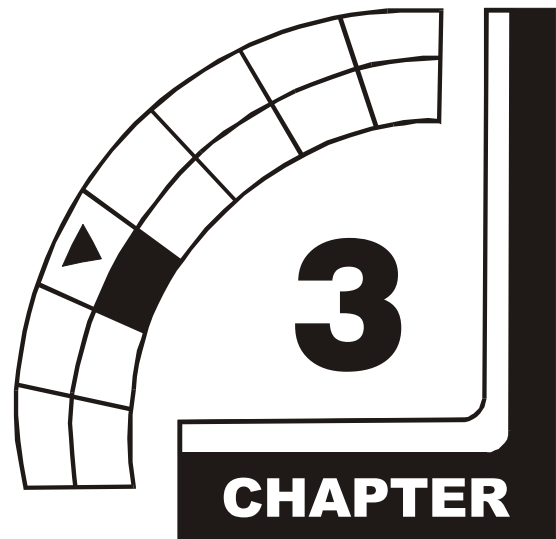


OFFROAD

THE THUNDER™



DIAGNOSTIC, AUDIT & ADJUSTMENT MENU SYSTEM



NOTICE: Information in this manual is subject to change without notice. Midway reserves the right to make improvements in equipment function as progress warrants.

MENU SYSTEM

WHAT IS THE MENU SYSTEM?

The game's Menu System is a series of auditing, game adjustment and diagnostic screens. You can easily access and apply these screens to optimize game performance. For instance...

- Use game audits screens to assess game performance.
- Use adjustment screens to help you to customize game performance. For instance, you can restore factory default game settings. You can also calibrate player controls for accuracy.
- Use diagnostic screens to verify proper equipment operation.

ACTIVATING THE MENU SYSTEM

Open the coin door. Find the TEST MODE switch inside. Press TEST MODE to invoke the Menu System. The game system responds by exiting Game Mode and entering Diagnostic Mode. The system runs a brief self-test, and then displays the Operator Menu. The Operator Menu is the opening screen of the Menu System.

Game audits, adjustments and diagnostics are line items on the Operator Menu. Selecting an item opens its submenu. Every submenu presents various options that you may act upon.



OPERATOR MENU

MENU LAYOUT

Menus differ, but related information tends to occupy the same screen locations.

- The block at the top, center of each screen displays the current menu title.
- Data (menu items, video signals, statistics, reports, etc.) appears in the center of the screen.
- Game-operation information appears at the top-center of the screen, between logos.
- Messages (explanations, control functions, revision levels) display at the bottom of the screen.

MENU NAVIGATION CONTROLS

Highlight a menu line item with the middle two diagnostic buttons inside the coin door. (Press VOLUME UP or VOLUME DOWN.) Select the option with the TEST MODE button. *You can only select one highlighted item at a time.* To return the game to play, first highlight START THE GAME. Then press TEST MODE. (This is the only menu that allows you to exit the Menu System.)

EQUIVALENT MENU NAVIGATION CONTROLS

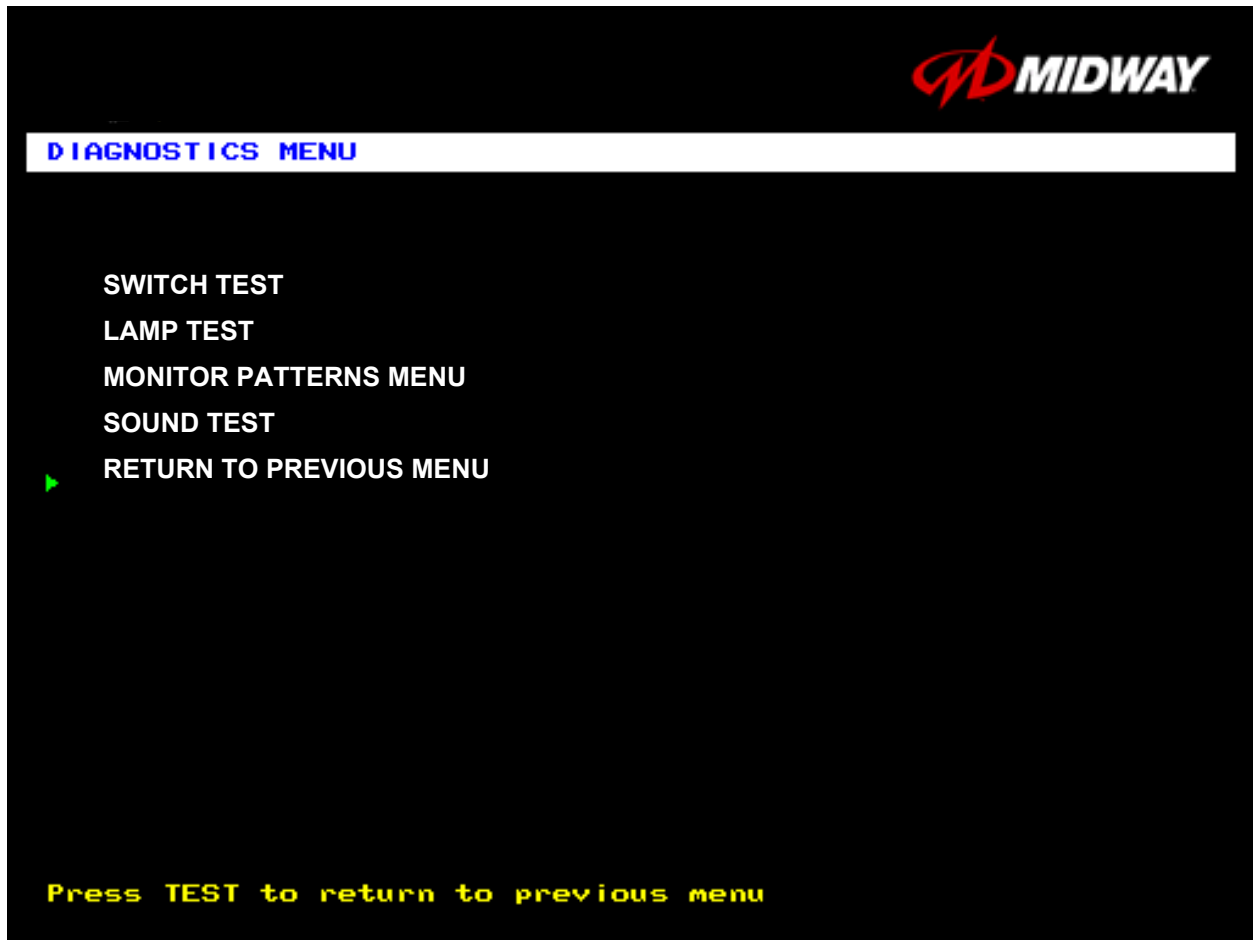
In most cases, certain player panel buttons duplicate the functions of the diagnostic buttons. You may find menu navigation easier with the player panel buttons. Here are the player panel functions within the Menu System...

Player Panel Button	Function	Equivalent Diagnostic Switch
NITRO	Select a menu item	(None)
CHOPPER CAM	<ul style="list-style-type: none">•Select a menu item•Enter Change Mode	TEST MODE
CRASH CAM	Move down the menu	VOLUME DOWN
SLAM CAM	Move up the menu	VOLUME UP
START	<i>Various functions, including....</i> <ul style="list-style-type: none">•To bottom of Operator Menu•Back to Operator Menu•Cancel	SERVICE CREDITS <i>(for some functions)</i>

DIAGNOSTICS

Select DIAGNOSTICS MENU at the Operator Menu. The Diagnostics Menu helps you to verify the electrical and electronic condition of the game.

Highlight a line item with the middle two diagnostic buttons inside the coin door. Select the option with the TEST MODE button.



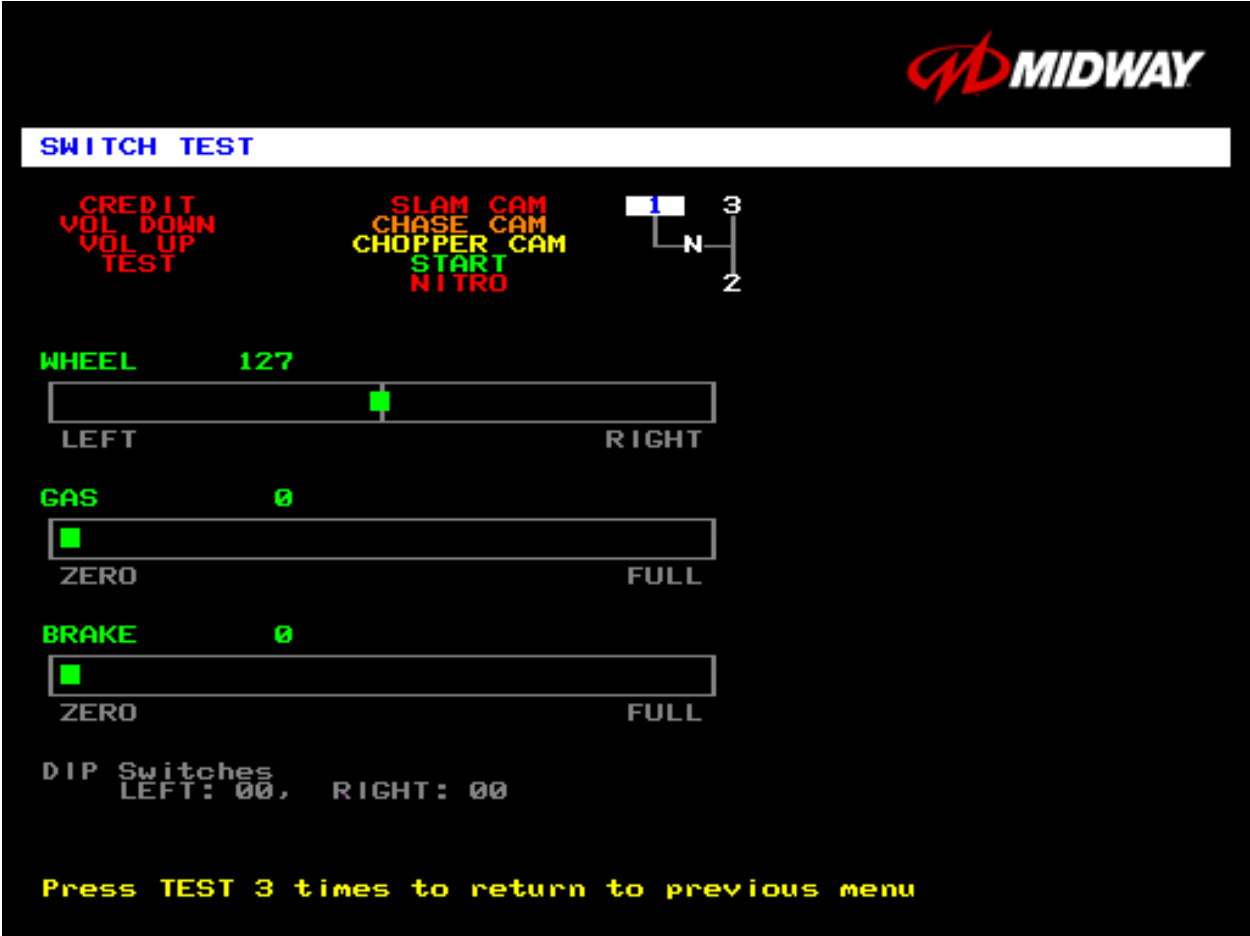
DIAGNOSTICS MENU

Operator Menu (continued)
Diagnostics Menu (continued)
Switch Test Menu

SWITCH TEST

Select SWITCH TEST at the Diagnostics Menu. Use the Switch Test to verify crossed wires, intermittent conditions, and stuck switches.

Operate the switch and watch the screen display. After completing tests, press TEST MODE three times to return to the Diagnostics Menu.



SWITCH TEST SCREEN

BUTTON TESTS check player and Diagnostic switches, such as CREDIT, TEST and SLAM CAM. Activate each button, and the screen indicator changes state. (Gray means off and green means on.) Release the button and the indicator returns to its previous state. A single indication on the screen should exactly duplicate each button change.

THE WHEEL TEST indicates the steering wheel position with a moving bar on a graph. The screen also displays a wheel position number. This number varies between zero (full left) and 255 (full right).

THE GAS TEST indicates the gas pedal position with a moving bar on a graph. The screen also displays a pedal position number. This number varies between zero (full back) and 255 (full forward).

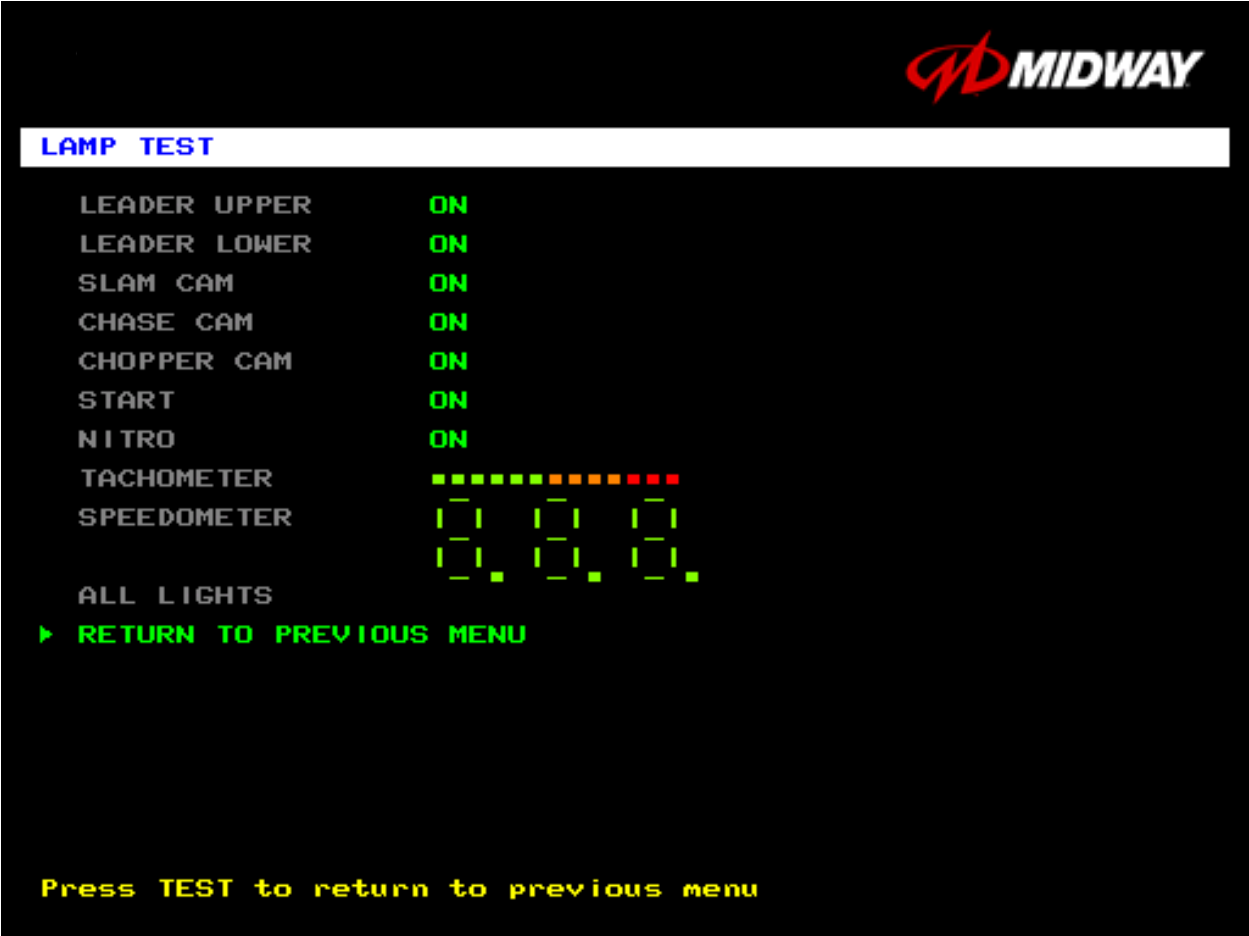
THE BRAKE TEST indicates the brake pedal position with a moving bar on a graph. The screen also displays a pedal position number. This number varies between zero (full back) and 255 (full forward).

Operator Menu (continued)
Diagnostics Menu (continued)
Lamp Test Menu

LAMP TEST

Select LAMP TEST at the Diagnostics Menu. The Lamp Test allows you to check operation of game lamps. Use the test to check for burned-out bulbs, faulty lamp wiring, etc.

Highlight a test with the middle two diagnostic buttons inside the coin door. Select the option with the TEST MODE button. Pressing TEST MODE also lights the selected lamp.



LAMP TEST SCREEN

Lamp tests indicate the condition of game lamps. These include lamps in the control panel and overhead linking sign or optional header. (Unless your cabinet has header lights, the Leader Upper and Leader Lower tests have no effect.)

For most tests, select a lamp name from the menu. Press TEST MODE (or CHOPPER CAM) to turn on the selected lamp. Press TEST MODE again to toggle the lamp off. The Tachometer and Speedometer tests operate slightly differently. These tests lights one LED for each press of TEST MODE. Press START, SLAM CAM or CRASH CAM to exit. Select ALL LIGHTS to switch on all controlled lamps simultaneously.

After completing tests, select RETURN TO PREVIOUS MENU. This action closes the Lamp Test Menu and reopens the Diagnostics Menu.

Operator Menu (continued)

Diagnostics Menu (continued)

Monitor Patterns Menu

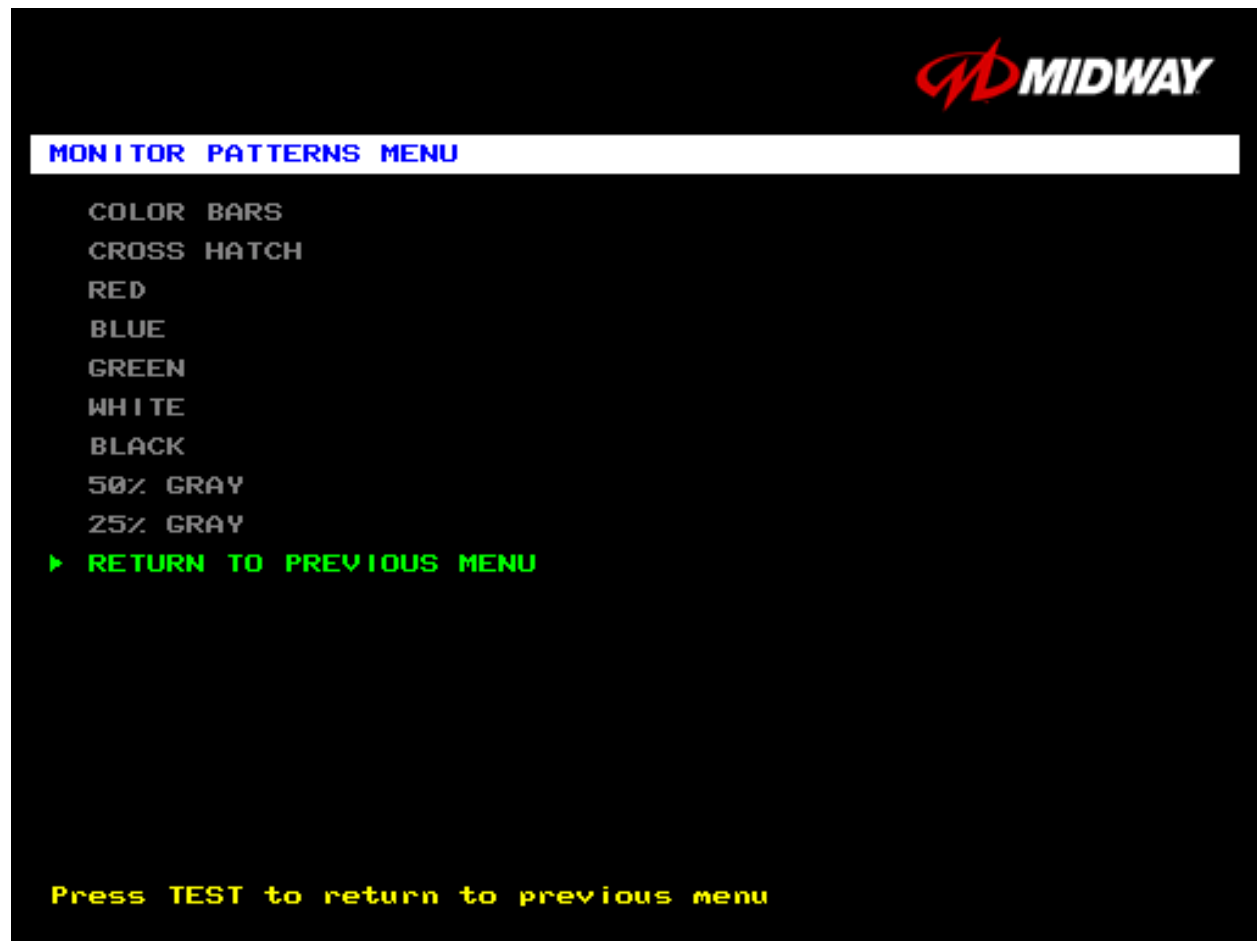
MONITOR PATTERNS TEST

Select MONITOR PATTERNS at the Diagnostics Menu. The Monitor Patterns routine provides test screens to verify monitor performance or make adjustments.

Highlight a test with the middle two diagnostic buttons inside the coin door. Select the option with the TEST MODE button.



NOTICE: Use an industrial-grade degaussing coil before attempting monitor adjustments.



MONITOR PATTERNS MENU

Color Bars paint colored stripes on the screen. Use the color bars to help you to check or adjust monitor brightness and contrast. The color bars also expose defects in horizontal linearity. Each color bar consists of 16 intensity levels. On a properly adjusted monitor, the top 15 of these levels are visible. Each bar should appear sharp, clear, and distinct from bars on either side. Incorrect adjustment can cause missing detail at the top or bottom of a bar. Bent bars indicate horizontal linearity flaws, such as pie crust,

pincushion or barrel distortion. *(Correct color bar colors, left to right: Green, Red, Blue, Black, White, Yellow, Magenta, Cyan.)*

Set controls as follows: 1. Adjust BRIGHTNESS and CONTRAST to minimum. 2. Turn up BRIGHTNESS until the pixels in the black stripe begin to glow (turn dark gray). 3. Bring up the CONTRAST control until you can see 15 bars. Then increase the contrast until you can't distinguish a difference between the top two bars.

Crosshatch Patterns consist of an on-screen grid and a series of dots. Crosshatch Patterns help you to check or adjust several monitor parameters: These parameters include convergence, linearity, active viewing area and dynamic focus. The grid and the dots should be all white in color, with no fringes or parallel images. The lines should be straight and the dots round. For more detail on these adjustments, consult service literature from the monitor manufacturer.

Color Screen tests fill the screen with 100% of the chosen color at normal intensity. The Color Screen tests help you to check or adjust monitor intensity, black level, blanking and color purity. Each screen should be absolutely uniform from top to bottom and side to side. No retrace lines or noise should be visible. Color Screens may not hold their uniformity if the monitor degaussing circuit is defective.

If tests indicate a need for adjustment, use controls on the Monitor Remote Adjustment Board. You can make other adjustments from the back of the monitor.

White, Gray, and Black Screens fill the screen with black, gray or white at various intensities. These monochrome screens help you to check or adjust monitor convergence, purity, contrast and intensity. These screens also simplify black level and color gun control settings. The screens should be uniform with no color tints or distortion. No retrace lines or noise should be visible.

If tests indicate a need for adjustment, use controls on the Monitor Remote Adjustment Board.

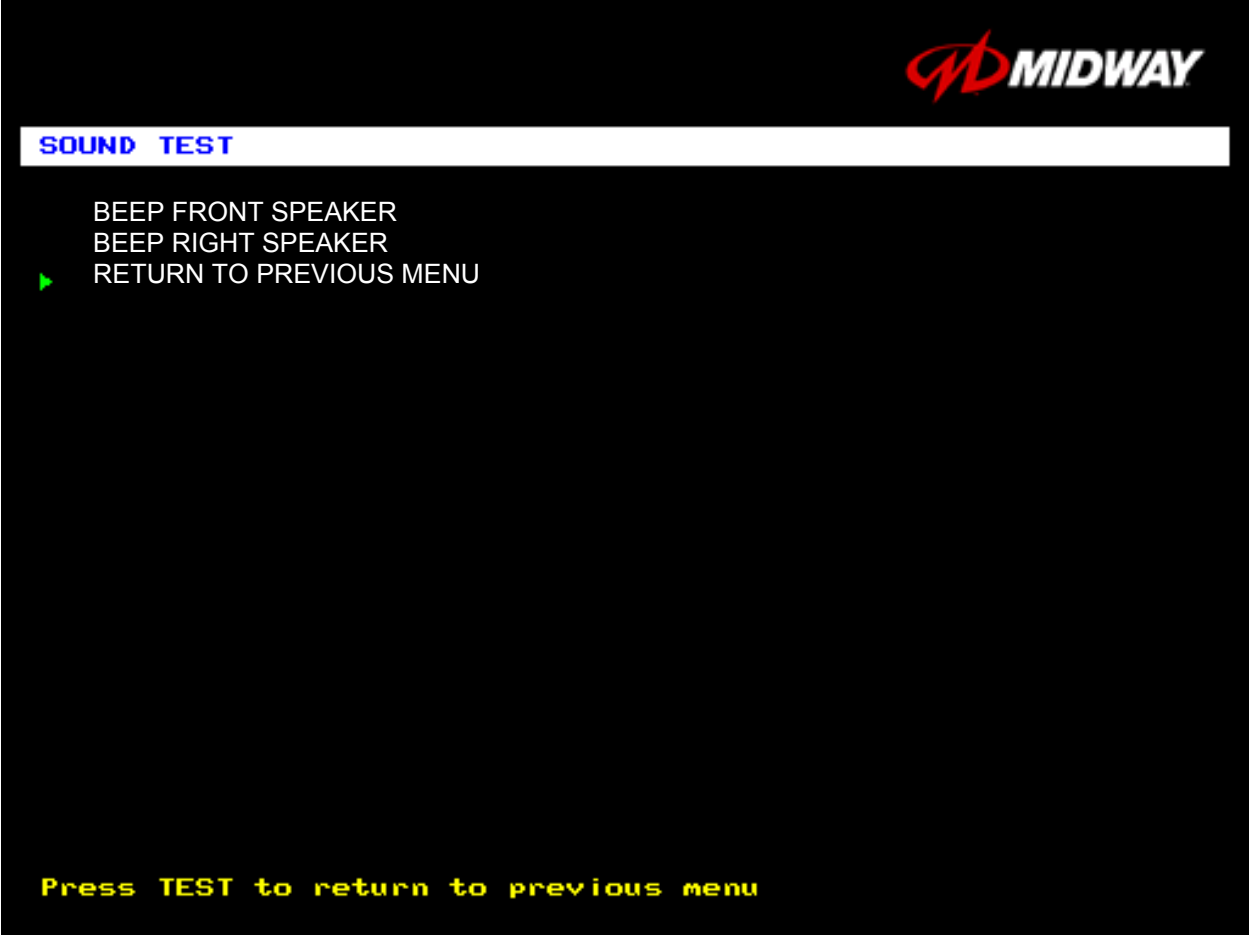
Operator Menu <i>(continued)</i>
Diagnostics Menu <i>(continued)</i>
Sound Test Menu

SOUND TEST

Select SOUND TEST at the Diagnostics Menu. The Sound Test verifies the operation of the sound hardware and speakers. Use the Sound Test to find crossed connections, incorrect phase, rattles, vibration, distortion, etc. The Sound Test screen reports information, but doesn't permit changes.

Increase the master volume level before beginning this test.

Highlight a test with the middle two diagnostic buttons inside the coin door. Select the option with the TEST MODE button. Selecting also activates a sound tone. The tone continues to play until you once again press TEST MODE.



SOUND TEST SCREEN

After choosing a speaker name, listen to the audio tone from that speaker. Only the specified speaker should produce sound. The other speakers should remain silent.

To exit the Sound Test Menu, highlight RETURN TO PREVIOUS MENU. Then press TEST MODE.

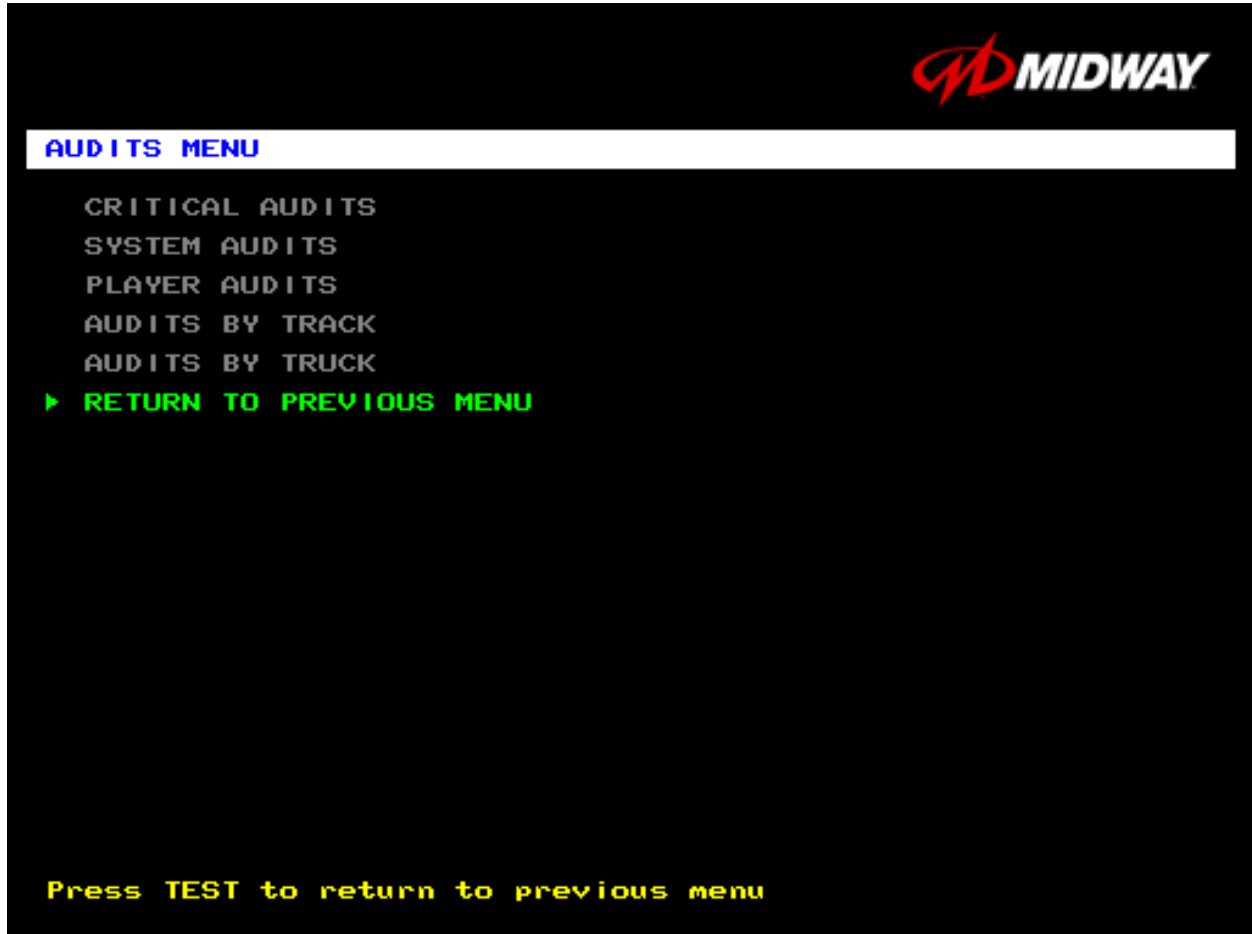
Operator Menu (continued)

Audits Menu

AUDITS MENU

Select AUDITS MENU at the Operator Menu. The Audits Menu permits you to review game play statistics. Additional menus provide detailed reports for each player position on game starts, ends, cabinet abuse, fault conditions, etc.


Highlight a line item with the middle two diagnostic buttons inside the coin door. Select the option with the TEST MODE button.



GAME AUDITS MENU

Use the auditing information to help you to keep records of the game's popularity and earnings. You may also analyze favorite tracks, most frequently used vehicles, and other statistics. These screens report information, but don't permit changes.

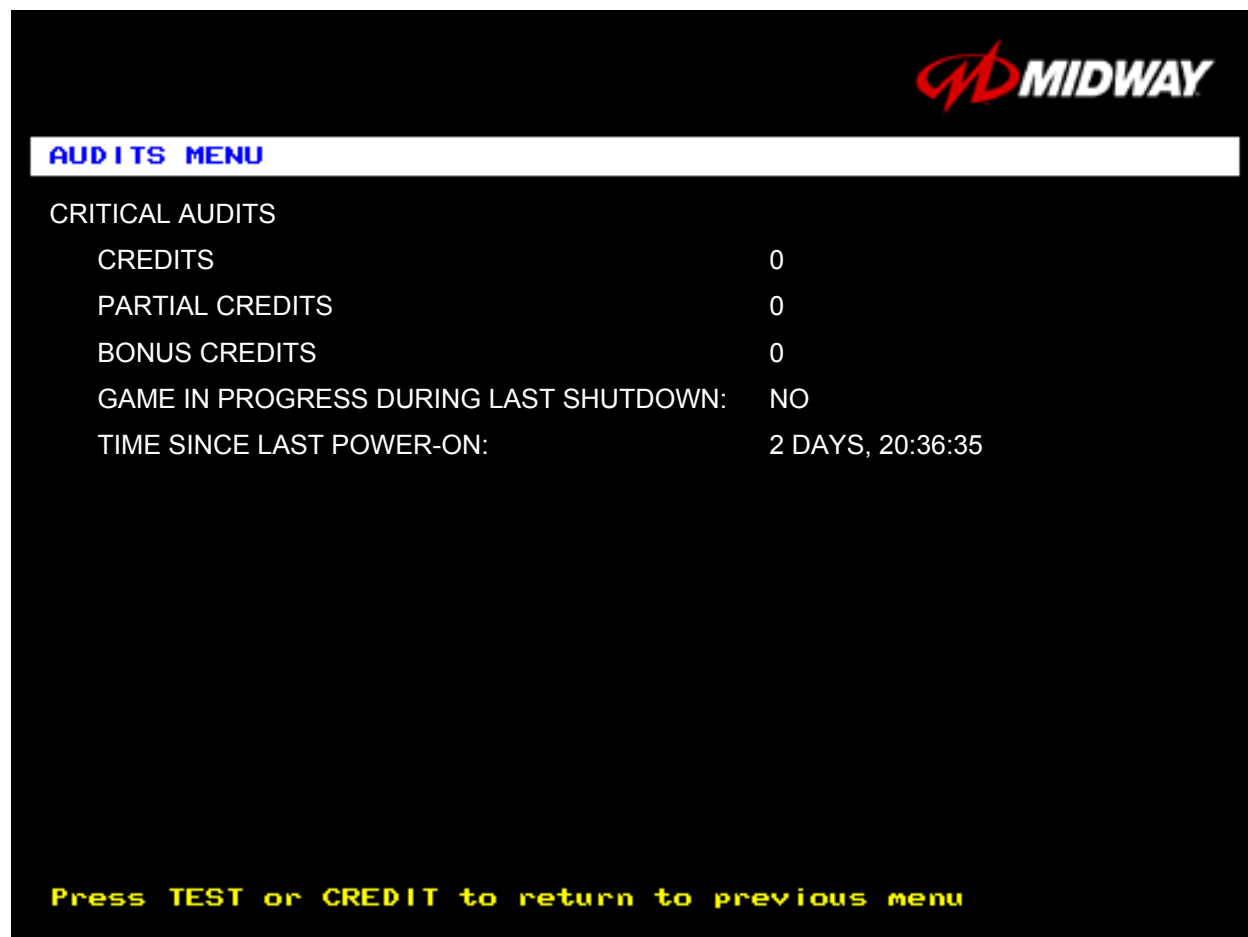
Examine and record all game audit values before doing service or making repairs on this game.

	<p>NOTICE: Take care when clearing audit information. You can't restore cleared data. If your audit data is important to you, back it up before proceeding. Use the OPTION SAVE AUDITS TO FLOPPY DISK on the Utilities Menu. To clear audits, use the Utilities Menu.</p>
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Operator Menu (continued)
Audits Menu (continued)
Critical Audits Menu

CRITICAL AUDITS

Select CRITICAL AUDITS at the Audits Menu. The Critical Audits Menu reports general information about coin counts and game use. This menu reports information, but doesn't permit changes.



CRITICAL AUDITS MENU

CREDITS and **PARTIAL CREDITS** permit you to assess currency collection. The other items present information on game operation.

BONUS CREDITS. A running total of bonus credits that the video game awarded to players.

GAME IN PROGRESS DURING LAST SHUTDOWN. Was the machine in Game-Play Mode when it entered Diagnostic Mode? This function answers the question.

TIME SINCE LAST POWER-ON. This function measures the period between power-ups. The clock starts counting **whenever you switch off the video game machine.**

Operator Menu (continued)
Audits Menu (continued)
System Audits

SYSTEM AUDITS

Select SYSTEM AUDITS at the Audits Menu. The System Audits Menu reports general information about coin counts and game use. Coin Audits is a read-only screen.

To exit, press TEST MODE.



SYSTEM AUDITS MENU

The System Audits Menu reports total quantities of coins, bills or credits collected by each active device. The menu does not calculate the value of the collected currency.

This menu reports information, but does not permit you to make changes. To reset the coin, bill, and credit counters to zero, use the Clear Audits menu.

We recommend that you examine and record audit information before you make changes. Once you've cleared the counters, you can't retrieve the previous data from the system.

THE COIN COUNT AND BILL COUNT items help you to assess currency collection. The other items present information on game operation.

RESET, LINK, AND SYNC statistics are measures of the game software's ability to recover from conditions that adversely affect game play.

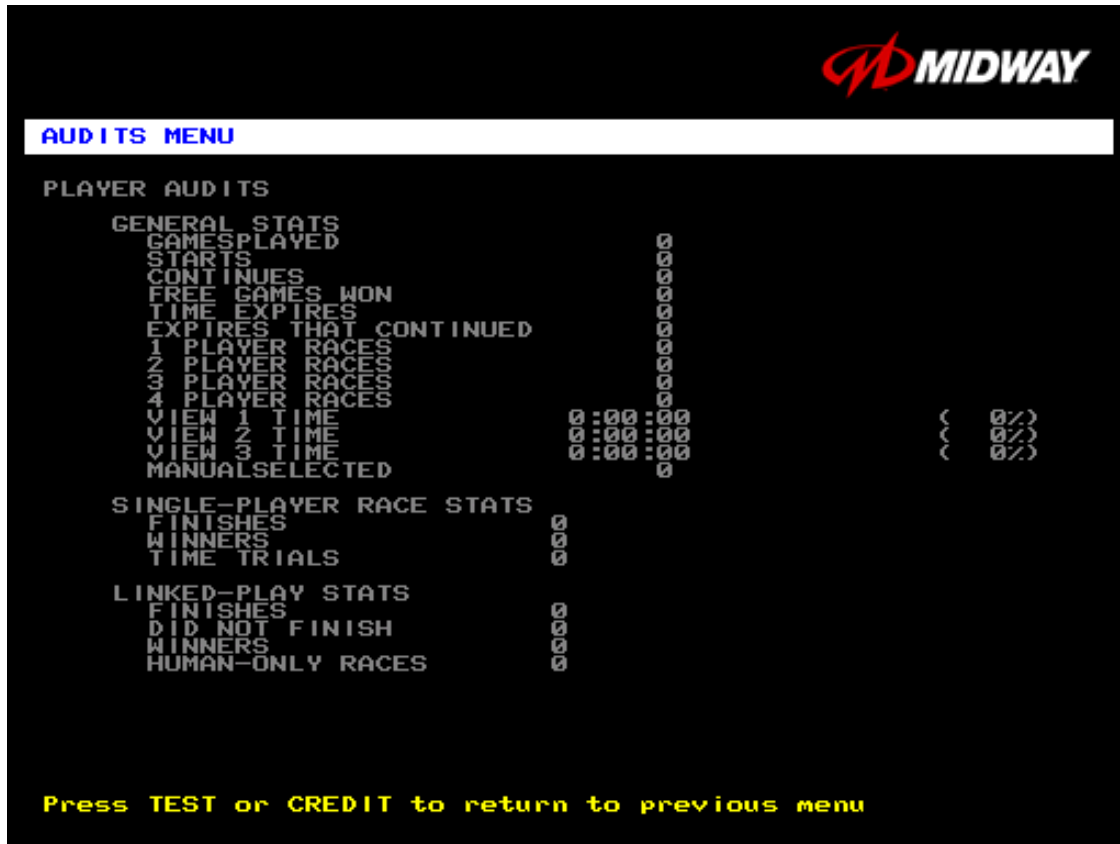
Operator Menu (continued)

Audits Menu (continued)

Player Audits Menu

PLAYER AUDITS

Select PLAYER AUDITS at the Audits Menu. The Player Audits Menu displays additional information about player statistics and ability. This information assists you in understanding game use and profitability. Player Audits is a read-only screen.



PLAYER AUDITS MENU

GAMES PLAYED. Total number of games that players played on this machine.

CONTINUES. Total number of games on this machine that players paid to continue.

FREE GAMES WON remains at zero if you turn off the bonus and award options. Refer to the General Adjustments Menu for the bonus and award options settings.

STARTS. Number of games that players started.

FREE GAMES %. Proportion of games that were free, expressed as a percentage.

TIME EXPIRES. Number of times that time expired before a player completed the game.

DID NOT FINISH. Number of incomplete games.

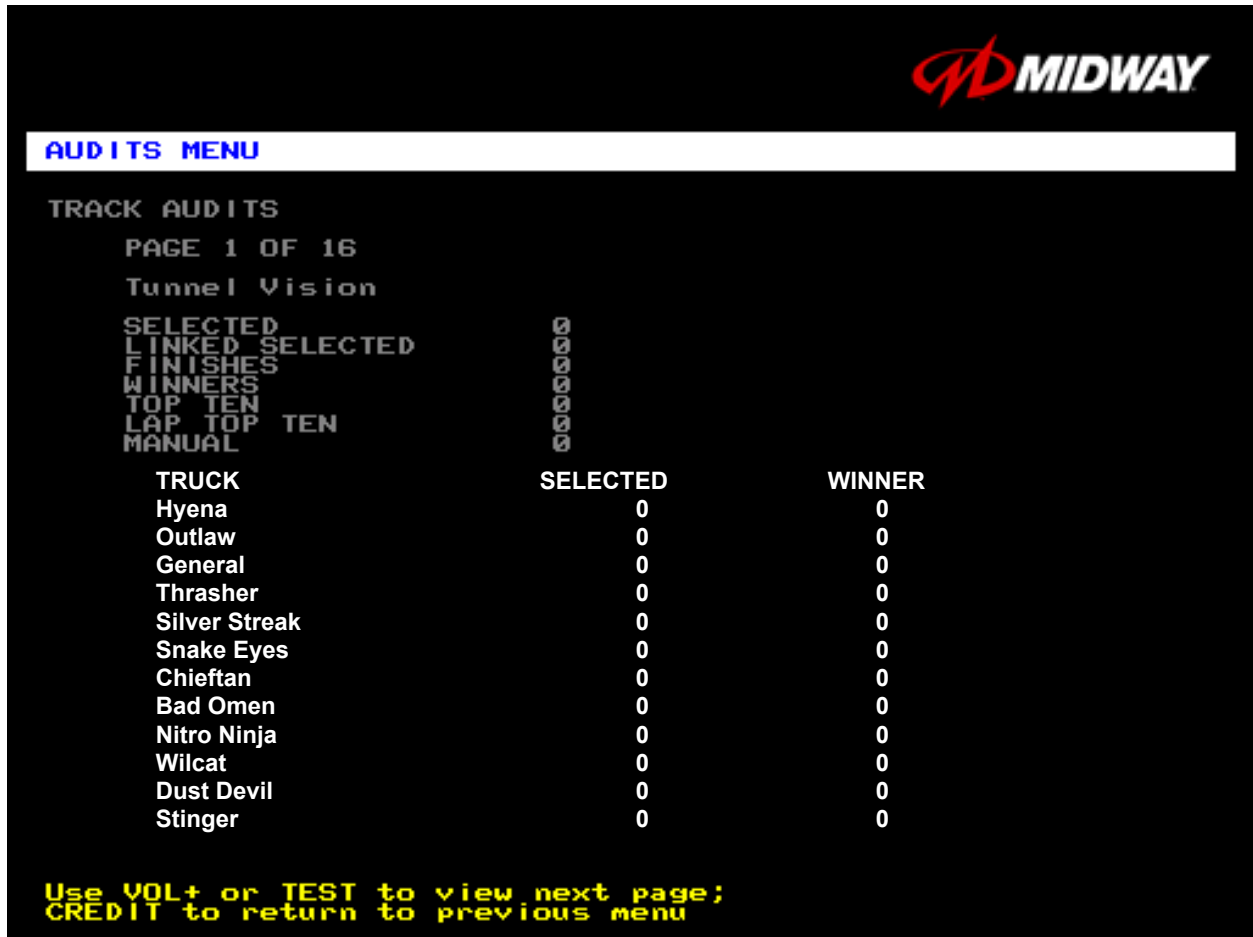
FINISHES. Number of completed games.

TWO, THREE AND FOUR-PLAYER RACES remain at zero if no other games are linked to this one.

Operator Menu (continued)
Audits Menu (continued)
Track Audits Menu

TRACK AUDITS

Select TRACK AUDITS at the Audits Menu. The Track Audits Menu includes specific information about player choices and ability. This is a read-only menu.



TYPICAL TRACK AUDITS MENU

These audits cover several screen pages. The name of the track appears at the top of the page. Press the VOLUME UP or VOLUME DOWN buttons to move through these pages.

Operator Menu (continued)

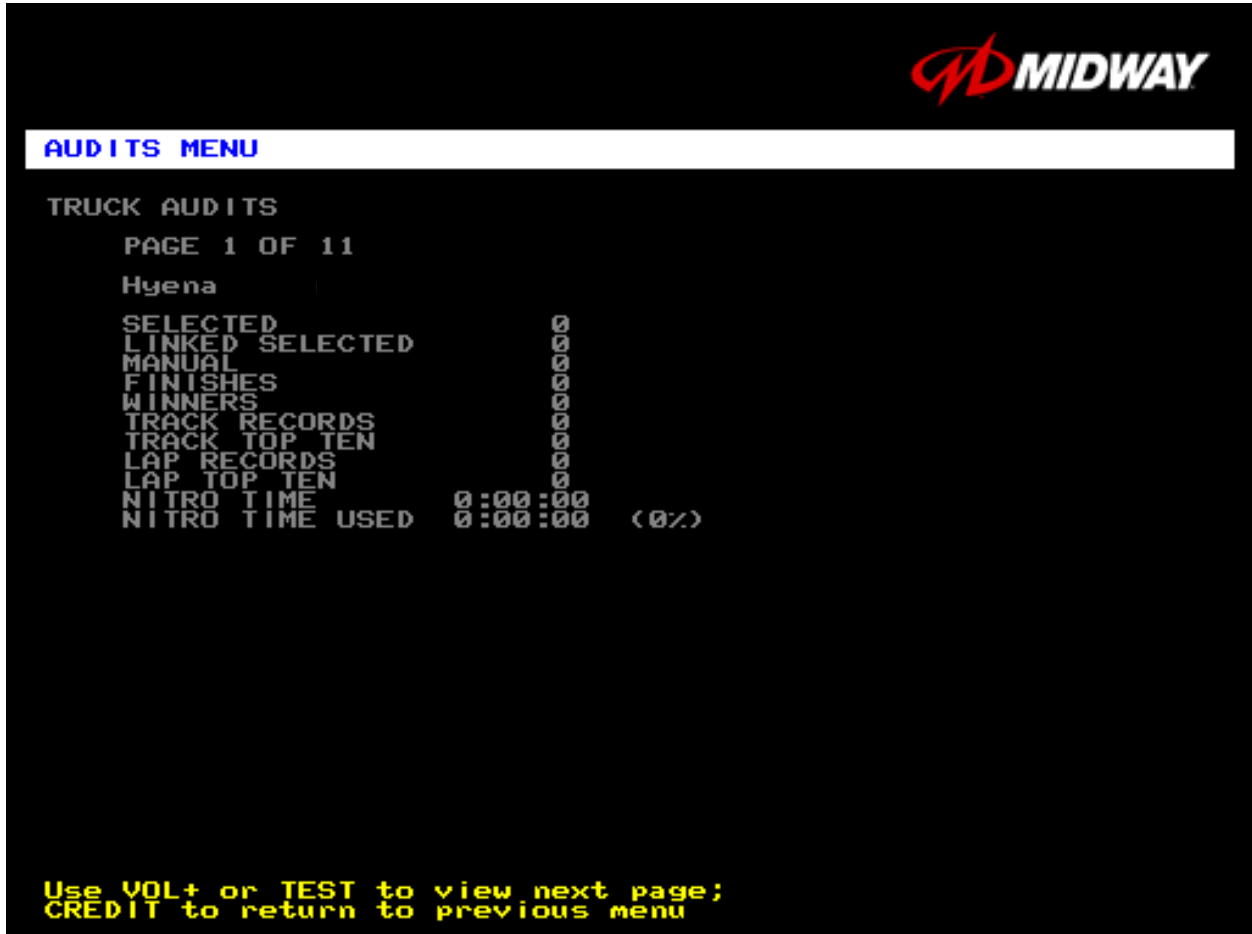
Audits Menu (continued)

Truck Audits Menu

TRUCK AUDITS

Select TRUCK AUDITS at the Audits Menu. The Truck Audits Menu gives you specific information about player choices and ability. This is a read-only menu.

Menu software includes several pages of audits. The name of the vehicle appears at the top of each menu page. Press the VOLUME UP or VOLUME DOWN buttons to navigate through these pages.

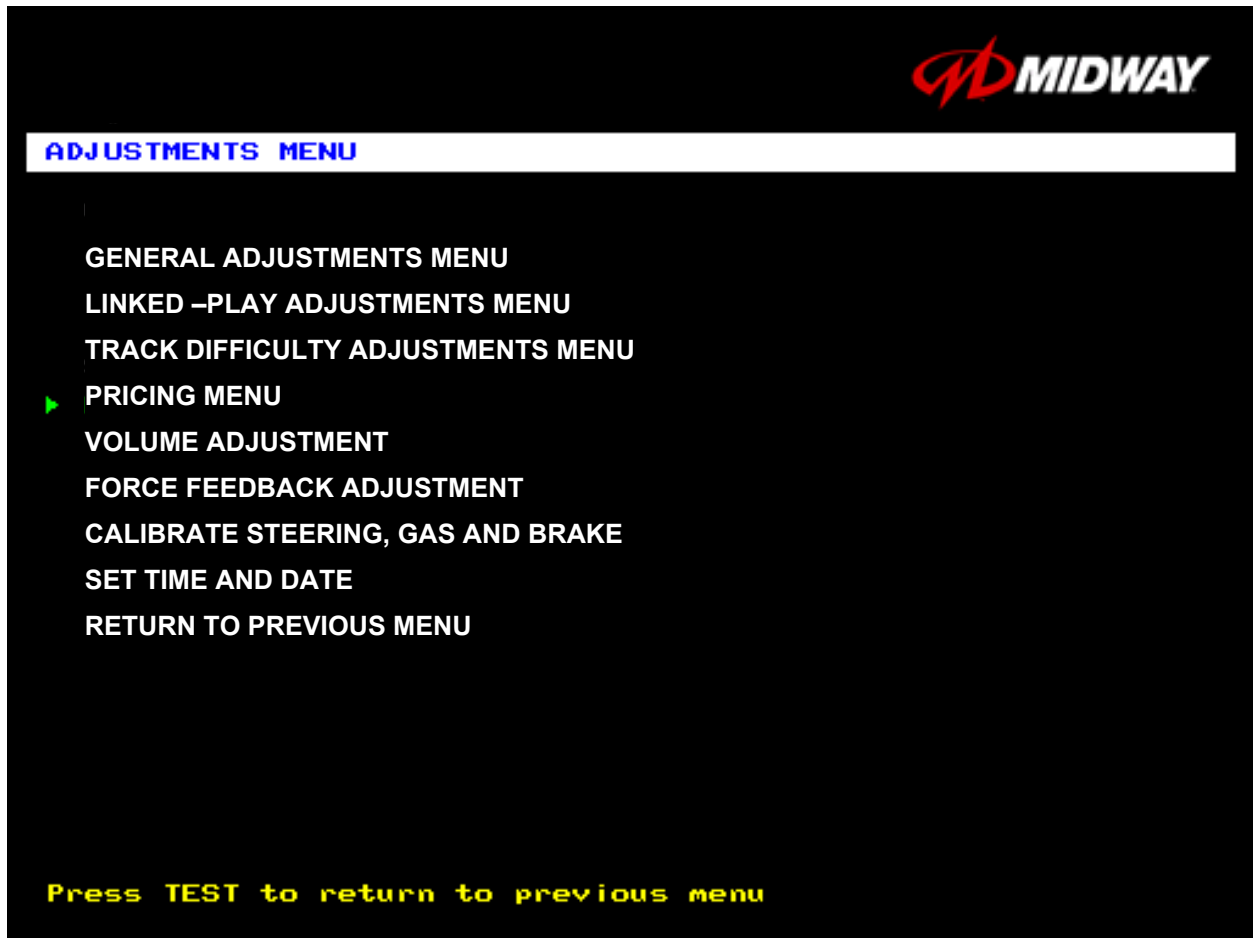


TYPICAL AUDITS BY TRUCK SCREEN

ADJUSTMENTS MENU

Select ADJUSTMENTS MENU at the Operator Menu. The Adjustments Menu allows you to set game and player variables. Use these screens to optimize game performance and earnings.

Highlight an option with the middle two diagnostic buttons inside the coin door. Select the option with the TEST MODE button.



ADJUSTMENTS MENU

Operator Menu (continued)

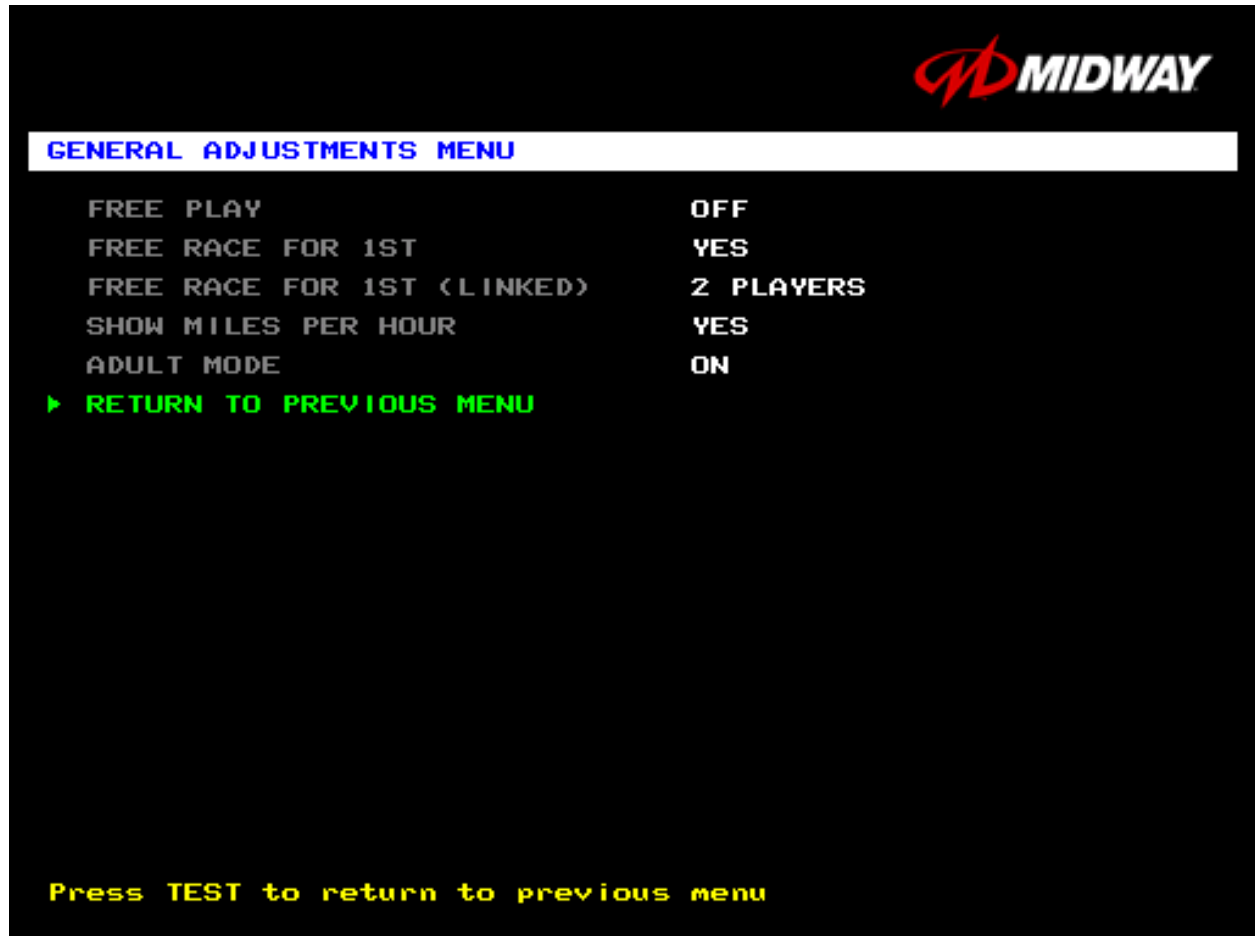
Adjustments Menu (continued)

General Adjustments Menu

GENERAL ADJUSTMENTS MENU

Select GENERAL ADJUSTMENTS MENU at the Adjustments Menu. At the General Adjustments Menu, you set the cabinet type, game display and measurement system. General Adjustments Menu options also control the cost and type of play.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Then press TEST MODE to save changes and exit the variable.



GENERAL ADJUSTMENTS MENU

FREE PLAY determines whether the game accepts money for play, or allows operation without charge. For free play, turn this option on. For paid play, turn this option off (the factory default).

FREE RACE FOR 1ST permits a free game for players who finish in first place. To award a free race to a first-place finisher, turn this option on. To eliminate the free race award, turn this option off. The factory default is on.

FREE RACE FOR 1ST (LINKED). This feature awards a free game to the first place finisher among human players. The feature only operates when a minimum number of players join in. To award a free race to a first-place finisher, turn this option on. To eliminate the free race award, turn this option off. Available settings include 2, 3 or 4 players, or off. The factory default setting is off.

SHOW MILES PER HOUR sets the measurement system for display on game screens. To display speed in kilometers per hour, turn SHOW MILES PER HOUR off. To display speed in miles per hour, turn SHOW MILES PER HOUR on (the factory default).

ADULT MODE. When you enable Adult Mode, the glamorous cheerleaders appear in bikinis. When you disable Adult Mode, the cheerleaders appear in more conservative attire. The default setting is on.

Operator Menu <i>(continued)</i>
Adjustments Menu <i>(continued)</i>
Linked-Play Adjustments Menu

LINKED PLAY ADJUSTMENTS MENU

Select LINKED PLAY ADJUSTMENTS MENU at the Adjustments Menu. The Linked Play Adjustments Menu allows you to set the game cabinet network identity. After you cable the linked cabinets, use this menu to set up linked play.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Then press TEST MODE to save changes and exit the variable.



LINKED-PLAY ADJUSTMENTS MENU

Before proceeding, bring up the Linked Play Adjustments Menu on all linked cabinets.

LINKED PLAY. After you link a cabinet to other games, turn on LINKED PLAY. Now game electronics can communicate with other cabinets. To prohibit linked play, turn off the feature. The factory default is off.

UNIT ID determines the game’s address. Each linked game must have a unique number. Never use the same address for two cabinets. Sequence isn’t important. The factory default ID is 1.

REINITIALIZE. After selecting the ID, exit the Menu System. Shut down each linked cabinet for one minute. (Leave the computers switched on.) Then restore power to all cabinets. The cabinets should initialize in Linked Mode. Verify linked operation by playing some linked games.

Operator Menu (continued)

Adjustments Menu (continued)

Track Difficulty Adjustments Menu

TRACK DIFFICULTY ADJUSTMENTS MENU

Select TRACK DIFFICULTY ADJUSTMENTS MENU at the Adjustments Menu. From the Track Difficulty Adjustments Menu, you set how much skill players need to complete races.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Then press TEST MODE to save changes and exit the variable.



TRACK DIFFICULTY ADJUSTMENTS MENU

LIMIT FREE RACES TO (LFRT) is the award cutoff point. LFRT prevents expert players from monopolizing a cabinet. The range is 1 to 100%. The factory default is 10%.

BONUS START TIME. You can use this feature to award several seconds of extra time to starting players. The factory default is zero seconds.

BONUS CHECKPOINT TIME. Use this feature to award several seconds of extra time as players pass checkpoints. The factory default is zero seconds.

ADJUST TRACK DIFFICULTIES MENU allows you to modify the level of challenge that each track poses.

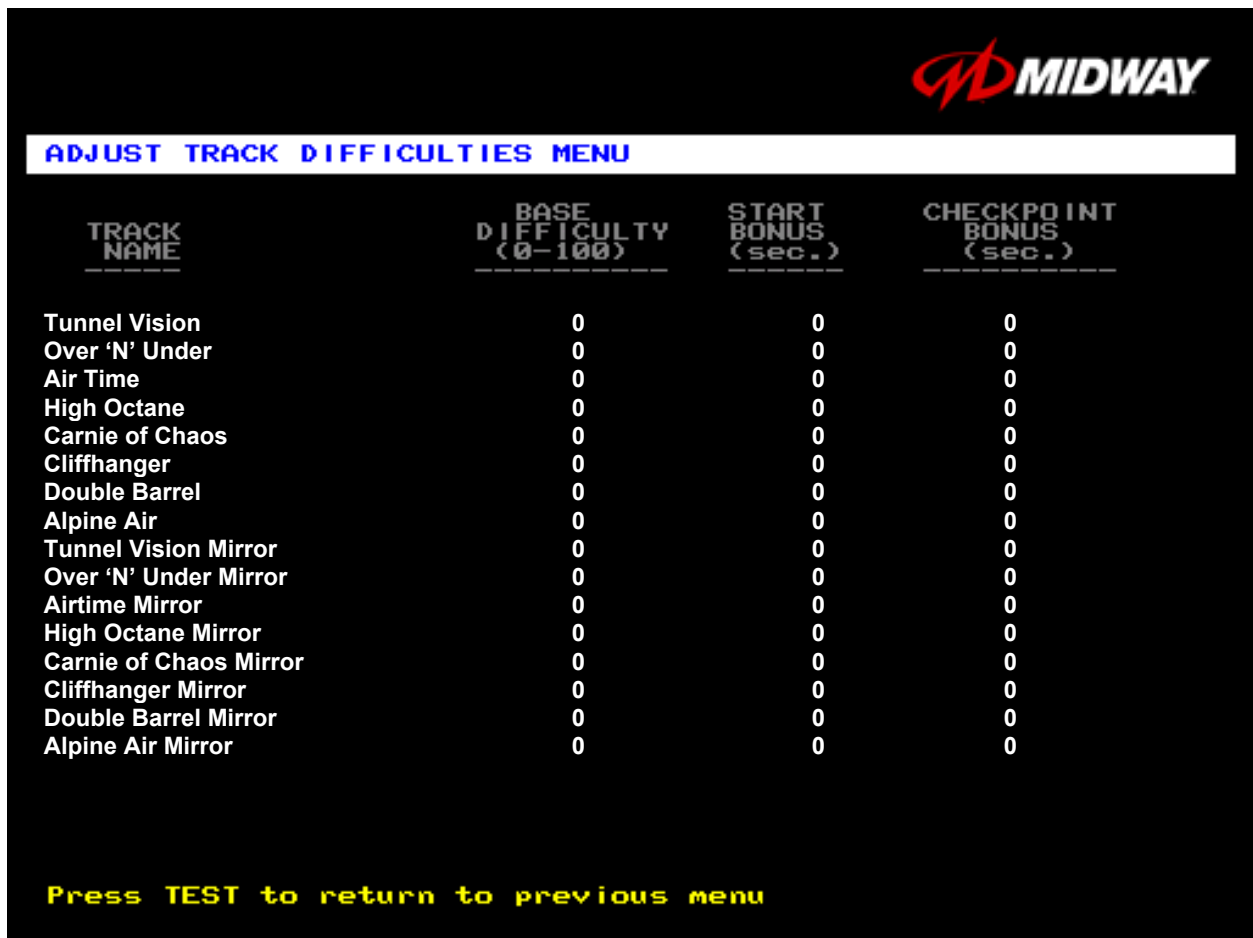
Operator Menu <i>(continued)</i>
Adjustments Menu <i>(continued)</i>
Track Difficulty Adjustments Menu <i>(continued)</i>
Adjust Track Difficulties Menu

ADJUST TRACK DIFFICULTIES MENU

Select ADJUST TRACK DIFFICULTIES MENU at the Track Difficulty Adjustments Menu. From the Adjust Track Difficulties Menu, you modify the level of challenge that each track poses. You can also increase or reduce starting and checkpoint bonus time. Difficulty and bonus default values are all zero.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Press TEST MODE to save changes and exit the variable. Or press TEST CREDITS to cancel changes and exit the variable.

You'll notice that each option line has three columns of figures to change. The program lets you edit each column in turn. First you modify BASE DIFFICULTY, then START BONUS, and last, CHECKPOINT BONUS.



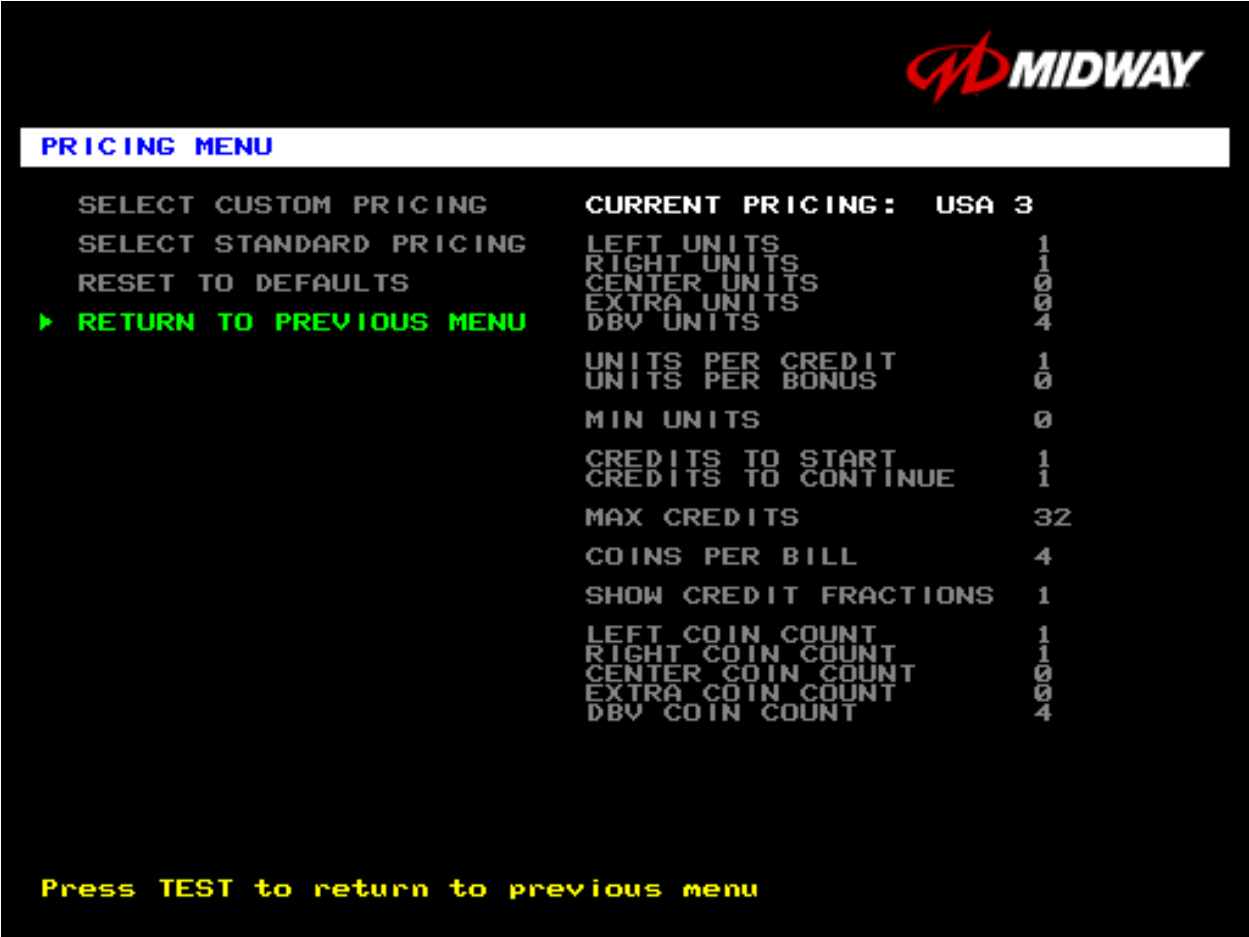
ADJUST TRACK DIFFICULTIES MENU

Operator Menu (continued)
Adjustments Menu (continued)
Pricing Menu

PRICING MENU

Select PRICING MENU at the Adjustments Menu. The Pricing Menu contains options for selecting standard and custom currency combinations. The factory default is USA1.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Then press TEST MODE to save changes and exit the variable. Turning on Free Play disables Pricing Menu settings.



PRICING MENU

SELECT CUSTOM PRICING allows you to set coin and credit options manually. Use this option to create your own pricing schemes. This menu permits changes to default values.

SELECT STANDARD PRICING allows you to select from several ready-made price schemes. This menu permits changes to default values.

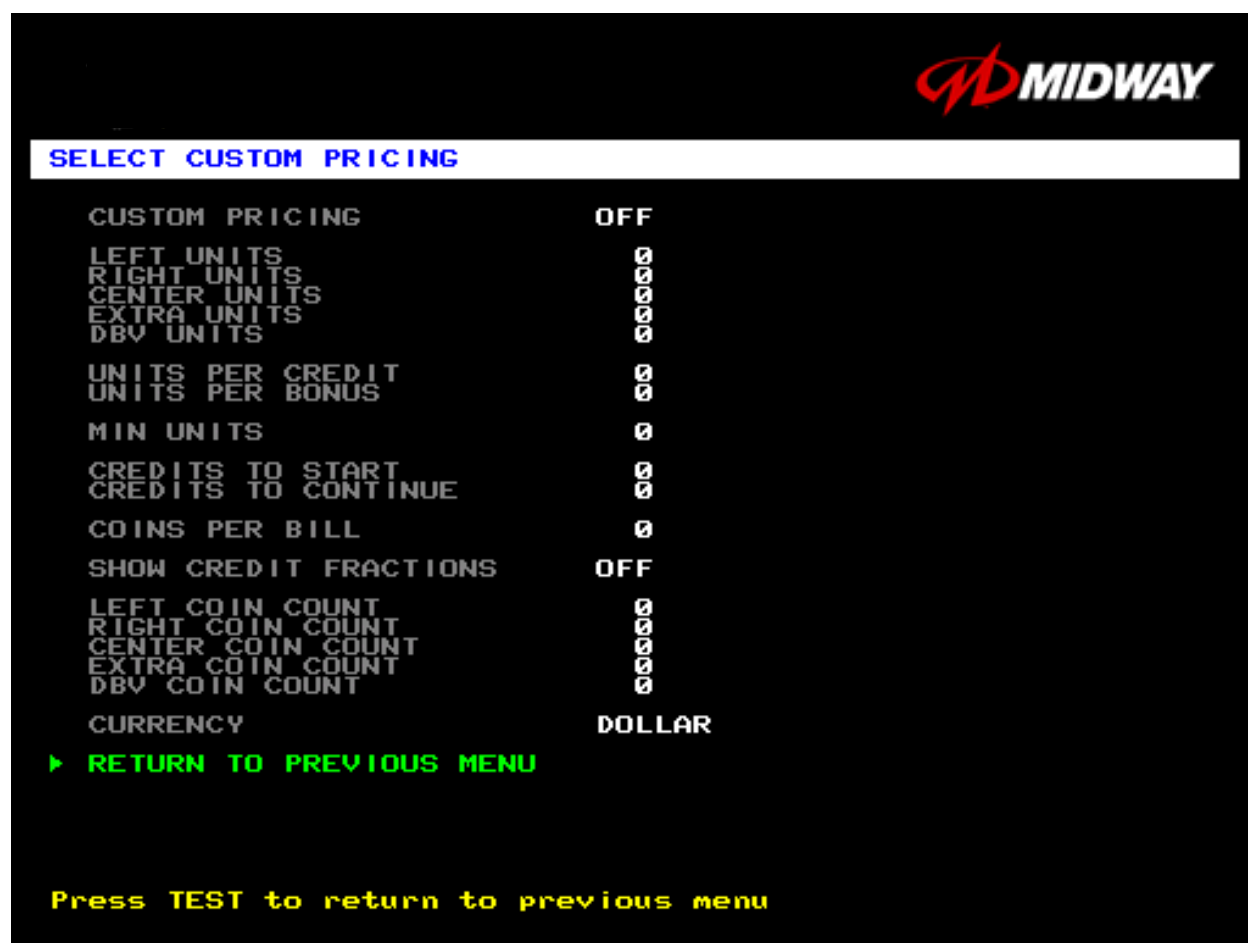
RESET TO DEFAULTS returns the price settings to factory default values. This menu permits changing all current values at once.

Operator Menu (continued)
Adjustments Menu (continued)
Pricing Menu (continued)
Select Custom Pricing Menu

SELECT CUSTOM PRICING MENU

Choose SELECT CUSTOM PRICING at the Pricing Menu. The Select Custom Pricing Menu permits you to program and use your own pricing table. You can save several pricing schemes and chose between them as desired.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Then press TEST MODE to save changes and exit the variable.



TYPICAL SELECT CUSTOM PRICING MENU

The Custom Pricing Menu employs the same terms that appear on the Current Pricing Table. See the table below for definitions of these terms.

PRICING MENU TERMS

SCREEN TERM	DISCUSSION
Slot Units; Bill Validator (DBV) Units	Cyber-currency. This adjustment assigns a number of "units" to each coin mechanism or bill acceptor. For instance, if a quarter buys 1 unit, then \$1 buys 4 units. (<i>See Coins per Bill.</i>) You insert a coin into a 1-unit coin acceptor. The system, due to its programming, knows that your coin is worth one unit.
Units per Credit	How many units equal one credit. (Units buy credit, the price of one game.)
Units per Bonus	Units awarded when a player earns a bonus.
Minimum Units	Until this many units accumulate, the system awards no credits.
Credits to Start	Number of games a player must purchase to begin play.
Credits to Continue	Number of games a player must purchase to resume play.
Max Credits	Limits the number of credits that the game will accept.
Coins per Bill	How many coins one bill is worth.

BASIC CUSTOM PRICING. Custom pricing creates an imaginary currency exchange. In this currency exchange, the coins of the realm are "units." Think of units as a type of cyber-currency, useful only within the game software. By inserting coins, you purchase units.

Since units are only negotiable within game software, the system stores your units for you. When the system receives enough units, it buys a game for you. The price of a game is one "credit." You can think of credits as a second form of cyber-currency.

Even though you've now bought one game, you may not be able to begin playing. In many pricing schemes, you must buy two or more credits to begin play. The idea here is something like a minimum order of goods at a store. That is, the operator can "shrink-wrap" two or more games in a package. You can't play unless you buy the entire package.

• **1 / 25¢ COIN; 1 CREDIT TO START.** In a simple, quarter pricing scheme, the player inserts one coin to buy one unit. The system exchanges that unit for one credit. If CREDITS TO START contains the value one, then play commences. A dollar bill buys four units.

Left Slot Units	Validator Units	Units / Credit	Credits to Start	Coins / Bill
1	4	1	1	4

• **1 / 3 X 25¢; 2 CREDITS TO START.** Again, assuming quarter slots, here's one way to implement 75¢ pricing... In this scheme, each coin that the player inserts buys one unit. The system exchanges three units for one credit. CREDITS TO START contains the value two. To play, the player must pay for two credits. In this scheme, a dollar buys four units.

Left Slot Units	Validator Units	Units / Credit	Credits to Start	Coins / Bill
1	4	3	2	4

• **2 / 1 COIN; 6 CREDITS TO START.** Now let's consider a more unusual pricing scheme. Here, the player can buy two units with one coin. The system exchanges each of these units for one credit. Notice that CREDITS TO START contains the value six. To play, the player must insert two more coins to pay for six credits. Also notice that if the player pays with a bill, the system throws in an extra unit.

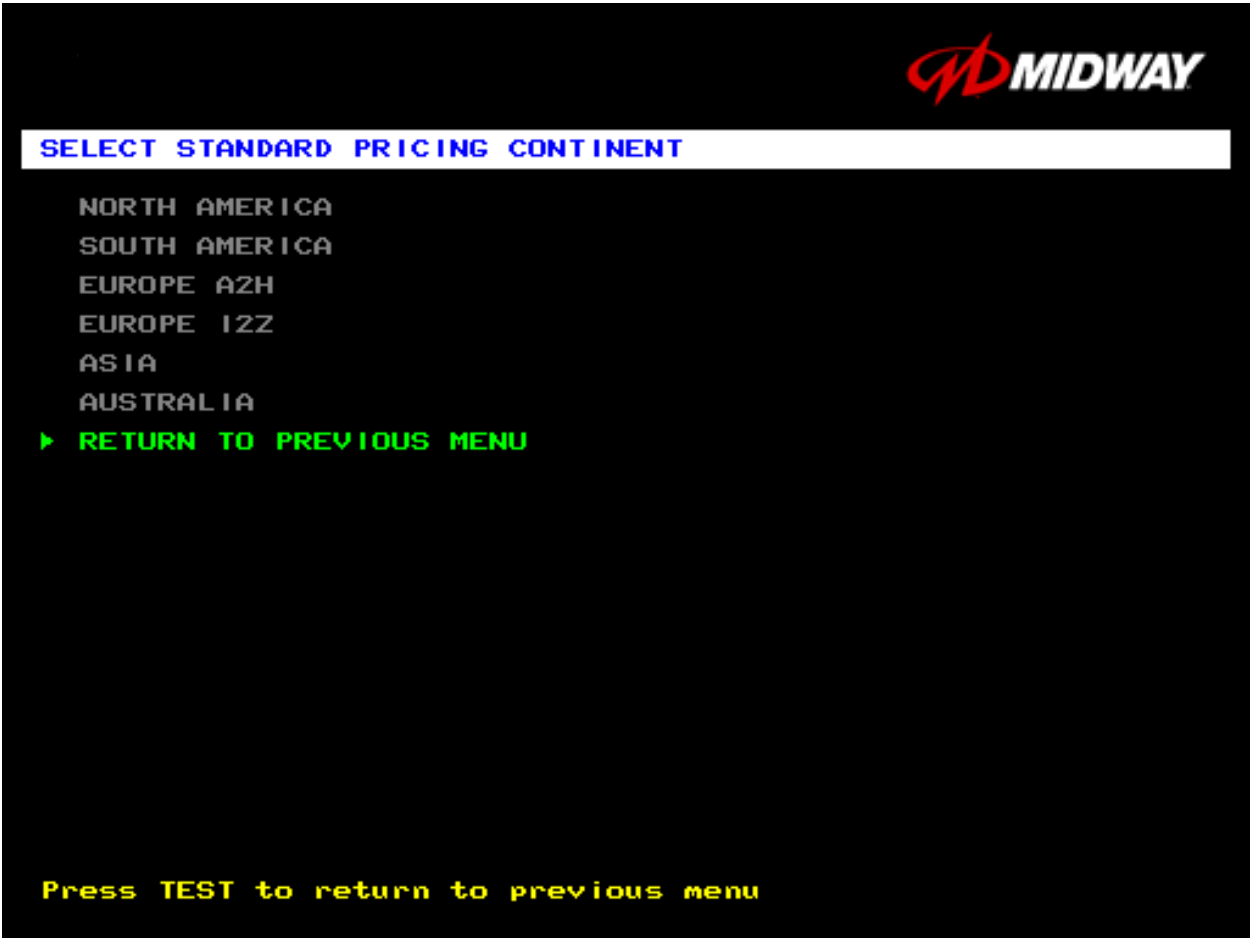
Left Slot Units	Validator Units	Units / Credit	Credits to Start	Coins / Bill
2	9	1	6	4

Operator Menu <i>(continued)</i>
Adjustments Menu <i>(continued)</i>
Pricing Menu <i>(continued)</i>
Select Standard Pricing Continent Menu

SELECT STANDARD PRICING CONTINENT MENU

Choose SELECT STANDARD PRICING at the Pricing Menu. The Select Standard Pricing Continent Menu allows you to choose the continent that you are operating in.

Highlight a line item with the middle two diagnostic buttons inside the coin door. Select the option with the TEST MODE button.



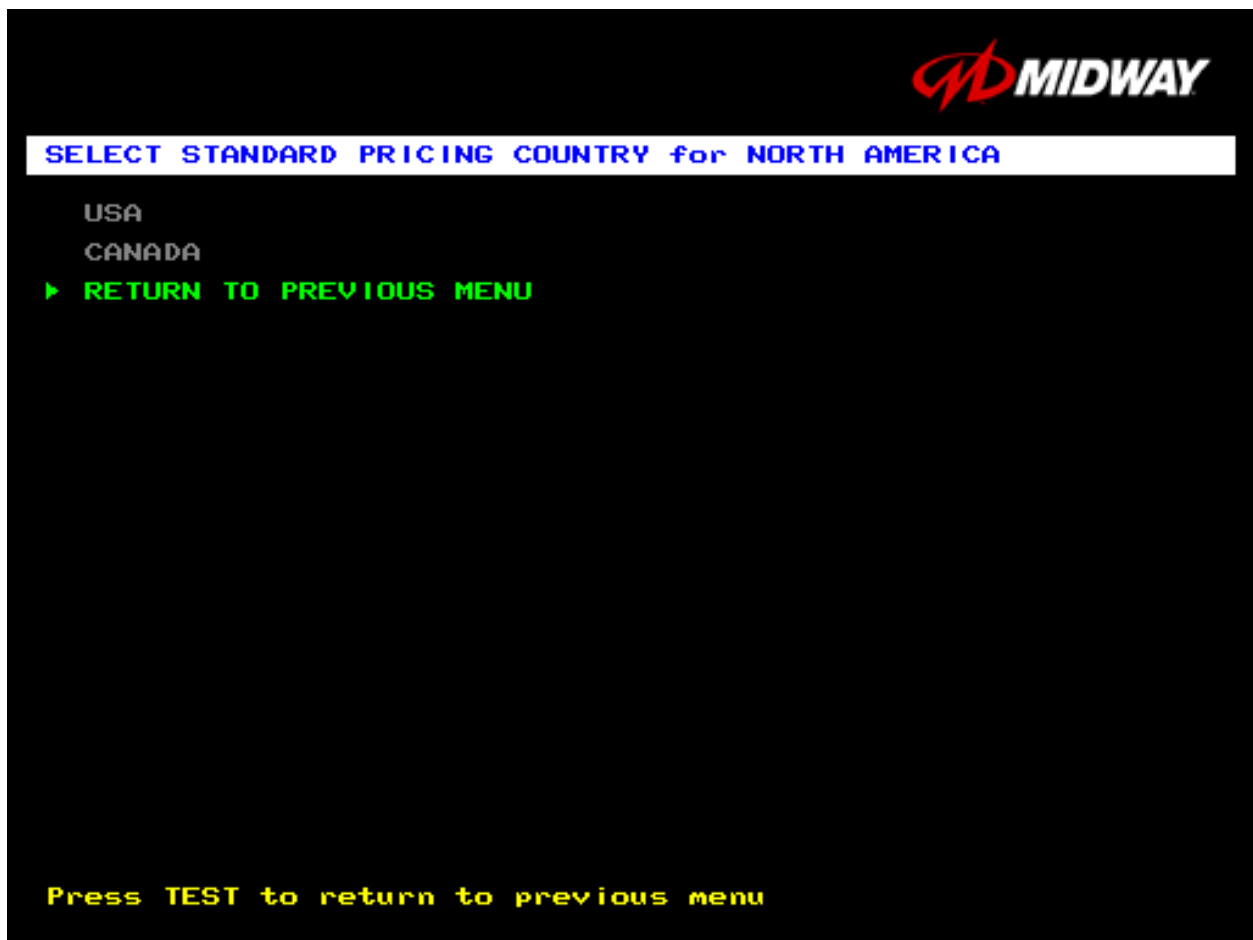
STANDARD PRICING MENU

Operator Menu (continued)
Adjustments Menu (continued)
Pricing Menu (continued)
Select Standard Pricing Continent Menu
Select Standard Pricing Country for North America Menu

SELECT STANDARD PRICING COUNTRY FOR NORTH AMERICA MENU

Choose a continent (NORTH AMERICA, for example) at the Select Standard Pricing Continent Menu. The Select Standard Pricing Country for North America Menu contains options for selecting standard currency combinations. You may use standard pricing schemes as-is, or customize them.

Highlight a line item with the middle two diagnostic buttons inside the coin door. Select the option with the TEST MODE button.



TYPICAL SELECT STANDARD PRICING FOR NORTH AMERICA MENU

Operator Menu (continued)
Adjustments Menu (continued)
Pricing Menu (continued)
Select Standard Pricing Continent Menu (continued)
Select Standard Pricing Country for North America Menu (cont'd)
Select Standard Pricing Table for USA Menu (cont'd)

SELECT STANDARD PRICING MENU

Suppose that you want to set U.S. pricing. Choose USA at the menu entitled Select Standard Pricing Country for North America. This menu contains options for selecting standard U.S. currency combinations.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Then press TEST MODE to save changes and exit the variable.



TYPICAL VIEW CURRENT PRICING DISPLAY

STANDARD PRICING TABLE

NAME	START	CONTINUE	CREDITS/COIN	COIN 1	COIN 2	COIN 3	COIN4	BILL
ANTILLES	2	2	1/25¢, 4/1G	.25¢	1G			
AUSTRALIA 1	2	2	1/3X20¢, 2/\$1.00	.20¢	\$1.00			
AUSTRALIA 2	2	2	1/5X20¢, 1/\$1.00	.20¢	\$1.00			
AUSTRIA 1	2	2	1/5Sch, 2/10Sch	5 Sch	10 Sch			
AUSTRIA 2	2	2	1/2X5Sch, 3/2X10Sch	5 Sch	10 Sch			
BELGIUM 1	2	2	1/20BF	20BF	20BF			
BELGIUM 2	2	2	3/20BF	20BF	20BF			
BELGIUM 3	2	2	2/20BF	20BF	20BF			
BELGIUM ECA	2	2	1/20BF	50BF	20BF	5BF		
CANADA 1	2	2	1 / 2 x 25¢, 3 / \$1	25¢	25¢			
CANADA 2	2	2	1 / 2 x 25¢, 3 / \$1	25¢	\$1.00			
CANADA 3	2	2	3 / \$1.00, 6 / \$2.00	\$1.00	\$2.00			
CANADA ECA	2	2	1 / 2 x 25¢, 3 / \$1	25¢		\$1.00	\$2.00	
DENMARK	2	2	3/5DKr, 7/10DKr	5DKr	10DKr			
FINLAND	2	2	1/1Fmk	1Fmk	5Fmk			
FRANCE 1	2	2	2/5Fr, 5/10Fr	5Fr	10Fr			
FRANCE 2	2	1	2/5Fr, 4/10Fr	5Fr	10Fr			
FRANCE 3	2	1	1/5Fr, 3/10Fr	5Fr	10Fr			
FRANCE 4	2	1	1/5Fr, 2/10Fr	5Fr	10Fr			
FRANCE 5	2	1	2/5Fr, 5/10Fr, 11/2 X 10Fr	5Fr	10Fr			
FRANCE 6	2	1	2/5Fr, 4/10Fr, 9/2 X 10Fr	5Fr	10Fr			
FRANCE 7	2	1	1/5Fr, 3/10Fr, 7/2 X 10Fr	5Fr	10Fr			
FRANCE 8	2	1	1/5Fr, 2/10Fr, 5/2 X 10Fr	5Fr	10Fr			
FRANCE 9	2	1	1/3 X 1Fr, 2/5Fr	1Fr	5Fr			
FRANCE 10	2	1	1/2 X 1Fr, 3/5Fr	1Fr	5Fr			
FRANCE 11	2	1	1/3 X 1Fr, 2/5Fr, 5/2 X 5Fr	1Fr	5Fr			
FRANCE 12	2	1	1/2 X 1Fr, 3/5Fr, 7/2 X 5Fr	1Fr	5Fr			
FRANCE ECA 1	1	1	2/5Fr, 5/10Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 2	1	1	2/5Fr, 4/10Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 3	1	1	1/5Fr, 3/10Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 4	1	1	1/5Fr, 2/10Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 5	1	1	2/5Fr, 5/10Fr, 11/2 X 10Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 6	1	1	2/5Fr, 4/10Fr, 9/2 X 10Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 7	1	1	1/5Fr, 3/10Fr, 7/2 X 10Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 8	1	1	1/5Fr, 2/10Fr, 5/2 X 10Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 9	1	1	1/3 X 1Fr, 2/5Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 10	1	1	1/2 X 1Fr, 3/5Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 11	1	1	1/3 X 1Fr, 2/5Fr, 5/10Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 12	1	1	1/2 X 1Fr, 3/5Fr, 7/10Fr	1Fr	5Fr	10Fr	20Fr	
FRANCE ECA 13	1	1	1/10Fr, 2/20Fr, 4/30Fr	1Fr	5Fr	10Fr	20Fr	
FREE PLAY	--	--	--	None	None	None	None	None
GERMANY 1	2	2	1/1DM, 6/5DM	1DM	5DM			
GERMANY 2	2	1	1/1DM, 7/5DM	1DM	5DM			
GERMANY 3	2	1	1/1DM, 8/5DM	1DM	5DM			
GERMANY 4	2	1	1/1DM, 5/5DM	1DM	5DM			
GERMANY 5	2	1	1/1DM, 6/5DM	1DM	5DM			
GERMANY ECA 1	2	2	1/1DM, 2/2DM, 6/5DM	1DM	2DM	5DM		
GERMANY ECA 2	2	1	1/1DM, 2/2DM, 6/5DM	1DM	2DM	5DM		
GERMANY ECA 3	1	1	1/1DM, 2/2DM, 6/5DM	1DM	2DM	5DM		
HUNGARY	2	2	1/2X10Ft, 3/2X20Ft	10Ft	20Ft			
ITALY	2	2	1/500Lit	500Lit	500Lit			
JAPAN 1	2	2	1/100Yen	100	100			
JAPAN 2	2	2	2/100Yen	100	100			
NETHERLANDS	2	2	1/1HFI, 3/2.5HFI	1HFI	2.5HFI			
NEW ZEALAND 1	1	1	1/\$1	\$1	\$2			
NEW ZEALAND 2	1	1	2/\$1	\$1	\$2			
NORWAY	2	2	3/5Nkr, 6/10Nkr	5Nkr	10Nkr			
SPAIN 1	2	2	1/100Pta, 6/500Pta	100Pta	500Pta			
SPAIN 2	2	2	1/100Pta, 5/500Pta	100Pta	500Pta			
SWEDEN	2	2	1/3X1SKr, 2/5SKr	1SKr	5SKr			
SWITZERLAND 1	2	2	1/1SFr, 6/5SFr	1SFr	5SFr			
SWITZERLAND 2	2	2	1/1SFr, 7/5SFr	1SFr	5SFr			
SWITZERLAND 3	2	2	1/1SFr, 8/5SFr	1SFr	5SFr			

(Table continues on next page)

STANDARD PRICING TABLE, *continued*

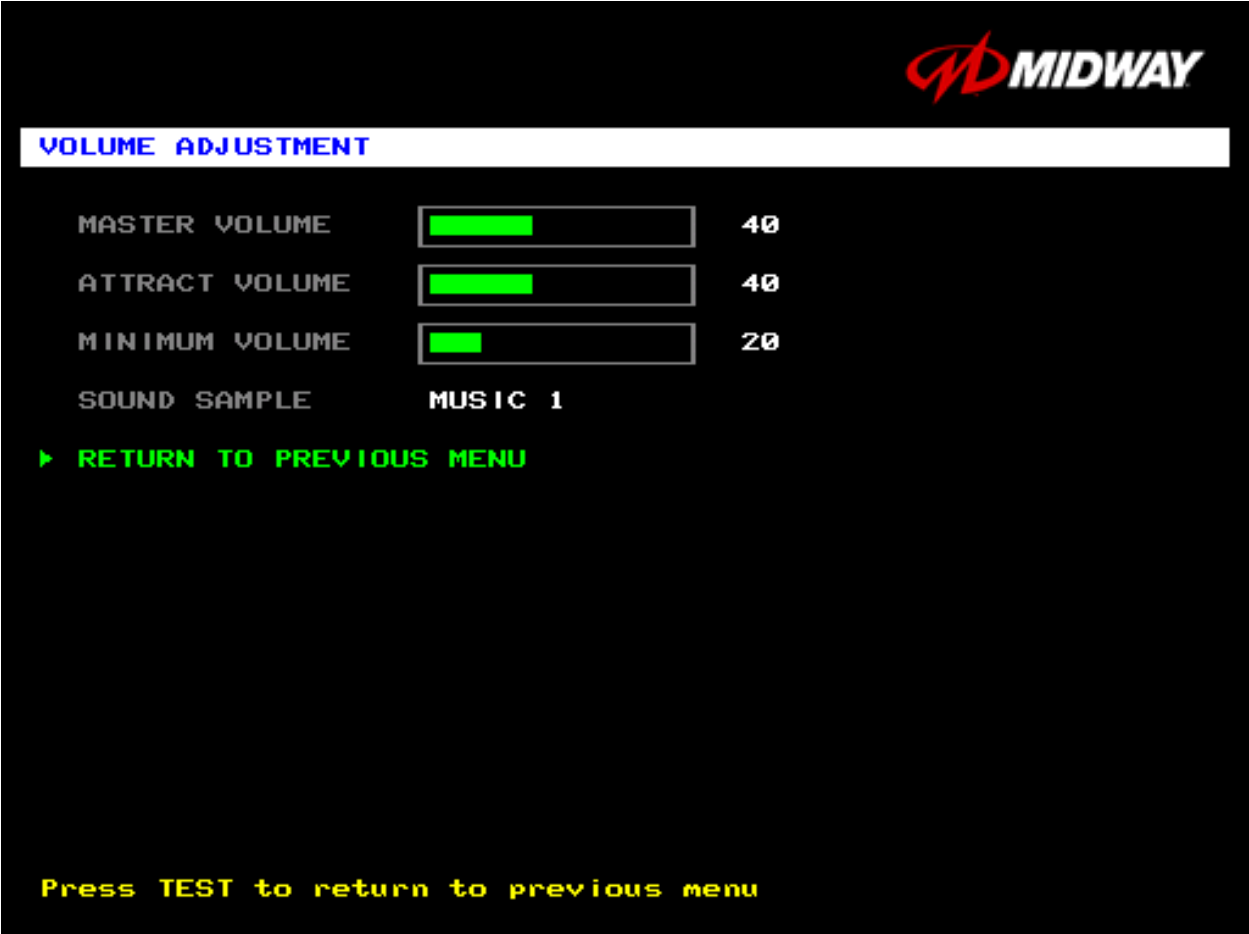
NAME	START	CONTINUE	CREDITS/COIN	COIN 1	COIN 2	COIN 3	COIN4	BILL
UK ECA 1	1	1	1/50p, 3/£1.00	£1.00	50p	20p	10p	£2.00
UK ECA 2	1	1	1/50p, 2/£1.00	£1.00	50p	20p	10p	£2.00
UK ECA 3	1	1	1/30p, 2/50p, 5/£1.00	£1.00	50p	20p	10p	£2.00
UK 4	1	1	1/50p, 3/£1.00	£1.00	50p			
UK 5	1	1	1/50p, 2/£1.00	£1.00	50p			
UK ECA 6	1	1	1/30p, 2/50p, 4/£1.00	£1.00	50p	20p	10p	£2.00
UK ECA 7	1	1	3/£1.00	£1.00	50p	20p	10p	£2.00
UK ECA 8	1	1	1/50p, 2/£1.00, 4/£2.00	£1.00	50p	20p	10p	£2.00
USA1	2	2	1/25¢	25¢	25¢			\$1.00
USA2	2	1	1/25¢	25¢	25¢			\$1.00
USA3	1	1	1/25¢	25¢	25¢			\$1.00
USA4	1	1	1/50¢, 3/\$1.00	25¢	25¢			\$1.00
USA5	2	1	1/50¢, 4/\$1.00	25¢	25¢			\$1.00
USA6	1	1	1/50¢	25¢	25¢			\$1.00
USA7	1	1	1/50¢, 3/\$1.00	25¢	25¢			\$1.00
USA8	2	2	1/50¢, 4/\$1.00	25¢	25¢			\$1.00
USA9	3	2	1/25¢, 4/\$1.00	25¢	25¢			\$1.00
USA10	3	3	1/25¢, 4/\$1.00	25¢	25¢			\$1.00
USA11	4	2	1/25¢, 4/\$1.00	25¢	25¢			\$1.00
USA12	4	3	1/25¢, 4/\$1.00	25¢	25¢			\$1.00
USA13	4	4	1/25¢, 4/\$1.00	25¢	25¢			\$1.00
USA ECA	3	3	1/25¢, 4/\$1.00	\$1.00	25¢	10¢	05¢	\$1.00

Operator Menu (continued)
Adjustments Menu (continued)
Volume Adjustment Menu



VOLUME ADJUSTMENT MENU

Select VOLUME ADJUSTMENT at the Adjustments Menu. (You can also access this menu from the Operator Menu.) The Volume Adjustment Menu allows you to adjust relative sound volume levels.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Then press TEST MODE to save changes and exit the variable.



VOLUME ADJUSTMENT MENU

	<p>NOTICE: The Master Volume setting affects all other volume adjustments. You can still alter Attract sounds in relation to normal game sound. For example, suppose that you set Attract Mode volume to 50%. Then Attract Mode sounds are half as loud as normal game sounds.</p>
	<p>NOTICE: Check the Master Volume setting before testing. Increase Master Volume to fully test speakers. Restore Master Volume to its previous level before returning to Game-Over Mode.</p>

MASTER VOLUME sets the overall volume level during game play. This value simultaneously affects all other sound settings. The range is 1 to 100%. The factory default is 60%.

ATTRACT VOLUME adjusts the Attract Mode sound level only when you turn on Attract Mode. The Attract Mode sound level is independent of game audio levels. The Attract Volume range is 1 to 100%. The factory default is 50%.

MINIMUM VOLUME sets the quietest sound level during game play. The range is 1 to 100%. The factory default is 20%.

To exit the Volume Adjustment Menu, highlight RETURN TO PREVIOUS MENU. Then press TEST MODE.

Operator Menu (continued)

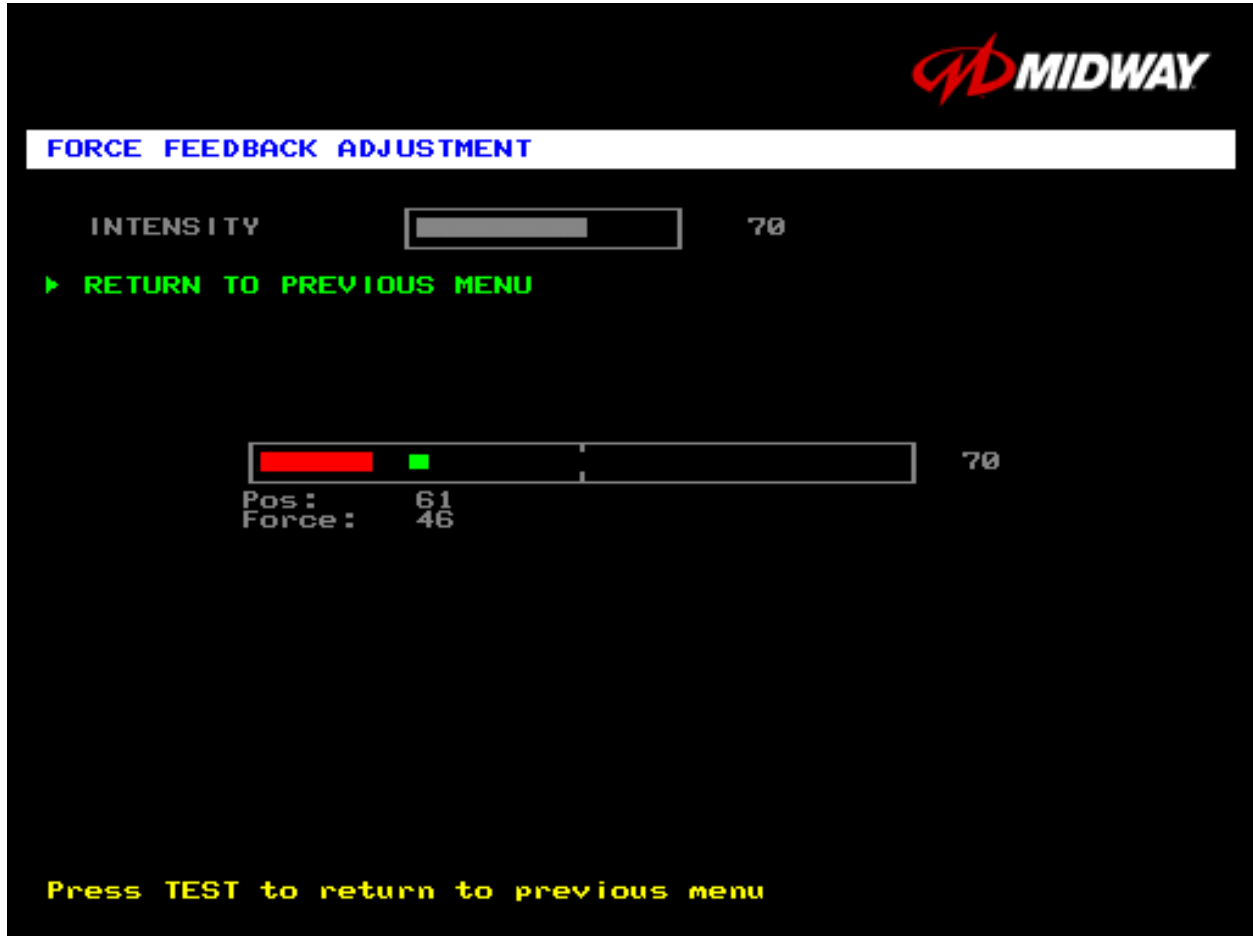
Adjustments Menu (continued)

Force Feedback Adjustment Menu

FORCE FEEDBACK ADJUSTMENT

Select FORCE FEEDBACK ADJUSTMENT MENU at the Adjustments Menu. The Force Feedback Adjustment Menu allows you to alter the intensity of steering wheel feedback.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Then press TEST MODE to save changes and exit the variable.



FORCE FEEDBACK ADJUSTMENT MENU

THE INTENSITY ADJUSTMENT ranges from 0% (minimum) to 100% (maximum). The factory default setting is 60%. If players have superior upper body strength, apply greater force. Younger players may be more comfortable with smaller force settings.

THE FORCE FEEDBACK CENTER TEST checks operation of steering wheel motor drive circuits. Select this option and move the steering wheel to any position. As soon as you release the wheel, it must automatically return to its center position. If it doesn't, then the vehicle won't respond properly.

Operator Menu (continued)

Adjustments Menu (continued)

Calibrate Steering, Gas and Brake Menu

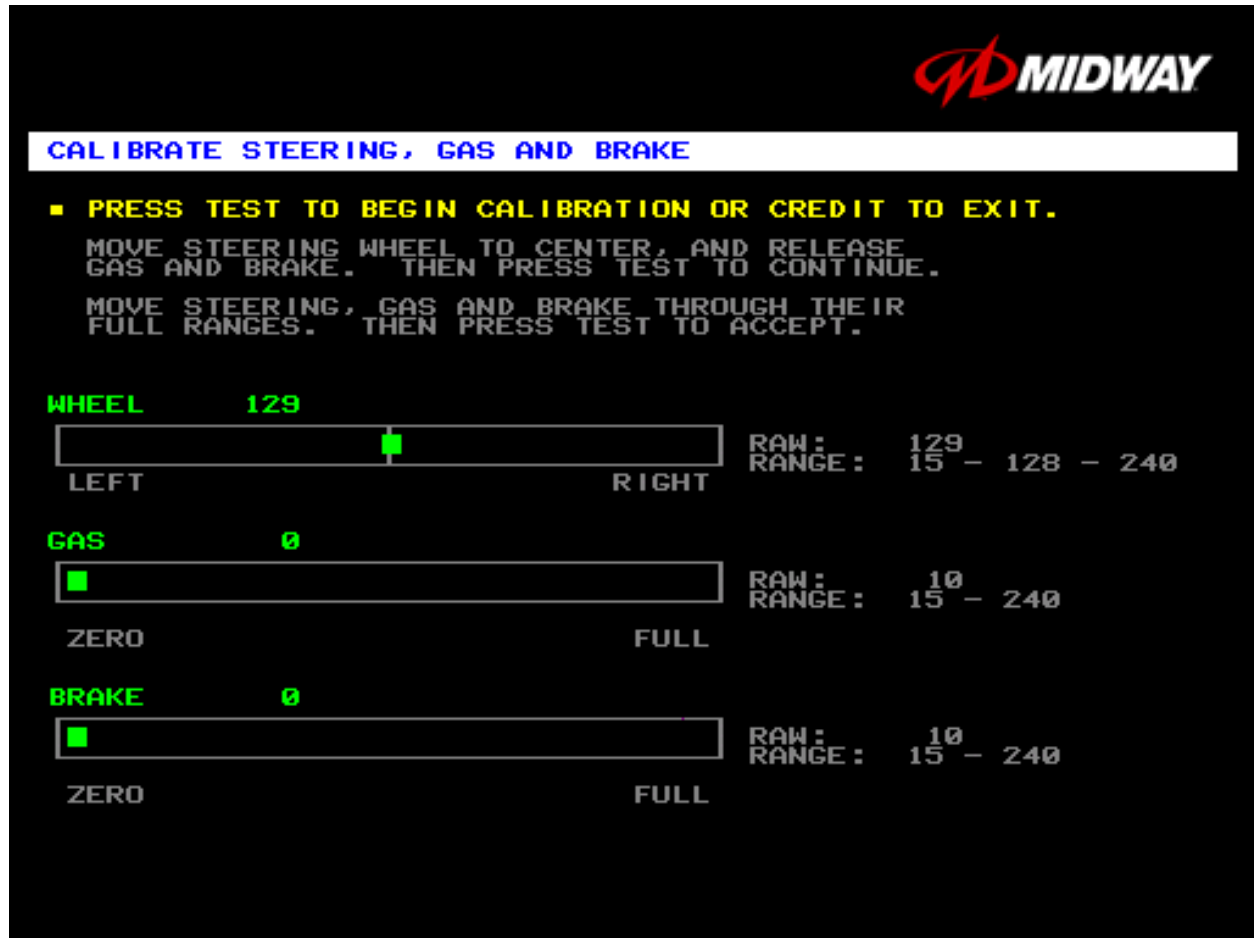
CALIBRATE STEERING, GAS AND BRAKE

Select CALIBRATE STEERING, GAS AND BRAKE at the Adjustments Menu. (You can also access this menu from the Operator Menu.) This option allows you to set steering and throttle mechanisms for optimum control during game play. Poorly calibrated player controls can reduce profits.



NOTICE: Before calibrating player control switches, make needed repairs to the game. If you plan to move the game, move it before calibrating player control switches.

To set up each calibration procedure, follow screen directions. Press TEST MODE to begin the procedure.



STEERING, GAS AND BRAKE CALIBRATION SCREEN

The steering wheel, brake and gas pedal couple to potentiometers. These potentiometers output DC voltages between zero and five volts. Game electronics digitize this analog output into an eight-bit (256-value), numeric stream.

Watch the numbers on the calibration screen. These numbers vary to indicate a control's position within that control's range of motion. For instance, steering straight ahead produces a number halfway between the left and right steering limits. To accurately simulate steering, numbers must change sequentially.

Operator Menu (continued)

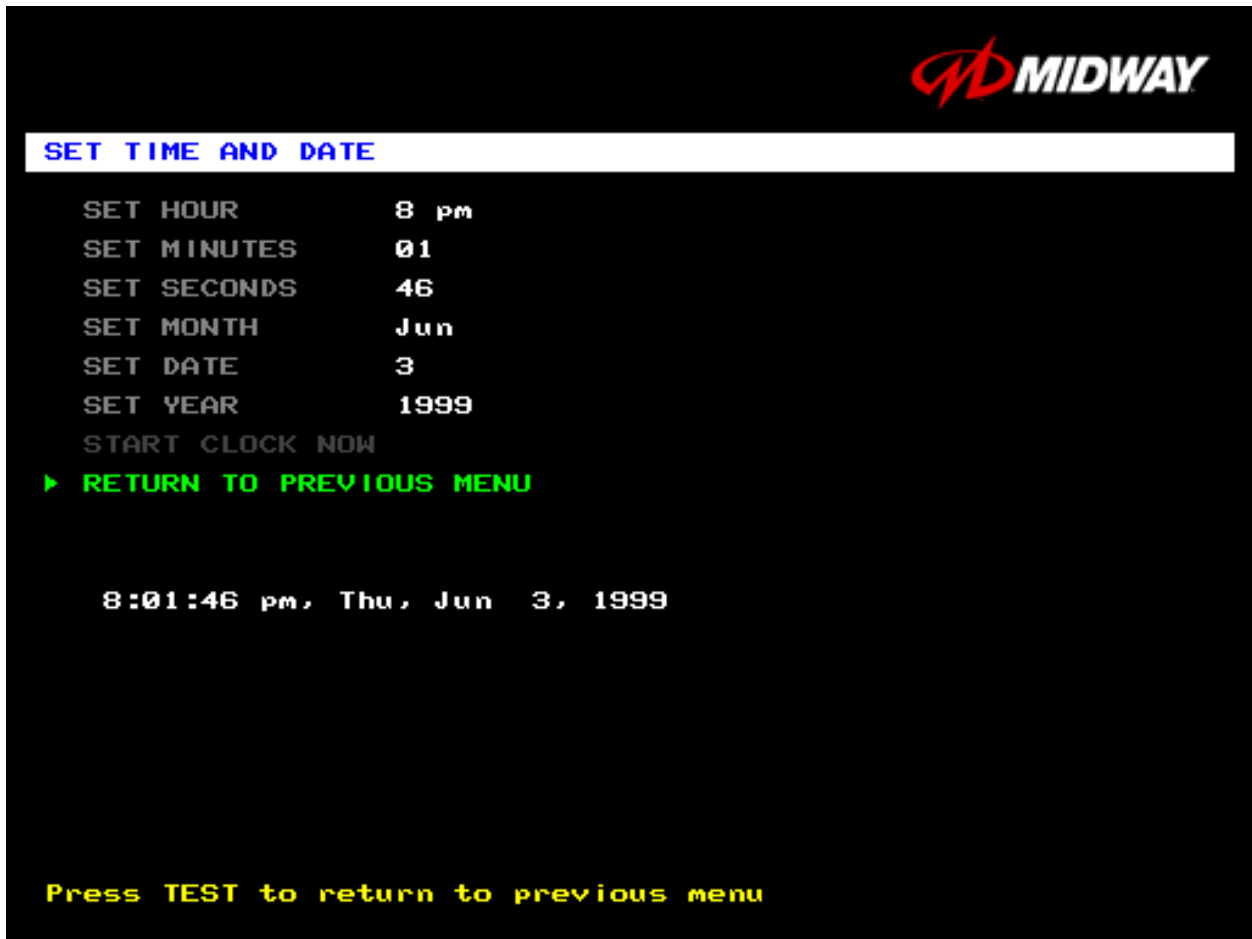
Adjustments Menu (continued)

Set Time and Date Menu

SET THE TIME AND DATE

Select SET TIME AND DATE at the Adjustments Menu. The Set Time and Date Menu provides the current date and time for the game. This screen also allows clock adjustments for time zone changes and seasonal time changes.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Then press TEST MODE to save changes and exit the variable.



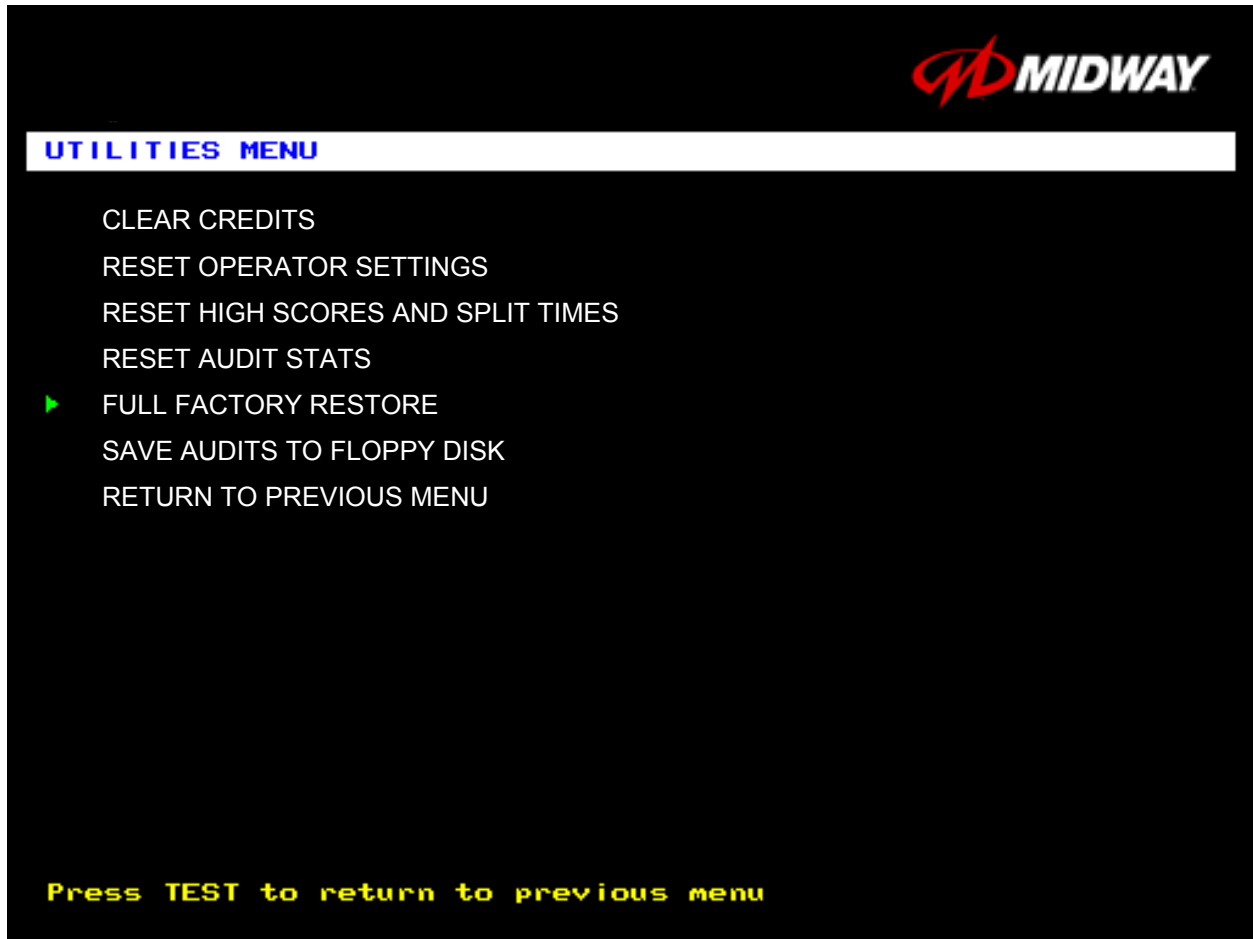
SET TIME AND DATE MENU

The clock assists in providing accurate game statistics. It doesn't affect game operation. When the circuit board isn't receiving external power, the clock runs until the battery fails.

UTILITIES MENU

Select UTILITIES MENU at the Operator Menu. The Game Utilities Menu permits you to clear game credits, player statistics, and game audits. Here, you restore game settings to factory defaults or save audit data. A confirmation screen appears before you finalize changes.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Then press TEST MODE to save changes and exit the variable.



UTILITIES MENU

CLEAR CREDITS zeros all credit variables.

RESET OPERATOR SETTINGS returns Adjustments Menu variables to factory default values.

RESET HIGH SCORES AND SPLIT TIMES overwrites the player high scores with factory default data.

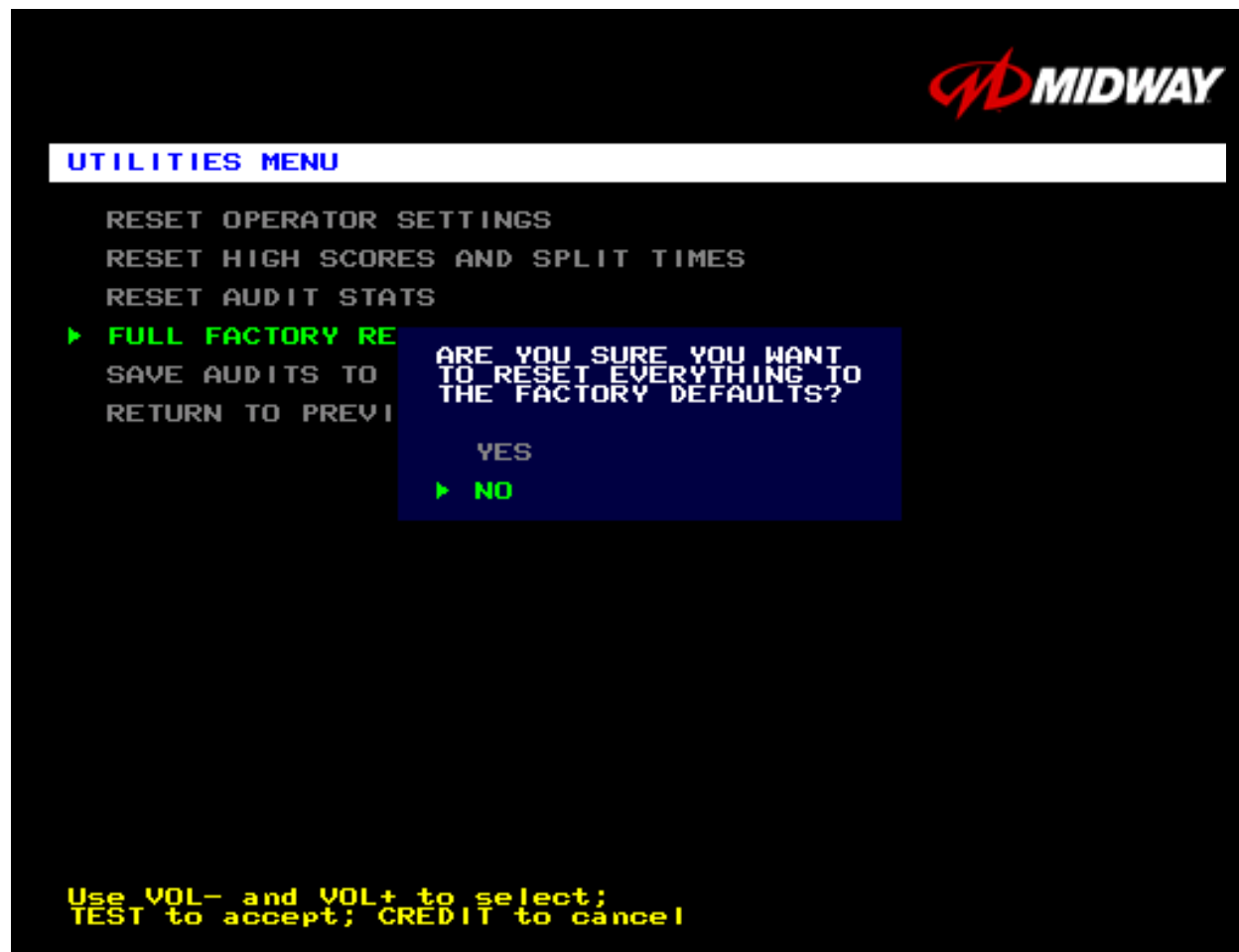
RESET AUDIT STATS zeros track and truck audit values.

FULL FACTORY RESTORE resets all variables above to factory default values. A confirmation screen appears before you finalize changes.

SAVE AUDITS TO FLOPPY DISK allows you to copy game data to a disk. Comparing audit data over time demonstrates the effect of game variable changes on profits. Use a formatted, 1.44MB high-density diskette. The floppy drive is in the CPU cabinet.



NOTICE: Be careful when clearing audit information. Once you clear data, you can't restore it. Use the Save Audits to Floppy Disk option to save data for analysis. To clear audit registers, use the Reset or Full Factory Restore functions.



A CONFIRMATION SCREEN APPEARS BEFORE YOU FINALIZE CHANGES

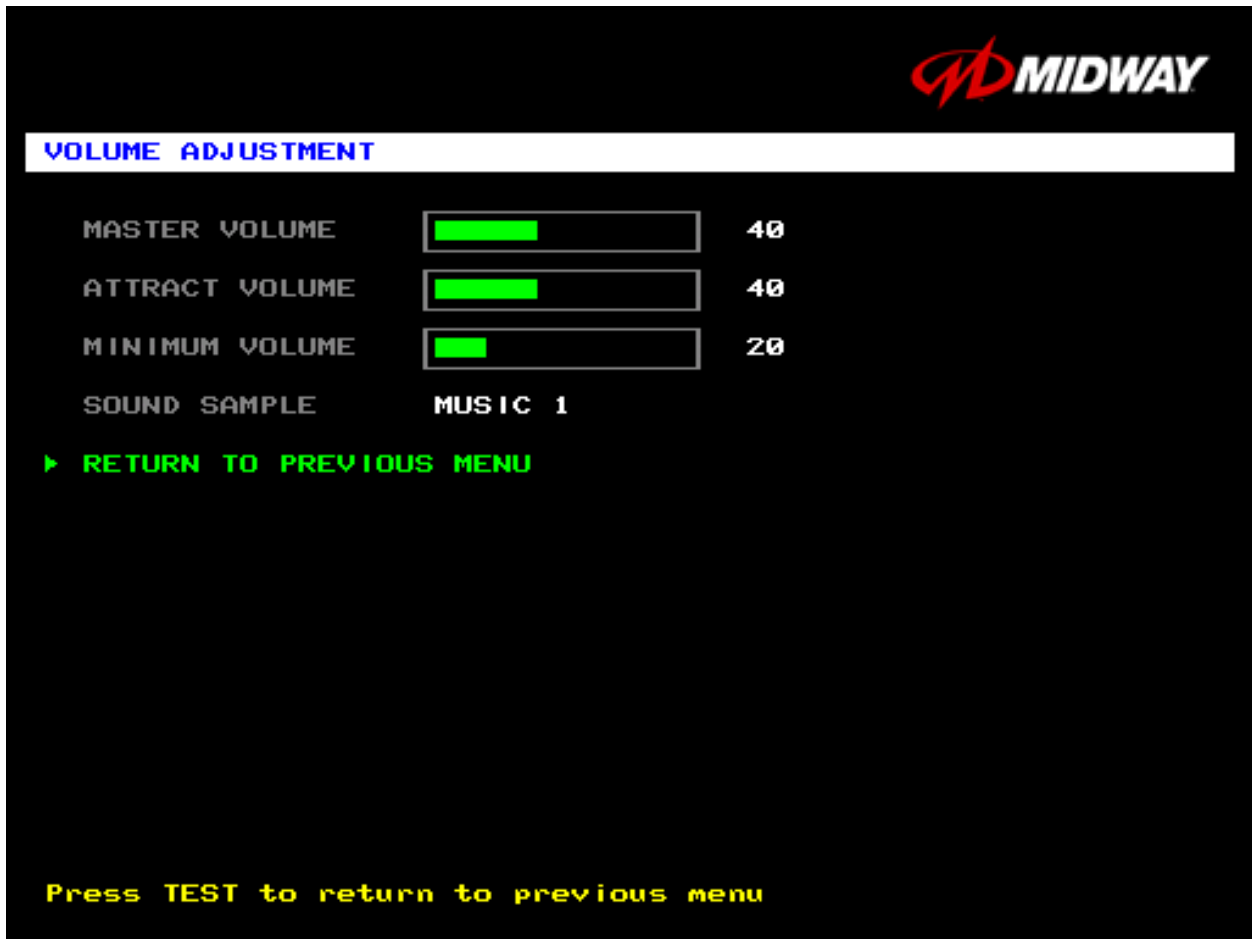
Operator Menu (continued)

Volume Adjustment Menu



VOLUME ADJUSTMENT MENU

Select VOLUME ADJUSTMENT at the Operator Menu. (You can also access this menu from the Adjustments Menu.) The Volume Adjustment Menu allows you to adjust relative sound loudness levels.

Highlight an option with the middle two diagnostic buttons inside the coin door. Press TEST MODE to enter Change Mode. Use the diagnostic switches to change the variable. Then press TEST MODE to save changes and exit the variable.



VOLUME ADJUSTMENT MENU

	NOTICE: The Master Volume setting affects all other volume adjustments. You can still alter Attract sounds in relation to normal game sound. For example, suppose that you set Attract Mode volume to 50%. Then Attract Mode sounds are half as loud as normal game sounds.
	NOTICE: Check the Master Volume setting before testing. Increase Master Volume to fully test speakers. Restore Master Volume to its previous level before returning to Game-Over Mode.

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To exit the Volume Adjustment Menu, highlight RETURN TO PREVIOUS MENU. Then press TEST MODE.

Operator Menu (continued)

Calibrate Steering, Gas and Brake Menu

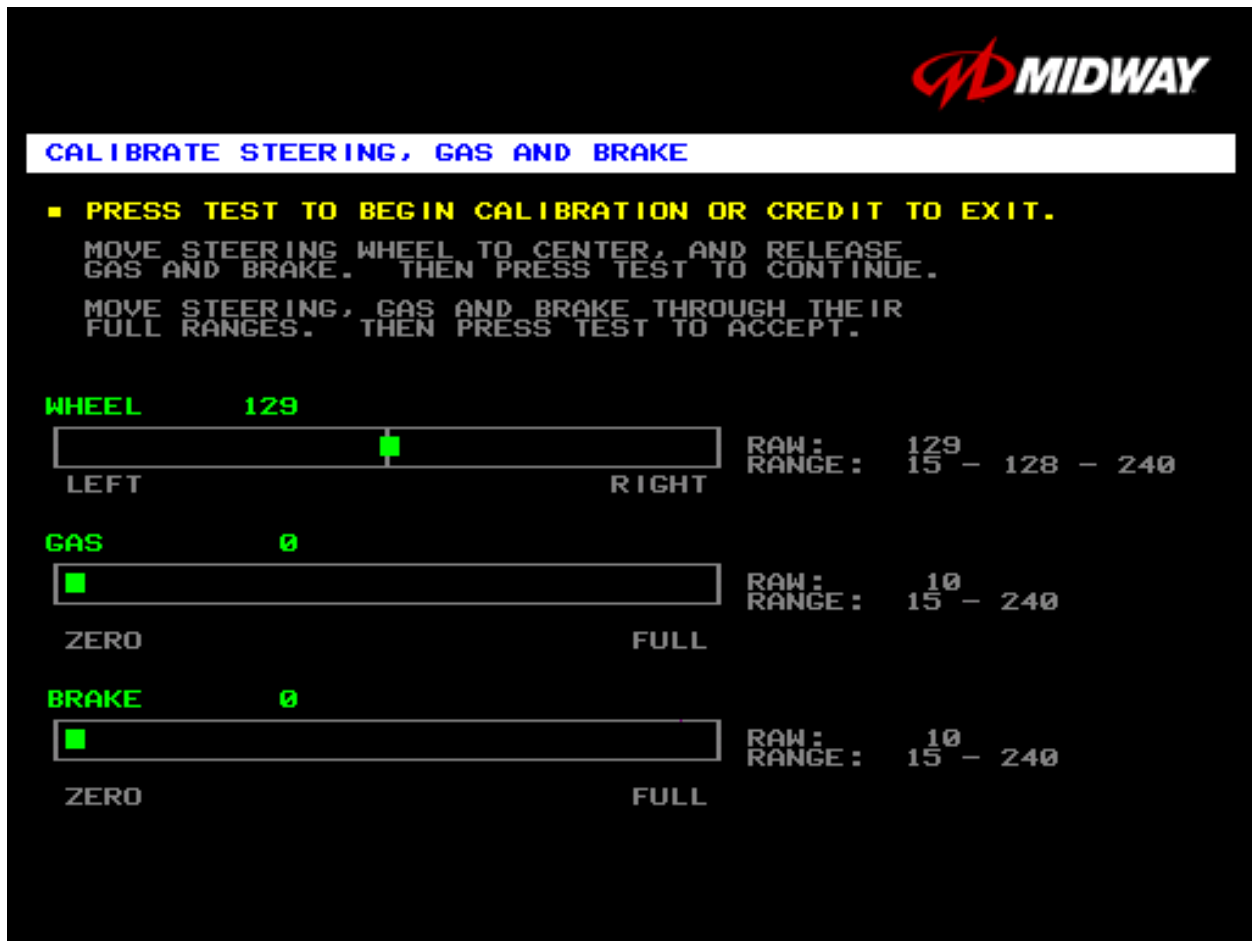
CALIBRATE STEERING, GAS AND BRAKE

Select CALIBRATE STEERING, GAS AND BRAKE at the Operator Menu. (You can also access this menu from the Adjustments Menu.) This option allows you to set steering and throttle mechanisms for optimum control during game play. Poorly calibrated player controls can reduce profits.



NOTICE: Before calibrating player control switches, make needed repairs to the game. If you plan to move the game, move it before calibrating player control switches.

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Watch the numbers on the calibration screen. These numbers vary to indicate a control's position within that control's range of motion. For instance, steering straight ahead produces a number halfway between the left and right steering limits. To accurately simulate steering, numbers must change sequentially.

