

**CHAPTER TWO** 

### ADJUSTMENT, DIAGNOSTIC & AUDIT MENUS

#### **ADJUSTMENT, DIAGNOSTIC & AUDIT MENUS**

#### **MENU SYSTEM**

#### WHAT IS THE MENU SYSTEM?

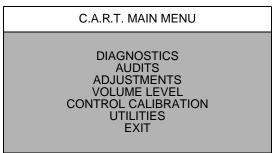
The game's Menu System is a series of auditing, game adjustments and diagnostic screens. You can easily access and apply these screens to optimize game performance. For instance...

- 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.



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.

#### DIAGNOSTICS

MONITOR SETUP
SYSTEM INFORMATION
SOUND SUBSYSTEM
DISK TESTS
SWITCH TESTS
DIP SWITCH TESTS
LAMP AND LED TESTS
WHEEL FORCE FEEDBACK TEST
CONTROL TEST
SPEAKER TEST
LINK TEST
EXIT

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

> WHITE SCREEN BLACK SCREEN 50% GRAY SCREEN 25% GRAY SCREEN EXIT

**GREEN SCREEN** 

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.

#### 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

Use the Start button or Test button to exit this menu 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

#### SOUND SUBSYSTEM TEST

BOOT VERSION D1.06 SDRC VERSION 5A PORT STATUS GOOD CHECKSUM EC40 SRAM OK DRAM OK TONE STATUS GOOD OS VERSION 2.42

PRESS TEST OR START TO EXIT

Use the Start button or Test button to exit this menu screen.

#### Main Menu

Diagnostic Menu, continued

**Disk Tests Menu** 

#### **DISK TESTS MENU**

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
RANDOM CACHE 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.

Main Menu	
Diagnostic Menu, continued	
Switch Tests	

#### **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 SI VIEW 2 X TI VIEW 3 X SI BOOST X C EX GEAR 1 X GEAR 2 X VIEW 3 X GEAR 4 X	EFT COIN X IGHT COIN X 1 START X LAM TILT X EST X  ERVICE CREDIT X ENTER COIN X XTRA COIN X OL DOWN X OL UP X ILL VALID. X		

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.

## Main Menu Diagnostic Menu, continued DIP Switch Test, continued

DIP SWITCH TEST				
DIP SWITCH U13  8 OFF UNUSED 7 OFF UNUSED 6 OFF USA 1 5 OFF USA 1 4 OFF USA 13 3 OFF USA 13 2 OFF USA 13 1 OFF DIP COINAGE	DIP SWITCH U12  8 OFF GAME MODE 7 OFF UNUSED 6 OFF BRAKE ENABLED 5 OFF UNUSED 4 OFF UNUSED 3 OFF UNUSED 2 OFF UNUSED 1 OFF UNUSED			
PRESS ANY BUTTON TO EXIT				

TYPICAL DIP SWITCH SCREEN

Coinage Setting Table for DIP Switch U13 (Factory default settings in boldface type)

FUNCTION	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
DIP COINAGE CMOS COINAGE	<b>OFF</b> 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	OFF OFF ON ON OFF OFF ON ON	OFF OFF OFF ON ON ON				
USA FRANCE GERMANY UK**					OFF ON OFF ON	OFF OFF ON ON		
UNUSED							<b>OFF</b> ON	
UNUSED								<b>OFF</b> 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	<b>OFF</b> ON							
UNUSED		<b>OFF</b> ON						
UNUSED			<b>OFF</b> ON					
UNUSED				<b>OFF</b> ON				
UNUSED					<b>OFF</b> ON			
BRAKE ENABLED BRAKE DISABLED						<b>OFF</b> ON		
UNUSED							<b>OFF</b> ON	
GAME MODE TEST MODE								<b>OFF</b> 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 BOOST LAMP OFF

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 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.



FRONT CHANNEL CENTER CHANNEL REAR CHANNEL 100HZ TONE 1KHZ TONE PLAY TUNE

**EXIT** 

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.

**Audits Menu** 

#### **AUDITS MENU**

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

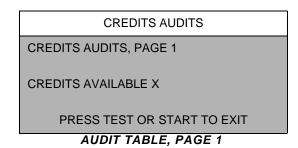
PRESS TEST OR START TO EXIT

AUDIT TABLE, PAGE 1

Main Menu	
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.



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 SINGLE PLAYER GAMES PERCENT 2 PLAYER PERCENT 3 PLAYER PERCENT 4 PLAYER PERCENT 5EASON GAME PERCENT SIM GAMES PERCENT FREE GAMES GAMES CONTINUED PERCENT SINGLE PLAYER GAMES CONTINUED PERCENT 2 PLAYER GAMES CONTINUED PERCENT 3 PLAYER GAMES CONTINUED PERCENT 4 PLAYER GAMES CONTINUED PERCENT TOTAL UP TIME TOTAL PLAY TIME PERCENT PLAY TIME AVERAGE PLAY TIME AVERAGE RACE TIME	X (X) X% (X) X (X) X (
PRESS TEST OR START TO EXIT	

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% (0) X%
VIEW 1-NEXT PAGE/START TO E	XIT

PLAYER SELECTION AUDITS	
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% (0) X%
VIEW 1-NEXT PAGE/START TO EX	IT

Audits, continued

**Player Selection Audits, continued** 

# PLAYER SELECTION AUDITS PLAYER SELECTION AUDITS, PAGE 3 EASY HANDLING (0) X% MEDIUM HANDLING (0) X% HARD HANDLING (0) X% EXPERT HANDLING (0) X% AUTOMATIC TRANSMISSION (0) X% MANUAL TRANSMISSION (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.

Main Menu
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 AVERAGE FINISH (NO DNF)
SPEEDWAY BEST FINISH (NO DNF)
SPEEDWAY BEST FINISH (NO DNF)
SPEEDWAY WORST FINISH (NO DNF)
SPEEDWAY PERCENTAGE LAPS COMPLETED
SPEEDWAY PERCENTAGE SUPERBOOSTS
SPEEDWAY SUPERBOOSTS TIME IN HUNDREDTHS
SPEEDWAY SUPERBOOSTS TIME IN HUNDREDTHS
SPEEDWAY EXTRA LAP DRONE TIME IN HUNDREDTHS

VIEW 1-NEXT PAGE/START TO EXIT

SAMPLE TRACK AUDITS PAGE

NOTE: There is an individual page of track statistics for each 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** 

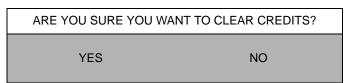
CLEAR AUDITS, PAGE 1

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, continued

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.



TYPICAL CLEAR AUDITS BOX

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.



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.

### Main Menu Adjustments Menu, continued



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.

SHOW CURRENT
NORTH AMERICA
SOUTH AMERICA
EUROPE (A-H)
EUROPE (I-U)
ASIA
AUSTRALIA
CUSTOM PRICING
EXIT

#### Pricing Table

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	5BF	20BF	50BF		
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	1/3 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	
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		

#### **CHAPTER 2 DIAGNOSTICS**

START	CONTINUE	CREDITS/COIN	COIN 1	COIN 2	COIN 3	COIN4	BILL
2	1	1/1DM, 2/2DM, 6/5DM	1DM	2DM	5DM		
1	1	1/1DM, 2/2DM, 6/5DM	1DM	2DM	5DM		
2	2	1/2X10Ft, 3/2X20Ft	10Ft	20Ft			
2	2	1/500Llt	500Llt	500Llt			
2	2	1/100Yen	100 Yen	100 Yen			
2	2	2/100Yen	100 Yen	100 Yen			
1	1	1/100Yen	100	100			
1	1	2/100Yen	100	100			
1	1	4/100Yen	100	100			
1	1	1/2X100Yen	100	100			
2	2	1/1HFI, 3/2.5HFI	1HFI	2.5HFI			
1	1	1/\$1	\$1	\$2			
1	1	2/\$1	\$1	\$2			
2	2	3/5NKr, 6/10NKr	5NKr	10NKr			
2	2	1/100Pta, 6/500Pta	100Pta	500Pta			
2	2	1/100Pta, 5/500Pta	100Pta	500Pta			
2	2	1/3X1SKr, 2/5SKr	1SKr	5SKr			
2	2	1/1SFr, 6/5SFr	1SFr	5SFr			
2		·	1SFr	5SFr			
2		·	1SFr	5SFr			
1		· ·			20p	10p	£2.00
1		• •		· ·		1 '	£2.00
1	1	• •		'		1 '	£2.00
1	1			· ·		'	
1		• •		· ·			
1		• •		· ·	20p	10p	£2.00
				· ·	•		£2.00
				· ·		1 '	£2.00
							\$1.00
							\$1.00
							\$1.00
		· ·					\$1.00
							\$1.00
1							\$1.00
1							\$1.00
2	2						\$1.00
3	2						\$1.00
							\$1.00
							\$1.00
							\$1.00
							\$1.00
					10¢	05¢	\$1.00
				_		100,	\$1.00
							\$1.00
							\$1.00
							\$1.00
							\$1.00
							\$1.00
4				\$1.00			\$1.00
4	3	1/25¢, 4/\$1.00	25¢				
	2 1 2 2 2 2 1 1 1 1 1 1 2 2 2 2 2 2 2 2	2	1	1	1	1	1

Adjustments, continued

**Free Play** 

#### **FREE PLAY**

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

- -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: Enable

#### 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
TROPHY GIRLS
SPEEDOMETER
LANGUAGE
WHEEL STRENGTH
EXIT

Adjustments, continued

Additional Adjustments Menu

**Game Link Number** 

#### **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 VOLUME

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

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

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

Adjustments, continued

Additional Adjustments Menu

**Trophy Girls** 

#### **TROPHY GIRLS**

This enables the viewing of trophy bearing girls following a race. The setting choices are:

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

Main Menu

Adjustments, continued

Additional Adjustments Menu

**Speedometer** 

#### **SPEEDOMETER**

This allows operator to select the speedometer readout. The setting choices are:

- -MPH
- -KPH
- -Factory Setting: MPH

Main Menu

Adjustments, continued

Additional Adjustments Menu

Language

#### **LANGUAGE**

This enables operator to select the language the game is announced in. The setting choices are:

- -English
- -Espanol
- -Factory Setting: English

Main Menu

Adjustments, continued

Additional Adjustments Menu

**Wheel Strength** 

#### WHEEL STRENGTH

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

#### 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.

#### 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.

**CONTROL CALIBRATION** 

CENTER WHEEL AND PRESS START

WHEEL CENTER: XX

SAMPLE CALIBRATION SCREEN

Main Menu
Utilities

#### **UTILITIES**

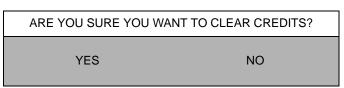
To clear bookkeeping memory and reset factory defaults, select Utilities at the Main Menu. Press the Volume Up or Volume Down button to highlight the Utilities option on the Main Menu, then press the Test button.



**UTILITIES MENU** 

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.



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.

**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

Utilities, continued

**Clear Credits** 

#### **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

Main Menu

Utilities, continued

**Clear Audits** 

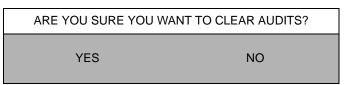
#### **CLEAR AUDITS**

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.



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.

Utilities, continued

**Reset High Scores** 

#### **RESET HIGH SCORES**

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

#### Main Menu

Utilities, continued

**Default Adjustments** 

#### **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** 

#### **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