

CHAPTER TWO

Adjustment, Diagnostic & Audit Menus

ADJUSTMENT, DIAGNOSTIC & AUDIT MENUS

MENU SYSTEM

WHAT IS THE MENU SYSTEM?

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

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

ACCESSING THE MENU SYSTEM

Open the coin door. Locate and press the TEST MODE switch. The game system will exit game Attract Mode and enter Diagnostic Mode. The system runs a brief self-test, and then displays the Main Menu. The Main Menu is the opening screen of the Menu System.

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

C.A.R.T. MAIN MENU	
DIAGNOSTICS AUDITS ADJUSTMENTS VOLUME LEVEL CONTROL CALIBRATION UTILITIES EXIT	

TYPICAL MAIN MENU SCREEN

MENU LAYOUT

Observe that each menu screen basically uses the same layout. The game ID, Serial Number, and Date of Manufacture will appear on most of the menu screens. These numbers will be helpful to factory personnel when referring to your game for parts or service.

- The block at the top of each screen displays the current menu title.
- Data, such as menu items and video reports, etc., appears in the center of the screen.
- Messages, for example explanations and active control functions, etc., appear at the bottom of the screen.

MENU NAVIGATION TOOLS

Use the operator control buttons located inside the coin door to navigate menus. Press the Volume Up or Volume Down buttons to scroll through the menu options.

Notice the options sequentially become highlighted. Press the Test button to select a highlighted option and access the next menu level. **NOTE:** Only one highlighted option can be selected at a time.

To return to play mode, select Exit and press the Test button while in the Main Menu screen.

Main Menu, continued	
Diagnostics Menu	

DIAGNOSTIC MENU

To verify the condition of the electrical and electronic hardware in the game, select Diagnostics Menu at the Main Menu. Diagnostic tests assist you in checking and adjusting the game's major systems. It is important to periodically run diagnostics to improve and maintain game performance and player satisfaction.



Use the Volume Up or Volume Down button to highlight the desired Diagnostic Menu option and press the Test button to enter.

Main Menu

Diagnostic Menu, continued

Monitor Setup

MONITOR SET-UP

To verify color clarity of the monitor, select MONITOR SETUP at the Main Menu.

Use the Volume Up or Volume Down button to highlight the desired monitor setting and press the Test button. Watch for the following results on-screen during this test.

MONITOR SET-UP	
COLOR BARS CROSS HATCH RED SCREEN BLUE SCREEN GREEN SCREEN WHITE SCREEN BLACK SCREEN 50% GRAY SCREEN 25% GRAY SCREEN EXIT	

Main Menu	
Diagnostic Menu, continued	
Monitor Setup, continued	

COLOR BARS. Observe 4 color bars in different shades appear on-screen as aids in adjusting the green, blue, and red color levels. Each color should appear sharp and clear. Check video brightness and contrast.

The **CROSSHATCH PATTERNS** test fills the screen with a series of dots within a grid. Observe the dots are perfectly round and that both the grid and dots are clear. Inspect monitor convergence, linearity, and screen size.

The single color screens, **RED SCREEN**, **BLUE SCREEN**, **GREEN SCREEN**, etc., fills the screen with a single color to be observed for complete saturation and clarity.

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

Main Menu	
Diagnostic Menu, continued	
System Information	

SYSTEM INFORMATION

To verify game serial number and date code select System Information at the Main Menu. Use the Start button or Test button to exit this menu screen.

SYSTEM INFORMATION
MIDWAY AMUSEMENT GAMES, LLC
MC VEGAS SYS SERIAL NUMBER 022373 GAME: XXX DATE OF MANUFACTURE:09/09/99
PRESS START TO EXIT
TYPICAL SYSTEM INFORMATION SCREEN

Main Menu

Diagnostic Menu, continued

Sound Subsystem Test

SOUND SUBSYSTEM TEST

To Verify proper operation of the sound electronics select Sound Subsystem Test at the Main Menu. Observe the following information on the screen.

Diagnostic Menu, continued

Sound Subsystem Test, continued



Main Menu

Diagnostic Menu, continued

Disk Tests Menu

DISK TESTS

To verify hard disk drive information and perform tests, select Disk Test at the Main Menu. Use the Volume Up and Volume Down buttons to highlight an item. Use the Test or Start button to select an item.

DISK TESTS	
DISK INFORMATION SEQUENTIAL READ SEQUENTIAL CACHE READ RANDOM READ DATA INTEGRITY TEST FILE SYSTEM CHECK SURFACE SCAN EXIT	

Select **DISK INFORMATION** to learn information about the IDE disk drive.

Select **SEQUENTIAL READ** to view the sequential sector read without the cache.

Select **SEQUENTIAL CACHE READ** to view the sequential sector read with the cache.

Select **RANDOM READ** to view the random sector read without the cache.

Select **RANDOM CACHE READ** to view the random sector read with the cache.

Select DATA INTEGRITY TEST to perform a disk data integrity test.

Select FILE SYSTEM CHECK to test the integrity of files on the disk.

Select **SURFACE SCAN** to perform a scan of the disk's surface.

Diagnostic Menu, continued

Switch Tests Menu

SWITCH TESTS

To verify proper operation of switch and button inputs in the game, select Switch Test at the Main Menu.

	SWITCH TESTS			
VIEW 1 X	LEFT COIN X RIGHT COIN X P1 START X SLAM TILT X TEST X			
VIEW 3 X BOOST X	SERVICE CREDIT X CENTER COIN X EXTRA COIN X			
GEAR 1 X GEAR 2 X GEAR 3 X	VOL DOWN X VOL UP X			
GEAR 4 X	BILL VALID. X			
PRESS VIEW 1 AND VIEW 2 TO EXIT				

Use the Volume Up or Volume Down button to highlight the Switch Test option and press the Test button to access it. Press any switch on the control panel or coin door to cause the corresponding indicator on the screen to illuminate. Each illuminated square represents one completed switch circuit.

Main Menu Diagnostic Menu, continued DIP Switch Test

DIP SWITCH TEST

To verify the functionality of both 8-position DIP switches on the CPU Board, select DIP SWITCH TEST at the Main Menu. Observe immediate on-screen results by changing the setting on a switch.

Use the Volume Up or Volume Down button to highlight the DIP Switch Test option and press the Test button to access it. The current settings appear on-screen. Consult the table on the next page to determine if changes are required. The default switch positions are all OFF for standard operation.

A vertical bar next to the switch position column indicates a common switch function.

Diagnostic Menu, continued

DIP Switch Test, continued



TYPICAL DIP SWITCH SCREEN

Setting Table for DIP Switch U13

FUNCTION	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
DIP COINAGE CMOS COINAGE	OFF ON*							
USA 13 GER1 FR ECA1 UK1 ECA USA 11 GER2 FR ECA2 UK2 ECA USA 10 GER3 FR ECA3 UK3 ECA USA 1 GER4 FR ECA4 UK4 USA DC8 GER5 FR ECA5 UK5 USA DC6 GER ECA1 FR ECA6 UK6 ECA USA DC5 GER ECA2FR ECA7 UK7 ECA USA DC1 GER ECA3 FR ECA8 FREE PLAY (UK)		OFF* ON OFF ON OFF ON OFF ON	OFF OFF OFF OFF OFF OFF OFF OFF OFF OFF	OFF* OFF OFF ON ON ON ON ON				
USA FRANCE GERMANY UK**					OFF* ON OFF ON	OFF* OFF ON ON		

DIP SWITCH SETTING FOR COINAGE

There are many ways to select the type and quantity of currency recognized by the game machine.

- 1. The most common coin combinations for several countries are pre-programmed and may be selected from the table when Standard Pricing is activated (see Game Adjustments).
- 2. DIP Switch settings may be changed with the power switched on. Set any switch and then observe the screen to verify that the desired selection is enabled. **NOTE:** If CMOS Coin Settings are active, switch settings for an individual Country will have no effect.
- 3. Some European countries may accept currency used in other countries. The most popular coinage settings are listed beneath in the Pricing Table.

Diagnostic Menu, continued

DIP Switch Test, continued

Setting Table for DIP Switch U12

(Factory default settings in boldface type)

FUNCTION	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
UNUSED	OFF ON							
UNUSED		OFF ON						
UNUSED			OFF ON					
UNUSED				OFF ON				
UNUSED					OFF ON			
BRAKE ENABLED BRAKE DISABLED						OFF ON		
UNUSED							OFF ON	
GAME MODE TEST MODE								OFF ON

Main Menu

Diagnostic Menu, continued

Lamp and LED Tests

LAMP & LED TESTS

To verify the proper operation of lamps and LED's, select the LAMP & LED TESTS at the Main Menu.

Use the Volume Up or Volume Down button to highlight Lamp & LED Test and press the Test button. During the test observe the selected lamp(s) switches turn on or off when the corresponding selection is made.

Diagnostic Menu, continued

Lamp and LED Tests, continued

Lamp Tests

LAMP TESTS

To detect intermittent or faulty incandescent bulbs, select LAMP TEST at the Main Menu. This test ensures that the incandescent bulbs critical to game operation function properly.

_	
	LAMP TEST
	PRESS VIEW 1 TO LIGHT PREVIOUS LAMP PRESS VIEW 2 TO LIGHT NEXT LAMP PRESS VIEW 3 TO LIGHT ALL LAMPS
	START LAMP OFF VIEW 1 LAMP OFF VIEW 2 LAMP OFF VIEW 3 LAMP OFF BOOST LAMP OFF
	PRESS TEST OR START TO EXIT

Use the Volume Up or Volume Down button to highlight Lamp Test and press the Test button. During the test observe the Lamp(s) turn ON according to the option selected.

Main Menu

Diagnostic Menu, continued

Lamp and LED Tests, continued

LED Tests

LED TESTS

To verify that the LED's function properly, select LED TEST at the Main Menu. This test allows you to control and test the illumination of the LED's located on the dash PCB.

LED DISPLAY TESTS
ALL LED'S ON THE DISPLAY SHOULD BE ON
PRESS TEST OR START TO EXIT

Use the Volume Up or Volume Down button to highlight LED Test and press the Test button. During the test observe the LED's turn ON.

Diagnostic Menu, continued

Wheel Feedback Test

WHEEL FEEDBACK TEST

To verify the proper directional movement of the steering wheel, select Wheel Feedback Test at the Main Menu. Make sure hands and other objects are clear of the steering wheel when this test is selected because the steering wheel automatically rotates on its own.

Use the Volume Up or Volume Down button to highlight Wheel Feedback Test and press the Test button.

WHEEL FEEDBACK TEST

CAUTION: WHEEL IN MOTION

PRESS VIEW 1 TO START TEST

PRESS TEST OR START TO EXIT

Observe and follow the on-screen instructions for conducting the test. During the test observe the steering wheel is turned automatically. Upon completion of the test, the message TEST COMPLETE appears on-screen. Press the Test or Start button to exit test once this message appears.

Main Menu Diagnostic Menu, continued Control Test

CONTROL TEST

To verify the presence of steering wheel control, gas pedal and brake pedal control, select Control Test at the Main Menu.

Use the Volume Up or Volume Down button to highlight Control Test and press the Test button. During the test observe the selected control input or switch turns on or off when the corresponding selection is made. **NOTE:** Information regarding the brake pedal will not appear if DIP 6 on DIP Switch U12 is ON.

CONTROL TEST
WHEEL XX BRAKE PEDAL XX GAS PEDAL XX
SWITCHES GEAR OFF BOOST OFF VIEW 1 OFF VIEW 2 OFF VIEW 3 OFF
PRESS TEST OR START TO EXIT

Diagnostic Menu, continued

Speaker Test

SPEAKER TEST

To verify proper operation of the sound components, select Speaker Test at the Main Menu. This test allows you to access and listen to the sound emitted from the speakers used in the game.



Use the Volume Up or Volume Down button to highlight the Speaker Test option and press the Test button. Use the Volume Up or Volume Down button to highlight an option within the test itself and press the Test button to activate the test option.

Main Menu

Diagnostic Menu, continued

Link Test

LINK TEST

To verify communications between the game machine and others connected to it, select Link Test at the Main Menu.

LINK TEST
NETWORK HARDWARE: OK GAME LINK NUMBER: 1 SERIAL NUMBER: 022373 NET VERSION: 0909 LOOPBACKS PASSED: 0 LOOPBACKS FAILED: 0 GAMES ON NETWORK
GAME LINK NUMBER: X SERIAL NUMBER: X NET VERSION: X
PRESS TEST OR START TO EXIT

Use the Volume Up or Volume Down button to highlight Link Test and press the Test button. This test runs automatically and will display results on-screen.

Press the Test button to exit from this menu screen.

Game Audits

AUDITS

Press the Volume Up or Volume Down button to highlight Game Audits in the Main Menu and press the Test button. To move between pages in an Audit Table, press the View 1/Volume Up or View 2/Volume Down button. Press the Test or Start button to return to the Main Menu from this screen.

AUDITS
COIN AUDITS
CREDITS AUDITS
GENERAL GAME AUDITS
PLAYER SELECTION AUDITS
TRACK AUDITS
EXCEPTION DUMP
CLEAR AUDITS
EXIT

The Game Audits Table displays the play statistics. The left side of the table names the Audit item; the right side shows the amount of play. Record these statistics before any service or repairs are done.

Main Menu Audits, continued Coin Audits

COIN AUDITS

To keep track of the number of coins collected, press the Volume Up or Volume Down button to highlight Coin Audits in the Main Menu and press the Test button. To move between pages in an Audit Table, press the View 1/Volume Up or View 2/Volume Down button. Press the Test or Start button to return to the Main Menu from this screen.

COIN AUDITS
LEFT SLOT COINS RIGHT SLOT COINS BILLS CENTER SLOT COINS EXTRA SLOT COINS GAME STARTS SERVICE CREDITS TOTAL PAID CREDITS TOTAL
PRESS TEST OR START TO EXIT

AUDIT TABLE, PAGE 1

Audits, continued

Credits Audits

CREDITS AUDITS

To keep track of the available number of credits, press the Volume Up or Volume Down button to highlight Credits Audits in the Main Menu and press the Test button. To move between pages in an Audit Table, press the View 1/Volume Up or View 2/Volume Down button.

CREDITS AUDITS

CREDITS AUDITS, PAGE 1

CREDITS AVAILABLE X

PRESS TEST OR START TO EXIT

AUDIT TABLE, PAGE 1

Main Menu

Audits, continued

General Game Audits

GENERAL GAME AUDITS

To keep track of the game play statistics, press the Volume Up or Volume Down button to highlight General Game Audits in the Main Menu and press the Test button. To move between pages in an Audit Table, press the View 1/Volume Up or View 2/Volume Down button.

GENERAL GAME AUDITS	
GENERAL AUDITS, PAGE 1	
GAMES PLAYED GAMES CONTINUED PERCENT FREE GAMES SINGLE PLAYER GAMES PERCENT 2 PLAYER PERCENT 3 PLAYER PERCENT 4 PLAYER PERCENT SEASON GAME PERCENT TOTAL UP TIME TOTAL PLAY TIME PERCENT PLAY TIME AVERAGE PLAY TIME AVERAGE RACE TIME	X (X) X% (X) X% (X) X% (X) X% (X) X% (X) X% (X) X% 00:00:00 00:00:00 (X) X% 00:00:00 00:00:00
PRESS TEST OR START TO E	ХІТ

AUDIT TABLE, PAGE 1

Audits, continued

Player Selection Audits

PLAYER SELECTION AUDITS

To keep track of game play choices like race venue, character selection, car selection and handling options, press the Volume Up or Volume Down button to highlight Player Selection Audits in the Main Menu and press the Test button.

To move between pages in an Audit Table, press the View 1/Volume Up or View 2/Volume Down button.

PLAYER SELECTION AUDITS	
PLAYER SELECTION AUDITS, PAGE 1	
CHICAGO SPEEDWAY RIO SPEEDWAY AIRPORT RACEWAY FRANKFURT GERMANY HOUSTON TEXAS LONG BEACH CALIFORNIA TORONTO CANADA CHICAGO ILLINOIS ROAD AMERICA SURFER PARADISE AUSTRALIA LAGUNA SECA THE SKYWAY	 (0) X%
VIEW 1-NEXT PAGE/START TO EX	IT

PLAYER SELECTION AUD	ITS
PLAYER SELECTION AUDITS, PAGE	2
JIMMY VASSER JUAN MONTOYA BRYAN HERTA MAX PAPIS MICHAEL ANDRETTI CHRISTIAN FITTIPALDI DARIO FRANCHITTI PAUL TRACY ADRIAN FERNANDEZ TONY KANAAN GIL DE FERRAN MARK BLUNDELL HOT ROD ROADSTER FUTURE CAR	 (0) X%
VIEW 1-NEXT PAGE/START T	O EXIT

Audits, continued

Player Selection Audits, continued

PLAYER SELECTION AUDITS	
PLAYER SELECTION AUDITS, PAGE 3	
EASY HANDLING MEDIUM HANDLING HARD HANDLING EXPERT HANDLING AUTOMATIC TRANSMISSION MANUAL TRANSMISSION	(0) X% (0) X% (0) X% (0) X% (0) X% (0) X%
VIEW 2- PREVIOUS PAGE/START TO	EXIT

Main Menu

Audits, continued

Exception Dump Audit

EXCEPTION DUMP AUDIT

To display cause, PC, and register audits, press the Volume Up or Volume Down button to highlight Exception Dump Audits in the Main Menu and press the Test button. To move between pages in an Audit Table, press the View 1/Volume Up or View 2/Volume Down button. **NOTE**: If no exceptions are available none will be displayed as shown below.

EXCEPTION DUMP AUDITS

EXCEPTION DUMP, PAGE 1

NO EXCEPTIONS

PRESS TEST OR START TO EXIT

Main Menu	
Audits, continued	
Track Audits	

TRACK AUDITS

To view track statistics, press the Volume Up or Volume Down button to highlight Track Audits in the Main Menu and press the Test button. To move between pages in an Audit Table, press the View 1/Volume Up or View 2/Volume Down button.

Audits, continued

Track Audits, continued

TRACK AUDITS	
TRACK AUDITS, PAGE 1	
SPEEDWAY PERCENTAGE PLAYED SPEEDWAY PERCENT FREE AWARDED SPEEDWAY AVERAGE RACE TIME (NO DNF) SPEEDWAY BEST RACE TIME (NO DNF) SPEEDWAY PERCENTAGE DNF (NO DNF) SPEEDWAY AVERAGE FINISH (NO DNF) SPEEDWAY BEST FINISH (NO DNF) SPEEDWAY WORST FINISH (NO DNF) SPEEDWAY WORST FINISH (NO DNF) SPEEDWAY PERCENTAGE LAPS COMPLETED SPEEDWAY PERCENTAGE SUPERBOOSTS SPEEDWAY SUPERBOOSTS TIME IN HUNDREDTHS SPEEDWAY DRONE TIME IN HUNDREDTHS SPEEDWAY EXTRA LAP DRONE TIME IN HUNDREDTHS	(0) X% (0) X% 00:00:00 (0) X% (0) X% 00:00:00 00:00:00 (0) X% (0) X% X X X X
VIEW 1-NEXT PAGE/START TO EXIT	

SAMPLE TRACK AUDITS PAGE

NOTE: There is an individual page of track statistics for <u>each</u> track showcased in the game.

Main Menu	
Audits, continued	
Clear Audits	

CLEAR AUDITS

Clear Audits displays an assortment of audit clearing options. One or all audit tables can be cleared using this audit screen. You may wish to record some or all of the statistics before clearing an audit table, due to any reason, for future reference.

CLEAR AUDITS
CLEAR AUDITS, PAGE 1
CLEAR COIN AUDITS
CLEAR CREDITS AUDITS
CLEAR GENERAL GAME AUDITS
CLEAR PLAYER SELECTION AUDITS
CLEAR TRACK AUDITS
CLEAR EXCEPTION DUMP
CLEAR ALL
EXIT

Main Menu	
Audits, continued	
Clear Audits	

Each of the menu options beneath Clear Audits presents a confirmation box, like the one shown below, which offers you the choice of accepting or declining the selected action. Press the Volume Up or Volume Down button to highlight the desired response and press the Test button. A confirmation box will appear to confirm that the desired action has been carried out.



Main Menu	
Adjustments Menu	

ADJUSTMENTS MENU

To optimize game performance and earnings or to change the look or sound of the game, select the Adjustment Menu at the Main Menu. The Attract Mode features, Game Pricing and Game Difficulty may also be customized. Free races may be awarded to encourage players. *Free game player incentives may reduce earnings*. **NOTE:** Individual Game Adjustments are explained in more detail on the following pages.

Press the Volume Up or Volume Down button to highlight the desired Adjustments Menu option on the Main Menu and press the Test button. Use these screens to optimize game performance and earnings.

ADJUSTMENT MENU
PRICING FREE PLAY ATTRACT SOUND ADDITIONAL ADJUSTMENTS FULL FACTORY RESTORE EXIT

The Adjustments Menu offers several options. Press the Volume Up or Volume Down button to highlight an option and press the Test button. Each time an option on the menu is activated you are provided with multiple setting choices.

Use the Volume Up or Volume Down button to change the current value setting and observe a confirmation box as shown appears.

Adjustments Menu

ARE YOU SURE YOU WANT TO SELECT THIS PRICING?

YES

NO

TYPICAL CONFIRMATION BOX

Press the Volume Up or Volume Down button to select YES or NO, then press the Test button to lock in the setting. Selecting NO cancels any changes values and returns the previous values to memory.

Main Menu	
Adjustments, continued	
Pricing	
PRICING MENU	

Use the Pricing Menu to specify pricing settings other than the ones listed in the Pricing Table. Pricing can also be used to select the amount of credits required to start a game and the amount of credits required to continue a game. This option is adjusted from the Dip Switch Settings.



Adjustments, continued

Pricing Table, continued

Use the Pricing Table illustrated below as a guide to select and/or verify the desired coin credit setting(s).

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	1	1	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	1	1	1
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			

CHAPTER 2 DIAGNOSTICS

NAME	START	CONTINUE	CREDITS/COIN	COIN 1	COIN 2	COIN 3	COIN4	BILL
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	1/500Llt	500Llt	500Llt			-
JAPAN 1	2	2	1/100Yen	100 Yen	100 Yen			-
JAPAN 2	2	2	2/100Yen	100 Yen	100 Yen			
JAPAN 3	1	1	1/100Yen	100	100			
JAPAN 4	1	1	2/100Yen	100	100			
JAPAN 5	1	1	4/100Yen	100	100			
JAPAN 6	1	1	1/2X100Yen	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			-
SWITZERI AND 1	2	2	1/1SEr 6/5SEr	1SFr	5SEr			-
SWITZERI AND 2	2	2	1/18Fr 7/58Fr	1SEr	5SEr			
SWITZERLAND 2	2	2	1/19Fr, 8/59Fr	1SEr	5SEr			
	1	1	1/1011, 0/3011	£1.00	50n	20n	10n	£2.00
	1	1	1/50p, 3/21.00	£1.00	50p	20p	10p	£2.00
	1	1	1/30p, $2/21.00$	£1.00	50p	20p	100	£2.00
	1	1	1/50p, 2/50p, 5/21.00	£1.00	50p	200	төр	22.00
	1	1	1/50p, 3/£1.00	£1.00	50p			
	1	1	1/30p, 2/£1.00	£1.00	50p	205	10-	co. 00
	1	1	1/30p, 2/50p, 4/£ 1.00	£1.00	50p	20p	100	£2.00
			3/1.1.00	£1.00	50p	20p	10p	£2.00
	1	1	1/50p, 2/£1.00, 4/£2.00	£1.00	50p	20p	тор	£2.00
USAT	2	2	1/25¢	25¢	25¢			\$1.00
USAZ	2		1/25¢	25¢	20¢			\$1.00
USA3		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
USA DC 1	2	2	1/25¢	25¢	\$1.00			\$1.00
USA DC 2	2	1	1/25¢	25¢	\$1.00			\$1.00
USA DC 3	1	1	1/25¢	25¢	\$1.00			\$1.00
USA DC 4	3	2	1/25¢, 4/\$1.00	25¢	\$1.00			\$1.00
USA DC 5	3	3	1/25¢, 4/\$1.00	25¢	\$1.00			\$1.00
USA DC 6	4	2	1/25¢, 4/\$1.00	25¢	\$1.00			\$1.00
USA DC 7	4	3	1/25¢, 4/\$1.00	25¢	\$1.00			\$1.00
USA DC 8	4	4	1/25¢, 4/\$1.00	25¢	\$1.00			\$1.00

Adjustments, continued

Free Play Menu

Free Play

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

ENABLE

-Enable

-Disable

-Factory Setting: DISABLE

Main Menu

Adjustments, continued

Attract Sound

Attract Sound

This option selects the attract mode sounds. The setting choices for this adjustment are:

-Enable -Disable **-Factory Setting:**

Main Menu

Adjustments, continued

Additional Adjustments Menu

ADDITIONAL ADJUSTMENT MENU

To select and set any number of useful adjustments, select the Additional Adjustment Menu. Individual Additional Adjustments are explained in more detail on the following pages.

Press the Volume Up or Volume Down button to highlight the desired Additional Adjustments Menu option on the menu and press the Test button.

ADDITIONAL ADJUSTMENT MENU	
GAME LINK NUMBER ATTRACT MODE VOLUME GAME DIFFICULTY SINGLE 1ST GAME FREE LINK ED 1ST GAME FREE GAME START TIME EXTRA LAP WHEEL STRENGTH EXIT	

E.

	Main Menu
	Adjustments, continued
	Additional Adjustments Menu
	Game Link Number
н	

Game Link Number

This allows the game link number to be set. The setting range is:

-Maximum: 4 -Minimum: 1 -Factory Setting: 1

Main Menu

Adjustments, continued

Additional Adjustments Menu

Attract Mode Volume

Attract Mode Sound

This selects the value and setting of the sounds heard during attract mode. The settings for this adjustment are:

-Factory Setting:	100
-Maximum:	255
-Minimum:	0

Main Menu

Adjustments, continued

Additional Adjustments Menu

Game Difficulty

Game Difficulty

This determines the level of difficulty for the game. The setting range is:

-Easiest -Easy -Normal -Hard -Hardest -Factory Setting: NORMAL

Adjustments, continued

Additional Adjustments Menu

Single First Free Game

Single First Free Game

This enables the single first free game option. The setting choices are:

-Enable -Disable

-Factory Setting: ENABLE

Main Menu

Adjustments, continued

Additional Adjustments Menu

Linked First Free Game

Link First Free Game

This enables the link first free game option. The setting choices are:

-Off -Two Players -Three Players -Four Players -Factory Setting: OFF

Main Menu

Adjustments, continued

Additional Adjustments Menu

Game Start Time

Game Start Time

This adjusts the game start time. Use the View 1/View 2 buttons to select. The setting choices are:

 -Minimum:
 30

 -Maximum:
 60

 -Factory Setting:
 50

Main Menu Adjustments, continued Additional Adjustments Menu Extra Lap

Extra Lap

This enables an extra lap of racing during a race. The setting choices are:

-Enable -Disable

-Factory Setting: DISABLE

Main Menu

Adjustments, continued

Additional Adjustments Menu

Wheel Strength Menu

Wheel Strength Menu

This selects the degree of wheel strength to be used for racing. The setting range is:

-Very Light -Light

-Normal

-Heavy

-Very Heavy

-Factory Setting: Normal

Main Menu

Adjustments, continued

Full Factory Restore

Full Factory Restore

This allows the operator to restore all settings to the way they were when the game left the factory. The setting range is:

-Enable -Disable -Factory Setting: Disable

Main Menu	
Volume Level	

VOLUME LEVEL

To select a desirable volume level, select Volume Level at the Main Menu. Press the Volume Up or Volume Down button to highlight the Adjust Volume option on the Main Menu, then press the Test button. Remember that the minimum sound level is set under Game Adjustments.

Press the Volume Up button to increase, or the Volume Down button to decrease the sound level of the game. Press the Test button to lock the volume level at the selected value and return to the Main Menu.

Control Calibration

CONTROL CALIBRATION

To calibrate the steering wheel and pedals, select Control Calibration at the Main Menu. Press the Volume Up or Volume Down button to highlight the Control Calibration option on the Main Menu, then press the Test button. Follow the instructions on screen.

Main Menu

Control Calibration, continued

CONTROL CALIBRATION

CENTER WHEEL AND PRESS START

WHEEL CENTER: XX

SAMPLE CALIBRATION SCREEN

Main Menu

Utilities

UTILITIES

To clear bookkeeping memory and reset factory defaults, select Utilities at the Main Menu. Press the Volume Up or Volume Down button to highlight the Utilities option on the Main Menu, then press the Test button.



The Utilities Menu offers several options. Press the Volume Up or Volume Down button to highlight an option, then press the Test button. Each time an option on the menu is activated you are provided with multiple setting choices. Use the Volume Up or Volume Down button to change the current value setting and observe a confirmation box as shown below appears.

Utilities, continued

ARE YOU SURE YOU WANT TO CLEAR CREDITS?

NO

TYPICAL CONFIRMATION BOX

YES

Press the Volume Up or Volume Down button to select YES or NO, then press the Test button to lock in the setting. Selecting NO cancels any changes values and returns the previous values to memory. **NOTE**: Record the numbers before they are cleared. These values cannot be restored once erased.

Main Menu	
Utilities, continued	
Dump Audits	

Dump Audits

Press the Volume Up or Volume Down buttons to highlight the Dump Audits option on the Main Menu, then press the Test button. This dumps all audits to the serial port.

- Yes
- No
- Factory Setting: NO

Main Menu

Utilities, continued

Clear Credits Menu

Clear Credits

Press the Volume Up or Volume Down buttons to highlight the Clear Credits option on the Main Menu, then press the Test button. This returns all credit values to zero and removes credit amounts from memory.

- Yes
- No
- Factory Setting: NO

Utilities, continued

Clear Audits Menu

Clear Audits

This select from a menu of assorted audit values that can be returned to zero and remove total from memory, Press the Volume Up or Volume Down buttons to highlight the Clear Audits option, then press the Test button.

CLEAR AUDITS	
CLEAR COIN AUDITS CLEAR CREDITS AUDITS CLEAR GENERAL GAME AUDITS CLEAR PLAYER SELECT AUDIT CLEAR EXCEPTION DUMP CLEAR ALL EXIT	

Each time an option on the menu is activated you are provided with multiple setting choices. Use the Volume Up or Volume Down button to change the current value setting and observe a confirmation box as shown below appears.

Main Menu

Utilities, continued

Clear Audits Menu, continued





Press the Volume Up or Volume Down button to select YES or NO, then press the Test button to lock in the setting. Selecting NO cancels any changes values and returns the previous values to memory.



Press the Volume Up or Volume Down buttons to highlight the Reset High Scores option on the Main Menu, then press the Test button. This deletes all high scores and removes player identities from memory.

- Yes

- No

- Factory Setting: NO

Utilities, continued

Default Adjustments Menu

Default Adjustments

Press the Volume Up or Volume Down buttons to highlight the Default Adjustments option on the Main Menu, then press the Test button. This sets the adjustments back to their original values.

- Yes
- No
- Factory Setting: NO

Main Menu

Utilities, continued

Full Factory Restore Menu

Full Factory Restore

Press the Volume Up or Volume Down buttons to highlight the Full Factory Restore option on the Main Menu, then press the Test button. This returns every variable in the game to the original factory settings.

- Yes
- No
- Factory Setting: NO