
CHAPTER TWO

OPERATION

NOTICE: The term VGM refers to the video game machine.
VIDEO GAME MACHINE (VGM) OPERATION

STARTING UP

Whenever you turn on the machine or restore power, the system executes boot ROM code. The boot ROM contains self-diagnostic tests. These tests automatically verify and report the condition of the disk drive and other hardware. The screen is blank during these tests. If the hardware fails a test, the system displays an error message. The message appears for 30 seconds or until someone presses a button.

- If nobody presses a button, the system quickly completes tests, and then loads game software.
- To skip boot ROM tests and activate the Menu System, press and hold the TEST MODE button. You’ll find this button behind the coin door.

Having passed power-up tests, the VGM computer enters Attract Mode. Attract Mode consists of typical game scenes and sounds, alternating with high scores. Attract Mode continues until game play commences.

Players insert currency or tokens to start the game. Pressing a START determines which player receives the credit. The VGM computer asks the players which game that they want to play: *NBA Showtime Gold Edition* or *NFL Blitz 2000 Gold Edition*. Players request one or the other via player panel controls. Then players select a team. The VGM computer associates one team with the Player–1 and Player-2 joysticks. The Player–3 and Player-4 joysticks assume control of the opposing team. Play begins after a countdown period. Play progresses like a real-life football or basketball game. At Game-Over Mode, players may choose to begin again. If players choose not to continue, then the VGM computer returns to Attract Mode.

GAME RULES FOR *NFL BLITZ 2000 GOLD EDITION*

INSTRUCTIONS
Play instructions appear on the information panel over and under the video monitor.

ONE TO FOUR PLAYERS
Players may enter their names for future reference. Then they select teams and run the first play. Players may choose an offensive or defensive play. Additional game information appears on the screen as needed. Team statistics appear at the end of each quarter.

CONTROLLING CHARACTERS
The joystick and action buttons control characters on the field. The joysticks respond to different amounts of deflection as well as direction.

GAME ACTION
Standard league football rules apply, with two exceptions: First downs require 30 yards, and teams only have seven active players. Game adjustment settings determine game length and speed.

The player view of the action changes automatically whenever a better camera angle becomes available. The game sounds include announcer comments and crowd noises.

SCORING
Touchdowns and goals score points, just as in real football games.

PLAY SELECTION FOR *NFL BLITZ 2000 GOLD EDITION*

STANDARD PLAYS
The player may select any of the offensive or defensive plays in the game. Players can choose from pages of standard plays loaded into the game. Use the indicated pushbuttons to view and select any play.
CUSTOM PLAYS
Players may choose to create their own offensive plays rather than depend on the standard plays in the game. Players can design and name their plays using the CREATE PLAY feature, then store these plays for future use. These custom plays become available on an additional page of game plays.

PLAYER CONTROLS FOR NFL BLITZ 2000 GOLD EDITION
The player controls are used to maneuver the team members and attack or defend against adversaries.

NOTICE: Use joystick and button combinations to discover secret moves.

- **START.** This button allows players to begin or continue play. Use PLAYER 1 START and PLAYER 2 START to begin a two-player game. START has no game action or service function.

- **JUMP / TACKLE.** This button lifts the offensive team member up or causes the defensive player to tackle opponents. Use this same button to create plays or select menu items during service.

- **PASS / CHANGE PLAYER.** This button activates offensive throws. The defense move switches active control to another teammate. Use this same button to create plays or select menu items during service.

- **TURBO.** The TURBO button gives any active character an extra burst of power or speed. Use this same button to create plays or select menu items during service.

- **JOYSTICK.** Each player has a joystick to control the movements of one on-screen character at a time. Use the joystick to create plays or select menu items during service.

RECOMMENDED PLAYER CONTROL LOCATIONS
GAME RULES FOR NBA SHOWTIME GOLD EDITION

INSTRUCTIONS
Play instructions appear on the information panel over and under the video monitor.

ONE TO FOUR PLAYERS
The player or players insert currency to start the game. Each player chooses a joystick and presses the nearest START button. Players select a team and two characters. In four-player games, each player controls one character. In games with fewer players, each player controls one character. The VGM computer controls remaining characters. The VGM computer displays team scores and statistics at the end of each quarter. Additional game information appears on screen as needed.

CONTROLLING CHARACTERS
The joystick and action buttons control characters on the basketball court. The joysticks respond to different amounts of deflection as well as direction.

GAME ACTION
Standard NBA basketball rules apply, except that the game only includes four active characters. Game settings determine game length and speed. The player view of the action changes automatically whenever a better camera angle becomes available. Game sounds include announcer comments and crowd noises.

SCORING
The game awards points for baskets, just as in real basketball games.

PLAYER CONTROLS FOR NBA SHOWTIME GOLD EDITION

- **JOYSTICK.** Each player’s joystick controls the position of that player’s characters on the video screen.

- **PASS/STEAL (the blue button)** controls character actions on the video screen. Press PASS/STEAL to attempt to pass or steal the ball.

- **SHOOT/BLOCK (the red button)** controls character actions on the video screen. Press SHOOT/BLOCK to shoot or attempt to block the ball.

- **START (orange buttons).** Each START button allows the corresponding player to begin or continue play.

- **TURBO (The white button)** controls character actions on the video screen. Press TURBO to speed up the pace of a play.

GAME FEATURES OF NBA SHOWTIME GOLD EDITION

*NBA Showtime* is a thrilling, two-on-two basketball game with world-class realism. Each player selects an NBA team, and then chooses a favorite character. Players can also create their own players. If fewer than four players are in the game, the computer operates the remaining characters.
The red team comprises players 1 and 2. Players 3 and 4 make up the challenging, blue team. The red and blue teams square off for the jump and the action begins. Run the ball down court! A steal! Dribble up court! A snap shot! The breathless announcer describes every pass, every shot, every block, every move!

After each quarter, new players can join the fun. Players can also switch to different characters. When the game concludes, team and individual scores appear on the screen. Top scorers may enter their initials or names with a joystick. *NBA Showtime* displays these initials in a high score table.

**OPERATOR CONTROLS**

**CABINET CONTROLS**

- **The DIP Switches** set some system variables. You can set other variables with diagnostic control switches.

- **The Monitor Remote Control Board** allows you to adjust the video display for optimum viewing.

- **The POWER Switch** turns off the video game machine, but does not reset game variables.

**DIAGNOSTIC CONTROL SWITCHES**

- **The SERVICE CREDITS Button** allots credits without changing the game’s bookkeeping total. SERVICE CREDITS has no function in the Menu System.
• **The TEST MODE Button** causes the VGM to enter the service Menu System. Press the TEST MODE button briefly to run automatic tests. To make game adjustments, press and hold TEST MODE until the Main Menu appears. Within the Menu System, TEST MODE assumes another function. There, it selects a menu line item and calls up the item’s submenu. The screen displays this submenu.

• **VOLUME DOWN and VOLUME UP Buttons** set game sound levels. To make minor volume changes, press either button briefly. To make major changes, press and hold a button. In the Menu System, VOLUME UP moves the item highlight bar up the menu. VOLUME DOWN moves the item highlight bar downward.

![NOTICE: You must adjust Attract Mode volume independently of Game Mode volume. For greater profits, increase volume levels to draw attention to this game.]

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**MAINTENANCE**

• **Cabinet**
  Use only non-abrasive cleaners to avoid damaging game graphics. Apply cleaner to a clean cloth or sponge. Wipe the screen clean with this cloth or sponge. *Do not apply cleaner directly on the cabinet!*

• **Control Panel**
  Dirt or debris on the joysticks or buttons can affect earnings. Apply the cleaner to a clean cloth. Use the cloth to wipe the controls. *Don’t apply the cleaner directly to the controls!*

• **Viewing Glass**
  To clean the glass, you don’t need to switch off power to the VGM. Apply a mild glass cleaner to a clean cloth or sponge. Use this to wipe the viewing glass. *Do not apply the cleaner directly on the glass!* Liquid could drip down into switch or motor circuits and cause erratic VGM operation.

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**SERVICING**

Only qualified service personnel should perform maintenance and repairs. The following product guidelines apply to all VGM operators and service personnel. Notes, cautions and warnings appear throughout this manual where they apply. Read the SAFETY pages thoroughly before beginning service.

• **Circuit Board Set**
  The VGM computer uses a set of three circuit boards. The three boards include the CPU Board, I/O Board and Video Board. Switch off power to the VGM. Open the rear door. To expose the circuit boards, remove their perforated metal cover. Carefully note the orientation of the JAMMA connector and other cables. Extract the harness and hard disk drive ribbon cable from the board connectors. Remove circuit board mounting screws. Lift the circuit boards out of the cabinet and set them in a safe place. Use anti-static packaging from new parts to store boards that you won’t reinstall.
CAUTION: Circuit board edge connectors are fragile. Take care when separating boards in the board set. Never jam the board connectors together. Never plug them together on an extreme angle. If necessary, carefully straighten bent pins with a small, grounded flat blade screwdriver. Also, don’t touch exposed foil on printed circuit boards. Skin oils are corrosive.

NOTICE: Avoid damage to VGM electronics! Turn off VGM power before servicing circuit boards or any electronic assembly. Never “hot plug” circuit boards.

- **Coin Mechanism**
  Switch off power to the VGM. Unlock the coin door and swing it open. To clean or replace a coin mechanism, unlatch and remove it. After reinstallation, ensure that the mechanism seats fully its bracket. Close and lock the release latch, and then close the door. Turn on the VGM and change the mechanism setup. Test known good and bad coins to verify operation.

- **Coin Meter**
  Switch off power to the VGM. Unlock the cash door and swing it open. The coin meter mounts to a metal plate at the bottom the cash vault. Record the meter count before testing or replacement. Remove the plate’s four mounting screws, and then remove the plate.

  Disconnect the meter wiring harness at the connectors. Remove front screws and slide the meter out. Assure that a protective diode connects across the replacement meter’s terminals. The diode prevents driver circuit damage.

- **Hard Disk Drive**
  Switch off power to the VGM. Unlock and remove the rear cabinet door. Remove the perforated metal cover over the VGM electronics. Disconnect the DC power cable from the hard disk drive. Unplug the ribbon cable from the hard drive. Don’t disconnect the cables from the CPU Board. Loosen the drive mounting screws and lift the drive out of its mounting bracket. Remove the screws. Save them for reuse in future hard drive installations. When returning a hard drive to your distributor, pack it in an anti-static bag. Box the drive in approved shipping container 08-8068.

  NOTICE: Hard disk drives are very fragile! Handle them with care. Do not stack or drop hard disk drives. Keep disk drives away from magnets, heat and vibration.

- **Joysticks**
  Switch off power to the VGM. Open the player control panel. Mark and disconnect the wiring harness from a joystick. To separate the joystick from the player panel, first remove the joystick shaft. An E-ring secures the shaft. Disengage this E-ring with a small, flatblade screwdriver. Grasp the joystick knob. Extract the stick from the assembly. Then remove 8-32 KEPS® nuts from the corners of the joystick base. Retain fasteners for reassembly.
• Memory

**CAUTION:** Static electricity builds up on your body. This static can damage or destroy sensitive VGM circuits. **BEFORE** touching or handling electronic assemblies, discharge static electricity by touching the electronics mounting plate.

**NOTICE:** CPU Board and SI/O Board chips don’t face same direction. **When** mounting chips on either board, refer only to chips on the same board for reference. Never use chips another board for reference.

ROM (Read Only Memory) circuits contain computer operating instructions for this VGM. **Switch off power to the VGM. Unlock and remove the rear door. Remove the perforated metal cover. Note the ROM chip position. Remove the device with a chip extraction tool. To reinstall a ROM chip, orient the device over its socket. Press the chip firmly to seat pins. **Don’t force the chip into the socket.**
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VGM ELECTRONICS

INTERNAL COMPONENTS

• Monitor

CAUTION: The video monitor is heavy, with most of the weight toward the front of the assembly. Support the monitor as you remove it from the cabinet.

Switch off power to the VGM. Open the control panel. Remove the viewing glass and monitor bezel. Unlock and remove the rear door. Disconnect the monitor from the wiring harness, remote adjustment board, and ground wires. Remove the fasteners that secure the monitor frame to its mounting panel. Carefully pull the monitor from the cabinet. Set the monitor in a safe place. Remove the remote adjustment board from the cabinet and reconnect it to the monitor before servicing or replacement. Clean the face of the CRT before reinstalling the monitor bezel.