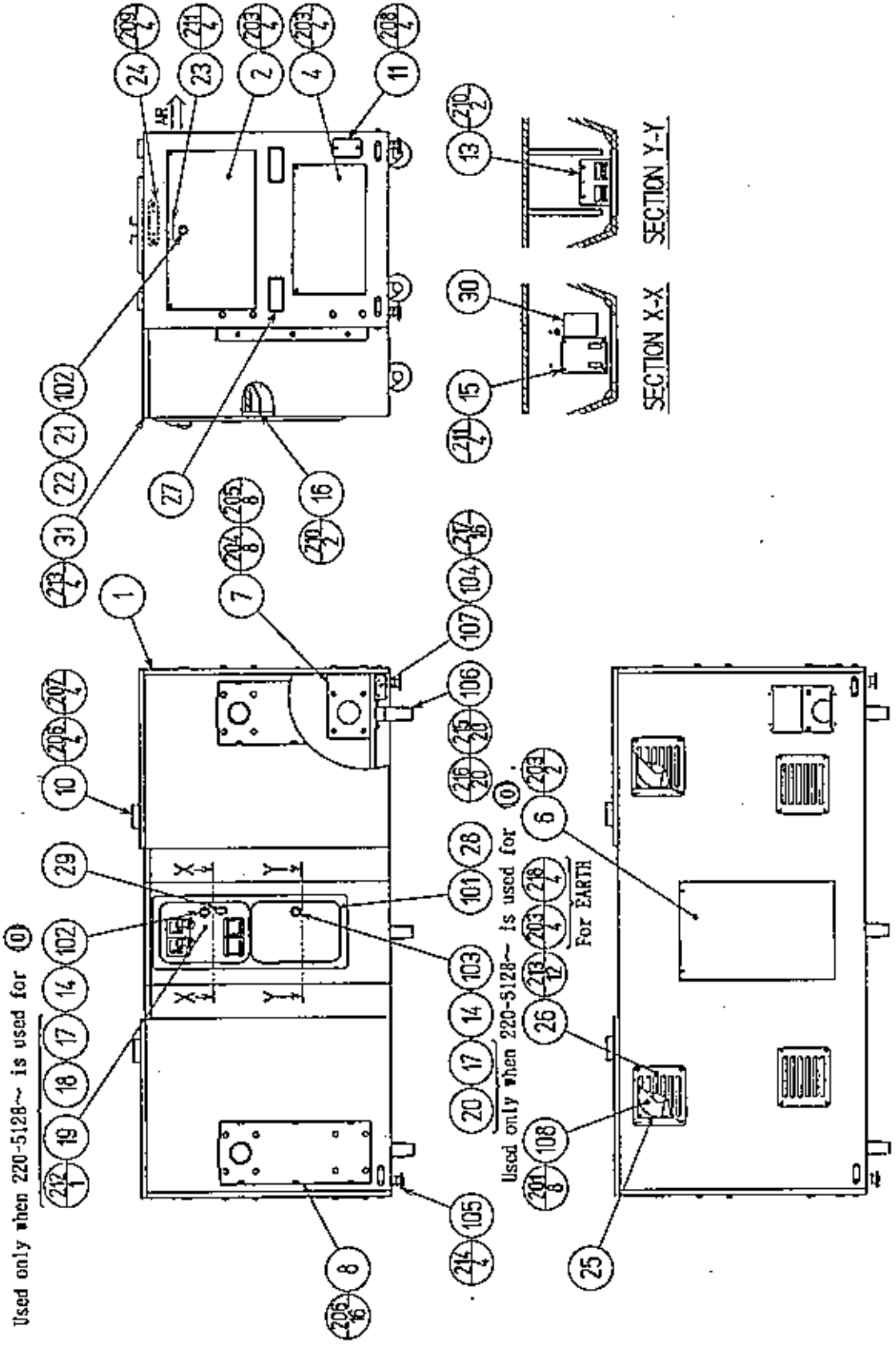
⑩ ASSY FRONT CABINET LOWER (TTR-1200)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1201	ASSY SUB CABINET LOWER	
2	TTR-1250	AC UNIT	AC110～120V AREA
	TTR-1260	AC UNIT EXP 220V	AC220V AREA
	TTR-1270	AC UNIT EXP 240V	AC240V AREA
3	TTR-1300	ASSY SHIELD CASE	
4	TTR-4300	ASSY PWR SPLY	
5	TTR-4400	ASSY ELEC	
6	DYN-0350	SW UNIT	
7	253-5366	CASH BOX	
101	600-6275-0700	ASSY FIBER CABLE φ5 0700CM	
201	000-T00420-0B	M SCR TH BLK M4×20	
202	000-P00416-W	M SCR PH W/FS M4×16	
203	000-P00530-W	M SCR PH W/FS M5×30	

⑪ ASSY SUB CABINET LOWER (TTR-1201)

(D-1/3)



⑪ ASSY SUB CABINET LOWER (TTR-1201)

(D-2/3)

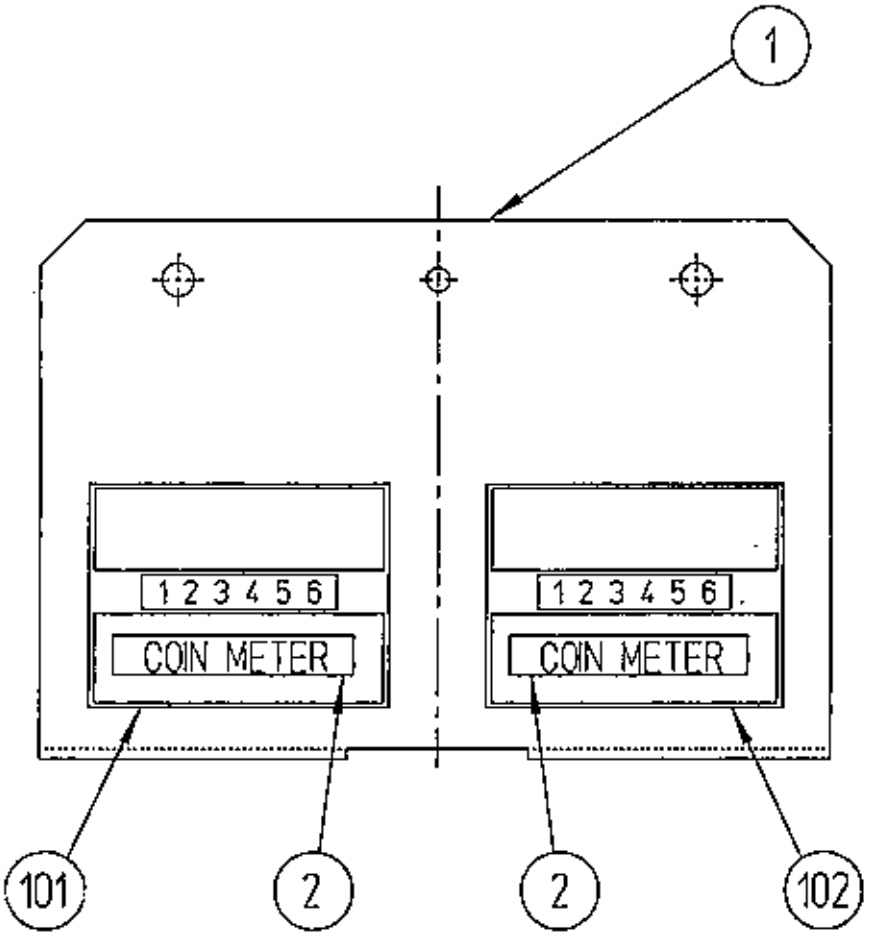
ITEM NO.	PART. NO.	DESCRIPTION	NOTE
1	TTR-1202	WOODEN CABINET LOWER	
2	TTR-1203	SHIELD CASE DOOR	
4	TTR-1205	PWR SPLY DOOR	
6	TTR-1207	ELEC DOOR	
7	TTR-1208	NUT PLATE 6-M8	
8	TTR-1209	JOINT BRKT	
10	TTR-1211	GUIDE BRKT	
11	TTR-1212	HOLE LID	
13	610-0395	METER UNIT W	
14	DP-1167	TNG LKG	
15	105-5172	CHUTE PLATE DOUBLE	
16	105-5169	LOCK BRACKET W	
17	HN-1050	SPACER RING	} Used only when 220-5128～is used for 101 .
19	109-0045-91	KEY HOLDER	
20	105-5201	MAGNETIC LOCK BRKT FOR ASAHI	
21	DP-1148X	LKG TNG	
22	117-0062	PLATE LOCK RETAINER	
23	117-5098	TNG RETAINER PLATE	
24	TTR-1008	NUT PLATE 2-M8	
25	HN-1042X	FAN BRKT	
26	UP-1018	AIR VENT	
27	253-5396	CABINET HANDLE	
28	421-7501-02	STICKER 6.3V 0.15A	
30	440-WS0002XEG	STICKER W POWER OFF ENG	
31	TTR-0013	CENTER PLATE	
101	220-5128 ～	ASSY COIN CHUTE 2DOOR ～	
102	220-5380	MAG LOCK MASTER W/O KEY	
103	220-5046-91	MAGNETIC LOCK W/KEYS	
104	117-5233	PLATE LEG BRACKET BLACK	
105	501-5699X	LEG ADJUSTER BOLT M16×75	
106	601-6224	CASTER φ75	
107	ARC-1006	LEG BRACKET	
108	260-0011-02	AXIAL FLOW FAN AC100V 50-60Hz	
109	280-5009	CORD CLAMP φ21	
110	280-0419	HARNESS LUG	
111	601-0460	PLASTIC TIE BELT 100MM	
112	280-5008	CORD CLAMP φ15	
113	280-5275-SR10	CORD CLAMP SR10	
114	310-5029-F20	SUMITUBE F F20MM	
201	000-P00312-W	M SCR PH W/FS M3×12	
203	000-T00430-0B	M SCR TH BLK M4×30	
204	030-000830-SB	HEX BLT W/S BLK M8×30	
205	060-F00800-0B	FLT WSHR BLK M8	
206	030-000830-S	HEX BLT W/S M8×30	
207	060-F00800	FLT WSHR M8	
208	000-T00416-0B	M SCR TH BLK M4×16	
209	011-T03512	TAP SCR TH 3.5×12	
210	000-P00420-W	M SCR PH W/FS M4×20	
211	011-T00312	TAP SCR TH 3×12	

⑪ ASSY SUB CABINET LOWER (TTR-1201)

(D-3/3)

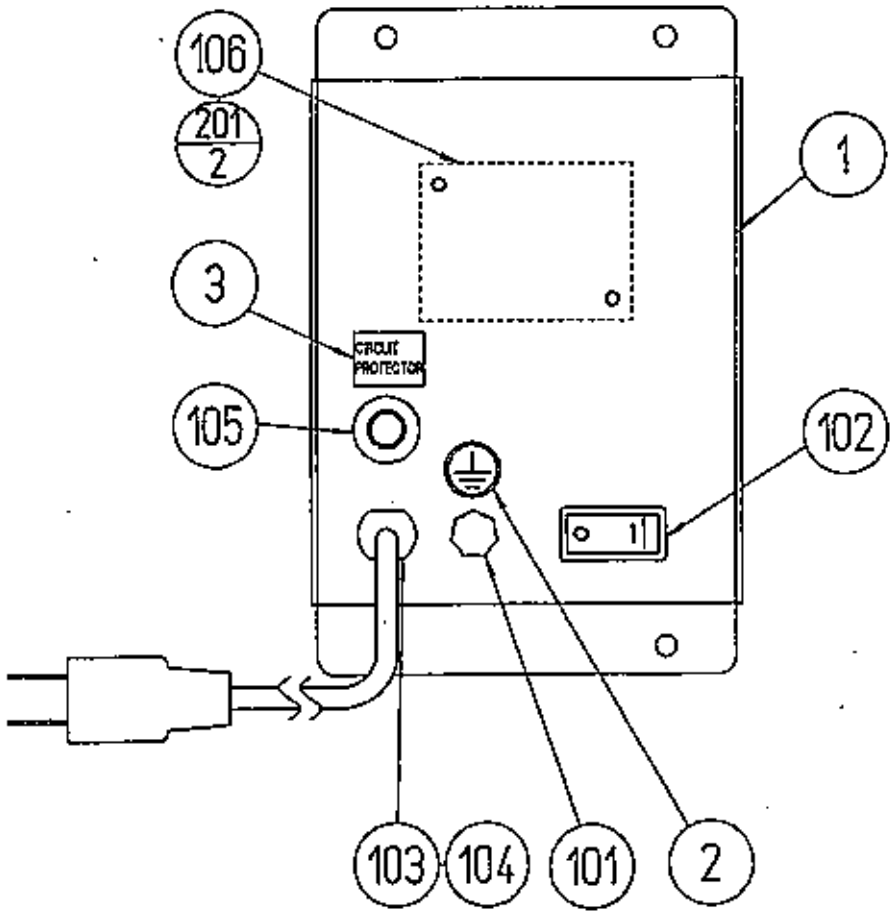
ITEM NO.	PART NO.	DESCRIPTION	NOTE
212	000-P00308-W	M SCR PH W/FS M3×8	Used only when 220-5128~is used for 101 .
213	000-T00420-0B	M SCR TH BLK M4×20	
214	050-H01600	HEX NUT M16	
215	030-000630-S	HEX BLT W/S M6×30	
216	060-F00600	FLT WSHR M6	
217	030-000630-SB	HEX BLT W/S BLK M6×30	
218	050-F00400	FLG NUT M4	
219	011-F00310	TAP SCR FH 3×10	
220	011-T00310	TAP SCR TH 3×10	
301	600-6697-07	WIRE HARN FRONT CABI EXT1	
302	600-6697-08	WIRE HARN FRONT CABI EXT2	
303	600-6697-09	WIRE HARN FRONT CABI EXT3	
304	600-6697-10	WIRE HARN FRONT CABI EXT4	
305	600-6697-11	WIRE HARN FRONT CABI EXT5	
306	600-6697-12	WIRE HARN FRONT CABI EXT6	
307	600-6697-27-91	WIRE HARN EARTH FRONT CABI	
308	600-6373-50	WIRE HARN COIN LEFT	
309	600-6373-51	WIRE HARN COIN RIGHT	
310	600-6697-20	WIRE HARN FRONT CABI EXT7	
311	600-6697-35	WIRE HARN FRONT CABI EXT8	

⑫ METER UNIT W (610-0395)



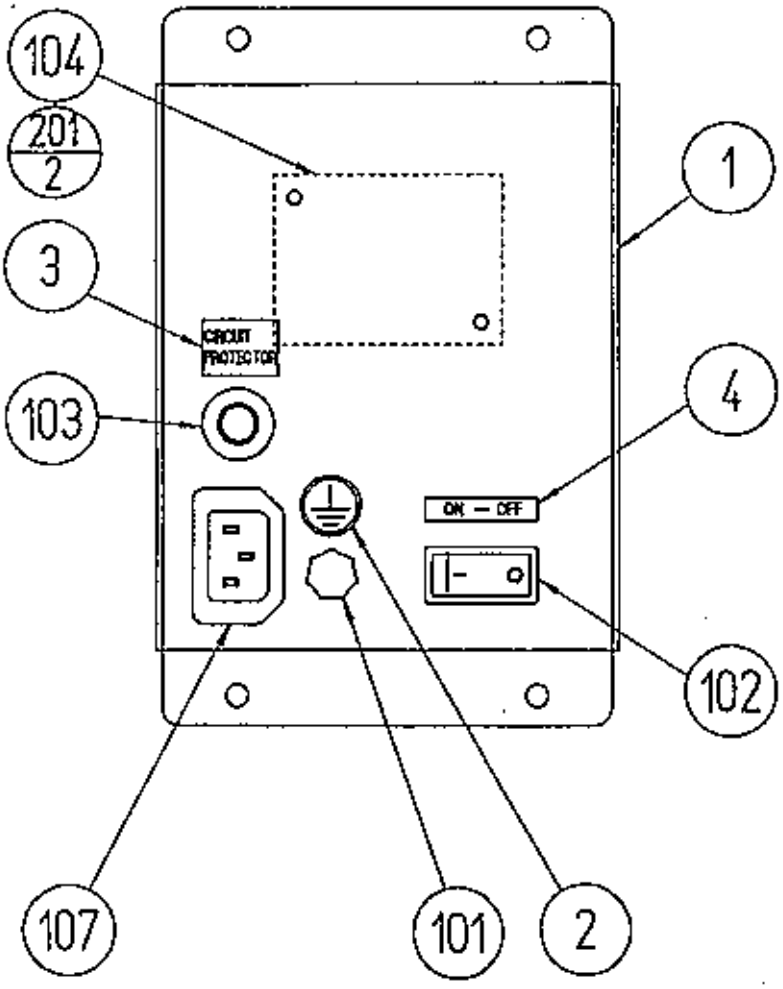
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	105-5233	METER BRKT W	
2	421-6591-01	STICKER COIN METER	
101	220-5412	MAG CNTR W/CONN	
102	220-5412-01	MAG CNTR W/CONN BLACK	

⑬ AC UNIT (TTR-1250)



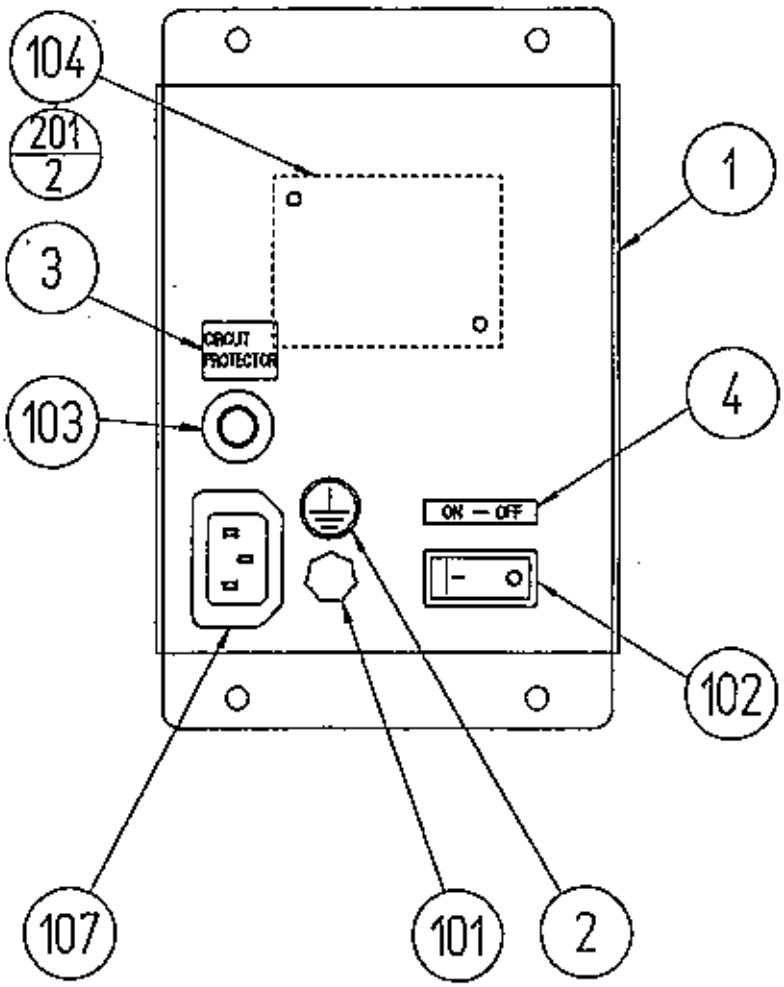
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1251	AC BRKT	
2	421-8202	STICKER BARTH MARK	
3	421-7468-01	STICKER C.P. W/PIC	
101	280-0417	TERMINAL BINDING POST BLACK	
102	509-5453-H-B	SW ROCKER J8 H-B	
103	280-5134-6N34	BUSHING STRAIN RELIEF 6N34	TAIWAN
	280-5134-6N4	BUSHING STRAIN RELIEF 6N4	USA
104	600-5843-25	CA & PLUG ASSY 15A W/-F- L=2.5M	TAIWAN
	600-0110	ASSY CABLE & PLUG ASSY W/BARTH	USA
105	512-5033-15000	CIRCUIT PROTECTOR 15000mA	
106	450-5126	MAGNET CONTACT S-N10CX	TAIWAN
	450-5135	MAGNET CONTACT S-N10CX AC 120V	USA
107	601-0460	PLASTIC TIE BELT 100MM	
108	280-5009	CORD CLAMP ϕ21	
109	209-0032	CONN CLOSED END	LARGE TYPE
110	310-5029-J20	SUMITUBE F J20MM	ϕ 6
201	000-P00416-W	M SCR PH W/FS M4×16	
301	600-6697-01	WIRE HARN AC UNIT TWIN	
302	600-6363-83	WIRE HARN BARTH AC UNIT	
/	211-0167	TERM LUG RND ID5	USA

⑬ AC UNIT EXP 220V (TTR-1260)



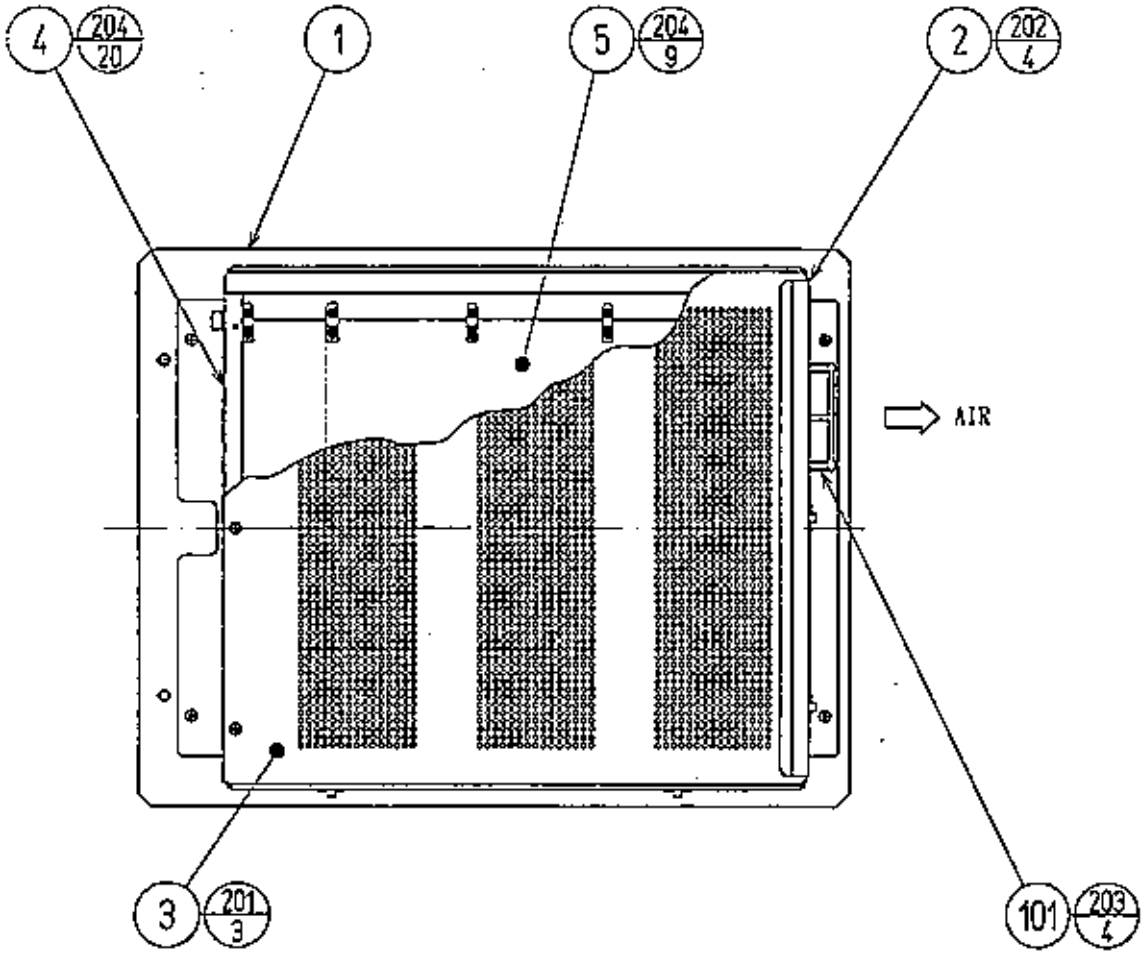
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1261	AC BRKT EXP	
2	421-8202	STICKER EARTH MARK	
3	421-7468-01	STICKER C.P. W/PIC	
4	421-6592	STICKER ON-OFF	
101	280-0417	TERMINAL BINDING POST BLACK	
102	509-5453-V-B	SW ROCKER J8 V-B	
103	512-5033-8000	CIRCUIT PROTECTOR 8000mA	
104	450-5133	MAGNET CONTACT S-N10CX AC 200V	
105	601-0460	PLASTIC TIE BELT 100MM	
106	280-5009	CORD CLAMP ϕ21	
107	214-0202	AC INLET PANEL TYPE	
108	310-5029-J20	SUMITUBE F J20MM	
201	000-P00416-W	M SCR PH W/FS M4×16	
301	600-6697-37	WIRE HARN AC UNIT EXP	
302	600-6363-83-91	WIRE HARN EARTH AC UNIT	

⑬ AC UNIT EXP 240V (TTR-1270)



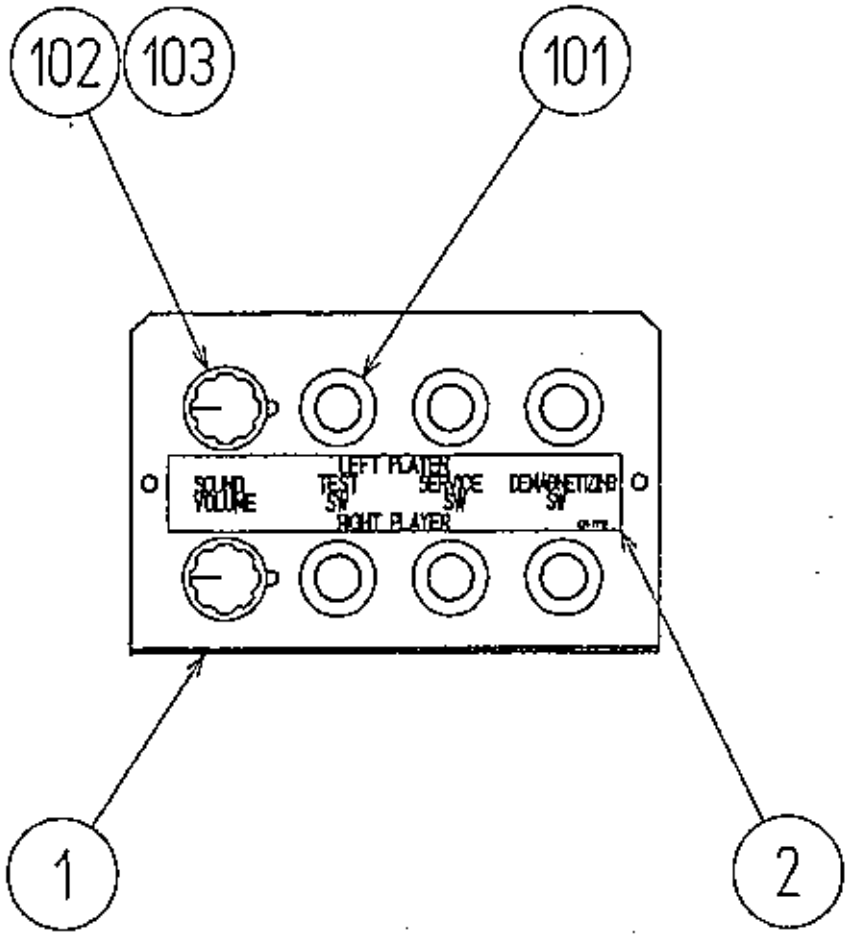
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1261	AC BRKT EXP	
2	421-8202	STICKER BARTH MARK	
3	421-7468-01	STICKER C.P. W/PIC	
4	421-6592	STICKER ON-OFF	
101	280-0417	TERMINAL BINDING POST BLACK	
102	509-5453-V-B	SW ROCKER J8 V-B	
103	512-5033-8000	CIRCUIT PROTECTOR 8000mA	
104	450-5134	MAGNET CONTACT S-N10CX AC 230V	
105	601-0460	PLASTIC TIE BELT 100MM	
106	280-5009	CORD CLAMP ϕ21	
107	214-0202	AC INLET PANEL TYPE	
108	310-5029-J20	SUMITUBE F J20MM	
201	000-P00416-W	M SCR PH W/FS M4×16	
301	600-6697-37	WIRE HARN AC UNIT EXP	
302	600-6363-83-91	WIRE HARN BARTH AC UNIT	

⑭ ASSY SHIELD CASE TWIN (TTR-1300)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1301	SHIELD CASE BASE	
2	105-5218	SHIELD CASE	
3	105-5219-91	SHIELD CASE LID	
4	839-0744	FILTER BD A-CRX RALLY	
5	833-12466	GAME BD MANX T.T TWIN	
101	260-0055	FAN MOTOR DC5V	
102	209-0023	CONN CLOSED END	SMALL TYPE
103	280-5009	CORD CLAMP ϕ21	
104	280-5275-SR10	CORD CLAMP SR10	
105	280-0419	HARNESS LUG	
106	601-0460	PLASTIC TIE BELT 100MM	
201	000-P00408-W	M SCR PH W/FS M4×8	
202	000-P00412-W	M SCR PH W/FS M4×12	
203	000-P00330-W	M SCR PH W/FS M3×30	
204	010-P00308-W	S-TITE SCR PH W/F M3×8	
205	011-F00310	TAP SCR FH 3×10	
207	011-T03512	TAP SCR TH 3.5×12	
301	600-6697-24	WIRE HARN SHIELD CASE1	
302	600-6697-25	WIRE HARN SHIELD CASE2	
303	600-6502-13	WIRE HARN DC FAN	

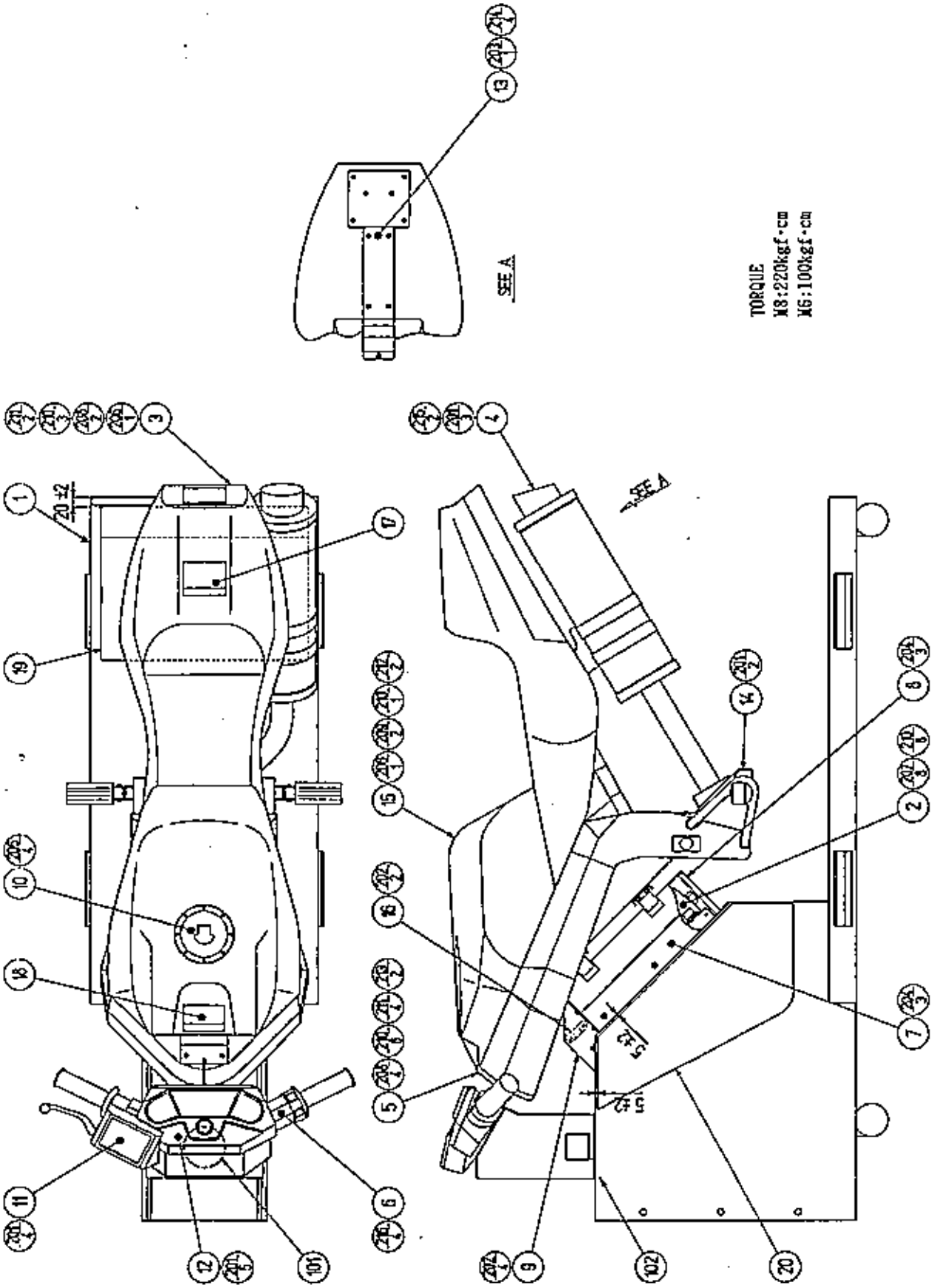
⑮ SW UNIT (DYN-0350)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	USQ-1035	SWITCH BRACKET	
2	421-7718	STICKER SW INSTR 2P	
101	509-5028	SW PB 1M	
102	220-5179	VOL CONT B-5K OHM	
103	601-0042	KNOB 22mm	
104	601-0460	PLASTIC TIE BELT 100MM	
105	310-5029-F20	SUMITUBE F F20MM	
301	600-6373-53	WIRE HARN TEST&SERVICE LEFT	
302	600-6373-55	WIRE HARN VOL. LEFT	
303	600-6373-67	WIRE HARN TEST&SERVICE RIGHT	
304	600-6373-68	WIRE HARN VOL. RIGHT	

⑯ ASSY BIKE MECHA L (TTR-1500)

(D-1/2)

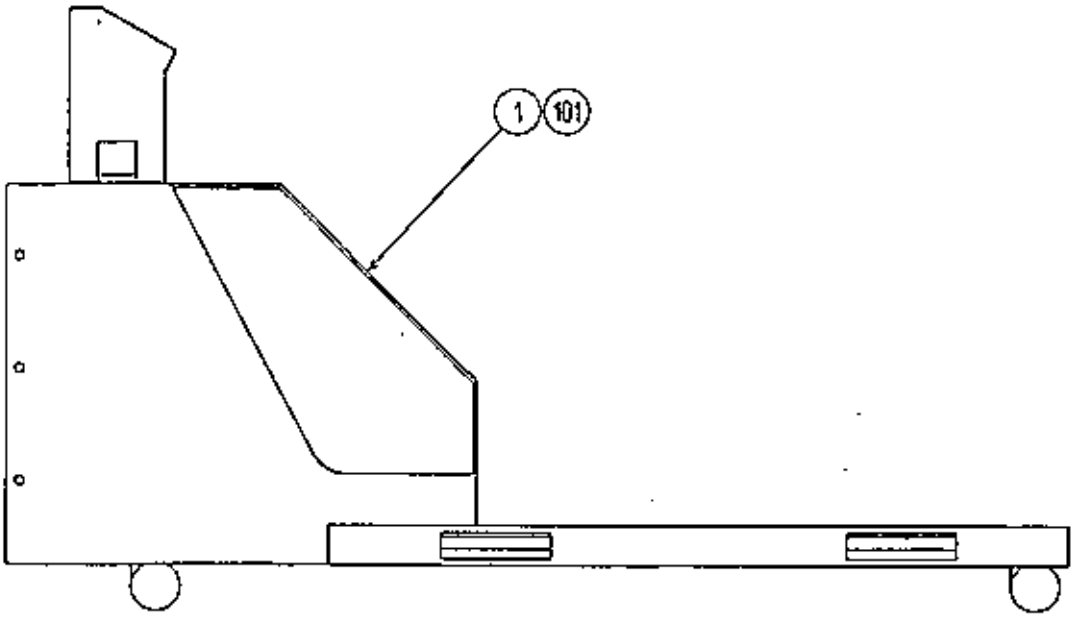


⑯ ASSY BIKE MECHA L (TTR-1500)

(D-2/2)

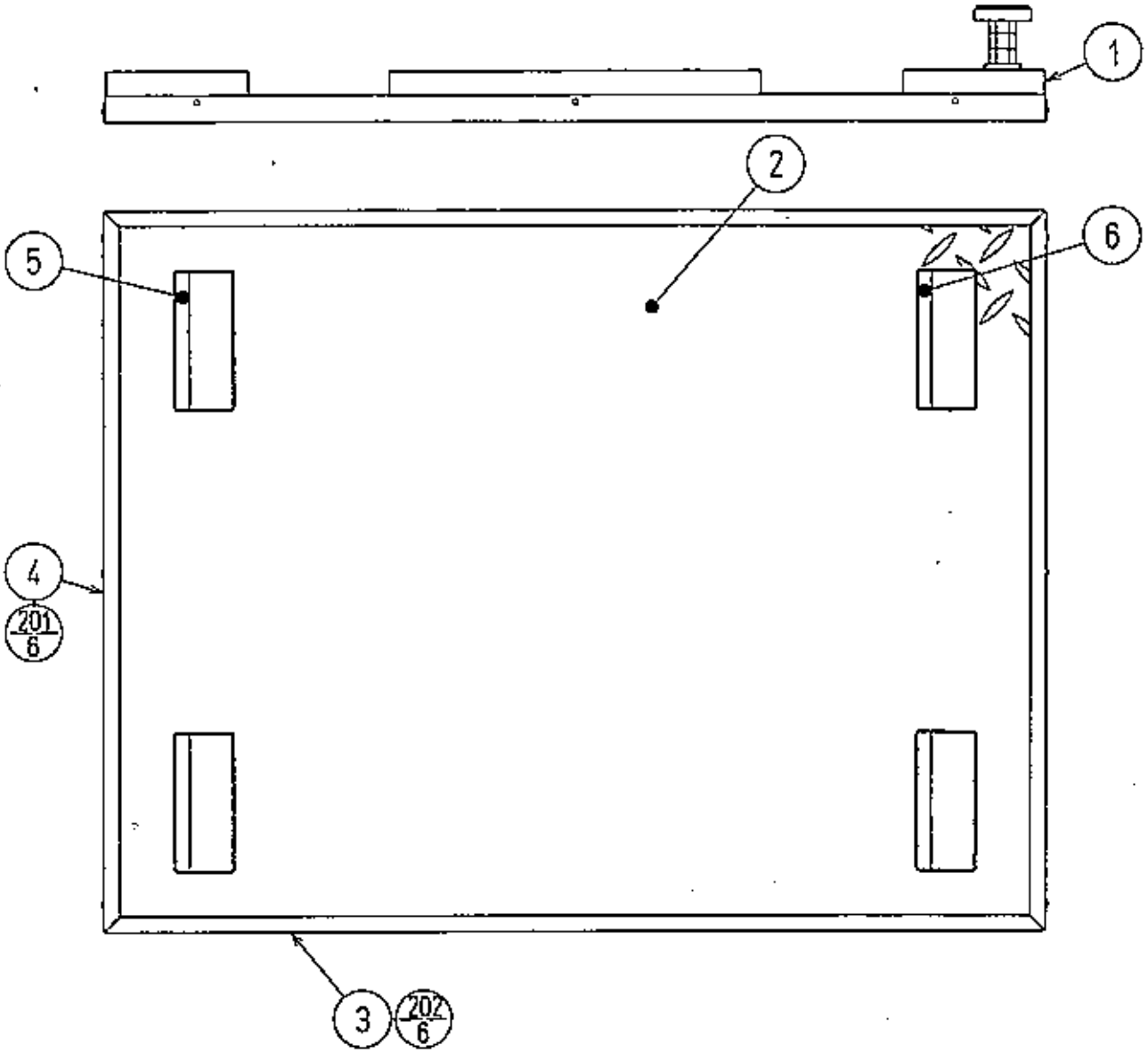
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1501	ASSY REAR FRAME L	
2	TTR-3040	ASSY CENTERRING MECHA	
3	TTR-3054	ASSY SEAT COWL L	
4	TTR-3090	ASSY MUFFLER	
5	TTR-3095	ASSY BIKE FRAME TWIN	
6	610-0391	ASSY HANDLE MECHA	
7	TTR-1503	PROTECT COVER L	
8	TTR-1504	PROTECT COVER R	
9	TTR-1505	VR COVER	
10	TTR-3002	FUEL CAP	
11	TTR-3003	BRAKE COVER	
12	TTR-3004	HANDLE COVER	
13	TTR-3007	WIRE COVER	
14	TTR-3008	FRAME LID	
15	TTR-3016	TANK L	
16	TTR-1506	WIRE CLAMP	
17	440-WS0040-EG	STICKER W TTR A ENG	
18	440-WS0042-EG	STICKER W TTR C ENG	
101	601-5526-251	BUSH 1.6t	
102	601-6231-D080	EDGING NEW TYPE	
103	280-5009	CORD CLAMP ϕ21	
201	000-T00408-0C	M SCR TH CRM M4×8	
202	000-P00408-WB	M SCR PH W/FS BLK M4×8	
203	000-P00412-WB	M SCR PH W/FS BLK M4×12	
204	000-P00512-WB	M SCR PH W/FS BLK M5×12	
205	020-000410-HZ	HEX SKT CAP SCR BLK OZ M4×10	
206	030-000830-SB	HEX BLT W/S BLK M8×30	
207	030-000860-SB	HEX BLT W/S BLK M8×60	
208	050-U00800	U NUT M8	
209	060-F00600-0B	FLT WSHR BLK M6	
210	060-F00800-0B	FLT WSHR BLK M8	
211	060-S00800-0B	SPR WSHR BLK M8	
212	020-000625-HZ	HEX SKT CAP SCR BLK OZ M6×25	
213	020-000830-HZ	HEX SKT CAP SCR BLK OZ M8×30	
214	FAS-110005	TAP SCR TH CRM M4×12	
215	000-T00512-0C	M SCR TH CRM M5×12	
216	FAS-300001	HEX BLT W/FS CRM M8×20	
301	600-6697-36-91	WIRE HARN BIKE FRAME EXT	

⑰ ASSY REAR FRAME L (TTR-1501)



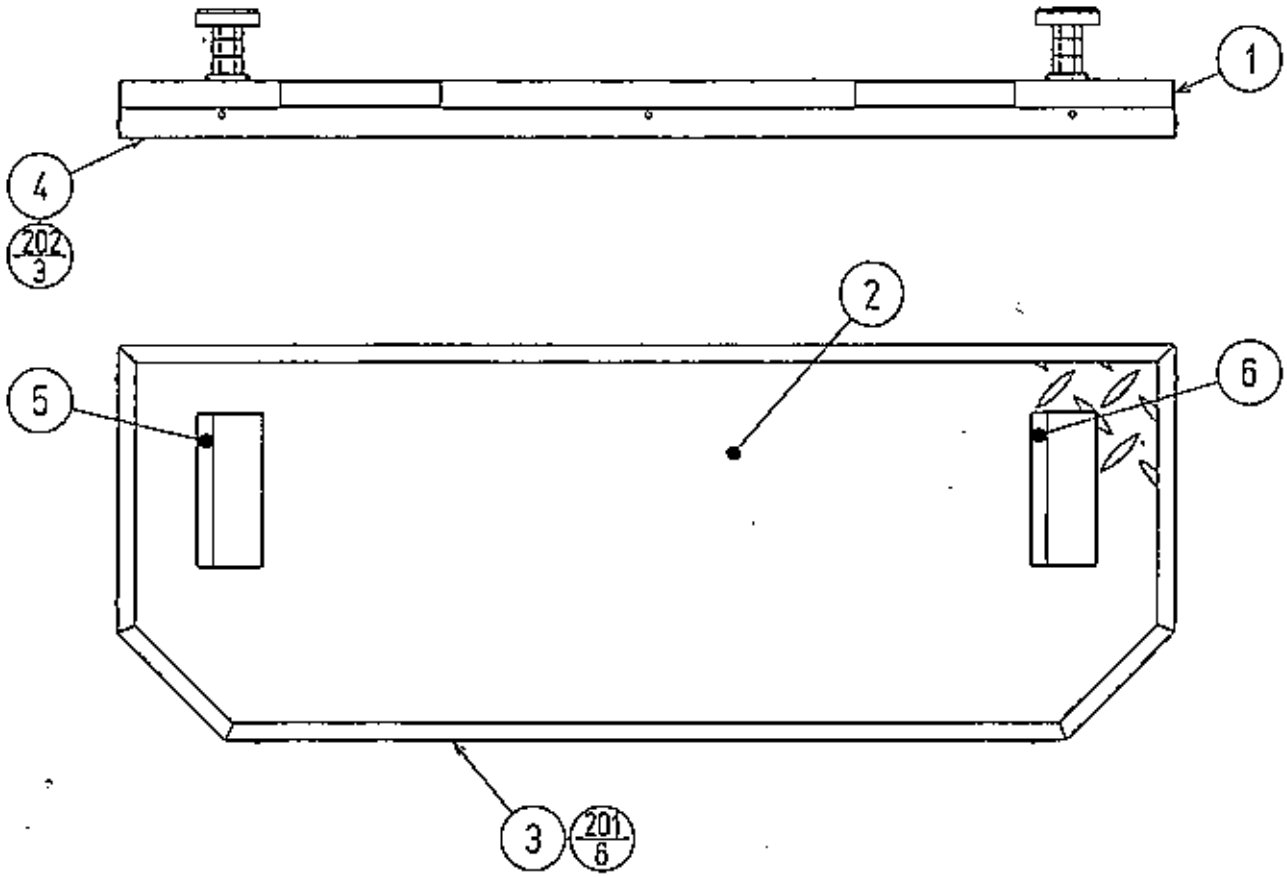
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1502	REAR FRAME L	
101	280-5009	CORD CLAMP φ21	
201	000-P00408-W	M SCR PH W/FS M4×8	
301	600-6697-26	WIRE HARN REAR BASE EXT1	
302	600-6697-30	WIRE HARN EARTH REAR BASE	

⑱ ASSY FLOOR C (TTR-1520)



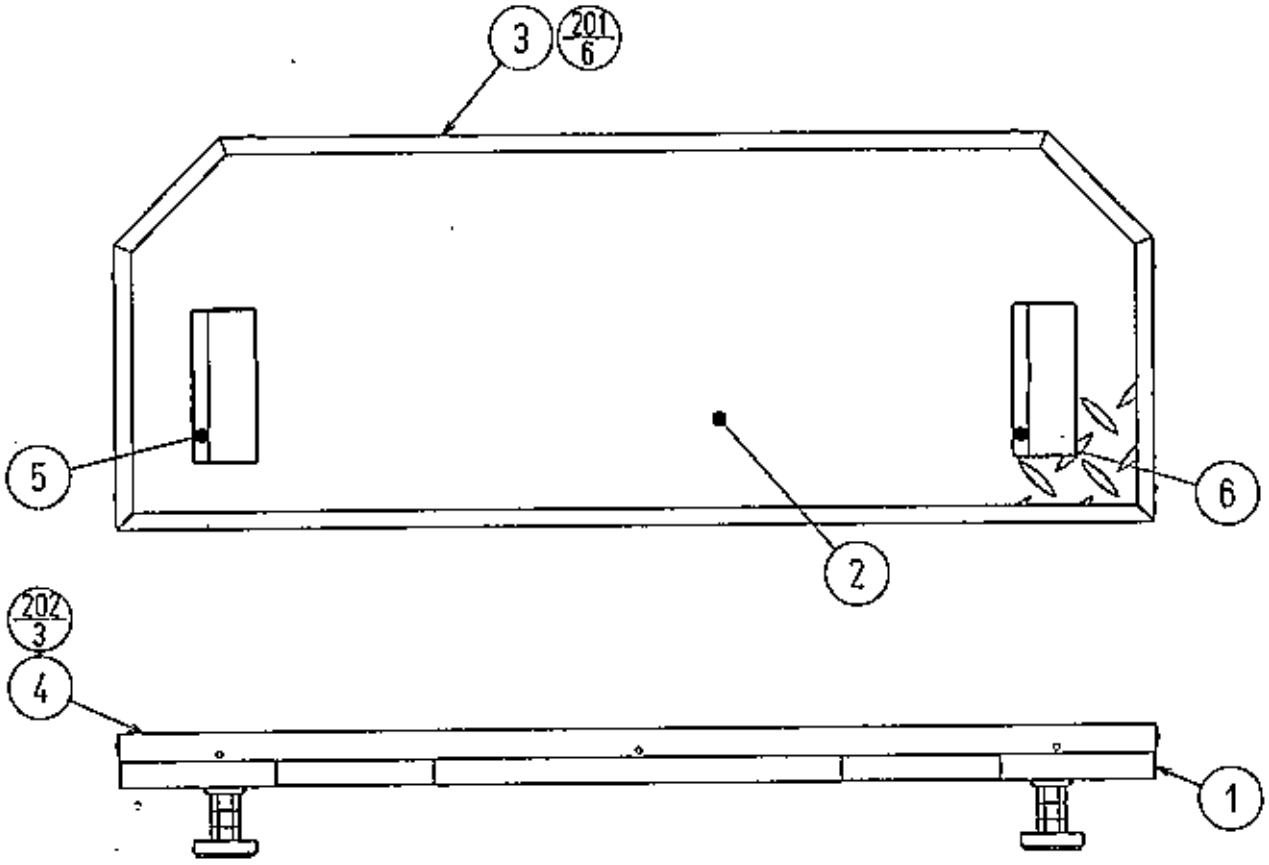
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1521	FLOOR CENTER	
2	TTR-1522	FLOOR MAT CENTER	
3	TTR-1523	CORNER EDGE INNER	
4	TTR-1524	CORNER EDGE FR	
5	440-WP0057-EG	PLATE W FOOT MAT ENG	
6	440-WP0058-EG	PLATE W THIS AREA ENG	
201	000-T00408-0C	M SCR TH CRM M4×8	
202	050-F00400	FLG NUT M4	

⑲ ASSY FLOOR L (TTR-1530)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1531	FLOOR SIDE	
2	TTR-1532	FLOOR MAT SIDE	
3	TTR-1533	CORNER EDGE OUTER	
4	TTR-1523	CORNER EDGE INNER	
5	440-WP0057-BG	PLATE W FOOT MAT BNG	
6	440-WP0058-BG	PLATE W THIS AREA BNG	
201	000-T00408-0C	M SCR TH CRM M4×8	
202	050-F00400	FLG NUT M4	

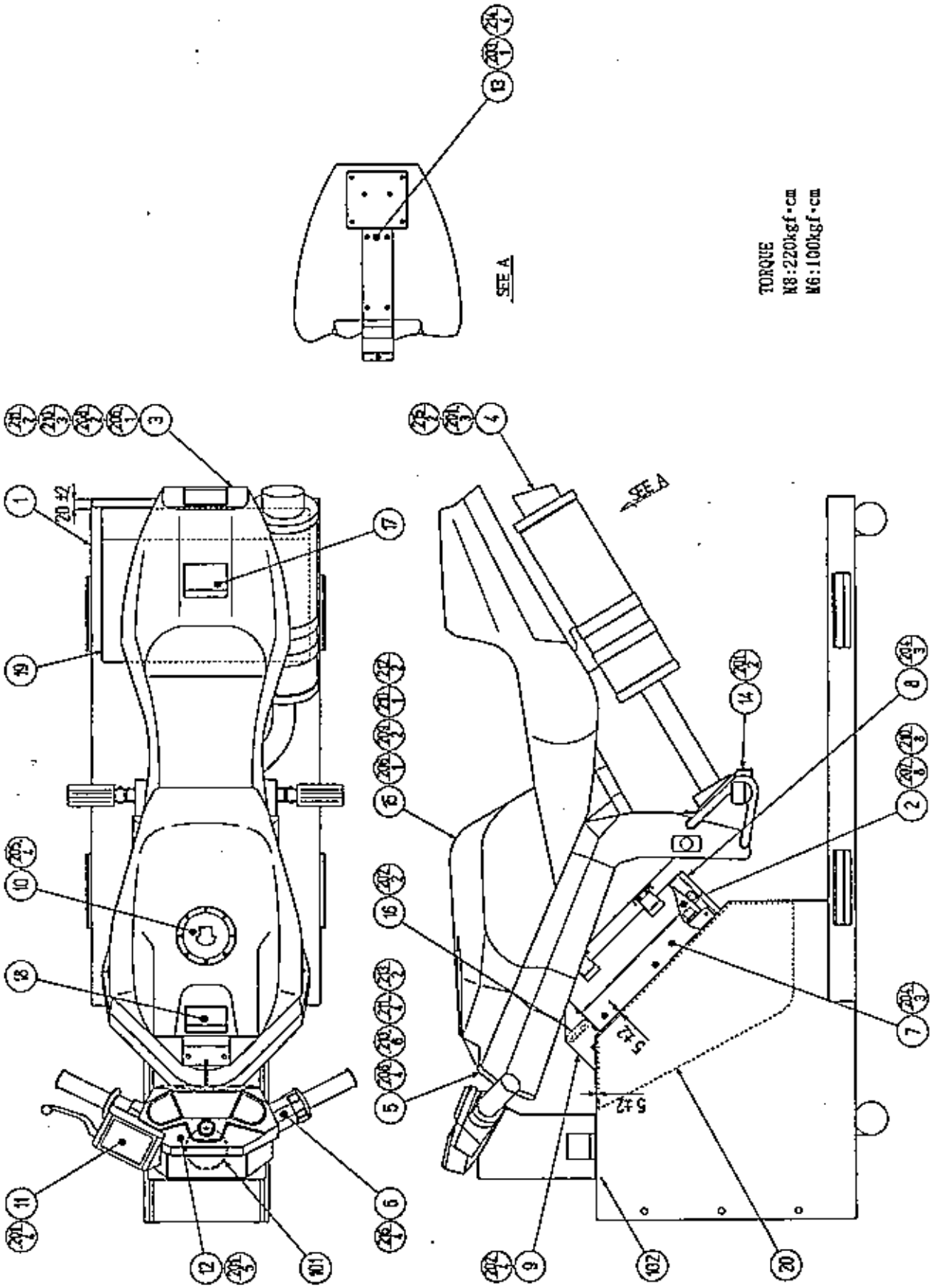
⑳ ASSY FLOOR R (TTR-1540)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1531	FLOOR SIDE	
2	TTR-1532	FLOOR MAT SIDE	
3	TTR-1533	CORNER EDGE OUTER	
4	TTR-1523	CORNER EDGE INNER	
5	440-WP0057-EG	PLATE W FOOT MAT ENG	
6	440-WP0058-EG	PLATE W THIS AREA ENG	
201	000-T00408-0C	M SCR TH CRM M4×8	
202	050-F00400	FLG NUT M4	

㉑ ASSY BIKE MECHA R (TTR-1550)

(D-1/2)

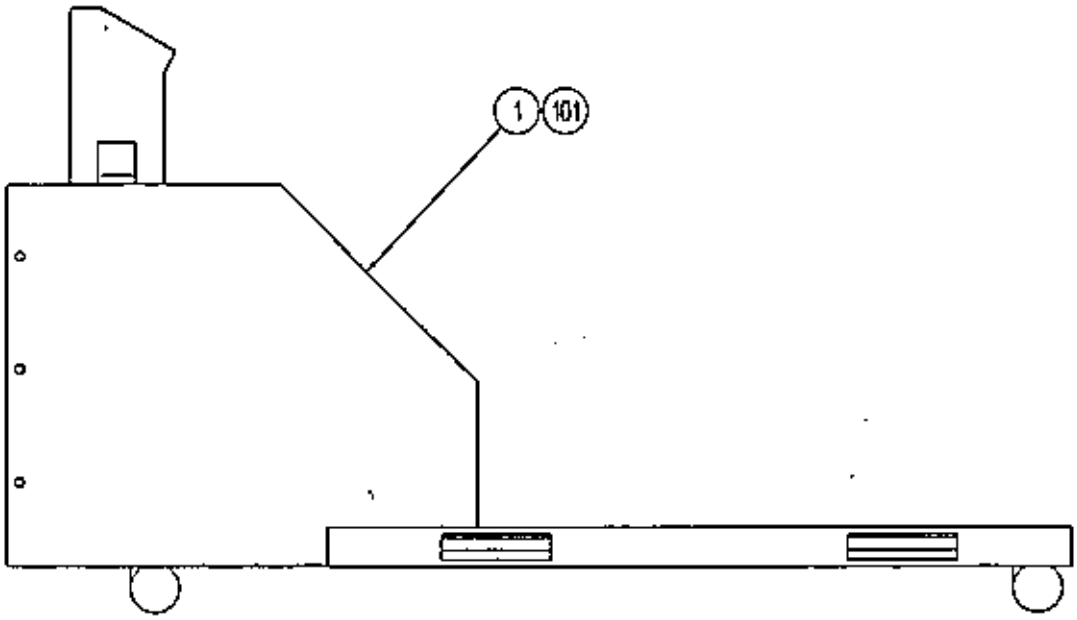


㉑ ASSY BIKE MECHA R (TTR-1550)

(D-2/2)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1551	ASSY RBAR FRAME R	
2	TTR-3040	ASSY CENTERING MECHA	
3	TTR-3057	ASSY SEAT COWL R	
4	TTR-3090	ASSY MUFFLER	
5	TTR-3095	ASSY BIKE FRAME TWIN	
6	610-0391	ASSY HANDLE MECHA	
7	TTR-1503	PROTECT COVER L	
8	TTR-1504	PROTECT COVER R	
9	TTR-1505	VR COVER	
10	TTR-3002	FUEL CAP	
11	TTR-3003	BRAKE COVER	
12	TTR-3004	HANDLE COVER	
13	TTR-3007	WIRE COVER	
14	TTR-3008	FRAME LID	
15	TTR-3017	TANK R	
16	TTR-1506	WIRE CLAMP	
17	440-WS0040-BG	STICKER W TTR A BNG	
18	440-WS0042-BG	STICKER W TTR C BNG	
19	TTR-1502-B	STICKER STEP CENTER	
20	TTR-1552-A	STICKER RBAR FRAME R	
101	601-5526-251	BUSH 1.6t	
102	601-6231-D080	EDGING NEW TYPE	
103	280-5009	CORD CLAMP φ21	
201	000-T00408-0C	M SCR TH CRM M4×8	
202	000-P00408-WB	M SCR PH W/FS BLK M4×8	
203	000-P00412-WB	M SCR PH W/FS BLK M4×12	
204	000-P00512-WB	M SCR PH W/FS BLK M5×12	
205	020-000410-HZ	HEX SKT CAP SCR BLK OZ M4×10	
206	030-000830-SB	HEX BLT W/S BLK M8×30	
207	030-000860-SB	HEX BLT W/S BLK M8×60	
208	050-U00800	U NUT M8	
209	060-F00600-0B	FLT WSHR BLK M6	
210	060-F00800-0B	FLT WSHR BLK M8	
211	060-S00800-0B	SPR WSHR BLK M8	
212	020-000625-HZ	HEX SKT CAP SCR BLK OZ M6×25	
213	020-000830-HZ	HEX SKT CAP SCR BLK OZ M8×30	
214	FAS-110005	TAP SCR TH CRM M4×12	
215	000-T00512-0C	M SCR TH CRM M5×12	
216	FAS-300001	HEX BLT W/FS CRM M8×20	
301	600-6697-36-91	WIRE HARN BIKE FRAME EXT	

㉒ ASSY REAR FRAME R (TTR-1551)

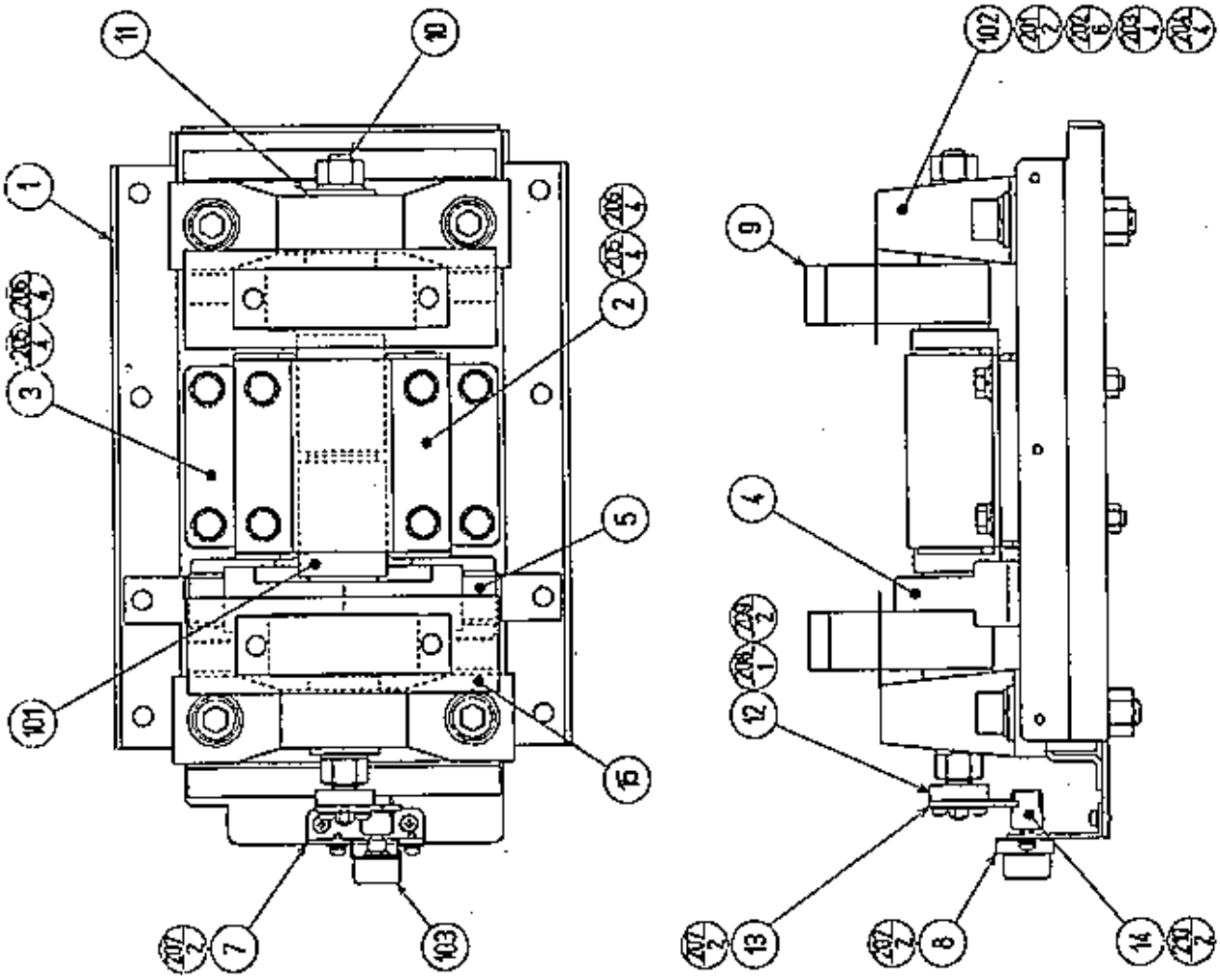


ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-1552	REAR FRAME R	
101	280-5009	CORD CLAMP φ21	
301	600-6697-26	WIRE HARN REAR BASE EXT1	
302	600-6697-30	WIRE HARN EARTH REAR BASE	

㉓ ASSY CENTERING MECHA (TTR-3040)

(D-1/2)

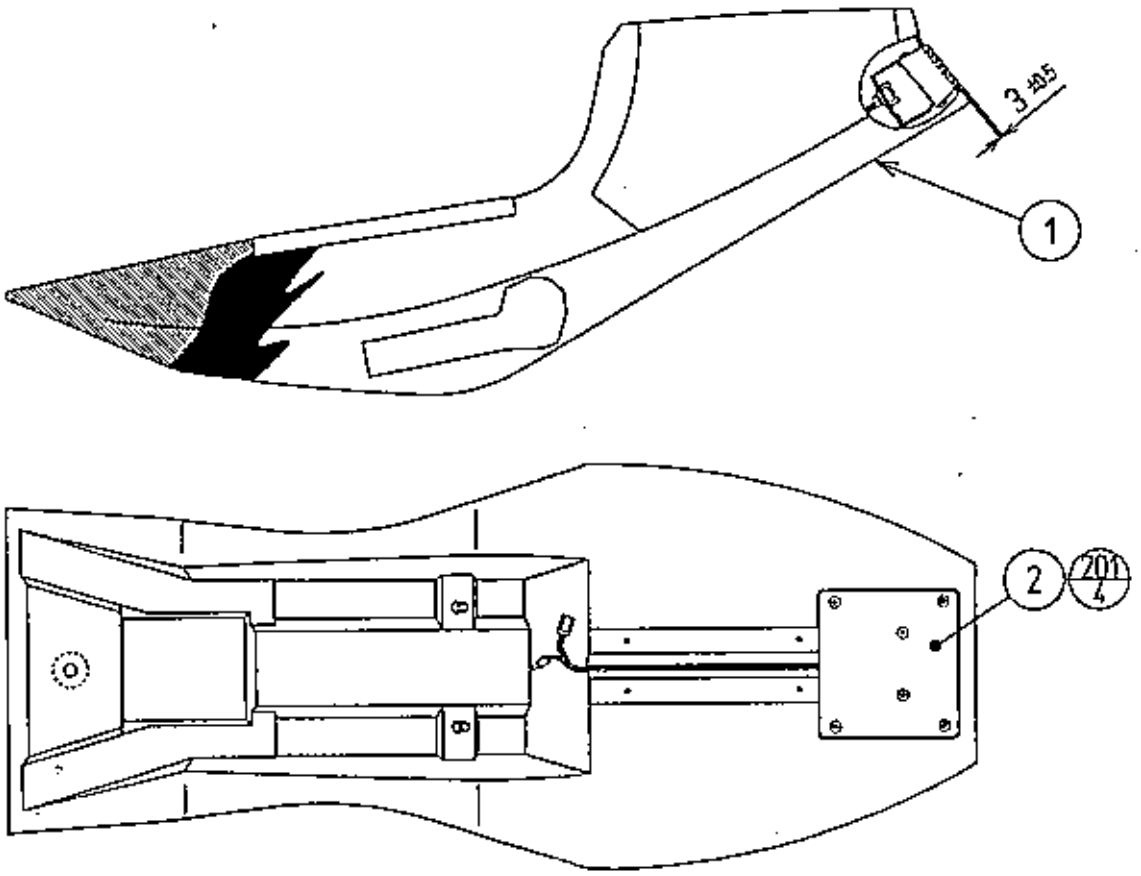
TORQUE
M8:220kgf·cm
M14:800kgf·cm
㉓ 450kgf·cm



㉓ ASSY CENTERING MECHA (TTR-3040) (D-2/2)

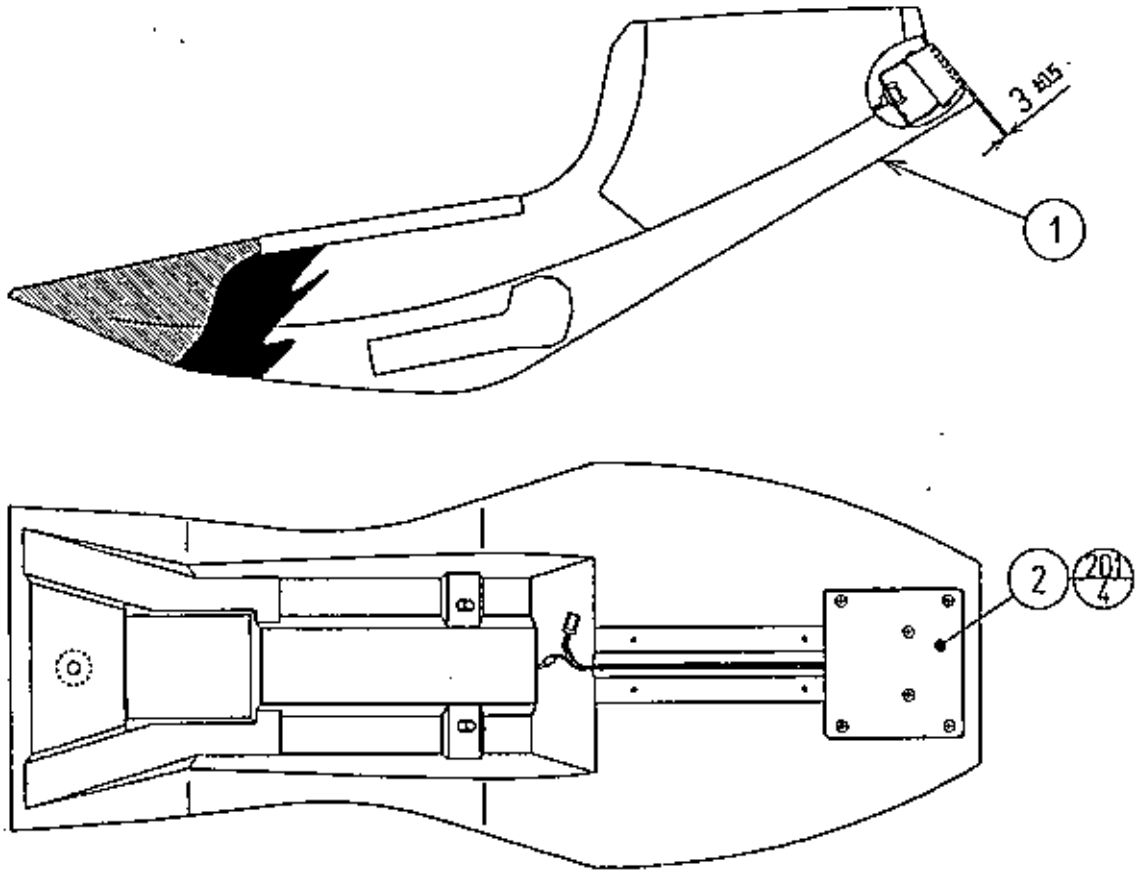
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-3041	CENTERING BASE	
2	TTR-3042	ROSTA BRKT TWIN	
3	TTR-3043	ROSTA MOUNT BRKT	
4	TTR-3044	STOPPER BLOCK	
5	TTR-3045	STOPPER RUBBER	
7	TTR-3047	VR MOUNT BRKT	
8	TTR-3048	VR BRKT	
9	TTR-3202	MOUNT BLOCK	
10	TTR-3203	CENTERING SHAFT	
11	TTR-3205	FLT 14.5-36×3.2	
12	TTR-2009	GEAR HOLDER 80	
13	601-6005	ADJUST GEAR	
14	601-7945	GEAR 20	
15	TTR-3049	SLIDE PLATE	
101	601-8596	ROSTA □22	
102	100-5224	BEARING φ25	
103	220-5484	VOL CONT B-5K OHM	
104	280-5009	CORD CLAMP φ21	
105	280-5008	CORD CLAMP φ15	
106	310-5029-F20	SUMITUBE F F20MM	φ4
107	601-0460	PLASTIC TIE BELT 100MM	
201	050-H01400	HEX NUT M14	
202	060-S01400	SPR WSHR M14	
203	FAS-200007	HEX SKT H CAP SCR BLK OZ M14×70	
204	060-F01400	FLT WSHR M14	
205	030-000820-S	HEX BLT W/S M8×20	
206	060-F00800	FLT WSHR M8	
207	000-P00408-W	M SCR PH W/FS M4×8	
208	050-U00500	U NUT M5	
209	028-C00416-P	SBT SCR CH P M4×16	
210	028-C00308-P	SBT SCR CH P M3×8	
301	600-6659-43	WIRE HARN ANGLE VOL	

㉔ ASSY SEAT VOWL L (TTR-3054)



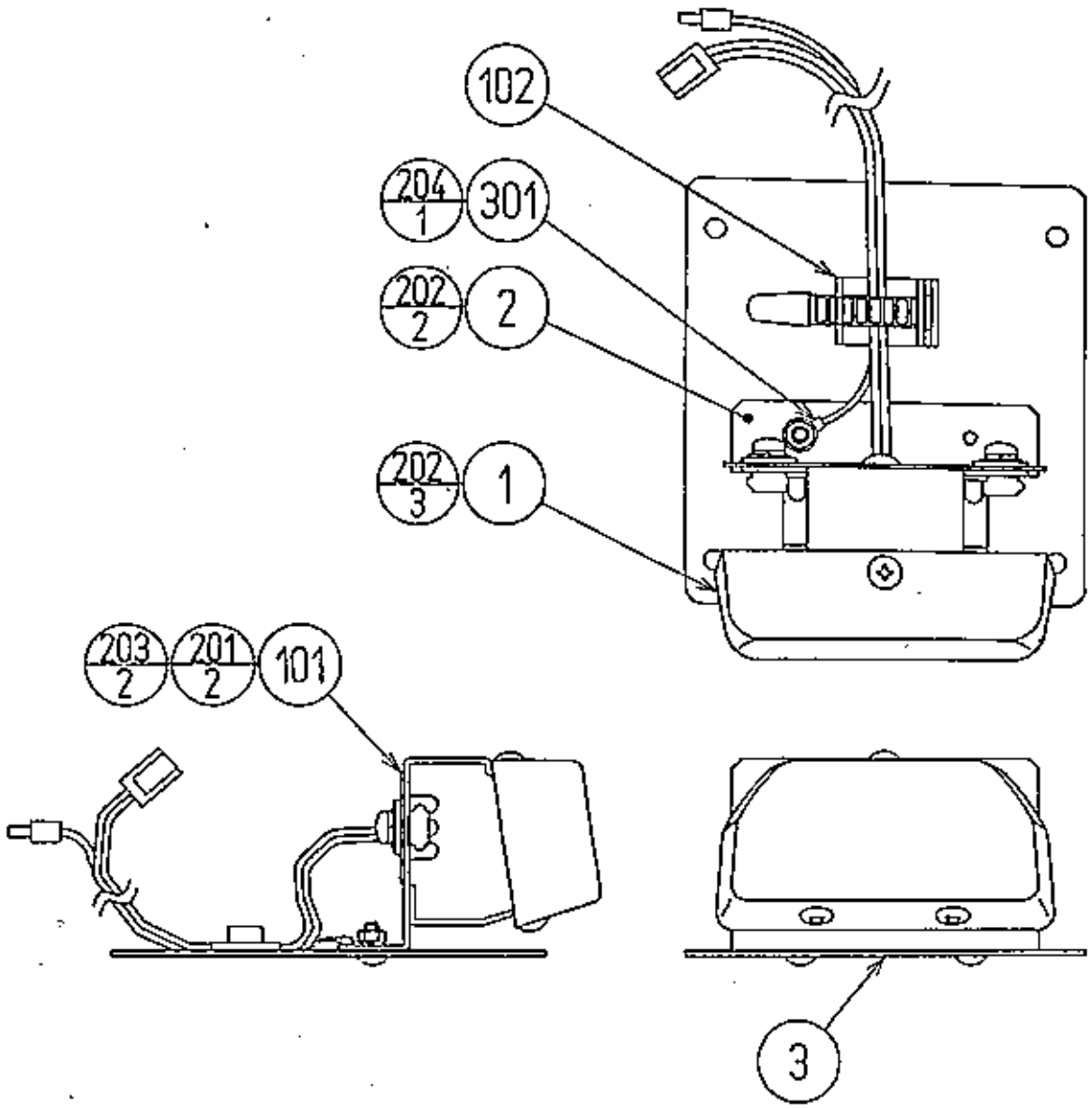
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-3055	SEAT COWL L	
2	TTR-3060	ASSY TAIL LIGHT	
201	FAS-110005	TAP SCR TH CRM M4×12	

㉕ ASSY SEAT COWL R (TTR-3057)



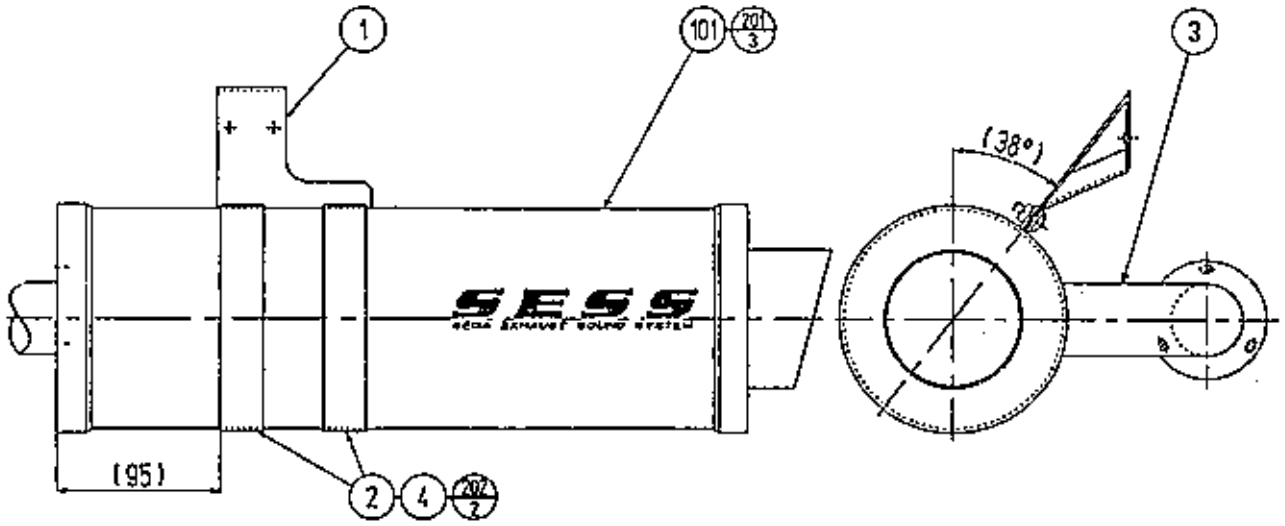
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-3058	SEAT COWL R	
2	TTR-3060	ASSY TAIL LIGHT	
201	PAS-110005	TAP SCR TH CRM M4×12	

㉖ ASSY TAIL LIGHT (TTR-3060)



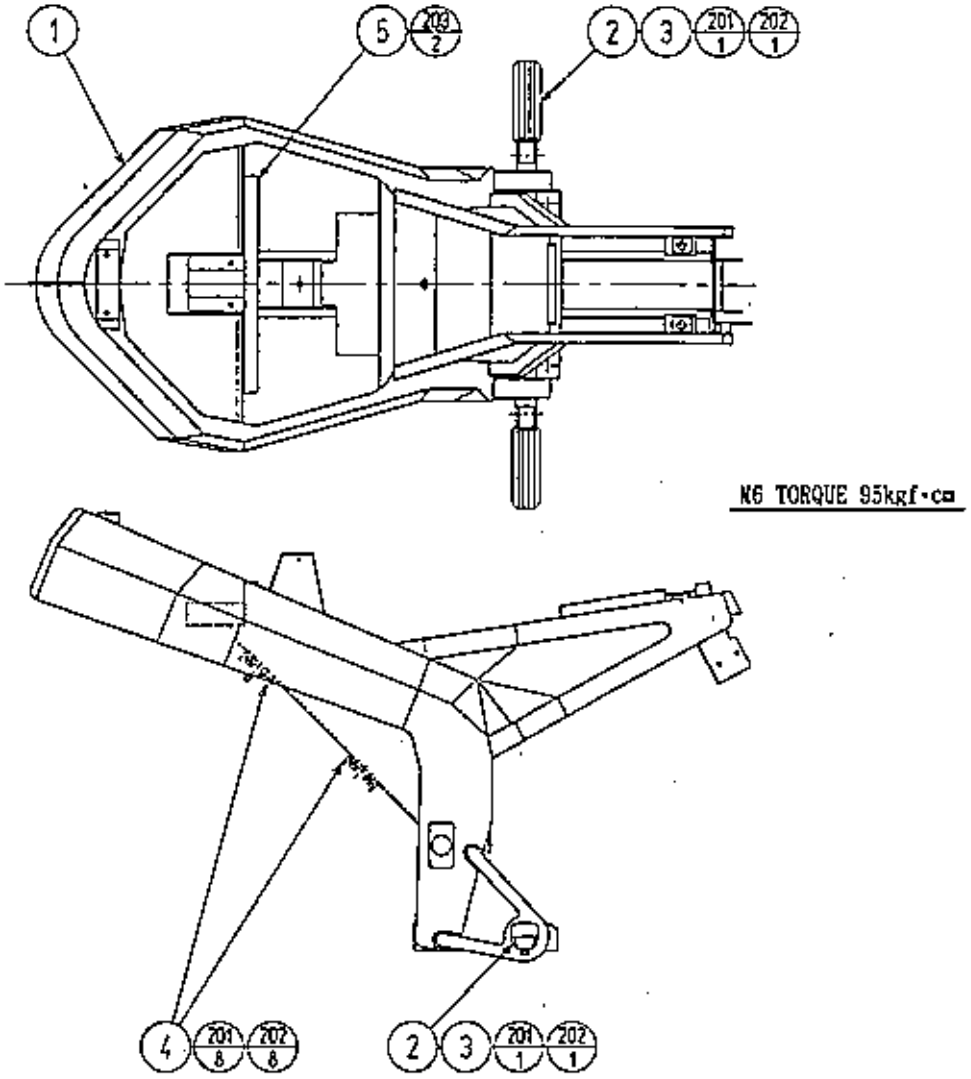
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-3061	LENS	
2	TTR-3062	LED BRKT	
3	TTR-3063	TAIL LID	
101	390-5621	LED BD	
102	280-5008	CORD CLAMP φ15	
201	000-P00514-W	M SCR PH W/PS M5×14	
202	000-T00408-0C	M SCR TH CRM M4×8	
203	PAS-500010	KURATITE NUT M5	
204	050-F00400	FLG NUT M4	
301	600-6659-61	WIRE HARN EARTH TAIL LIGHT	

㉗ ASSY MUFFLER (TTR-3090)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-3091	MOUNT BRKT	
2	TTR-3092	SILENSOR BAND	
3	TTR-3093	CENTER PIPE	
4	TTR-3094	CUSHION RUBBER	
101	130-5147	SPEAKER DUCT WOOFER	
201	FAS-110005	TAP SCR TH CRM M4×12	
202	000-T00616-0C	M SCR TH CRM M6×16	

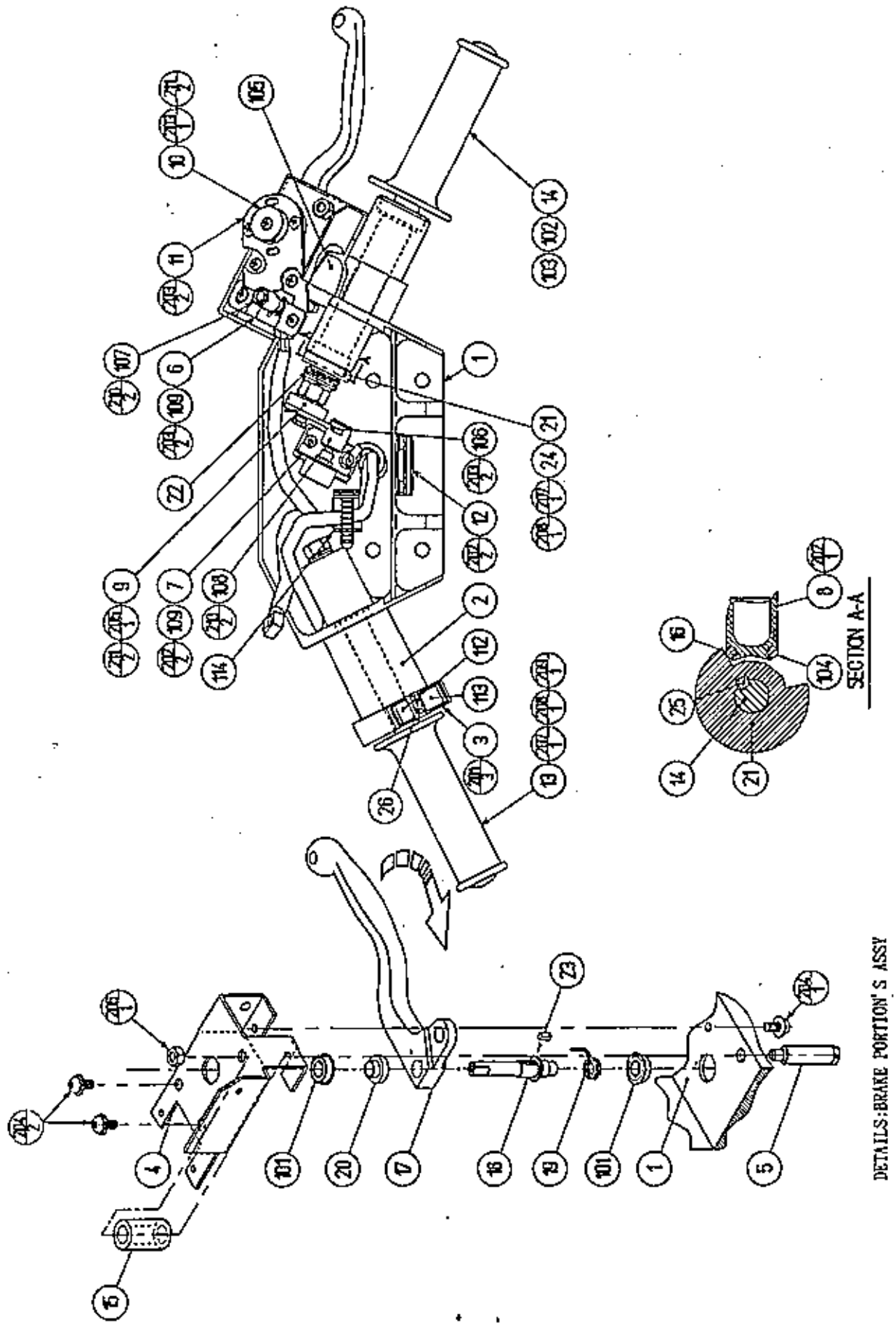
㉘ ASSY BIKE FRAME TWIN (TTR-3095)



ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-3071	BIKE FRAME	
2	TTR-3072	STEP RUBBER	
3	TTR-3073	STEP COLLAR	
4	TTR-3074	SUB MOUNT PLATE	
5	TTR-1507	INNER COVER TWIN	
101	280-5009	CORD CLAMP φ21	
201	030-000620-SB	HEX BLT BLK W/S M6×20	
202	060-F00600	FLT WSHR M6	
203	010-P00408-F	S-TITE SCR PH W/F M4×8	
301	600-6659-41	WIRE HARN BIKE FRAME1	
302	600-6659-57	WIRE HARN EARTH BIKE FRAME	

㉙ ASSY HANDLE MECHA (610-0391)

(D-1/3)



㉙ ASSY HANDLE MECHA (610-0391) (D-2/3)

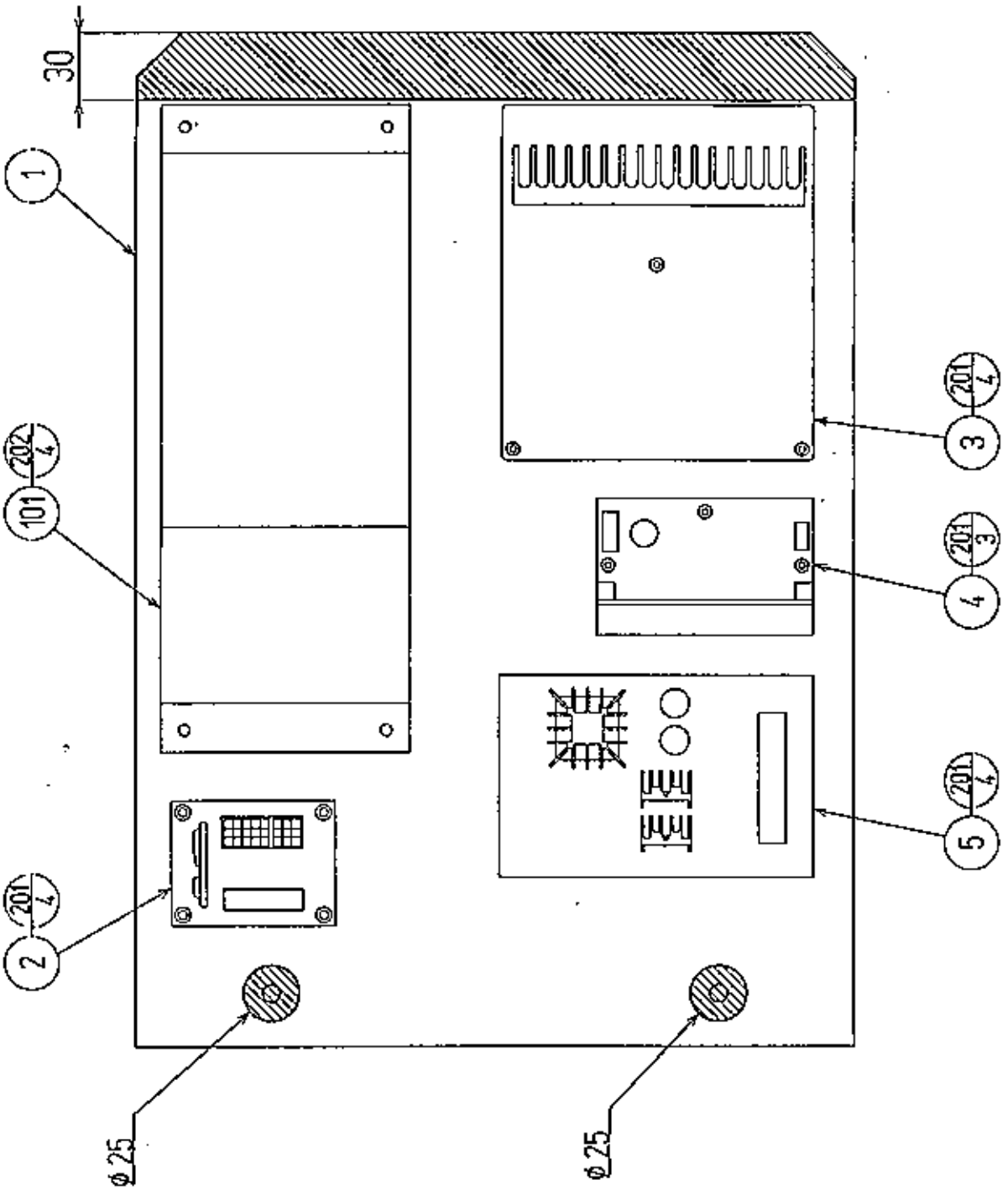
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-2001	HANDLE BASE	
2	TTR-2002	HANDLE LEFT	
3	TTR-2003	SW COVER	
4	TTR-2004	LEVER HOLDER UPPER	
5	TTR-2005	STOPPER SHAFT	
6	TTR-2006	BRAKE VOL BRKT	
7	TTR-2007	ACCEL VOL BRKT	
8	TTR-2008	STOPPER LID	
9	TTR-2009	GEAR HOLDER 80	
10	TTR-2010	GEAR HOLDER 110	
11	TTR-2011	GEAR 110	
12	TTR-2012	COVER HOLDER BRKT	
13	TTR-2013	GRIP L	
14	TTR-2014	GRIP R	
15	TTR-2015	STOPPER RUBBER	
16	TTR-2016	ACCEL STOPPER	
17	COL-2202	BRAKE LEVER	
18	COL-2203	LEVER SHAFT	
19	COL-2204	TORSION SPRING 1.2	
20	COL-2205	LEVER COLLAR	
21	COL-2215	STOPPER DISK	
22	GPD-2009	TORSION SPRING	
23	GLC-2218	KEY 3×3×7	
24	HSD-2017	SPRING HOLDER	
25	HSD-2019	KEY 4×4×12	
26	421-9016	STICKER SHIFT UP/DOWN	
101	100-5041	BEARING (NSK F688ZZ)	
102	100-5111	BEARING φ12 (NSK 6001ZZ)	
103	100-5112	BEARING φ17 (NSK 6003ZZ)	
104	100-5228	BEARING PIN 4×19.8	
105	601-5564	STOPPER	
106	601-6005	ADJUST GEAR	
107	601-7944	GEAR 15	
108	601-7945	GEAR 20	
109	220-5484	VOL CONT B-5KOHM	
110	310-5029-D20	SUMITUBE F D20MM	
111	601-0460	PLASTIC TIE BELT 100MM	
112	509-5724	PUSH BUTTON SW GREEN	
113	509-5725	PUSH BUTTON SW RED	
114	280-5008	CORD CLAMP φ15	
201	000-F00308	M SCR FH M3×8	
202	000-P00408-W	M SCR PH W/FS M4×8	
203	000-P00412-W	M SCR PH W/FS M4×12	
204	000-P00512-W	M SCR PH W/FS M5×12	
205	050-U00500	U NUT M5	
206	050-U00600	U NUT M6	
207	050-H01200	HEX NUT M12	
208	060-S01200	SPR WSHR M12	
209	060-F01200	FLT WSHR M12	
210	028-A00306-P	SET SCR HEX SKT CUP P M3×6	

㉙ ASSY HANDLE MECHA (610-0391) (D-3/3)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
211	028-A00408-P	SBT SCR HEX SKT CUP P M4×8	
301	600-6659-45	WIRE HARN HANDLE UNIT 1	
302	600-6659-52	WIRE HARN HANDLE UNIT 3	
303	600-6659-60	WIRE HARN EARTH HANDLE UNIT	

㉚ ASSY PWR SPLY (TTR-4300)

(0-1/2)

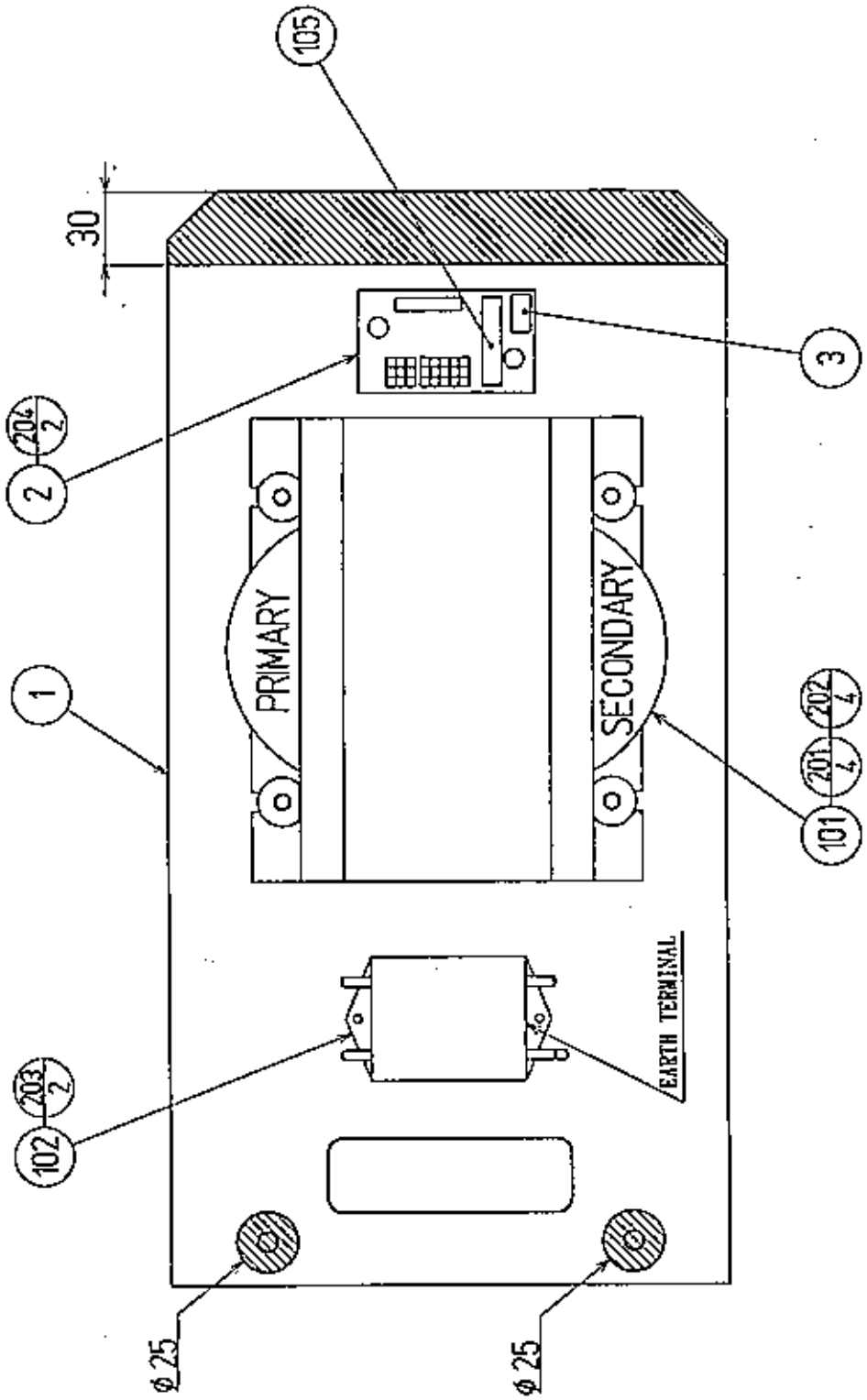


㉚ ASSY PWR SPLY (TTR-4300) (0-2/2)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-4301	PWR SPLY BASE	
2	838-10801-04	CONN BD B W/O FUSE	
3	838-11650-14	EQ. PWR AMP MANX T. T TWIN	
4	838-12280	MONORAL AMP	
	838-12439	MONORAL PWR AMP	
5	839-0451-01	LIGHT CONTROL BD TTR	
101	400-5264-91	SW REGU +5V12A, 12V1.5A, -5V.1A	
	400-5306-01	SW REGU +5V12A, 12V1.5A, -5V.1A	
102	280-5009	CORD CLAMP ϕ21	
103	280-0419	HARNESS LUG	
104	601-0460	PLASTIC TIE BELT 100MM	
201	011-T00325	TAP SCR TH 3×25	
202	011-T00312	TAP SCR TH 3×12	
203	011-F00310	TAP SCR FH 3×10	
301	600-6697-21	WIRE HARN ELEC1	
302	600-6697-22	WIRE HARN ELEC2	
303	600-6697-23	WIRE HARN ELEC3	
304	600-6697-33	WIRE HARN ELEC4	
305	600-6697-34	WIRE HARN ELEC5	

㉛ ASSY ELEC (TTR-4400)

(D-1/2)



㉛ ASSY ELEC (TTR-4400)

(D-2/2)

ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	TTR-4401	ELEC BASE	
2	838-11856-01	CONN BD W/FUSB & COVER	
3	421-6595-11	STICKER 7A	
101	560-5324	PWR XFMR 892VA	
102	270-5026	NOISE FILTER 20A	
103	280-5009	CORD CLAMP φ21	
105	514-5036-7000	FUSE 6.4φ×30 7000mA 125V	
201	000-P00516-W	M SCR PH W/FS M5×16	
202	068-552016	FLT WSHR 5.5-20×1.6	
203	011-T00312	TAP SCR TH 3×12	
204	011-T00325	TAP SCR TH 3×25	
205	011-F00310	TAP SCR FH 3×10	
301	600-6697-02	WIRE HARN PWR SPLY1	
302	600-6697-03	WIRE HARN PWR SPLY2	
303	600-6697-04	WIRE HARN PWR SPLY3	
304	600-6697-05	WIRE HARN PWR SPLY4	
305	600-6697-06	WIRE HARN PWR SPLY5	

20. WIRE COLOR CODE TABLE

THE WIRE COLOR CODE is as follow:

A	PINK
B	SKY BLUE
C	BROWN
D	PURPLE
E	LIGHT GREEN

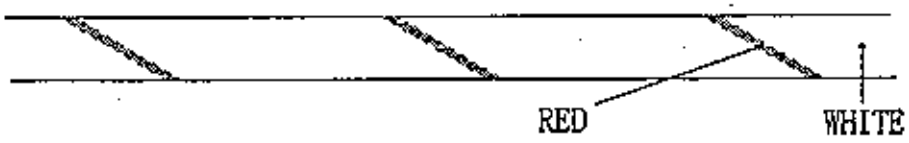
Wires other than those of any of the above 5 single colors will be displayed by 2 alphanumeric characters.

1	RED
2	BLUE
3	YELLOW
4	GREEN
5	WHITE
7	ORANGE
8	BLACK
9	GRAY

If the right-hand side numeral of the code is 0, then the wire will be of a single color shown by the left-hand side numeral (see the above).

Note 1: If the right-hand side alphanumeric is not 0, that particular wire has a spiral color code. The left-hand side character shows the base color and the right-hand side one, the spiral color.

<Example> 51 ····· WHITE / RED



Note 2: The character following the wire color code indicates the size of the wire.

K:	AWG18, UL1015
L:	AWG20, UL1007
None:	AWG22, UL1007