

Rim Rockin' **BASKETBALL**™



INSTALLATION MANUAL

STRATA GROUP, INC.

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PRODUCT INFORMATION

WARRANTY, REPAIR, AND RETURN POLICY

1. *90-day full warranty on all electronic components.
2. There is a minimum \$40.00 service charge for all non-warranty repairs or returns.
3. For all servicing, return to **STRATA**.
4. ANY non-factory repair or attempted repair voids warranty.
5. AAMA decal must not be removed from the PC boards.

* All warranty periods begin on the date of purchase from **STRATA**

RETURN MERCHANDISE AUTHORIZATION (RMA)

1. All returned merchandise must have an RMA number marked clearly on the outside of the package.
2. You must obtain all RMA numbers from your authorized **STRATA** distributor. Please have your **STRATA** serial number available when calling for an RMA number.
3. Merchandise returned without an RMA number will not be accepted.
4. Advance replacement boards will be shipped to distributors or, at the distributor's request, will be shipped directly to the operator.
5. Advance replacement boards will be billed to the distributor until **STRATA** receives the returned board, at which time a credit will be issued.
6. All repairs and/or replacements will be shipped within one business day of receipt or request (subject to availability).

FCC REGULATION COMPLIANCE

This equipment complies 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.

INSTALLING YOUR RIM ROCKIN' BASKETBALL CONVERSION PACKAGE

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Rim Rockin' **BASKETBALL**



RIM ROCKIN' BASKETBALL FEATURES

Realistic NBA-style basketball action.

Each player buys individual game time by inserting coin(s).

Game can be configured across 1-, 2-, 3-, or 4-player cabinets. (See "THE CABINET" on page 5.)

From one to four players can play at the same time.

New players can join games already in progress.

Players can buy additional time to complete quarters, halves or games.

Two 2-player cabinets can also be connected for a 4-player game. (See "THE CABINET" on page 5.)

GAME PACKAGE CONTENTS

UPRIGHT KIT

- 1) Printed Circuit Boards (PCBs)
- 1) Set of Nuts, Bolts, and Spacers
- 1) Connecting Wire Harness (JAMMA)
- 1) Player 3 & 4 Wire Harnesses
- 4) Joystick Assemblies
- 12) Button Assemblies
- 1) Marquee Styrene
- 1) Marquee Plexiglass
- 1) Control Panel Overlay
- 1) Set of Side Graphics (2 pieces)
- 1) Set of Function Labels
- 1) Manual

RECOMMENDED TOOLS & SUPPLIES

Phillips and Slotted Screwdrivers
Socket Set
Wire Cutters and Strippers
Pliers or Channel Locks
Electric Drill with 3/32", 1/4", and 7/16" Bits
1-3/16" Chassis or Sheet Metal Punch
Painting Supplies (if you do your own painting)
 Air Brush or Paint Sprayer
 Paint Roller and Pan
 Paint Brush
 Paint (and Primer)
 Sandpaper
 Putty Knife and Wood Putty
Staple Gun and Staples
Soldering Iron and 60/40 Resin Core Solder
Vacuum Cleaner
Assorted Fastening Hardware

Heat Shrink Tubing (3/32", 1/8", and 3/16")
Masking Tape
3-1/2" or 4" Wire Ties
Mild Liquid Soap and Water Solution
Small File
Razor Knife and Sharp Blades
Straight Edge

INSTALLATION PREPARATIONS

BEFORE YOU START...

1. Have you checked to see if all the needed parts have been included? (See "GAME PACKAGE CONTENTS" on page 3.)
2. Is the cabinet you have chosen to build up able to supply all the required voltages for this game (+5, & +12 vdc)? Some games (i.e. Ms. Pac Man, Galaxian, etc.) regulate their voltages on the main PC board. This makes the existing power supply inappropriate and hazardous to your new game. These cabinets will require a power supply change. Many game supply houses can offer you a switching regulated power supply for a relatively low cost. Ask your distributor.
3. Is the monitor configuration compatible? It can be difficult to change the monitor from a vertical to a horizontal mount. Installation will be easier if you choose a horizontal mount cabinet.
4. Do you have the necessary tools? (See "RECOMMENDED TOOLS & SUPPLIES".)

POWER REQUIREMENTS:

MONITOR REQUIREMENTS:

+5 VDC	2 amps	Horizontal Mount Raster Scan
+12 VDC	2 amps	Positive or Negative Composite Sync

NOTE: The monitor must be mounted horizontally. To change sync, see "SETTINGS, AUDITS & DIAGNOSTICS" on page 15.

IMPORTANT NOTE

Through the use of the very latest technology this game requires far less power to operate than most games currently on the market. The outputs of many "regulated" switching power supplies actually vary with load. For this reason the power supply from an old cabinet may not be correctly adjusted for **RIM ROCKIN' BASKETBALL**. Therefore, it is very important to adjust the +5 vdc supply **WITHOUT** connecting the PC Board, then readjusting later, after the PC Board has been installed. Damage will occur if the power supply is outside the acceptable limits (between 4.8 and 5.5 vdc).

THE CABINET

CABINET SELECTION

You may use a new or used cabinet for your RIM ROCKIN' BASKETBALL game. In either case, all you provide is the cabinet with a power supply and monitor. We provide the rest. The end result is a new game at a very low cost.

Spend time on the cabinet's appearance (i.e. marquee, control panel, and cabinet graphics). You will raise your profits with the introduction of a new game package, especially if the cabinet looks clean and new.

The "new game look" should always apply to the inside of your game as well. A few wire ties and shrink tubing on your harness, some fastening hardware on your subassemblies, and a sweep with the vacuum cleaner will ensure that unnecessary glitches do not occur.

Whether you choose to refurbish a used cabinet or supply a new cabinet, RIM ROCKIN' BASKETBALL supports several possible configurations. Select a cabinet configuration that best suits your needs. (Also, see "Setting the Dip Switch" on page 15.)

1. Four-player cabinet
2. Three-player cabinet
3. Two-player cabinet
4. Four-player linked (Use two 2-player cabinets linked together to form a four-player game.)
5. One-player cabinet

SELECTING A COIN DOOR

VERY IMPORTANT!!

RIM ROCKIN' BASKETBALL supports two coin modes.

--COIN MODE 1 requires that you provide one coin slot per player. For example, a four-player cabinet requires a four-coin-slot coin door.

--COIN MODE 2 treats all coin slots as common to each player. This allows a four-player cabinet to use a standard two-slot door. In COIN MODE 2, players can insert coins in any slot and use their individual start button to credit themselves the value of the coin. However, if all players use common coin slots, it would be possible for one player to acquire another player's credits. We **STRONGLY RECOMMEND** using COIN MODE 1. Since COIN MODE 1 provides one coin slot per player, each player has total control of his/her coin account.

PREPARING A USED CABINET FOR THE NEW GAME

Remove the following:

1. Main Logic Board(s)
2. Control Panel
3. Monitor Plexiglass
4. Monitor Bezel
5. Marquee
6. Cabinet Graphics

Thoroughly clean out your cabinet.

Remove all the old buttons, joysticks and wires from the control panel and set aside. Remove all of the original overlay. DO NOT remove monitor and speaker wires.

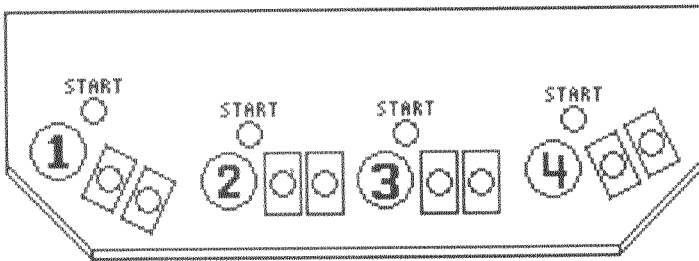
Remove the old graphics and adhesive. If your cabinet has wood grain sides, adhesive may be removed with lacquer thinner.

For a fresh look, painting is highly recommended. Spray painting gives a better finish, but if an air brush or paint sprayer is unavailable, a roller is second best. Be sure to cover all exposed surfaces not to be painted, such as the coin door and monitor. Use a small brush to finish up the details. If you do not have the facilities for painting, try an auto body shop.

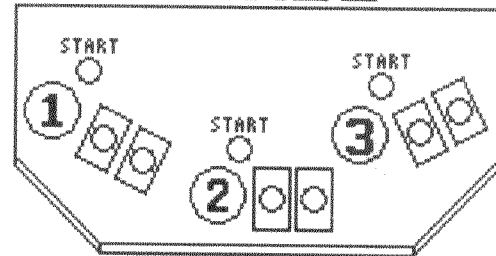
CONTROL PANEL PREPARATIONS

1. Mark positions on the panel for new holes. (Refer to Illustration 1 on page 7.) If you are using a universal cabinet, holes may already exist that match the recommended control configuration.
2. Drill (or punch) the holes marked for buttons and bolts. Use a chassis or sheet metal punch for best results on button holes. Cut holes for the joystick mounts.
3. Use a file to smooth out the edges of all the new holes.
4. Cover any unused holes with a wood or metal plate.

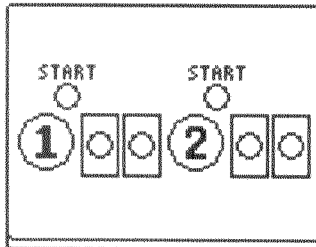
4-PLAYER PANEL



3-PLAYER PANEL



2-PLAYER PANEL



4-PLAYER LINKED PANEL (2 CABINETS)

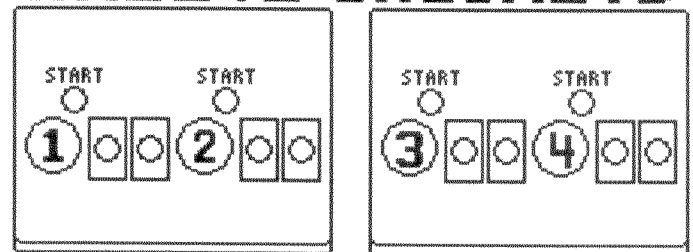


ILLUSTRATION 1

GRAPHIC INSTALLATION

CONTROL PANEL GRAPHICS

1. Clean up the control panel. Peel the top half of the protective backing off of the control panel graphic overlay. Start from the center and smooth out the overlay making sure you have about an inch of excess coming off the top. Watch out for bubbles. Peel off the bottom half and repeat. Trim off the excess overlay material with a sharp razor knife.

2. Attach the function labels making sure they are straight and adhere correctly. (Refer to Illustration 2 below.)
3. Attach coin function labels as shown in Illustration 3.

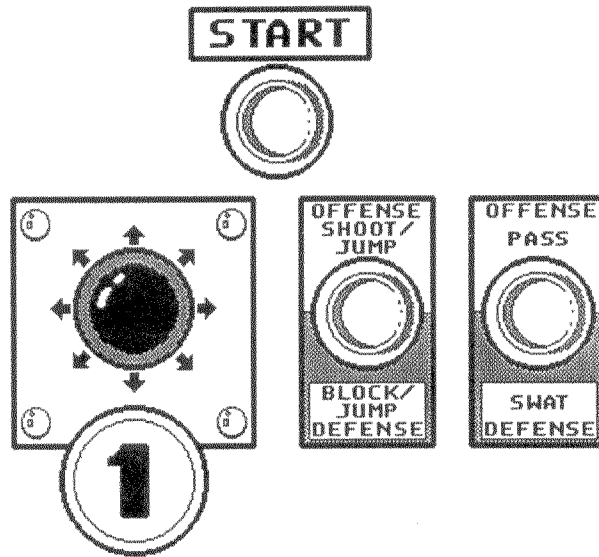


ILLUSTRATION 2

STICKER PLACEMENT FOR COIN DOOR.

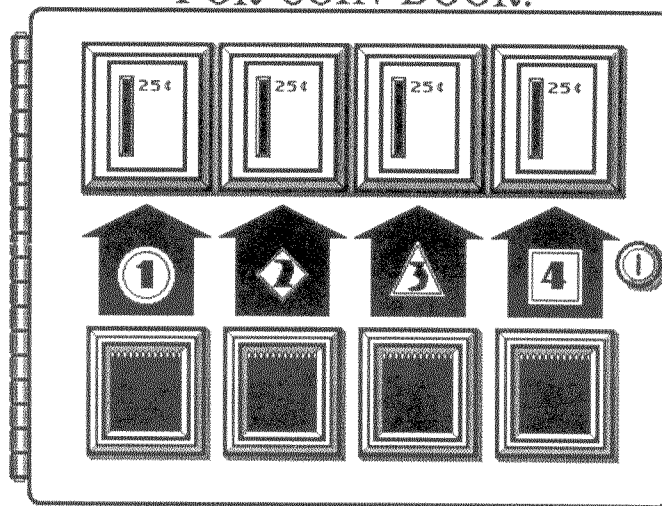


ILLUSTRATION 3

MARQUEE INSTALLATION

If your cabinet requires a new marquee glass, determine the correct size and cut the supplied plexiglass to fit. Using the marquee glass as a template, center your new marquee graphics and score the new marquee deeply to fit the cabinet. Break off excess. Be sure the light behind the marquee works. Now install the marquee glass and graphics.

SIDE GRAPHIC INSTALLATION

1. The sides of the cabinet should be very clean, smooth, and free of any old adhesive, dust, etc.
2. Mark position of decal lightly with pencil (centered on upper half of cabinet).
3. Spray the side of the cabinet with soap and water solution and leave wet.
4. Peel off the top 1/4 of the decal backing and apply to the cabinet starting at the top with a smoothing motion. Smooth down until decal is in place.
5. Squeegee all bubbles and ripples out of the decal. Use a piece of cardboard if you do not have a squeegee.
6. Position the decal exactly. The soapy solution will allow some movement. Allow several hours to dry completely.

WIRING & HARDWARE INSTALLATION

REMEMBER!

Do not work with any part of the system plugged in (lights, monitor, or power supply).

CONTROL PANEL ASSEMBLY

Install all buttons and joysticks on the control panel as per the control panel configuration of your choice. Refer to Illustration 1 on page 7.

PRINTED CIRCUIT BOARD (PCB)

Mount the PCB to the side of the cabinet with the edge connector toward the top. This will keep the wire harness from slipping off due to vibration. Attach three white PCB standoffs to the backside of the board by gently pushing the post into the mounting holes on the board. Be very careful not to flex the PCB in anyway. Using the board standoffs as a guide, mark where to drill mounting holes. Drill pilot holes (3/32") being careful not to drill through to the outside. Attach the PCB standoffs to the cabinet using wood screws — snug but not too tight or the board may warp or crack. Be sure the board is not being flexed in any way.

CONCERNING JAMMA HARNESSES

This game uses the NEWEST JAMMA standard wiring harness. Therefore, if the cabinet you are using is already equipped with an old JAMMA harness, you may want to change it. This way your cabinet will have up-to-date wiring. (See page 24 for "Jamma Harness Connections".)

If you are installing this game into a Dynamo cabinet with a pre-installed JAMMA harness, you will notice that it does not have a wire for the test switch. You will have to add a contact to the edge connector at the proper position (position 15). Some cabinets (Dynamo included) have only one coin switch input and the coin switches are wired together. This prevents you from using COIN MODE 1. (See "Selecting a Coin Door" on page 5.) **It is recommended that you wire the coin switches separately.**

Attach the wire harness connector to the PCB. This connector should be keyed and labeled "**COMPONENT SIDE**". Be sure it is mounted correctly. Notice that the power supply wires are closest to the end marked "JAMMA" on the board.

The JAMMA harness along with the Player 3 & 4 harness (if you are using a 3- or 4- player cabinet) must be wired to the cabinet subassemblies such as the control panel, coin doors, monitor, speaker and power supply. Use the "HARNESS CONNECTIONS" information on pages 24-26 to determine where each wire should go.

It is best to use connectors (not supplied) whenever joining a set of harness wires to a subassembly. If you choose to solder wires together, follow this procedure:

1. Strip off about 1/2" of insulation from the wire.
2. Slide a piece of heat-shrink tubing over the end.
3. Do not leave a lot of excess wire spooled up in your cabinet. Cut the wires to the length you need plus a few extra inches. Leave enough for proper cable dressing -- do not make it stretch across the inside of the cabinet.
4. Solder the new wire to the original wire. Use a straight in-line splice.
5. Melt the heat-shrink over the splice.

ALWAYS

Solder all wire splices. Just twisting the wires together will cause intermittent problems in the future.

Use shrink tubing over wire splices. NEVER use electrical tape. Electrical tape may unravel due to the heat inside the cabinet.

Use wire ties to keep associated wires bundled. Attach to the cabinet wherever it seems necessary to keep them neat and secure.

AVOID

Bundling unrelated wires (such as the control panel and the monitor) as this may increase the possibility of intermittent problems due to noise. Be sure to run different bundles separately.

POWER WIRES

1. Connect the wires that are designated for your power supply. You will need a supply of +5 vdc, and +12 vdc. The +5 vdc must be regulated to within 5% (+ or - 0.25 vdc). The +12 vdc may be unregulated but should not stray too far or the sound may be affected. If the cabinet's supply does not provide these voltages, it will have to be replaced. A switching-type supply is recommended.
2. You will notice that you have more than one wire for each voltage. Use all wires supplied on the harness. This will ensure better power transmission and prevent overloading of the edge connector pads.
3. Tin all power supply wires before connecting them to the power supply. Loose strands may short out the supply. For best results, connect spade lugs to the ends of the power wires and attach to the screw terminals of the power supply.

MONITOR WIRES

You will be connecting the RED, GREEN, and BLUE video drives along with the composite SYNC and video GROUND wires.

SYNC

This is the recommended approach for a Wells-Gardner monitor and should work with some others as well.

This game generates a composite sync signal which is accepted by most monitors. A DIP switch (SW1) on the logic board allows you to choose between positive and negative composite sync. Most monitors require negative sync. If your monitor requires positive sync, flip the switch towards the ON position. (See "Setting the Dip Switch" on page 15.)

If your monitor does not have a composite sync input but has separate horizontal and vertical sync inputs, try connecting the composite sync signal from the PCB to the negative horizontal sync signal on the monitor. This should produce a satisfactory result, although some adjustment of the monitor's sync controls may be necessary.

SPEAKER WIRES

Connect the speaker wires paying attention to their polarity.

If your cabinet has two speakers, connect both. If they are 8- or 16-ohm speakers, connect them in parallel; if they are 4-ohm, connect them in series.

Examine the speaker carefully. Is it really up to the high standards you wish to maintain at your location? Unfortunately, many arcade speakers are inadequate for reproduction of good game sounds. Remember, this is not just a video game — it is a video/audio game. Far more effort was put into the sounds of this game than is put into most other arcade games. If the speakers are not up to it, replace them. A small investment in good speakers can make a world of difference in profits. Competent and reasonably priced speakers can be obtained from stores such as Radio Shack. Part numbers 40-1909B and 40-1268C both work well, with the latter being recommended. Car speakers also work well.

Position speakers as far from the monitor as possible. If placed too close, the speaker's magnet may deflect the monitor and cause strange coloration, which can usually be corrected by degaussing the monitor. Be sure to attach it securely with all four screws to minimize vibration and rattling. Make sure everything else in the cabinet is attached securely for the same reason.

CONCERNING CONTROL PANEL, COIN DOORS, TEST SWITCH, & SERVICE SWITCH WIRING

All switch wires used on this game need to be wired to the normally open connection on the switches. Each switch requires a ground wire on one connector and the appropriate control or switch wire on the other connector of the switch.

CONTROL PANEL WIRING

Wire all player controls as per the "HARNESS CONNECTIONS" information on pages 24-26. Player 1 & 2 controls come from the JAMMA harness. Player 3 & 4 controls come from the Player 3 & 4 harness respectively. Wire only the controls that your cabinet configuration supports.

COIN DOORS, TEST SWITCH, & SERVICE SWITCH WIRING

1. Coin door 1 & 2 wires along with the test and service 1 & 2 wires come from the JAMMA harness. Coin door 3 & 4 and service wires 3 & 4 come from Player 3 & 4 harnesses.
2. Connect the designated wires to the coin switches. For the recommended COIN MODE 1, each player must have their own coin switch. Do not wire coin switches together. Wire them individually to Coin 1 thru Coin 4 harness wires. If using COIN MODE 2, wire Coin 1 to slot 1 and Coin 2 to slot 2. Do not use Coin 3 or Coin 4.
3. Connect the door lamps to the +12 vdc supply. Some games have separate power supply outputs for the lamps.
4. Mount a test switch (not included) somewhere convenient inside the coin door area. This switch allows you to enter adjustables, run diagnostics, and see or clear audits. Make it readily accessible through the coin door. Wire it to the test wire on the JAMMA harness.
5. Depending on the number of players your cabinet will support, mount 1, 2, 3, or 4 service switches (not included) in a convenient place. Attach the appropriate wires to the service switches. The service switches allow the operator to give credit to players without affecting the game's credit audits. Example: Player 2 puts in a coin and gets no credit, the operator can then push the Service 2 button (found in the cabinet) and a credit is given to player 2 without affecting the game's AUDITS.
6. Clean and lubricate your coin mechs.

FINISHING TOUCHES

1. Check the game inside and out for any imperfections. Secure any loose wiring or fastening hardware.
2. Make sure the coin door is tight and the coin mechs are well adjusted.

3. Make sure all subassemblies are firmly attached. Anything which is not mounted securely will rattle when the game is played. This game makes use of low-frequency sounds which can cause any loose joints to rattle.

INITIAL POWER-UP

FINAL CHECK

1. Carefully inspect the game for loose power wires, exposed connections, and extra fastening hardware. Look for any stray strands from wires.
2. Make sure the PC boards, monitor, power supply, and speakers are secure.
3. Double check your connections.
4. With the board disconnected from the JAMMA harness, turn the power on and adjust the +5 vdc supply to be as close to +5 vdc as possible. **This is very important to prevent damage to the game board.** Turn the power off and connect the JAMMA harness to the board (always COMPONENT SIDE up). Also attach the Player 3 and 4 harness if needed.
5. Double check your DIP switch (SW1) settings to make sure they correspond to your cabinet configurations. (See "Setting the DIP Switch" on page 15.)

APPLYING POWER...

1. With all harnesses attached to the PC board, plug in the game and turn it on.
2. Look and smell for smoke (TURN IT OFF *IMMEDIATELY* IF ANY IS NOTICED).
3. Make sure the green and yellow LEDs on the PC boards are flashing. If not, something is wrong — turn off the game.
4. Listen for sound. A few notes should play on power up.
5. If you do not hear any sounds and the yellow LED is flashing, try turning up the volume and checking the speaker connections. Dropping a coin through a coin switch should cause a sound.
6. Look at the image on the monitor. If it is not in sync and you can not stop it from rolling by adjusting the monitor's sync controls, try flipping DIP switch (SW1) on the logic board. (See "Setting the Dip Switch" on page 15.)

7. How is the picture?
-Is it centered and in focus? Is it too bright or too dim?

Check your monitor manual to make adjustments. Some test patterns are available through the game's diagnostics by pressing the test switch. Use them when making any adjustments. (See "SETTINGS, AUDITS & DIAGNOSTICS" for information about diagnostics.) Proper monitor adjustment is very important.

8. Try all coin switches. Drop quarters or tokens through to check the coin mechs. Make sure the game is adding credits. Play the game. Do all buttons and joysticks work properly? You can also use the "Control Tests" accessed through the diagnostics in the operator mode to test all controls. Try playing the game with the volume up and listen for rattling as you play. Tighten anything that is making noise.
9. Upon initial power-up, the game will initialize to factory default settings. These settings affect game elements such as number of credits per coin, play time per credit, etc. The "Operator Mode" section on page 17 will describe how to alter these settings and view the system audits, or run system diagnostics.

SETTINGS, AUDITS, & DIAGNOSTICS

SETTING THE DIP SWITCH

The DIP switch is located underneath the top PC board. You must remove the top PC board to adjust the DIP switch.

The default settings are: negative sync; COIN MODE 1; and 4-player cabinet.

To remove the top PCB, just pinch the top of the plastic standoff so the lever is straight, and pull the corner of the top PCB up. There are four plastic standoffs. When replacing the top PCB be careful to line up the pins on the back of the top PCB. With the connector on the main PCB, push the top PCB down until the plastic standoffs snap into place. (See Illustration 4 on page 16.)

Position 1 (OFF): negative video sync

Position 1 (ON): positive video sync

Position 2 (OFF): COIN MODE 1-Individual coin slots for each player

Position 2 (ON): COIN MODE 2-common coin slots for all players

Position 3 (OFF): sets a ONE-player cabinet

Position 4 (OFF):

Position 3 (ON): sets a TWO-player cabinet
Position 4 (OFF):

Position 3 (OFF): sets a THREE-player cabinet
Position 4 (ON):

Position 3 (ON): sets a FOUR-player cabinet
Position 4 (ON):

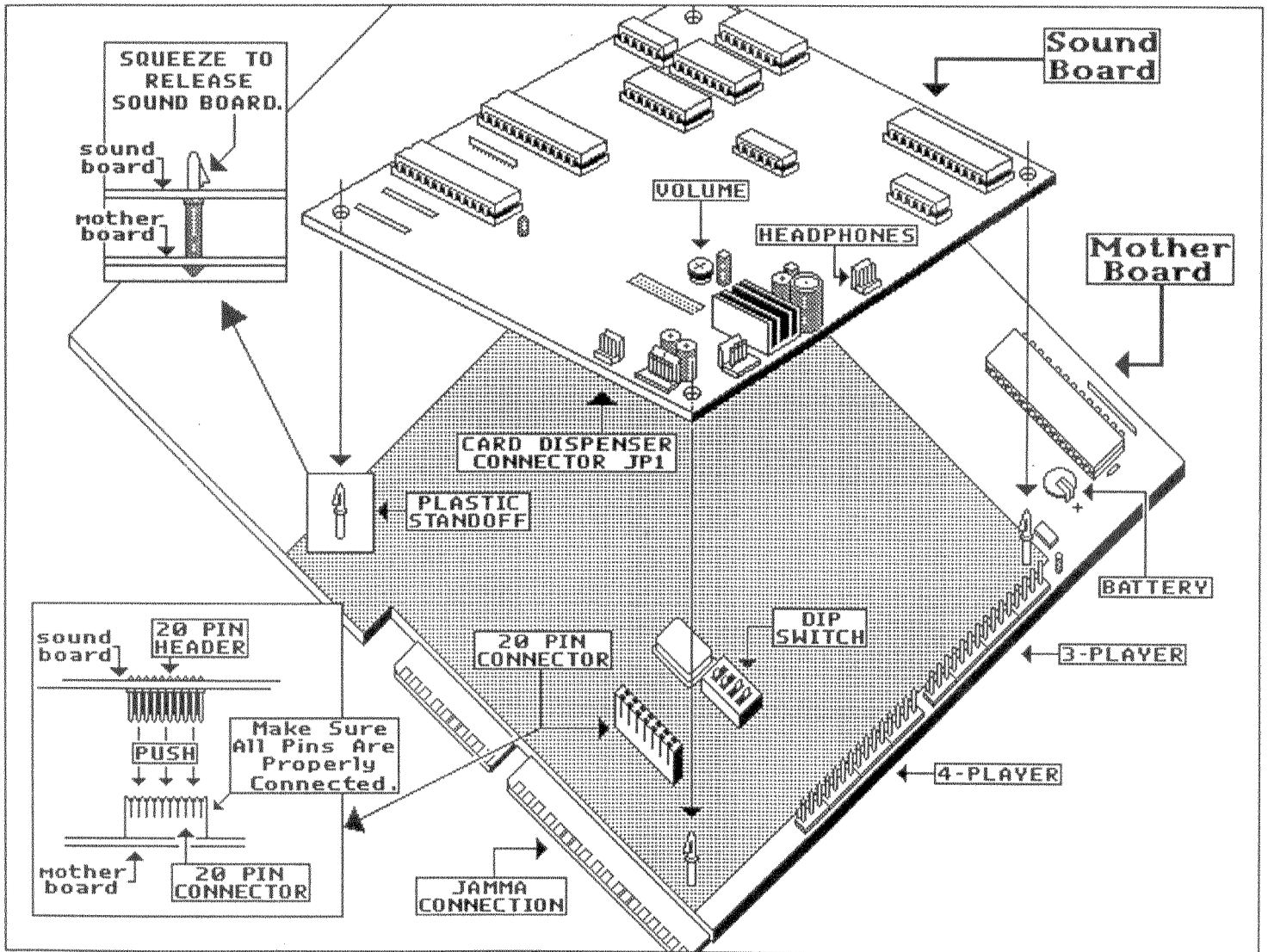


ILLUSTRATION 4

OPERATOR MODE

On-screen "Operator Adjustables", "Audits", and "Diagnostics" can be accessed by pressing the test switch at any time. Settings and audited accounts will be saved after the power switch is shut off. When power is turned back on, the message "SYSTEM STATUS OK" will be displayed. If, for some reason, any of the settings or accounts were corrupted, or if the power is being applied for the first time, the message "SYSTEM INITIALIZED" will be displayed and all factory defaults will be reinstalled. The system will always attempt to retain the operator adjustable data so as not to affect your current settings. If the system does go through an initialization, you may see the message "ADJUSTABLES RESTORED". This means that the audits have been reset but the Operator Adjustables have been restored to the previous settings.

The battery on the logic board should have a life of approximately five years. If you start seeing the "SYSTEM INITIALIZED" message often, it is possible that the battery may need replacing. Battery voltage should be from 2V - 3V.

Pressing the test switch will take you to the operator test mode main menu. You will see this:

```
EXIT
OPERATOR ADJUSTABLES
AUDITS
DIAGNOSTICS
```

One of these items will be highlighted in red. Move Player 1's joystick up or down to highlight the desired item and press Player 1's shoot button to select.

The main menu will lead to a series of menus. Use the joystick and shoot button the same way to move from one menu to the next. Exiting any menu will lead back to the previous menu. When "EXIT" is selected from the main menu, the game will return to the attract mode.

OPERATOR ADJUSTABLES

The "OPERATOR ADJUSTABLES" menu allows you to customize the game by adjusting various game features.

GAME MODE

Game Mode allows you to select between "FREE PLAY" or "COIN MODE". The default is "COIN MODE".

RESETS

There are three levels of reset: "RESET ADJUSTABLES, AUDITS & SCORES TO DEFAULT VALUES" will reset the Operator Adjustables, the High Scores and the Audits to their factory settings. "RESET HIGH SCORES ONLY" will reset the high score information only. "RESET AUDITS ONLY" will reset the audit information only.

ATTRACT MODE SOUNDS

The three levels of attract mode sounds are: "ALL ATTRACT MODE SOUND ON", "OCCASIONAL ATTRACT MODE SOUNDS", and "ALL ATTRACT MODE SOUND OFF". The default is "OCCASIONAL ATTRACT MODE SOUNDS."

SKILL LEVEL ADJUSTMENT

The skill level adjustments allow the operator to set the difficulty of game play with Level 1 being the easiest. The default is "Skill Level 2."

3 ON 3 / 5 ON 5 DEFAULT

This sets the default position on the 3 on 3 / 5 on 5 / 5 on 5 tournament selection screen. The default is "5 on 5 default."

NOTE

To adjust numeric field settings (as in the "Game Time Adjustments") move player 1's joystick left or right to change the value. This will be true for any numeric field adjustable items that might be described below.

CREDIT TIME ADJUSTMENT

Set the game play time (in seconds) given per coin. The default is 90 seconds. The actual average coin time may be slightly higher than this (See AUDITS).

CARD DISPENSER SETTINGS

This game is able to dispense basketball cards if the cabinet is equipped with a card dispenser. Select "TURN CARDS ON OR OFF" or dispenser 1 card per setting to enable or disable card dispensing. The default setting is "OFF."

"SET CARD DISPENSER VALUES" allows you to set the number of points required per each card dispensed. As an example, if this value is set to 12, the player will receive one basketball card after that player scores 12 points. The default setting is 12 points.

Please note again that the cards will only be dispensed if the card dispenser is enabled by turning it "ON" as described above.

"TEST, DISPENSE ONE CARD" will dispense one card for the sake of testing the dispenser.

GAME PERIOD TIME ADJUSTMENT

This allows the operator to adjust the time allowed for each game period. The default is 12 minutes. Keep in mind that this is the length of a period of play. Since **the game clock counts down at a rate of three times faster than a normal clock**, 10 game minutes are actually about 3 minutes, 20 seconds of real time.

HORIZONTAL SCREEN ADJUSTMENT

This can be used to help center the picture on the screen horizontally. This should only be used after an effort has been made to center the picture using the monitor's horizontal adjustment controls. The default is 2.

COIN DOOR TAMPER PROTECTION

By selecting "ON" the game will monitor the coin doors for tampering. If the game detects a problem, it will display "COIN MECH PROBLEM" along with a count of the number of credits currently on the machine. To reset the machine, you must power off and on again. The default is "OFF".

AUDITS

This section provides the operator with coin totals, game times, etc. Menu list:

EXIT AUDITS

REVIEW AUDITS

RESET AUDITS

REVIEW AUDITS:

The "Review Audits" section will present to you a variety of game information. This information can be helpful in adjusting the operator adjustables described previously.

TOTAL DOOR ONE COINS:

This is the number of coins put through coin door one.

TOTAL DOOR TWO COINS:

This is the number of coins put through coin door two.

TOTAL DOOR THREE COINS:

This is the number of coins put through coin door three.

TOTAL DOOR FOUR COINS:

This is the number of coins put through coin door four.

TOTAL COINS:

This is the total number of coins received across all four coin doors.

AVERAGE COIN TIME:

"AVERAGE COIN TIME" is the average amount of time (in seconds) being consumed per coin played.

TOTAL GAMES STARTED:

This represents the number of times a new game is started.

TOTAL CARDS DISPENSED:

This is the total number of cards dispensed.

PLAYER PERCENTAGES:

Player percentages describes the percent of time the game is being played with 1-, 2-, 3-, or 4-players.

TOTAL 3 ON 3:

This is the total number of 3 on 3 games selected.

TOTAL 5 ON 5:

This is the total number of 5 on 5 games selected.

RESET AUDITS:

Selecting this section will set all of the audits described below to zeros. This can also be done in "Operator Adjustments" -- see "Resets" on page 18.

DIAGNOSTICS

The diagnostics section is used for running a variety of system tests.

VIDEO TESTS:

Test color and linearity of video display.

MEMORY TESTS:

Test for RAM and ROM validity.

SOUND TESTS:

Test used for determining if the sound system is functioning.

CONTROL TESTS:

Test functionality of all game controls.

GENERAL TROUBLESHOOTING

VIDEO PROBLEMS

<u>Symptom</u>	<u>Probable Cause</u>	<u>Solution</u>
No picture	Video inputs are not hooked up. (Refer to harness outputs & monitor specifications.)	Make sure switch 1 pos. 1 is in the correct position: OFF for negative sync monitors and ON for positive sync monitors. Most monitors are negative sync.
	Bad connections	Make sure there are good connections from the board's video outputs to the monitor's video inputs.
	Monitor	Make sure the monitor is operating correctly. (Check it with another compatible board game.)
Scrambled Picture	Sync switch set incorrectly	SW1 pos.1, OFF for negative sync, ON for positive sync.
Missing colors or a washed out color	Bad video connections	Check the video red, green and blue connections.
Bright, blurry or rolling picture	Misadjusted monitor	Adjust the monitor, not the board. (Refer to your monitor manual.)
Picture too large, too small, or off center	Misadjusted monitor	Adjust the monitor, not the board. (Refer to your monitor manual.)
Video image is flipped	Misadjusted monitor	Manually flip the monitor or reverse the monitor's convergence wires. (Refer to your monitor manual.)
Bad images in picture	Bad GROM	Do GROM Test in Diagnostic Section. Check IC pins to make sure none are bent over.

CONTROL PROBLEMS

<u>Symptom</u>	<u>Probable Cause</u>	<u>Solution</u>
Buttons do not work or are partly inoperable	Switches not properly connected	Make sure that the common post of the switch is connected to ground.
		Make sure each individual switch is working.
		Make sure that the signal wire for that particular switch is connected to the normally open post of the switch.
Coin counter not working	Miscellaneous	Make sure that the signal wire has a connection from the switch to the board.
		Make sure +12v is hooked up to the counter.
		The signal wire is not connected to the coin counter. (Check continuity.)
		Verify that the counter is good.

SOUND PROBLEMS

<u>Symptom</u>	<u>Probable Cause</u>	<u>Solution</u>
No sound	+12v power supply is bad	Try another +12v power supply.
		Check for +12v power on the board.
	Miscellaneous	Check the volume setting.
		Check the speaker connections.
		Make sure the sound status light (yellow light) is flashing on the board.

POWER UP PROBLEMS

<u>Symptom</u>	<u>Probable Cause</u>	<u>Solution</u>
No reaction when game is turned on.	Blown fuse	Power supply is too high. Power should be between +5v & +5.2v. Cabinet is not connected to earth ground. (All metal should be connected to the earth ground.) Short between power and ground. Check for foreign material. Disconnect the harness and measure the resistance between power and ground. It should read around 900 ohms. (0 ohms is a dead short.) Make sure the harness is not shorting to anything, such as bare or frayed wires shorting out each other or hitting bare metal.
	No power from the power supply	Replace power supply.
	Power supply	Power supply too low. (Should ideally be between +5v & +5.2v.)
	Short on the board	Check for loose or foreign material on the board.
Power up song repeats itself	Open on socketed ICs	Check for bent pins on socketed parts. Make sure that all ICs are seated in their sockets properly.

NOTE: If fuse continually blows, please call STRATA service department. Sending the board in for repair is usually not necessary.

HARNESS CONNECTIONS

JAMMA HARNESS CONNECTIONS

FOR RIM ROCKIN' BASKETBALL

WIRE COLOR	SOLDER SIDE	PARTS SIDE	WIRE COLOR			
Black	GND	A 1	GND	Black		
Black	GND	B 2	GND	Black		
Red	+5 vdc	C 3	+5 vdc	Red		
Red	+5 vdc	D 4	+5 vdc	Red		
		E 5				
Orange	+12 vdc	F 6	+12 vdc	Orange		
	KEY	H 7	KEY			
Blue-Green	Card Counter	J 8	Coin Counter	Red-Green		
		K 9				
Yellow-Green	Left Speaker -	L 10	Left Speaker +	Yellow-Red		
White-Green	Right Speaker-	M 11	Right Speaker+	White-Red		
Green-Black	Video Green	N 12	Video Red	Red-Black		
White	Video Sync	P 13	Video Blue	Blue-Black		
Orange-Black	Service 1	R 14	Video GND	White-Black		
		S 15	Test Mode	Blue		
Green-Blue	Coin 2	T 16	Coin 1	Red-Blue		
Red-Yellow	Start 2	400	U 17	Start 1	100	Red-White
Green-Yellow	Up 2	411	V 18	Up 1	111	Green-White
Blue-Yellow	Down 2	422	W 19	Down 1	122	Blue-White
Black-Yellow	Left 2	433	X 20	Left 1	133	Black-White
Violet-Yellow	Right 2	444	Y 21	Right 1	144	Violet-White
Brown-Yellow	Switch A2-Shoot 2	455	Z 22	Switch A1-Shoot 1	155	Brown-White
White-Yellow	Switch B2-Pass 2	477	a 23	Switch B1-Pass 1	177	Yellow-White
Orange-Yellow	Switch C-Not Used		b 24	Switch C1-Not Used		Orange-White
	Undefined		c 25	Undefined		
Yellow-Black	Service 2	622	d 26	Undefined		
Black	GND		e 27	GND		Black
Black	GND		f 28	GND		Black

Color	Code
0 Black	5 Green
1 Brown	6 Blue
2 Red	Violet
3 Orange	Gray
4 Yellow	White

PLAYER 3 HARNESS CONNECTIONS

FOR RIM ROCKIN' BASKETBALL

.100 Ramp Housing -- (molex 22-26-8151 or equivalent)

Pin	Description	Wire Color
1	GND	Black
2	+5 VDC	Red
3	Not Used	Black/Green
4	Service 3	Yellow/Black
5	Coin 3	Black/Blue
6	Start 3	Red/Orange
7	Up 3	Green/Orange
8	Down 3	Blue/Orange
9	Left 3	Black/Orange
10	Right 3	Violet/Orange
11	Switch A3 - Shoot 3	Brown/Orange
12	Switch B3 - Pass 3	Yellow/Orange
13	Switch C3-Not Used	White/Orange
14	Undefined	
15	Undefined	

PLAYER 4 HARNESS CONNECTIONS

FOR RIM ROCKIN' BASKETBALL

.100 Ramp Housing -- (molex 22-26-8151 or equivalent)

Pin	Description	Wire Color
1	GND	Black
2	+5 VDC	Red
3	Not Used	Orange/Green
4	Service 4	Brown/Black
5	Coin 4	Orange/Blue
6	Start 4	Red/Brown
7	Up 4	Green/Brown
8	Down 4	Blue/Brown
9	Left 4	Black/Brown
10	Right 4	Violet/Brown
11	Switch A4 - Shoot 4	Brown/Brown
12	Switch B4 - Pass 4	Yellow/Brown
13	Switch C4- Not Used	White/Brown
14	Undefined	
15	Undefined	

BEZEL INSTRUCTIONS

CUT OUT AND MOUNT ON BEZEL

USE THE SHOOT/BLOCK BUTTON TO:

Shoot the ball on offense.
Jump (without the ball) on offense.
Jump or block on defense.
Pick-off passes on defense.

USE THE PASS/SWAT BUTTON TO:

Pass the ball on offense.
Swat the ball on defense
Guard the ball-handler on defense.

FOR USE WITH COIN MODE 2 ONLY

(COMMON COIN SLOTS)

We recommend using coin mode 1, see manual for details.

INSERT COINS

PRESS START BUTTON TO BEGIN

PRESS START BUTTON FOR EACH BUY IN



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