

# TABLE OF CONTENTS

INTRODUCTION OF THE OWNER'S MANUAL

\_

1.	HANDLING PRECAUTIONS	1
2.	PREVENTION OF COUNTERFEITING AND CONVERSION	3
3.	PRECAUTIONS CONCERNING THE PLACE OF INSTALLATION	4
4.	INSTALLATION PRECAUTIONS AND MOVING THE MACHINE	5
5.	NAME OF PARTS	6
	DISASSEMBLING ·····	7
7.	AC UNIT ·····	8
8.	GAME POSITION ADJUSTMENTS	9
9.	STEERING HANDLE VR ADJUSTMENTS	10
10.	REMOVING THE SHIFT UNIT AND REPLACING THE SWITCHES	12
11.	REMOVING THE ACCELERATOR/BRAKE UNIT AND ADJUSTING THE VR	15
12.	AIR DRIVE SYSTEM	16
	A. OUTLINE OF THE AIR DRIVE SYSTEM	16
	B. COMPONENTS OF THE AIR DRIVE SYSTEM	16
	C. REMOVING THE COMPRESSOR UNIT	20
	D. REPOSITIONING OF THE BELT	22
	E. REPLENISHMENT OF THE COMPRESSOR OIL	23
	F. DRAINING WATER FROM THE FILTER	24
	G. CHANGING THE SET PRESSURE	25
	H. ADJUSTMENT IN TURNING THE SEAT	27
	I. ADJUSTMENTS IN MOVING THE SEAT UPWARD AND DOWNWARD	28
13.	ADJUSTMENT OF THE INFRARED SENSORS	30
14.	REPLACEMENT OF THE BILLBOARD LAMP	31
15.	REPLACEMENT OF THE FAN MOTOR BRUSH	32
16.	HANDLING THE FRESNEL LENS	33
17.	TEST MODE	35
18.	DESCRIPTION OF 26 INCH MONITOR	44
19.	SERVICE SWITCHES	45
20.	DIP SWITCH SETTING	46
21.	ROM LOCATIONS	47
22.	PARTS LIST	49
23.	PIPING DIAGRAM	77
24.	WIRING DIAGRAM ·····	78 · 79

	SPECIFICATIONS
<ul> <li>INSTALLATION SPACE</li> <li>HEIGHT</li> <li>POWER</li> <li>C. R. T</li> <li>WEIGHT</li> </ul>	<ul> <li>2160 mm (85 in) (D) × 1070 mm (42.1 in) (W)</li> <li>1550 mm (61 in)</li> <li>630 W</li> <li>26 INCH</li> <li>350 kg (772 lbs.)</li> </ul>

# NOTE :

7

Descriptions herin contained may be subject to improvement changes without notice.

## INTRODUCTION OF THE OWNER'S MANUAL

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

# **1. HANDLING PRECAUTIONS**

When turning the power ON, pay attention to the following points:

Since the power consumption of this game averages 630W and is approximately 1,300W at the maximum, plug in only one machine per wall socket box. The outlet used should have a capacity exceeding 15A for the 100-120V areas and 7A for the 200-240V areas.

When the power supplied is insufficient, the unit will function in an unstable manner and cause machine trouble, so be careful of this point.

Also, avoid using an extension cable as much as possible, and when in an unavoidable circumstance one is utilized, it should have a capacity which exceeds 20A for the 100-120V areas and 10A for the 200-240V areas. Also, pay attention to the fact that the rated current of the cord reel type extension cable indicates the current in the condition when the cable is fully unwound from the reel.

A single AC motor is used for the machine's compressor drive and its revolution differs depending on the frequency. Change the pulley to correct the revolution to the specified value.

As viewed from the motor unit, use the outside pulley for 60 Hz and the inside one for 50 Hz (refer to the Items, Explanation of AIR DRIVE SYSTEM, and Repositioning of the belt). Check to see that the machines' specifications indicated on the cabinet's front door and power cord are identical with those of the place of installation's power supply.

-1-

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

o Be sure to turn the power off before working on the machine.o To insert or pull out the plug quickly is dangerous.

- It is necessary to make sure that the power cord or the grounding wire is not exposed on the road, etc. in a manner so as to be dangerous. Make sure that grounding connections are made safely at the position where so specified.
- O Do not use any fuse that does not meet the specified rating.O Make complete connections for the IC board and other connecters. Insufficient insertion is very dangerous.

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

# **PERIODICAL SERVICING & INSPECTION**

- O Check the contents of the compressor's oil tank each month.
- O Drain water from the filter once a month.
- O Replace the tire (AIR TANK) once every two (2) years.

Be sure to follow the PRECAUTIONS for handling, installation, place of installation, counterfeiting and periodical inspection.

# 2. PREVENTION OF COUNTERFEITING AND CONVERSION

# LABELLING

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

# ORIGINAL SEAL

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

# LICENSE SEAL

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





# **COPYRIGHT NOTICE**

This SEGA product has the copyright notice as follows:

© SEGA 1989

This signifies that this work was disclosed in 1989 and is the property of SEGA ENTERPRISES, LTD.

# 3. PRECAUTIONS CONCERNING THE PLACE OF INSTALLATION

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

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

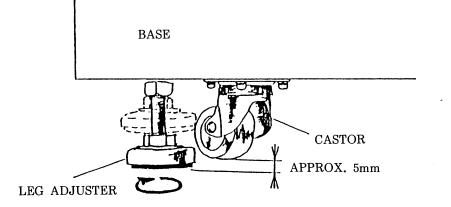
# 4. INSTALLATION PRECAUTIONS AND MOVING THE MACHINE

# INSTALLATION PRECAUTIONS

The machine is equipped with 7 casters (4 front and 3 rear) and 8 leg adjusters (4 each, front and rear). When the installation position is determined, make an adjustment by providing approximately a 5 mm gap between the floor level and the castors, so that the machine will be kept in a level position. An insufficient gap may cause the machine to move during game play and result in a dangerous situation.

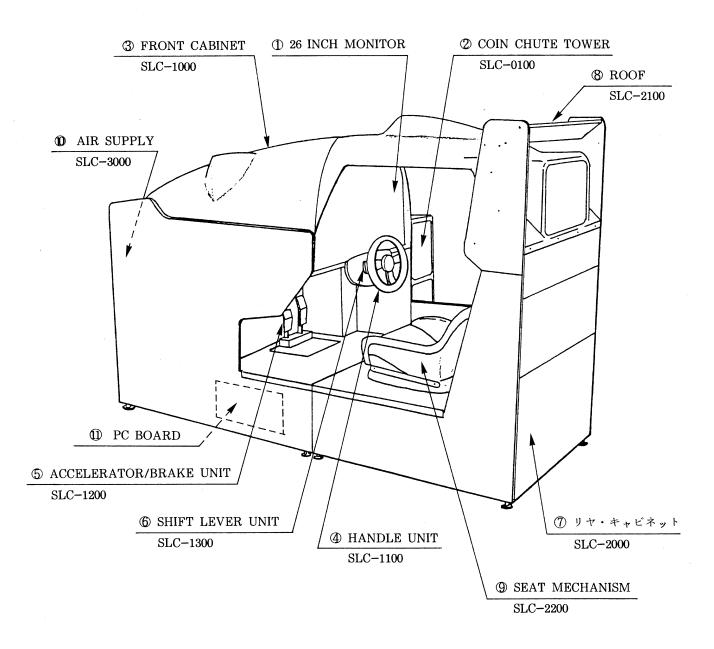
#### MOVING THE MACHINE

The machine weighs approximately 350 kg. (772 lbs.), therefore, when moving it on the floor, lift the leg adjusters.



-5-

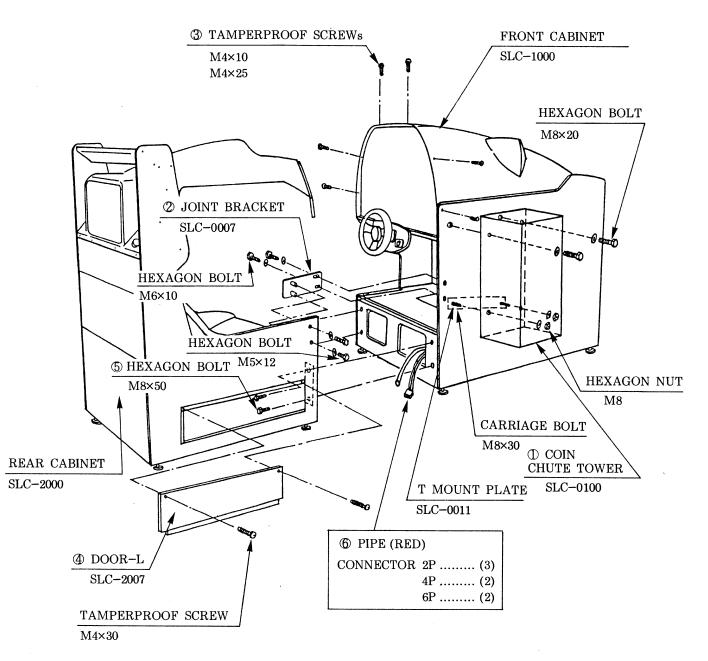
# 5. NAME OF PARTS



	26 INCH MONITOR	
(Ż)	COIN CHUTE TOWER	COIN INLET
(Ĵ)	FRONT CABINET	
<b>(4)</b>	HANDLE UNIT	Operates the machine.
(5)	ACCELERATOR/BRAKE UNIT	Controls the machine speed.
(Ē)	SHIFT LEVER UNIT	Allows for gear shifts so as to
(])	REAR CABINET	meet the engine revolutions.
( <u>8</u> )	ROOF	
( <u>9</u> )	SEAT MECHANISM	Moves the seat.
(i)	AIR SUPPLY	Controls the HANDLE and the SEAT.
(1)	PC BOARD	

# 6. DISASSEMBLING

- (1) Remove the COIN CHUTE TOWER (SLC-0100) from the FRONT CABINET (SLC-1000).
- (2) Remove the JOINT BRACKET (SLC-0007) which links the FRONT and REAR CABINETS.
- (3) Take off the TAMPERPROOF SCREWS (M4 x 10, M4 x 25) which connect the FRONT and REAR COWLS.
- (4) Remove DOOR-L (SLC-2007), one each on both sides of the REAR CABINET.
- (5) Remove the 4 HEXAGON BOLTS (M8 x 50) which link the FRONT and REAR CABINETS.



-7-

# 7. AC UNIT

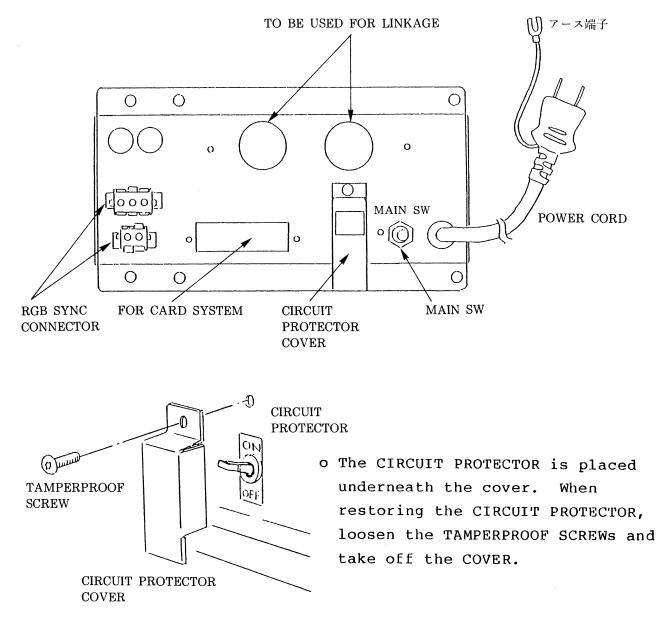
MAIN SWITCH

Turning the MAIN SW ON results in a state of STANDBY.

CIRCUIT PROTECTOR

Subjecting the machine to an excessive load causes the circuit breaker to function and the movements of the parts to stop.

First remove the cause of such malfunction and then restore the CIRCUIT PROTECTOR back to its original state.

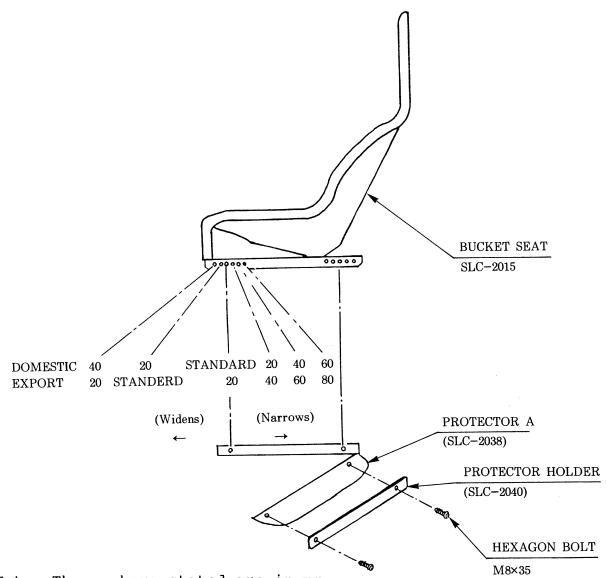


-8-

# 8. GAME POSITION ADJUSTMENTS

To move the seat position, follow the procedure below:

- PROCEDURE 1. The seat is secured by a total of four HEXAGON BOLTS (M8 x 35), 2 each applied to both sides as shown. First, remove the 4 BOLTS (M8 x 35) and the 2 PROTECTOR HOLDERS (SLC-2040).
  - The seat can be adjusted in 5 positions (forward/backward).



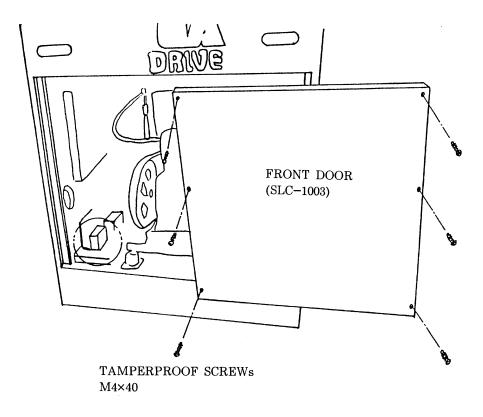
Note: The numbers stated are in mm.

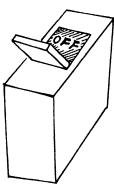
# 9. STEERING HANDLE VR ADJUSTMENTS

The VR adjustments can be made by taking off the 6 TAMPERPROOF SCREWS (M4 x 40) and removing the FRONT DOOR (SLC-1003). When taking off the door, simultaneously disconnect the FAN MOTOR'S 3P CONNECTOR.

#### - CAUTION -

Before adjusting the VR, be sure to turn the BREAKER SW OFF. After making the adjustments, turn the power OFF when turning the BREAKER SW back ON again.





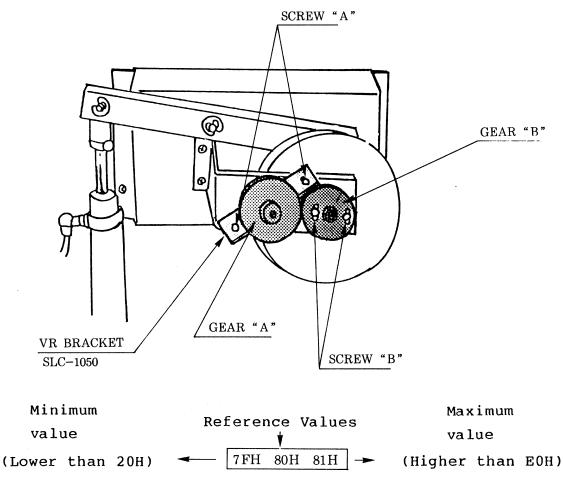
BREAKER

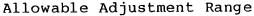
VR adjustments will be made in the TEST MODE'S INPUT TEST screen.

- (1) Loosen the 2 SCREWS "A" (M4 x 8) of the VR BRACKET (SLC-1050), turn GEAR "A", and make sure that the on-screen numerical value becomes approximately 80H. When loosening the screws, adjust the gear backlash.
- (2) Next, loosen the NUT (M6) and 2 SCREWS "B" (M4 x 8) which secure GEAR "B", turn GEAR "B" and make fine adjustments to 80H+1.

#### - CAUTION -

After making the VR adjustments, be certain to turn the power OFF before turning the BREAKER SW ON.

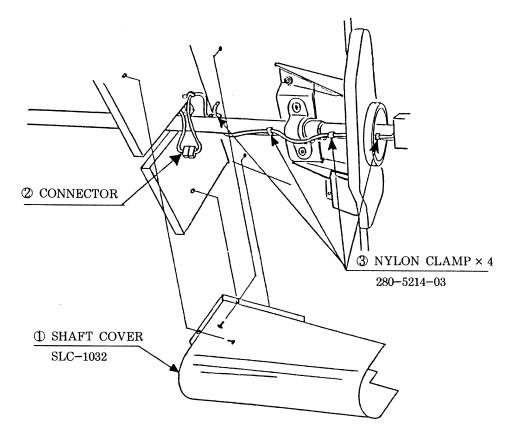




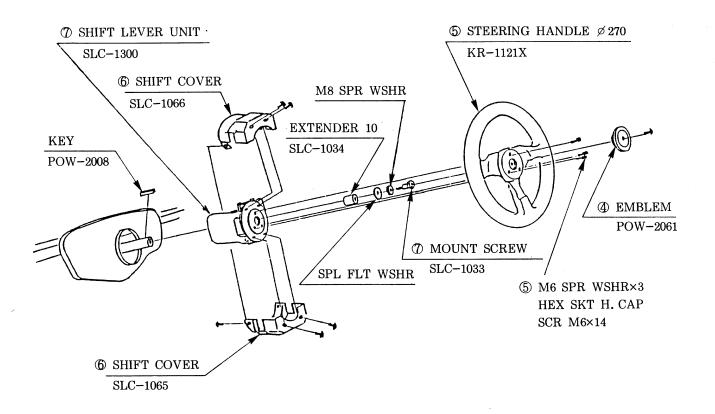
# 10. REMOVING THE SHIFT UNIT AND REPLACING THE SWITCHES

REMOVING THE SHIFT UNIT

- (1) First remove the SHIFT COVER (SLC-1032) by taking off the four M4 TAMPERPROOF SCREWs.
- 2 Pull out the wires (gray) from the CABINET's inside and disconnect the CONNECTOR (brown 3P).
- (3) Release the 4 NYLON CLAMPs (280-5124-03) which secure the wires, by taking off the 4 screws.



- (4 Take off the EMBLEM (POW-2061) by taking out the M4 TAMPERPROOF SCREW.
- (5) Remove the STEERING HANDLE (KR-1121Y) by taking off the three M6 CAP SCREWs.
- (6) Remove the two SHIFT COVERs (SLC-1065, SLC-1066) by taking off the two M4 TAMPERPROOF SCREWs and the four M4 FLAT SCREWs.
- (7) Remove the MOUNT SCREW (SLC-1033) and take out the SHIFT LEVER UNIT (SLC-1300).

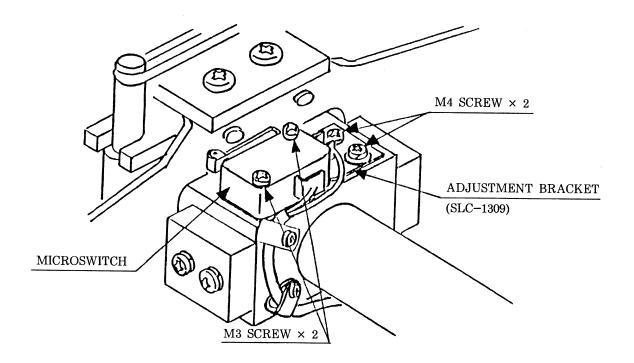


#### -CAUTION -

THE STEERING HANDLE portion tends to be subject to great shock, causing the screws to easily become loose, therefore, be sure to securely tighten them. When installing the STEERING HANDLE, fasten the three M6 CAP SCREWS by applying a 180 kgf · cm.

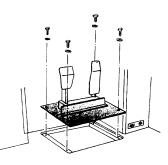
#### REPLACING THE MICROSWITCH

- (1) Remove the SHIFT COVER (SLC-1065, SLC-1066) in the same manner as when taking out the SHIFT LEVER UNIT.
- 2 The MICROSWITCHes can be taken out by removing the wire's soldering and taking off the two M3 SCREWs from each MICROSWITCH.
- 3) The MICROSWITCH's fine adjustments can be made by loosening the two M4 SCREWs and moving the ADJUSTMENT BRACKET (SLC-1309).



# 11. REMOVING THE ACCELERATOR / BRAKE UNIT AND ADJUSTING THE VR

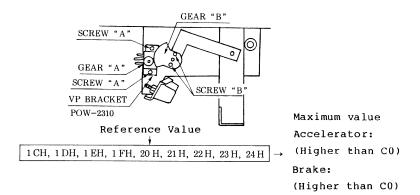
The ACCELERATOR/BRAKE UNIT can be removed from the cabinet floor by taking off the four HEXAGON BOLTS (M8  $\times$  25).



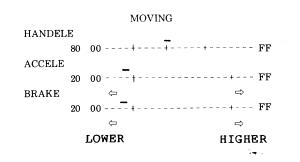
Adjusting the Accelerator/Brake

Perform the numerical adjustments in the test mode's INPUT TEST screen.

- 1) Loosen SCREW "A" of the VR BRACKET (POW-2310), turn GEAR "A", and make sure that the on-screen numerical value becomes approximately 20H. When fastening the screws, adjust the gear backlash.
- $(\widehat{2})$  Next, loosen SCREW  $\mathring{B}''_{\!\!\!}$  turn GEAR "B" and make fine adjustments to 20H+4.



 $(\bar{3})$  Also, apart from the numerical values, adjustments can be made by means of the CURSOR. When the accelerator and the brake are released, if the on-screen CURSOR is in a position lower than the plus range, or when they are fully applied, if it is in a position higher than the plus range, then, the adjustments are considered satisfactory.



-15-

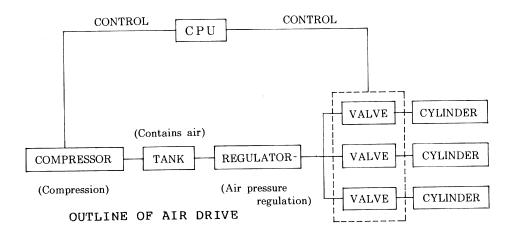
#### **12. AIR DRIVE SYSTEM**

#### A. OUTLINE OF THE AIR DRIVE SYSTEM

In the previous simulator type games, the cabinets were driven by a rotating force resulting from the revolution of an electrically operated motor via various mechanisms. However, in this machine, the newly developed AIR DRIVE SYSTEM, in which compressed air drives the cabinet, is adopted.

In this system, the air compressed by the compressor is stored in a tank, and releasing it or stopping it from being released by means of an electromagnetic valve controlled by the CPU causes the actuator (air cylinders in the case of this machine) to operate and drive the cabinet.

The compressed air utilized in this machine allows for a very quick response which can not be expected of electrically operated machines. In addition to the above quick response, the system enables colorful expressions to be realized by controlling the compressed air pressure and flow.



#### B. COMPONENTS OF THE AIR DRIVE SYSTEM

The AIR DRIVE SYSTEM is comprised of the following component equipment:

(1) COMPRESSOR UNIT

This is the unit which compresses air by turning the COMPRESSOR through the use of an AC MOTOR.

(2) AIR TANK

Stores the air compressed by the COMPRESSOR. In this machine, a truck tire which was specially fabricated for this purpose is utilized.

-16-

#### (3) SUBDRIVER UNIT

This protects the COMPRESSOR'S AC MOTOR by causing the current to be ON/OFF via an SSR (SOLID STATE RELAY) and also safeguards against an overcurrent by means of a breaker.

#### (4) FILTER

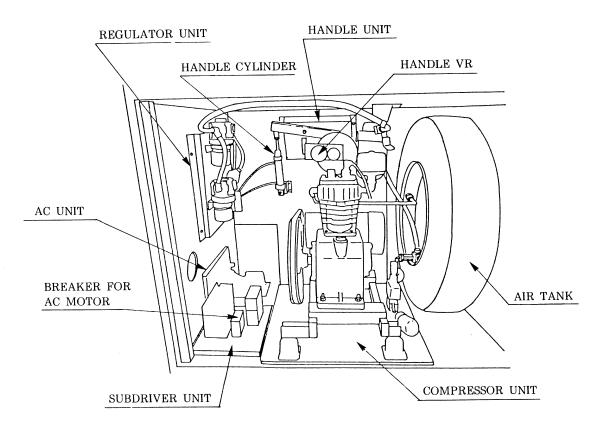
Protects valves and cylinders by filtering the dust particles and water content in the compressed air.

#### (5) REGULATOR UNIT

This regulates the compressed air in the tank (the primary side) to the set pressure (the secondary side). There are two regulators, each with both high and low pressure settings. Also, provided are the 3-port valve which changes to high pressure from low pressure or vice versa, and the 4-port valve for the handle cylinder.

#### (6) DRIVE BOARD

This board controls the entire AIR DRIVE SYSTEM by causing the COMPRESSOR to turn depending on the pressure inside the tank and each valve to open/close by transmitting signals in a manner that matches how the game play is proceeding, etc.



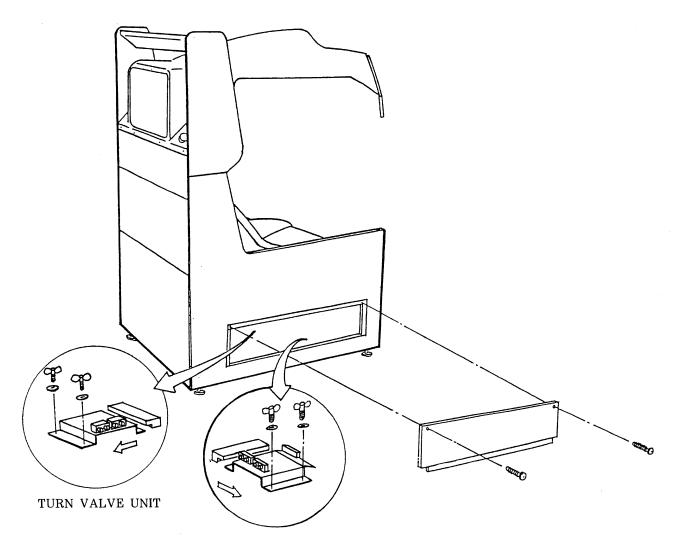
-17-

# $(\overline{7})$ TURN VALVE UNIT

This has a 4-PORT VALVE and a SPEED CONTROLLER (each one of them being provided for the left and right turns respectively) for the CYLINDER which causes the seat to turn.

(8) LIFT VALVE UNIT

This is equipped with two 4-port valves for the cylinder which moves the seat up and down, two SPEED CONTROLLERs used for low speed and two 2-port valves (for bypassing) used for high speed.



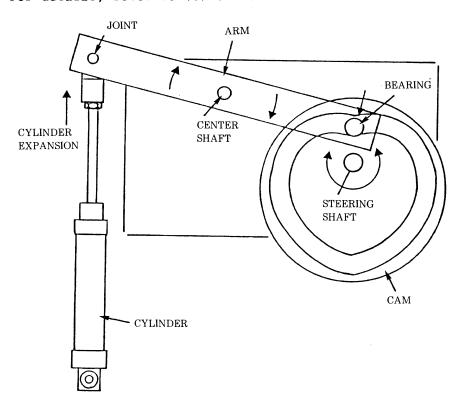
LIFT VALVE UNIT

#### (9) STEERING WHEEL CENTERING MECHANISM

Through the use of an AIR CYLINDER in the STEERING WHEEL mechanism, this machine allows the player to enjoy the simulated feel of driving an actual car.

The centering mechanism is comprised of the CAM attached to the steering shaft, AIR CYLINDER, and the ARM which joins the AIR CYLINDER and CAM. Normally, low pressure is applied when centering. As compressed air enters the CYLINDER, the JOINT is lifted. This force, with the CENTER SHAFT working as a fulcrum, will cause the BEARING to be pressed downward. At this time, the CAM starts to turn, causing the BEARING to come closer to the STEERING SHAFT. The centering position is where the CAM's groove is closest to the STEERING SHAFT. With the pressure being applied, the centering action takes place.

Similarly, with the steering wheel turned to a certain direction, the high pressure being applied to the CYLINDER will result in various movements. As mentioned above, 2 different kinds of air pressure, i.e., low (for centering) and high is utilized in the STEERING MECHANISM'S AIR CYLINDER. Also, the AIR PRESSURE can be regulated by using a regulator.



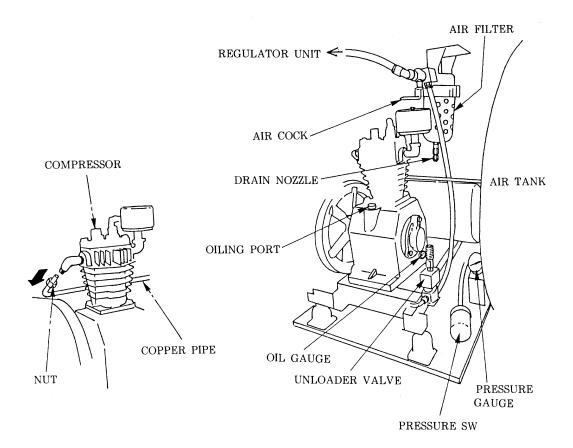
For details, refer to (G) CHANGING THE SET PRESSURE.

-19-

## C. REMOVING THE COMPRESSOR UNIT

**DANGER!** Before removing the COMPRESSOR UNIT, be sure to turn the power OFF and confirm that the COMPRESSOR has cooled off.

- (1) Take off the six TAMPERPROOF SCREWs and open the CABINET's FRONT DOOR.
- $(\widehat{2})$  Press the AIR FILTER'S DRAIN NOZZLE by hand and extract the air contained in the AIR TANK until the pressure gauge is at 0 kgf/cm<sup>2</sup>.
  - $(\bar{3}$  Take off the nut from the air outlet on the upper part of the COMPRESSOR, and pull out the copper pipe (the temperature of this pipe may sometimes be very high, so pay careful attention to this point).
  - (4) Disconnect the CONNECTORs in the vicinity of the COMPRESSOR (Blue 3PX1, Green 3PX1, Red 2PX1).
  - $(\bar{5})$  Remove the AIR TUBEs (transparent, X3), one each for the PRESSURE SW, PRESSURE GAUGE, and UNLOADER VALVE.

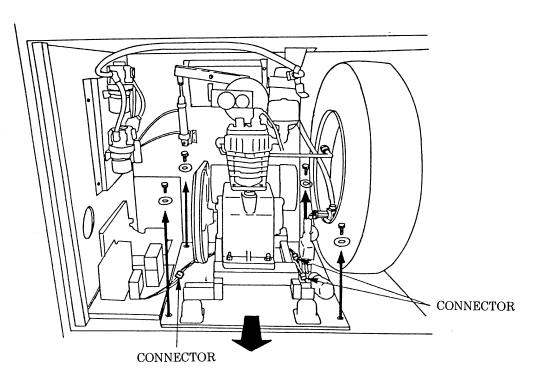


-20-

- (6) Take off the 4 BOLTs which secure tha plywood and remove the COMPRESSOR UNIT.
- (7) Reinstall the COMPRESSOR UNIT in the procedure opposite to that used when it was disassembled.
- (8) After the installation, turn the power ON, run the machine for a while and confirm that there is no air leakage from the joints, etc. (if there is any air leakage, the CPU may cause the COMPRESSOR to stop operating).
- $(\hat{9})$  When installing the FRONT DOOR, make sure that its fan is turning.

#### - CAUTION! -

If the fan is not turning, the machine's interior may become very hot and cause some malfunctioning to occur.



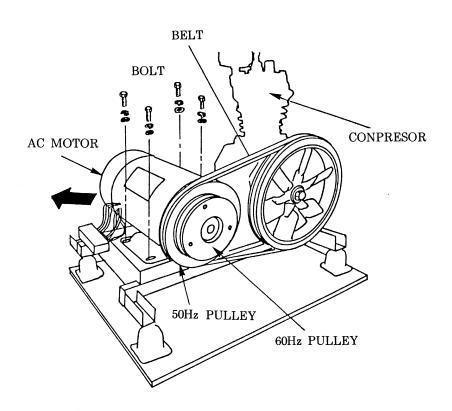
#### - CAUTION! -

An extreme incline of the COMPRESSOR or dropping it down on its side may cause the oil in the COMPRESSOR to leak out.

#### D. REPOSITIONING OF THE BELT

- (1) Remove the COMPRESSOR UNIT (refer to REMOVING THE COMPRESSOR UNIT).
- (2) Take off the four BOLTs which secure the AC MOTOR.
- $(\widehat{3})$  In the case of 50 Hz, put the belt on the larger pulley, and for 60 Hz, on the smaller pulley.
- (4) There are two sets of holes for the AC MOTOR, each set of holes matching the pulley to be used. Therefore, by utilizing the correct holes which allow the belt to be put on properly, firmly secure the AC MOTOR with 4 BOLTS.

Position the belt on the AC MOTOR's pulley in a manner so that the COMPRESSOR and the pulley correctly align and the belt slightly slackens when pushed by your finger.



-22-

#### E. REPLENISHMENT OF THE COMPRESSOR OIL

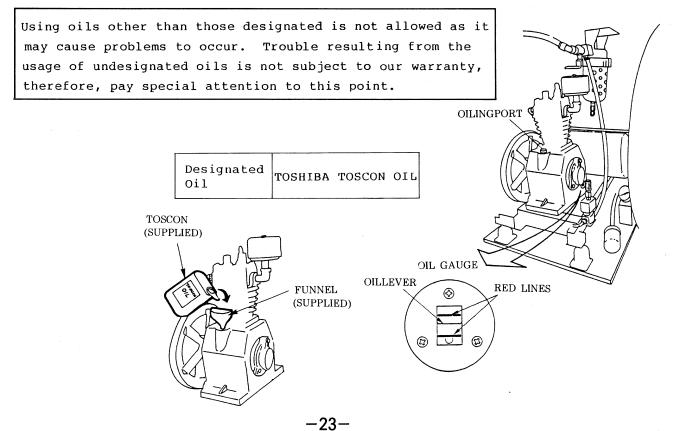
This machine uses an oil type COMPRESSOR and as such, the oil content should be checked periodically (approximately once a month) and replenished if it has decreased.

- CAUTION! -

Operating the COMPRESSOR without oiling may cause it to seize up and result in damage.

- (1) Take off the 6 TAMPERPROOF SCREWs and open the cabinet's FRONT DOOR.
- (2) Ascertain the oil content by looking at the oil gauge on the side of the COMPRESSOR (using a flashlight, etc. will enable you to easily check it). If the level is in between the two red lines of the oil gauge, then it is satisfactory. Replenish the supplied oil immediately if the oil level is below the lower red line or when it can not be seen at all.
- (3) When replenishing the designated oil, be sure it is done from the oiling port on the front of the COMPRESSOR by using the supplied funnel. Pay careful attention so that the oil does not go beyond the upper red line.
  Note that when replenishing, it is unnecessary to extract the oil remaining inside the COMPRESSOR.

- CAUTION! -

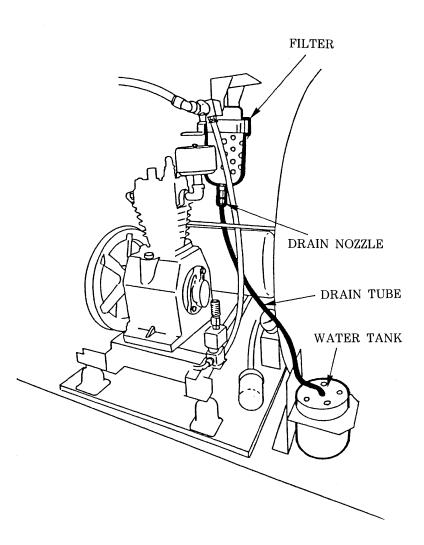


#### F. DRAINING WATER FROM THE FILTER

In order to filter the dust and water content which are compressed together with air, a filter is equipped. When the water contained in the filter exceeds a certain quantity level, it automatically drains into the water tank and should be disposed of. The water accumulated in the FILTER will be extracted from the NOZZLE TUBE's tip into the water tank when you push the DRAIN NOZZLE with your finger. At this time, the water and the compressed air will spout out, so pay careful attention to this point.

#### - CAUTION! -

The temperature at the upper part of the COMPRESSOR may become very high, so proceed very cautiously when performing any work on it.



#### G. CHANGING THE SET PRESSURE

This machine provides each cylinder with air by regulating the COMPRESSED AIR in the TANK (the primary side) to a given pressure. Therefore, by changing the REGULATOR's set pressure, the force acting on the CYLINDER can be increased or decreased.

- $(\underline{1})$  Take off the six TAMPERPROOF SCREWs and remove the CABINET's FRONT DOOR.
- (2) Pull the knob at the lower part of the REGULATOR downward until a clicking sound is heard.
- (3) Turn the knob to the right or left to increase or decrease the set pressure. When doing so, watch the REGULATOR's PRESSURE GAUGE. Of the two REGULATORs, the lower REGULATOR sets the low pressure side pressure and the upper REGULATOR, the high pressure side pressure. Depending on the low/high pressure setting, there are variations as shown in the following table:

HIGH PRESSURE SIDE REGULATOR PRESSURE CHANGE VALVE

STANDARD SET PRESSURE : LOW PRESSURE SIDE 2.0kg/cm<sup>2</sup> HIGH PRESSURE SIDE 4.5kg/cm<sup>2</sup>

LOW PRESSURE SIDE REGULATOR HANDLE VALVE

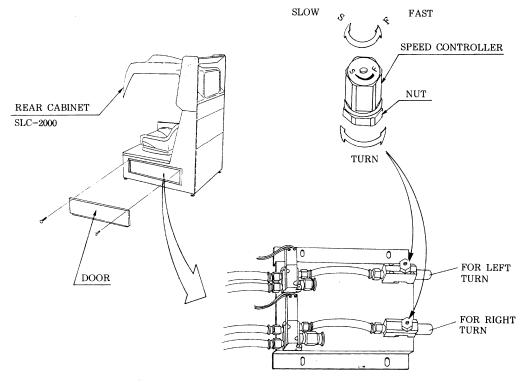
	Changing Items
Low Pressure Side	o Handle's basic (light) heaviness
	o Heaviness when the handle feels heavy.
High Pressure Side	o Strength needed to turn the seat to the
	right or left.
	o Strength needed when lifting up the seat.

- \* PRESSURE SETTING PRECAUTIONS
  - o When setting the pressure, if the pressure inside the tank is insufficient, the REGULATOR'S PRESSURE GAUGE will not indicate the set value correctly.
  - o When the high pressure side set value is changed, the three items will change at the same time, and each one can not be separately set.
- o When setting the pressure higher, each item will have a heavy feel and become stronger, and when setting the pressure lower, each item will have a light feel and become less strong.
- o The primary pressure in the tank varies at a range of 5.5 kgf/cm<sup>2</sup>, 6.5 kgf/cm<sup>2</sup>. Therefore, even if the set pressure is increased to higher than 5.5 kgf/cm<sup>2</sup>, the pressure will vary in accordance with the primary pressure in the tank, and as such, you should set the pressure to 5.5 kgf/cm<sup>2</sup> or lower.

#### H. ADJUSTMENT IN TURNING THE SEAT

In this machine, the seat turns to the left or the right due to the combination of the two AIR CYLINDERs' expansion and contraction. The CYLINDERs' expansion and contraction speed is determined by choking the cylinder's exhaust through the use of a speed controller independently used for each cylinder. Therefore, the CYLINDERs' expansion and contraction can be changed by varying the choking of the speed controllers in the following procedure:

- $(\dot{\mathbf{l}})$  Display the AIR DRIVE TEST screen on the monitor (refer to the TEST MODE).
- (2) Take off the two TAMPERPROOF SCREWS and open the REAR CABINET'S lower left side door (the TURN VALVE UNIT is seen in the center area below the REAR CABINET floor).
- (3) Cause the seat to turn by selecting the "SEAT LEFT TURN" or the "SEAT RIGHT TURN" on the TEST MODE screen.
- (4) Determine the CYLINDERs' expansion and contraction speed by turning the knob of the speed controller which corresponds to the selected SEAT TURN.
- $(\tilde{5})$  Adjust the other CYLINDER's expansion and contraction speed in a manner so as to match the one in  $(\tilde{4})$  above.
- (6) When the right and left turns' speeds match, secure the knob with a DOUBLE NUT so that the speed controller setting can be maintained.



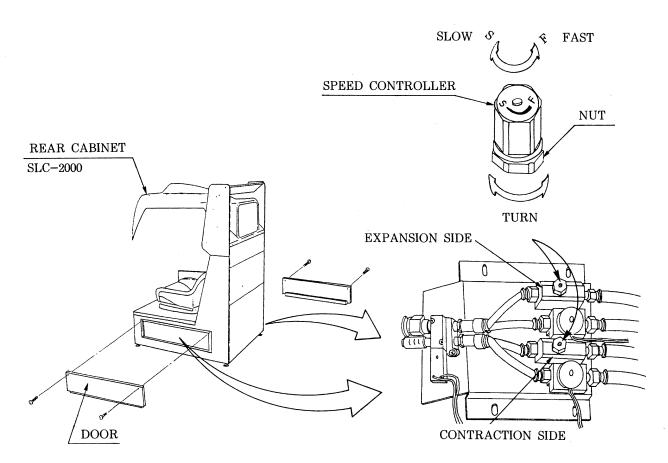
-27-

#### I. ADJUSTMENTS IN MOVING THE SEAT UPWARD AND DOWNWARD

In this machine, the SEAT moves upward and downward due to the two AIR CYLINDERs' expansion and contraction combination effect. The seat's upward and downward movement has 2 speeds, i.e., "FAST" and "SLOW." "FAST" can not be adjusted due to the bypassing of the speed controller by opening the electromagnetic valve. However, in the case of "SLOW," each CYLINDER's expansion and contraction speed is determined as a result of choking the exhaust from the CYLINDER through the use of 2 SPEED CONTROLLERs, each respectively for the expansion side and the contraction side and are independent from each other.

Therefore, the CYLINDERs' expansion and contraction speed can be varied by changing the choking of the speed controllers in the following procedure:

(1) Display the AIR DRIVE TEST screen on the MONITOR (refer to the TEST MODE).



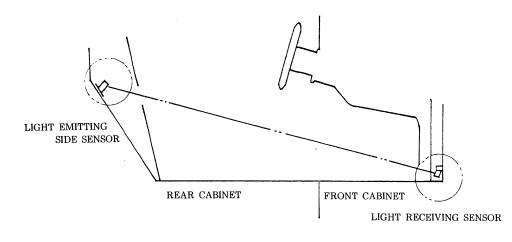
-28-

- (2) Take off the 2 TAMPERPROOF SCREWS, open the REAR CABINET'S lower left and right side doors, and the LIFT VALVE UNIT will appear.
- (3) Move the SEAT upward and downward by selecting the "SEAT LIFT SLOW" in the TEST MODE screen.
- (4) Of the 2 CYLINDERs which lift up the SEAT, first determine the speed of either the left or right CYLINDER. Adjust the speed by turning the SPEED CONTROLLER KNOB. Two SPEED CONTROLLERs are provided for one unit, each respectively for the expansion side and the contraction side independently, and as such, adjustments in both directions should be made.
- $(\hat{5})$  Adjust the other cylinder's expansion and contraction speed in a manner so as to match the one in  $(\hat{4})$  above.
- (6) When the right and left turns' speeds match, secure the knob with a DOUBLE NUT so that the speed controller setting can be maintained.

### **13. ADJUSTMENT OF THE INFRARED SENSORS**

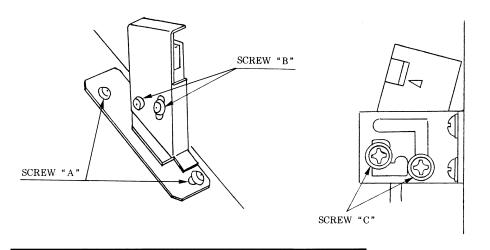
If there is any obstacle in between the 2 sensors or when the direction of each sensor does not match with that of the other, the seat stops moving.

Even if there is no obstacles between the sensors, when the seat does not move and the red LED in the sensor on the light receiving side (FRONT CABINET side) continues to light up, the direction of the sensors may not be matching each other. Therefore, make adjustments as follows:



ADJUSTMENT OF THE LIGHT EMITTING SENSOR

To make adjustments for the horizontal direction, loosen SCREW "A," and for the vertical direction, SCREW "B."



#### ADJUSTMENT OF THE LIGHT RECEIVING SIDE SENSOR

Remove the SENSOR COVER (SLC-1053) which protects the SENSOR by taking off the four TAMPERPROOF SCREWS (M4 x 8, M4 x 16). Loosen SCREWS "C" to make adjustments for the vertical direction. Continue to make adjustments of each SENSOR (one on the light emitting side and the other on the light receiving side, until the red LED goes off.

-30-

# 14. REPLACEMENT OF THE BILLBOARD LAMP

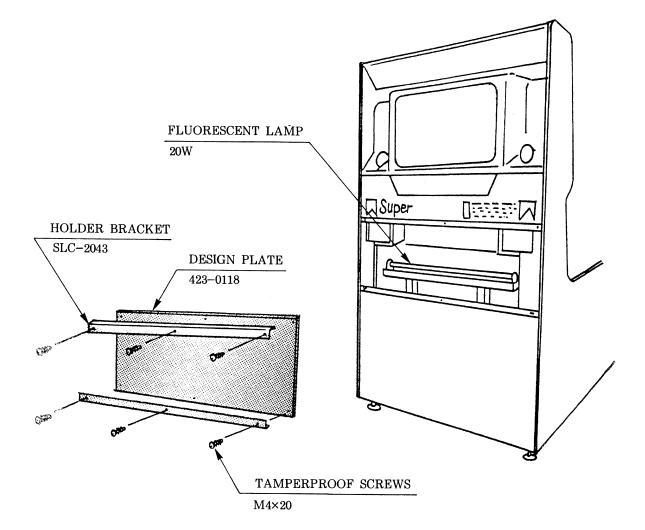
.

By taking off the six TAMPERPROOF SCREWs (M4 x 20), the upper & lower HOLDER BRACKETS (SLC-2043) and DESIGN PLATE (423-0118) can be removed.

Replace the BILLBOARD LAMP with a FLUORESCENT LAMP (FL 20W) which is available on the market.

- CAUTION -

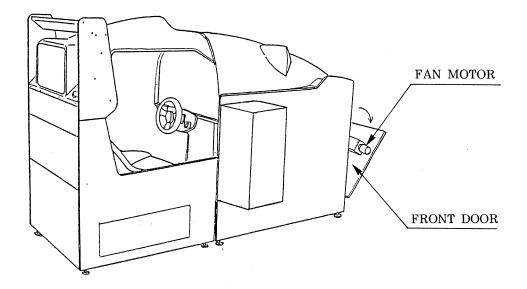
Before replacing the BILLBOARD, be sure to turn the power OFF.



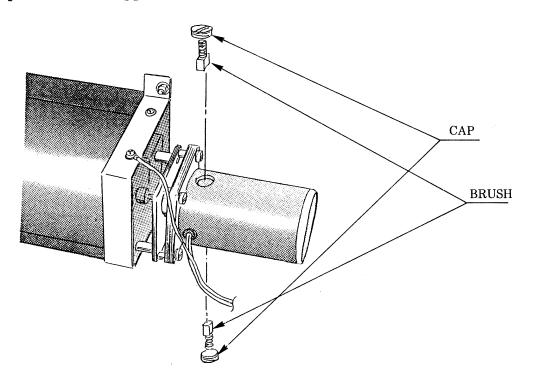
-31-

# 15. REPLACEMENT OF THE FAN MOTOR BRUSH

The FAN MOTOR is inside the FRONT DOOR. Replace the MOTOR BRUSH approximately once every six months.

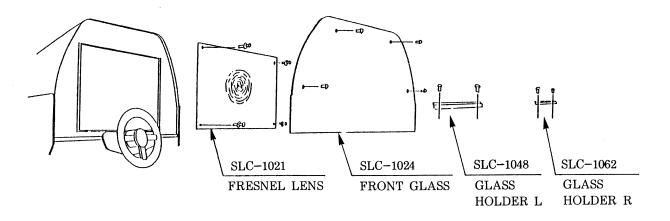


- (1) Take off the cap by using a screwdriver, etc.
- ② Take out the brushes for replacement (spare replacement parts are supplied).



<CATION> Replace the two brushes simultaneously.

## **16. HANDLING THE FRESNEL LENS**



(1) REMOVING THE FRESNEL LENS

Remove the GLASS HOLDER L (SLC-1048) and GLASS HOLDER R (SLC-1062) by taking off the TAMPERPROOF SCREWS (M4  $\times$  16) which are used to secure them.

Remove the FRONT GLASS (SLC-1024) by taking off the TAMPERPROOF SCREWs (M4  $\times$  25) which are used to secure it, through the use of a TAMPERPROOF screwdriver.

Remove the FRESNEL LENS (SLC-1020) by taking off the four screws (M4 x 14 W/F) which are used to secure it. <u>At this</u> time, pay careful attention so as not to cause damage to the lens mentioned above.

(2) FRESNEL LENS CLEANING, ETC.

When dust, etc. adheres to the FRESNEL LENS, remove them by lightly wiping it off, using a soft cloth such as gauze, etc. with chemical detergent or alcohol being applied, and then wring it out thoroughly (when a chemical detergent is used for wiping, lightly wipe it off again with a soft cloth after applying water to it and wringing it out completely. At this time, the adhered dust can easily be removed by wiping the FRESNEL LENS surface (convexed, concaved) along the arc. Use the supplied antistatic agent to prevent the dust from adhering to the lens.

-33-

#### **③** INSTALLING THE FRESNEL LENS

When installing the FRESNEL LENS, pay careful attention so that the surface (convexed, concaved) is positioned towards you, in the procedure opposite to that used when it was disassembled.

- (4) FRESNEL LENS HANDLING PRECAUTIONS
  - o When the FRESNEL LENS is subject to extremely hot temperatures, it deforms due to its properties, therefore, you should keep it away from heating equipment such as heaters, etc.
  - o This LENS warps when it is located at places where the temperature and humidity are extremely high, therefore, pay careful attention to this point.
  - o Since the LENS surface can easily be damaged, do not rub it with hard items such as a brush, etc.
  - o Do not wipe the LENS with a cloth containing volatile matter such as thinner, gasoline, insecticide, etc. (using said matter may cause the LENS to be cracked even in a location that has a regular room temperature).

## **17. TEST MODE**

This test mainly checks the operation of game PCB's, discovers defects if any, and also checks monitor colors and audio quality. In addition, this test mode includes the item in which game setting changes are made.

A. SELECTION OF TEST ITEM

1. Push the TEST SW button to display the test menu.

$\neg$

- Press the SERVICE SW or START SW to move the ">" mark downward. Bring the arrow to the desired test item and push the TEST SW again.
- 3. To end the test, bring the ">" to EXIT and push the TEST SW.

#### B. EXPLANATION OF EACH TEST

## 1. OPERATOR SCREENS (BOOKKEEPING)

This allows for BOOKKEEPING of the number of game plays, game time, etc.. Push the START SW to proceed to the next page. This page refers to the BOOKKEEPING of the number of coins and credits.

BOO	KKEEPINO		GE	1
COIN CH COIN CH COIN CR	IUTE 2 EDITS	2 3	1238 10 620	)
SERVICE TOTAL (	CREDITS CREDITS	Ğ	1916 2536	-
TOTAL 7	ΓΙΜΕ	6 7D10H06	M148	3

 $(\widehat{1})$  Number of coins put in COIN CHUTE 1.

(2) Number of coins put in COIN CHUTE 2.

- (3) Number of credits based on the number of coins put in.
- (4) Credits registered through the use of the SERVICE SW.
- (5) Total of  $(\bar{3})$  and  $(\bar{4})$
- (6) Total time during which the machine was energized.

This page refers to BOOKKEEPING of the number of games, and scores.

_		
	BOOKKEEPING	
1		PAGE 2
	GAME REPORT	
	TOTAL GAMES	<b>① 1076</b>
	TOP SCORE	② 107295
	LOWEST SCORE	(3) 5352
	AVERAGE SCORE	4
		41483
	TOTAL GAME TIME	5
		2D10H25M02S
	LONGEST GAME TIME	6
		07M24S
	AVERAGE GAME TIME	$\mathcal{O}$
		03M15S

 $(\hat{1})$  Number of games

- (2) High score
- (3) Lowest score
- $(\hat{4})$  Average score
- (5) Total game time out of the period during which the machine was energized.
- 6 Longest game time
- (7) Average game time

This page indicates BOOKKEEPING of the game time classification/ Number of games.

				~
ſ	F	SOOKKEEPING		
	-		PAGE 3	
D		TIME REPORT		
-	1.0	MINUITE	<b>②</b> 5	
1.0 -	1.5	MINUITE	28	
1.5 -	2.0	MINUITE	4	
2.0 -	2.5	MINUITE	3	
2.5 -	3.0	MINUITE	40	
3.0 -	3.5	MINUITE	31	
3.5 -	4.0	MINUITE	2	
4.0 -	4.5	MINUITE	3	
4.5 -	5.0	MINUITE	6	
OVER	5.0	MINUITE	8	
				ノ

(1) Time classification

 $(\widehat{2})$  Number of games

This page shows BOOKKEEPING of the game contents.

PAGE 4	
$^{\circ}$	
851	
1181	
56	
6 956	
120	
<b>(8)</b> 29" 30	
(9) 31" 46	
	~
	(2) 851 1181 56 (6) 956 120 (8) 29" 30

- (1) Automatic shift
- $(\widehat{2})$  Number of games
- $(\widehat{\mathbf{3}})$  4-speed manual shift
- (4) 7-speed manual shift
- $(\overline{5})$  The first race
- (6) Number of games
- 7 The second race
- (8) Preliminary race's best time by using the automatic shift
- (9) Preliminary race's best time by using the manual shift

This page refers to BOOKKEEPING of the Preliminary race's game time classification/number of games.

		В	OOKKEEPING	PAGE	F	
መ I	PRA	ACTI	CE TIME REPORT	TAGE	0	
Ť	-	28	SECONDS		2	
28	-	29	"	Ø	4	
29	-	30	"		33	
30	-	31	"		22	
31	-	32	"		40	
32	-	33	"		50	
33	-	34	"		6	
34	-	35	"		8	
35	-	36	"		9	
36	-	37	"		10	
37	-	38	"		13	
38	-	39	"		11	
39	-	40	"		22	
40	-	41	"		5	
41	-	42	"		7	
42	-	43	"		13	
43	-	44	"		13	
44	-	45	"		45	
OV	ER	45	SECONDS		45	

 $(\widehat{1})$  Time Classification

 $(\hat{2})$  Number of games

This page indicates BOOKKEEPING of the 9 best ranking drivers.

(1) Drivers' points

(2) Preliminary race's results

- $(\widehat{\mathbf{3}})$  The first race's time
- $(\hat{4})$  The second race's time
- (5) Name of Drivers
- (Ĝ) Transmission

AT .... Automatic shift
4S .... 4-speed manual shift
7S .... 7-speed manual shift

### DRIVER'S POINT RANKING

RANK	D. POINT	GRID	1ST RASE	2ND RASE	DRIVER	Т. М.
1ST	2134	PP	1-3'12" 47	5-3'28"00	OGU	7 S
2ND	1876	2	3-3'20"54		KOM	4 S
3RD		4				AT
4TH		12				
5TH						
6TH						
7TH						
8TH						
9TH						
	Φ	2	3	4	5	6

### 2. MEMORY TEST

Checks the game PCB'S MEMORY IC'S and CUSTOM IC'S. "GOOD" means the IC is satisfactory. If any malfunctioning of the IC's exists, "BAD" will be indicated.

$\int$				MEN	IOR	Y TEST					
	ROMS TEST										
	IC	20	BAD	IC	29	GOOD	IC	58	GOOD		
	IC	63	GOOD								
				RAM	1S T	EST					
	IC	22	GOOD	IC	23	GOOD	IC	31	GOOD		
	IC	32	GOOD	IC	38	GOOD	IC	39	GOOD		
	IC	55	GOOD	IC	56	GOOD	IC	60	GOOD		
	IC	61	GOOD	IC	125	GOOD	IC	126	GOOD		
	IC	132	GOOD	IC	133	GOOD	IC	134	GOOD		
	IC	135	GOOD	IC	150	GOOD	IC	151	GOOD		
			CU	JSTO	M IO	C TEST					
	IC	30	GOOD	IC	41	GOOD	IC	107	GOOD		
	IC	108	GOOD							J	

3. DIP SWITCH ASSIGNMENTS

Indicates the status of DIP SWITCHes A and B. For details, refer to the DIP SWITCH page.

_												
			]	DIPSV	VITCH	H ASS	SINGN	1ENT	S			
D	οIΡ	SW	A	8	7	6	5	4	3	2	1	
				OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
D	IP	SW	В	8	7	6	5	4	3	2	1	
				OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
С	OIN	I M	IOI	ЭE								
	CC	DIN	CH	IUTE	1	2 CO	INS 1	CRE	DIT			
	CC	DIN	CH	IUTE	2	2 CO	INS 1	CRE	DIT			
Ν	ET	WO	RK	MO	DE							
	ТC	)TA	Ll	MACH	HNES	3		1				
	M	ACF	ΗN	E ID	NUM	IMBE	R	1				
	CA	BIN	1EJ	TYF	РΕ		D	ELUX	E			
												_

4. GAME OPTION SETTING

Performs the setting of the game contents.

(1) PLAY MODE ..... SINGLE PLAY

Signifies that the machine functions independently.

 $(\hat{2})$  GAME DIFFICULTY

The game's overall difficulty level can be set to any one of the following: EASY/NORMAL/HARD/VERY HARD.

(3) QUALIFICATION LIMIT

The Preliminary race's qualification time can be set (the time can be set to  $40 \sim 55$  seconds).

 $(\widehat{4})$  IF OVER LIMIT

Either GAME OVER or RESTART from the 16th position can be preset in the case where the player exceeds the Preliminary Qualification time.

(5) AWARD SUPER LICENSE

This is for the purpose of future expansion.

#### (6) PLAYER'S PATH CORRECTION

The car's steering adjustment can be set to VERY LIGHT/ LIGHT/MEDIUM/STRONG.

(7) ADVERTISE SOUND

ON/OFF of the sound effects emitted during the time in which the game is not played, can be set. However, even if this setting is OFF, the title music only will continue to play.

#### GAME OPTION SETTING

PLAY MODESINGLE PLAYGAME DIFFICULTYNORMALQUALIFICATION LIMIT45 SECONDSIF OVER LIMITGAME OVERAWARD SUPER LICENSEYESPLAYER'S PATH CORRECTIONMEDIUMADVERTIZE SOUNDOFF

5. INPUT TEST

Indicates the status of each switch and potentiometer.

INPUT TEST  $_{\rm test}\, \oplus \,$ SERVICE START  $\mathcal{O}$ ON SHIFT DOWN SHIFT UP COIN CHUTE 1 COIN CHUTE 2 3 HANDLE (4) 80<sup>°</sup>FF ----- 00 ACCELE 20 00 ----- FF BRAKE 20 00 ----- FF

 $(\hat{\mathbf{l}})$  SW items

(2) Status (ON/OFF)

(3) Potentiometer items

(4) Present value (hexadecimal)

### 6. OUTPUT TEST

Checks the operation of the START LAMP, monitor adjustments, and audio quality. When this test item is selected, the following will first be displayed on the screen:

(1) RED Brightens starting from the left towards the right.

- $(\widehat{2})$  green
- $(\hat{\mathbf{3}})$  blue
- (4) WHITE

To proceed to the next page, press the START SW.

OUTPUT TEST		
C. R. T. CHECK	PAGE 1	
Ф		
2		
3		
4		

-41-

In this page, the START SW lamp goes ON and OFF.

OUTPUT TEST PAGE 2 START LAMP CHECK

To display the next page, press the START SW.

In this page, the sound check can be performed. By using the SHIFT SW, bring the ">" mark to the desired test item and push the START SW. There are 8 items of B.G.M., 11 SOUND EFFECTs, 22 VOICEs, and 6 SOUND CONTROLS.

	OUTPUT TEST	PAGE	2
	SOUND CHECK	PAGE	3
	B. G. M.	1	
	B. G. M.	2	
	B. G. M.	3	
	B. G. M.	4	
	B. G. M.	5	
	B. G. M.	6	
	B. G. M.	7	
	SOUND EFECT	1	
	SOUND EFECT	2	
	SOUND EFECT	3	
	SOUND EFECT	4	
	SOUND EFECT	5	
	SOUND EFECT	6	
	SELECT BY SHIFT LEV	/ER	
l	AND PUSH START	BUTTON	J

7. BACKUP RAM CLEAR

BOOKKEEPING DATA can be cleared by pushing the START SW, bringing ">" to YES (when not clearing, to "NO") and pushing the TEST SW.

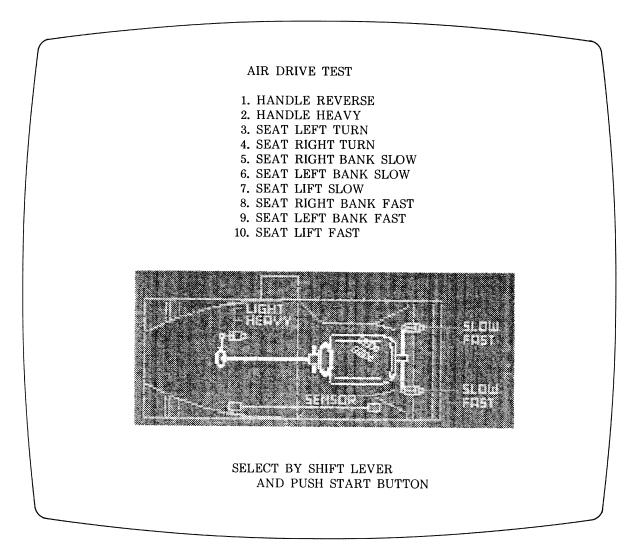
		)
BACKUP	RAM CLEAR	
YES		
NO		
		J

8. AIR DRIVE MOVEMEN'T CHECK

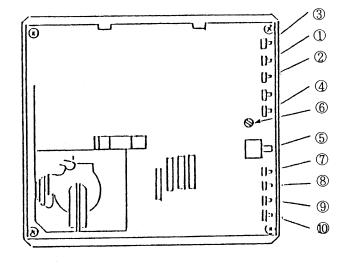
This allows the AIR DRIVE SYSTEM to be manually checked. By using the SHIFT SW, bring the ">" mark to the desired test item and then push the START SW. While the START SW is pushed, the SYSTEM continues to function.

Also, as per the desired item, the machine's moving part will be highlighted on the screen.

The SAFETY SENSOR can also be checked out on the screen.



## 18. DESCRIPTION OF 26 INCH MONITOR



26 INCH MONITOR (NANAO)

- (1) V. HOLD (Vertical synchronizing adjustment)Allows the on-screen image's vertical distortion to be adjusted.
- $(\tilde{2}) \; V.$  SIZE (Vertical size adjustment) Adjusts the screen's vertical size.
- (3) V. POSI (Vertical position adjustment) Adjusts the image's vertical position.
- (4) H. HOLD (Horizontal synchronizing adjustment) Makes adjustments when correcting horizontal distortions.
- (5) H. SIZE (Horizontal size adjustment)
   Makes adjustments when the horizontal size is too wide or too narrow.
- (6) H. POSI (horizontal position adjustment)Allows the image's horizontal position to be adjusted.
- (7) BRIGHT Allows the image's brightness to be adjusted.
- (8) B. GAIN

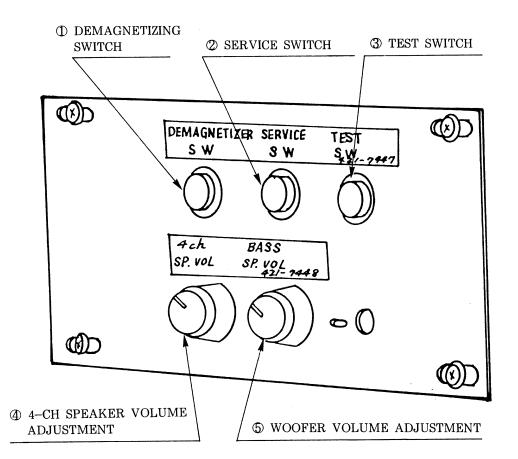
Allows blue color contrast to be adjusted.

- (9) G. GAIN Allows green color contrast to be adjusted.
- R. GAIN
   Allows red color contrast to be adjusted.

-44-

## **19. SERVICE SWITCHES**

Open the COIN CHUTE DOOR, and the following SERVICE SWITCHES' layout will appear:



(1) DEMAGNETIZING SWITCH Used for removing	the on-screen
color uneveness.	
$(\widehat{2})$ SERVICE SWITCH Used for the purpose	se of servicing
and increasing the	credits without
registering on the	meter (this
allows you to chec	k the game).
(3) TEST SWITCH For the operation	of this switch,
see SELF-TEST.	
$(\tilde{4})$ 4-CH SPEAKER VOLUME ADJUSTMENT Used fo	r adjusting the
volume	of the speaker.
(5) WOOFER VOLUME ADJUSTMENT Used fo	r adjusting the
volume	of the WOOFER
SPEAKER	

-45-

## 20. DIP SWITCH SETTING

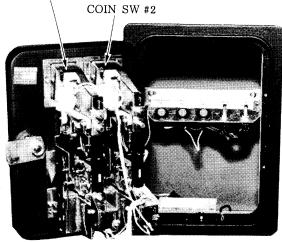
COIN/CREDIT OPTION SWITCH SETTING

OPT	ION	1	2	3	4	5	6	7	8
1 COIN	1 CREDIT	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1 COIN	2 CREDITS	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
1 COIN	3 CREDITS	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
1 COINS	4 CREDIT	ON	ON	OFF	OFF	ON	ON	OFF	OFF
1 COINS	5 CREDIT	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
1 COINS	6 CREDIT	ON	OFF	ON	OFF	ON	0FF	ON	OFF
2 C01NS	1 CREDIT	OFF	ON	ON	OFF	OFF	ON	ON	OFF
3 COINS	1 CREDIT	.ON	ON	ON	OFF	ON	ON	ON	OFF
4 COINS	1 CREDIT	OFF	0FF	OFF	ON	OFF	OFF	OFF	ON
2 COINS	3 CREDITS	ON	OFF	OFF	ON	ON	OFF	OFF	ON
2 C01NS	1 CREDIT								
4 COINS	2 CREDITS	OFF	ON	OFF	ON	OFF	ON	OFF	ON
5 COINS	3 CREDITS								
6 COINS	4 CREDITS								
2 COINS	1 CREDIT	ON	ON	OFF	ON	ON	ON	UFF	ON
4 COINS	3 CREDITS								
1 COIN	1 CREDIT								1
2 COINS	2 CREDITS	OFF	OFF	ON	ON	OFF	OFF	ON	ON
3 COINS	3 CREDITS								
4 COINS	4 CREDITS								1
5 COINS	6 CREDITS								
1 COIN	1 CREDIT								
2 C01NS	2 CREDITS	ON	OFF	ON	ON	ON	OFF	ON	ON
3 COINS	3 CREDITS								1
4 COINS	5 CREDITS								
1 COIN	1 CREDIT	OFF	ON	ON	ON	OFF	ON	ON	ON
2 COINS	3 CREDITS								011
FREE	PLAY	ON	ON	ON	ON	UN	ON	ON	ON
			COIN SV	V #1			COIN SW	#2	

COIN SW #1

DIP SW

А

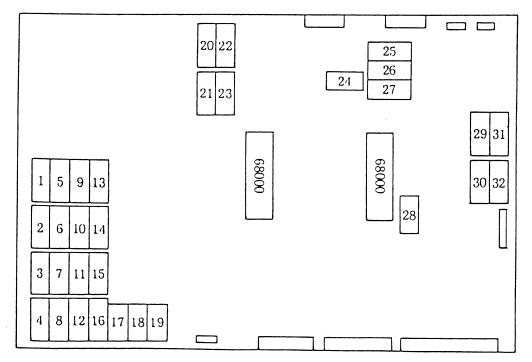


OPTION			1	2	3	4	5	6	7	8
		1	OFF	OFF	OFF					
通信時の	ł	2	ON	OFF	OFF					
ID	}	3	OFF	ON	OFF	1				
NUMB	ER	4	ON	ON	OFF					
		5	OFF	OFF	ON					
YOUR ID NUMBER	1	6	ON	OFF	ON					
WHEN LINK	ING	7	OFF	ON	ON					
	Ī	8	ON	ON	ON					
		1		•		UFF	OFF	UFF		
通信時の		2				ON	OFF	OFF		
通信時の 接続台数		3				OFF	ON	OFF		
1977G CI 93		4				ON	ON	OFF		
THE NUMBER OF		_5				OFF	OFF	ON		
THE MACHINE	s -	6				ON	OFF	ON		
TO BE LIN		7			· · · · · · · · · · · · · · · · · · ·	OFF	ON	ON		
		8				ON	ON	ON	005	055
	DX	. <del>.</del>				a de ser son de la ser de ser ser de la s			OFF	OFF
	COCKP								ON OFF	OFF ON
TYPE										

通信時以外は、1から6までは、全て0FFとする。

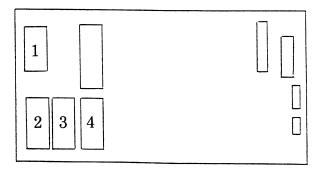
IN CASE OF YOU DON'T LINK THE MACHINES PLESE ADJUST DIPSW No.#1 TO No.#6 ALL OFF

## 21. ROM LAYOUT (837-7016 GAME BD SUPER MONACO GP)



837-6825

837-7000

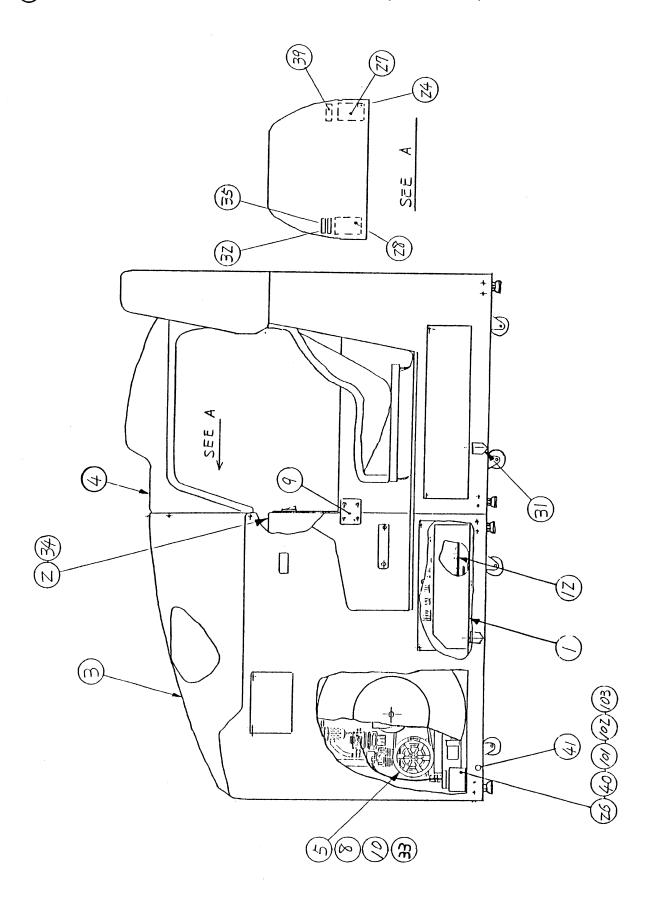


		837-7000	
	MAIN WORK	IC No.	
1	SOUND PROGRAM (512K)	IC 8	B E P R – 1 2 5 3 5
2	SOUND	IC 20	E P R - 1 2 4 3 7
3	DATA	IC 21	E P R - 1 2 4 3 8
4	(1 M - 2 0)	IC 22	2 E P R - 1 2 4 3 9

			837-7016
	MAIN WORK	IC No.	837-6825
1		IC 93	E P R – 1 2 4 1 3
2		IC 97	E P R - 1 2 4 1 4
3		IC 101	E P R - 1 2 4 1 5
4		IC 105	E P R - 1 2 4 1 6
5		IC 92	E P R - 1 2 4 1 7
6		IC 96	EPR-12418
7		IC 100	EPR-12419
8	ОВЈЕСТ	IC 104	EPR-12420
.9	(1M-20)	IC 91	E P R - 1 2 4 2 1
1 0	_	IC 95	E P R - 1 2 4 2 2
11		IC 99	E P R - 1 2 4 2 3
12		IC 103	E P R - 1 2 4 2 4
13		IC 90	E P R - 1 2 4 2 5
14		IC 94	E P R - 1 2 4 2 6
15		IC 98	E P R - 1 2 4 2 7
16		IC 102	EPR-12428
17	FIX	IC 154	EPR-12429
18	(512K - 20)	IC 153	E P R - 1 2 4 3 0
19		IC 152	EPR-12431
2 0	MATN	IC 58	E P R - 1 2 4 3 2
2 1	MAIN PROGRAM	IC 63	E P R - 1 2 4 3 3
22	(1 M - 2 0)	IC 57	NOT USE
23		IC 62	NOT USE
2 4	SOUND PROGRAM (512K)	IC 17	E P R - 1 2 4 3 6
2 5	SOUND	IC 11	E P R - 1 2 4 3 7
2 6	DATA	IC 12	E P R - 1 2 4 3 8
2 7	(1 M - 2 5)	IC 13	NOT USE
28	ROAD	IC 40	NOT USE
29	SUB	IC 21	NOT USE
30	PROGRAM	IC 30	NOT USE
3 1	(1 M - 2 0)	IC 20	E P R - 1 2 4 4 1
3 2		IC 29	EPR-12442
Law		•	

22. PARTS LIST

(1) TOP ASSY SUPER MONACO GP DX (SLC-0000) (D-1/2)

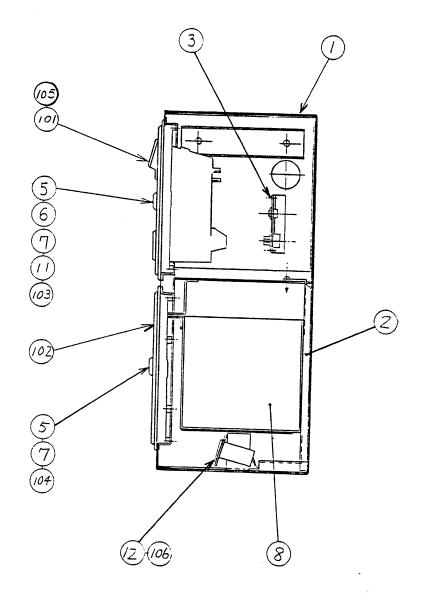


-49-

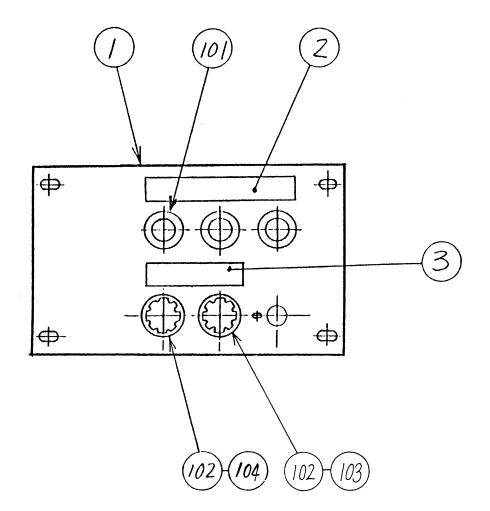
# (1) TOP ASSY SUPER MONACO GP DX (SLC-0000) (D-2/2)

ITEM NO.	PART NO.	DESCRIPTION
1	SLC-0001	ASSY SHIELD CASE
1 2	SLC-0001 SLC-0100	ASSY COIN CHUTE
3	SLC-1000	ASSY FRONT CABINET
4	SLC-2000	ASSY REAR CABINET DX
5	SLC-3000	ASSY AIR SPLY
8	SLC-0006	FLT WASHER 8.4–25×2
9	SLC-0007	JOINT BRKT
10	SLC-0005	DISK
10	420-5905-01	OWNERS MANUAL SUPER MONACO GP ENG
12	834-7016-01	GAME BD SUPER MONACO GP
13	SGB-1035X	KEY BAG
14	SGM-2675	POLYETHYLENE BAG 240×370
15	SGM-3946	POLTHN COVER
	1002	SCHEMATIC DIAGRAM SEGA SUPER MONACO GP
17	421-6594	STICKER SERIAL No. INFO
18	421-6709	STICKER SERVICE INSTR ENG
19	421-6671	STICKER DANGER HIGH VOLTAGE
22	117-0089	PL NAME ELECTRL SP
23	421-7449	ADJUST INSTR SHEET SUPER MONACO GP
24	421-5800-102X	ORIGINAL SEAL SUPER MONACO GP
25	420-5881	DISPLAY MANUAL 26" 200-5112 ENG
27	422-0302-91-01	PLAY INSTR SH SUPER MONACO GP ENG
28	422-0303-01	HOW TO PLAY SH SUPER MONACO GP ENG
29	421-6241	STICKER DAINGER ENG
30	421-7010-01	STICKER CAUTION ENG
31	421-7020	STICKER CAUTION FORK
33	SLC-1058	RUBBER SHEET A FOR TANK
34	SLC-0011	T MOUNT PLATE
36	SLC-0017	SHIPPING BOARD
37	SLC-0018	SHIPPING BRKT.
38	421 - 6653 - 01	TAG, FOR SHIPPING BRACKET ENG
39	MX-1103-05	DENOMINATION SHEET 1 GAME, ¥200
00	MX-1103-04	DENOMINATION SHEET 1 GAME, ¥100
40	SLC-0020	WATER TANK GUIDE
41	SLC-0021	BANDAGE
42	421-7477-01	TAG. FOR SPEC ENG
43	421-7479-01	STICKER CAUTION ENG
44	421-7480-01	STICKER SPEC ENG
45	421-7481-01	STICKER INST. CAUTION ENG
46	421-7478	STICKER VOLTS
47	421-7484	INSTR SH PIPING DIAGRAM SLC
48	421-7489-01	INSTR SH 50Hz/60Hz
101	601-6293-01	AIR TUBE RED $ ot=$ 10–1400
102	253-5321	WATER TANK 300
	370-5019	BEAM SENSOR
103	280-5008	CORD CLAMP $ ot  q$ 15

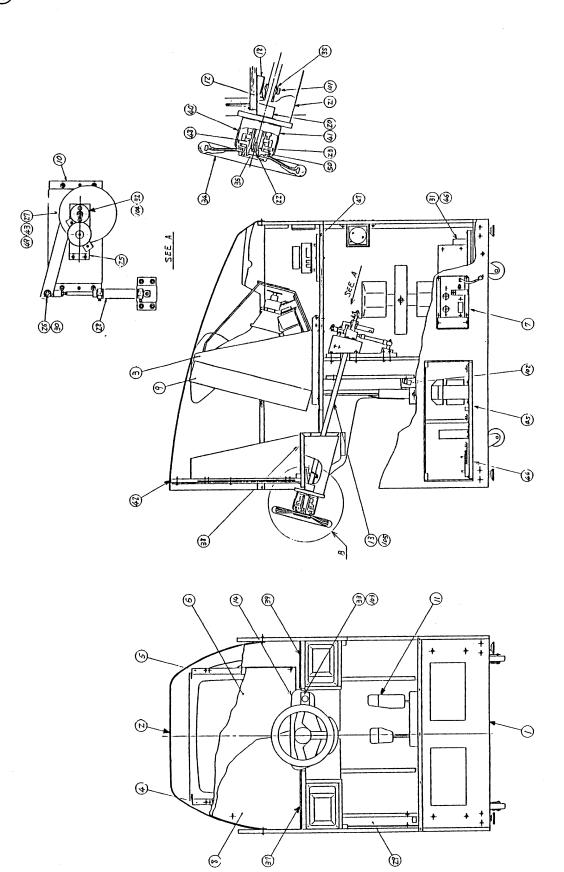
# 2 ASSY COIN CHUTE (SLC-0100)



ITEM NO.	PART NO.	DESCRIPTION
1	SLC-0101	COIN CHUTE TOWER
2	SLC-0102	WIRE COVER
3	SLC-0103	SW UNIT
5	HN-1050	SPACER RING
6	105-5068	PLATE TONGUE STOPPER
7	DP-1167	TNG LKG
8	KR-1607X	CASH BOX
12	421-6591-01	STICKER COIN METER
13	SLC-0106	CUSHION
101	220-5282-01	ASSY COIN CHUTE DOOR W/HOLE ¥100
102	220-5220	CASH BOX DOOR
103	220-5253	MAGNETIC LOCK MASTER W/O KEY
104	220-5046-91	MAGNETIC LOCK W/KEY
105	109-0045	HOLDER KEY TURBO UPR
106	220-5064	MAG CNTR 6DIG DC5V



ITEM NO.	PART NO.	DESCRIPTION
1	SLC-0104	SW PLATE
2	421-7447	STICKER SW
3	421-7448	STICKER VOL
101	F00 F000	
101	509-5028	SW PB 1M
102	601-0042	KNOB 22mm
103	220-5179	VOL CONT B-5K OHM
104	220-5296	VOL CONT 5KB $\pm 10\%$



-53-

(4)

## ASSY FRONT CABINET (SLC-1000) (D-2/2)

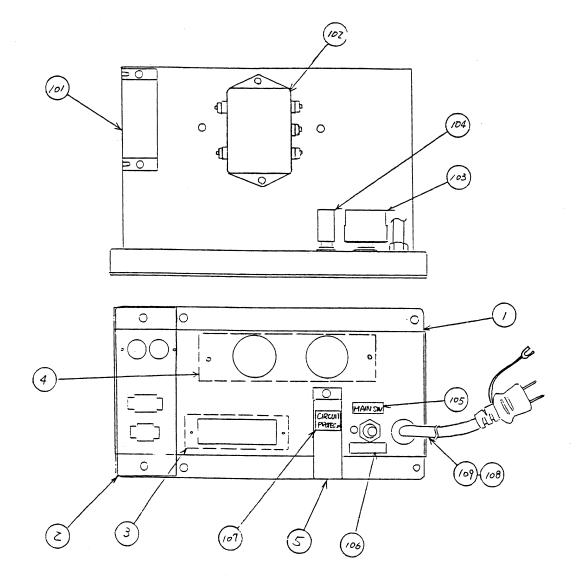
ITEM NO.

#### PART NO.

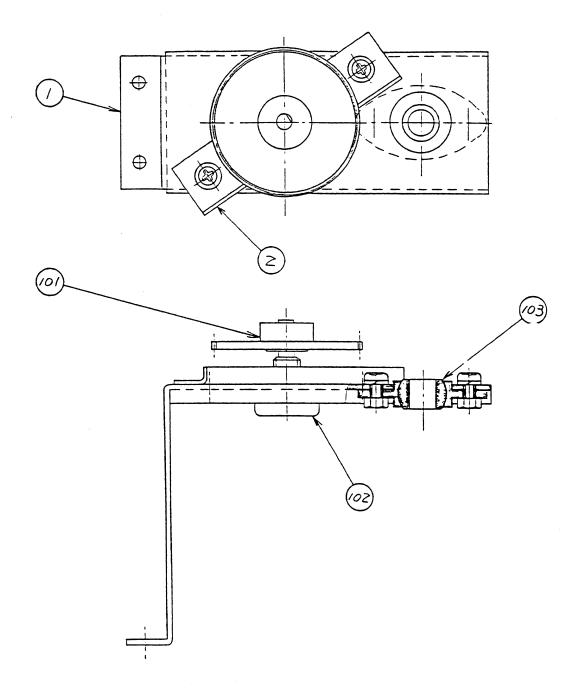
#### DESCRIPTION

1 SLC-1001 ASSY FRONT SUB CABI 2 SLC-1014 ASSY FRONT COWL 3 SLC-1015 CLR DSPL 26' 4 SLC-1018 GLASS BRKT. L SLC-1019 5 GLASS BRKT. R 6 SLC-1020 FLENEL LENS 7 SLC-1021 AC UNIT SLC-1024 8 FRONT GLASS 9 SLC-1025 MASK SLC-1100 10 HANDLE UNIT SLC-1200 11 ASSY ACCEL & BRAKE 12 SLC-1026 COLOR SLC-1027 13 STEERING SHAFT SLC-1028 CONTROL PANEL 14 18 SLC-1029 CONTROL PANEL BRACKET 20 SLC-1031 SW WIRE COVER 21 SLC-1032 SHAFT COVER 22SLC-1033 MOUNT SCREW 23 SLC-1034 **EXTENDER 10** 25 SLC-1036 ASSY VR UNIT 26 SLC-1037 CONNECT SHAFT 27 SLC-1038 HEART GROOVED CAM 28 SLC-1039 ASSY HANDEL CYLINDER 29 SLC-1053 SENSOR COVER 30 SLC-1054 SPACER 31 SLC-1055RUBEER SHEET SSR 32SLC-1043 ADJUST RING 33 SW PLATE SOR-1037 34 KR-1211Y 35 POW-2005 STEERING SPACER 36 POW-2061 EMBLEM PLATE 37 SLC-1048 GLASS HOLDER L 38 SLC-1060 UNDER MASK 39 SLC-1062 GLASS HOLDER R 40 SLC-1065 SHIFT COVER UPPER 41 SLC-1066 SHIFT COVER LOWER SLC-1085 42 FILLER 43 KR-1122 KEY A 44 SLC-4000 ASSY PWR SPLY MAIN SLC-4100 45 ASSY XFRMR SLC-4200 46 ASSY SUB DRIVER 47 SLC-4300 ASSY PWR AMP BASE POW-2008 48 KEY SLC-2211 49 RING 50 SLC-1300 ASSY BUTTERFLY SHIFT 101 100-5097 BEARING  $\emptyset$  17 102 370-5019-02 BEAM SENSOR 103 509-5218 PUSH BTN SW IT YELLOW W/ LAMP 104 601-6109 GEAR 60 105 280-0421 CLAMP CORD PLASTIC ID 2.5mm

(5) AC UNIT (SLC-1021)

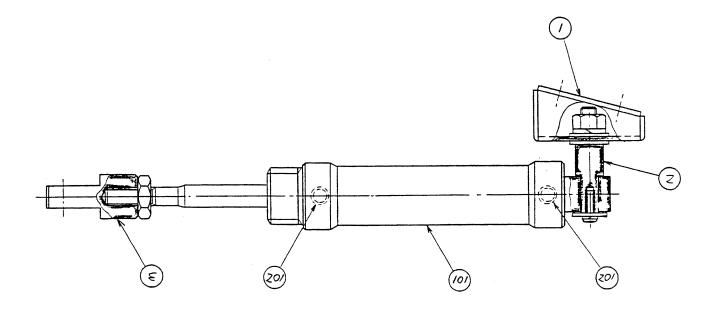


ITEM NO.	PART NO.	DESCRIPTION
1	SLC-1022	AC BRKT.
2	SLC-1023	AC BANDAGE A
3	SOR-1403	AC HOLE LID A
4	SOR-1404	AC HOLE LID B
5	SLC-1051	AC BANDAGE B
101	117-5168	TERMINAL 6P 20A
102	270-5026	NOISE FILTER 20A
	270-5022	NOISE FILTER 20A
103	509-5234	SW TOGGLE 25A
104	512-5014-15	CIRCUIT PROTECTOR 15A
105	421-6950	STICKER MAIN SW
106	421-6592	STICKER ON-OFF
107	421-7468	STICKER C. P
108	280-5097	<b>BUSHING STRAIN RELIEF 8.4</b>
109	600-5500	CABLE & PLUG ASSY 15A W/EARTH

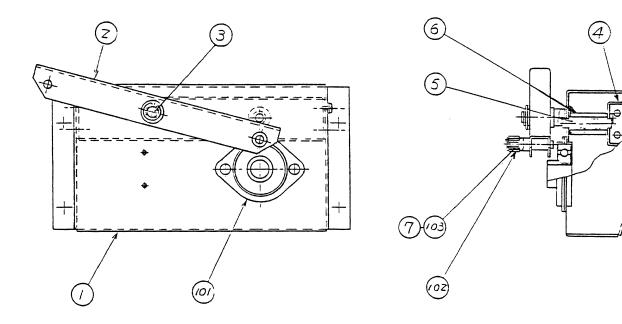


ITEM NO.	PART NO.	DESCRIPTION
1 2	SLC-1049 SLC-1050	VR BASE VR BRACKET
101 102 103	601-6296 220-5130 100-5015	GEAR 75 B VR CONT B−5KOHM BEARING Ø10

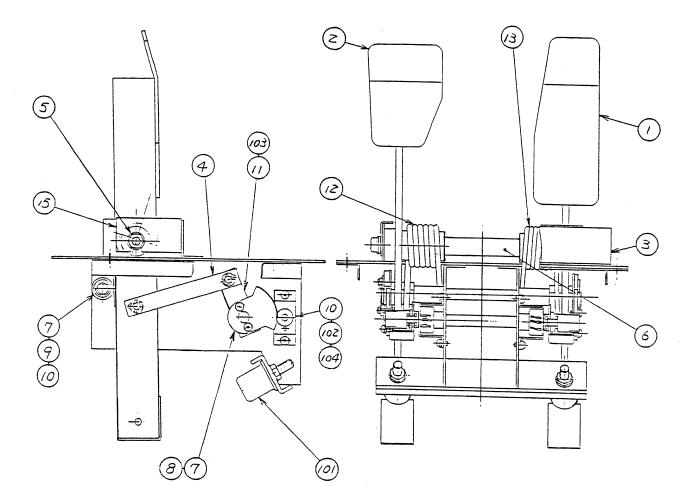
# ⑦ ASSY HANDLE CYLINDER (SLC-1039)



ITEM NO.	PART NO.	DESCRIPTION
$egin{array}{c} 1 \\ 2 \\ 3 \end{array}$	SLC-1040 SLC-1041 SLC-1042	CYLINDER HOLDER CYLINDER SHAFT ROD END
101 102	601 - 6243 601 - 6252	AIR CYLINDER 25–50 AIR JOINT 6–1/8



ITEM NO.	PART NO.	DESCRIPTION
1	SLC-1101	HANDLE BASE
2	SLC-1102	SWING ARM
3	SLC-1103	CENTER SHAFT
4	SLC-1104	HOLDER
5	SLC-1105	STOPPER SHAFT
6	SLC-1106	STOPPER RUBBER
7	SLC-1115	RING $\emptyset$ 12
		,
101	100 - 5096	BEARING $\emptyset$ 17
102	100-5098	NEEDLE BEARING $ otin 10$
103	100 - 5099	INSIDE RING 710



ITEM	NO.
	1

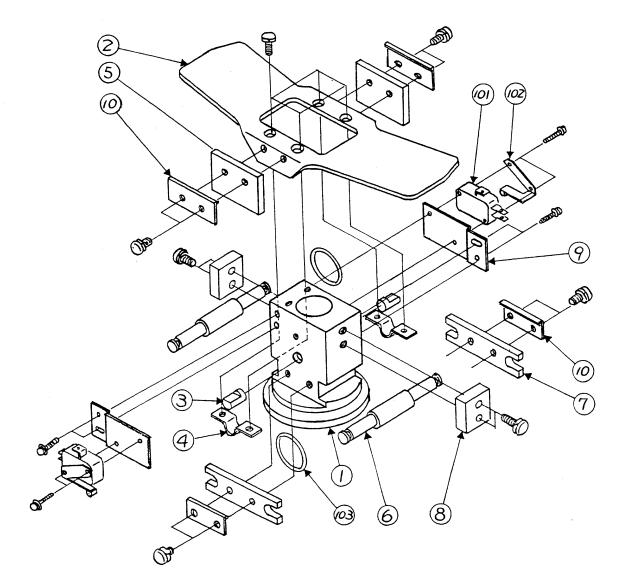
DESCRIPTION

1	POW-2301X	ACCELERATOR PEDAL
2	POW-2302X	BRAKE PEDAL
3	SLC-1201	PEDAL PLATE
4	POW-2304	LINK
5	POW-2305	SHAFT BRAKE ACCEL
6	PON-2306	COLLAR A
7	POW-2307	COLLAR B
8	POW-2308	SHAFT GEAR
9	POW-2309	SHAFT STOPPER
10	POW-2310	VR. BRKT.
11	POW-2311	GEAR HOLDER
12	POW-2312	TORSION SPRING A
13	POW-2313	TORSION SPRING B
14	POW-2314	BUMPER
15	POW-2315	PEDAL COVER
101	601-6167	STOPPER KI-30
102	601-5943	GEAR 20 $\emptyset$ 15
103	601-6005	ADJUST GEAR
104	220-5130	VOL. CONT B-5K OHM

PART NO.

-59-

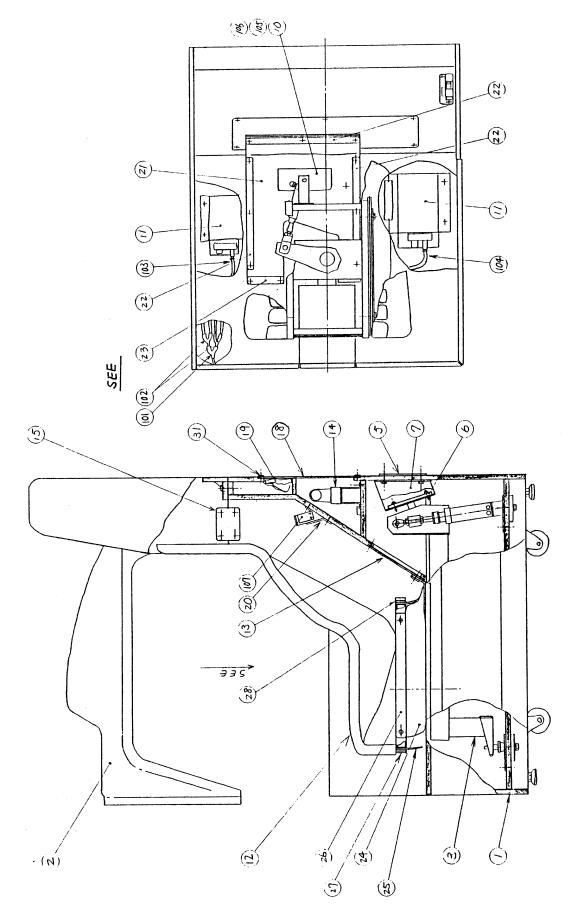
(1) ASSY BUTTERFLY SHIFT (SLC-1300)



ITEM	NO.	PART NO.	DESCRIPTION
	1	SLC-1301	STEERING BOSS
	2	SLC-1302	WING PLATE
	3	SLC-1303	CENTER PIN
	4	SLC-1304	PIN BRACKET
	5	SLC-1305	BUMPER
	6	SLC-1306	CENTER SHAFT
	7	SLC-1307	SHAFT HOLDER
	8	SLC-1308	STOPPER
	9	SLC-1309	ADJUST BRACKET
_ 1	10	SLC-1310	PATCH A
10	)1	509-5242 509-5243	SW MICRO TYPE
10	02	509-5275	SW ACTUATOR
10	03	601-6295	O RING $ ot  ot 24.4$
10	04	280-5124-03	NYLON CLAMP NK03

(1)

ASSY REAR CABINET DX (SLC-2000) (D-1/2)

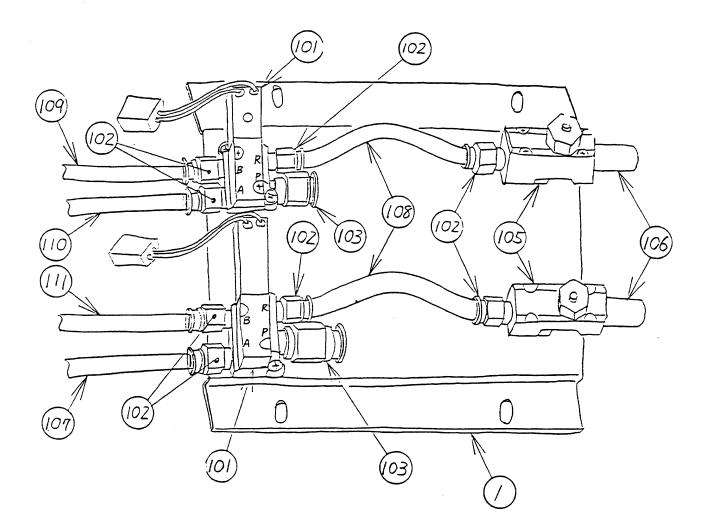


-61-

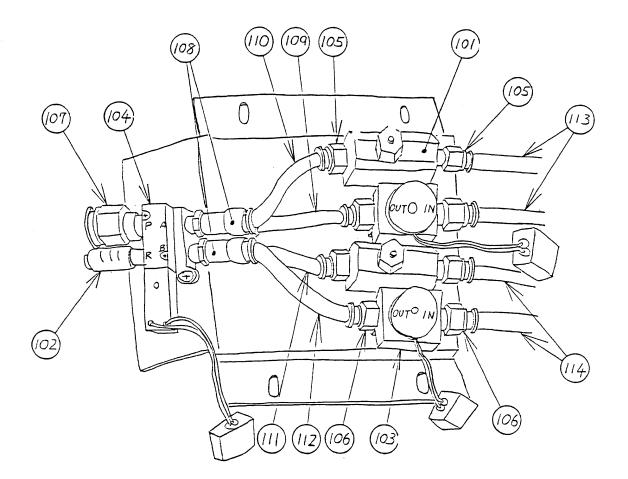
ITEM NC	)
ITEM NC	

## ITEM NO. PART NO. DESCRIPTION

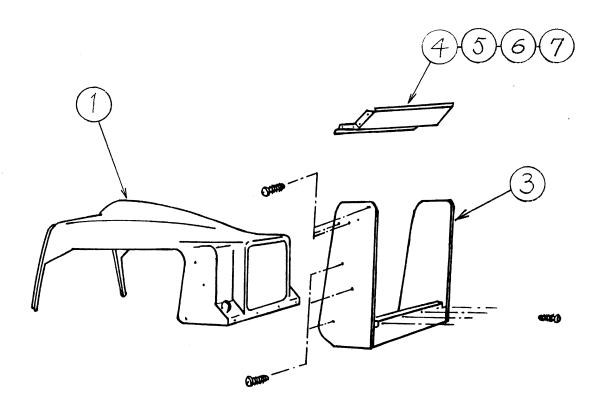
1	SLC-2001	ASSY REAR SUB CABINET DX
2	SLC-2100	ASSY ROOF
3	SLC-2200	ASSY SEAT MECHANISM
5	SLC-2003	BACK PLATE
6	SLC-2016	GUIDE
7	SLC-2017	GUIDE BRKT
10	SLC-2010	ASSY TURN VALVE
11	SLC-2012	ASSY LIFT VALVE
12	SLC-2015	BUCKET SEAT
13	SLC-2026	BACK LID
14	SLC-2028	ASSY LAMP
15	SLC-2030	JOINT PLATE
18	423-0118	DESIGN PLATE SUPER MONACO GP
19	SLC-2033	SPEAKER WOOL
20	SLC-2034	SENSOR BRKT
21	SLC-2035	RUBBER SHEET
22	SLC-2036	RUBBER HOLDER L
23	SLC-2037	RUBBER HOLDER S
24	SLC-2038	PROTECTOR A
25	SLC-2039	PROTECTOR B
26	SLC-2040	PROTECTOR HOLDER A
27	SLC-2041	PROTECTOR HOLDER B
28	SLC-2042	PROTECTOR HOLDER C
29	SLC-1064	STICKER CHAMPION
30	SLC-1063	STICKER CKD
31	SLC-2043	HOLDER BRKT
101	601-6258	AIR JOINT 10–10 YU TYPE
102	601-6259	AIR JOINT 10–10 YP TYPE
103	601-6293-03	AIR TUBE RED $ ot=$ 10–360
104	601-6293-04	AIR TUBE RED $ ot=$ 10–960
105	601-6293-05	AIR TUBE RED $ ot=$ 10–730
106	601-6294-05	AIR TUBE RED $ ot=$ 10–800
107	601-6294-05	AIR TUBE RED $\varnothing$ 10–800



ITEM NO.	PART NO.	DESCRIPTION
1	SLC-2011	VALVE BASE B
101	601-6251	AIR VALVE 4 PORT
102	601-6252	AIR JOINT 6-1/8
103	601-6254	AIR JOINT 10-1/8
105	601-6246	SPEED CONTROLER 1/8
106	601-6247	SILENCER 1/8
107	601-6286-01	AIR TUBE CLEAR $\emptyset$ 6–310
108	601-6288-03	AIR TUBE BLUE $ ot=6-125$
109	601-6289-02	AIR TUBE YELLOW Ø6–390
110	601-6290-02	AIR TUBE GREEN $\emptyset$ 6–360
111	601-6291-01	AIR TUBE BLACK $\emptyset$ 6–310

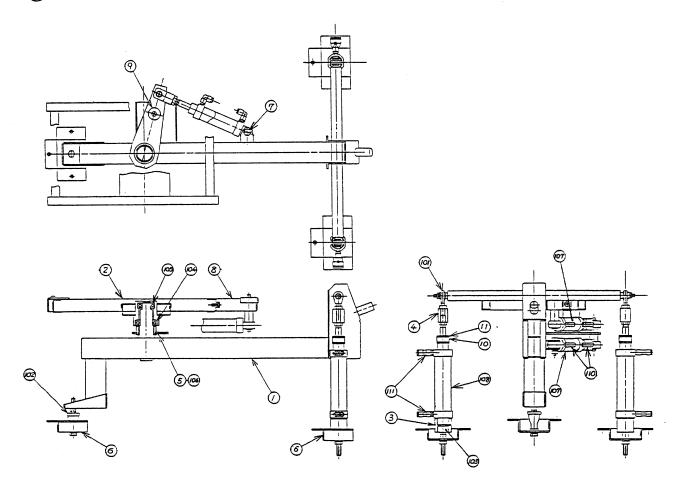


ITEM NO.	PART NO.	DESCRIPTION
1	SLC-2013	VALVE BASE A
101	601-6246	SPEED CONTROLER 1/8
102	601-6247	SILENCER 1/8
103	601-6249	AIR VALVE 2 PORT
104	601-6251	AIR VALVE 4 PORT
105	601-6252	AIR JOINT 6–1/8
106	601-6253	AIR JOINT 6-1/4
107	601 - 6254	AIR JOINT 10-1/8
108	601-6260	AIR JOINT 6-1/8 Y TYPE
109	601-6287-01	AIR TUBE RED $\emptyset$ 6–85
110	601-6287-02	AIR TUBE RED $\emptyset$ 6–100
111	601-6288-01	AIR TUBE BLUE $\emptyset$ 6–80
112	601-6288-02	AIR TUBE BLUE $ ot=$ 6–110
113	601-6287-03	AIR TUBE RED $\emptyset$ 6–480
114	601-6288-04	AIR TUBE BLUE $\emptyset$ 6–400



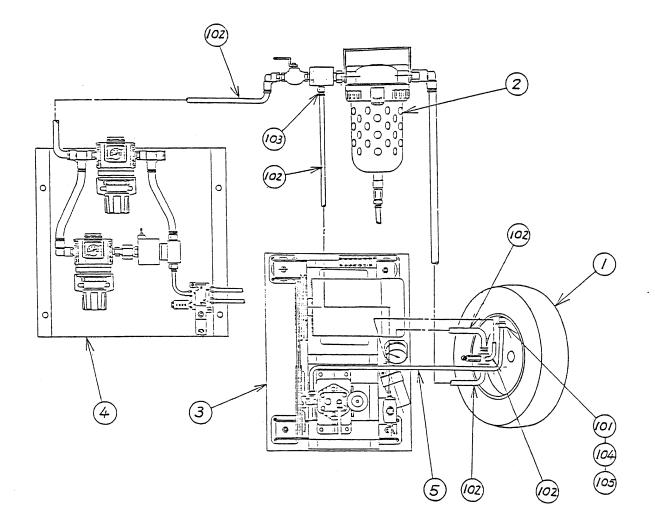
ITEM NO.	PART NO.	DESCRIPTION
1 2 4 5 6 7 8	SLC-2101 SLC-2102 SLC-2104 SLC-2105 SLC-2106X SLC-2107 SLC-2108	ASSY REAR COWL WING BOARD WING PLATE DESIGN SHEET A DESIGN SHEET B DESIGN SHEET C HOLDER
-		

14)



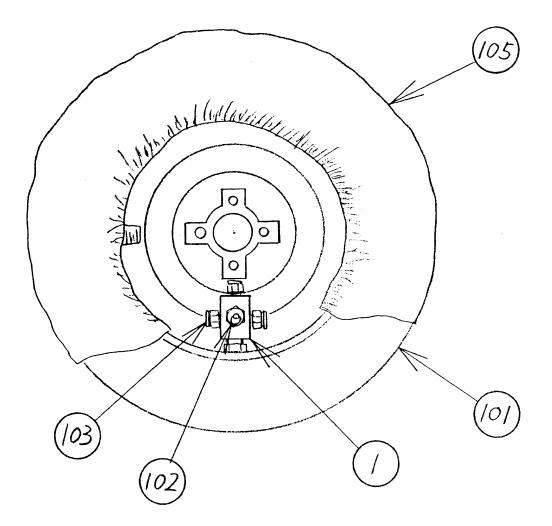
ITEM NO.	PART NO.	DESCRIPTION
1	SLC-2201	PITCHING FRAME
2	SLC-2202	YAWING FRAME
3	SLC-2203	JOINT BROCK A
4	SLC-2204	JOINT BROCK B
5	SLC-2205	IDLE ARM
6	SLC-2206	BOTTOM PLATE
7	SLC-2207	SHOULDER SCREW
8	SLC-2208	CONNECTING BRKT
9	SLC-2209	STOPPER RUBBER
10	SLC-2210	BUMP STOPPER
11	SLC-2211	RING
101	111-0010	ROD END $\emptyset$ 10
102	111-0013	LINK BALL 10
103	111-0015	LINK BALL 10
104	100-5071	BEARING $\emptyset$ 30
105	100-5092	BEARING $\emptyset$ 20
106	100-5093	BEARING $\emptyset$ 35–20
107	601-6244	AIR CYLINDER 32–50
108	601 - 6245	AIR CYLINDER 40-75
110	601 - 6257	AIR JOINT 6–1/8 L TYPE
111	601-6260	AIR JOINT 6–1/8 Y TYPE

16

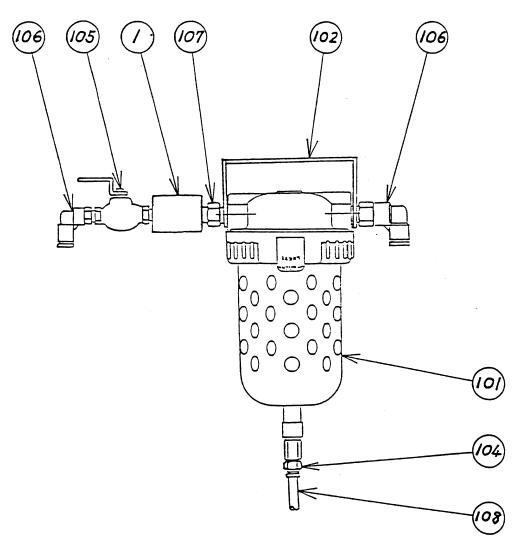


ITEM NO.	PART NO.	DESCRIPTION
1	SLC-3001	ASSY TANK
2	SLC-3003	ASSY FILTER
3	SLC-3100	ASSY COMPRESSOR
4	SLC-3200	ASSY REGULATOR
5	SLC-3005	COPPER PIPE
101	601-6283	TAPER JOINT $ ot 10$
102	601-6292-01	AIR TUBE CLEAR $\emptyset$ 10–600
103	601-6083	AIR JOINT
104	601-6299	LOCK NUT
105	601-6300	SLEEVE $\emptyset$ 10

-67-

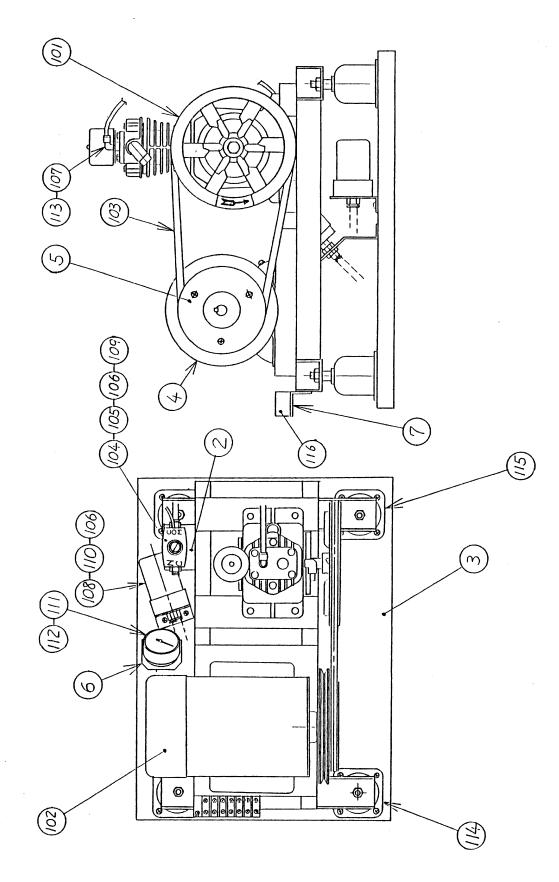


ITEM NO.	PART NO.	DESCRIPTION
1	SLC-3002	T JOINT A
101 102 103 105	601-6263 601-6262 601-6083 601-6311	ASSY AIR TANK RELIEF VALVE AIR JOINT TIRE COVER



ITEM NO.	PART NO.	DESCRIPTION
1	SLC-3004	T JOINT B
101	601-6080	AIR FILTER
102	601-6081	BRKT AIR FILTER
104	601 - 6252	AIR JOINT 6-1/8
105	601-6268	AIR COCK
106	601 - 6274	AIR JOINT 10–1/4 L TYPE
107	601-6282	NIPPLE 1/4
108	601-6291-02	AIR TUBE BLACK $\varnothing 6-500$

ASSY COMPRESSOR (SLC-3100) (D-1/2)



19

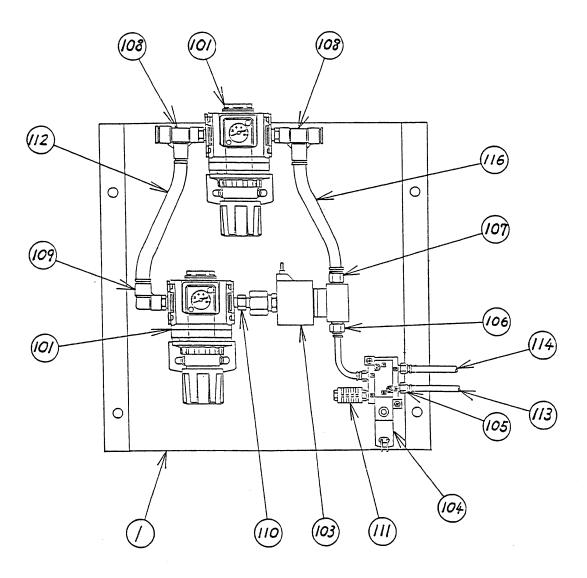
-70-

ASSY COMPRESSOR (SLC-3100) (D-2/2)

19

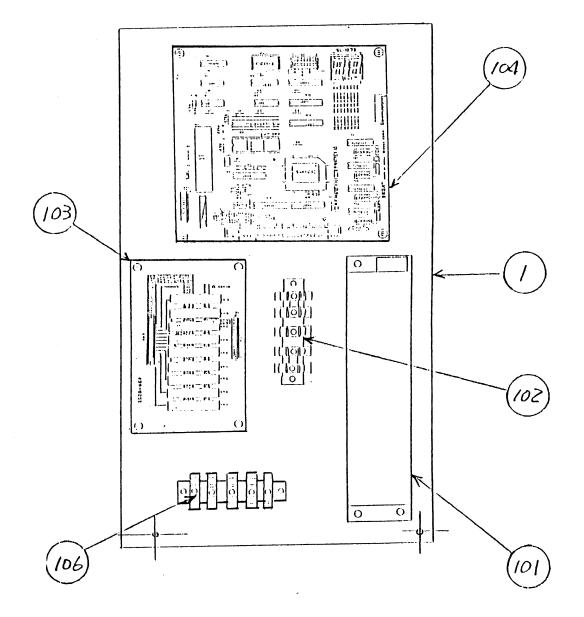
ITEM NO.	PART NO.	DESCRIPTION
1	SLC-3101	COMP. BASE
2	SLC-3102	VALVE BRKT
3	SLC-3103	WOODEN BOARD
4	SLC-3104	PULLEY 50Hz
5	SLC-3105	PULLEY 60Hz
6	SLC-3106	METER BRKT
7	SLC-3107	TERMINAL BRACKET
101	610-0241	COMPRESSOR
102	350 - 5172	MOTOR AC100V 550W
103	350-5173	V BELT
104	601-6275	AIR VALVE 3PORT
105	601-6252	AIR JOINT 6-1/4
106	601-6083	AIR JOINT
107	601-6257	AIR JOINT 6–1/8 L TYPE
108	509-5271	PRESSURE SW
109	601-6281	SILENCER 1/4
110	601-6267	BRKT PRESSURE SW
111	601-6248	COMPRESSION METER
112	601-6261	AIR JOINT 10-1/4 F TYPE
113	601-6286	AIR TUBE CLEAR $\emptyset 6-550$
114	601-6297	SPRING MOUNT-11
115	601-6298	SPRING MOUNT-15
116	117-5168	TERMINAL 6P 20A

## 2 ASSY REGULATOR (SLC-3200)



ITEM NO.	PART NO.	DESCRIPTION
1	SLC-3201	REGULATOR BASE
101	601-6077	REGULATOR
102	601-6079	BRKT REGULATOR
103	601-6250	AIR VALVE 3PORT
104	601-6251	AIR VALVE 4PORT
105	601-6252	AIR JOINT 6-1/8
106	601-6253	AIR JOINT 6-1/4
107	601-6083	AIR JOINT
108	601-6256	AIR JOINT 10–1/4 ST TYPE
109	601-6274	AIR JOINT 10–1/4 L TYPE
110	601-6282	NIPPLE 1/4
111	601-6247	SILENCER 1/8
112	601-6286-03	AIR TUBE CLEAR $ ot=6-110$
113	601-6289-01	AIR TUBE YELLOW $\emptyset$ 6–280
114	601-6290-01	AIR TUBE GREEN $\emptyset$ 6–280
115	601-6292-02	AIR TUBE CLEAR $ ot=$ 10–165
116	601-6293-02	AIR TUBE RED $\emptyset$ 10–160

-72-

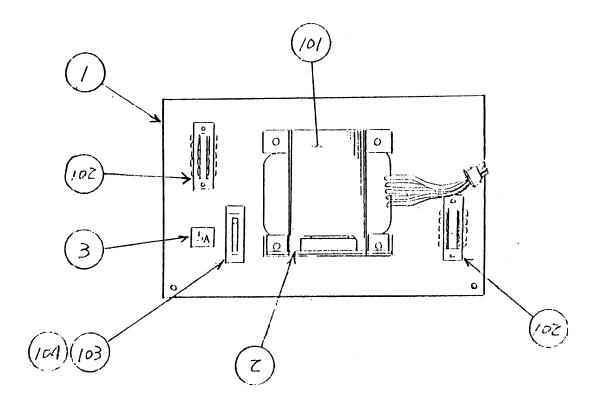


ITEM NO.	PART NO.	DESCRIPTION
1	SLC-4001	WOODEN BASE
101 102 103 104 105 106	400-5089 117-5167 839-0252 837-7005 280-0419 117-5166	SW REGU AC90-240V +5V 12A TERMINAL 5P-2P×2 SHORT SSR BD 10 DRIVE BD HARNESS LUG TERMINAL 5P-5P SHORT

-73-

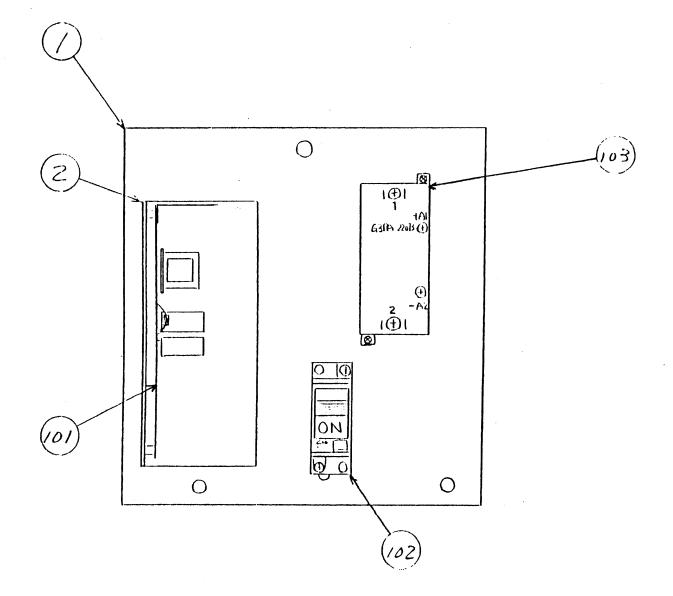
21

22



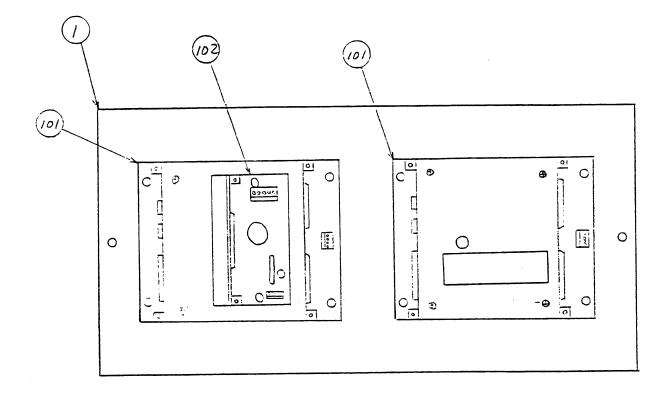
ITEM NO.	PART NO.	DESCRIPTION
1	SLC-4101	WOODEN BASE
2	SLC-4102	GRIP
3	421-6595-05	STICKER 5 AMPERE
101	560-5148	PWR XFMR 90~240V 100V 2.5A 18.5V 7A
102	117-5167	TERMINAL 5P–2P×2 SHORT
103	514-5028	FUSE HLDR 1P W/COVER
104	514-0034	FU 5A 6.4×30MM
105	280-0419	HARNESS LUG

## 23 ASSY SUB DRIVER (SLC-4200)

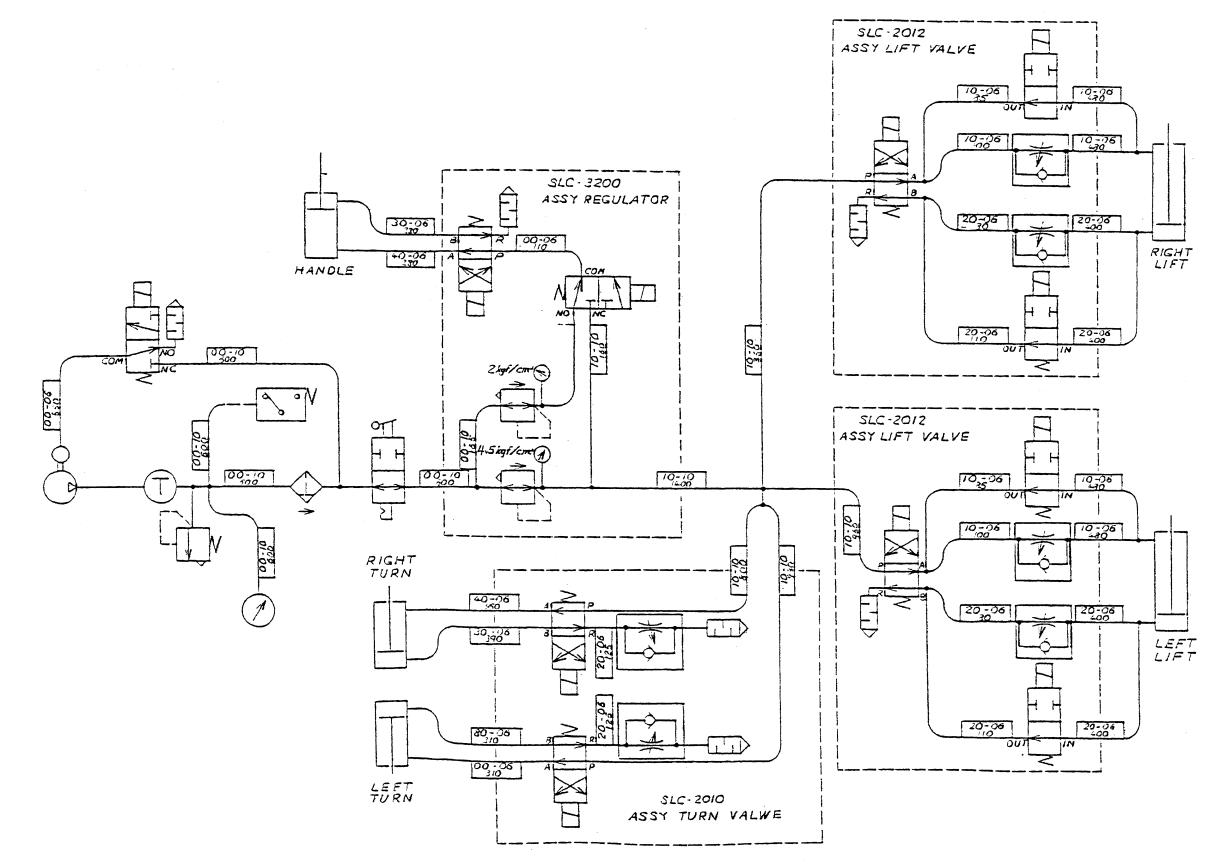


ITEM NO.	PART NO.	DESCRIPTION
1 2	SLC-4201 SLC-4202	WOODEN BASE SSR BRKT. REG.
101 102 103	400–5101 512–5013–15 450–5048	SW REG AC90~240V+50V 1A CIRCUIT PROTECTOR 15A SSR AC 20A

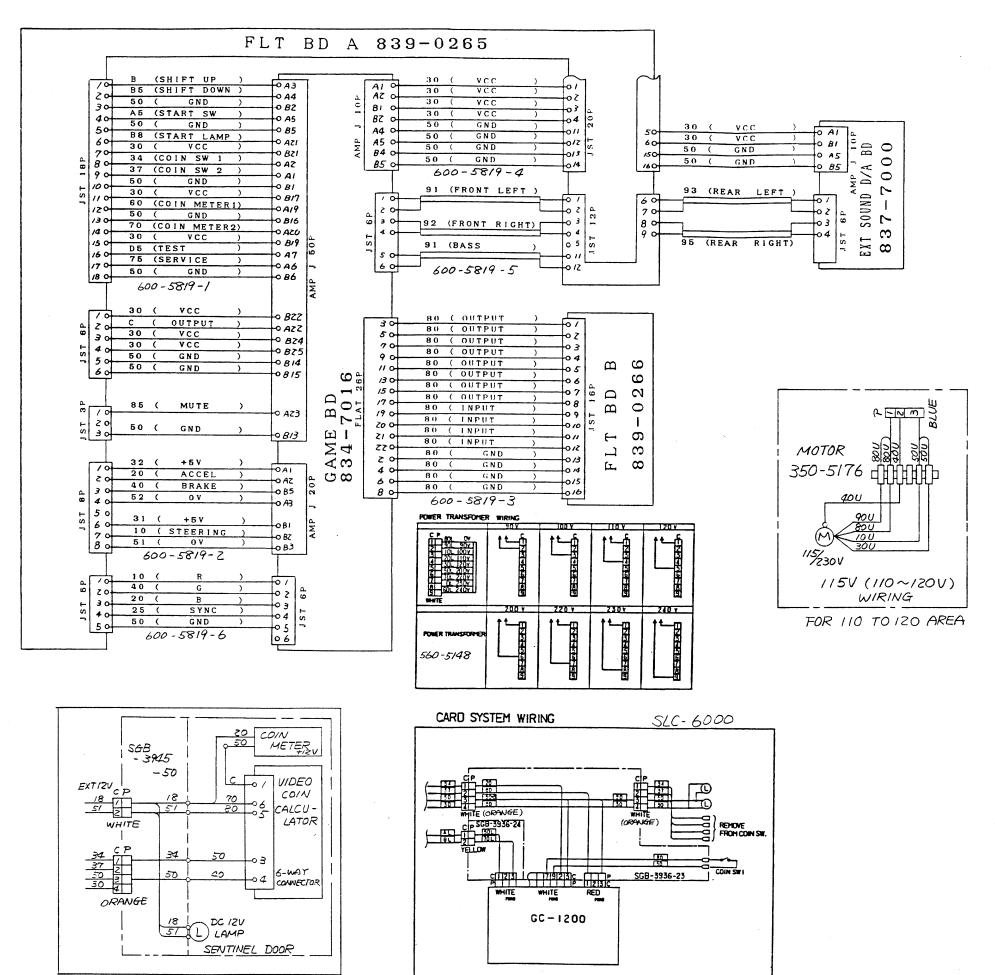
-75-



ITEM NO.	PART NO.	DESCRIPTION
1	SLC-4301	WOODEN BASE AMP
101 102	601-6227 601-6228	PWR AMP W/SW REG 12V 5A PWR AMP SUPER WOOFER

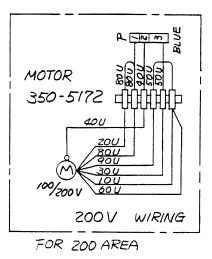


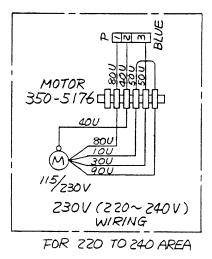
## 23. PIPING DIAGRAM



SENTINEL DOOR WIRING

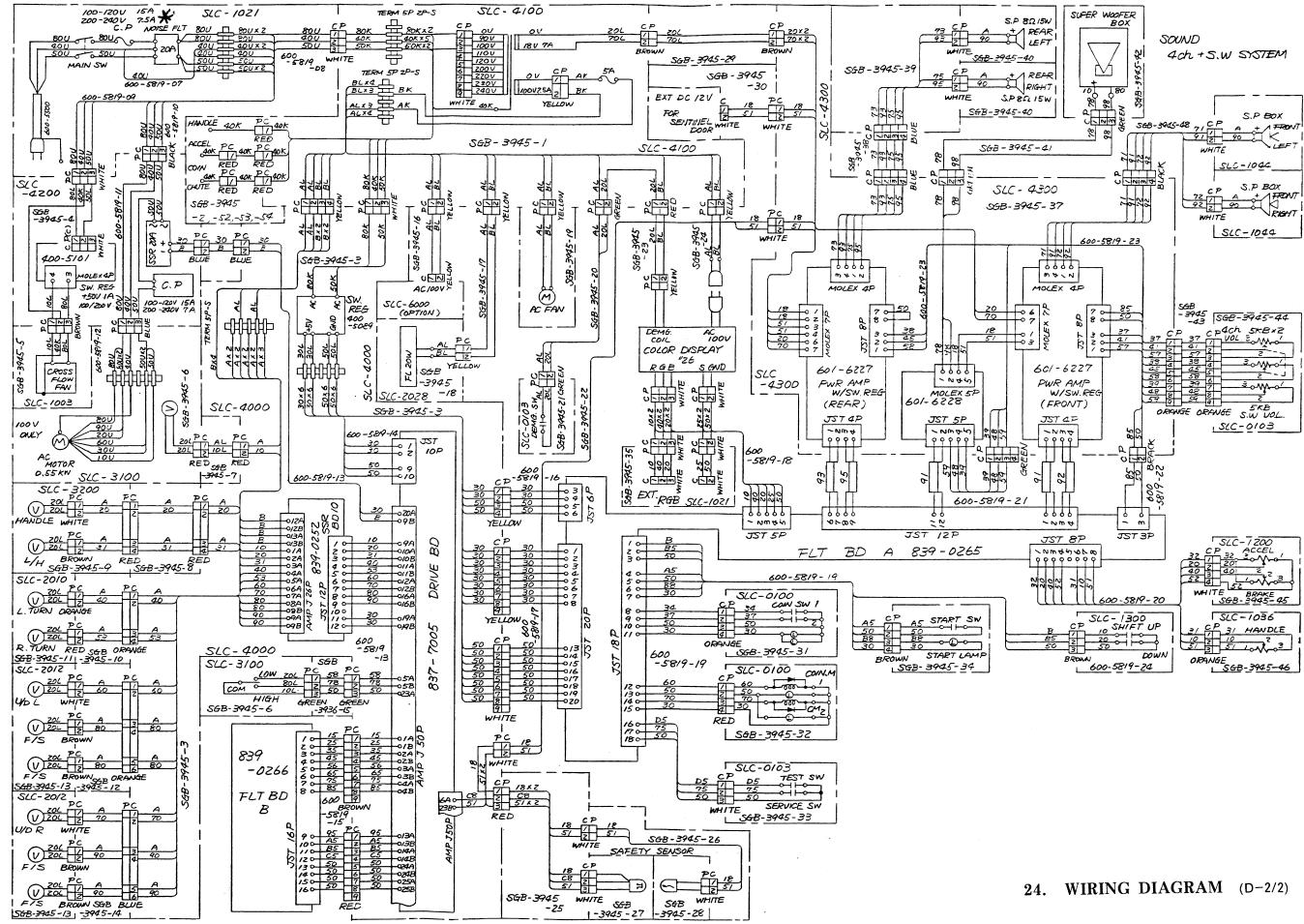
2





24. WIRING DIAGRAM (D-1/2)

-78-



SEGA ENTERPRISES, LTD. No.2-12, Haneda 1-chome Ohta-ku, Tokyo 144, Japan O Tel. : (03) 743-7438 O FAX : (03) 743-5539 O TLX : J22357 SEGASTAR

© SEGA 1989