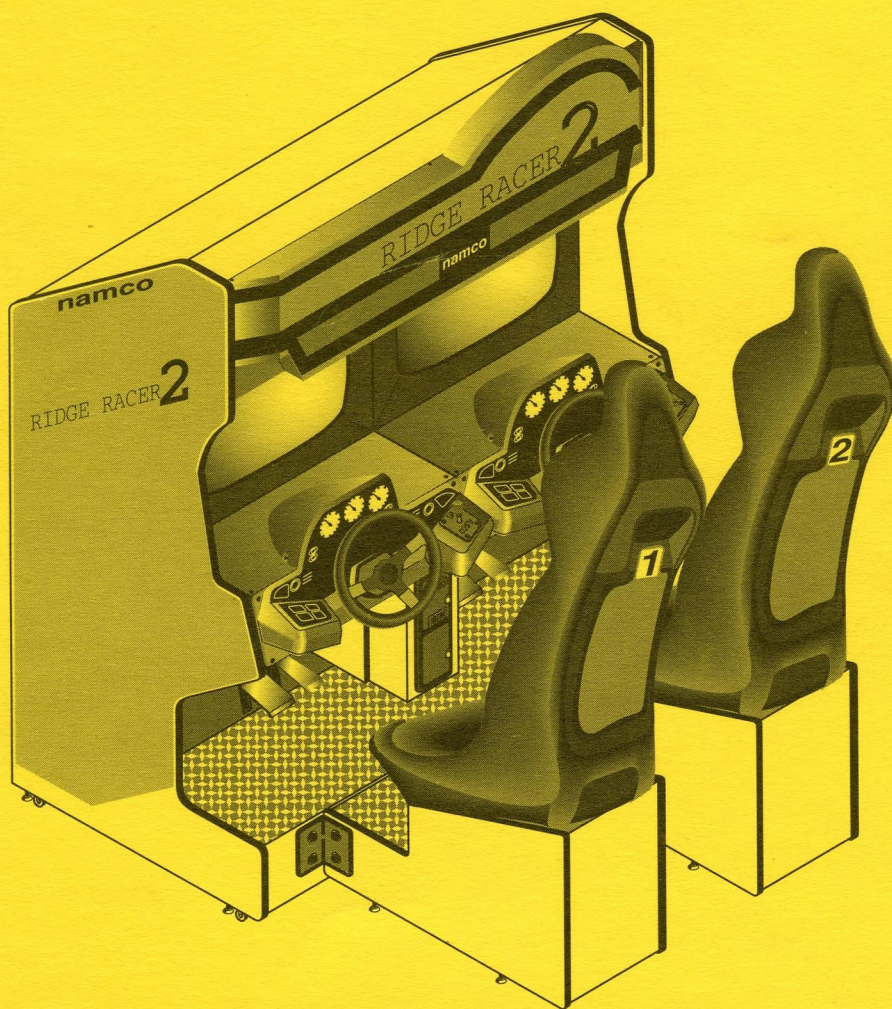


# **namco<sup>®</sup>**

## **RIDGE RACER 2<sup>™</sup>**



### **OPERATOR'S MANUAL**

### **FCC Notice**

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**namco®**

**RIDGE RACER 2™**

**Operator's Manual**

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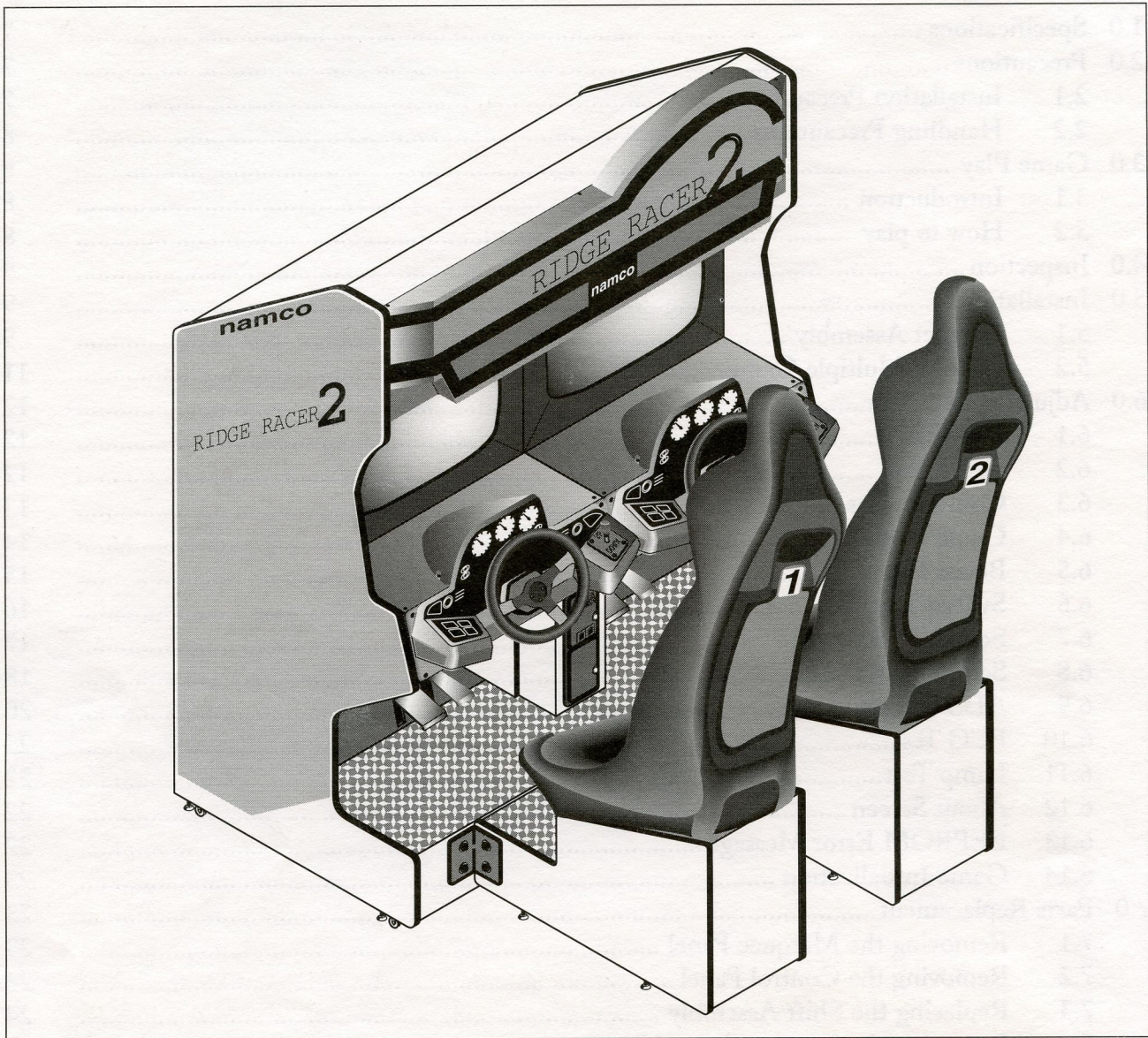


Fig. 1 Game Cabinet Assembly

## 1.0 SPECIFICATIONS

|                          |  |         |         |
|--------------------------|--|---------|---------|
| Power Supply:            | PC XT type switching power supply – 200 Watts  |         |         |
| Total Power Consumption: | 420 Watts  |         |         |
| Dimensions:              | Length   | Width   | Height  |
| Cabinet Assembly         | 55-1/4"  | 32-3/4" | 78-1/2" |
| Seat Assembly            | 20"  | 30"     | 50"     |
| Assembled Game           | 55-1/4"  | 62-3/4" | 78-1/2" |
| Crated Dimensions:       |  |         |         |
| Cabinet Carton           | 57-7/8"  | 38-1/2" | 80-1/2" |
| Seat Carton              | 20"  | 33-3/8" | 58-3/8" |
| Shipping Weight          |  |         |         |
| Cabinet Carton           | 715 lb.  |         |         |
| Seat Carton              | 150 lb.  |         |         |
| Monitors:                | Two custom System 22 27" color monitors with auto degauss and remote adjustment boards |         |         |
| Accessories:             |  |         |         |
| Keys:                    | Coin Box – 2<br>Coin Door – 2<br>Rear Door – 2   |         |         |

Security Wrench

Operator's Manual

**Note:** *Specifications may change without prior notice. Modification and/or alteration of the Ridge Racer 2 game with kits or parts not supplied by NAMCO may void the warranty.*

## 2.0 PRECAUTIONS

### 2.1 Installation Precautions

This game is designed for indoor use **only**. It **must not** be installed outdoors or under the following conditions:

1. In areas directly exposed to sunlight, high humidity, direct water contact, dust, high heat, or extreme cold.
2. In areas that would present an obstacle in case of emergency, i.e., near fire equipment or emergency exits.
3. On an unstable surface or subject to floor or other vibration.

## 2.2 Handling Precautions

1. AC Power **must** always be turned OFF, and the game unplugged, before replacing any parts.
2. When unplugging the game from an electrical outlet, always grasp the plug, not the line cord.
3. The cabinet should be grounded with a securely connected ground line.
4. The monitor includes areas of high voltage. Care should be taken at all times to avoid electrical shock whenever inspecting or adjusting the game.
5. DO NOT attempt to repair the Printed Circuit Board (PCB) on site. It contains sensitive integrated circuit chips that could easily be damaged by even the small internal voltage of a multi-meter. Always return the PCB to your distributor for any repairs.
6. Always return the levelers to the extreme up position before moving the game.
7. Game initialization (refer to Section 6.14) is required whenever the game PCB, Steering Assembly, Pedal Assembly, or any potentiometer is replaced.

## 3.0 GAME PLAY

### 3.1 Introduction

RIDGE RACER 2 is a competitive driving game for one or two players. Players race against computer cars or challenge other players. RIDGE RACER 2 can be linked with either RIDGE RACER (upgraded) or RIDGE RACER 2 game cabinets for competitive action between up to eight players. Contact your distributor for more information about updating an original Ridge Racer to make it linkable for competitive play.

### 3.2 How to play

1. RIDGE RACER 2 features user selectable GAME MUSIC. Move the shifter forward and backwards to select the music **before** selecting transmission type. All songs are original and feature the kind of modern sounds heard on the radio today!
2. Use the steering wheel to select MANUAL or AUTOMATIC transmission. Then step on the gas pedal to activate your selection.
3. Select LINKED or SOLO play. Two or more players are needed for linked play. When you insert your coins, the game will offer time for other players to join in. If no players join the solo game before the timer expires, then a one-player solo game will be started.

When LINKED play is selected, only the main course is available. When SOLO play is selected, you may choose from four skill levels.

4. Use the steering wheel to select a SKILL LEVEL then step on the gas pedal to activate your selection.

The four SKILL LEVELS are:

- Novice – main course with computer traffic, two lap race, 100 mph maximum



- Intermediate – main course with computer traffic, three lap race, 140 mph maximum
- Advanced – extended course with computer traffic three lap race, 130 mph maximum
- Time Trials – extended course with single computer opponent, three lap race, 145 mph maximum

RIDGE RACER 2 is factory-set to optimize game income. The time extensions and number of laps in a complete race can be adjusted in Test Mode on the Game Options screen.

The game is over when you complete the full number of laps or fail to pass the checkpoint before time expires.

## 4.0 INSPECTION

The two RIDGE RACER 2 cartons should be inspected carefully upon receipt to insure that there was no shipping damage. If damage has occurred during shipping, contact the shipping carrier to obtain instructions regarding filing a claim for damages.

Check the following items:

1. Check the exterior of the cabinet for chips, scratches, or other visible damage.
2. Unlock and open the rear service door of each side of the game and check that:
  - a. All connectors and harnesses are firmly connected and are not cut or damaged.
  - b. The power cord is not cut or damaged.
  - c. The power supply connectors are firmly seated.
  - d. The power supplies, monitors, and PCB cages are securely mounted to the cabinet, and that all ground wires are firmly attached.

## 5.0 INSTALLATION

### 5.1 Cabinet Assembly

Ridge Racer 2 is shipped in two cartons, one containing the game cabinet, and the other containing both seats.

The seat mounting brackets are shipped bolted to the Game Cabinet where the mounting brackets will attach. Unbolt the brackets, and use additional mounting bolts which are packed in the Convenience Kit, which is shipped in the cash box.

To install your Ridge Racer 2 game, perform the following steps.

1. Unpack the game cabinet and place it in its desired location.
2. Unpack the seat carton, and locate the seat mounting hardware.
3. Attach the L-brackets to the seat assemblies using the 5/16-16 hex head bolts, flat washers, and split washers provided.
4. Locate the seat assemblies in approximately the correct position for mounting. Locate the speaker harness in the bottom of each seat assembly, and connect it to its mating connector in the game cabinet.

5. Move the seat assemblies into the correct position, making sure the speaker harnesses are not pinched between the seat assembly and the game cabinet.
6. Carefully line up the holes in the L-brackets with the corresponding holes in the cabinet and bolt the seat assemblies to the cabinet using the 5/16-16 hex head bolts.
7. Lower the levelers on the game cabinet, and on the seat assemblies, until the game is stable and does not rock or move when someone sits down in a seat.

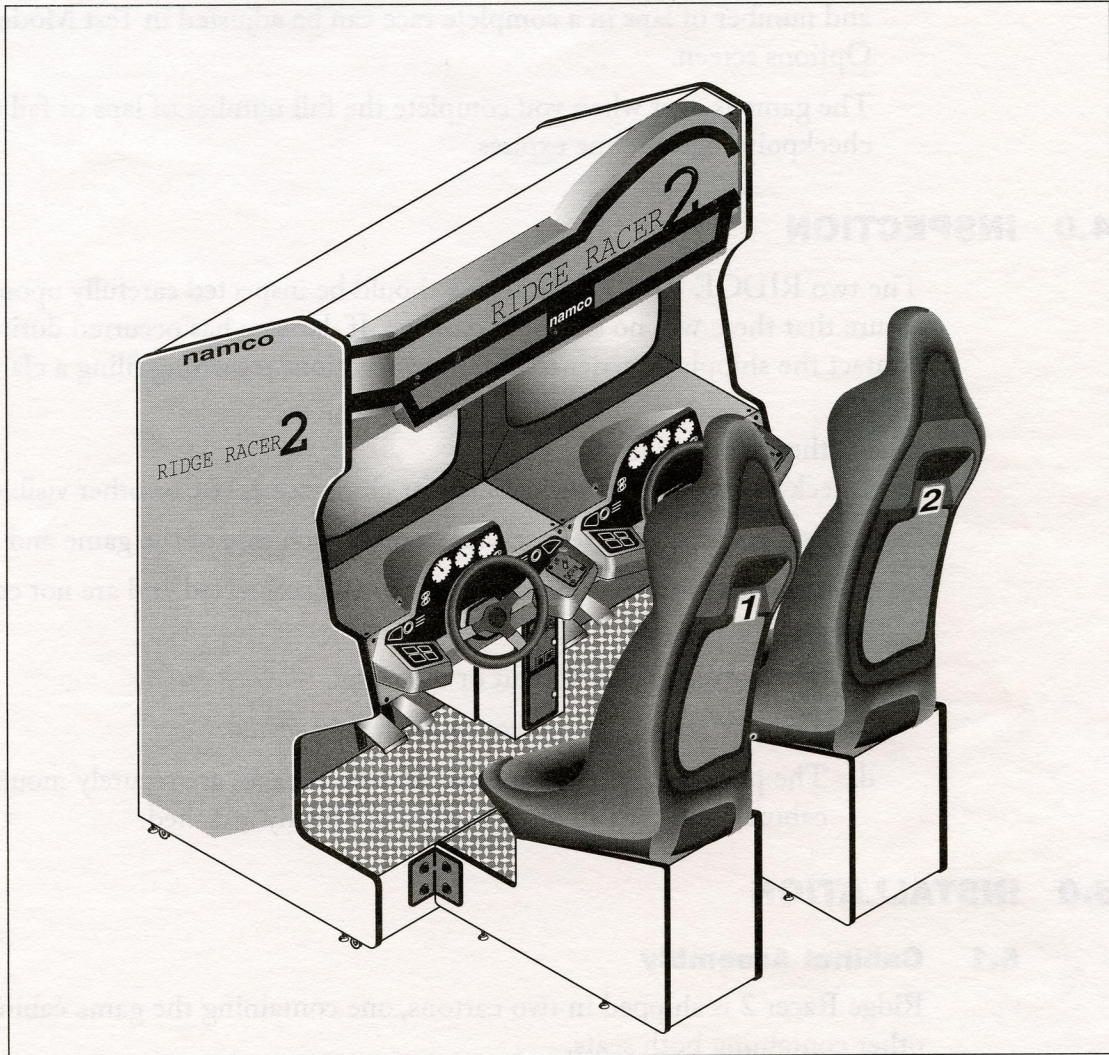


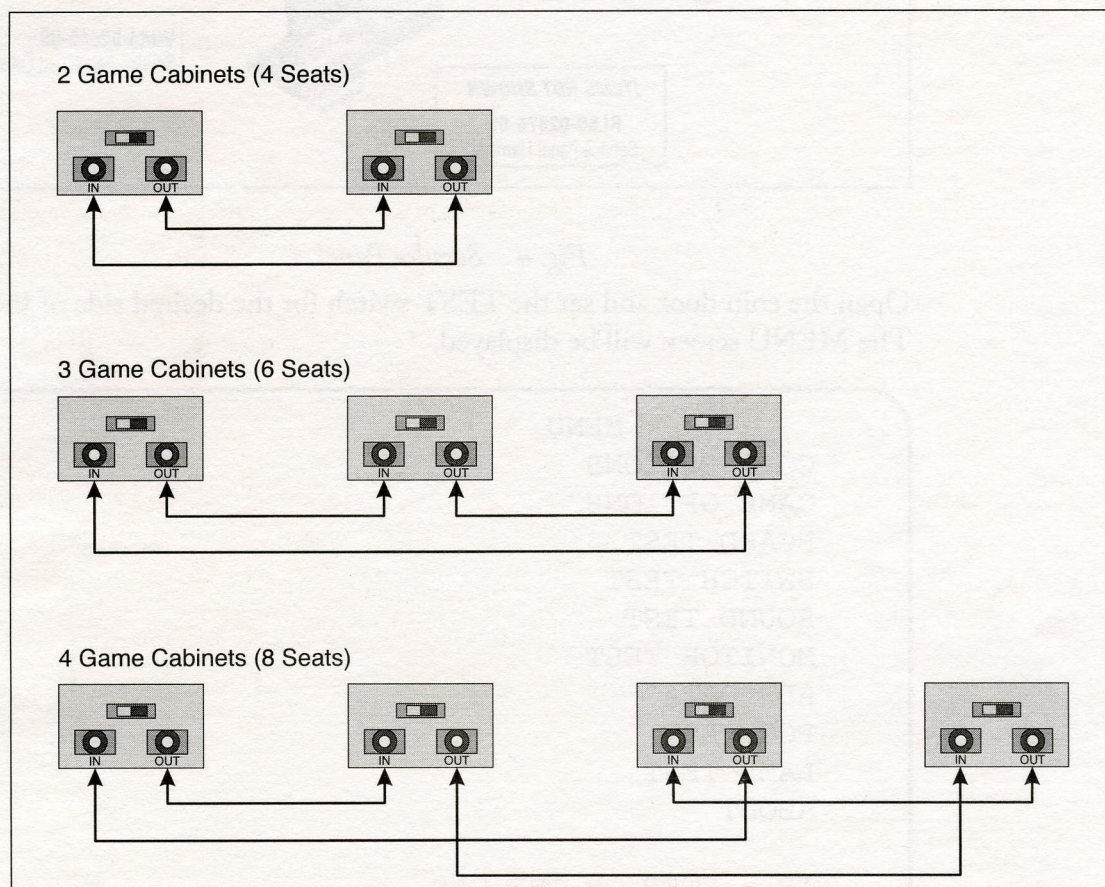
Fig. 2 Game Cabinet Assembly

## 5.2 Linking Multiple Games

It is possible to connect up to four Ridge Racer 2 game cabinets for a maximum of eight player seats.

To link multiple games, perform the following steps:

1. Make sure the power to the game is turned OFF before beginning this procedure.
2. Remove the cover panel from the back of the game cabinet.
3. Set the slide switch to the RIGHT-HAND (External) position.
4. Connect the link cables from OUT connector to IN connector as shown in the diagram.
5. Replace the cover panel, routing the cables through the slots. Be careful not to pinch the cables.



*Fig. 3 Game Link Configurations*

6. Turn ON the power to the games, and enter Test mode to set the link options. Refer to Section 6.4 Game Options for more information about setting the number of linked games.
7. Set the Game Options for the appropriate difficulty level, number of laps, number of linked seats, and car color.

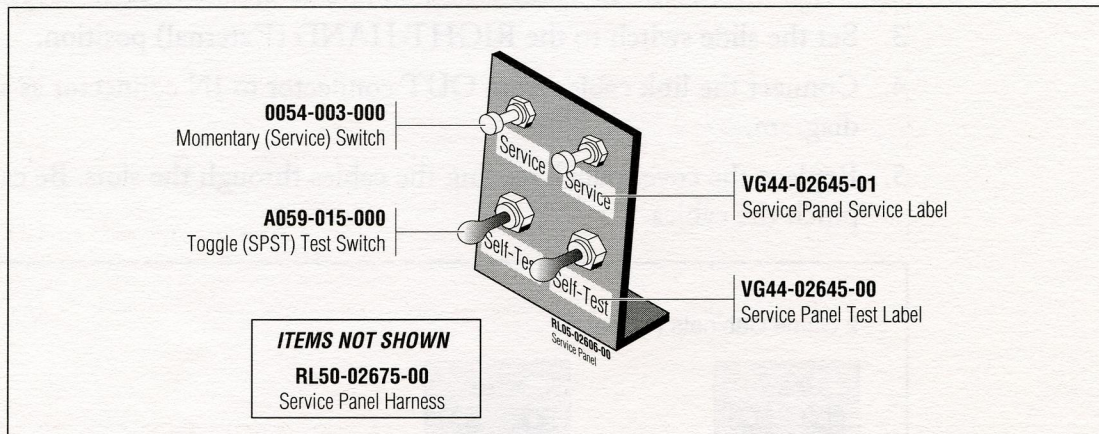
When two or more game cabinets are linked, be sure they are grounded to each other. This is normally accomplished through the 3-wire power plug.

## 6.0 ADJUSTMENTS

### 6.1 Self Test

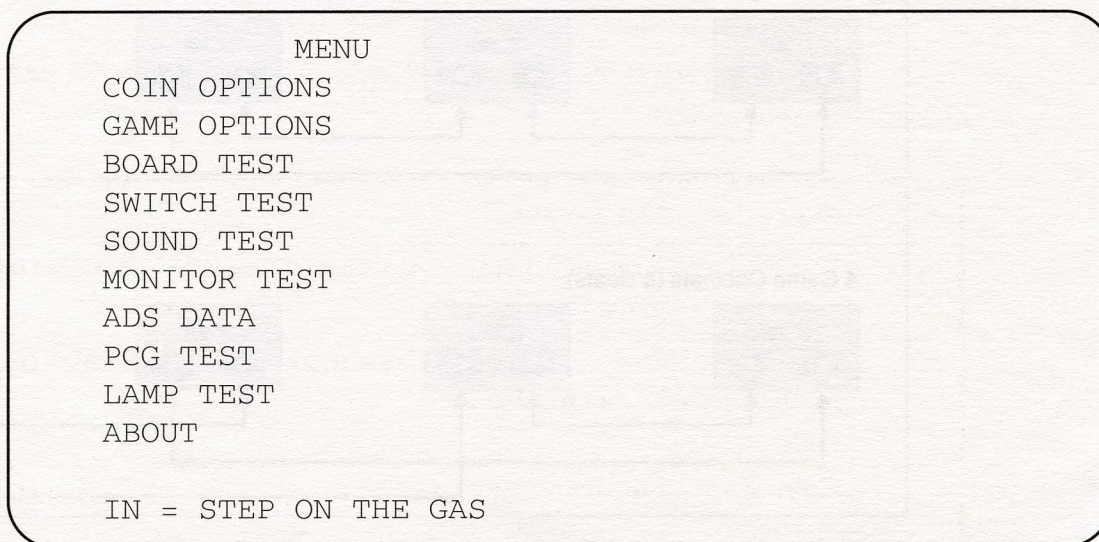
The self-test function is performed automatically each time the game is turned on. If no errors occurred during the test, the game screen is displayed on both monitors.

### 6.2 Test Menu



*Fig. 4 Service Panel*

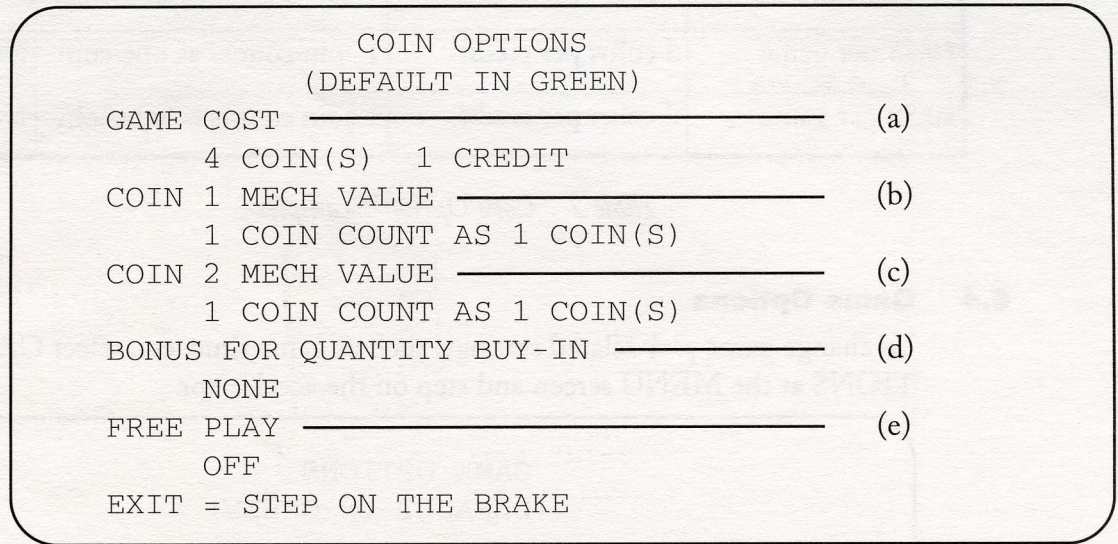
Open the coin door and set the TEST switch for the desired side of the game to ON. The MENU screen will be displayed.



- To **select** menu items, turn the **steering wheel** until the desired item is high-lighted.
- To **activate** a menu choice, step on the **accelerator pedal**.
- To **return** to the Menu Screen, step on the **brake pedal**.
- To exit from Test Mode and return to game play, set the TEST switch to OFF. For normal operation, the TEST switch should be OFF.

### 6.3 Coin Options

To change game pricing and related settings, select COIN OPTIONS from the MENU screen, and step on the accelerator pedal.



- Turn the **steering wheel** until the desired item is highlighted.
- Step on the **accelerator pedal** to select that item.
- Turn the **steering wheel** until the desired option value is displayed (i.e., 1 Coin, 2 Coins, 3 Coins, etc.)
- Step on the **accelerator pedal** to activate that choice.
- Continue to select other items to change, or step on the **brake pedal** to return to the Menu screen.

| Ref. | Item                      | Description  |   |
|------|---------------------------|--|---|
| (a)  | Game Cost                 | Number of coins necessary for one game (credit)      | 1 - 9 coins (factory setting is 4)                                |
| (b)  | Coin 1 mechanism value    | One coin counts as how many coins in this mechanism  | 1 - 9 coins (factory setting is 1)                                |
| (b)  | Coin 2 mechanism value    | One coin counts as how many coins in this mechanism  | 1 - 9 coins (factory setting is 1)                                |
| (d)  | Bonus for quantity buy-in | Bonus when the specified number of coins is inserted | 1 coin per 1 coin - 3 coins per 9 coins (factory setting is NONE) |
| (e)  | Free Play                 | Game starts when the accelerator is pressed          | On - Off (Factory setting is OFF)                                 |

Table 1 Coin Options Settings

| Game cost to be set | Setting of (a) Game Cost | Setting of (b) Coin 1 Mechanism | Setting of (d) Bonus |
|---------------------|--------------------------|---------------------------------|----------------------|
| \$1.00 per game     | 4 coins per credit       | 1 coin counts as one coin       | NONE                 |
| \$0.75 per game     | 3 coins per credit       | 1 coin counts as one coin       | NONE                 |
| \$0.50 per game     | 2 coins per credit       | 1 coin counts as one coin       | NONE                 |

Table 2 Coin Option Examples

#### 6.4 Game Options

To change game play related settings, such as game time, etc. select GAME OPTIONS at the MENU screen and step on the accelerator.

| GAME OPTIONS<br>(DEFAULT IN GREEN) |                          |        |      |       |        |    |
|------------------------------------|--------------------------|--------|------|-------|--------|----|
|                                    | GAME DIFFICULTY          |        | TIME |       | EXTEND |    |
| (a)                                | NOVICE                   | D      | 65   | 30    | 29     |    |
| (b)                                | INTERMEDIATE             | D      | 54   | 24    | 24     |    |
| (c)                                | ADVANCED                 | D      | 50   | 24    | 24     | 24 |
| (d)                                | T. T.                    | D      | 45   | 23    | 23     | 23 |
| (e)                                | LINKABLE                 | D      | 52   | 25    | 26     |    |
|                                    |                          |        |      | [SEC] |        |    |
|                                    | LAP                      |        |      |       |        |    |
| (f)                                | NOVICE                   | 2      |      |       |        |    |
| (g)                                | INTERMEDIATE             | 3      |      |       |        |    |
| (h)                                | ADVANCED                 | 3      |      |       |        |    |
| (i)                                | T. T.                    | 3      |      |       |        |    |
| (j)                                | LINKABLE                 | 3      |      |       |        |    |
| (k)                                | SPEED                    | MPH    |      |       |        |    |
| (l)                                | SOUND IN ATTRACT         | ON     |      |       |        |    |
| (m)                                | CPU NO.                  | 1      |      |       |        |    |
| (n)                                | CAR TYPE                 | 1 BLUE |      |       |        |    |
| (o)                                | LINK                     | 2      |      |       |        |    |
|                                    | EXIT = STEP ON THE BRAKE |        |      |       |        |    |

- Turn the **steering wheel** until the desired item is highlighted.
- Step on the **accelerator pedal** to select that item.
- Turn the **steering wheel** until the desired option value is displayed.
- Step on the **accelerator pedal** to activate that choice.
- Continue to select other items to change, or step on the **brake pedal** to return to the Menu screen.

| Ref | Item                             | Description   |
|-----|----------------------------------|---|
| (a) | Game time for Novice level       | A (shortest) - H (longest) (factory setting is D)                 |
| (b) | Game time for Intermediate level | A (shortest) - H (longest) (factory setting is D)                 |
| (c) | Game time for Advanced level     | A (shortest) - H (longest) (factory setting is D)                 |
| (d) | Game time for Time Trial level   | A (shortest) - H (longest) (factory setting is D)                 |
| (e) | Game time for Linked game        | A (shortest) - H (longest) (factory setting is D)                 |
| (f) | Laps for Novice level            | 2 - 5 (factory setting is 2)                                      |
| (g) | Laps for Intermediate level      | 2 - 5 (factory setting is 3)                                      |
| (h) | Laps for Advanced level          | 2 - 5 (factory setting is 3)                                      |
| (i) | Laps for Time Trial level        | 2 - 5 (factory setting is 3)                                      |
| (j) | Laps for Linked game             | 2 - 5 (factory setting is 3)                                      |
| (k) | Speed Display                    | MPH   |
| (l) | Sound in attract mode            | On or Off (factory setting is ON)                                 |
| (m) | CPU Number                       | 1 - 8 (left most screen must be #1, next screen must be #2, etc.) |
| (n) | Car Type (color)                 | 1, 5 = Blue; 2, 6 = Yellow; 3, 7 = Red; 4, 8 = Green              |
| (o) | Link (number of linked CPUs)     | Must equal the number of screens (Factory setting is 2)           |

*Table 3 Game Options Settings*

### 6.5 Board Test

This screen displays test data for the I/O PCB, the CPU/DSP PCB, and the VIDEO PCB.

## 6.6 Switch Test

This screen displays the status of the various switches and controls. It can be used to confirm switch settings.

|                                  |          | SWITCH TEST |   |          |   |     |   |   |   |  |
|----------------------------------|----------|-------------|---|----------|---|-----|---|---|---|--|
| (a)                              | DIP SW 2 | 1           | 2 | 3        | 4 | 5   | 6 | 7 | 8 |  |
| (b)                              | DIP SW 3 | 1           | 2 | 3        | 4 | 5   | 6 | 7 | 8 |  |
| (c)                              | STEERING | 0           | 0 | 0        | 0 |     |   |   |   |  |
| (d)                              | GAS      | 0           | 0 | 0        | 0 |     |   |   |   |  |
| (e)                              | BRAKE    | 0           | 0 | 0        | 0 |     |   |   |   |  |
| (f)                              | SHIFT    | CENTER      |   | SWITCH 1 |   | OFF |   |   |   |  |
|                                  |          |             |   | SWITCH 2 |   | OFF |   |   |   |  |
| (g)                              | SERVICE  | OFF         |   |          |   |     |   |   |   |  |
| (h)                              | COIN 1   | OFF         |   |          |   |     |   |   |   |  |
| (i)                              | COIN 2   | OFF         |   |          |   |     |   |   |   |  |
| EXIT = STEP ON THE BRAKE AND GAS |          |             |   |          |   |     |   |   |   |  |

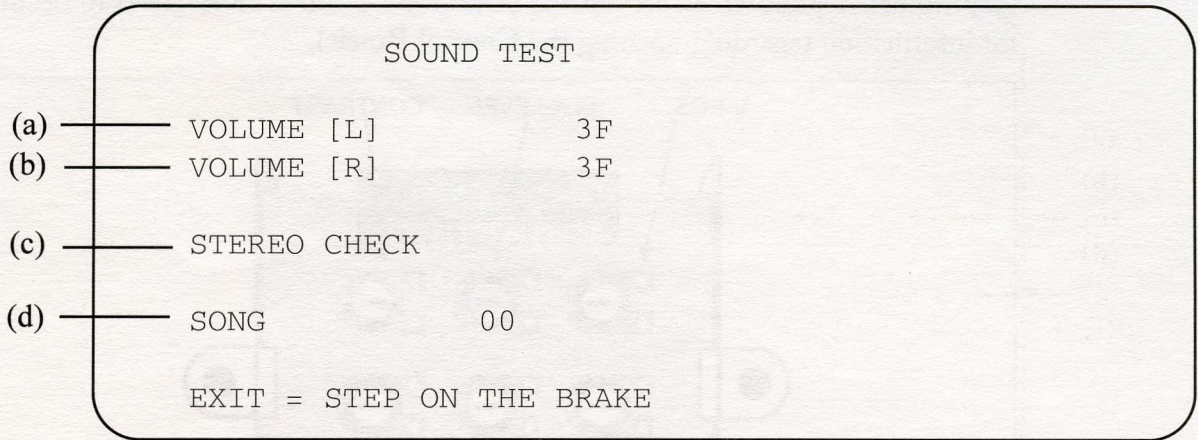
| Ref. | Item being tested | Description  |
|------|-------------------|--|
| (a)  | DIP SW 2          | Shows the status of SW 2 on the CPU PCB. Switches that are ON are displayed in Red, switches that are OFF are displayed in White.  |
| (b)  | DIP SW 3          | Shows the status of SW 3 on the CPU PCB. Switches that are ON are displayed in Red, switches that are OFF are displayed in White.  |
| (c)  | STEERING          | With the steering wheel in the center, the display should read 0000. Turning the wheel clockwise will cause the numbers to increase, turning it counterclockwise will cause the numbers to decrease. OK appears next to the number at the CW and CCW limits of travel. |
| (d)  | GAS               | As the gas pedal is depressed, the display will increase. OK will appear next to the number at the limit of travel.  |
| (e)  | BRAKE             | As the brake pedal is depressed, the display will increase. OK will appear next to the number at the limit of travel.  |
| (e)  | SHIFT             | When the shift lever is in the center position, neither switch should be ON, in the HIGH position, Switch 1 should be ON, in the LOW position, Switch 2 should be ON.  |
| (g)  | SERVICE           | Displays the status of the SERVICE switch (ON or OFF).   |
| (h)  | COIN 1            | Displays the status of the Coin Mech 1 switch.   |
| (i)  | COIN 2            | Displays the status of the Coin Mech 2 switch.   |

Table 4 Switch Tests



**6.7 Sound Test**

To change the volume of the game sound, select SOUND TEST from the MENU screen, and step on the accelerator pedal.



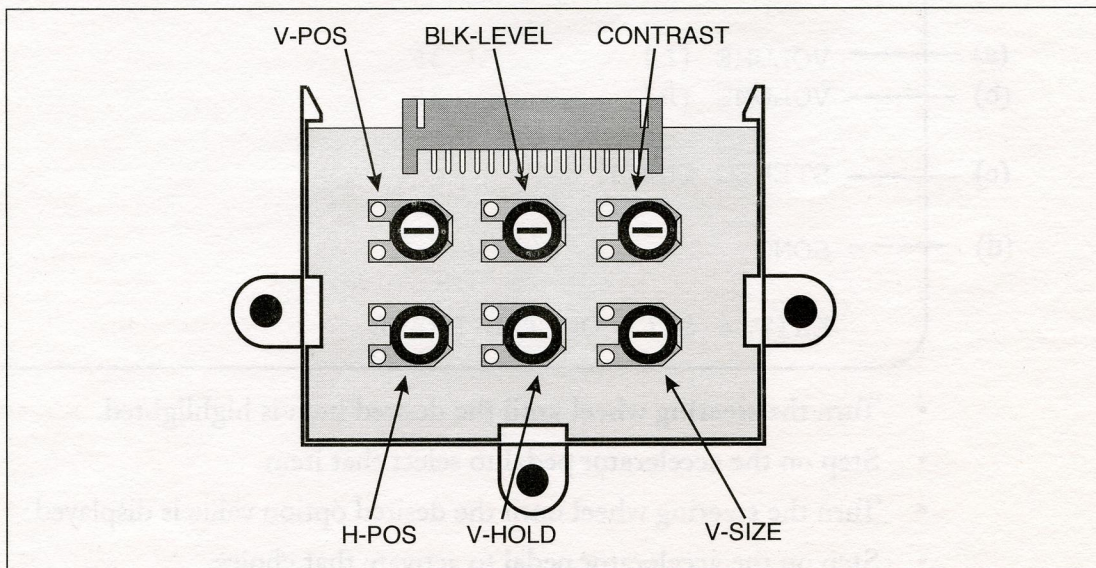
- Turn the **steering wheel** until the desired item is highlighted.
- Step on the **accelerator pedal** to select that item.
- Turn the **steering wheel** until the desired option value is displayed.
- Step on the **accelerator pedal** to activate that choice.
- Continue to select other items to change, or step on the **brake pedal** to return to the Menu screen.

| Ref. | Item         | Description  |
|------|--------------|--|
| (a)  | VOLUME [L]   | Adjusts the volume of the Left speaker in 64 steps (from 00 to 3F).<br>Turn the wheel to the right (CW) after the item has been selected to cause the volume to increase, turn it to the left (CCW) to cause it to decrease.<br>Step on the accelerator after the item has been selected to cause a tune to be played to test the volume setting.  |
| (b)  | VOLUME [R]   | Adjusts the volume of the Right speaker in 64 steps (from 00 to 3F).<br>Turn the wheel to the right (CW) after the item has been selected to cause the volume to increase, turn it to the left (CCW) to cause it to decrease.<br>Step on the accelerator after the item has been selected to cause a tune to be played to test the volume setting. |
| (c)  | STEREO CHECK | Step on the accelerator after this item has been selected to cause an ascending scale to be played from the right and left speakers. The channel is displayed while the scale is being played.   |
| (d)  | SONG         | Turn the steering wheel to select the number of the test song to be played.  |

Table 5 Sound Test Settings

**6.8 Screen Test**

To adjust the game monitors, select SCREEN TEST from the MENU screen, and step on the accelerator pedal. Actual adjustments are made on the Monitor Remote Adjustment Boards, which are located behind the Control Panel (refer to Section 7.2 for information regarding opening the Control Panels).



*Fig. 5 Monitor Remote Adjustment Board*

SCREEN TEST

- (a) — COLOR BARS
- (b) — CROSSHATCH 1
- (c) — CROSSHATCH 2
- (d) — LIGHT GRAY TONE BLOCK
- (e) — MID GRAY TONE BLOCK
- (f) — DARK GRAY TONE BLOCK
- (g) — INTERLACE TEST
- (h) — GREEN CROSS BAR
- (i) — WHITE CROSS BAR
- (j) — WHITE SCREEN

EXIT = STEP ON THE BRAKE

- Turn the **steering wheel** until the desired item is highlighted.
- Step on the **accelerator pedal** to select that item.
- Continue to select other items to change, or step on the **brake pedal** to return to the Menu screen.

Adjust the monitor only in accordance with the manufacturer's instructions.

| Ref. | Item                | Description  |
|------|---------------------|--|
| (a)  | Color Bar           | The test screen should display 15 shades of gray plus black from left to right. If there are too few shades, adjust the BLACK LEVEL control until all the gray shades are present, then adjust the CONTRAST to differentiate the shades. It is usually possible to decrease the setting of the BLACK LEVEL after the CONTRAST has been correctly adjusted.   |
| (b)  | Cross Hatch 1       | Use V-POS to adjust the cross hatch pattern UP or DOWN.<br>Use H-POS to adjust the cross hatch pattern LEFT or RIGHT.  |
| (c)  | Cross Hatch 2       | This screen is used at the factory to make measurements using automated instruments.   |
| (d)  | Lt. Gray Tone Block | This screen is used at the factory to make color temperature tracking measurements using automated instruments.  |
| (e)  | Mid Gray Tone Block | This screen is used at the factory to make color temperature tracking measurements using automated instruments.  |
| (f)  | Dk. Gray Tone Block | This screen is used at the factory to make color temperature tracking measurements using automated instruments.  |
| (g)  | Interlace Test      | This screen is used to align the interlace of the monitor. The easiest block of lines to use for interlace adjustment is the corner block. Use the VERT HOLD to adjust the video so that the top line of the right block of lines is aligned with the space between the first and second lines of the left block. This adjustment must be performed whenever the vertical size, position or hold controls are adjusted.<br>Use this screen with the V-POS and V-SIZE controls to position the blocks in the corners of the screen correctly, then adjust the interlace with the VERT HOLD control. |
| (h)  | Green Cross Bar     | This screen is used at the factory to make color purity measurements using automated instruments.  |
| (i)  | White Cross Bar     | This screen is used to adjust the correct vertical and horizontal alignment.   |
| (j)  | White Screen        | This screen is used at the factory to measure color uniformity and purity.   |

Table 6 Monitor Adjustments

**6.9 ADS Screens**

The three ADS screens display game play statistics for the operator.

IF you change ADS CLEAR to YES, the data will be cleared when you exit from Test Mode and return to Game Play mode.

```
ADS [1/3]

ON TIME      ###h ##m ##s
PLAY TIME    ###h ##m ##s
1P PLAY      ###h ##m ##s
LINK PLAY    ###h ##m ##s

TOTAL PLAY   #####

AVERAGE TIME  ##m ##S

          AT          MT          TOTAL
1P PLAY     #####      #####      #####
LINK PLAY   #####      #####      #####
TOTAL       #####      #####      #####

ADS CLEAR?   NO
ADS USE?     NO
NEXT PAGE?

EXIT = STEP ON THE BRAKE
```

ADS [2/3]

LINK

|    | LP1   | LP2   | LP3  | LP4  | LP5  | FIN  |
|----|-------|-------|------|------|------|------|
| 2P | ####  | ####  | #### | #### | #### | #### |
|    | TOTAL | ##### |      |      |      |      |
| 3P | ####  | ####  | #### | #### | #### | #### |
|    | TOTAL | ##### |      |      |      |      |
| 4P | ####  | ####  | #### | #### | #### | #### |
|    | TOTAL | ##### |      |      |      |      |
| 5P | ####  | ####  | #### | #### | #### | #### |
|    | TOTAL | ##### |      |      |      |      |
| 6P | ####  | ####  | #### | #### | #### | #### |
|    | TOTAL | ##### |      |      |      |      |
| 7P | ####  | ####  | #### | #### | #### | #### |
|    | TOTAL | ##### |      |      |      |      |
| 8P | ####  | ####  | #### | #### | #### | #### |
|    | TOTAL | ##### |      |      |      |      |

NEXT PAGE?

EXIT = STEP ON THE BRAKE

ADS MODE [3/3]

1P

|    | LP1   | LP2   | LP3  | LP4  | LP5  | FIN  |
|----|-------|-------|------|------|------|------|
| NO | ####  | ####  | #### | #### | #### | #### |
|    | TOTAL | ##### |      |      |      |      |
| IN | ####  | ####  | #### | #### | #### | #### |
|    | TOTAL | ##### |      |      |      |      |
| AD | ####  | ####  | #### | #### | #### | #### |
|    | TOTAL | ##### |      |      |      |      |
| TT | ####  | ####  | #### | #### | #### | #### |
|    | TOTAL | ##### |      |      |      |      |

RECORD

|    | LAP       | TOTAL     |
|----|-----------|-----------|
| NO | ##m##S### | ##m##S### |
| IN | ##m##S### | ##m##S### |
| AD | ##m##S### | ##m##S### |
| TT | ##m##S### | ##m##S### |

NEXT PAGE?

EXIT = STEP ON THE BRAKE

**6.10 PCG Test Screen**

The PCG Test screen is for factory use only.

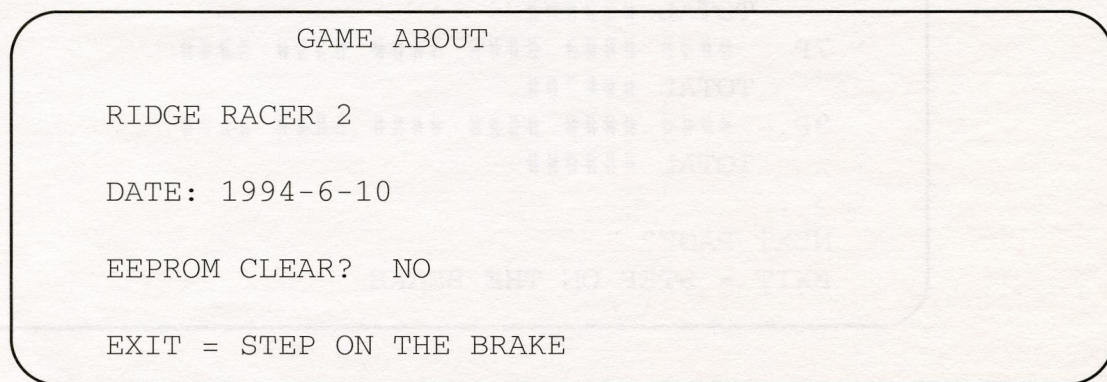
**6.11 Lamp Test Screen**

Select LAMP TEST and press the accelerator pedal to turn ON the display lamps. Press the accelerator pedal again to turn OFF the lamps.

*NOTE: If the LAMP TEST item does not appear on the MENU screen, select the BOARD TEST screen, allow it to complete its tests, and return to the MENU screen before selecting LAMP TEST.*

**6.12 About Screen**

To display game production information or to restore the game's Game Options and Coin Options to their factory settings, select ABOUT from the MENU screen, and step on the accelerator pedal.



Select EEPROM CLEAR and change the setting to YES to restore the factory programmed default values for Game Options and Coin Options.

**6.13 EEPROM Error Message**

If there is an error storing the current data in the EEPROM when exiting Test or Adjust Modes, the message EEPROM ERROR will be displayed for 10 seconds in the center of the screen. If this occurs, contact your distributor.

### 6.14 Game Initialization

Initialization is required whenever the Game PCB, Steering Wheel Assembly, Pedal Assembly, or any potentiometers are replaced. To perform Game Initialization:

1. Press and hold the SERVICE button, and turn ON the TEST switch. The Adjustment Screen will appear.

| ADJUST   |      |
|----------|------|
| STEERING | 0000 |
| GAS      | 0000 |
| BRAKE    | 0000 |

2. Keep the Steering Wheel centered, and do not press the Accelerator or Brake pedals.
3. When the numbers next to STEERING, GAS, and BRAKE reach 0000, adjustment is complete.
4. Turn OFF the TEST switch to return to Game mode.

## 7.0 PARTS REPLACEMENT

### WARNING

**Make sure the Power Cord is disconnected from the AC Power before performing any parts replacement procedures.**

### 7.1 Removing the Marquee Panel

### CAUTION

**This procedure must be performed only by qualified service personnel.**

The Marquee Panel must be removed to replace fluorescent Marquee Lights, or Game Cabinet Speakers. To remove the Marquee Panel:

1. Remove the five tamper-proof Torx screws along the bottom of the Marquee Panel.
2. Remove the four tamper-proof Torx screws along the top of the Marquee Panel.
3. Carefully pull the Marquee Panel toward you to release it from its mounts.

## 7.2 Removing the Control panel

The Control Panel must be removed to replace the Steering Assembly. To remove the Control Panel:

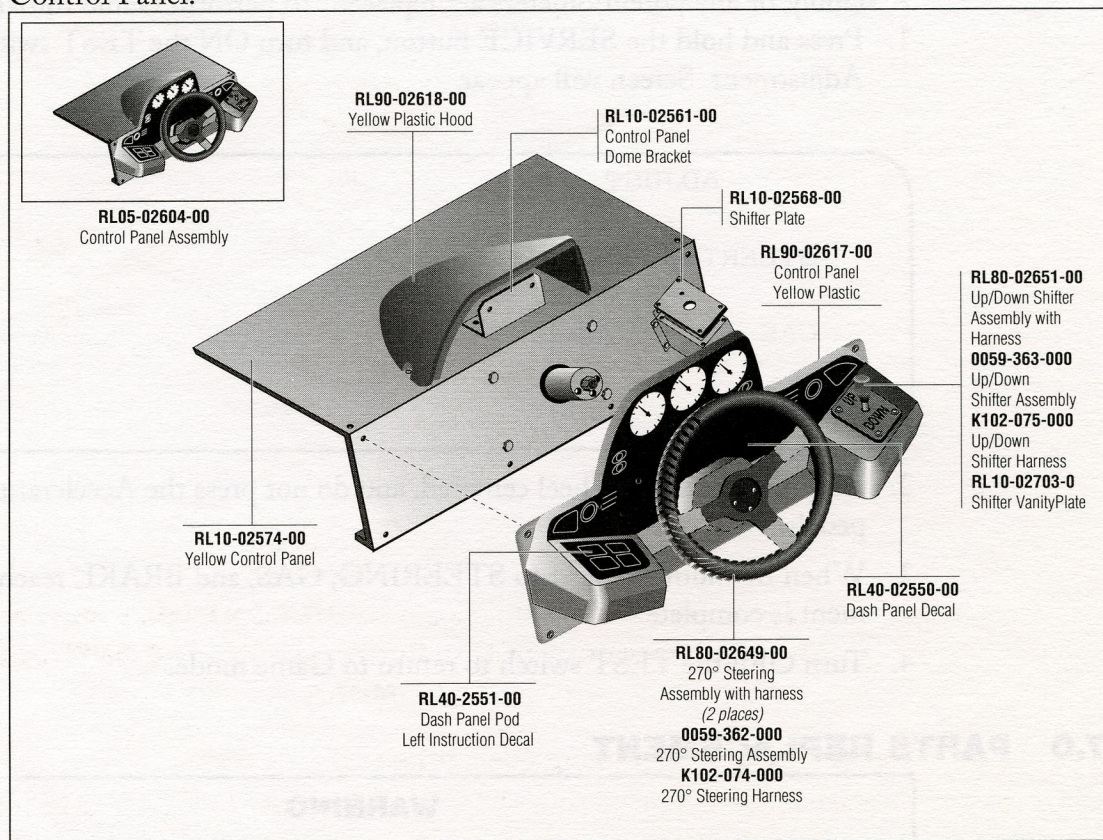


Fig. 6 Control Panel

1. Remove three tamper-proof Torx screws from the bottom of the Control Panel, using the wrench provided in the Convenience Kit.
2. Remove two tamper-proof Torx screws from the top of the Control Panel.
3. Lift the top rear edge of the Control Panel until you can disconnect the harness connectors. Make note of which connector is connected to the Shifter and which is connected to the Steering Assembly, because the connectors may be interchangeable.
4. After disconnecting the harness connectors, lift the Control Panel clear of the game.

## 7.3 Replacing the Shift Assembly

To replace the Shift Assembly

1. Remove the four tamper-proof Torx screws from the top of the Shift Assembly, using the wrench provided in the Convenience Kit.
2. Lift the Shift Assembly out of the Control Panel. You may have to rotate the assembly to remove its left side first so the switches will clear the mounting hole.

**NOTE:** When replacing the Shift Assembly, be sure the switches are on the right side when it is mounted, to avoid reversing the HIGH and LOW positions.



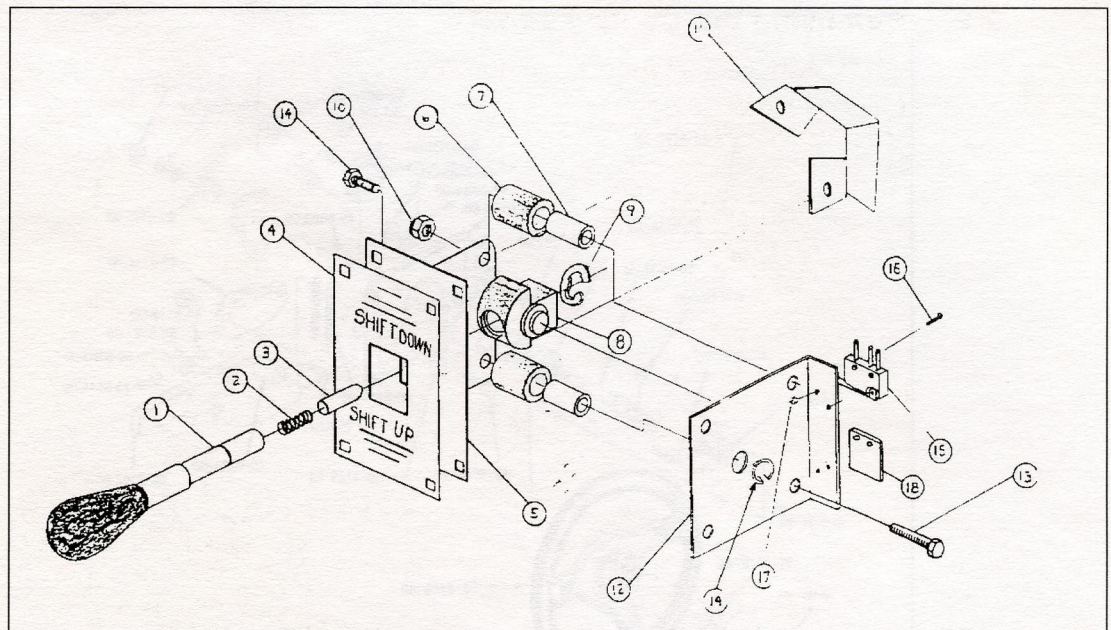


Fig. 7 HAPP Shift Assembly

**NOTE: Ridge Racer 2 uses a HAPP CONTROLS shift assembly. The part numbers in this figure are HAPP CONTROLS PART NUMBERS.**

#### 7.4 Removing the Steering Assembly

Replacing the Steering Assembly requires that the Control Panel be removed first, as described in Section 7.2.

1. Remove the center cap from the steering wheel.
2. Remove the three hex socket screws that attach the steering wheel and set the wheel aside.
3. Remove the Shift Assembly if it has not already been removed. Refer to Section 7.3.
4. Remove the eight tamper-proof Torx screws that hold the plastic Control Panel cover and remove it.
5. Remove the hex nut in the center of the steering shaft, and pull the steering collar off the shaft. **NOTE: Do not lose the key from the shaft that locates the collar.**
6. Remove the four hex bolts that attach the steering assembly to the Control Panel, and remove it from the rear.

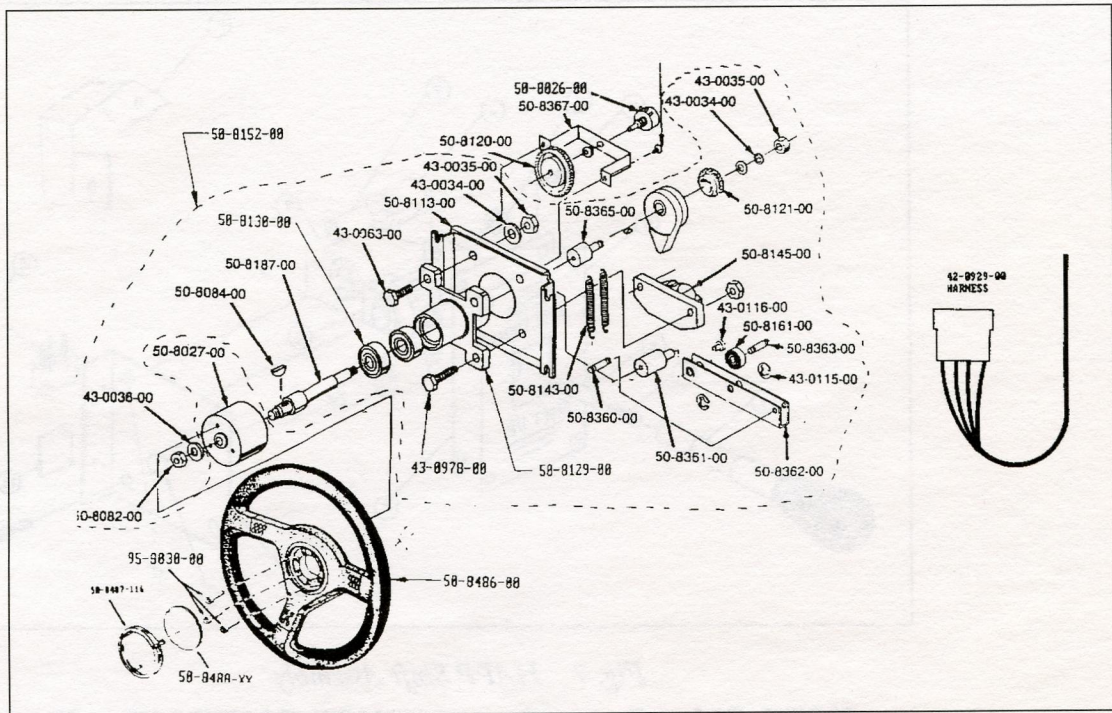


Fig. 8 HAPP Steering Assembly

**NOTE: Ridge Racer 2 uses a HAPP CONTROLS steering assembly. The part numbers in this figure are HAPP CONTROLS PART NUMBERS.**

### 7.5 Removing the Pedal Assembly

1. Open the rear service door, and disconnect the harness connector leading to the Pedal Assembly.

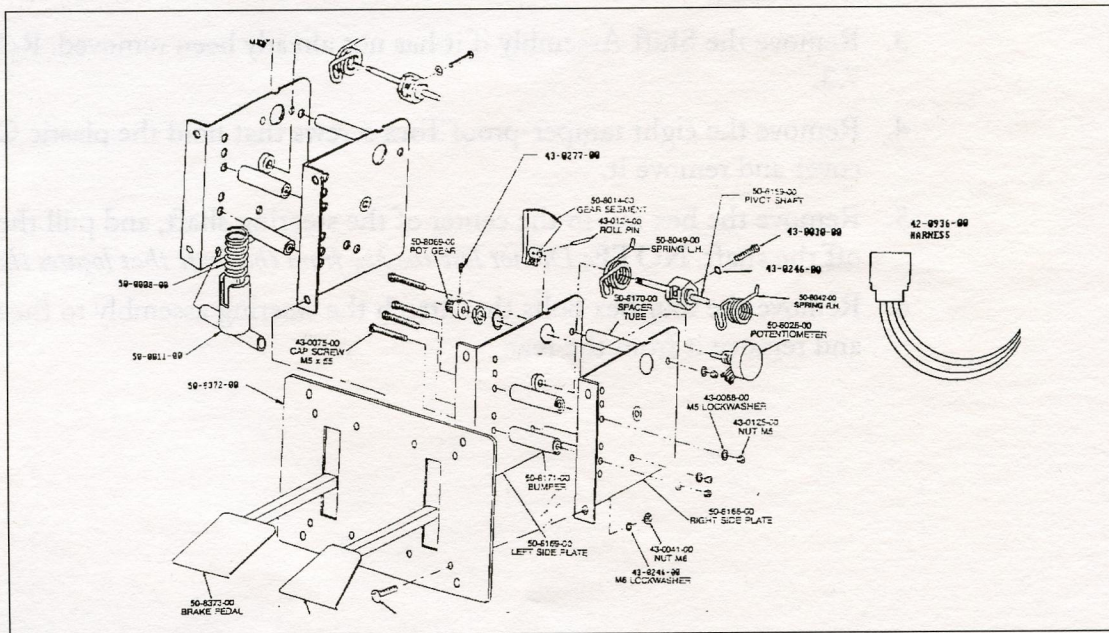


Fig. 9 HAPP Pedal Assembly

2. Remove the four tamper-proof Torx screws that hold the Pedal Assembly in place.  
**NOTE:** *Do not lose the nuts on the inside of these screws.*
3. Remove the Pedal Assembly by pulling it toward the front of the game.

## 7.6 Replacing the Speakers

There are two speakers in each seat, and two speakers in the Game Cabinet above the monitors.

### 7.6.1 Removing the Seat Speakers

1. Remove the three button head screws that hold the Speaker Grille to the seat.
2. Lift the speaker and mounting ring out of the seat.
3. Disconnect the push-on connectors from the speaker terminals.
4. Remove the four button head screws that attach the speaker to the mounting ring.

### 7.6.2 Removing the Game Cabinet Speakers

**CAUTION**

**This procedure must be performed only by qualified service personnel.**

1. Remove the Marquee Panel as described in Section 7.1.
2. Disconnect the push-on connectors from the speaker terminals.
3. Remove the four screws holding the speaker to its mounting.

## 7.7 Replacing Marquee Lamps

**CAUTION**

**This procedure must be performed only by qualified service personnel.**

To replace fluorescent or incandescent lamps in the Marquee, remove the Marquee Panel as described in Section 7.1.

## 7.8 Replacing the PCBs

**CAUTION**

**This procedure must be performed only by qualified service personnel.**

1. Open the rear door of the Game Cabinet.
2. Disconnect the two connectors from the EMI cage.
3. Remove the small panel from in front of the small PCB (I/O board).
4. Disconnect the four connectors from the I/O board.
5. Remove the two mounting screws that attach the EMI Cage to the game cabinet.
6. Gently pull the EMI Cage and game PCB out to remove.

## 8.0 PARTS IDENTIFICATION

The following illustrations contain part numbers for the major replacable assemblies for your Ridge Racer 2 game.

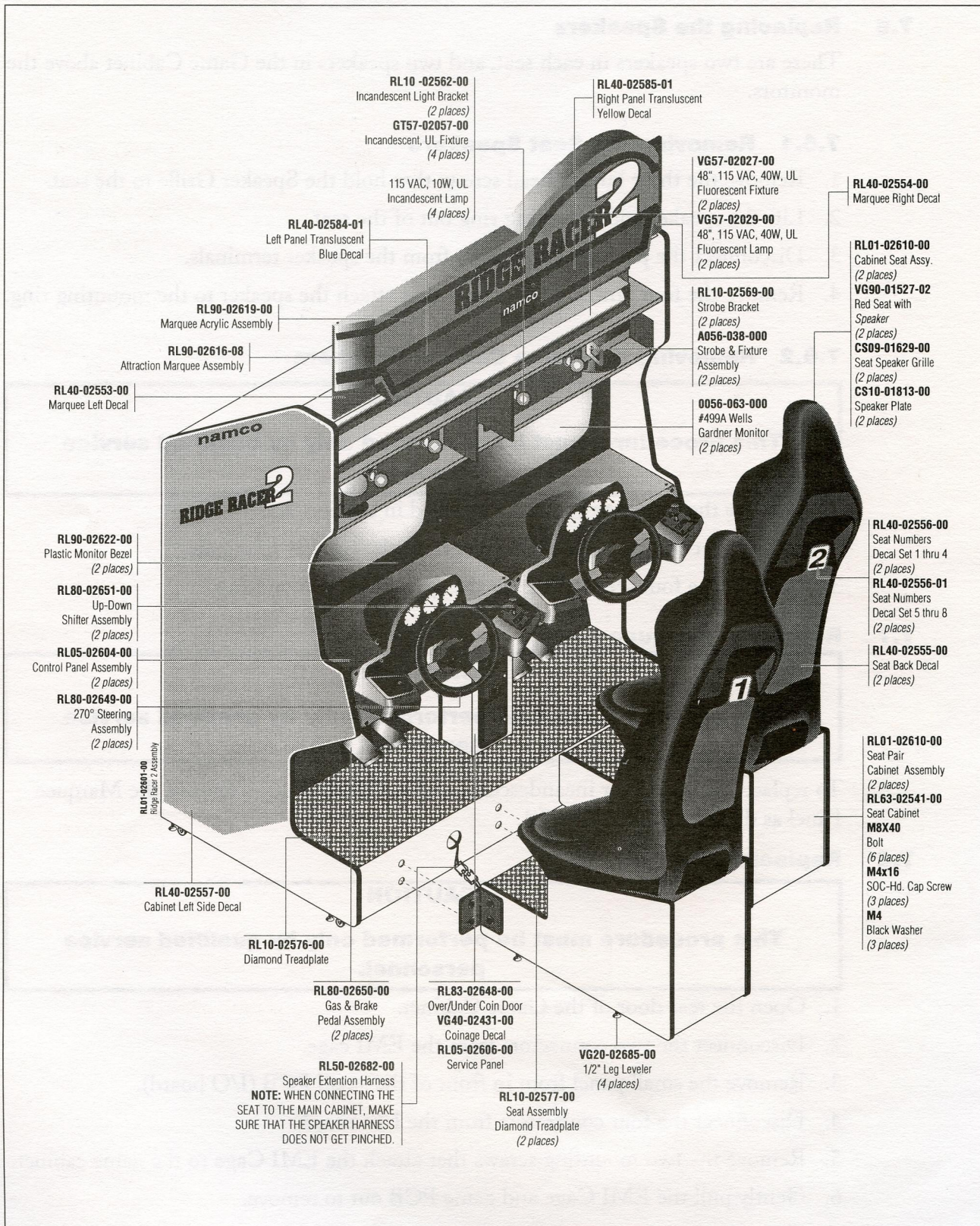


Fig. 10 Cabinet - Front view

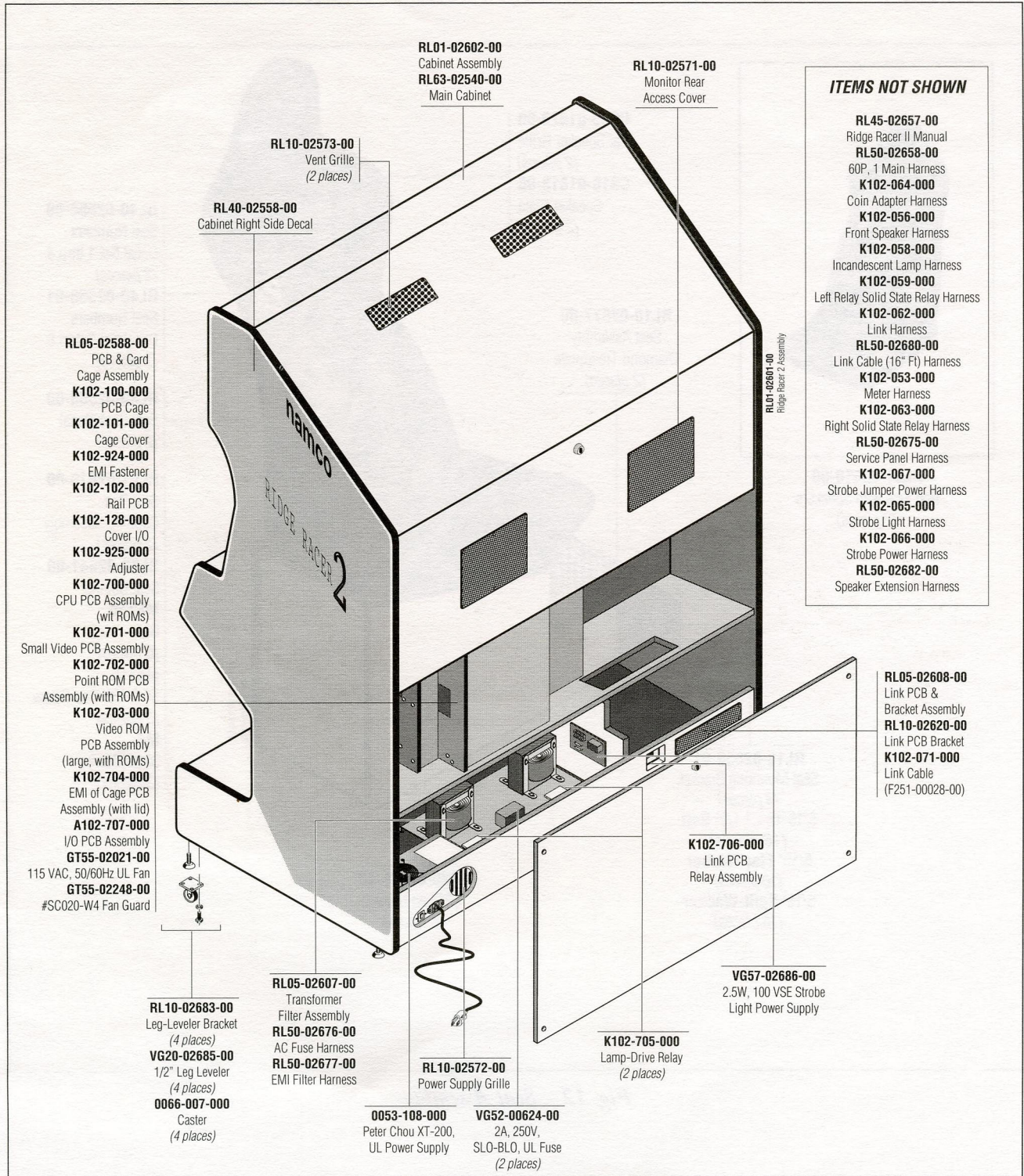


Fig 11 Cabinet – Rear View



Fig. 12 Seat Assembly

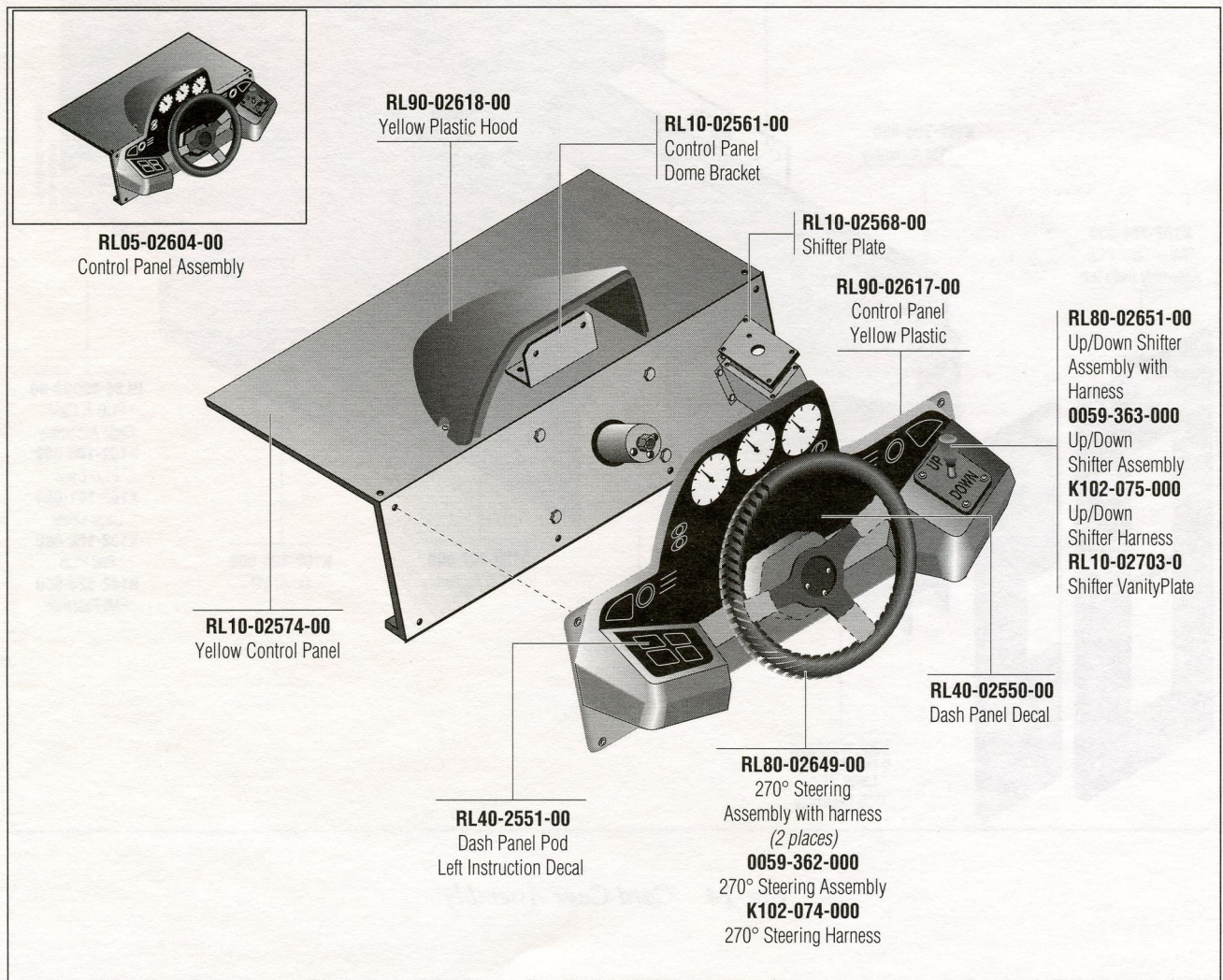


Fig. 13 Control Panel Assembly

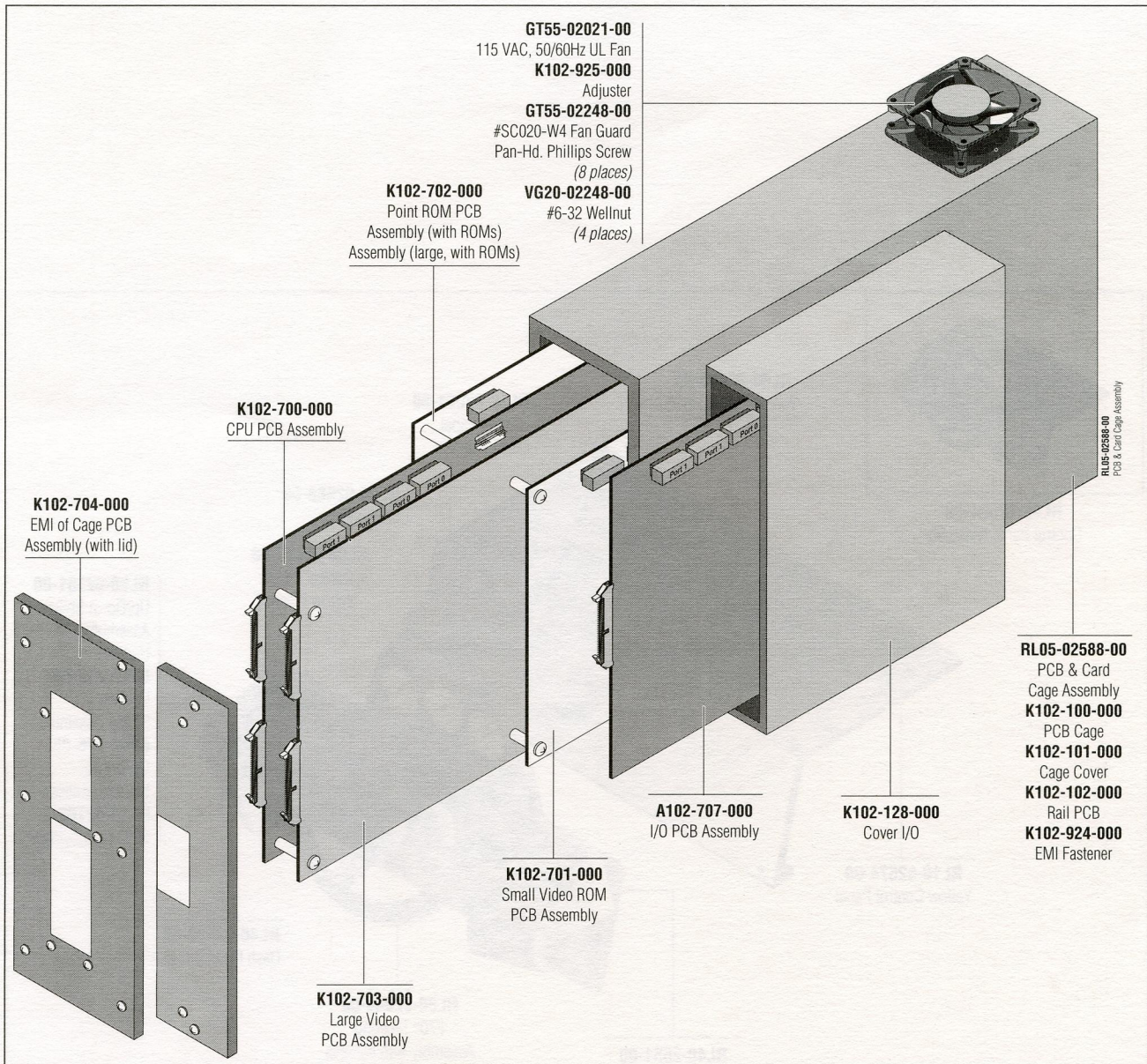
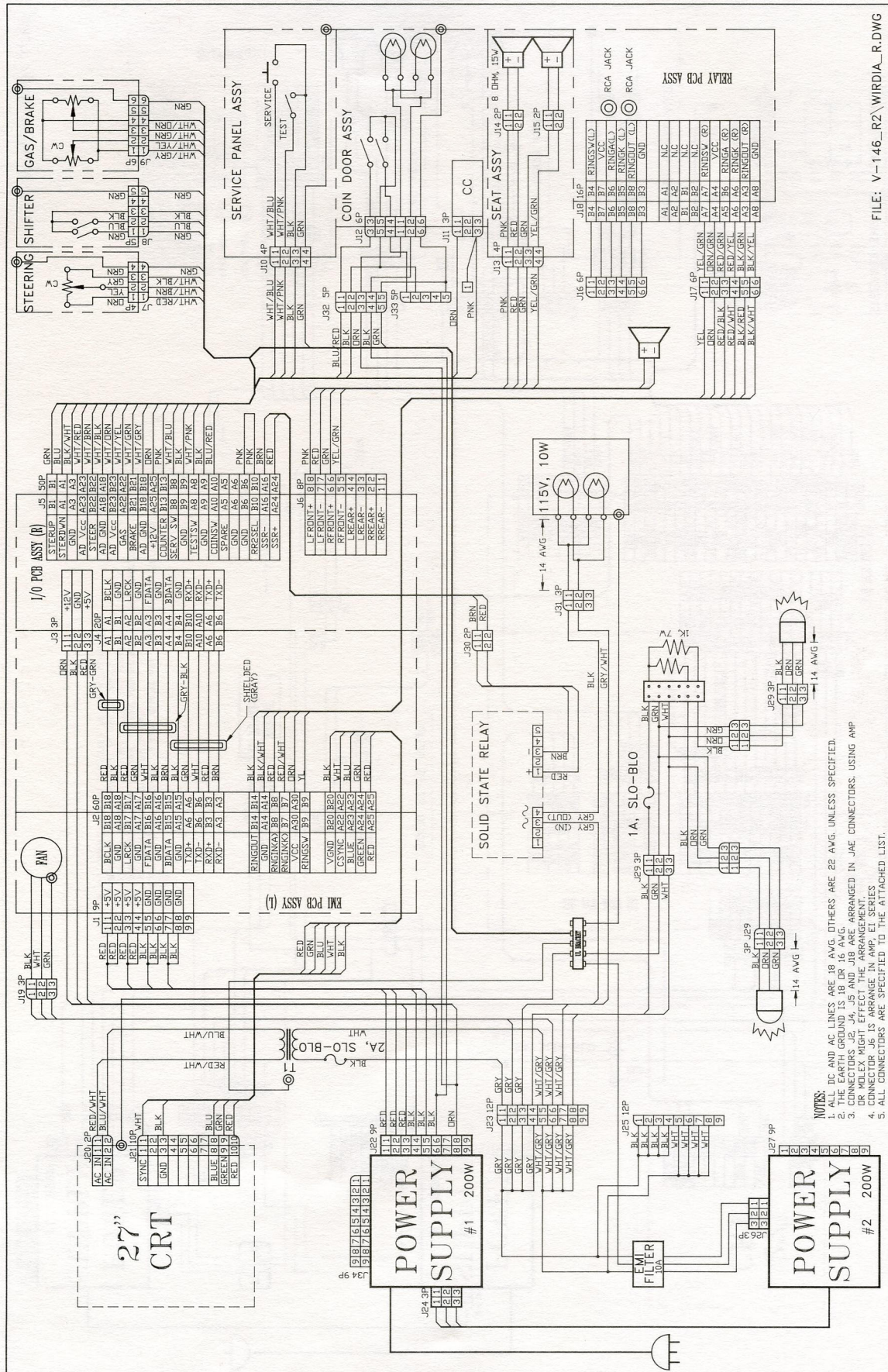


Fig. 14 Card Cage Assembly

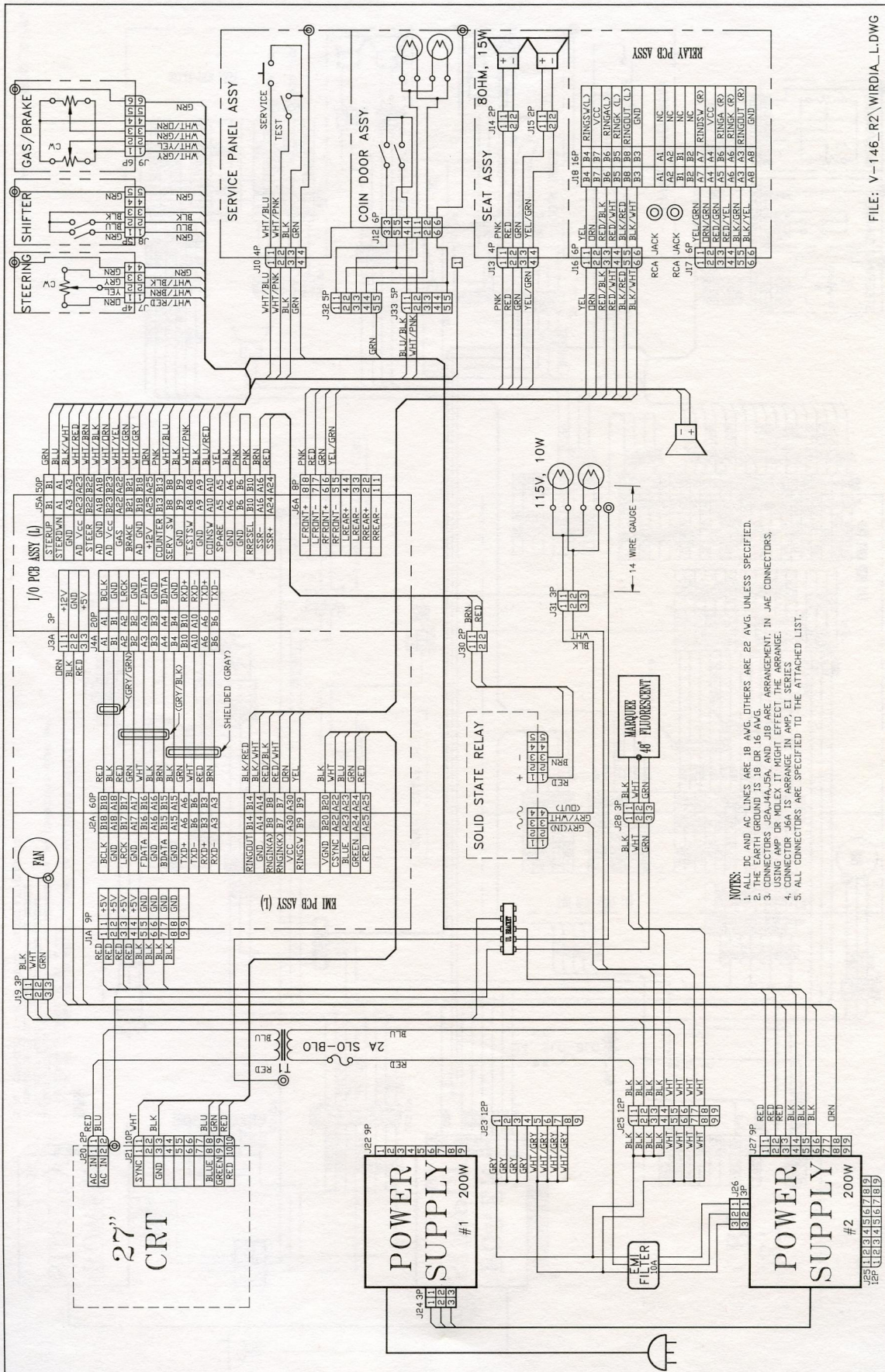


9.0 WIRING DIAGRAM



FILE: V-146\_R2\WIRDIA\_R.DWG

9.0 WIRING DIAGRAMS, CONT.



FILE: V-146\_R2\_WIRDA\_L.DWG

## Warranty

Seller warrants that its printed circuit boards and parts thereon are free from defects in materials and workmanship under normal use and service for a period of ninety (90) days from the date of shipment. Seller warrants that its video displays (in games supplied with video displays) are free from defects in material and workmanship under normal use and service for a period of thirty (30) days from the date of shipment. None of the Seller's other products or parts thereof are warranted.

If the products described in this manual fail to conform to this warranty, Seller's sole liability shall be, at its option, to repair, replace, or credit Buyer's account for such products which are returned to Seller during said warranty period, provided:

- (a) Seller is promptly notified in writing upon discovery by Buyer that said products are defective;
- (b) Such products are returned prepaid to Seller's plant; and
- (c) Seller's examination of said products discloses to Seller's satisfaction that such alleged defects existed and were not caused by accident, misuse, neglect, alteration, improper repair, installation, or improper testing.

In no event shall seller be liable for loss of profits, loss of use, incidental or consequential damages. Except for any express warranty set forth in a written contract between Seller and Buyer which contract supersedes the terms herein, this warranty is in lieu of all other warranties expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose, and all other obligations or liabilities on the Seller's part, and it neither assumes nor authorizes any other person to assume for the Seller any other liabilities in connection with the sale of products by Seller. Namco-America, Inc. distributors are independent, being privately owned and operated. In their judgment they may sell parts or accessories other than Namco-America, Inc. parts or accessories. Namco-America, Inc. cannot be responsible for the quality, suitability, or safety of any non-Namco-America, Inc. part or any modification including labor which is performed by such distributor.

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