INTRODUCTION

Thank you for purchasing our RAVE RACER.

This operation manual describes how to safely carry out operation, installation, transportation, and maintenance of the RAVE RACER.

To operate the RAVE RACER correctly and safely, be sure to read the operation manual carefully before starting installation and operation.

The operation manual is intended for the use by the operator at an amusement arcade. In the operation manual however, the procedural items where — ALLOWED FOR QUALIFIED TECHNICIAN ONLY — appears shall be carried out by a qualified technician only.

The qualified technician in the operation manual means:

- The technician who graduated from university, collage, or finished senior high school, and qualified of mechanics or electronics, or who are equivalent to those persons in knowledge and experience, and who does daily maintenance, operation controls, and repairs of amusement machines.

If the owner of this machine is to ask a third party to operate, install, transport, handle, and/or maintain the machine, it is owner’s responsibility for the third party that they shall read the operation manual thoroughly and strictly observe the safety precautions stated in the operation manual.

Keep the operation manual close to the machine and retain it for future reference so that it can be referred to whenever necessary.

- If you resale the machine, be sure to include the operation manual in the package.

For information on the machine itself, reparation of the machine, or associated parts including consumables: contact the dealer from whom you have purchased the machine.
1. SAFETY PRECAUTIONS

1.1 EXPLANATION OF THE CAUTION SYMBOL

1.2 EXPLANATION OF SIGNAL WORDS
   (‼️ DANGER, ⚠️ WARNING, ⚠️ CAUTION)

1.3 SAFETY PRECAUTION FOR OPERATION
   1.3.1 Prohibition of play games
   1.3.2 Notes on operation

1.4 SAFETY PRECAUTION FOR INSTALLATION
   - ALLOWED FOR QUALIFIED TECHNICIAN ONLY -

1.5 SAFETY PRECAUTION FOR MOVING AND TRANSPORTATION
   - ALLOWED FOR QUALIFIED TECHNICIAN ONLY -

1.6 SAFETY PRECAUTION FOR MAINTENANCE
   (TROUBLESHOOTING AND REPAIR)
   - ALLOWED FOR QUALIFIED TECHNICIAN ONLY -

2. SPECIFICATION

3. COMPONENT (NAME OF PARTS)

4. INSTALLATION
   - ALLOWED FOR QUALIFIED TECHNICIAN ONLY -

4.1 NOTES ON INSTALLATION

4.1.1 The place where installation is prohibited
4.1.2 Conditions of installation

4.2 ASSEMBLY

4.2.1 Coin assembly
4.2.2 Bracket assembly
4.2.3 Plastic cover assembly

4.3 ATTACHING THE SIGN ASSY

4.4 SETTING THE LINK SWITCH AND CONNECTION THE LINK CABLE
5. OPERATION

5.1 HOW TO PLAY

5.2 ADJUSTEMENT
   5.2.1 Turning on power
   5.2.2 Adjustement switches

5.3 TEST MODE
   5.3.1 Testing control functions (CHECK Screen)
   5.3.2 Setting game costs, etc. (COIN OPTION Screen)
   5.3.3 Setting game options (GAME OPTIONS Screen)
   5.3.4 Testing switches (I/O TEST Screen)
   5.3.5 Testing switches (SWITCH TEST Screen)
   5.3.6 Adjusting monitor (MONITOR TEST Screen)
   5.3.7 Sound volume adjustment, etc. (SOUND TEST Screen)
   5.3.8 Displaying game data (ADS DATA Screen)
   5.3.9 Others (OTERS Screen)

5.4 ADJUSTEMENT ON PARTS REPLACEMENT (INITIALIZATION)

5.5 CHECK
   5.5.1 Check items before starting operation

6. DAILY MAINTENANCE

6.1 REPLACING THE FUSE

6.2 REMOVING THE GAME PC BOARDS

6.3 DETACHING THE RACK ASSY

7. PARTS LIST

7.1 SEAT ASSY
7.2 CONTROL PANEL ASSY
7.3 STEERING ASSY
7.4 SIGN ASSY
7.5 GEAR SHIFT ASSY
7.6 PEDAL ASSY
1. SAFETY PRECAUTIONS

1.1 EXPLANATION OF THE CAUTION SYMBOL 🔴

The meaning of the caution symbol 🔴 used for the operation manual is described below.

- Caution symbol 🔴: This symbol is used to indicate potential danger, and is a specific, general caution, warning, or danger notification.

1.2 EXPLANATION OF SIGNAL WORDS

(🔴 DANGER, 🔴 WARNING, 🔴 CAUTION)

The signal words (🔴 DANGER, 🔴 WARNING, 🔴 CAUTION) used for the operation manual indicate the possibility that the danger will result in bodily harm or damage to property.

The risk level for each is as described below:

- 🔴 DANGER: This indicates that if mistakes are made in handling, a dangerous condition will result that could cause death or serious injury to the operator, and that the urgency of the warning is very high.

- 🔴 WARNING: This indicates that if mistakes are made in handling, a dangerous condition will result that could cause death or serious injury to the operator.

- 🔴 CAUTION: This indicates that if mistakes are made in handling, a condition will result that could cause minor injury to the operator or light damage to the machine.

NOTE: Classification of Injury or Damage

**Serious Injury**: Injuries such as loss of sight, scars, burns (high-temperature, low-temperature), electric shock, broken bones, poisoning that have lasting effects, and which require hospitalization or long-term doctor visits.

**Minor Injury**: Injuries that do not require hospitalization or long-term doctor visits. (Injuries not listed above.)

**Property Damage**: Large damage to buildings, property, or pets.
1.3 SAFETY PRECAUTIONS FOR OPERATION

1.3.1 Prohibition of play games

The following persons are prohibited to play the game with the machine. The manager or the attendant of the machine shall be responsible for the machine not to be played by the persons those specified below.

- Who are not in good health
- Who are injured and cannot play the game with ease
- Who are drunken

1.3.2 Notes on operation

⚠️ WARNING

- Use the parts specified by NAMCO as consumables and repair parts (including bolts and nuts).
- Start operating the machine after you have checked for sure that the machine is installed correctly (all conditions described under 4. "INSTALLATION" shall meet the specifications).
- Use the machine with the rated power supply voltage as closely as possible for better operating conditions though the machine can tolerate a power voltage within a range of ±10% of the rated value.
- Connect the machine to the ground to avoid electric leakage when the machine breaks down.

⚠️ CAUTION

- Stop using the machine immediately if the machine fails to operate or has received a damage.
- Hold the plug, not the power cord to pull out the cord plug from the outlet.
1.4 SAFETY PRECAUTIONS FOR INSTALLATION
— ALLOWED FOR QUALIFIED TECHNICIAN ONLY —

⚠️ WARNING ⚠️

- Never turn on the main power switch of the machine until the machine has been installed correctly and completely (until all conditions described under 4. "INSTALLATION" meet the specifications).
- Connect the machine to the ground to avoid electric leakage when the machine breaks down.

NOTES:

- Allow a space of 30 cm or more between the machine and other surrounding object such as walls or other equipment.

When you install two machines closely together, you don’t need to make a space between them.

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Diagram showing installation space with dimensions:
- 3 m 40 cm
- 30 cm
- 50 cm
- 2 m 20 cm
- 1 m
1.5 SAFETY PRECAUTIONS FOR MOVING AND TRANSPORTATION
—ALLOWED FOR QUALIFIED TECHNICIAN ONLY—

⚠️ WARNING ⚠️

- The RAVE RACER has casters. Move the machine with extreme care when it is on a slope.
- Firmly hold the machine when loaded on a truck for transportation so that it will not move by acceleration or deceleration.

1.6 SAFETY PRECAUTIONS FOR MAINTENANCE
(TROUBLESHOOTING AND REPAIR)
—ALLOWED FOR QUALIFIED TECHNICIAN ONLY—

⚠️ WARNING ⚠️

- Never modify the machine without authorization. There can be unpredictable danger with the machine if modified.
- Use the parts specified by NAMCO as consumables and repair parts (including volts and nuts).
- Cut off the main power supply for maintenance (troubleshooting and repair) to avoid electric shock hazard to the technician or any other persons.
- Contact the dealer for further operations when you do any other work on the machine than it is described in the operation manual.
- A high voltage exists in the power supply board and the inside of the monitor, and such parts can remain at high temperatures even when the main power switch is turned off. To avoid electric shock hazard or a burn, be careful not to touch them accidentally.
- Be sure to turn off the main power switch for parts replacement, and connection and disconnection of connectors.

⚠️ CAUTION ⚠️

- Hold the plug, not the power cord to pull out the cord plug from the outlet.
(1) Power requirements:

(2) Power consumption:

(3) Accessories:

220 VAC ± 10%

750 W (when operated at 220

Operation manual (this manual
Projector manual
Power plug

VISTA FRONTEALE

VISTA LATERALE
4. INSTALLATION  —ALLOWED FOR QUALIFIED TECHNICIAN ONLY—

4.1 NOTES ON INSTALLATION

⚠️ WARNING

- Do not turn on the power until you complete the installation of the machine.
- Connect the machine to the ground to avoid electric leakage when the machine breaks down.

⚠️ CAUTION

- Assemble or disassemble the machine by the appropriate number of persons.

4.1.1 The place where installation is prohibited

The machine shall be used indoors. Do not install it in a place or under conditions listed below.

- Outdoors
- where subject to direct sunlight, high humidity, dust, or rain
  where close to a heating apparatus, or very hot or cold place
- where the machine can be an obstacle for the way to emergency exit or where a fire extinguishing equipment is installed.
- where subject to vibration or where the floor is not steady and rigid
4.1.2 Conditions of installation

⚠ CAUTION

- Make a play space below or more available. If the play space is too small, one player may touch the other when they are playing or when one gets up or gets down.

NOTE:
- Make a space of 50 cm or more between the rear of the machine and the wall or between the machine and the other equipment so that a technician can remove the back cover at the rear of the main unit (the main unit assembly and the signboard assembly) for maintenance purposes.

Figure 4
4.2 ASSEMBLY
4.2.1 COIN ASSEMBLY

- Pull out the connector and connect them to the coin assy.
- To fix the coin box to the left cabinet through two stud bolt and the bolt.
4.2.2 Bracket Assembly

Fix the bracket (1) with 4 bolts (M8X20). Be sure that bottom side of the bracket touches the floor.

Fix the bracket (2) with 6 bolts (M8X20).
Fix the plastic cover; to be assure to have insert the slot in the screw that you find on the cabinet.
4.3 ATTACHING THE SIGN ASSY

NOTE: The sign Assy weighs about 23 kg. The sign Assy is installed at a high location and is unstable, so this work should be performed by at least two people in order to prevent accidents.

1. Place the sign Assy on top of the projector Assy.
2. Lift up the right side of the sign Assy (when facing the sign) and connect the connector on the sign Assy to the projector Assy.
3. Tighten the two Bolt.
4.4 SETTING THE LINK SWITCH AND CONNECTING THE LINK CABLE

Up to 4 sets (8 seats) can be connected together.

NOTE:
- Each set must be connected to a separate AC outlet.

[Preparation]

(1) Turn off the power switch in the cord box at the rear of the main unit.
(2) Detach the jack cover
(3) Set the link switch to "external" (be sure to set it to "internal" when you don't connect this unit to another one).
(4) Using the supplied link cable, connect the [IN] connector of one unit to the [OUT] connector of another one.
(5) Attach the jack cover by tightening the two cup screws. Be careful with the cable not to be caught by the jack cover. As shown pass the link cable through the long hole at the bottom. The long hole at the top will not be used.
(6) Turn on the power to each unit, and check the link function on the GAME OPTIONS Screen in the test mode.
(7) Set the game difficulty levels, the number of laps, the CPU number, and the car type as specified.

NOTE:
- If you have made the setting other than those specified, the game cannot be played normally.
[Connection examples between units]

① For 2 units

② For 3 units

③ For 4 units
5.2 ADJUSTMENT

5.2.1 Turning on power

After completing the installation, turn on the machine by setting the power switch to “ON”. The power switch is located in the cord box.

5.2.2 Adjustment switches

The adjustment switches are located behind the door of the coin assembly.

(1) Service switch

By pressing the service switch, the credit number can be incremented without activating the coin counter.

(2) Test switch

By turning the test switch to “ON” sets the machine in the test mode.

In the test mode, game cost setting can be changed and test for each function can be performed.

(3) Demagnetizing switch

By holding down the demagnetizing switch for about 10 seconds, the monitor can be demagnetized and color impurity if exists on the screen will be removed. Depending on the location of the machine or the conditions of the building, there may be color impurity on the monitor screen caused by terrestrial magnetism.
5.3 TEST MODE

(1) Set the test switch to "ON", and the "MENU Screen" appears on the monitor.

(2) Turn the steering wheel in either direction to select the desired test item. The color of selected item changes.

(3) Step on the accelerator pedal (right pedal) to enter the selected test item, and the following pages mentions how to adjust for each test item.

(4) Every time when completing the adjustment for a test item, select "EXIT" from the MENU, and step on the accelerator pedal. (If you are using the SWITCH TEST Screen on page 22, simultaneously step on both the accelerator and the brake pedals. The MENU will appear again.

(5) After completing the adjustment of all test items, set the test switch to "OFF". The game screen will appear.

Note that the test switch shall be set to "OFF" normally.

MENU Screen
5.3.1 Testing control functions (CHECK Screen)

Select item (1) "CHECK" from the MENU Screen, and step on the accelerator pedal. The CHECK Screen below will appear.

<table>
<thead>
<tr>
<th>CHECK</th>
<th>(a) Setting the feedback.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEEDBACK</td>
<td>(b) Testing the feedback.</td>
</tr>
<tr>
<td>STEERING</td>
<td>(This will appear when (a) is set ON.)</td>
</tr>
<tr>
<td>MOTOR TEST</td>
<td>(c) Viewpoint change switch.</td>
</tr>
<tr>
<td>OFF</td>
<td>(d) Steering wheel</td>
</tr>
<tr>
<td>VIEW SW</td>
<td>(e) Gear shift</td>
</tr>
<tr>
<td>OFF</td>
<td>CENTER SWITCH1 OFF</td>
</tr>
<tr>
<td>STEERING</td>
<td>SWITCH2 OFF</td>
</tr>
<tr>
<td>SHIF'T</td>
<td></td>
</tr>
<tr>
<td>+0000</td>
<td></td>
</tr>
<tr>
<td>EXIT</td>
<td></td>
</tr>
</tbody>
</table>

(a) This item sets the feedback. Normally, set this item to "ON".

(b) This item tests the feedback, and it appears by setting item (a) to "ON".

The following describes the test procedure.

1. Turn the steering wheel to set item (a) to "ON", and release your hands from the steering wheel.
2. Step on the accelerator pedal once, and the feedback motor will turn in left or right direction.
3. Step on the accelerator pedal again. The steering wheel will be set in the center position, and the motor will stop.

NOTE:

- Do not touch the steering wheel until the motor stops completely.

(c) This item is to be set "ON" when pressing the viewpoint change button. It is to be "OFF" when release the viewpoint change button.

(d) This item is to be incremented to + when turning the steering wheel to the right. It is to be decremented to - when turning the steering wheel to the left.

(e) This item shows the position of the gear shift, and setting of the two switches.

By moving the gear shift far away from you, switch 1 will be set to "ON" and "DOWN" will appear.

By moving the gear shift toward you, switch 2 will be set to "ON" and "UP" will appear.

Select "EXIT" and step on the accelerator pedal, and the MENU Screen will appear.
5.3.2 Setting game costs, etc. (COIN OPTIONS Screen)

Select item (2) "COIN OPTIONS" from the MENU Screen, and game cost, etc. can be set. Select the desired item by turning the steering wheel, and step on the accelerator pedal. The color of selected item changes. Setting of each item can be changed by turning the steering wheel. When the desired setting is made, step on the accelerator pedal again. (See Table 1.)

Upon completion of all the settings, select "EXIT" and step on the accelerator pedal. The MENU Screen will appear.

Table 1  COIN OPTIONS Setting

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Game cost setting</td>
<td>The number of coins required for 1 game (credit)</td>
<td>1 coin &lt;! — 9 coins</td>
</tr>
<tr>
<td>(b) Setting for coin 1 Mech</td>
<td>The count number when inserting a coin</td>
<td>1 coin &lt;! — 9 coins</td>
</tr>
<tr>
<td>(c) Setting for coin 2 Mech</td>
<td>Not used</td>
<td>Not used</td>
</tr>
<tr>
<td>(d) Free play</td>
<td>Free play for the game to start by stepping on the accelerator pedal</td>
<td>OFF (not available) &lt;!  ON (available)</td>
</tr>
</tbody>
</table>
5.3.3 Setting game options (GAME OPTIONS Screen)

Select item 3 "GAME OPTIONS" from the MENU Screen, and settings and difficulty levels of games can be set.

Turn the steering wheel to select the desired item to change, and step on the accelerator pedal. Turn the steering wheel to change the setting of the selected item, and step on the accelerator pedal again to set the desired setting. (See Table 2.)

Selecting "NEXT PAGE" and stepping on the accelerator pedal will display page 2. Selecting "NEXT PAGE" and stepping on the accelerator pedal again will set the display back to page 1.

Upon completion of all the settings, select "EXIT" and step on the accelerator pedal. The MENU Screen will appear.

![GAME OPTIONS Screen](image-url)
### Table 2  GAME OPTIONS Setting

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) CPU number</td>
<td>Do not assign the same number to two or more machines being connected. (Assign number 1, number 2, and so on from the left when you are facing to the screen.)</td>
</tr>
<tr>
<td>(b) Link function test</td>
<td>The number of seats connected is displayed. When setting only 1 seat alone, &quot;OFF&quot; is displayed.</td>
</tr>
<tr>
<td>(c) Car type</td>
<td>1 BLUE (Assign number 1, number 2, and so on from the left when you are facing to the screen.)</td>
</tr>
<tr>
<td>(d) Game duration for linked play</td>
<td>A (long) to H (short) [D: Standard setting]</td>
</tr>
<tr>
<td>(e) Game duration for one player-play.</td>
<td>A (long) to H (short) [D: Standard setting]</td>
</tr>
<tr>
<td>(f) Game duration for one player/TT</td>
<td>A (long) to H (short) [D: Standard setting]</td>
</tr>
<tr>
<td>(g) Specified number of laps for linked/RIDGE RACER SHORT</td>
<td>3 to 6 [3: Standard setting]</td>
</tr>
<tr>
<td>(h) Specified number of laps for linked/CITY</td>
<td>3 to 6 [3: Standard setting]</td>
</tr>
<tr>
<td>(i) Specified number of laps for linked/MOUNTAIN</td>
<td>3 to 6 [3: Standard setting]</td>
</tr>
<tr>
<td>(j) Specified number of laps for linked/MOUNTAIN EXPERT</td>
<td>3 to 6 [3: Standard setting]</td>
</tr>
<tr>
<td>(k) Specified number of laps for one player/beginners class</td>
<td>3 to 6 [3: Standard setting]</td>
</tr>
<tr>
<td>(l) Specified number of laps for one player/middle class</td>
<td>3 to 6 [3: Standard setting]</td>
</tr>
<tr>
<td>(m) Specified number of laps for one player/advanced class</td>
<td>3 to 6 [3: Standard setting]</td>
</tr>
<tr>
<td>(n) Specified number of laps for one player/most advanced class</td>
<td>3 to 6 [3: Standard setting]</td>
</tr>
</tbody>
</table>

**NOTES:**

- The rank and the number of laps shall be set the same for all machines being connected.
- Assign CPU number 1 to the far left seat when you are facing to the screen. Then, assign CPU numbers 2, 3, 4 and so on in order to the next seat on the right. The last CPU number shall be equal to the number of connected seats.
- Games cannot be played normally if any CPU number assignment other than this way has been made.
- If you made incorrect setting, reset the CPU numbers by referring to the CPU number setting status displayed on the screen.
**GAME OPTIONS Screen**

Table 3 **GAME OPTIONS Setting**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(o) Unit of speed</td>
<td>km/h (kilometers)</td>
</tr>
<tr>
<td>(p) Sound for attraction</td>
<td>ON (Enabled) OFF (Disabled)</td>
</tr>
<tr>
<td>(q) Display for attraction [Display for extended number of laps]</td>
<td>ON (Enabled) OFF (Disabled)</td>
</tr>
<tr>
<td>(r) Display for attraction [Display for EASY setting]</td>
<td>ON (Enabled) OFF (Disabled)</td>
</tr>
<tr>
<td>(s) Initialization for high scores</td>
<td>ON (Enabled) OFF (Disabled)</td>
</tr>
<tr>
<td>(t) Setting for the feedback</td>
<td>ON (Enabled) OFF (Disabled)</td>
</tr>
</tbody>
</table>

* Note on (u) Extra lap mode

When you set (u) Extra lap mode to “ON”, the number of laps will be set 12.

In this case, the game time duration setting and the specified lap setting (items “d” to “n”) will be fixed. When setting this item to “OFF”, these settings will be reset to standard settings.
5.3.4 Testing switches (I/O TEST Screen)

Select item (4) "I/O TEST" from the MENU Screen, and the following I/O TEST Screen will appear.

<table>
<thead>
<tr>
<th>I/O TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIP2 12345678</td>
</tr>
<tr>
<td>DIP3 12345678</td>
</tr>
<tr>
<td>LINK ON 2</td>
</tr>
<tr>
<td>STEERING MOTOR TEST OFF</td>
</tr>
<tr>
<td>LAMP TEST OFF</td>
</tr>
<tr>
<td>SWITCH TEST</td>
</tr>
</tbody>
</table>

**I/O TEST Screen**

(a) This item shows the setting of option DIP switch 2 on the game PC board (SW2 on CPU-PCB). If the numbers appear in red, the corresponding switch elements are set to "ON". Setting is made normal when all switch elements are set to "OFF".

(b) This item shows the setting of option DIP switch 3 on the game PC board (SW3 on CPU-PCB). If the numbers appear in red, the corresponding switch elements are set to "ON". Setting is made normal when all switch elements are set to "OFF".

(c) This item shows the number of seats being installed.

When operating with one seat alone, "OFF" appears.

(d) This item is used to test the feedback. To test, perform the following steps.

1. Turn the steering wheel to set item (d) to "ON", and release your hands from the steering wheel.
2. Step on the accelerator pedal once, and the feedback motor will turn in left or right direction.
3. Step on the accelerator pedal again. The steering wheel will be set in the center position, and the motor will stop.

**NOTE:**

* Do not touch the steering wheel until the motor stops completely.
* This item does not appear if the feedback has not been set to "ON" on the CHECK Screen or on the GAME OPTIONS Screen.

(e) This item is used to test the lamp. Turn the steering wheel to set this item to "ON", and the lamp lights up.

(f) This item is used to test the switches. (See the next page.)

Select "EXIT" and step on the accelerator pedal, and the MENU Screen will appear.
5.3.5 Testing switches (SWITCH TEST Screen)

Select (f) "SWITCH TEST" from the I/O TEST Screen, and the following screen will appear.

```
I/O TEST
SWITCH TEST
STEERING +0000 (a) Steering wheel
GAS +0000 (b) Accelerator
BRAKE +0000 (c) Brake
SHIFT CENTER SWITCH1 OFF (d) Gear shift
SWITCH2 OFF
SERVICE OFF (e) Service switch
COIN OFF (f) Coin switch
VIEW OFF (g) Viewpoint change switch
EXIT=STEP ON THE GAS AND BRAKE
```

(a) This item is to be incremented to + when turning the steering wheel to the right. It is to be decremented to - when turning the steering wheel to the left. When the steering wheel is set at the center, the figure is about 0000 (it is normal that the lowest 1 digit changes). This setting is normal when "OK" appears to the right of the displayed figure just before the steering wheel is fully turned.

(b) Stepping on the accelerator pedal increases the number (+). When releasing the accelerator, the figure is about 0000 (it is normal that the lowest 1 digit changes). This setting is normal when "OK" appears to the right of the displayed figure just before the accelerator pedal is fully depressed.

(c) Stepping on the brake pedal increases the number (+). When releasing the brake, the figure is about 0000 (it is normal that the lowest 1 digit changes). This setting is normal when "OK" appears to the right of the displayed figure just before the brake pedal is fully depressed.

(d) This item shows the gear shift positions (CENTER, UP, and DOWN), and the statuses of two switches.

By moving the gear shift far away from you, switch 1 will be set to "ON" and "DOWN" will appear.

By moving the gear shift toward you, switch 2 will be set to "ON" and "UP" will appear.

(e) This item is set to "ON" when the service switch behind the coin door is pressed.

(f) This item is set to "ON" when the coin switch is set to "ON".

(g) This item is set to "ON" when the viewpoint change button is pressed.

Upon completion of the switch test, simultaneously depress the accelerator and brake pedals. Then, the I/O TEST Screen will appear.
5.3.6 Adjusting monitor (MONITOR TEST Screen)

Select item (5) "MONITOR TEST" from the MENU Screen, and the items for monitor adjustment will appear. Stepping on the accelerator pedal changes the display from one item to another. Step on the brake pedal to go back to the MENU Screen.

5.3.7 Sound volume adjustment, etc. (SOUND TEST Screen)

Select item (6) "SOUND TEST" from the MENU Screen to adjust the sound volume. The following SOUND TEST Screen will appear on the monitor.

<table>
<thead>
<tr>
<th>SOUND TEST</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOLUME (L) 20</td>
<td>(a) Sound volume of the loudspeaker on the left</td>
</tr>
<tr>
<td>VOLUME (R) 20</td>
<td>(b) Sound volume of the loudspeaker on the right</td>
</tr>
<tr>
<td>STEREO CHECK</td>
<td>(c) Stereo check</td>
</tr>
<tr>
<td>REQUEST SONG NO. 00</td>
<td>(d) Music request</td>
</tr>
<tr>
<td>MESSAGE</td>
<td>(e) Message display</td>
</tr>
<tr>
<td>EXIT</td>
<td></td>
</tr>
</tbody>
</table>

(1) Turn the steering wheel and step on the accelerator pedal while item (a) or (b) is blinking in red. Then, the figure on the right will start to blink. Turn the steering wheel to the right, and the number increases. Turn the steering wheel to the left, and the number decreases. Sound volume can be set in 64 steps from "00" (at minimum) to "3F" (at maximum). It is factory-set to "20". When you reach the desired sound volume level, step on the accelerator pedal.

(2) Select item (c) and step on the accelerator pedal. Sound can be heard from the left loudspeaker, the right loudspeaker, and then both the left and right loudspeakers in that order. At the same time, item (e) for the message display shows "LEFT", "RIGHT", and then "CENTER", respectively.

(3) Select item (d) and step on the accelerator pedal. A music or an effect sound will be output however, the sound stops automatically in 4 seconds. Then, step on the brake pedal.

Select "EXIT" and step on the accelerator pedal. Then, the MENU Screen will appear.
5.3.8 Displaying game data (ADS DATA Screen)

Select item (7) "ADS DATA" from the MENU Screen, and the following ADS data screen will appear. (See Table 4.)

Select "EXIT" and step on the accelerator pedal. Then, the MENU Screen will appear.

<table>
<thead>
<tr>
<th>ADS DATA [1/2]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON TIME 00000000</td>
</tr>
<tr>
<td>PLAY TIME 00000000</td>
</tr>
<tr>
<td>IP PLAY 00000000</td>
</tr>
<tr>
<td>TT PLAY 00000000</td>
</tr>
<tr>
<td>LINK PLAY 00000000</td>
</tr>
<tr>
<td>TOTAL PLAY 00000000</td>
</tr>
<tr>
<td>AVERAGE TIME 000000</td>
</tr>
<tr>
<td>AT 000000</td>
</tr>
<tr>
<td>MT 000000</td>
</tr>
<tr>
<td>TOTAL 00000000</td>
</tr>
<tr>
<td>IP PLAY 000000</td>
</tr>
<tr>
<td>TT PLAY 000000</td>
</tr>
<tr>
<td>LINK PLAY 000000</td>
</tr>
<tr>
<td>TOTAL 00000000</td>
</tr>
<tr>
<td>ADS CLEAR NO</td>
</tr>
<tr>
<td>ADS USE NO</td>
</tr>
<tr>
<td>NEXT PAGE</td>
</tr>
<tr>
<td>EXIT</td>
</tr>
</tbody>
</table>

Table 4 ADS DATA

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Total power-on time duration</td>
<td>Shows the total power-on time duration from power-on to now.</td>
</tr>
<tr>
<td>(b) Total play time duration</td>
<td>Shows the accumulated play time duration.</td>
</tr>
<tr>
<td>(c) Play time duration for one player play</td>
<td>Shows the accumulated play time duration for one player play (except for TT).</td>
</tr>
<tr>
<td>(d) Game time duration for TT</td>
<td>Shows the accumulated play time duration for TT.</td>
</tr>
<tr>
<td>(e) Play time duration for linked play</td>
<td>Shows the accumulated play time duration for linked play.</td>
</tr>
<tr>
<td>(f) Total number of times of play</td>
<td>Shows the total number of times of play.</td>
</tr>
<tr>
<td>(g) Play time duration average</td>
<td>Shows the average play time duration per play.</td>
</tr>
<tr>
<td>(h) Number of plays per game type</td>
<td>Shows the play times per game type (one player/TT/linked) and per selected gear shift type (AT/MT), separately.</td>
</tr>
<tr>
<td>(i) Initialization of data</td>
<td>YES (Initialize) (When set to &quot;YES&quot;, the collected game data will be reset.)</td>
</tr>
<tr>
<td>NO (Not initialize)</td>
<td></td>
</tr>
<tr>
<td>(j) Use of ADS</td>
<td>YES (Enabled) (When set to &quot;YES&quot;, the game data will be collected.)</td>
</tr>
<tr>
<td>NO (Disabled)</td>
<td></td>
</tr>
</tbody>
</table>
Table 5 ADS DATA

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record time for one player/beginners’ class</td>
<td>Shows the record of the lap time and the total time.</td>
</tr>
<tr>
<td>Record time for one player/middle class</td>
<td>Shows the record of the lap time and the total time.</td>
</tr>
<tr>
<td>Record time for one player/advanced class</td>
<td>Shows the record of the lap time and the total time.</td>
</tr>
<tr>
<td>Record time for one player/most advanced class</td>
<td>Shows the record of the lap time and the total time.</td>
</tr>
<tr>
<td>Record time for TT/beginners’ class</td>
<td>Shows the record of the lap time and the total time.</td>
</tr>
<tr>
<td>Record time for TT/middle class</td>
<td>Shows the record of the lap time and the total time.</td>
</tr>
<tr>
<td>Record time for TT/advanced class</td>
<td>Shows the record of the lap time and the total time.</td>
</tr>
<tr>
<td>Record time for TT/most advanced class</td>
<td>Shows the record of the lap time and the total time.</td>
</tr>
</tbody>
</table>

Select “EXIT” and step on the accelerator pedal. Then, the MENU Screen will appear.
5.3.9 Others (OTHERS Screen)
Select item (8) "OTHERS" from the MENU Screen, and the following OTHERS Screen will appear.

(a) Version display
This item shows the game name, the cabinet name, setting status of the feedback, and the manufacturing date.

(b) PC board test
This item is used to test the PC board.

(c) EEPROM initialization
This item resets all settings, record times, etc. to their initial values when set to "YES" and step on the accelerator pedal.

Select "EXIT" and step on the accelerator pedal. Then, the MENU Screen will appear.
5.4 ADJUSTMENT ON PARTS REPLACEMENT (INITIALIZATION)

NOTE:

The following steps of adjustments are required when the game PC board, the ROM, the steering wheel assembly, the pedal assembly, and/or the volume controls are replaced. Otherwise, the game cannot be played normally.

1. Release your foot from either the accelerator or the brake.
2. Position the steering wheel at its center (be straight when viewed from the front), and release your hands.
3. Open the coin door.
4. While holding down the service switch behind the coin door, set the test switch to "ON". Then, the following ADJUST Screen will appear on the monitor.

```
 ADJUST
 STEERING  0000
    GAS     0000
     BRAKE  0000
```

ADJUST Screen

5. Press again the service switch.

Initialization is successfully complete when the figures next to "STEERING", "GAS", and "BRAKE" are set about "0000".

6. Set the test switch to "OFF", and the game screen will be restored.
5.5 CHECK

Check items before starting operation

(1) Installation check
   ① Are the level adjusters fixed firmly?
   ② Are the screws securely hold the main unit assembly and the seat assembly?

(2) Operation check (Set the power switch to "ON" and perform the checks with the machine being powered.)
   ① Is the sound output normal?
   ② Are the fluorescent lamps and other lamps lit?
   ③ Is the video screen normal?
   ④ Does the car swing when turning the steering wheel?
   ⑤ Does the accelerator function normally?
   ⑥ Does the brake function normally?
   ⑦ Does the gear shift mechanism function normally?

Be sure to check all the items above.
DAILY MAINTENANCE

⚠️ **DANGER:** When performing daily maintenance, make sure that the power plug to this game has been removed and that the power has been turned OFF, so that the person performing the maintenance or other persons are not injured or receive electric shock.

⚠️ **DANGER:** When performing work that is not described in this manual, contact the service center listed on the back cover of this manual, and receive instructions or answers to questions from the service center.

6.1 REPLACING THE FUSE

The fuse is located in the rear panel of the projector assy.

Replace the fuse with specified fuse:

For 220 V power supply: Glass-tube fuse 250 V, 5 A
6.2 REMOVING THE GAME PC BOARDS

(1) Open the maintenance door
(2) Remove the rack assy

6.3 DETACHING THE RACK ASSY

(1) Detach the rear cover
(2) Remove the screw used to hold the rack assy with control board assy.
(3) Remove the connector (one connector) from the cooling fan.
(4) Slightly pull out rack assy towards you.
(5) Disconnect the EMI PCB connector (two connector), and remove the cup screw (M4 X 10) used to hold the grounding wire at the door of the rack assy. (Be careful not to lose the inner-toothed washer.)
(6) Disconnect the I/O PCB connectors (four connectors).
(7) Detach the rack assy.
(8) To attach the rack assy, reversely perform the above steps.
### 7.1 Seat Assy

<table>
<thead>
<tr>
<th>N.</th>
<th>Part Name</th>
<th>Q.TY</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seat Wood Base</td>
<td>1</td>
<td>450-410</td>
</tr>
<tr>
<td>2</td>
<td>Seat Plastic</td>
<td>1</td>
<td>450-411</td>
</tr>
<tr>
<td>3</td>
<td>Back Plastic</td>
<td>1</td>
<td>450-412</td>
</tr>
<tr>
<td>4</td>
<td>Cover Plastic</td>
<td>1</td>
<td>450-413</td>
</tr>
<tr>
<td>5</td>
<td>Speaker</td>
<td>2</td>
<td>450-414</td>
</tr>
<tr>
<td>6</td>
<td>Speaker Grill</td>
<td>1</td>
<td>450-415</td>
</tr>
<tr>
<td>7</td>
<td>Moving Bar</td>
<td>2</td>
<td>450-416</td>
</tr>
<tr>
<td>8</td>
<td>Bar Knob</td>
<td>1</td>
<td>450-417</td>
</tr>
</tbody>
</table>
### 7.3 STEERING ASSY

<table>
<thead>
<tr>
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<th>PART NAME</th>
<th>Q'TY</th>
<th>PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MAIN SHAFT</td>
<td>1</td>
<td>463-711E</td>
</tr>
<tr>
<td>2</td>
<td>MOTOR BRACKET</td>
<td>1</td>
<td>463-713E</td>
</tr>
<tr>
<td>3</td>
<td>PILLOW BLOCK</td>
<td>2</td>
<td>463-028E</td>
</tr>
<tr>
<td>4</td>
<td>STEERING PULLEY P130-15</td>
<td>1</td>
<td>463-407E</td>
</tr>
<tr>
<td>5</td>
<td>TIMING BELT S13-15</td>
<td>1</td>
<td>463-408E</td>
</tr>
<tr>
<td>6</td>
<td>MOTOR PULLEY P26-15</td>
<td>1</td>
<td>463-409E</td>
</tr>
<tr>
<td>7</td>
<td>MOTOR</td>
<td>1</td>
<td>463-410E</td>
</tr>
<tr>
<td>8</td>
<td>COLLAR</td>
<td>2</td>
<td>463-411E</td>
</tr>
<tr>
<td>9</td>
<td>STOPPER BLOCK</td>
<td>1</td>
<td>463-412E</td>
</tr>
<tr>
<td>10</td>
<td>RUBBER STOP CILINDER</td>
<td>1</td>
<td>463-413E</td>
</tr>
<tr>
<td>11</td>
<td>CENTER CAP</td>
<td>1</td>
<td>463-414E</td>
</tr>
<tr>
<td>12</td>
<td>NAMCO LOGO STICKER</td>
<td>1</td>
<td>295-011</td>
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<tr>
<td>13</td>
<td>STEERING WHEEL</td>
<td>1</td>
<td>463-415E</td>
</tr>
<tr>
<td>N.</td>
<td>PART NAME</td>
<td>Q. TY</td>
<td>PART NUMBER</td>
</tr>
<tr>
<td>----</td>
<td>----------------------</td>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>1</td>
<td>SIDE COVER</td>
<td>2</td>
<td>450-430</td>
</tr>
<tr>
<td>2</td>
<td>SIGN</td>
<td>1</td>
<td>450-431</td>
</tr>
<tr>
<td>3</td>
<td>FLUORESCENT LAMP</td>
<td>1</td>
<td>450-432</td>
</tr>
<tr>
<td>4</td>
<td>SIGN PANEL</td>
<td>1</td>
<td>450-433</td>
</tr>
<tr>
<td>N.</td>
<td>PART NAME</td>
<td>Q.TY</td>
<td>PART NUMBER</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------</td>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>1</td>
<td>SIDE LEVER</td>
<td>1</td>
<td>450-440</td>
</tr>
<tr>
<td>2</td>
<td>MICROSWITCH</td>
<td>1</td>
<td>450-441</td>
</tr>
<tr>
<td>3</td>
<td>STOP RING + LEVER</td>
<td>1</td>
<td>450-442</td>
</tr>
<tr>
<td>4</td>
<td>STOPPER RUBBER</td>
<td>2</td>
<td>450-443</td>
</tr>
<tr>
<td>5</td>
<td>CENTER-BOSS</td>
<td>1</td>
<td>450-444</td>
</tr>
<tr>
<td>No.</td>
<td>Name of Parts</td>
<td>Q'ty</td>
<td>Parts No.</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------------------</td>
<td>------</td>
<td>-----------</td>
</tr>
<tr>
<td>1</td>
<td>Front plate 50-8372-00</td>
<td>4</td>
<td>350-001</td>
</tr>
<tr>
<td>2</td>
<td>Left side</td>
<td>3</td>
<td>350-002</td>
</tr>
<tr>
<td>3</td>
<td>Right side</td>
<td>1</td>
<td>350-003</td>
</tr>
<tr>
<td>4</td>
<td>Toothed pignon-gear</td>
<td>2</td>
<td>350-004</td>
</tr>
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<td>5</td>
<td>Potentiometer</td>
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<td>350-005</td>
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<tr>
<td>6</td>
<td>Pedal axis</td>
<td>4</td>
<td>350-006</td>
</tr>
<tr>
<td>7</td>
<td>Potentiometer plate</td>
<td>2</td>
<td>350-007</td>
</tr>
<tr>
<td>8</td>
<td>Plastic tooth gear</td>
<td>2</td>
<td>350.008</td>
</tr>
<tr>
<td>9</td>
<td>Brake pedal</td>
<td>1</td>
<td>350.009</td>
</tr>
<tr>
<td>10</td>
<td>Brake rabbet</td>
<td>1</td>
<td>350.010</td>
</tr>
<tr>
<td>11</td>
<td>Support rabbet</td>
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<td>350.011</td>
</tr>
</tbody>
</table>