MIDWAY

MAY 1996
16-40052-101



TM

CE

WAR GODS

DEDICATED GAME
OPERATION MANUAL

Operation & Adjustments • Testing & Problem Diagnosis
Parts Information • Wiring Diagrams

DECLARATION OF CONFORMITY

MIDWAY MANUFACTURING CO., INC.

3401 N. CALIFORNIA AVE.
CHICAGO, IL 60618
U.S.A.

WE, HEREBY DECLARE UNDER SOLE RESPONSIBILITY THAT

THE MODEL: *"WAR GODS" 40252, 40452, 41052, 42052 (VIDEO)*

TO WHICH THIS DECLARATION RELATES IS IN CONFORMITY WITH THE FOLLOWING EUROPEAN PRODUCT SAFETY DIRECTIVES:

ELECTROMAGNETIC COMPATABILITY DIRECTIVE
(89/336/EEC AND AMENDMENTS 91/C162/08, 92/31/EEC,93/68/EEC

AS IS VERIFIED BY COMPLIANCE WITH THE FOLLOWING STANDARDS:

EN5014: 1993	EN61000-4-2: 1995
IEC 801-3: 1984 (EN61000-4-3)	EN61000-4-4: 1995
EN61000-4-5: 1995	

Date issued: APRIL 15, 1996

MANUFACTURE'S SIGNATURE

DON HASSLER

V.P. MANUFACTURING

HARD DRIVE HANDLING GUIDELINES

Hard drives are especially sensitive to rough handling and electrostatic discharge (ESD). To avoid these hazards, adhere to the following guidelines:

ELECTROSTATIC DISCHARGE (ESD)

- Keep the end of the drive cable in an anti-static bag until you are ready to install it in your system.
- Do not put any other objects inside the anti-static bag with the end of the drive cable.

HANDLING

- Do not put anything on top of the drive - especially another drive.
- Do not drop a disk drive. Some drives can be damaged by being dropped from an inch above a hard surface.
- Be sure to handle the hard drive with care when setting it down. Do not set the drive on its edge.

INSTALLING

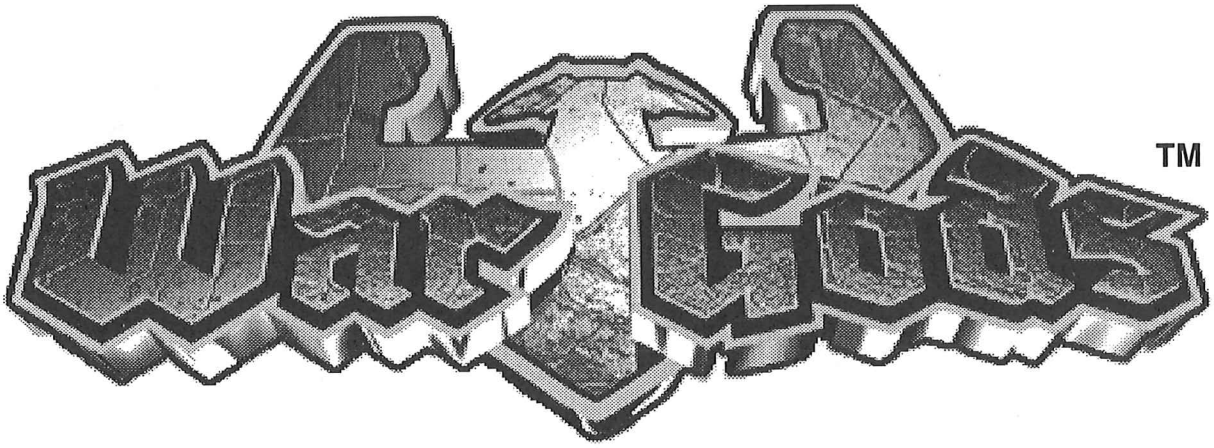
- When installing the drive, remove the cable from the anti-static bag.
- Turn off the power before connecting the drive to the system.
- Do not connect the drive to the CPU board, or disconnect the drive from the CPU board, while power is on.
- **BE VERY CAREFUL TO ALIGN THE DRIVE CABLE CORRECTLY WITH THE CPU CONNECTOR.** Installing a the hard drive cable incorrectly will ruin the drive!

STORING, PACKING, AND TRANSPORTING DRIVES

- If you are using the single pack carton, do not pack more than one drive per carton.
- Pack the end of the drive cable in an anti-static bag. Then, put the hard drive in an approved shipping container.
- Do not throw, drop, puncture, or walk on shipping boxes.

Note. You should use the same degree of care when handling a drive that may be defective that you use when handling a new, working drive.

NOTES



Information current at time of release.

Fill out and mail in game Registration card. Be sure to include the game serial number. For your records, write the game serial number in the manual.

Serial Number _____

MIDWAY Manufacturing Company reserves the rights to make modifications and improvements to its products. The specifications and parts identified in this manual are subject to change without notice.

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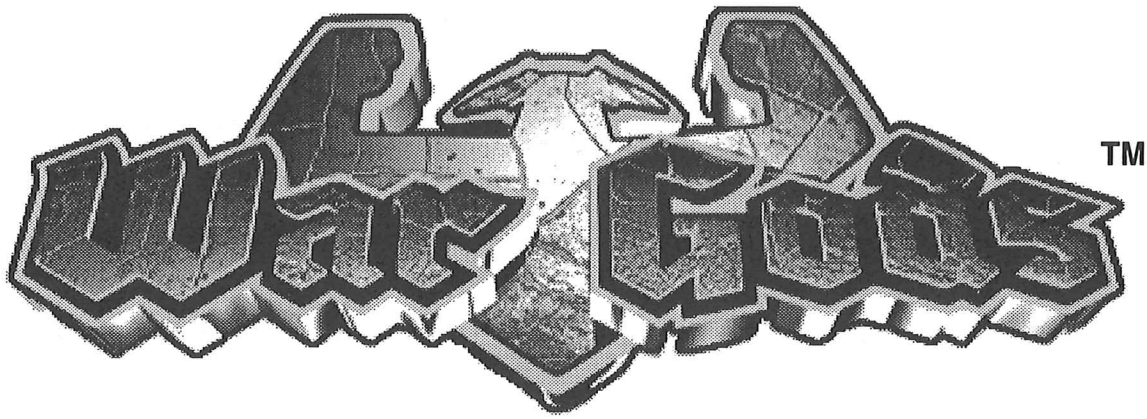
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NOTES



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SECTION
ONE

OPERATION

SAFETY NOTICES

The following safety instructions apply to all game operators and service personnel. Specific warnings and cautions will be found throughout this manual where they apply. We recommend that you read this page before preparing your game for play.

⚠ CAUTION

HARD DRIVE. The end of the hard drive cable must be packed in an anti-static bag. The disk drive assembly must be packed in an approved shipping container (p/n 08-7981.1) in order to be sent in for repair or replacement.

TRANSPORTING GAME: This game contains fragile electronic devices. Do not move this game with power on. Transport this game securely. Avoid rough handling.

ISOLATION TRANSFORMER. This video game system does not utilize an isolation transformer. No isolation exists between the cabinet AC system and the external AC line.

AC POWER CONNECTION. Verify that the slide switch on the power supply is set for 110VAC or 220VAC according to local line voltage. Verify that the fluorescent lamp assembly is correct for local line voltage.

PROPERLY GROUND THE GAME. To avoid electrical shocks, do not plug in the game until it has been inspected and properly grounded. MIDWAY games should only be plugged into a grounded 3-wire outlet.

DISCONNECT POWER DURING REPAIRS. To avoid electrical shock, disconnect the game from the AC power source before removing or repairing any part of the game.

USE THE PROPER FUSE To avoid electrical shock, the replacement fuse must match the original fuse in fuse type, voltage rating, and current rating.

HANDLE FLUORESCENT TUBE AND CRT WITH CARE. If you drop a fluorescent tube or CRT and it breaks, it will implode! Shattered glass can fly eight feet or more from the implosion.

EPILEPSY WARNING

A very small portion of the population has a condition which may cause them to experience epileptic seizures or have momentary loss of consciousness when viewing certain kinds of flashing lights or patterns that are present in our daily environment. These persons may experience seizures while watching some kinds of television pictures or playing certain video games. People who have not had any previous seizures may nonetheless have an undetected epileptic condition.

If you or anyone in your family has experienced symptoms linked to an epileptic condition (e.g. seizures or loss of awareness), immediately consult your physician before using any video games.

We recommend that parents observe their children while they play video games. If you or your child experience the following symptoms: dizziness, altered vision, eye or muscle twitching, involuntary movements, loss of awareness, disorientation, or convulsions, DISCONTINUE USE IMMEDIATELY and consult your physician.

ATTENTION

PROPERLY ATTACH ALL CONNECTORS. *Be sure that the connectors on each printed circuit board (PCB) are properly connected. If they do not slip on easily, do not force them. A reversed connector may damage your game and void the warranty. All connectors are keyed to fit specific pins on each board.*

SETUP PROCEDURE

Game Location Requirements

Power		*Temperature*	*Humidity*
Domestic	120VAC @ 60Hz 3.0 Amps	32°F to 100°F	Not to exceed 95% relative
Foreign	230VAC @ 50Hz 2.0 Amps	(0°C to 38°C)	
Japan	100VAC @ 50Hz 3.0 Amps		

Cabinet Statistics

Shipping Dimensions	*Shipping Weight*
Width 27" - Depth 41" - Height 73"	Approx. 385 Lbs

INSTALLATION & INSPECTION

1. Remove all items from the shipping containers and set them aside. Inspect the exterior of the cabinet and the control panel for any damage.

2. The coin door keys are attached to one of the joysticks. Unlock and open the coin door and the cash box door. Remove the spare parts stored in the cash box and remove the rear door keys located on a key hook inside, on the left side of the cabinet.

3. Remove the screws holding the rear door then unlock and remove the door. Inspect the cabinet interior for any signs of damage. Check all major assemblies to assure that they are mounted securely.

4. Refer to the Cabinet Wiring Diagram (Section 3), and check to see that all cable connectors are correctly secured. *Do not force connectors.* Watch for damaged connectors and avoid making reversed connections.

5. To secure the rear door with a padlock, remove the two nuts from inside the cabinet, above the rear door opening. The hasp is located on the spare parts bag. Slide the hasp on the bolts so that it protrudes from the hole in back of the cabinet. Replace the nuts.

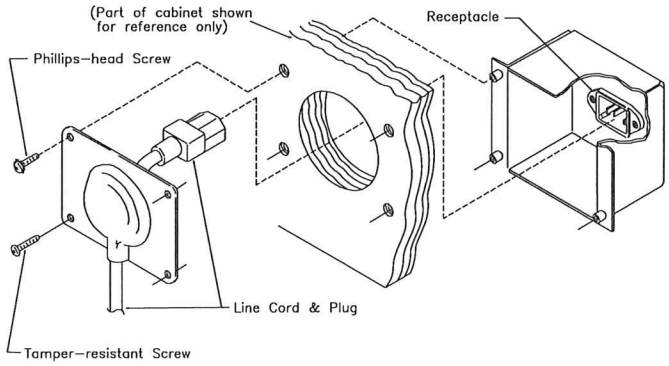
   Remove the two nuts and bolts from the back of the rear door, holding the lock plate in place. Turn the lock around so that the slot in the plate is below the door. Reinstall the two nuts and bolts.

6. Next, locate the four leg levelers among the spare parts in the cash box. There are four threaded holes on the bottom of the cabinet; one in each corner. Place one leg leveler (with its hex nut) in each of the threaded holes. Lower each leg leveler until the cabinet is stable and level.

!! WARNING !!

The cabinet is top heavy.

7. To attach the line cord, remove the four Phillips-head screws that mount the line cord cover plate to the rear of the cabinet. Match the prongs on the plug with the holes in the receptacle and push the line cord securely into place. Be sure the cord aligns with the indentation of the plate, (indentation should point toward the bottom of the cabinet). Remount the line cord cover plate.



8. Replace the rear door and fasten securely to the cabinet using the four HWH screws. Lock the rear door and remove the key.

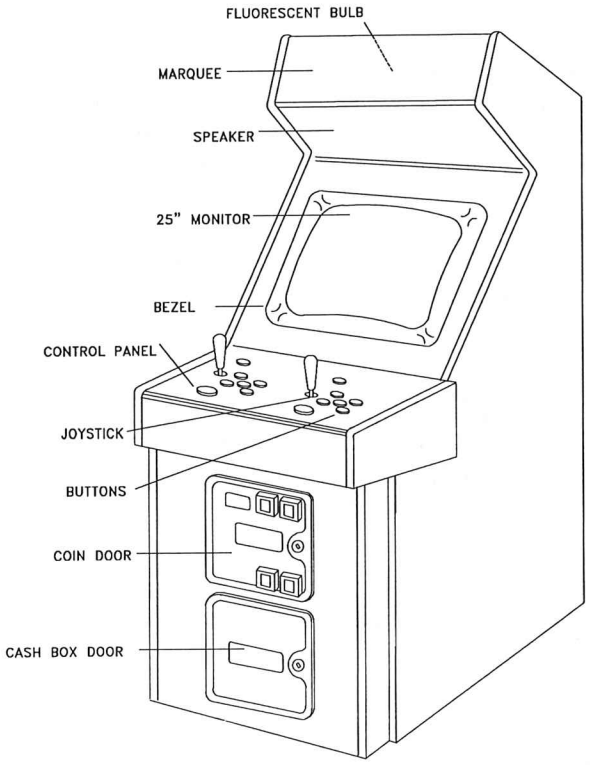
NOTE

Tamper resistant screws and matching wrench are provided with the game. The tamper resistant screws and wrench are located in the spare parts bag. Replace the HWH screws with the tamper resistant screws and tighten the screws with the T20 Torx wrench provided.

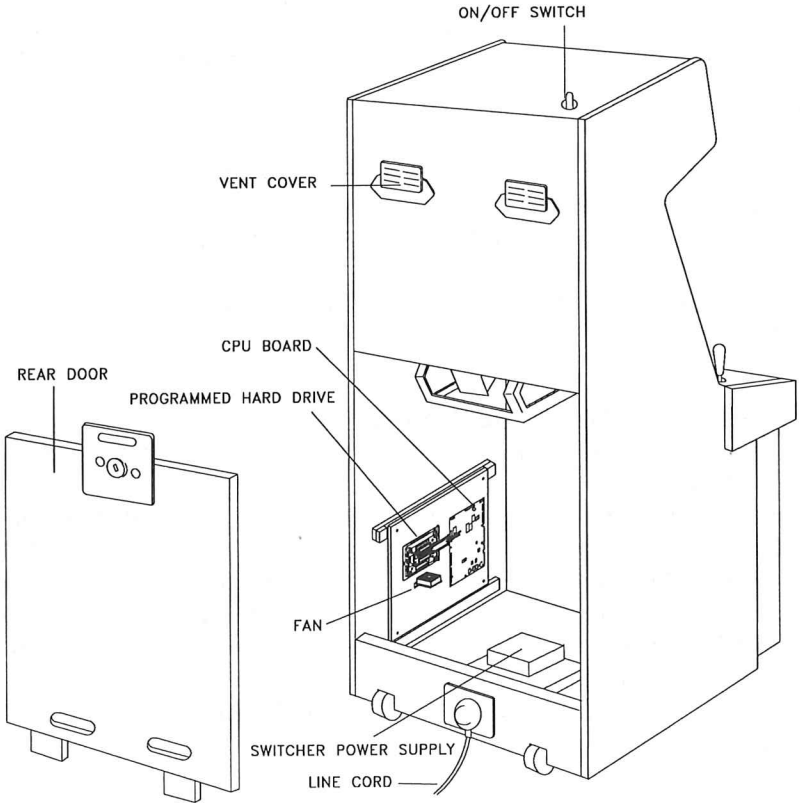
9. Plug the game into a grounded (3-terminal) AC wall outlet. Switch ON the game, using the ON/OFF switch located on the upper left rear of the cabinet.

CABINET ASSEMBLY

Front View



Rear View



SERVICING

♦ Servicing the Control Panel

Switch off power to the game and open the coin door. The control panel is held in place by two latches (located inside the cabinet) which provide constant pressure on the strikes. To release the latches, reach through the coin door opening toward the right and left sides of the cabinet. Lift the latch handle and unhook the wire fasteners. Grip the joysticks and carefully tilt the control panel back on its hinge.

To return the control panel to its normal position, carefully lean it forward until it rests on the cabinet. Be careful not to let the control panel slam down onto the cabinet, or to pinch any wires. Always re-clasp the latches.

♦ Removal of the Viewing Glass

Switch off power to the game and open the control panel. Loosen the three Phillips head screws and slide the black metal strip from the bottom of the viewing glass. Carefully slide the glass from the side grooves and lift it clear of the cabinet.

♦ Removal of the Monitor Bezel

Switch off power to the game. Open the control panel and remove the viewing glass. Lift the bezel off of the monitor.

♦ Monitor Replacement

We recommend that you read the SAFETY NOTICES section thoroughly before beginning this procedure.

Switch off power to the game. Remove the viewing glass and the monitor bezel. Completely disconnect the monitor from all of its cabling. Remove the four flange nuts securing the monitor's mounting flanges to its mounting panel. Pull the monitor carefully from the cabinet.



CAUTION

The monitor does not require an isolation transformer. However, when servicing the monitor on a test bench, YOU MUST ISOLATE THE MONITOR FROM LINE VOLTAGE WITH AN ISOLATION TRANSFORMER.

THE MONITOR IS HEAVY. BE SURE IT IS FIRMLY SUPPORTED IF IT MUST BE REMOVED FROM THE CABINET.

♦ Hard Drive Replacement *REMEMBER: HARD DRIVES ARE FRAGILE*

Use an anti-static bag and approved shipping container (p/n 08-7981.1) to return the hard drive to your distributor.

Switch off power to the game and open the rear door. Unplug the ribbon cable from the CPU board Unscrew the four hex head screws from the spacers and set them aside. Remove the spacers from the enclosure and set them aside. Remove the hard drive and enclosure assembly, (see Hard Drive Handling Guidelines in the front of this manual). Place the spacers - one in each four corner holes - in the new hard drive enclosure. Place the enclosure assembly, with the ribbon cable facing the front of the game, on the wood chassis. Line up the holes in the spacers with the screw holes in the wood and use the hex head screws to fasten the assembly in place. Carefully plug the ribbon cable into the CPU board.

♦ Removal of the Marquee

Switch off power to the game. Remove the hex-head screws from the black marquee retaining strip located on top of the header. Remove the strip and carefully lift the marquee and the marquee glass from the top of the header. Store the marquee carefully to prevent damage.

♦ Removal of the Fluorescent Light Assembly

Switch off power to the game. Remove the marquee glass and the marquee. The fluorescent bulb is now accessible for replacement. Remove the plastic lamp locks. Grasp the bulb, give it a quarter turn, and remove it from its socket. Carefully, place a new bulb into the socket, and turn to reinstall.

To remove the entire light fixture, disconnect the fluorescent light assembly from its power cable. Remove the screws that hold the assembly to the cabinet then lift out the assembly.

!! WARNING !!

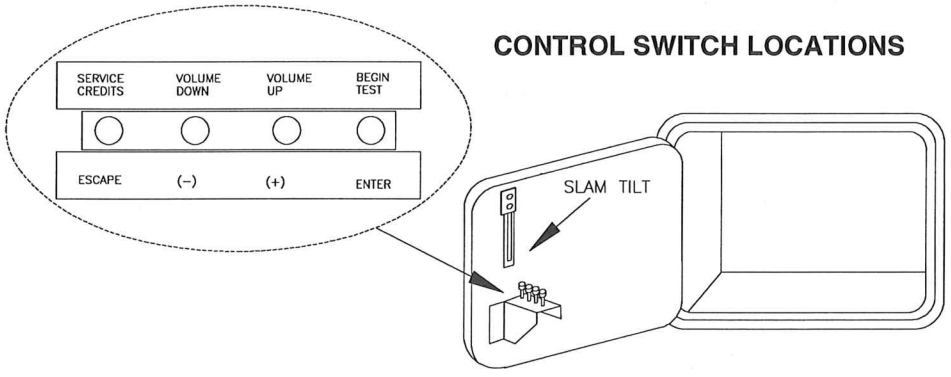
If you drop a fluorescent tube and it breaks, it will implode! Use care in handling.

♦ Removal of the Speakers

Switch off power to the game. Remove the marquee and the marquee glass. The speakers come out from the front of the cabinet. Be sure to disconnect the cabling and remove the nuts on the mounting screws before attempting to remove the speakers from the enclosure. Carefully, reinstall the seals upon completing any task in the speaker enclosure.

♦ Volume Control, Begin Test Switch, and Service Credit Switch

Open the coin door. The game's volume control and diagnostic push-button switches are located on a small bracket on the coin door. The volume is controlled by the two center buttons. Press the Volume Up or the Volume Down button until the desired sound level is reached. The Begin Test switch, on the right, activates the game's menu system. The Service Credit switch, on the left, allows credits to be allotted for service testing without affecting the game's bookkeeping total.



CONTROL SWITCH LOCATIONS

GAME FEATURES

STARTING UP

When the **WAR GODS** game is turned on, it begins executing code out of the boot ROM, U41. This ROM contains basic tests to check the hardware and the disk drive.

* Hit either START button to skip the boot ROM tests and run the game.
* Hit the TEST button inside the coin door to skip the boot ROM tests and run the menued diagnostics.

If no buttons are hit, then the system will complete all tests and load and run the game.

If any of the individual tests fail, then an error message will be displayed for each test. The message will be displayed for 30 seconds or until any button is pressed. If any one test fails, then at the end of the entire sequence, a message will be displayed stating how many tests passed and how many failed.

Once all Start-up tests have been passed, insert the proper amount of coins, bills, or tokens. Select which player receives the credit by pressing the appropriate Start button.

PLAYER CONTROLS

- **Start Button**
  Each player has a Start button. The Start buttons allow one or two players to begin or continue play.

- **Joysticks**
  Each player has a joystick which he uses to control an on-screen character.

- **High Punch/High Kick**
  A punch or kick that hits an opponent above the waist.

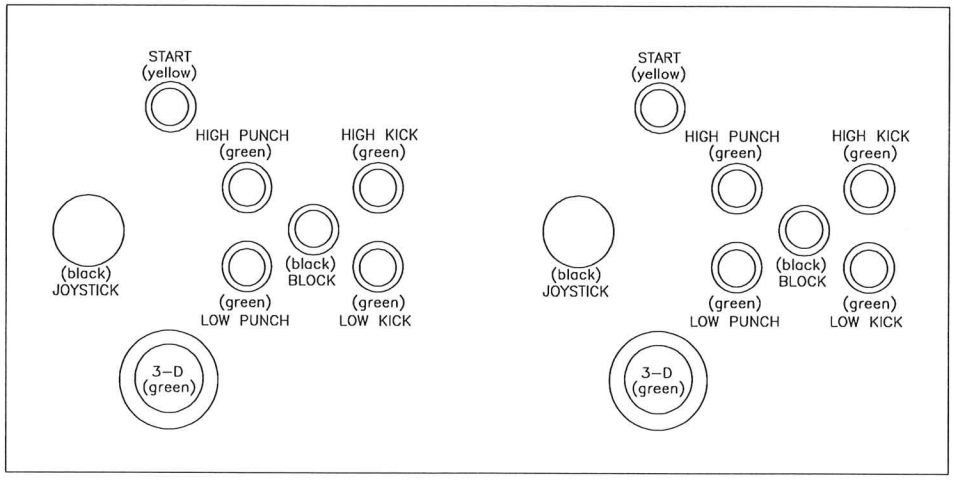
- **Low Punch/Low Kick**
  An punch or kick that hits an opponent below the waist.

- **Block**
  The ability to impede an opponent's attack.

- **3-D**
  The 3-D button gives the player the ability to view the screen in height, width, and depth.

NOTE

Use joystick and button combinations to discover secret moves.



CONTROL PANEL

GAME OPERATION

The **WAR GODS** Operator Control switches are located on a bracket, inside the coin door.

CONTROL SWITCHES

- **Slam Tilt Switch**
  The **Slam Tilt** switch prevents pounding for free games.

- **Volume Down/Volume Up Buttons**
  The **Volume Down** and **Volume Up** push-button switches increase or decrease the volume level of the music and speech. The volume level can be adjusted during the Attract Mode or during menu system operation. For greater profits, set your game's volume level at a nice loud setting.

  NOTE

  The Attract Mode volume can be controlled independently of the Game Mode volume. See Volume Adjustment on page 1-26.

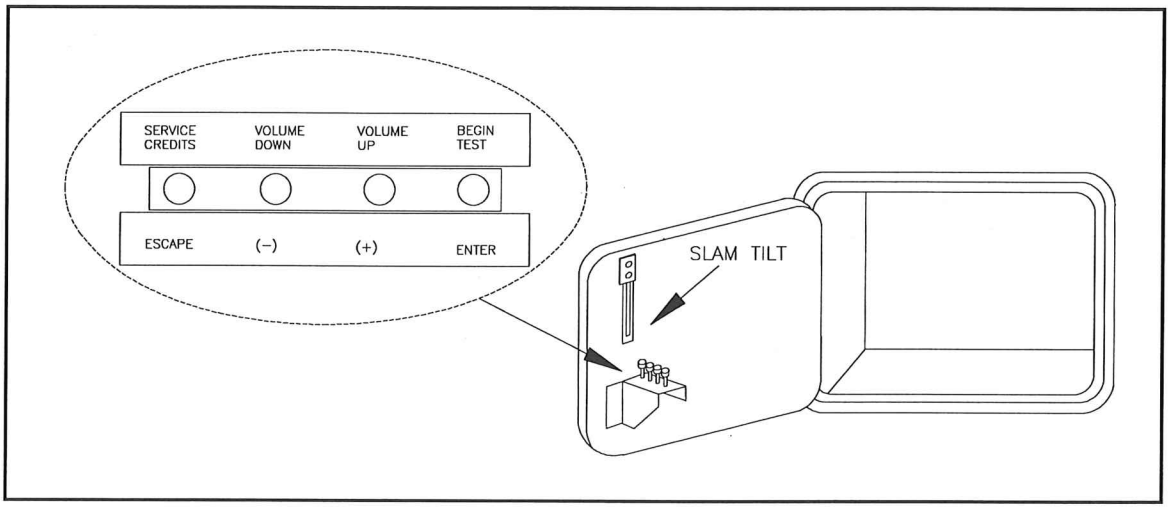
- **Begin Test Button**
  The **Begin Test** push-button switch enters the game's menu system. Press the Begin Test switch to access any of the menu system functions.

- **Service Credit Button**
  The **Service Credit** push-button switch is a special feature switch that allots credit without affecting the game's bookkeeping total.

These buttons can be used instead of the control panel buttons when operating the Menu System. The Up and Down buttons move the cursor, and the Enter and Escape buttons open and close the menus.

NOTE

The coin door must be open for the control switches to work.



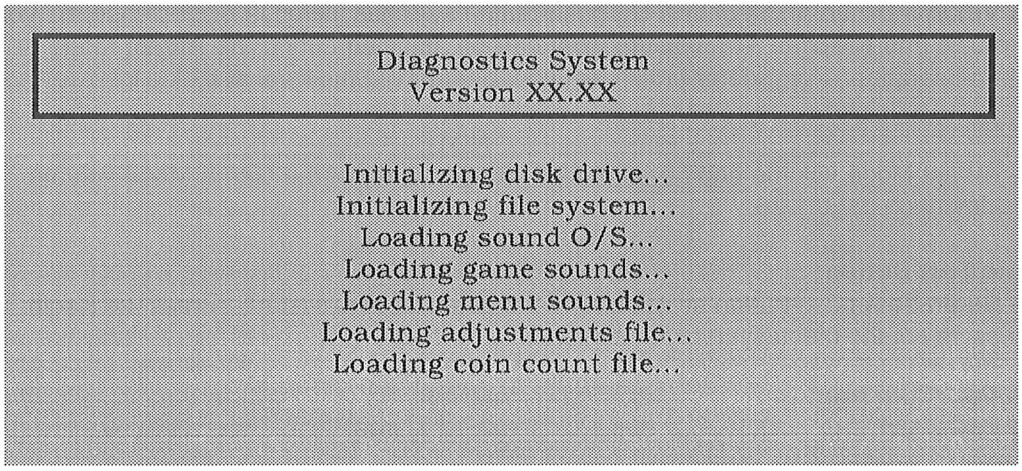
CONTROL SWITCH LOCATIONS

MENU SYSTEM OPERATION

OPERATION

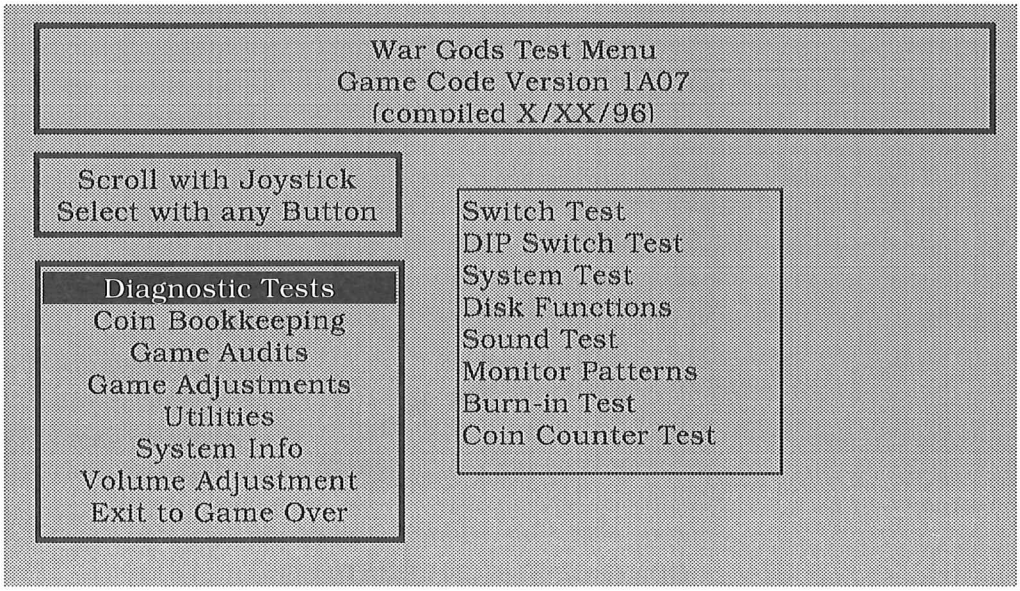
All game audits, adjustments and diagnostics are options of the Main Menu. Each option, in turn, has its own menu that lists several choices which you may act upon as desired.

Press the Begin Test switch on the coin door to access the menu system. The game Diagnostic System screen comes up and the game performs self-diagnostics. Once the self-diagnostics are completed, the Main Menu screen comes up. Game adjustments, bookkeeping and diagnostics are all accessible from this menu.



DIAGNOSTICS SYSTEM SCREEN

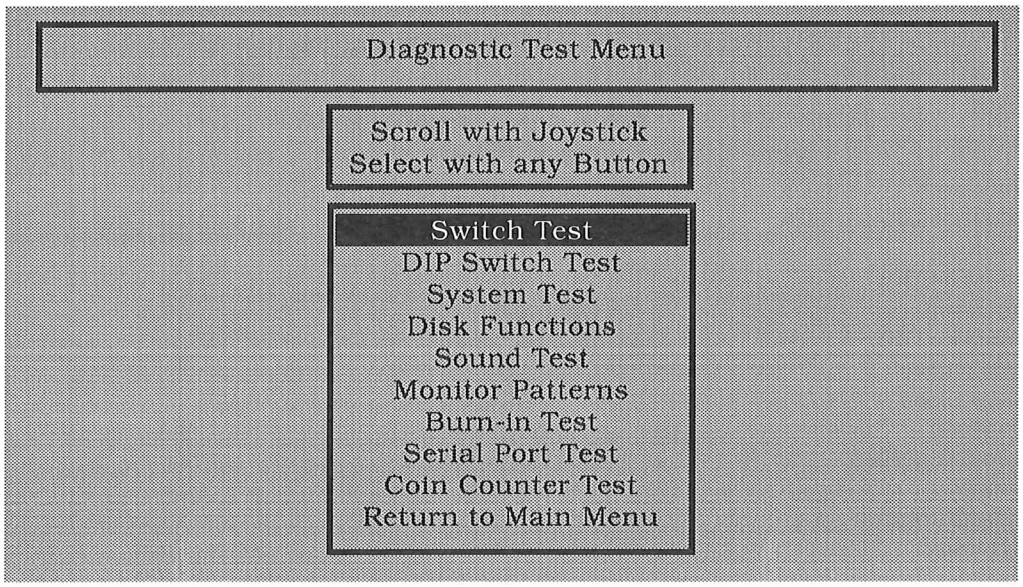
Use any joystick to move the cursor up and down the menu screen. Notice that the options are highlighted in sequence. *Only highlighted options can be selected.* Press any action button, on the control panel, to select a highlighted option. To return to the Attract Mode, use any joystick to select EXIT TO GAME OVER, then press any action button.



MAIN MENU SCREEN

DIAGNOSTIC TESTS

Use any joystick to select the Diagnostic Test menu from the Main Menu, then any action button to open it. Once the Diagnostic Test menu is open, use any joystick to move the cursor up and down and then any action button to open a highlighted option.

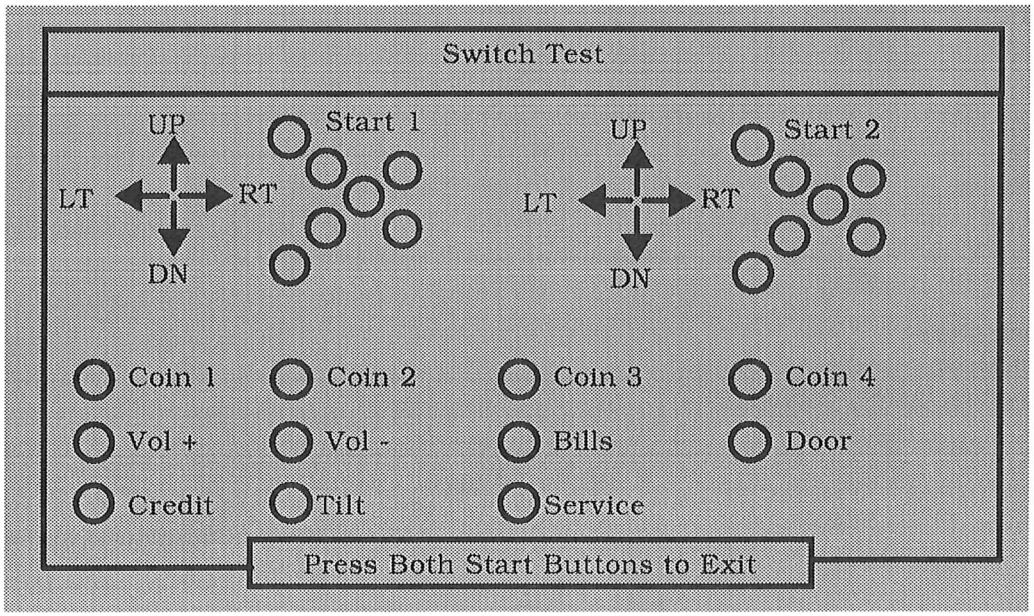


DIAGNOSTIC TESTS SCREEN

Switch Test

The Switch Test allows the operator to test the switches on the control panel and in the coin door.

Use any joystick to highlight the Switch Test and then any action button to begin the test. During the Switch Test the top of the screen shows the control panel switches while the bottom of the screen shows the coin door switches. Press a control panel or coin door switch and the switch location on the screen changes color. Release the switch and the screen returns to normal.



SWITCH TEST SCREEN

DIP Switch Test

The DIP Switch Test allows the operator to check or change the positions of the DIP Switches.

Use any joystick to select the DIP Switch Test, then any action button to access the DIP Switch Settings. The screen displays the current settings. To change a setting, slide the switch to the desired position. Check the screen to verify the new setting. *In some cases, setting a function to OFF actually enables the function. For example, setting Coinage to Off enables DIP Switch Coinage.*

DIP Switch 1 Setting Table

	SW. 1	SW. 2	SW. 3	SW. 4	SW. 5	SW. 6	SW. 7	SW. 8
Not Used (must be Off)	Off* On							
Not Used (must be Off)		Off* On						
Not Used (must be Off)			Off* On					
Blood Level Show Blood No Blood				Off* On				
Game Graphics Normal "Family" Version					Off* On			
Not Used						Off* On	Off* On	Off* On

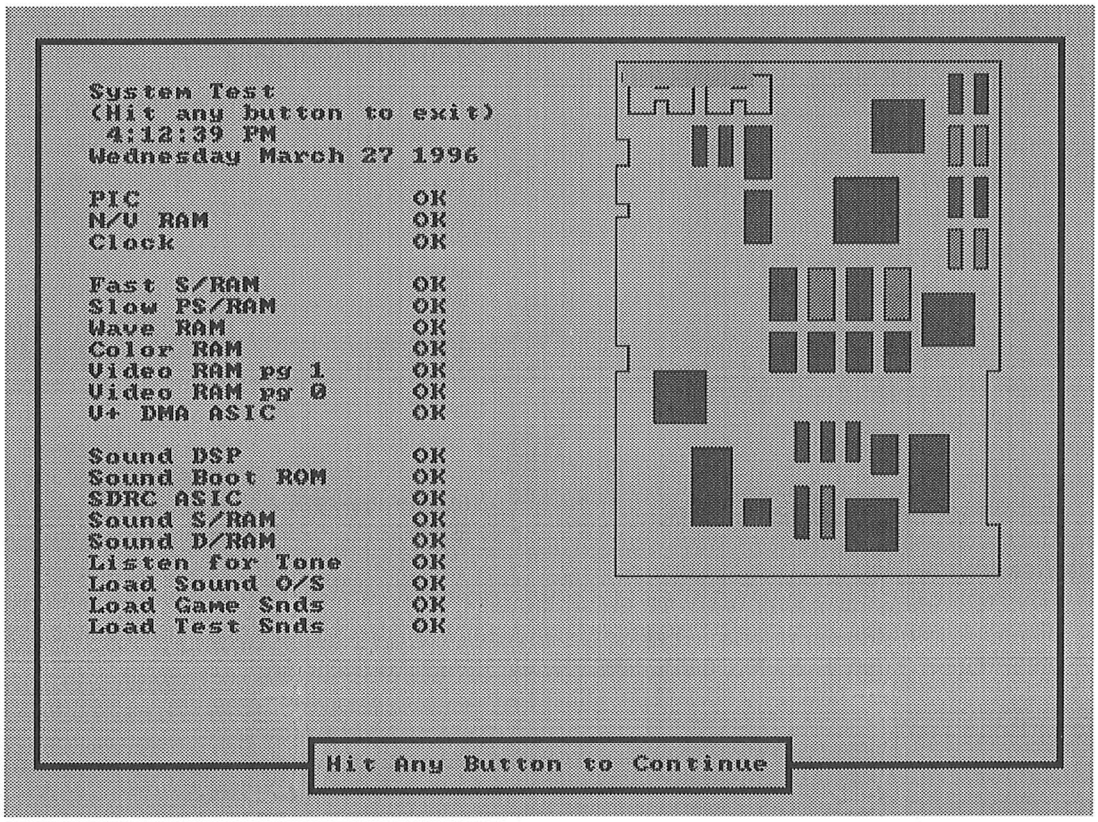
DIP Switch 2 Setting Table

			SW. 1	SW. 2	SW. 3	SW. 4	SW. 5	SW. 6	SW. 7	SW. 8
Coinage DIP Switch CMOS			Off* On							
Coin Settings										
USA 1	Ger. 1	Fr. 1		Off*	Off*	Off*				
USA 2	Ger. 2	Fr. 2		On	Off	Off				
USA 3	Ger. 3	Fr. 3		Off	On	Off				
USA 4	Ger. 4	Fr. 4		On	On	Off				
USA ECA	Ger. ECA	Fr. ECA		Off	Off	On				
USA 9	Ger. 5	Fr. 11		On	Off	On				
USA 10	N/U	Fr. 12		Off	On	On				
Free Play	Free Play	Free Play		On	On	On				
Country USA Germany France Not Used							Off* On Off On	Off* Off On On		
Not Used									Off* On	
Game Mode **Test Mode**										Off* On

***Indicates factory default setting.**

System Test

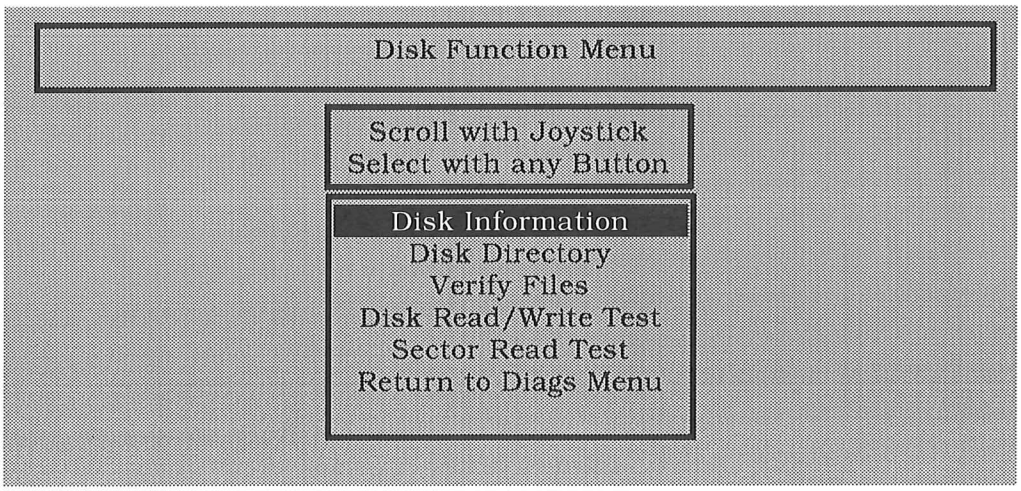
The System Test allows the operator to monitor the functions of the CPU board. Select this test with any joystick. Press any action button to start the test.



SYSTEM TEST SCREEN

Disk Functions

Disk Function allows the operator to monitor the functions of the disk drive. Select this option with any joystick, then press any action button.



DISK FUNCTIONS SCREEN

Disk Functions Continued...

1) Disk Information

The disk information option can be used to check and verify the basic interface between the game CPU and the disk drive itself. This test will cause the game CPU to query the disk drive and ask the drive to report various status information back to the game CPU. This information is then displayed on the video screen.

2) Disk Directory

The Disk Directory option causes the game CPU to query the disk drive and ask the disk drive to report the files currently stored on the disk. This information is then displayed on the video screen.

3) Verify Files

The Verify Files option instructs the game CPU to check and verify the data integrity of each file stored on the disk. The results of the file verification process are displayed on the video screen.

NOTE

The file verification process DOES NOT check and/or verify that the correct files are stored on the disk. It only verifies the integrity of the actual files on the disk.

4) Disk Read/Write Test

This test will write a temporary file out to the disk, close the file and then read and compare the file back from the disk drive. This test is useful in verifying the ability to store and retrieve game information (such as audits, game settings, etc.) from the disk drive.

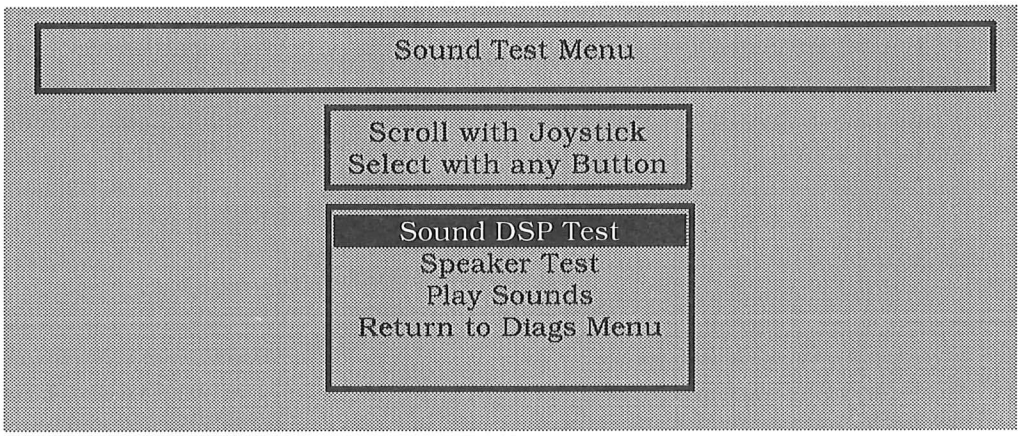
5) Sector Read Test

This test will perform a sector by sector read/verify test on the disk drive. This test in useful in checking the ability of the disk drive to read data from all portions of the disk drive itself.

Sound Test

This test allows the operator to listen to some of the sounds this game is capable of producing.

Use any joystick to select the test, then press any action button to open the menu. The screen displays three test options. Use any joystick to select an option and any action button to begin the test.



SOUND TEST SCREEN

SOUND DSP TEST analyzes the sound circuitry. A successful test causes a single "tone" to sound.

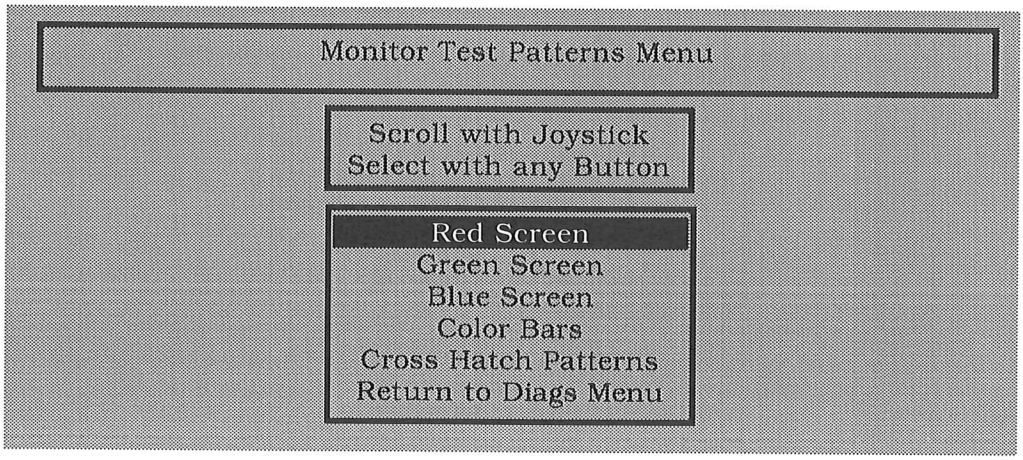
SPEAKER TEST sends sounds to the individual speakers.

PLAY SOUNDS tests digital sounds from the CPU board.

Monitor Patterns

The Monitor Patterns Test provides a menu for adjusting and testing the monitor.

Use any joystick to select this test from the Main Menu, then any action button to activate it. Once the menu is open, use any joystick to select an option, and any button to begin it. Press any action button again to return to the Monitor Patterns Menu.



MONITOR PATTERNS SCREEN

The **RED, GREEN** and **BLUE SCREEN** tests fill the screen with either red, green or blue. Press any action button to return to the Monitor Patterns Menu.

The **COLOR BARS** test fills the screen with 31 shades of colors to help with red, green and blue level adjustments. Each color should appear sharp and clear. Press any action button to return to the Monitor Patterns Menu.

The Color Bars screen is useful in adjusting the monitor brightness and contrast.

The **CROSSHATCH PATTERNS** test fills the screen with a grid and a series of dots. The grid and the dots should be clear. The dots should be round. Press any action button to return to the Monitor Patterns Menu.

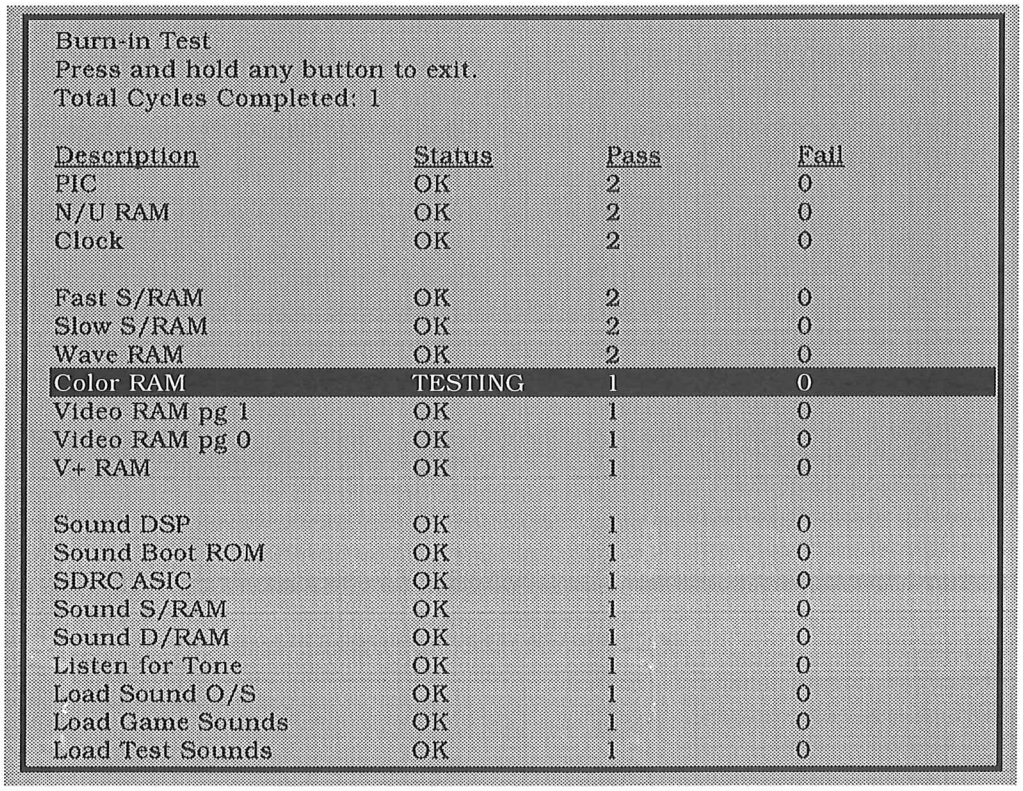
The Crosshatch pattern is useful in verifying the monitor convergence, linearity, and screen size.

If any of the tests show a need for adjustment, use the proper knobs on the Monitor Controls board.

Burn-in Test

The Burn-in Test will continuously exercise the appropriate sections of the game CPU.

Use any joystick to select the test, then press any action button to activate it. When the Burn-in Test detects an error, a message is displayed on the screen.

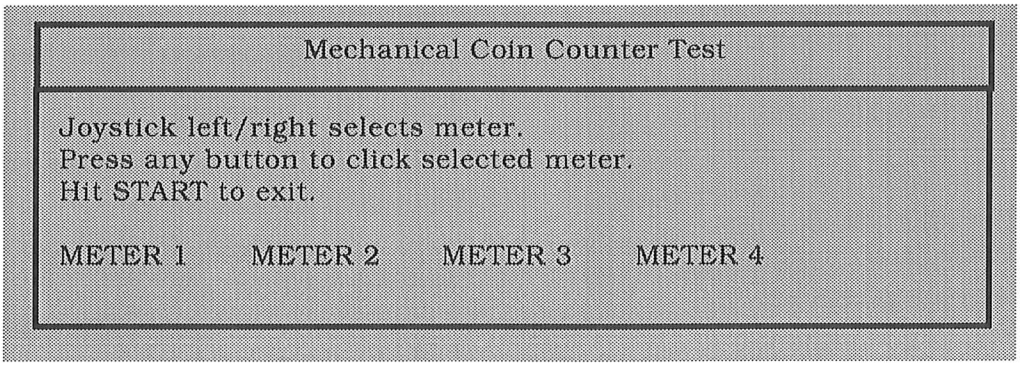


BURN-IN TEST SCREEN

Coin Counter Test

The Coin Counter Test checks the function of the coin counters.

Use any joystick to select the test, then press any action button to activate it.



COIN COUNTER TEST SCREEN

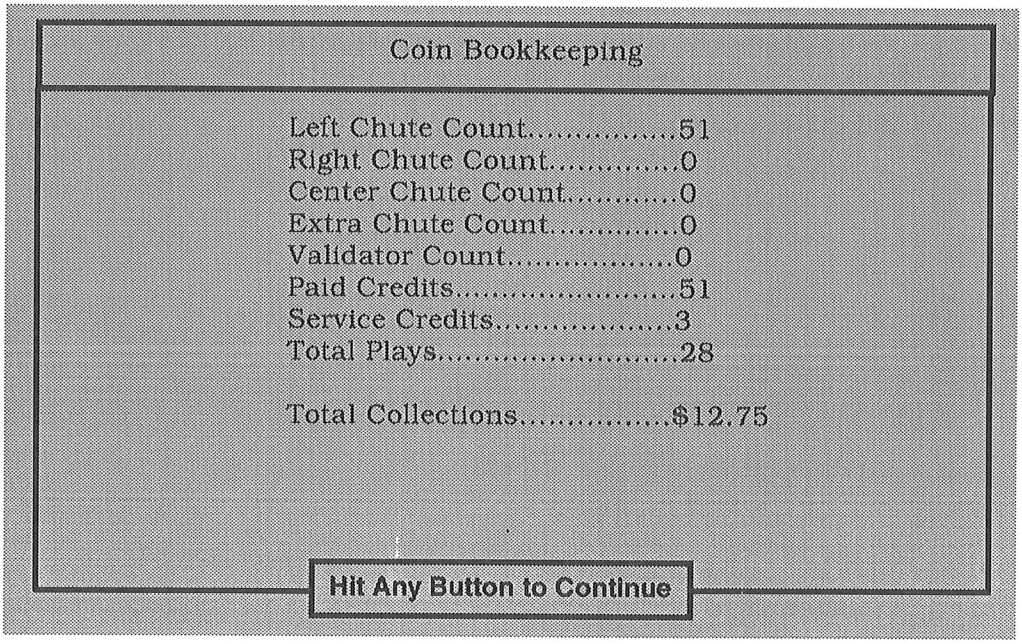
NOTE

This test will cause the coin meters to increment.

COIN BOOKKEEPING

The Coin Bookkeeping Table records the coin box totals and the game play counters.

Use any joystick to select the Coin Bookkeeping Menu, then press any action button to open it.

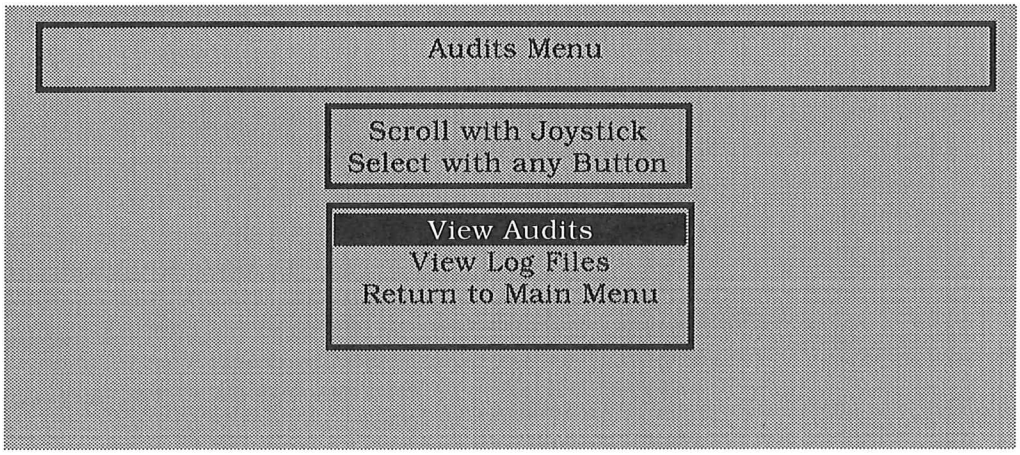


COIN BOOKKEEPING SCREEN

GAME AUDITS

Use any joystick to select the Audits Menu, then press any action button to open it. Page through the available audits by selecting NEXT AUDIT PAGE or LAST AUDIT PAGE.

Game audits cannot be set. They can only be cleared.

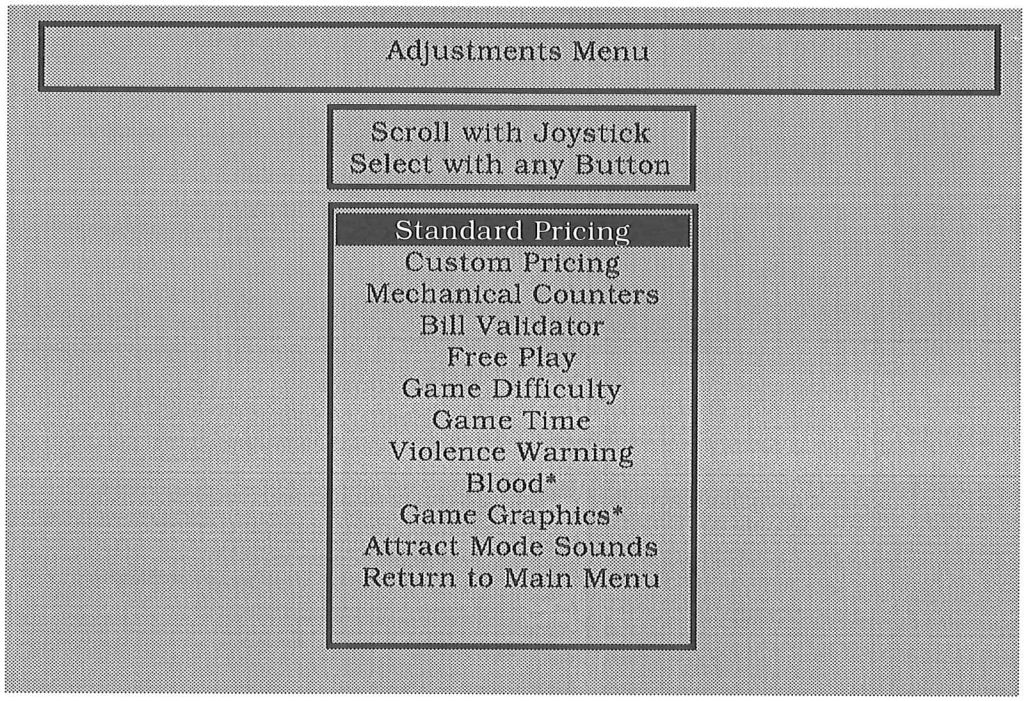


AUDITS MENU SCREEN

GAME ADJUSTMENTS

The Game Adjustments allow the operator to customize the game.

Use any joystick to select the Adjustments Menu, then press any action button to open it. The Game Adjustments Menu offers several options. Each option has several choices. Use any joystick to select an option, then press any action button to open the option. The next menu screen provides a setting value. Use any joystick to change the setting value and press any action button to lock it in.



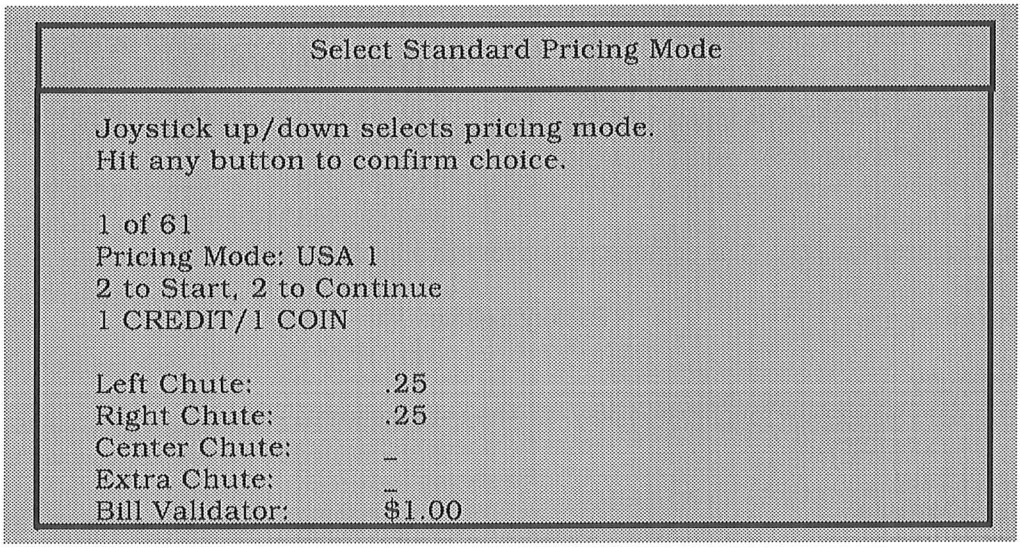
ADJUSTMENTS MENU SCREEN

NOTE*

Adjustment values set by DIP SWITCH override adjustment values set by the menu system.

Standard Pricing

Standard pricing allows the operator to choose any of the "standard" selections from the Standard Pricing Table. See page 1-23.



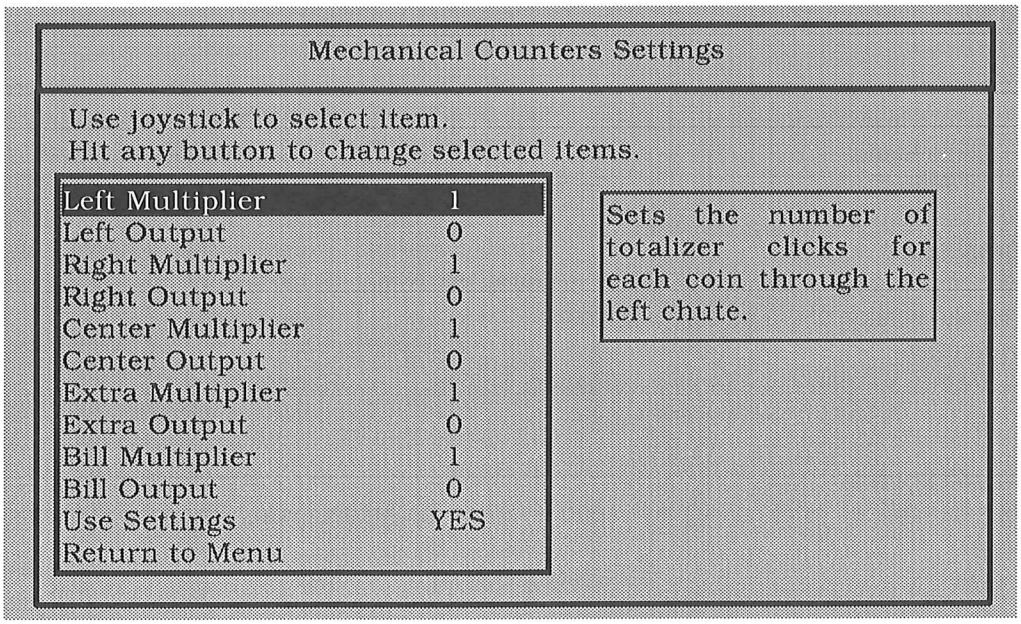
STANDARD PRICING SCREEN

Custom Pricing

Custom pricing allows the operator to install pricing other than that of the Standard Pricing Table. Custom pricing also allows the operator to select the maximum amount of credits per game, the amount of credits required to start a game, and the amount of credits required to continue a game. To use Custom Pricing, the Coinage DIP Switch must be set to ON (CMOS). See page 1-12 for the DIP Switch charts. See page 1-24 for the Custom Pricing Table.

Mechanical Counters

The "Mechanical Counters" adjustment lets the operator adjust the multiplier and counter output for each slot.



MECHANICAL COUNTERS SCREEN

Mechanical Counter Continued...

There are five coin slots: the LEFT coin slot, the RIGHT coin slot, the CENTER coin slot, the EXTRA coin slot, and the BILL VALIDATOR.

The multiplier for each of the these slots determines how many times the mechanical counter is strobed for each coin or bill through the slot.

There are two mechanical counter outputs to choose from: mechanical counter output 0 (left side), and mechanical counter output 1 (right side).

The default, most commonly used setting is referred to as the "totalizer mode", and assigns all five slots to counter output 0.

Free Play

This option selects free play. The setting choices for this adjustment are:

- No
- Yes - Factory Setting: No

Game Difficulty

This option determines how tough game play is. The setting choices are:

- (1) Extra Easy
- (2) Easy
- (3) Medium
- (4) Hard
- (5) Extra Hard - Factory Setting: Medium

Game Time

This option determines the length of the game. The choices are:

- (1) Shorter
- (2) Normal
- (3) Longer - Factory Setting: Normal

Violence Warning

This option determines whether or not a message warning the player of the violent content of the game is displayed. The choices are:

- On
- Off - Factory Setting: On

Blood

This option determines whether or not blood is shown during the game. The choices are:

- Show Blood
- No Blood - Factory Setting Show Blood

Game Graphics

This option determines whether the game contains the complete version of the graphics, or a "toned-down", "family" version of the screen graphics.

- Normal
- "Family Version" - Factory Setting: Normal

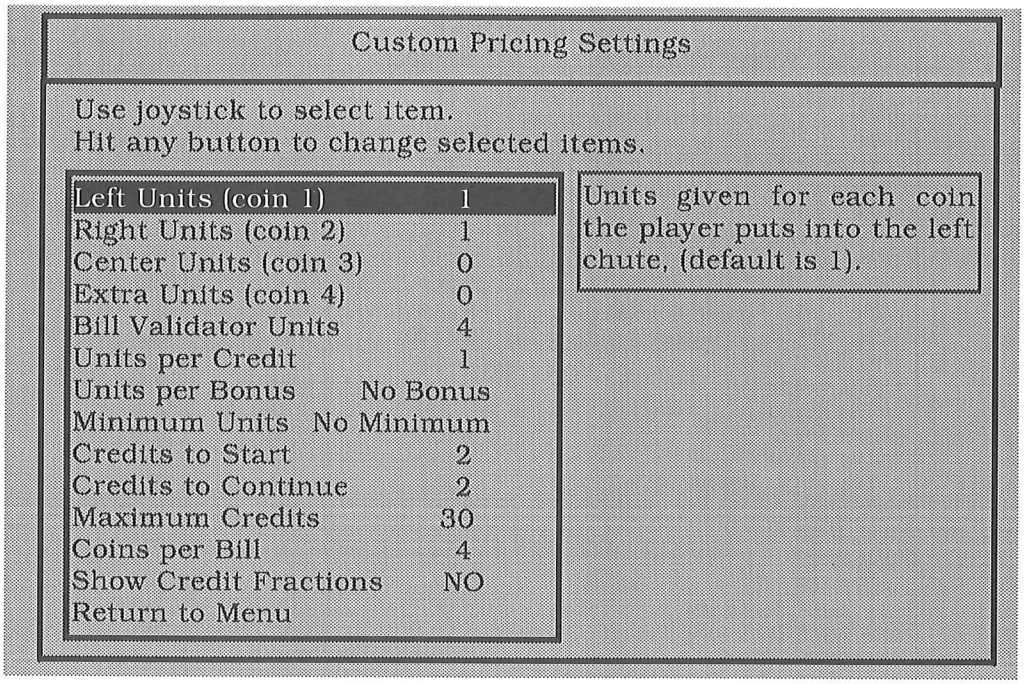
Attract Mode Sounds

This option determines if the game plays sounds during the Attract mode. The setting choices are:

- No
- Yes - Factory Setting: Yes

STANDARD PRICING TABLE

Name	Setting - Coin/Credit	Coin 1	Coin 2	Coin 3	Coin 4	Bills
USA 1	1/25¢ (2 to Start, 2 to Continue)	25¢	25¢			$1.00
USA 2	1/25¢ (2 to Start, 1 to Continue)	25¢	25¢			$1.00
USA 3	1/25¢ (1 to Start, 1 to Continue)	25¢	25¢			$1.00
USA 4	1/50¢, 3/$1.00 (1 to Start, 1 to Continue)	25¢	25¢			$1.00
USA 5	1/50¢, 4/$1.00 (2 to Start, 1 to Continue)	25¢	25¢			$1.00
USA 6	1/50¢ (1 to Start, 1 to Continue)	25¢	25¢			$1.00
USA 7	1/50¢, 3/$1.00 (1 to Start, 1 to Continue)	25¢	25¢			$1.00
USA 8	1/50¢, 4/$1.00 (1 to Start, 1 to Continue)	25¢	25¢			$1.00
USA 9	1/25¢ (3 to Start, 2 to Continue)	25¢	25¢			$1.00
USA 10	1/25¢ (3 to Start, 3 to Continue)	25¢	25¢			$1.00
USA ECA	1/25¢, 4/$1.00 (2 to Start, 2 to Continue)	$1.00	25¢	10¢	5¢	$1.00
German 1	1/1DM, 6/5DM	1DM	5DM	2DM		
German 2	1/1DM, 7/5DM	1DM	5DM	2DM		
German 3	1/1DM, 8/5DM	1DM	5DM	2DM		
German 4	1/1DM, 5/5DM	1DM	5DM	2DM		
German 5	1/1DM, 6/5DM	1DM	5DM	2DM		
German ECA	1/1DM, 2/2DM, 6/5DM	5DM	2DM	1DM		
France 1	2/5F, 5/10F	5F	10F			
France 2	2/5F, 4/10F	5F	10F			
France 3	1/5F, 3/10F	5F	10F			
France 4	1/5F, 2/10F	5F	10F			
France 5	2/5F, 5/10F, 11/2 x 10F	5F	10F			
France 6	2/5F, 4/10F, 9/2 x 10F	5F	10F			
France 7	1/5F, 3/10F, 7/2 x 10F	5F	10F			
France 8	1/5F, 2/10F, 5/2 x 10F	5F	10F			
France 9	1/3 x 1F, 2/5F	1F	5F			
France 10	1/2 x 1F, 3/5F	1F	5F			
France 11	1/3 x 1F, 2/5F, 5/2 x 5F	1F	5F			
France 12	1/2 x 1F, 3/5F, 7/2 x 5F	1F	5F			
France ECA	1/3 x 1F, 2/5F, 5/2 x 5F		5F	10F	20F	
Canada	1/2 x 25¢, 3/$1.00	25¢	$1.00			$1.00
Swiss 1	1/1F, 6/5F	1F	5F			
Swiss 2	1/1F, 7/5F	1F	5F			
Swiss 3	1/1F, 8/5F	1F	5F			
Italy	1/500 lire	500 lire	500 lire			
UK 1 ECA	1/50P, 3/£1.00	£1.00	50P	20P	10P	
UK 2 ECA	1/50P, 2/£1.00	£1.00	50P	20P	10P	
UK 3 ECA	1/30P, 2/50P, 5/£1.00	£1.00	50P	20P	10P	
UK 4	1/50P, 3/£1.00	£1.00	50P			
UK 5	1/50P, 2/£1.00	£1.00	50P			
UK 6 ECA	1/30P, 2/50P, 4/£1.00	£1.00	50P	20P	10P	
UK 7 ECA	3/£1.00	£1.00	50P	20P	10P	
Spain 1	1/100 peseta, 6/500 peseta	100 peseta	500 peseta			
Spain 2	1/100 peseta, 5/500 peseta	100 peseta	500 peseta			
Australia 1	1/3 x 20¢, 2/$1.00	20¢	$1.00			
Australia 2	1/5 x 20¢, 1/$1.00	20¢	$1.00			
Japan 1	1/100 yen	100 yen	100 yen			
Japan 2	2/100 yen	100 yen	100 yen			
Austria 1	1/5 schilling, 2/10 schilling	5 schilling	10 schilling			
Austria 2	1/2 x 5 schilling, 3/2 x 10 schilling	5 schilling	10 schilling			
Belgium 1	1/20F	20F	20F			
Belgium 2	3/20F	20F	20F			
Belgium 3	2/20F	20F	20F			
Belgium ECA	1/20F	50F	20F	5F		
Sweden	1/3 x 1 krona , 2/5 krona	1 krona	5 krona			
New Zealand 1	1/3 x 20¢	20¢	20¢			
New Zealand 2	1/2 x 20¢	20¢	20¢			
Netherlands	1/1 HFl, 3/2.5 HFl	1 HFl	2.5 HFl			
Finland	1/1 markka	1 markka	1 markka			
Norway	1/2 x 1 krone, 3/5 x 1 krone	1 krone	1 krone			
Denmark	1/2 x 1 krone, 3/5 krone, 7/2 x 5 krone	1 krone	5 krone			
Antilles	1/25¢, 4/1 guilder	25¢	1 guilder			
Hungary	1/2 x 10 forint, 3/2 x 20 forint	10 forint	20 forint			



CUSTOM PRICING SCREEN

Left, Right, Center. and Extra Units. Coins inserted accumulate units. This adjustment specifies the number of units given for each coin in the fourth chute (see "Units per Credit").

Bill Validator Units. Coins inserted accumulate units. This adjustment specifies the number of units given for each bill validated (see "Units per Credits").

Units per Credit. This is the number of coin units required to buy one credit.

Units per Bonus. There is one bonus credit awarded after this many coin units have accumulated.

Minimum Units. This is the minimum number of units required before any credits are given.

Credits to Start. Each player needs this many credits to begin a game.

Credits to Continue. Each player needs this many credits to continue a game.

Maximum Credits. This is the limit for the credit counter. Additional coins inserted will be lost (factory setting: 50).

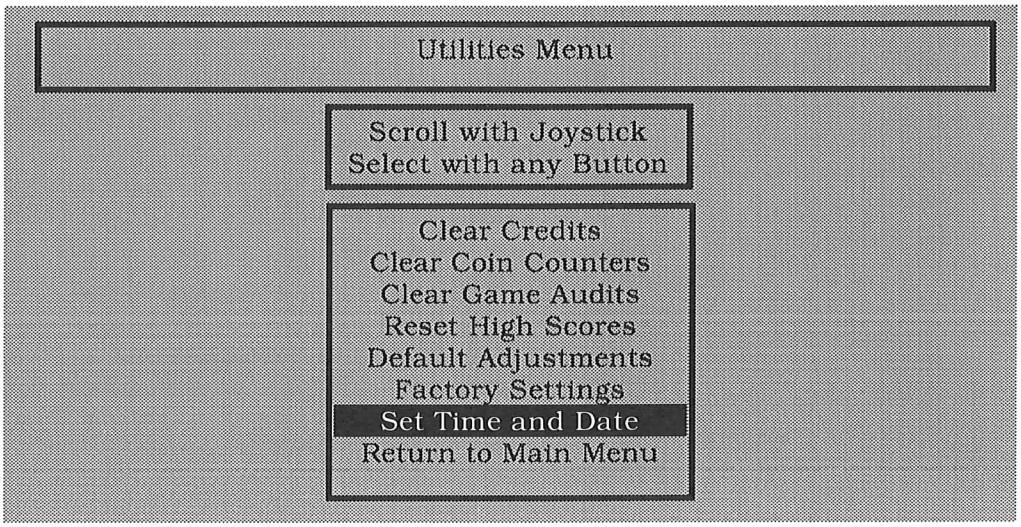
Coins per Bill. Total collections are based on this many coins per bill. Set to zero to disable the total collections display.

Show Credit Fractions. Whether or not to show fractional credits on the credit screen.

UTILITIES

The Utilities Menu allows the operator to clear the game's bookkeeping memory.

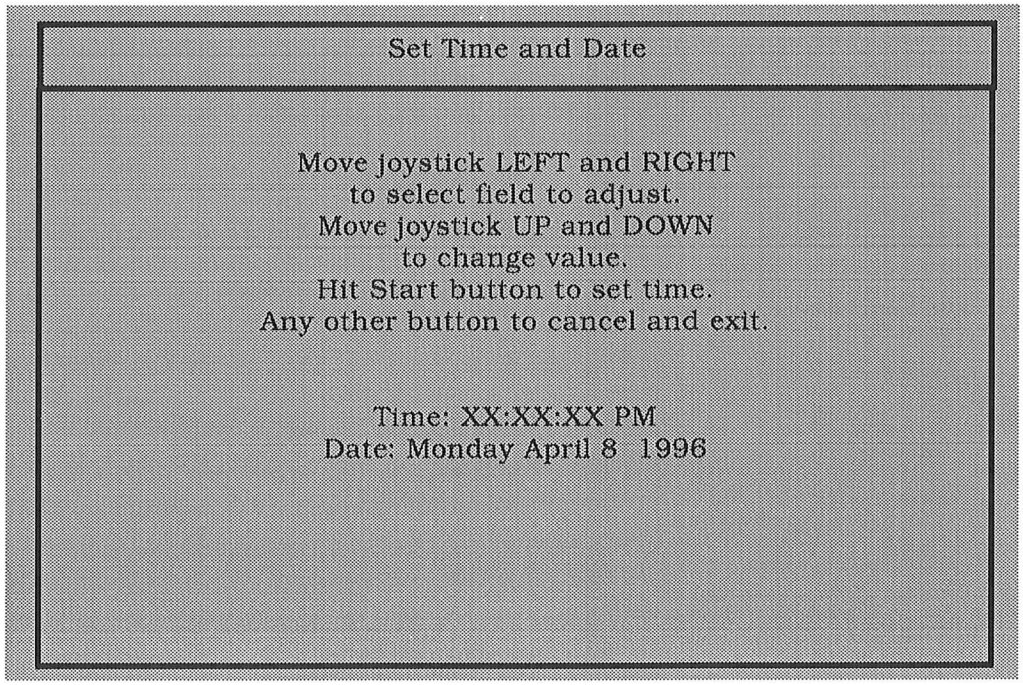
Use any joystick to select the Utilities Menu, then press any action button. Use any joystick to select a utility. Press any action button to activate the selection.



UTILITIES MENU SCREEN

Once the selection is made, a dialogue box appears, and the operator can choose to reset the utility.

For example:

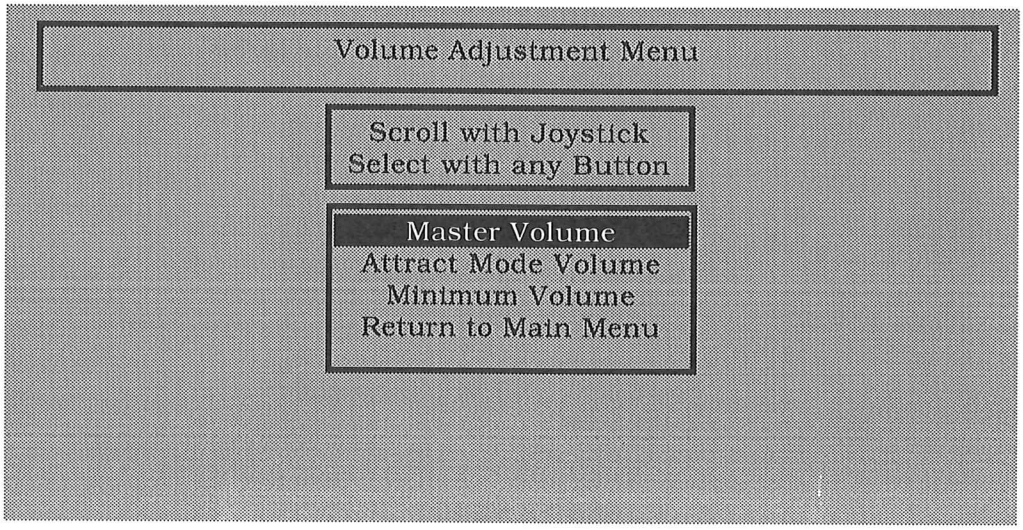


SET TIME & DATE SCREEN

VOLUME ADJUSTMENT

The Volume Adjust feature allows the operator to determine the sound and music level of the game.

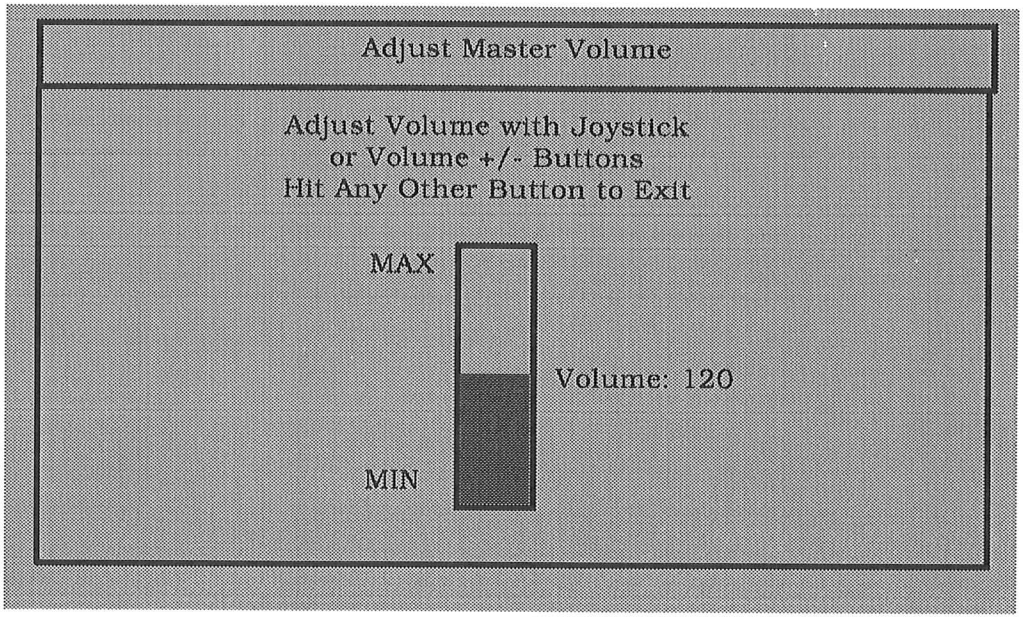
The volume level can be adjusted from either the Attract Mode or the Menu System. Press the Volume Up button to raise the volume level and the Volume Down button to lower the volume level. Any joystick can also be used to raise or lower the volume level.



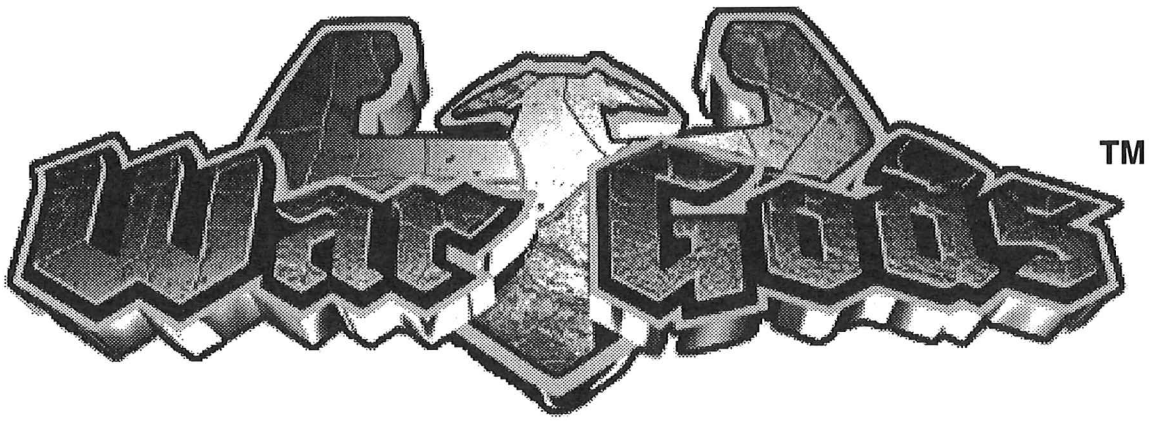
VOLUME ADJUSTMENT MENU SCREEN

The current volume level is shown with a red bar.

For example:



MASTER VOLUME SCREEN

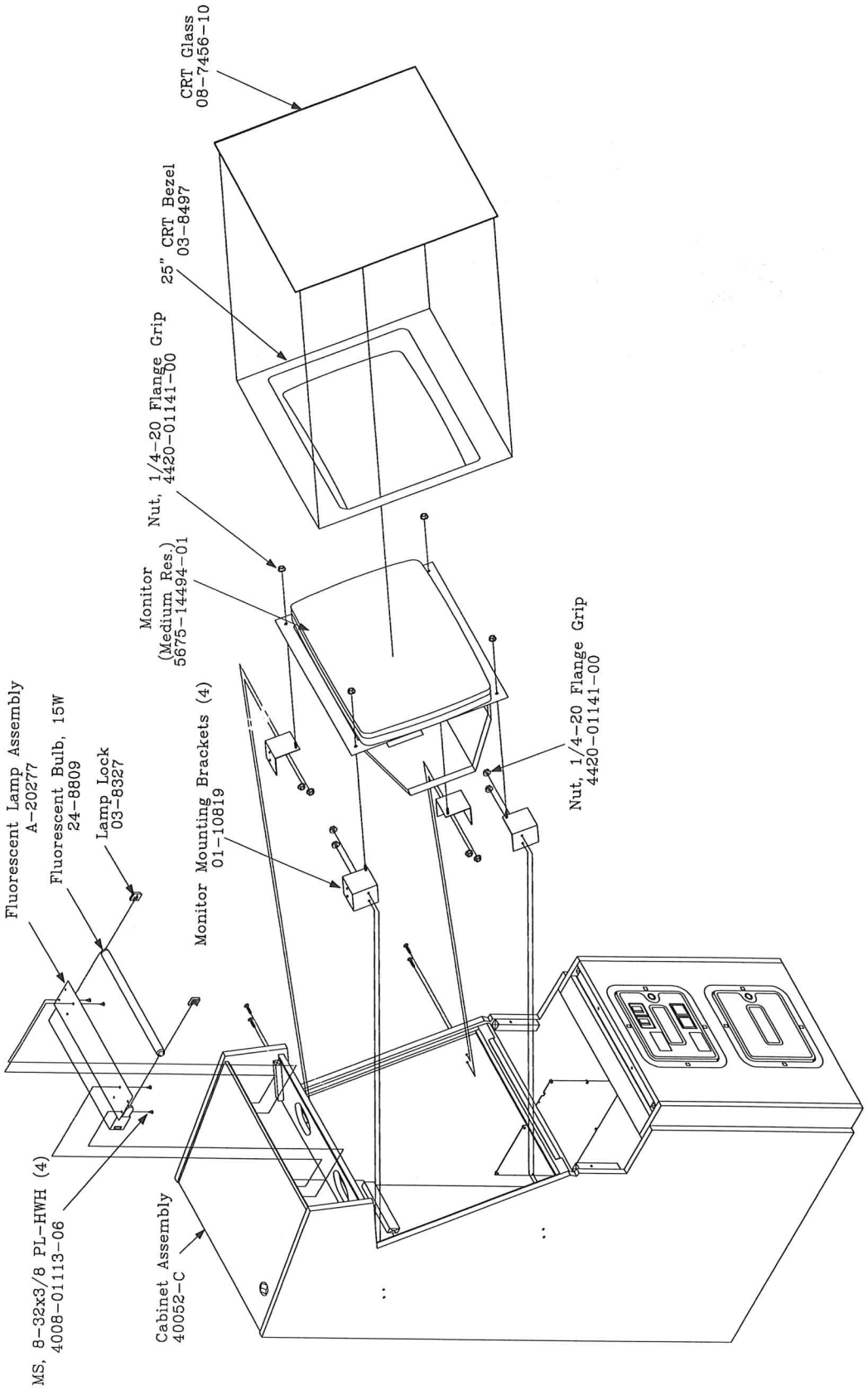


TM

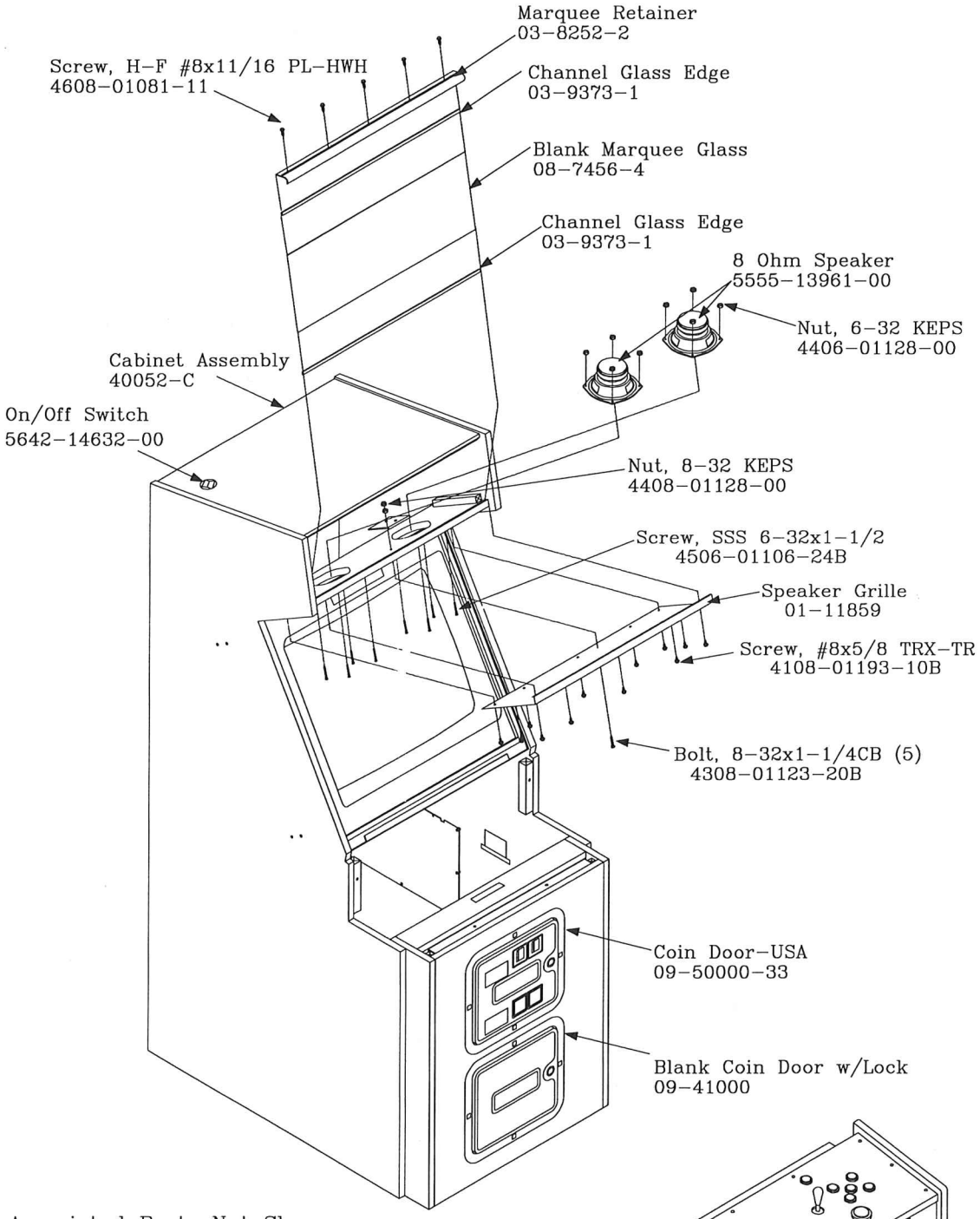
SECTION
TWO

PARTS

CABINET FRONT - VIEW 1



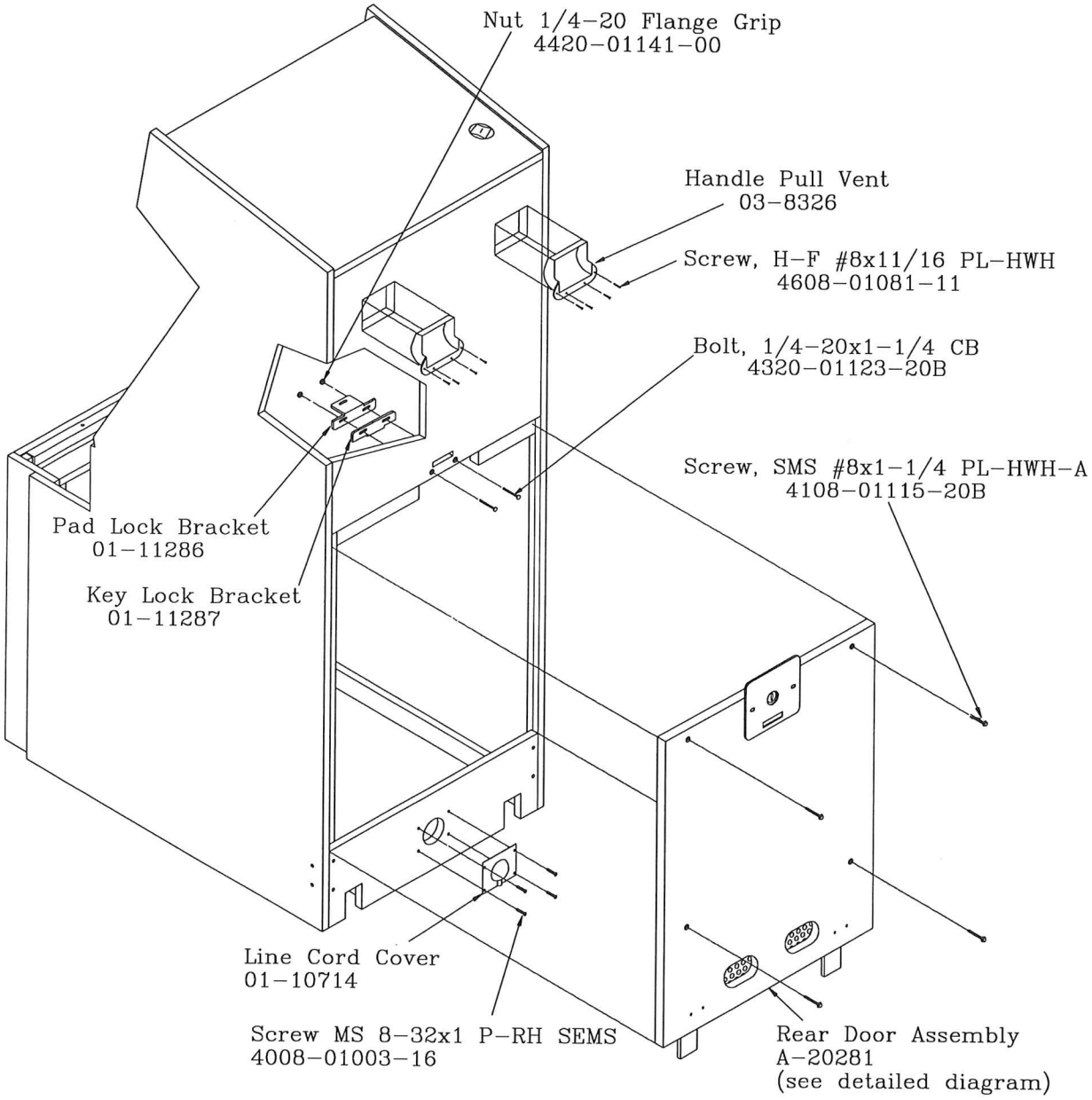
CABINET FRONT - VIEW 2



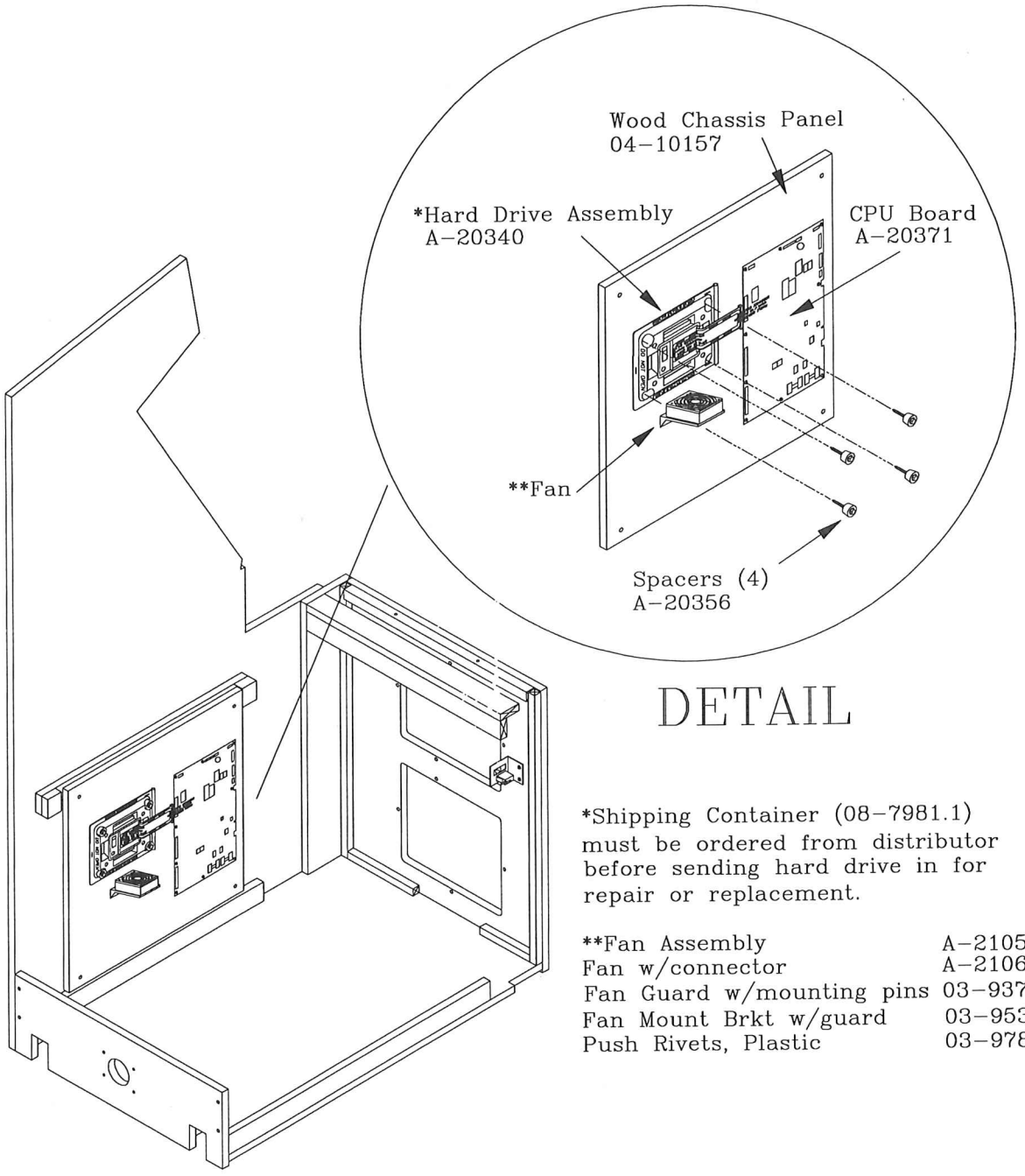
Associated Parts Not Shown:

Glass Retainer Brkt.	01-13943
Leg Adjuster	08-7377
Registration Card	16-9478.2
DBV Installation Inst.	16-9637
Caution Sheet	16-10077
Manual	16-40052-101
Key, T-20 Long Arm	20-9620
Screened Marquee	31-2369
Glass Retain Brkt Screws	4008-01105-32
Interlock Switch	5643-09268-00

CABINET REAR VIEW



CABINET CUT-AWAY VIEW



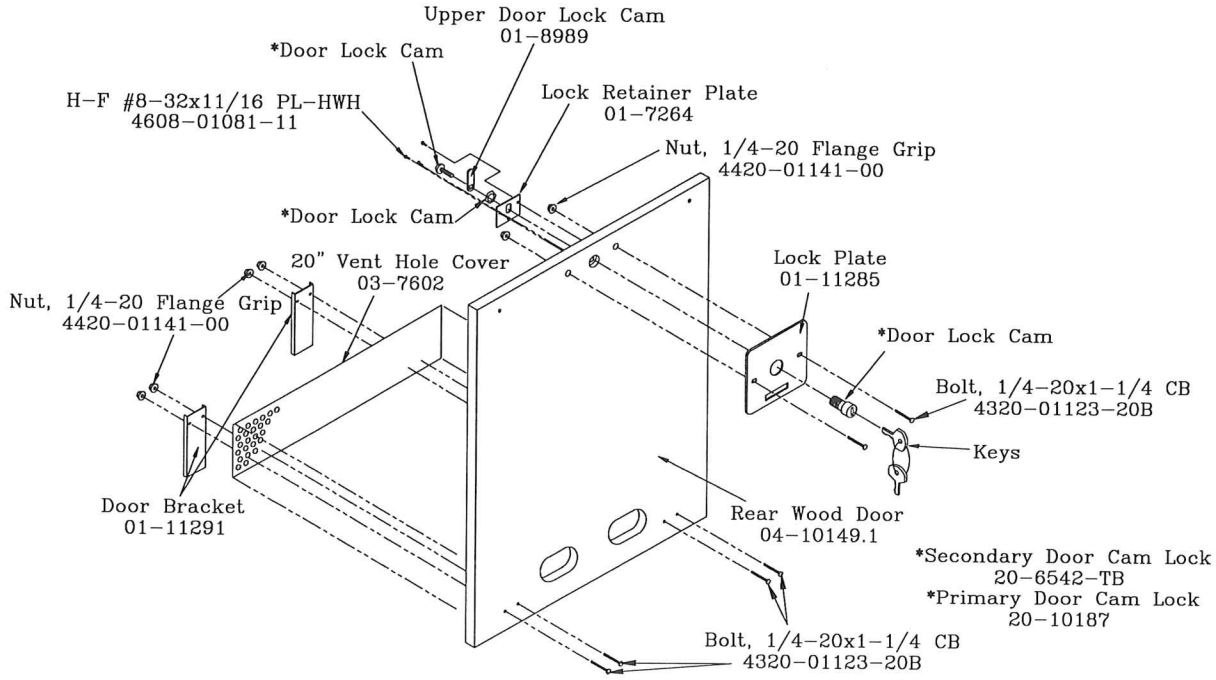
DETAIL

*Shipping Container (08-7981.1) must be ordered from distributor before sending hard drive in for repair or replacement.

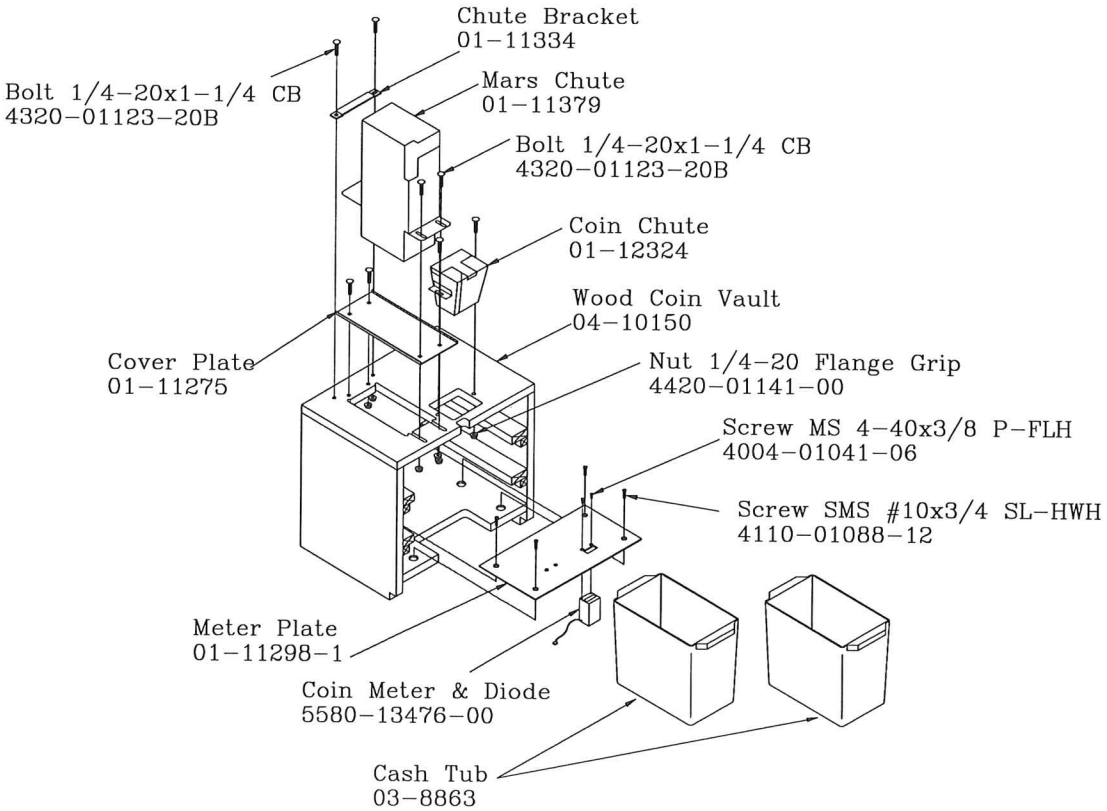
**Fan Assembly	A-21055
Fan w/connector	A-21068
Fan Guard w/mounting pins	03-9378
Fan Mount Brkt w/guard	03-9532
Push Rivets, Plastic	03-9788-10

REAR DOOR PARTS

Complete Rear Door Assembly A-20281

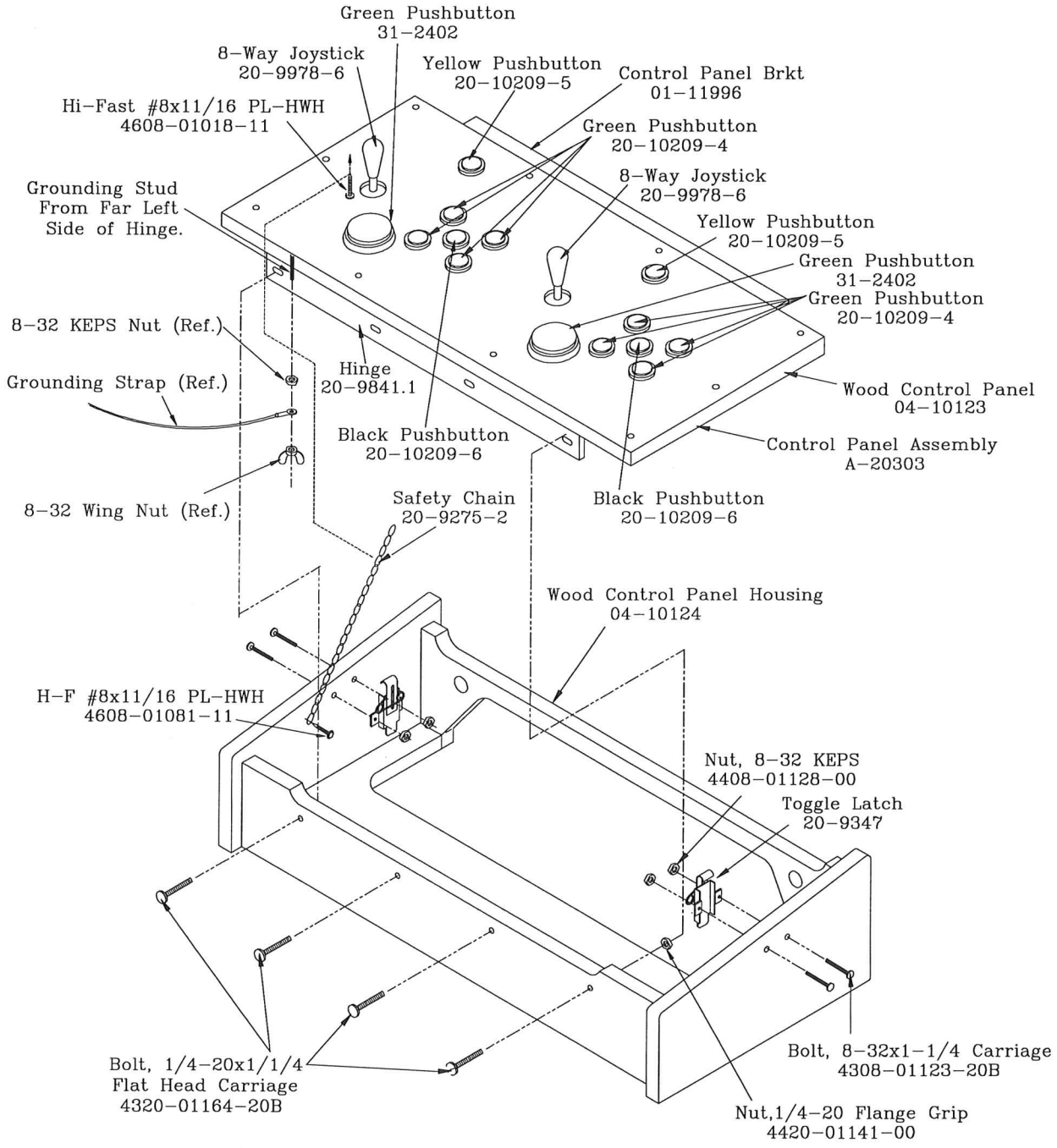


COIN DOOR PARTS



CONTROL PANEL & HOUSING PARTS

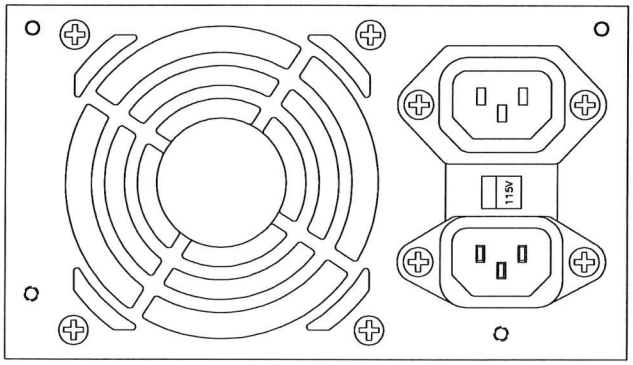
Complete Control Panel & Housing Assembly A-20304



Associated Parts Not Shown:

Control Panel Cable	H-20375.1
Security Latch Bracket	01-11955
Clear Overlay	03-9392
Control Panel Plate	04-10156
Screened Overlay	31-2368

POWER SUPPLY
20-10167

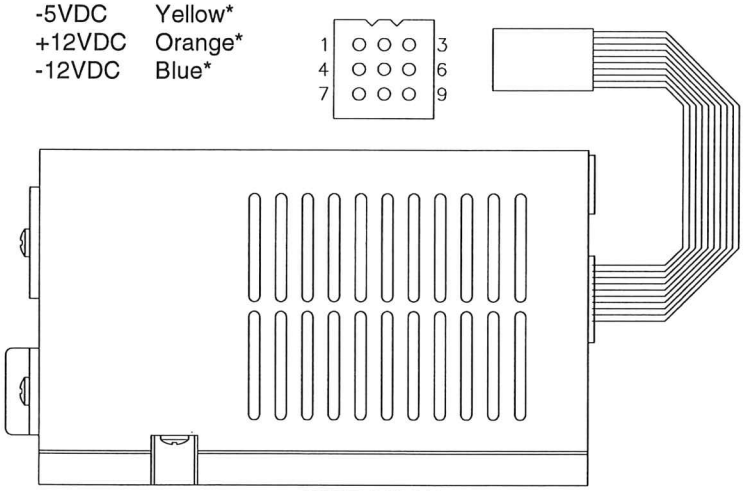


REAR VIEW

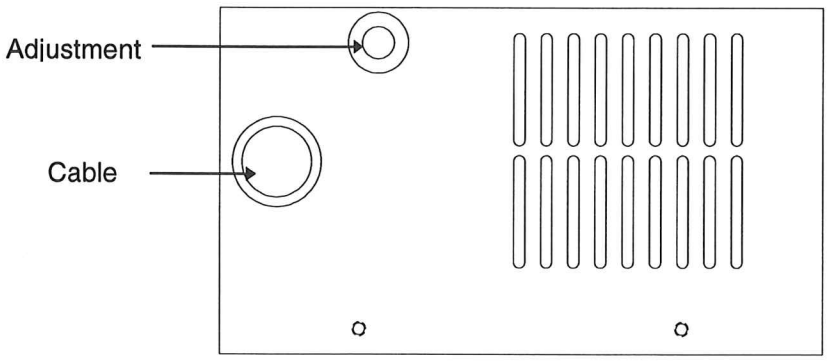
Connector Pin Designation

Pin #	*Function*	*Wire Color*
1, 2, 3	+5VDC	Red
4, 5, 6	Ground	Black
7	-5VDC	Yellow*
8	+12VDC	Orange*
9	-12VDC	Blue*

***Note:** Many computer grade power supplies use yellow for +12V, blue for -5V, and white for -12V. This is acceptable as long as the pinout is correct.



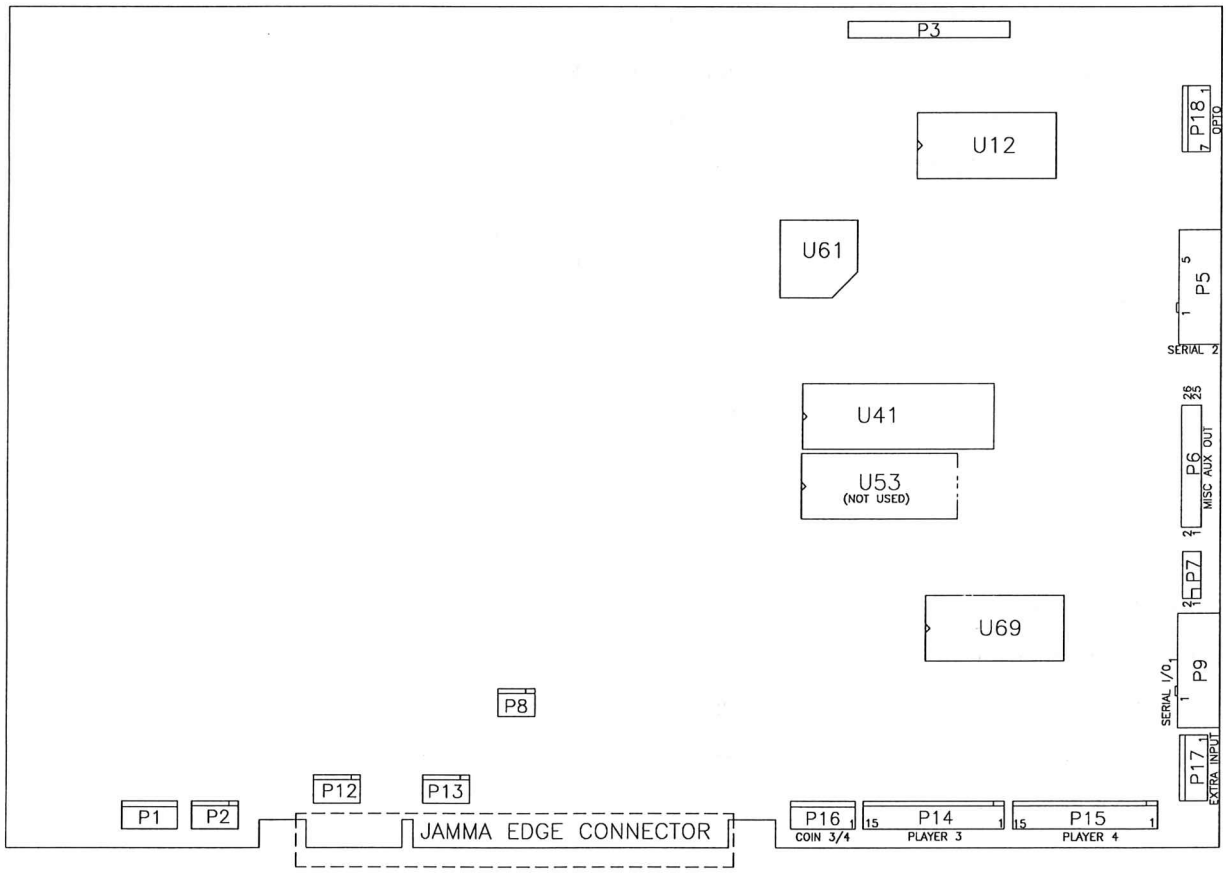
SIDE VIEW



FRONT VIEW

CPU BOARD ASSEMBLY
A-20371

Designation	Part Number	Description
U41	A-5343-40052-1	EPROM Assembly
U12	A-5343-40052-2	EPROM Assembly
U69	A-20352	PIC 1657 Assembly
U61	A-20374	FPGA Assembly



Other Parts Necessary to WAR GODS

AC Distribution Assembly	A-20278
AC Distribution Cable	H-20279
AC Distribution Chassis	04-10103
Switcher Power Supply	20-10167
MS 4-40x3/8 P-FLH	4004-01041-06
MS 6-32x3/8 P-PH-S	4006-01003-06
Nut, 6-32 KEPS	4406-01128-00
Nut, 8-32 KEPS	4408-01128-00
Line Filter, 6A, 250V	5102-14240-00
Fuse, 3A, 250V, SB	5731-10356-00
Fuse Holder Panel	5733-12869-00

Cables

Line Voltage Cable	A-20331
Dixie-Narco Cable	H-17019
USA DBV Cable	H-18136-1
Coin Door Interlock Cable	H-18610
AC Distribution Cable	H-20279
Main Harness (JAMMA) Cable	H-20344
Cabinet Speaker Cable	H-20346
A.C IDC Cable (for power supply)	H-20353
Control Panel Cable	H-20375.1

LINE CORD APPLICATION CHART

Part Number / Country	5850-13271-00	5850-13272-00	5850-13273-00	5850-13275-00	5850-13276-00	5850-13277-00	5850-13278-00
USA	√						
England			√				
Italy				√			
Japan							√
New Zealand						√	
Germany		√					
Spain		√					
Switzerland					√		
Hungary		√					
Canada	√						
Austria		√					
France		√					
Australia						√	
Belguim		√					

COIN DOOR CHART

Part Number / Country	09-50000-2	09-50000-3	09-50000-6	09-50000-7	09-50000-14	09-50000-15	09-50000-17	09-50000-20	09-50000-22	09-50000-23	09-50000-25	09-50000-33	09-80000-10	09-87000-4
USA												√		
England													√	
Italy					√									
Japan						√								
New Zealand							√							
Germany	√										√			
Spain								√						
Switzerland									√					
Hungary										√				
Canada														
Austria		√												
France														√
Australia			√											
Belguim				√										

NOTES



SECTION
THREE

WIRING

JAMMA Chart

FUNCTION	WIRE COLOR	PIN	PIN	WIRE COLOR	FUNCTION
Ground	Black	A	1	Black	Ground
Ground	Black	B	2	Black	Ground
+5VDC	Red	C	3	Red	+5VDC
+5VDC	Red	D	4	Red	+5VDC
-5VDC	Yellow	E	5	Yellow	-5VDC
+12VDC	Orange	F	6	Orange	+12VDC
	Key	H	7	Key	
Coin Counter 2	Brown-Red	J	8	Brown	Coin Counter 1
	N/C	K	9	N/C	
Speaker -, Left	Brown-Gray	L	10	Red-Gray	Speaker +, Left
Speaker -, Right	Brown-White	M	11	Red-White	Speaker +, Right
Video Green	Green	N	12	Red	Video Red
Video Sync	White	P	13	Brown	Video Blue
Service Credits	White-Gray	R	14	Shield	Video Ground
Slam Tilt	Black-Green	S	15	Black-Blue	Test
Coin 2	Black-Red	T	16	Black-Brown	Coin 1
2 Start	Violet-White	U	17	White	1 Start
2 Up	Violet-Black	V	18	White-Black	1 Up
2 Down	Violet-Brown	W	19	White-Brown	1 Down
2 Left	Violet-Red	X	20	White-Red	1 Left
2 Right	Violet-Orange	Y	21	White-Orange	1 Right
2 High Punch	Violet-Yellow	Z	22	White-Yellow	1 High Punch
2 Block	Violet-Green	a	23	White-Green	1 Block
2 High Kick	Violet-Blue	b	24	White-Blue	1 High Kick
Not Used	Violet	c	25	White-Violet	Not Used
	N/C	d	26	N/C	
	N/C	e	27	N/C	
Ground	Black	f	28	Black	Ground
SOLDER SIDE			**COMPONENT SIDE**		

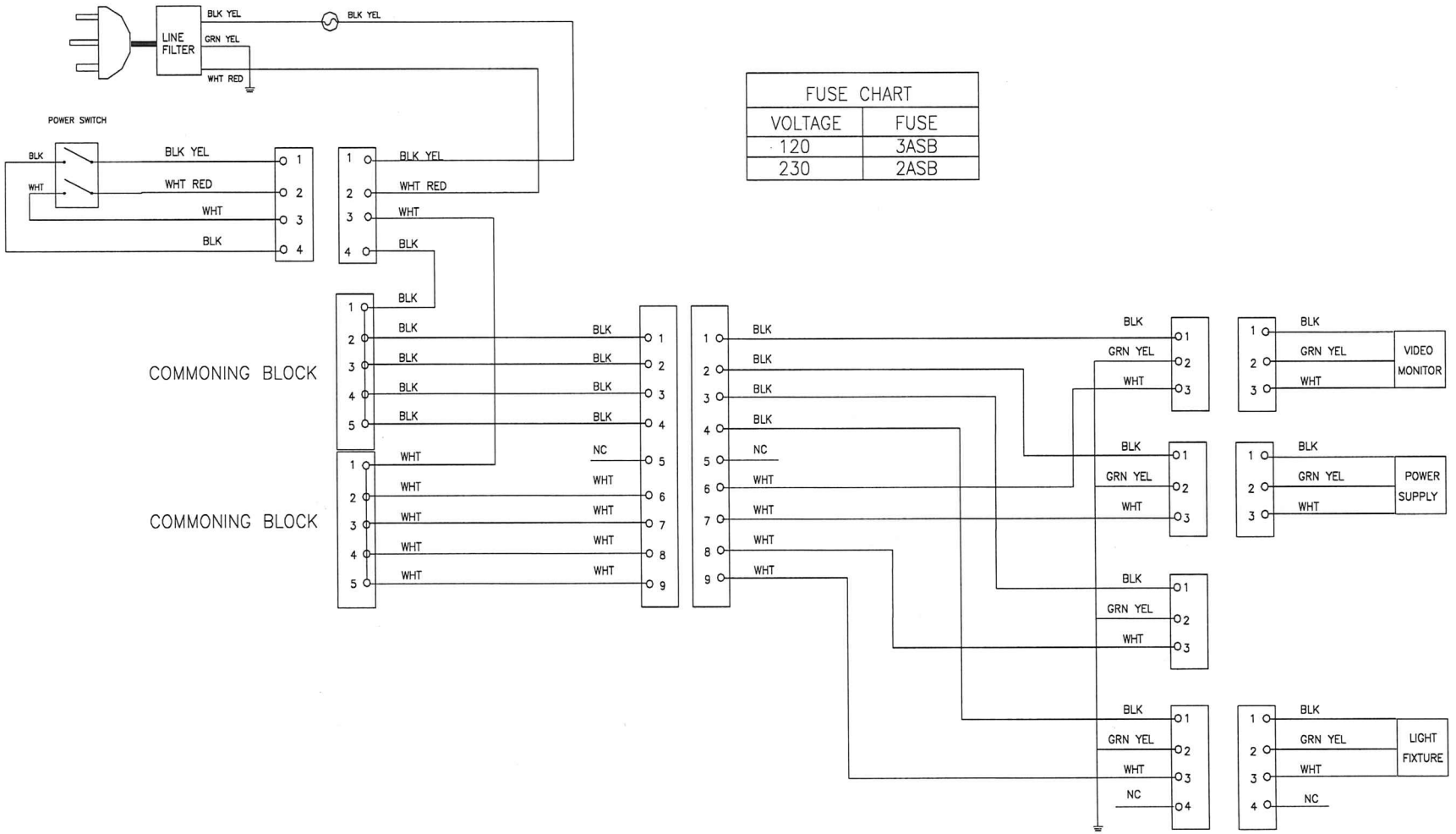
Control Panel wires that are not part of the Main JAMMA Harness.

2 Low Punch	Blue-Yellow	Blue-Black	1 Low Punch
2 Low Kick	Blue-Green	Blue-Brown	1 Low Kick
2 3-D	Blue	Blue-Red	1 3-D

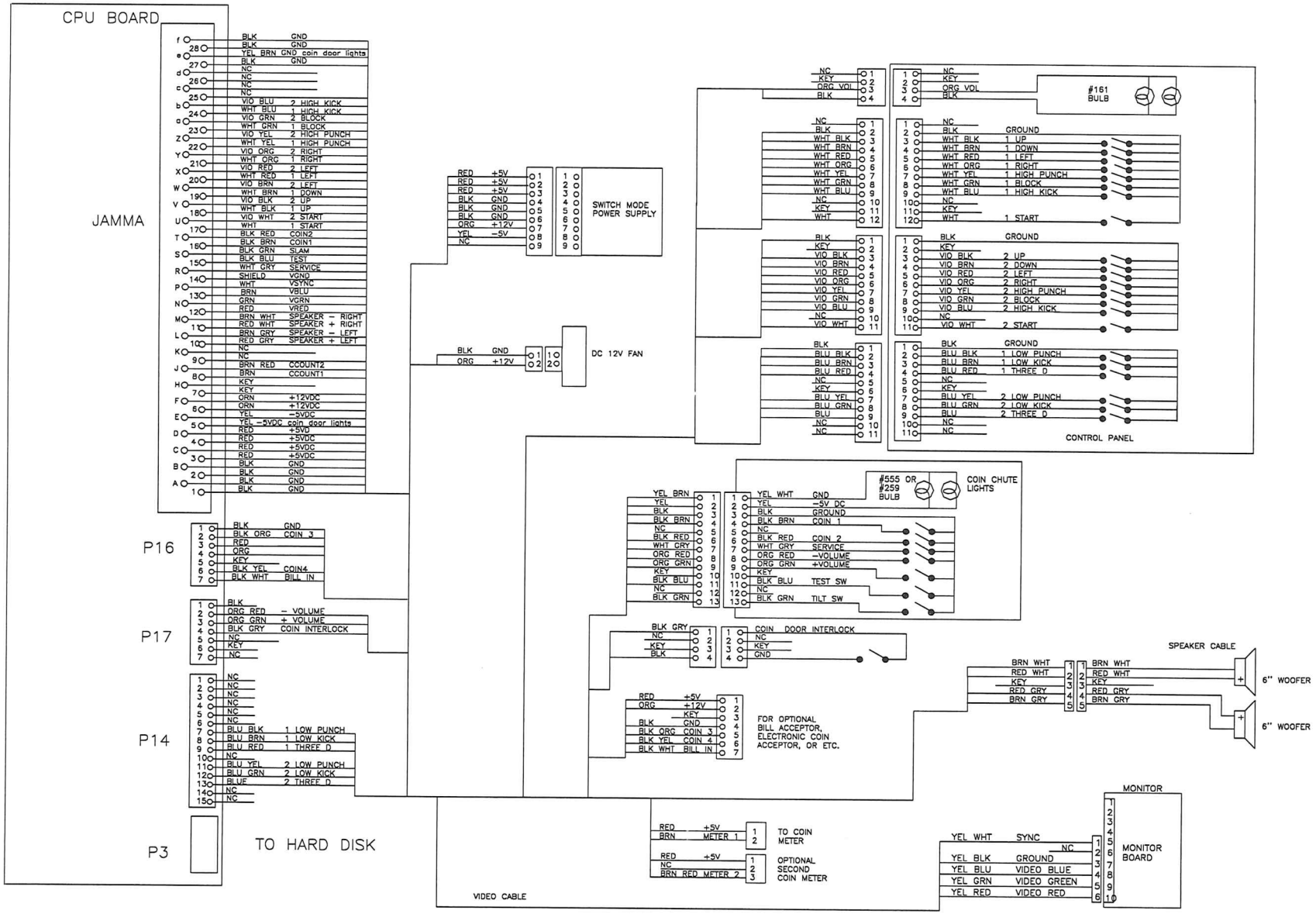
POWER WIRING DIAGRAM

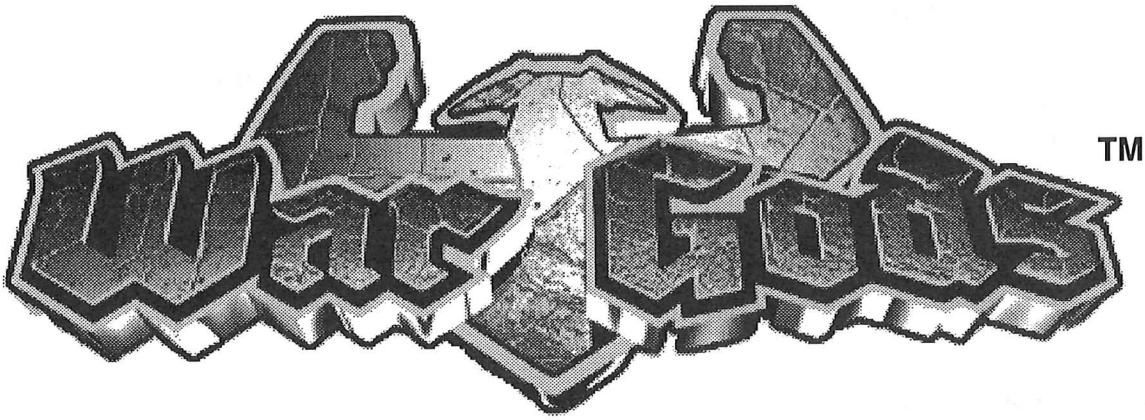
NOTE: FOR 220V OPERATION CHECK FUSE VALUE AND 120/220 SWITCH ON SWITCHING POWER SUPPLY
ALSO VERIFY THE CORRECT FAN (120/220V), AND THE CORRECT FLUORESCENT LAMP (120V 60HZ OR 220V 50HZ).

FUSE CHART	
VOLTAGE	FUSE
120	3ASB
230	2ASB



CABINET WIRING DIAGRAM





TM

SECTION
FOUR

TROUBLESHOOTING

1: Game appears completely non-functional.

A: Verify that the game power switch located on the top left rear of the game cabinet is turned on.

B: Verify that I.E.C. line cord connector is firmly and correctly seated into I.E.C. power entry module of A.C. power chassis. If not, then gently but firmly insert the I.E.C. power cable completely into the mating receptacle of the A.C. power chassis.

C: Check and verify A.C. line fuse of A.C. power chassis is not blown. If the fuse is blown, replace it with an identical fuse of the proper voltage and current rating. Note that a spare fuse is provided with the spare parts bag located in the cash box.

D: Check and verify that the correct A.C. line voltage is present the outlet.

E: Ensure that cabinet A.C. cable 4 pin and 9 pin connectors are firmly and correctly mated with the corresponding connectors of the A.C. power chassis.

2: Marquee lamp is non-functional.

A: Check and verify that the fluorescent lamp is properly inserted into the lamp holders.

B: Check and verify that the lamp pins are making good contact with the mating pins of the lamp holders.

C: Check and verify that the proper A.C. voltage is present at the power connector of the lamp assembly. If no A.C. power is present, then check the cabinet A.C. wiring from the A.C. power chassis up to the fluorescent lamp itself.

D: Check and verify that the starter and lamp are functional by replacing them with known working units.

E: Check and verify that the fluorescent lamp ballast is correct for the local A.C. line voltage and frequency.

3: Monitor appears non-functional

A: Check and verify that the cabinet A.C. line voltage cable is firmly and properly connected to mating A.C. connector on monitor.

B: Check and verify that the cabinet video signal cable connector is firmly and properly connected to the mating video signal input connector of the monitor.

C: Check and verify that the monitor remote adjustment board is properly installed and connected to the monitor chassis.

D: Verify monitor is operating correctly by replacing with a known good unit.

4: Sound is non-functional

A: Check and verify the cabinet wiring is correct. Ensure that the speakers are properly connected to the audio out wires from the JAMMA connector. Refer to the cabinet wiring diagram for specific wiring information.

B: Check and verify that the power supply is providing :

+5V	+/- 0.25V
+12V	+/- 0.5V
-5V	+/- 0.25V

C: Check and verify that the above listed D.C. voltages are present at the correct JAMMA connector pins. Refer to the cabinet wiring diagram for specific wiring information.

D: Check and verify that the game volume has been turned up.

E: Verify proper operation of game PCB assembly by replacing it with a known good game PCB assembly.

5: Video game appears non-functional

A: Check and verify that the JAMMA wire harness connector is firmly and properly seated to the mating JAMMA PCB edge connector.

CAUTION: **DO NOT REMOVE OR INSTALL JAMMA CONNECTOR WHEN POWER IS TURNED ON. DOING SO WILL DAMAGE THE GAME CPU ASSEMBLY AND VOID THE WARRANTY.**

B: Check and verify that the D.C. power supply voltages at the game CPU assembly are set as follows:

+5V:	+4. +4.9V to +5.1V
+12V:	+11.5V to +12.5V
-5V:	-4.75V to -5.25V

The above voltages should be set when the game CPU assembly is connected and the game is powered on.

C: Check and verify that the non JAMMA connectors (Player 3/4 connectors, extra input/output connectors, etc.) are attached at the proper location and are firmly seated.

D: Verify that the game CPU assembly completes the power on self test sequence. Note any errors and/or failures during power on self test. The game CPU assembly should complete the power on diagnostics without error.

E: Check and verify that the game CPU DIP Switches are set properly. Review the switch configuration information from Section One. See page 1-12.

F: Enter the detailed game CPU diagnostics by pressing the Test button during the power on self test sequence. Check and verify the different functions of the game CPU by executing the individual CPU diagnostics.

6: The video screen exhibits complete loss of SYNC or consistent horizontal tearing.

War Gods uses a MEDIUM Resolution, 25Khz scan rate monitor. Ensure that the monitor used is compatible with this requirement. Use of a standard video game LOW Resolution monitor will result in what appears to be horizontal tearing or complete loss of sync.

7: The audio sounds distorted, muffled or missing frequencies.

A: War Gods uses true Stereo Sound, with a separate audio amplifier for right and left speakers. The audio outputs from War Gods video PCB assembly are run directly from the JAMMA connector up to the separate speakers. Ensure that the cabinet wiring provides separate wiring (and not a common return) for each speaker.

B: The War Gods audio amplifiers are designed to drive full range speakers, and not discrete woofer and tweeter speakers. Ensure that the speakers are FULL RANGE response (100 to 10,000 Hz) and are rated at a minimum of 25 Watts.

8: The game will execute the power on diagnostics, but not enter normal game play.

A: War Gods uses an external Hard Disk Drive assembly to store the game program, images as well as sounds. Ensure that the ribbon cable from the disk drive is firmly seated into the mating shrouded ribbon cable connector on the video PCB assembly.

ATTENTION: Do not remove or connect the ribbon cable from the hard drive assembly to the PCB assembly when the cabinet power is ON. Doing so will damage the video PCB assembly as well as the hard drive assembly. This will also void your warranty.

B: Check and verify that the D.C. power supply voltage are within specification. Use the 2 Volt A.C. setting on a digital V.O.M. and verify that the supply voltages are stable and do not contain any ripple or noise.

C: Check and verify that the video CPU assembly is correct for the game.

D: Check and verify that the disk drive assembly is correct for the game. The hard disk is labeled with the software revision as well as assembly number.

Enter the internal game diagnostics by pressing the TEST switch during the power on self test sequence. Select Game Diagnostics, followed by Disk Drive diagnostics. This set of tests will check the interface between the video PCB assembly and the disk drive assembly. Select the "VERIFY FILES" option. This will check and verify the integrity of the game files resident on the disk drive.

DISK DRIVE DIAGNOSTICS

1: Disk Information

The disk information option can be used to check and verify the basic interface between the game CPU and the disk drive itself. This test will cause the game CPU to query the disk drive and ask the drive to report various status information back to the game CPU. This information is then displayed on the video screen.

2: Disk Directory

The Disk Directory option causes the game CPU to query the disk drive and ask the disk drive to report the files currently stored on the disk. This information is then displayed on the video screen.

3: Verify Files

The Verify Files option instructs the game CPU to check and verify the data integrity of each file stored on the disk. The results of the file verification process are displayed on the video screen.

NOTE

The file verification process DOES NOT check and/or verify that the correct files are stored on the disk. It only verifies the integrity of the actual files on the disk.

4: Disk Read/Write Test

This test will write a temporary file out to the disk, close the file and then read and compare the file back from the disk drive. This test is useful in verifying the ability to store and retrieve game information (such as audits, game settings, etc.) from the disk drive.

5: Sector Read Test

This test will perform a sector by sector read/verify test on the disk drive. This test in useful in checking the ability of the disk drive to read data from all portions of the disk drive itself.

NOTES

WARNINGS & NOTICES

WARNING

USE OF NON-MIDWAY PARTS OR CIRCUIT MODIFICATIONS MAY CAUSE SERIOUS INJURY OR EQUIPMENT DAMAGE! USE ONLY MIDWAY AUTHORIZED PARTS.

* For safety and reliability, substitute parts and modifications are not recommended.
* Substitute parts or modifications may void FCC type acceptance.
* Use only MIDWAY Manufacturing authorized components and parts. Failure to do so will void warranty and may result in incorrect and/or unsafe operation.
* This game is protected by federal copyright, trademark and patent laws. Unauthorized modifications may be illegal under federal law. This also applies to MIDWAY logos, designs, publications and assemblies. Moreover, facsimiles of MIDWAY equipment (or any feature thereof) may be illegal under federal law, regardless of whether or not such facsimiles are manufactured with MIDWAY components.

WARNING

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 generated, 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.

WARNING

Prevent shock hazard and assure proper game operation. Only plug this game into a properly grounded outlet. Do not use a cheater plug to defeat the power cord's grounding pin. Do not cut off the ground pin.

WARNING

A very small portion of the population has a condition which may cause them to experience epileptic seizures or have momentary loss of consciousness when viewing certain kinds of flashing lights or patterns that are present in our daily environment. These persons may experience seizures while watching some kinds of television pictures or playing certain video games. People who have not had any previous seizures may nonetheless have an undetected epileptic condition.

If you or anyone in your family has experienced symptoms linked to an epileptic condition (e.g. seizures or loss of awareness), immediately consult your physician before using any video games.

We recommend that parents observe their children while they play video games. If you or your child experience the following symptoms: dizziness, altered vision, eye or muscle twitching, involuntary movements, loss of awareness, disorientation, or convulsions, DISCONTINUE USE IMMEDIATELY and consult your physician.

NOTICE

When MIDWAY ships a game, it is in compliance with FCC regulations. Your sticker is proof. If the sticker is missing or damaged, legal repercussions to the owner or distributor of the game may result. If your game does not contain an FCC sticker, call MIDWAY immediately.

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3401 N. CALIFORNIA AVE.
CHICAGO, IL 60618

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16-10076
January 1996

HARD DRIVE HANDLING GUIDELINES

Hard drives are especially sensitive to rough handling and electrostatic discharge (ESD). To avoid these hazards, adhere to the following guidelines:

ELECTROSTATIC DISCHARGE (ESD)

- Keep the end of the drive cable in an anti-static bag until you are ready to install it in your system.
- Do not put any other objects inside the anti-static bag with the end of the drive cable.

HANDLING

- Do not put anything on top of the drive - especially another drive.
- Do not drop a disk drive. Some drives can be damaged by being dropped from an inch above a hard surface.
- Be sure to handle the hard drive with care when setting it down. Do not set the drive on its edge.

INSTALLING

- When installing the drive, remove the cable from the anti-static bag.
- Turn off the power before connecting the drive to the system.
- Do not connect the drive to the CPU board, or disconnect the drive from the CPU board, while power is on.
- **BE VERY CAREFUL TO ALIGN THE DRIVE CABLE CORRECTLY WITH THE CPU CONNECTOR.** Installing a the hard drive cable incorrectly will ruin the drive!

STORING, PACKING, AND TRANSPORTING DRIVES

- If you are using the single pack carton, do not pack more than one drive per carton.
- Pack the end of the drive cable in an anti-static bag. Then, put the hard drive in an approved shipping container.
- Do not throw, drop, puncture, or walk on shipping boxes.

Note. You should use the same degree of care when handling a drive that may be defective that you use when handling a new, working drive.

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UNITED STATES

BUSINESS REPLY MAIL

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WMS GAMES INC
3401 N CALIFORNIA AVE
CHICAGO IL 60618-9986

NEW GAME INFORMATION CARD

Check one of the following in each catagory

- ☐ Pinball
- ☐ Shuffle
- ☐ Video
- ☐ Novelty
- ☐ Dedicated
- ☐ Kit
- ☐ Sit Down
- ☐ Other

GAME _____

SERIAL NUMBER _____

DATE PURCHASED _____

DISTRIBUTOR _____

COMPANY NAME _____ _____
Person Completing Card

ADDRESS _____
Street City State Zip

PHONE NUMBER ( ) _____ BEST TIME TO CALL _____ AM PM

Please specify the initial location of this game: _____

How would you rate the overall quality of your purchase? (on a scale of 1-5)

1. ☐ Very poor 2. ☐ Poor 3. ☐ Fair 4. ☐ Good 5. ☐ Excellent

Please indicate problem areas or improvement suggestions: _____

_____

_____

_____

How would you rate your overall satisfaction with your purchase? (on a scale of 1-5)

1. ☐ Very poor 2. ☐ Poor 3. ☐ Fair 4. ☐ Good 5. ☐ Excellent

Please indicate why: _____

_____

_____